

EAGLE RIDGE



Draft Environmental Impact Statement

Lead Agency:

Town of North Castle – Town Board

May, 2019

**EAGLE RIDGE
North Castle Drive
Town of North Castle
Westchester County, New York
(Tax Map # 553800 108.03-1-62.1)**

DRAFT ENVIRONMENTAL IMPACT STATEMENT

SEQRA Classification:

Type I Action

Lead Agency:

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Chapter II

Executive Summary

II. EXECUTIVE SUMMARY

1.) DESCRIPTION OF THE PROPOSED ACTION

In 2017, MADD Madonna LLC purchased a 32.5-acre parcel of land from the IBM Corporation, located off Route 22 along North Castle Drive for the purpose of developing the Eagle Ridge project described herein. The Proposed Action involves the subdivision of the property to create two lots of 26.25 acres and 6.25 acres respectively. The smaller 6.25-acre parcel would be developed to support a 5-story, 172,893 square foot building containing a highly amenitized 91-room boutique hotel on the first and second floors and 70 rental apartments, including 7 affordable AFFH units on the third, fourth and fifth floors. Parking will be accommodated within a 241 space, 2-story subterranean parking garage along with 66 surface spaces. The building will incorporate an array of green building measures, including a green roof and green walls.

The larger 26.25-acre parcel would be developed to support 94 three-bedroom townhouses, including 9 affordable AFFH units, unique open space amenities and associated improvements. This parcel would be rezoned from the existing OBH – Office Business Hotel district to the R-MF-A - Multifamily A zoning district. Additionally, modifications are proposed to the OBH district to accommodate the project.

Access to Eagle Ridge would be provided from a shared driveway off North Castle Drive, which is a private road owned and maintained by IBM. Upon entering the Site, hotel guests and residents of the apartments would enter a second driveway to the north that circles the building and connects to a 66-space surface parking lot located on the west side of the building, or two levels of subterranean parking below the building. Continuous vehicular access is provided around the entire perimeter of the building.

Residents of the townhouses would continue along the driveway to a gated access point. Once through the access gate, a loop driveway circles through Lot 2. The 94 townhouses are double-loaded on both sides of the loop driveway. An emergency access driveway is proposed approximately 200 feet further south along North Castle

Drive, which provides a second means of access directly into Lot 2, and allows for emergency access from the south through the IBM driveway on Old Post Road.

With the exception of the driveway access cuts off North Castle Drive, and the centrally located stormwater basins, site grading has been minimized by setting the hotel/apartment building into the side of the hill, and siting the townhouses into a series of terraces that cascade down the hill. Approximately 26.5 acres of the Site (81.5%) will be disturbed during construction. Of this total, approximately 4.3 acres are designated steep slopes in excess of 25%. The Proposed Action will result in a net cut of approximately 51,400 cubic yards of material. Some of this excavation would involve rock removal. In total, approximately 10.3 acres of impervious surfaces be created.

Utilities will be brought into the Site via a connection to the existing watermain located at the intersection of Route 22 and Business Park Drive. The Applicant is willing to make a financial contribution toward the cost of the exploratory drilling and installing/construction of new production wells currently being planned by the Town to expand the capacity of Water District 4. To further mitigate the Proposed Action's water consumption, the Applicant is committed to employing environmentally responsible green building techniques such as the use of water efficient fixtures and appliances. An irrigation strategy will be developed during the site plan review stage that includes measures such as harvesting rainwater to reduce the demand on the public water supply, utilizing plant species that require less water, reducing areas that require irrigation and utilizing smart meters for sprinkler systems.

Sanitary sewage will be accommodated through a connection to the sewer line located within the easement along the eastern edge of the Site. The Applicant will phase the Project, constructing the hotel/apartment building first, which can be accommodated within the existing reserve sanitary sewage capacity purchased from IBM, and constructing the townhouses second, after the Town's wastewater treatment plant upgrades which are currently underway, are complete. Off-site improvements include a new sidewalk along North Castle Drive bus stops and a crosswalk across Route 22 connecting Eagle Ride to the Armonk Hamlet. The Applicant will also work with the Town to meet the 3:1 inflow and infiltration (I&I)

objective, in accordance with the requirements of Westchester County. The Applicant and the Project Engineer will meet with the Town Consulting Engineer during the site plan approval process to determine how I&I projects can be identified and who will conduct the work and in what timeframe. If specific projects cannot be identified, a process whereby the Applicant places funds into a dedicated account for I&I work based on a per gallon cost of removal of flow through I&I is an alternative option.

New site lighting is proposed throughout the Site to afford safety, facilitate circulation and wayfinding. All lighting will be Dark Sky compliant, shielded, downward directed and will be designed to provide appropriate levels of illumination. Illumination levels along the perimeter of the Site will not exceed 1 footcandle.

A stormwater management plan has been developed that includes the construction of two centrally located stormwater basins, subsurface drainage facilities and a phasing plan that minimizes areas of disturbance during any one construction phase to under 5 acres. The stormwater management plan also incorporates a number of green practices, including a green roof and green walls on the hotel/apartment building. The rate of stormwater runoff from the Site will not be increased as a result of the development of the Proposed Action.

In order to create a sense of place that unifies the two parcels comprising the Proposed Action, and the different uses that occupy the parcels, an extensive landscaping plan has been developed. This landscaping plan not only unifies the Site by creating an attractive development with abundant visual interest internally, but also recognizes that the Eagle Ridge will be visible from Community Park, and creates a unique visual interface from that perspective as well.

2.) INVOLVED AGENCIES & REQUIRED APPROVALS

Pursuant to the provisions of SEQRA, Involved Agencies are those agencies which have an approval authority in conjunction with the Proposed Action. Interested Agencies are those other agencies that have some interest in the Proposed Action,

but not a direct approval role. Project reviews and approvals by Involved Agencies and reviews by Interested Agencies are identified in Table II-1, below.

| Table II-1 Project Reviews and Approvals | |
|---|--|
| Involved Agency | Approval/Review |
| Town of North Castle | |
| Town Board | <ul style="list-style-type: none"> ▪ SEQRA review and adoption of Findings ▪ Zoning map change (OBH to R-MF-A) ▪ Zoning text amendment (OBH zone) |
| Planning Board | <ul style="list-style-type: none"> ▪ Zoning map and text amendment referral and recommendation ▪ Site Plan approval ▪ Subdivision approval |
| Architectural Review Board | <ul style="list-style-type: none"> ▪ ARB approval |
| Conservation Board | <ul style="list-style-type: none"> ▪ Recommendation |
| Building & Engineering Department | <ul style="list-style-type: none"> ▪ SWPPP ▪ Building Permits |
| Water & Sewer Departments | <ul style="list-style-type: none"> ▪ Water service connection ▪ Sanitary sewer service connection |
| Westchester County | |
| Health Department | <ul style="list-style-type: none"> ▪ Sanitary sewer and water supply approval |
| Planning Board | <ul style="list-style-type: none"> ▪ 239-m referral |
| New York State | |
| Department of Environmental Conservation | <ul style="list-style-type: none"> ▪ SWPPP |
| Parks Recreation & Historic Preservation | <ul style="list-style-type: none"> ▪ Cultural resources review |
| Department of Transportation | <ul style="list-style-type: none"> ▪ Right-of-Way Work Permit |

The list of Involved and Interested Agencies for the Proposed Action include:

Lead Agency:

Town of North Castle Town Board
 15 Bedford Road
 Armonk, New York, 10504

Involved Agencies:

Town of North Castle Planning Board

17 Bedford Road

Armonk, New York, 10504

Town of North Castle Architectural Review Board

17 Bedford Road

Armonk, New York, 10504

Town of North Castle Conservation Board

17 Bedford Road

Armonk, NY 10504

Town of North Castle Building Inspector

17 Bedford Road

Armonk, NY 10504

Town of North Castle Recreation Superintendent

40 Maple Avenue

Armonk, NY 10504

Town of North Castle Highway Superintendent

17 Bedford Road

Armonk, NY 10504

Town of North Castle Department of Sewer & Water

115 Business Park Drive

Armonk, NY 10504

Town of North Castle Open Space Committee

17 Bedford Road

Armonk, NY 10504

Westchester County Planning Board
Westchester County Department of Planning
148 Martine Avenue, Room 432
White Plains, New York 10601
Westchester County Department of Health
25 Moore Avenue
Mount Kisco, New York 10549

New York State Department of Environmental Conservation
21 South Putt Corners Road
New Paltz, New York 12561

New York State Department of Environmental Conservation
625 Broadway
Albany, New York, 12207

New York State Office of Parks Recreation and Historic Preservation
HP Field Services Bureau
Peebles Island
P.O. Box 189
Waterford, New York, 12188

New York State Department of Transportation
SEQR Unit, Traffic Engineering & Safety Division
4 Burnett Blvd.
Poughkeepsie, New York 12603

Interested Agencies:

Town of North Castle Police Department
15 Bedford Road
Armonk, New York, 10504

Armonk Fire Department
400 Bedford Road

Armonk, New York, 10504

Byram Hills Central School District
10 Tripp Lane
Armonk, New York 10504

Manager, Mid-Hudson Valley Regional Site Operations
International Business Machines Corporation
1 North Castle Drive
Armonk, NY 10504
Attn: Stephen Milkovich

Notices Only:

Environmental Notice Bulletin – Environmental Permits (enb@dec.state.ny.us)

3.) POTENTIAL IMPACTS & MITIGATION MEASURES

A.) Land Use & Zoning:

The Proposed Action involves the development of a unique mixed-use project consisting of a boutique hotel, rental apartments, and for-sale townhouses. The Site is located in an area of very diverse land uses. Nevertheless, in the Applicant's opinion, the Project is specifically consistent with the land use recommendations established in the Town's recently adopted Comprehensive Plan.

Modifications to the existing OBH zoning are required to accommodate the Proposed Action, including the rezoning of the 26.5-acre parcel from OBH to R-MF-A, and modifications to the OBH district as identified in Table II-2.

| Table II-2 OBH - Dimensional Regulations | | | | | | | | | |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|---------------------------------|----------------------------|----------------|------------------------|
| Minimum Lot Area | | | Minimum Yards | | | Maximum Building Coverage | Maximum Building Height | | Floor Area Ratio |
| Area | Frontage | Depth | Front | Side | Rear | Lot Area | Stories | Feet | |
| 20 acres | 500' | 500' | 150' | 300' | 300' | 10% | 3 | 45' | 0.12 |
| <u>5 acres</u> | <u>350'</u> | <u>300'</u> | <u>100'</u> | <u>40'</u> | <u>50'</u> | <u>30%</u> | <u>5</u> | <u>75'</u> | <u>0.70</u> |

When the Town rezoned the Site to OBH, it was envisioned that a full-service hotel could be developed on a full 20+ acre parcel. The detailed market analysis conducted by the Applicant revealed that full-service hotel was not a realistically viable development opportunity, however, a smaller boutique hotel was. Because the hotel use must be reduced in scope and scale, it was determined that the Site would need to be subdivided, and alternative complementary uses added to the development to bridge the gap economically.

The density and dimensional regulations for the OBH zone were crafted by the Town to reflect the specific characteristics of the Project Site (which is the only parcel in Town zoned OBH). Because the hotel parcel is proposed to be reduced from the original 32.5-acres down to 6.25 acres, the applicable zoning provisions would similarly need to be modified.

The OBH zone is also proposed to be modified to allow for multi-family dwellings on the upper floors of a hotel, and to accommodate additional ancillary uses to the hotel, such as banquet facilities, conference rooms, cafes, bars and business centers.

The Proposed Action would fully comply with the zoning provisions, as proposed to be modified herein. While the Proposed Action would result in various physical changes to the Site, it is the Applicant's opinion that the Proposed action is consistent with the land use plans governing the area. The most notable impact would be the change in views of the Site from Community Park. Today, the view is of a wooded hillside. After the Site is

developed, that view would be modified by views above the existing wooded buffer, of portions of a new 5-story hotel/apartment building alongside 94 townhomes within a well-designed and highly-amenitized community. These buildings will be architecturally distinctive and designed, in the opinion of the Applicant, to appropriately relate to the character of the area surrounding the Site. A new comprehensive landscaping plan is proposed to provide a visually attractive site as well as a transitional buffer between the development and the Park. It is the opinion of the Applicant that none of the impacts resulting from the Proposed Action exceed any threshold that would classify it as adverse or significant. Nevertheless, an array of mitigation measures have been incorporated into the Proposed Action; including:

- The Project Site was rezoned to accommodate a hotel use in 2010, but has not been developed in accordance with that zoning. The primary component of the Proposed Action is a hotel use, which when developed, would fulfill the land use expectations of the Town for the Site as prescribed in the Comprehensive Plan and associated OBH zoning.
- The hotel/apartment building has been sited to take advantage of the site's topography. Tucking the hotel onto the knoll at the norther end of the Site minimizes site disturbances and allows for the preservation of a significant buffer between Community Park and the southeast portion of the Site.
- Limiting the hotel/apartment building to 5-stories allows for a building to be constructed in a fashion that employs a format that is characteristic of the use and therefore very familiar.
- Brick is utilized as the main facade combined with fiber cement boards, metal and glass to create a sophisticated modern appearance while creating a delicate balance that compliments the natural surroundings.

- Utilizing a 5-story design, the footprint of the hotel/apartment building has been minimized, resulting in a corresponding reduction in impervious surfaces.
- Setting the hotel/apartment building into the slope allows for off-street parking to be constructed below the building, reducing the extent of surface parking lots, thereby reducing impervious surfaces, stormwater runoff and associated heat-island effects.
- The townhouses have been designed to work with the topography of the site, thereby avoiding excessive cuts and fills or the necessity for large retaining walls.
- The townhouse community has been designed around a looped roadway, which minimizes the length of the roadway, avoids dead-end cul-de-sac's and minimizes impervious surfaces.
- The townhouse building type was selected to minimize building footprints and associated site disturbances, when compared to traditional single-family homes.
- The zoning text amendments to the existing OBH district would only affect the Project Site, as no other properties in North Castle are zoned OBH.
- The Proposed Action will benefit from its proximity to the hamlet of Armonk, and has been designed to encourage and facilitate pedestrian circulation through the development and to the hamlet. New sidewalks and intersection pedestrian improvements are proposed at the North Castle Drive/Route 22 intersection.
- A pedestrian connection is proposed from the Eagle Ridge development to Community Park.

B.) Geology & Soils:

The Proposed Action will disturb 26.5 acres of the 32.5-acre Site (81.5%). Given the topography of the Site, and the necessity to create generally level development pads, the Proposed Action will result in a net cut of approximately 51,400 cubic yards of material. Some of this excavation would involve rock removal.

Approximately 55% of the material that will need to be excavated will be re-used on-site as fill, the balance of this excavated material will be exported. Utilizing haul trucks with a 16 cubic yard capacity, approximately 3,312 truck trips would be required to remove this excess material, which will be exported in accordance with all applicable regulations to a suitable location(s). It is projected that the build-out of the Proposed Action will extend over a two-year period, and that material will be exported as the project progresses over the course of that time. This translates into approximately 138 truck trips per month, 34 trips per week or roughly 7 truck trips per day.

An Erosion and Sediment Control Plan has been developed to mitigate short-term construction related impacts. This plan, which will be included with the Site Plan and SWPPP, addresses land grading, topsoiling, temporary vegetative cover, permanent vegetative cover, mulching and erosion checks. A continuing maintenance program will be implemented for the control of sediment transport and erosion after construction and throughout the useful life of the Proposed Action.

Based on field reconnaissance and preliminary boring data, it is anticipated that hard rock will be encountered during construction, which will require removal. When rock removal becomes necessary, the Applicant will first attempt to remove the rock through mechanical means (i.e. ripping or chipping with hydraulic hammers). If this approach proves infeasible due to the hardness and density of the rock, blasting will be necessary. Prior to the start of any blasting activities, a detailed blasting plan shall be developed in accordance with Chapter 122 of the North Castle Code (Blasting & Explosives) and all applicable federal state and local regulations.

C.) Topography & Slopes:

The Site can be generally characterized as the eastern side of an oval shaped elongated hill that rises up from the Route 22/North Castle Drive/Main Street intersection, to the original IBM headquarters building, located on the crest of the hill at approximately elevation 570'.

Approximately 26.5 acres of the Site will be disturbed during construction. Of this total, approximately 4.3 acres are designated steep slopes in excess of 25%. A steep slope disturbance permit shall be obtained for these disturbances as required by Town Code. Construction related impacts to steep slopes will be mitigated by implementing best management practices and installing and maintaining erosion and sediment control measures described in Chapter B. The permanent stabilization of disturbed steep slopes will be accomplished through the installation of retaining walls (as needed) and proposed revegetation and landscaping.

A preliminary cut/fill analysis was performed. The estimated earth cut is 80,019 cubic yards, and the estimated rock cut is 33,530 cubic yards for a total estimated cut of 113,549 cubic yards. The estimated total fill is 62,149. The rock cut will be crushed on-site and used as processed materials. No fill will need to be imported to the Site.

D.) Vegetation & Wildlife

The Proposed Action will disturb approximately 26.5 acres of the 32.5-acre Site. Of this disturbance, 5.5 acres will be redeveloped to accommodate new buildings, 4.9 acres will be devoted to driveways, walkways and other paved surfaces, resulting in a total impervious surface coverage of 10.4 acres.

Six cover types and ecological community are present on the Site. All of the cover types and ecological communities to be removed are unranked or either “demonstrably” or “apparently secure” globally or “demonstrably” or “apparently secure” in New York State.

The most sensitive upland cover type on the Site is the oak-tulip tree forest ecological community, which remains largely in-tact and survived the Site's prior agricultural activities. While a significant portion of this ecological community will remain undisturbed (3.9 acres), its presence on-site represents only the northern tip of this community which extends south, behind the IBM campus into Connecticut toward the Tamarack Country Club. Therefore, it is the opinion of the Applicant that this minor disturbance at its northern tip will have little impact on the larger area to the south.

Of the 850 trees in excess of 8" dbh to be removed from the Site, few predate the previous orchard use. The balance were planted or have grown as pioneering species after the 1920's.

It is the Applicant's opinion that the Proposed Action will have no impact on any rare plants or significant natural habitats on the Site or in the vicinity.

The ecological communities on the Site and their availability as habitat for local and migratory species of wildlife will be impacted by the Proposed Action.

During the site clearing and construction phases of the Proposed Action, it is expected that some of the smaller, less mobile or juveniles of some species would be impacted. However, the majority of the species that utilize the Site are more mobile and would be able to avoid conflicts or injury. Displaced species are expected to relocate to adjacent contiguous areas of similar habitat.

The consequence of this displacement and emigration will be increased competition for resources within the adjacent habitats. This will likely result in comparatively minor decreases in some wildlife populations until equilibrium between populations and available resources is achieved.

The Proposed Action preserves the on-site wetland and surrounding wetland buffer which is prime habitat for many wildlife species, as well as

approximately 6 acres of existing vegetation around the perimeter of the Site. Moreover, the Landscaping Plan prepared to support the Project involves the reintroduction of new vegetation that will serve as new habitat for certain species. It is therefore likely that some of the species that were displaced during the construction phase of the Project, will re-inhabit the Site after the completion of construction.

While the Site is located within the range of the threatened Northern Long-Eared Bat, the on-site habitat is not conducive to support this species, and no observations of this mammal have been recorded near the Site.

As a result, it is the Applicant's opinion that no significant adverse wildlife impacts will result from the Proposed Action.

E.) Wetlands:

An approximately 0.6-acre disturbed hill side seep wetland was identified in the southeast corner of the Site. A headwall discharges drainage into this area, which creates hydrologic conditions favorable to the formation of the wetland area. The presence of RdA – Ridgebury loam/Aquents soils further served to define the wetland boundary. This wetland area extends off-site to the south and east.

The Proposed Action will not result in any direct impacts or disturbances to the locally regulated wetland, or within the 100' regulated wetland buffer, or the larger 150' wetland buffer required in instances within a regulated steep slope.

F.) Stormwater:

The Proposed Action will result in the creation of 10.4 acres of impervious surface. The stormwater management plan for the Proposed Action was developed in accordance with the "Five Step Process for Stormwater Site Planning and Practice Selection" set forth in the New York State Stormwater Management Design Manual.

The stormwater management plan for the Proposed Action includes detention basins, subsurface infiltration devices, catch basins and manholes, hydrodynamic separators, sediment traps, rain gardens and a green roof among other measures. Additionally, the project has been phased to ensure that under 5 acres of the Site is under construction at any one time.

Based on the analysis in the Stormwater Pollution Prevention Plan (SWPPP), it is the Applicant's opinion that the stormwater management practices proposed will adequately treat the runoff leaving the Site in regard to water quality. In addition, the proposed stormwater practices will control runoff quantities to ensure no adverse effects due to stormwater as a result of the proposed development.

G.) Utilities:

The Project Site is located in Water District 4 and Sewer District 2. The Proposed Action, consisting of the 91-room hotel with amenities, 70 apartments and 94 townhouses, will result in a water demand of 73,410 gpd. This volume, combined with the 120,190 gpd of cumulative water volume projected from other pending developments also seeking to draw water from Water District 4, would result in a water deficit for the District. The Town is in the process of expanding the capacity of Water District 4 to meet this increased demand through the installation of additional wells at the wastewater treatment plant site off Business Park Drive. The Applicant is willing to make a financial contribution covering the cost of the exploratory drilling and installing/construction of the new production wells.

To further mitigate the Proposed Action's water consumption, the Applicant is committed to employing environmentally responsible green building techniques such as the use of water efficient fixtures and appliances. An irrigation strategy will be developed during the site plan review stage that includes measures such as harvesting rainwater to reduce the demand on the public water supply, utilizing plant species that require less water, reducing areas that require irrigation and utilizing smart meters for sprinkler systems.

The Proposed Action will result in a sanitary sewage flow of 73,410 gpd. When the Applicant purchased the Site from IBM, a reserve sanitary sewage capacity of 35,000 gpd was also transferred. As a result, the Project's net sanitary sewage flow is 38,410 gpd. The wastewater treatment plant serving Sewer District 2 is currently operating near its 500 mgd capacity. Upgrades are underway to expand the capacity of the plant to 700 mgd.

The upgraded plant will satisfactorily accommodate the 38,410 gpd of sanitary sewage flow from the Project, as well as the projected 124,990 gpd of cumulative sanitary sewage flow from other pending projects within the District. The Applicant will phase the Project, constructing the hotel/apartment building first, which would be accommodated within the existing reserve capacity, and constructing the townhouses second, after the treatment plant upgrades are complete.

The Applicant will also work with the Town to meet the 3:1 inflow and infiltration (I&I) objective, in accordance with the requirements of Westchester County. The Applicant and the Project Engineer will meet with the Town Consulting Engineer during the site plan approval process to determine how I&I projects can be identified and who will conduct the work and in what timeframe. If specific projects cannot be identified, a process whereby the Applicant places funds into a dedicated account for I&I work based on a per gallon cost of removal of flow through I&I is an alternative option.

In addition to various green building practices incorporated into the new buildings and site improvements, during the site plan review process, the Applicant will explore options to incorporate rooftop mounted photovoltaic solar panels and installing electric vehicle charging stations within the hotel parking area.

H.) Traffic & Transportation:

The Project will result in the generation of a total of 118 AM peak hour vehicle trips and 146 PM peak hour vehicle trips (combined inbound and outbound).

The Level of Service delays experienced under future No-Build and future Build Conditions are similar. In the Applicant's opinion, no significant degradations in Levels of Service would result from the Proposed Action.

Based on a review of the accident data and based on the anticipated traffic generation for the Eagle Ridge development, it is expected that the Proposed Action will not have a significant impact on the accident rates on the area roadways.

Off-site improvements include a shared entrance drive to the Site, a sidewalk to the intersection of North Castle Drive and NYS Route 22, a crosswalk across NYS Route 22, a school bus stop on NYS Route 22, an emergency access road, and the closure of an existing access road. The proposed shared entrance drive provides access to the townhouse development and the hotel. It includes one entry lane and two exit lanes to accommodate right and left turning vehicles. There is a median for plantings and/or signage. The proposed sidewalk and crosswalk across NYS Route 22 will allow pedestrian access to North Castle Drive and to the Armonk Hamlet. The proposed school bus stop on NYS Route 22 will provide an area for a school bus to stop in a dedicated pull-off lane to pick up children from the Proposed Action. The Applicant has been working with the NYSDOT to refine these off-site improvements. The proposed emergency access will be located approximately 200 feet south of the proposed shared entrance drive. There are three locations at which existing site access will be closed. Two points are adjacent to the existing security building, and the other is on the south side of the Site adjacent to the existing IBM parking lot.

During the site plan review phase, the Applicant will identify appropriate locations for secure bicycle storage and bicycle racks.

I.) Visual Resources & Community Character:

The Site can be generally characterized as the eastern side of an oval shaped elongated hill that rises up from the Route 22/North Castle Drive/Main Street intersection, to the original IBM headquarters building located south of the Site. Rock outcroppings are present, particularly around the edges of the hill. The northern and eastern portions of the Site are wooded and the upper portion of the site is primarily an open field. The majority of the Site was an orchard prior to its purchase by IBM, with the exception of the southeast corner of the Site which is a remnant woodland. A small wetland is located in this area, which will remain undisturbed. The Site is located in an area of very diverse land uses.

The Proposed Action will involve the disturbance and clearing of 26.5 acres (81.42%) of the 32.5-acre property. This includes to removal of approximately 850 of the 1,524 trees over 8" dbh (55.7%). The proposed development of a 5-story hotel/apartment building, parking and site amenities, and the adjacent development of 94 townhouses, will alter the visual characteristics of the Site.

The Proposed Action includes modifications to the OBH district's dimensional regulations that would increase the maximum allowable building height from 3 stores and 45 feet, to 5 stories and 75 feet. This increase in allowable height will permit the construction of taller buildings than would otherwise be permitted under the existing height provisions.

The modified height requirement would permit the construction of a hotel (or a hotel with upper floor apartments) that could be as much as 30 feet taller than currently allowed. This increase in height will be discernable from locations where the building can be observed, such as from North Castle Drive to a limited degree, and more significantly from Community Park.

Views of the Project Site from Community Park currently consist of a wooded hillside, with no structures or visible site improvements. Any development of the Site would involve clearing and grading the upper portion of the property however, the wooded hillside perimeter of the Site would remain intact. The

most abrupt visual change would be from a vacant wooded site, to a cleared, graded and developed site. It is the Applicant's opinion that the change in permitted height reflects an impact of degrees, not necessarily of consequence.

It is the opinion of the Applicant that the visual impact created by Eagle Ridge will be of partial views of the top portions of the hotel/apartment building and the adjacent townhouses. These buildings reflect well designed, architecturally significant, and contextually appropriate buildings. The presence of these buildings would not diminish the public's enjoyment of any activities occurring within Community Park, which is a public park used primarily for active recreation.

J.) Fiscal & Market Conditions:

The recently adopted Town of North Castle Comprehensive Plan reaches a conclusion regarding the suitability of a new hotel. This conclusion is reached without analysis of many important metrics that drive the region's lodging market. While it does appear that there is space in the market for the construction of additional hotel inventory, in the Applicant's opinion, the North Castle Comprehensive Plan grossly overestimates the number of new guestrooms that can be financially supported in the market.

It is the opinion of the Applicant that the most viable project represents a mixed-use residential development with an on-site boutique hotel that caters to the upscale nature of the surrounding communities and provides a new neighborhood amenity for local residents.

It is the Applicant's opinion that the local corporate market does not warrant the addition of a large full-service hotel, but a void presently exists in serving the travel needs of local corporations' upper-level executives. A smaller, boutique hotel would be well-positioned to fill this void and capture higher-rated demand that is currently being displaced to other hotels in the region. Furthermore, leisure demand in the market is not significant enough to sustain a larger property, particularly given the inferior nature of public transit

options in North Castle and more difficult accessibility to New York City when compared to other areas of Westchester County. A smaller property could be sustained in non-corporate demand periods, however, by the social catering and events needs generated by the local affluent residents.

The residential market in North Castle is healthy and growing without signs of pent-up demand or over supply. The Town's demographics are driving this market, particularly baby-boomers downsizing and who wish to remain in the community, as well as young people just entering the housing market. Rental apartments and townhouses represent housing types particularly well suited to meet this demand. As much of the existing housing stock is ageing, new construction will have a significant competitive market advantage.

The Proposed Action will result in the generation of \$3,985,056 in real estate taxes, including \$657,855.

In addition to real estate taxes, the hotel will generate hotel room occupancy taxes of approximately \$306,110 in the first year of operation. The hotel's various food and beverage outlet will also generate sales taxes of 1.5% for Westchester County and 4% for New York State.

The Proposed Action will also produce direct, indirect and induced multiplier effect economic benefits that would ripple through the local economy, and would over produce over \$5 million annually in direct household spending from new residents.

The hotel and apartment building would create up to 164 full-time equivalent jobs. Construction of Eagle Ridge would generate 1,614-person years of construction employment.

Municipal costs associated with the Project are limited, as all Site infrastructure will be privately owned and maintained. The project will result in a surplus of \$1,617,905 in school taxes beyond the School District's education expenses associated with new school aged children generated by the Project.

K.) Historic, Archaeological & Cultural Resources:

Willett Cornell first established a farm on the Project Site in 1790. The farm passed to the Birdsall family before being sold to Cornelius Agnew, a wealthy New York banker. Agnew purchased neighboring farms until a 600-acre estate was assembled, which was named Wenga Farm. An estate home was built in the location of the former IBM Headquarters building. The estate was a fully functioning farm with a large orchard containing hundreds of apple, peach and pear trees. In 1955 IBM purchased the property to develop their corporate headquarters, which open in 1964. IBM removed all of the farm buildings (the Cornell Birdsall farmhouse was relocated to Armonk Village, where it now serves as the Town Hall Annex), including the majority of the orchard.

A Phase I Cultural Resource Survey was conducted for the Site. The Survey revealed that no historic buildings remain on the site. 14 historic or archaeological sites are located within 1 mile of the Site. Phase IB field testing is recommended for the undisturbed portions of the Site to determine if evidence of precontract occupation exists. Field testing is also recommended for the northern portion of the Site due to the presence of possible middens, privys, wells or cisterns related to the Cornell-Birdsall residence. The IB field testing is proposed to be undertaken as a condition of site plan approval.

L.) Open Space:

The Proposed Action involves converting the Project Site, which is currently vacant, undeveloped and open, to support a hotel and apartment building, as well as 94 adjacent townhouses and associated site improvements, including parking, driveways and stormwater and utility infrastructure. Approximately 5 acres of the 26.5-acre site within Lot 2 will remain undeveloped and controlled by a Homeowners Association as permanently preserved open space.

As a result, the Proposed Action will result in the permanent elimination of approximately 26.5 acres of existing open space.

M.) Construction:

The Construction of eagle Ridge will disturb approximately 26.5 acres of the 32.5-acre site (81.42%). Construction is projected to occur over a period of 24 months, in 6 phases, all designed to result in less than 5-acres of disturbance.

Primary construction Impacts will result from clearing and grading the Site. Given the topography of the Site, and the necessity to create generally level development pads, the Proposed Action will result in approximately 80,019 cubic yards of earth cut and 33,530 cubic yard of rock cut for a total of 113,549 cubic yards of cut and approximately 62,149 cubic yards of fill, for a net of 51,400 cubic yards of cut. Approximately 55% of the material that will need to excavated will be re-used on-site as fill including processed crushed rock, the balance of this excavated material will be exported. Utilizing haul trucks with a 16 cubic yard capacity, approximately 3,312 truck trips would be required to remove this excess material, which will be exported in accordance with all applicable regulations to a suitable location(s). It is projected that the build-out of the Proposed Action will extend over a two-year period, and that material will be exported as the project progresses over the course of that time. This translates into approximately 138 truck trips per month, 34 trips per week or roughly 7 truck trips per day.

Due to the obvious presence of rock outcrops and bedrock on the Site, and the grading required to accommodate the proposed improvements, it is anticipated that some blasting will be required. A detailed site geotechnical study has not yet been completed, so the precise volume of rock removal has not been established. Although it is anticipated that some bedrock situated near the Site's surface can be removed by mechanical means (i.e. chipping and ripping), blasting would be required in areas where the estimated material cut is greater than four feet. Blasting would be undertaken in accordance with a Blasting Protocol developed for this project, and the Town of North Castle Code, Chapter 122 Blasting & Explosives. This Protocol would meet all New York State and Town of North Castle requirements for blasting.

Local daytime ambient noise levels would increase both on and off-site during the clearing and grading activities, construction of the site roadways, installation of infrastructure and the construction of the hotel/apartment building and the townhouses. Construction activities and the operation of construction equipment are an anticipated and necessary short-term consequence of any development of the Site, and cannot be avoided. As a result, construction related short-term noise impacts are expected.

Construction related impacts to air quality would vary based on the proximity of the construction activities to adjacent properties and the type and amount of construction equipment used for each project phase. General construction activities on the Site would have a potential impact on the local air quality through the generation of fugitive or airborne dust.

Sedimentation resulting from erosion of disturbed soils during construction is a potential impact, affecting wetlands, watercourses and receiving waters of downstream properties. The Proposed Action has the potential to increase the volume and velocity of stormwater runoff resulting from land clearing and the conversion of existing land forms into developed areas and impervious surfaces. If not properly controlled, these activities could lead to accelerated erosion and sedimentation during construction. An Erosion and Sediment Control Plan has been developed to mitigate short-term construction related impacts. This plan, which will be included with the Site Plan and SWPPP, addresses land grading, topsoiling, temporary vegetative cover, permanent vegetative cover, mulching and erosion checks. A continuing maintenance program will be implemented for the control of sediment transport and erosion after construction and throughout the useful life of the Proposed Action.

The number of truck trips generated per day during construction would vary depending on the phase and pace of construction, weather conditions and seasonal variations. Types of construction vehicles that will routinely come to the Site include dump trucks, delivery vehicles, pick-up trucks, concrete trucks, backhoes and construction worker vehicles. Bulldozers, skid steers,

track excavators, front end loaders, graders and pneumatic rock breakers will be delivered to the Site on flatbeds. Much of this equipment will be brought to the Site and remain there until it is no longer required, and will not make daily trips to and from the Site.

4.) ALTERNATIVES

Table II-2 presents a summary of the Project's various alternatives.

| Table II-2 Comparison of Alternatives | | | | | | |
|--|--------------------|------------|--------------------|-----------------------|--------------------|--------------------|
| Project Element | Proposed Action | No Action | Hotel Only | Hotel/Townhouses Only | Reduced Townhouse | Limited Height |
| Gross Floor Area | | | | | | |
| ▪ Hotel | 80,982 sqft | N/A | 209,088 sqft | 80,982 sqft | 80,982 sqft | 80,982 sqft |
| ▪ Apartments | 91,911 sqft | | 0 | 0 | 91,911 sqft | 91,911 sqft |
| ▪ Townhouses | 258,160 sqft | | 0 | 258,160 sqft | 164,640 sqft | 197,680 sqft |
| Building Height | | | | | | |
| ▪ Hotel/Apt | | N/A | | | | |
| ○ Stories | 5 stories | | 3 stories | 2 stories | 5 stories | 3 stories |
| ○ Feet | (71.7') | | (44.8') | (34.2') | (71.7') | (44.7') |
| ▪ Townhouses | 2 ½ stories | | 2.5 Stories | 2.5 Stories | 2 ½ stories | 2 ½ stories |
| # Units | | | | | | |
| ▪ Hotel | 91 | N/A | 300 | 91 | 91 | 91 |
| ▪ Apartments | 70 | | 0 | 0 | 70 | 70 |
| ▪ Townhouses | 94 | | 0 | 94 | 60 | 72 |
| # Parking Spaces | | | | | | |
| ▪ Hotel/Apartments | 308 | N/A | 661 | 308 | 308 | 308 |
| ▪ Townhouses | 213 | | | 213 | 137 | 169 |
| Area of Disturbance | 26.5 acres | N/A | 16.9 acres | 26.5 acres | 24.3 acres | 26.1 acres |
| Steep Slope Disturbance (>25%) | 4.3 acres 16.1% | N/A | 1.5 acres 5.66% | 4.3 acres 16.23% | 3.7 acres 15.1% | 4.0 acres 15.1% |
| Net Cut/Fill | | | | | | |
| ▪ Site | -2,296 | N/A | -74,103 | -2,293 | -18,700 | -19,247 |
| ▪ Site + Buildings | -51,400 | | -109,633 | -51,400 | -53,300 | -51,591 |
| Impervious Areas | 10.4 acres | ~.5 acre | 8.4 acres | 10.4 acres | 8.7 acres | 9.4 acres |
| Open Space | 22.1 acres | 32.5 acres | 15.6 acres | 22.1 acres | 23.8 acres | 23.1 acres |
| Water Usage | 73,410 gpd | N/A | 78,000 gpd | 61,750 gpd | 62,190 gpd | 66,150 gpd |
| Wastewater Generation | 73,410 gpd | N/A | 78,000 gpd | 61,750 gpd | 62,190 gpd | 66,150 gpd |

| | | | | | | |
|------------------------|------------------|-----|------------------|-----------------|------------------|------------------|
| Residential Population | 414 | N/A | 0 | 266 | 318 | 352 |
| School Children | 53 | N/A | 0 | 37 | 41 | 45 |
| Peak Hour Traffic | 118 AM 146 PM | N/A | 141 AM 180 PM | 86 AM 107 PM | 103 AM 126 PM | 108 AM 133 PM |

Chapter III

Description of the Proposed Action

III - DESCRIPTION OF THE PROPOSED ACTION

INTRODUCTION

This Draft Environmental Impact Statement (DEIS) analyzes the potential significant adverse impacts and mitigation measures associated with the proposed development of an approximately 32.25 acre, vacant and undeveloped parcel of land located in the Town of North Castle, by MADDD Madonna LLC (the “Applicant”). The proposed development consists of the subdivision of the property to create two lots of 26.25 acres and 6.25 acres respectively. The smaller 6.25-acre parcel would be developed to support a 5-story, 172,893 square foot building containing a highly amenitized 91-room boutique hotel on the first and second floors and 70 rental apartments on the third, fourth and fifth floors. Parking will be accommodated within a 241 space, 2-story subterranean parking garage along with 66 surface spaces. The larger 26.25-acre parcel would be developed to support 94 three-bedroom townhouses, unique open space amenities and associated improvements. This parcel would be rezoned from the existing OBH – Office Business Hotel district to the R-MF-A - Multifamily A zoning district. Additionally, modifications are proposed to the OBH district to accommodate the project (the “Proposed Action”).

A.) Site Description:

The project site is located in the south-central portion of the Town of North Castle, Westchester County, on the southeast corner of the North Castle Drive/Route 22 (Armonk Bedford Road) intersection. (Figures III-1 – Regional Location Map, III-2 – Site Location Map, III-3 - Site Aerial Photograph) The property is more specifically known and identified as Tax Map Number 553800 108.03-1-62.1 (the “Project Site or “Site”).

The Project Site lies within the OBH – Office Building Hotel zoning district, and is accessed off North Castle Drive, which is a private road providing access to the adjacent IBM corporate campus. A 20’ wide sewer easement crosses the southeast corner of the Project Site, and thereafter follows along the eastern Site boundary, primarily on the adjacent property of Community Park (Figure III-4 – Existing Site Survey).



Source: Westchester County GIS Service Center

Scale: N.T.S.



Site Aerial Photograph

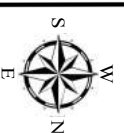
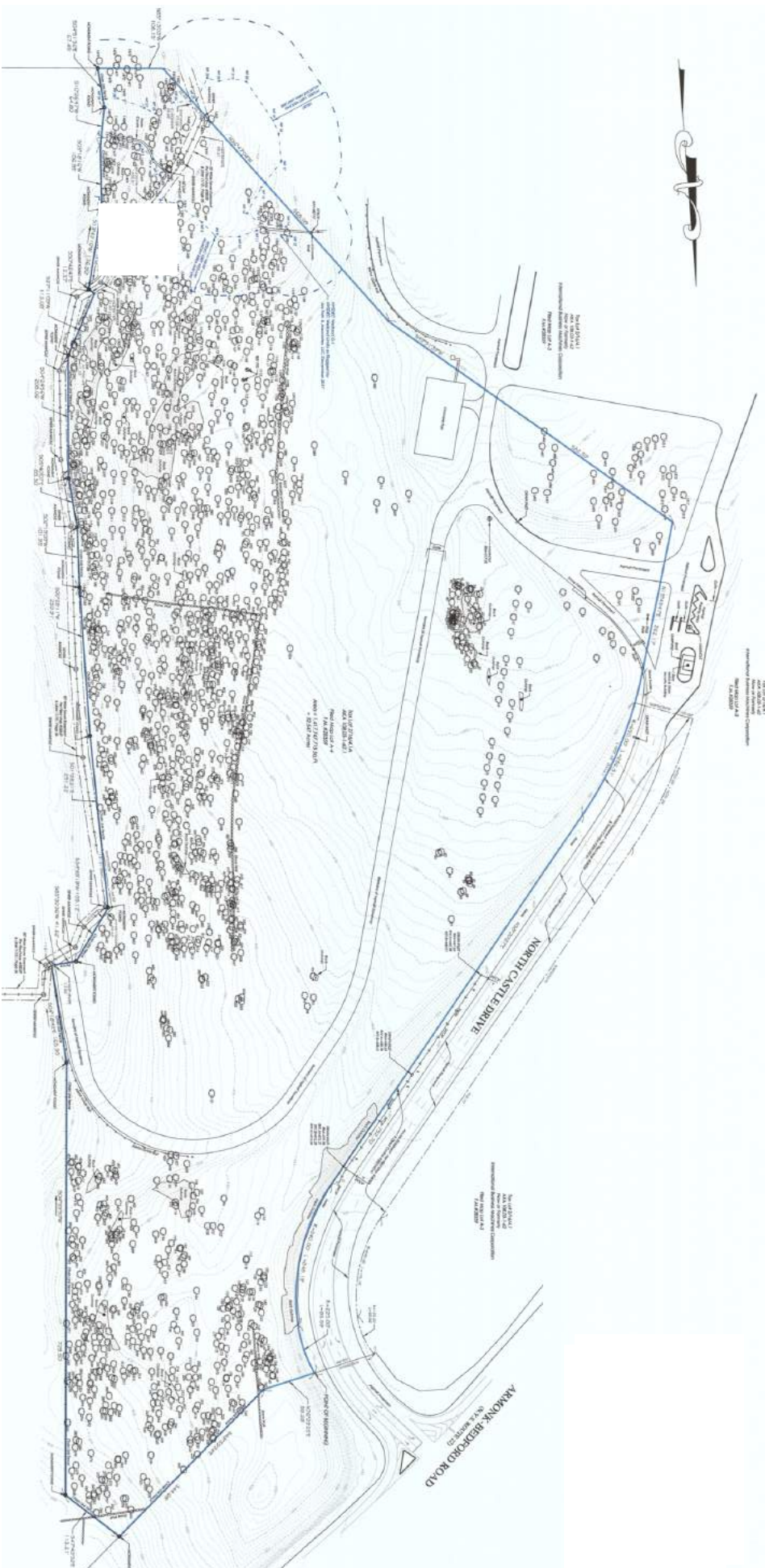


Figure
III-3



Source: T.C. Merritts Land Surveyors

Site Survey

Scale:
0' 80' 160'

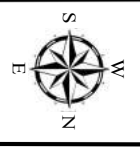


Figure III-4

The Site can be generally characterized as the eastern side of an oval shaped elongated hill that rises up from the Route 22/North Castle Drive/Main Street intersection, to the original IBM headquarters building located south of the Site. Rock outcroppings are present, particularly around the edges of the hill. The northern and eastern portions of the Site are wooded and the upper portion of the Site is primarily an open field. The majority of the Site was an orchard prior to its purchase by IBM, with the exception of the southeast corner of the Site which is a remnant woodland. A small wetland is located in this area, which will remain undisturbed.

The existing improvements on the Site consist of an approximately 8,000 square foot concrete pad previously used by IBM for a helipad. Additionally, two driveways enter the Site from North Castle Drive, whereupon they merge approximately 175' into the Site and thereafter curve to the south, and enter the IBM parking lot and service entrance to the former headquarters building. This driveway runs for approximately 900 feet through the Site and covers approximately 18,000 square feet of impervious surface. Lastly, the remnant of a 20' wide asphalt driveway runs for a distance of approximately 1,500 feet through the Site in an inverted fish-hook shape from the helipad down to Community Park, right behind the tennis bubbles.

B.) Description of Surrounding Uses and Facilities:

The Project Site is uniquely surrounded by perhaps the most diverse land uses of any area of the Town of North Castle. This diversity frustrates simple classification. Existing land uses, that do not typically coexist, do so in the vicinity of the Site with little conflict. Community Park abuts the Town's wastewater treatment plant, which in turn abuts the office and commercial uses along Business Park Drive. These uses are situated across Route 22 from the hamlet of Armonk and its varied land uses. The adjacent IBM corporate campus is unique in and of itself. No discernable pattern exists that would definitively establish the land use character of the area. Surrounding land uses include:

- **IBM Corporate Campus** - The Project Site was purchased from, and is adjacent to the IBM corporate campus. Its principal building, referred to as CHQ, is a 283,000-square-foot glass and stone building. The campus

includes two other IBM buildings within walking distance of CHQ; the North Castle office, which previously served as IBM's headquarters; and the Louis V. Gerstner, Jr., Center for Learning (formerly known as IBM Learning Center). The property also supports a hotel and training center, which has 182 guest rooms, 31 meeting rooms, and various amenities, as well as other accessory buildings and facilities.

- **North Castle Community Park** - Located at 205 Business Park Drive, lies adjacent to the Site to the east, and is 23 acres in size and includes a walking and running track, platform tennis courts, all weather tennis courts located within two bubbles, and which are operated by a private vendor, soccer and baseball fields, playground and a picnic pavilion.
- **Wampus Brook Park** - Located north of the Project Site, across Route 22 off Maple Avenue. The park includes a gazebo bandstand, brook, water fowl and quiet sitting areas.
- **Westchester Business Park** - Business Park Drive supports a significant array office, light industrial, and other commercial uses. 10 buildings are located on Business Park Drive:
 - 215 Business Park Drive (CarQuest) - 124,830 square foot office/light industrial building.
 - 200 Business Park Drive - 90,000 square foot office building.
 - 130 Business Park Drive - 60,000 square foot office building.
 - 111 Business Park Drive (Worlds Best Cheeses) - office/light industrial
 - 122/124 Business Park Drive - office building.
 - 99 Business Park Drive (Equinox) - 75,000 square foot office/light industrial/health club building.

- 94 Business Park Drive – La Qunita Inn & Suites – hotel.
- 80 - Business Park Drive – 60,000 square foot office building.
- 80 - Business Park Drive – 60,000 square foot office building.
- 90 Business Park Drive – Bristol senior residence (independent, assisted, memory care and Alzheimer's care)
- ***Non-Residential Uses along Route 22***– The non-residential uses along Route 22 in the vicinity of the Project Site are all oriented away from Route 22, and front on, and have access from Bedford Road (145 Bedford Road office building, 135 Bedford Road office building, Elide Plaza, Mariani Gardens and the Town Hall complex), or on Old Route 22 (The Beehive restaurant), or Labriola Court (1 Labriola Ct. light industrial building, 11 Labriola Ct, Morgan Manhattan Moving & Storage). No non-residential uses front or have access onto Route 22 in the vicinity of the Project Site.
- ***Residential Areas Located to the Northwest*** – Relatively significant residential development has occurred northwest of the Project Site, located off Old Route 22. The Whippoorwill Hills (150 units), Whippoorwill Ridge (55 units) and Cider Mill (27 units) developments provide a combined total of 232 residential units in Armonk. Further development in this area is precluded by the presence of the Betsy Sluder Nature Preserve that runs along the southern edge of these developments.
- ***Regional and Local Roadway Network*** – The Project Site benefits from convenient access to the local and regional roadway network. Direct access to the Site is afforded off North Castle Drive, which is a private road. North Castle Drive intersects NYS Route 22 (Armonk Bedford Road) at the NYS Route 128 (Main Street) intersection. Route 22 is a major arterial that runs for 337 miles from to the Bronx to the Canadian border. It is New York State's longest north-south roadway. Route 128 is a 5.53-mile minor arterial that runs from Route 22 to Route 117 in Mount Kisco.

The Project Site lies just west of the I-684/Route 22 interchange. I-684 is an interstate highway that runs from I-287 in Harrison and terminates at I-84 near Brewster.

Armonk Hamlet – The Armonk Hamlet, which is located due north of the Project Site, across Route 22, is North Castle's primary central business district. The district which is located along Bedford Road, Maple Avenue and Main Street (Route 128) includes the Town Hall governmental complex, post office, various retail, restaurant and office uses, and is today centered around the Armonk Square mixed-use development, which includes uses such as a DeCicco's supermarket, Tazza Cafe, Lilies and Lace and the Fortina restaurant.

Critical Environmental Areas – As depicted in Figure III-5, the Westchester County Airport 60 Ldn Noise Contour Critical Environmental Area is located near, but to the west of the Project Site. The Project Site does not lie within the designated noise contour.

The Proposed Action includes uses that already exist in the immediate vicinity of the Site, such as various residential uses on the north side of Route 22, including the attached townhouses in the Cider Mill development, which are similar to those proposed at Eagle Ridge, as well as the La Quinta Inn hotel located less than ¼ mile due east of the Site.

The Proposed Action would not impose land uses that are unfamiliar or inconsistent with the existing land uses surrounding the Site.

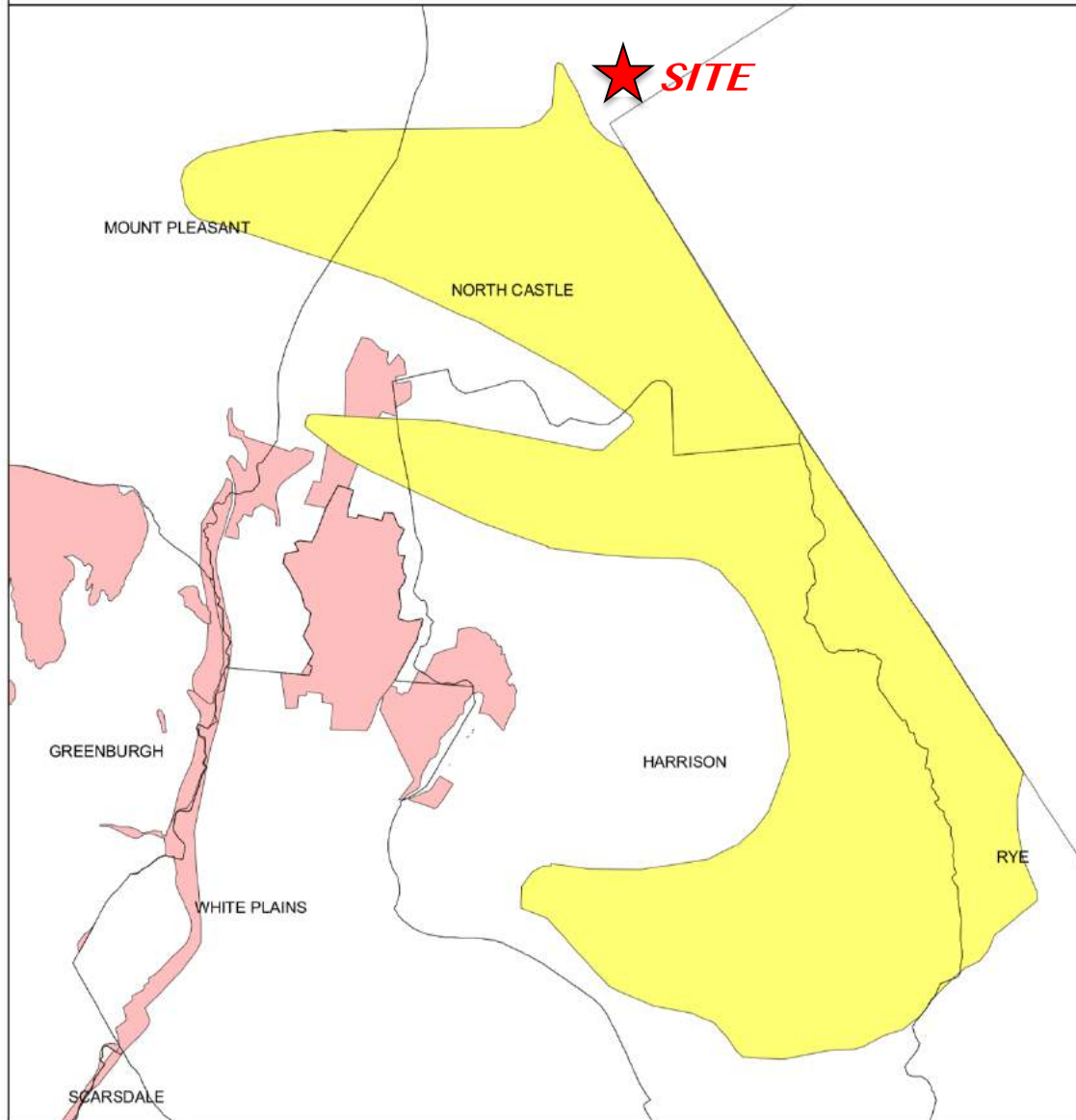
C.) Project Description:

The Proposed Action involves the subdivision of the property to create two lots of 26.25 acres and 6.25 acres respectively. The smaller 6.25-acre parcel, identified as Lot 1, would support the hotel and apartment building, and the larger 26.25-acre parcel, identified as Lot 2, would support the townhouses.

Westchester County Airport 60 Ldn Noise Contour Critical Environmental Area (CEA)

Effective Date of Designation: 1-31-90

Designating Agency: County of Westchester



Legend

- Westchester County Airport 60 Ldn Noise Contour CEA
- Adjacent CEA

Base Map: Town or City Boundary for New York State

0 2,000 4,000 8,000 Feet
1 inch equals 4,500 feet

For Adjacent CEAs see map:
Floodplains CEA
County & State Park Lands CEA
Hilltops at or above 400 ft elevation CEA
County Designated Watershed Properties CEA



Disclaimer: This map was prepared by the New York State Department of Environmental Conservation using the most current data available. It is deemed accurate but is not guaranteed. NYS DEC is not responsible for any inaccuracies in the data. Please contact the designating authority for additional information regarding legal boundary descriptions.

Source: NYSDEC

Scale: As Shown



Westchester County Airport 60Ldn Noise Contour Critical Environmental Area



Figure
III -5

Access to Eagle Ridge would be provided from a shared driveway off North Castle Drive, which is a private road owned and maintained by IBM. Upon entering the Site hotel guests and residents of the apartments would enter a second driveway to the north that circles the building and connects to a 66-space surface parking lot located on the west side of the building, or two levels of subterranean parking below the building. Continuous vehicular access is provided around the entire perimeter of the building.

Residents of the townhouses would continue along the driveway to a gated access point. Once through the access gate, a loop driveway circles through Lot 2. The 94 townhouses are double-loaded on both sides of the loop driveway. An emergency access driveway is proposed approximately 200 feet further south along North Castle Drive, which provides a second means of access directly into Lot 2, and allows for emergency access from the south through the IBM driveway on Old Post Road.

With the exception of the driveway access cuts off North Castle Drive, and the centrally located stormwater basins, site grading has been minimized by setting the hotel/apartment building into the side of the hill, and siting the townhouses into a series of terraces that cascade down the hill. Approximately 26.5 acres of the Site (81.5%) will be disturbed during construction. Of this total, approximately 4.3 acres are designated steep slopes in excess of 25%. The Proposed Action will result in a net cut of approximately 51,400 cubic yards of material. Some of this excavation would involve rock removal. In total, approximately 10.3 acres of impervious surfaces be created.

Utilities will be brought into the Site via a connection to the existing watermain located at the intersection of Route 22 and Business Park Drive. The Applicant is willing to make a financial contribution toward the cost of the exploratory drilling and installing/construction of new production wells currently being planned by the Town to expand the capacity of Water District 4. To further mitigate the Proposed Action's water consumption, the Applicant is committed to employing environmentally responsible green building techniques such as the use of water efficient fixtures and appliances. An irrigation strategy will be developed during the

site plan review stage that includes measures such as harvesting rainwater to reduce the demand on the public water supply, utilizing plant species that require less water, reducing areas that require irrigation and utilizing smart meters for sprinkler systems.

Sanitary sewage will be accommodated through a connection to the sewer line located within the easement along the eastern edge of the Site. The Applicant will phase the Project, constructing the hotel/apartment building first, which can be accommodated within the existing reserve sanitary sewage capacity purchased from IBM, and constructing the townhouses second, after the Town's wastewater treatment plant upgrades which are currently underway, are complete. Off-site improvements include a new sidewalk along North Castle Drive bus stops and a crosswalk across Route 22 connecting Eagle Ride to the Armonk Hamlet. The Applicant will also work with the Town to meet the 3:1 inflow and infiltration (I&I) objective, in accordance with the requirements of Westchester County. The Applicant and the Project Engineer will meet with the Town Consulting Engineer during the site plan approval process to determine how I&I projects can be identified and who will conduct the work and in what timeframe. If specific projects cannot be identified, a process whereby the Applicant places funds into a dedicated account for I&I work based on a per gallon cost of removal of flow through I&I is an alternative option.

New site lighting is proposed throughout the Site to afford safety, facilitate circulation and wayfinding. All lighting will be Dark Sky compliant, shielded, downward directed and will be designed to provide appropriate levels of illumination. Illumination levels along the perimeter of the Site will not exceed 1 footcandle.

A stormwater management plan has been developed that includes the construction of two centrally located stormwater basins, subsurface drainage facilities and a phasing plan that minimizes areas of disturbance during any one construction phase to under 5 acres. The stormwater management plan also incorporates a number of green practices, including a green roof and green walls

on the hotel/apartment building. The rate of stormwater runoff from the Site will not be increased as a result of the development of the Proposed Action.

Eagle Ridge includes an array of green building measures; including:

- Energy star windows & appliances
- Additional wall & roof insulation
- Preservation of and access to open space
- Led lights
- Efficient irrigation and water reuse
- Rain barrels
- A subsurface parking garage, which reduces surface paving and the heat-island effect
- Water-conserving fixtures
- Leak and water metering
- Low / no VOC paints, coatings and primers
- Composite wood products that emit low / no formaldehyde
- Environmentally preferable flooring
- Green roof and green walls
- Management and recycling of construction waste management
- Recycling storage
- Mold prevention: water heaters
- Radon mitigation
- Integrated Pest Management
- Active design: promoting physical activity within the building
- Staircases and building circulation
- Interior and outdoor activity spaces for children and adults
- Smoke-free building

In order to create a sense of place that unifies the two parcels comprising the Proposed Action, and the different uses that occupy the parcels, an extensive landscaping plan has been developed. This landscaping plan not only unifies the Site by creating an attractive development with abundant visual interest internally, but also recognizes that the Eagle Ridge will be visible from Community Park, and

creates a unique visual interface from that perspective as well. The landscape plan includes 6 elements:

- **Village Commons** – This space, located in the center of the townhouse development, serves as the townhouses’s outdoor activity center and functions as a community gathering place for events, and includes:
 - Outdoor amphitheater integrated with the existing rock outcropping.
 - Pavilion/tensile structure to provide shade and serve as a landscape feature.
 - Nature based play area that incorporates native plants (coneflower, joe pye weed, switchgrass) and materials.
 - Large lawn oval for flexible outdoor activities surrounded by swaths of native meadows.

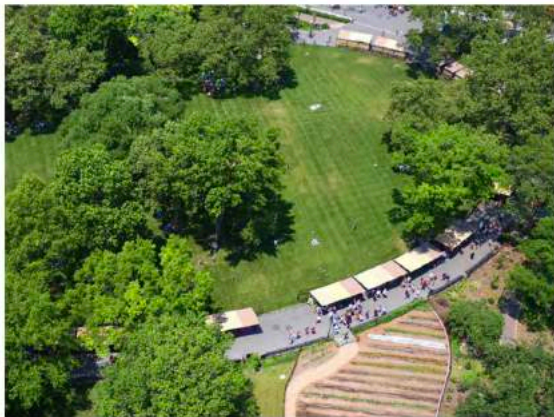
Village Commons



Tensile Structure



Outdoor Amphitheater



Lawn Oval



Nature Based Playground

- **Linear Greenway** – This feature provides pedestrian connectivity internally and to the surrounding area and Community Park, and includes:
 - Contiguous path/trailway system used for pedestrian circulation, passive recreation and fitness.
 - Linked to proposed sidewalks connecting the townhouse community to the hotel site, Armonk commercial district, Route 22, and bus routes.
 - Large portion of the paths are surrounded by native meadows and wild flowers (black-eyed susan, coneflower, butterfly weed, aster, liatris, goldenrod) weaving through the trails.
 - A woodland trail provides connectivity to Community Park. Steps and switchbacks are proposed to facilitate traversing the steep areas.

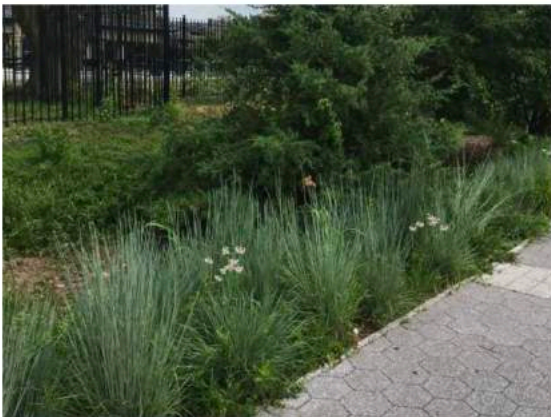
Linear Greenway



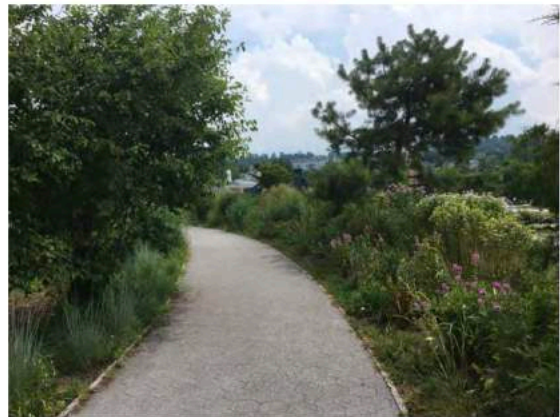
Native Perennials & Trees



Native Perennials



Native Grasses



Native Perennials & Trees

- **Residential Streetscape** – This element reinforces a sense of place and neighborhood, and includes:
 - Tree lined neighborhood (hybrid American elm, sugar maple, red oak), streets trees provide shade, traffic calming and environmental benefit.
 - Variety of plant types; shade trees, clusters of flowering trees (redbud, dogwood) and shrubs to provide seasonal interest and pedestrian scale.

Residential Streetscape



Tree Lined Residential Street

- **Woodland Edge** – This feature provides a natural transitional edge of plants from existing woodlands to new meadows and turf areas, and includes:
 - Native grasses (switchgrass, little bluestem) and shrubs (chokeberry, nanny berry, viburnum, grey dogwood) which provide wildlife habitat.
 - Flowering dogwood and redbud trees to add seasonal interest.

Woodland Edge



Native Meadow Transition



Native Perennials & Shrubs

Apple Tree Buffer



Orchard (Spring)



Orchard (Summer)

- **Hotel Site** – The objective on this parcel is to create a sense of arrival at the front entry. Soften the view of the building from Community Park, and includes:
 - Rain gardens, which in addition to their stormwater management functions, act as landscape features and interpretive areas.
 - Groves of river birch and serviceberry trees that create a natural setting adjacent to the outdoor hotel spaces (café, waiting area).
 - Overlook space with views to the valley to the west and sculpture meadow to the east.
 - Shrub massings and upright red maple trees to buffer surface parking areas.
 - Rear south facing building façade covered with green vegetated walls.

Hotel Site

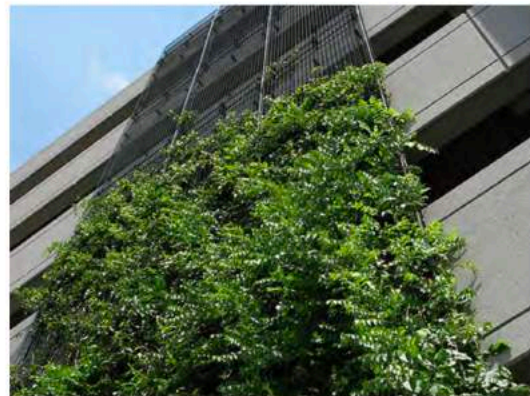
River Birch Grove/Rain Garden



Serviceberry Grove/Rain Garden

Hotel Site (Rear)

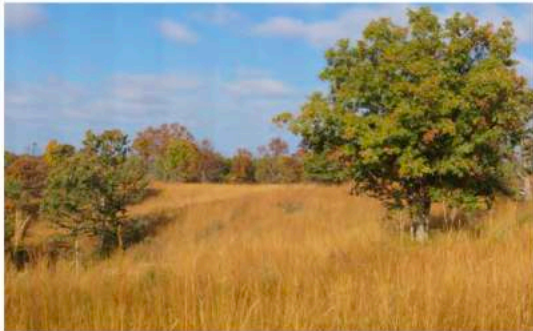
Upright Red Maple



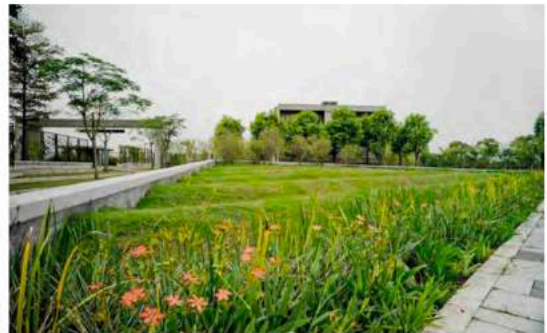
Green Screen

- **Art Meadow** – This is a functional and visual space which creatively addresses the on-site stormwater management area that would be visible from Community Park, and includes:
 - Quilt-like patterns of various meadow grasses that provide visual interest and habitat for wildlife.
 - Sculptural earth forms.
 - Large outdoor art which can be seen from the entrance road, overlooks, the hotel roof and Community Park.
 - Sculptural masonry baffles which act as dissipators for concentrated stormwater runoff.
 - Dry stacked stone walls that recall the site's history as a farm and visually breaks up the hillside meadow.
 - New trees informally frame views to outdoor art and act as sculptural elements (willows, white oak, sycamore).

Meadow



Meadow with Native Trees



Earth Forms



Stone Walls (on-site)



Mowed Paths

Outdoor Art



Art in Meadow with Woodland Backdrop



Large Scale Sculpture in Meadow

A vast majority of the trees to be removed within the area of disturbance are in fair to poor condition (refer to Tree Survey in Appendix). Additionally, many are pioneering species that grew up after the orchard was removed by IBM and are considered to be invasive (i.e. Norway Maple). Many of these are also undesirable because they are disease prone and wood-weakened (i.e. cherry, black birch, ash, black locust). The proposed landscape plan will introduce over 400 new hardy native trees including the following:

Shade Trees:

- Sugar Maple (*Acer saccharum*)
- Red Maple (*Acer rubra*)
- Red Oak (*Quercus rubrum*)
- White Oak (*Quercus bicolor*)
- Honey Locust (*Gleditsia triacanthos*).
- River Birch (*Betula nigra*)
- American Elm (*Ulmus Americana* 'Princeton')

Flowering Trees:

- Flowering Dogwood (*Cornus florida*)
- Eastern Redbud (*Cercis canadensis*)
- Shadblow Serviceberry (*Amelanchier canadensis*)

Evergreen Trees:

White Fir (*Abies concolor*)
White Spruce (*Picea glauca*)
Norway Spruce (*Picea abies*)*
Colorado Spruce (*Picea pungens*)

The Following shrubs are proposed:

Winterberry (*Ilex verticillata*)
Compact Inkberry (*Ilex glabra* 'Compacta')
Bayberry (*Morella pensylvanica*)
Fragrant Sumac (*Rhus aromatica*)
Arrowwood Viburnum (*Viburnum dentatum*)
Grey Dogwood (*Cornus Racemosa*)
Red Osier Dogwood (*Cornus sericea*)
Virginia Sweetspire (*Itea virginica*)
Leatherleaf Viburnum (*Viburnum rhytidophyllum*)*
Doublefile Viburnum (*Viburnum plicatum* f. *tomentosum* 'Mariesii')*
Wintergem Boxwood (*Buxus sinica* var. *insularis*)*
Andromeda (*Pieris japonica*)*
Japanese Meadowsweet (*Spiraea japonica*)*

The Following Native Perennials & Grasses are proposed:

Blacke-Eyed Susan (*Rudbeckia hirta*)
Coneflower (*Echinacea purpurea*)
Butterfly Weed (*Asclepias tuberosa*)
New England Aster (*Symphyotrichum novae-angliae*)
Blazing Star (*Liatris spicata*)
Goldenrod (*Solidago rigida*)
Joe-Pye Weed (*Eutrochium purpureum*)
Garden Phlox (*Phlox paniculata*)
Switchgrass (*Panicum virgatum*)
Little Bluestem (*Schizachyrium scoparium*)
Pennsylvania Sedge (*Carex pensylvanica*)
Northern Prairie Dropseed (*Sporobolus heterolepis*)*

*Non-native, adapted.

The project lighting has been designed to be Dark Sky compliant. All illumination levels are within the Illuminating Engineering Society (IES) recommended standards for roadway and pedestrian walkway applications. All luminaires for the townhouse portion of the Project include a house side shield to minimize light trespass. All fixtures will have sharp cutoffs to prevent light trespass onto neighboring properties.

The Proposed Action is presented in Figures III-6 – Site Plan, III-7 – Limits of disturbance, III-8 – Grading Plan, III-9 – Stormwater Management Plan, III-10 – Utilities Plan, III-11 – Erosion Control Plan, III-12 – Landscaping Plan, III-12a - Landscaping Plan with Precedent Images, III-13 – Lighting Plan, III-13a - Lighting Plan (Illuminance), III-14 - Phasing Plan.

1.) Lot 1 – Hotel:

Lot 1, the northern 6.25-acre parcel is proposed to be developed to support a 5-story, 172,893 square foot building containing a highly amenitized 91-room boutique hotel on the first and second floors and 70 rental apartments on the third, fourth and fifth floors.

A hotel operator has not yet been selected, however, the facility is designed to provide the full range of amenities required for a high-quality boutique hotel. The proposed Eagle Ridge hotel will feature a variety of food & beverage outlets which cater to both the local demographic as well as the leisure and business guests at the hotel, and the apartment tenants. Three indoor outlets are proposed (Bar, Restaurant, Lounge) which will be in service year-round and two outdoor outlets (2nd Floor Terrace and Pool/Outdoor Area) which will be used seasonally, weather permitting. This is in addition to three meeting spaces (Ballroom, Junior Ballroom, and Boardroom), each of which is located on the first floor.



Source: Alfonzetti Engineering, P.C.

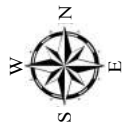
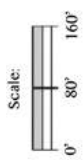
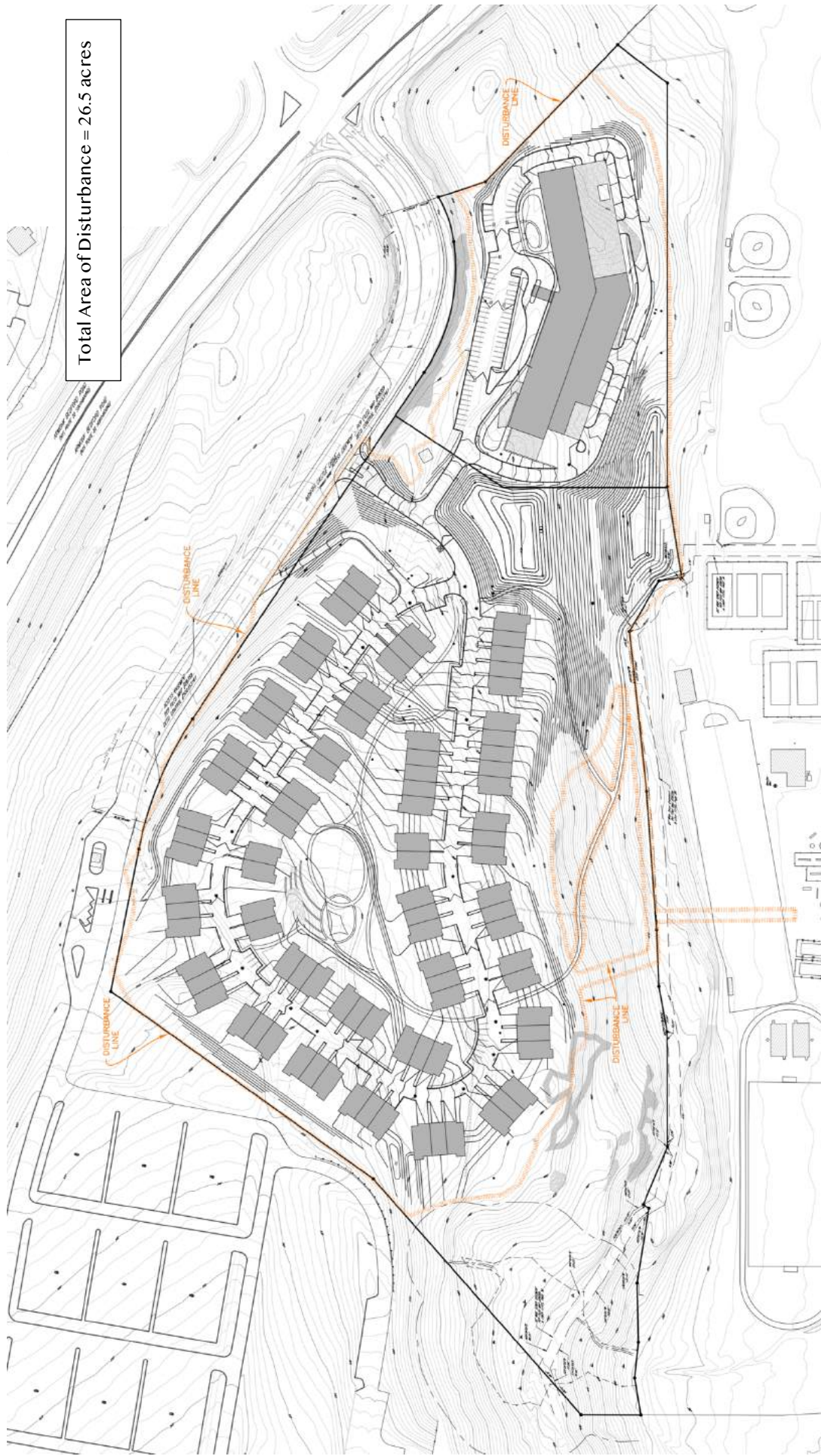


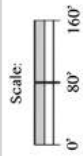
Figure
III-6

Site Plan

Total Area of Disturbance = 26.5 acres



Source: Alfonzetti Engineering, P.C.



Limits of Disturbance Plan

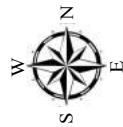
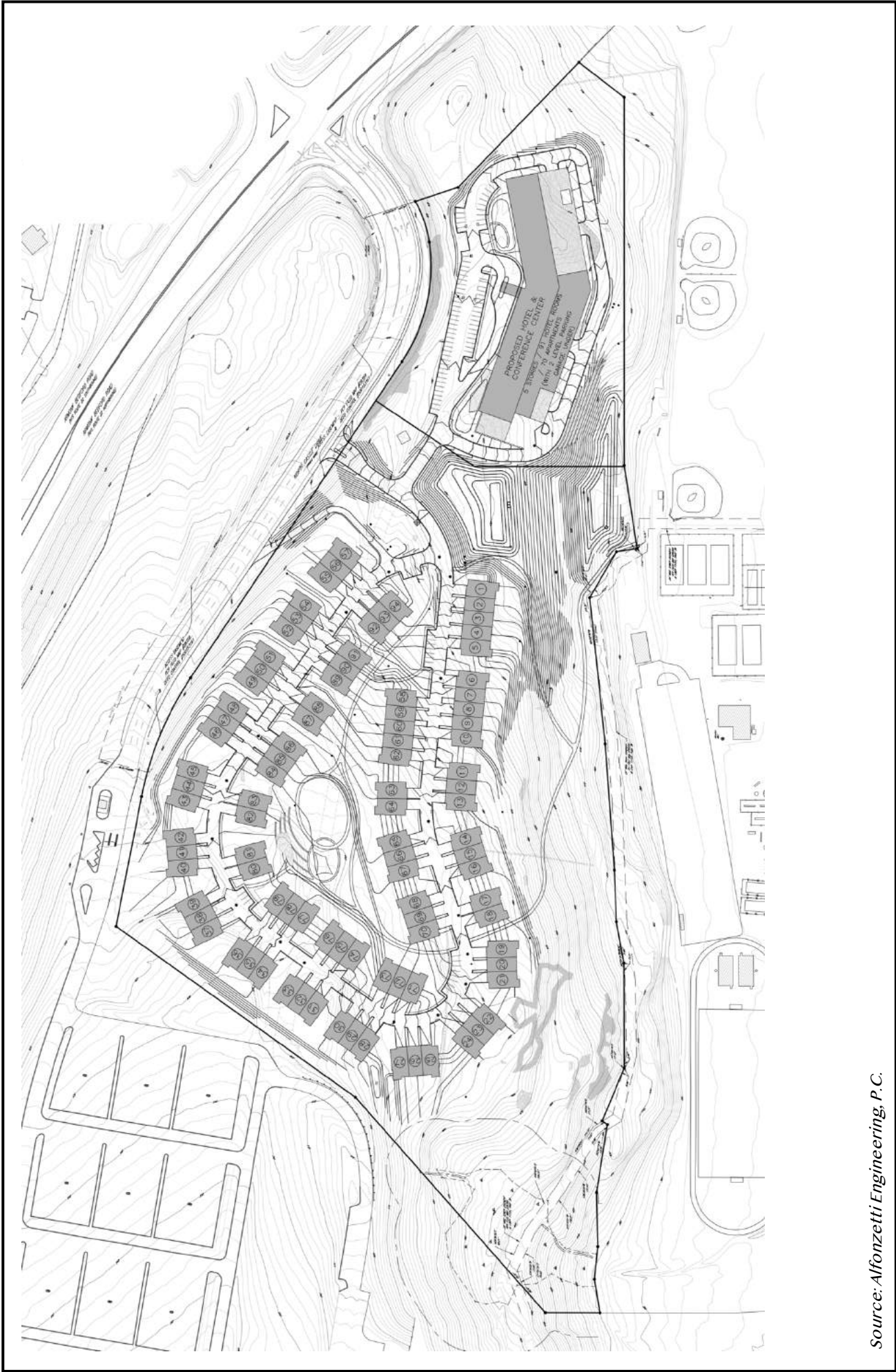
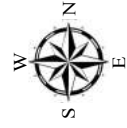
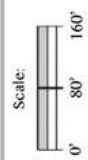


Figure
III-7

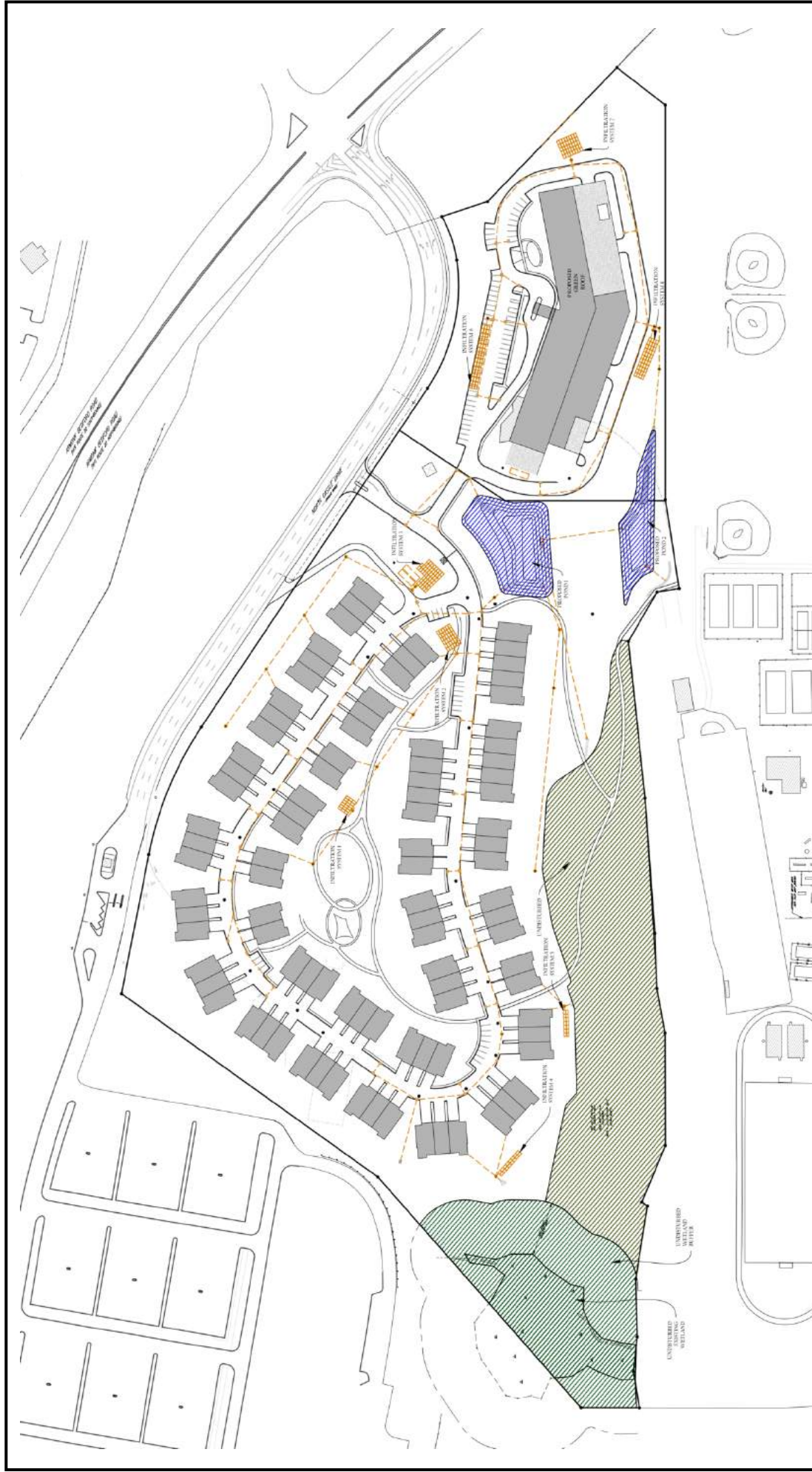


Source: Alfonzetti Engineering, P.C.

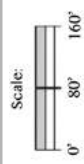


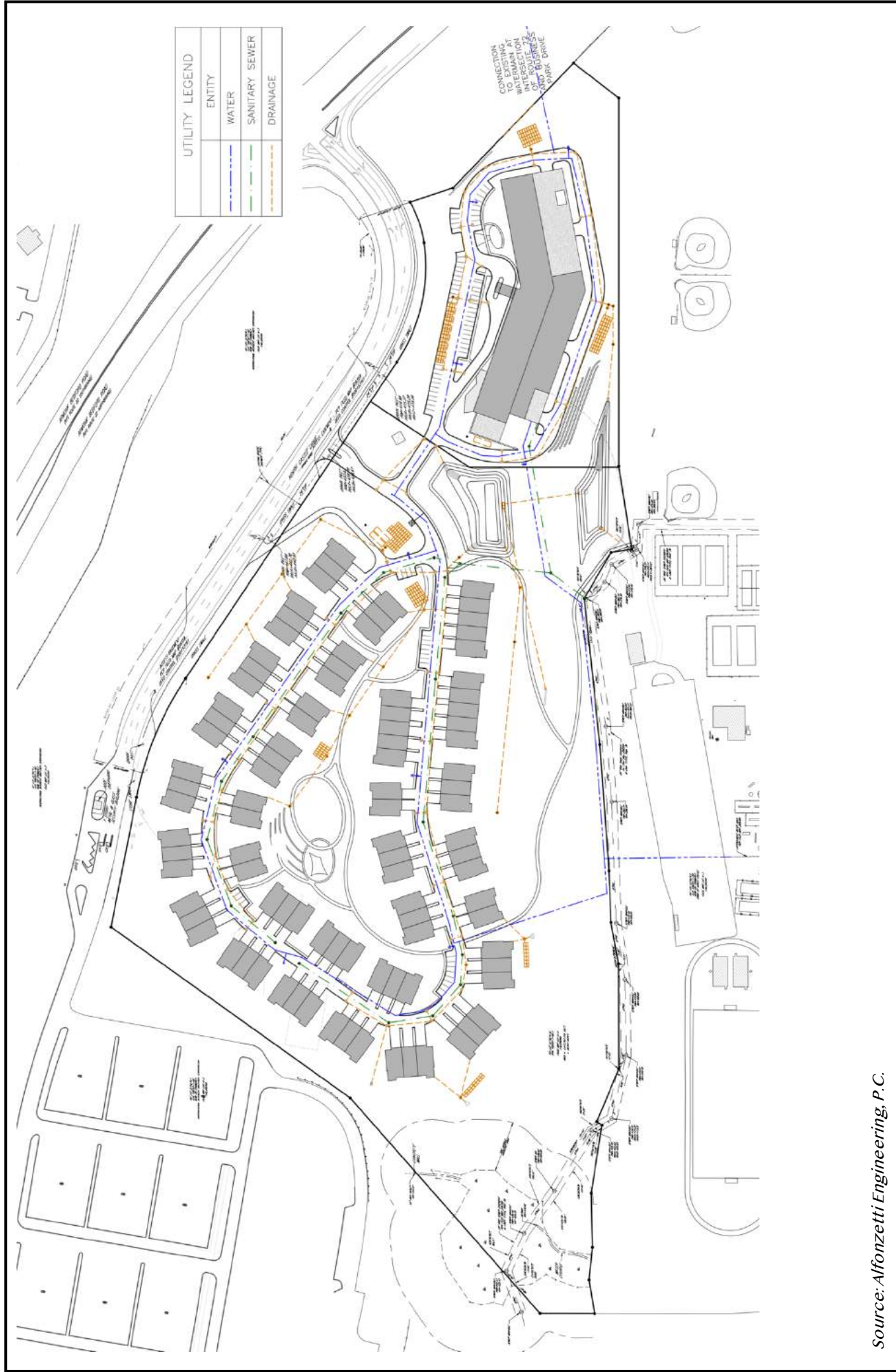
Grading Plan

Figure
III-8



Source: Alfonzetti Engineering, P.C.





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Figure
III-10

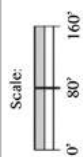
Utilities Plan

Cleary Consulting



Erosion Control Plan

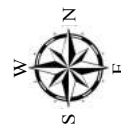
Source: Alfonzetti Engineering, P.C.





Source: IQ Landscape Architects, PC

Scale:
N.T.S.



Landscaping Plan

Figure
III-12



Source: IQ Landscape Architects, PC

Scale:
N.T.S.



Landscaping Plan with Precedent Images

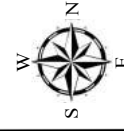
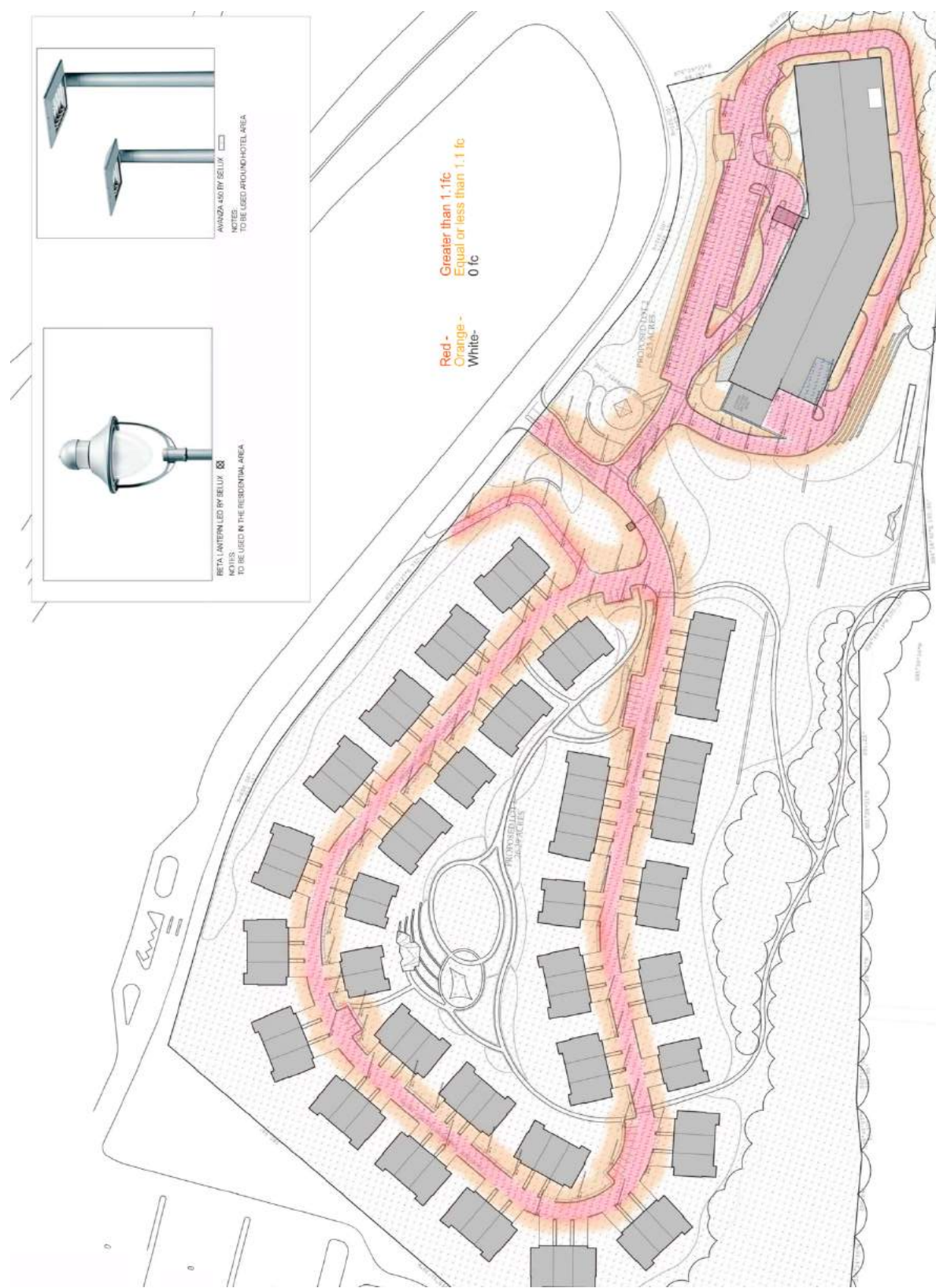


Figure
III-12A



Scale:
N.T.S.



Lighting Plan

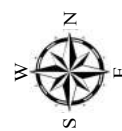
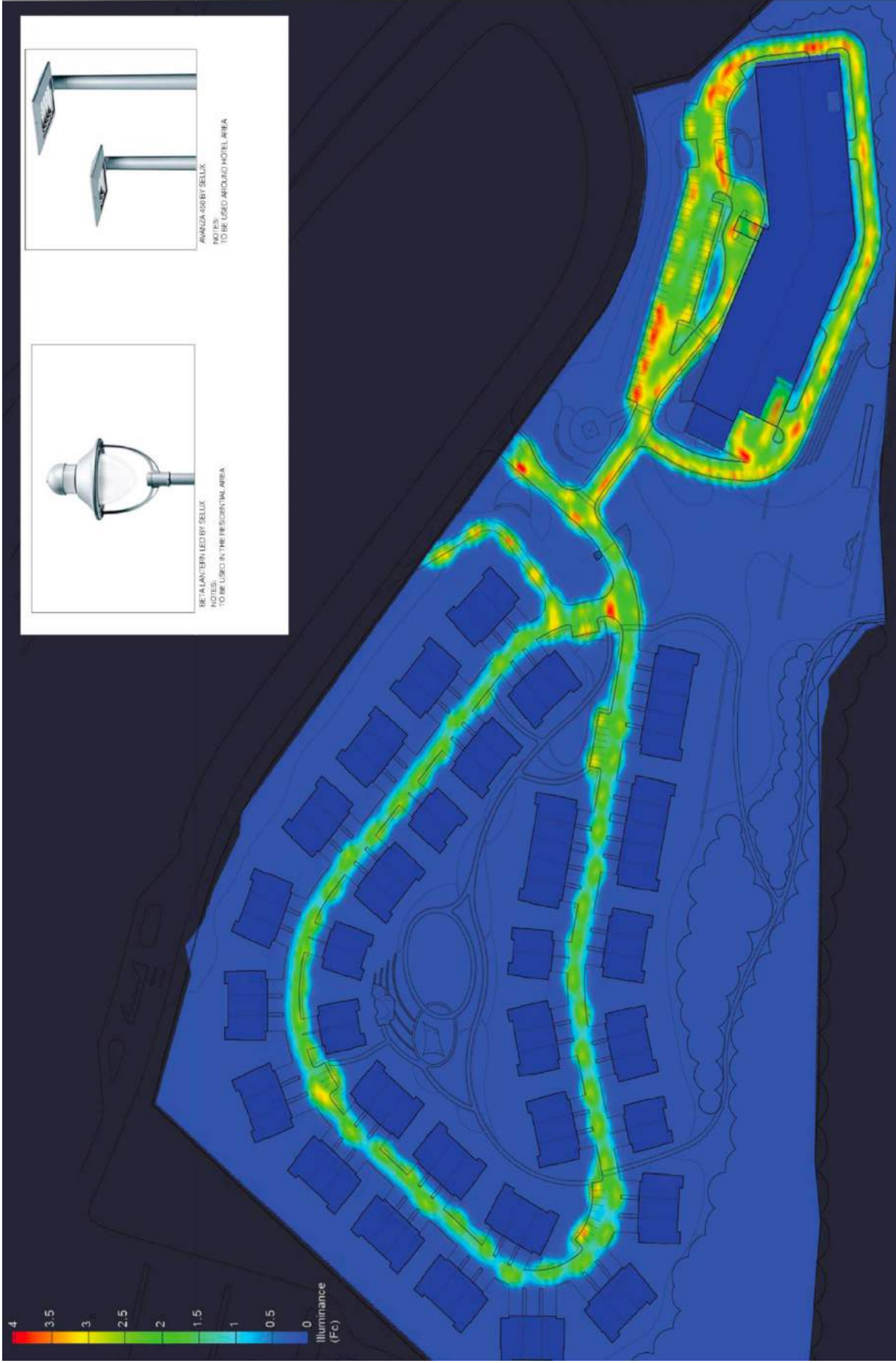


Figure
III-13



Source: IQ Landscape Architects, PC

Scale:
N.T.S.



Lighting Plan (Illuminance)

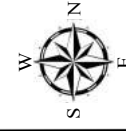
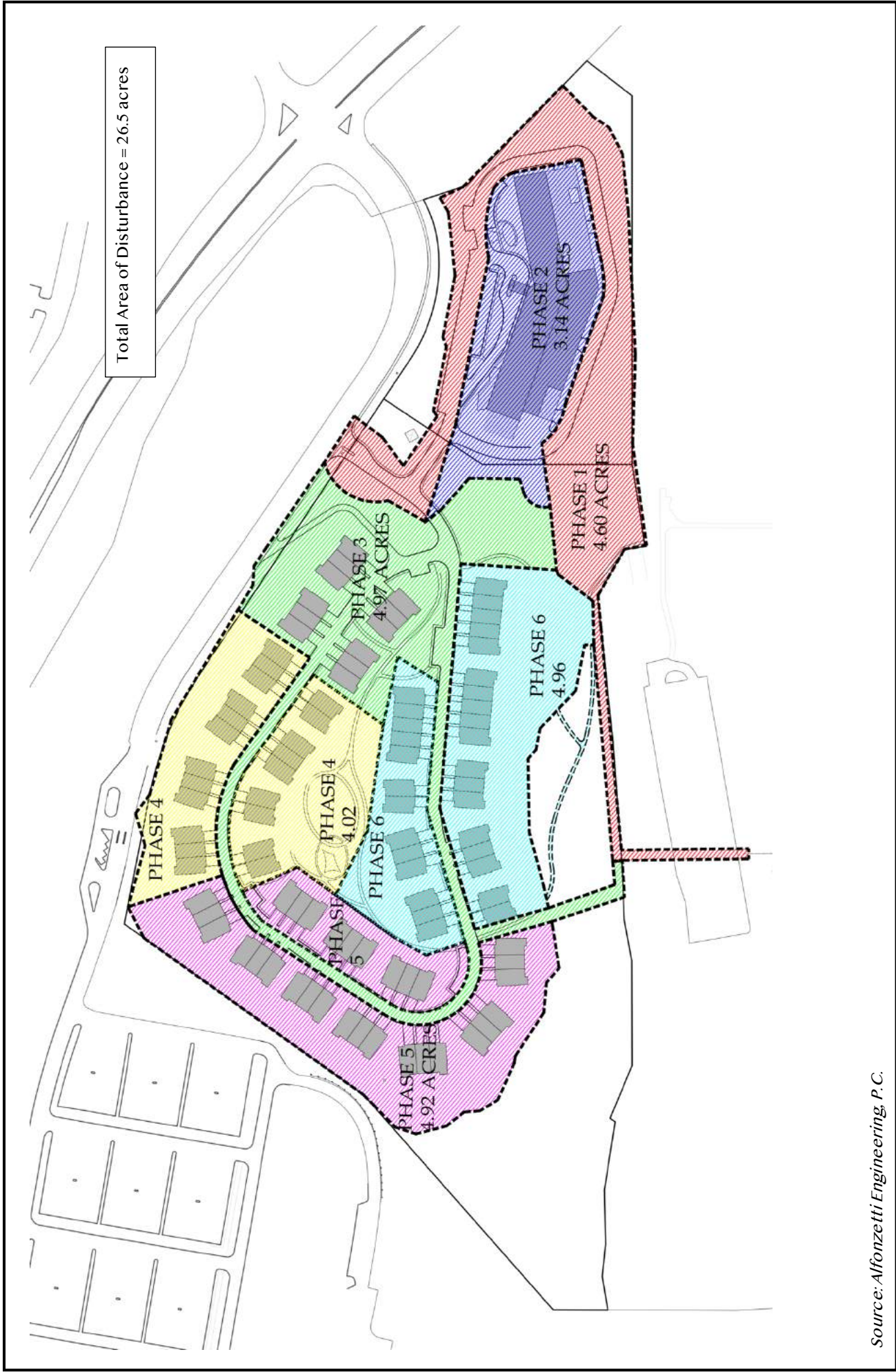
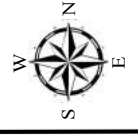
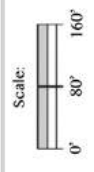


Figure
III-13a



Source: Alfonzetti Engineering, P.C.



Phasing Plan

Figure
III-14

Bar:

The proposed Bar will be adjacent to the restaurant and include 1,842 square feet of total space. With its own separate entrance located at the front of the building, the bar will cater to local residents, apartment tenants, and hotel guests. The Bar will feature 80 seats with a maximum occupancy allowable by code of 123 occupants. The Bar will be open daily from 5pm until midnight during the week, with hours extended slightly on weekends. The Bar will feature a variety of small bar snacks and light food fare with an upscale small plate focus. Beverage services will include a variety of cocktails, wines by the bottle and by the glass and local craft beers. We project an average of 37 unique guests daily to the Bar, with a maximum daily count of 75. We project a total of 4 full time equivalent employees (“FTEs”) to service the Bar – with a maximum number of total FTEs of 8.

Restaurant:

The proposed Restaurant will include 4,156 square feet of total space and will cater to local residents, apartment tenants, and hotel guests. The Restaurant will feature 160 seats with a maximum occupancy allowable by code of 278 occupants. The Restaurant will be open daily from 6am until 10pm during the week, with hours extended slightly on weekends. The Restaurant will be open for breakfast, lunch, and dinner each day. On weekdays, it is expected that breakfast will be heavily dominated by hotel guests and apartment renters, with the restaurant being more popular with local residents for dinner. On the weekends, the restaurant is likely to be a popular spot for both hotel guests and local residents throughout the day, with a focus on Saturday and Sunday brunches.

The proposed menu for the restaurant will be a farm to table focus which emphasizes local upstate New York farmers with an emphasis on small plates. Beverage services will include a variety of cocktails, wines by the bottle and by the glass and local craft beers. We project

an average of 85 unique guests daily to the Restaurant, with a maximum daily count of 125. We project a total of 10 FTEs for the Restaurant – with a maximum number of total employees of 14 at the busiest times.

Lounge:

The proposed Lounge will be adjacent to the restaurant and the hotel lobby and include 2,894 square feet of total space, and would likely feature a piano. The Lounge will cater primarily to apartment tenants and hotel guests but will also be open to the public. The Lounge will feature 75 seats with a maximum occupancy allowable by code of 194 occupants. The Lounge will be open daily from 7am until 11pm each day. In the morning and early afternoon, the Lounge will feature coffee and light pastry service. Later in the day, the Lounge will feature a variety of small bar snacks in addition to full beverage services which will include a variety of cocktails, wines by the bottle and by the glass and local craft beers. We project an average of 3 unique guests daily to the Lounge, with a maximum daily count of 10. We project a total of 3 FTEs for the Lounge – with a maximum number of total employees of 6.

2nd Floor Terrace:

The proposed 2nd Floor Terrace will include 10,828 square feet of useable space in addition to 4,874 square feet of green area. The 2nd Floor Terrace will cater primarily to apartment tenants and hotel guests but will also be open to the public as well for rentals as private events. The 2nd Floor Terrace will feature 150 seats with a maximum occupancy allowable by code of 722 occupants. The 2nd Floor Terrace will be open daily from 5pm until 10pm seasonally and when the weather permits. The 2nd Floor Terrace will feature a similar menu to what is offered in the Lounge and will include a variety of small bar snacks and light fare in addition to full beverage services. Beverage service will include a variety of cocktails, wines by the glass and bottle, and local craft beers. We project an average

of 11 unique guests daily to the Terrace, with a maximum daily count of 35. We project a total of 4 FTEs for the 2nd Floor Terrace – with a maximum number of total employees of 8.

Pool / Outdoor Area Over Parking Garage:

The proposed Pool / Outdoor area will include 12,253 square feet of total space and will cater to apartment tenants, hotel guests and local residents, space permitting. The Pool / Outdoor area will feature 165 seats with a maximum occupancy allowable by code of 433 occupants. The Pool / Outdoor area will be open daily from 8am until 10pm during the week and will generally be open from Memorial Day up through Labor Day. The Pool / Outdoor area will be open for light lunch, and dinner each day. The Pool / Outdoor area will feature elevated grab and go food which will be high-quality but pre-prepared. Beverage services will include a variety of cocktails, wines by the glass and local craft beers. We project an average of 44 unique guests daily to the Pool / Outdoor Area, with a maximum daily count of 50. We project a total of 4 FTEs for the Pool / Outdoor area – with a maximum number of total employees of 8.

Meeting Facilities:

The Eagle Ridge hotel will feature a total of three meeting rooms on the 1st floor which will include a boardroom, ballroom, and junior ballroom. Each of the meeting rooms will feature elevated ceilings and natural light. The Eagle Ridge hotel will be able to attract smaller, high-end group and social business that values comfortable meeting space and technological capabilities. The Ballroom and Junior Ballroom will have more use on weekends catering to weddings, bar mitzvahs, and various fundraisers and events. This is in addition to limited use for corporate meetings and training sessions midweek. We project an average of 17 unique guests daily to the meeting facilities, with a maximum daily count of 210. We project a total of 36 FTEs for the Meeting Space – with a maximum number of total employees of 56.

Boardroom:

The Boardroom will include a total of 1,732 square feet of space, which has a maximum functional capacity of 45 occupants and a maximum capacity allowable by code of 52. The Boardroom will feature state of the art technological capabilities and can be used as a separate breakout space for the ballroom and junior ballroom spaces. The boardroom will also feature a significant amount of natural light.

Ballroom:

The Ballroom will include a total of 4,220 square feet of space, which has a maximum functional capacity of 165 occupants and a maximum capacity allowable by code of 282. The Ballroom will also feature state of the art technological capabilities and a significant amount of natural light. The Ballroom will also be adjacent to an additional 670 square feet of pre-function space.

Junior Ballroom:

The Junior Ballroom will include a total of 2,225 square feet of space, which has a maximum functional capacity of 85 occupants and a maximum capacity allowable by code of 149. The Junior Ballroom will also feature state of the art technological capabilities and a significant amount of natural light. The space will also be adjacent to an additional 670 square feet of pre-function space.

In addition to the facilities described above, the Eagle Ridge Hotel will offer a variety of other services including access to the fitness center, 24-hour business center, valet parking, and a grab and go / sundry shop.

Fitness Center:

The fitness center will include a total of 2,805 square feet of space, which has a maximum functional capacity of 40 occupants and a maximum capacity allowable by code of 75. The fitness center will feature state of the art equipment including a variety of treadmills,

ellipticals, training bikes, and weight machines. The fitness center will be closed to the public and will service only hotel guests and tenants. The fitness facility will be overseen by the hotel maintenance staff.

Business Center:

The business center will include a total of approximately 400 square feet of space, which has a maximum functional capacity of 4 occupants and a maximum capacity allowable by code of 15. The business center will feature state of the art technological equipment including several desktop computers, printing and calling capabilities. The business center will be closed to the public and will service only hotel guests and tenants of the apartment buildings. The business center will be open 24 hours per day and be overseen by the hotel maintenance staff and will be included in an annual fee to all apartment tenants.

Valet Parking:

The Eagle Ridge hotel will offer valet parking for all large events in the meeting space as well as periods of high demand for each of the Food & Beverage outlets. We project a total of 8 FTEs for the valet parking operation – with a maximum number of total employees of 10 for times of peak demand.

Grab and Go / Sundry Shop:

The sundry shop will include a total of 881 square feet of space, which has a maximum functional capacity of 5 occupants and a maximum capacity allowable by code of 15. The outlet will feature a range of food items and potentially a small grab and go component serving beverages, light snacks, sandwiches, and various sundries. We project a total of 3 FTEs to oversee this space, as it will be largely run by the front desk employees.

Parking for the hotel/apartment building will be accommodated within a 241 space, 2-story subterranean parking garage along with 66 surface spaces.

In an effort minimize impacts to the existing landscape, the building works with the surrounding topography. The building has a unique ambience which provides robust natural light with picturesque views.

Brick is utilized as the main façade combined with fiber cement boards, metal and glass to create a sophisticated modern appearance while creating a delicate balance that compliments the natural surroundings.

The hotel rooms and apartments would be configured and distributed throughout the building as depicted in Tables III-1.

| Table III-1 Hotel Rooms | | | | | | | | | | | |
|---------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------------|-----------------|-----------------|-----------|
| | Type A 331 SF | Type B 368 SF | Type C 344 SF | Type D 384 SF | Type E 366 SF | Type F 338 SF | Type G 334 SF | Pres. Suite 1,239 SF | Suite 701 SF | Suite 675 SF | Total |
| 1st Floor | 10 | 6 | 6 | 6 | 3 | | | | | | 31 |
| 2nd Floor | 11 | | 10 | | 3 | 3 | 28 | 1 | 1 | 3 | 60 |
| Total | 21 | 6 | 16 | 6 | 6 | 3 | 28 | 1 | 1 | 3 | 91 |

Source: Aufgang Architects

2.) Lot 1 - Apartments:

The apartment component of the Eagle Ridge development is quite unique. The 70 apartments are incorporated into the same building as the hotel, on the 3rd, 4th and 5th floors. A separate lobby and elevators will provide private and secure access for apartment residents, apart from hotel guests. However, apartment residents will have access to certain of the hotel's amenities such as the gym, bar, lounge, restaurant and grab and go sundry shop.

Over 60% of the proposed apartments are 1-bedroom units. The larger 2-bedroom and 2-bedroom + den units are located at the bend and end of the corridors on floors 3 and 4 and on the 5th (or penthouse) floor. The apartment unit mix is presented on Table III-2.

| Table III-2 Apartments | | | | |
|-----------------------------------|-----------|-----------|-----------------|-----------|
| | 1 Bedroom | 2 Bedroom | 2 Bedroom + Den | Total |
| 3rd Floor | 20 | 1 | 5 | 26 |
| 4th Floor | 20 | 1 | 5 | 26 |
| Penthouse Floor | 4 | 14 | | 18 |
| Total | 44 | 16 | 10 | 70 |

Source: Aufgang Architects

| Table III-2 1 Bedroom Apartments | | | | | | | | | | | | | | | | |
|---|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|-----------|
| | Type A 1034 | Type B 720 | Type C 759 | Type D 682 | Type E 702 | Type F 782 | Type G 741 | Type H 712 | Type I 751 | Type J 1116 | Type K 856 | Type L 674 | Type M 662 | Type N 709 | Type O 709 | Total |
| 3rd Floor | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 4 | 1 | 1 | 2 | | | | | 20 |
| 4th Floor | 2 | | 6 | 4 | | | | | | 1 | 2 | 5 | | | | 20 |
| Total | 4 | 2 | 2 | 8 | 5 | 1 | 2 | 4 | 1 | 2 | 4 | 5 | 1 | 2 | 1 | 44 |

Source: Aufgang Architects

| Table III-3 | | | | | | | | | | | | | |
|-------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------|
| 2 Bedroom Apartments | | | | | | | | | | | | | |
| | Type A 1379 | Type B 1119 | Type C 1271 | Type D 1016 | Type E 1568 | Type F 1045 | Type G 1308 | Type H 1189 | Type I 1236 | Type J 1004 | Type K 1269 | Type L 1515 | Total |
| 3rd Floor | 1 | | | | | | | | | | | | 1 |
| 4th Floor | 1 | | | | | | | | | | | | 1 |
| Pent- house Floor | | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 14 |
| Total | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 16 |

Source: Aufgang Architects

| Table III-4 2 Bedroom + Den Apartments | | | | | | | | |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------|
| | Type A 1456 SF | Type B 1496 SF | Type C 1362 SF | Type D 1499 SF | Type E 1378 SF | Type F 1379 SF | Type G 1417 SF | Total |
| 3 rd Floor | 1 | 1 | 1 | 1 | 1 | | | 5 |
| 4 th Floor | | | 1 | 1 | 1 | 1 | 1 | 5 |
| Penthouse Floor | | | | | | | | |
| Total | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 10 |

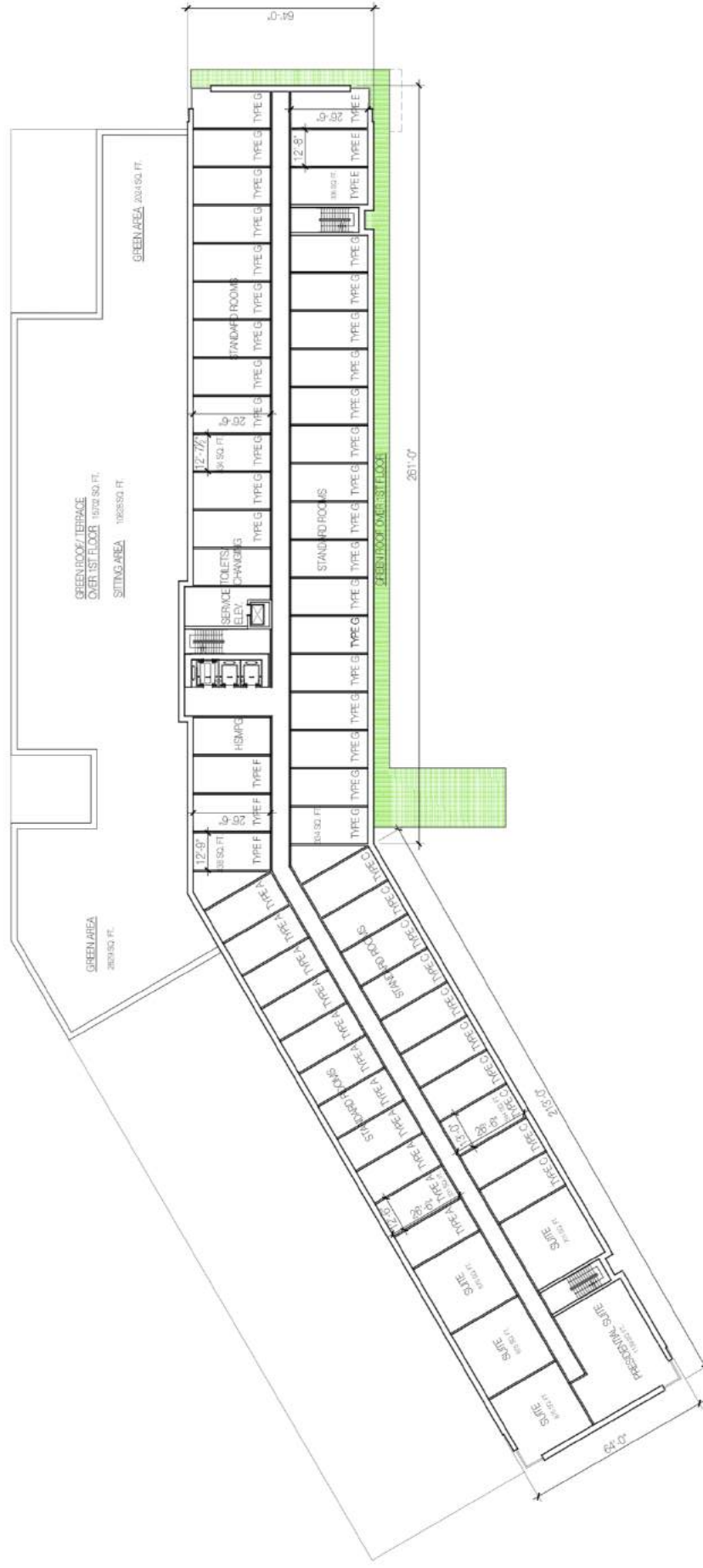
Source: Aufgang Architects

Figures III -15 – III-19 provide floor plans for the building. Figures III-20 -22 provide renderings of the southwest, west and east elevations of the proposed building.

In accordance with Town's Affordable Affirmatively Furthering Fair Housing (AFFH) requirements as set forth as Section 213.33 I of the Town Code, 10% of the apartments, or 7 units will be established as AFFH units. The affordable AFFH units shall be physically integrated into the design of the apartment portion of the building and shall be distributed among various sizes (one-, two, and two bedroom plus den units) in the same proportion as all other units in the development. The affordable AFFH units shall not be distinguishable from other market rate units from the outside or building exteriors or from interior corridors. Interior finishes and furnishings may be reduced in quality and cost to assist in the lowering of the cost of development of the affordable AFFH units.

3.) Lot 2 – Townhouses:

Lot 2, the southern 26.25-acre parcel would be developed to support 94 townhouses. 30 buildings containing between 2 and 5 townhomes each would be situated in a double-loaded configuration along the loop road around a central “village green.” The units would be designed to include 3 bedrooms. Individual garages and driveways will accommodate off-street



Source: Aufgang Architects

Scale: N.T.S.



2nd Floor Plan

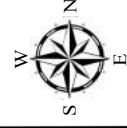
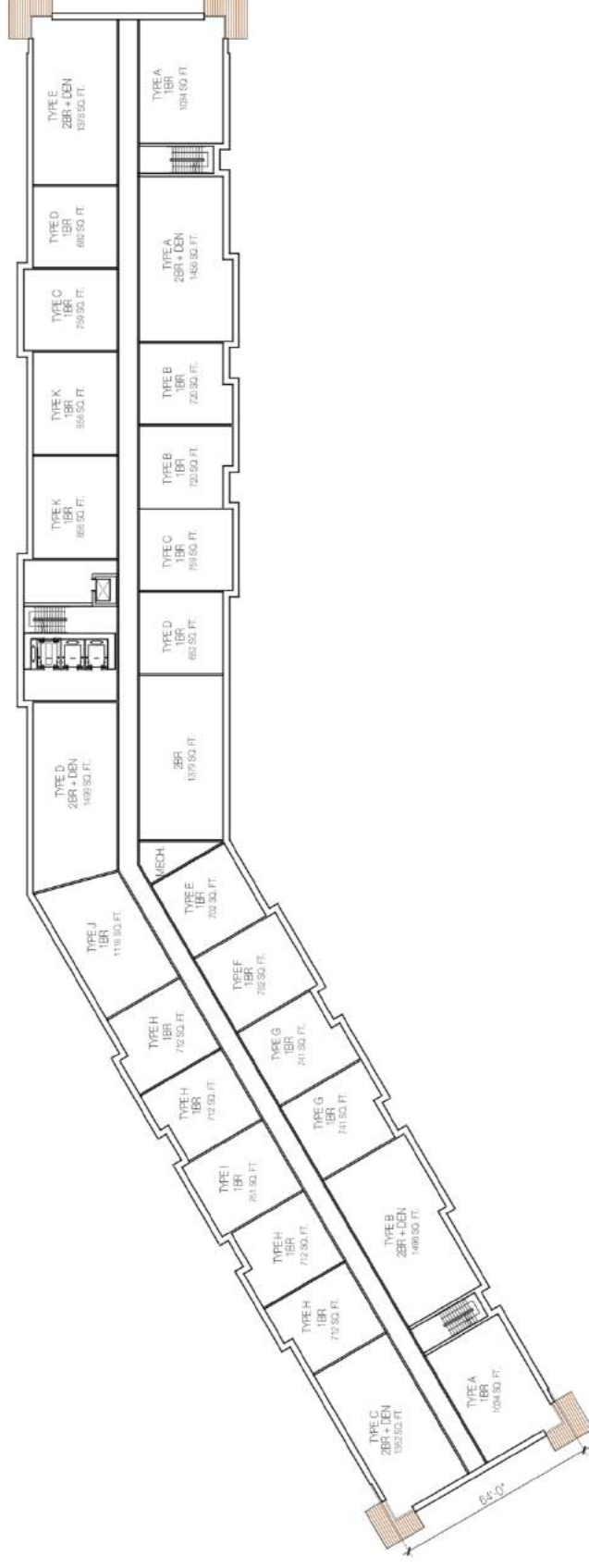


Figure
III-16



Source: Aufgang Architects

Scale: N.T.S.



3rd Floor Plan

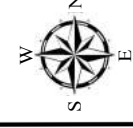
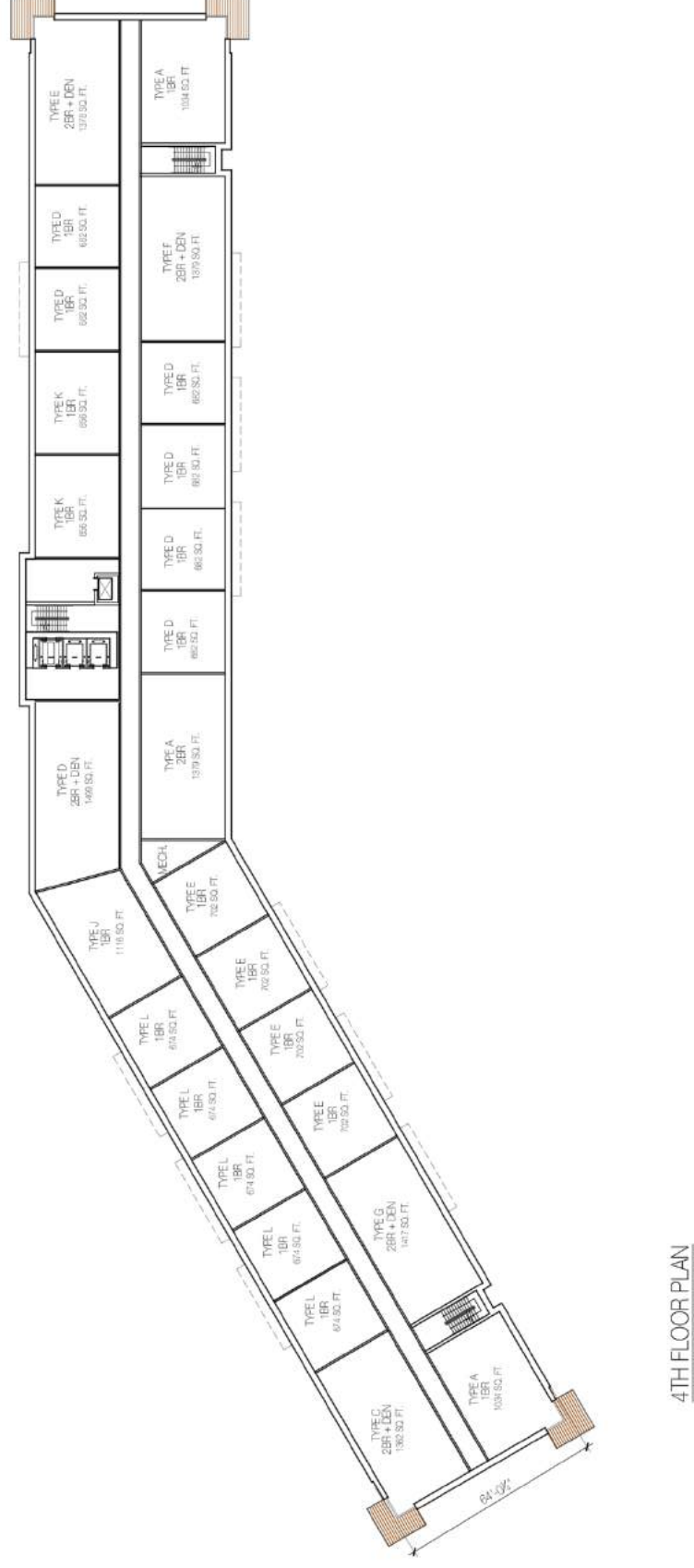
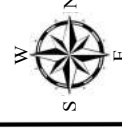


Figure
III-17



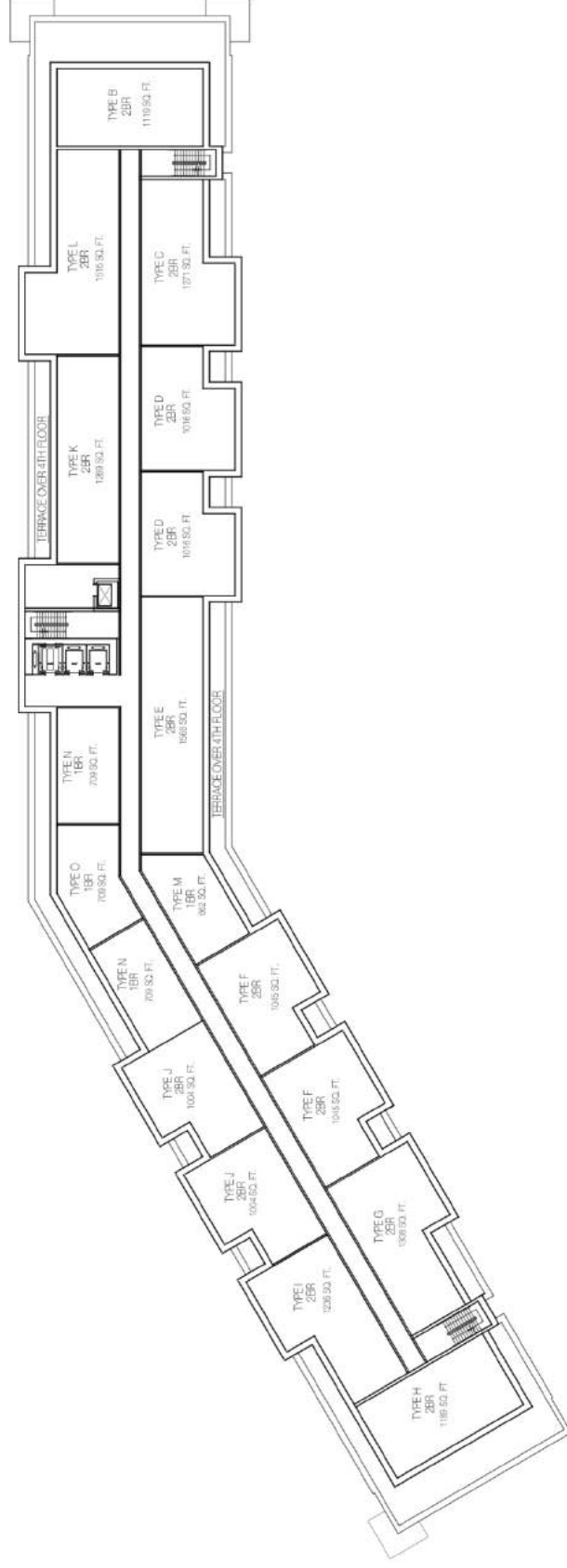
Source: Aufgang Architects

Scale: N.T.S.



4th Floor Plan

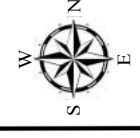
Figure III-18



PENTHOUSE FLOOR PLAN

Source: Aufgang Architects

Scale: N.T.S.



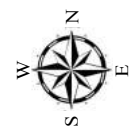
Penthouse Floor Plan

Figure III-19



Source: Aufgang Architects

Scale: N.T.S.

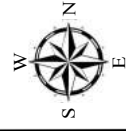


Southwest Elevation Rendering



Source: Aufgang Architects

Scale: N.T.S.



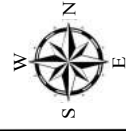
East Elevation Rendering

Figure
III-21



Source: Aufgang Architects

Scale: N.T.S.



West Elevation Rendering

Figure
III-22

parking. Additional guest parking is provided on the northern side of the parcel. The units would be located within terraces that step up the side of the hill toward North Castle Drive. Fundamental to the design of the townhouse site is the open space and recreation plan described above. Figures III-23 – III -29 provide a rendering, floor plans and elevations of the proposed townhouses.

In accordance with Town's Affordable Affirmatively Furthering Fair Housing (AFFH) requirements as set forth as Section 213.33 I of the Town Code, 10% of the townhouses, or 9 units will be established as AFFH units. The affordable AFFH units shall be physically integrated into the design of the townhouse site and shall be distributed throughout the development. The affordable AFFH units shall not be distinguishable from other market rate units from the outside or building exteriors. Interior finishes and furnishings may be reduced in quality and cost to assist in the lowering of the cost of development of the affordable AFFH units.

In total, Eagle Ridge includes 323,813 square feet of net floor area for all the proposed uses, as summarized in Table III-5.

| Table III-5 Eagle Ridge Net Floor Areas | |
|--|--------------------|
| Use | Net Square Footage |
| Hotel | |
| Guest Rooms | 33,494 |
| Amenity Space | 39,081 |
| Apartments | |
| 1 Bedroom | 33,738 |
| 2 Bedroom | 20,367 |
| 2 Bedroom + Den | 14,226 |
| Townhouses | |
| Bristol | 56,500 |
| Vassar | 60,632 |
| Bucknell | 65,775 |
| Total | 323,813 |

To accommodate the proposed Action, modifications to the existing OBH zoning regulations are necessary. These modifications involve allowing multi-family dwellings on the upper floors of a hotel building, as well as modifications to the OBH dimensional regulations. Table III-5 presents the existing OBH dimensional regulations, the proposed modifications and the Project's compliance with the modified zoning provisions for the Lot 1 development of the hotel/apartment building.

| Table III-6 Existing and Proposed OBH Zoning - and Lot 1 Project Compliance | | | |
|--|------------------|------------------|---------------------|
| | OBH Existing | OBH Proposed | Eagle Ridge |
| Minimum Lot Area | 20 acres | 5 acres | 6.25 |
| Frontage | 500' | 350' | 427.4' |
| Lot Depth | 500' | 300' | 344' |
| Front Yard | 150' | 100' | 137.9' |
| Side Yard | 300' | 40' | 56.6' |
| Rear Yard | 300' | 50' | 65.9' |
| Maximum Building Coverage | 10% | 30% | 23.50% |
| Floor Area Ratio | 0.12 | 0.70 | 0.63 |
| Maximum Building Height | 3 stories 45' | 5 stories 75' | 5 stories 71.67' |

The Proposed Action also involves rezoning the 26.25-acre Lot 2 parcel from the existing OBH to the R-MF-A zoning district. Table III-7 presents the Project's compliance with the RM-F-A zoning provisions for the Lot 2 development of the townhouses.

| Table III-7 RM-F-A Zoning - and Lot 2 Project Compliance | | |
|---|-----------------------|-------------------------|
| | RM-F-A Requirement | Eagle Ridge Proposed |
| Minimum Lot Area | 5 acres | 26.25 acres |
| Frontage | 25' | 1,117.7' |
| Lot Width | 250' | 913' |
| Lot Depth | 250' | 738.2' |
| Front Yard | 10' | 48.7' |
| Side Yard | 10' | 63' |

| | | |
|---------------------------|------------------|-------------------|
| Rear Yard | 25' | 181.4' |
| Maximum Building Coverage | 20% | 15.30% |
| Maximum Building Height | 3 stories 30' | 3 stories <30' |

The Proposed Action fully complies with the proposed amended OBH zoning regulations, as well as the RM-F-A zoning district regulations.

D.) Project Purpose, Need & Benefits:

The Proposed Action represents the development of a vacant and underutilized parcel of land in a manner that is wholly consistent with the long-term vision of the community as articulated in the recently adopted Comprehensive Plan, as well as with existing and anticipated market trends.

The Town prudently recognized these market trends and the practical development potential of the Project Site, and in 2010 rezoned the Site from OB – Office to OB-H – Office Business Hotel, allowing for the development of hotels pursuant to the requirements of §355-30 G.

Section 9.3 of the Comprehensive Plan embeds this land use into the long-term vision for the community by stating:

“Thus sufficient demand appears to exist for at least two small hotels or one large hotel in North Castle.”¹

In addressing the potential for an additional hotel, the Comprehensive Plan also states:

“Adding a hotel together with limited new residential uses, would increase downtown Armonk’s potential customer base....”²

¹ Town of North Castle Comprehensive Plan, page 119.

² Town of North Castle Comprehensive Plan, page 121.

This provision references several recommendations in the Comprehensive Plan that speak to creating more varied housing choices throughout the Town. This policy is summarized in the Housing section of the Plan:

“While North Castle today is mostly defined by its attractive low-density residential neighborhoods, offering a greater variety of housing types could help the Town to retain Baby Boomers in retirement and attract younger people who wish to stay but cannot afford a single-family home. An efficient approach to greater variety of housing would prioritize attractive multi-family options in locations that maximize access to the community assets that make the Town so attractive, with a focus on targeted infill development in appropriate locations.”³

After careful market study and evaluation, the Applicant has embraced the overall vision for the Site as articulated by the Town, and has developed the Eagle Ridge project accordingly. The Proposed Action has been refined to specifically reflect market conditions in the following ways.

While it does appear that there is space in the market for the construction of additional hotel inventory, the Comprehensive Plan significantly overestimates the number of new guestrooms that could be financially supported in the market.

It is the opinion of the Applicant that the most viable project represents a mixed-use development combining a boutique hotel that caters to the upscale nature of the surrounding area and provides a new neighborhood amenity for local residents, with compatible residential use.

The local corporate market does not warrant the addition of a large full-service hotel, but a void presently exists in serving the travel needs of local corporations' upper-level executives. A smaller, boutique hotel would be well-positioned to fill this void and capture higher-rated demand that is currently being displaced to other hotels in the region. Furthermore, leisure demand in the market is not significant enough to sustain a larger property, particularly given the inferior

³ Town of North Castle Comprehensive Plan, page 99.

nature of public transit options in North Castle and more difficult accessibility to New York City when compared to other areas of Westchester County. A smaller boutique hotel could be sustained in non-corporate demand periods however, by the social catering and events needs generated by the local affluent residents.

In considering the range of residential housing options to supplement the boutique hotel, the Town's articulated objective of providing a greater variety of housing types proved persuasive. The Comprehensive Plan clearly identifies the demographic realities facing the Town – an ageing population (the 50+ cohort grew by 31.4%) and an emerging young population concentrated in Armonk and North White Plains. The existing lack of alternative housing options will clearly impede retaining existing older residents who wish to downsize from their single-family homes, yet remain in North Castle, as well as for younger people just entering the housing market that are either priced-out, or as is becoming more prevalent, are simply unable find housing choices that suit their needs and preferences.

Eagle Ridge combines two housing types into a single project, offering for-sale townhouses and rental apartments, thus meeting a broad range of community housing needs. Integrating these residential uses with a boutique hotel creates a unique and innovative solution to implementing the Town's vision for the Site.

E.) Approvals:

Pursuant to the provisions of SEQRA, Involved Agencies are those agencies which have an approval authority in conjunction with the Proposed Action. Interested Agencies are those other agencies that have some interest in the Proposed Action, but not a direct approval role. Project reviews and approvals by Involved Agencies and reviews by Interested Agencies are identified in Table III-8, below.

| Table III-8 Project Reviews and Approvals | |
|--|--|
| Involved Agency | Approval/Review |
| Town of North Castle | |
| Town Board | <ul style="list-style-type: none"> ▪ SEQRA review and adoption of Findings ▪ Zoning map change (OBH to R-MF-A) ▪ Zoning text amendment (OBH zone) |

| | |
|--|---|
| Planning Board | <ul style="list-style-type: none"> ▪ Zoning map and text amendment referral and recommendation ▪ Site Plan approval ▪ Subdivision approval |
| Architectural Review Board | <ul style="list-style-type: none"> ▪ ARB approval |
| Conservation Board | <ul style="list-style-type: none"> ▪ Recommendation |
| Building & Engineering Department | <ul style="list-style-type: none"> ▪ SWPPP ▪ Building Permits |
| Water & Sewer Departments | <ul style="list-style-type: none"> ▪ Water service connection ▪ Sanitary sewer service connection |
| Westchester County | |
| Health Department | <ul style="list-style-type: none"> ▪ Sanitary sewer and water supply approval |
| Planning Board | <ul style="list-style-type: none"> ▪ 239-m referral |
| New York State | |
| Department of Environmental Conservation | <ul style="list-style-type: none"> ▪ SWPPP |
| Parks Recreation & Historic Preservation | <ul style="list-style-type: none"> ▪ Cultural resources review |
| Department of Transportation | <ul style="list-style-type: none"> ▪ Right-of-Way Work Permit |

The list of Involved and Interested Agencies for the Proposed Action include:

Lead Agency:

Town of North Castle Town Board
15 Bedford Road
Armonk, New York, 10504

Involved Agencies:

Town of North Castle Planning Board
17 Bedford Road
Armonk, New York, 10504

Town of North Castle Architectural Review Board
17 Bedford Road
Armonk, New York, 10504

Town of North Castle Conservation Board
17 Bedford Road
Armonk, NY 10504

Town of North Castle Building Inspector
17 Bedford Road
Armonk, NY 10504

Town of North Castle Recreation Superintendent
40 Maple Avenue
Armonk, NY 10504

Town of North Castle Highway Superintendent
17 Bedford Road
Armonk, NY 10504

Town of North Castle Department of Sewer & Water
115 Business Park Drive
Armonk, NY 10504

Town of North Castle Open Space Committee
17 Bedford Road
Armonk, NY 10504

Westchester County Planning Board
Westchester County Department of Planning
148 Martine Avenue, Room 432
White Plains, New York 10601

Westchester County Department of Health
25 Moore Avenue
Mount Kisco, New York 10549

New York State Department of Environmental Conservation
21 South Putt Corners Road
New Paltz, New York 12561

New York State Department of Environmental Conservation
625 Broadway
Albany, New York, 12207

New York State Office of Parks Recreation and Historic Preservation
HP Field Services Bureau
Peebles Island
P.O. Box 189
Waterford, New York, 12188

New York State Department of Transportation
SEQR Unit, Traffic Engineering & Safety Division
4 Burnett Blvd.
Poughkeepsie, New York 12603

Interested Agencies:

Town of North Castle Police Department
15 Bedford Road
Armonk, New York, 10504

Armonk Fire Department
400 Bedford Road
Armonk, New York, 10504

Byram Hills Central School District
10 Tripp Lane
Armonk, New York 10504

Manager, Mid-Hudson Valley Regional Site Operations
International Business Machines Corporation

1 North Castle Drive
Armonk, NY 10504
Attn: Stephen Milkovich

Notices Only:

Environmental Notice Bulletin – Environmental Permits (enb@dec.state.ny.us)

Chapter IV. A.

Land Use & Zoning

IV. A. LAND USE AND ZONING

INTRODUCTION

This section of the DEIS evaluates the potential impacts of the Eagle Ridge development on existing patterns of land use in and around the Project Site. This section also compares the Proposed Action to the recommendations for the Site and surrounding area as set forth in the Town of North Castle Comprehensive Plan. The Proposed Action will also be evaluated to document compliance with OBH – Office Business Hotel zoning district governing the Site.

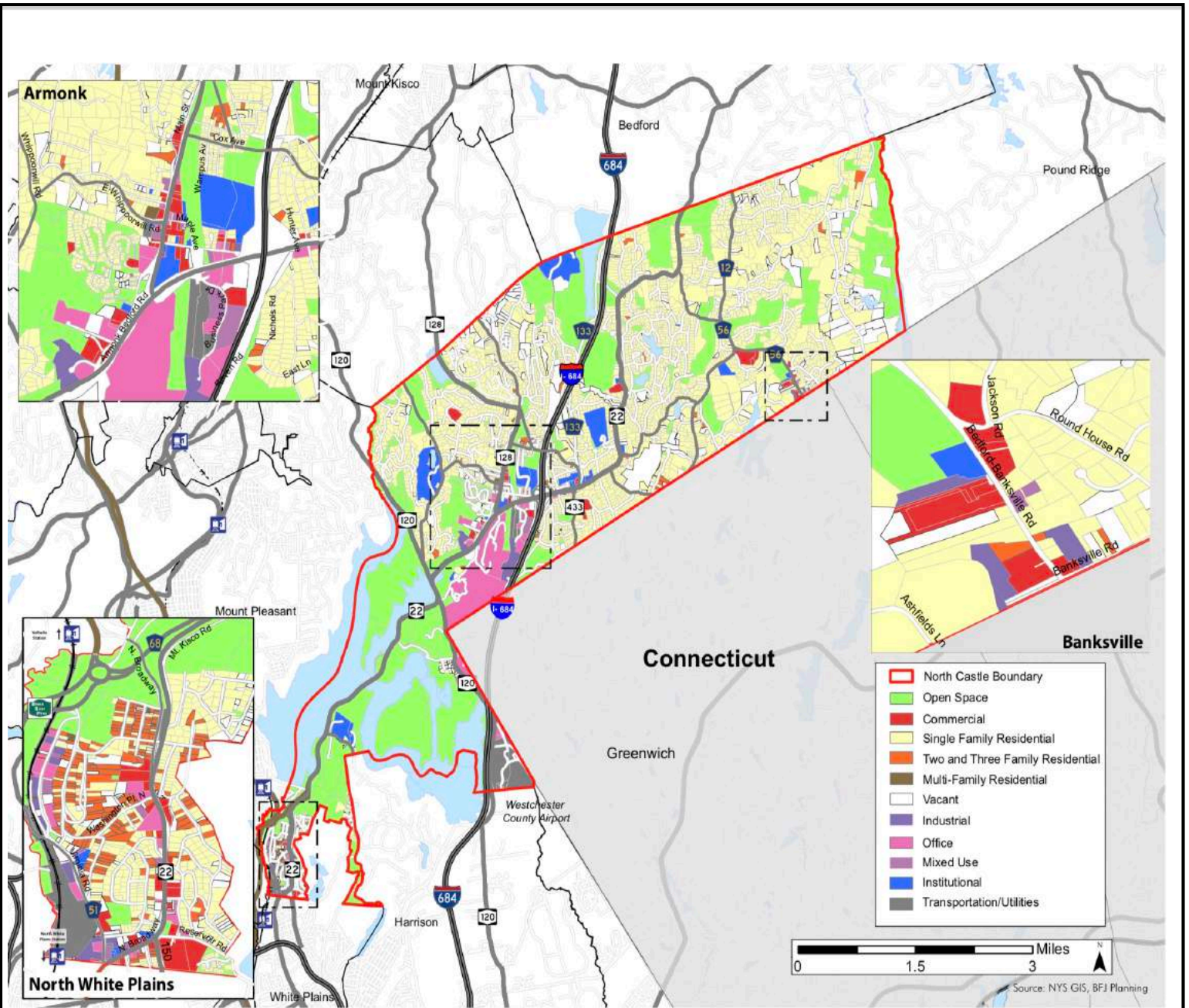
1.) EXISTING CONDITIONS

(a.) Land Use

The 32.5-acre Project Site is currently vacant, wooded and primarily undeveloped. Improvements on the Site consist of a concrete pad, formerly used as a helipad for IBM, portions of driveways serving the IBM site, as well as the remains of an asphalt driveway that runs from the main access road down to the rear of Community Park. A through connection to the park no longer exists.

The Project Site lies in a transitional location between a number of significant land uses in the Town of North Castle. The Land Use Map included in the recently adopted Comprehensive Plan (Figure IV.A-1) classifies the Site as an “Office” use, which as part of the IBM campus, was an accurate classification. Upon the sale of the property to the current owner however, that existing land use classification no longer applies, and the Site would be more accurately classified as “Vacant.”

Figure IV.A-2 (Existing Land Use Surrounding the Site) depicts the diversity of the surrounding land use. The Project Site is bounded by the IBM corporate campus to the south (office), Community Park to the east (open space), and the hamlet of Armonk to the north (commercial, office and institutional uses).



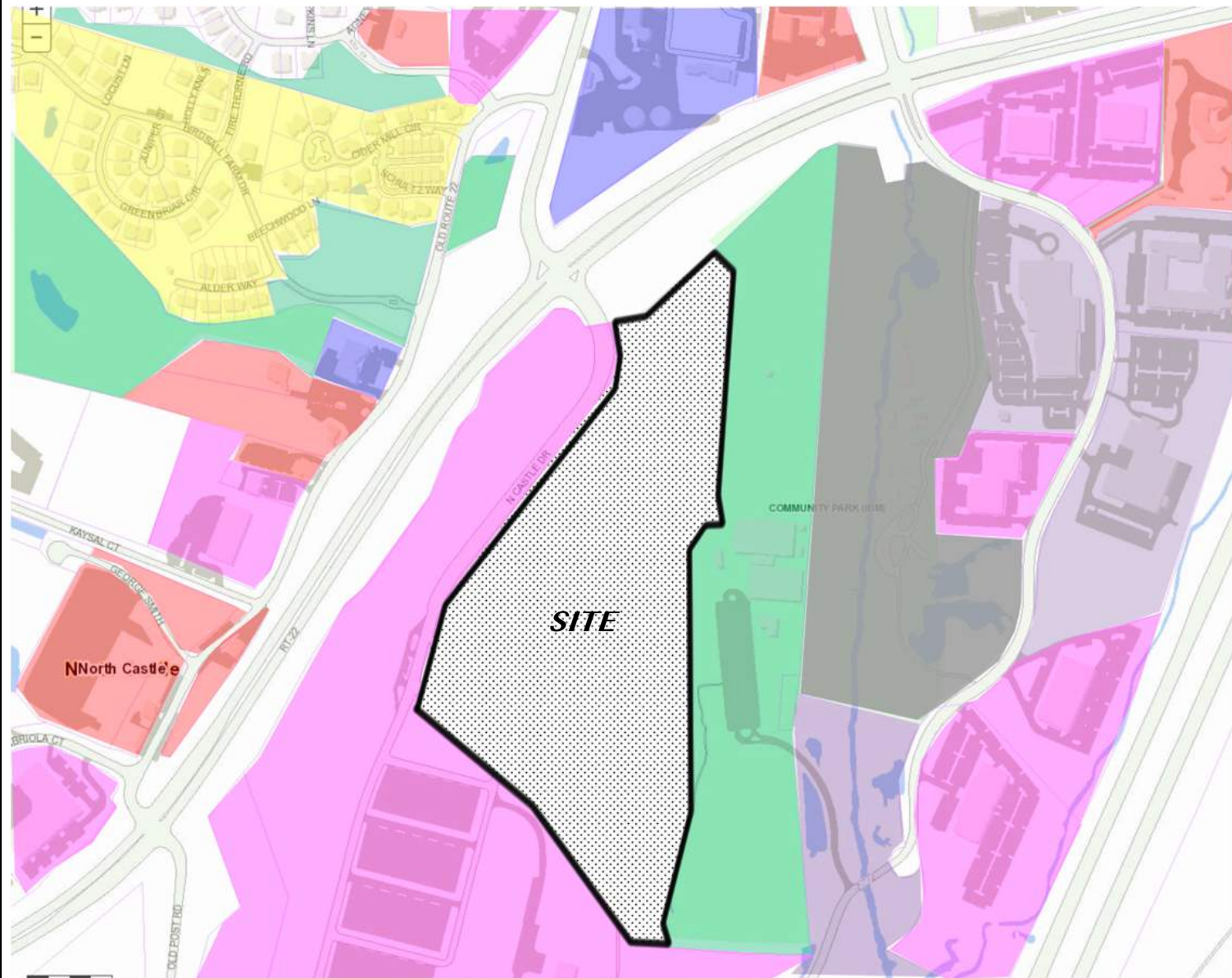
Source: Town of North Castle Comprehensive Plan

Scale: As Shown

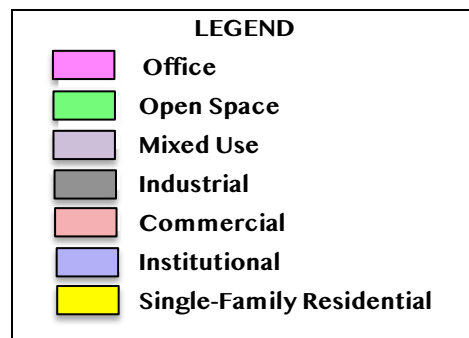
Comprehensive Plan **Existing Land Use Map**



Figure
IV.A-1



Source: Cleary Consulting



Scale: N.T.S.

Existing Land Use Surrounding the Site



Figure
IV.A-2

Figure IV.A-3 (Existing Land Use Within ½ Mile) documents how diverse the land use is in the general vicinity of the Project Site. Within this radius land uses include the Town's sewage treatment facility, the various uses along Business Park Drive, including office buildings, the La Quinta Inn and Suites hotel, a health club, medical facilities, warehousing uses, and The Bristol assisted living facility. To the north lies the Armonk Hamlet Center and its retail, office, service, and restaurant uses. To the west are the commercial uses along Route 22, backed by residential uses and the Betsy Sluder Nature Preserve. The IBM corporate campus borders the Project Site to the south. This area exhibits perhaps the most diverse array of land uses in close proximity to each other, in any area of the Town of North Castle.

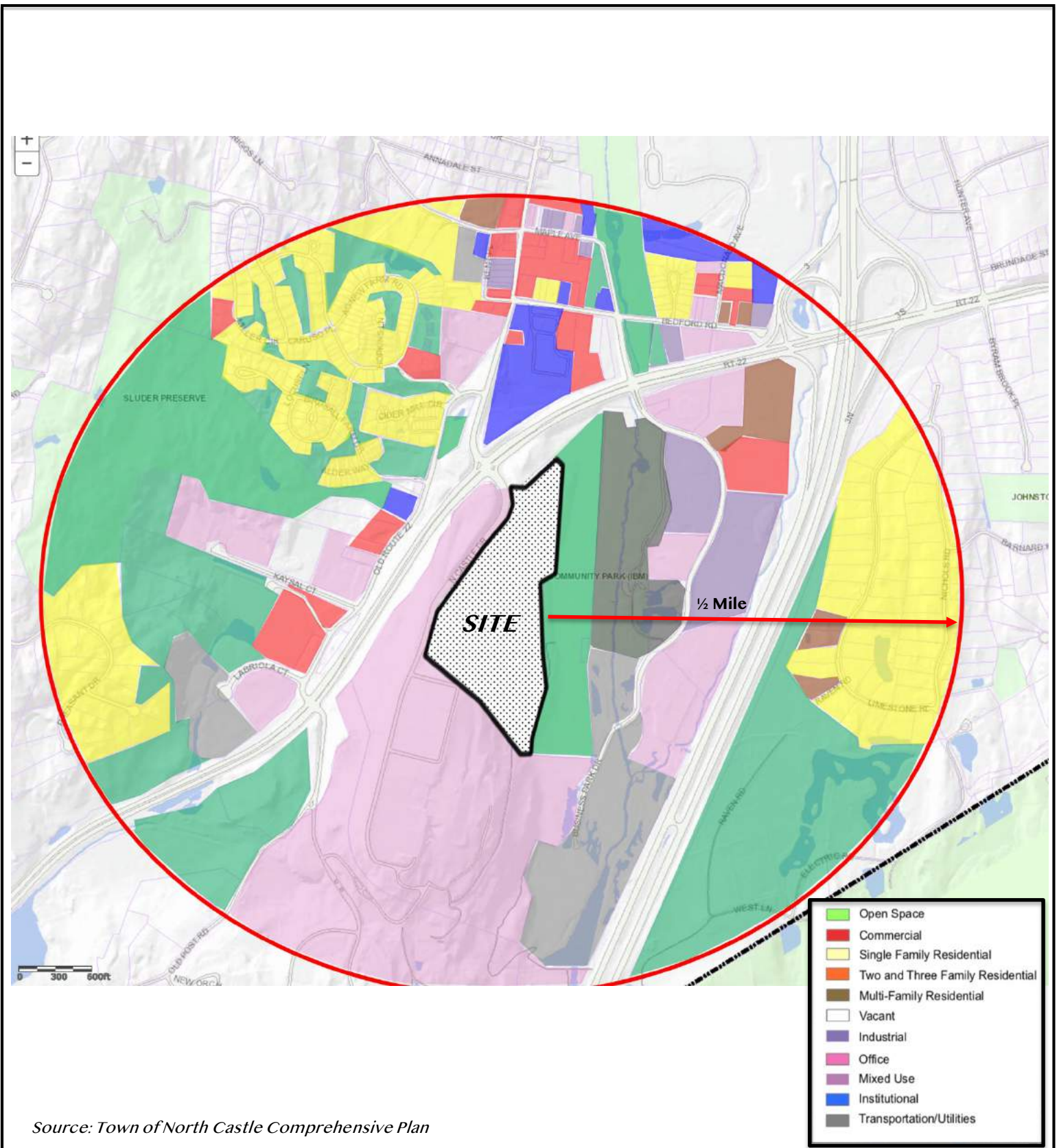
(b.) History of the Land Use of the Project Site

The Project Site was purchased from IBM by the Project Sponsor in August of 2017. Prior to that date, and as reflected on the Town's Land Use Map (Figure IV. A – 1) the Site was classified as an Office use, as it was part of the larger IBM corporate campus. Today the Project Site is vacant and undeveloped.

As more fully documented in Chapter IV. L, the Site was used for agricultural purposes since colonial times. In the 18th and 19th centuries, it was known as the Cornell-Birdsall farm. In the 1920's a prominent New York banker, Cornelius Agnew purchased 600 acres that included the Site and surrounding area and named the estate Wenga Farm. The Cornell-Birdsall farm buildings, which were located on the Project Site, housed the estate superintendent and supported the farm operation. A large estate house was built on the property where the former IBM headquarters building is now located. Wenga Farm was expanded to include a large apple, pear and peach orchard. As depicted on Figure IV.A – 4 through IV.A-10 (Historical Aerial Photographs), the majority of the Project Site was used as an orchard. Wenga farm remained as a working farm and orchard until the 1950's when it was sold to IBM in 1955.

(c.) IBM Use of the Project Site

IBM spent nine years planning and constructing their corporate headquarters facility. This work included relocating the Cornell-Birdsall farmhouse to the





Source: Westchester County GIS Service Center

Scale: N.T.S.



Historical Aerial Photographs

1926



Figure
IV.A-4



Source: Westchester County GIS Service Center

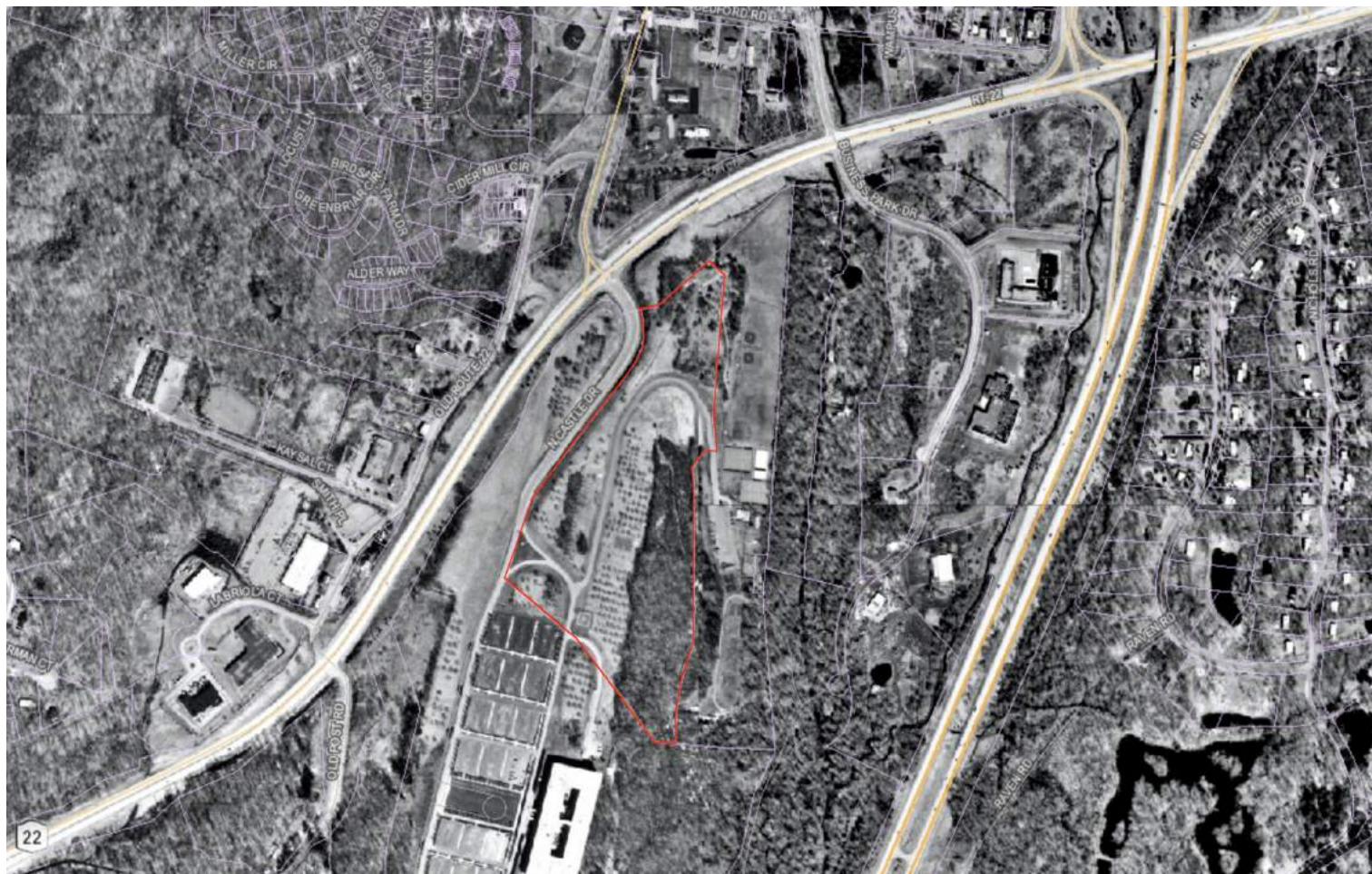
Scale: N.T.S.



Historical Aerial Photographs1960



Figure
IV.A-6



Source: Westchester County GIS Service Center

Scale: N.T.S.



Historical Aerial Photographs

1976



Figure
IV.A-7

Armonk Hamlet Center in the mid 1960's (today, the Town Hall Annex), the construction of North Castle Drive, and the demolition of the Agnew mansion and all the farm buildings.

As part of the IBM campus, the majority of the Project Site was never used to support the larger office use. A paved helipad and access driveway located in the southwest corner of the Site and portions of driveways were the only improvements constructed on the Site. The balance of the Site, or approximately 31 acres (97% of the Site) have been in its current vacant and undeveloped condition since approximately the 1960's when IBM ceased maintaining the remaining apple orchard.

In 1996 IBM subdivided the property to create 4 lots:

- Lot A – Former IBM headquarters building – 132.5 acres
- Lot B – Corporate Headquarters and Learning Center – 211 acres
- Lot A-1 – Donated to the Town of North Castle for recreation purposes – 23.27 acres
- Lot A-2 – IBM's former water supply wells (subsequently donated to the Town) – 0.24 acres

In 2010, IBM further subdivided Lot A into two lots:

- Lot A-3 – Former headquarters building – 114.1 acres
- Lot A-4 – the Project Site, sold to the Applicant in August of 2017 – 32.5 acres.

Upon the subdivision of Lot A, the Town Board rezoned the property from OB to OBH, to allow for the development of an as-of-right hotel.

(d.) History of North Castle Community Park:

In 1996, IBM received approval from the Town of North Castle to subdivide it's 367.93-acre main parcel to permit the construction of a new headquarters building. As a condition of that subdivision approval, IBM was required to

donate both Lot A-1 and Lot A-2 to the Town of North Castle. Lot A-2 now contains the water wells for Water District #4, and Lot A-1, which formerly supported recreational facilities for IBM employees, was developed by the Town as Community Park.

(e.) Comprehensive Plan Recommendations

In April of 2018, the Town of North Castle adopted its current Comprehensive Plan, superseding the last plan adopted in 1996. The Plan was prepared under the direction of the Comprehensive Plan Steering Committee and the Town's Director of Planning with the professional assistance of BFJ Planning, Urbanomics and Kellard Sessions Consulting, P.C., and pursuant to an extensive public participation and engagement process. The Comprehensive Plan establishes a clear vision for the future of the Town, and offers a number of specific recommendations regarding the Project Site and the Proposed Action.

Most notably, prior to the adoption of the Comprehensive Plan, in 2010 the zoning of the Project Site was modified from OB – Office Business, to OB-H – Office Business Hotel, allowing for the development of hotels pursuant to the requirements of §355-30 G. Section 9.3 of the Comprehensive Plan embeds this land use into the long-term vision for the community by stating:

“Thus sufficient demand appears to exist for at least two small hotels or one large hotel in North Castle.”¹

In addressing the potential for an additional hotel, the Comprehensive Plan also states:

“Adding a hotel together with limited new residential uses, would increase downtown Armonk’s potential customer base....”²

¹ Town of North Castle Comprehensive Plan, page 119.

² Town of North Castle Comprehensive Plan, page 121.

This provision references several recommendations in the Comprehensive Plan that speak to creating more varied housing choices throughout the Town. This policy is summarized in the Housing section of the Plan:

“While North Castle today is mostly defined by its attractive low-density residential neighborhoods, offering a greater variety of housing types could help the Town to retain Baby Boomers in retirement and attract younger people who wish to stay but cannot afford a single-family home. An efficient approach to greater variety of housing would prioritize attractive multi-family options in locations that maximize access to the community assets that make the Town so attractive, with a focus on targeted infill development in appropriate locations.”³

Additionally, Section 8.7 sets forth a series of specific Growth, Development and Housing recommendations; including:

- 3. “The Town should encourage residential development that is compatible in scale, density, and character with its neighborhood and natural environment.*
- 4. Guide multi-family housing toward the most walkable areas and places where public water and sewer are already available. The highest residential density should continue to be located in hamlet areas that have the necessary supporting infrastructure: Armonk and North White Plains. Banksville and the Eastern District are not served by such infrastructure and should thus maintain a lower density.*
- 5. Explore opportunities to provide housing for the Town’s senior population.*
- 6. Increase housing opportunities that respond to North Castle’s changing population, including young adults, through infill*

³ Town of North Castle Comprehensive Plan, page 99.

development in strategic locations with accessible infrastructure, such as the Armonk and North White Plains business areas.

- 7. Explore options to rezone business and office parks in order to create opportunities for infill mixed use residential development where office uses have become, or could become, obsolete. These locations could include the business park, the former MBIA site, Old Route 22 and Mariani Gardens, areas where affordable housing for smaller households will minimize traffic and parking impacts. Additional residential uses in these areas can also help to support Armonk businesses.*⁴

The Comprehensive Plan also included a build-out analysis that was prepared by the Westchester County Department of Planning. This analysis calculated that under full-build-out under existing zoning, the Town would see an additional 644 dwelling units and 338,169 square feet of additional commercial space. However, no build-out potential was assigned to the Subject Site.

(f.) Westchester County Comprehensive Planning Recommendations

Westchester 2025:

The Westchester County Planning Board supports long range comprehensive planning in several ways. In 2006, the County created Westchester 2025, which is a web-based tool that municipalities can use to support their planning efforts and to create a unified vision for the County as a whole. While Westchester 2025 does not provide specific recommendation, as did Patterns, it did update the general policies that afford guidance to municipalities. The policies are:

1. Channel development to centers.
2. Enhance transportation corridors.
3. Assure interconnected open space.
4. Nurture economic climate.

⁴ Town of North Castle Comprehensive Plan, page 100.

5. Preserve natural resources.
6. Support development and preservation of permanently affordable housing
7. Support transportation alternatives.
8. Provide recreational opportunities to serve residents.
9. Protect historical and cultural resources.
10. Maintain utility infrastructure.
11. Support vital facilities.
12. Engage in regional initiatives.
13. Define and protect community character.
14. Promote sustainable technology.
15. Track and respond to trends.

Westchester 2025 also conducted a full build-out analysis for North Castle, an analysis that was only conducted for a handful of municipalities. As noted above, that analysis revealed that over the next 50 years, the Town would add 644 dwelling units and 338,169 square feet of additional commercial space based on the existing zoning.

Patterns for Westchester: The Land and the People:

Patterns was an ambitious plan that focused County-wide land use into centers, corridors and open spaces. By establishing a series of strategies, *Patterns* targeted intensive development into the Centers, and restructured development along the Corridors, while effectively preserving the Open Spaces.

Within the vicinity of the Project Site, the Armonk business district was established as a *Local Center*.

Regional Plan Association - 4th Regional Plan:

Earlier this year, the Regional Plan Association issued its 4th Regional Plan for the New York Metropolitan Area. The Plan is a sweeping initiative that tackles the region's most entrenched challenges and offers high-level and often very

detailed recommendations on how to address those challenges. The Plan is organized around four core values:

- Equity
- Health
- Prosperity
- Sustainability

While most topics in the Plan only tangentially affect North Castle (Rebuild the NYC subway system, combine the regions three rail systems into a single network, Address climate change, etc.), the Plan does point out with concern the trend that has gained momentum in the last 20 years of reversing suburban growth, and the movement of housing and jobs back to the region's urban centers. The Plan emphasizes the need to diversify and expand housing opportunities in suburban areas, such as the Town of North Castle. Absent this diversification, suburban housing prices will continue to skyrocket, and populations will shift, leaving suburban areas unable to fund necessary municipal services.

Bronx River Watershed Management Plan:

Issued in 2007, the goal of the plan is to improve the water quality of the Bronx River and its tributaries by controlling the volume of polluted stormwater runoff. The plan provides recommendations for installing infrastructure capable of treating polluted stormwater, natural resource restoration and public education and outreach.

Four sites in North Castle are called out as pollution "hotspots" however, none are in the vicinity of the Project Site. No specific recommendations are offered for the Site itself.

Hudson River Valley Greenway:

The Hudson River Valley Greenway is a voluntary regional cooperation among 242 communities within 13 counties bordering the Hudson River. It was created to facilitate a regional strategy for preserving scenic, natural, historic, cultural and recreational resources while encouraging compatible economic development and maintaining the tradition of home rule for land use decision

making. To help implement this program, *The Greenprint for a Sustainable Future... the Westchester Way*, was prepared by the County Planning Department in 2004. This document defines the program and the opportunities afforded to Compact communities and incorporates the planning initiatives established in *Patterns* as well as general planning goals consistent with the Compact. No specific recommendations are set forth regarding the Subject Site.

(g.) Existing Zoning

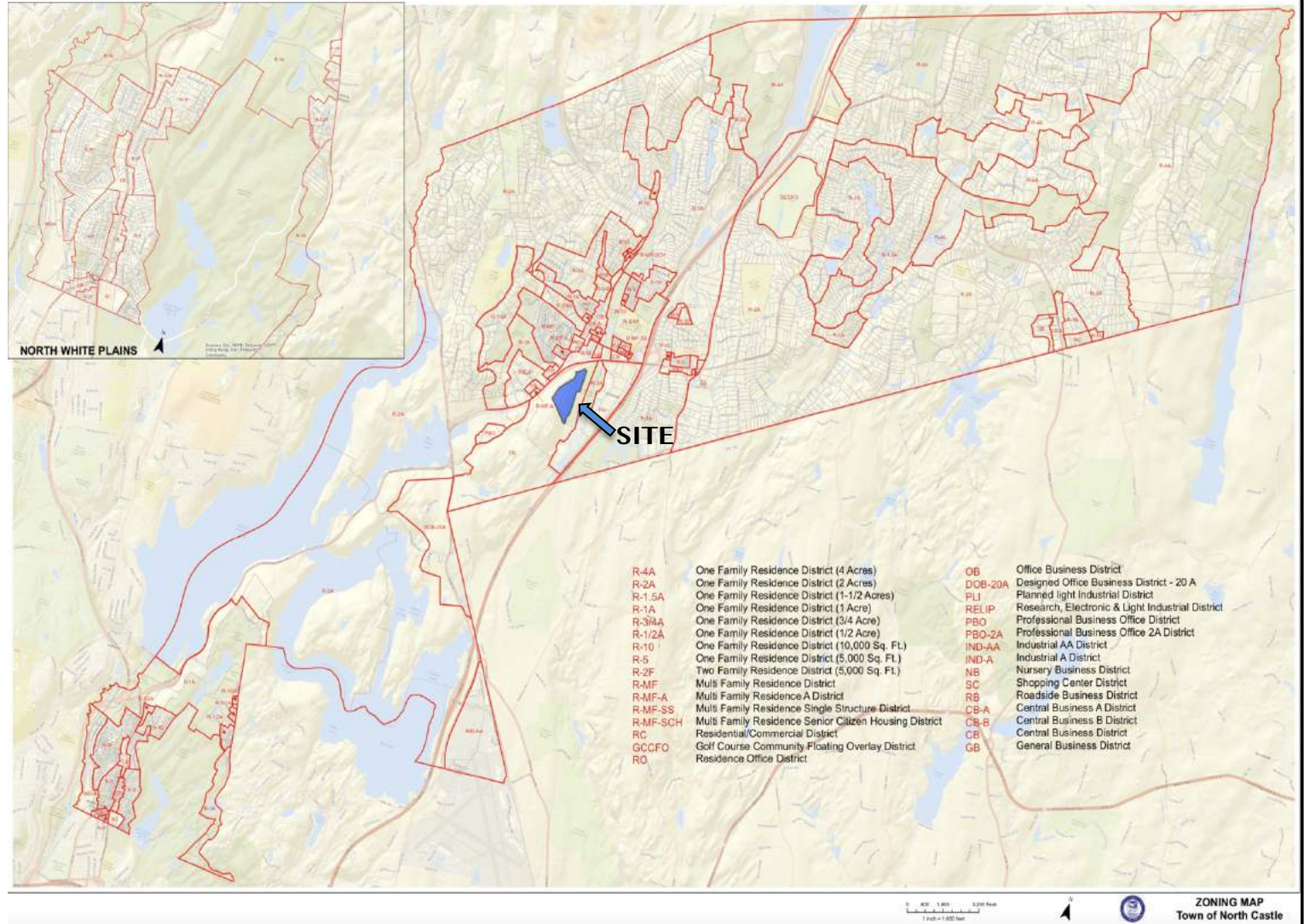
North Castle's land use is regulated by 32 zoning districts including 8 single-family districts, 1 two-family district, 5 multi-family districts, 2 mixed-use districts, 12 commercial and office districts, 4 industrial districts and several specialized floating or overlay districts (Figure IV.A- 11 Existing Zoning Map).

The Project Site lies within the OBH – Office Business Hotel district, and is the only property in the Town so designated. The only permitted use within this district is a hotel on a lot with not less than 4,700 square feet of lot area for each guest sleeping room. The district also permits accessory uses that are customarily located in hotels, such as facilities for conferences, banquets, fitness and restaurants which are open to the public, as well as solar energy collectors.

The following dimensional regulations apply in the OBH district:

| Table IV.A-1 OBH – Dimensional Regulations | | | | | | | | | |
|---|----------|-------|---------------|------|------|---------------------------------|----------------------------|------|------------------------|
| Minimum Lot Area | | | Minimum Yards | | | Maximum Building Coverage | Maximum Building Height | | Floor Area Ratio |
| Area | Frontage | Depth | Front | Side | Rear | Lot Area | Stories | Feet | |
| 20 acres | 500' | 500' | 150' | 300' | 300' | 10% | 3 | 45' | 0.12 |

Additionally, hotels are further governed by following standards and conditions set forth in §355-30 G:



Source: Town of North Castle

Scale: As Shown

Existing Zoning Map



Figure
IV. A-11

- (1.) Use. Use of a hotel site and any buildings or structures thereon shall be limited to the usual hotel activities, as defined herein, and accessory uses incidental to the operation of a hotel, and of the same general character, including but not necessarily limited to the following, provided that all accessory uses shall be planned as an integral part of the hotel and located on the same site therewith:
 - (a) One house or apartment with or without kitchen facilities for the use of the hotel manager and caretaker and his family.
 - (b) Restaurants and lounges, serving either hotel guests exclusively or the general public, provided that no music or other sound shall be audible beyond the boundaries of the lot on which the use is conducted.
 - (c) Fitness and sport facilities, including swimming pools, children's playgrounds, tennis or other game courts and game recreation rooms.
 - (d) Automobile parking garages or carports and off-street parking spaces.
 - (e) Office and lobby.
- (2.) Hotel rooms.
 - (a) Hotel sleeping rooms shall not be interconnected by interior doors in groups of more than two.
 - (b) Each sleeping room shall have an area, inclusive of bathroom and closet space, of at least 225 square feet.
- (3.) Access and service roads. Access and service roads shall be properly related to easement driveways or streets, public streets and highways so as to avoid unsafe conditions and traffic congestion. Points of ingress and egress shall be limited to a total of two on any street. No backing of cars into any highway shall be permitted.
- (4.) Off-street parking: as required by Article IX. Where a hotel includes a restaurant, lounge or other eating and drinking facilities, required

parking space shall be provided for such facilities, in addition to required parking spaces for sleeping rooms and other floor space.

- (5.) Signs. Signs shall be subject to the same provisions as are applicable to motels as contained in § 355-16F(9).

(h.) Proposed Hotel Zoning

The full extent of the Proposed Action, which includes not only the development of a hotel, but multi-family apartments and townhomes, would not fully comply with the applicable OBH zoning regulations. As a result, the Applicant is proposing to subdivide the Project Site and amend the existing zoning. The following amendments are proposed:

- Multiple dwellings are proposed to be added as a permitted principal use in the OBH zoning district, provided that they are located on the upper floors of the same building as a hotel, on a lot with not less than 1,300 square feet of lot area for each dwelling unit.
- The dimensional regulations are proposed to be revised as follows:

| Table IV.A-2 OBH - Dimensional Regulations | | | | | | | | | |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|---------------------------|-------------------------|----------------|------------------|
| Minimum Lot Area | | | Minimum Yards | | | Maximum Building Coverage | Maximum Building Height | | Floor Area Ratio |
| Area | Frontage | Depth | Front | Side | Rear | Lot Area | Stories | Feet | |
| 20 acres | 500' | 500' | 150' | 300' | 300' | 10% | 3 | 45' | 0.12 |
| <u>5 acres</u> | <u>350'</u> | <u>300'</u> | <u>100'</u> | <u>40'</u> | <u>50'</u> | <u>30%</u> | <u>5</u> | <u>75'</u> | <u>0.70</u> |

- Section 355-30 (G) is proposed to be amended as follows:

G. Hotels. Hotels are subject to the following standards and conditions:

- (1) Use. Use of a hotel site and any buildings or structures thereon shall be limited to the usual hotel activities, ~~as~~

~~defined herein~~, multifamily dwellings located on upper floors in the same building as a hotel and accessory uses incidental to the operation of a hotel, and of the same general character, including but not necessarily limited to the following, provided that all accessory uses shall be planned as an integral part of the hotel and located on the same site therewith:

~~(a) One house or apartment with or without kitchen facilities for the use of the hotel manager and caretaker and his family.~~

(b) Restaurants cafes, bars and lounges, serving either hotel guests exclusively or the general public, provided that no music or other sound shall be audible beyond the boundaries of the lot on which the use is conducted.

(c) Fitness and sport facilities, including swimming pools, children's playgrounds, tennis or other game courts and game recreation rooms.

(d) Automobile parking garages or carports and off-street parking spaces.

(e) Office and lobby.

(f) Banquet/Conference Rooms

(g) Business Center

(2) Hotel rooms.

(a) Hotel sleeping rooms shall not be interconnected by interior doors in groups of more than two.

(b) Each sleeping room shall have an area, inclusive of bathroom and closet space, of at least 225 square feet.

(3) Multifamily Dwellings

(a) Minimum dwelling unit size

a. 1-bedroom unit - 800 s.f.

b. 2-bedroom unit - 900 s.f.

c. 3 bedroom unit - 1,100 s.f.

(b) AFFH Units - Not less than 10% of the multifamily dwellings located on the upper floors of a hotel building shall be set aside as affordable affirmatively furthering fair housing (AFFH) units.

(4) Access and service roads. Access and service roads shall be properly related to easement driveways or streets, public streets and highways so as to avoid unsafe conditions and traffic congestion. Points of ingress and egress shall be limited to a total of two on any street. No backing of cars into any highway shall be permitted.

(5) Off-street parking:

(a) Multifamily Dwellings Units as required by Article IX.

(b) Hotel ~~as required by Article IX. Where a hotel includes a restaurant, lounge or other eating and drinking facilities, required parking space shall be provided for such facilities, in addition to required parking spaces for sleeping rooms and other floor space.~~ One parking space per guest room.

(6) Signs. ~~Signs shall be subject to the same provisions as are applicable to motels as contained in §355-16F(9).~~ To be determined by the Planning Board at the time of Site Plan Approval.

(i.) **Subdivision and Multifamily Zoning**

The Proposed Action involves the subdivision of the 32.5-acre Site to create two new lots of approximately 6.25 acres and 26.25 acres respectively. The smaller 6.25-acre parcel would support the hotel and multifamily dwellings, while the larger 26.25-acre parcel would support 94 attached and semi-attached townhomes.

Townhomes are prohibited within the OBH zoning district, so once subdivided, the Applicant is proposing to rezone the 26.25-acre parcel from OBH to the R-MF-A – Multifamily-A zoning district. This district permits attached and semi-attached or detached multifamily residences, subject to the provisions of §355-24 and §355-25. In particular, the R-MF-A district allows for residential densities at the upper end of the density range as set forth in the Comprehensive Plan for “Hamlet Density.”

The townhome development has been designed to fully comply with the R-MF-A zoning district regulations, as well as the applicable provisions of §355-24 and §355-25.

2.) POTENTIAL IMPACTS

(a.) **Building Height**

The proposed modifications to the OBH district’s dimensional regulations would increase the maximum allowable building height from 3 stories and 45 feet, to 5 stories and 75 feet. This increase in allowable height will permit the construction of taller buildings than would otherwise be permitted under the existing height provisions.

As more fully documented in Chapter I – Visual Resources and Community Character, the modified height requirement would permit the construction of a hotel (or a hotel with upper floor apartments) that could be as much as 30 feet taller than currently allowed. This increase in height will be discernable from locations where the building can be observed, such as from North Castle Drive to a limited degree, and more significantly from Community Park.

(b.) Hotel Density

The Proposed Action calls for subdividing the Site to create two parcels. As documented more fully in Chapter K – Fiscal and Market Impacts, the subdivision is necessary to accommodate the financially viable development of the Site.

When the Town rezoned the Site to OBH, it was envisioned that a full-service hotel could be developed on a full 20+ acre parcel. In the Applicant's opinion, the detailed market analysis conducted by the Applicant revealed that full-service hotel was not a realistically viable development opportunity, however, a smaller boutique hotel was. Because the hotel use must be reduced in scope and scale, incorporating alternative complementary uses has become necessary to bridge the gap economically.

As a consequence of this, subdividing the Site is required to allow for the development of a townhouse component on the larger 26.25-acre parcel and a boutique hotel with apartments above on the smaller 6.25-acre parcel.

The density regulations for the OBH zone were crafted by the Town to reflect the specific characteristics of the Project Site (which is the only parcel in Town zoned OBH). Because the hotel parcel is proposed to be reduced from the original 32.5-acres down to 6.25 acres, the density, as reflected in minimum lot area, building coverage and F.A.R. would be correspondingly intensified. In the Applicant's opinion, the increase in hotel density is more perceptual than actual. It is not that a larger more intensively developed hotel is proposed, but rather the hotel that is proposed is located on a smaller parcel of land. In fact,

the proposed hotel is significantly smaller than one that could be otherwise developed under the existing OBH zoning density regulations.

Under the existing OBH district dimensional regulations, the allowable F.A.R. of 0.12 on the 32.5-acre site would allow for 169,884 square feet to be constructed. By contrast, the square footage of the Proposed Action (exclusive of open terraces and the parking garage) consists of:

- Hotel – 80,982 sq. ft.
- Apartments – 91,911 sq. ft.
- Townhouses – 258,160 sq. ft.

Total = 697,736 sq. ft.

The Proposed Action would allow for a net increase in total square footage of 527,852 square feet. This increase occurs as a result of the subdivision of the parcel, thereby effectively raising the coverage provision from 10% (representing one development in the OBH zone), to 50% (representing two developments in the OBH and RM-F-A zones).

(c.) Setbacks

The Proposed Action involves modifications to the applicable OBH yard setback provisions; as follows:

- Front Yard – Existing 150' – Proposed 100'
- Side Yard – Existing 300' – Proposed 40'
- Rear Yard – Existing 300' – Proposed 50'

When the Town created the OBH zoning district in 2010, the setbacks were devised to relate to a very large, 32.5-acre parcel. In fact, these setbacks, along with those of the OB and DOB-20A, are the most restrictive of all of the Town's 32 zoning districts.

The hotel parcel that is proposed to be created by subdividing the Site, would be approximately 6.25 acres in size, and only approximately 430' deep at its widest point. Combined, the existing OBH front yard setback of 150' and rear yard setback of 300' (totaling 450') results in a setback requirement larger than

the actual parcel, rendering it completely undevelopable. As a result, the front yard setback is proposed to be reduced to 100' and the rear yard setback to 40'

The Proposed Action also involves reducing the side yard setbacks from 300' to 40' for similar reasons. In the Applicant's opinion, the reduction in the size of the property warrants a corresponding reduction in the applicable side yard setbacks.

It is particularly relevant to note that the 3 zoning districts that support very large (and dimensionally identical) yard setbacks are the OB, OBH and DOB-20A zoning districts. These districts were created as essentially one-off districts to accommodate very large international corporate tenants (IBM, Swiss-Re and MBIA). In the Applicant's opinion, the zoning dimensional regulations created to accommodate these corporate headquarters facilities, do not translate to, and are not functionally applicable to more typical, smaller scale development projects and the repurposing of these properties.

(d.) Compatibility with Surrounding Land Uses

The Project Site is uniquely surrounded by perhaps the most diverse land uses of any area of the Town of North Castle. This diversity frustrates simple classification. Existing land uses, that do not typically coexist, do so in the vicinity of the Site with little conflict. Community Park abuts the Towns sewage treatment plant, which in turn abuts the office and commercial uses along Business Park Drive. These uses are situated across Route 22 from the hamlet of Armonk and its varied land uses. Of course, IBM's corporate campus is unique in and of itself. No discernable pattern exists that would definitively establish the land use character of the area.

The Proposed Action includes uses that already exist in the immediate vicinity of the Site, such as various residential uses on the north side of Route 22, including the attached townhouses in the Cider Mill development, which are similar to those proposed, as well as the La Quinta Inn hotel located less than ¼ mile due east of the Site.

In the Applicant's opinion, the proposed development would not impose land uses that are unfamiliar or inconsistent with the existing land uses surrounding the Site.

(e.) **Consistency with Land Use Plans**

Several broad-scale land use plans offer guidance regarding the use of the Project Site.

- ***North Castle Comprehensive Plan:***

The Town of North Castle Comprehensive Plan, adopted in April of 2016, endorsed the subdivision and rezoning of the Project Site that took place in 2010 to accommodate an as-of-right hotel use. At that time, it was envisioned that the Site could support a full-service 300 room hotel. Based on subsequent market analysis, the Applicant believes that such a facility is infeasible on its own, but a suitable market does exist for a smaller boutique hotel. Consequently, the overall proposal includes other uses that are necessary to viably develop the Site.

While the hotel use is explicitly called for at this site, and is therefore fully consistent with the goals of the Comprehensive Plan, the two residential uses proposed to support the hotel (apartments and townhouses), are also recommended in the Plan and are consistent with the long-term vision of the community. Section 8.7 of the Comprehensive Plan sets forth a series of specific Growth, Development and Housing recommendations which entirely support the proposed residential use.

Importantly, the Comprehensive Plan specifically states that “*Adding a hotel together with limited new residential uses, would increase downtown Armonk’s potential customer base....*”⁵ This passage indicates that the development of the Site to include a hotel – with

⁵ Town of North Castle Comprehensive Plan, page 121.

supportive residential uses, was anticipated, and was recognized as beneficial. It is the Applicant's opinion that the Proposed Action is fully consistent with the Comprehensive Plan.

- ***Westchester County Comprehensive Planning - Westchester 2025 & Patterns:***

Westchester 2025 is a web-based tool to support local municipal planning efforts and to create a unified vision for the County as a whole. While Westchester 2025 does not provide specific recommendations, as did Patterns, it did establish 15 general policies, which the Proposed Action fully complies with.

Patterns is a more specific plan, and does include specific density recommendations for new development. The Site is classified by Patterns as Medium Density Suburban, which recommends a Gross Residential Density (GRD) of between 2 and 7 units per acre and a Floor Area Ratio (F.A.R.) range of between 0.05 and 0.2.

The Proposed Action involves a total of 164 dwelling units (70 apartments and 94 townhouses) and 80,982 square feet of hotel space. The proposed GRD would be 5, and the proposed F.A.R. for the hotel (absent the apartments) on the smaller 6.25 acre parcel would be 0.07. The residential density of the project falls within Pattern's parameters. The recommended F.A.R. would be slightly exceeded. This is due to the subdivision of the parcel, which artificially reduces the size of the property. If the full 32.5 acres site were used to calculate the F.A.R., the density recommendation would be easily met.

- ***Regional Plan Association - 4th Regional Plan:***

This plan, the 4th in the RPA's series of initiatives to direct the development of the New York metropolitan area, is a very broad high-level plan. When specific, it addresses major large-scale projects, most of which do not directly affect North Castle. However, several policy initiatives are noteworthy, including the Plan's emphasis on the need to

diversify and expand housing opportunities in suburban areas, such as the Town of North Castle. The Plan contends that absent this diversification, suburban housing prices will continue to increase, and populations will shift to more urban areas, leaving suburban areas unable to fund necessary municipal services.

In the Applicant's opinion, the Proposed Action's inclusion of new housing opportunities is fully consistent with this important priority.

- ***Bronx River Watershed Management Plan:***

The goal of this plan is to improve the water quality of the Bronx River and its tributaries by controlling the volume of polluted stormwater runoff. While the plan offers recommendations for the Kensico Reservoir sub-watershed, within which the Project Site lies, no specific recommendations are offered for the Site itself.

Development of the Proposed Action would fully comply with the requirements of Chapter 267 of the Town Code (Stormwater Management) and include the filing of a SPDES permit, preparation of a Stormwater Pollution Prevention Plan (SWPPP), adherence to post construction stormwater practices, compliance with all technical and water quality standards, monitoring and inspection requirements and performance guarantees, prohibition of illegal discharges and illicit connections and the use of best management practices. Compliance with all applicable elements of Chapter 267 will ensure consistence with this plan.

- ***Hudson River Valley Greenway:***

The Hudson River Valley Greenway is a unique effort to facilitate cooperation among the Valley's various municipalities and governments to preserve scenic, natural, historic, cultural and recreational resources while encouraging compatible economic development and maintaining the tradition of home rule for land use decision making. To help implement this program, *The Greenprint for*

a Sustainable Future... the Westchester Way, was prepared by the County Planning Department in 2004. This document defines the program and the opportunities afforded to Compact communities and incorporates the planning initiatives established in *Patterns* as well as general planning goals consistent with the Compact. No specific recommendations are set forth regarding the Subject Site. In the Applicant's opinion, the Proposed Action is constant with this broad vision.

(f.) Impact of Zoning Amendments on Other Properties

The Project Site is the only parcel within the Town of North Castle zoned OBH. As such, the impact of the proposed modifications to the OBH zone would only affect the Project Site and would have no impact on any other properties in North Castle.

The proposed rezoning of the 26.25-acre portion of the Site to R-MF-A would allow for the development of townhouses that would be fully in accordance and consistent with the applicable dimensional regulations. No changes or modifications to the R-MF-A zoning district are proposed. Rezoning the 26.25-acre portion of the Site to R-MF-A would have no impact on any other similarly zone property, and would allow for its expansion to a site that is particularly well suited for such a use.

The Applicant is aware of another project in Town involving a hotel on the former MBIA property by Airport Campus. A hotel use on that site, which is zoned DOB-20A, is currently prohibited. In that case, the developer proposes to add a hotel use as a new special permit within the existing DOB-20A zoning district. They are not utilizing the OBH zoning in any way, so the Proposed Action will have no impact on that project.

(g.) Neighborhood Character

As described above in section (d.), the land uses surrounding the Site are very diverse. However, in the Applicant's opinion, in spite of this, the area exhibits a character that benefits from this diversity, rather than being degraded by it.

Unfortunately, what becomes most apparent when defining the character of the area is that, by and large, many of the areas positive attributes are hidden from plain view. IBM's corporate campus is not visible from public view. Likewise, those traveling along Route 22 only fleetingly glimpse the lovely hamlet of Armonk, which would be bypassed if not for the eagle gateway monument. Similarly, a feature like Community Park is only revealed after a circuitous trip along Business Park Drive. Heavily wooded frontages and rising topography define the public vistas in the area. While visible structures, such as the Business Park Drive office buildings, or The Bristol hint at the high quality of the areas character, they do not serve as defining landmarks or precedents. The following photographs display the character of the neighborhood surrounding the Site:









As documented in Section IV-I, the new hotel would be partially visible from Route 22 – generally when sitting at the traffic light at Main Street and North Castle Drive. In the Applicant’s opinion, this partial view is entirely consistent with the partial views of virtually all of the buildings along Route 22. The townhouses would not be visible at all from Route 22.

The development would be visible from Community Park, and views of the Proposed Project would be different from those of the existing wooded hillside, which represents a change in character.

(h.) Affordable Affirmatively Furthering Fair Housing (AFFH) Implementation

The proposed Action will comply with the Town's Affordable Affirmatively Furthering Fair Housing (AFFH) requirements as set forth as Section 355-24 (l) of the Town Code.

10% of the proposed residential units within the Eagle Ridge development will be established as AFFH units; 8 units in the hotel/apartment building and 9 of the townhouses, for a total of 17 units. The affordable AFFH units shall be physically integrated into the design of the development and shall be distributed among various sizes (one, two, and two bedroom plus den units) in the same proportion as all other units in the development. The affordable AFFH units shall not be distinguishable from other market rate units from the outside or building exteriors. Interior finishes and furnishings may be reduced in quality and cost to assist in the lowering of the cost of development of the affordable AFFH units.

No preferences shall be utilized to prioritize the selection of income-eligible tenants or purchasers for affordable AFFH units. All affordable AFFH units, whether for purchase or for rent, shall be marketed in accordance with the Westchester County Fair & Affordable Housing Affirmative Marketing Plan.

A declaration of restrictive covenants or other legal instrument found acceptable to the Town shall be established to ensure that the affordable AFFH unit shall remain subject to affordable regulations for a minimum 50-year period of affordability. The covenants shall require that the unit be the primary residence of the resident household selected to occupy the unit.

3.) MITIGATION MEASURES

The Proposed Action results in various impacts to land use and zoning, due to the fact that a parcel of land that is currently vacant and wooded, would be developed to

support a hotel and apartment building and townhouses. The Proposed Action would also require amendments to the OBH zoning district.

While the Proposed Action would result in various physical changes to the Site, it is consistent with the land use plans governing the area. The most notable impact would be the change in views of the Site from Community Park. Today, the view is of a wooded hillside. After the Site is developed, that view would be modified by views above the existing wooded buffer, of portions of a new 5-story hotel/apartment building alongside 94 townhomes within a well-designed and highly-amenitized community. These buildings will be architecturally distinctive and designed to appropriately relate to character of the area surrounding the Site. A new comprehensive landscaping plan is proposed to provide a visually attractive site as well as a transitional buffer between the development and the Park. None of the impacts resulting from the Proposed Action exceed any threshold that would classify it as adverse or significant. Nevertheless, an array of mitigation measures have been incorporated into the Proposed Action; including:

- The Project Site was rezoned to accommodate a hotel use in 2010, but has not been developed in accordance with that zoning. The primary component of the Proposed Action is a hotel use, which when developed, would fulfill the land use expectations of the Town for the Site as prescribed in the Comprehensive Plan and associated OBH zoning.
- The hotel/apartment building has been sited to take advantage of the site's topography. Tucking the hotel onto the knoll at the northern end of the Site minimizes site disturbances and allows for the preservation of a significant buffer between Community Park and the southeast portion of the Site.
- Limiting the hotel/apartment building to 5-stories allows for a building to be constructed in a fashion that employs a format that is characteristic of the use and therefore very familiar.

- Brick is utilized as the main facade combined with fiber cement boards, metal and glass to create a sophisticated modern appearance while creating a delicate balance that compliments the natural surroundings.
- Utilizing a 5-story design, the footprint of the hotel/apartment building has been minimized, resulting in a corresponding reduction in impervious surfaces.
- Setting the hotel/apartment building into the slope allows for off-street parking to be constructed below the building, reducing the extent of surface parking lots, thereby reducing impervious surfaces, stormwater runoff and associated heat-island effects.
- The townhouses have been designed to work with the topography of the site, thereby avoiding excessive cuts and fills or the necessity for large retaining walls.
- The townhouse community has been designed around a looped roadway, which minimizes the length of the roadway, avoids dead-end cul-de-sac's and minimizes impervious surfaces.
- The townhouse building type was selected to minimize building footprints and associated site disturbances, when compared to traditional single-family homes.
- The zoning text amendments to the existing OBH district would only affect the Project Site, as no other properties in North Castle are zoned OBH.
- The Proposed Action will benefit from its proximity to the hamlet of Armonk, and has been designed to encourage and facilitate pedestrian circulation through the development and to the hamlet. New sidewalks and intersection pedestrian improvements are proposed at the North Castle Drive/Route 22 intersection.

- A Community Benefit Agreement is anticipated to support the development of long-term parking solutions in the Armonk Hamlet.
- A pedestrian connection is proposed from the Eagle Ridge development to Community Park.

Chapter IV. B.

Geology & Soils

IV. B. GEOLOGY & SOILS

INTRODUCTION

This section of the DEIS evaluates the potential impacts of the Project on the Site's subsurface geology and soils. Fundamental to design and configuration the proposed development, the geology and soils of the Site dictate construction methods and engineering practices.

1.) EXISTING CONDITIONS

(a.) Subsurface Geologic Conditions

According to *The Geologic Map of New York*¹, and the seminal work *The Geology of New York State*² by John G. Broughton, as well as on-site field reconnaissance, it can be established that the Site lies near the upper boundary of the Manhattan Prong, which is a geologic sub-province of the New England Upland geologic province. The northern edge of this area terminates near the City of Peekskill. This province consists of a series of late pre-Cambrian to early Paleozoic metamorphic rocks. The rocks within this region are highly folded and faulted, the result of one or more past episodes of what geologists characterize as compressional deformation. These folds, faults, fractures and formations lie predominantly in a northeasterly direction. The Manhattan Prong is bounded to the north by the Hudson Highlands and to the west by the Mesozoic Age (65 – 225 million years old) rocks of the Newark Basin.

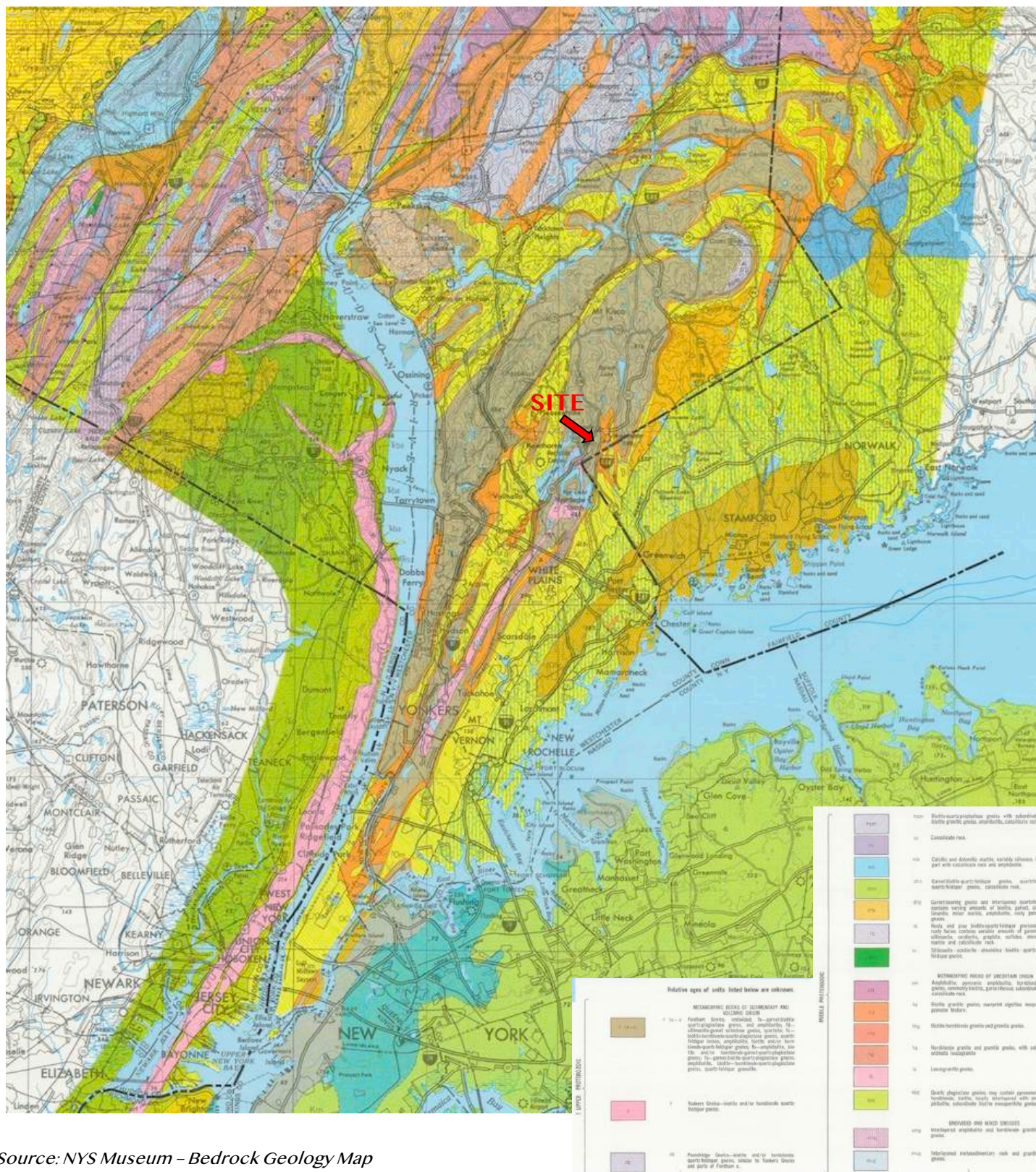
¹ New York State Geological Survey, **Geologic Map of New York: Lower Hudson Sheet** (1970), & **Surficial Geologic Map of New York, Lower Hudson Sheet** (1989), Prepared by the New York State Museum & Science Service, Albany

² New York State Geological Survey, **Geology of New York**, (1962), New York State Museum and Science Service, Albany



Figure IV.B-1
Manhattan Prong

The Site is specifically underlain by Fordham gneiss, which includes garnet, biotite, quartz and gneiss. Field reconnaissance and primary source data indicates that the depth to bedrock in the vicinity of the Site is shallow, with areas of exposed rock outcroppings (Figure IV.B-2, Bedrock Geology, Figure IV.B-3, Surficial Geology).



Scale: N.T.S.

Bedrock Geology



Figure
IV.B-2



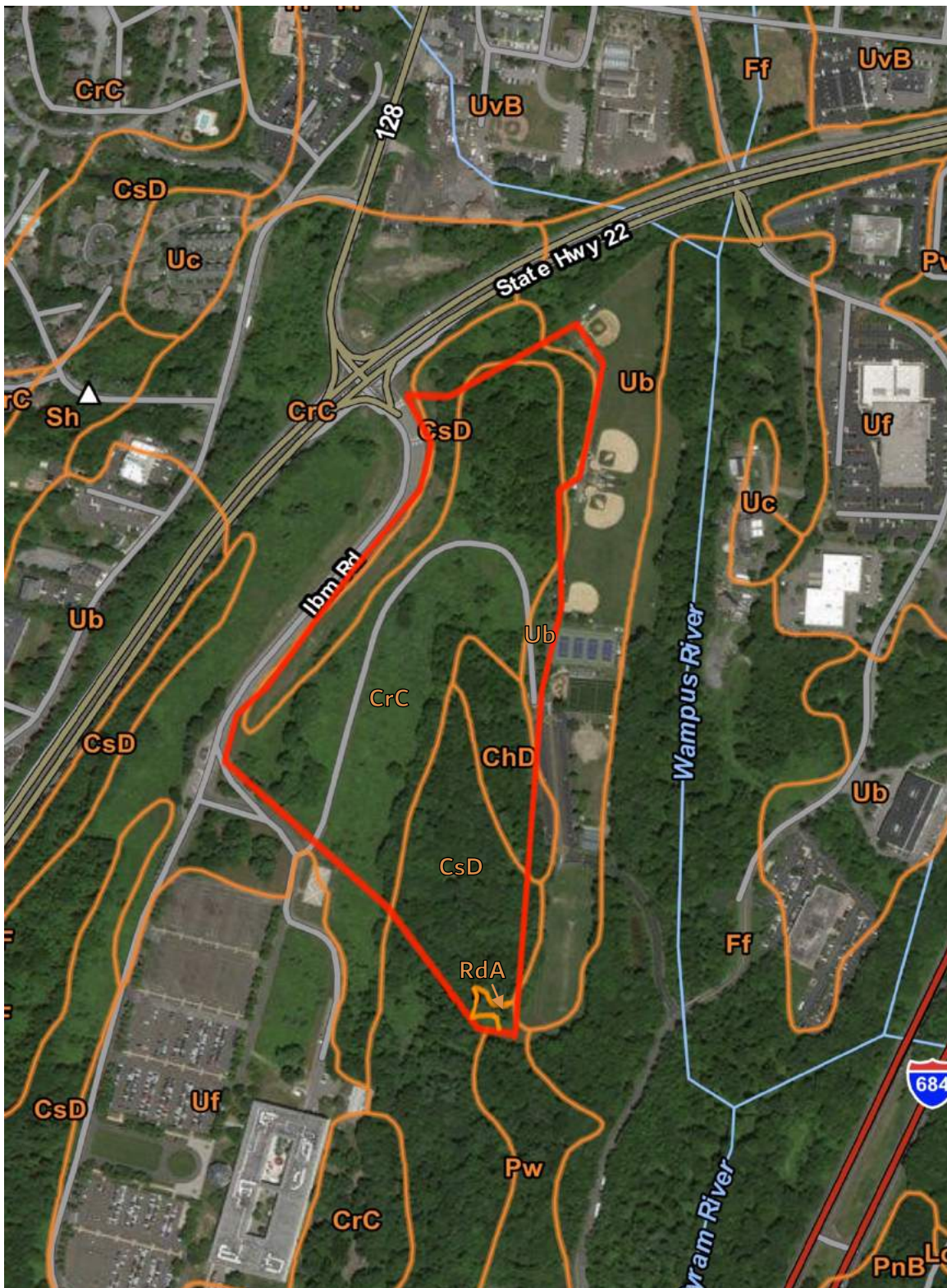
Expose Bedrock Along North Castle Drive

(b.) Soils:

Three on-site soils were identified using the United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey (Figure IV.B-4). Additionally, on-site field reconnaissance by Jay Fain & Associates revealed a fourth soil group situated around a wetland pocket in the southeast corner of the Site. The following provides a detailed description of each soil type:

ChD - Charlton Loam - 15 to 25 percent slopes – This soil unit is moderately steep, very deep and well drained. It is found on hillsides and is formed in glacial till derived from granite, schist and gneiss.

CrC - Charlton-Chatfield Complex, rolling, very rocky – This soil unit consists of the very deep and moderately deep, well drained and somewhat excessively drained Chatfield soil and the well-drained Charlton soil. It is found on hilltops and hillsides that are underlain by highly folded bedrock. Slopes range from 2 to 15 percent.



Source: United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey

Scale: N.T.S.



Soils Map



Figure
IV.B-4

CsD - Charlton-Chatfield Complex, hilly, very rocky - This soil unit consists of the very deep and moderately deep, well drained and somewhat excessively drained Chatfield soil and the well-drained Charlton soil. These soils are found on the tops and sides of hills that are underlain by highly folded bedrock. Slopes range from 15 to 35 percent.

RdA - Ridgebury Loam, 0 to 3 percent slopes - This soil unit is nearly level, very deep and poorly drained and somewhat poorly drained. It is found in uplands and along small drainageways.

Ub - Uroorthents, smoothed - This soil unit consists of very deep, excessively drained to moderately well drained soils that have been altered by cutting and filling. These soils are mainly in and adjacent to urban areas, highways and borrow areas. It is made up of soil materials in alternating layers ranging from sand to silt loam.

| Table IV.B-1 On-Site Soil Areas | | |
|---|--------------|---------------------------|
| Soil Unit | Area (Acres) | Area (Percent of Site) |
| CrC - Charlton-Chatfield Complex, rolling, very rocky | 19.0 | 58.5% |
| CsD - Charlton-Chatfield Complex, hilly, very rocky | 9.4 | 28.9% |
| ChD - Charlton Loam - 15 to 25 percent slopes | 2.9 | 8.9% |
| Ub - Uroorthents, smoothed | 1.0 | 3.1% |
| RdA - Ridgebury Loam, 0 to 3 percent slopes | 0.2 | 0.6% |

Source: United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey, AOI Map

The following table presents the principal characteristics on the on-site soil units:

| Table IV.B-2 On-Site Soil Characteristics | | | | | | | |
|--|---|----------------|------------------|------------------|------------------|----------------------|-------------------------|
| Soil Unit | Soil Name | Erosion Hazard | Hydrologic Group | Runoff Potential | Depth to Bedrock | Depth to Water Table | Drainage Class |
| CrC | Charlton-Chatfield Complex, rolling, very rocky | 58.5% | B | Rapid | >60" | >78" | Well Drained |
| CsD | Charlton-Chatfield Complex, hilly, very rocky | 28.9% | B | Medium | >60" | >78" | Well Drained |
| ChD | Charlton Loam - 15 to 25 percent slopes | 8.9% | B | Rapid | >60" | >78" | Well Drained |
| Ub | Udorthents, smoothed | 3.1% | B/D | Slow | >60" | 18" | Somewhat Poorly Drained |
| RdA | Ridgebury Loam, 0 to 3 percent slopes | 0.6% | B | Slow | >60" | 33" | Moderately Well Drained |

Source: United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey, Soil Survey of Putnam & Westchester Counties, NY.

19 deep hole test pits were dug across the site to further define soil characteristics and to establish the depth to bedrock (Figure IV.B-5, Soil Testing Locations). This investigation revealed that the depth to bedrock in the vicinity of the various proposed site improvements varies from 12" below the surface to 132" below the surface. Specific deep test hole data is included in the Appendix.

2.) POTENTIAL IMPACTS

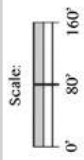
As documented on the Limits of Disturbance Map (Figure IV.B-6), approximately 26.5 acres of the Site will be disturbed to accommodate the Proposed Action. The new buildings, driveways, walkways and parking areas will account for approximately 10.4 acres or 39% of the overall disturbance area. The remaining disturbance will result from various site improvements, such as landscaping.

(a.) Subsurface Geologic Conditions

The depth to bedrock throughout the Site is variable, ranging from exposed surface rock outcroppings to over 11' deep. As shown on the Grading Plan



Source: Alfonzetti Engineering, P.C.



Soil Testing Locations

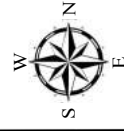
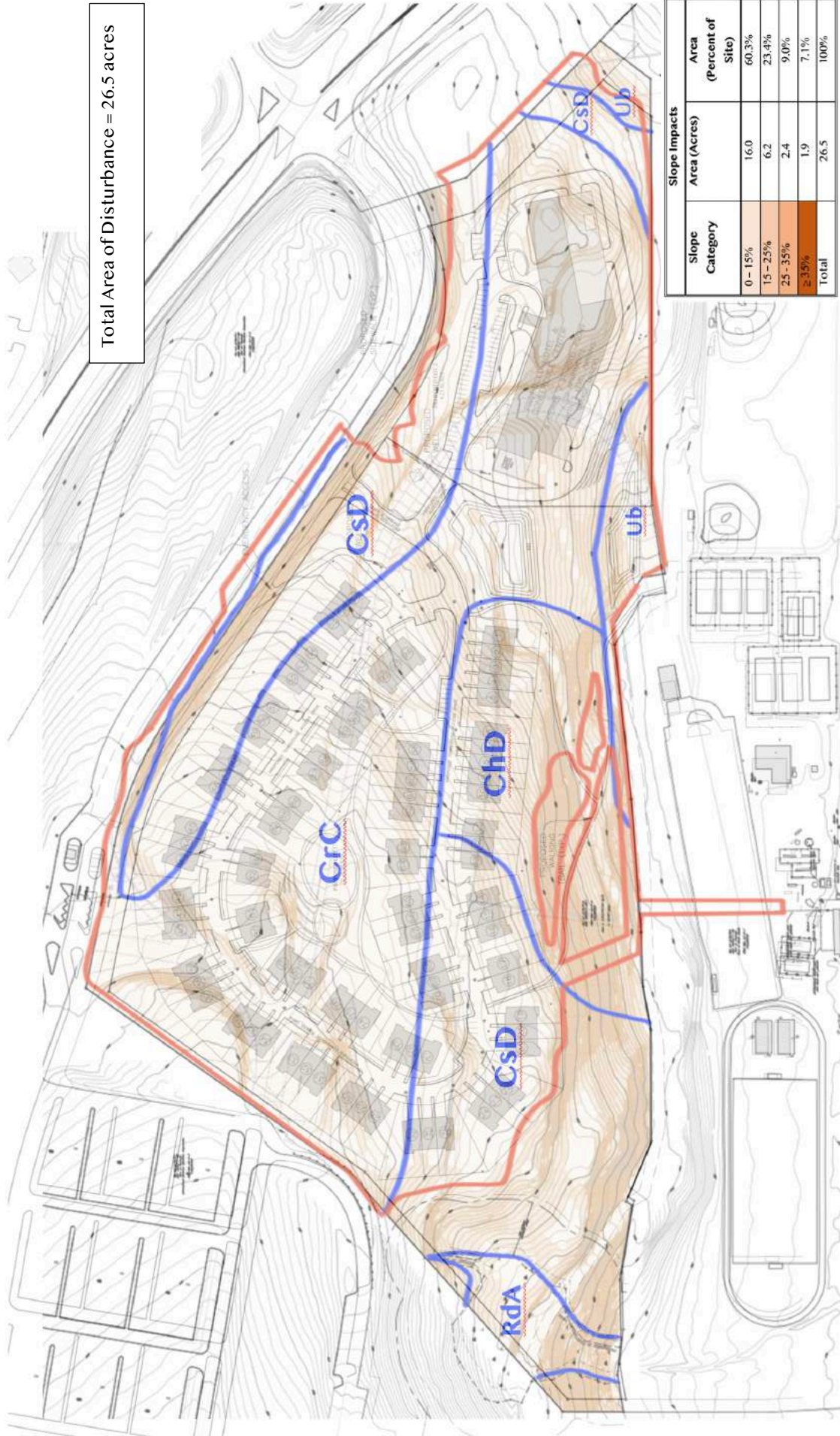


Figure
IV.B-5

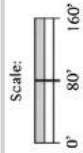
Total Area of Disturbance = 26.5 acres



| Slope Impacts | | |
|----------------|--------------|------------------------|
| Slope Category | Area (Acres) | Area (Percent of Site) |
| 0 - 15% | 16.0 | 60.3% |
| 15 - 25% | 6.2 | 23.4% |
| 25 - 35% | 2.4 | 9.0% |
| ≥ 35% | 1.9 | 7.1% |
| Total | 26.5 | 100% |

Soil Type Boundary
Area of Disturbance

Source: Alfonzetti Engineering, P.C.



Limits of Disturbance

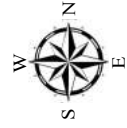


Figure
IV.B-6

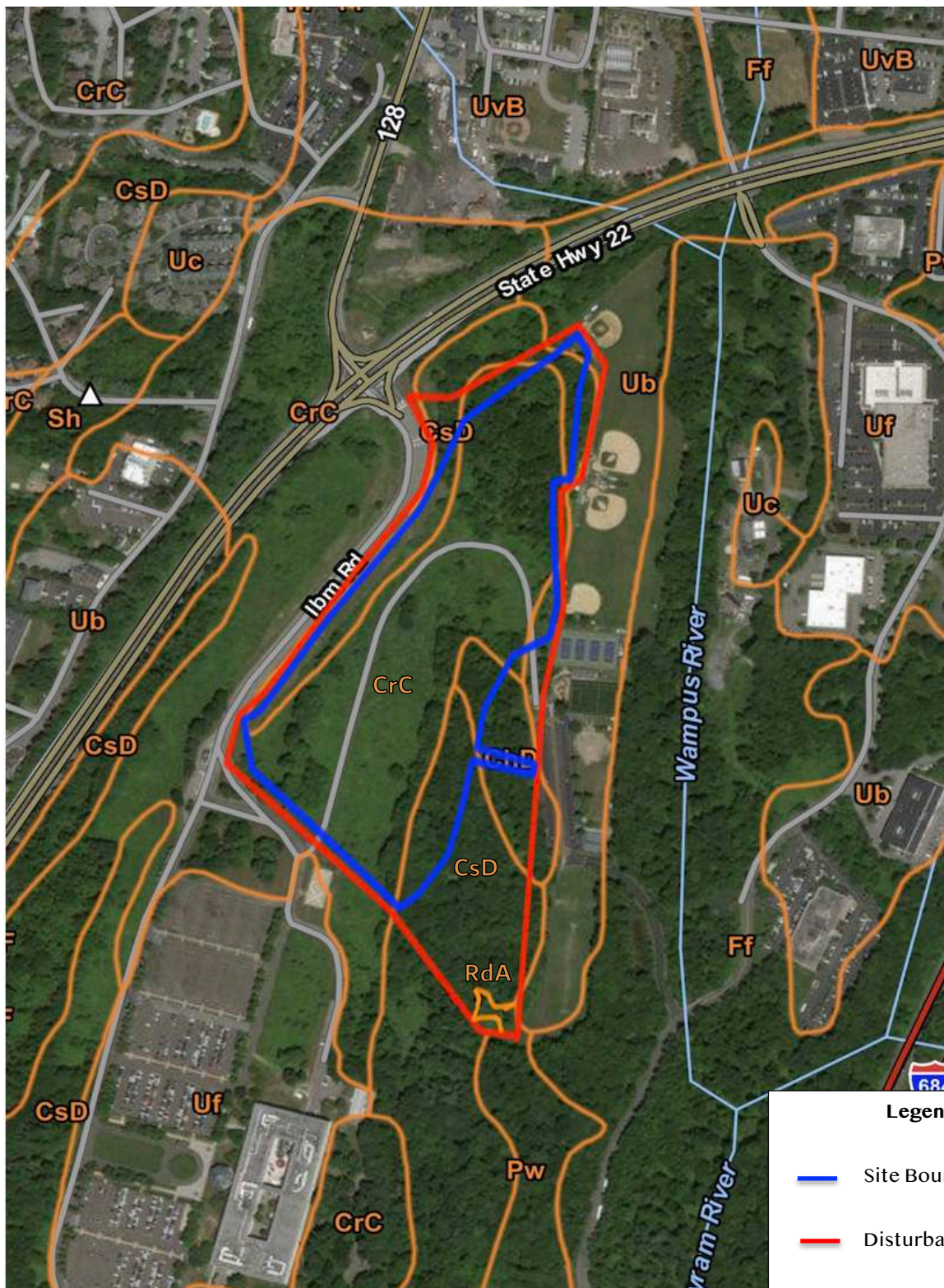
(Figure IV.B-7), modifications to the existing topography of the Site will be necessary to accommodate the Proposed Action. It is likely that this activity will necessitate rock removal.

Based upon site investigations and proposed site grading, completely weathered rock and intact bedrock will likely be encountered during site excavation. The degree of penetration into the bedrock with excavation equipment will depend on the composition of the rock, the degree of weathering and fracturing of the rock itself. A hydraulic hammer will be used to mechanically remove rock. Should this method prove infeasible, blasting would be performed in accordance with all federal, state and town codes (Town of North Castle Code, Chapter 122 Blasting & Explosives). The resultant shot or ripped rock will be re-used on-site if possible, or removed off-site as specified in the construction management plan. If the rock that is removed is of suitable volume and composition, it may be able to be processed on-site and used as crushed stone in base layers below buildings and roadways.

(b.) Soils

Approximately 26.5 acres or 81.5% of the Site will be affected by site development activities, building construction and infrastructure installation. The Limits of Disturbance to Soils Map (Figure IV.B-8) and Table IB.B-3, display impacts by soil unit area. As can be seen, the greatest impacts would occur within the CrC - Charlton-Chatfield Complex, rolling, very rocky soil unit.

| Table IV.B-3 Soil Unit Area Impacts | | | |
|---|------|-----------------------------|----------------------------------|
| Soil Unit | Area | Area of Disturbance (Acres) | Percent Disturbance of Soil Unit |
| CrC - Charlton-Chatfield Complex, rolling, very rocky | 19.0 | 19.0 | 100% |
| CsD - Charlton-Chatfield Complex, hilly, very rocky | 9.4 | 7.0 | 74.5% |
| ChD - Charlton Loam - 15 to 25 percent slopes | 2.9 | 1.3 | 44.8% |
| Ub - Udorthents, smoothed | 1.0 | 0.4 | 40% |



Source: United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey

Scale: N.T.S.



Limits of Disturbance to Soils Map



Figure
IV.B-8

| | | | |
|---|-----|---|----|
| RdA – Ridgebury Loam, 0 to 3 percent slopes | 0.2 | 0 | 0% |
|---|-----|---|----|

Source: Alfonzetti Engineering

Given the topography of the Site, and the necessity to create generally level development pads, the Proposed Action will result in a net cut of approximately 51,400 cubic yards of material. Preliminary earthwork calculations are presented in Table IV.B-4.

| Table IV.B-4 Earthwork / Cut and Fill | |
|--|---------------------|
| Action | Volume |
| Cut | 113,549 cubic yards |
| Fill | 62,149 cubic yards |
| Net Cut/Fill | 51,400 cubic yards |

Source: Alfonzetti Engineering

As documented in Table IV.B-4, approximately 55% of the material that will need to be excavated will be re-used on-site as fill, the balance of this excavated material will be exported. Utilizing haul trucks with a 16 cubic yard capacity, approximately 3,312 truck trips would be required to remove this excess material, which will be exported in accordance with all applicable regulations to a suitable location(s). It is projected that the build-out of the Proposed Action will extend over a two-year period, and that material will be exported as the project progresses over the course of that time. This translates into approximately 138 truck trips per month, 34 trips per week or roughly 7 truck trips per day.

Preliminary soil testing was carried out in August of 2018, which did not encounter groundwater and revealed acceptable permeability rates. These parameters will be incorporated into the applicable calculations in the SWPPP.

Potential impacts to steep slopes during construction can include increased erosion and sedimentation which is a result of stormwater runoff on exposed erosive soils. Sediment laden runoff can damage downhill property, streams, and wetlands.

There are several factors that increase the potential for slope failure, including external and internal forces. External forces can be adding mass high on a slope through sediment deposition and a removal of vegetation. Internal forces that increase the potential for slope failure are weak material on top of the failure surface and water. Water is a great risk factor, as it weakens earth material and adds weight, if the soil is absorbing water greater than it's carrying capacity.

One or a combination of these factors can increase the potential for slope failure.

During development it is important to re-establish ground cover and stabilize the slope as soon as possible. The proposed erosion control plan will provide mitigation for the steep slope disturbance areas. The erosion control plan is part of the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges Associated with Construction Activity. Parts of the erosion control plan are silt fences, haybales, hay, mulching, and temporary sediment traps. These erosion control devices are used for mitigation of disturbance to steep slopes during construction activities. Diversion ditches shall convey water to the temporary sediment traps and prevent runoff from causing damage. Where temporary sediment traps are not practical due to site conditions, silt fence will be used to minimize any damage to downhill property from sediment. In addition, staked haybales will be employed at the top of steep slopes to minimize erosive impact from stormwater runoff during construction. The layout and configuration of the Project has been designed to take advantage of the Site's topography and contours, thereby minimizing erosion hazards.

Post construction impacts can also increase erosion, changed drainage patterns, and unstable slopes. The proposed drainage patterns are generally the same as the existing drainage patterns, and in addition each design point studied is designed to have no increase in runoff rates for the 1, 2, 5, 10, 25, 50, and 100-year storm events. Permanent vegetation on steep slopes, retaining walls, and riprap outlet protection will prevent erosion due to topographical changes.

The phasing of the Proposed Action is described in the preliminary SWPPP included in then Appendix, and in Chapter IV.N Construction. The Project's phases have been designed to disturb less than 5 acres during each phase, thereby complying with requirements of the Town as the MS4 and the NYSDEC.

3.) MITIGATION MEASURES

The Proposed Action has been designed to minimize overall development related impacts by working with the topography of the Site to the extent practicable. The hotel/apartment building has been set into the side of the slope and the townhouses follow the slope of the Site from top to bottom. The following specific mitigation measures are proposed to address the impacts noted above.

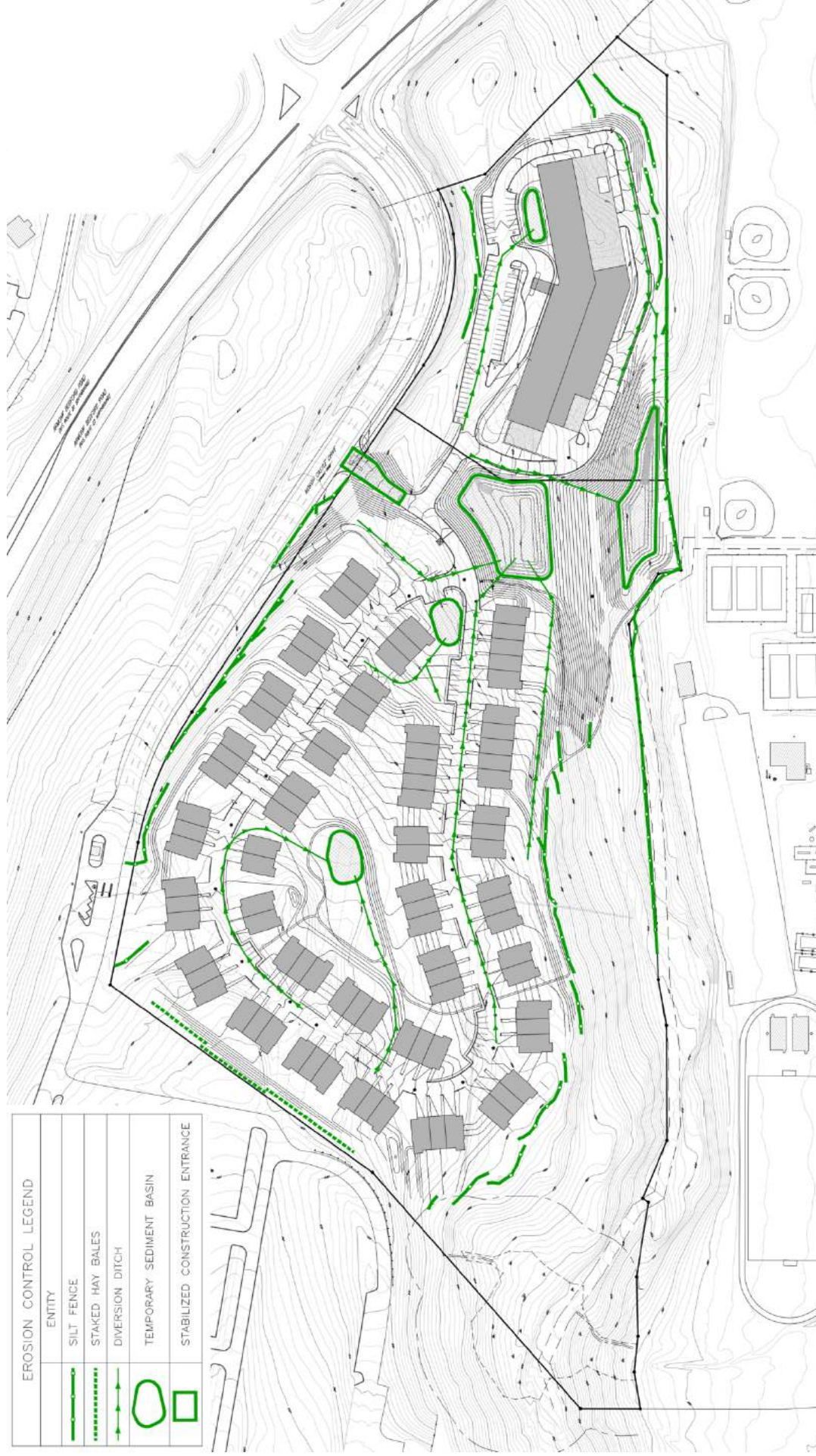
(a.) Sediment and Erosion Control

An Erosion and Sediment Control Plan (Figure IV.B-9) has been developed to mitigate short-term construction related impacts. This plan, which will be included with the Site Plan and SWPPP, addresses land grading, topsoiling, temporary vegetative cover, permanent vegetative cover, mulching and erosion checks. A continuing maintenance program will be implemented for the control of sediment transport and erosion after construction and throughout the useful life of the Proposed Action.

Temporary erosion control measures include:

Anti-Tracking Pad – Anti-Tracking Pads shall be installed at all construction entrances. The purpose of the Anti-Tracking Pad shall be to dislodge mud, dirt, and debris from construction vehicles prior to these vehicles leaving the construction site. This will ensure the existing roadways are kept clear of sediment. Locations and details of the Anti-Tracking Pad are shown on the plans.

Silt Fence – Silt Fencing consists of a fabric barrier between supporting stakes or posts usually made of wood. The fabric is proposed to capture suspended sediments from construction runoff and also decreases the



Source: Alfonzetti Engineering, P.C.

Erosion Control Plan

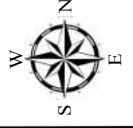


Figure
IV.B-9



velocity of the runoff to protect off-site areas. The proposed location of the silt fence is shown on the plans along with details for installing the silt fence.

Haybales – Haybales are used in a variety of erosion control devices. At the top of an excavation, haybales are used to spread out concentrated flow to prevent erosion. Haybales are used in conjunction with silt fence to add additional protection to sensitive areas such as wetlands and water bodies. Haybales are also used in conjunction with Silt Fence to protect surrounding areas from soil stockpile erosion. The proposed location of the haybales is shown on the plans along with details.

Inlet Protection – Inlet protection is used to filter runoff from non-stabilized construction sites prior to this runoff entering the drainage system.

Temporary Sediment Trap – Temporary Sediment Traps are small ponding basins constructed by excavation or embankment used to intercept sediment laden runoff. The sediment trap protects waterways, properties, and right-of-ways below the sediment trap.

Toward the completion of construction, permanent sediment and erosion control and stormwater quality and quantity measures will be implemented for long-term erosion protection and water quality and quantity enhancement. The following permanent control measures are proposed:

Green Roof – A green roof is proposed, planted with sedum.

Catch Basins – Used to remove coarse sand and grit sediment before entering the drainage system. Each catch basin will include a minimum of an 18” sump.

Infiltration Basins – Used to treat the runoff volume generated by the developed area and new impervious surfaces and to provide improved water quality. Runoff volumes from storms are retained and released gradually.

Detention Basins - Provide water quality pre-treatment by separating out sediment, debris, floatable, etc. from the runoff stream prior to discharge into the various stormwater management practices.

Rain Gardens – Improve water quality through stormwater absorption through planted depressions.

Rip-Rap Energy Dissipaters – At stormwater discharge point, rip-rap pads consisting of large rocks, will be installed to dissipate velocity and reduce erosion.

Seeding - All areas of disturbance, not otherwise developed, improved or landscaped, will be seeded and mulched to form a permanent uniform erosion resistant surface.

Permanent vegetation is important in long term mitigation of changes in topography. The use of erosion resistant grasses, along with shrubs, trees, and low fieldstone walls will mimic the existing conditions and will increase travel time of stormwater runoff. Healthy vegetation will also stabilize slopes as roots take hold in the soil. Retaining walls, where used, will reduce the amount of grading and will reduce the grading on or near steep slopes. Riprap outlet protection will be used at all pipe outlets to reduce exit velocities of stormwater discharges and therefore, reducing erosion.

The perimeter of the site and the southwest corner will not be disturbed; therefore, the existing vegetation and existing topography will remain.

(b.) Stormwater Management

The Proposed Action includes a Stormwater Pollution Prevention Plan (SWPPP), (included in the Appendix), which provides the stormwater management practices for the development.

The proposed stormwater management system has been designed in accordance with the “five step process” identified in Chapter 3 of the New York State Stormwater Design Manual. The system will ensure that post development, the rate of runoff from the Site will not exceed the predevelopment rate.

(c.) Blasting

Based on field reconnaissance and preliminary boring data, it is anticipated that hard rock will be encountered during construction, which will require removal. When rock removal becomes necessary, the Applicant will first attempt to remove the rock through mechanical means (i.e. ripping or chipping with hydraulic hammers). If this approach proves infeasible due to the hardness and density of the rock, blasting will necessary. Prior to the start of any blasting activities, a detailed blasting plan shall be developed in accordance with Chapter 122 of the North Castle Code (Blasting & Explosives) and all applicable federal state and local regulations.

The following mitigation measures are proposed:

Pre-Blast Tasks:

1. The Applicant shall obtain a blasting permit in accordance with §122-6.
2. The qualifications and license of the selected blasting contractor shall be submitted to the Town for approval.
3. The blasting contractor’s certificate of insurance shall be provided in accordance with the Town’s minimum insurance requirements (or in a greater amount if found necessary), together with an indemnification and hold harmless agreement.

4. An in-depth pre-blast inspection shall be conducted of all homes, structures, utilities or facilities adjacent to the blast site, and within a minimum of 500 feet of the blast location. A written report covering each house, structure or facility inspected shall be provided to the Building Inspector prior to the issuance of the blasting permit.
5. Not more than 30 days nor less than 72 hours prior to the intended blasting, the Applicant shall deliver by hand written notification of the blasting to all properties that were entitled to the pre-blast survey. The notification will state when the blasting period will begin and shall include an explanation of the warning procedures for blasting activities, including soundings.
6. The blasting schedule will be coordinated with the Superintendent of Recreation and Parks to minimize disturbances or disruptions to activities at Community Park. An additional warning protocol will be established at the Park during the blasting period.
7. Any necessary closure of streets will be kept to a minimum and any needed closure will be coordinated with the Police and Fire Departments.
8. A detailed blasting plan shall be provided by the blasting contractor. This plan shall document the proposed blasting procedures to be employed, including charge hole locations, diameter, depth, spacing, loading and delay sequence. Predictions of maximum vibrations at surrounding structures shall also be provided. The Plan will also document seismograph locations. The blasting plan shall also include a security plan indicating the location of sentries prior to each blast round to keep unauthorized personnel out of the blast zone, and the means of communication between the blaster and sentries to ensure the area is clear prior to detonation.

Blasting Specifications:

1. The amount of explosives used shall be no greater than necessary to start the rock.
2. Explosives shall be stored in a magazine in a location approved by the Building Inspector, constructed to the standards of the National Fire Protection Code, painted red and marked “danger”, and kept locked at all times.
3. Daily records shall be kept showing the amount of explosives on hand at the Site and in any storage magazine.
4. Drilling of blast holes and the subsequent detonation of blast rounds shall be limited to between the hours of 9:00 am to 4:00 pm, Monday through Friday.
5. Blast vibration and airblast monitoring shall be performed and reported for each round by a qualified firm under contract to the Applicant or blasting contractor, at a minimum of four locations around the blast area. Monitoring reports shall be sent to the Town on a daily basis, and shall be kept on file in the Building Department. Should any blast exceed the prescribed regulatory limits, the Building Inspector shall be notified immediately.
6. Warning signals shall be used by the blasting contractor to warn personnel at the Site and nearby locations prior to each blast. The warning signal shall be audible at least 500 feet from the blasting area.
7. Blasting mats shall be used to fully cover the blast area for every detonation to minimize flyrock.
8. Drillers logs shall be kept for all blast holes drilled, documenting open joints, seams and other anomalies, and the logs shall be reviewed by the blaster prior to each detonation.

9. Ammonium Nitrate Fuel Oil (ANFO) shall not be used on this project.
10. Each blast shall be videotaped, and made immediately available to the blaster and Town for review.
11. Noise from the drilling operations shall be minimized through the use of appropriate mufflers. Noise levels at the Site shall comply with Chapter 210 of the Town Code (Noise). Noise levels from various noise producing drilling and other equipment shall be measured using Type I or II A-weighted sound level meters, and reports of these measurements shall be submitted daily along with vibration and airblast monitoring reports. If noise exceeds specified levels, it shall be reported to the Town, along with the measures proposed to further mitigate the excessive noise.
12. The blasting contractor shall take appropriate steps to minimize dust generation during the drilling of blast holes and other excavation and construction operations, including, but not limited to wetting down areas and materials when appropriate, utilizing dust collectors on drill rigs, installing stone mats where appropriate. Open trucks transporting rock, debris or fill from the Site shall be covered. Dust levels at the property lines shall be set at a maximum level of 150 micrograms per cubic meter of air (PM10, breathable particulate matter) based on National Ambient Air Quality Standards set by the Environmental Protection Agency. Levels shall be measured and recorded during construction, and dust producing activities shall be stopped and modified if any exceedances are recorded. The Building Inspector will be notified of any exceedances, and informed of the measures taken to reduce dust to below safe levels.

(d.) Construction Phasing

A construction phasing plan is proposed, as more fully documented in Chapter L – Construction, which documents the sequencing of construction

activities. Careful sequencing of construction activities will serve to mitigate various adverse impacts.

These measures represent the best available technologies and practices that will ensure that any impacts to the Site's soils or geological resources are minimized to the maximum extent practicable. Subject to the implementation of these mitigation measures, no significant adverse impacts are anticipated.

Chapter IV. C.

Topography & Slopes

IV. C. TOPOGRAPHY & SLOPES

INTRODUCTION

Perhaps one of this Site's most notable characteristics, the topography and slopes of the property serve to define its development potential. This section of the DEIS evaluates the potential impacts of the Project on the Site's topography and slopes.

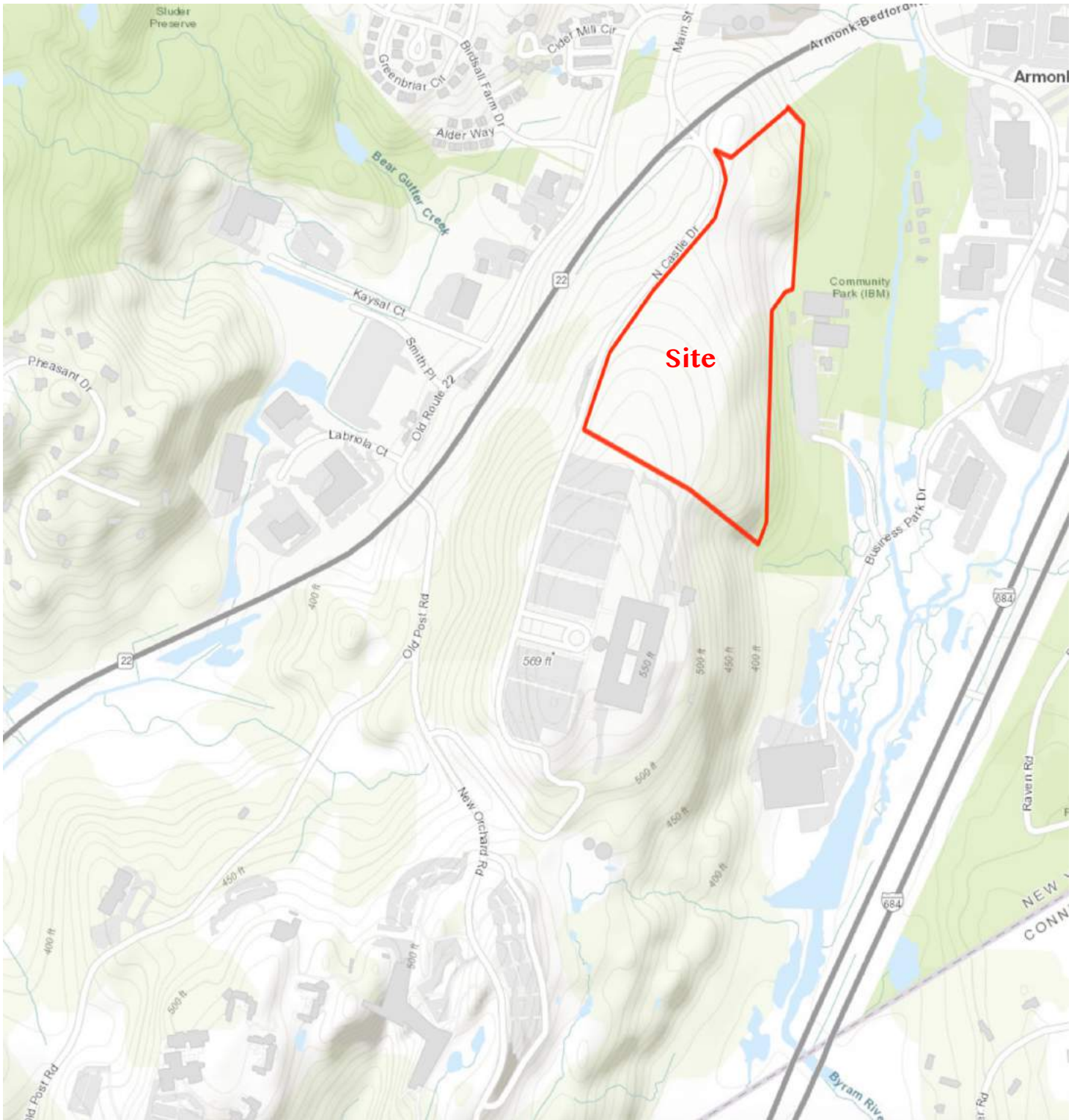
1.) EXISTING CONDITIONS

The Site can be generally characterized as the eastern side of an oval shaped elongated hill that rises up from the Route 22/North Castle Drive/Main Street intersection, to the original IBM headquarters building, located on the crest of the hill at approximately elevation 570'. This landform can be readily seen on Figure IV.C-1, Area Topography Map, and far more effectively on the Digital Elevation Model (DEM) of the area, Figure IV.C-2. The DEM (which is a 3D representation of the ground surface derived from radar imagery) clearly depicts the platform created at the top of the hill to accommodate the IBM building and associated parking fields on the west side of the building. The side slope of the hill down to Community park is readily visible as well.

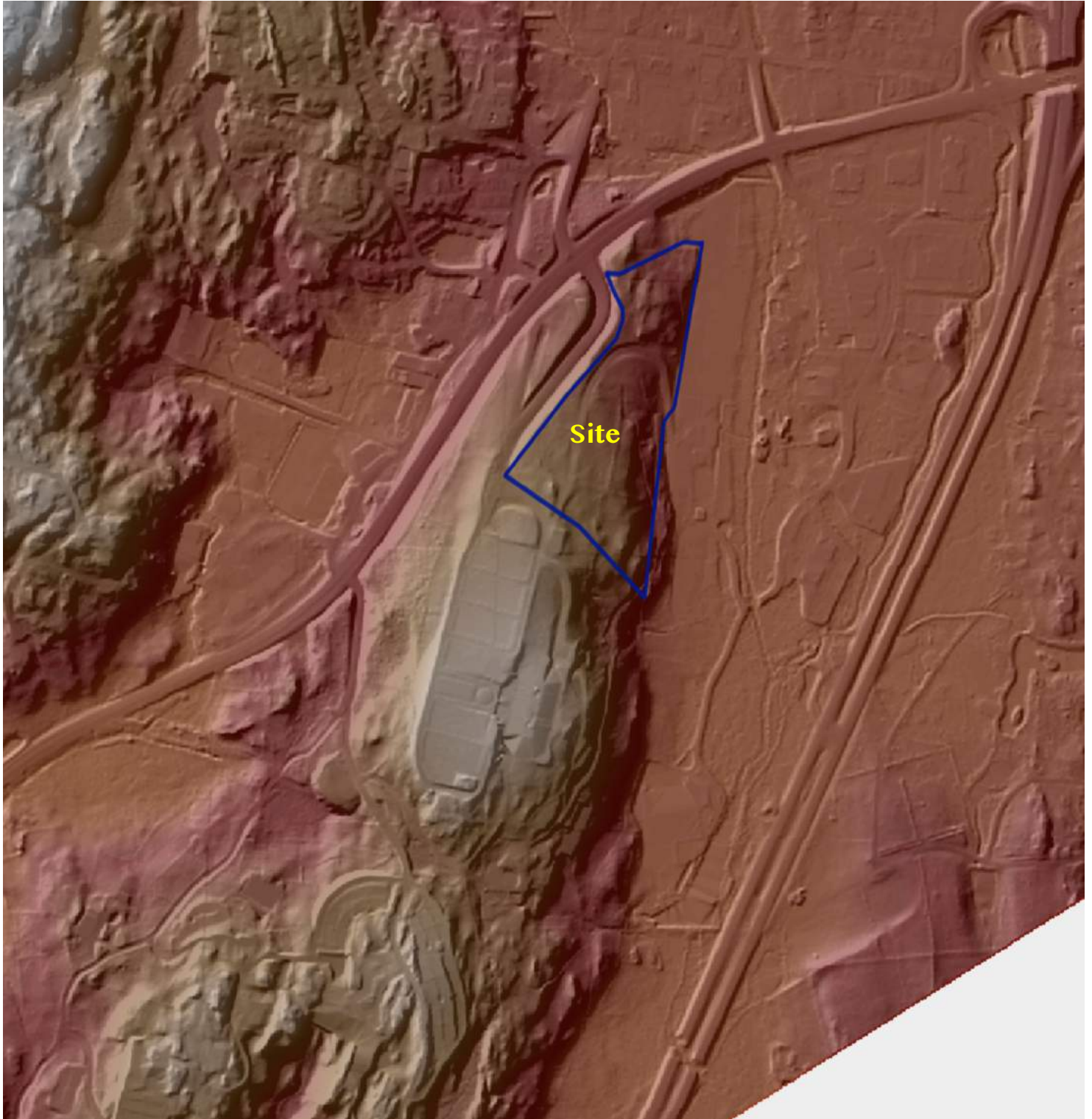
The Project Site itself rises approximately 150' from its boundary with Community Park in the east to North Castle Drive in the west. The Site's low point of 380' is located in the center of the western property line, at the point where the remnants of an asphalt driveway enter Community Park. The Site's high point of 534' is located on a knoll just west of the former helicopter pad.

Section 355-4 of the Zoning Code defines a steep slope as *"A natural geographical area, whether on one or more lots, which has a ratio of vertical distance to horizontal distance of 25% or greater over a horizontal area measuring at least 25 feet in all directions."*

Figure IV.C-3, Steep Slopes Map illustrates the site's slopes in four categories, 0 – 15%, 15 – 25%, 25 – 35% and $\geq 35\%$. the areas of designated steep slopes on the Site. Approximately 8.1 acres or 25% of the Site supports designated steep slopes. The



Source: Westchester County GIS Service Center



Source: Westchester County GIS Service Center

Scale: N.T.S.

Digital Elevation Model



Figure
IV.C-2

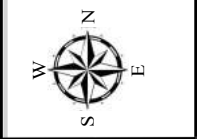


Source: Alfonzetti Engineering, P.C.

Scale:

Cleary Consulting

Steep Slopes Map



majority of the Site (24.4 acres or 75%) does not contain designated steep slopes. The areas of the Site where steep slopes are most prevalent are in the southeast corner of the Site along Community Park, as well as along the roadway cut for North Castle Drive.

Table IV.C-1 provides slope areas by category.

| Table IV.C-1 Existing Slopes | | |
|---------------------------------|--------------|---------------------------|
| Slope Category | Area (Acres) | Area (Percent of Site) |
| 0 – 15% | 16.8 | 52% |
| 15 – 25% | 7.6 | 23% |
| 25 – 35% | 3.6 | 11% |
| ≥ 35% | 4.5 | 14% |
| Total | 32.5 | 100% |

Source: Alfonzetti Engineering

While no definition of a hilltop or ridgeline is provided in §355-18 (Hilltops, Ridgelines and Steep Slopes), the ridge of the hill on which the Site sits, does run along the western side of the Site, however, the crest of the hill lies some 36' above the Site's high point, in the location of the former IBM headquarters building.

In accordance with the provisions of §355-18 (Hilltops, Ridgelines and Steep Slopes), any disturbance to a steep slope, hilltop or ridgeline requires a disturbance permit, issued by the Planning Board.

2.) POTENTIAL IMPACTS

As documented on Figure IV.B-6 – Limits of Disturbance, approximately 26.5 acres of the Site will be disturbed during construction. Of this total, approximately 4.3 acres are designated steep slopes in excess of 25%. The disturbance of these areas will require the issuance of a steep slope disturbance permit. The slope impacts by category are documented in Table IV.C-2.

| Table IV.C-2 Slope Impacts | | |
|-------------------------------|--------------|---------------------------|
| Slope Category | Area (Acres) | Area (Percent of Site) |
| 0 – 15% | 16.0 | 60.3% |
| 15 – 25% | 6.2 | 23.4% |
| 25 – 35% | 2.4 | 9.0% |
| ≥ 35% | 1.9 | 7.1% |
| Total | 26.5 | 100% |

Source: Alfonzetti Engineering

A total of 4.3 acres of designated steep slopes in excess of 25% would be impacted by the Proposed Action. The primary building areas are located away from the eastern side of the Site adjacent to Community Park, where the slopes are the steepest. Figure IV.C-4 presents the areas of disturbance on steep slopes and soil type areas.

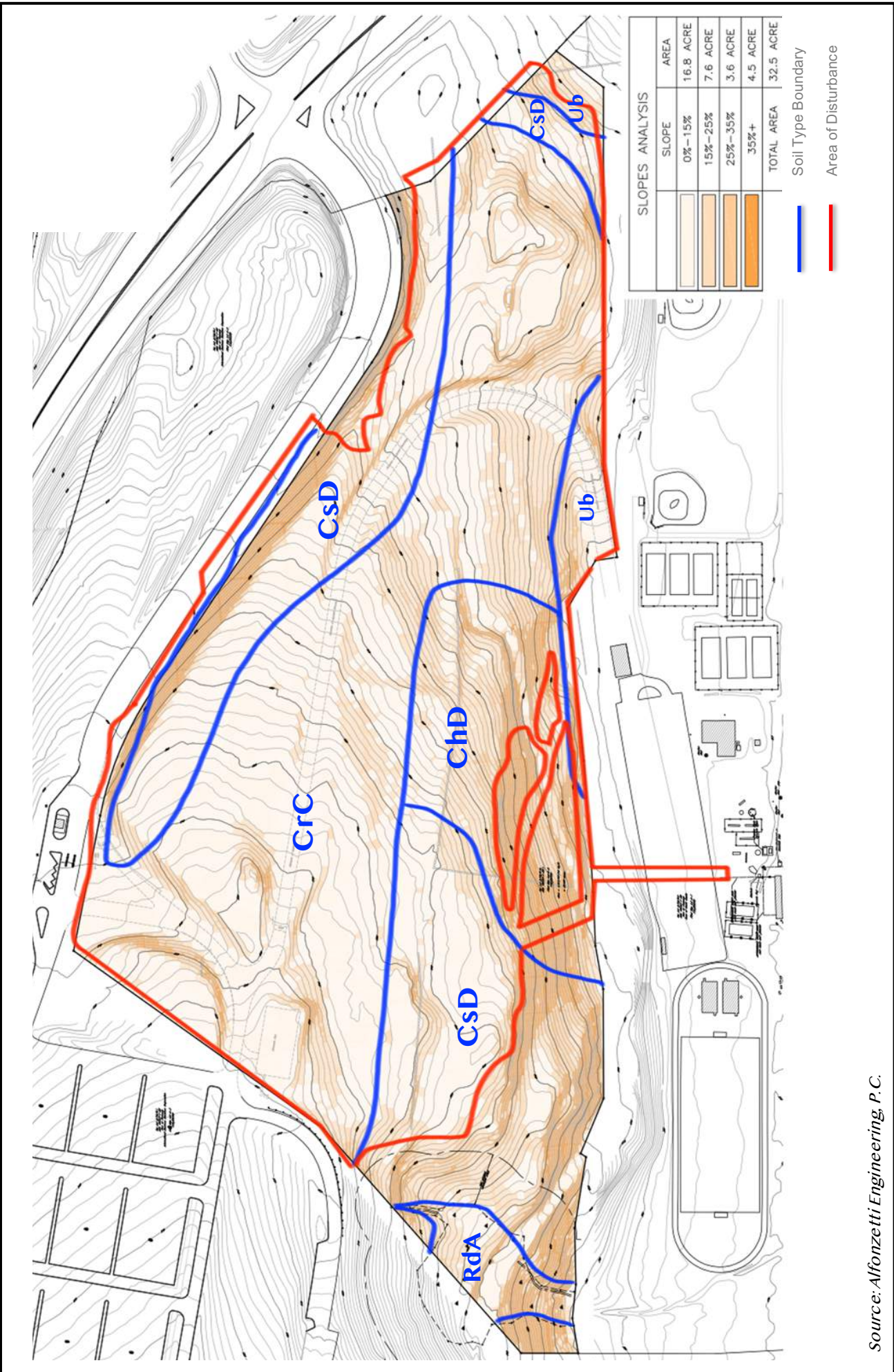
A steep slope disturbance permit will be required for activities that cannot be avoided within the designated steep slopes. This includes permanent improvements and temporary constructional related activities.

A preliminary cut/fill analysis was performed. The estimated earth cut is 80,019 cubic yards, and the estimated rock cut is 33,530 cubic yards for a total estimated cut of 113,549 cubic yards. The estimated total fill is 62,149. The rock cut will be crushed on-site and used as processed materials. No fill will need to be imported to the Site. Figure IV.C-5 presents the cut and fill analysis

| Table IV.C-3 Cut/Fill Analysis | | |
|-----------------------------------|--------|---------|
| Cut | Fill | Net Cut |
| 113,549 | 62,149 | 51,400 |

Source: Alfonzetti Engineering

Potential impacts to steep slopes during construction can include increased erosion and sedimentation which is a result of stormwater runoff on exposed erosive soils. Sediment laden runoff can damage downhill property, streams, and wetlands.



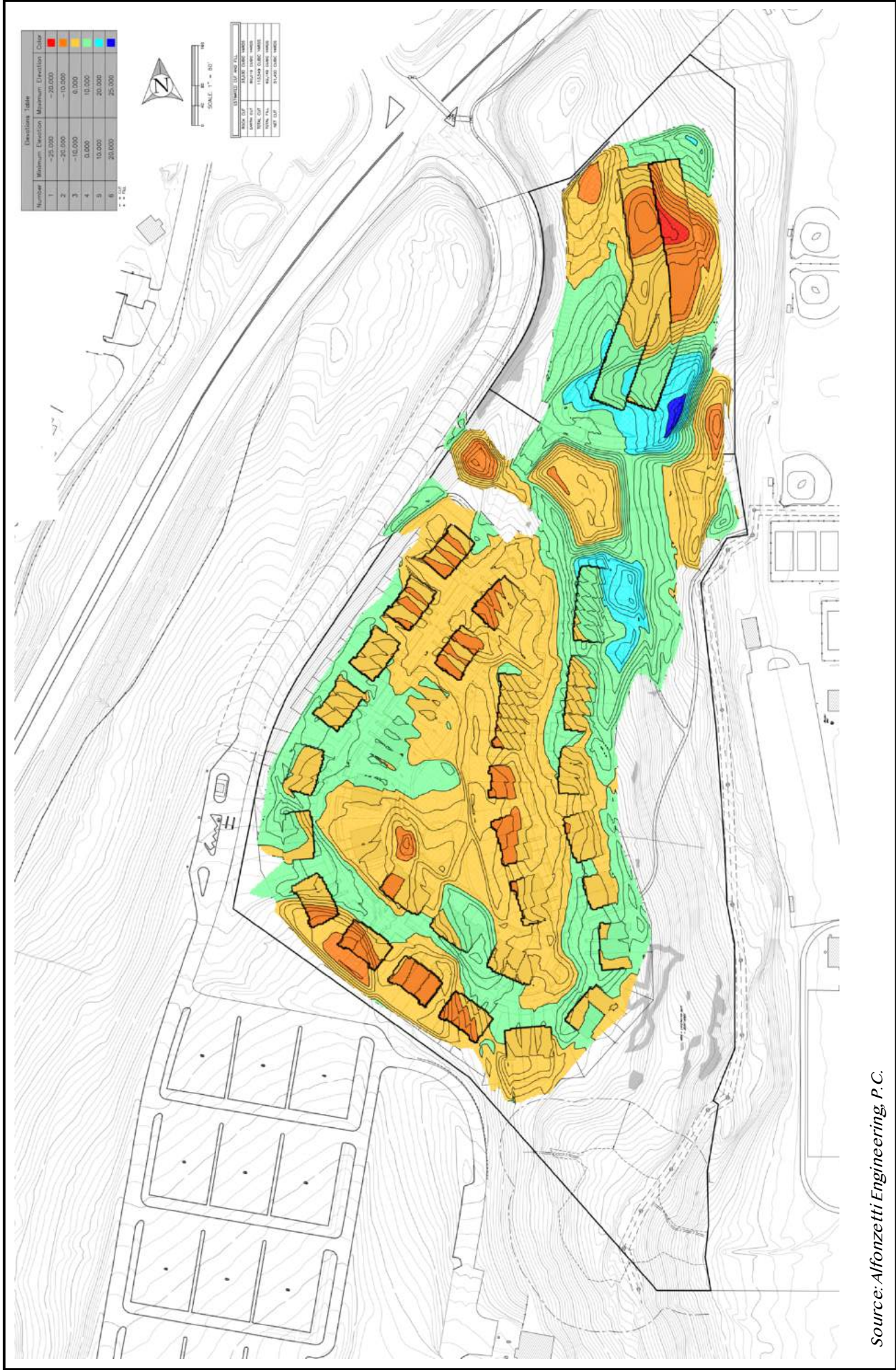
Source: Alfonzetti Engineering, P.C.

Scale: 0' 80' 160'

CLEAR CONSULTING

Areas of Disturbance on Steep Slopes and Soils

Figure IV.C-4



Source: Alfonzetti Engineering, P.C.

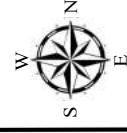
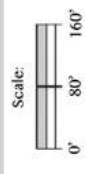


Figure
IV.C-5

Cut & Fill Map

There are several factors that increase the potential for slope failure, including external and internal forces. External forces can be adding mass high on a slope through sediment deposition and a removal of vegetation. Internal forces that increase the potential for slope failure are weak material on top of the failure surface and water. Water is a great risk factor, as it weakens earth material and adds weight, if the soil is absorbing water greater than it's carrying capacity.

One or a combination of these factors can increase the potential for slope failure.

During development it is important to re-establish ground cover and stabilize the slope as soon as possible. The proposed erosion control plan will provide mitigation for the steep slope disturbance areas. The erosion control plan is part of the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges Associated with Construction Activity. Parts of the erosion control plan are silt fences, haybales, hay, mulching, and temporary sediment traps. These erosion control devices are used for mitigation of disturbance to steep slopes during construction activities. Diversion ditches shall convey water to the temporary sediment traps and prevent runoff from causing damage. Where temporary sediment traps are not practical due to site conditions, silt fence will be used to minimize any damage to downhill property from sediment. In addition, staked haybales will be employed at the top of steep slopes to minimize erosive impact from stormwater runoff during construction. The layout and configuration of the Project has been designed to take advantage of the Site's topography and contours, thereby minimizing erosion hazards.

Post construction impacts can also increase erosion, changed drainage patterns, and unstable slopes. The proposed drainage patterns are generally the same as the existing drainage patterns, and in addition each design point studied is designed to have no increase in runoff rates for the 1, 2, 5, 10, 25, 50, and 100-year storm events. Permanent vegetation on steep slopes, retaining walls, and riprap outlet protection will prevent erosion due to topographical changes.

3.) MITIGATION MEASURES

A steep slope disturbance permit shall be obtained for disturbances within designated steep slopes as required by Town Code. Construction related impacts to steep slopes will be mitigated by implementing best management practices and installing and maintaining erosion and sediment control measures described in Chapter B. The permanent stabilization of disturbed steep slopes will be accomplished through the installation of retaining walls (as needed) and proposed revegetation and landscaping.

Minimizing impacts to steep slopes has been a primary consideration in the design, layout and configuration of the Proposed Action. The following measures have been taken:

- The Proposed Action limits has been designed so that there is a zero increase in the rate of stormwater runoff from the Site.
- No terracing is proposed and the buildings and associated site improvements have been designed to be built into the hillside in order to minimize slope disturbances.
- The proposed driveways have been designed to follow the natural topography of the Site to the greatest extent possible. Temporary erosion controls (silt fencing, etc.) and permanent erosion controls (engineered slopes, lawn areas, etc.) will be utilized to minimize potential erosion.
- The Grading Plan (Figure IV.B-7) proposes grading that blends into and generally relates to the natural contours of the Site. Retaining walls, building walls and/or rock cuts are proposed in areas to accomplish the site design and to create easily maintained and erosion resistant stabilized slopes.
- Cuts and fills are to be rounded off to eliminate sharp angles at the top, bottom and sides of regraded slopes.

- The angle of cut and fill slopes will not exceed a slope of one vertical to two horizontal, except where retaining walls, structural stabilization or other engineering methods acceptable to the Town Engineer are employed.
- The tops and bottoms of cut and fill slopes shall be set back from all structures an adequate distance to ensure the safety of the structures in the event of the collapse of the slope. Generally, this distance shall be six feet plus $\frac{1}{2}$ the height of the cut or fill.
- Disturbance to slopes shall be undertaken in workable units to avoid long periods when slopes are exposed and bare.
- Existing ground cover will not be cleared and grubbed more than 15 days prior to grading and construction.
- Temporary soil stabilization, including if appropriate, temporary stabilization measures such as netting or mulching to secure soils during the grow-in period, shall be applied to areas of disturbance within two days of establishing the final grade, and permanent stabilization shall be applied within 15 days of establishing the final grade.
- All proposed disturbances to slopes shall be undertaken with consideration of the engineering limitations of the ChD - Charlton Loam - 15 to 25 percent slopes, CrC - Charlton-Chatfield Complex, rolling, very rocky, CsD - Charlton-Chatfield Complex, hilly, very rocky, RdA - Ridgebury Loam, 0 to 3 percent slopes and Ub - Urothents, smoothed soil units.
- Topsoil removed from areas of disturbance shall be stockpiled for re-use and stabilized in a manner to minimize erosion and sedimentation. No stockpiles shall be placed on slopes greater than 10%.
- All fill materials will be properly compacted.

- Erosion and sedimentation measures shall conform to the Westchester County Soil and Water Conservation District's "Best Management Practices Manual for Erosion and Sediment Control" and the NYSDEC's "Guidelines for Urban Erosion and Sediment Control" as amended, or its equivalent satisfactory to the Planning Board and Town Consulting Engineer.

Additionally, the following specific temporary measures, as documented in the SWPPP, are proposed:

Anti-Tracking Pad – Anti-Tracking Pads shall be installed at all construction entrances. The purpose of the Anti-Tracking Pad shall be to dislodge mud, dirt, and debris from construction vehicles prior to these vehicles leaving the construction site. This will ensure the existing roadways are kept clear of sediment. Locations and details of the Anti-Tracking Pad are shown on the plans.

Silt Fence – Silt Fencing consists of a fabric barrier between supporting stakes or posts usually made of wood. The fabric is proposed to capture suspended sediments from construction runoff and also decreases the velocity of the runoff to protect off-site areas. The proposed location of the silt fence is shown on the plans along with details for installing the silt fence.

Haybales – Haybales are used in a variety of erosion control devices. At the top of an excavation, haybales are used to spread out concentrated flow to prevent erosion. Haybales are used in conjunction with silt fence to add additional protection to sensitive areas such as wetlands and water bodies. Haybales are also used in conjunction with Silt Fence to protect surrounding areas from soil stockpile erosion. The proposed location of the haybales is shown on the plans along with details.

Inlet Protection – Inlet protection is used to filter runoff from non-stabilized construction sites prior to this runoff entering the drainage system.

Temporary Sediment Trap – Temporary Sediment Traps are small ponding basins constructed by excavation or embankment used to intercept sediment laden

runoff. The sediment trap protects waterways, properties, and right-of-ways below the sediment trap.

Toward the completion of construction, permanent sediment and erosion control and stormwater quality and quantity measures will be implemented for long-term erosion protection and water quality and quantity enhancement. The following permanent control measures are proposed:

Green Roof - A green roof is proposed, planted with sedum.

Catch Basins - Used to remove coarse sand and grit sediment before entering the drainage system. Each catch basin will include a minimum of an 18" sump.

Infiltration Basins - Used to treat the runoff volume generated by the developed area and new impervious surfaces and to provide improved water quality. Runoff volumes from storms are retained and released gradually.

Detention Basins - Provide water quality pre-treatment by separating out sediment, debris, floatable, etc. from the runoff stream prior to discharge into the various stormwater management practices.

Rain Gardens - Improve water quality through stormwater absorption through planted depressions.

Rip-Rap Energy Dissipaters - At stormwater discharge point, rip-rap pads consisting of large rocks, will be installed to dissipate velocity and reduce erosion.

Seeding - All areas of disturbance, not otherwise developed, improved or landscaped, will be seeded and mulched to form a permanent uniform erosion resistant surface.

Subject to the implementation of these mitigation measures, no significant adverse impacts to the Site's topography or slopes are anticipated.

Chapter IV. D.

Vegetation & Wildlife

IV. D. VEGETATION & WILDLIFE

INTRODUCTION

This section of the DEIS evaluates the Proposed Action's impact on the Site's flora and fauna. Assessments utilized maps and records of the United States Fish and Wildlife Service (USFWS) and New York State Department of Environmental Conservation (NYSDEC), as well as field reconnaissance conducted by IQ Landscape Architects and Cleary Consulting during the spring, summer and fall of 2018.

1.) EXISTING CONDITIONS

(a.) Vegetation:

The Site is comprised of wooded hillside along the northern and eastern portion of the Site, and an open field in the upper portion of the Site that was formerly an orchard. A few remnant apple trees are present at the southern end of the site. Figure IV.D-1, Digital Surface Model provides a clear representation of on-site vegetation.

Impervious areas on the Site consist of an approximately 8,000 square foot concrete pad previously used by IBM for a helipad. Additionally, two driveways enter the Site from North Castle Drive, whereupon they merge approximately 175' into the Site and thereafter curve to the south, and enter the IBM parking lot and service entrance to the former headquarters building. This driveway runs for approximately 900 feet through the Site and covers approximately 18,000 square feet of impervious surface. Lastly, the remnant of a 15' wide asphalt driveway runs for a distance of approximately 1,500 feet through the Site in an inverted fish-hook shape from the helipad down to Community Park, right behind the tennis bubbles.

In order to accurately characterize the habitats on the Site, the New York Natural Heritage Program's publication "Ecological Communities of New York



Source: Westchester County GIS Service Center

Scale: N.T.S.



Digital Surface Model



Figure
IV.D-1

State¹ was consulted. Utilizing this resource, 6 ecological communities were identified on the Site during field reconnaissance (Figure IV.D-2 – Site Ecological Communities):

- Paved road/path
- Orchard
- Successional old field
- Oak-tulip tree forest
- Successional southern hardwoods
- Red maple-hardwood swamp

The following provides a brief description of each of the 6 ecological communities/cover types located on the Site, based upon the ECNYS community descriptions.

Paved road/path – A road or pathway that is paved with asphalt, concrete, brick, stone, etc. There may be sparse vegetation in cracks in the paved surface.

Orchard – A stand of cultivated fruit trees (such as apples, cherries, peaches, pears, etc.) often with grasses as a groundcover. An orchard may be currently under cultivation or recently abandoned.

Successional old field – A meadow dominated by forbs and grasses that occurs on sites that have been cleared and plowed (for farming or development, and then abandoned. Shrubs may be present, but collectively they have less than 50% cover in the community. This is a relatively short-lived community that succeeds to shrubland, woodland or forest community.

Oak-tulip tree forest – A mesophytic hardwood forest that occurs on moist, well drained sites in southeastern New York. The dominant trees include a mixture of five or more of the following: red oak (*Quercus ruba*), tulip tree

¹ Edinger, G.J., et.al. (editors). 2014. *Ecological Communities of New York State*. Second edition, New York Natural Heritage Program, NYSDEC.



Legend

- A Paved road/path
- B Orchard
- C Successional old field
- D Oak-tulip forest
- E Successional southern hardwoods
- F Red maple hardwood swamp

Scale: N.T.S.



Site Ecological Communities

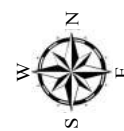


Figure
IV.D-2

(*Liriodendron tulipifera*), beach (*Fagus grandifolia*), black birch (*Betula lenta*), red maple (*Acer rubrum*), scarlet oak (*Quercus coccinea*), black oak (*Quercus velutina*) and white oak (*Quercus alba*). There is typically a sub-canopy stratum of small trees dominated by flowering dogwood (*Cornus florida*); common associates include witch-hazel (*Hamamelis virginiana*), sassafras (*Sassafras albidum*), red maple, and black cherry (*Prunus serotina*). Common low shrubs include maple-leaf viburnum (*Viburnum acerifolium*), northern blackberry (*Rubus allegheniensis*), and lowbush blueberries (*Vaccinium angustifolium*, *V. pallidum*). Spicebush (*Lindera benzoin*) may be common in moister areas. A characteristic vine is Virginia creeper (*Parthenocissus quinquefolia*). The shrub layer and groundlayer flora may be diverse. Characteristic groundlayer herbs are white wood aster (*Eurybia divaricata*), New York fern (*Thelypteris noveboracensis*), jack-in-the-pulpit (*Arisaema triphyllum*), wild geranium (*Geranium maculatum*), spring beauty (*Claytonia virginica*), Solomon's-seal (*Polygonatum biflorum*), and false Solomon's-seal (*Maianthemum racemosum*). Purple trillium (*Trillium erectum*) and wild ginger (*Asarum canadense*) may be present at low percent cover in less disturbed examples. Stilt grass (*Microstegium vimineum*) may become invasive in oak-tulip tree forests.

Successional southern hardwoods - a hardwood or mixed forest that occurs on sites that have been cleared or otherwise disturbed. Characteristic trees and shrubs include any of the following: American elm (*Ulmus americana*), slippery elm (*Ulmus rubra*), white ash (*Fraxinus americana*), red maple (*Acer rubrum*), box elder (*Acer negundo*), silver maple (*Acer saccharinum*), sassafras (*Sassafras albidum*), gray birch (*Betula populifolia*), hawthorns (*Crataegus* spp.), eastern red cedar (*Juniperus virginiana*), and choke-cherry (*Prunus virginiana*). Certain introduced species are commonly found in successional forests, including black locust (*Robinia pseudo-acacia*), tree-of-heaven (*Ailanthus altissima*), and buckthorn (*Rhamnus cathartica*). Any of these may be dominant or codominant in a successional southern hardwood forest. This is a broadly defined community and several seral and regional variants are known.

Red maple hardwood swamp - a hardwood swamp that occurs in poorly drained depressions or basins, usually on inorganic soil, but occasionally on muck or shallow peat, that is typically acidic to circumneutral. This is a broadly defined community with several regional and edaphic variants. The hydrology varies from permanently saturated to the surface to seasonally flooded/wet with hummocks and hollows. In any one stand red maple (*Acer rubrum*) is either the only canopy dominant, or it is codominant with one or more hardwoods including ashes (*Fraxinus pennsylvanica*, *F. nigra*, and *F. americana*), elms (*Ulmus americana* and *U. rubra*), and yellow birch (*Betula alleghaniensis*). Other trees with low percent cover include butternut (*Juglans cinerea*), bitternut hickory (*Carya cordiformis*), blackgum (*Nyssa sylvatica*), American hornbeam (*Carpinus caroliniana*), swamp white oak (*Quercus bicolor*), and white pine (*Pinus strobus*). The trunks of maples are typically single-trunked unlike those of floodplain forests with multiple trunks. The shrub layer is usually well-developed and may be quite dense. Characteristic shrubs are winterberry (*Ilex verticillata*), spicebush (*Lindera benzoin*), alders (*Alnus incana* ssp. *rugosa* and *A. serrulata*), viburnums (*Viburnum dentatum* var. *lucidum*, *V. nudum* var. *cassinoides*), highbush blueberry (*Vaccinium corymbosum*), common elderberry (*Sambucus nigra* ssp. *canadensis*), and various shrubby dogwoods (*Cornus sericea*, *C. racemosa*, and *C. amomum*). Swamp azalea (*Rhododendron viscosum*) is more common in southern examples, and poison sumac (*Toxicodendron vernix*) and black ash are more common in mineral-rich examples with slightly higher pH. The herbaceous layer may be quite diverse and is often dominated by ferns, including sensitive fern (*Onoclea sensibilis*), cinnamon fern (*Osmunda cinnamomea*), royal fern (*O. regalis*), and marsh fern (*Thelypteris palustris*), with much lesser amounts of crested wood fern (*Dryopteris cristata*), and spinulose wood fern (*Dryopteris carthusiana*). Characteristic herbs include skunk cabbage (*Symplocarpus foetidus*), white hellebore (*Veratrum viride*), sedges (*Carex stricta*, *C. lacustris*, and *C. intumescens*), jewelweed (*Impatiens capensis*), false nettle (*Boehmeria cylindrica*), arrow arum (*Peltandra virginica*), tall meadow rue (*Thalictrum pubescens*), and marsh marigold (*Caltha palustris*). Open patches within the swamp may contain other herbs characteristic of shallow emergent marsh.

Table IV.D-1 presents the cover types and ecological communities on the Site.

| Table IV.D-1 Cover Types and Ecological Communities | | | | |
|--|-----------------------|---------------------------------|-------------|------------|
| Cover Type (Ecological Community) | Site Coverage (Acres) | Site Coverage (Percent of Site) | Global Rank | State Rank |
| Paved road/path | 1.1 | 3.3% | Unranked | Unranked |
| Orchard | 1.5 | 4.7% | Unranked | Unranked |
| Successional old field | 15.9 | 48.9% | G5 | S5 |
| Oak-tulip tree forest | 9.2 | 28.4% | G4 | S2 -S3 |
| Successional southern hardwoods | 4.2 | 12.9% | G5 | S5 |
| Red maple hardwood swamp | 0.6 | 1.8% | G5 | S4 - S5 |
| Total | 32.5 | 100% | | |

Source: ECNYS, Cleary Consulting

Global and State rankings are defined as follows:

GLOBAL RANK :

G1 = Critically imperiled globally because of extreme rarity (5 or fewer occurrences), or very few remaining acres, or miles of stream) or especially vulnerable to extinction because of some factor of its biology and/or ecology.

G2 = Imperiled globally because of rarity (6 - 20 occurrences, or few remaining acres, or miles of stream) or very vulnerable to extinction throughout its range because of other factors.

G3 = Either rare and local throughout its range (21 to 100 occurrences), or found locally (even abundantly at some of its locations) in a restricted range (*e.g.*, a physiographic region), or vulnerable to extinction throughout its range because of other factors.

G4 = Apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery.

G5 = Demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.

GH = Historically known, with the expectation that it might be rediscovered.

GX = Species believed to be extinct.

GU = Status unknown.

STATE RANK:

S1 = Typically 5 or fewer occurrences, very few remaining individuals (for species), acres, or miles of stream, or some factor of its biology and/or ecology making it especially vulnerable in New York State.

S2 = Typically 6 to 20 occurrences, few remaining individuals (for species), acres, or miles of stream, or factors demonstrably making it very vulnerable in New York State.

S3 = Typically 21 to 100 occurrences, limited acreage, or miles of stream in New York State. Apparently secure in New York State.

S4 = Apparently secure in New York State.

S5 = Demonstrably secure in New York State.

SH = Historically known from New York State, but not seen in the past 20 years. Apparently extirpated from New York State.

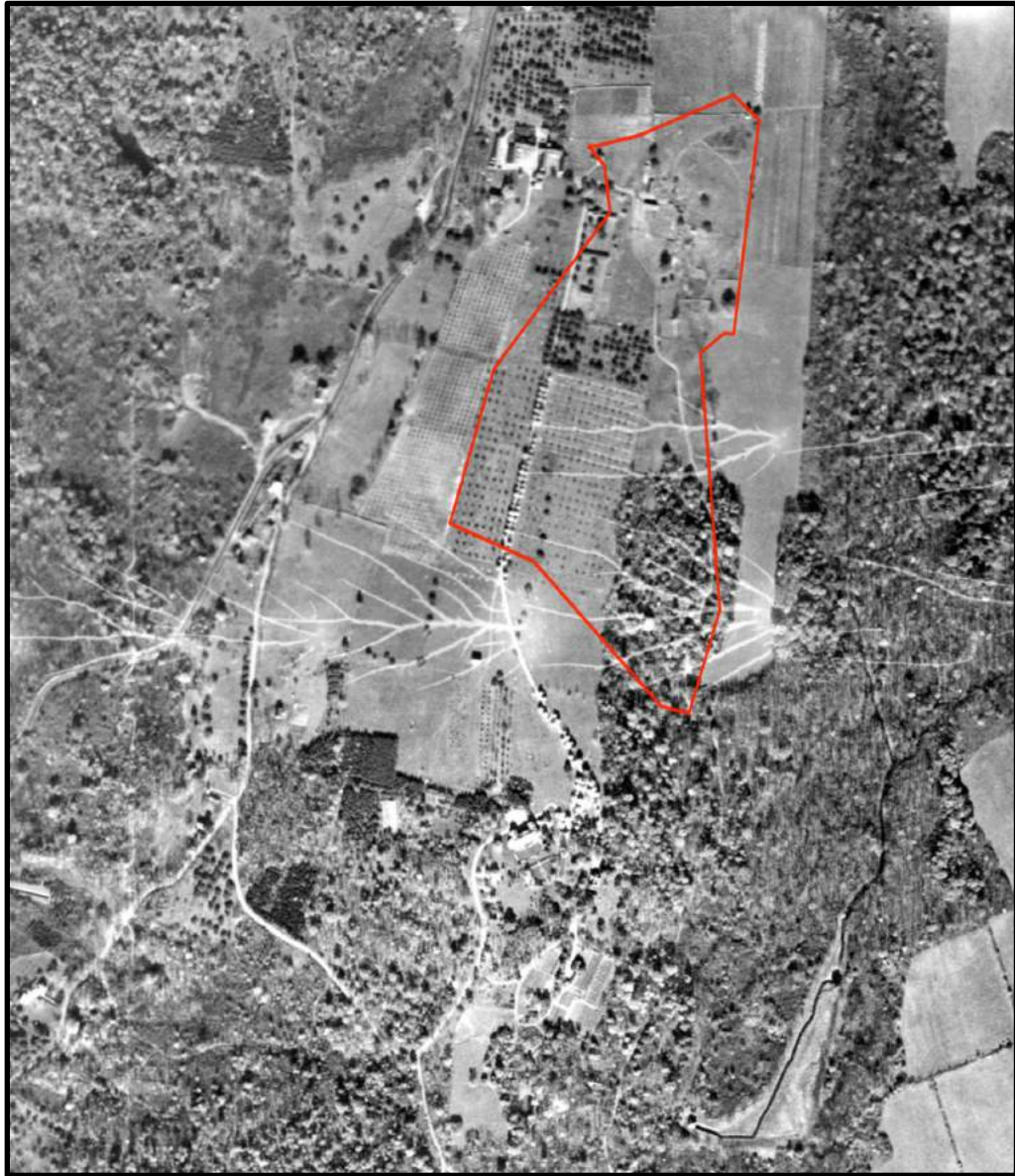
SX = Apparently extirpated in New York state.

SE = Non-native species, not native to New York State.

SR = State report only, no verified specimens (for species) known from New York State.

SU = Status unknown.

The earliest aerial photograph of the Site (1926) clearly depicts the newly planted orchard in the southwestern portion of the Site. The north and northeastern portion of the Site was completely cleared and supported various farm accessory buildings and facilities. Only the southeast corner of the Site supported an ecological community that remains in-tact today; the oak-tulip tree forest. Also evident in this photograph are drainage channels (perhaps created during previous agricultural activities) that limited the presence and extent of the red maple hardwood swamp pocket at the very edge of the Site.



Site Ecological Communities - 1926

As a result, it can be concluded that the Site was previously heavily modified and disturbed by anthropogenic intervention and use. Furthermore, in the years since the Site has been vacant and unused, invasive species have encroached into the property, diminishing the quality of areas of the existing ecological communities.



Invasive English Ivy

According to the New York State Department of Environmental Conservation, Natural Heritage Program and the United States Fish & Wildlife Service, IPac databases, there are no records of any rare plants or significant natural habitats on the Site or in the vicinity.

On-site vegetation was inventoried via field reconnaissance during the summer of 2018. The following plant list is not intended to be inclusive of all vegetation of the Site, but is representative of species observed, and anticipated to be present.

| Table IV.D-2 On-Site Vegetation | |
|------------------------------------|--------------------------------|
| Common Name | Scientific Name |
| TREES | |
| Norway Maple | <i>Acer platanoides</i> |
| Red Maple | <i>Acer rubrum</i> |
| Sugar Maple | <i>Acer saccharum</i> |
| Black Birch | <i>Betula lenta</i> |
| Shagbark Hickory | <i>Carya ovata</i> |
| Pignut Hickory | <i>Carya glabra</i> |
| Flowering Dogwood | <i>Cornus florida</i> |
| American Beech | <i>Fagus grandifolia</i> |
| White Ash | <i>Fraxinus Americana</i> |
| Black Walnut | <i>Juglans nigra</i> |
| Eastern Red Cedar | <i>Juniperus virginiana</i> |
| Sweet Gum | <i>Liquidambar styraciflua</i> |
| Tulip Poplar | <i>Liquidambar tulipifera</i> |
| Crab-apple | <i>Malus spp.</i> |
| Black gum | <i>Nyssa sylvatica</i> |
| Norway Spruce | <i>Picea abies</i> |
| White Pine | <i>Pinus strobus</i> |
| Red Pine | <i>Pinus resinosa</i> |
| American Sycamore | <i>Platanus occidentalis</i> |
| Cottonwood | <i>Populus deltoids</i> |
| Black Cherry | <i>Prunus serotina</i> |
| White Oak | <i>Quercus alba</i> |
| Scarlet Oak | <i>Quercus coccinea</i> |
| Red Oak | <i>Quercus rubra</i> |
| Pin Oak | <i>Quercus palustris</i> |

| | |
|---------------------------|------------------------------------|
| Black Locust | <i>Robinia pseudocacia</i> |
| Weeping Willow | <i>Salix babylonica</i> |
| Sassafras | <i>Sassafras albidum</i> |
| Eastern Hemlock | <i>Tsuga canadensis</i> |
| American Elm | <i>Ulmus Americana</i> |
| SHRUBS & VINES | |
| Shadblow | <i>Amelanchier canadensis</i> |
| Porcelain berry | <i>Ampelopsis brevipedunculata</i> |
| Japanese Barberry | <i>Berberis thunbergii</i> |
| Oriental bittersweet | <i>Celastrus orbiculatus</i> |
| Summersweet | <i>Clethra alnifolia</i> |
| Silky dogwood | <i>Cornus amomum</i> |
| Winged Euonymus | <i>Euonymus atropurpurea</i> |
| Forsythia | <i>Forsythia spp.</i> |
| Huckleberry | <i>Gaylussacia baccata</i> |
| Witch hazel | <i>Hamamelis virginiana</i> |
| Winterberry | <i>Ilex verticillata</i> |
| Mountain Laurel | <i>Kalmia latifolia</i> |
| Spicebush | <i>Lindera benzoin</i> |
| Privet | <i>Ligustrum vulgare</i> |
| Japanese Honeysuckle | <i>Lonicera japonica</i> |
| Virginia Creeper | <i>Parthenocissus quinquefolia</i> |
| Swamp Azalea | <i>Rhododendron viscosum</i> |
| Brambles | <i>Rubus spp.</i> |
| Poison Ivy | <i>Rhus glabra</i> |
| Staghorn sumac | <i>Rhus typhina</i> |
| Blackberry | <i>Ribes allegheniensis</i> |
| Multiflora Rose | <i>Rosa multiflora</i> |
| Pink flowering raspberry | <i>Rubus odoratus</i> |

| | |
|--|-----------------------------------|
| Wineberry | <i>Rubus phoenicolasias</i> |
| Highbush Blueberry | <i>Vaccinium corymbosum</i> |
| Arrowwood Viburnum | <i>Viburnum denatum</i> |
| Grape | <i>Vitis spp.</i> |
| Forbs (Wildflowers, Ferns, Grasses & Grass-Like Plants) | |
| Maidenhair Fern | <i>Adiantum pedatum</i> |
| Garlic mustard | <i>Alliaria petiolata</i> |
| Wild Leek | <i>Allium tricoccum</i> |
| Pigweed | <i>Amaranthus spp.</i> |
| Ragweed | <i>Ambrosia spp.</i> |
| Broom sedge | <i>Andropogon virginicus</i> |
| Spreading dogbane | <i>Apocynum androsaemifolium</i> |
| Jack-in-the-pulpit | <i>Arisaema atrorubens</i> |
| White wood aster | <i>Aster divaricatus</i> |
| New England Aster | <i>Aster novae-angliae</i> |
| Wood Aster | <i>Aster spp.</i> |
| Lady Fern | <i>Athyrium filix-femina</i> |
| Oxeye daisy | <i>Chrysanthemum leucanthemum</i> |
| Chickory | <i>Cichorium intybus</i> |
| Virgin's Bowers | <i>Clematis virginiana</i> |
| Yellow Clintonia | <i>Clintonia borealis</i> |
| Virginia Dayflower | <i>Commelina virginica</i> |
| Crown Vetch | <i>Coronilla varia</i> |
| Umbrella sedge | <i>Cyperus strigosus</i> |
| Yellow Lady's Slipper | <i>Cypripedium calceolus</i> |
| Queen Anne's Lace | <i>Daucus carota</i> |
| Dutchman's breeches | <i>Dicentra cucullaria</i> |
| Crabgrass | <i>Digitaria spp.</i> |
| Marginal Wood Fern | <i>Dryopteris marginalis</i> |

| | |
|---------------------|----------------------------------|
| New York Fern | <i>Dryopteris noveboracensis</i> |
| Wood Fern | <i>Dryopteris spp.</i> |
| Barnyard Grass | <i>Echinochloa crusgalli</i> |
| Wild Rye | <i>Elymus virginicus</i> |
| Horsetail | <i>Equisetum arvense</i> |
| Trout lily | <i>Erythronium americanum</i> |
| White snakeroot | <i>Eupatorium rugosum</i> |
| Meadow fescue | <i>Fescue elatior</i> |
| Wild strawberry | <i>Fragaria virginiana</i> |
| Wild geranium | <i>Geranium maculatum</i> |
| Yellow avens | <i>Geum aleppicum</i> |
| Jewelweed | <i>Impatiens capensis</i> |
| Wild morning glory | <i>Ipomoea spp.</i> |
| Blueflag | <i>Iris Versicolor</i> |
| Purple loosestrife | <i>Lythrum salicaria</i> |
| Yellow sweet clover | <i>Melilotus officinalis</i> |
| Wild mint | <i>Metha arvensis</i> |
| Indian pipe | <i>Monotropa uniflora</i> |
| Forget-me-not | <i>Myosotis verna</i> |
| Cinnamon Fern | <i>Osmunda cinnamomea</i> |
| Deer-tongue grass | <i>Panicum clandestinum</i> |
| Paspalum | <i>Paspalum spp.</i> |
| Timothy | <i>Phleum pratense</i> |
| Wild blue phlox | <i>Phlox divaricata</i> |
| Common reed | <i>Phragmitis communis</i> |
| Pokeweed | <i>Phytolacca Americana</i> |
| Clearweed | <i>Pilea pumila</i> |
| Kentucky bluegrass | <i>Poa patensis</i> |
| Pinkweed | <i>Polygamum pennsylvanicum</i> |

| | |
|------------------------|-----------------------------------|
| Soloman's seal | <i>Polygonatum pubescens</i> |
| Common smartweed | <i>Polygobum hydropiper</i> |
| Arrow-leaved tearthumb | <i>Polystichum sagittatum</i> |
| Christmas fern | <i>Polystichum acrostichoides</i> |
| Field sorrel | <i>Rumex acetosella</i> |
| Bloodroot | <i>Sanguinaria Canadensis</i> |
| Early goldenrod | <i>Solidago juncea</i> |
| Swamp goldenrod | <i>Solidago uliginos</i> |
| Spagnum moss | <i>Spagnum spp.</i> |
| Chickweed | <i>Stellaria alsine</i> |
| Skunk cabbage | <i>Symplocarpus foetidus</i> |
| Common dandelion | <i>Taraxacum officinale</i> |
| Tall meadow rue | <i>Thalictrum polygranum</i> |
| Field pennycress | <i>Thlaspi arvense</i> |
| Red clover | <i>Trifolium pratense</i> |
| White clover | <i>Trifolium repens</i> |
| False hellebore | <i>Veratrum viride</i> |
| Smooth Yellow violet | <i>Viola pensylvanica</i> |

Additionally, a tree survey of the Site was compiled² (Figure IV.D-3). In total, 1,524 trees above 8" dbh are present on the Site. The complete tree survey is included in the Appendix.

² Tree Survey, prepared by TC Merritts Land Surveyors, surveyed September 14, 2016, map prepared October 5, 2016, last revised January 11, 2018. Tree species and condition inventoried by IQ Landscape Architects, August – November, 2018.

(b.) Wildlife:***Mammals:***

Mammal species anticipated to utilize the Site were identified from the *Westchester County Biodiversity Program List*³, as well as from on-site field observations. The following list is not intended to be inclusive of all mammals utilizing the Site, but is representative of species observed, and anticipated to be present.

| Table IV.D-5 Mammals | |
|---------------------------------|--------------------------------|
| Common Name | Scientific Name |
| Virginia Opossum | <i>Didelphis virginiana</i> |
| Short-trail Shrew | <i>Blarina brevicauda</i> |
| Eastern Cottontail | <i>Sylvilagus floridamus</i> |
| Eastern Chipmunk | <i>Tamias striatus</i> |
| Eastern Mole | <i>Scalopus Aquaticus</i> |
| Woodchuck | <i>Marmota monax</i> |
| Gray Squirrel | <i>Sciurus carolinensis</i> |
| Norway Rat | <i>Ratus norvegicus</i> |
| White-footed Mouse | <i>Peromyscus leucopus</i> |
| Meadow Vole | <i>Microtus pennsylvanicus</i> |
| Red Fox | <i>Vulpes vulpes</i> |
| Coyote | <i>Canis latrans</i> |
| Raccoon | <i>Procyon lotor</i> |
| Striped Skunk | <i>Mephitis Mephitis</i> |
| White-tailed Deer | <i>Odocoileus</i> |

³ Westchester County Department of Parks, Recreation & Conservation, 2003. *The Biodiversity Research Program List*.

Due to the Site's previously disturbed condition to support agricultural activities, it is not anticipated that all of the species noted above will utilize the Site. On-site field reconnaissance observed, or identified evidence of mice, moles, shrews, chipmunks, squirrels, racoon and deer.

Birds:

The most prevalent wildlife observed on the Site are avian species. Field reconnaissance was supplemented by consultation with *The New York State Breeding Bird Atlas*⁴ to compile a full list of the birds likely to inhabit or utilize the Site.

The survey block within which the Site is located includes a range of habitats, including those not found on the Site, so it is likely that a number of the species identified are not expected to utilize the Site, except perhaps as occasional transients.

Table IV.D-6 presents avian species expected to utilize the Site

| Table IV.D-6 Birds | |
|-----------------------|----------------------------|
| Common Name | Scientific Name |
| Great Blue Heron | <i>Ardea herodias</i> |
| Green Heron | <i>Butorides striatus</i> |
| Canada Goose | <i>Branta canadensis</i> |
| Wood Duck | <i>Aix sponsa</i> |
| Mallard | <i>Anas platyrhynchos</i> |
| Turkey vulture | <i>Cathartes aura</i> |
| Sharp-skinned Hawk | <i>Accipiter striatus</i> |
| Red-tailed hawk | <i>Buteo jamaicensis</i> |
| Wild Turkey | <i>Meleagris gallopavo</i> |

⁴ McGowan, KJ and K. Corwin, eds, 2008. *The Atlas of Breeding Birds in New York State*. Cornell University Press.

| | |
|-------------------------|----------------------------------|
| Killdeer | <i>Charadrius vociferus</i> |
| Rock Dove | <i>Columba livia</i> |
| Mourning Dove | <i>Zenaidura macroura</i> |
| Black-billed Cuckoo | <i>Coccyzus erythrophthalmus</i> |
| Eastern screech owl | <i>Otus asio</i> |
| Great Horned owl | <i>Bubo virginianus</i> |
| Chimney swift | <i>Chaetura pelagica</i> |
| Belted Kingfisher | <i>Megasceryle alcyon</i> |
| Red-bellied Woodpecker | <i>Centurus carolinus</i> |
| Downy woodpecker | <i>Picoides pubescens</i> |
| Hairy Woodpecker | <i>Picoides villosus</i> |
| Northern Flicker | <i>Colaptes auratus</i> |
| Pileated Woodpecker | <i>Dryocopus pileatus</i> |
| Eastern Wood-Pewee | <i>Contopus virens</i> |
| Eastern Phoebe | <i>Sayornis phoebe</i> |
| Eastern Kingbird | <i>Tyrannus tyrannus</i> |
| Barn swallow | <i>Hirundo rustica</i> |
| Blue Jay | <i>Cyanocitta cristata</i> |
| American Crow | <i>Corvus brachyrhynchos</i> |
| Black-capped Chickadee | <i>Parus atricapillus</i> |
| Tufted Titmouse | <i>Parus bicolor</i> |
| White-breasted Nuthatch | <i>Sitta carolinensis</i> |
| Carolina Wren | <i>Thryothorus ludovicianus</i> |
| House Wren | <i>Troglodytes aedon</i> |
| Ruby-crowned Kinglet | <i>Regulus calendula</i> |
| Veery | <i>Catharus fuscescens</i> |
| Gray-cheeked Thrush | <i>Catharus minimus</i> |
| Swainson's Thrush | <i>Catharus ustulatus</i> |
| Hermit Thrush | <i>Catharus guttatus</i> |

| | |
|------------------------------|--------------------------------|
| Wood thrush | <i>Hylocichia mustelina</i> |
| American Robin | <i>Turdus migratorius</i> |
| Gray Catbird | <i>Dumetella carolinensis</i> |
| Northern Mockingbird | <i>Mimus polyglottos</i> |
| Cedar Waxwing | <i>Bombycillia cedrorum</i> |
| European Starling | <i>Sturnus</i> |
| Yellow-throated Vireo | <i>Vireo flavifrons</i> |
| Red-eyed Vireo | <i>Vireo olivaceus</i> |
| Blue-winged Warbler | <i>Vermivora pinus</i> |
| Yellow Warbler | <i>Dendroica petechia</i> |
| Chestnut-sided Warbler | <i>Dendroica pensylvanica</i> |
| Black-throated Green Warbler | <i>Dendroica virens</i> |
| Pine Warbler | <i>Dendroica pinus</i> |
| Black-and-white Warbler | <i>Mniotilta varia</i> |
| American Redstart | <i>Setophaga ruticilla</i> |
| Worm-eating Warbler | <i>Helminthos vermivorus</i> |
| Ovenbird | <i>Seiurus aurocapillus</i> |
| Louisiana Waterthrush | <i>Seiurus motacilla</i> |
| Common Yellowthroat | <i>Geothlypis trichas</i> |
| Scarlet Tanager | <i>Piranga olivacea</i> |
| Northern cardinal | <i>Cardinalis cardinalis</i> |
| Rose-breasted Grosbeak | <i>Pheucticus ludovicianus</i> |
| Indigo Bunting | <i>Passerina cyanea</i> |
| Rufous-sided Towhee | <i>Pipilo erythrophthalmus</i> |
| Chipping Sparrow | <i>Spizella passerine</i> |
| Song Sparrow | <i>Melospiza melodia</i> |
| White-throated Sparrow | <i>Zonotrichia albicollis</i> |
| Dark-eyed Junco | <i>Junco hyemalis</i> |
| Red-winged Blackbird | <i>Agelaius phoeniceus</i> |

| | |
|----------------------|-----------------------------|
| Common Grackle | <i>Quiscalus</i> |
| Brown-headed Cowbird | <i>Molothrus ater</i> |
| Northern Oriole | <i>Icterus galbula</i> |
| House Finch | <i>Carpodacus mexicanus</i> |
| American Goldfinch | <i>Carduelis tristis</i> |
| House Sparrow | <i>Passer domesticus</i> |

Herpetofauna:

In addition to field observations, the New York State Amphibian and Reptile Atlas Database was referenced to identify herpetofauna that may utilize the Site. Based upon this evaluation, the following species presented in Table IV.D-7 are anticipated to utilize the Site.

| Table IV.D-7 Herpetofauna | |
|-------------------------------|--|
| Common Name | Scientific Name |
| Northern Two-lined Salamander | <i>Eurycea bislineata</i> |
| Red-backed Salamander | <i>Plethodon cinereus cinereus</i> |
| Four-toed salamander | <i>Hemidactylium scutatum</i> |
| Red-Spotted Newt | <i>Notophthalmus viridescens viridescens</i> |
| American Toad | <i>Bufo americanus</i> |
| Gray Tree Frog | <i>Hyla versicolor</i> |
| Spring Pepper | <i>Pseudacris crucifer</i> |
| Green Frog | <i>Ranas clamitans</i> |
| Bullfrog | <i>Rana catesbeiana</i> |
| Wood frog | <i>Rana sylvatica</i> |
| Eastern Box Turtle | <i>Terrapene Carolina carolina</i> |
| Eastern Garter Snake | <i>Thamnophis sirtalis</i> |
| Eastern rat snake | <i>Pantherophis spiloides</i> |

Rare/Protected Species:

No New York State or Federally listed endangered, threatened or species of special concern have been identified at the Project Site.

According to the New York State Department of Environmental Conservation, Natural Heritage Program and the United States Fish & Wildlife Service, IPaC databases, the range of two endangered/threatened species includes the Subject Site; the Indiana Bat and the Northern Long-Eared Bat. The IPaC database notes that the Project Site is outside of the critical habitat area for the Indiana Bat.

Northern Long-Eared Bat (*Myotis septentrionalis*) – According to the USFWS Northern-Long Eared Bat Fact Sheet (see Appendix), this mammal is a brown colored, medium sized bat, ranging in size from 3.0 to 3.7 inches, with a wingspan of 9.0 to 10.0 inches. Winter roosting habitat occurs within caves, mines or similar habitats, while summer roosting habitat occurs either singly or in colonies, underneath the bark or in cavities or cervices of living or dead trees. At dusk, the bats emerge from roosts to feed on insects, which they catch in flight using echolocation or glean from vegetation and surfaces or aquatic habitats.⁵

The Site offers no specifically suitable habitat for the Northern Long-Eared Bat (caves, etc.). Furthermore, according to the USFWS, Northern Long-Eared Bat Interim Conference and Planning Guidance⁶ preferred summer roosting habitat consists of forests with canopy coverage ranging from 56 to greater than 84 percent. The forest canopy coverage of the Project Site is less than 50%. Additionally, no recorded sightings of the species have been noted in or around the Project Site. These factors demonstrate that the Site does not support a significant habitat area for the Northern Long-Eared Bat.

⁵ United States Fish & Wildlife Service. 2014. Northern Long-Eared Bat (*Myotis septentrionalis*) Fact Sheet. Available online at <http://www.fws.gov/midwest/endangered/mammals/nlebFactSheet.html>.

⁶ United States Fish & Wildlife Service. 2014. Northern Long-Eared Bat Interim Conference and Planning Guidance – USFWS Regions 2,3,4,5 & 6

2.) POTENTIAL IMPACTS

(a.) Vegetation:

The Proposed Action will disturb approximately 26.5 acres of the 32.5-acre Site. Of this disturbance, 5.5 acres will be redeveloped to accommodate new buildings, 4.9 acres will be devoted to driveways, walkways and other paved surfaces, resulting in a total impervious surface coverage of 10.4 acres.

Table IV.D-8 documents the disturbances to each existing cover type and ecological community.

| Table IV.D-8 Disturbance to Existing Cover Types and Ecological Communities | | | |
|--|--------------------------|---|---------------|
| Cover Type (Ecological Community) | Existing Area (Acres) | Area Remaining After Development | Net Change |
| Paved road/path | 1.1 | 0 | - 1.1 |
| Orchard | 1.5 | 0.3 | - 1.2 |
| Successional old field | 15.9 | 0.4 | -15.5 |
| Oak-tulip tree forest | 9.2 | 3.9 | - 5.3 |
| Successional southern hardwoods | 4.2 | 0.8 | - 3.4 |
| Red maple hardwood swamp | 0.6 | 0.6 | 0 |
| Total | 32.5 | 6.0 | |

All of the cover types and ecological communities to be removed are unranked or either “demonstrably” or “apparently secure” globally or “demonstrably” or “apparently secure” in New York State.

The most sensitive upland cover type on the Site is the oak-tulip tree forest ecological community, which remains largely in-tact and survived the Site’s prior agricultural activities. According to the New York State Natural Heritage Database⁷ the oak-tulip tree forest is secure globally; however, it is very vulnerable in New York State with between 6 to 100 occurrences within its

⁷ Ecological Communities of new York State, Second Edition, edited by Edinger, et al. 2014.

fairly limited range, which includes the northern half of Long Island in the Coastal Lowlands ecozone, in the Manhattan Hills, Hudson Highlands and Triassic Lowlands ecozones. Sufficient characteristics exist to identify this community on the Site, but as noted above, the extensive agricultural activities that occurred adjacent to this area, resulted in the extensive proliferation of invasive species, particularly along the perimeter of this cover type. This is the area that would be disturbed to accommodate the proposed development. While a significant portion of this ecological community will remain undisturbed (3.9 acres), it's presence on-site represents only the northern tip of this community which extends south, behind the IBM campus into Connecticut toward the Tamarack Country Club. Therefore, in the Applicant's opinion, this minor disturbance at its northern tip, which would not involve total clearance and tree removal (allowing for larger trees to be selectively preserved) will have little impact on the larger area to the south. The Lead Agency will need to determine whether the proposed disturbance is acceptable or whether additional protection to this important community is warranted.

Of the 850 trees in excess of 8" dbh to be removed from the Site, few predate the previous orchard use. The balance were planted or have grown as pioneering species after the 1920's.

The Proposed Action will have no impact on any rare plants or significant natural habitats on the Site or in the vicinity.

(b.) Wildlife:

The ecological communities on the Site and their availability as habitat for local and migratory species of wildlife will be impacted by the Proposed Action.

During the site clearing and construction phases of the Proposed Action, it is expected that some of the smaller, less mobile or juveniles of some species would be impacted. However, the majority of the species that utilize the Site are more mobile and would be able to avoid conflicts or injury. Displaced

species are expected to relocate to adjacent contiguous areas of similar habitat.

The consequence of this displacement and emigration will be increased competition for resources within the adjacent habitats. This will likely result in comparatively minor decreases in some wildlife populations until equilibrium between populations and available resources is achieved.

The Proposed Action preserves the on-site wetland and surrounding wetland buffer which is prime habitat for many wildlife species, as well as approximately 6 acres of existing vegetation around the perimeter of the Site. Moreover, the Landscaping Plan prepared to support the Project involves the reintroduction of new vegetation that will serve as new habitat for certain species. It is therefore likely that some of the species that were displaced during the construction phase of the Project, will re-inhabit the Site after the completion of construction.

While the Site is located within the range of the threatened Northern Long-Eared Bat, the on-site habitat is not conducive to support this species, and no observations of this mammal have been recorded near the Site.

As a result, in the Applicant's opinion, it can be concluded that no significant adverse wildlife impacts will result from the Proposed Action.

3.) MITIGATION MEASURES

As noted above, in the Applicant's opinion, no significant adverse impacts to vegetation and wildlife will result from the Proposed Action.

Nevertheless, the proposed modifications to the Site will result in the removal of existing vegetation, modifications to existing habitats and the displacement of wildlife species that currently utilize the Site. The following mitigation measures are proposed to minimize the extent of these impacts.

- The site plan has been designed to minimize impacts to the more mature and robust wooded portion of the Site that supports the oak-tulip tree forest ecological community, as well as the red maple hardwood swamp. Only approximately 5.3 acres of the oak-tulip tree forest ecological community would be disturbed, while the wetland system will be untouched. The Lead Agency may further mitigate impacts to the oak-tulip forest.
- To compensate for the loss of vegetation, a new Landscaping Plan is proposed (Figure IV.D-4). This plan includes extensive new plantings in features such as the village commons (coneflower, joe pye weed, switchgrass) linear greenway (black-eyed susan, coneflower, butterfly weed, aster, liatris, goldenrod), residential streetscape (American elm, sugar maple, red oak), woodland edge (switchgrass, little bluestem, chokeberry, nanny berry, viburnum, grey dogwood, flowering dogwood, redbud), hotel plantings (river birch, serviceberry), and art meadow (willows, white oak, sycamore). Over 400 new trees are proposed.
- The plant materials selected for the Landscaping Plan consist primarily of native species that are consistent with the existing on-site ecological communities.
- Where possible, remnant apple trees from the former orchard will be preserved and incorporated into the Landscaping Plan.
- Most of the wildlife species that will be displaced as a result of construction related activities are highly tolerant of proximity to humans, and upon completion of the project are expected to re-inhabit the newly landscaped portions of the Site.
- The proposed stormwater features (stormwater basins, rain gardens) will increase the area of semi-permanently flooded areas on-site and would provide new or expanded habitat for species associated with these conditions.



Source: IQ Landscape Architects, PC

Scale:
N.T.S.

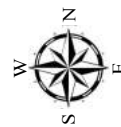


Figure
IV.D-4

Landscaping Plan

- During the staking of the Limit of Disturbance, an assessment will be conducted to determine if modifications to grades or other measures (such as the use of tree wells) can be employed conserve additional trees.
- All trees within the area of disturbance in excess of 8" dbh that are to remain shall be protected through the installation of orange construction fencing at the dripline of the tree. Areas within the fencing will be mulched with 4" – 6" of coarse wood chips, watered during extended periods of no rain and supplemented with a top dressing of compost and/or an application of bio-stimulant.
- To minimize the reestablishment of invasive species, manual removal and off-site legal disposal of invasive plants, invasive plant tissues, roots, rhizomes, vines and fruit/seeds would be undertaken.

Chapter IV. E.

Wetlands

IV. E. WETLANDS

INTRODUCTION

Impacts to on-site wetlands will be evaluated in this section of the DEIS.

1.) EXISTING CONDITIONS

According to USFWS National Wetland Inventory (NWI) Mapper website, no wetlands are located on the Project Site (Figure IV.E-1). To refine this evaluation, Jay Fain & Associates was retained to conduct an on-site field reconnaissance to determine the presence of wetland features.

On December 12, 2017, a first order soil survey¹ was conducted. Soil units mapped in the field correspond to those in the USDA *Soil Survey of Putnam and Westchester Counties*, 1994. Wetland identification was based on the presence of poorly and very poorly drained soils and/or the prevalence of hydrophytic vegetation.

Using these criteria, an approximately 0.6 acre disturbed hill side seep wetland was identified in the southeast corner of the Site (Figure IV.E-2 – Locally Regulated Wetland). A headwall discharges drainage into this area, which creates hydrologic conditions favorable to the formation of the wetland area. The presence of RdA – Ridgebury loam/Aquents soils further served to define the wetland boundary. This wetland area extends off-site to the south and east.

While no watercourses were identified on the Project Site, stormwater discharges from the adjacent IBM property do enter the Site through a 10" RCP at the southern property line. This stormwater runoff enters the wetland. There is also a 36" CMP in the wetland just east of the existing sewer line. It is unclear where this stormwater runoff is conveyed from. It may have been installed to move the watercourse past the sewer to ensure it did not erode.

¹ Soil Science Division. 2017. *Soil Survey Manual*. USDA.



Source: USFWS National Wetlands Inventory (NWI) Mapper website

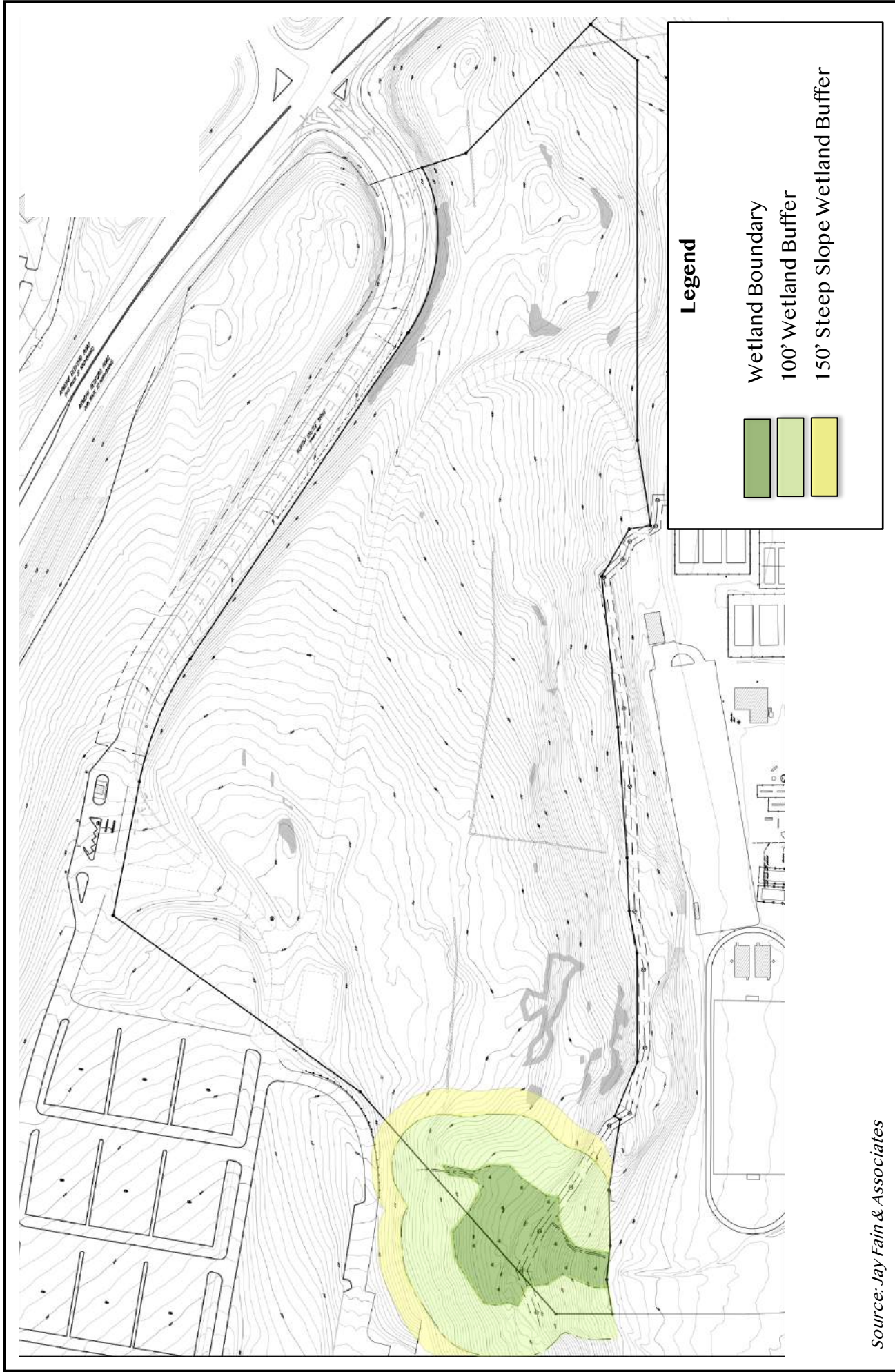
Scale: As Shown



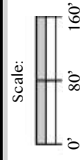
National Wetlands Inventory



Figure
IV.E-1



Source: Jay Fain & Associates



Locally Regulated Wetland

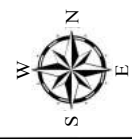


Figure
IV.E-2

In correspondence dated August 27, 2018, the NYCDEP has confirmed that the Site is located outside the New York City Water Supply Watershed. As a result, the NYCDEP has no regulatory authority with respect to the Proposed Action.

2.) POTENTIAL IMPACTS

As documented on the Limits of Disturbance Map (IV.B-5, presented in Chapter III)), there are no direct impacts or disturbances proposed within the locally regulated wetland, or within the 100' regulated wetland buffer, or the larger 150' wetland buffer required in instances within a regulated steep slope.

Stormwater will be collected and treated in accordance with NYSDEC requirements prior to any discharges that may enter the wetlands. As a result, no indirect impacts to the wetland, such as changes in hydroperiod or water quality will result.

3.) MITIGATION MEASURES

As no impacts to the on-site wetland, or surrounding buffer will result from the Proposed Action, no wetland mitigation measures are proposed.

Chapter IV. F.

Stormwater Management

IV. F - STORMWATER MANAGEMENT

INTRODUCTION

This section of the DEIS evaluates how the Proposed Action will impact stormwater runoff, discharge rates, surface water quality and non-point source pollution. Stormwater quantity and quality controls have been analyzed following procedures set forth in the New York State Stormwater Management Design Manual, dated August 2010, prepared for the New York State Department of Environmental Conservation.

1.) EXISTING CONDITIONS

The only impervious areas on the Site are an approximately 8,000 square foot concrete pad previously used by IBM for a helipad. Additionally, two driveways enter the Site from North Castle Drive, whereupon they merge approximately 175' into the Site and thereafter curve to the south, and enter the IBM parking lot and service entrance to the former headquarters building. This driveway runs for approximately 900 feet through the Site and covers approximately 22,500 square feet of impervious surface. Lastly, the remnant of a 15' wide asphalt driveway runs for a distance of approximately 1,500 feet through the Site in an inverted fish-hook shape from the helipad down to Community Park, right behind the tennis bubbles (Figure IV.F-1 Existing Site Land Use).

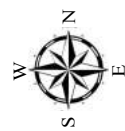
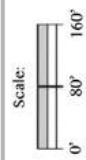
No stormwater management facilities are located on the Project Site.

Figure IV.F-2 and Table IV.F-1 present the existing watersheds on the Project Site.

| Table IV.F-1 Existing Watersheds | | | | |
|-------------------------------------|--------------|-----------|------------|-----------|
| Subarea | Area (Sq Ft) | Soil Type | Land Use | Condition |
| Existing Watershed 1 | | | | |
| 1 | 1,983 | B | Open Space | Good |
| 2 | 17,152 | B | Woods | Good |
| 3 | 61,536 | B | Woods | Good |
| Existing Watershed 2 | | | | |
| 1 | 17,033 | B | Woods | Good |



Source: Alfonzetti Engineering, P.C.



Existing Watershed Map

Figure
IV.F-2

| Existing Watershed 3 | | | | |
|----------------------|---------|---|------------|------|
| 1 | 81,245 | B | Woods | Good |
| 2 | 162,736 | B | Open Space | Good |
| 3 | 10,397 | B | Impervious | Good |
| 4 | 849 | B | Open Space | Good |
| Existing Watershed 4 | | | | |
| 1 | 1,090 | B | Open Space | Good |
| 2 | 31,029 | B | Impervious | Good |
| 3 | 359,184 | B | Woods | Good |
| 4 | 314,447 | B | Open Space | Good |
| 5 | 8,523 | B | Impervious | Good |
| 6 | 271 | B | Open Space | Good |
| 7 | 118 | B | Impervious | Good |
| 8 | 3,740 | B | Open Space | Good |
| Existing Watershed 5 | | | | |
| 1 | 87,490 | B | Woods | Good |
| 2 | 50,967 | B | Woods | Good |
| 3 | 22,785 | B | Woods | Good |
| 4 | 87,991 | B | Woods | Good |
| 5 | 50,189 | B | Impervious | Good |
| 6 | 1,904 | B | Open Space | Good |
| 7 | 7,163 | B | Open Space | Good |
| 8 | 122,789 | B | Woods | Good |
| Existing Watershed 6 | | | | |
| 1 | 30,242 | B | Open Space | Good |
| 2 | 150,793 | B | Open Space | Good |
| 3 | 4,924 | B | Open Space | Good |
| 4 | 989 | B | Open Space | Good |
| 5 | 295 | B | Open Space | Good |
| 6 | 41,631 | B | Impervious | Good |
| 7 | 2,635 | B | Open Space | Good |
| 8 | 7,567 | B | Impervious | Good |
| 9 | 15,787 | B | Impervious | Good |
| 10 | 1,191 | B | Open Space | Good |
| Existing Watershed 7 | | | | |
| 1 | 5,433 | B | Open Space | Good |
| 2 | 14,920 | B | Woods | Good |
| 3 | 14,905 | B | Open Space | Good |
| 4 | 29,839 | B | Woods | Good |
| 5 | 12,976 | B | Open Space | Good |
| 6 | 4,785 | B | Impervious | Good |

| | | | | |
|----|-------|---|------------|------|
| 7 | 2,157 | B | Open Space | Good |
| 8 | 913 | B | Open Space | Good |
| 9 | 989 | B | Open Space | Good |
| 10 | 2,242 | B | Open Space | Good |
| 11 | 9,315 | B | Impervious | Good |

Source: Alfonzetti Engineering

2.) POTENTIAL IMPACTS

The Proposed Action will require grading and excavation to allow for the construction of Eagle Ridge, and will result in the creation of 10.4 acres of impervious surfaces (Figure IV.F-3 Proposed Site Land Use). This activity has the potential to affect existing drainage patterns, water quality and runoff rates (Figure IV.F-4 Proposed Watershed Map).

Should stormwater management soil erosion and sedimentation control measures fail, erosion, which is the removal of soil by water, wind, ice, or gravity, will occur. Soil erosion caused by rainfall and surface runoff would be accelerated due to the Proposed Action's soil disturbance. According to the NYSDEC¹ raindrops strike the soil surface at a velocity of approximately 25-30 feet per second and can cause splash erosion. Raindrop erosion causes particles of soil to be detached from the soil mass and splash into the air. After the soil particles are dislodged, they can be transported by surface runoff, which results when the soil becomes too saturated to absorb falling rain or when the rain falls at an intensity greater than the rate at which the water can enter the soil. Scouring of the exposed soil surface by runoff can cause further erosion. Runoff can become concentrated into rivulets or well-defined channels up to several inches deep. This advanced stage is called rill erosion. If rills and grooves remain unrepaired, they may develop into gullies when more concentrated runoff flows downslope.

Sediment deposition occurs when the rate of surface flow is insufficient for the transport of soil particles. The heavier particles, such as sand and gravel, transport less readily than the lighter silt and clay particles. Previously deposited sediment may be re-suspended by runoff from another storm and transported farther downslope.

¹ York State Standards and Specifications for Erosion and Sediment Control (Blue Book), 2016.



Source: Alfonzetti Engineering, P.C.

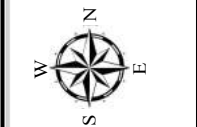
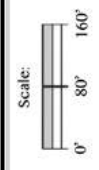



Figure IV.F-3

Proposed Site Land Use Map



Source: Alfonzetti Engineering, P.C.

Scale:



Proposed Watershed Map

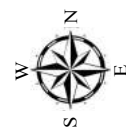


Figure IV-4

In this way, sediment is carried intermittently downstream from its upland point of origin.

The improper application of fertilizers or pesticides can result in increases in nitrates and phosphates in waterbodies and groundwater, causing eutrophication, excessive algae growth and toxic conditions. Substances in fertilizer such as methane, carbon dioxide, ammonia and nitrogen contribute problematic greenhouse gases.

Nitrate, can pass through the soil and potentially contaminate ground water. Nitrate, which comes from nitrogen, a plant nutrient supplied by inorganic fertilizer and animal manure, is highly soluble and readily leaches into groundwater. Nitrate can persist in ground water for decades and accumulate to high levels as more nitrogen is applied to the land surface every year.

The only planned development in the immediate area of the Site that will have any impact on stormwater is the proposed parking expansion for the IBM property. In the existing condition, there are existing access roads that go through a portion of the Project Site. In addition, runoff from a small portion of the roadway and parking area from the IBM site drains onto the Project Site. IBM is proposing to expand their parking and to reconstruct/pave some portions of their existing roadway. From the proposed plans, the existing runoff from the portion of roadway and parking area draining onto the Project Site will be diverted onto the IBM property. It appears IBM will be mitigating the increase in stormwater runoff on their property and discharging to the existing 10" RCP which in turn flows onto the Project Site, to Design Point 5. Since IBM is mitigating the increase in stormwater runoff, this discharge point will remain the same as in the existing condition. The remainder of the proposed parking expansion is located on the south side of the IBM main building and is not tributary to Eagle Ridge.

3.) MITIGATION MEASURES

The stormwater management plan for the Proposed Action was developed in accordance with the "Five Step Process for Stormwater Site Planning and Practice Selection" set forth in the New York State Stormwater Management Design Manual. The five-steps include:

- Site planning to preserve natural features and reduce impervious cover.
- Calculation of the water quality volume for the site.
- Incorporation of runoff techniques and standard SMP's with Runoff Reduction Volume (RRv) capacity.
- Use of standard SMP's where applicable, to treat the portion of water quality volume not addressed by runoff reduction techniques and standard SMP's with RRv capacity.
- Design of volume and peak rate control practices where required.

The Proposed Action is a mixed-use development that is anticipated to disturb more than 1 acre, therefore the Stormwater Pollution Prevention Plan must incorporate Water Quality treatment features as well as Water Quantity control features.

Table IV.F-2 presents the proposed watersheds. Table IV.F-3 describes each of the sub-watershed basins.

| Table IV.F-2 Proposed Watersheds | | | | |
|-------------------------------------|--------------|-----------|------------|-----------|
| Subarea | Area (Sq Ft) | Soil Type | Land Use | Condition |
| Proposed Watershed 1 | | | | |
| 1 | 24,522 | B | Woods | Good |
| 2 | 9,019 | B | Open Space | Good |
| 3 | 17,151 | B | Woods | Good |
| 4 | 1,983 | B | Open Space | Good |
| Proposed Watershed 2 | | | | |
| 1 | 7,465 | B | Woods | Good |
| 2 | 1,471 | B | Open Space | Good |
| Proposed Watershed 3 | | | | |
| 1 | 9,406 | B | Open Space | Good |
| 2 | 1,843 | B | Woods | Good |
| Proposed Watershed 4A | | | | |
| 1 | 39,111 | B | Open Space | Good |
| 2 | 135,808 | B | Impervious | Good |

| | | | | |
|------------------------|---------|---|------------|------|
| 3 | 159,040 | B | Open Space | Good |
| 4 | 107,520 | B | Impervious | Good |
| 5 | 16,880 | B | Open Space | Good |
| 6 | 41,385 | B | Open Space | Good |
| 7 | 9,427 | B | Open Space | Good |
| 8 | 1,552 | B | Open Space | Good |
| 9 | 1,288 | B | Open Space | Good |
| 10 | 374 | B | Open Space | Good |
| 11 | 1,458 | B | Open Space | Good |
| 12 | 1,458 | B | Open Space | Good |
| 13 | 1,522 | B | Open Space | Good |
| 14 | 1,460 | B | Open Space | Good |
| 15 | 1,543 | B | Open Space | Good |
| 16 | 1,540 | B | Open Space | Good |
| 17 | 1,494 | B | Open Space | Good |
| Proposed Watershed 4A1 | | | | |
| 1 | 9,556 | B | Impervious | Good |
| Proposed Watershed 4A2 | | | | |
| 1 | 15,160 | B | Impervious | Good |
| Proposed Watershed 4A3 | | | | |
| 1 | 22,416 | B | Impervious | Good |
| Proposed Watershed 4B | | | | |
| 1 | 66,812 | B | Impervious | Good |
| Proposed Watershed 4B1 | | | | |
| 1 | 20,331 | B | Impervious | Good |
| 2 | 2,189 | B | Open Space | Good |
| 3 | 739 | B | Open Space | Good |
| 4 | 3,763 | B | Open Space | Good |
| 5 | 14,293 | B | Open Space | Good |
| Proposed Watershed 4B2 | | | | |
| 1 | 21,360 | B | Impervious | Good |
| 2 | 7,480 | B | Open Space | Good |
| 3 | 182 | B | Open Space | Good |
| 4 | 154 | B | Open Space | Good |
| 5 | 545 | B | Open Space | Good |
| 6 | 369 | B | Open Space | Good |
| Proposed Watershed 4B3 | | | | |
| 1 | 29,086 | B | Impervious | Good |
| 2 | 2,140 | B | Open Space | Good |
| 3 | 3,232 | B | Open Space | Good |
| 4 | 1,899 | B | Open Space | Good |

| | | | | |
|------------------------|---------|---|------------|------|
| 5 | 214 | B | Open Space | Good |
| 6 | 961 | B | Open Space | Good |
| Proposed Watershed 4C | | | | |
| 1 | 92,922 | B | Open Space | Good |
| 2 | 169,465 | B | Woods | Good |
| Proposed Watershed 4C1 | | | | |
| 1 | 9,556 | B | Impervious | Good |
| Proposed Watershed 4D | | | | |
| 1 | 65,915 | B | Open Space | Good |
| Proposed Watershed 5A | | | | |
| 1 | 72,273 | B | Woods | Good |
| 2 | 42,776 | B | Woods | Good |
| 3 | 10,560 | B | Open Space | Good |
| 4 | 12,330 | B | Open Space | Good |
| 5 | 22,043 | B | Woods | Good |
| 6 | 87,991 | B | Woods | Good |
| 7 | 50,189 | B | Impervious | Good |
| 8 | 1,904 | B | Open Space | Good |
| 9 | 7,163 | B | Open Space | Good |
| 10 | 122,789 | B | Woods | Good |
| Proposed Watershed 5B | | | | |
| 1 | 11,208 | B | Impervious | Good |
| Proposed Watershed 6 | | | | |
| 1 | 11,761 | B | Open Space | Good |
| 2 | 31,024 | B | Open Space | Good |
| 3 | 722 | B | Open Space | Good |
| 4 | 295 | B | Woods | Good |
| 5 | 41,486 | B | Impervious | Good |
| 6 | 3,920 | B | Impervious | Good |
| 7 | 4,431 | B | Open Space | Good |
| 8 | 9,594 | B | Open Space | Good |
| 9 | 42,897 | B | Open Space | Good |
| 10 | 1,912 | B | Open Space | Good |
| 11 | 16,205 | B | Open Space | Good |
| 12 | 39,833 | B | Open Space | Good |
| Proposed Watershed 7 | | | | |
| 1 | 11,456 | B | Open Space | Good |
| 2 | 13,598 | B | Woods | Good |
| 3 | 5,422 | B | Open Space | Good |
| 4 | 8,264 | B | Woods | Good |

| Table IV.F-3 Watershed Sub-Basin Descriptions | | |
|--|--|--------------|
| Watershed Designation | Description | Design Point |
| EXWS1 | Existing Watershed 1, northern portion of the site, mainly wooded, HSG B. | DP1 |
| EXWS2 | Existing Watershed 2, northeastern portion of the site, wooded, HSG B | DP2 |
| EXWS3 | Existing Watershed 3, northeastern portion of the site, wooded, open space, paved, HSG B | DP3 |
| EXWS4 | Existing Watershed 4, eastern portion of the site, wooded, open space, paved, HSG B | DP4 |
| EXWS5 | Existing Watershed 5, southern portion of the site, wooded, open space, paved, HSG B | DP5 |
| EXWS6 | Existing Watershed 6, western portion of the site, open space and paved, HSG B | DP6 |
| EXWS7 | Existing Watershed 7, southwestern portion of the site, wooded, open space, paved, HSG B | DP7 |
| PRWS1 | Proposed Watershed 1, northern portion of the site, wooded, open space, HSG B | DP1 |
| PRWS2 | Proposed Watershed 2, northern portion of the site, wooded, open space, HSG B | DP2 |
| PRWS3 | Proposed Watershed 3, northern portion of the site, wooded, open space, HSG B | DP3 |
| PRWS4A | Proposed Watershed 4A, center portion of the site, open space, paved, roof, HSG B •Mitigation - Pond | DP4 |
| PRWS4A1 | Proposed Watershed 4A1, center portion of the site, roof, HSG B •Mitigation – Infiltration system > Pond 1 > Pond 2 | DP4 |
| PRWS4A2 | Proposed Watershed 4A2, center portion of the site, roof, HSG B •Mitigation – Infiltration system > Pond 1 > Pond 2 | DP4 |
| PRWS4A3 | Proposed Watershed 4A3, center portion of the site, roof, HSG B •Mitigation – Infiltration system > Pond 1 > Pond 2 | DP4 |
| PRWS4B | Proposed Watershed 4B, hotel building roof, HSG B | DP4 |

| | | |
|---------|--|-----|
| | •Mitigation – Green roof > Pond 2 | |
| PRWS4B1 | Proposed Watershed 4B1, northern portion of the site, open space, paved, HSG B •Mitigation – Infiltration system > Pond 2 | DP4 |
| PRWS4B2 | Proposed Watershed 4B2, northern portion of the site, open space, paved, HSG B •Mitigation – Infiltration system > Pond 2 | DP4 |
| PRWS4B3 | Proposed Watershed 4B3, northern portion of the site, open space, paved, HSG B •Mitigation – Infiltration system > Pond 2 | DP4 |
| PRWS4C | Proposed Watershed 4C, eastern portion of the site, wooded, open space, HSG B | DP4 |
| PRWS4C1 | Proposed Watershed 4C1, center portion of the site, roof, HSG B • Mitigation – Infiltration system | DP4 |
| PRWS4D | Proposed Watershed 4D, eastern portion of the site, open space, HSG B • Mitigation – Pond 2 | DP4 |
| PRWS5A | Proposed Watershed 5A, southern portion of the site, wooded, open space, paved, HSG B | DP5 |
| PRWS5B | Proposed Watershed 5B, center portion of the site, roof, HSG B • Mitigation – Infiltration system | DP5 |
| PRWS6 | Proposed Watershed 4B4, western portion of the site, wooded, open space, paved, HSG B | DP6 |
| PRWS7 | Proposed Watershed 4B4, southwestern portion of the site, wooded, open space, HSG B | DP7 |

The Stormwater Pollution Prevention Plan analyzes 6 Design Points. The Design Points are described below.

- Design Point 1 - DP1 is a linear design point located along the eastern property line. In the existing condition and proposed condition, this represents the runoff from Watershed 1.

- Design Point 2 - DP2 is a linear design point located along the eastern property line. In the existing condition and proposed condition, this represents the runoff from Watershed 2.
- Design Point 3 - DP3 is another linear design point located along the eastern property line. In the existing condition and proposed condition, this represents the runoff from Watershed 3.
- Design Point 4 - DP4 is another linear design point located along the eastern property line. In the existing condition, this represents the runoff from Watershed 4. In the proposed condition, this represents the sum of the runoff from Watersheds 4A, 4A1, 4A2, 4A3, 4B, 4B1, 4B2, 4B3, 4C, 4C1, and 4D after they have been routed through their respective stormwater mitigation device.
- Design Point 5 - DP5 is a linear design point along the eastern property line within an on-site wetland. In the existing condition this represents the runoff from Watershed 5. In the proposed condition, this represents the sum of the runoff from Watershed 5A and Watershed 5B after it has been routed through its stormwater mitigation device.
- Design Point 6 - DP6 is located within an existing drainage swale along North Castle Drive at the northern property line. In the existing condition and the proposed condition, this represents the runoff from Watershed 6.
- Design Point 7 - DP7 is located at an existing drain inlet, at the south west property corner. In the existing condition and the proposed condition, this represents the runoff from Watershed 7.

Water Quality:

Designing the stormwater mitigation practices in accordance with the requirements of the NYSDEC Stormwater Design Manual will maintain proposed pollutant loading at or below existing condition levels

The impervious cover was calculated for each of the watersheds tributary to a stormwater treatment practice and tabulated below.

| Table IV.F-4 Impervious Cover by Watershed | |
|---|--------------------|
| Watershed Name | Percent Impervious |
| PRWS4A | 46.5 |
| PRWS4A1 (Units 82-86) | 100.0 |
| PRWS4A2 (Units 87-94) | 100.0 |
| PRWS4A3 (Units 46-57) | 100.0 |
| PRWS4B (Roof) | 100.0 |
| PRWS4B1 | 49.13 |
| PRWS4B2 | 70.11 |
| PRWS4B3 | 71.82 |
| PRWS4C1 (Units 19-24) | 100.0 |
| PRWS5B (Units 22-27) | 100.0 |

Source: Alfonzetti Engineering

Using the percent impervious, the resulting Water Quality Volumes are presented in Table IV.F-5 for the developed watersheds.

| Table IV.F-5 Proposed Water Quality Volume (WQv) Calculations | | | | | | | | |
|--|------------------------|-------------------------|--------------|-----------------------|------|----------------------|---------------------|---------------------|
| Watershed Name | Watershed Area (Acres) | Impervious Area (Acres) | % Impervious | 90% Rainfall (inches) | Rv | Required Wqv (Ac-Ft) | Required Wqv (C.F.) | Provided Wqv (C.F.) |
| PRWS4A | 11.936 | 5.55 | 46.5 | 1.50 | 0.47 | 0.699 | 30447.39 | 31949 |
| PRWS4A1 (Units 82-86) | 0.2194 | 0.2194 | 100.0 | 1.50 | 0.95 | 0.0261 | 1134.78 | 1557 |
| PRWS4A2 (Units 87-94) | 0.3480 | 0.3480 | 100.0 | 1.50 | 0.95 | 0.0413 | 1800.25 | 3027 |
| PRWS4A3 (Units 46-57) | 0.5146 | 0.5146 | 100.0 | 1.50 | 0.95 | 0.0611 | 2661.90 | 4086 |
| PRWS4B (Roof) | 1.5338 | 1.5338 | 100.0 | 1.50 | 0.95 | 0.1821 | 7933.93 | 8168 |
| PRWS4B1 | 0.948 | 0.466 | 49.13 | 1.50 | 0.49 | 0.0584 | 2541.85 | 4338 |
| PRWS4B2 | 0.699 | .490 | 70.11 | 1.50 | 0.68 | 0.0595 | 2591.51 | 3357 |
| PRWS4B3 | 0.927 | 0.666 | 71.82 | 1.50 | 0.70 | 0.0807 | 3516.20 | 3708 |

| | | | | | | | | |
|-----------------------|--------|--------|-------|------|------|--------|---------|------|
| PRWS4C1 (Units 19-24) | 0.219 | 0.219 | 100.0 | 1.50 | 0.95 | 0.0261 | 1134.78 | 1244 |
| PRWS5B (Units 22-27) | 0.2573 | 0.2573 | 100.0 | 1.50 | 0.95 | 0.0306 | 1330.95 | 1418 |

Source: Alfonzetti Engineering

The Water Quality Volume for Watersheds 4A1, 4A2, 4A3, 4B1, 4B2, 4B3, 4C1, and 5B is proposed to be captured and treated in subsurface infiltration systems. The subsurface infiltration systems shall consist of 'Cultec' stormwater chambers, model 'Recharger 330xl', surrounded by crushed stone and filter fabric.

The Water Quality Volume for Watershed 4A is proposed to be captured below the low-level outlet of the infiltration basin, Pond 1.

Table IV-F-6 presents existing runoff volumes, and Table IV-F-7 presents proposed runoff volumes.

| Table IV.F-6 Existing Runoff Volume (acre-feet) | | | | | | | |
|--|--------|--------|--------|---------|---------|---------|----------|
| | 1 Year | 2 year | 5 Year | 10 year | 25 year | 50 year | 100 Year |
| WS1 | .022 | .050 | .102 | .161 | .276 | .397 | .557 |
| WS2 | .005 | .011 | .021 | .034 | .058 | .084 | .118 |
| WS3 | .143 | .264 | .476 | .707 | 1.132 | .567 | 2.129 |
| WS4 | .343 | .689 | 1.263 | 1.893 | 3.063 | 4.264 | 5.820 |
| WS5 | .218 | .414 | .758 | 1.137 | 1.839 | 2.560 | 3.494 |
| WS6 | .277 | .447 | .721 | 1.005 | 1.507 | 2.002 | 2.62 |
| WS7 | .072 | .125 | .216 | .312 | .486 | .662 | .886 |

Source: Alfonzetti Engineering

| Table IV.F-7 Proposed Runoff Volume (acre-feet) | | | | | | | |
|--|--------|--------|--------|---------|---------|---------|----------|
| | 1 Year | 2 year | 5 Year | 10 year | 25 year | 50 year | 100 Year |
| WS1 | .017 | .036 | .071 | .112 | .189 | .270 | .376 |
| WS2 | .003 | .006 | .012 | .019 | .032 | .046 | .064 |
| WS3 | .006 | .011 | .020 | .030 | .048 | .067 | .091 |
| WS4A | .989 | 1.445 | 2.137 | 2.823 | 3.979 | 5.107 | 6.483 |
| WS4A1 | .047 | .058 | .074 | .089 | .114 | .136 | .163 |
| WS4A2 | .075 | .093 | .118 | .142 | .180 | .216 | .259 |

| | | | | | | | |
|-------|------|------|------|-------|-------|-------|-------|
| WS4A3 | .110 | .137 | .175 | .210 | .267 | .319 | .383 |
| WS4B | .328 | .409 | .521 | .630 | .795 | .952 | 1.141 |
| WS4B1 | .083 | .119 | .175 | .230 | .324 | .413 | .522 |
| WS4B2 | .091 | .123 | .170 | .215 | .289 | .358 | .422 |
| WS4B3 | .127 | .171 | .234 | .294 | .392 | .485 | .597 |
| WS4C | .095 | .196 | .381 | .590 | .985 | 1.397 | 1.938 |
| WS4C1 | .047 | .058 | .074 | .089 | .114 | .136 | .163 |
| WS4D | .037 | .068 | .123 | .183 | .292 | .405 | .550 |
| WS5A | .196 | .381 | .711 | 1.077 | 1.759 | 2.464 | 3.381 |
| WS5B | .055 | .069 | .087 | .105 | .133 | .160 | .191 |
| WS6 | .221 | .356 | .575 | .801 | 1.201 | 1.596 | 2.093 |
| WS47 | 0.16 | 0.32 | 0.60 | .092 | .152 | .214 | .295 |

Source: Alfonzetti Engineering

The proposed green roof will treat the Water Quality Volume for Watershed 4B, therefore, the Water Quality criteria for Watershed 4B has been met. See the appendix for the green roof calculations.

The proposed development is planning on using rain water harvesting tanks for landscaping irrigation. Preliminarily, we are proposing (3) 20,000-gallon tanks. Since this is preliminary, the credit for the rain water harvesting has not been accounted for or taken.

| Table IV.F-8 Summary of Pollutants Removed by Standard Practice | |
|--|--|
| Standard Practice | Pollutant |
| Infiltration Practice | <ul style="list-style-type: none"> ▪ Phosphorous ▪ Nitrogen ▪ Metals – Cadmium, Copper, Lead, Zinc ▪ Pathogens – Coliform, Streptocci, E. Coli |
| Extended Detention Basin | <ul style="list-style-type: none"> ▪ Phosphorous ▪ Nitrogen ▪ Metals – Cadmium, Copper, Lead, Zinc ▪ Pathogens – Coliform, Streptocci, E. Coli |

Source: Alfonzetti Engineering

Point and Non-Point Source Pollution:

In the existing condition, Design Points 1, 2, 3, and 4 are all non-point discharges as the runoff from their respective watersheds flows overland in a dispersed manner and is not concentrated to one location. Design Point 5 is also a non-point discharge although there is a concentrated point discharge at this design point. There are also (2) two point discharges within Watershed 5. One is from a 10" RCP near the property line that discharges stormwater runoff from the IBM property. The other point discharge is from a 36" pipe that is assumed to convey runoff over the existing sanitary sewer. Design point 6 is a point discharge as it is located within an existing swale along North Castle Drive. Design Point 7 is a point discharge as it is located at a drain inlet within a low point on the property line. The outlet of this point discharge is into the IBM drainage system and eventually within the ROW of Route 22.

In the proposed condition Design Points 1, 2, 3, and 4 will remain non-point discharges. Within the watersheds contributing to these design points there are point discharges associated with infiltration systems, infiltration basins, and detention basins. These point discharges are designed with riprap outlet protection and level spreaders to reduce exit velocities and to promote sheet flow. In addition, discharges are separated in order to reduce the chances of these discharges joining and becoming concentrated. Design Point 6 remains generally unchanged from the existing condition as do the point discharges within Watershed 5. The point discharges at Design Point 6 and 7 remain unchanged from the existing condition.

Runoff Reduction Volume (RRV):

The runoff reduction volume criteria requires the reduction of runoff volume by green infrastructure techniques, infiltrating, ground water recharge, reuse, recycle, or evaporation/ evapotranspiration of the entire Water Quality Volume.

The Water Quality Volume calculations are discussed in the section above. Since the entire Water Quality Volume for Watersheds 4A, 4A1, 4A2, 4A3, 4B1, 4B2, 4B3,

4C1, and 5B is being infiltrated, the Runoff Reduction Volume criteria has been met.

For Watershed 4B the Runoff Reduction Volume criteria is satisfied by the use of a green roof. The building on the project site is being designed with an extensive green roof. An extensive green roof has a thinner soil layer, is lighter, is less expensive, and requires less maintenance than an intensive green roof. The green roof is designed for the Water Quality Volume of the roof as if it were impervious. Calculations for the green roof are shown in the appendix of this report.

Channel Protection Volume (Cpv):

Since the infiltration systems all capture a minimum of the 1-year storm and the discharge from Pond 1 is zero for the 1-year storm, the Channel Protection Volume criteria has been met for these watersheds. In addition, the small watershed sizes result in using very small orifice sizes to accomplish the 24-hour detention. Since such small orifices tend to clog and the New York State Stormwater Design Manual recommends a minimum orifice size of 3", channel protection is met by maintaining or reducing the proposed peak runoff to the existing peak runoff for the 1-year storm event. All discharges are to a stone dissipater/trench to ensure no erosion and to promote sheet flow.

The following tables present the comparison between existing and proposed peak flows.

| Table IV.F-9 Design Point 1 | | | |
|--------------------------------|-------------------------------|-------------------------------|---------------------|
| Storm Event | Existing Peak Runoff (cfs) | Proposed Peak Runoff (cfs) | Net Change (cfs) |
| 1 Year | 0.1 | 0.1 | 0 |
| 2 Year | 0.2 | 0.2 | 0 |
| 5 Year | 0.7 | 0.5 | - 0.2 |
| 10 Year | 1.2 | 1 | - 0.2 |
| 25 year | 2.4 | 1.7 | - 0.7 |
| 50 year | 3.6 | 2.5 | - 1.1 |
| 100 Year | 5.2 | 3.6 | - 1.6 |

| Table IV.F-10 Design Point 2 | | | |
|---------------------------------|-------------------------------|-------------------------------|---------------------|
| Storm Event | Existing Peak Runoff (cfs) | Proposed Peak Runoff (cfs) | Net Change (cfs) |
| 1 Year | 0 | 0 | 0 |
| 2 Year | 0.1 | 0.1 | 0 |
| 5 Year | 0.2 | 0.2 | 0 |
| 10 Year | 0.3 | 0.3 | 0 |
| 25 year | 0.6 | 0.5 | - 0.1 |
| 50 year | 0.9 | 0.7 | - 0.2 |
| 100 Year | 1.3 | 1 | - 0.3 |

| Table IV.F-11 Design Point 3 | | | |
|---------------------------------|-------------------------------|-------------------------------|---------------------|
| Storm Event | Existing Peak Runoff (cfs) | Proposed Peak Runoff (cfs) | Net Change (cfs) |
| 1 Year | 0.6 | 0 | - 0.5 |
| 2 Year | 1.5 | 0.1 | - 1.2 |
| 5 Year | 3.1 | 0.3 | - 2.7 |
| 10 Year | 4.9 | 0.4 | - 4.2 |
| 25 year | 8.3 | 0.7 | - 7.3 |
| 50 year | 11.7 | 1 | - 10.4 |
| 100 Year | 16 | 1.3 | - 14.7 |

| Table IV.F-12 Design Point 4 | | | |
|---------------------------------|-------------------------------|-------------------------------|---------------------|
| Storm Event | Existing Peak Runoff (cfs) | Proposed Peak Runoff (cfs) | Net Change (cfs) |
| 1 Year | 1.7 | 0.7 | - 1 |
| 2 Year | 4.2 | 1.5 | - 2.7 |
| 5 Year | 9.3 | 7.5 | - 1.8 |
| 10 Year | 15 | 14.1 | - 0.9 |
| 25 year | 25.8 | 22.9 | - 2.9 |
| 50 year | 36.8 | 31.1 | - 5.7 |
| 100 Year | 50.9q | 50.3 | - 0.6 |

| Table IV.F-13 Design Point 5 | | | |
|---------------------------------|-------------------------------|-------------------------------|---------------------|
| Storm Event | Existing Peak Runoff (cfs) | Proposed Peak Runoff (cfs) | Net Change (cfs) |
| 1 Year | 1.5 | 1.3 | - 0.2 |
| 2 Year | 3.6 | 3.6 | 0 |
| 5 Year | 7.5 | 7.4 | - 0.1 |
| 10 Year | 11.8 | 11.7 | - 0.1 |
| 25 year | 19.7 | 19.4 | - 0.3 |
| 50 year | 27.7 | 27.3 | - 0.4 |
| 100 Year | 37.8 | 37.4 | - 0.4 |

| Table IV.F-14 Design Point 6 | | | |
|---------------------------------|-------------------------------|-------------------------------|---------------------|
| Storm Event | Existing Peak Runoff (cfs) | Proposed Peak Runoff (cfs) | Net Change (cfs) |
| 1 Year | 3.2 | 2.3 | - 0.9 |
| 2 Year | 5.7 | 4 | - 1.7 |
| 5 Year | 9.7 | 6.9 | - 2.8 |
| 10 Year | 13.9 | 9.8 | - 4.1 |
| 25 year | 21.1 | 15 | - 6.1 |
| 50 year | 28.2 | 20 | - 8.2 |
| 100 Year | 36.9 | 26.2 | - 10.7 |

| Table IV.F-15 Design Point 7 | | | |
|---------------------------------|-------------------------------|-------------------------------|---------------------|
| Storm Event | Existing Peak Runoff (cfs) | Proposed Peak Runoff (cfs) | Net Change (cfs) |
| 1 Year | 0.7 | 0.1 | - 0.6 |
| 2 Year | 1.5 | 0.2 | - 1.3 |
| 5 Year | 2.9 | 0.5 | - 2.4 |
| 10 Year | 4.4 | 0.9 | - 3.5 |
| 25 year | 7 | 1.7 | - 5.3 |
| 50 year | 9.7 | 2.5 | - 7.2 |
| 100 Year | 13.1 | 3.5 | - 9.6 |

Overbank Flood Protection (Q_p):

As seen on the peak flow comparison charts, the proposed peak runoff is maintained or reduced as compared to the existing peak runoff for the 10-year storm event.

Extreme Flood Protection (Q_f):

As seen on the peak flow comparison charts, the proposed peak runoff is maintained or reduced as compared to the existing peak runoff for the 100-year storm event.

Temporary Erosion Control Measures:

The following temporary erosion control devices proposed on the Proposed Action:

Anti-Tracking Pad – Anti-Tracking Pads shall be installed at all construction entrances. The purpose of the Anti-Tracking Pad shall be to dislodge mud, dirt, and debris from construction vehicles prior to these vehicles leaving the construction site. This will ensure the existing roadways are kept clear of sediment. Locations and details of the Anti-Tracking Pad are shown on the plans.

Silt Fence – Silt Fencing consists of a fabric barrier between supporting stakes or posts usually made of wood. The fabric is proposed to capture suspended sediments from construction runoff and also decreases the velocity of the runoff to protect off-site areas. The proposed location of the silt fence is shown on the plans along with details for installing the silt fence.

Haybales – Haybales are used in a variety of erosion control devices. At the top of an excavation, haybales are used to spread out concentrated flow to prevent erosion. Haybales are used in conjunction with silt fence to add additional protection to sensitive areas such as wetlands and water bodies.

Haybales are also used in conjunction with Silt Fence to protect surrounding areas from soil stockpile erosion. The proposed location of the haybales is shown on the plans along with details.

Inlet protection – Inlet protection is used to filter runoff from non-stabilized construction sites prior to this runoff entering the drainage system.

Temporary Sediment Trap – Temporary Sediment Traps are small ponding basins constructed by excavation or embankment used to intercept sediment laden runoff. The sediment trap protects waterways, properties, and rights-of-way below the sediment trap.

Construction Sequence:

The Proposed Action is proposed to be constructed in 6 phases. The construction will be in a sequence that will minimize the potential for erosion. No phase will be more than 5 acres and no two adjacent phases will be disturbed at the same time. Construction is anticipated to begin in the summer of 2020.

The general phases of construction are shown on the Phasing Plan. As the Project is developed a more detailed construction sequence will be established.

Maintenance:

The maintenance chart below shows typical maintenance of temporary and permanent structures and erosion control devices during construction,

| Table IV.F-16 Stormwater Maintenance | | | | | | |
|---|---------|---------|-------------|----------|-------------------|----------------|
| Device | Weekly | Monthly | Bi-Annually | Annually | Prior to Rainfall | After Rainfall |
| Haybales | | Inspect | | Replace | Inspect | Inspect/Clean |
| Silt Fence | | Inspect | | Inspect | Inspect | Inspect/Clean |
| Anti-Tracking Pad | Inspect | | Restore | | | Inspect |

| | | | | | | |
|---------------------------|-------------------------------|---------|---------|--|---------|---------------|
| Inlet Protection | | Inspect | Restore | | Inspect | Inspcet/Clean |
| Catch Basins/Drain Inlets | Inspect (During Construction) | | Clean | | | Inspect |

Temporary Sediment Traps shall be inspected prior to significant rainfall and inspected and cleaned if needed after significant rainfall. The sediment trap shall be cleaned and sediment removed when sediment reaches 1/2 the design depth.

Permanent stormwater management device maintenance schedule is as follows:

- Hydrodynamic separator devices shall be inspected biannually and cleaned out as per manufacturers' instructions (included in the appendix of this report).
- The green roof maintenance requirements are included in the appendix of this report. The maintenance is as per 'Carlisle' green roofs planted with Sedum. Access to the roof is from the interior of the building.
- All catch basins/drain inlets/drain manholes shall be inspected and cleaned biannually. These structures should also be inspected weekly during construction and after significant rainfall.
- The subsurface infiltration systems shall be inspected annually through observation ports.
- Stormwater Basins Detention ponds should be inspected after major storm events and semi-annually. During the inspections, the following should be checked:
 - Clogging of outlet structure.
 - Erosion on the embankment/berm.
 - Condition of the emergency spillway.
 - Accumulation of sediment around the outlet structure.
 - Erosion of the basin bed and banks.

- Sources of erosion in the contributory drainage, which should be stabilized.
 - Sediment removal in the forebay shall occur every five to six years or after 50% of total forebay capacity has been lost.
 - If any trash has made its way to the pond, it shall be cleaned out and disposed of in a lawful manor.
 - Grass should be cut at a minimum twice a year.
 - Dead/Diseased plants shall be removed and disposed of in a lawful manor. Replacement plants shall be of the same type and size as initially planted.
 - No herbicides, pesticides, or fertilizers should be used in or near the ponds.
- Rain garden maintenance may include the occasional replacement of plants, mulching, weeding and thinning to maintain the desired appearance. Weeding and watering are essential the first year, and can be minimized with the use of a weed-free mulch layer. Once the rain garden has matured, the garden area should be free of bare areas except where stepping stones are located. Inspect for sediment accumulations or heavy organic matter where runoff enters the garden and remove as necessary. The top few inches of planting soil should be removed and replaced when water ponds for more than 48 hours.

Potential pollutants during construction are sediment laden stormwater runoff, litter, and construction fluids/chemical spills. During construction, the sediment laden runoff will be trapped or filtered through the silt fence and other erosion control devices prior to being discharged. The construction litter will be cleaned on a daily basis and disposed of in a lawful manor. The storage of any construction fluids or chemicals will be within water tight containers suitable for storage and will not be exposed to the elements.

During the construction phase, the trained contractor shall be responsible for erosion and sediment control device maintenance and pollution prevention measures. The trained contractor shall also be responsible for maintenance of the permanent drainage structures during construction and to ensure protection of the subsurface infiltration system areas. The trained contractor shall inspect the erosion control devices daily to ensure they are in effective operating condition.

The qualified inspector shall conduct site inspections at least once every seven (7) calendar days while soil disturbance activities are on-going. If soil disturbance activities are suspended, inspections shall occur under the guidelines in the appendix of this report.

The adequate installation of all stormwater facilities shall be insured via the posting of a performance bond, cash escrow or irrevocable letter of credit from an appropriate financial or surety institution which guarantees satisfactory completion of the Proposed Action and names the Town of North Castle as the beneficiary. The security shall be in an amount to be determined by the Town of North Castle based on submission of final design plans, with reference to actual construction and landscaping costs. The performance guarantee shall remain in force until the surety is released from liability by the Town of North Castle, provided that such period shall not be less than one year from the date of final acceptance or such other certification that the facility(ies) has (have) been constructed in accordance with the approved plans and specifications and that a one-year inspection has been conducted and the facilities have been found to be acceptable to the Town of North Castle.

After construction, the maintenance of the stormwater mitigating devices shall be the responsibility of the managing entity for the townhouse development and the managing entity of the hotel site. An irrevocable letter of credit from an approved financial institution or surety will be posted to ensure proper operation and maintenance of all stormwater management and erosion control facilities both during and after construction and until the facilities are removed from operation. If the managing entity fails to properly operate and maintain

stormwater management and erosion and sediment control facilities, the Town of North Castle may draw upon the account to cover the costs of proper operation and maintenance, including engineering and inspection costs.

The use of fertilizers, pesticides and fungicides will be minimized to the extent practical at the Eagle Ridge Site. Landscape maintenance guidelines will be developed for the Proposed Action which maintain the design intent and enhances the overall ecological health and habitat value of planted areas. Fertilizers will only be applied as a result of soil testing that indicate a need for it. A large majority of the plants and meadows as proposed are considered native and provide multiple benefits to people and wildlife. In addition to requiring less fertilizers and less watering, native plants need little or no pesticides since they have adapted to local conditions and thus more resistant than non-natives to pest problems. An integrated pest management program (IPM) will be implemented which focuses on long term prevention of potential pests and subsequent damage. IPM is a landscape management system that utilizes all suitable techniques (mechanical, biological and judicious use of pesticides) and information to reduce pest problems while providing protection against humans, animals and the environment. The use of chemical pesticides and fungicides will be used as a last resort and only applied by a certified applicator. Organic and non-toxic formulations will be utilized as well as spot treatments to minimize impacts to the surrounding ecosystem.

Permanent Stormwater Management Devices:

The proposed stormwater mitigation practices have been sized according to the New York State Department of Environmental Conservation Stormwater Design Manual (Stormwater Design Manual). The Project is a mixed-use development that is proposed to disturb more than 1 acre, therefore the Stormwater Pollution Prevention Plan must incorporate Water Quality treatment features as well as Water Quantity control features.

After construction, in the post development stage, potential pollutants can be an increase in runoff rates as well as suspended sediment and elevated nutrient levels within the runoff. The increase in runoff rates is mitigated by the combined

use of the stormwater practices located throughout the Site, namely the subsurface infiltration systems, the stormwater ponds, and the green roof. The increase in suspended sediment and elevated nutrients are mitigated by the subsurface infiltration systems, the infiltration pond, the extended detention pond, the green roof, the hydrodynamic separators, and the sumps in all the drain inlets and catch basins. By meeting NYSDEC Water Quality criteria and Runoff Reduction Volume criteria the pollutants of concern will be mitigated.

The proper installation of all stormwater and erosion control measures would be ensured through an inspection fee, and the posting of a performance bond, letter of credit or some other form of financial assurance suitable to the Town. As the developer of the project, the Applicant would be responsible for any code or environmental violations resulting from construction related activities.

Based on the analysis in the Stormwater Pollution Prevention Plan, the stormwater management practices proposed will adequately treat the runoff leaving the Site in regard to water quality. In addition, the proposed stormwater practices will control runoff quantities to ensure no adverse effects due to stormwater as a result of the proposed development.

Chapter IV. G.

Utilities

IV. G - UTILITIES

INTRODUCTION

The proposed Action's water demand and sanitary sewage generation and the potential impacts on the existing municipal utility infrastructure will be evaluated in this section of the DEIS. Also reviewed is the potential for alternative energy opportunities.

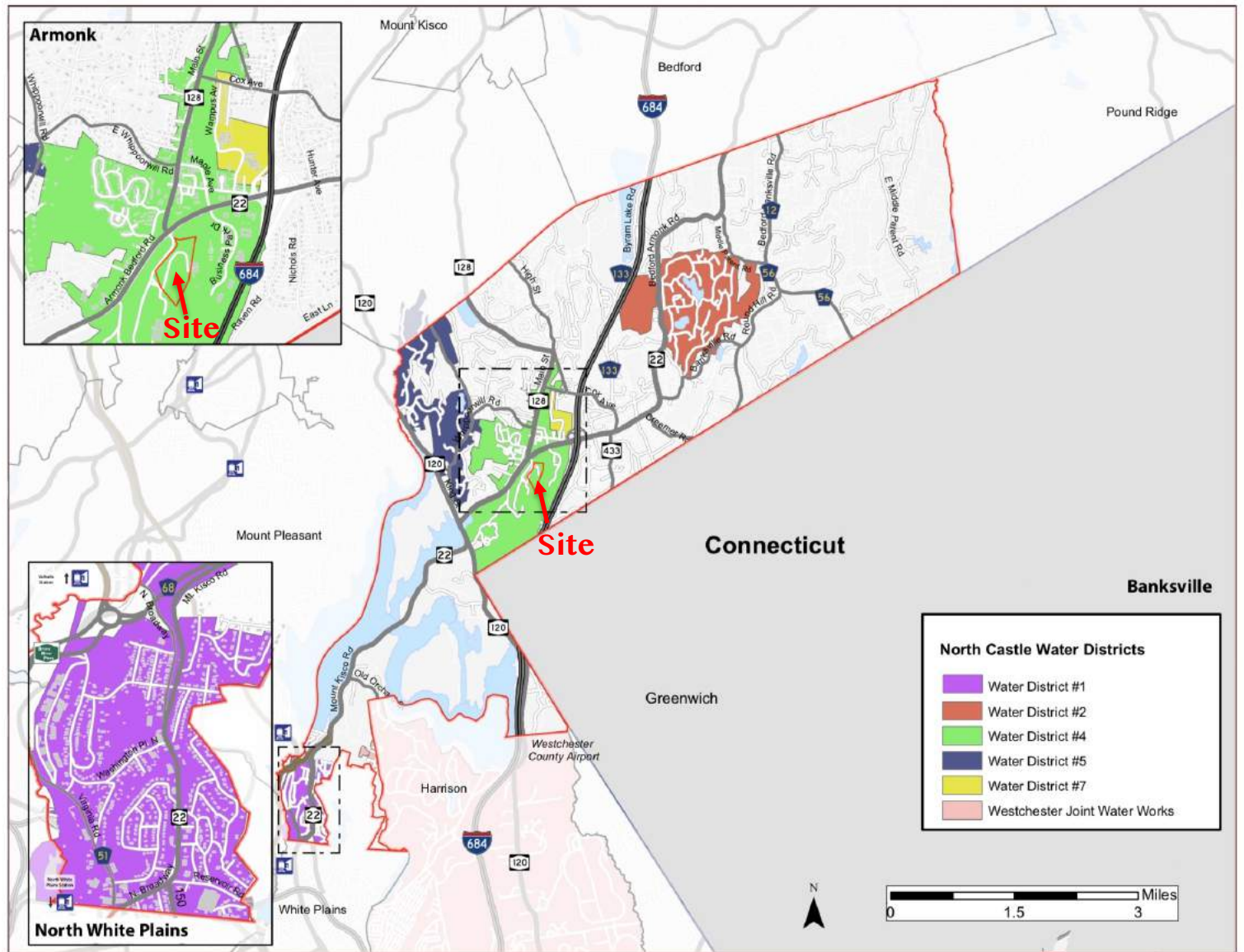
1.) EXISTING CONDITIONS

(a.) Water Supply

The Project Site is located within Water District 4 (Figure IV.G-1 – Town Water Districts), which is primarily located in downtown Armonk and serves 428 connections, including the IBM campus and Business Park. This district is made up of six functional wells in two wellfields (the IBM wellfield and the School Street wellfield) along with a 1-million-gallon storage tank and a filtration system operational on the two original School Street wells. An additional wellfield exists but is currently not in operation. Water District 4 also provides water to Water Districts 5 and 7.

The IBM wellfield consists of two (2) gravel packed wells; Well No. 1 (South Well) and Well No. 2 (North Well). The wells were initially installed in 1960 and 1963 respectively. The wells are located approximately 75 feet apart within Town owned property in Wampus Brook Park. The park and the wells were previously owned by IBM. Well No. 1 can be pumped at a yield of 350 gallons per minute (gpm). Well No. 2 can be pumped at 360 gpm. Well No. 1 and Well No. 2 cannot be pumped simultaneously.

The School Street Wellfield located on Town owned property consists of two (2) wells, approximately 20 feet apart, installed in 1988 by the USEPA in response to contamination identified in wells located in downtown Armonk. Well WD4-1 is a bedrock well with a sustained yield of 100 gpm. Well WD4-2 is a sand and gravel well with a yield of approximately 135 gpm. The capacity of the treatment system limits the production to 100 gpm.



Source: Town of North Castle Comprehensive Plan

Scale: As Shown

Town Water Districts



Figure
IV.G-1

The wellfield not in service is the Whippoorwill Ridge Wells. This wellfield consists of two (2) bedrock wells; WD4-4 and WD4-5, with original yields of 37 gpm and 65 gpm respectively. This wellfield is out of service due to concerns related to iron and manganese in the water.

Water District Number 4's one-million-gallon storage tank located in the Whippoorwill Hills residential subdivision. The tank is 81 feet in diameter, 28 feet tall and was constructed in 1998.

The current water rate in this District is \$3.00/1,000 gallons.

As per Recommended Standards for Water Works 2012 Edition; "The total developed groundwater source capacity, unless otherwise specified by the reviewing authority, shall equal or exceed the design maximum day demand with the largest producing well out of service."

Therefore, based on the current conditions, the capacity of the water system is 450 gpm, or 648,000 gallons per day (gpd).

According to the 2017 Annual Water Supply Report for Water District No.4 (included in the Appendix), tap water from the District met all US EPA and state drinking water health standards.

A Water System Capacity Study for Water District No. 4 was prepared by GHD Consulting Services. The study evaluated water demand, supply and storage capacity. A summary of current demand is presented in Table IV.G-1:

| Table IV.G-1 Water District 4 - Current Water Demand | | | |
|---|------------------------------------|------------------------------------|---|
| Average Daily Demand (gpd) | Estimated Maximum Day Demand (gpd) | Estimated Maximum Day Demand (gph) | Estimated Pear Hour Demand (gph) ¹ |
| 381,111 | 960,000 | 40,000 | 80,000 |

Source; Alfonzetti Engineering

¹ Peaking factor of 2 was used.

The study concluded that given the 648,000 gpd capacity of the water system and the maximum existing demand of 960,000 gpd, the district does not have sufficient supply capacity to meet the maximum day demand as required by the NYS Sanitary Code, and is currently relying on storage capacity to meet the demand. The production capacity deficit is approximately 312,000 gpd.

The study offered two recommendations:

1. The District should continue to explore and evaluate potential additional water supplies and consider ways to reduce demand. An additional production capacity of 440 gpm or more is recommended to meet standards and to avoid operating the wells for more than 18 hours per day under existing demand conditions. However, the District should seek more than 440 gpm of additional supply capacity to meet demands associated with population growth, future development, or changes in use of properties that increase water demand.
2. The District should continue efforts to locate and construct a new tank which will serve as a backup to the existing storage and support maintenance of the existing tank.

As documented on Figure IV.G-2 – Existing Utilities, the water line serving the Site is located along the eastern property line, and is 8” in diameter. Average daily water pressure ranged from 30.3 psi to 97 psi. During peak flow demand, pressures ranged from 30 psi to 96.7 psi.

(b.) Sanitary Sewer

The Project Site is located within Sewer District 2 (Armonk) (Figure IV.G-3 – Town Sewer Districts). The District includes five pump stations with collection lines and manholes. All flow is tributary to the Wastewater Treatment Plant located on the east side of Community Park off Business Park Drive. The Plant was originally built in 1983 to treat approximately 380,000 gallons per day (gpd). The plant was upgraded to treat 450,000 gpd then subsequently upgraded again to treat 500,000 gpd. In 2008, the Town created a Sewer Task Force to assess

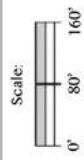


Legend

8" Sanitary Sewer Line

8" Water Line

Source: Alfonzetti Engineering



Scale:

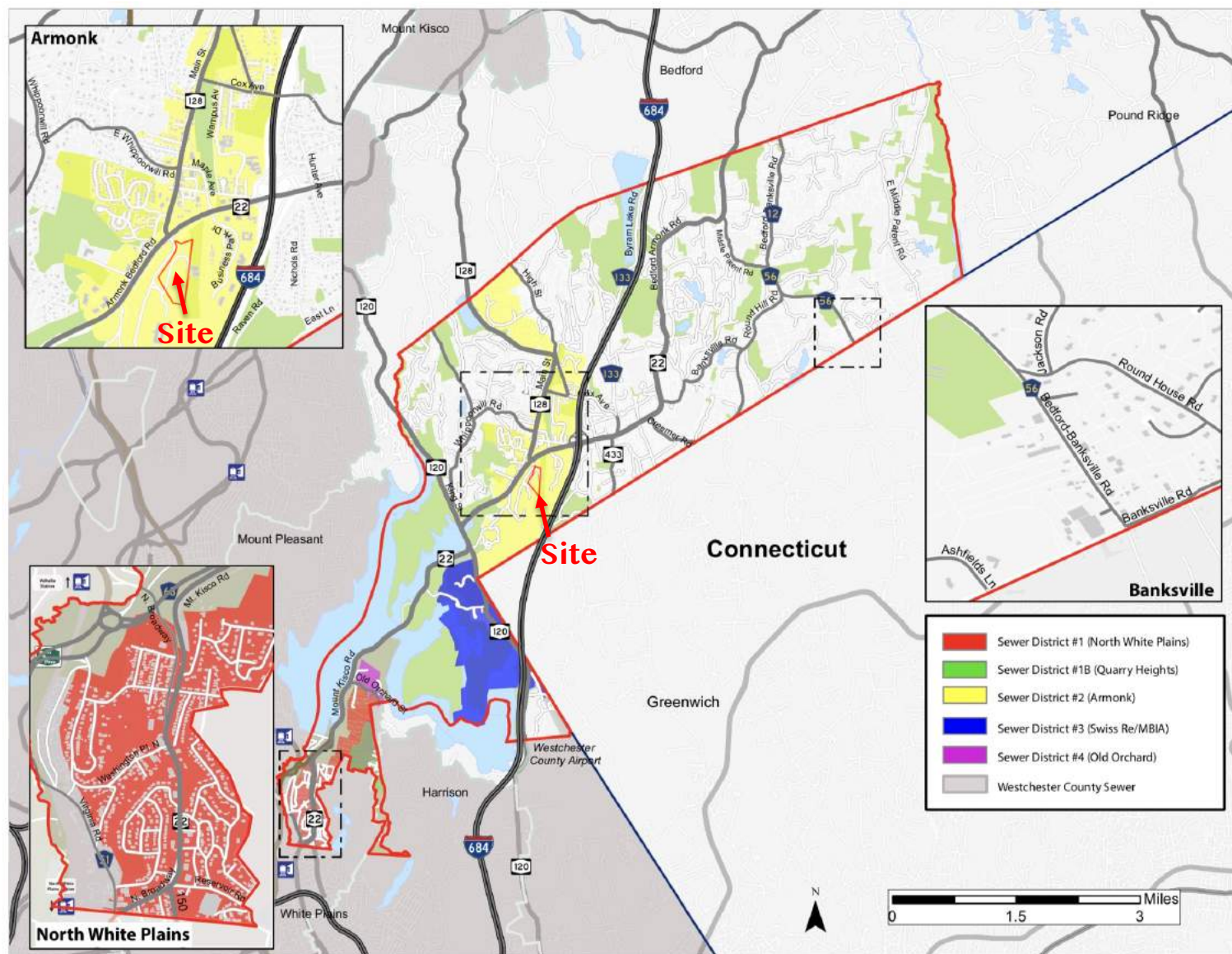
0' 80' 160'



Existing Utilities

Figure
IV.G-2





Source: Town of North Castle Comprehensive Plan

Scale: As Shown



Town Sewer Districts



Figure
IV.G-3

ways to increase sewage treatment capacity at the district's Treatment Plant. This district is at capacity, and plan are currently being designed to expand the district from 500,000 gallons/day to 700,000 gallons/day.

Biological treatment, secondary clarifiers and denitrification were added to the discharge from this district, which eventually goes into Long Island Sound via Wampus Brook and the Byram River.

As documented on Figure IV.G-2 – Existing Utilities, an 8" sanitary sewer line is located in an easement that runs along the Site's eastern boundary.

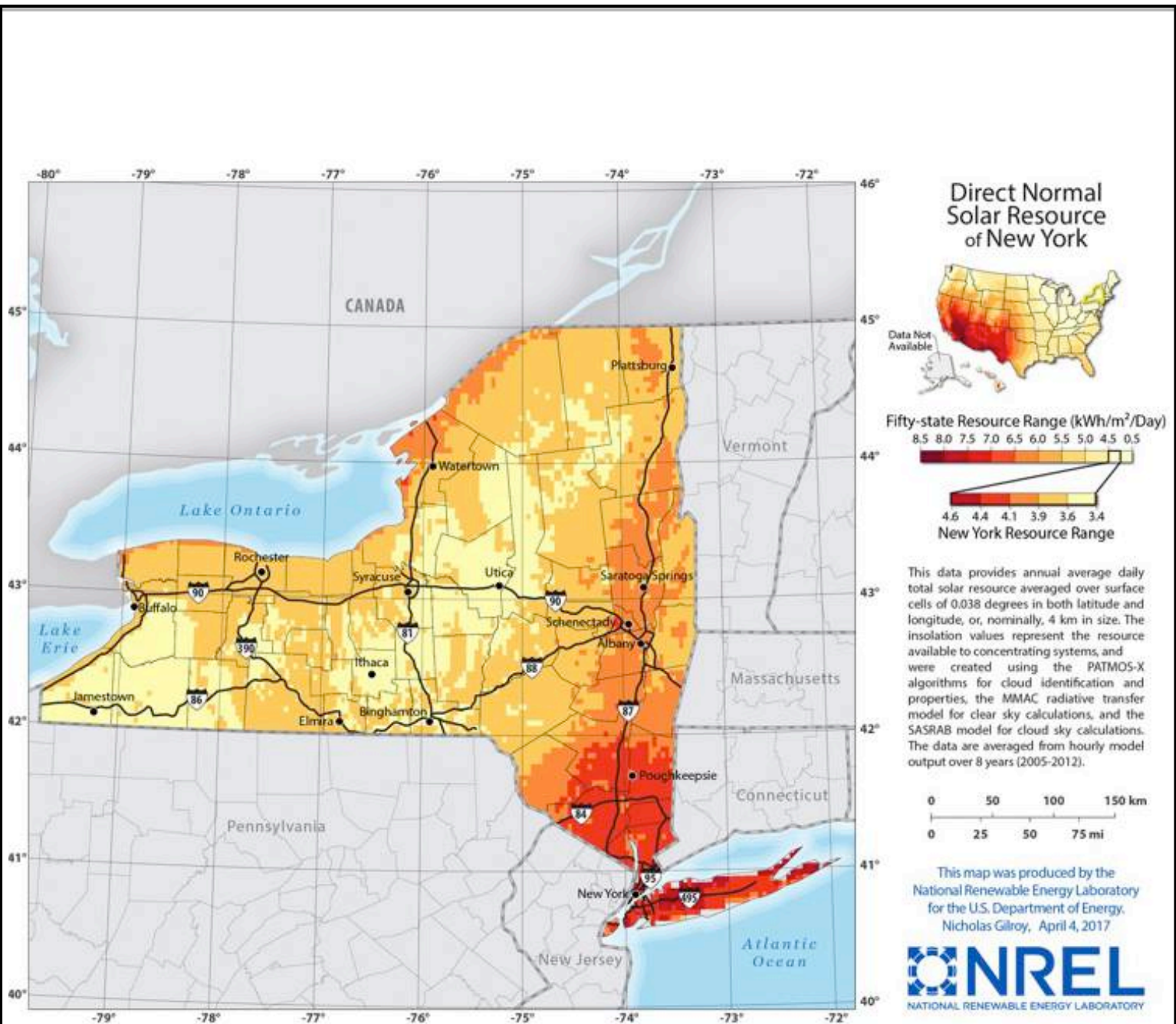
(c.) Alternative Energy

Reforming the Energy Vision (REV) is New York State's comprehensive energy strategy. Its primary goals are by 2030 to:

- Achieve a 40% reduction in greenhouse gas emissions from 1990 levels.
- 50% of electricity must come from renewable sources.
- Achieve a 600 trillion Btu increase in statewide energy efficiency (at source)

The primary method of employing renewable energy at the Project Site would be through the use of photovoltaic solar panels. The Site's location at latitude 41.1° North, makes the use of solar technology feasible. Solar irradiance at this latitude averages approximately 4.74 kWh/m²/day. By way of comparison, the highest solar irradiance levels in the United States are found near Death Valley in California (7.66 kWh/m²/day), while the lowest levels are recorded near Chicago (3.14 kWh/m²/day).² State-wide solar irradiance is presented in Figure IV.G-4.

² www.solarpowerauthority/solar-direct.com



Source: National Renewable Energy Laboratory, US Dept. of Energy

Scale: As Noted



State-Wide Solar Irradiance



Figure
IV.G-4

The website Sun Number³ provides an easy to understand assessment of a site's solar potential. A sun number score is generated, which takes into consideration site orientation, regional climate, electric rates and solar costs. The Sun Number score for the Site is 53 out of 100.

Another useful tool in determining the amount of electricity that can be generated by the sun for a given site is the Weather Underground's Solar Calculator.⁴ Utilizing this tool, the Project Site would generate 21 kWh/year of electricity (Chart IV.G-1).

Chart IV.G-1
Annual Solar Generated Electricity Generation



Source: Weather Underground Solar Calculator

2.) POTENTIAL IMPACTS

(a.) Water Supply

Domestic Water Demand:

The Proposed Action consist of the following components:

³ www.sunnumber.com

⁴ www.wunderground.com/calculators/solar

- Townhouses
 - 94 – 3 -Bedroom
- Apartments
 - 44 - 1-Bedroom
 - 16 - 2-Bedroom
 - 10 – 3-Bedroom
- Hotel
 - 91 – Guestrooms
 - Restaurant/Café
 - Lounge/Bar
 - Banquet Hall/Meeting Rooms
 - Spa/Spin Studio
 - Swimming Pool

The anticipated water demand for the Proposed Action is presented in Table IV.G-2, and in the Water Supply report included in Appendix H:

| Table IV.G-2 Eagle Ridge Projected Water Demand | | | |
|--|--------|----------|-----------|
| Use | Units | GPD/Unit | Total GPD |
| Townhouses | | | |
| Townhouses (3 bedroom) | 94 | 330 | 31,020 |
| Total Townhouses | 31,020 | | |
| Apartments | | | |
| 1 Bedroom | 44 | 110 | 4,840 |
| 2 Bedroom | 16 | 220 | 3,520 |
| 3 Bedroom | 10 | 330 | 3,300 |
| Total Apartments | 11,660 | | |
| Hotel | | | |
| Guest Rooms | 91 | 110 | 10,010 |
| Restaurant café | 278 | 35 | 9,730 |
| Lounge/Bar | 194 | 20 | 3,880 |
| Bar | 123 | 20 | 2,460 |

| | | | |
|--------------------------|---------------|----|-------|
| Ballroom/Banquet Hall | 282 | 10 | 2,820 |
| Junior Ballroom | 149 | 10 | 1,490 |
| Boardroom/Meeting Room | 52 | 10 | 520 |
| Spa/Spin Studio | - | -- | 3,000 |
| Swimming Pool | 200 | 10 | 2,000 |
| Sub-Total Amenities | 25,900 | | |
| 20% Water Saving Devices | 5,180 | | |
| Total Amenities | 20,720 | | |
| Total Hotel | 30,730 | | |
| Grand Total | 73,410 | | |

Source: New York State Design Standards for Intermediate Sized Wastewater Treatment Systems, March 5, 2014, New York State Department of Environmental Conservation.

Irrigation Water Demand:

In addition to the domestic water usage, landscape irrigation will be accomplished by the use of rainwater harvesting cisterns. During dry periods, the tanks will be supplemented by on-site wells.

Cumulative Water Demand:

In an effort to more accurately assess the potential impact on Water District 4, the cumulative impacts from other developments have been taken into consideration. The cumulative impacts from the following developments have been calculated:

- **Senior Housing** 16-unit age restricted residential building*
- **Wampus Mills** 6-lot residential single-family subdivision*
- **Mariani Gardens** Five 4-bedroom units, sixteen 3-bedroom units, six 2-bedroom units, sixteen 1 bedroom units (96 bedrooms)
- **Airport Campus** 100,000 sf office space, 125 room hotel, 151-unit multi-family building, 22 townhouses.
- **470 Main Street** six 1-bedroom units, ten 2-bedroom units (26 bedrooms)
- **Lumber Yard** 36 units

* An additional 16 single family homes (8 homes per project) are proposed to be connected with the development of these two projects.

The projected water demand from these projects is presented in Table IV.G-3:

| Table IV.G-3 | | | |
|---|--------------|-----------------|------------------|
| Projected Water Demand from Other Developments | | | |
| Project/Development | Units | GPD/Unit | Total GPD |
| Senior Housing | | | |
| Proposed 16 Units | 16 | 125 | 2,000 |
| Total Senior Housing | | | 2,000 |
| Wampus Mills | | | |
| Proposed Single Family | 6 | 300 | 1,800 |
| Total Wampus Mills | | | 1,800 |
| Mariani Gardens | | | |
| Proposed 4-Bedroom | 5 | 440 | 2,200 |
| Proposed 3-Bedroom | 16 | 330 | 5,280 |
| Proposed 2-Bedroom | 6 | 220 | 1,320 |
| Proposed 1-Bedroom | 16 | 110 | 1,760 |
| Total Mariani Gardens | | | 10,560 |
| Airport Campus | | | |
| Proposed Office Space | 100,000 | 0.1 | 10,000 |
| Proposed Hotel Rooms | 125 | 110 | 13,750 |
| Hotel Amenities | -- | -- | 28,400 |
| Proposed Apartments (2-Bedroom) | 151 | 220 | 33,220 |
| Proposed Townhouses (4-Bedroom) | 22 | 440 | 9,680 |
| Total Airport Campus | | | 95,050 |
| 470 Main Street | | | |
| Proposed 2-Bedroom | 10 | 220 | 2,200 |
| Proposed 1-Bedroom | 6 | 110 | 660 |
| Total 470 Main Street | | | 2,860 |
| Lumber Yard | | | |
| Proposed 36 units (2-bedroom) | 36 | 220 | 7,920 |
| Total Lumber Yard | | | 7,920 |

| | |
|--------------------|----------------|
| Grand Total | 120,190 |
|--------------------|----------------|

Source: Alfonzetti Engineering

The Senior Housing project is currently under construction. The estimated water demand is anticipated to be 2,000 gpd from Water District 4.

The Wampus Mills subdivision is currently under construction. The estimated water demand from Water District 4 is zero as the 6 single-family houses will utilize individual wells for their respective water supplies.

According to the Full Environmental Assessment Form (FEAF) submitted for Mariani Gardens, the estimated increase in water demand will be 7,000 gpd above the amount currently approved. Therefore, the estimated water demand from Water District 4 is 7,000 gpd for the Mariani Gardens proposed project.

The Airport Campus project will utilize wells for their water needs therefore, the water demand from Water District 4 is zero.

470 Main Street and the Lumber Yard projects will have a combined estimated water demand of 10,780 gpd from Water District 4.

The total water demand from other projects is 19,780 gpd from Water District 4. The total water demand from the Eagle Ridge project is 73,410 gpd. The combined water demand for all contemplated projects is 93,190 gpd.

Fire Flows:

Fire flow demands are based on ISO recommendations for typical residential fire protection and considers a 2-hour event with 1,500 gpm fire flow plus 1 hour at peak hour demand plus 1 hour at maximum day demand.

| Table IV.G-4 Required Storage for Fire Flow Demand | |
|---|------------|
| Demand | gpd |
| Fire Flow (1,500 gpm for 2 hours) | 180,000 |
| Current Peak Hour Water Demand (1 Hour)* | 80,000 |

| | |
|--|---------|
| Current Maximum Day Water Demand (1 Hour)* | 40,000 |
| Increase Peak Hour Water Demand (1 Hour)** | 7,766 |
| Increase Maximum Day Water Demand (1 Hour)** | 3,833 |
| Sum of Demand for 2-Hour Fire Scenario | 311,649 |
| Pumping Supply for 2-Hours*** | 54,000 |
| Required Storage | 257,649 |

* Current conditions

** Increase demand from Eagle Ridge and contemplated projects

*** With largest well out of service

Water District 4's existing water storage tank in the Whippoorwill Hills subdivision has a capacity of approximately 38,500 gallons per vertical foot. Therefore, the required storage of 257,649 gallons used during the 2- hour fire scenario described above is accomplished by a drawdown of approximately 6.7 feet. If at the beginning of the fire event the tank is at the pump-on set point of 23.0 feet, the water level in the tank is anticipated to drop to 16.3 feet.

According to Water System Capacity Study, Water District No. 4, Town of North Castle, NY, dated November 2016, prepared by GHD Consulting Engineers Inc., while the water level in the tank was at elevation 24.1 feet, the system pressure was observed to be 36 psi at a hydrant on Raven Court. The hydrant on Raven Court, which is at elevation 510 feet, represents the static pressure for customers at the highest elevations in the distribution system that are not served by booster pumping. As a comparison, the elevation of the highest building in the Eagle Ridge development is 520 feet and the elevation of the top floor of the hotel/apartment building is 486 feet. Based on this information, at a water level of 16.3 feet, the static pressure is anticipated to be above 32 psi. Since this is above the minimum acceptable pressure of 20 psi, it is judged that the existing storage volume is adequate for the residential 1,500 gpm fire flow scenario described above (hydrant flows range between 1,200 gpm to 2,790 gpm).

According to Water System Capacity Study, Water District No. 4, Town of North Castle, NY, dated November 2016, prepared by GHD Consulting Engineers Inc., using a similar approach, the maximum available fire flow can be estimated. If a fire event occurs, and the water level in the tank falls to 0 feet, the static

pressure will remain above 20 psi for customers at the highest elevations in the distribution system. If the storage volume available is 0 feet to 23 feet at the beginning of a 3-hour fire event, the approximate fire flow available would be 4,400 gpm. At the end of the 3-hour event there would be no stored water available, therefore, if instantaneous demand exceeds production there may be issues.

(b.) Sanitary Sewer

The development of the Proposed Action will result in generation of additional sanitary sewage.

Based on a 1998 Sewer Agreement between International Business Machines (IBM) and the Town of North Castle; IBM has a reserve wastewater treatment capacity of 135,000 gpd. Upon selling the Subject Site to the Applicant IBM transferred 35,000 gpd of their reserve to the Applicant to use for the development of the Proposed Action.

The projected sanitary sewage flow for the Proposed Project is presented in table IV.G-5 and in the Wastewater Supply report included in Appendix H:

| Table IV.G-5 Projected Sanitary Sewage Flows | | | |
|---|--------|----------|-----------|
| Use | Units | GPD/Unit | Total GPD |
| Townhouses | | | |
| Townhouses (3 bedroom) | 94 | 330 | 31,020 |
| Total Townhouses | 31,020 | | |
| Apartments | | | |
| 1 Bedroom | 44 | 110 | 4,840 |
| 2 Bedroom | 16 | 220 | 3,520 |
| 3 Bedroom | 10 | 330 | 3,300 |
| Total Apartments | 11,660 | | |
| Hotel | | | |
| Guest Rooms | 91 | 110 | 10,010 |
| Restaurant café | 278 | 35 | 9,730 |
| Lounge/Bar | 194 | 20 | 3,880 |

| | | | |
|--------------------------|---------------|----|-------|
| Bar | 123 | 20 | 2,460 |
| Ballroom/Banquet Hall | 282 | 10 | 2,820 |
| Junior Ballroom | 149 | 10 | 1,490 |
| Boardroom/Meeting Room | 52 | 10 | 520 |
| Spa/Spin Studio | - | -- | 3,000 |
| Swimming Pool | 200 | 10 | 2,000 |
| Sub-Total Amenities | 25,900 | | |
| 20% Water Saving Devices | 5,180 | | |
| Total Amenities | 20,720 | | |
| Total Hotel | 30,730 | | |
| Grand Total | 73,410 | | |

Source: New York State Design Standards for Intermediate Sized Wastewater Treatment Systems, March 5, 2014, New York State Department of Environmental Conservation.

Sewage from the Project will be collected through sanitary sewer pipes and manholes and conveyed via gravity to the existing sanitary sewer located in an easement along the eastern property line. The proposed sewer main extension will connect to one of the existing manholes. Potential impacts resulting from the construction of the sanitary sewer system could be erosion as the sewer main extension is being constructed; as a portion of the proposed sewer main goes through an area of steep slopes. The proposed erosion control measures detailed in the erosion control plan will mitigate the potential for erosion.

This sewer line then travels east through Community Park, under the Wampus Brook where it terminates at the Wastewater Treatment Plant off Business Park Drive. At the sewage treatment plant, sewage undergoes biological treatment, secondary clarification and denitrification before being discharged into Wampus Brook.

As documented in Table IV.G-5, the total amount of wastewater generated by the Project will be 73,410 gpd. The excess capacity transferred to this development from IBM's reserve is 35,000 gpd. This results in a net wastewater capacity of 38,410 gpd.

As the Wastewater Treatment Plant is currently operating at capacity, the proposed upgrade will need to be in place to fully accommodate the Proposed Development.

In an effort to more accurately assess the potential impact on the Wastewater Treatment Plant, the cumulative impacts from other developments have been taken into consideration. The cumulative impacts from the following developments have been calculated:

- **Senior Housing** 16-unit age restricted residential building*
- **Wampus Mills** 6-lot residential single-family subdivision*
- **Mariani Gardens** Five 4-bedroom units, sixteen 3-bedroom units, six 2-bedroom units, sixteen 1 bedroom units (96 bedrooms)
- **Airport Campus** 100,000 sf office space, 125 room hotel, 151-unit multi-family building, 22 townhouses.
- **470 Main Street** six 1-bedroom units, ten 2-bedroom units (26 bedrooms)
- **Lumber Yard** 36 units

** An additional 16 single family homes (8 homes per project) are proposed to be connected with the development of these two projects.*

The projected sanitary flow from these projects is presented in Table IV.G-6:

| Table IV.G-6 Projected Sanitary Sewage Flows from Other Developments | | | |
|---|-------|----------|--------------|
| Project/Development | Units | GPD/Unit | Total GPD |
| Senior Housing | | | |
| Proposed 16 Units | 16 | 125 | 2,000 |
| Existing Single Family | 8 | 300 | 2,400 |
| Total Senior Housing | | | 4,400 |
| Wampus Mills | | | |
| Proposed Single Family | 6 | 300 | 1,800 |
| Existing Single Family | 8 | 300 | 2,400 |

| | | | |
|---------------------------------|---------|-----|--------|
| Total Wampus Mills | 4,200 | | |
| Mariani Gardens | | | |
| Proposed 4-Bedroom | 5 | 440 | 2,200 |
| Proposed 3-Bedroom | 16 | 330 | 5,280 |
| Proposed 2-Bedroom | 6 | 220 | 1,320 |
| Proposed 1-Bedroom | 16 | 110 | 1,760 |
| Total Mariani Gardens | 10,560 | | |
| Airport Campus | | | |
| Proposed Office Space | 100,000 | 0.1 | 10,000 |
| Proposed Hotel Rooms | 125 | 110 | 13,750 |
| Hotel Amenities | -- | -- | 28,400 |
| Proposed Apartments (2-Bedroom) | 151 | 220 | 33,220 |
| Proposed Townhouses (4-Bedroom) | 22 | 440 | 9,680 |
| Total Airport Campus | 95,050 | | |
| 470 Main Street | | | |
| Proposed 2-Bedroom | 10 | 220 | 2,200 |
| Proposed 1-Bedroom | 6 | 110 | 660 |
| Total 470 Main Street | 2,860 | | |
| Lumber Yard | | | |
| Proposed 36 units (2-bedroom) | 36 | 220 | 7,920 |
| Total Lumber Yard | 7,920 | | |
| Grand Total | 124,990 | | |

Source: Alfonzetti Engineering

The Senior Housing project and the Wampus Mills subdivision are both currently under construction. The estimated wastewater flow from these two projects is anticipated to be 8,600 gpd. This includes the existing 16 single family houses along Old Mount Kisco Road. These two projects have already been accounted for in the existing Treatment Plant capacity.

According to the Full Environmental Assessment Form (FEAF) submitted for Mariani Gardens, the estimated increase of wastewater flow will be 7,000 gpd

above the amount currently approved. Therefore, the additional flow to the Treatment Plant is 7,000 gpd for the Mariani Gardens proposed project.

The Airport Campus project will generate an estimated 95,050 gpd of wastewater. This project is not tributary to SD#2 Wastewater Treatment Plant and therefore, will not increase the wastewater flow to the Treatment Plant.

470 Main Street and the Lumber Yard projects will generate an estimated 10,780 gpd of wastewater. Although these projects are not under construction, they have been approved and their respective wastewater flows have been included in the existing capacity of the Treatment Plant.

The pending upgrade to the Wastewater Treatment Plant will be sufficient to treat the anticipated increase in wastewater flow from the Mariani Gardens development and the additional capacity for the Eagle Ridge Development.

(c.) Alternative Energy

The Site is currently vacant and undeveloped. No alternative energy facilities currently exist on the site. As a result, no adverse impacts will result from the Proposed Action.

3.) MITIGATION MEASURES

(a.) Water Supply

According to the Town of North Castle Water and Sewer Department, the existing capacity of Water District 4 must be enhanced to accommodate projected future water demands, including the Proposed Action. To this end, The Town has been investigating several different water supply wells to alleviate the deficit that the Town is currently operating under. One location that the Town has investigated is the Town owned land where the wastewater treatment plant is located off Business Park Drive, east of the Site.

This location has been investigated by the Town's consultant and is anticipated to yield good results. The consultant has secured permits from the Westchester County Department of Health to do exploratory drilling. Drilling

was started but was suspended due to subsurface conditions that requires specific drilling equipment. The applicant is willing to make a financial contribution covering the cost of the exploratory drilling and installing/construction of the new production wells.

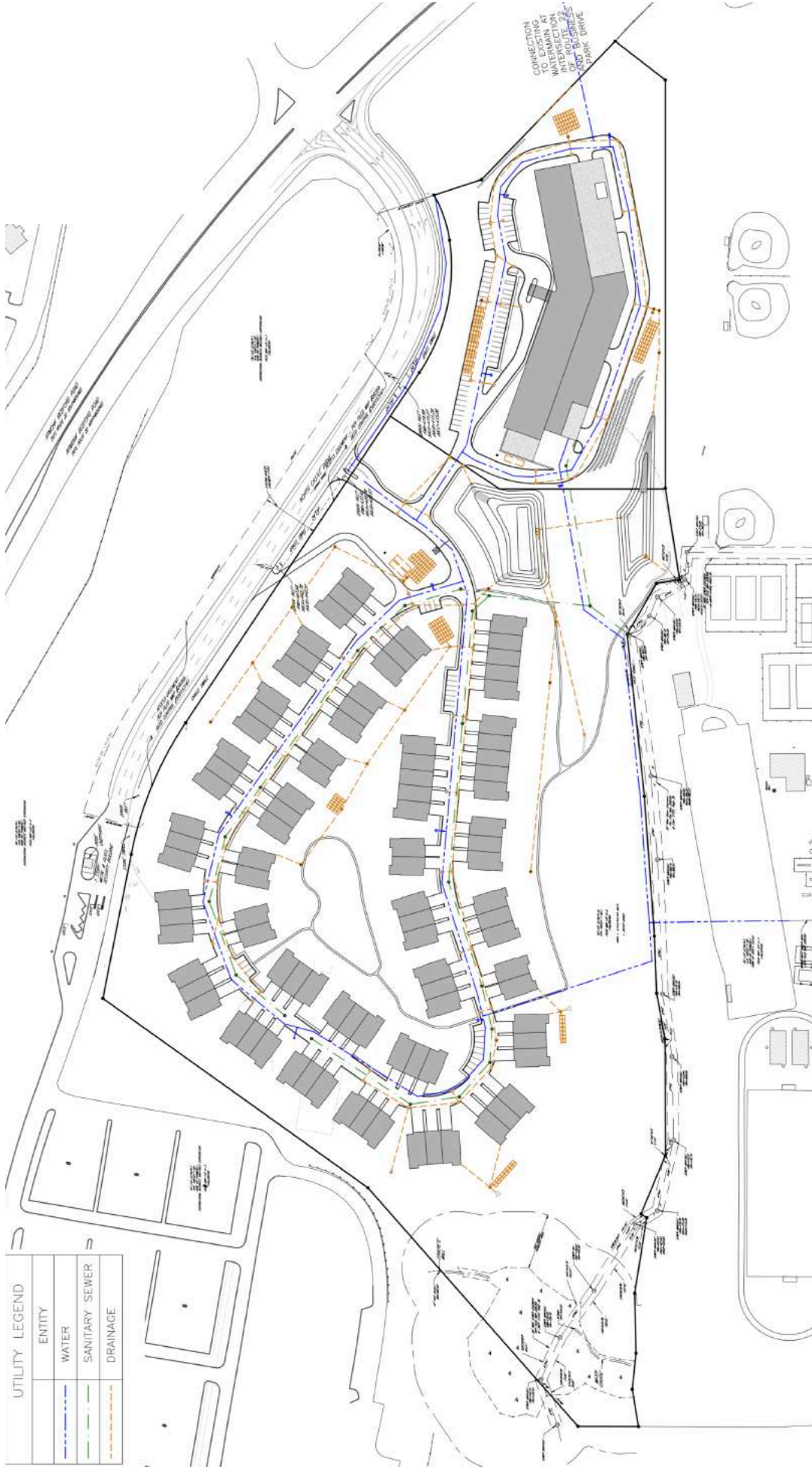
As documented on Figure IV.G-5 – Proposed Utilities, new eight-inch water main would tap off the existing water main located at the intersection of Route 22 and Business Park Drive which is located in the Water District #4 water distribution system. Once inside the Site, two looped water lines would service the hotel/apartment building and the townhouses. This water distribution system located on the Site will be owned and maintained by the Applicant.

It is anticipated that there will be no service interruptions as the connections will not require shutting down the existing water supply. One connection is within the Town Park, where an existing watermain stub exists with a shut off valve. The other connection point is near the intersection of Business Park Drive and Route 22. This connection will be established with the use of a wet tap, which does not require a shutdown. Approval for a watermain extension will be required from the Town of North Castle and Westchester County Department of Health.

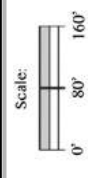
The proposed watermain extension will be designed and constructed in accordance with “Recommended Standards for Water Works, 2012 Edition” (Ten States Standards) and Westchester County Department of Health.

The hotel building will be sprinklered and will be equipped with a standpipe as per the most recent building and fire code. The hotel will also have 5 hydrants located on the perimeter of the hotel site. The townhouse portion of the development will be built according to the most recent building and fire code. There will be 5 hydrants located throughout the townhouse portion of the site. Hydrants will be located 500 feet or less from each other.

No on-site water tanks or booster pump stations are required to support the Proposed Action.



Source: Alfonzetti Engineering



Proposed Utilities

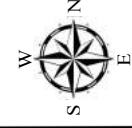


Figure
IV.G-5

To further mitigate the Proposed Action's water consumption, the applicant is committed to employing environmentally responsible green building techniques such as the use of water efficient fixtures and appliances. An irrigation strategy will be developed during the site plan review stage that includes measures such as harvesting rainwater to reduce the demand on the public water supply, utilizing plant species that require less water, reducing areas that require irrigation and utilizing smart meters for sprinkler systems.

(b.) Sanitary Sewer

As indicated in the anticipated flows above, the estimated wastewater generated in the hotel including amenities is 30,730 gpd. As a mitigation for the temporary deficit in wastewater capacity, the Proposed Development will be phased. The hotel will be built first and the townhouses constructed second. The 35,000 gpd capacity transferred to the subject site from IBM covers the 30,730 gpd from the Hotel. The Applicant understands that permits or Certificates of Occupancy can be held for the apartments and townhouses until the Treatment Plant is upgraded and operating at the higher capacity, or the Applicant secures temporary capacity from an existing reserve account.

The proposed sewer main extension will be designed and constructed in accordance with "New York State Design Standards for Intermediate Sized Wastewater Treatment Systems, March 5, 2014"; "Recommended Standards for Wastewater Facilities, 2014 Edition (10 States standards)"; and Westchester County Department of Health. Approval for a sewer main extension will be required from the Town of North Castle and Westchester County Department of Health.

There are no anticipated shutdown or suspension of services to any existing customers as the connection can be made while the existing system remains in service.

While it is understood that Sewer District #2 has minimal inflow and infiltration (I&I), in accordance with the requirements of Westchester County and the Town, sanitary sewage discharge from the Site will need to be mitigated at a ratio of 3:1. The Applicant and the Project Engineer will meet with the Town

Consulting Engineer during the site plan approval process to determine how I&I projects can be identified and who will conduct the work and in what timeframe. If specific projects cannot be identified, a process whereby the applicant places funds into a dedicated account for I&I work based on a per gallon cost of removal of flow through I&I is an alternative option.

(c.) Alternative Energy

During the site plan review process, the Applicant will explore options to incorporate rooftop mounted photovoltaic solar panels. Unfortunately, the long axis of the hotel building is oriented north/south which limits its rooftop exposure to the east/west daily transect of the course of the sun.

Additionally, the Applicant will explore the possibility of installing electric vehicle charging stations within the hotel parking area.

Chapter IV. H.

Traffic & Transportation

IV. H - TRAFFIC & TRANSPORTATION

INTRODUCTION

This section of the DEIS assesses the Proposed Actions impact of traffic, roadway operating conditions and transportation resources.

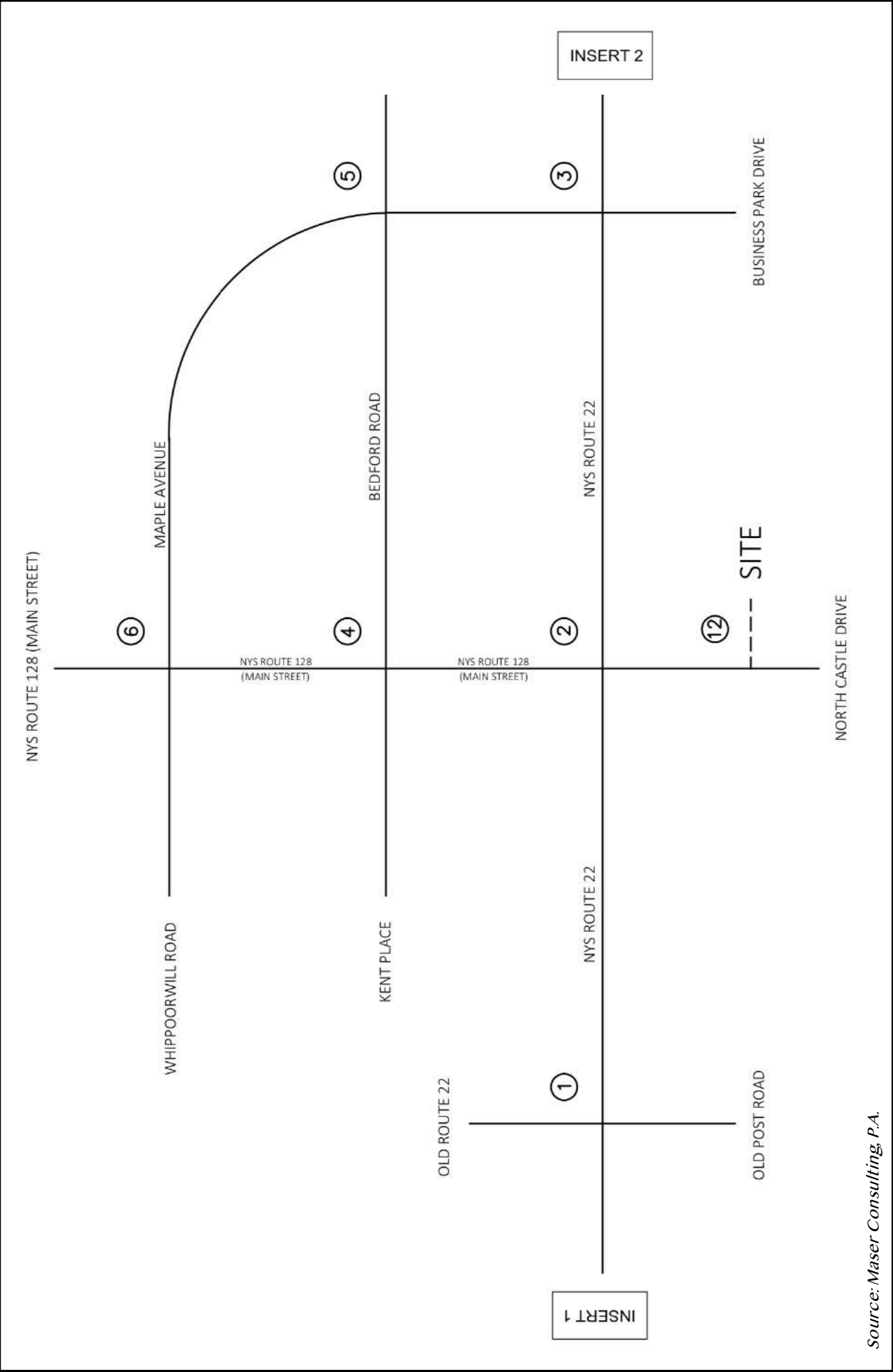
1.) EXISTING CONDITIONS

As depicted on Figure IV.H-1 and IV.H-1A the Eagle Ridge development will have access via existing North Castle Drive and will be served by the NYS Route 22/NYS Route 128/North Castle Drive signalized intersection. The following is a description of the roadways located within the Study Area. In addition, Section 2.) (k.) provides a description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service for each of the Study Area Intersections. The capacity analysis also shows the existing geometry including lane widths, traffic control including signal phasing/timing (where appropriate), pedestrians, roadway grades, truck percentages as well as the results of the analysis.



(a.) Description of Existing Roadway Network:

- NYS Route 22

NYS Route 22 is a State roadway that travels throughout Westchester County. NYS Route 22 intersects with NYS Route 128 (Main Street) opposite North Castle Drive which will provide access to the Site at a signalized intersection. Within the study area, NYS Route 22 consists of two travel lanes with shoulders in each direction and turning lanes at the NYS Route 120 North, NYS Route 120 South, Old Post Road/Old Route 22, NYS Route 128/North Castle Drive, Maple Avenue/Business Park Drive and the I-684 Southbound and Northbound On/Off Ramps signalized intersections. No sidewalks are provided along NYS Route 22 within the study area. Within the study area, NYS Route 22 has a speed limit of 55 mph. Pavement conditions along NYS Route 22 are generally good.



Source: Maser Consulting, P.A.

| | | | | | |
|---------------|--|---|----------------------------|---|------------------|
| Scale: N.T.S. | |  | <h1>Site Location Map</h1> |  | Figure IV.H-1 |
| | | | | | |

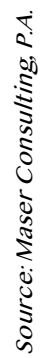
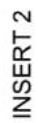


Figure
IV.H-1A

Site Location Map

- **NYS Route 128 (Main Street)**

NYS Route 128 (Main Street) is a two-lane, generally north/south State roadway that originates at NYS Route 22 opposite North Castle Drive at a signalized intersection. Within the study area, NYS Route 128 (Main Street) continues in a northerly direction with shoulders on both sides, intersecting with Old Route 22 at an unsignalized intersection. Continuing north, a sidewalk is provided on the west side of Route 128 with a sidewalk provided on the eastside approaching the Kent Placed/Bedford Road unsignalized intersection. Continuing north, there are sidewalks and crosswalks along NYS Route 128 (Main Street) with 1 hour parking provided along both sides of the street approaching the Whippoorwill Road/Maple Avenue signalized intersection. NYS Route 128 (Main Street) has a posted speed limit of 30 mph. Pavement conditions along NYS Route 128 (Main Street) are generally good.

- **North Castle Drive**

North Castle Drive is a private road that currently serves the IBM main campus and intersects with NYS Route 22 opposite NYS Route 128 at a signalized intersection. At the intersection, North Castle Drive has two entering lanes and three exiting lanes which becomes a 3 lane reversible road some 400' to the south (use right lane during 8 am – 9 – am only). There are no sidewalks provided and the posted speed limit is 15 mph. The pavement conditions along North Castle Drive are generally good. North Castle Drive is owned and maintained by IBM and is anticipated to continue to be owned/maintained by IBM. The Applicant has entered into an agreement with IBM to financially contribute to the maintenance of North Castle Drive.

- **NYS Route 120 (King Street)**

NYS Route 120 is a State roadway that travels throughout southern Westchester County west of the site. NYS Route 120 (King Street) northern leg intersects NYS Route 22 at a “Y” type signalized intersection and continues in a northerly direction intersecting with local roads such as Whippoorwill Road, nanny Hagen Road as well as NYS

Route 117 and NYS Route 100. There are no sidewalks provided and this section of NYS Route 120 has a posted speed limit of 45 mph, which is reduced to 35 mph approaching Whippoorwill Crossing. Pavement conditions are fair to good.

- **Bedford Road**

Bedford Road is a two-lane, east/west Town roadway that originates at NYS Route 128 (Main Street) opposite Kent Place at an unsignalized intersection. Bedford Road continues in an easterly direction providing access to Town Hall, Police Department, Courthouse, St. Stephen's Episcopal Church as well as other commercial uses. Bedford Road continues intersecting with Maple Avenue at a signalized intersection. Bedford Road continues through the intersection providing access to commercial uses as well as access to the H.C. Crittenden Middle School and Wampus School via MacDonald Avenue before terminating at a dead end. A sidewalk is provided along the entire south side of Bedford Road with "no parking anytime". The Route 12 bus has a bus stop located on the southside of Bedford Road in front of Town Hall. No sidewalks are provided along the northside of Bedford Road with some parking allowed between Maple Avenue and NYS Route 128 (Main Street). Bedford Road has a posted speed limit of 30 mph. Pavement conditions along Bedford Road are generally good.

- **Maple Avenue**

Maple Avenue is a two-lane, Town roadway that originates at NYS Route 128 (Main Street) opposite Whippoorwill Road at a signalized intersection. Maple Avenue continues in an easterly direction providing access to commercial uses as well as the John & Goldie Hergenhan Recreational Center and Wampus Brook Park. Sidewalks are provided along both sides of this section of Maple Avenue with "no parking anytime" with the exception of on the southside of Maple Avenue (4 spaces – 1 hour parking) near the corner of NYS Route 128 (Main Street). Maple Avenue continues in a southerly direction proving access to the St. Stephen's Episcopal Church parking area before intersecting with

Bedford Road and terminating at NYS Route 22 opposite Business Park Drive at a signalized intersection. There are no sidewalks and “no parking anytime along this section of Maple Avenue. The Route 12 bus has a bus stop located on the west side of Maple Avenue south of Bedford Road. Maple Avenue has a posted speed limit of 30 mph. Pavement conditions along Maple Avenue are generally good.

- **Whippoorwill Road East**

Whippoorwill Road East is a two-lane, Town roadway that originates at NYS Route 128 (Main Street) opposite Maple Avenue at a signalized intersection. Whippoorwill Road East continues in a westerly direction providing access to the 403, 405, 407, 409, 419 Main Street parking lot (2 Hour Parking with No Overnight Parking), the exit driveway to Citibank, egress only from Kent Place, North Castle Public Library, Whippoorwill Commons Apartments and other local roads. Sidewalks are provided along both sides of Whippoorwill Road East from NYS 128 (Main Street) to the North Castle Library/Whippoorwill Commons Apartments (in the vicinity of the commercial uses). Whippoorwill Road East has a posted speed limit of 30 mph, and pavement conditions are generally good.

- **Business Park Drive**

Business Park Drive is a two lane, Town road which intersects with NYS 22 opposite Maple Avenue at a signalized intersection. Business Park Drive provides access to various commercial uses including La Quinta Inn & Suites, Equinox, Burke Rehabilitation, White Plains Medical & Wellness, White Plains Urgent Care & Imaging, Bristol Assisted Living as well as the Armonk Indoor Sports Center and Town of North Castle Community Park. No sidewalks are provided, and Business Park Drive has a posted speed limit of 30 mph. Pavement conditions are generally good.

- **Interstate 684**

Interstate 684 is a State Highway that travels in a generally north/south direction and connects Interstate 84 with Interstate 287 and the

Hutchinson River Parkway. Interstate 684 intersects with NYS Route 22 east of the Site. The I-684 Northbound On-Ramp is under signal control, the I-684 Northbound Off-Ramp to NYS Route 22 north is under “Stop” sign control, and the I-684 Northbound Off-Ramp to NYS Route 22 south is under “Yield” sign control. The I-684 Southbound Off-Ramp left turn is under signal control, the I-684 Southbound Off-Ramp right turn to NYS Route 22 south is under “Yield” control, the NYS Route 22 North On-Ramp and NYS Route 22 South On-Ramp to I-684 Southbound are free flow right turns.

(b.) Public Transportation:

Within the study area, the Westchester Bee Line provides local bus service via the Route 12 Bus. In the vicinity of the Site, the Route 12 Bus runs northbound along NYS Route 22, continues to NYS Route 128 (Main Street), Bedford Road and Maple Avenue before continuing back to NYS Route 22 southbound. The nearest bus stop to the Site is located on NYS Route 128 (Main Street) at the intersection of NYS Route 22/NYS Route 128/North Castle Drive. The Route 12 Bus operates Monday – Friday between the White Plains Trans Center, Harrison, Purchase including the Westchester County Airport and Armonk. A copy of the Westchester Bee Line Route 12 schedule and route map is contained in Appendix “F” of the Maser Consulting Study in the DEIS Appendix. It is anticipated that the Proposed Project will not have a significant impact on the existing ridership of the Bee Line Bus service.

(c.) Year 2018 Existing Traffic Volumes:

In order to establish existing traffic conditions in the vicinity of the Site, turning movement traffic counts were conducted on Wednesday, October 24, 2018 ⁽¹⁾ between the hours of 7:00 AM – 10:00 AM to determine the Weekday Peak AM Hour and 4:00 PM – 6:00 PM to determine the Weekday Peak PM Hour. These traffic counts were compared to and supplemented with existing traffic volumes conducted on November 2, 2017 ⁽²⁾ (adjusted to baseline conditions) and future traffic projection contained in the IBM

Parking Lot Expansion Traffic Impact Study dated November 22, 2017. The following intersections were analyzed as per the Scope.

- NYS Route 22 and Old Route 22/Old Post Road ⁽¹⁾
- NYS Route 22 and NYS Route 128/North Castle Drive (IBM) ⁽¹⁾
- NYS Route 22 and Maple Avenue/Business Park Drive ⁽¹⁾
- NYS Route 128 & Bedford Road/Kent Place ⁽¹⁾
- Bedford Road & Maple Avenue ⁽¹⁾
- NYS Route 128 & Whippoorwill Road East/Maple Avenue ⁽¹⁾
- NYS Route 22 & NYS Route 120 North (King Street) ⁽²⁾
- NYS Route 22 & NYS Route 120 South (King Street) ⁽²⁾
- NYS Route 120 (King Street) and Old Post Road ⁽²⁾
- 10. NYS Route 22 & I-684 SB On/Off Ramps 11. NYS Route 22 & I-684 NB On/Off Ramps ⁽²⁾

A copy of the traffic count data including the NYSDOT historical traffic count data is contained in Appendix “E” of the Maser Consulting Study in the DEIS Appendix.

Based upon a review of above turning movement traffic counts and a review of NYSDOT historical traffic count data, the peak hours were identified as follows.

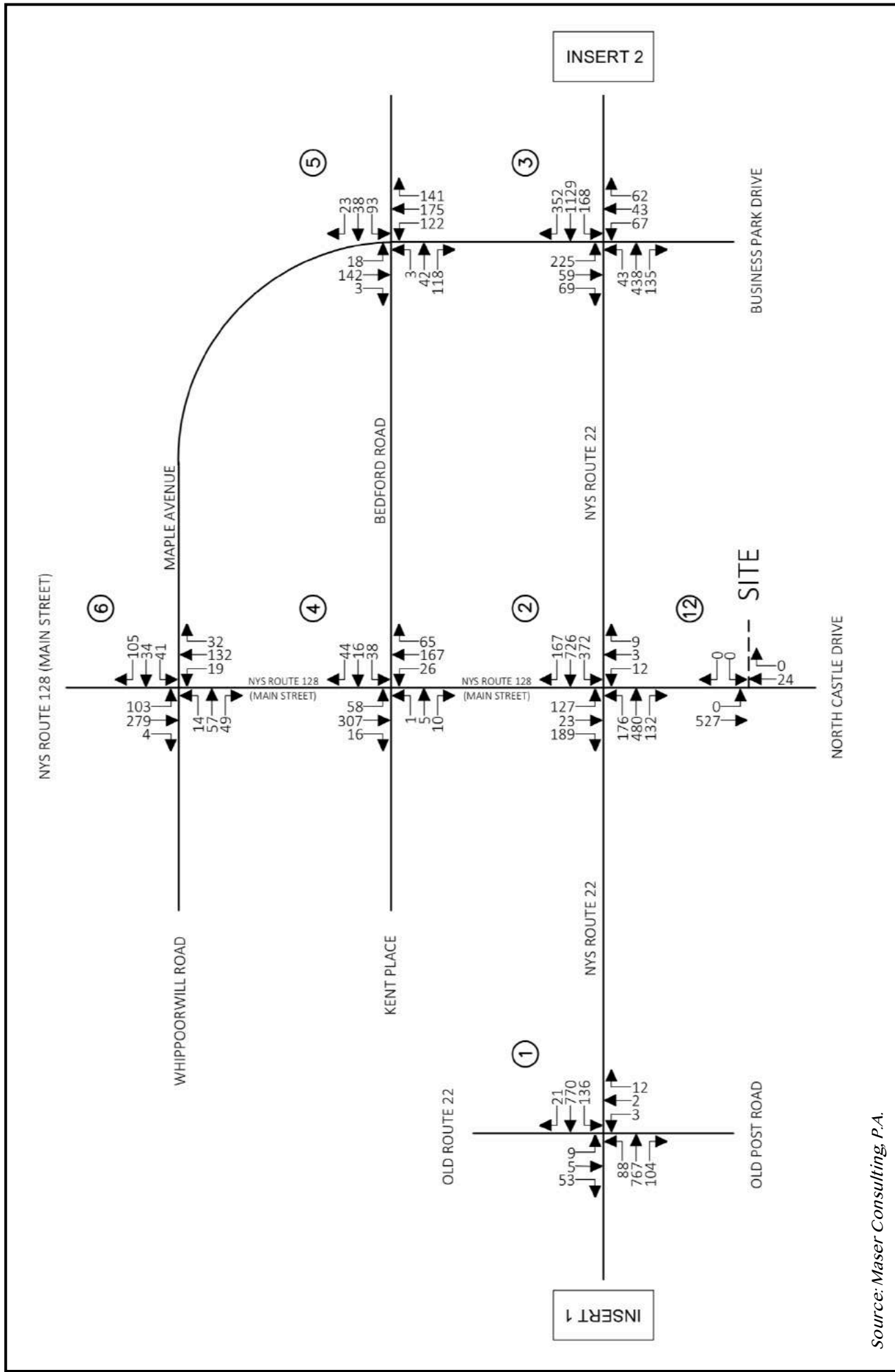
- Weekday Peak AM Hour 8:00 AM – 9:00 AM
- Weekday Peak PM Hour 5:00 PM – 6:00 PM

Based on the above, the resulting Year 2018 Existing Traffic Volumes are shown on Figures IV.H-2, IV.H-2A and IV.H-3, V.H-3A for each of the Peak Hours, respectively.

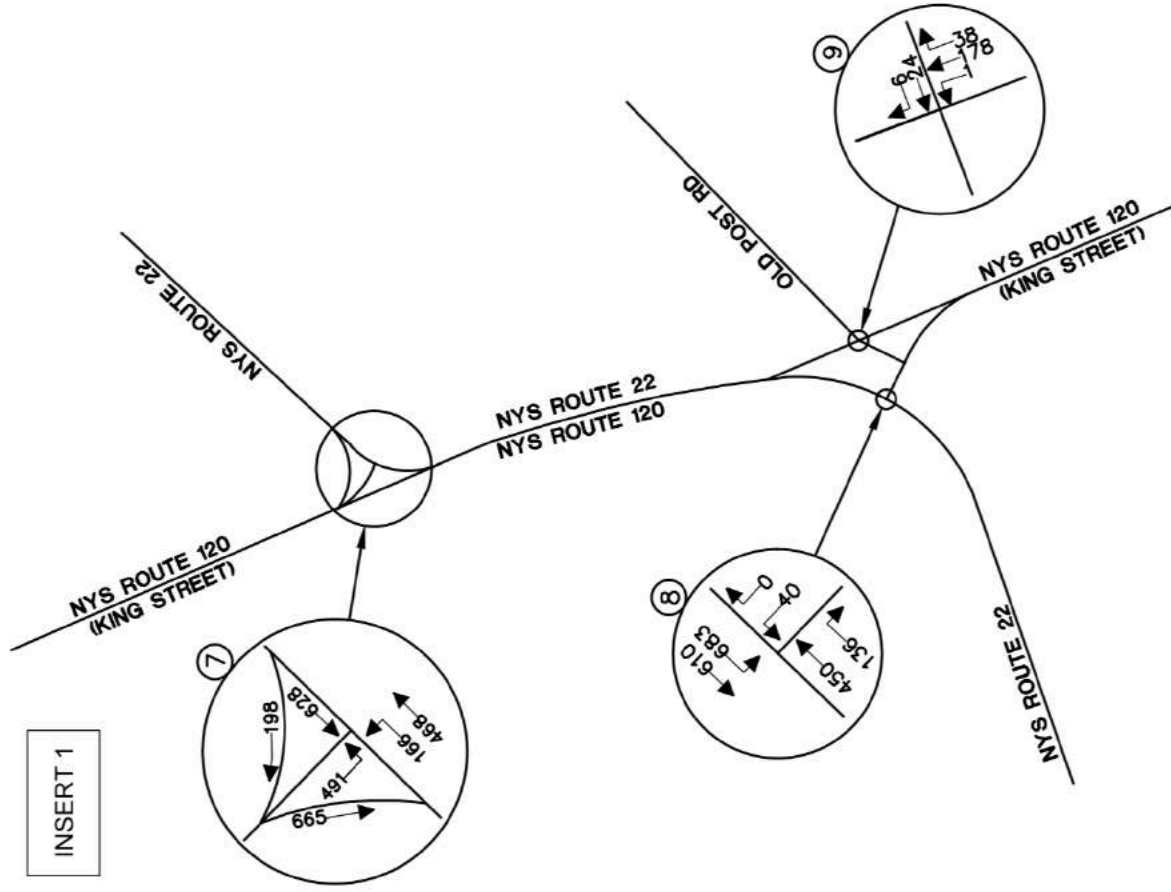
2.) POTENTIAL IMPACTS

(a.) Year 2022 No-Build Traffic Volumes:

For the purpose of analysis, a Design Year of 2022 has been utilized in the completing the traffic analysis.

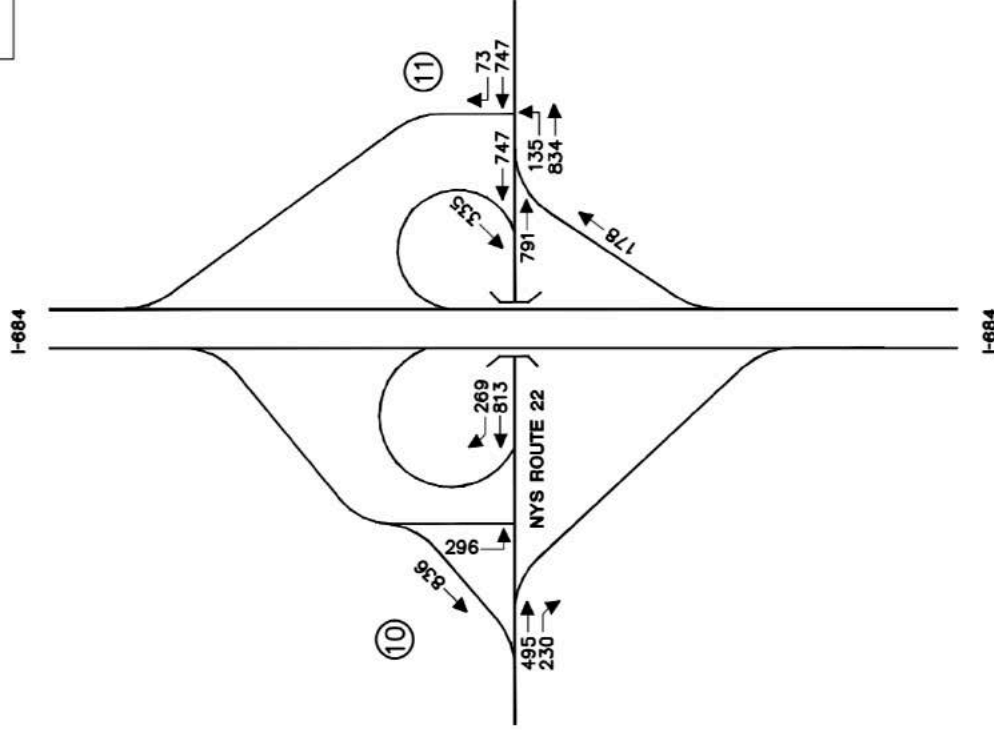


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Source: Maser Consulting, P.A.

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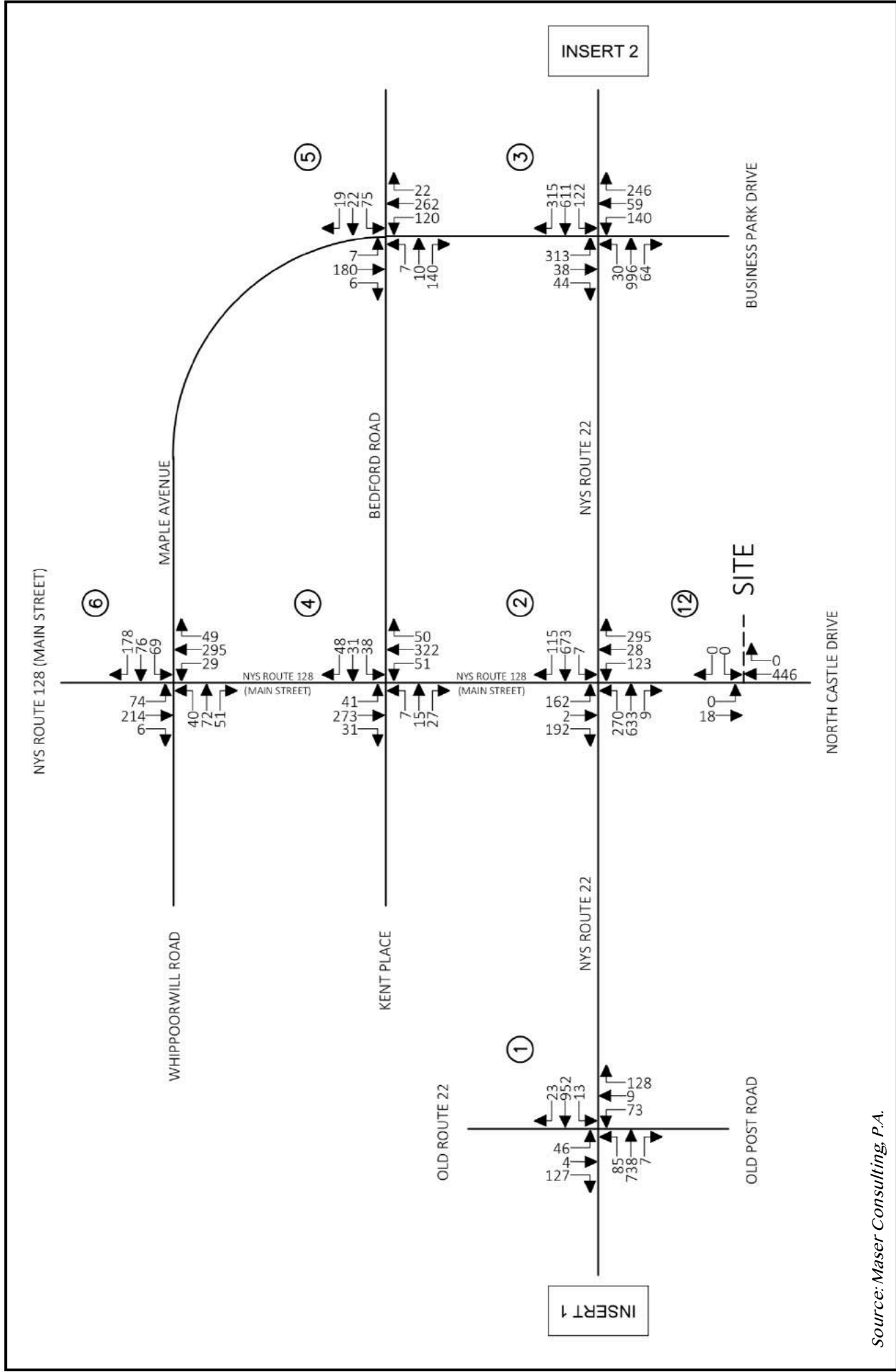
Scale: N.T.S.



Year 2018 Existing Traffic Volumes Weekday Peak AM Hour

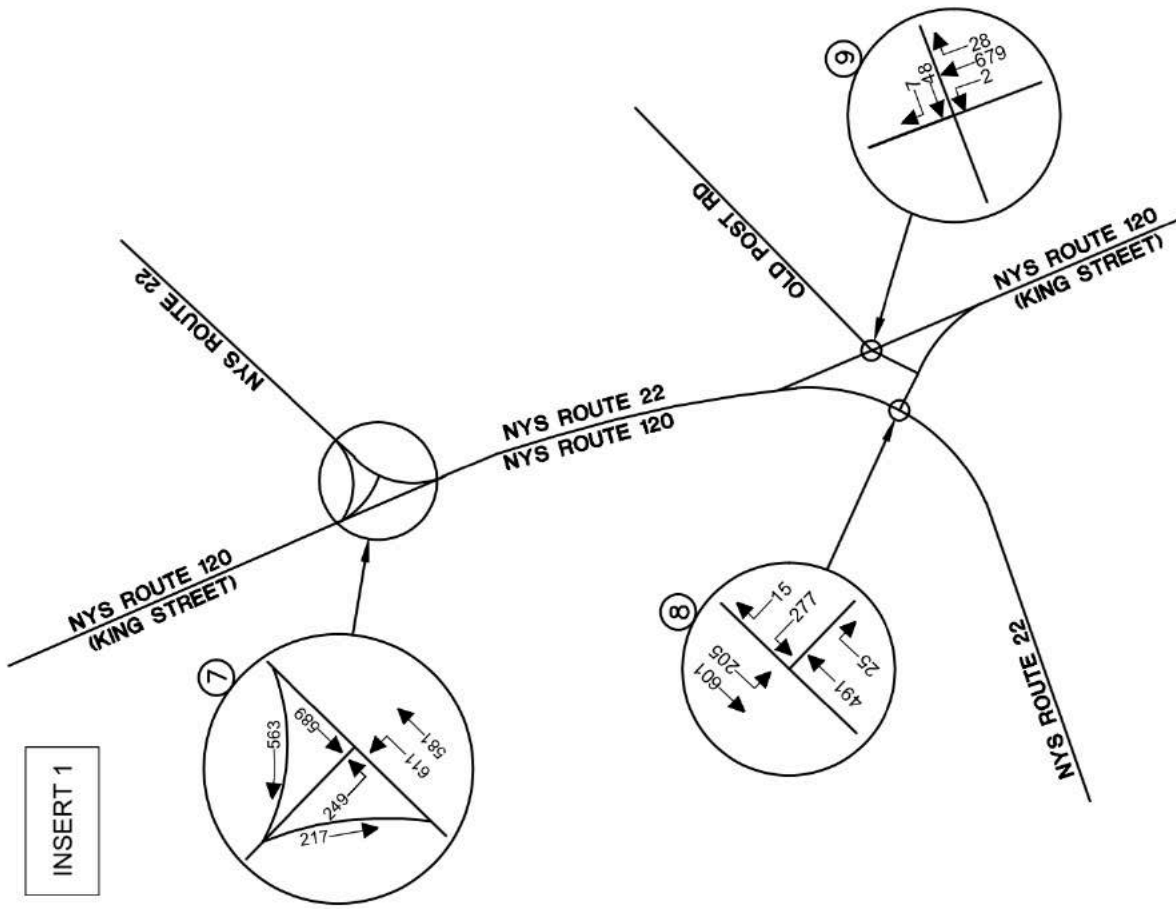
Figure
IV.H-2A



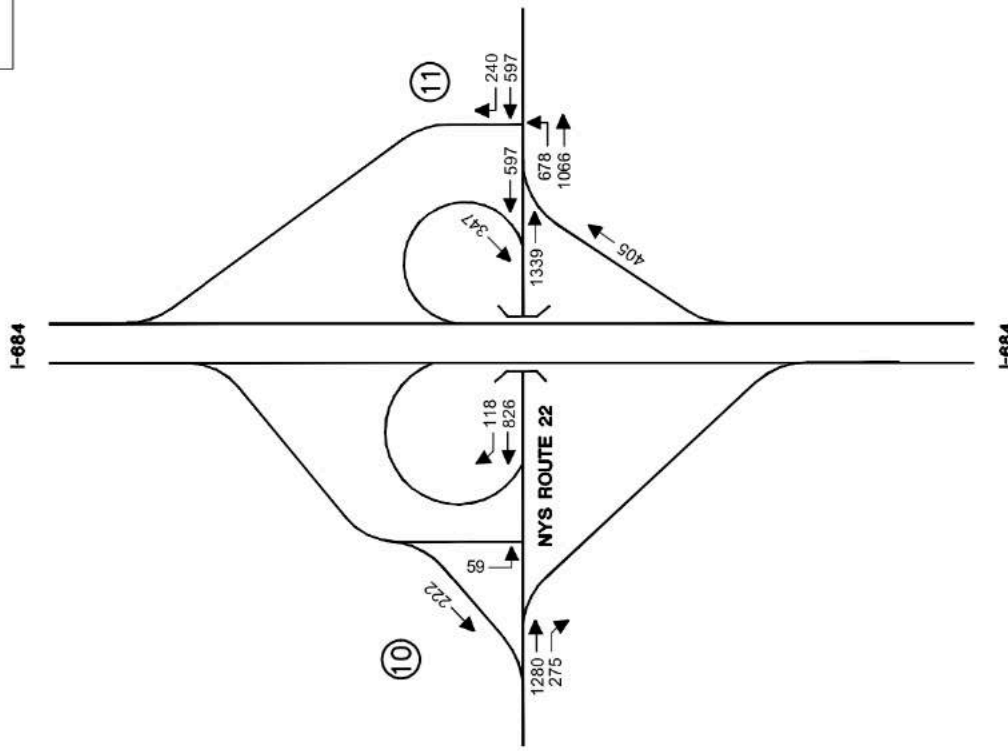


| | | | |
|---------------|---|--|------------------|
| Scale: N.T.S. | <h1>Year 2018 Existing Traffic Volumes</h1> <h2>Weekday Peak PM Hour</h2> | | Figure IV.H-3 |
| | | | |

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Source: Maser Consulting, P.A.

Scale: N.T.S.



Year 2018 Existing Traffic Volumes Weekday Peak PM Hour



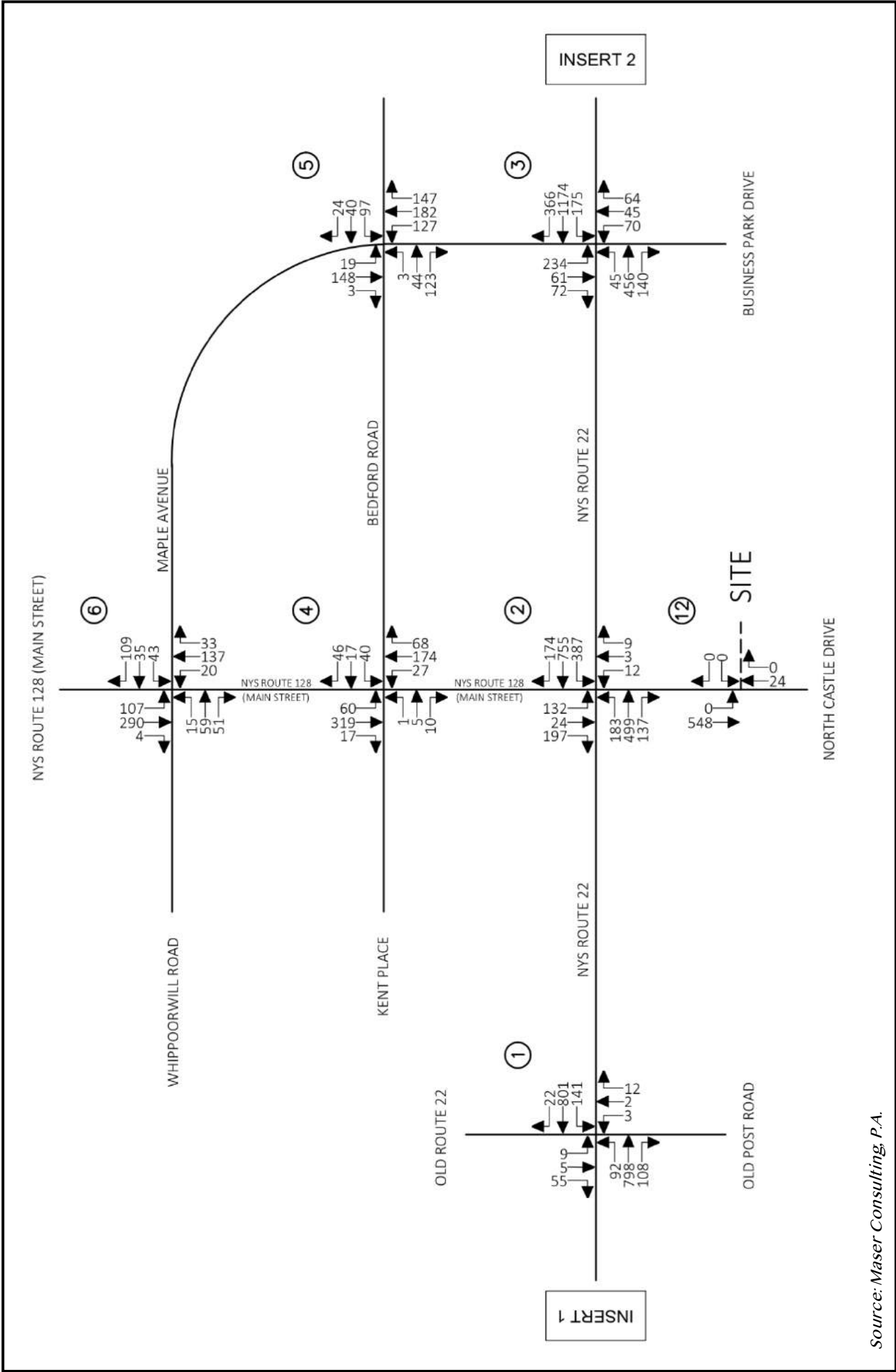
Figure
IV.H-3A

In order to account for normal background traffic growth in the area, the Year 2018 Existing Traffic Volumes were increased by a growth factor of 1.0% per year for a total background growth of 4% based on NYSDOT historical data. The resulting Year 2022 Projected Traffic Volumes are shown on Figures IV.H-4, IV.H-4A and IV.H-5, IV.H-5A for each of the Peak Hours, respectively. In addition to the background growth factor, traffic generated for other potential developments in the area was also accounted for. These include Brynwood (88 units), Mariani Gardens (50 units), Madonna Senior Housing (16 units), Wampus Mills (6 single family), 162 Bedford Road – Former Armonk Lumber Yard (36 units) and 470 Main Street (16 units) as well as the re-occupancy of the former MBIA site (261,000 square feet of office space). It should be noted that based on a comparison of the year 2018 existing traffic volumes and the year 2019 traffic volume projections contained in the IBM Parking Lot Expansion Traffic Impact Study dated November 22, 2017, the IBM expansion is accounted for in the 2018 baseline conditions utilized in this study. The other development traffic volumes are shown on Figures No. IV.H-6, IV.H-6A and IV.H-7, IV.H-7A for each of the Peak Hours, respectively.

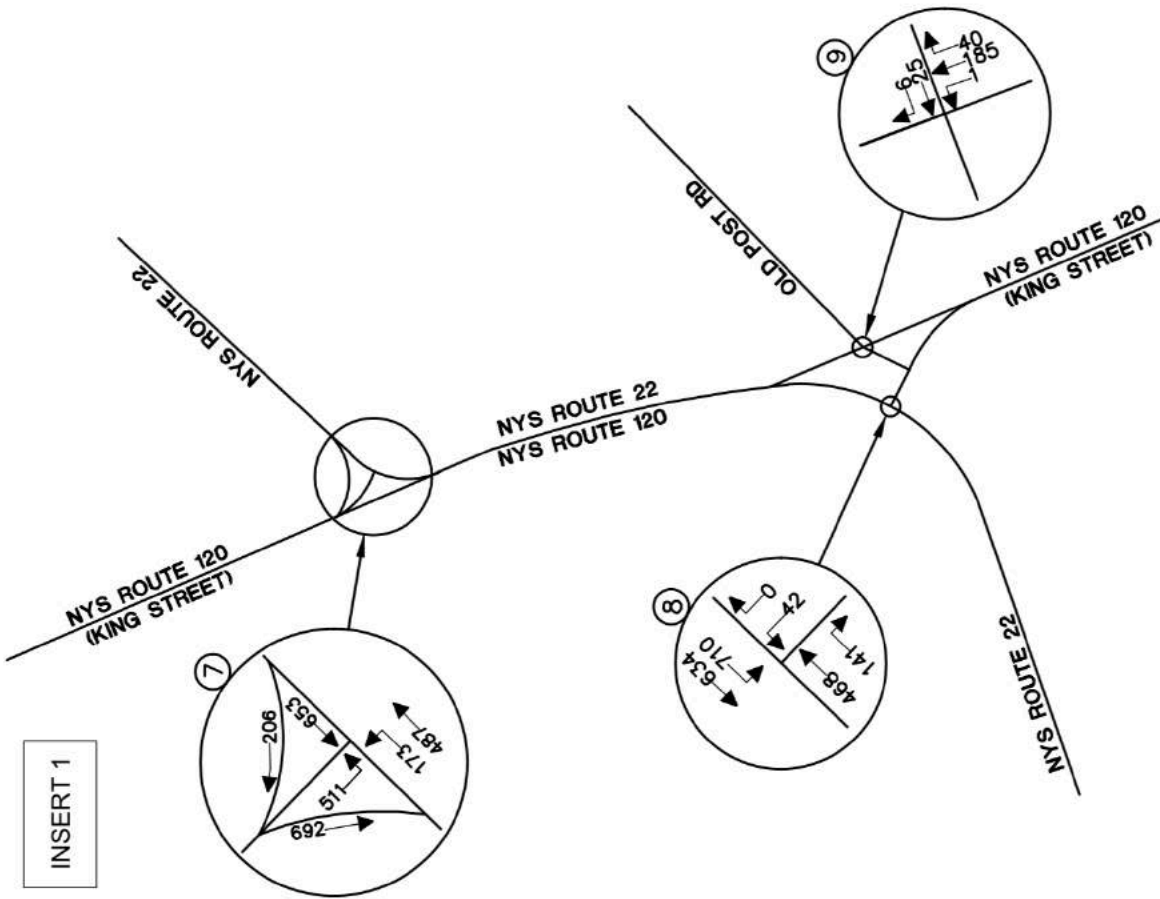
The resulting Year 2022 No-Build Traffic Volumes are shown on Figures IV.H-8, IV.H-8A and IV.H-9, IV.H-9A for each of the Peak Hours, respectively.

(b.) Site Generated Traffic Volumes:

In order to estimate the amount of traffic to be generated by the Proposed Action, the Hourly Trip Generation Rates and Anticipated Site Generated Traffic Volumes were developed based on information contained in the Institute of Transportation Engineers (ITE) “Trip Generation Handbook”, 10th Edition, 2017. Table IV.H-1 summarizes the Hourly Trip Generation Rates and the anticipated Site Generated Traffic Volumes.

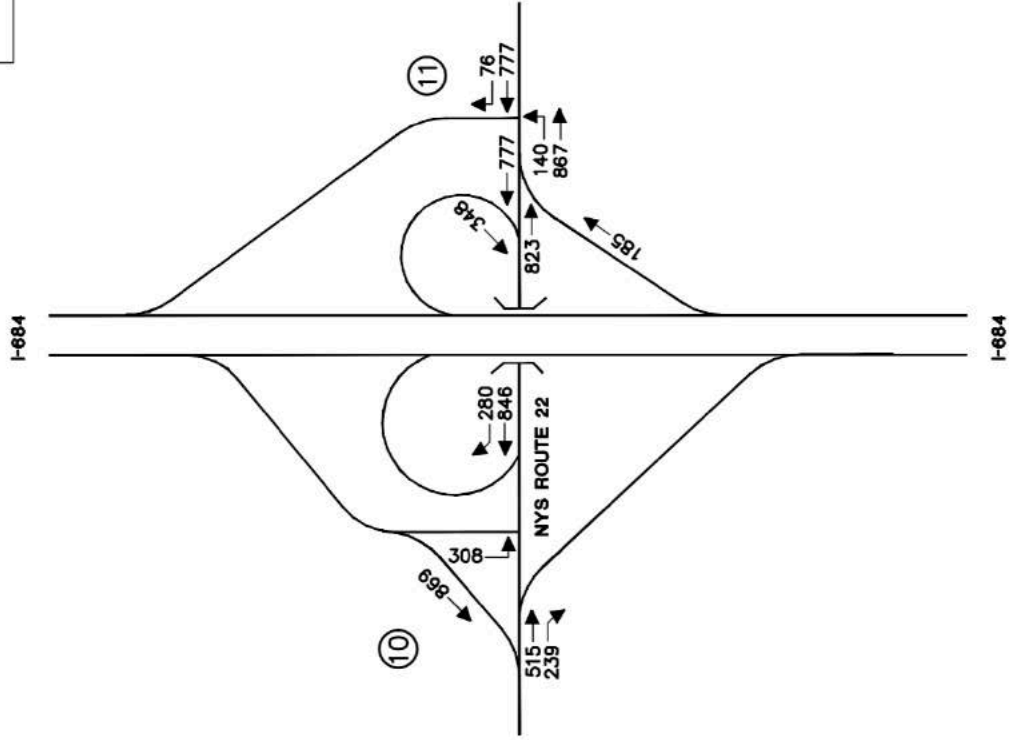


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Source: Maser Consulting, P.A.

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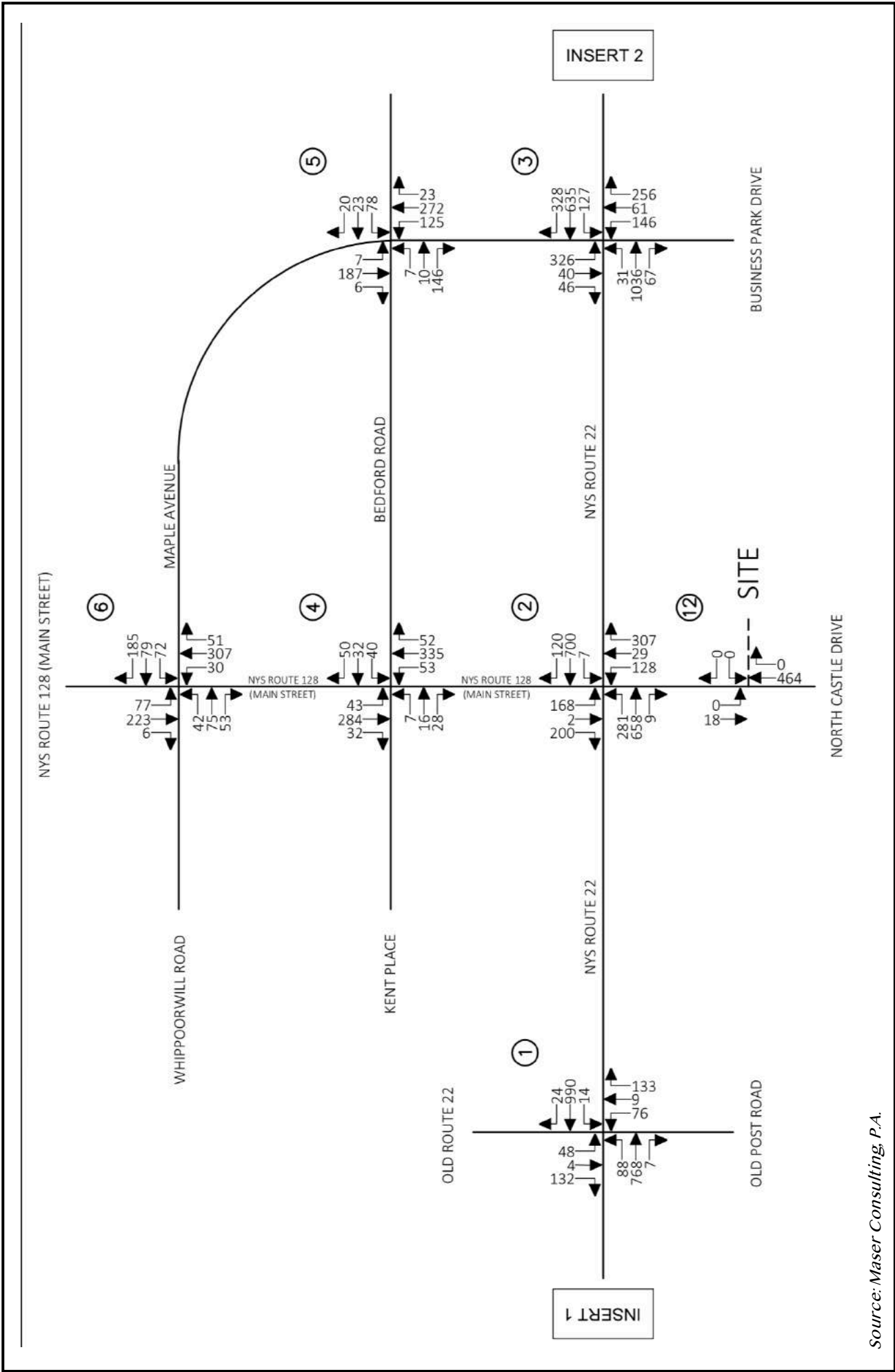
Year 2022 Projected Traffic Volumes

Weekday Peak AM Hour

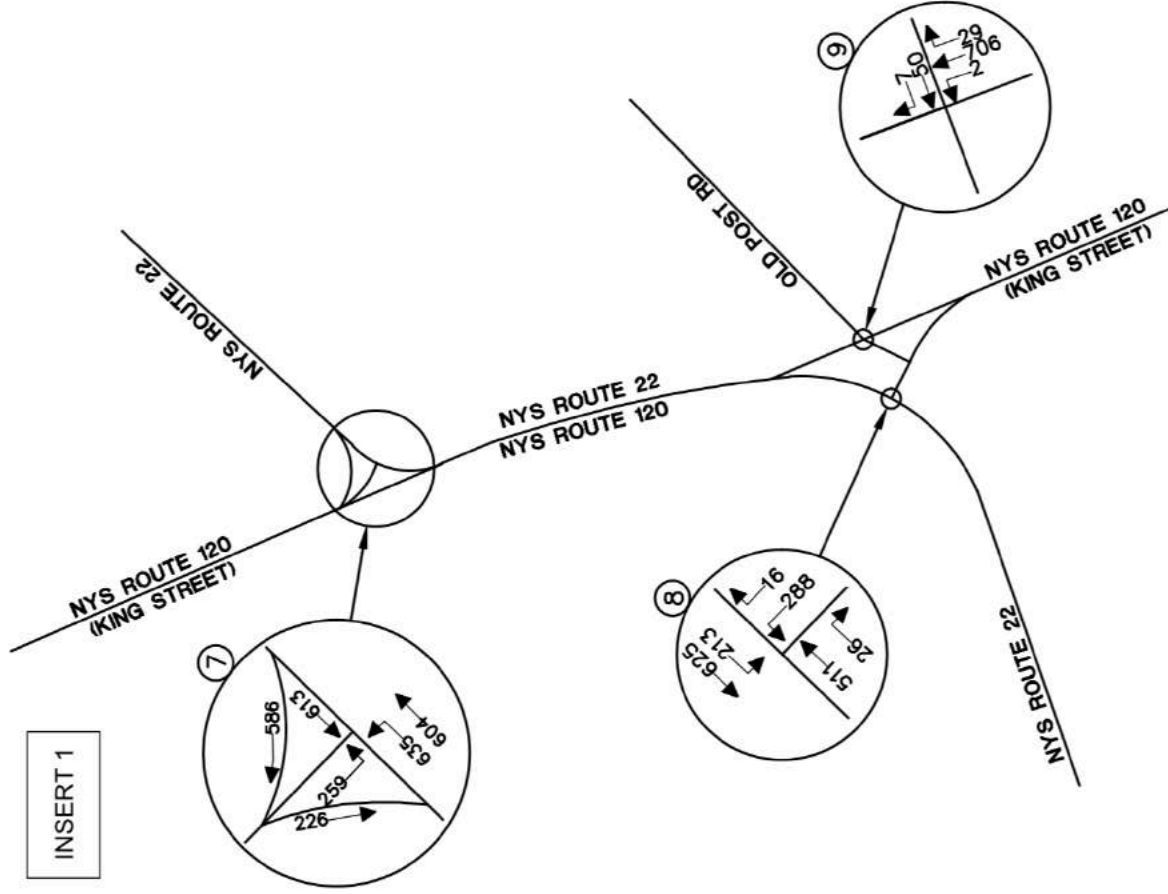
Scale: N.T.S.



Figure
IV.H-4A

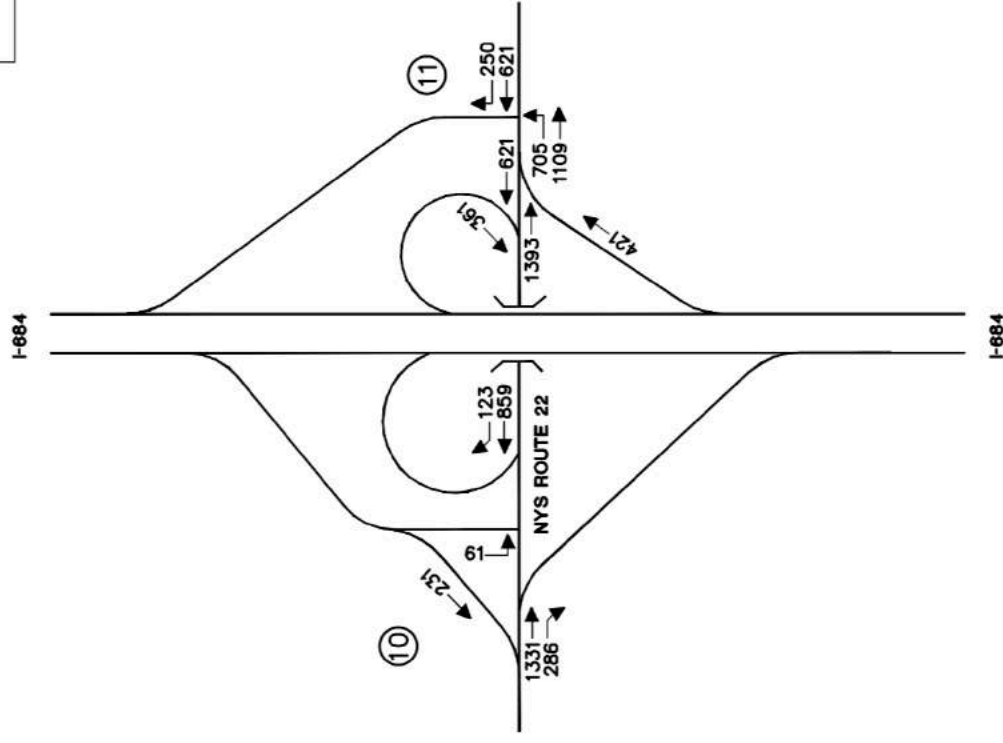


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Source: Maser Consulting, P.A.

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Scale: N.T.S.



Year 2022 Projected Traffic Volumes Weekday Peak PM Hour

Figure
IV.H-5A



NYS ROUTE 128 (MAIN STREET)

⑥

WHIPPOORWILL ROAD

MAPLE AVENUE

NYS ROUTE 128
(MAIN STREET)

④

KENT PLACE

BEDFORD ROAD

⑤

OLD ROUTE 22

①

INSERT 1

NYS ROUTE 22

②

NYS ROUTE 128
(MAIN STREET)

NYS ROUTE 22

③

INSERT 2

OLD POST ROAD

⑫

--- SITE

NORTH CASTLE DRIVE

BUSINESS PARK DRIVE

Source: Maser Consulting, P.A.

Scale: N.T.S.



Other Development Traffic Volumes

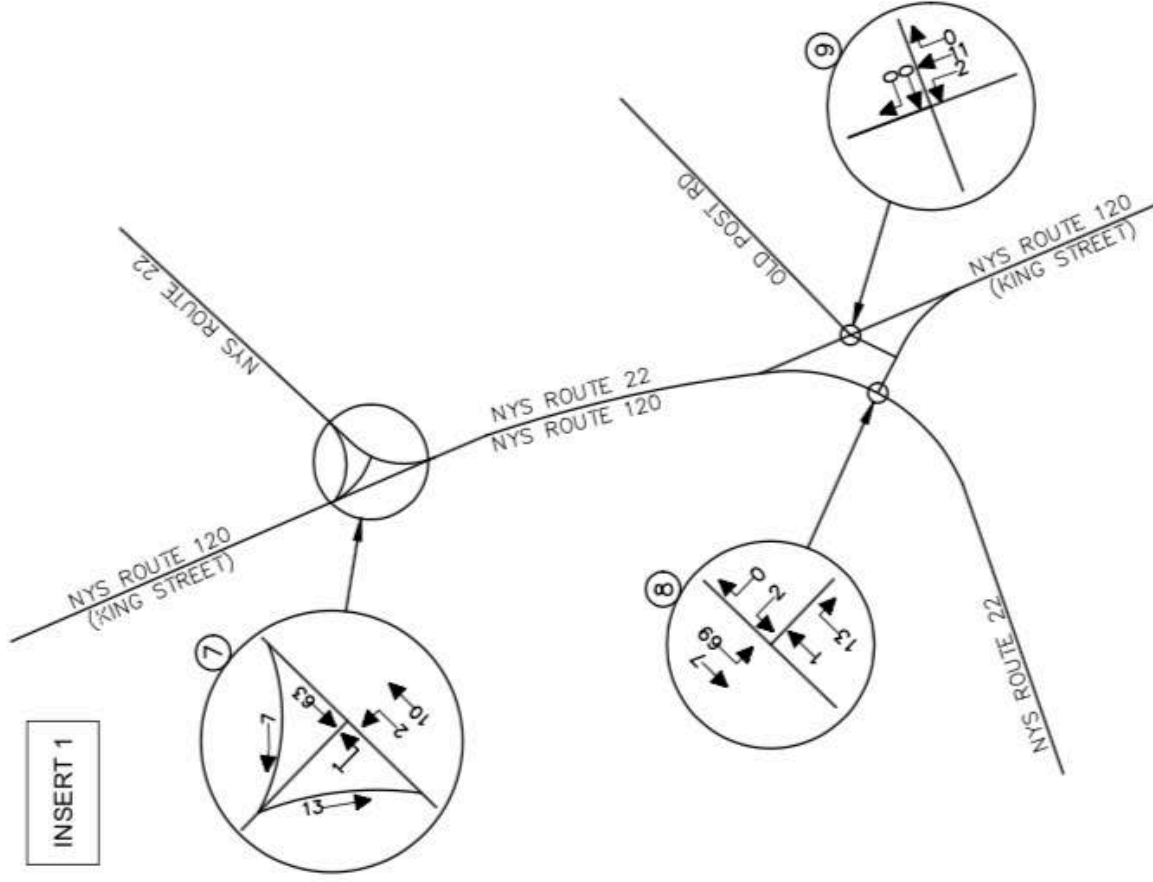
Weekday Peak AM Hour

Figure

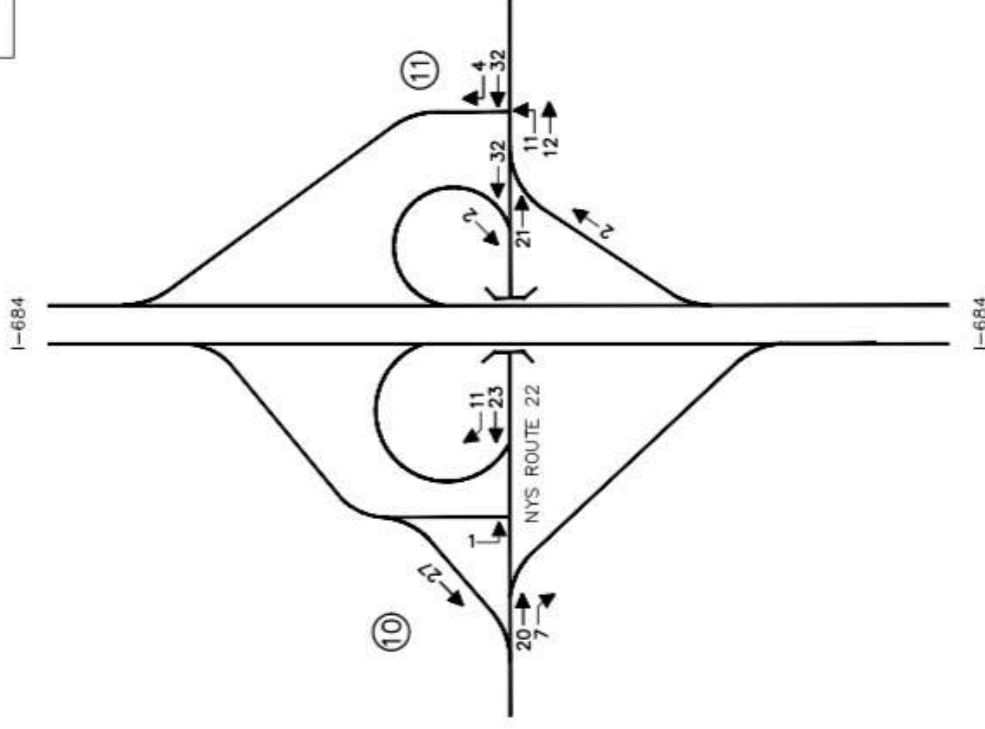
IV.H-6



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Source: Maser Consulting, P.A.

Scale: N.T.S.



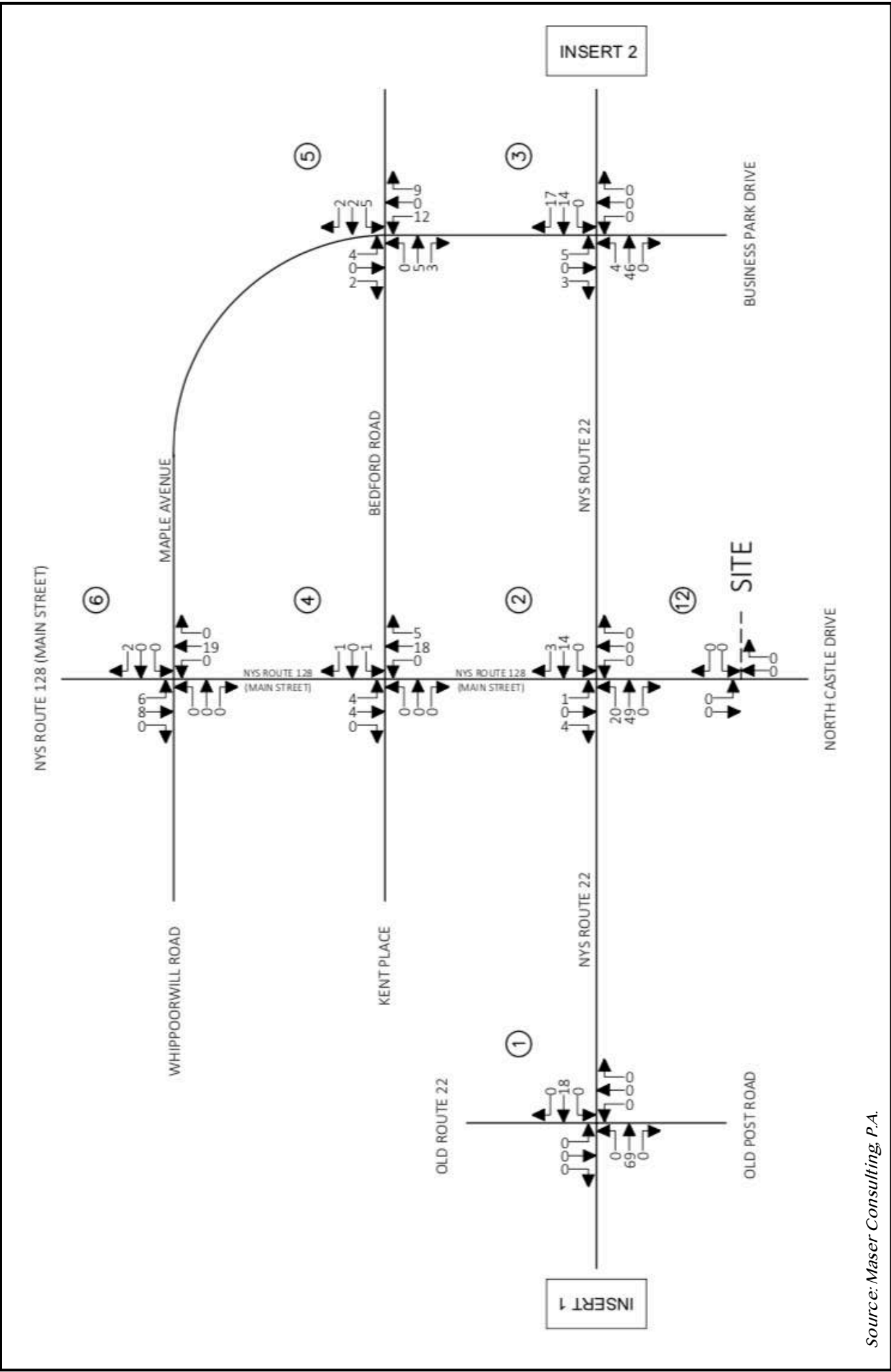
Other Development Traffic Volumes

Weekday Peak AM Hour



Figure

IV.H-6A

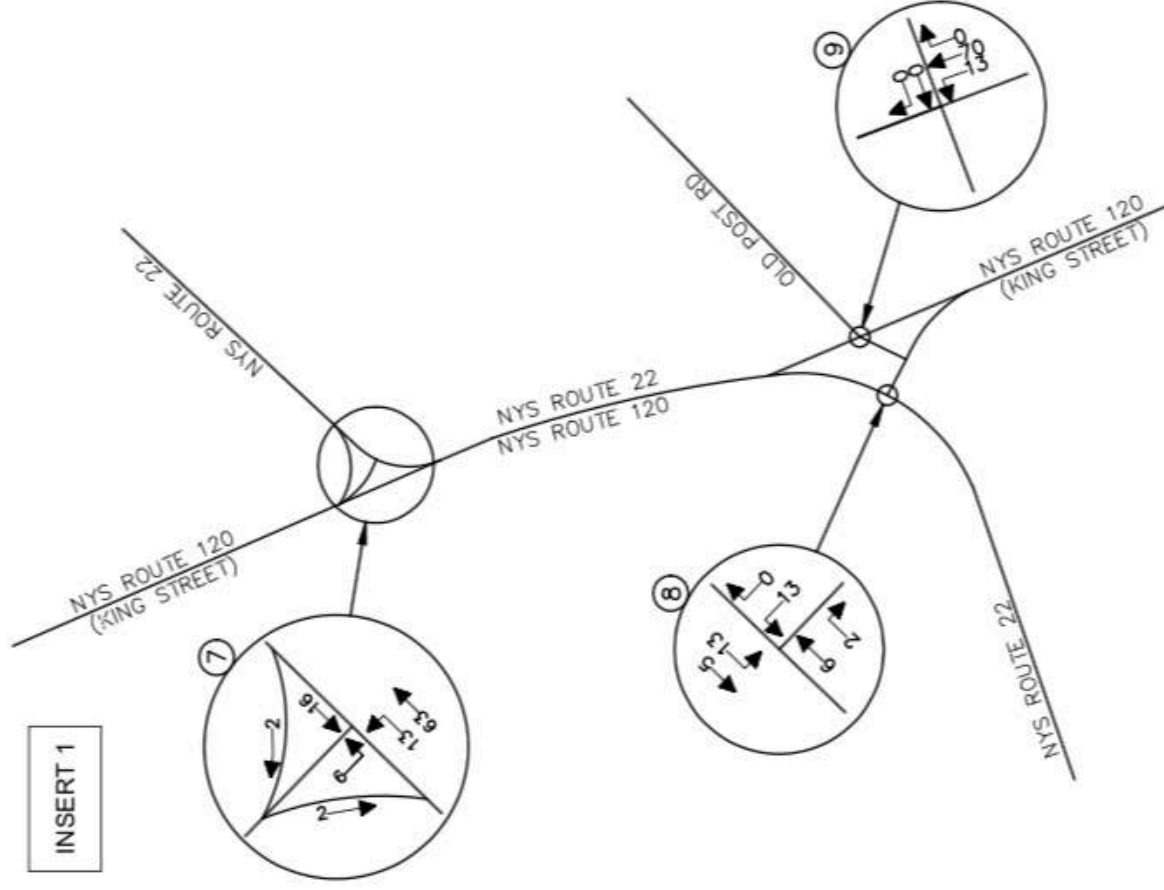




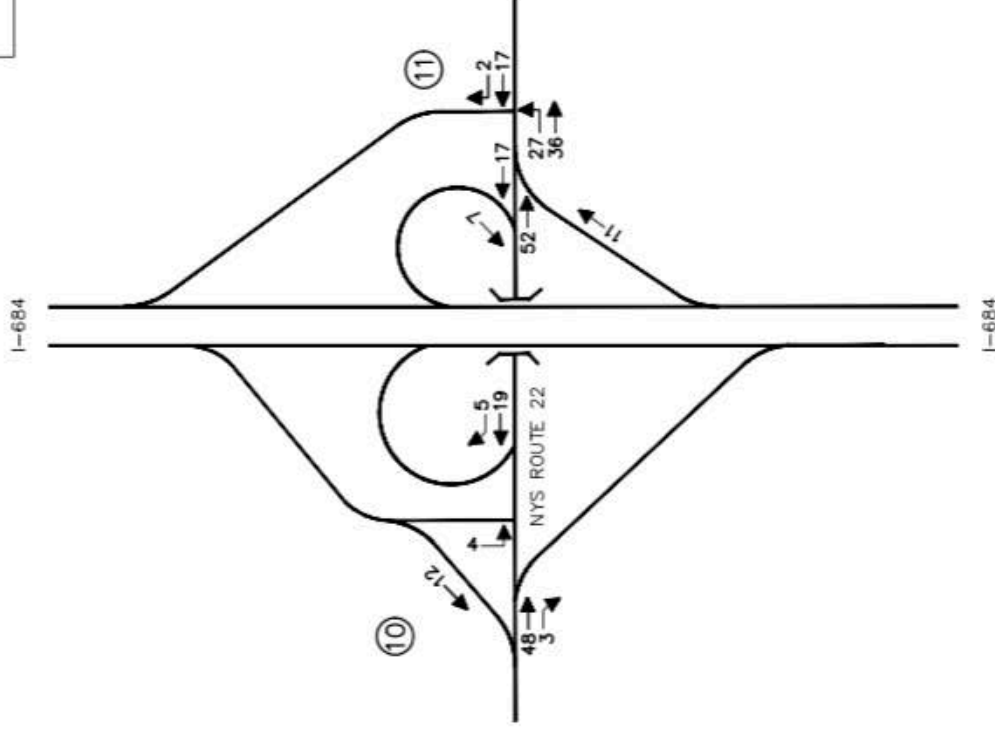
Source: Maser Consulting, P.A.

| | | | |
|---|--|---|------------------|
| Scale: N.T.S. | <h1>Other Development Traffic Volumes</h1> <h2>Weekday Peak PM Hour</h2> |  | Figure IV.H-7 |
|  | | | |

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Source: Maser Consulting, P.A.

Scale: N.T.S.

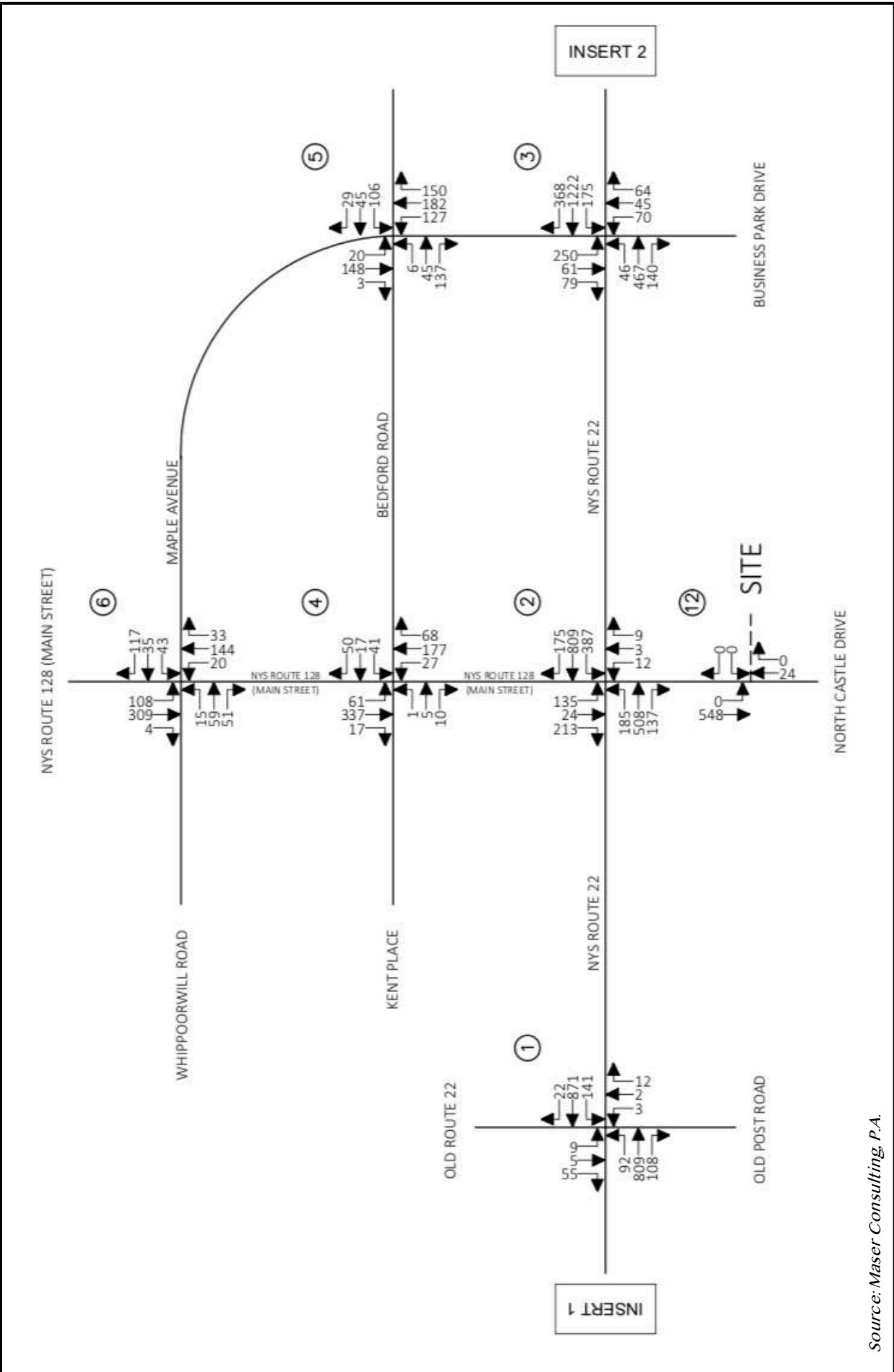




Other Development Traffic Volumes

Weekday Peak PM Hour



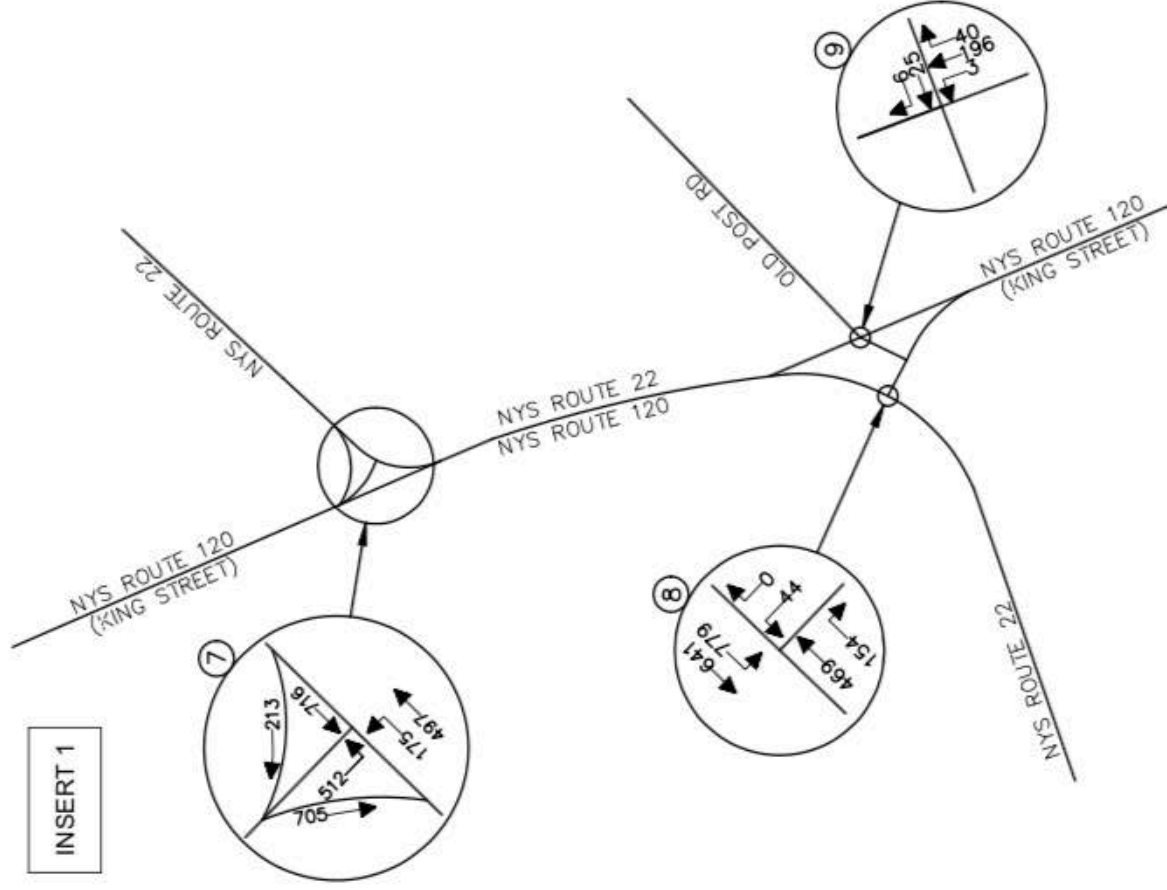
Figure
IV.H-7A



| | | | |
|---|---|---|------------------|
| Scale: N.T.S. | <h1>Year 2022 No-Build Traffic Volumes</h1> <h2>Weekday Peak AM Hour</h2> |  | Figure IV.H-8 |
|  | | | |

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Source: Maser Consulting, P.A.

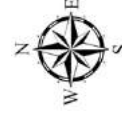
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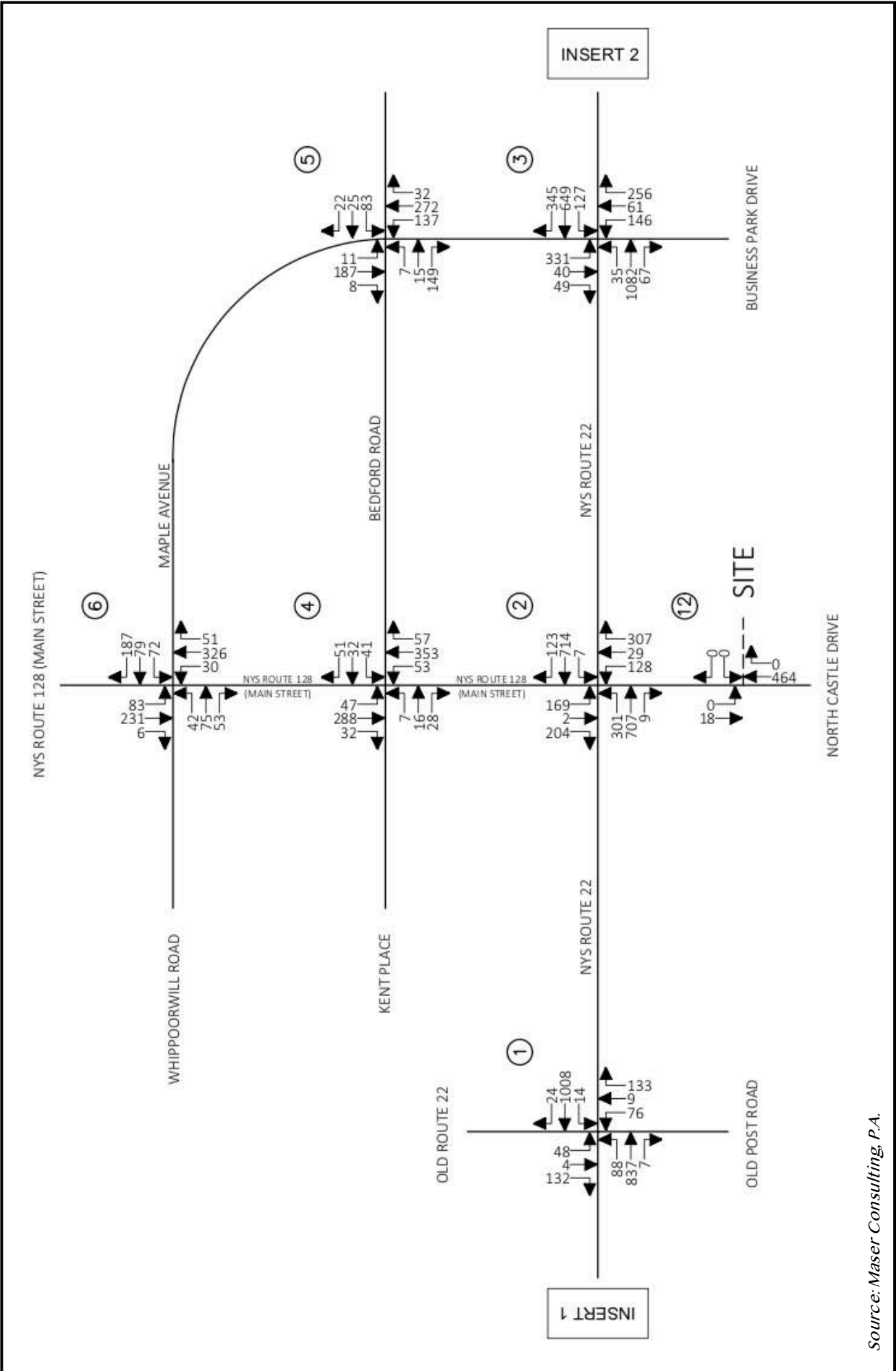




Year 2022 No-Build Traffic Volumes Weekday Peak AM Hour

Figure

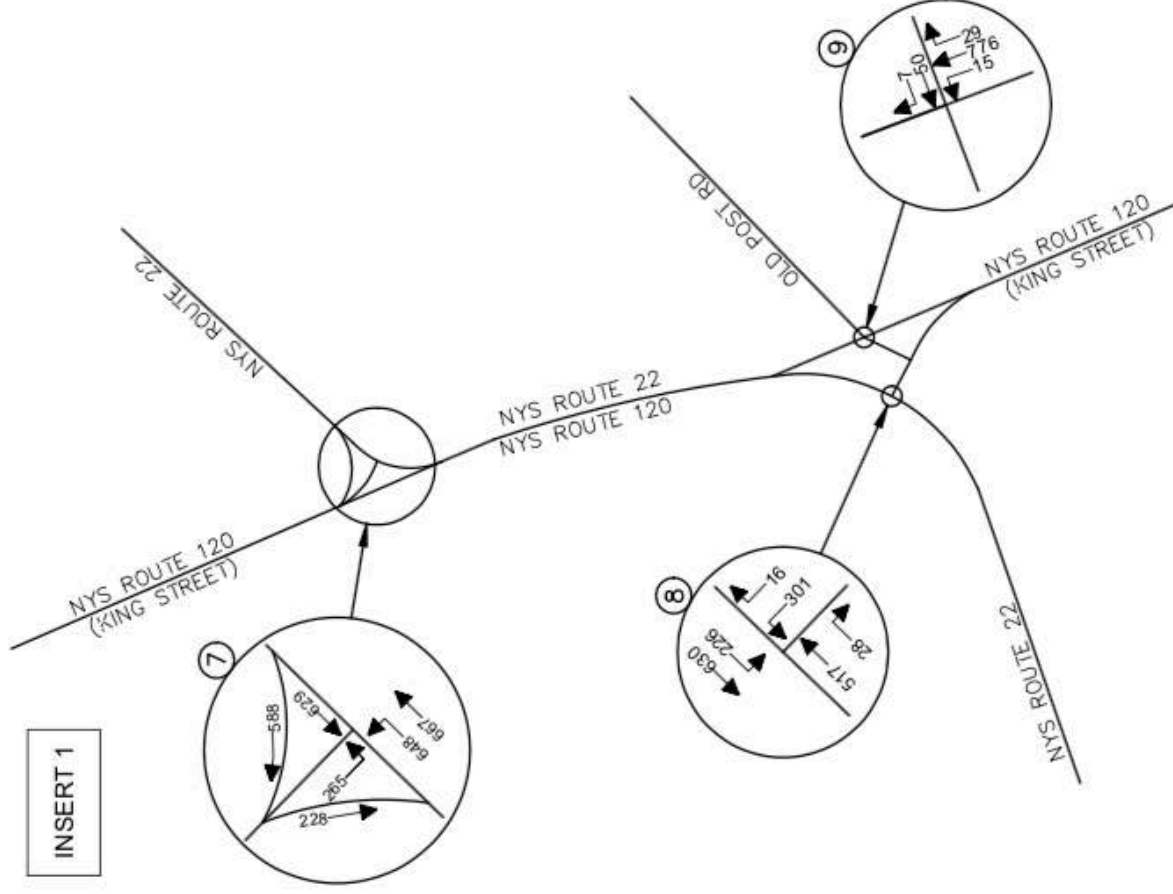
IV.H-8A





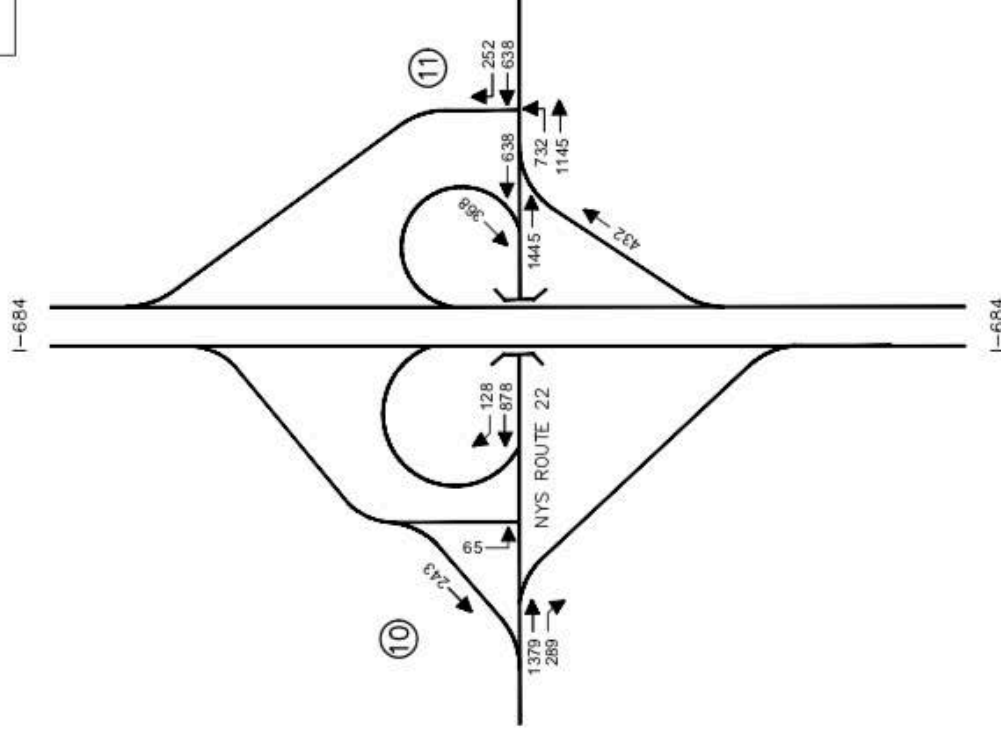
| | | | |
|---|---|---|------------------|
| Scale: N.T.S. | <h1>Year 2022 No-Build Traffic Volumes</h1> <h2>Weekday Peak PM Hour</h2> |  | Figure IV.H-9 |
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Source: Maser Consulting, P.A.

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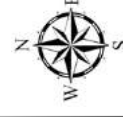
Scale: N.T.S.



Year 2022 No-Build Traffic Volumes Weekday Peak PM Hour

Figure

IV.H-9A



| Table IV.H-1 Hourly Trip Generated Rates & Anticipated Site Generated Traffic Volumes | | | | | |
|---|-------|--------|-------|--------|--------------|
| EAGLE RIDGE | ENTRY | | EXIT | | TOTAL |
| | HTGR* | VOLUME | HTGR* | VOLUME | HTGR* VOLUME |
| HOTEL/CONFERENCE CENTER (1) (91 Rooms) | | | | | |
| WEEKDAY PEAK AM HOUR | 0.28 | 26 | 0.19 | 17 | 0.47 43 |
| WEEKDAY PEAK PM HOUR | 0.31 | 28 | 0.29 | 26 | 0.60 54 |
| APARTMENTS (2) (70 DWELLING UNITS) | | | | | |
| WEEKDAY PEAK AM HOUR | 0.11 | 8 | 0.35 | 24 | 0.46 32 |
| WEEKDAY PEAK PM HOUR | 0.35 | 24 | 0.21 | 15 | 0.56 39 |
| TOWNHOUSES (3) (94 DWELLING UNITS) | | | | | |
| WEEKDAY PEAK AM HOUR | 0.11 | 10 | 0.35 | 33 | 0.46 43 |
| WEEKDAY PEAK PM HOUR | 0.35 | 33 | 0.21 | 20 | 0.56 53 |
| TOTAL TRIPS | | | | | |
| WEEKDAY PEAK AM HOUR | ----- | 44 | ----- | 74 | ----- 118 |
| WEEKDAY PEAK PM HOUR | ----- | 85 | ----- | 61 | ----- 146 |

Source: Maser Consulting, P.A.

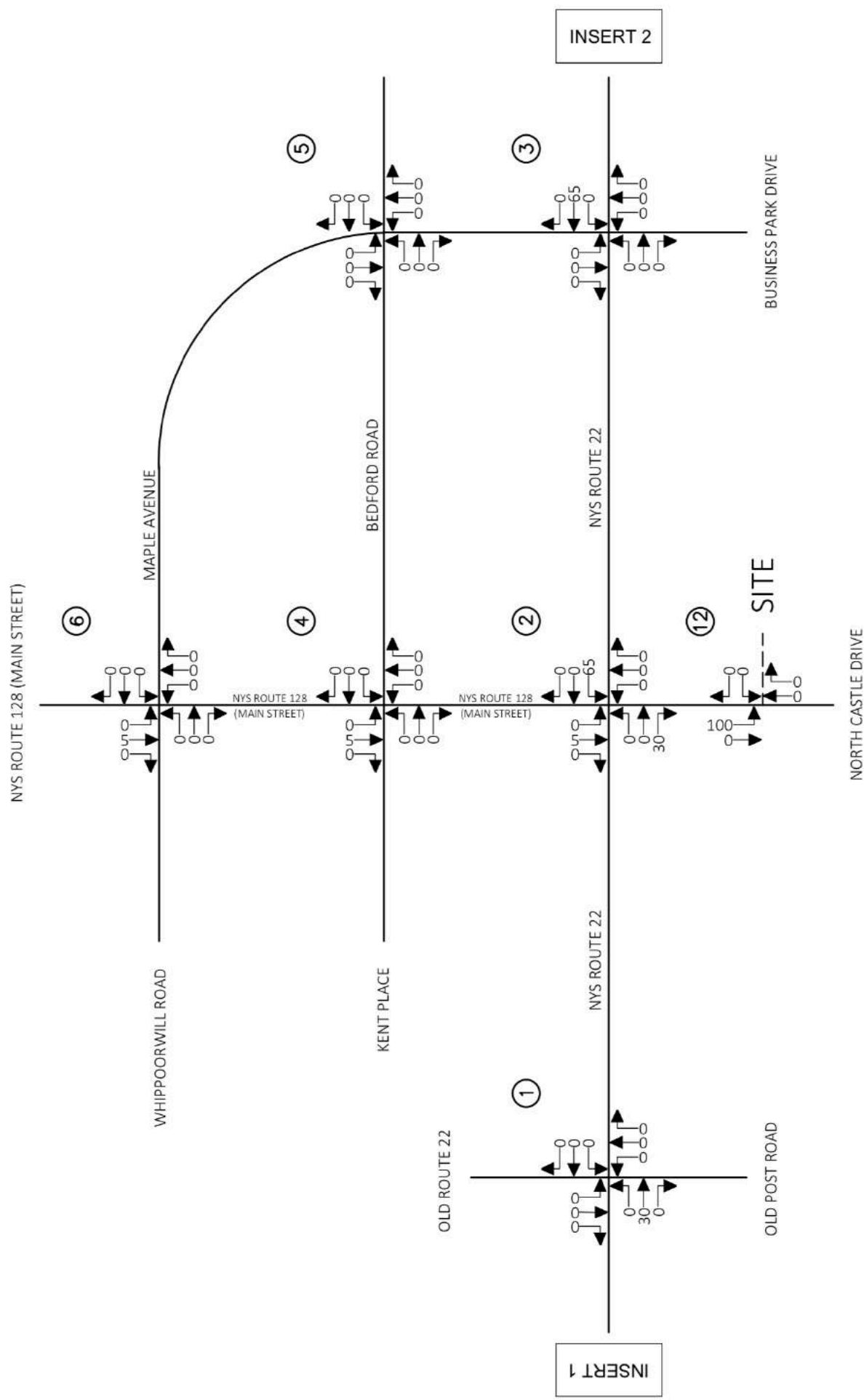
The proposed development will generate a total of 118 trips (44 entering trips and 74 exiting trips) during the Weekday Peak AM Hour and a total of 146 trips (85 entering trips and 61 exiting trips) during the Weekday Peak PM Hour.

(c.) Arrival/Departure Distribution:

Arrival and departure distributions were developed to assign the site generated traffic volumes to the Study Area intersections. The distributions were based on a review of existing traffic volumes and expected travel patterns. The resulting arrival/departure distributions for the proposed development are shown on Figures IV.H-10, IV.H-10A and IV.H-11, IV.H-11A, respectively.

(d.) Year 2022 Build Traffic Volumes:

The Site Generated Traffic Volumes were assigned to the roadway network based on the arrival/departure distributions shown on Figures IV.H-10, IV.H-



Source: Maser Consulting, P.A.

Scale: N.T.S.

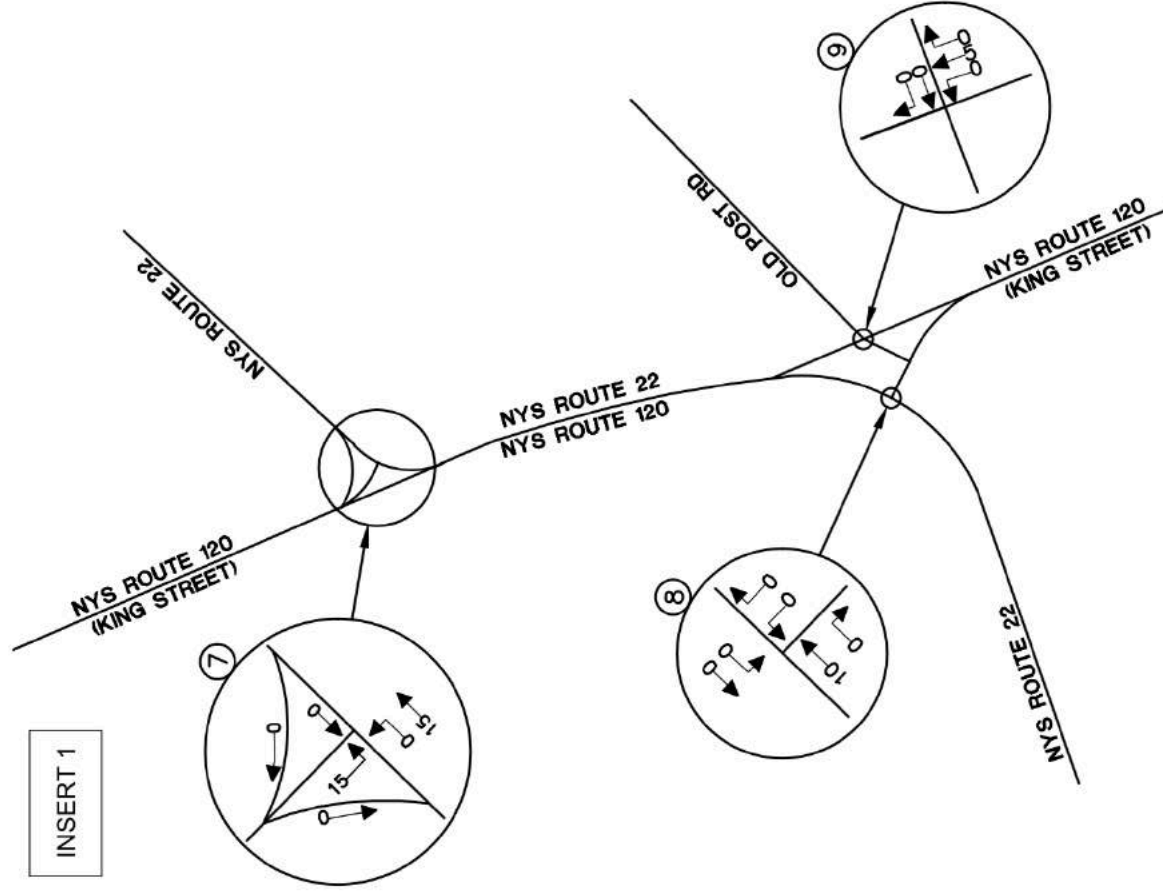


Arrival Distribution (%)

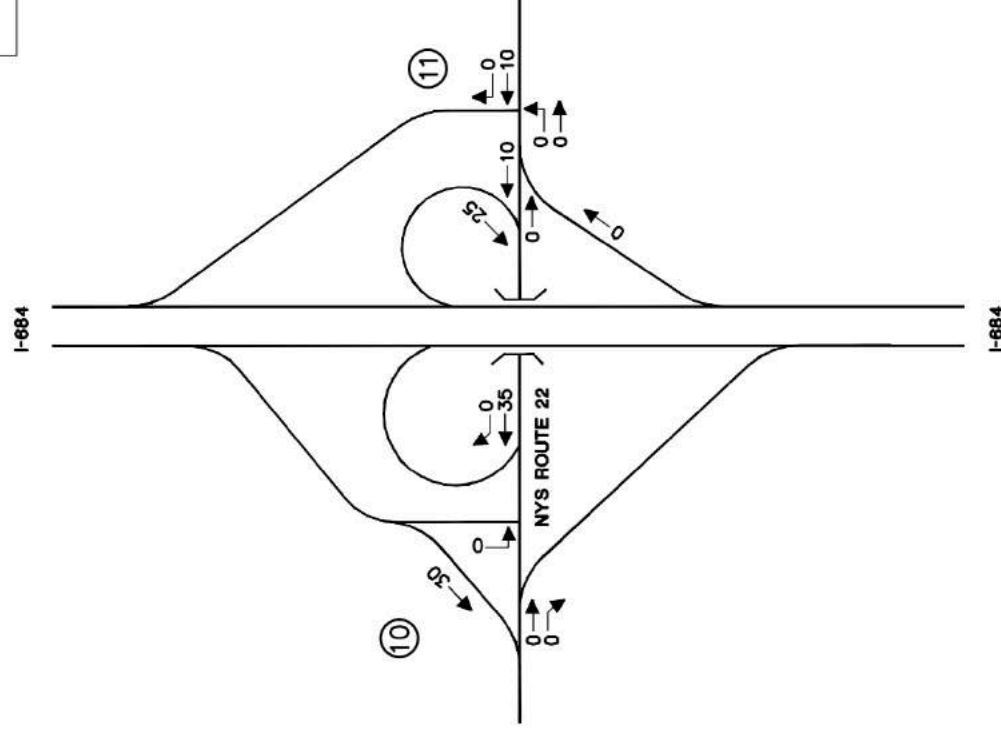


Figure
IV.H-10

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Source: Maser Consulting, P.A.

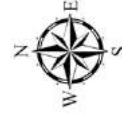
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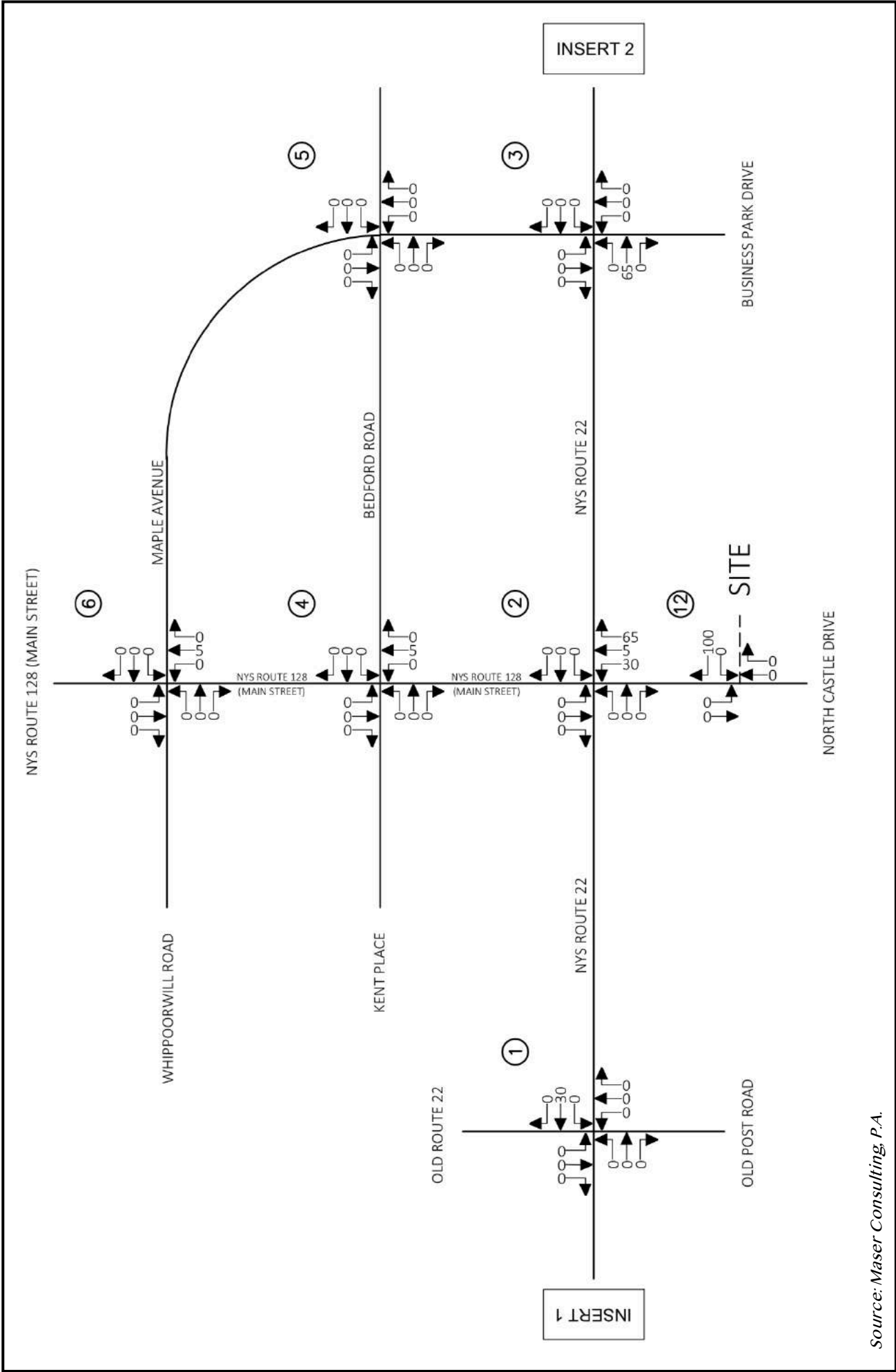


Arrival Distribution (%)

Figure

IV.H-10A

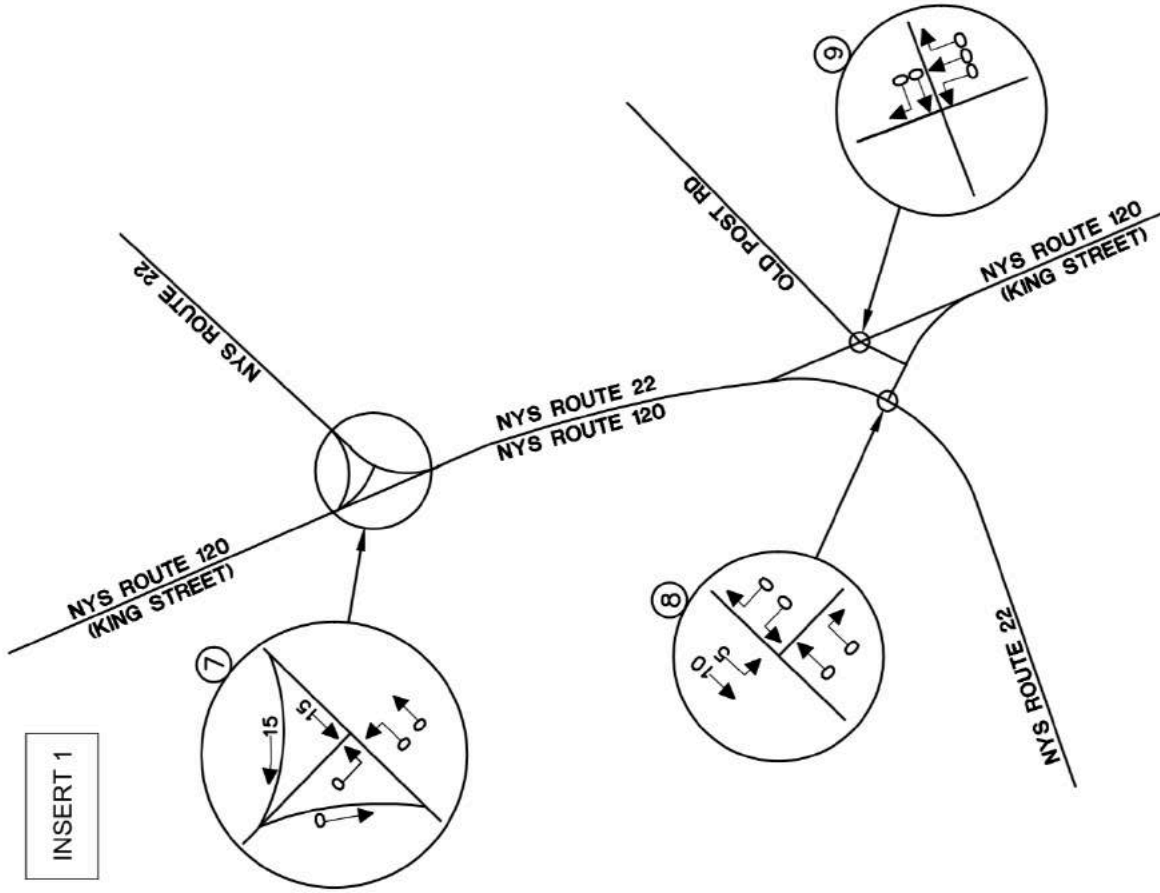




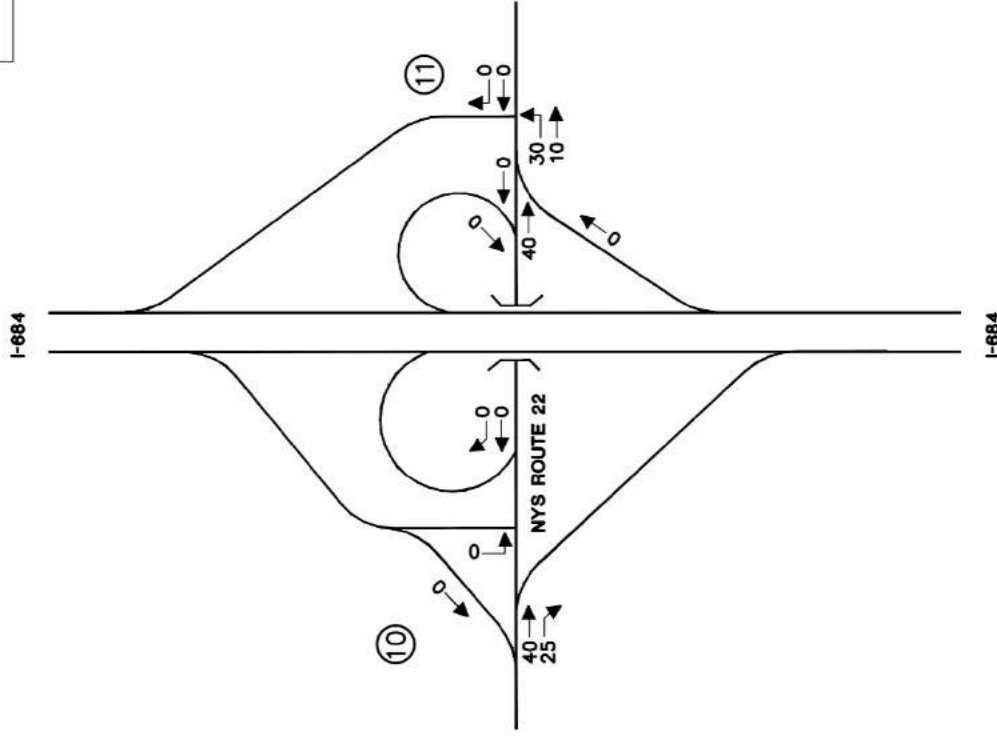
Source: Maser Consulting, P.A.

| | | | |
|----------------------|-------------------------------------|--|---------------------------|
| <p>Scale: N.T.S.</p> | <h1>Departure Distribution (%)</h1> | | <p>Figure IV.H-11</p> |
| | | | |

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Source: Maser Consulting, P.A.

Scale: N.T.S.



Departure Distribution (%)



Figure
IV.H-11A

10A and IV.H-11, IV.H-11A. The resulting Site Generated Traffic Volumes are shown on Figures IV.H-12, IV.H-12A and IV.H-13, IV.H-13A, respectively. The Site Generated Traffic Volumes were then added to the Year 2022 No-Build Traffic volumes to obtain the Year 2022 Build Traffic Volumes.

The resulting Year 2022 Build Traffic Volumes are shown on Figures IV.H-14, IV.H-14A and IV.H-15, IV.H-15A for the Weekday Peak AM and Weekday Peak PM hours, respectively.

(e.) Description of Analysis Procedures:

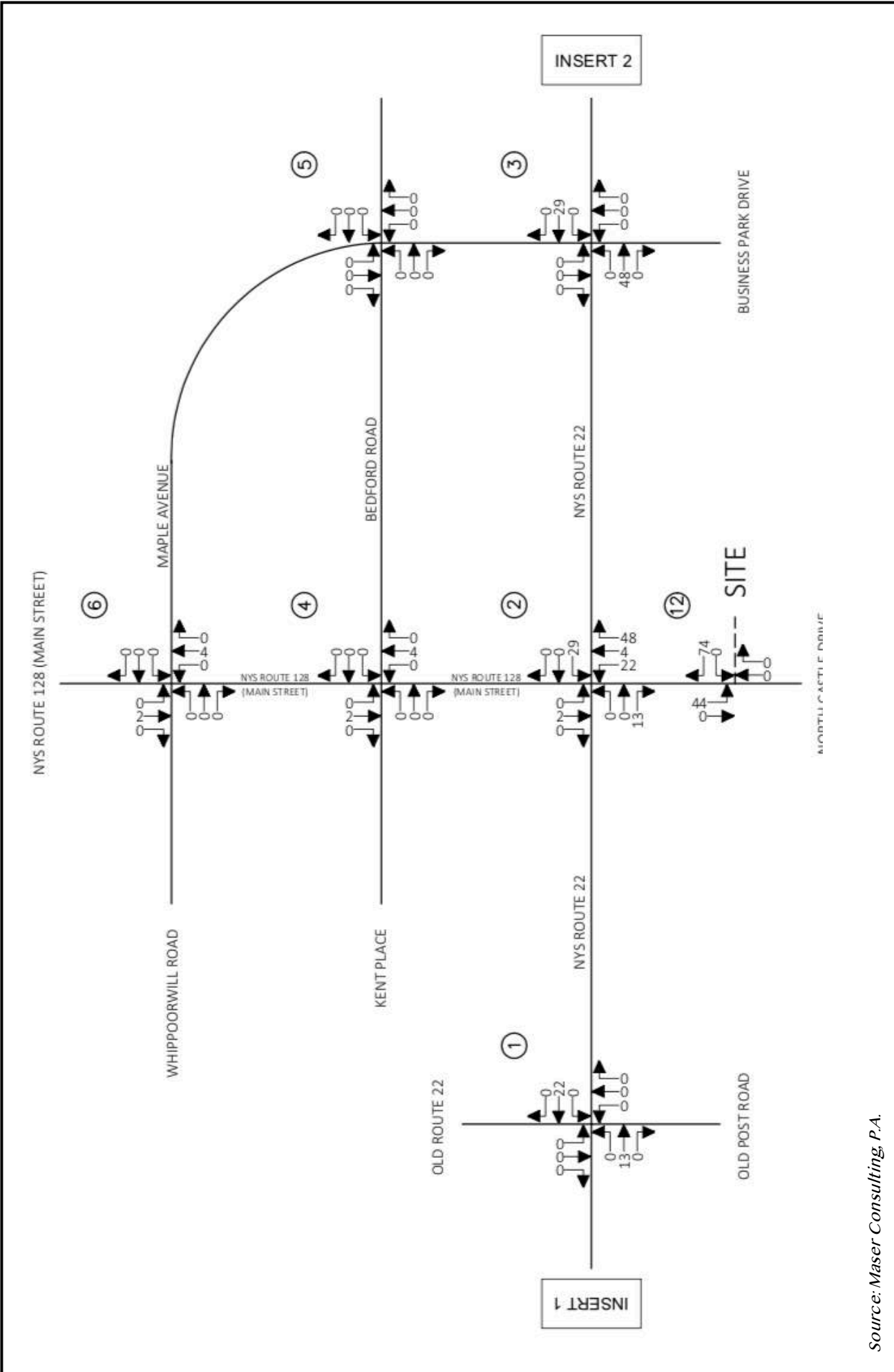
In order to determine existing and future traffic operating conditions at the Study Area Intersections, it was necessary to perform capacity analyses. The following is a brief description of the analysis method utilized in this report:

Signalized Intersection Capacity Analysis

The capacity analysis for signalized intersections were performed in accordance with the procedures described in the in the 6th Edition Highway Capacity Manual, 2017 published by the Transportation Research Board. The terminology used in identifying traffic flow conditions is Levels of Service. A Level of Service “A” represents the best condition and a Level of Service “F” represents the worst condition. A Level of Service “C” is generally used as a design standard while a Level of Service “D” is acceptable during peak periods. A Level of Service “E” represents an operation near capacity. In order to identify an intersection’s Level of Service, the average amount of vehicle delay is computed for each approach to the intersection as well as for the overall intersection.

Unsignalized Intersection Capacity Analysis

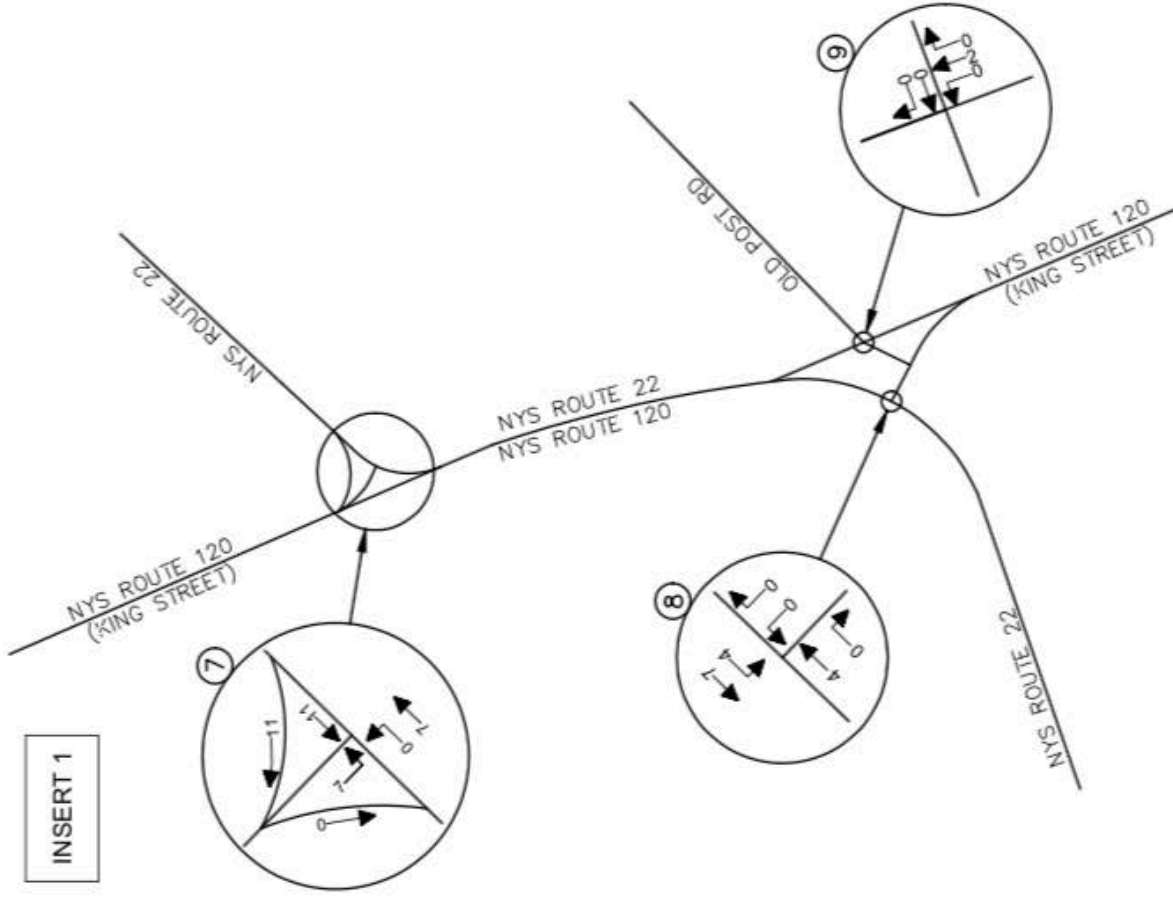
The unsignalized intersection capacity analysis method utilized in this report was also performed in accordance with the procedures described in



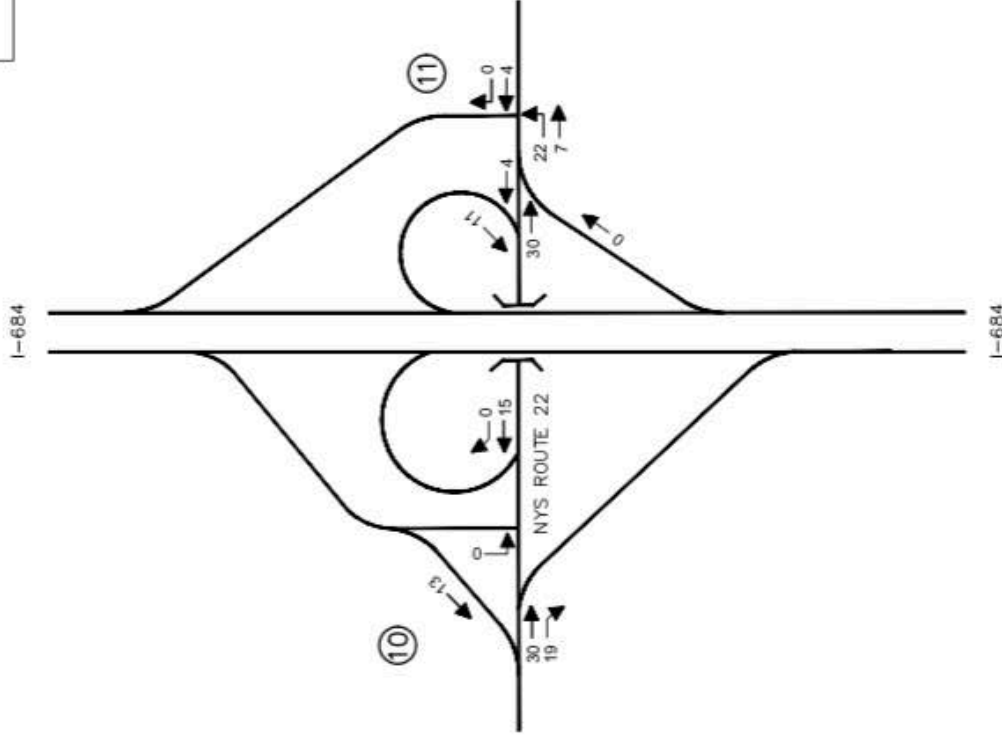
Source: Maser Consulting, P.A.

| | | | |
|----------------------|---|--|---------------------------|
| <p>Scale: N.T.S.</p> | <h1>Site Generated Traffic Volumes</h1> <h2>Weekday Peak AM Hour</h2> | | <p>Figure IV.H-12</p> |
| | | | |

INSERT 1



INSERT 2



Source: Maser Consulting, P.A.

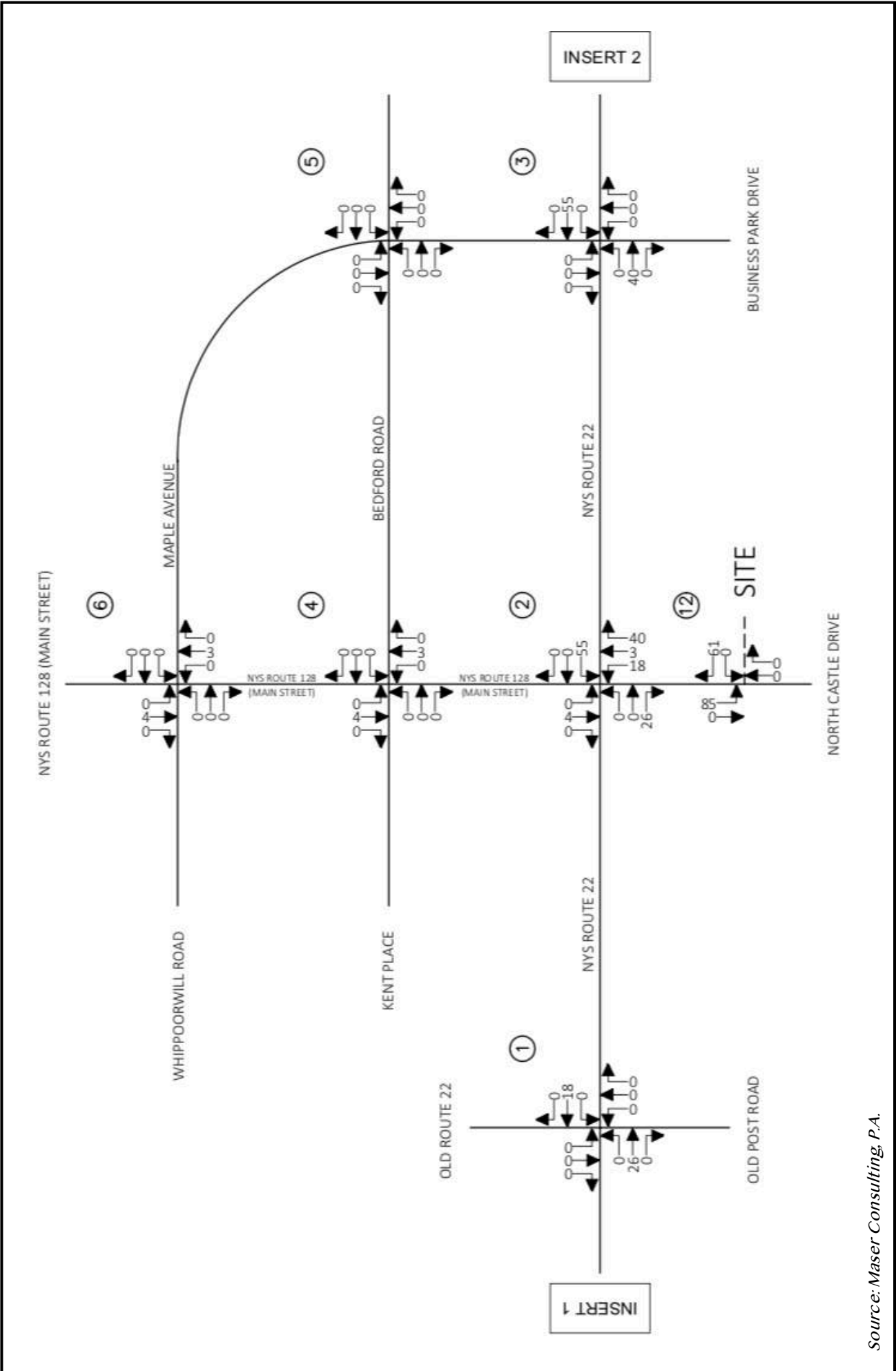
Scale: N.T.S.



Site Generated Traffic Volumes Weekday Peak AM Hour



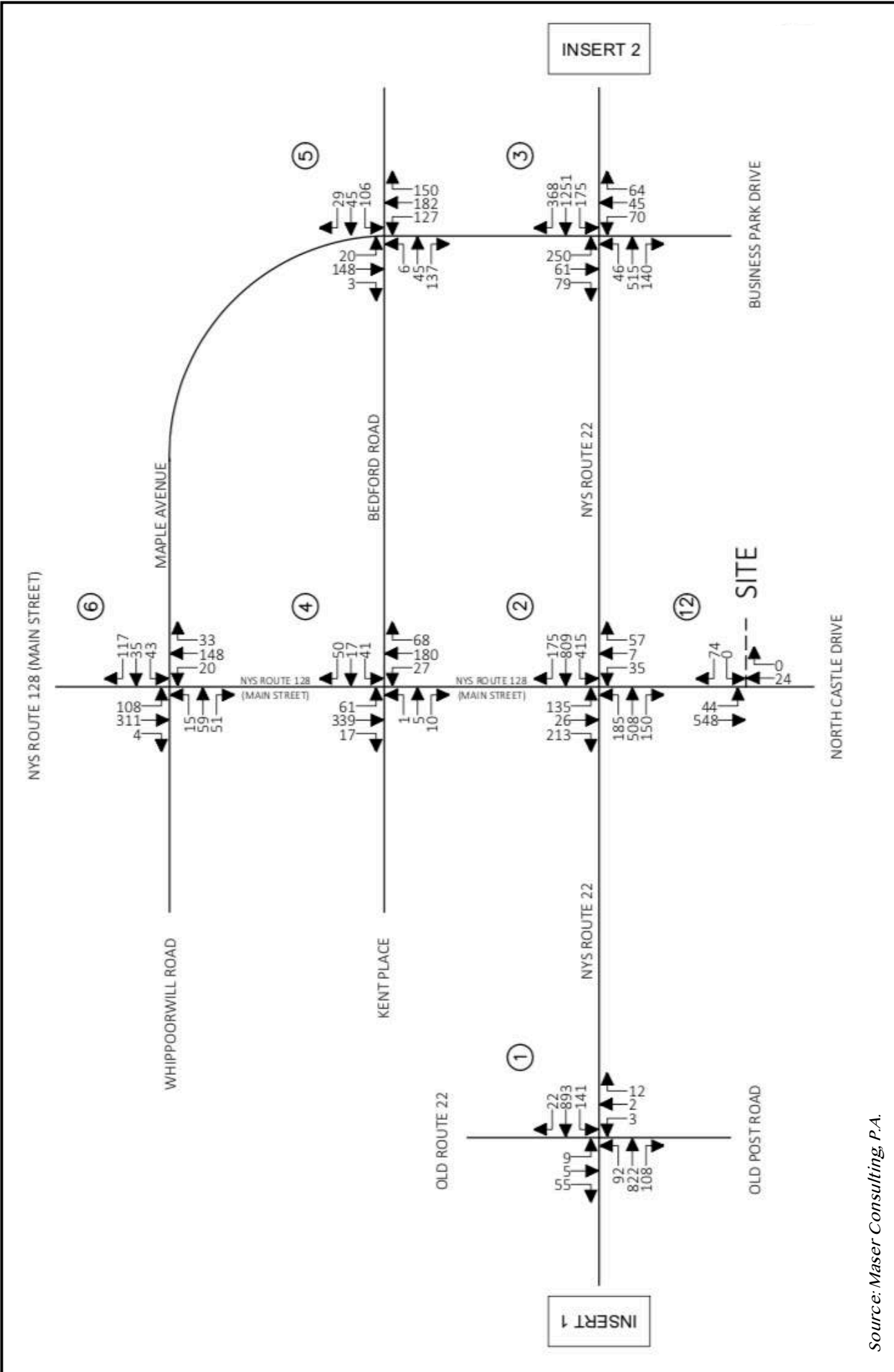
Figure
IV.H-12A



Source: Maser Consulting, P.A.

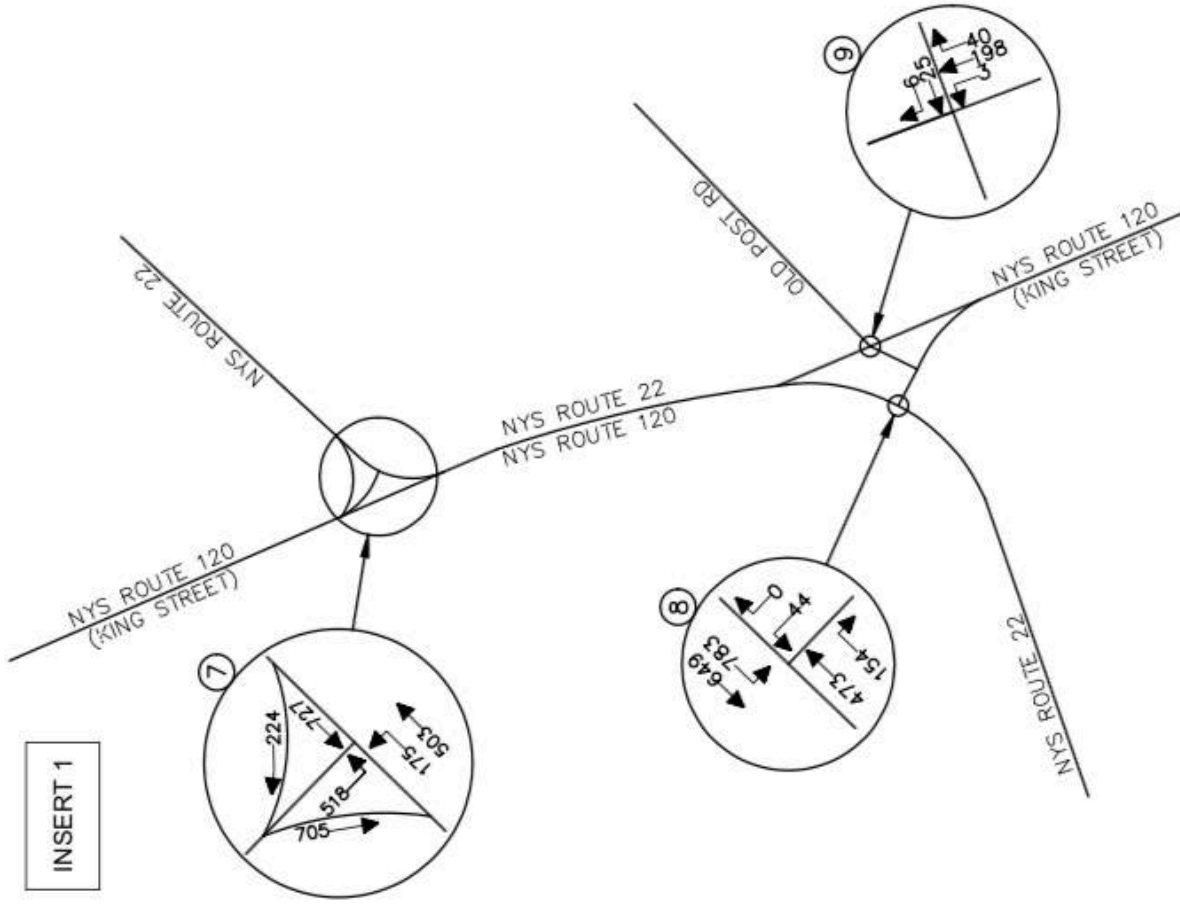
| | | | |
|----------------------|---|--|---------------------------|
| <p>Scale: N.T.S.</p> | <h1>Site Generated Traffic Volumes</h1> <h2>Weekday Peak PM Hour</h2> | | <p>Figure IV.H-13</p> |
| | | | |





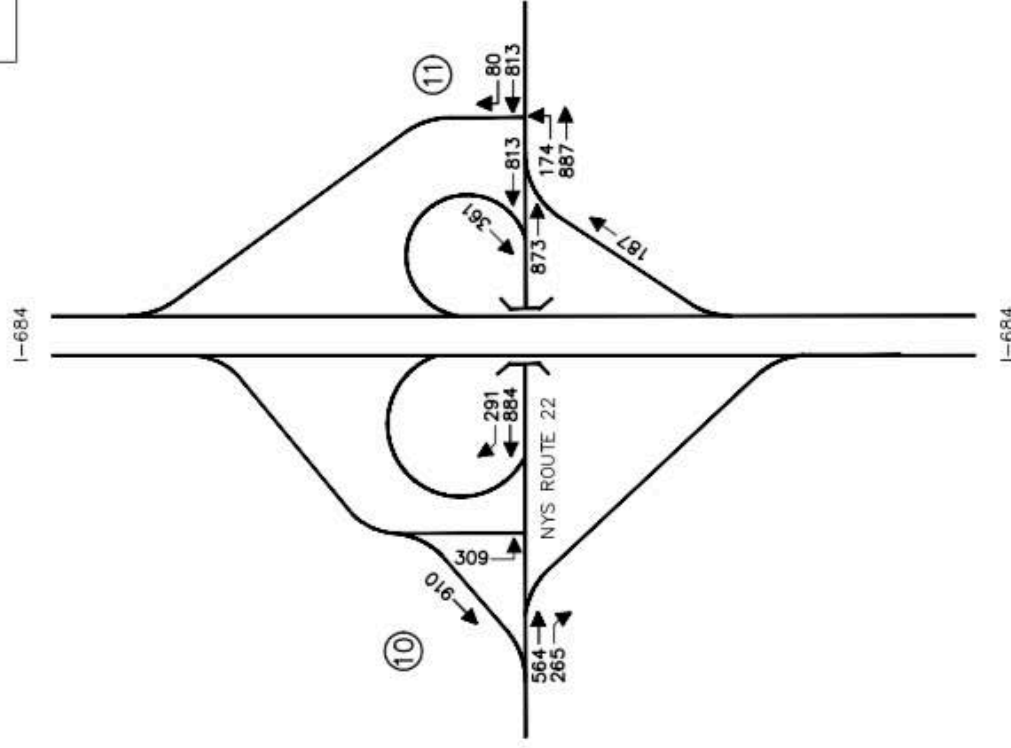
| | | | |
|---------------|--|--|--------------------------|
| Scale: N.T.S. | <h1>Year 2022 Build Traffic Volumes</h1> <h2>Weekday Peak AM Hour</h2> | | Figure IV.H-14 |
| | | | |

INSERT 1



Source: Maser Consulting, P.A.

INSERT 2



Scale: N.T.S.

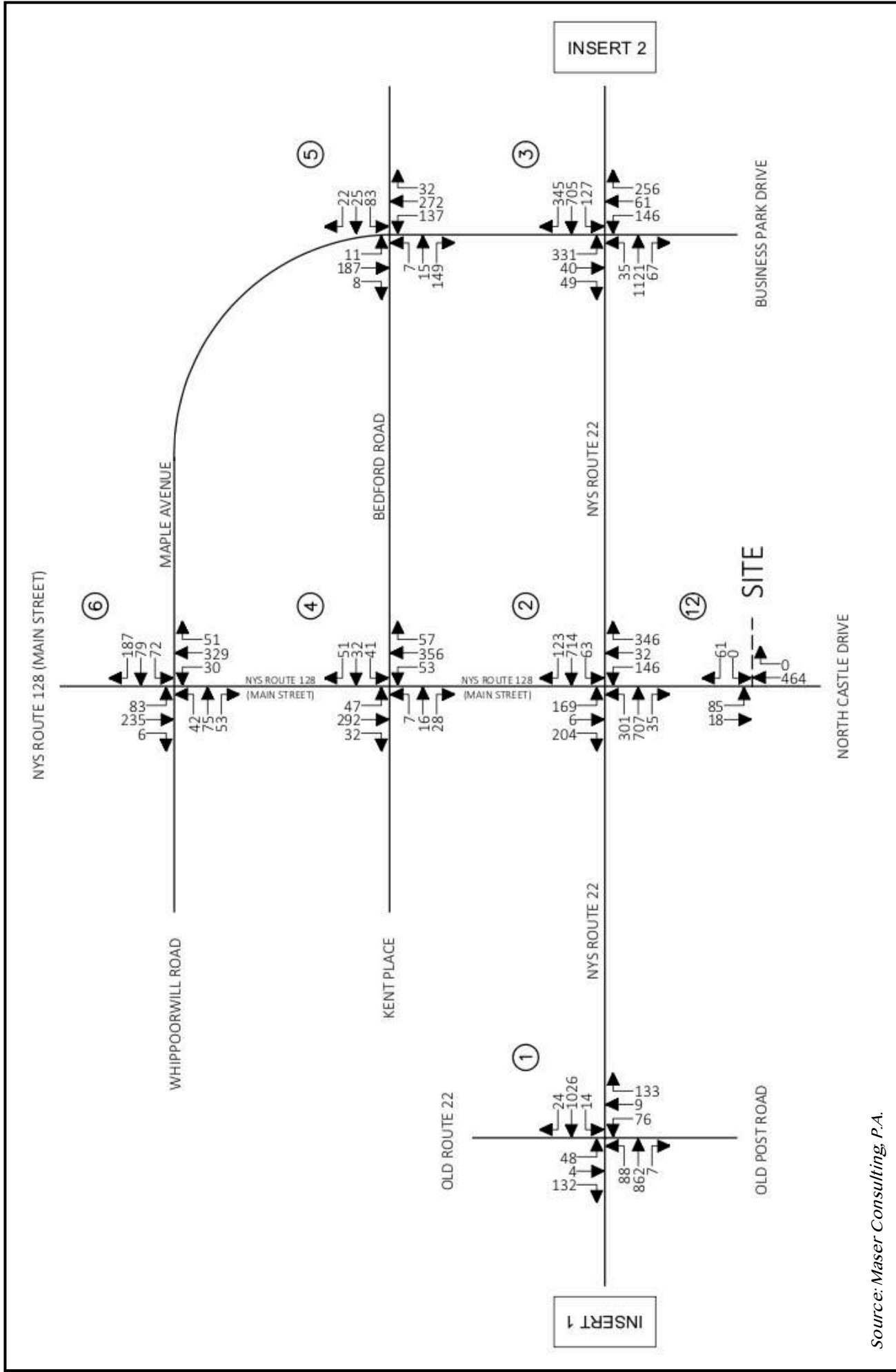


Year 2022 Build Traffic Volumes

Weekday Peak AM Hour

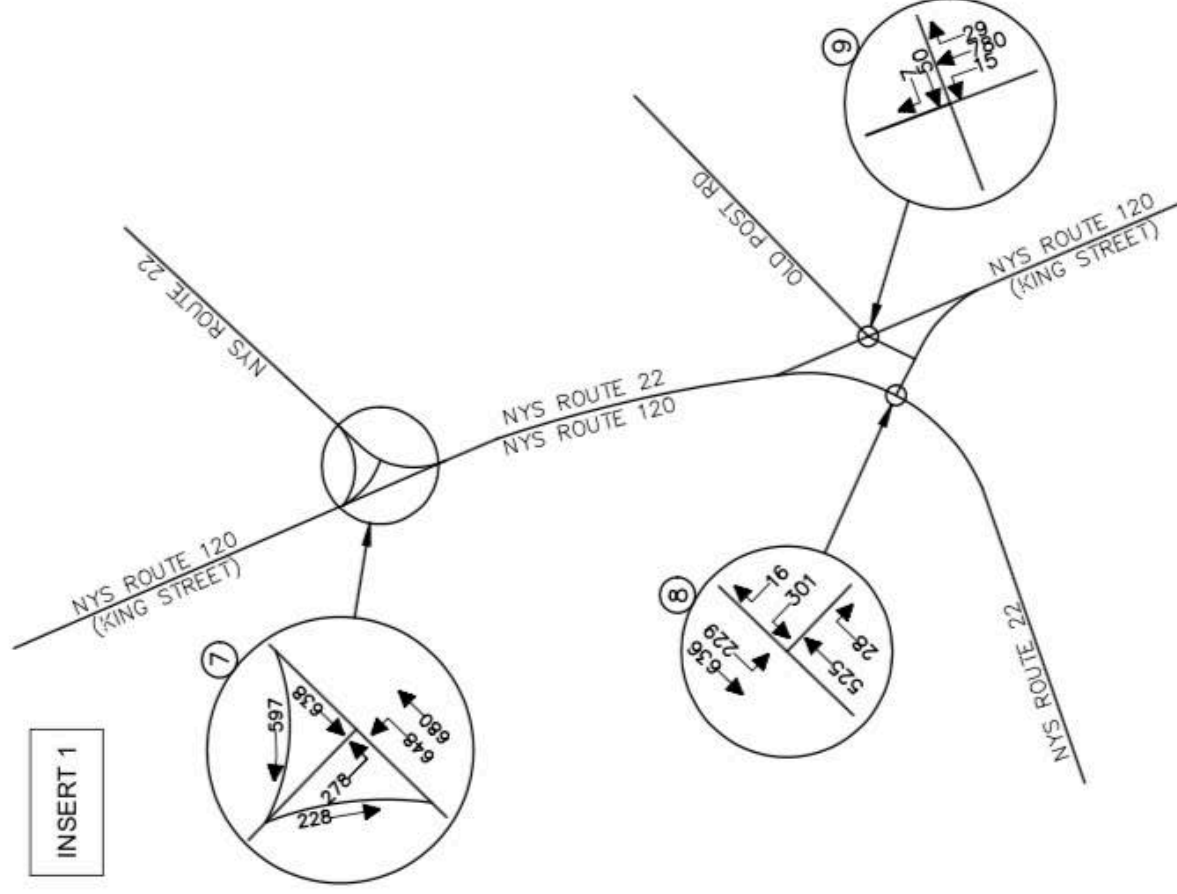


Figure
IV.H-14A

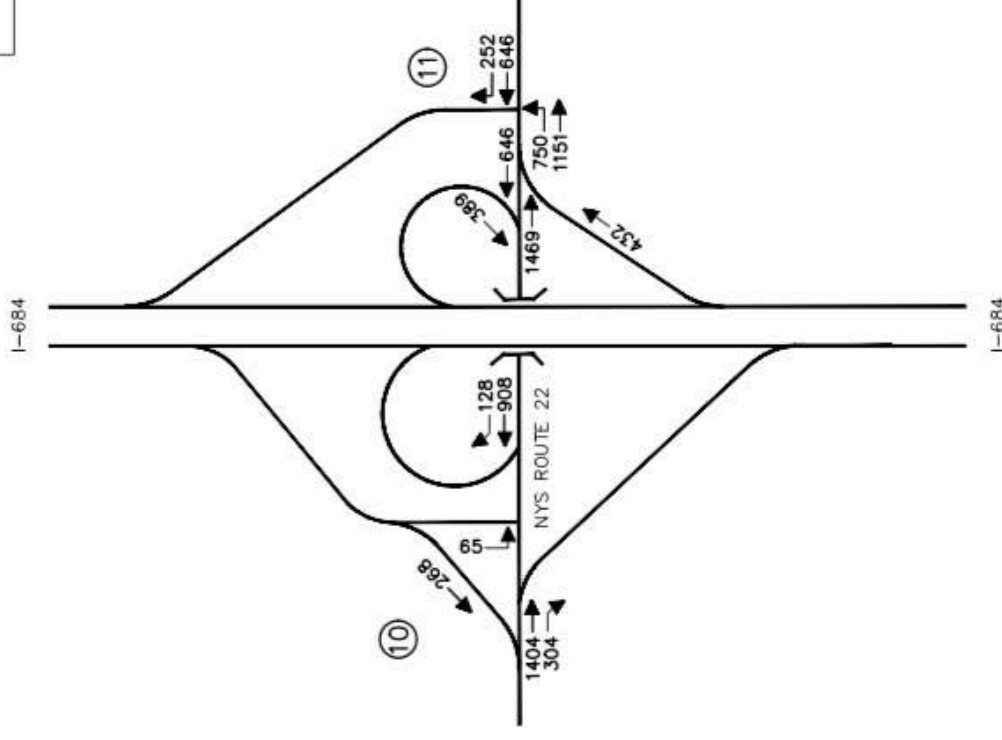


| | | | |
|---------------|--|--|--------------------------|
| Scale: N.T.S. | <h1>Year 2022 Build Traffic Volumes</h1> <h2>Weekday Peak PM Hour</h2> | | Figure IV.H-15 |
| | | | |

INSERT 1



INSERT 2



Source: Maser Consulting, P.A.

Scale: N.T.S.



Year 2022 Build Traffic Volumes Weekday Peak PM Hour

Figure
IV.H-15A



the in the 6th Edition Highway Capacity Manual, 2017. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement (major street left turns and minor street movements) to the intersection.

Additional information concerning signalized and unsignalized Levels of Service can be found in Appendix C of the Maser Consulting Traffic Study, included in the Appendix of this DEIS.

(f.) Results of Analysis

In order to evaluate current and future traffic operating conditions at each of the Study Area Intersections, a SYNCHRO analysis was conducted utilizing the procedures described above. Summarized below is a description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service.

Table IV.H-2 summarizes the results of the capacity analysis (Levels of Service, Delays and Volume-to-Capacity (v/c) Ratios) and Table IV.H-3 summarizes the queues for the Year 2018 Existing, Year 2022 No-Build and Year 2022 Build Conditions. Copies of the SYNCHRO analysis are contained in Appendix D of the Maser Consulting Traffic Study, included in the Appendix of this DEIS. The traffic signal timing for the NYS Route 22 signalized intersections were based on phasing/timings contained in the IBM Parking Lot Expansion Impact Study (November 22, 2017) which included recently modified traffic signal operations, contained in Appendix H of the Maser Consulting Traffic Study, included in the Appendix of this DEIS.

**Table IV.H-2
Level of Service Summary Table**

| | LOCATION | YEAR 2018 EXISTING | | | | | | YEAR 2022 NO-BUILD | | | | | | YEAR 2022 BUILD | | | | | |
|---|--|--------------------|-------|------|------------|-------|------|--------------------|-------|------|------------|-------|------|-----------------|-------|------|------------|-------|------|
| | | WEEKDAY AM | | | WEEKDAY PM | | | WEEKDAY AM | | | WEEKDAY PM | | | WEEKDAY AM | | | WEEKDAY PM | | |
| | | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C |
| 1 | NYS ROUTE 22 OLD ROUTE 22 / OLD POST ROAD SIGNALIZED | | | | | | | | | | | | | | | | | | |
| | NYS ROUTE 22 NB L | D | 48.7 | 0.50 | D | 53.3 | 0.50 | D | 48.8 | 0.51 | D | 54.7 | 0.53 | D | 48.8 | 0.51 | D | 54.7 | 0.53 |
| | NYS ROUTE 22 NB T | A | 8.7 | 0.35 | A | 8.1 | 0.31 | A | 9.0 | 0.37 | A | 9.3 | 0.37 | A | 9.0 | 0.37 | A | 9.4 | 0.38 |
| | NYS ROUTE 22 NB R | A | 1.9 | 0.10 | A | 0.0 | 0.01 | A | 2.0 | 0.10 | A | 0.0 | 0.01 | A | 2.0 | 0.10 | A | 0.0 | 0.01 |
| | NYS ROUTE 22 NB APPROACH | B | 11.6 | --- | B | 12.6 | --- | B | 11.9 | --- | B | 13.5 | --- | B | 11.9 | --- | B | 13.5 | --- |
| | NYS ROUTE 22 SB L | D | 49.6 | 0.62 | D | 49.6 | 0.14 | D | 49.8 | 0.63 | D | 50.4 | 0.16 | D | 49.8 | 0.63 | D | 50.4 | 0.16 |
| | NYS ROUTE 22 SB T | A | 7.3 | 0.33 | B | 11.1 | 0.43 | A | 7.7 | 0.38 | B | 12.5 | 0.48 | A | 7.8 | 0.39 | B | 12.6 | 0.48 |
| | NYS ROUTE 22 SB R | A | 0.0 | 0.02 | A | 0.0 | 0.02 | A | 0.0 | 0.02 | A | 0.0 | 0.02 | A | 0.0 | 0.02 | A | 0.0 | 0.02 |
| | NYS ROUTE 22 SB APPROACH | B | 13.3 | --- | B | 11.3 | --- | B | 13.3 | --- | B | 12.7 | --- | B | 13.2 | --- | B | 12.8 | --- |
| | OLD ROUTE 22 SEB L-T | D | 40.5 | 0.08 | D | 47.2 | 0.34 | D | 40.6 | 0.08 | D | 48.0 | 0.36 | D | 40.6 | 0.08 | D | 48.0 | 0.36 |
| | OLD ROUTE 22 SEB R | C | 31.4 | 0.22 | C | 31.4 | 0.35 | C | 31.4 | 0.23 | C | 30.5 | 0.32 | C | 31.4 | 0.23 | C | 30.5 | 0.32 |
| | OLD ROUTE 22 SEB APPROACH | C | 33.3 | --- | D | 35.9 | --- | C | 33.2 | --- | D | 35.4 | --- | C | 33.2 | --- | D | 35.4 | --- |
| | OLD POST ROAD NWB L-T | D | 40.4 | 0.03 | D | 52.9 | 0.50 | D | 40.6 | 0.03 | D | 54.8 | 0.54 | D | 40.6 | 0.03 | D | 54.8 | 0.54 |
| | OLD POST ROAD NWB R | A | 5.1 | 0.05 | B | 18.9 | 0.35 | A | 4.8 | 0.05 | C | 23.0 | 0.33 | A | 4.8 | 0.05 | C | 24.1 | 0.33 |
| | OLD POST ROAD NWB APPROACH | B | 15.5 | --- | C | 32.1 | --- | B | 15.3 | --- | D | 35.4 | --- | B | 15.3 | --- | D | 36.1 | --- |
| | OVERALL | B | 13.2 | --- | B | 15.8 | --- | B | 13.3 | --- | B | 16.9 | --- | B | 13.3 | --- | B | 16.9 | --- |
| 2 | NYS ROUTE 22 NYS ROUTE 128 / NORTH CASTLE DRIVE (IBM) SIGNALIZED | | | | | | | | | | | | | | | | | | |
| | NYS ROUTE 22 NEB L | E | 68.1 | 0.75 | E | 66.9 | 0.83 | E | 68.9 | 0.77 | E | 68.6 | 0.85 | E | 69.4 | 0.77 | E | 71.7 | 0.87 |
| | NYS ROUTE 22 NEB T | C | 24.4 | 0.34 | A | 9.9 | 0.27 | C | 25.4 | 0.36 | B | 10.2 | 0.30 | C | 25.8 | 0.36 | B | 17.0 | 0.35 |
| | NYS ROUTE 22 NEB R | A | 4.4 | 0.18 | A | 0.0 | 0.01 | A | 4.5 | 0.19 | A | 0.0 | 0.01 | A | 4.5 | 0.21 | A | 0.4 | 0.04 |
| | NYS ROUTE 22 NEB APPROACH | C | 30.8 | --- | C | 26.7 | --- | C | 31.7 | --- | C | 27.4 | --- | C | 31.6 | --- | C | 32.2 | --- |
| | NYS ROUTE 22 SWB L | E | 61.8 | 0.85 | E | 61.4 | 0.09 | E | 66.7 | 0.89 | E | 62.1 | 0.09 | E | 79.5 | 0.96 | E | 69.7 | 0.49 |
| | NYS ROUTE 22 SWB T | B | 18.8 | 0.40 | C | 26.4 | 0.44 | C | 20.7 | 0.45 | C | 28.0 | 0.48 | C | 21.2 | 0.46 | C | 29.7 | 0.49 |
| | NYS ROUTE 22 SWB R | A | 3.3 | 0.19 | A | 5.2 | 0.16 | A | 3.5 | 0.20 | A | 5.1 | 0.17 | A | 3.6 | 0.20 | A | 5.3 | 0.17 |
| | NYS ROUTE 22 SWB APPROACH | C | 29.4 | --- | C | 23.6 | --- | C | 31.5 | --- | C | 25.0 | --- | D | 36.3 | --- | C | 29.2 | --- |
| | NYS ROUTE 128 SB L-T | D | 54.8 | 0.59 | D | 47.4 | 0.53 | D | 54.6 | 0.60 | D | 49.3 | 0.56 | D | 53.8 | 0.59 | D | 47.3 | 0.53 |
| | NYS ROUTE 128 SB R | A | 9.5 | 0.47 | A | 7.6 | 0.39 | A | 9.2 | 0.49 | A | 7.5 | 0.41 | A | 9.0 | 0.48 | A | 7.1 | 0.39 |
| | NYS ROUTE 128 SB APPROACH | C | 29.6 | --- | C | 26.0 | --- | C | 28.6 | --- | C | 26.6 | --- | C | 28.3 | --- | C | 25.7 | --- |
| | NORTH CASTLE DRIVE (IBM) NB L | D | 41.8 | 0.09 | D | 51.5 | 0.56 | D | 41.2 | 0.09 | E | 55.5 | 0.61 | D | 46.1 | 0.26 | E | 55.2 | 0.63 |
| | NORTH CASTLE DRIVE (IBM) NB T | D | 39.3 | 0.01 | D | 37.1 | 0.07 | D | 38.7 | 0.01 | D | 37.9 | 0.07 | D | 39.0 | 0.03 | D | 37.1 | 0.07 |
| | NORTH CASTLE DRIVE (IBM) NB R | A | 0.2 | 0.03 | A | 7.6 | 0.51 | A | 0.1 | 0.03 | A | 7.6 | 0.53 | A | 7.9 | 0.18 | A | 7.2 | 0.54 |
| | NORTH CASTLE DRIVE (IBM) NB APPROACH | C | 25.9 | --- | C | 21.5 | --- | C | 25.5 | --- | C | 22.7 | --- | C | 23.5 | --- | C | 22.4 | --- |
| | OVERALL | C | 29.9 | --- | C | 24.7 | --- | C | 31.1 | --- | C | 25.7 | --- | C | 33.3 | --- | C | 28.6 | --- |
| 3 | NYS ROUTE 22 MAPLE AVENUE / BUSINESS PARK DRIVE SIGNALIZED | | | | | | | | | | | | | | | | | | |
| | NYS ROUTE 22 EB L | D | 53.4 | 0.32 | E | 59.1 | 0.23 | E | 56.0 | 0.35 | E | 61.2 | 0.27 | E | 56.4 | 0.35 | E | 61.7 | 0.28 |
| | NYS ROUTE 22 EB T-R | C | 27.6 | 0.54 | D | 40.3 | 0.84 | C | 28.5 | 0.55 | D | 43.0 | 0.88 | C | 29.4 | 0.58 | D | 43.9 | 0.89 |
| | NYS ROUTE 22 EB APPROACH | C | 29.4 | --- | D | 40.8 | --- | C | 30.5 | --- | D | 43.5 | --- | C | 31.1 | --- | D | 44.4 | --- |
| | NYS ROUTE 22 WB L | D | 51.2 | 0.61 | E | 59.1 | 0.57 | D | 54.8 | 0.64 | E | 61.9 | 0.59 | D | 55.5 | 0.65 | E | 62.6 | 0.60 |
| | NYS ROUTE 22 WB T | C | 29.6 | 0.77 | C | 21.4 | 0.38 | C | 32.5 | 0.82 | C | 21.6 | 0.39 | C | 32.9 | 0.83 | C | 22.0 | 0.42 |
| | NYS ROUTE 22 WB R | A | 8.8 | 0.46 | A | 3.2 | 0.35 | B | 10.0 | 0.48 | A | 3.2 | 0.37 | B | 10.3 | 0.48 | A | 3.2 | 0.37 |
| | NYS ROUTE 22 WB APPROACH | C | 27.5 | --- | C | 20.3 | --- | C | 30.0 | --- | C | 20.5 | --- | C | 30.4 | --- | C | 20.8 | --- |
| | BUSINESS PARK DRIVE NB L-T | D | 51.6 | 0.47 | E | 64.3 | 0.74 | D | 54.7 | 0.51 | E | 67.8 | 0.76 | D | 55.2 | 0.52 | E | 68.9 | 0.77 |
| | BUSINESS PARK DRIVE NB R | A | 2.5 | 0.21 | B | 10.5 | 0.55 | A | 3.0 | 0.22 | B | 10.6 | 0.56 | A | 3.1 | 0.22 | B | 10.8 | 0.56 |
| | BUSINESS PARK DRIVE NB APPROACH | C | 34.0 | --- | C | 34.5 | --- | D | 36.3 | --- | D | 36.2 | --- | D | 36.6 | --- | D | 36.8 | --- |
| | MAPLE AVENUE SB L | D | 54.1 | 0.71 | F | 80.6 | 0.93 | E | 58.5 | 0.76 | F | 105.4 | 1.03 | E | 59.5 | 0.77 | F | 110.1 | 1.04 |
| | MAPLE AVENUE SB T-R | C | 32.4 | 0.39 | C | 29.7 | 0.23 | C | 33.2 | 0.40 | C | 30.9 | 0.26 | C | 33.4 | 0.41 | C | 31.1 | 0.27 |
| | MAPLE AVENUE SB APPROACH | D | 46.2 | --- | E | 70.0 | --- | D | 49.4 | --- | F | 89.6 | --- | D | 50.1 | --- | F | 93.3 | --- |
| | OVERALL | C | 30.7 | --- | D | 36.5 | --- | C | 33.0 | --- | D | 40.4 | --- | C | 33.5 | --- | D | 41.2 | --- |

**Table IV.H-2
Level of Service Summary Table**

| | LOCATION | YEAR 2018 EXISTING | | | | | | YEAR 2022 NO-BUILD | | | | | | YEAR 2022 BUILD | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | WEEKDAY AM | | | WEEKDAY PM | | | WEEKDAY AM | | | WEEKDAY PM | | | WEEKDAY AM | | | WEEKDAY PM | | |
| | | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C |
| 4 | NYS ROUTE 128 (MAIN STREET) & KENT PLACE/BEDFORD ROAD UN SIGNALIZED NYS ROUTE 128 (MAIN STREET) NB L-T-R NYS ROUTE 128 (MAIN STREET) SB L-T-R KENT PLACE EB L-T-R BEDFORD ROAD WB L-T-R | A A B C | 8.1 8.0 13.7 18.4 | 0.024 0.049 0.040 0.285 | A A C C | 8.1 8.3 17.2 24.5 | 0.043 0.037 0.145 0.395 | A A B C | 8.2 8.0 14.4 20.3 | 0.026 0.052 0.043 0.333 | A A C D | 8.2 8.4 18.8 29.2 | 0.045 0.044 0.167 0.465 | A A B C | 8.2 8.0 14.4 20.5 | 0.026 0.053 0.044 0.336 | A A C D | 8.2 8.4 19.0 29.7 | 0.046 0.044 0.168 0.470 |
| 5 | MAPLE AVENUE & BEDFORD ROAD SIGNALIZED BEDFORD ROAD EB L-T-R BEDFORD ROAD EB APPROACH BEDFORD ROAD WB L-T-R BEDFORD ROAD WB APPROACH MAPLE AVENUE NB L MAPLE AVENUE NB T-R MAPLE AVENUE NB APPROACH MAPLE AVENUE SB L-T-R MAPLE AVENUE SB APPROACH OVERALL | C C C C B B C C C C | 21.3 21.3 24.4 24.4 14.6 17.0 16.3 24.5 24.5 20.0 | 0.61 --- 0.45 --- 0.31 0.56 --- 0.45 --- --- | B B B B B B C C C B | 13.9 13.9 19.1 19.1 12.9 14.3 13.9 22.3 22.3 16.4 | 0.53 --- 0.27 --- 0.26 0.39 --- 0.41 --- --- | C C C C B B C C C C | 24.2 24.2 26.8 26.8 15.7 18.6 17.8 25.7 25.7 22.0 | 0.66 --- 0.52 --- 0.34 0.60 --- 0.47 --- --- | B B B B B B B C C B | 14.3 14.3 19.9 19.9 13.4 14.6 14.2 22.7 22.7 16.9 | 0.55 --- 0.30 --- 0.30 0.41 --- 0.44 --- --- | C C C C B B C C C C | 24.2 24.2 26.8 26.8 15.7 18.6 17.8 25.7 25.7 22.0 | 0.66 --- 0.52 --- 0.34 0.60 --- 0.47 --- --- | B B B B B B B C C B | 14.3 14.3 19.9 19.9 13.4 14.6 14.2 22.7 22.7 16.9 | 0.55 --- 0.30 --- 0.30 0.41 --- 0.44 --- --- |
| 6 | NYS ROUTE 128 (MAIN STREET) & WHIPPOORWILL ROAD/MAPLE AVENUE SIGNALIZED WHIPPOORWILL ROAD EB L-T-R WHIPPOORWILL ROAD EB APPROACH MAPLE AVENUE WB L-T-R MAPLE AVENUE WB APPROACH NYS ROUTE 128 (MAIN STREET) NB L-T-R NYS ROUTE 128 (MAIN STREET) NB APPROACH NYS ROUTE 128 (MAIN STREET) SB L-T-R NYS ROUTE 128 (MAIN STREET) SB APPROACH OVERALL | B B B B A A B B B B | 10.4 10.4 17.2 17.2 8.2 8.2 11.1 11.1 11.6 | 0.27 --- 0.45 --- 0.24 --- 0.51 --- --- | B B B B A A B B B | 11.1 11.1 19.6 19.6 16.9 16.9 15.6 15.6 16.5 | 0.31 --- 0.65 --- 0.63 --- 0.55 --- --- | B B B B A A B B B | 11.4 11.4 18.9 18.9 8.3 8.3 11.8 11.8 12.5 | 0.28 --- 0.48 --- 0.26 --- 0.54 --- --- | B B C C B B B B B | 11.9 11.9 21.3 21.3 18.3 18.3 17.0 17.0 17.9 | 0.32 --- 0.68 --- 0.67 --- 0.60 --- --- | B B B B A A B B B | 11.4 11.4 19.0 19.0 8.3 8.3 11.8 11.8 12.5 | 0.28 --- 0.48 --- 0.26 --- 0.54 --- --- | B B C C B B B B B | 12.0 12.0 21.6 21.6 18.3 18.3 17.0 17.0 18.0 | 0.33 --- 0.68 --- 0.67 --- 0.80 --- --- |
| 7 | NYS ROUTE 22 & NYS ROUTE 120 (NORTH) SIGNALIZED NYS ROUTE 22 NB L NYS ROUTE 22 NB T NYS ROUTE 22 NB APPROACH NYS ROUTE 22 SB T NYS ROUTE 22 SB R NYS ROUTE 22 SB APPROACH NYS ROUTE 120 SEB L NYS ROUTE 120 SEB R NYS ROUTE 120 SEB APPROACH OVERALL | D B B C A C E A C C | 43.4 11.1 19.5 33.7 0.2 25.7 72.4 1.1 31.4 26.7 | 0.57 0.27 --- 0.66 0.14 --- 0.99 0.47 --- --- | F A E D A C F A C D | 122.8 8.3 67.0 39.6 0.8 20.7 49.1 0.2 26.3 41.2 | 1.15 0.28 --- 0.70 0.40 --- 0.70 0.15 --- --- | D B B D A C F A D C | 45.1 10.9 19.8 35.5 0.2 27.5 94.6 1.2 40.5 31.3 | 0.60 0.28 --- 0.72 0.15 --- 1.07 0.50 --- --- | F A F D A C F A C D | 163.9 8.8 85.2 40.5 0.8 21.3 51.5 0.2 27.8 50.1 | 1.26 0.32 --- 0.72 0.42 --- 0.73 0.16 --- --- | D B B D A C F A D C | 45.2 10.9 19.7 35.8 0.2 27.4 99.9 1.2 32.3 32.3 | 0.60 0.28 --- 0.73 0.15 --- 1.08 0.50 --- --- | F A F D A C F A D D | 166.5 9.1 85.9 41.3 0.9 21.8 52.7 0.2 50.7 50.7 | 1.26 0.33 --- 0.73 0.42 --- 0.76 0.16 --- --- |
| 8 | NYS ROUTE 22 & NYS ROUTE 120 (SOUTH) SIGNALIZED NYS ROUTE 22 NB T NYS ROUTE 22 NB R NYS ROUTE 22 NB APPROACH NYS ROUTE 22 SB L NYS ROUTE 22 SB T NYS ROUTE 22 SB APPROACH NYS ROUTE 120 WB L-R NYS ROUTE 120 WB APPROACH OVERALL | C A C C A B C C B | 24.9 6.0 20.5 23.6 5.0 14.8 28.3 28.3 16.9 | 0.58 0.18 --- 0.69 0.29 --- 0.15 --- --- | C A C C B B C C C | 27.7 1.9 26.4 27.8 10.6 15.0 26.4 26.4 20.7 | 0.68 0.03 --- 0.40 0.39 --- 0.60 --- --- | C A C C B B C C B | 27.3 8.7 22.7 25.1 4.9 16.0 31.0 31.0 18.3 | 0.61 0.22 --- 0.74 0.30 --- 0.17 --- --- | C A C C B B C C C | 27.8 1.9 26.5 28.8 10.6 15.4 29.8 29.8 21.6 | 0.69 0.03 --- 0.44 0.41 --- 0.67 --- --- | C A C C A B C C B | 27.4 8.8 22.8 25.2 5.0 16.0 31.2 31.2 18.4 | 0.61 0.22 --- 0.74 0.30 --- 0.17 --- --- | C A C C B B C C C | 27.9 1.9 26.6 29.0 10.5 15.4 30.1 30.1 21.7 | 0.69 0.03 --- 0.44 0.41 --- 0.67 --- --- |
| 9 | KING STREET & OLD POST ROAD UN SIGNALIZED OLD POST ROAD WB T-R | A | 9.4 | 0.040 | C | 15.6 | 0.167 | A | 9.6 | 0.043 | C | 17.8 | 0.200 | A | 9.6 | 0.043 | C | 17.9 | 0.201 |

**Table IV.H-2
Level of Service Summary Table**

| | LOCATION | YEAR 2018 EXISTING | | | | | | YEAR 2022 NO-BUILD | | | | | | YEAR 2022 BUILD | | | | | |
|----|---|--------------------|-------|------|------------|-------|------|--------------------|-------|------|------------|-------|------|-----------------|-------|-------|------------|-------|-------|
| | | WEEKDAY AM | | | WEEKDAY PM | | | WEEKDAY AM | | | WEEKDAY PM | | | WEEKDAY AM | | | WEEKDAY PM | | |
| | | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C |
| 10 | NYS ROUTE 22 & I-684 SB ON/OFF RAMP | | | | | | | | | | | | | | | | | | |
| | SIGNALIZED | | | | | | | | | | | | | | | | | | |
| | NYS ROUTE 22 EB T | A | 6.8 | 0.23 | A | 3.7 | 0.47 | A | 7.2 | 0.25 | A | 4.1 | 0.50 | A | 7.3 | 0.27 | A | 4.2 | 0.51 |
| | NYS ROUTE 22 EB R | A | 0.2 | 0.16 | A | 0.3 | 0.19 | A | 0.3 | 0.18 | A | 0.3 | 0.20 | A | 0.3 | 0.19 | A | 0.3 | 0.21 |
| | NYS ROUTE 22 EB APPROACH | A | 4.7 | --- | A | 3.1 | --- | A | 5.0 | --- | A | 3.5 | --- | A | 5.0 | --- | A | 3.5 | --- |
| | NYS ROUTE 22 WB T | A | 7.7 | 0.37 | A | 2.9 | 0.30 | A | 8.3 | 0.40 | A | 3.1 | 0.32 | A | 8.3 | 0.40 | A | 3.1 | 0.34 |
| | NYS ROUTE 22 WB R | A | 0.3 | 0.18 | A | 0.1 | 0.08 | A | 0.3 | 0.20 | A | 0.1 | 0.09 | A | 0.3 | 0.20 | A | 0.1 | 0.09 |
| | NYS ROUTE 22 WB APPROACH | A | 5.9 | --- | A | 2.5 | --- | A | 6.3 | --- | A | 2.7 | --- | A | 6.3 | --- | A | 2.8 | --- |
| | I-684 SB OFF RAMP SB L (NYS 22 EB) | D | 47.6 | 0.77 | D | 46.7 | 0.40 | D | 46.9 | 0.77 | D | 47.0 | 0.42 | D | 46.9 | 0.77 | D | 47.0 | 0.42 |
| | I-684 SB OFF RAMP SB R (NYS 22 WB) | A | 0.9 | 0.49 | A | 0.2 | 0.14 | A | 1.1 | 0.52 | A | 0.2 | 0.15 | A | 1.1 | 0.53 | A | 0.2 | 0.16 |
| | I-684 SB OFF RAMP SB APPROACH | B | 13.1 | --- | A | 9.9 | --- | B | 12.8 | --- | B | 10.1 | --- | B | 12.7 | --- | A | 9.4 | --- |
| | OVERALL | A | 8.4 | --- | A | 3.6 | --- | A | 8.5 | --- | A | 3.9 | --- | A | 8.4 | --- | A | 3.9 | --- |
| 11 | NYS ROUTE 22 & I-684 NB ON/OFF RAMP | | | | | | | | | | | | | | | | | | |
| | SIGNALIZED | | | | | | | | | | | | | | | | | | |
| | NYS ROUTE 22 EB L | E | 58.3 | 0.52 | D | 48.3 | 0.82 | E | 58.4 | 0.55 | D | 47.0 | 0.83 | E | 58.4 | 0.59 | D | 46.8 | 0.83 |
| | NYS ROUTE 22 EB T | A | 0.2 | 0.25 | A | 0.2 | 0.33 | A | 0.2 | 0.27 | A | 0.3 | 0.36 | A | 0.2 | 0.27 | A | 0.3 | 0.36 |
| | NYS ROUTE 22 EB APPROACH | A | 8.3 | --- | B | 18.9 | --- | A | 8.7 | --- | B | 18.5 | --- | A | 9.7 | --- | B | 18.6 | --- |
| | NYS ROUTE 22 WB T | A | 2.9 | 0.27 | B | 10.7 | 0.30 | A | 3.2 | 0.30 | B | 12.0 | 0.33 | A | 3.4 | 0.30 | B | 12.4 | 0.33 |
| | NYS ROUTE 22 WB R | A | 2.5 | 0.06 | B | 11.1 | 0.26 | A | 2.6 | 0.07 | B | 12.4 | 0.28 | A | 2.8 | 0.07 | B | 12.7 | 0.28 |
| | NYS ROUTE 22 WB APPROACH | A | 2.9 | --- | B | 10.8 | --- | A | 3.1 | --- | B | 12.1 | --- | A | 3.4 | --- | B | 12.5 | --- |
| | I-684 NB OFF RAMP SB R (NYS 22 WB) | A | 0.3 | 0.22 | A | 0.4 | 0.24 | A | 0.3 | 0.23 | A | 0.4 | 0.25 | A | 0.4 | 0.24 | A | 0.4 | 0.27 |
| | I-684 NB OFF RAMP SB APPROACH | A | 0.3 | --- | A | 0.4 | --- | A | 0.3 | --- | A | 0.4 | --- | A | 0.4 | --- | A | 0.4 | --- |
| | OVERALL | A | 4.9 | --- | B | 14.4 | --- | A | 5.3 | --- | B | 14.6 | --- | A | 5.8 | --- | B | 14.7 | --- |
| 12 | NEW CASTLE DRIVE & PROPOSED SITE DRIVEWAY | | | | | | | | | | | | | | | | | | |
| | UNSIGNALIZED | | | | | | | | | | | | | | | | | | |
| | NEW CASTLE DRIVE SB L-T | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | A | 7.3 | 0.030 | A | 8.7 | 0.087 |
| | PROPOSED SITE DRIVEWAY WB L-R | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | A | 8.7 | 0.076 | B | 10.3 | 0.089 |

The above represents the levels of service, vehicle delay in seconds and volume-to-capacity ratio for the above intersections.

Table IV.H-3
Level of Service Queue Lengths

| | LOCATION | | STORAGE LENGTH (FT.) | YEAR 2018 EXISTING | | | | YEAR 2022 NO-BUILD | | | | YEAR 2022 BUILD | | | |
|---|---|--|--|--|--|--|---|--|--|--|--|--|---|--|---|
| | | | | WEEKDAY AM | | WEEKDAY PM | | WEEKDAY AM | | WEEKDAY PM | | WEEKDAY AM | | WEEKDAY PM | |
| | | | | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% |
| 1 | NYS ROUTE 22 OLD ROUTE 22 / OLD POST ROAD SIGNALIZED NYS ROUTE 22 NB L NB T NB R NYS ROUTE 22 SB L SB T SB R OLD ROUTE 22 SEB L-T SEB R OLD POST ROAD NWB L-T NWB R | | 350' 500'+ 230' 315' 500'+ 155' 150' 150' 500'+ 125' | 44' 63' 0' 68' 55' 0' 6' 26' 2' 0' | 105' 190' 20' 144' 172' 0' 28' 57' 14' 7' | 52' 96' 0' 8' 154' 0' 30' 69' 114' 102' 32' | 105' 156' 0' 28' 250' 0' 69' 114' 102' 83' | 46' 68' 0' 70' 65' 0' 6' 27' 2' 0' | 108' 205' 21' 149' 202' 0' 28' 59' 15' 7' | 54' 109' 0' 9' 170' 0' 72' 68' 53' 46' | 109' 184' 0' 30' 275' 0' 72' 118' 106' 100' | 46' 70' 0' 70' 68' 0' 6' 27' 2' 0' | 108' 210' 21' 149' 208' 0' 28' 59' 15' 7' | 54' 121' 0' 9' 174' 0' 31' 68' 53' 49' | 109' 191' 0' 30' 282' 0' 72' 118' 106' 103' |
| 2 | NYS ROUTE 22 NYS ROUTE 128 / NORTH CASTLE DRIVE (IBM) SIGNALIZED NYS ROUTE 22 NEB L NEB T NEB R NYS ROUTE 22 SWB L SWB T SWB R NYS ROUTE 128 SB L-T SB R NORTH CASTLE DRIVE (IBM) NB L NB T NB R | | 680' 500'+ 350' 400' 500'+ 250' 500'+ 250' 0' 500'+ 500' | 135' 132' 0' 282' 173' 0' 110' 250' 0' 8' 2' 0' | 212' 191' 40' #482' 274' 40' 181' 62' 26' 10' 0' | 201' 93' 0' 5' 192' 0' 111' 192' 60' 84' 17' 0' | 319' 187' 0' 23' 298' 39' 192' 60' 157' 44' 71' | 144' 143' 0' #523' 205' 0' 117' 189' 65' 8' 2' 0' | 225' 208' 42' #523' 327' 43' 189' 65' 26' 10' 0' | 232' 111' 0' 5' 222' 42' 121' 60' 92' 18' 0' | #392' 221' 0' 23' 322' 42' 200' 60' 164' 45' 72' | 145' 146' 0' 331' 211' 0' 119' 60' 24' 4' 0' | 225' 208' 43' #577' 328' 43' 192' 65' 57' 18' 28' | 240' 171' 0' 52' 235' 43' 126' 60' 107' 20' 0' | #407' 262' 3' 104' 334' 43' 202' 81' 184' 48' 74' |
| 3 | NYS ROUTE 22 MAPLE AVENUE / BUSINESS PARK DRIVE SIGNALIZED NYS ROUTE 22 EB L EB T-R NYS ROUTE 22 WB L WB T WB R BUSINESS PARK DRIVE NB L-T NB R MAPLE AVENUE SB L SB T-R | | 575' 500'+ 265' 500'+ 225' 425' 125' 100' 470' | 29' 157' 110' 357' 45' 74' 0' 146' 55' | 72' 237' 206' 510' 134' 146' 6' #302' 131' | 22' 390' 90' 170' 0' 148' 0' 244' 31' | 59' 533' 168' 235' 52' #262' 78' #515' 89' | 33' 172' 127' 408' 57' 85' 0' 184' 66' | 76' 257' 216' 581' 158' 151' 8' #354' 143' | 28' 457' 103' 189' 0' 168' 1' #553' 38' | 66' 598' 174' 254' 55' #287' 80' #553' 95' | 34' 191' 127' 424' 60' 85' 0' 184' 66' | 76' 282' 216' 602' 162' 151' 8' #354' 143' | 29' 480' 104' 210' 0' 171' 1' ~328' 39' | 66' #631' 174' 280' 55' #287' 81' #553' 95' |
| 4 | NYS ROUTE 128 (MAIN STREET) & KENT PLACE/BEDFORD ROAD UNSIGNALIZED NYS ROUTE 128 (MAIN STREET) NB L-T-R NYS ROUTE 128 (MAIN STREET) SB L-T-R KENT PLACE EB L-T-R BEDFORD ROAD WB L-T-R | | 430' 500' 500'+ 500' | -- -- -- -- | 3' 5' 3' 30' | -- -- 13' 45' | 3' 3' -- -- | -- 5' 3' 35' | -- -- 15' -- | -- 3' -- 58' | -- 3' -- -- | -- 5' -- 35' | -- 3' -- -- | -- -- 15' 60' | |
| 5 | MAPLE AVENUE & BEDFORD ROAD SIGNALIZED BEDFORD ROAD EB L-T-R BEDFORD ROAD WB L-T-R MAPLE AVENUE NB L NB T-R MAPLE AVENUE SB L-T-R | | 260' 360' 50' 470' 500'+ | 23' 49' 27' 72' 52' | 89' 119' 82' 202' 132' | 5' 30' 22' 60' 54' | 60' 77' 74' 171' 141' | 32' 60' 30' 83' 57' | 109' 144' 87' 221' 139' | 7' 34' 25' 64' 58' | 65' 88' 84' 184' 151' | 32' 60' 30' 83' 57' | 109' 144' 87' 221' 139' | 7' 34' 25' 64' 58' | 65' 88' 84' 184' 151' |
| 6 | NYS ROUTE 128 (MAIN STREET) & WHIPPOORWILL ROAD/MAPLE AVENUE SIGNALIZED WHIPPOORWILL ROAD EB L-T-R MAPLE AVENUE WB L-T-R NYS ROUTE 128 (MAIN STREET) NB L-T-R NYS ROUTE 128 (MAIN STREET) SB L-T-R | | 500'+ 190' 500' 355' | 11' 31' 22' 57' | 53' 103' 68' 160' | 23' 67' 72' 54' | 72' 172' 181' 143' | 13' 37' 26' 68' | 61' 121' 77' 191' | 26' 76' 88' 67' | 81' 196' 200' 158' | 13' 37' 26' 69' | 61' 122' 78' 192' | 27' 77' 89' 68' | 81' 197' 202' 160' |

Table IV.H-3
Level of Service Queue Lengths

| | LOCATION | STORAGE LENGTH (FT.) | YEAR 2018 EXISTING | | | | YEAR 2022 NO-BUILD | | | | YEAR 2022 BUILD | | | |
|----|---|----------------------------|--------------------|-------|------------|-------|--------------------|-------|------------|-------|-----------------|-------|------------|-------|
| | | | WEEKDAY AM | | WEEKDAY PM | | WEEKDAY AM | | WEEKDAY PM | | WEEKDAY AM | | WEEKDAY PM | |
| | | | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% |
| 7 | NYS ROUTE 22 & NYS ROUTE 120 (NORTH) SIGNALIZED | | | | | | | | | | | | | |
| | NYS ROUTE 22 NB L | 250' | 94' | 170' | ~523' | #862' | 103' | 180' | ~620' | #925' | 103' | 180' | ~638' | #925' |
| | NYS ROUTE 22 NB T | 500'+ | 74' | 100' | 84' | 129' | 79' | 106' | 105' | 151' | 80' | 107' | 112' | 155' |
| | NYS ROUTE 22 SB T | 500'+ | 177' | 261' | 201' | 282' | 213' | 310' | 223' | 303' | 217' | 315' | 231' | 308' |
| | NYS ROUTE 22 SB R | 700' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' |
| | NYS ROUTE 120 SEB L | 200' | ~308' | #621' | 164' | 272' | ~368' | #662' | 183' | 291' | ~380' | #674' | 196' | 306' |
| | NYS ROUTE 120 SEB R | 500'+ | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' |
| 8 | NYS ROUTE 22 & NYS ROUTE 120 (SOUTH) SIGNALIZED | | | | | | | | | | | | | |
| | NYS ROUTE 22 NB T | 500'+ | 83' | 146' | 114' | 157' | 95' | 171' | 121' | 168' | 96' | 173' | 124' | 172' |
| | NYS ROUTE 22 NB R | 200' | 13' | 46' | 0' | 7' | 24' | 68' | 0' | 7' | 25' | 69' | 0' | 7' |
| | NYS ROUTE 22 SB L | 215' | 121' | 200' | 46' | 78' | 148' | 254' | 53' | 88' | 150' | 258' | 54' | 89' |
| | NYS ROUTE 22 SB T | 500'+ | 46' | 65' | 87' | 112' | 49' | 78' | 93' | 117' | 50' | 80' | 94' | 118' |
| | NYS ROUTE 120 WB L-R | 500'+ | 14' | 47' | 121' | 211' | 17' | 54' | 136' | #245' | 17' | 54' | 137' | #250' |
| 9 | KING STREET & OLD POST ROAD UNSIGNALIZED | | | | | | | | | | | | | |
| | OLD POST ROAD WB T-R | 500'+ | -- | 3' | -- | 15' | -- | 3' | -- | 18' | -- | 3' | -- | 18' |
| 10 | NYS ROUTE 22 & I-684 SB ON/OFF RAMP SIGNALIZED | | | | | | | | | | | | | |
| | NYS ROUTE 22 EB T | 500'+ | 54' | 94' | 110' | 168' | 62' | 104' | 127' | 196' | 66' | 111' | 132' | 203' |
| | NYS ROUTE 22 EB R | 500'+ | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' |
| | NYS ROUTE 22 WB T | 500'+ | 101' | 163' | 58' | 91' | 114' | 181' | 65' | 102' | 116' | 186' | 67' | 106' |
| | NYS ROUTE 22 WB R | 1000'+ | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' |
| | I-684 SB OFF RAMP SB L (NYS 22 EB) | 200' | 173' | 244' | 36' | 74' | 180' | 253' | 40' | 80' | 180' | 253' | 40' | 80' |
| | I-684 SB OFF RAMP SB R (NYS 22 WB) | 500'+ | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' |
| 11 | NYS ROUTE 22 & I-684 NB ON/OFF RAMP SIGNALIZED | | | | | | | | | | | | | |
| | NYS ROUTE 22 EB L | 400' | 52' | 84' | 276' | 319' | 59' | 91' | 294' | 340' | 68' | 102' | 302' | 346' |
| | NYS ROUTE 22 EB T | 500'+ | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' |
| | NYS ROUTE 22 WB T | 400' | 56' | 85' | 109' | 168' | 64' | 97' | 127' | 190' | 68' | 103' | 132' | 195' |
| | NYS ROUTE 22 WB R | 200' | 9' | 20' | 82' | 148' | 10' | 22' | 93' | 164' | 10' | 23' | 94' | 166' |
| | I-684 NB OFF RAMP SB R (NYS 22 WB) | 500'+ | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' |
| 12 | NEW CASTLE DRIVE & PROPOSED SITE DRIVEWAY UNSIGNALIZED | | | | | | | | | | | | | |
| | NEW CASTLE DRIVE SB L-T | 345' | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3' | -- | 8' |
| | PROPOSED SITE DRIVEWAY WB L-R | | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5' | -- | 8' |

The above represents the levels of service, vehicle delay in seconds and volume-to-capacity ratio for the above intersections.

1. NYS Route 22 and Old Route 22/Old Post Road

Old Route 22 intersects NYS Route 22 opposite Old Post Road at a full movement, signalized intersection. The NYS Route 22 northbound approach consists of four lanes in the form of a separate left turn lane, two through lanes and a separate right turn lane and the NYS Route 22 southbound approach consists of four lanes in the form of a separate left turn lane, two through lanes and separate right turn lane. The Old Route 22 eastbound approach consists of two lanes in the form of a shared left/through lane and separate right turn lane and the Old Post Road westbound approach consists of two lanes in the form of a shared left/through lane and separate right turn lane.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “B” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “B” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “B” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “B” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak

AM Hour and is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak PM Hour.

2. NYS Route 22 and NYS Route 128/North Castle Drive (IBM)

NYS Route 128 intersects NYS Route 22 opposite North Castle Drive (IBM) at a full movement, signalized intersection. The NYS Route 22 northbound approach consists of four lanes in the form of a separate left turn lane, two through lanes and a channelized right turn lane and the NYS Route 22 southbound approach consists of four lanes in the form of a separate left turn lane, two through lanes and separate right turn lane. The NYS Route 128 eastbound approach consists of two lanes in the form of a shared left/through lane and a channelized right turn lane and the North Castle Drive (IBM) westbound approach consists of three lanes in the form of a separate left turn lane, separate through lane and a channelized right turn lane.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “C” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “C” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “C” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “C” during the Weekday Peak PM Hour.

3. NYS Route 22 and Maple Avenue/Business Park Drive

Maple Avenue intersects NYS Route 22 opposite Business Park Drive at a full movement, signalized intersection. The NYS Route 22 northbound approach consists of three lanes in the form of a separate left turn lane, a separate through lane and a shared through/right turn lane and the NYS Route 22 southbound approach consists of four lanes in the form of a separate left turn lane, two through lanes and separate right turn lane. The Maple Avenue eastbound approach consists of two lanes in the form of a separate left turn lane and shared through/right lane and the Business Park Drive westbound approach consists of two lanes in the form of a shared left/through lane and separate right turn lane.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “C” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “D” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “C” during the Weekday Peak AM Hour

and is projected to operate at an overall Level of Service “D” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “D” during the Weekday Peak PM Hour.

4. NYS Route 128 (Main Street) and Kent Place/Bedford Road

Kent Place intersects NYS Route 128 (Main Street) opposite Bedford Road at a full movement, unsignalized intersection. All approaches to the intersection consist of one lane for left, through and right turn movements. The Kent Pace and Bedford Road approaches are “stop” sign controlled.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the Kent Road approach (eastbound approach) is currently operating at a Level of Service “C” or better during both the Weekday Peak AM and Weekday Peak PM Hours and Bedford Road approach (westbound approach) is currently operating at a Level of Service “C” during both the Weekday Peak AM and Weekday Peak PM Hours.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the Kent Road approach (eastbound approach) is projected to operate a Level of Service “C” or better

during both the Weekday Peak AM and Weekday Peak PM Hours and Bedford Road approach (westbound approach) is projected to operate at a Level of Service “C” during the Weekday Peak AM Hour and projected to operate at a level of Service “D” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the Kent Road approach (eastbound approach) is projected to continue to operate a Level of Service “C” or better during both the Weekday Peak AM and Weekday Peak PM Hours and Bedford Road approach (westbound approach) is projected to continue to operate at a Level of Service “C” during the Weekday Peak AM Hour and continue to operate at a level of Service “D” during the Weekday Peak PM Hour.

5. Maple Avenue and Bedford Road

Maple Avenue intersects Bedford Road at a full movement, signalized intersection with crosswalk and pedestrian indication on the Maple Avenue northbound approach. The Maple Avenue northbound approach consists of two lanes in the form of a separate left turn lane and a shared through/right turn lane and the Maple Avenue southbound approach consists of one lane for left, through and right turn movements. The Bedford Road eastbound and westbound approaches each consist of one lane for left, through and right turn movements.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “C” during the Weekday Peak AM Hour and is

currently operating at an overall Level of Service “B” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “B” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak PM Hour.

6. NYS Route 128 (Main Street) and Whippoorwill Road/Maple Avenue

Maple Avenue intersects NYS Route 128 (Main Street) opposite Whippoorwill Road at a full movement, signalized intersection with crosswalks and pedestrian indication on all approaches. All approaches to the intersection consist of one lane for left, through and right turn movements.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “B” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “B” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “B” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “B” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak PM Hour.

7. NYS Route 22 and NYS Route 120 North (King Street)

NYS Route 22 and NYS Route 120 North (King Street) at a “Y” type, signalized intersection. The NYS Route 22 northbound approach consists of three lanes in the form of a separate left turn lane and two through lanes and the NYS Route 22 southbound approach consists of three lanes in the form of two through lanes and a channelized right turn lane. The NYS Route 120 North (King Street) eastbound approach consists of two lanes in the form of a separate left turn lane and a channelized right turn lane.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “C” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “D” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “D” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “D” during the Weekday Peak PM Hour.

8. NYS Route 22 and NYS Route 120 South (King Street)

NYS Route 22 and NYS Route 120 South (King Street) at a “Y” type, signalized intersection. The NYS Route 22 northbound approach consists of three lanes in the form of two through lanes and a separate right turn lane and the NYS Route 22 southbound approach consists of four lanes in the form of two left turn lanes and two through lanes. The NYS Route 120 South (King Street) westbound approach consists of one lane for left and right movements.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “B” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “C” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “B” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “C” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “C” during the Weekday Peak PM Hour.

9. NYS Route 120 (King Street) and Old Post Road

Old Post Road intersects NYS Route 120 (King Street) at an unsignalized intersection. The NYS Route 120 (King Street) northbound approach consists of one lane for left, through and right turn movements and the Old Post Road westbound approach consist of one lane for through and right turn movements. Old Post Road provides access to Bright Horizons at TimberRidge and the IBM Learning Center.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at a Level of Service “A” during the Weekday Peak AM Hour and is currently operating at a Level of Service “C” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at a Level of Service “A” during the Weekday Peak AM Hour and is projected to operate at a Level of Service “C” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at a Level of Service “A” during the Weekday Peak AM Hour and is projected to continue to operate at a Level of Service “C” during the Weekday Peak PM Hour.

10. NYS Route 22 and I-684 SB On/Off Ramps

The I-684 Southbound On/Off Ramps intersects NYS Route 22 with the I-684 Southbound Off-Ramp left turn under signal control and the I-684 Southbound Off-Ramp right turn to NYS Route 22 south under “Yield” sign control. The NYS Route 22 North On-Ramp and NYS Route 22 South On-Ramp to I-684 Southbound are free flow right turns.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “A” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “A” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “A” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “A” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “A” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “A” during the Weekday Peak PM Hour.

11. NYS Route 22 and I-684 NB On/Off Ramps

The I-684 Northbound On/Off Ramps intersects NYS Route 22 with the I-684 Northbound On-Ramp under signal control and the I-684 Northbound Off-Ramp to NYS Route 22 north under “Stop” sign control and the I-684 Northbound Off-Ramp to NYS Route 22 south under “Yield” sign control. The NYS Route 22 northbound approach consists of a double left turn lane for I-684 northbound traffic and two through lanes and the NYS Route 22 southbound approach consists of two through lanes and a separate right turn lane for I-684 northbound traffic.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “A” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “B” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “A” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “B” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak PM Hour.

12. North Castle Road and Proposed Site Driveway

Access to the Site will be provided via a driveway connection to North Castle Drive.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the proposed Driveway is projected to operate at a Level of Service “B” or better during both the Weekday Peak AM and Weekday Peak PM Hours.

Sight Distances

The proposed driveway to North Castle Drive is proposed as a full movement driveway, however it is unlikely that vehicles will make exiting left turns (to the IBM campus). The sight distance at the proposed Site access will be some 500+ feet looking to the left and approximately 500 feet looking to the right. Based on AASHTO Standards as contained in “A

Policy on Geometric Design of Highway and Streets – 2018” the recommended Stopping Sight Distance (SSD) is 165 feet (adjusted for a downgrade of 6%) for a speed limit of 25 mph (posted speed limit of 15 mph plus 10 mph). The Intersection Sight Distance (ISD) for the exiting left turn is 280 feet and the exiting right turn is 240 feet for the posted speed limit of 25 mph (posted speed limit of 15 mph plus 10 mph). Based on the above, there will be adequate sight distance provided at the driveway.

The Intersection Sight Distance (ISD) will be shown on the Site Plan.

3.) MITIGATION MEASURES

Accident information was obtained for Study Area Intersections from the NYSDOT Records Access Office for the most recent three full year period (January 1, 2015 to December 31, 2017 and year 2018 (available through August 31, 2018). This data is summarized in Table IV.H-4 for the NYS Route 128/Bedford Road/Kent Place, NYS Route 128/Maple Avenue/Whippoorwill Road East and Maple Avenue/Bedford Road intersections and in Table IV.H-5 for the NYS Route 22 intersections by location, date, time, traffic control, severity, number of vehicles/injuries, light conditions, road surface condition, weather, manner of collision, and apparent contributing factors.

As summarized in Table IV.H-5, there were 4 reportable accidents in 2015, 3 reportable accidents in 2016, 9 reportable accidents in 2017 and reportable accident in 2018 at the intersection of NYS Route 22/NYS Route 128/North Castle Drive (site access).

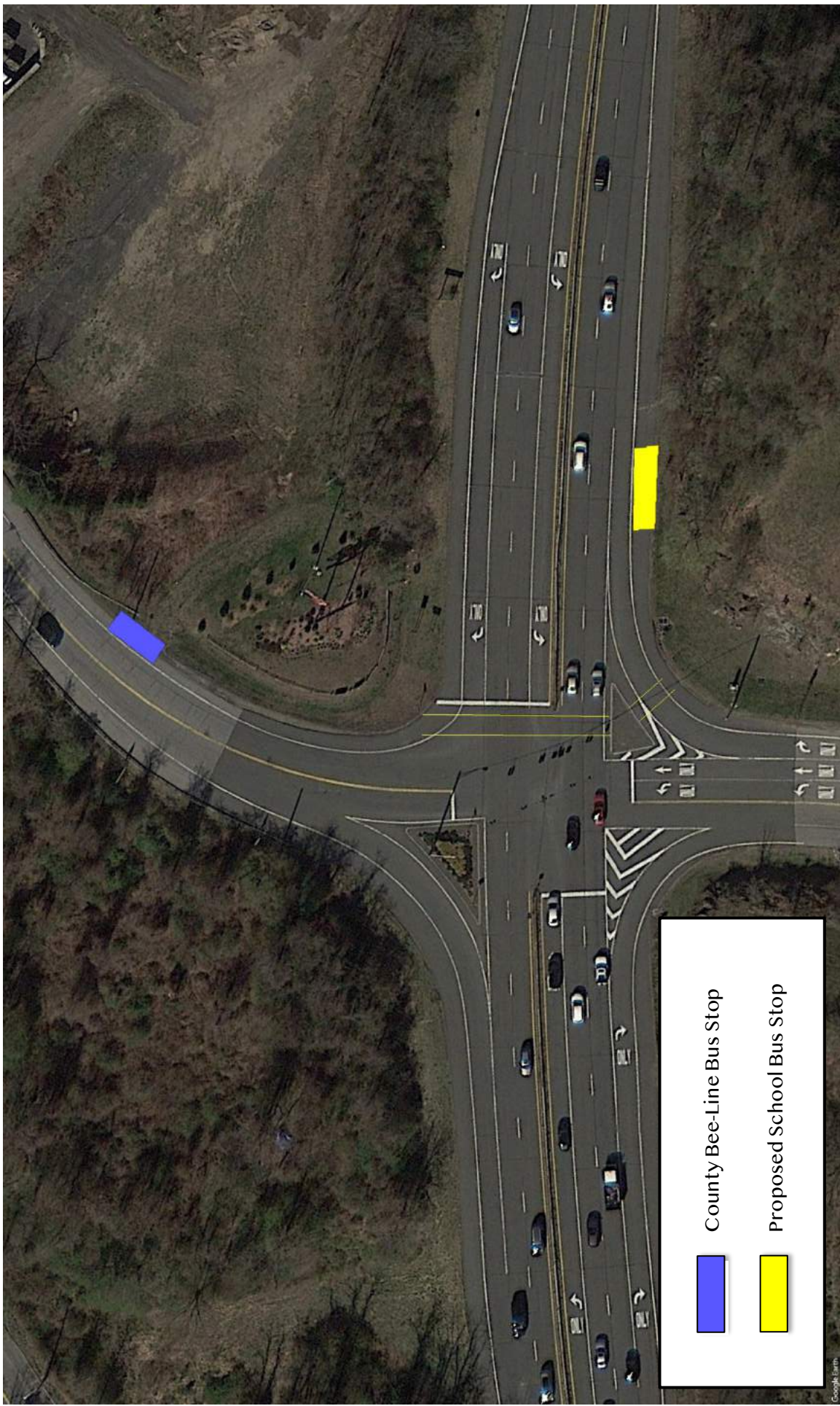
A review of the accident data indicates typical type accidents which include rear-end accidents with apparent contributing factors such as failure to yield right-of-way, following too closely and driver inattention. Appendix G of the Maser Consulting

Traffic Study, included in the Appendix of this DEIS also contains a copy of the NYSDOT Accident Severity Summary and Verbal Description Reports.

Based on a review of the accident data and based on the anticipated traffic generation for the Eagle Ridge development, it is expected that the Proposed Action will not have a significant impact on the accident rates on the area roadways.

Off-site improvements illustrated on Figure IV.H-16 include a shared entrance drive to the Site, a sidewalk to the intersection of North Castle Drive and NYS Route 22, a crosswalk across NYS Route 22, a school bus stop on NYS Route 22, an emergency access road, and the closure of an existing access road. The proposed shared entrance drive provides access to the townhouse development and the hotel. It includes one entry lane and two exit lanes to accommodate right and left turning vehicles. There is a median for plantings and/or signage. The proposed sidewalk and crosswalk across NYS Route 22 will allow pedestrian access to North Castle Drive and to the Armonk Hamlet, subject to NYSDOT approval. The Applicant will reach out to the Transportation Division of the County DPW and Westchester Bee Line to determine if any other measures can be taken to accommodate transit accessibility to the Site.

The Applicant has evaluated the possibility of extending the Community Park roadways to provide access for additional parking in close proximity to Field 4. The Applicant's initial concept was to extend the roadway behind Fields 1, 2, and 3, from the existing parking lot to Field 4 (Option A on Figure IV.H-17). However, due to existing site constraints and design limitations, it does not appear that this is a viable option. The Applicant has further explored a second option (Option B on Figure IV.H-17) whereby access to Field 4 is provided from a new driveway off of Business Park Drive. While this may be a more viable option, depending on the final design and layout, it may require obtaining approvals from the New York Department of Transportation ("DOT") (if the access road ends up in the DOT right of way) or the



Source: Maser Consulting

Scale: N.T.S.



Bus Stops & Pedestrian Crosswalk Map

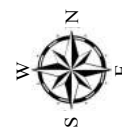


Figure
IV.H-16



Source: Alfonzetti Engineering

Scale: N.T.S.



Community Park Parking Access Alternatives

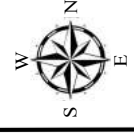


Figure
IV.H-17

New York State Department of Environmental Conservation (if the access road impacts the adjacent wetland or wetland buffer). The Applicant will continue working with the Town to explore these access alternatives.

It is anticipated that a Community Benefit Agreement will be established to be utilized to address long-term parking concerns in the Armonk Hamlet.

The proposed school bus stop on NYS Route 22 will provide an area for a school bus to stop in a dedicated pull-off lane to pick up children from the Proposed Action. The proposed emergency access will be located approximately 200 feet south of the proposed shared entrance drive. There are three locations at which existing site access will be closed. Two points are adjacent to the existing security building, and the other is on the south side of the Site adjacent to the existing IBM parking lot.

During the site plan review phase, the Applicant will identify appropriate locations for secure bicycle storage and bicycle racks.

As summarized in this analysis, and as shown on the Level of Service Summary Table (IV.H-2), similar Levels of Service and delays will be experienced under future No-Build and future Build Conditions. Therefore, the proposed Eagle Ridge development is not expected to significantly affect the area roadways.

**Table IV.H-4
Accident Summary Table
NYS Route 128 & Bedford Road/Kent Place
NYS Route 128 & Maple Avenue/Whippoorwill Road East
Maple Avenue & Bedford Road**

| MODELINK | LOCATION | DATE | TIME | TRAFFIC CONTROL | ACCIDENT CLASS | # OF VEHICLES INVOLVED | ROAD CONDITION | WEATHER | MANNER OF COLLISION | APPARENT CONTRIBUTING FACTORS |
|---------------------|--|----------|----------|-----------------|----------------|------------------------|----------------|---------|-----------------------------|--|
| 128.8701 0003 | 45 Meters North of Kent Pl | 02/15/16 | 9:31 AM | None | POD | 3.0 | Dry | Clear | Rear End | Following too closely, Driver inattentive |
| 128.8701 0003 | 20 Meters North of Kent Pl | 02/26/15 | 10:24 AM | None | POD | 2.0 | Dry | Clear | Right Angle | Turning Improper |
| 128.8701 0003 | 47 Meters North of Kent Pl | 05/07/15 | 11:00 AM | None | MR | 2.0 | Dry | Clear | Overlapping | Failure to Yield Right-of-Way |
| 128.8701 0003 | At Intersection with Kent Pl | 05/29/15 | 6:18 AM | None | POD | 2.0 | Dry | Cloudy | Overlapping | Turning Improper |
| 128.8701 0003 | 30 Meters South of Bedford Rd | 06/17/15 | 8:13 AM | None | MR | 2.0 | Dry | Clear | Left Turn | Turning Improper |
| 128.8701 0004 | 15 Meters North of Whippoorwill Rd E | 06/13/15 | 12:48 PM | None | POD | 2.0 | Dry | Clear | Overlapping | Driver inattentive |
| 128.8701 0004 | 30 Meters South of Maple Ave | 09/44/15 | 12:18 PM | None | POD | 2.0 | Dry | Clear | Rear End | Other (Vehicle) |
| Whippoorwill Road E | At Intersection with Main Street | 12/29/15 | 10:15 AM | None | POD & I | 1.0 | Dry | Clear | Side-swipe (same direction) | Unsafe Speed, Passing or Lane Usage Improper |
| 128.8701 0004 | At Intersection with Main Street | 01/01/16 | 10:45 AM | None | POD | 2.0 | Dry | Clear | Overlapping | Driver inattentive |
| 128.8701 0004 | 17 Meters South of Whippoorwill Rd E | 12/22/15 | 4:04 PM | None | POD | 2.0 | Dry | Cloudy | Overlapping | Driver inattentive |
| Maple Avenue | At Intersection with Bedford Rd | 01/28/15 | 11:51 AM | Traffic Signal | POD | 2.0 | Dry | Clear | Rear End | Following too closely |
| Maple Avenue | At Intersection with Bedford Rd | 02/11/15 | 12:37 PM | Traffic Signal | POD | 2.0 | Dry | Clear | Rear End | Following too closely, Driver inattentive |
| Bedford Road | At Intersection with Maple Ave | 03/05/15 | 5:12 PM | Traffic Signal | POD | 2.0 | Dry | Clear | Overlapping | Passing or Lane Usage Improper |
| Bedford Road | At Intersection with Maple Ave | 10/07/15 | 7:00 PM | Traffic Signal | POD | 2.0 | Dry | Clear | Overlapping | Passing or Lane Usage Improper |
| 128.8701 0003 | At Intersection with Main Street | 02/15/16 | 4:38 PM | Traffic Signal | MR | 2.0 | Snow/Ice | Snow | Rear End | Passing or Lane Usage Improper |
| 128.8701 0003 | At Intersection with Main Street | 02/15/16 | 4:38 PM | Phase Change | POD | 2.0 | Dry | Clear | Right Angle | Failure to Yield Right-of-Way |
| 128.8701 0003 | At Intersection with Kent Pl | 03/11/16 | 11:37 PM | Stop Sign | POD | 2.0 | Dry | Clear | Left Turn | Failure to Yield Right-of-Way |
| 128.8701 0003 | At Intersection with Kent Pl | 05/29/16 | 12:48 PM | Stop Sign | POD | 2.0 | Wet | Rain | Other | Turning Improper, Driver inattentive |
| 128.8701 0003 | 23 Meters North of Bedford Rd | 05/04/16 | 12:47 PM | None | POD | 2.0 | Wet | Rain | Other | Turning Improper, Driver inattentive |
| 128.8701 0003 | At Intersection with Kent Pl | 05/04/16 | 5:55 PM | Stop Sign | POD | 2.0 | Wet | Rain | Left Turn | Turning Improper, Failure to Yield Right-of-Way |
| 128.8701 0003 | At Intersection with Kent Pl | 06/04/16 | 1:26 PM | None | POD | 2.0 | Dry | Clear | Right Turn | Driver inattentive |
| 128.8701 0003 | At Intersection with Main Street | 07/21/16 | 11:35 AM | Stop Sign | MR | 1.0 | Dry | Clear | Right Angle | Driver inattentive |
| 128.8701 0003 | At Intersection with Kent Pl | 11/23/16 | 7:00 PM | Stop Sign | POD | 2.0 | Dry | Cloudy | Right Angle | Driver inattentive, Failure to Yield Right-of-Way |
| 128.8701 0004 | At Intersection with Whippoorwill Rd E | 06/24/16 | 3:53 PM | None | POD | 2.0 | Dry | Clear | Right Turn | Turning Improper |
| 128.8701 0004 | 18 Meters South of Whippoorwill Rd E | 06/30/16 | 2:41 PM | None | POD & I | 2.1 | Wet | Cloudy | Right Angle | Dead End |
| 128.8701 0004 | At Intersection with Whippoorwill Rd E | 10/12/16 | 9:05 AM | None | POD | 2.0 | Wet | Cloudy | Overlapping | View Obstructed, Limited |
| 128.8701 0004 | At Intersection with Whippoorwill Rd E | 10/12/16 | 5:55 PM | Traffic Signal | POD | 2.0 | Dry | Cloudy | Left Turn | Driver inattentive, Failure to Yield Right-of-Way |
| Maple Avenue | 41 Meters North of Bedford Rd | 12/28/16 | 2:08 PM | None | POD | 2.0 | Dry | Clear | Right Angle | Backing Unlawfully |
| 128.8701 0003 | 30 Meters North of Bedford Rd | 02/10/17 | 10:05 AM | No Passing Zone | POD | 2.0 | Dry | Cloudy | Right Turn | Reaction to Other Uninvolved vehicle, Driver inattentive |
| Kent Place | 34 Meters West of Main Street | 02/20/17 | 1:55 PM | None | POD | 2.0 | Dry | Clear | Rear End | Driver inattentive |
| 128.8701 0003 | At Intersection with Kent Pl | 06/07/17 | 1:55 PM | None | POD | 2.0 | Dry | Clear | Overlapping | Driver inattentive |
| 128.8701 0003 | 17 Meters North of Kent Pl | 06/07/17 | 8:52 AM | None | POD | 2.0 | Dry | Clear | Overlapping | Driver inattentive |
| 128.8701 0003 | At Intersection with Kent Pl | 06/29/17 | 2:10 PM | Stop Sign | MR | 2.0 | Dry | Clear | Rear End | Driver inattentive |
| 128.8701 0003 | 15 Meters North of Bedford Rd | 07/05/17 | 9:48 AM | None | POD | 2.0 | Dry | Clear | UNKNOWN | Driver inattentive |
| 128.8701 0003 | 22 Meters North of Kent Pl | 08/30/17 | 10:21 AM | None | POD | 2.0 | Dry | Cloudy | Other | Driver inattentive |
| 128.8701 0003 | At Intersection with Kent Pl | 11/19/17 | 12:45 PM | Stop Sign | POD | 2.0 | Dry | Cloudy | Right Angle | Failure to Yield Right-of-Way |
| 128.8701 0003 | At Intersection with Kent Pl | 11/21/17 | 7:56 AM | Stop Sign | POD | 2.0 | Dry | Clear | Side-swipe (same direction) | Driver inattentive |
| 128.8701 0003 | 46 Meters North of Kent Pl | 12/26/17 | 9:24 AM | None | POD | 2.0 | Dry | Clear | Overlapping | Driver inattentive |
| 128.8701 0004 | At Intersection with Main Street | 09/19/17 | 8:12 AM | None | POD | 2.0 | Dry | Cloudy | Left Turn | Unsafe Speed, Steering Failure |
| 128.8701 0004 | 44 Meters North of Whippoorwill Rd E | 11/22/17 | 2:23 PM | Stop Sign | POD | 2.0 | Dry | Clear | Left Turn | Failure to Yield Right-of-Way, View Obstructed, Limited |
| 128.8701 0003 | At Intersection with Kent Pl | 01/06/18 | 12:00 PM | None | POD | 2.0 | Dry | Clear | Overlapping | Driver inattentive |
| 128.8701 0003 | 48 Meters North of Kent Pl | 03/13/18 | 1:08 PM | No Passing Zone | POD | 2.0 | Slush | Snow | Overlapping | View Obstructed, Limited, Backing Unlawfully |
| 128.8701 0004 | At Intersection with Whippoorwill Rd E | 01/04/18 | 12:37 PM | Traffic Signal | POD | 2.0 | Snow/Ice | Snow | Right Turn | Turning Improper |
| 128.8701 0004 | At Intersection with Whippoorwill Rd E | 04/00/18 | 1:52 PM | Traffic Signal | POD | 1.0 | Wet | Rain | Other | Driver inattentive |
| Whippoorwill Road E | At Intersection with Main Street | 05/30/18 | 12:28 PM | Traffic Signal | POD | 1.0 | Dry | Clear | Other | Driver inattentive |
| Bedford Road | At Intersection with Whippoorwill Rd E | 06/19/18 | 10:49 AM | Traffic Signal | POD | 2.0 | Dry | Clear | Side-swipe (same direction) | Passing or Lane Usage Improper |
| Bedford Road | On Bedford Road | 06/13/18 | 10:00 PM | None | POD | 1.0 | UNKNOWN | UNKNOWN | Other | Driver inattentive |
| Bedford Road | On Bedford Road | 07/14/18 | 11:28 AM | None | POD | 1.0 | Dry | Clear | Other | Driver inattentive |

**Table IV.H-5
Accident Summary Table
NYS Route 22/NYS Route 128/North Castle Drive
NYS Route 22/Maple Avenue/Business Park Drive
NYS Route 22/NYS Route 120 (North)
NYS Route 22/NYS Route 120 (South)**

| NOE/UNK | LOCATION | DATE | TIME | TRAFFIC CONTROL | ACCIDENT CLASS | # OF VEHICLES INVOLVED | ROAD CONDITION | WEATHER | MANNER OF COLLISION | APPARENT CONTRIBUTING FACTORS |
|---------------------|--|----------|----------|-----------------|----------------|------------------------|---------------------|---------|---------------------|---|
| | | | | | | | 2015 | | | |
| Z2 8702 4044 | On NYS Route 22 | 04/02/15 | 7:56 PM | No Passing Zone | PDO & I | 2-3 | Dark Road Unlighted | Dry | Rear End | View Obstructed/Limited |
| Z2 8702 4045 | 18 Meters South of King Street | 01/03/15 | 2:18 PM | Traffic Signal | PDO | 2-0 | Snow/Ice | Snow | Rear End | Pavement Slippery |
| King Street | At Intersection with Ramp | 08/26/15 | 8:59 AM | Yield Sign | PDO & I | 2-2 | Dry | Clear | Rear End | Following too Closely |
| Z2 8702 4047 | At Intersection with Ramp | 04/10/15 | 5:15 PM | Yield Sign | PDO & I | 2-1 | Dry | Cloudy | Rear End | Following too Closely, Driver Inattention |
| Z2 8702 4047 | 31 Meters South of Ramp | 08/11/15 | 9:41 AM | Yield Sign | I | 2-1 | Wet | Rain | Rear End | Driver Inexperience, Following too Closely |
| 120 8701 2060 | At Intersection with NYS 120 | 01/07/15 | 9:40 AM | Yield Sign | PDO | 2-0 | Dry | Clear | Rear End | Following too Closely |
| 120 8701 2060 | At Intersection with NYS 120 | 05/20/15 | 7:48 AM | Yield Sign | PDO | 2-0 | Dry | Cloudy | Rear End | Stopped in Traffic, Following too Closely |
| 120 8701 2060 | At Intersection with NYS 22 | 07/06/15 | 6:42 PM | Yield Sign | PDO & I | 2-1 | Dry | Cloudy | Rear End | Following too Closely |
| 120 8701 2060 | 20 Meters South of Ramp | 08/08/15 | 4:56 AM | None | PDO | 1-0 | Dry | Clear | Other | Unsafe Speed |
| 120 8701 2060 | 2 Meters West of Armonk-Bedford Rd | 10/01/15 | 8:23 PM | No Passing Zone | NR | 2-0 | Wet | Rain | Rear End | Turning Improper, Cell Phone (Hand Held) |
| 120 8701 2060 | At Intersection with NYS 22 | 11/18/15 | 9:09 AM | Yield Sign | PDO & I | 2-1 | Dry | Cloudy | Rear End | Driver Inattention |
| NYS Route 120 | At Intersection with Armonk-Bedford Rd | 11/03/15 | 9:09 PM | Yield Sign | PDO | 1-0 | Dark Road Lighted | Cloudy | Other | Reaction to Other Uninvolved Vehicle |
| 120 8701 2060 | On King Street | 12/09/15 | 8:58 AM | Traffic Signal | NR | 2-0 | Dry | Cloudy | Rear End | Driver Inattention |
| Z2 8702 4050 | On NYS Route 22 | 02/18/15 | 8:39 AM | Traffic Signal | NR | 2-0 | Dry | Clear | Rear End | Driver Inattention |
| Z2 8702 4050 | At Intersection with Old Post Rd | 08/28/15 | 8:00 AM | Traffic Signal | NR | 2-0 | Dry | Cloudy | Rear End | Following too Closely |
| 128 8701 1000 | At Intersection with NYS Route 22 | 10/29/15 | 7:00 PM | UNKNOWN | PDO | 2-0 | UNKNOWN | UNKNOWN | UNKNOWN | Not Enforced |
| Z2 8702 4061 | At Intersection with Main Street | 04/06/15 | 2:11 PM | Traffic Signal | NR | 2-0 | Dry | Clear | Rear End | Driver Inattention |
| Z2 8702 4061 | At Intersection with Ramp | 05/09/15 | 2:18 PM | Stop Sign | PDO & I | 2-1 | Dry | Clear | Left Turn | Driver Inattention |
| Z2 8702 4061 | At Intersection with Main Street | 08/26/15 | 10:55 AM | Traffic Signal | PDO | 2-0 | Dry | Clear | Rear End | Driver Inattention |
| Z2 8702 4062 | 234 Meters East of Ramp | 09/14/15 | 5:45 PM | Traffic Signal | PDO | 2-0 | Dry | Clear | Rear End | Driver Inattention |
| Z2 8702 4063 | At Intersection with Maple Ave | 01/16/15 | 2:51 PM | Traffic Signal | NR | 2-0 | Dry | Cloudy | Rear End | Driver Inattention |
| Business Park Drive | Unknown | 03/19/15 | 10:48 AM | Traffic Signal | NR | 2-0 | Dry | Clear | Overtaking | Failure to Yield Right-of-Way, Driver Inattention |
| Z2 8702 4063 | On NYS Route 22 | 08/27/15 | 8:04 PM | None | PDO | 2-0 | Dry | Clear | Overtaking | View Obstructed/Limited |
| Z2 8702 4063 | At Intersection with Maple Ave | 11/03/15 | 2:56 PM | Traffic Signal | PDO | 2-0 | Dry | Clear | Rear End | Stopped in Traffic, Driver Inattention |
| Z2 8702 4063 | At Intersection with Maple Ave | 12/17/15 | 9:15 PM | Traffic Signal | PDO & I | 2-1 | Wet | Rain | Rear End | Following too Closely |
| Z2 8702 4066 | 18 Meters East of Ramp | 03/04/15 | 6:47 PM | Traffic Signal | PDO & I | 2-1 | Dark Road Lighted | Cloudy | Rear End | Unsafe Speed |
| Ramp | 15 Meters East of Bedford Road | 05/20/15 | 10:36 AM | Stop Sign | NR | 2-0 | Dry | Clear | Rear End | Following too Closely, Driver Inattention |
| Ramp | At Intersection with Bedford Rd | 07/17/15 | 9:08 AM | Stop Sign | NR | 2-0 | Dry | Clear | Rear End | Following too Closely, Driver Inattention |
| | At Intersection with Bedford Rd | 10/27/15 | 7:27 AM | Traffic Signal | NR | 2-0 | Dry | Clear | Rear End | Following too Closely, Unsafe Speed |

**Table IV.H-5
Accident Summary Table
NYS Route 22/NYS Route 128/North Castle Drive
NYS Route 22/Maple Avenue/Business Park Drive
NYS Route 22/NYS Route 120 (North)
NYS Route 22/NYS Route 120 (South)**

| MODEL/ID | LOCATION | DATE | TIME | TRAFFIC CONTROL | ACCIDENT CLASS ¹ | # OF VEHICLES INVOLVED | ROAD CONDITION | WEATHER | MANNER OF COLLISION | APPARENT CONTRIBUTING FACTORS |
|---------------|---------------------------------------|----------|----------|-------------------|-----------------------------|------------------------|----------------|---------|---------------------|--|
| 22 8702 4045 | 48 Meters South of King Street | 04/29/16 | 4:22 AM | Dark-Road Lighted | POD | 1-0 | Dry | Clear | Other | Alcohol Involvement, Unsafe Speed |
| 120 8701 2086 | At Intersection with Ramp | 10/18/16 | 2:34 PM | Daylight | NR | 2-0 | Dry | Clear | Overtaking | Failure to Yield Right-of-Way, Traffic Control Disregarded |
| 120 8701 2087 | At Intersection with Old Post Road | 03/24/16 | 4:56 PM | Dusk | Stop Sign | POD | Dry | Cloudy | Right Angle | Failure to Yield Right-of-Way, Driver Inattention |
| 120 8701 2087 | At Intersection with Mt. Pleasant Rd | 04/15/16 | 5:00 PM | Daylight | POD & I | 2-0 | Dry | Clear | Other | Unsafe Speed, Following too Closely |
| 120 8701 2087 | At Intersection with Mt. Pleasant Rd | 05/19/16 | 3:04 AM | Dark-Road Lighted | POD | 1-0 | Wet | Cloudy | Other | Animal's Action, Pavement Slippery |
| 22 8702 4047 | 88 Meters North of Mt. Pleasant Rd | 09/28/16 | 8:47 AM | Daylight | POD & I | 1-1 | Dry | Clear | Other | Reaction to Other Uninvolved Vehicle |
| 22 8702 4048 | On King Street | 08/15/16 | 7:44 PM | Daylight | POD | 2-0 | Dry | Clear | Rear End | Brakes Defective, Steering Failure |
| 120 8701 2090 | At Intersection with NYS 120 | 01/06/16 | 3:45 PM | Daylight | POD & I | 2-0 | Dry | Clear | Rear End | Not Entered |
| 120 8701 2090 | At Intersection with NYS 120 | 02/15/16 | 4:01 PM | Daylight | NR | 2-0 | Snow | Snow | Rear End | Pavement Slippery |
| 120 8701 2090 | On NYS Route 22 | 02/15/16 | 1:18 AM | Dark-Road Lighted | POD | 1-0 | Slush | Cloudy | Other | Pavement Slippery |
| 120 8701 2090 | At Intersection with NYS 22 | 03/01/16 | 4:25 PM | Dawn | Yield Sign | NR | Dry | Clear | Rear End | Following too Closely |
| 22 8702 4049 | 44 Meters North of Ramp | 03/15/16 | 8:59 AM | Daylight | POD | 2-0 | Wet | Cloudy | Rear End | Pavement Slippery |
| 120 8701 2090 | At Intersection with Arnot-Bedford Rd | 06/20/16 | 4:11 PM | Daylight | POD & I | 2-1 | Dry | Clear | Rear End | Driver Inattention |
| 120 8701 2090 | At Intersection with NYS 22 | 07/06/16 | 12:01 PM | Daylight | NR | 2-0 | Dry | Clear | Rear End | Driver Inattention |
| 120 8701 2090 | At Intersection with NYS 22 | 11/18/16 | 12:00 AM | Daylight | Yield Sign | NR | Dry | Clear | Rear End | Not Entered |
| 120 8701 2090 | At Intersection with NYS 22 | 12/13/16 | 3:02 PM | Daylight | POD | 2-0 | Dry | Cloudy | Overtaking | Following too Closely |
| 22 8702 4056 | At Intersection with Old Route 22 | 04/25/16 | 8:21 PM | Dark-Road Lighted | POD & I | 2-2 | Dry | Clear | Left Turn | Traffic Control Devices Disregarded, Driver Inattention |
| 22 8702 4061 | 12 Meters West of Main Street | 02/24/16 | 8:31 AM | Daylight | POD | 2-0 | Wet | Rain | Overtaking | Failure to Yield Right-of-Way |
| 120 8701 1000 | At Intersection with NYS 22 | 04/09/16 | 2:58 PM | Daylight | POD & I | 2-1 | Dry | Cloudy | Right Turn | Turning Improper |
| 22 8702 4061 | At Intersection with Main Street | 06/28/16 | 9:10 AM | Daylight | POD & I | 2-1 | Dry | Cloudy | Rear End | Driver Inattention |
| 22 8702 4063 | At Intersection with Maple Ave | 02/25/16 | 8:55 AM | Daylight | POD | 2-0 | Snow | Snow | Rear End | Pavement Slippery |
| 22 8702 4063 | At Intersection with Maple Ave | 04/30/16 | 11:40 AM | Daylight | POD | 2-0 | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 4063 | At Intersection with Maple Ave | 05/24/16 | 10:45 AM | Daylight | POD | 2-0 | Dry | Cloudy | Rear End | Driver Inattention |
| 22 8702 4063 | At Intersection with Maple Ave | 06/10/16 | 6:09 PM | Daylight | POD | 2-0 | Dry | Clear | Overtaking | Unsafe Lane Change |
| 22 8702 4063 | At Intersection with Maple Ave | 12/11/16 | 1:00 PM | Daylight | POD | 2-0 | Dry | Cloudy | Left Turn | Traffic Control Devices Disregarded |
| 22 8702 4063 | At Intersection with Business Park Dr | 12/18/16 | 9:30 PM | UNKNOWN | POD | 1-0 | UNKNOWN | UNKNOWN | UNKNOWN | Not Entered |
| 22 8702 4063 | At Intersection with NYS 22 | 12/28/16 | 6:59 AM | Dawn | POD | 1-0 | Dry | Cloudy | Other | Full Stop |
| 22 8702 4064 | At Intersection with NYS 22 | 01/10/16 | 2:11 PM | UNKNOWN | POD | 2-0 | UNKNOWN | UNKNOWN | UNKNOWN | Not Entered |
| 22 8702 4064 | At Intersection with Maple Ave | 08/21/16 | 11:57 AM | Daylight | POD & I | 2-1 | Dry | Clear | Left Turn | Traffic Control Devices Disregarded, Driver Inattention |
| 22 8702 4065 | 249 Meters East of Maple Ave | 11/14/16 | 5:16 PM | Dawn | POD | 4-0 | Dry | Clear | Other | Following too Closely |
| 22 8702 4066 | At Intersection with Ramp | 02/28/16 | 5:31 PM | Daylight | POD | 2-0 | Dry | Clear | Right Angle | Driver Inattention |
| 22 8702 4066 | 16 Meters West of Ramp | 03/04/16 | 10:48 AM | Daylight | POD & I | 2-1 | Wet | Clear | Rear End | Failure to Yield Right-of-Way |
| 22 8702 4066 | 28 Meters East of Ramp | 07/06/16 | 4:33 PM | Daylight | POD | 2-0 | Dry | Clear | Rear End | Following too Closely |
| 22 8702 4066 | At Intersection with Bedford Rd | 10/10/16 | 3:46 PM | Daylight | POD & I | 2-3 | Dry | Clear | Rear End | Following too Closely, Unsafe Speed |
| 22 8702 4067 | On NYS Route 22 | 08/21/16 | 12:20 PM | Daylight | POD & I | 2-1 | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 4067 | On Bedford Road | 09/11/16 | 12:58 PM | Daylight | POD & I | 1-1 | Wet | Rain | Other | Driver Inattention |
| 22 8702 4068 | At Intersection with Ramp | 04/15/16 | 1:19 AM | Dark-Road Lighted | NR | 1-0 | Dry | Clear | Other | Driver Inattention |
| 22 8702 4069 | At Intersection with Hunter Ave | 06/25/16 | 6:06 PM | Daylight | POD | 2-0 | Dry | Clear | Rear End | Unsafe Speed, Following too Closely |
| 22 8702 4069 | At Intersection with Hunter Ave | 11/18/16 | 4:37 PM | Dawn | Stop Sign | POD | 2-0 | Clear | Right Angle | Failure to Yield Right-of-Way, Driver Inattention |
| — | — | 01/23/16 | 7:42 AM | Dawn | POD | 1-0 | Snow | Snow | Other | Pavement Slippery |
| — | — | 08/18/16 | 4:59 PM | Daylight | POD | 2-0 | Dry | Clear | Rear End | Following too Closely |

**Table IV.H-5
Accident Summary Table
NYS Route 22/NYS Route 128/North Castle Drive
NYS Route 22/Maple Avenue/Business Park Drive
NYS Route 22/NYS Route 120 (North)
NYS Route 22/NYS Route 120 (South)**

| MODELINK | LOCATION | DATE | TIME | TRAFFIC CONTROL CLASS | # OF VEHICLES INVOLVED | ROAD CONDITION | WEATHER | MANNER OF COLLISION | APPARENT CONTRIBUTING FACTORS |
|---------------|--|----------|----------|-----------------------|------------------------|----------------|-------------------------|---------------------|--|
| 22 8702 4034 | At Intersection with King Street | 07/23/17 | 8:38 PM | Traffic Signal | 2-3 | Wet | Sleet/Ice/Freezing Rain | Left Turn | Pavement Slippery, Traffic Control Devices Disregarded |
| 22 8702 4045 | 11 Meters South of King Street | 11/08/17 | 8:37 AM | Traffic Signal | 2-3 | Dry | Clear | Rear End | Driver Inattention |
| 120 8701 2086 | At Intersection with King Street | 12/01/17 | 9:36 PM | Yield Sign | 2-3 | Dry | Clear | Rear End | Following too Closely |
| 120 8701 2088 | 43 Meters South of Ramp | 05/14/17 | 8:31 AM | None | 3-3 | Dry | Clear | Rear End | Following too Closely |
| 120 8701 2088 | At Intersection with Ramp | 11/21/17 | 8:06 PM | None | 2-3 | Dry | Clear | Overlapping | Passing or Lane Change Improperly |
| King Street | On King Street | 11/08/17 | 5:53 PM | Traffic Signal | 2-3 | Dry | Cloudy | Rear End | Brakes Defective |
| 120 8701 2087 | At Intersection with Mt Kisco Rd | 05/05/17 | 1:46 PM | Yield Sign | 2-3 | Wet | Rain | Rear End | Not Entered |
| 120 8701 2087 | At Intersection with King Street | 08/27/17 | 12:03 AM | None | 1-1 | Dry | Clear | Rear End | Not Entered |
| 120 8701 2087 | 41 Meters East of Old Post Rd | 08/12/17 | 8:13 AM | None | 2-1 | Dry | Clear | Rear End | Animals Action |
| 22 8702 4047 | 21 Meters South of Ramp | 05/29/17 | 5:33 PM | Yield Sign | 3-2 | Dry | Clear | Rear End | Following too Closely |
| 22 8702 4048 | On King Street | 05/22/17 | 2:11 PM | Traffic Signal | 2-3 | Wet | Rain | Rear End | Following too Closely, Pavement Slippery |
| 22 8702 4049 | 42 Meters South of Armonk Bedford Rd | 01/27/17 | 8:00 PM | Traffic Signal | 1-2 | Dry | Cloudy | Rear End | Not Entered |
| 22 8702 4049 | At Intersection with King Street | 02/25/17 | 8:35 PM | Traffic Signal | 1-1 | Wet | Rain | Rear End | Pavement Slippery |
| 22 8702 4049 | At Intersection with King Street | 02/25/17 | 8:35 PM | Traffic Signal | 1-1 | Wet | Rain | Rear End | Brakes Defective |
| 120 8701 2090 | At Intersection with NYS 22 | 05/08/17 | 7:08 AM | Yield Sign | 2-3 | Dry | Clear | Rear End | Following too Closely |
| 120 8701 2090 | At Intersection with NYS 120 | 09/10/17 | 7:36 AM | Yield Sign | 2-3 | Dry | Clear | Rear End | Reaction to Other Uninvolved Vehicle, Following too Closely |
| 120 8701 2090 | At Intersection with Armonk Bedford Rd | 08/08/17 | 11:02 AM | Traffic Signal | 2-3 | Dry | Clear | Overlapping | Failure to Yield Right-of-Way, Passing or Lane Change Improperly |
| 120 8701 2090 | At Intersection with NYS 120 | 08/08/17 | 7:54 PM | Yield Sign | 2-3 | Dry | Clear | Rear End | Following too Closely, Driver Inattention |
| 120 8701 2090 | At Intersection with NYS 120 | 08/08/17 | 7:54 PM | Yield Sign | 2-3 | Dry | Clear | Rear End | Following too Closely, Driver Inattention |
| 120 8701 2090 | At Intersection with NYS 120 | 11/03/17 | 11:49 AM | Traffic Signal | 2-2 | Dry | Cloudy | Rear End | Driver Inattention |
| 120 8701 2090 | 15 Meters South of Armonk Bedford Rd | 11/03/17 | 10:05 AM | Traffic Signal | 2-3 | Dry | Clear | Rear End | Following too Closely |
| 120 8701 2090 | On NYS Route 120 | 11/19/17 | 5:30 PM | None | 1-0 | Dry | Clear | Other | Not Entered |
| 22 8702 4050 | On NYS Route 22 | 01/16/17 | 1:02 AM | None | 1-0 | Wet | Clear | Other | Unsafe Speed |
| 22 8702 4050 | On Armonk Bedford Rd | 08/05/17 | 1:56 AM | None | 1-1 | Dry | Cloudy | Other | Fell Asleep |
| 22 8702 4056 | At Intersection with NYS 22 | 09/13/17 | 1:43 PM | Traffic Signal | 3-1 | Wet | Rain | Other | Driver Inattention |
| 22 8702 4056 | At Intersection with Old Route 22 | 05/22/17 | 5:56 PM | Traffic Signal | 2-0 | Wet | Rain | Rear End | Following too Closely |
| 22 8702 4056 | 15 Meters North of Old Post Road | 08/01/17 | 8:02 PM | Traffic Signal | 2-0 | Dry | Clear | Right Angle | Driver Inattention |
| 22 8702 4056 | At Intersection with NYS 22 | 08/15/17 | 7:18 AM | None | 2-3 | Dry | Cloudy | Overlapping | Unsafe Lane Change |
| 120 8701 1000 | At Intersection with NYS 22 | 03/12/17 | 10:00 AM | Traffic Signal | 2-2 | Dry | Clear | Left Turn | Traffic Control Devices Disregarded |
| 120 8701 1000 | At Intersection with Armonk Bedford Rd | 12/12/17 | 11:06 AM | Traffic Signal | 2-3 | Wet | Rain | Rear End | Following too Closely |
| 22 8702 4081 | At Intersection with Ramp | 08/10/17 | 9:01 AM | Traffic Signal | 2-0 | Dry | Clear | Rear End | Following too Closely, Driver Inattention |
| 22 8702 4081 | At Intersection with NYS 128 | 08/28/17 | 5:00 PM | UNKNOWN | 2-0 | UNKNOWN | UNKNOWN | Rear End | Not Entered |
| 22 8702 4081 | At Intersection with Main Street | 09/02/17 | 7:46 PM | Traffic Signal | 2-0 | Wet | Rain | Right Angle | Driver Inattention |
| 22 8702 4081 | At Intersection with Main Street | 10/11/17 | 9:06 AM | Traffic Signal | 2-0 | Dry | Cloudy | Rear End | Driver Inattention |
| 22 8702 4081 | At Intersection with Main Street | 11/15/17 | 9:06 AM | Traffic Signal | 1-1 | Dry | Clear | Other | Driver Inattention |
| 22 8702 4081 | At Intersection with Main Street | 11/14/17 | 12:40 AM | Traffic Signal | 1-1 | Dry | Clear | Other | Animals Action |
| 22 8702 4081 | 23 Meters West of Main Street | 11/25/17 | 5:45 AM | None | 1-3 | Dry | Clear | Other | Not Entered |
| 22 8702 4083 | At Intersection with Maple Ave | 02/10/17 | 5:50 PM | Traffic Signal | 2-3 | Dry | Cloudy | Rear End | Driver Inattention |
| 22 8702 4083 | At Intersection with Maple Ave | 02/14/17 | 8:19 PM | Traffic Signal | 2-3 | Dry | Cloudy | Rear End | Driver Inattention |
| 22 8702 4083 | At Intersection with Maple Ave | 03/17/17 | 9:21 PM | Traffic Signal | 2-3 | Dry | Clear | Left Turn | Driver Inattention |
| 22 8702 4083 | At Intersection with Maple Ave | 03/17/17 | 9:21 PM | Traffic Signal | 2-3 | Dry | Clear | Left Turn | Driver Inattention |
| 22 8702 4083 | At Intersection with Business Park Dr | 05/23/17 | 1:50 PM | Traffic Signal | 2-1 | Dry | Clear | Right Angle | Driver Inattention |
| 22 8702 4083 | At Intersection with Maple Ave | 05/23/17 | 8:14 AM | Traffic Signal | 2-1 | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 4083 | At Intersection with Maple Ave | 09/10/17 | 7:07 AM | Traffic Signal | 2-3 | Dry | Clear | Rear End | Driver Inattention, Fatigued/Drowsy |
| 22 8702 4083 | At Intersection with Maple Ave | 09/16/17 | 2:05 PM | Traffic Signal | 2-3 | Dry | Cloudy | Rear End | Following too Closely, Driver Inattention |
| 22 8702 4084 | At Intersection with Maple Ave | 05/20/17 | 12:04 PM | Traffic Signal | 1 | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 4084 | 30 Meters East of Gleasons Park Cr | 04/03/17 | 8:00 PM | Traffic Signal | 2-3 | Dry | Cloudy | Overlapping | Passing or Lane Change Improperly |
| 22 8702 4086 | At Intersection with Ramp | 12/12/17 | 7:14 AM | Traffic Signal | 2-0 | Wet | Rain | Rear End | Driver Inattention |
| 22 8702 4087 | 84 Meters West of Ramp | 05/08/17 | 3:27 PM | None | 1-2 | Dry | Clear | Other | Unknown |
| 22 8702 4088 | At Intersection with Ramp | 07/14/17 | 3:20 PM | Traffic Signal | 2-0 | Wet | Rain | UNKNOWN | Not Entered |
| 22 8702 4089 | At Intersection with Bryan Brook Plaza | 01/10/17 | 2:02 PM | Stop Sign | 2-2 | Dry | Clear | Right Angle | Failure to Yield Right-of-Way |
| 22 8702 4089 | At Intersection with Hunter Ave | 11/03/17 | 1:24 PM | Stop Sign | 1-0 | Dry | Cloudy | Other | Reaction to Other Uninvolved Vehicle |
| Hunter Avenue | At Intersection with Bedford Rd | 02/05/17 | 2:53 PM | None | 1-1 | Dry | Cloudy | Other | Driver Inexperience, Turning Improper |

**Table IV.H-5
Accident Summary Table
NYS Route 22/NYS Route 128/North Castle Drive
NYS Route 22/Maple Avenue/Business Park Drive
NYS Route 22/NYS Route 120 (North)
NYS Route 22/NYS Route 120 (South)**

| MODELINK | LOCATION | DATE | TIME | TRAFFIC CONTROL | ACCIDENT CLASS ¹ | # OF VEHICLES INVOLVED | 2018 ² LIGHT CONDITION | ROAD CONDITION | WEATHER | MANNER OF COLLISION | APPARENT CONTRIBUTING FACTORS |
|---------------|---|----------|----------|-----------------|-----------------------------|------------------------|--------------------------------------|----------------|--------------------------|-----------------------------|--|
| 22 8702 044L | At Intersection with King Street | 01/26/18 | 9:02 AM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Driver Inattention, Eating or Drinking |
| 22 8702 044A | At Intersection with King Street | 03/06/18 | 6:14 PM | Traffic Signal | PDO & I | 3-1 | Dark-Road Lighted | Dry | Cloudy | Other | Reaction to Other Uninvolved Vehicle, Unsafe Lane Change |
| 22 8702 044S | At Intersection with King Street | 07/17/18 | 5:08 PM | Traffic Signal | PDO & I | 2-1 | Daylight | Wet | Rain | Right Angle | Traffic Control Devices Disengaged, Driver Inattention |
| 120 8701 2007 | At Intersection with NYS 22 | 05/24/18 | 6:38 PM | Yield Sign | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Driver Inexperience, Following too Closely |
| 22 8702 044B | On King Street | 02/17/18 | 9:04 PM | None | PDO | 1-0 | Dark-Road Lighted | Snow/Ice | Snow | Other | Pavement Slippery |
| 120 8701 2000 | At Intersection with Ramp | 01/10/18 | 8:40 AM | Yield Sign | PDO | 2-0 | Daylight | Dry | Cloudy | Overlapping | Failure to Yield Right-of-Way |
| 120 8701 2000 | At Intersection with Ramp | 01/31/18 | 8:18 AM | Yield Sign | PDO | 2-0 | Daylight | Dry | Clear | Overlapping | Traffic Control Devices Disengaged, Failure to Yield Right-of-Way |
| 120 8701 2000 | At Intersection with NYS 120 | 02/07/18 | 9:47 AM | Traffic Signal | PDO | 2-0 | Daylight | Snow/Ice | Sleet/Hail/Freezing Rain | Rear End | Pavement Slippery |
| 120 8701 2000 | On NYS Route 120 | 02/16/18 | 5:45 PM | UNKNOWN | PDO | 1-0 | Dusk | Wet | Clear | Other | Not Evident |
| 120 8701 2000 | At Intersection with Ramp | 03/03/18 | 11:36 AM | Yield Sign | PDO & I | 2-2 | Daylight | Snow/Ice | Sleet/Hail/Freezing Rain | Overlapping | Driver Inattention, Failure to Yield Right-of-Way |
| 120 8701 2000 | At Intersection with Ramp | 03/11/18 | 6:03 PM | Yield Sign | PDO | 2-0 | Daylight | Dry | Clear | Overlapping | Failure to Yield Right-of-Way, Driver Inattention |
| 120 8701 2000 | On NYS Route 120 | 05/31/18 | 6:04 PM | None | NR | 2-0 | Daylight | Wet | Rain | Rear End | Following too Closely, Driver Inattention |
| 22 8702 044B | 23 Miles South of NYS 120 | 06/13/18 | 5:02 PM | Traffic Signal | PDO | 2-0 | Daylight | Wet | Clear | Rear End | Reaction to Other Uninvolved Vehicle, Following too Closely, Pavement Slippery |
| 22 8702 045D | At Intersection with King Street | 05/11/18 | 5:01 PM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 045E | At Intersection with Old Post Rd | 04/02/18 | 11:00 PM | None | PDO & I | 2-1 | Dark-Road Lighted | Dry | Clear | Sidesw/leopposite direction | Traffic Control Devices Disengaged, Passes or Lane Usage Improperly |
| 120 8701 1000 | At Intersection with NYS Route 22 | 02/01/18 | 6:33 PM | Traffic Signal | PDO & I | 3-1 | Dark-Road Lighted | Wet | Rain | Other | Traffic Control Devices Disengaged |
| Maple Avenue | At Intersection with Armistead-Bedford Rd | 03/29/18 | 2:57 PM | Traffic Signal | PDO | 2-0 | Daylight | Wet | Cloudy | Rear End | Driver Inattention, Following too Closely |
| 22 8702 046A | At Intersection with Maple Ave | 03/03/18 | 12:35 PM | Traffic Signal | PDO & I | 2-1 | Daylight | Dry | Cloudy | Right Angle | Traffic Control Devices Improper/Non-Moving |
| 22 8702 046A | At Intersection with Maple Ave | 03/16/18 | 11:45 PM | Traffic Signal | PDO & I | 2-1 | Dark-Road Lighted | Dry | Cloudy | Right Angle | Traffic Control Devices Disengaged |
| 22 8702 046A | At Intersection with Maple Ave | 05/12/18 | 9:20 PM | Traffic Signal | PDO | 1-0 | Dark-Road Lighted | Wet | Cloudy | Other | View Obstructed/Unlaid, Turning Improper |
| 22 8702 046A | At Intersection with Maple Ave | 05/29/18 | 6:11 PM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 0467 | At Intersection with Ramp | 03/19/18 | 5:24 PM | Stop Sign | PDO | 2-0 | Daylight | Dry | Clear | Overlapping | Driver Inattention, Gave |

Chapter IV. I.

Visual Resources & Community Character

IV. I - VISUAL RESOURCES AND COMMUNITY CHARACTER

INTRODUCTION

This section of the DEIS assesses the impact of the Proposed Action on the visual resources of the Site and the character of the surrounding area.

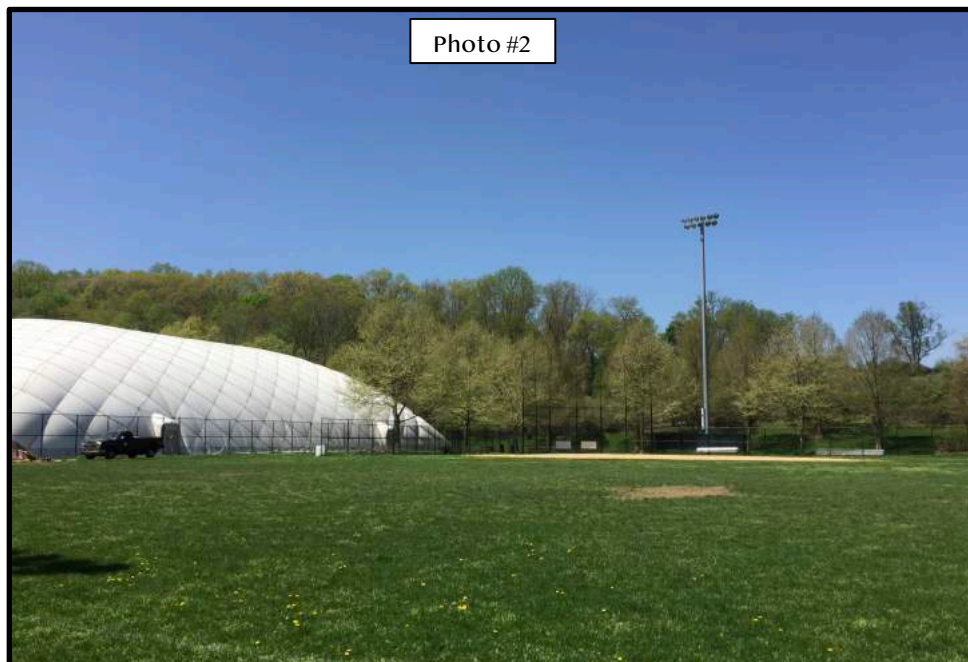
1.) EXISTING CONDITIONS

The Site can be generally characterized as the eastern side of an oval shaped elongated hill that rises up from the Route 22/North Castle Drive/Main Street intersection, to the original IBM headquarters building located south of the Site. Rock outcroppings are present, particularly around the edges of the hill. The northern and eastern portions of the Site are wooded and the upper portion of the site is primarily an open field. The majority of the Site was an orchard prior to its purchase by IBM, with the exception of the southeast corner of the Site which is a remnant woodland. A small wetland is located in this area, which will remain undisturbed.

The existing improvements on the Site consist of an approximately 8,000 square foot concrete pad previously used by IBM for a helipad. Additionally, two driveways enter the Site from North Castle Drive, whereupon they merge approximately 175' into the Site and thereafter curve to the south, and enter the IBM parking lot and service entrance to the former headquarters building. This driveway runs for approximately 900 feet through the Site and covers approximately 18,000 square feet of impervious surface. Lastly, the remnant of a 20' wide asphalt driveway runs for a distance of approximately 1,500 feet through the Site in an inverted fish-hook shape from the helipad down to Community Park, right behind the tennis bubbles.

The Project Site is uniquely surrounded by perhaps the most diverse land uses of any area of the Town of North Castle. This diversity frustrates simple classification. Existing land uses, that do not typically coexist, do so in the vicinity of the Site with little conflict. Community Park abuts the Town's wastewater treatment plant, which in turn abuts the office and commercial uses along Business Park Drive. These uses are situated across Route 22 from the hamlet of Armonk and its varied land uses. The

adjacent IBM's campus is unique in and of itself. No discernable pattern exists that would definitively establish the land use character of the area. The following photographs present views of the Site, referenced from Figure IV.I-1 – Key Map



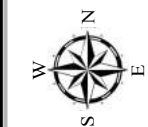
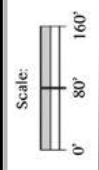
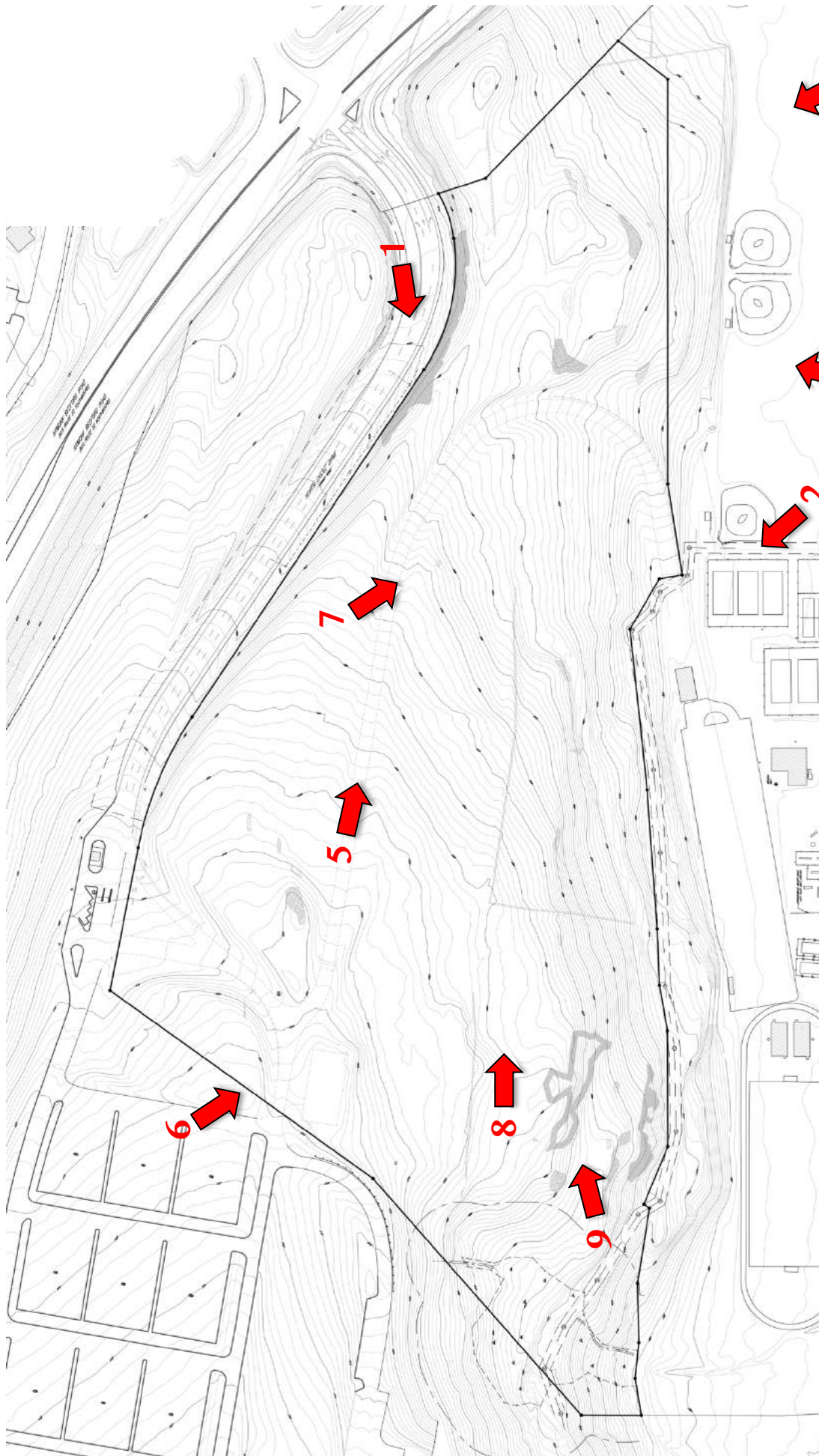


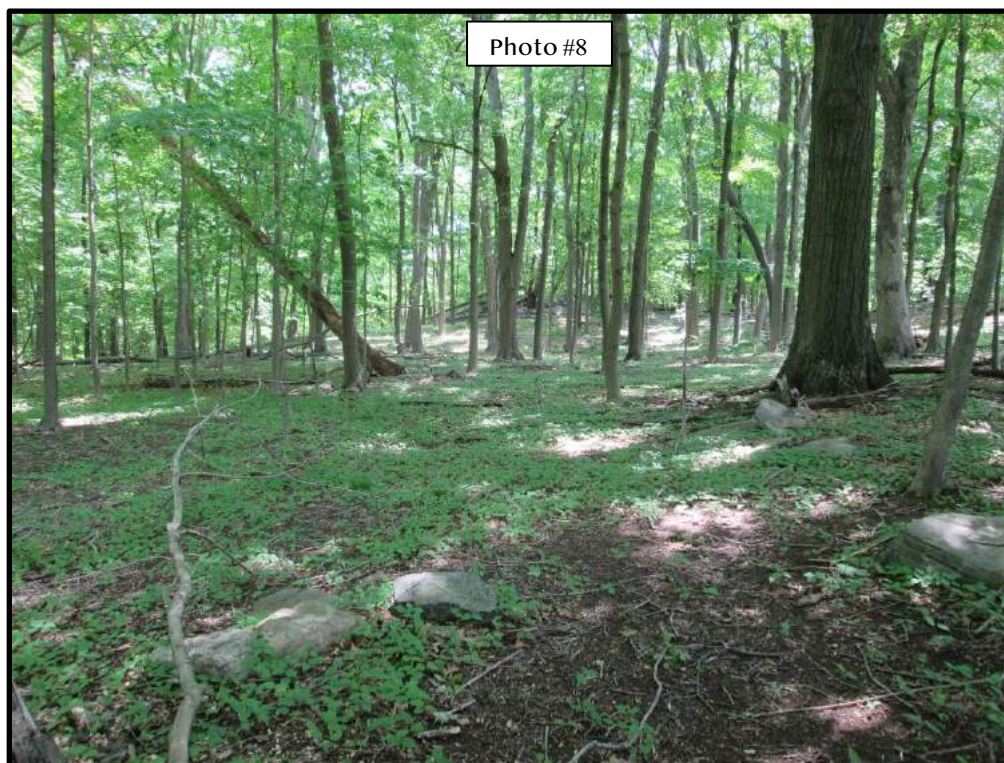
Figure
IV.I-1

Site Photography Key Map











2.) POTENTIAL IMPACTS

The Proposed Action will involve the disturbance and clearing of 26.5 acres (81%) of the 32.5-acre property. This includes the removal of approximately 850 of the 1,524 trees over 8" dbh (55.7%). The Site, which would be subdivided into two parcels, would then be developed to support a 5-story, 172,893 square foot highly amenitized 91-room boutique hotel on the first and second floors and 70 rental apartments on the third, fourth and fifth floors. Parking will be accommodated within a 241 space, 2-story subterranean parking garage along with 66 surface spaces on the smaller 6.25-acre parcel. The larger 26.25-acre parcel would be developed to support 94 three-bedroom townhouses and associated improvements. This activity will change the visual characteristics of the Site.

The Proposed Action includes modifications to the OBH district's dimensional regulations that would increase the maximum allowable building height from 3 stories and 45 feet, to 5 stories and 75 feet. This increase in allowable height will permit the

construction of taller buildings than would otherwise be permitted under the existing height provisions.

The modified height requirement would permit the construction of a hotel (or a hotel with upper floor apartments) that could be as much as 30 feet taller than currently allowed. This increase in height will be discernable from locations where the building can be observed, such as from North Castle Drive to a limited degree, and more significantly from Community Park.

Views of the Project Site from Community Park currently consist of a wooded hillside, with no structures or visible site improvements. Any development of the Site would involve clearing and grading the upper portion of the property however, the wooded hillside perimeter of the Site would remain intact. The most abrupt visual change would be from a vacant wooded site, to a cleared, graded and developed site. In the Applicant's opinion, the change in permitted height reflects an impact of degrees, not necessarily of consequence.

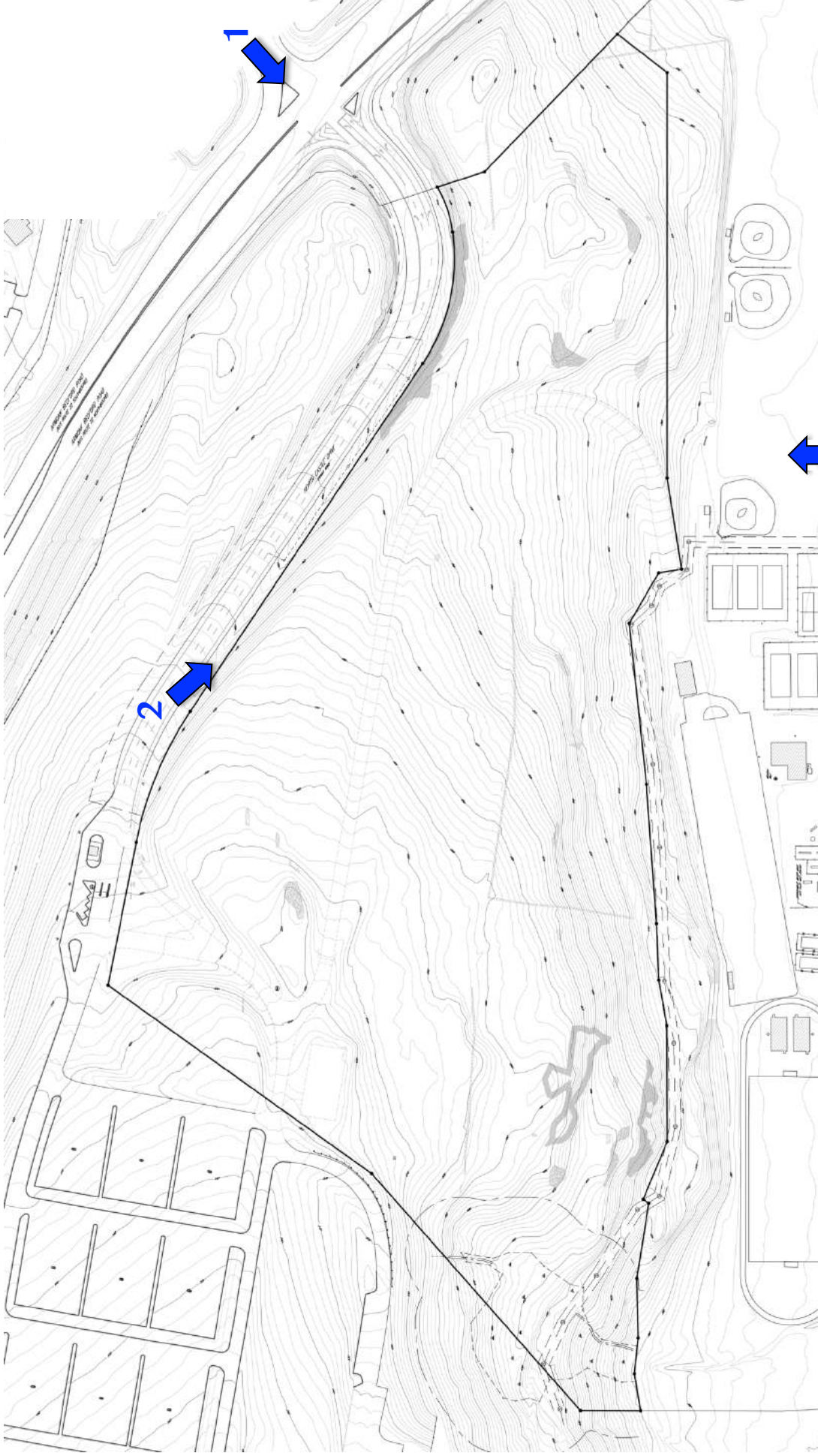
The increase in height would apply to a hotel (or a hotel with upper floor apartments) only. A 5-story hotel is a building style that is familiar and ubiquitous. In the Applicant's opinion, the visual impact of a 5-story hotel building is not unusual or jarring as illustrated by the following images:





The land uses surrounding the Site are very diverse. However, in spite of this, the area exhibits a character that benefits from this diversity, rather than being degraded by it. Unfortunately, what becomes most apparent when defining the character of the area is that, by and large, many of the areas positive attributes are hidden from plain view. IBM's corporate campus is not visible from public view. Likewise, those traveling along Route 22 only fleetingly glimpse the lovely hamlet of Armonk, which would be bypassed if not for the eagle gateway monument. Similarly, a feature like Community Park is only revealed after a circuitous trip along Business Park Drive. Heavily wooded frontages and rising topography define the public vistas in the area. While visible structures, such as the Business Park Drive office buildings, or The Bristol hint at the high quality of the areas character, they do not serve as defining landmarks or precedents. These same characteristics also apply to the Site.

Figures IV.I-3 through IV.I-8, present renderings of the Proposed Action from 3 viewpoints.



Scale:
0' 80' 160'

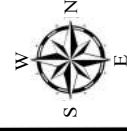


Figure
IV.I-2

Project Renderings Key Map



Source: Aufgang Architects

Scale: N.T.S.



View 1 – Existing Condition

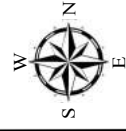


Figure
IV.I-3



Source: Aufgang Architects

Scale: N.T.S.



View 1 – Proposed Project

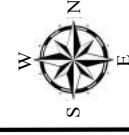


Figure
IV.I-4



Source: Aufgang Architects

Scale: N.T.S.



View 2 – Existing Condition

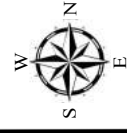


Figure
IV.I-5



Source: Aufgang Architects

Scale: N.T.S.



View 2 – Proposed Project

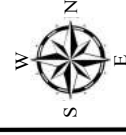


Figure
IV.I-6



Source: Aufgang Architects

Scale: N.T.S.



View 3 – Existing Condition

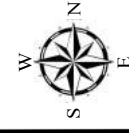
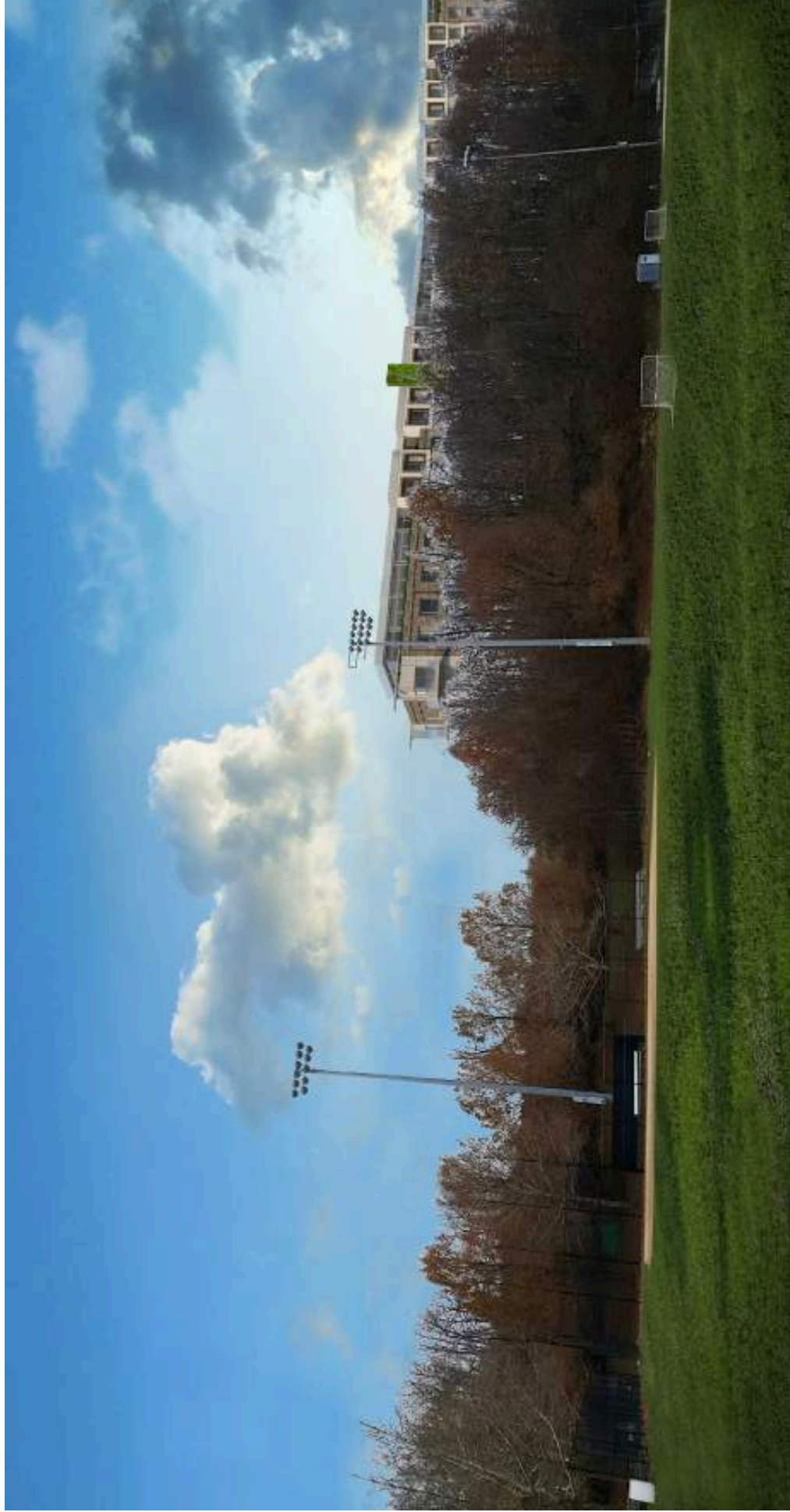


Figure
IV.I-7



Source: *Aufgang Architects*

Scale: N.T.S.



View 3 – Proposed Project

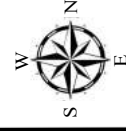
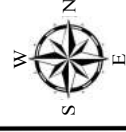


Figure
IV.1-8



Source: Aufgang Architects

Scale: N.T.S.



View 4 – Existing Condition

Figure
IV.1-9



Source: Aufgang Architects

Scale: N.T.S.

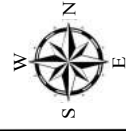


Figure
IV.I-10

View 4 – Proposed Project

View 1:

This view is taken from the Route 22/Main Street (Route 128) intersection and represents the most highly visible public viewpoint of the Project. As can be seen, views of the hotel/apartment are very limited due to the intervening topography and existing wooded buffer. It should be noted that all the renderings have been superimposed onto winter, leaf-off photographs. Screening would be significantly enhanced during late spring, summer and early fall when the existing vegetation is fully leafed-out. Views of the northeastern most townhouse building block would be visible up North Castle Drive. Views of the Project from this location would only be available when looking up North Castle Drive, such as when stopped at the Route 22/Main Street traffic light. Motorists traveling east/west on Route 22 would not have peripheral views of the Project.

View 2:

This viewpoint is from just outside the IBM security booth. The rear of the five townhouse blocks that back up to North Castle Drive would be visible, as would the hotel further south. This is not a publicly accessible view, and would only be visible to employees and visitors traveling to and from the IBM corporate campus along North Castle Drive.

View 3:

This view is from the east side of the first baseball field – or right field in Community Park. The view is to the northwest, and both the eastern townhouse blocks as well as the southeast side of the hotel/apartment are plainly visible above the tree line of the existing wooded buffer that will remain in place and be enhanced by new landscape plantings. The portion of the hotel/apartment building that would be visible are the upper residential apartment floors. The lower hotel levels would not be visible. In the Applicant's opinion, due to the density of the existing trees and the presence of evergreen trees, this wooded buffer is very effective, even in the winter leaf-off condition.

Employing the methodology in DEC's program policy for assessing and mitigating visual impacts,¹ no inventoried aesthetic resources are located within the public viewshed of the Site. The DEC finds that aesthetic impacts occur as follows:

*"Aesthetic impact occurs when there is a detrimental effect on the perceived beauty of a place or structure. Significant aesthetic impacts are those that may cause a diminishment of the public enjoyment and appreciation of an inventoried resource, or one that impairs the character or quality of such a place. Proposed large facilities by themselves should not be a trigger for a declaration of significance..."*²

It is the opinion of the Applicant that the visual impact created by Eagle Ridge will be of partial views of the top portions of the hotel/apartment building and the adjacent townhouses. These buildings reflect well designed, architecturally significant, and contextually appropriate buildings. The presence of these buildings would not diminish the public's enjoyment of any activities occurring within Community Park, which is a public park used primarily for active recreation. As noted by the DEC guidance policy quoted above, partial views of these buildings would not in and of themselves, constitute a negative impact.

In the Applicant's opinion, no views or vistas from any public locations would be impacted by the Proposed Action.

3.) MITIGATION MEASURES

In the Applicant's opinion, as documented above, the partial views of Eagle Ridge from surrounding viewpoints would not constitute adverse visual impacts. Other than the superior architectural quality of the Project and the extensive open space landscaping plan, the Applicant proposes no further mitigation measures. The Lead Agency may require that the site plan be revised to provide additional screening on the Site so that visual impacts can be reduced. In addition, the Lead Agency may require other measures aimed at reducing visual impacts such as the preservation of

¹ NYSDEC Program Policy, Assessing and Mitigating Visual Impacts, DEP-00-2

² NYSDEC Program Policy, Assessing and Mitigating Visual Impacts, DEP-00-2, Section C. Page 5

existing trees, establishment of larger setbacks and height reduction of the structures.

Chapter IV. J.

Community Facilities & Services

IV. J - COMMUNITY FACILITIES & SERVICES

INTRODUCTION

This section of the DEIS evaluates the impact of the Proposed Action on community services and facilities; including the Byram Hills Central School District, the North Castle Police Department, the Armonk Fire Department, and on the Town's solid waste and recycling programs.

1.) EXISTING CONDITIONS

(a.) Schools:

The Project Site lies within the jurisdictional boundary of the Byram Hills Central School District. According to the New York State Education Department, The District's 2016-2017 K-12 enrollment¹ was 2,372 students in the Coman Hill Elementary School, Wampus Elementary School, H.C. Crittenden Middle School and Byram Hills High School. Grades K – 2 attend the Coman Hill Elementary School, grades 3 -5 attend the Wampus Elementary School, grades 6 – 8 attend the H.C. Crittenden Middle School and the Byram Hills High School accommodated grades 9 – 12. Table IV.J-1 presents 2016-2017 enrollments by school.

| Table IV.J-1 Byram Hills Central School District 2016-2017 Enrollments | | | |
|--|----------|--------------------|----|
| School | Grade | Number of Students | % |
| Coman Hill Elementary School | K | 141 | 6% |
| | 1 | 151 | 6% |
| | 2 | 178 | 8% |
| Wampus Elementary School | 3 | 169 | 7% |
| | 4 | 187 | 8% |
| | 5 | 171 | 7% |
| | Ungraded | 8 | 0% |

¹ 2016-2017 is the most recent school year presented in the NYSED Student Information Repository System (SIRS)

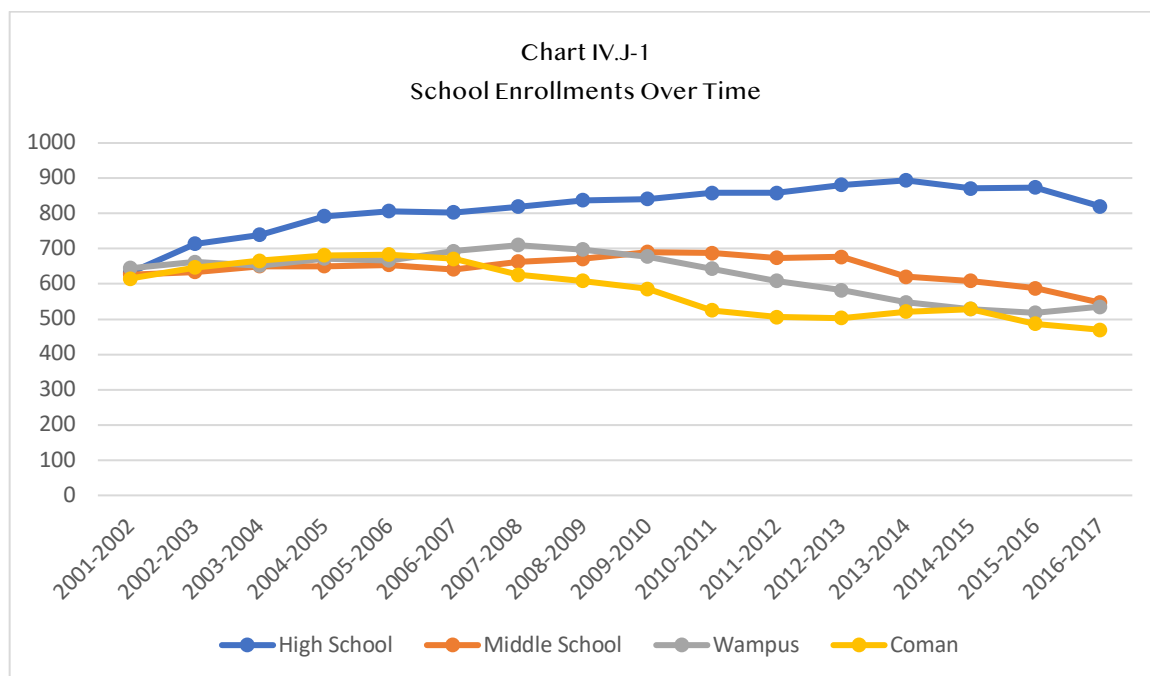
| | | | |
|-------------------------------|-----------------------|--------------|-------------|
| | Elementary | | |
| H.C. Crittenden Middle School | 6 | 150 | 6% |
| | 7 | 201 | 8% |
| | 8 | 194 | 8% |
| Byram Hills High School | 9 | 191 | 8% |
| | 10 | 211 | 9% |
| | 11 | 207 | 9% |
| | 12 | 207 | 9% |
| | Ungraded Secondary | 6 | 0% |
| Total | | 2,372 | 100% |

Source: NYSED Student Information Repository System (SIRS)

Table IV.J-2 displays enrollments at each school over time. Charts IV.J-1 – IV.J-4 graphically display these data.

| Table IV.J-2 | | | | | | | | | | | | | | | | | |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| School Enrollments Over Time | | | | | | | | | | | | | | | | | |
| School | Grade | 16-17 | 15-16 | 14-15 | 13-14 | 12-13 | 11-12 | 10-11 | 09-10 | 08-09 | 07-08 | 06-07 | 05-06 | 04-05 | 03-04 | 02-03 | 01-02 |
| High School | 9-12 | 820 | 874 | 871 | 894 | 881 | 858 | 858 | 841 | 837 | 819 | 803 | 807 | 792 | 739 | 714 | 632 |
| Middle School | 6-8 | 547 | 588 | 609 | 620 | 677 | 674 | 688 | 690 | 671 | 663 | 641 | 654 | 650 | 650 | 634 | 627 |
| Wampus | 3-5 | 535 | 518 | 529 | 548 | 582 | 609 | 643 | 678 | 698 | 710 | 693 | 667 | 672 | 652 | 662 | 645 |
| Coman | K-2 | 470 | 487 | 529 | 521 | 503 | 506 | 525 | 586 | 609 | 626 | 671 | 683 | 681 | 666 | 647 | 615 |
| | | 2372 | 2467 | 2538 | 2583 | 2643 | 2714 | 2714 | 2795 | 2815 | 2818 | 2808 | 2811 | 2795 | 2707 | 2657 | 2519 |

Source: NYSED Student Information Repository System (SIRS)



Source: NYSED Student Information Repository System (SIRS)

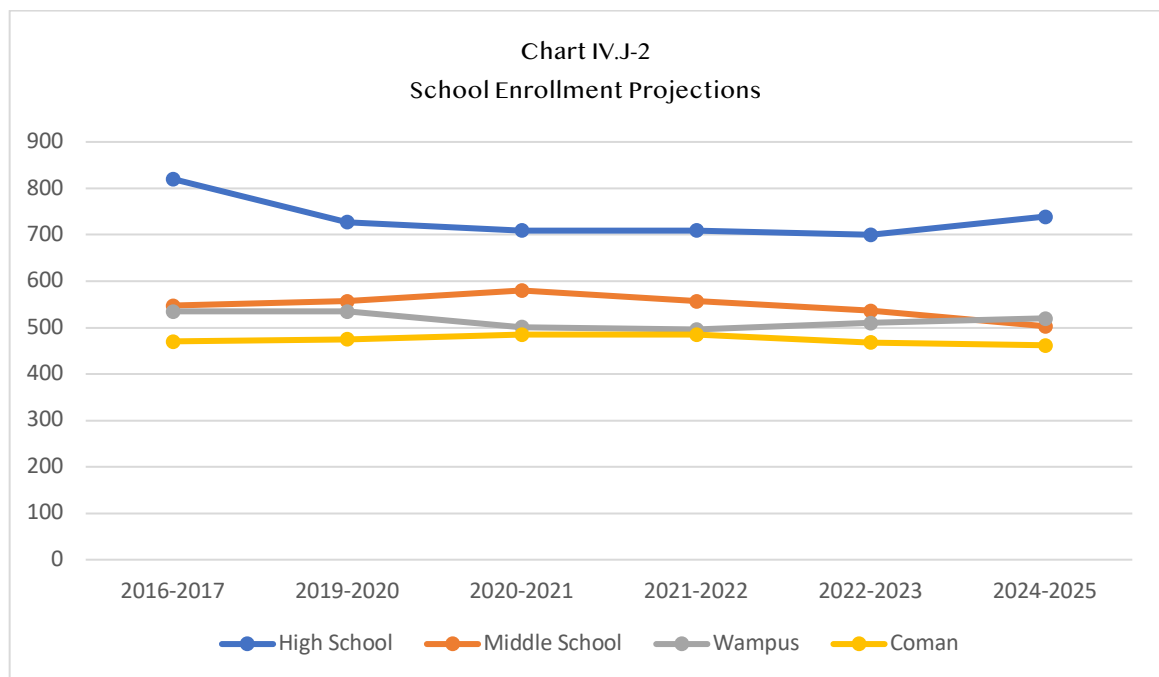
Overall district enrollment peaked at 2,936 students during the 2007-2008 school year, declining by 564 students (19.2%) during the 2016-2017 school year. The '07/'08 enrollment peak can be tracked through each school in the district. Enrollment peaked in the Coman Hill Elementary School (grades K – 2) in 2006/2007, in Wampus Elementary School (grades 3 - 5) in 2006/2007, in the H.C. Crittenden Middle School (grades 6 – 8) in 2009/2010 and in the Byram Hills High School (grades 9 – 12) in 2013/2014.

This population pulse represents the tail end of the Millennial generation (children born between 1980 and 2000). While slightly delayed in the Byram Hills District, it is characteristic of the population fluctuation faced by virtually all districts in the region during this period. According to Hudson Valley Pattern for Progress², 82% of the region's school districts have already or are projected to experience enrollment declines in the coming years.

² *The Empty Classroom Syndrome*, Hudson Valley Pattern for Progress (May 2013).

According to data provided by District Superintendent Lamia, the projected enrollment for the 2018 - 2019 school year is 2,312 students. Superintendent Lamia also provided the following enrollment projections:

| Table IV.J-3 | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|
| School Enrollment Projections 2019 - 2024 | | | | | |
| School Name | 2019-2020 | 2020-2021 | 2021-2022 | 2022-2023 | 2024-2025 |
| Coman Hill | 475 | 485 | 485 | 468 | 462 |
| Wampus School | 535 | 501 | 496 | 510 | 520 |
| HC Crittenden Middle School | 557 | 580 | 557 | 536 | 503 |
| Byram Hill High School | 727 | 709 | 709 | 700 | 739 |
| Totals | 2294 | 2275 | 2247 | 2214 | 2224 |



As can be seen, no major fluctuations in enrollments are projected through 2025.

According to the Byram Hills School District, the district budget for the 2017 – 2018 school year was \$90,590,230. The proposed 2018-2019 district budget is \$92,347,680 (a 1.9% increase).

According to Superintendent Lamia, the overall cost per student in 2017-2018 was \$37,121.96.

Utilizing this overall per student cost to estimate the marginal cost of educating additional students significantly overestimates the expense. The overall budget includes an array of fixed costs that do not change with enrollment fluctuations, such as administrative services, business administration, central data processing, board of education, curriculum development and supervision, debt service, etc.

To more accurately define the marginal cost of educating students, the educational expenditures per student is utilized. The 2017-2018 educational cost per student was \$19,938.65.

(b.) Police:

The Town of North Castle Police Department is a full-time municipal police department³. The Department provides police services to the three hamlets in the Town of North Castle; Armonk, Banksville and North White Plains. These services are carried out under the direction of Police Chief Peter J. Simonsen. The Department has an authorized strength of thirty-four officers and four civilian staff members.

The Department is divided into the Patrol Division and the Detective Division. The Patrol Division is commanded by a Police Lieutenant and is staffed by sworn officers who provide police coverage on a twenty-four-hour basis, divided into three eight-hour shifts. Additionally, there are three patrol sectors which generally correspond to each hamlet's geographic boundaries and

³ Information regarding the North Castle Police Department provided in correspondence from Sergeant T. McCormack, dated October 5, 2018.

encompass the twenty-six square miles of the Town. Within the Patrol Division, there are a number of units that carry out specialized services and community policing initiatives. These units are the Emergency Service Unit, the Bicycle Patrol Unit, the Child Safety Unit, the School Resource Officer Unit, the Commercial Vehicle Enforcement Unit and the Accident Investigation Unit. The Detective Division is commanded by a Detective Sergeant, and this Division investigates reported crimes and deploys a number of initiatives for crime prevention purposes.

The Department places a strong emphasis on training to ensure that all Department members have the necessary skills to carry out their duties. Currently, twenty officers are certified Emergency Medical Technicians and the Department is a New York State Department of Health certified basic life support (non-transporting) emergency medical service agency. This unique training enables a collaborative working relationship with the all-volunteer emergency medical service and fire departments to ensure the best possible service to the residents of the Town.

The Department's headquarters is located in Armonk, within the Town Hall building. The hamlet of North White Plains has a police sub-station located in the community center/library which enables officers assigned to that patrol sector to interact with community members and prepare reports without leaving their patrol area.

Response times to the Project Site vary due to calls for service and other varying conditions, but generally response times are timely due to the Project Site's close proximity to Police Headquarters.

There are no current crime trends in the vicinity of the Project Site, but the Department does address a number of traffic issues in the area due to Route 22 being a main artery for motorists that work, live or commute through the area. The Department addresses these issues with direct traffic enforcement and an increase police presence.

(c.) Fire & EMS:

The Project Site is served by the Armonk Fire Department, which is a 100% volunteer department.⁴ The Department consists of approximately 61 volunteers including two volunteer chiefs. The Armonk Fire Department not only provides fire suppression, but also emergency medical service to Armonk and Banksville. The Department is also the primary responding agency for the Westchester County Airport and New York City Kensico Reservoir.

The Department's apparatus includes:

- 1st due attack engine (1998)
- Source engine (1976)
- Brush/spare engine (1991)
- Tanker (1994)
- Rescue (2012)
- 3 Ambulances
- 3 Chief vehicles
- 1 utility vehicle
- 1 Polaris UTV
- 1 boat

The Armonk Fire house is located at 400 Bedford Road, approximately 1.5 miles from the Project Site.

The Department typically responds to approximately 1,000 calls per year. During the last 12 months, the Department responded to 1,141 calls; including:

- Fires (20)
- Overpressure or explosions (1)
- Emergency medical services, including car accidents (552)
- Hazardous conditions (71)
- Calls for service (20)
- Good intent (111)
- False Alarms (366)

⁴ Information regarding the Armonk Fire Department provided in correspondence from Chief Phil Goulet, dated October 18, 2018.

Response times to the Project Site will vary due to the large geographic area of North Castle Fire District #2, which covers approximately 17 square miles. Response time from the when the apparatus leaves the firehouse would be approximately 3 minutes, and it is anticipated that units would arrive on the scene approximately 6 minutes after receiving the call.

(d.) Solid Waste & Recycling:

Solid waste is collected in the Town of North Castle through a multi-year contract with the Suburban Carting Company. Each day, Suburban collects solid waste and recycling from approximately 600 – 800 homes in Town.

Suburban's fleet of 50 vehicles operates out of their headquarters located in Briarcliff Manor. 45 vehicles service customers daily, with 5 vehicles operating as spares in case of truck breakdowns. Suburban's fleet of vehicles, containers and compactors are maintained by in-house mechanics and service personnel.

Suburban utilizes split packer trucks which are able to pick up solid waste on one side of the truck and recyclables on the other. Three to five trucks in each of the Town's five zones collect solid waste, recycling and bulk items each day within North Castle. Common household waste and single stream recycling are collected on a weekly basis. Residents can pay an additional fee for twice weekly pickup, or back-door service.

Residents are required to separate recycling before placing it outside in blue recycling bins provided by the Town, for collection.

Solid waste and recycling collected in Town is taken to the Mount Kisco Transfer Station, which is operated by Suburban Carting, where it is weighed and emptied. From the Mount Kisco Transfer Station, all recycled items are trucked to vendors where it is processed and then sold on the open market. Suburban currently transports single stream recycling to ReCommunity, a materials recovery facility in Beacon.

Household solid waste is transported to a Covanta facility in Newark, NJ. The Covanta facility is an “energy-from-waste” (EfW) which produces electricity by combusting solid waste.

Figure IV.J-1 presents the location of the community facilities described herein.

2.) POTENTIAL IMPACTS

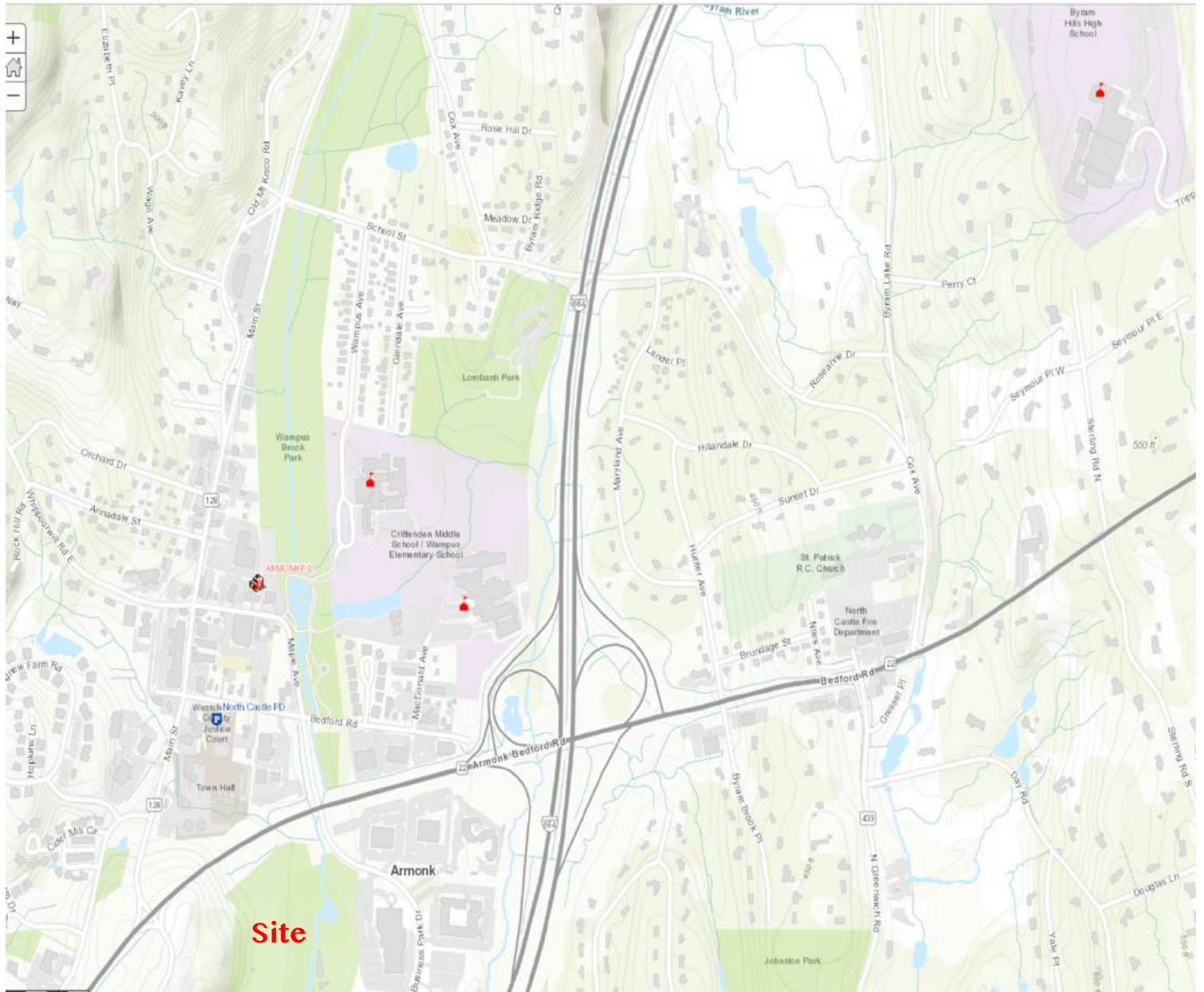
(a.) Schools:

In order to estimate the number of school aged children that might be generated from the Eagle Ride development, the residential demographic multipliers published by the Rutgers University, Center for Urban Policy Research were employed. These demographic multipliers are generally recognized to conservatively estimate the number of school children that would be expected to reside within the development.

The residential component of the Proposed Action consists of two elements:

- Parcel 1 – 70 apartments
 - 44 – 1-bedroom
 - 16 – 2-Bedroom
 - 10 – 3 – Bedroom
- Parcel 2 – 94 – 3-Bedroom Attached Townhouses

School children generation projections for the units are presented in Table IV.J-4



Source: Westchester County GIS Service Center

Scale: N.T.S.

Community Facilities



Figure
IV.J-1

| Table IV.J-4 School Children Generation Projections | | | |
|--|-----------------|-------------------------|---------------------------|
| Residence Type | Number of Units | Multiplier ⁵ | Projected School Children |
| Attached Townhouse | 94 | 0.39 | 37 |
| Apartment - 3 Bedroom | 10 | 1.00 | 10.0 |
| Apartment - 2 Bedroom | 16 | 0.23 | 3.7 |
| Apartment - 1 Bedroom | 44 | 0.08 | 3.5 |
| Total | 163 | | 54.2 |

The Proposed Action is estimated to generate approximately 54.2 school aged children. While the 37 children attributable to the townhouse component of the Project is realistic, in the Applicant's opinion, the 17.2 children attributed to the apartment component is likely an overestimation, given the characteristics of the housing type, and the overall lack of amenities for families with children within the Project.

Additionally, not all school aged children generated by this development will attend the public schools. According to the National Center for Educational Statistics⁶ in 2015, 10.2% of all elementary and secondary school students attend private school. Furthermore, the children generated by this development would not all be entering the school system simultaneously, nor would they attend a single school, but would be distributed throughout various grades in the four separate school buildings. As a result, the actual number of children attending the schools is anticipated to be fewer than the 54.2 students used in this analysis, and their distribution among the various grades and schools would further ameliorate their impact on the existing school population.

Data was compiled from four developments in the Byram Hills School District to establish actual school children generation rates, and are presented in Table

⁵ *Residential Demographic Multipliers, Estimates of the Occupants of New Housing*, Rutgers University, Center for Urban Policy Research, June 2006.

⁶ *Private School Enrollment Study*, National Center for Educational Statistics, January 2018.

IV.J-5. It should be noted that these developments consist of housing types that are not similar to what is proposed within Eagle Ridge. For example, single-family detached homes exist within these developments which generate far higher numbers of school aged children. Additionally, many units contain 4 bedrooms, compared to units with fewer bedrooms within the Proposed Action.

| Table IV.J-5 Actual Number of School Age Children Residing in Other Developments in the Byram Hills School District | | |
|--|-----------------|---|
| Development | Number of Units | Actual Number of School Age Children 2018-2019 |
| Whippoorwill Hills | 150 | 143 |
| Whippoorwill Ridge | 55 | 27 |
| Cider Mill | 27 | 35 |
| Wampus Close | 18 | 3 |

Source: Byram Hills School District.

The proposed increase in enrollment of 54.2 students represents a relatively minor 2.3% increase in the student population (based on the 2018-2019 K-12 enrollment). This increase would raise the total enrollment to 2,366.2, which would be 452 students *below* the Districts peak enrollment of 2,818 during the 2007 – 2008 school year. As such, in the Applicant's opinion, it can be concluded that adequate capacity exists to accommodate the additional children generated by the Proposed Action.

Applying the per pupil instructional cost of \$19,938.65 to the projected 54.2 new students results in an additional cost to the Byram Hills Central School District of \$1,080,674.8. This figure can be compared to the estimated \$2,698,580 in property tax revenues that the School District will receive annually from the Proposed Action as documented in Chapter IV.K. As a result, the Byram Hills Central School District would receive an annual tax revenue surplus of \$1,617,905.

As North Castle Drive is a private road, School buses will not utilize this roadway to pick-up and drop-off students. School bus pick-ups and drop-offs are proposed take place adjacent to the tennis bubble in Community Park where a school bus stop currently exists. Two paths are proposed that would run from the north and south ends of the lower loop road within the townhouse portion of the development. These paths merge behind units 6-10, before descending the hill to the area adjacent to the tennis bubble. A private easement exists in this area, and the Applicant is negotiating with the interest that controls the easement to obtain permission for this pedestrian crossing that will afford safe passage for school children.

(b.) Police:

According to the North Castle Police Department⁷, the Department currently operates at an efficient level with the Town's existing population, however the Proposed Project would most likely provide a strain on current resources and require the need for additional officers to supplement the delivery of police services. The nature of the development will likely affect all three patrol shifts.

The reoccupation of the formerly vacant IBM Headquarters building has increased vehicle and pedestrian traffic at the Route 22/Route 128 intersection, which has become a very large concern to the Police Department. The Police Department has identified a need for a safe pedestrian crossing of Route 22 as well as a need for additional street lighting on the north and south sides of Route 22 at Route 128.

The Police Department also noted that if the Project Site has gated or controlled access, the Department would require an access code for emergency access. Additionally, the Department recommended that the Project be provided with secondary emergency ingress/egress capabilities.

The 94 townhomes and 70 apartments would increase the population of the Town of North Castle by 414 residents as documented in Table IV.J-6. If all of

⁷ Correspondence from North Castle Police Department dated October 5, 2018.

these residents were new to North Castle, the population of the Town would increase by approximately 3.3% based on the Town's estimated 2017 population of 12,388⁸.

| Table IV.J-6 Total Resident Population Projections | | | |
|---|-----------------|-------------------------|----------------------|
| Residence Type | Number of Units | Multiplier ⁹ | Projected Population |
| 3-Bedroom Attached Townhouse | 94 | 2.83 | 266.0 |
| Apartment – 3 Bedroom | 10 | 3.81 | 38.1 |
| Apartment – 2 Bedroom | 16 | 2.31 | 36.9 |
| Apartment – 1 Bedroom | 44 | 1.67 | 73.4 |
| Total | 164 | | 414.4 |

To quantify the proportional increase in the demand for police services, the planning standards set forth in the Urban Land Institute's Development Assessment Handbook¹⁰ were employed. These standards correspond to increases in the resident population and do not apply to non-residential uses, such as a hotel. In order to offer a conservative estimate of police service impacts, the hotel use was included in the overall calculation utilizing an industry occupancy rate of 1.25 individuals per occupied hotel room.¹¹ Assuming that all rooms are occupied, a hotel population of 113.75 individuals for the 91 hotel rooms is projected. The projected increase in police personnel, equipment and facilities is presented in Table IV.J-7.

⁸ US Census Bureau, Quick facts, North Castle Town.

⁹ *Residential Demographic Multipliers, Estimates of the Occupants of New Housing*, Rutgers University, Center for Urban Policy Research, June 2006.

¹⁰ Model Factors for Social Impact Analysis (Police), Development Impact Assessment Handbook, Urban Land Institute, 1994.

¹¹ 1.25 occupants per hotel room – JF Capital Advisors.

| Table IV.J-7 Projected Police Service Level Increase | | | |
|---|------------------------------|--------------------------|----------------------------------|
| Police Service | Multiplier | Population ¹² | Projected Service Level Increase |
| Personnel | 2/1,000 in population | 528 | 1.0 police personnel |
| Vehicles | 0.6/1,000 in population | 528 | 0.32 vehicles |
| Facilities | 200 sqft/1,000 in population | 528 | 106 sq ft of facility space |

As the quantified impacts are marginal, these projected increases are in the opinion of the Applicant, not considered significant.

(c.) **Fire & EMS:**

The Department has provided a detailed estimate of the number of calls that would be expected from the Eagle Ridge development in their October 18, 2018 correspondence, which is quoted below:

- “4 Story, 97 room boutique hotel¹³
 - The proposed hotel has a similar room count to La Qunita on Business Park Drive. It is expected that the hotel will create 6 EMS calls per year, and 3 fire calls, for a total of **9 additional alarms**.
- Restaurant/Bar
 - The proposed restaurant, although the current size is unknown¹⁴ is expected to be busy due to the location and density of residents and hotel guests in the area. Based on this assumption, we expect the restaurant will be similar to the Modern Barn or Fortina and will generate between 2 – 5 EMS calls per year, and 3 – 9 fire calls per year for a total of **5 – 14 additional alarms**.

¹² Residential population of 414.4 from Table IV.J-6 plus a hotel population of 91 rooms x 1.25 persons/room which equals 113.75 persons, resulting in a total project site population of 528.15 – rounded to 528.

¹³ The number of hotel room has decreased from 97 to 91 rooms since the initial request for information was sent to the Fire Department.

¹⁴ The restaurant on the 1st floor has a maximum code occupancy capacity of 278.

- Banquet/conference rooms
 - The Armonk Fire Department has a number of banquet and conference facilities throughout the district. Based on the comparison of IBM Learning Center and other facilities, we expect the banquet and conference rooms to generate 5 EMS calls and 4 Fire calls for a total of **9 additional alarms**.
- Fitness center/pool
 - We do not have a comparable fitness center and pool in our district, however we expect that it will create an additional 2 EMS calls and 2 Fire calls for a total of **4 additional alarms**.
- 69 one, two and three bedroom apartments¹⁵
 - The district does not have any similar sized apartment buildings. In this case we have compared 20 Whippoorwill Road East, which has 22 apartments of similar size, and 4, 6 and 8 Agnew Farm Road, which contains 24 units. Based on these comparisons, we expect the apartments to generate 6 EMS calls and 15 Fire calls for a total of **21 additional alarms**.
- Below grade parking structure
 - The district does not currently have any below grade parking structures to compare. We expect a minimal increase in alarms for the parking structure.
- 94 attached and semi-attached townhouses
 - A large development of 94 town homes is similar to Whippoorwill Hills development with similar demographics located in Armonk. It is estimated that the town homes will generate 10 EMS calls and 23 Fire alarms for a total of **33 additional alarms**. “

¹⁵ The number of apartments has increased from 69 to 70 rooms since the initial request for information was sent to the Fire Department.

Overall the District estimated that the Proposed Project will add an additional 81 – 90 calls annually, representing a 7 – 8% increase in alarms.

To quantify the proportional increase in the demand for fire services, the planning standards set forth in the Urban Land Institute's Development Assessment Handbook¹⁶ were employed. These standards correspond to increases in the resident population and do not apply to non-residential uses, such as a hotel. In order to offer a conservative estimate of fire service impacts, the hotel use was included in the overall calculation, with an occupancy factor of 1.25 individual per occupied room applied. The projected increase in fire personnel, equipment and facilities is presented in Table IV.J-8.

| Table IV.J-8 Projected Fire Service Level Increase | | | |
|---|------------------------------|--------------------------|----------------------------------|
| Police Service | Multiplier | Population ¹⁷ | Projected Service Level Increase |
| Personnel | 1.65/1,000 in population | 528 | 0.87 fire personnel |
| Vehicles | 0.2/1,000 in population | 528 | 0.11 vehicles |
| Facilities | 250 sqft/1,000 in population | 528 | 132 sq ft of facility space |

As the quantified impacts are marginal, these projected increases are in the opinion of the Applicant, not considered significant.

The Department emphasized that they do not possess a ladder truck, and must rely on mutual aid from the North White Plains, Chappaqua, Purchase and Bedford Hills Fire Departments. The Department noted that considering the scale of the project and the amount of livable space not within reach of ground ladders, it will be crucial for the Department to have a ladder truck.

¹⁶ Model Factors for Social Impact Analysis (Fire), Development Impact Assessment Handbook, Urban Land Institute, 1994.

¹⁷ Residential population of 414.4 from Table IV.J-6 plus a hotel population of 91 rooms x 1.25 persons/room which equals 113.75 persons, resulting in a total project site population of 528.15 – rounded to 528.

The Fire Department contends that the Proposed Action will increase emergency call volumes, but will not provide opportunities for new volunteers to move into the community.

The Fire Department noted that the Project Site is located approximately 2,600 feet from a proposed chemical storage facility that is currently undergoing Town review, and that Eagle Ridge sits within the evacuation radius.

(d.) Solid Waste & Recycling:

Solid waste generation rates for the Proposed Action are presented in Table IV.J-9, and are calculated as follows:

| Table IV.J-9 Projected Solid Waste Generation | | | |
|--|---------------|--------------------------|--------------------------|
| Residence Type | Population | Multiplier ¹⁸ | Tons of Solid Waste/Day/ |
| Townhouses | 266 | 0.00175 ton/day/resident | 0.46 |
| Apartments | 148.4 | 0.00175 ton/day/resident | 0.26 |
| Hotel | 113.75 | 0.00175 ton/day/resident | 0.20 |
| Total | 528.15 | | 0.92 tons/day |

In total, the Proposed Action is projected to generate approximately 0.92 tons of solid waste per day or approximately 27.6 tons per month.

In 2016, the Town of North Castle disposed of over 8,000 tons of solid waste, of which 41% was recycled.¹⁹ Utilizing this ratio, of the 27.6 tons/month of solid waste generated by the Proposed Action, approximately 11.3 tons would be expected to be recycled.

All solid waste and recycling will be collected by private carters.

¹⁸ Model Factors for Social Impact Analysis (Solid Waste Production), Development Impact Assessment Handbook, Urban Land Institute, 1994.

¹⁹ Westchester County Department of Environmental Facilities Division of Solid Waste Management/Recycling Office, 2016 Annual Report

3.) MITIGATION MEASURES

(a.) **Schools:**

In the Applicant's opinion, declining enrollments have created excess capacity that can accommodate the potential increase in enrollment in the Districts four schools generated by the Proposed Action. The development includes housing types that are not necessarily conducive to, nor do they typically generate large numbers of school aged children. Adding the new students generated by the Proposed Action, the capacity of the District will not exceed the peak levels experienced during the 2007 – 2008 school year. Additionally, the project will result in an annual surplus of \$1,617,905 in school tax revenue, beyond the cost of educating the new students generated by the Proposed Action. As such, in the Applicant's opinion, no adverse impacts will result, no mitigation measures are necessary.

(b.) **Police:**

The Proposed Action will result in a proportional increase in the demand for police services equivalent to 1.0 additional police personnel, 0.32 police vehicles and 106 square feet of facility space. As these quantified impacts are marginal, these projected increases are in the opinion of the Applicant, not considered significant.

To address the Department's noted concern about pedestrian safety and the need for additional street lighting at the Route 22/Route 128 intersection, the Proposed Action includes the construction of a new pedestrian sidewalk from the site access driveway, along the east side of North Castle Drive to the intersection. New street lighting is proposed along this area. Furthermore, the Applicant will cooperate with the NYSDOT to facilitate pedestrian crosswalk improvements across Route 22 to facilitate connectivity between the Project Site and the Armonk hamlet central business district.

Security measures have been incorporated into all of the project components. The apartments located above the hotel will have a separate lobby entrance, so that residents and hotel guests will not be intermingled.

Hotel security measures will be implemented by the hotel management company selected and as a result may include procedures in addition to those outlined below:

1. Security camera system with monitoring and recording on a 24 hour a day, 7 day per week basis. Cameras shall cover substantially all of the publicly accessible areas and back of house areas. Areas monitored shall include all exterior doors, lobby level lounge, bar, restaurant, guestroom floors, kitchen areas, loading docks, housekeeping closets and laundry staging areas, parking garage and surface parking area.
2. Security guards will monitor the cameras and shall walk the entire building and the premises on a regular basis and more than once per day. Security guards will likely be employed by a third-party contract service but may be employed directly by the hotel management company.
3. Employee background checks and screening is expected to be completed to the extent allowable by law.
4. Group booking policies for guestrooms, meeting rooms, and any public spaces will include coordination with the management team and the security guards and security company so that any time that types of groups which may pose any level of heightened security risk shall be considered and extra monitoring or security may be available on site. Such extra security may include extra private or paid-for police presence in or around larger events which may assist with flow of traffic or movement of people within the building.
5. Front desk and apartment doormen staff will receive extra security training to spot, identify, communicate potential issues to the manager on duty and as appropriate with law enforcement.
6. The hotel shall have a policy based on the policies and insurance coverage maintained by its management company which will require all hotel staff to enter into each occupied/rented guestroom at least once

every 48 hours despite the existence of a “Do Not Disturb” customer request.

7. Apartment residents shall have background checks performed to the extent allowable by law.

The townhouse portion of the Proposed Project will have a gated entry. Residents will have an ez-pass like transponder, key card or fob to open the gate located on the site access driveway, approximately 200’ off North Castle Drive, and past the entry for the hotel. Automatic access to the gate will be provided to all emergency service providers, and in the case of a power outage, the gate will default to the open position. A secondary emergency access driveway is proposed to the south of the main site entry driveway, on North Castle Drive.

The Proposed Action will result in the generation of approximately \$3,985,056 in real estate taxes annually, of which approximately \$657,855 are Town taxes which can be devoted to the relatively minor proportional increase in the demand for police services. No other mitigation measures are proposed.

(c.) Fire & EMS:

According to the Armonk Fire Department, the Proposed Action will result in an additional 81 to 90 calls annually, representing a 7 – 8% increase. The Proposed Action will result in a proportional increase in the demand for firefighting resources equivalent to 0.87 additional firefighting personnel, 0.11 firefighting vehicles and 132 square feet of facility space. As these quantified impacts are marginal, these projected increases are in the opinion of the Applicant, not considered significant.

The hotel and apartment building and parking structure will contain fire suppression sprinklers and will adhere to all local and state fire prevention codes. Standpipes will be installed in the stair towers, per code requirements. Knox boxes will be provided at the building lobby entrances in agreed upon locations with the Armonk Fire Department. Building elevators will be sized to accommodate a 24” x 84” stretcher.

Water supply, including extra demand for fire flow, is anticipated to be adequate. See Chapter IV.G – Utilities for additional discussion of water flow to the Project Site. The Applicant will coordinate the location of hydrants with the Armonk Fire Department.

The parking garage will include a gated access. All emergency service providers will be provided with transponder access to the garage. The gates will also be designed to breakaway and driven through in an emergency situation. In the case of a power outage, the gate will default to the open position.

Paved driveway access is provided around all sides of the hotel/apartment building, and direct rooftop access will be provided from the upper floor of the building. Access to the site is provided off the main access driveway on North Castle Drive, as well as via a secondary emergency access driveway. The emergency access driveway will be improved to meet the standards and requirements of the Fire Department.

The townhomes will be constructed to comply with all local and state fire prevention codes. The Fire Department noted that an access to the rear of some of the townhouses is not provided. It should be noted that rear access is not routinely available in most single-family residential neighborhoods, nor is it required by code or ordinance. All townhouses have direct street access, and most of the units do have secondary rear access from North Castle Drive, or the adjacent IBM parking lot.

It is assumed that any approval of the proposed chemical storage facility would incorporate measures to protect the community, including the residents of Eagle Ridge. The Applicant requests to be informed of any evacuation plans adopted for that project.

In the Applicant's opinion, the Fire Department's claim that volunteers will not be able to move into Eagle Ridge is unsupported. While the majority of the residential component of the Project will be market rate, 16 units will be provided in accordance with the Town's AFFH regulations, and as stated in the

adopted Scoping Document, be available "...for emergency service providers serving the Town if North Castle." Eagle Ridge will in fact, specifically provide housing for eligible emergency service providers.

While the Fire Department has suggested that it is the responsibility of the Applicant to provide a new ladder truck, in the Applicant's opinion, routinely employed impact standards indicate that the Applicant would be proportionally responsible for 0.11 percent of new fire apparatus. This proportional increase is provided for through the payment of real estate taxes, which the Fire Department can utilize as it sees fit, including the acquisition of additional apparatus.

The Proposed Action will result in the generation of approximately \$3,985,056 in real estate taxes annually, of which approximately \$657,855 are Town taxes which, in the Applicant's opinion, can be devoted to the relatively minor proportional increase in the demand for fire and EMS services. No other mitigation measures are proposed.

(d.) Solid Waste & Recycling:

The Proposed Action will result in a proportional increase in the generation of solid waste of approximately 27.6 tons per month. Of that amount, based on the Town's existing recycling rate of 41%, approximately 11.3 tons will be recycled monthly.

The hotel/apartment building will include trash disposal facilities, chutes, compactors and refuse enclosures. Refuse removal from the townhouse portion of the project will be accomplished through curbside pick-up. All solid waste and recycling generated at the Project Site will be removed via licensed private carters, and disposed of or recycled at licensed facilities. The Applicant will explore opportunities to implement on-site food composting for the restaurant and catering operations. No adverse impacts are anticipated, and therefore no mitigation is required.

Chapter IV. K.

Fiscal & Market Conditions

IV. K - FISCAL & MARKET CONDITIONS

INTRODUCTION

The Proposed Action involves rezoning a portion of the Subject Site from OBH to R-MF-A to allow for the development of 94 townhouses and modifying the OBH zone to accommodate the proposed hotel and multi-family apartment building. These modifications are a reflection of market conditions that are addressed in greater detail below.

1.) EXISTING CONDITIONS

(a.) Taxes:

The Project Site is current vacant and undeveloped. In August of 2017, MADDD Madonna LLC acquired the property from IBM with the intent of developing the property as described herein. The current real estate taxes generated from the Site are presented in Table IV.K-1 below.

| Table IV.K-1 Existing Tax Generation (2018) | | | |
|--|------------------------|----------------------------|---------------------|
| Taxing Jurisdiction | Assessed Value (AV) | Tax Rate per \$1,000/AV | Taxes |
| Westchester County | \$196,800 | 144.6 | \$28,461.84 |
| Town of North Castle | \$196,800 | 168.3 | \$33,125.90 |
| Ambulance District #2 | \$196,800 | 2.0 | \$398.79 |
| Fire District #2 | \$196,800 | 16.8 | \$3,299.79 |
| Lighting District #2 | \$196,800 | 2.4 | \$479.45 |
| Capital Bond | \$196,800 | 7.5 | \$1,468.80 |
| Zoning | \$57 | 126.1 | \$7,188.86 |
| Water District #4 | \$196,800 | 0.3 | \$68.64 |
| Byram Hills School District | \$196,800 | 690.4 | \$135,877.43 |
| Total | | | \$210,369.50 |

Source: Town of North Castle Tax Assessor

(b.) Hotel Market:

In 2010, the Town Board modified the zoning of the Project Site from OB (Office Business) to OB-H (Office Business Hotel). As documented in the

Town's 2018 Comprehensive Plan "...sufficient demand appears to exist for at least two small hotels or one large hotel in North Castle."¹

The Comprehensive Plan seems to rely on a single metric in its analysis of hotel demand, which is the number of hotel rooms per worker employed in the industry of "management of corporations or enterprises." Based on this metric, the study concludes that the town could support at least two new small hotels or one large hotel, with a combined total of up to approximately 300 guestrooms. While employment levels at a certain job classification certainly factor in to overall demand for hotel room nights, hotel developers, investors, and lenders rely on a wide array of other metrics in determining the feasibility for new hotel supply, including occupied room nights, occupancy, average rate (and their anticipated levels of growth), demand for meetings, conferences, and social functions, ability to finance, branding, and development costs. These metrics were not analyzed in the Comprehensive Plan.

As further support for new hotel development, the Comprehensive Plan cites an article entitled "Lots of new hotels going up. Here's where, why." published in October 2016 by *The Journal-News*, which focused on hotel development trends in Westchester County. To summarize, the article states that Westchester County is in the midst of a hotel renaissance after being significantly under-supplied in guestroom inventory for the nearly decade following the Great Recession. It is important, however, to more deeply examine the types of hotels being built in these markets.

Development in these southern Westchester County areas is focused predominantly in the limited and select-service sectors; specifically, the article mentions the construction of the Cambria Suites in White Plains, as well as several hotels in Yonkers including the Hampton Inn, Residence Inn by Marriott, and Courtyard by Marriott. These hotels are branded on the value proposition of consistent quality and adequate service levels at lower prices than their full-service competitors. However, these types of product lend little to supporting the needs of local community residents and their "desire for a

¹ Town of North Castle Comprehensive Plan, page 119.

modern facility with more upscale amenities,” as noted in the North Castle Comprehensive Plan.

With a median income of over \$170,000, North Castle is an affluent area and its residents enjoy high levels of disposable income. Limited and select-service hotels offer limited food and beverage services that would not attract local dining demand from the surrounding communities. The community would be well-served by a boutique hotel with a high-quality food and beverage offering to attract local residents. However, the number of keys in this type of property would be well-below the 300 guestrooms suggested in the Comprehensive Plan.

LOW AVERAGE ROOM RATE PERFORMANCE IN FULL-SERVICE SECTOR: As stated, average room rate performance is an important metric in evaluating the feasibility of a new hotel. Table IV.K-2 presents a sampling of full-service properties in the greater Westchester County market and their aggregate average rate performance, as reported by Smith Travel Research (STR). STR is the leading independent provider of hotel operating statistics data in the United States.

| Table IV.K-2 Performance Rates of Full Service Hotels in Westchester Market | | | |
|--|-------------------|------------|----------------------|
| Property | Location | # of Rooms | Meeting Space (SqFt) |
| Hyatt Regency Greenwich | Old Greenwich, CT | 373 | 35,000 |
| Hilton Westchester | Rye Brook, NY | 445 | 30,000 |
| Sheraton Hotel Tarrytown | Tarrytown, NY | 150 | 1,452 |
| Marriott Westchester | Tarrytown, NY | 444 | 26,676 |
| DoubleTree Tarrytown | Tarrytown, NY | 246 | 24,000 |
| Renaissance Westchester | West Harrison, NY | 348 | 23,705 |
| TTM Average Daily Rate as of December 2016 = \$145.54 | | | |
| TTM Average Daily Rate as of December 2017 = \$146.30 | | | |

Source: JF Capital Advisors

The average room rate performance of this sample set serves as a strong indication for the anticipated top-line performance for a new full-service hotel in the Town of North Castle. Based on these properties' average rate

achievement and the expense structure of full- service hotels, however, a property of this nature would not generate significant cash flows to create a viable investment for a hotel developer.

OCCUPANCY PATTERN VARIATIONS: For the same sample of hotels listed above, annual occupancy as of year-end 2016 was 73.9%, declining to 71.1% as of the trailing- twelve-month period ending September 2017. These occupancy levels are considered healthy on an annual basis, though the market experiences significant seasonality. The four months from December to March are the weakest of the year, with the market registering occupancy levels well-below the annual average from 56.8% to 62.5% from December 2016 to March 2017. Occupancy is higher during the warmer months when additional leisure demand supplements the corporate segment that is the primary source of base demand throughout the year.

Occupancy levels also fluctuate by day of the week. Saturday is the highest occupancy day averaging approximately 85.0%, though this night registers the second lowest ADR at \$130; this indicates that weekend demand is price sensitive and captured through discounting strategies. Sunday garners the weakest occupancy at 50.7% annually, followed by Thursday at 67.6% annually. These patterns are consistent with typical corporate-driven markets, with the corporate travel period falling during midweek nights.

TRANSPORTATION AND ACCESS ISSUES: In addition to analyzing the types of product being built in the greater market area, it is important to note the locational difference between the North Castle market and the southern Westchester markets analyzed in *The Journal-News* article. These areas of Westchester County feature superior transportation options with more convenient access to nearby New York City. While hotel guests in Yonkers and White Plains are able to reach Grand Central Station by train with ride times of under 30 minutes, ride times from the North White Plains Station (the closest to North Castle) are 40 to 55 minutes. This is significant, as new properties in North Castle would not benefit from any residual New York City demand in the way that the other properties mentioned do.

This demand is particularly important for these properties during weekends and shoulder periods with limited corporate demand, when these better located hotels attract New York City tourists through significant discounting strategies. However, the ability to attract this demand is once again driven largely by proximity; an additional 300 keys in the North Castle market would be excessive given the inability of an operator to fill these rooms during weak demand periods, even with the implementation of significant discounts.

Table IV.K-3 illustrates door-to-door travel time (in minutes) via public transportation from various hotels sampled in Westchester County to Grand Central Station. Transit times shown represent midday travel time on a weekday.

| Table IV.K-3 Door-to-Door Travel Time Via Metro North to Grand Central Station | | | |
|---|-------------------|--------------------------|---------------------|
| Property | Location | Door-to-Door Travel Time | Number of Transfers |
| Residence Inn by Marriott | White Plains, NY | 46 | 0 |
| Ritz-Carlton Westchester | White Plains, NY | 48 | 0 |
| Courtyard by Marriott | Rye, NY | 56 | 0 |
| Marriott Westchester | Tarrytown, NY | 68 | 1 |
| Hyatt House White Plains | White Plains, NY | 69 | 1 |
| Double Tree Tarrytown | Tarrytown, NY | 71 | 1 |
| Renaissance Westchester | West Harrison, NY | 78 | 1 |
| Hyatt Regency | Greenwich, CT | 78 | 1 |
| Armonk Square | Armonk, NY | 112 | 1 |

Source: JF Capital Advisors

As illustrated in the Table IV.K-3, travel time from Armonk Square, which is relatively central in the Town of North Castle, to Grand Central Station significantly exceeds that of the surrounding areas.

OFFICE DEMAND DECLINING: At the same time, the North Castle Comprehensive Plan notes a decline in demand for office space in recent years, which is further exacerbated by declining average asking rents and the deterioration of many of the town's older office facilities that date back to the

1980's. Relying on the single metric of hotel rooms per management professional employee raises further concern in light of these patterns, given that the directional trend in demand for office space would have significant correlation to the future trend in the number of employees in the industry of "management of corporations or enterprises." Any decline to this metric (e.g. the denominator in the equation) would naturally raise the ratio of rooms per worker, even without the construction of new guestrooms.

According to the Comprehensive Plan, there have been no large-scale office developments proposed since 2013. Further, the plan states that older office sites are now being targeted for redevelopment to alternate uses. For example, the Plan notes that the Wegmans grocery store chain obtained approval for a new 125,000-sf grocery store and a new 8,000-sf restaurant to replace three office buildings in the Platinum Mile. This illustrates continued growth of the area as a desirable residential community, but offers little by way of support for significant new hotel development given that these service-oriented establishments typically generate far less hotel demand when compared to office uses.

RELIANCE ON FEW MAJOR EMPLOYERS AS THE PRIMARY SOURCE OF CORPORATE DEMAND: It is also important to correlate the employer landscape in the town to that of the other areas analyzed. Areas such as White Plains and Stamford, Connecticut that are used as benchmarks for the guestroom analysis presented in the Comprehensive Plan feature much larger and more diverse employer landscapes than North Castle. As is presented in the Comprehensive Plan, the two largest employers in the town are IBM with 850 workers and Swiss Re & Health with 700 workers. Thereafter, the largest employment sources in the town represent local government entities that do not generate any substantial hotel demand.

Based on market research, IBM would undoubtedly serve as the largest room night generator for a new hotel in the North Castle market. IBM currently maintains its own conference center on the Armonk campus with 183 guestrooms and 15,000-sf of meeting space. The facility is not open to the general public, however, and visitors must be affiliated with IBM or visiting the

campus for an IBM-sponsored event in order to book a guestroom. While it does note the existence of the IBM facility, these 183 guestrooms are neither included in hotel room inventory nor is any adjustment applied to the estimate of the number of management professional employees to account for the number of these employees working at IBM, thus likely understating the conclusion of available rooms per worker.

At certain times of year, the size of IBM events generate demand in excess of what can be accommodated on-site, and this unaccommodated demand spills over to other hotels in the region. As such, there does appear to be some base case for additional hotel supply to support the needs of the town's employers. However, given the level of employment diversity present in the town, the construction of 300 additional guestrooms in North Castle would significantly overexpose a developer's investment to the volatility of business at IBM. Should IBM be acquired, relocated, or have a change in focus at any time during the life of the hotel(s), it would cause significant performance declines with no viable backup major demand generator. In more difficult economic times, travel by IBM employees would likely be reduced significantly and it is unlikely that the larger- scale events would continue.

Additionally, if the 183-room IBM facility were ever to transition to a transient hotel open to the public, a new 300-room hotel (or multiple smaller properties comprising 300 rooms total) would be faced with significant competition that didn't previously exist. A smaller, more upscale/boutique property would provide a viable solution, as not only would an owner's exposure be reduced in any of these aforementioned scenarios, but such a property could complement the existing IBM facility. While the IBM facility serves to accommodate the needs of its traveling employees, it is our understanding that higher level executives do not utilize this facility and are transported to more upscale hotels in the region such as the Ritz-Carlton in White Plains and the Hyatt Regency in Greenwich. An upscale, boutique product more proximate to the IBM campus would provide a far more convenient alternative to these other properties.

WEAK PERFORMANCE OF THE LA QUINTA INN & SUITES ARMONK: The only hotel that presently exists in the Town of North Castle is the 140-room La Quinta Inn & Suites. As of September 2017, the property recorded a TTM occupancy of 59.7% with a TTMADR of \$93.53. These statistics illustrate that the La Quinta significantly under-penetrates the performance of other properties in the region.

More importantly, however, the performance of the La Quinta illustrates an inability to fill a mid-size property in town even with its proximity to IBM as a major demand source. Though its quality is inferior to that of any new hotel, the property's performance demonstrates a clear consumer preference in quality sought. This further lends to the theory presented that a more upscale property with fewer total guestrooms would better complement the nature of the surrounding businesses and residents.

CONCLUSION: The feasibility conclusion for new hotel development presented in the Town of North Castle Comprehensive Plan is reached without analysis of many important metrics that drive the region's lodging market. While it does appear that there is space in the market for the construction additional hotel inventory, the North Castle Comprehensive Plan grossly overestimates the number of new guestrooms that can be financially supported in the market.

It is the opinion of the Applicant that the most viable project represents a mixed-use residential development with an on-site hotel that caters to the upscale nature of the surrounding communities and provides a new neighborhood amenity for local residents.

As discussed, the local corporate market does not warrant the addition of a large full-service hotel, but a void presently exists in serving the travel needs of local corporations' upper-level executives. A smaller, boutique hotel would be well-positioned to fill this void and capture higher-rated demand that is currently being displaced to other hotels in the region. Furthermore, leisure demand in the market is not significant enough to sustain a larger property, particularly given the inferior nature of public transit options in North Castle

and more difficult accessibility to New York City when compared to other areas of Westchester County. A smaller property could be sustained in non-corporate demand periods, however, by the social catering and events needs generated by the local affluent residents.

(c.) Multi-Family Apartment Market:

In order to evaluate the target market, its depth and demand, several factors have been reviewed.

The region exhibits some strengths, challenges and opportunities:

Strengths:

- Westchester County has an excellent network of highways and railroads that offer convenient connections to New York City.
- The region supports major employment centers and corporate office parks.
- Westchester County is a wealthy suburb of New York City, with an average household income 30% higher than the New York Metropolitan Area.

Challenges:

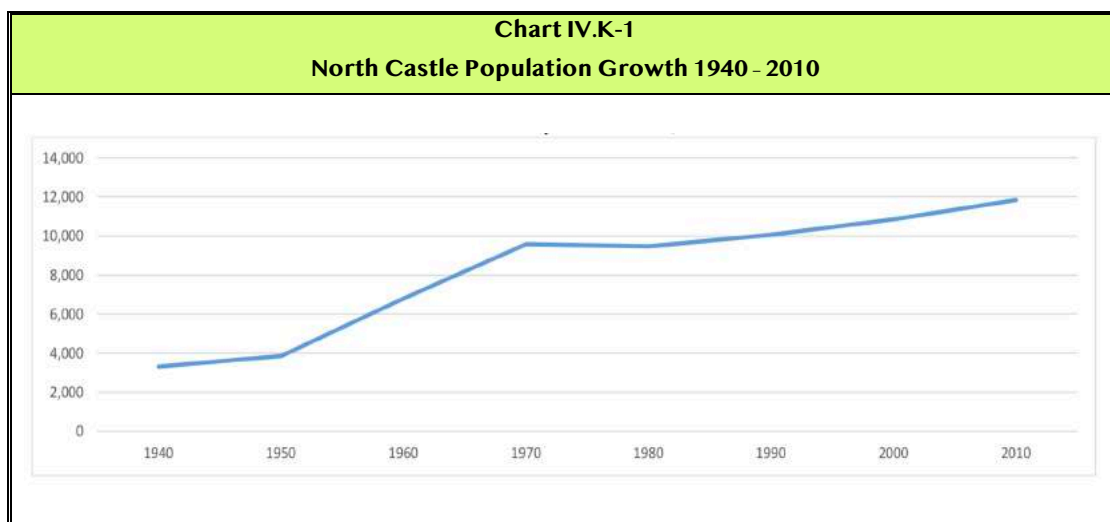
- Westchester County is competing with other NYC suburbs for renters, and the region is a relatively low growth region.
- High cost of living.

Opportunities:

- Many empty nesters looking to downsize would choose to continue to reside in the area.

- Traditional single-family suburban homes are less attractive to young people who tend to settle down later in life, and are more mobile in their employment in the “gig economy.”
- Rental housing is recognized as a preferential housing option for many, particularly in light of the housing crisis of the last decade.
- Rental housing opportunities appeal to the two largest and overlapping demographic cohorts – millennials (entering the housing market) and baby boomers (downsizing).

The U.S. Census Bureau estimates the 2017 population of the Town of North Castle to be 12,388², which represents an increase of 4% from the 2010 decennial census. According to the Town’s Comprehensive Plan, the Town’s population is expected to grow, but not at the same pace as in previous decades. Chart IV.K-1 displays historical growth over time, and Table IV.K-4 presents population change for surrounding areas.



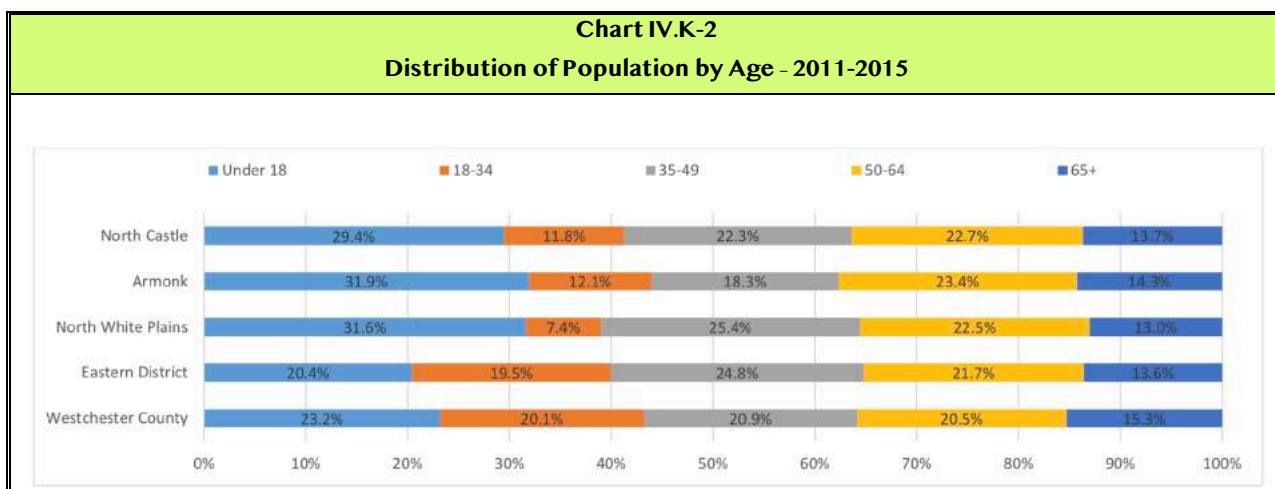
Source: U.S. Census Bureau, North Castle Comprehensive Plan.

² US Census Bureau Quick Facts

| Table IV.K-4 Total Population by Municipality & Westchester County - 2010 | | | | | | | | | |
|--|---------|---------------|----------|----------------|------------|--------------|-------------|--------------|--------------------|
| Municipality | Bedford | Greenwich, CT | Harrison | Mount Pleasant | New Castle | North Castle | Pound Ridge | White Plains | Westchester County |
| 1980 | 15,137 | 59,578 | 23,046 | 23,760 | 15,425 | 9,467 | 4,009 | 46,999 | 866,599 |
| 1990 | 16,906 | 58,441 | 23,308 | 25,242 | 16,648 | 10,061 | 4,550 | 48,718 | 874,866 |
| 2000 | 18,133 | 61,101 | 24,154 | 26,151 | 17,491 | 10,849 | 4,726 | 53,077 | 923,459 |
| 2010 | 17,335 | 61,171 | 27,472 | 26,176 | 17,569 | 11,841 | 5,104 | 56,853 | 949,113 |
| 1980-1990 | +11.7% | -1.9% | +1.1% | +6.2% | +7.9% | +6.3% | +13.5% | +3.7% | 1.0% |
| 1990-2000 | +7.3% | +4.6% | +3.6% | +3.6% | +5.1% | +7.8% | +3.9% | +8.9% | 5.6% |
| 2000-2010 | -4.4% | +0.1% | +13.7% | +0.1% | +0.4% | +9.1% | +8.0% | +7.1% | 2.8% |
| 1980-2010 | +14.5% | +2.7% | +19.2% | +10.2% | +13.9% | +25.1% | +27.3% | +21.0% | 9.5% |

Source: U.S. Census Bureau, North Castle Comprehensive Plan.

In addition to total population, another factor influencing the apartment housing market is age. North Castle's residents are older than the County as a whole, and the median age is increasing. This trend reflects national trends mirroring an aging population and lower fertility rates. Although the Town is an older community in the context of the County, its next largest population group is young people, as documented in Chart IV.K-2.



Source: U.S. Census Bureau, North Castle Comprehensive Plan.

Relative affluence is yet another factor impacting the apartment housing market. North Castle has the 6th highest median household income in Westchester County. Importantly, since 1999, the median household income

of Town residents grew, while that of many surrounding communities declined (Table IV.K-5).

| Table IV.K-5 Median Household Income - 1999-2015 | | | | |
|---|---------------|---------------|------------------|---------|
| Area | 1999 (2015\$) | 2015 (2015\$) | Change 1999-2015 | |
| | | | Number | Percent |
| Bedford | \$141,868 | \$127,644 | \$(14,224) | -10.0% |
| Greenwich | \$140,497 | \$128,153 | \$(12,344) | -8.8% |
| Harrison | \$114,481 | \$104,469 | \$(10,012) | -8.7% |
| Mount Pleasant | \$114,955 | \$102,142 | \$(12,813) | -11.1% |
| New Castle | \$226,431 | \$199,426 | \$(27,005) | -11.9% |
| North Castle | \$167,054 | \$172,167 | \$5,113 | +3.1% |
| Pound Ridge | \$217,239 | \$176,591 | \$(40,648) | -18.7% |
| White Plains | \$83,013 | \$80,442 | \$(2,571) | -3.1% |
| Westchester County | \$90,155 | \$83,958 | \$(6,197) | -6.9% |

Source: U.S. Census Bureau, North Castle Comprehensive Plan.

According to the Town's Comprehensive Plan, while the population has grown over the past decade, that growth is expected to slow, and is projected to grow at a rate of 0.55%, which is somewhat less than the growth experienced during the last decade (0.88%), but nearly equal to the rate expected for the County (0.57%).

The build-out analysis conducted by the Westchester County Planning Department in conjunction with the Comprehensive Plan, found that additional residential development allowable under existing zoning would accommodate on an additional 644 dwelling units, which would serve to meet only 67.6% of future housing demand³.

The Comprehensive Plan also states:

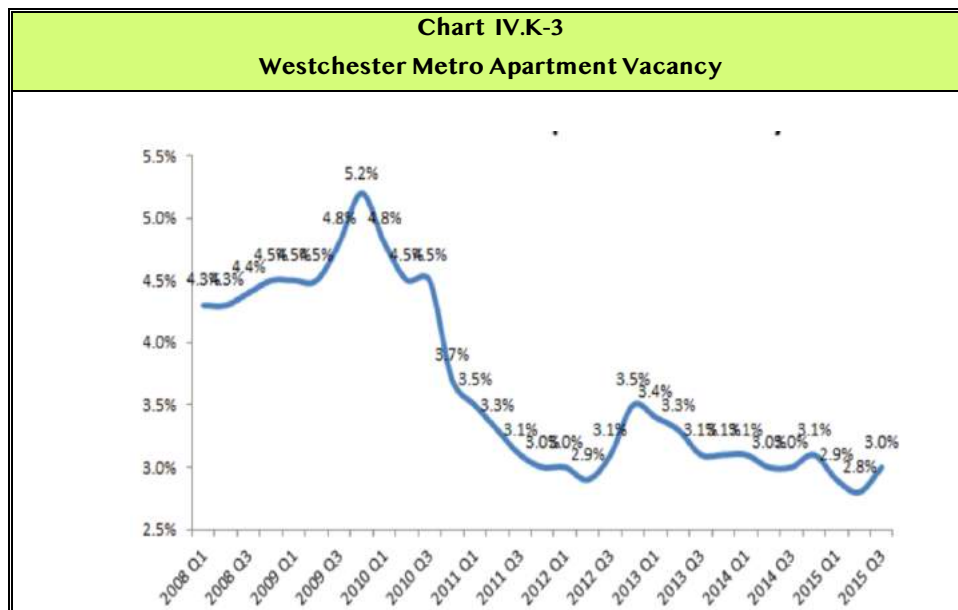
"...Recent trends suggest that both Millennials and Baby Boomers in early retirement years have shown strong housing preferences for

³ Town of North Castle Comprehensive Plan, Page 21.

transportation accessibility, cultural and entertainment attractions and affordable housing (see Chapter 6). Development of multi-family residential projects, particularly in areas of the Town that have good highway and transit access, could meet North Castle's future housing demand while preserving the historic character of its neighborhoods.

According to various sources such as ESRI, the rental apartment market in the primary market area around Eagle Ridge is healthy and growing without signs of pent-up demand or over supply.

Charts IV.K-3 and 4 shows that apartment vacancies are very low and asking rents are rising, reflecting the strength of the market.



Source: REIS, Otteau Group



Source: REIS, Otteau Group

An analysis of the primary market area reveals that a significant amount of the existing stock of apartments is relatively old, with a mean property age of 26 years (built in 1991) and a median age of 21 years (built in 1996). This creates significant opportunities for new apartment projects due to the competitive advantages of new construction. Generally, new properties with a full range of amenities outperform older properties with inferior market appeal. Given that Eagle Ridge would be new construction with a robust package of amenities, it is anticipated to outperform the vacancy rate of approximately 4%.

Table IV.K-6 presents apartment supply projections through 2025.

Table IV.K-6
Competitive Apartment Supply Projection

| Competitive Apartment Supply Projection | | | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
| Existing Supply | 14,292 | 14,506 | 14,724 | 14,945 | 15,169 | 15,397 | 15,551 | 15,706 | 15,863 | 16,022 | 16,182 |
| Pipeline Supply Growth (%) | 1.50% | 1.50% | 1.50% | 1.50% | 1.50% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% |
| Pipeline Supply Growth (Apts) | 214 | 218 | 221 | 224 | 228 | 154 | 156 | 157 | 159 | 160 | 162 |
| Total Supply * | 14,506 | 14,724 | 14,945 | 15,169 | 15,397 | 15,551 | 15,706 | 15,863 | 16,022 | 16,182 | 16,344 |

Source: Otteau Group

The demand for apartments has averaged approximately 0.9% for the past several years. However, it is clear that demand has been constrained by limited supply growth. A higher pace of supply growth would result in a corresponding increase in demand. Several sources predict that, based on demographic and market analysis, an annual demand of 1.5% is projected.

The competitive set for Eagle Ridge in the primary market area is presented in Table IV.J-7

Table IV.J-7
Competitive Properties in the Primary Market Area

| Project Name | Municipality | Developer | # Units |
|-----------------------------|--------------|-------------------------|---------|
| Norden Lofts | White Plains | Norden Lofts LLC | 65 |
| One Dekalb | White Plains | Lighthouse Living | 50 |
| Carraway | Harrison | Toll Brothers | 421 |
| Former Lady of Good Counsel | White Plains | CWP Development | 400 |
| Former White Plains Mall | White Plains | Street Work Development | 540 |
| AT&T Building | White Plains | LCOR | 273 |
| Westmorland Lofts | White Plains | Hay Max Capital | 62 |
| The Collection | White Plains | Saber | 276 |
| Broadstone | White Plains | Alliance Residential | 434 |
| Westchester Pavilion | White Plains | Lennar Corp. | 665 |
| Esplanade Senior Living | White Plains | Esplanade Ventures | 212 |
| 3 Westchester Park Dr | Harrison | MCP II 3 | 450 |

| | | | |
|--------------------|--------------|-------------------|-----|
| The Station Lofts | Port Chester | PRIW | 180 |
| The Complex | Port Chester | Majic Development | 72 |
| South Main Street | Port Chester | 2SMS Port Chester | 92 |
| 61 Westchester Ave | Port Chester | G&S Port Chester | 79 |
| Avalon Harrison | Harrison | AvalonBay | 142 |

Given the unique characteristics of Eagle Ridge, it is projected that it's market penetration rate and high occupancy performance would be very high.

(d.) Townhouse Market:

The market analysis for the townhouses reflects very similar characteristics to the apartment analysis. The housing type is similarly well suited to young people just entering the housing market, as well as older residents downsizing from traditional single-family homes.

2.) POTENTIAL IMPACTS

(a.) Real Estate Taxes:

Based on the scope of the Proposed Action and the estimated assessed value of the development, it is estimated that the Proposed Action would result in the generation of approximately \$3,985,056 in taxes for all taxing jurisdictions, as documented in Tables IV.K-7 – IV.K-11.

| Table IV.K-7 Projected Tax Generation Hotel | | | |
|---|----------------------------|--------------------------------|------------------------|
| Market Value - \$23,596,125 Equalization Rate - 2.26% Taxable Assessed Value - \$533,272 | | | |
| Taxing Jurisdiction | Assessed Value (AV) | Tax Rate per \$1,000/AV | Projected Taxes |
| Westchester County | \$533,272 | 144.6 | \$77,124 |
| Town of North Castle | \$533,272 | 168.3 | \$89,762 |
| Ambulance District #2 | \$533,272 | 2.0 | \$1,081 |
| Fire District #2 | \$533,272 | 16.8 | \$8,942 |
| Lighting District #2 | \$533,272 | 2.4 | \$1,299 |
| Capital Bond | \$533,272 | 7.5 | \$3,980 |
| Zoning ⁽¹⁾ | N/A | 126.1 | N/A |
| Water District #4 | \$533,272 | 0.3 | \$186 |
| Byram Hills School District | \$533,272 | 690.4 | \$368,189 |
| Sewer O&M ⁽¹⁾ | N/A | N/A | N/A |
| | | 144.6 | \$550,562 |

(1) Sewer O&M and Zoning Units/Rates to be discussed and finalized with Town Attorney at a later date.

| Table IV.K-8 Projected Tax Generation Apartments (Market Rate) | | | |
|---|----------------------------|--------------------------------|------------------------|
| Market Value - \$27,187,620 Equalization Rate - 2.26% Taxable Assessed Value - \$614,440 | | | |
| Taxing Jurisdiction | Assessed Value (AV) | Tax Rate per \$1,000/AV | Projected Taxes |
| Westchester County | \$614,440 | 144.6 | \$88,862 |
| Town of North Castle | \$614,440 | 168.3 | \$103,424 |
| Ambulance District #2 | \$614,440 | 2.0 | \$1,245 |
| Fire District #2 | \$614,440 | 16.8 | \$10,302 |
| Lighting District #2 | \$614,440 | 2.4 | \$1,497 |
| Capital Bond | \$614,440 | 7.5 | \$4,586 |
| Zoning ⁽¹⁾ | N/A | 126.1 | N/A |
| Water District #4 | \$614,440 | 0.3 | \$214 |
| Byram Hills School District | \$614,440 | 690.4 | \$424,230 |
| Sewer O&M ⁽¹⁾ | N/A | N/A | N/A |
| | | 144.6 | \$634,362 |

- (1) Sewer O&M and Zoning Units/Rates to be discussed and finalized with Town Attorney at a later date.

| Table IV.K- 9 Projected Tax Generation Apartments (AFFH) | | | |
|--|------------------------|----------------------------|--------------------|
| Market Value - \$691,007 Equalization Rate - 2.26% Taxable Assessed Value - \$15,617 | | | |
| Taxing Jurisdiction | Assessed Value (AV) | Tax Rate per \$1,000/AV | Projected Taxes |
| Westchester County | \$15,617 | 144.6 | \$2,259 |
| Town of North Castle | \$15,617 | 168.3 | \$2,629 |
| Ambulance District #2 | \$15,617 | 2.0 | \$32 |
| Fire District #2 | \$15,617 | 16.8 | \$262 |
| Lighting District #2 | \$15,617 | 2.4 | \$38 |
| Capital Bond | \$15,617 | 7.5 | \$117 |
| Zoning ⁽¹⁾ | N/A | 126.1 | N/A |
| Water District #4 | \$15,617 | 0.3 | \$5 |
| Byram Hills School District | \$15,617 | 690.4 | \$10,782 |
| Sewer O&M ⁽¹⁾ | N/A | N/A | N/A |
| | | 144.6 | \$16,123 |

- (1) Sewer O&M and Zoning Units/Rates to be discussed and finalized with Town Attorney at a later date.

| Table IV.K- 10 Projected Tax Generation Townhouses (Market Rate) | | | |
|---|------------------------|----------------------------|--------------------|
| Market Value - \$119,000,000 Equalization Rate - 2.26% Taxable Assessed Value - \$2,689,400 | | | |
| Taxing Jurisdiction | Assessed Value (AV) | Tax Rate per \$1,000/AV | Projected Taxes |
| Westchester County | \$2,689,400 | 144.6 | \$338,887 |
| Town of North Castle | \$2,689,400 | 168.3 | \$452,626 |
| Ambulance District #2 | \$2,689,400 | 2.0 | \$5,379 |
| Fire District #2 | \$2,689,400 | 16.8 | \$45,182 |
| Lighting District #2 | \$2,689,400 | 2.4 | \$6,455 |
| Capital Bond | \$2,689,400 | 7.5 | \$20,170 |
| Zoning ⁽¹⁾ | N/A | 126.1 | N/A |
| Water District #4 | \$2,689,400 | 0.3 | \$807 |

| | | | |
|-----------------------------|-------------|-------|--------------------|
| Byram Hills School District | \$2,689,400 | 690.4 | \$1,856,762 |
| Sewer O&M ⁽¹⁾ | N/A | N/A | N/A |
| | | 144.6 | \$2,726,268 |

(1) Sewer O&M and Zoning Units/Rates to be discussed and finalized with Town Attorney at a later date.

| Table IV.K- 11 Projected Tax Generation Townhouses (AFFH) | | | |
|---|----------------------------|--------------------------------|------------------------|
| Market Value - \$2,475,000 Equalization Rate - 2.26% Taxable Assessed Value - \$55,935 | | | |
| Taxing Jurisdiction | Assessed Value (AV) | Tax Rate per \$1,000/AV | Projected Taxes |
| Westchester County | \$55,935 | 144.6 | \$8,088 |
| Town of North Castle | \$55,935 | 168.3 | \$9,414 |
| Ambulance District #2 | \$55,935 | 2.0 | \$112 |
| Fire District #2 | \$55,935 | 16.8 | \$940 |
| Lighting District #2 | \$55,935 | 2.4 | \$134 |
| Capital Bond | \$55,935 | 7.5 | \$419 |
| Zoning ⁽¹⁾ | N/A | 126.1 | N/A |
| Water District #4 | \$55,935 | 0.3 | \$17 |
| Byram Hills School District | \$55,935 | 690.4 | \$38,617 |
| Sewer O&M ⁽¹⁾ | N/A | N/A | N/A |
| | | 144.6 | \$57,741 |

(1) Sewer O&M and Zoning Units/Rates to be discussed and finalized with Town Attorney at a later date.

Of the taxes generated by the Proposed Action, approximately 32% (or \$1,286,476) of the total taxes would go to the County, Town and special districts and 68% (or \$2,698,580) of the total taxes would be paid to the Byram Hills Central School District. Taxes generated by the Proposed Action represent a significant \$3,774,687 increase above the \$210,369.50 in taxes currently generated from the property.

(b.) Hotel Taxes:

In 1988, Westchester County imposed a hotel room occupancy tax. This tax of 3% is paid on the rent for every hotel room occupancy. In February of 2017, the

Town of North Castle adopted a similar hotel occupancy tax of 3%. In year 1 of the hotel's operation, the hotel room occupancy tax is projected to be \$306,110, of which \$153,055 would be paid directly to the Town of North Castle. Table IV.K-12 presents the occupancy tax generated by the eagle Ridge hotel, over time.

| Table IV.K-12 Projected Hotel Room Occupancy Tax Generation Over Time | | | | | | | |
|--|------------------|------------------|------------------|------------------|------------------|--------------------|---------------------|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | 5-Year Total | 50-Year Total |
| Westchester County | \$153,055 | \$172,378 | \$191,644 | \$210,382 | \$218,797 | \$946,256 | \$9,462,558 |
| North Castle | \$153,055 | \$172,378 | \$191,644 | \$210,382 | \$218,797 | \$946,256 | \$9,462,558 |
| Total | \$306,110 | \$344,756 | \$383,288 | \$420,764 | \$437,594 | \$1,892,512 | \$18,925,116 |

Source: JF Capital Advisors

Additionally, the hotel will include a variety of food and beverage outlets catering to the local demographic as well as the leisure and business guests of the hotel. The hotel is proposed to have three indoor outlets (bar, restaurant and lounge) which would be in service year-round, and two outdoor outlets (2nd floor terrace and pool/outdoor area) which would be used seasonally, weather permitting. This is in addition to three meeting spaces (ballroom, junior ballroom and boardroom). The hotel will also have a grab and go/sundry shop. All sales at these venues are subject to a County sales tax of 3%, a New York State sales tax of 4% and a special sales tax of 0.375, resulting in a total sales tax of 7.375%. At this point, it is not possible to accurately predict projected sale tax revenues.

(c.) Municipal Fiscal Impact

In the Applicant's opinion, Eagle Ridge will not result in a significant fiscal burden to the Town of North Castle. The Project is located on and accessed via private roads, so no maintenance or snow removal by the Town Highway Department will be necessary. All sewer and water infrastructure, once installed, will be maintained privately by the Applicant, the owners of the property, a Homeowners Association, the hotel operator or other private

entity. No burden will be placed on the Town Water & Sewer Department to maintain this infrastructure.

A proportional increase in the demand for police, fire and EMS services will be created by the Proposed Action, but as documented in Chapter IV.J – Community Facilities, the Applicant believes that the increase in demand generated by the new residents of the Site will not be significant.

The Proposed Action will generate \$657,885 in taxes annually for the Town of North Castle, which represents a net increase of \$624,729. This revenue can be allocated to offset the proportionally increased demand for police, fire and EMS service.

(d.) Resident/Hotel Guest Economic Multiplier

The guests at the Eagle Ridge Hotel, as well as the new residents residing in the apartments and townhouses, will produce economic multiplier benefits that will ripple through the local economy in several ways. First, the initial injection of hotel guest spending provides direct revenues for airlines, travel agents, hotels, shops, restaurants, and other facilities serving the needs of the hotel guests. Likewise, new resident spending on goods and services will also be generated by the Proposed Action. This spending is called the direct multiplier effect. Second, the recipients of these direct expenditures spend that money to purchase the necessary inputs. For instance, hotels purchase raw food for their restaurants and cleaning products for their housekeeping departments. This economic activity constitutes the indirect multiplier effect. Third, the beneficiaries of these direct and indirect revenues in turn spend their newly acquired income on unrelated goods and services, such as housing, transportation, and entertainment. This activity spurs successive rounds of purchases, with each round having diminishing effects because of leakages due to savings and purchases of imported products and services. This third type of spending creates the induced multiplier effect.

Various models exist to calculate economic multiplier effects, most notably the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Industrial Multiplier System (RIMS II), or IMPLAN and REMI.

Calculating industry specific multiplier impacts is beyond the scope of this DEIS, nevertheless it is fair to conclude that Eagle Ridge will result in positive economic multiplier impacts throughout the local economy. No adverse impacts would result.

The beneficial economic impact of new resident direct spending can be simply estimated by utilizing average consumer spending, generally recognized as 30% of gross household income.⁴ Utilizing the median household income for the Town of North Castle of \$105,147,⁵ 30% would equal \$31,544 per household. Therefore, the 164 new households (94 townhouses and 70 apartments) proposed at Eagle Ridge would directly infuse approximately \$5,173,216 annually into the local economy.

(e.) Permanent Job Generation

Based upon accepted industry standards, the average number of full-time equivalent (FTE) jobs associated with the hotel can be projected. Additionally, the maximum number of FTE jobs can also be projected assuming that all venues (meeting spaces, hotel and food & beverage venues) are at maximum capacity, all at the same time. These projections are presented in Table IV.K-13.

| Table IV.K-13 Permanent Job Generation | | | | |
|---|--------------------|-----------|--------------------|-----------|
| Project Component | Average Daily FTEs | | Maximum daily FTEs | |
| | Hotel | Apartment | Hotel | Apartment |
| Front desk/lobby | 8 | 3 | 6 | 1 |
| Hotel rooms | 10 | 2 | 9 | 1 |
| Restaurant | 10 | N/A | 14 | N/A |
| Bar | 4 | N/A | 8 | N/A |
| Terrace over 1 st floor | 4 | N/A | 8 | |

⁴ U.S. Department of Commerce, Bureau of Economic Analysis

⁵ U.S. Census Bureau, Quick Facts

| | | | | |
|----------------------|------------|-----------|------------|----------|
| Lounge | 3 | | 6 | |
| Ballroom | 20 | | 35 | |
| Junior ballroom | 15 | | 20 | |
| Pool/outdoor area | 15 | | 20 | |
| Boardroom | 1 | | 1 | |
| Admin & general | 10 | 1 | 10 | 1 |
| Sales & marketing | 9 | 1 | 9 | 1 |
| Repair & maintenance | 9 | 1 | 6 | 2 |
| Parking & valet | 8 | 0 | 10 | 0 |
| Other | 6 | 2 | 8 | 2 |
| Total | 121 | 10 | 158 | 8 |

Source: JF Capital Advisors

Overall the Eagle Ridge project is anticipated to have 131 average daily FTEs, with 121 servicing the hotel and 10 servicing the apartments. On times of maximum utilization (i.e. Saturday night when a large function is taking place in the meeting space, the hotel is fully occupied and the weather permits outdoor service on the terrace and pool/outdoor area), the Eagle Ridge facility is projected to have 164 daily FTEs, with 158 servicing the hotel and 8 servicing the apartments.

(f.) Construction Job Generation

According to the Development Impact Assessment Handbook,⁶ Approximately 70% of the project value is directly attributable to construction costs. The Handbook also states that in general the wage income of construction workers amounts to between 33 and 58 percent of these costs. For the purposes of this analysis, a conservative estimate has been made utilizing the low end of this range (33%).

Based on a construction cost of 70% of the total estimated project value of \$172,949,752 the cost for construction labor would amount to \$121,064,826. Assuming average construction worker wages and benefits of approximately \$75,000/year (i.e. average hourly wages of approximately \$36), the Proposed

⁶ Development Impact Assessment Handbook, Center for Urban Policy Research, 1994.

Action is projected to generate 1,614 person-years of construction employment.

Similar to the permanent multiplier effects resulting from the Project discussed in Section 2.) d.) above, the total employment resulting from construction expenditures would include jobs created in businesses providing goods and services to construction contractors.

3.) MITIGATION MEASURES

A thorough market analysis has concluded that a demand exists for a boutique hotel as proposed herein, and robust markets exist for the proposed apartments and townhouses. Eagle Ridge is projected to generate approximately \$3,985,056 in real estate taxes annually (representing an increase of \$3,774,687 over the existing taxes generated from the Site), \$306,110 in year one hotel occupancy taxes, and extensive secondary multiplier economic benefits throughout the local economy. Permanent jobs will be created by the hotel, as will construction related jobs and spending. Direct spending from the new residents in Eagle Ridge would infuse approximately \$5,173,216 annually into the local economy.

Eagle Ridge will result in a significant net economic benefit. As no adverse impacts will result from the Proposed Action, no fiscal or market mitigation measures are required.

Chapter IV. L.

Historic, Archaeological & Cultural Resources

IV. L - HISTORIC, ARCHAEOLOGICAL & CULTURAL RESOURCES

INTRODUCTION

This section of the DEIS assesses the Proposed Actions impact on historic, archaeological and cultural resources. Historical Perspectives, Inc. was engaged to undertake a Phase IA and Phase IB Cultural Resource Survey to thoroughly address these issues

1.) EXISTING CONDITIONS

(a.) History of the Project Area:

It has been suggested that IBM headquarters' land was once a fort built by the Siwanoy Indians. When the first settlers noted the fort, while looking north from the Long Island Sound, they found it to resemble a castle. This is how the town received its name, North Castle.

The project area is located along the west bank of the Wampus River/Brook. Harnessing the energy of the Wampus River to run industry was, from the earliest colonial period, the impetus for the settlement in this part of North Castle. In fact, the earliest non-native settlement in what is now Armonk was along the Wampus River/Brook near Old Mount Kisco Road. This area falls within the West Patent of North Castle, which was "included in Col. Caleb Heathcote's great purchase of October 19, 1696"¹ The Wampus River/Brook in this area is in a 600- acre section of the West Patent between the west and middle branches of the Byram River known as "The Mile Square." The deed of sale for this land, which included the portion of the Town of North Castle lying west of the Byram River and all of New Castle, was recorded between Heathcote and Wampus and included seven other Native American Sachems. It is likely that Heathcote was attempting to amass enough land to establish a "manor" on a par with neighboring Philipsburgh Manor and Van Cortlandt Manor. Unfortunately, the issuance of land patents was often political and Heathcote was forced to take on partners in order to obtain an official grant

¹ Scharf 1886, Vol. 2:629.

from the crown. None of the patentees lived in North Castle but were instead speculators who planned to resell their property. As a result, settlement was slow due to the fact that interested buyers had to obtain deeds from all the patentees. By 1760 the rights of the patentees of the West Patent were purchased by a committee that included Benjamin Smith, Joseph Sutton and Caleb Fowler. This enabled potential buyers to purchase parcels of land with a clear title.

As early as 1737, the first grist mill was constructed in The Mile Square, on the west side of Cox Avenue north of the bend of modern Route 128. The establishment of a mill meant that farmers could process their grain and other products, which was a boon to settlement. John Hallock was among the first of the Quakers to come to North Castle from Long Island prior to 1730. During the American Revolution, a house close to this mill was used as the headquarters for the American Col. Jamison. It was here that his captors detained the British spy, Major John Andre, for a short while after they stopped him on the road in Tarrytown and took him into custody.

By the mid-18th century, many homes had clustered along the streams and a vibrant milling industry had been formed. North Castle was growing rapidly through milling and later shoemaking industries and as well as a stop on the New York-Danbury Post Road. In the mid-1890s, events occurred that set in motion the greatest change for the neighborhood. The City of New York began work on a water conveyance system to bring water from Westchester County to the homes and businesses of New York City. One component of this project was the damming of the Wampus River near the Connecticut border in order to funnel water toward Kensico Reservoir. The dam was completed in 1894, and during that period surveys were made along the Wampus River corridor with the intention of ridding areas abutting the waterway of buildings and other “nuisances” that could contaminate the water supply. The mill complex, located directly along the Wampus, as well as numerous houses, barns, outbuildings, and the cemetery adjoining the Methodist church, all were within the zone slated for condemnation. However, due to financial

shortfalls it was not until after the turn of the 20th century that these structures were razed.

Concurrent with the demolition of structures in the Wampus River valley was the construction of what is now known as New York State Route 128 or Mount Kisco Road, located just west of the Wampus River and east of the original Old Mount Kisco Road. The road was contracted in 1901 by the state, although likely was not completed until a number of years later.

(b.) History of the Area of Potential Effect:

Willett Cornell first established his farm and home in 1790 on what is now the northern portion of the IBM property, i.e., the Area of Potential Effect (APE). In 1825 Cornell sold the property to the Birdsall family, who lived and farmed on it for two generations. Joseph Birdsall purchased the property with house and then passed it to his son Benjamin. Benjamin Birdsall is listed in the 1880 census as a 57-year-old farmer with a wife and two teenaged sons. The property was later purchased by James E. Brundage and eventually sold to Cornelius R. Agnew.

Agnew was the vice president of a New York bank and a prominent citizen of Westchester. He purchased neighboring farms until the estate contained 600 acres. Cornelius Agnew and his wife Blanche named their estate Wenga Farm. The Agnews built a large, stately house at the end of a long, winding driveway atop one of the rolling hills (presently the site of one of the IBM buildings). Wenga Farm was more than just an estate. It was a fully functioning farm with a large orchard containing hundreds of apple, peach and pear trees. There were also horses, cows, and sheep among other animals.

The former Cornell-Birdsall house with its complex of outbuildings was named the North Gate by the Agnews and was the home of the farm superintendent. This complex was the center of farming activity. Outbuildings included several large barns (for livestock and farm equipment), silo, woodworking and paint shop, stables and garages.

Wenga Farm remained a working farm for decades. Cornelius Rea Agnew stayed at the helm until his passing on November 24, 1954. In 1955 it was announced that IBM would be purchasing Wenga Farm for a corporate world headquarters. On August 5, 1955, Cornelius Rae Agnew Jr., as executor of the Last Will and Testament of Cornelius Rae Agnew Sr., sold the property (no acreage mentioned) with buildings thereon to IBM.

IBM spent nine years planning and constructing a 417,000 square foot compound. IBM relocated the Cornell- Birdsall farmhouse to Armonk village center in the mid-1960s (now used as Town Hall). North Castle Drive was constructed through the former location of this homestead. All of the farm buildings as well as the Agnew mansion were razed. IBM added a new central headquarters building in 1997. IBM's headquarters dominate the former Agnew estate landscape.

(c.) Phase IA Cultural Resources Survey:

In order to properly evaluate the Site's historic, archaeological and cultural resources, a series of sequential steps prescribed in The Cultural Resource Standards (1994, 2000, 2015)² must be adhered to. Projects that exhibit a potential to be rich in cultural resources, would require more than one phase of field investigation and more in-depth study.

Historical Perspectives, Inc. (HPI) undertook a Phase IA study that included:

- Review of historic maps to provide an overview of the topography and a chronology of land usage for the study site.
- Inquiries were made to the North Castle Historical Society and the North Castle Planning Department. Primary and secondary sources relating to the project site and its vicinity were reviewed.

² These standards were developed by the New York Archaeological Council and adopted by the OPRHP to ensure uniformity in the review of cultural material in New York State.

- Selected 20th century deeds and other property records were reviewed.
- A site file search was conducted using materials available at the New York State Office of Parks Recreation & Historic Preservation (OPRHP) online resource, which includes data from the New York State Museum (NYSM).
- A site walkover was conducted on May 26, 2018, to assess any obvious or unrecorded subsurface disturbances and to document historic resources on and adjacent to the property.

The physical characteristics of the Site (identified in this study as the Area of Potential Effects or APE) which have been documented throughout this DEIS, consists of steep slopes along the edge of the property with a relatively open field at the higher elevation, with areas of exposed bedrock. The northwestern and northern portion of the Site is heavily overgrown, while the southeast portion is wooded and relatively undisturbed. This southeast area also contains possible rock shelters within the bedrock outcroppings.



Rock Outcrops – Possible Rock Shelter

An abandoned asphalt road hooks through the center of the APE. The land immediately west of this road is unnaturally terraced. A helipad, sewer line and wetlands all exist in the southern portion of the APE. The remnants of farmers' fieldstone walls are present on the northern and eastern side of the APE. Two rows of trees on the southwestern portion mark the location of an early 20th century road. No structures or remains of such could be seen on the APE.

Portions of the APE appear disturbed from road prep and installation, rock and tree removal, construction of the helipad, installation of a sewer line, and recent percolation testing trenches.



Remnant of Asphalt Driveway



Former Helipad

2.) POTENTIAL IMPACT

(a.) APE Site Impacts:

Table IV.L-1 presents archaeological sites and surveys within a one-mile radius from the Site.

| Table IV.L-1 Archaeological Sites & Surveys Within 1 Mile | | | | |
|--|---------------------|--|---|----------------------|
| OPRHP Site#/Name | NYSM Site #/Name | Distance from APE | Time Period | Site Type |
| | 5171 | Location is general, Ca. .2 mile east | Unknown precontact | Camp |
| | 8533 ACP West # | Location is general, Ca. 0.25 mile east | Unknown precontact | Rockshelter |
| | 5178 | Location is general, Ca. .3 mile east | Unknown precontact | Village |
| | 5176 ACP West 40 | Location is general, Ca. 0.75 mile northwest | Unknown precontract | Village, Burial site |
| 11910.000016 Whippoorwill Site | | Ca. .3-mile northwest | Unknown precontact | Camp |
| 11910.0000008 Camp Site II | | Ca. .3 mile southeast | Late woodland | Camp |
| 11910.000009 Stockaded Site | | Ca. .4 mile southeast | Late woodland | |
| 11910.000041 IBM Headquarters Office Building | 8874 | Ca. .5 mile south | Early Archaic | camp |
| 11910.000012 Little Helicker's Rockshelter | | Ca. .5-mile northwest | Late Archaic | Rockshelter |
| 11910.000010 Camp Site III | | Ca. .75 mile south | Unknown precontact | Camp |
| 11910.000011 Helicker's Cave | | Ca. .8-mile northwest | Woodland | Rockshelter |
| 11910.000059 D. White Site | | Ca. 1 mile southwest | 18 th & 19 th century | Farm |

| | | | | |
|--|--|-------------------------|----------------------------------|-------------------|
| 11910.000062 Townsend Prehistoric Site | | Ca. 1-mile northwest | Late Archaic Terminal Archaic | Camp |
| 11910.000063 Townsend Rockshelter | | Ca. 1-mile northwest | Unknown precontact | Rockshelter, Camp |

Source: *Historical Perspectives, Inc.*

During the early 20th century, Arthur C. Parker investigated and/or reported many archaeological sites in the Hudson River Valley for the NYSM. He is cited as the reporter for two of the precontact sites in the Project Site vicinity. The precise boundaries and date range of many of Parker's sites are unknown.

Seven archaeological survey reports within a one-mile radius of the project site were also reviewed at the OPRHP. One was a study of the improvements in the Route 22/I-684 interchange, where no archaeological resources were identified. The other studies were investigations of local subdivisions/developments including: the Kent Development, east of the Wampus River on the west side of Interstate 684; the Whippoorwill Ridge Development, west of Old Route 22, the Townsend Estates Subdivision, approximately 700 feet to the east of the site in the location of NYSM#5176, and the Shultz Farm & Cochran Property, located to the west of Old Route 22. Two previous surveys were completed on the IBM property for the construction of one of the headquarters buildings in 1995 and for parking lot expansion in 2018.

At the Kent Development site, limited evidence of precontact and historical habitation was recovered. The most intriguing find was a chert Levanna projectile point that was considered to be a possible stray find. Excavations at the Whippoorwill Ridge Development site did not reveal any significant cultural resources. In contrast, the Townsend Estates Subdivision identified the Townsend Prehistoric Site (A11910.000062) and the Townsend Rockshelter site (A11910.000063) which were both reported to the OPRHP. The work performed at the Shultz Farm & Cochrane and the IBM North Castle

Parking Expansion Project property did not identify any precontact or significant historical resources.

A Phase I Archaeological investigation was performed at the IBM Headquarters Office Building Site in 1995. Further archaeological excavations were recommended for several portions of the 150-acre property due to the presence of water courses, rockshelters and historic homes. An Early Archaic site was identified, and Phase II investigations were carried out in 1995. Avoidance of the site was recommended, and the site was nominated for the National Register.

The closest historic resources to the Project Site include some of the residences on Old Mount Kisco Road, which have been recently added to the list of Historic Homes in North Castle. These architectural and historical sites have not been fully evaluated for eligibility to the State/National Register of Historic Places (S/NRHP). At present, these resources are located at various distances from the project APE, with reasonably heavy foliage separating most of the properties.

(b.) Sensitivity Assessment:

Precontact Sensitivity:

From what is known of precontact period settlement patterns in Westchester County, most habitation and processing sites are found in sheltered, elevated locales close to wetland features, major waterways, and with nearby sources of fresh water. The Project Site is located near the Wampus River and contains well-drained soils uphill from the water. Research found that fourteen precontact sites have been identified within a one-mile radius of the project APE. One of these sites, an Early Archaic site, was on the IBM property immediately south of the APE. In addition, bedrock outcrops on the APE may contain possible rockshelters. These factors signify potential precontact sensitivity.

Historical Period Sensitivity:

The 18th to 19th century Cornell-Birdsall farm, and later 20th century Wenga Farm, consisted of a large complex of buildings that existed on the northern portion of the APE; the APE was part of the larger agricultural history which consisted of orchards, livestock and farm buildings. IBM purchased this land from the Agnew family in 1955. The farm buildings were moved or demolished by the 1960s. Aerial photographs show that some of these buildings were originally located where Route 128 intersects with North Castle Drive; however, a number of buildings also existed on the northern portion of the present APE. These factors signify potential historic-period sensitivity.

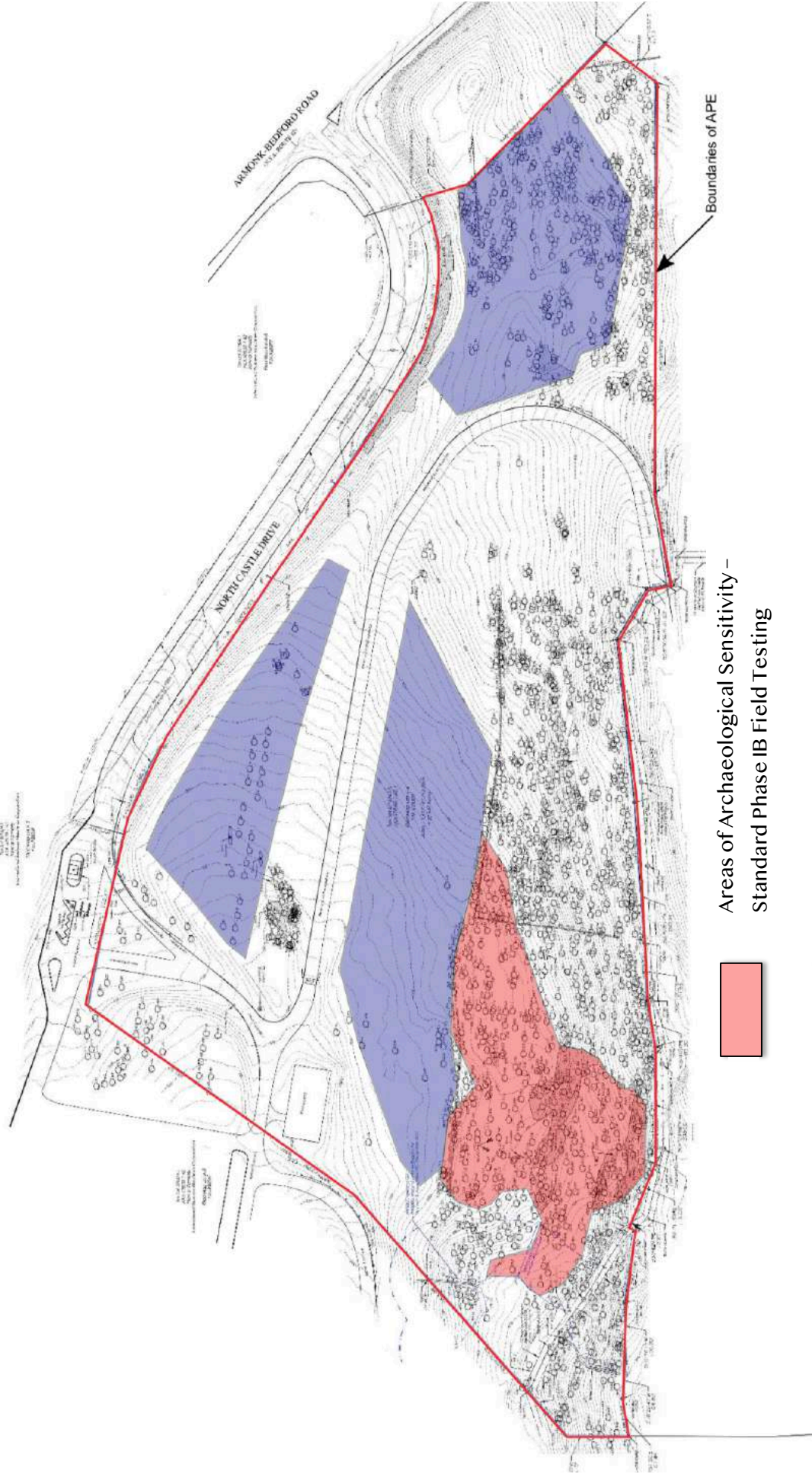
Phase IA Conclusion:

Archaeological testing is recommended for only a portion of the Project Site (Figure IV.L-1)). No field testing is recommended for the project APE with more than 12% slope, with the exception of the areas that have rock overhangs which have the potential for containing rockshelters. Also, no field testing is recommended for land areas with clear evidence of 20th century disturbance (e.g., road prep and installation, rock and tree removal, helipad construction, and installation of sewer line).

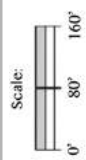
Some portions of the APE which fit the model for possible precontact occupation are clearly undisturbed (i.e., southeastern wooded portion) and standard Phase IB Archaeological Field Testing is recommended. However, on other portions of the APE (i.e., center field area, western edge) complete disturbance is unclear or intermittent; therefore, limited Phase IB field testing is recommended to confirm possible disturbance.

In addition, further archaeological investigations are recommended for the northern portion of the APE due to possible middens, privys, wells or cisterns related to the Cornell-Birdsall residence that may have remained intact. No foundation or structural remains could be seen upon visual inspection (5/26/2018); however, the area was heavily overgrown.

Testing is also recommended for several rock overhangs that are present within the bedrock outcrops.



Source: *Historical Perspectives, Inc.*



Archaeological Sensitivity Map

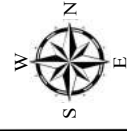


Figure
IV.L-1

3.) MITIGATION MEASURES

As noted above, Phase IB site investigations, which involve systematic field investigations, are recommended for portions of the Project Site. The area where limited field testing is recommended is unlikely to reveal significant artifacts. The area where standard Phase IB field testing is recommended is more likely to reveal archaeological material, however, this area is to remain primarily undisturbed and undeveloped.

The Phase IB field testing is proposed to be undertaken as a condition of site plan approval, and would be completed prior to the issuance of a building permit. Any artifacts recovered from the middens, privy's and cisterns associated with the Cornell-Birdsall farm will be recorded, cataloged and preserved. Upon recovery of any artifacts that may be present, no change to the site plan as currently proposed, would be necessary.

It is the Applicant's opinion that no significant adverse historic, archaeological or cultural resource impacts are anticipated as a result of the Proposed Action.

Chapter IV. M.

Open Space

IV. M. OPEN SPACE

INTRODUCTION

This section of the DEIS evaluates the Proposed Action's impacts on existing open space resources.

1.) EXISTING CONDITIONS

The 26.5-acre Subject Site is presently vacant and undeveloped, and as such is an open space resource. Prior to its sale to the Applicant in August of 2017, the Site was part of the adjacent approximately 400-acre IBM corporate campus. The majority of the IBM property is wooded and undeveloped, and while part of a corporate headquarters campus, also serves as an open space resource.

In addition to the IBM campus' defacto open spaces, The Subject Site lies within an area of abundant designated and dedicated open spaces resources, as described below:

- ***Community Park*** – Is an active Town of North Castle public park located adjacent to the Site to the east. It is 23 acres in size and includes a walking and running track, platform tennis courts, all weather tennis courts located within two bubbles, and which are operated by a private vendor, soccer and baseball fields, playground and picnic pavilion.
- ***Wampus Brook Park*** - Located north of the Project site, across Route 22 off Maple Avenue. This Town of North castle public park is a more passive park, and includes a gazebo bandstand, brook, water fowl and quiet sitting areas.
- ***Betsy Sluder Nature Preserve*** – This 70-acre Town owned nature preserve is located due west of the Site, across Route 22. This passive park includes nature trails, Agnew Pond and Bear Gutter Creek.

- ***Herbert L. Nichols Preserve*** – Located approximately 1,000 feet southeast of the Site, but separated by I-684, this 87-acre preserve is owned by The Nature Conservancy, and includes nature trails.
- ***Kensico Reservoir Watershed Lands*** – The Kensico Reservoir, and the surrounding watershed lands, owned by the New York City Department of Environmental Protection, lies to the southwest of the Project Site.
- ***Tamarack Country Club*** – located south of the Site, beyond the IBM campus in Greenwich, CT, this private country club provides yet another type of open space resource in the area.

These open space resources provide a unique and interconnected and contiguous network open space in the vicinity of the Project Site.

2.) POTENTIAL IMPACTS

The Proposed Action involves converting the Project Site, which is currently vacant, undeveloped and open, to support a hotel and apartment building, as well as 94 adjacent townhouses and associated site improvements, including parking driveways and stormwater and utility infrastructure. Approximately 5 acres of the 26.5 acre site within Lot 2 will remain undeveloped and controlled by a Homeowners Association as permanently preserved open space.

As a result, the Proposed Action will result in the permanent elimination of approximately 26.5 acres of existing open space.

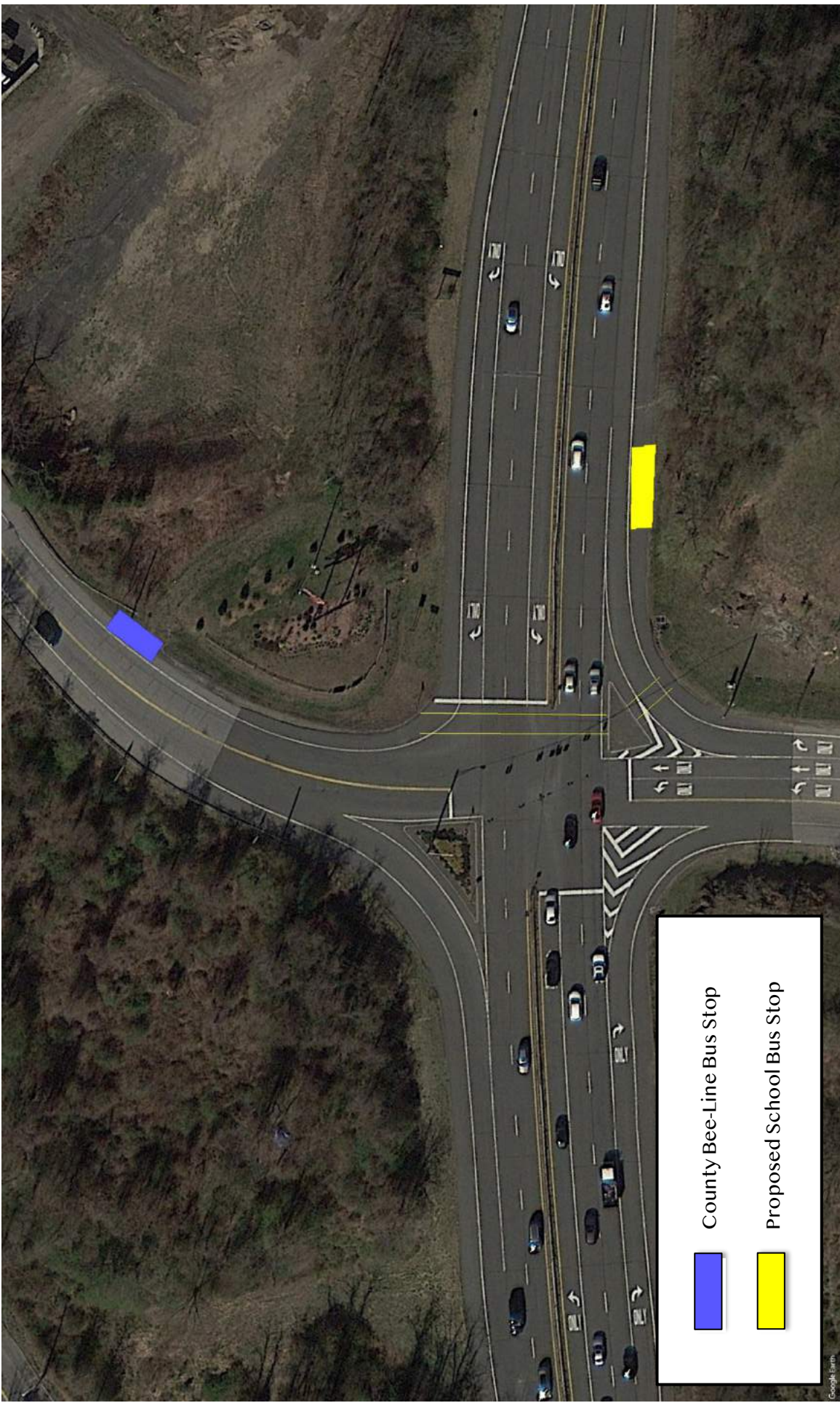
3.) MITIGATION MEASURES

Any development of the Site would result in the elimination of open space resources. The Eagle Ridge development has been designed to minimize the loss of open space through the proposed development of a taller hotel/apartment building with subterranean parking, thereby minimizing its development footprint. Likewise, the town houses have been situated around a central loop roadway that allows for the perimeter of the Site to remain undisturbed.

While the loss of open space resources is an unavoidable impact, an extensive landscaping plan has been developed that incorporates features such as a village commons, linear greenway, transitional woodland edge, tree lined streetscape, and an art meadow as innovative mitigation measures.

To facilitate pedestrian circulation, a liner greenway is proposed within Eagle Ridge to provide internal connectivity, including connections to the Village Green and Art Meadow, and to connect the Project to Community Park. Additionally, a new sidewalk is proposed from the site access driveway, along the west side of North Castle Drive to the Route 22 intersection (Figure IV-M-1). This sidewalk will provide connectivity between the Eagle Ridge development and the Armonk Hamlet. A proposed dedicated pull-off and school bus stop is shown on Route 22 and the County Bee-Line bus stop is shown on North Castle Drive. The Applicant is in discussions with the NYSDOT to explore opportunities to create a safe pedestrian connection across Route 22 to the Armonk Hamlet Center.

The Applicant has evaluated the possibility of extending the Community Park roadways to provide for additional parking in close proximity to Field 4. Site constraint and design limitations will prevent this from occurring from the existing park access roadway, however, the Applicant is further evaluating the possibility of creating a secondary access and parking area off Business Park Drive, in the northeast corner of the Park.



Source: Maser Consulting

Scale: N.T.S.



Bus Stops & Pedestrian Crosswalk Map

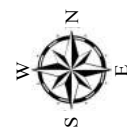


Figure
IV.M-1

Chapter IV. N.

Construction

IV. N. CONSTRUCTION

INTRODUCTION

The development of Eagle Ridge will result in temporary construction related impacts that may affect neighboring properties and the surrounding roadway network.

1.) POTENTIAL IMPACTS

The Proposed Action involves developing the Project Site, which is currently vacant and undeveloped, to support a hotel and apartment building, as well as 94 adjacent townhouses and associated site improvements, including parking, driveways and stormwater and utility infrastructure. Approximately 26.5 acres of the 32.5-acre site would be disturbed to accommodate the Proposed Action.

a.) Construction Scheduling and Phasing:

The development of the Proposed Action will occur in 6 phases, which are anticipated to occur over a period of 24 months. The Phasing Plan (Figure III-14) was presented in Chapter III. Project phases include:

Phase 1 – 4.60 acres - Lot 1, site clearing and preparation, installation of utility infrastructure, installation of stormwater management facilities and practices, construction of main site access driveway and hotel/apartment building access driveway and surface parking.

Phase 2 – 3.14 acres - Construction of hotel/apartment building and parking garage.

Phase 3 – 4.97 acres - Construction of Lot 2 utility infrastructure and stormwater management facilities and practices, construction of loop road and emergency access, construction of the first two townhouse buildings containing 6 units (unit numbers 55, 56 & 57 and 92, 93 & 94).

Phase 4 - 4.02 acres - Construction of the western block of townhouses, consisting of 10 buildings containing 27 units (unit numbers 40 – 54 and 80 – 91)

Phase 5 - 4.92 acres – Construction of the southern block of townhouses, consisting of 10 buildings containing 30 units (unit numbers 19 – 38 and 71 – 79).

Phase 6 - 4.96 acres – Construction of eastern block of townhouses, consisting of 9 buildings containing 31 units (unit numbers 1 – 18 and 58 – 70).

During the construction period, construction activity is anticipated to occur between the hours of 7:30 a.m. and 5:00 p.m. Monday through Friday and 9:00 a.m. to 5:00 p.m. on Saturdays. Construction will not occur on Sundays or legal holidays. All construction activities shall adhere to the noise requirements stated in Chapter 210 of the North Castle Town Code.

All construction staging, material and equipment storage and construction worker parking will occur on-site. No disturbances to North Castle Drive will result from the Proposed Action.

b.) Clearing & Grading:

Clearing and grading will occur sequentially in accordance with the Phasing Plan identified above. As depicted on the Grading Plan presented in Chapter III (Figure III-8), the development of both the hotel/apartment building and the townhouses have been designed to take advantage of the Site's topography by setting the buildings into the slope. The townhouses will step up the hill toward North Castle Drive. The primary grading required is located on the northern end of Lot 2, between the hotel/apartment building and the townhouses. This grading is required to create the two stormwater management basins. Approximately 26.5 acres of the Site will be disturbed (Figure III-7 – Limits of Disturbance Plan presented in Chapter III).

Grading of the Site increases the potential for soil erosion during construction, and without appropriate mitigation incorporated into the proposed action, would have the potential to increase the volume and velocity of stormwater. If not controlled, these activities may lead to accelerated erosion and sedimentation both during and after construction. Potential stormwater related impacts from construction will be minimized by the installation and maintenance of the erosion and sediment control practices. An Erosion and Sediment Control Plan (Figure III-11 presented in Chapter III), has been included in the Preliminary Stormwater Pollution Prevention Plan (SWPPP) and the drawing set prepared for the Eagle Ridge development. The SWPPP and other mitigation measures are further described in Section IV.F.

Given the topography of the Site, and the necessity to create generally level development pads, the Proposed Action will result in approximately 113,549 cubic yards of cut and approximately 62,149 cubic yards of fill, for a net of 51,400 cubic yards of cut.

As documented in Chapter IV.B, approximately 55% of the material that will need to be excavated will be re-used on-site as fill, the balance of this excavated material will be exported. Utilizing haul trucks with a 16 cubic yard capacity, approximately 3,312 truck trips would be required to remove this excess material, which will be exported in accordance with all applicable regulations to a suitable location(s). It is projected that the build-out of the Proposed Action will extend over a two-year period, and that material will be exported as the project progresses over the course of that time. This translates into approximately 138 truck trips per month, 34 trips per week or roughly 7 truck trips per day.

The phasing of the Proposed Action has been designed to disturb less than 5 acres during each phase, thereby complying with requirements of the Town as the MS4 and the NYSDEC.

c.) Blasting & Rock Removal:

Due to the obvious presence of rock outcrops and bedrock on the Site, and the grading required to accommodate the proposed improvements, it is anticipated that some blasting will be required. A detailed site geotechnical study has not yet been completed, so the precise volume of rock removal has not been established.

Although it is anticipated that some bedrock situated near the Site's surface can be removed by mechanical means (i.e. chipping and ripping), blasting would be required in areas where the estimated material cut is greater than four feet.

Blasting would be undertaken in accordance with a Blasting Protocol developed for this project, and the Town of North Castle Code, Chapter 122 Blasting & Explosives. This Protocol would meet all New York State and Town of North Castle requirements for blasting.

Typically, blasting results in very short term, loud noise impacts. As noted below in Table IV.N-1, blasting may result in noise impacts of between 62 and 120 dBA, depending upon the distance from the source.

On-site rock crushing is proposed. Rock crushing operations will be performed in accordance with all applicable Town of North Castle and New York State codes and regulations, as applicable. Processed material will be re-used on site as part of the 62,160 cubic yards of fill required for the project.

d.) Noise:

Local daytime ambient noise levels would increase both on and off-site during the clearing and grading activities, construction of the site roadways, installation of infrastructure and the construction of the hotel/apartment building and the townhouses. Construction activities and the operation of construction equipment are an anticipated and necessary short-term consequence of any development of the Site, and cannot be avoided. As a result, construction related short-term noise impacts are expected.

Noise impacts resulting from construction related activities are an intermittent, short-term, temporary impact, dependent upon the construction activity and the proximity of that activity to local receptors, which would cease upon completion of the construction phase of the Project. Table IV.N-1 presents representative noise levels for construction equipment and activities at a range of receptor distances.

| Table IV.N-1 Construction Noise Levels (dBA) | | | | |
|---|---------|----------|----------|------------|
| Equipment/Activity | 50 Feet | 200 Feet | 500 Feet | 1,000 feet |
| Backhoe | 82-84 | 70-72 | 62-64 | 56-58 |
| Blasting | 88-120 | 76-108 | 68-100 | 62-94 |
| Concrete Pump | 74-84 | 62-72 | 54-64 | 48-58 |
| Generator | 71-87 | 59-75 | 51-67 | 45-61 |
| Hailer | 83-86 | 71-74 | 63-66 | 57-60 |
| Loader | 86-90 | 74-78 | 66-70 | 60-64 |
| Rock Drill | 83-99 | 71-87 | 63-79 | 57-73 |
| Trucks | 81-87 | 69-75 | 61-67 | 55-61 |

Source: US Department of Transportation, Federal Highway Administration

The Project Site is very isolated, and is not located within close proximity to any sensitive receptors. Community Park, located adjacent to the Site to the east, is considered a noise generator, and a sensitive receptor. The Project has been designed to maintain a wooded buffer and enhanced landscaping along this property line to mitigate noise impacts from the park on the new residential uses within the Project.

e.) Air Quality:

Construction related impacts to air quality would vary based on the proximity of the construction activities to adjacent properties and the type and amount of construction equipment used for each project phase.

Construction related air emissions would result from the use of diesel fuel for construction vehicles and equipment. While well maintained diesel engines are more efficient than gasoline engines, pollution from these engines produce exhaust from the combustion process resulting in the release of hydrocarbons, carbon monoxide, nitrogen oxides and particulate matter.

General construction activities on the Site would have a potential impact on the local air quality through the generation of fugitive or airborne dust. Fugitive dust is generated during ground clearing and excavation activities. Throughout the construction period, the passage of delivery trucks and other vehicles over temporary dirt roads and other exposed soil surfaces also generates fugitive dust.

f.) Erosion Control:

Sedimentation resulting from erosion of disturbed soils during construction is a potential impact, affecting wetlands, watercourses and receiving waters of downstream properties. The Proposed Action has the potential to increase the volume and velocity of stormwater runoff resulting from land clearing and the conversion of existing land forms into developed areas and impervious surfaces. If not properly controlled, these activities could lead to accelerated erosion and sedimentation during construction. Sedimentation of receiving waterbodies could result in increased turbidity, nutrient enrichment and increased transport of pollutants.

g.) Construction Traffic:

The development of Eagle Ridge will result in construction truck traffic. Construction traffic would be generated initially during the mobilization of activities to clear the site, install roads and infrastructure. The grading of the Site will result in the removal of approximately 51,400 cubic yards of material over the course of the construction of the Project. Utilizing haul trucks with a 16 cubic yard capacity, approximately 3,312 truck trips would be required to remove this excess material, which will be exported in accordance with all applicable regulations to a suitable location(s). It is projected that the build-out of the Proposed Action will extend over a two-year period, and that

material will be exported as the project progresses over the course of that time. This translates into approximately 138 truck trips per month, 34 trips per week or roughly 7 truck trips per day.

Truck deliveries will occur periodically throughout the course of construction as materials are brought to the Site including concrete, steel, framing materials and related building materials.

Construction truck traffic will utilize North Castle Drive to Route 22, and exit 3 on I-684 which is located less than ½ mile east of the Site. It is anticipated that this route would be used for the majority of deliveries.

The number of truck trips generated per day during construction would vary depending on the phase and pace of construction, weather conditions and seasonal variations. Types of construction vehicles that will routinely come to the Site include dump trucks, delivery vehicles, pick-up trucks, concrete trucks, backhoes and construction worker vehicles. Bulldozers, skid steers, track excavators, front end loaders, graders and pneumatic rock breakers will be delivered to the Site on flatbeds. Much of this equipment will be brought to the Site and remain there until it is no longer required, and will not make daily trips to and from the Site. Depending on the phase of construction, between 15 and 35 construction workers would be present on the Site at any one time.

During construction, the Site will be fenced, and when construction is not occurring, a locked gate will prevent unauthorized access. Video surveillance and/or on-site security personnel may be deployed during periods when valuable equipment or supplies are present, or if otherwise found to be necessary. As construction will be limited to between the hours of 7:30 a.m. and 5:00 p.m. Monday through Friday and 9:00 a.m. to 5:00 p.m. on Saturdays, no temporary site lighting will be required.

2.) MITIGATION MEASURES

a.) Construction Scheduling and Phasing:

The Phasing Plan prepared for this Project allows for development to occur in 6 separate phases, each one disturbing under 5 acres of land area thereby complying with requirements of the Town as the MS4 and the NYSDEC. All erosion and sedimentation control measures and site stabilization techniques have been designed to relate to the corresponding phase of construction. Any delay or failure in constructing subsequent phases would not affect previous phases, as they have been designed to function independently.

Although there are 6 phases on the construction phasing plan the Proposed Action consists of two (2) development areas. One development area is the hotel portion of the Site. During phase 1 of the construction sequence the entrance to the Site will be constructed along with the roadway system for the hotel. In addition to the roadway system, the water, sewer, and drainage systems will be constructed in the hotel portion of the Site. The infrastructure associated with the hotel portion can be constructed, tested, and be brought into service without constructing much of the townhouse infrastructure.

The majority of the townhouse infrastructure is contained within phase 3 of the construction sequence. Therefore, the sewer main extension, water main extension, and a majority of the drainage system can be constructed, tested, and brought into service. The remainder of the drainage system will be constructed as the appropriate phase is constructed as the remainder of the drainage system is associated with building drainage.

During the construction all infiltration areas must be cordoned off and protected from heavy machinery.

During the construction period, construction activity shall be limited to the hours of 7:30 a.m. and 5:00 p.m. Monday through Friday and 9:00 a.m. to 5:00 p.m. on Saturdays. Construction will not occur on Sundays or legal holidays. If for any reason, work is required beyond these time periods, written permission will first be obtained from the Building Inspector. All construction activities

shall adhere to the noise requirements stated in Chapter 210 of the North castle Town Code.

All construction staging, material and equipment storage and construction worker parking will occur in designated areas on-site. No parking, storage or disturbances to North Castle Drive will result from the Proposed Action.

b.) Clearing & Grading:

The Proposed Action will require the clearing and disturbance of approximately 26.5 acres of the 32.5-acre Site (81.5%). However, the proposed development has been phased to limit each of the 6 phases to under 5 acres of disturbance each. The development of both the hotel/apartment building and the townhouses have been designed to take advantage of the Site's topography by setting the buildings into the slope, thereby minimizing overall site grading, cut and fill.

Given the topography of the Site, and the necessity to create generally level development pads, the Proposed Action will result in approximately 113,553 cubic yards of cut and approximately 62,160 cubic yards of fill, for a net of 51,393 cubic yards of cut.

As documented in Chapter IV.B, approximately 55% of the material that will need to excavated will be re-used on-site as fill, the balance of this excavated material will be exported. Utilizing haul trucks with a 16 cubic yard capacity, approximately 3,312 truck trips would be required to remove this excess material, which will be exported in accordance with all applicable regulations to a suitable location(s). It is projected that the build-out of the Proposed Action will extend over a two-year period, and that material will be exported as the project progresses over the course of that time. This translates into approximately 138 truck trips per month, 34 trips per week or roughly 7 truck trips per day. It is anticipated that haul trucks will exit the Site onto North Castle Drive, travel east on Route 22 to exit 3 on I-684, where convenient north-south travel throughout the region is afforded.

c.) Blasting & Rock Removal:

During construction, initial efforts to remove rock will be through mechanical means (i.e. chipping and ripping). In instances where the rock cut is deeper than four feet, blasting would be utilized.

Blasting would be undertaken in accordance with a Blasting Protocol developed for this project, and the Town of North Castle Code, Chapter 122 Blasting & Explosives. This Protocol would meet all New York State and Town of North Castle requirements for blasting.

In accordance with Chapter 122, the following specific mitigation measures shall be provided:

- The blasting contractor shall be licensed.
- The blasting permit application shall identify all adjacent structures and utilities within 500 feet of the blast site.
- The blasting contractor shall provide certificates of insurance meeting the Town's minimum insurance requirements and shall provide indemnification and a hold harmless agreement.
- A performance bond, in an amount specified by the Building Inspector shall be posted.
- Pre-blast inspections of all structures and utilities within 500 feet of the blast area shall be conducted.
- A Blasting Plan shall be prepared by a licensed professional engineer, and shall include:
 - A performance specification outlining the spacing, diameter and depth of drill holes; number of drill holes to be loaded during any blast; caps, delays, charge weight and sequence per blast; peak particle velocity computations; vibration monitoring program; removal methods; safety measures to protect vehicles and pedestrians; and impacts and mitigation proposed to neighboring properties due to noise, dust, traffic and blasts.
 - The design of exposed rock faces based on factual representation of bedrock stability as determined by a geotechnical consultant.

The design should include profiles of existing and proposed conditions; location of varying stability of bedrock; improvements to control drainage and groundwater; and details of walls, cribbing, rock pinning or other methods proposed to stabilize face.

- Blasting shall be limited to 8:00 a.m. – 5:00 p.m. Monday through Saturday.
- The adjacent owner notice requirements of §122-12 shall be complied with.
- The quantity of explosives used shall be no greater than necessary to properly start the rock or other substances nor use such an amount as will endanger persons or property.
- All blasts within 500 feet of any roadway, public area, occupied private area or structure, before firing, shall be covered with matting or other suitable protection of sufficient size, weight and strength to prevent the escape of broken rock or other material in a manner liable to cause injury or damage to persons or property. All blasts not within 500 feet of any roadway or structure shall have a suitable screen so as not to cause injury or damage to persons or property.
- No blast shall occur unless competent persons carrying a red flag and whistle shall have been placed at a reasonable distance on all sides of the blast to give proper warning thereof at least three minutes in advance of firing.
- Explosives for blasting shall be kept in a properly constructed magazine painted red and marked "danger."
- At no time shall the amount of explosives kept at the site of the work exceed amounts needed for one working day, unless otherwise approved, in writing, by the Building Inspector. Such explosives shall be stored, handled and used in conformance with any and all applicable laws, regulations and codes. Under no circumstances may explosives be stored over any weekend, and all excess explosives not required for the last workday of the week's detonation shall be removed by 12:00 noon on that day.
- Accurate daily records shall be kept showing the amount of explosives on hand within the municipal boundary, both at the site and at any

storage magazine; the quantities received and issued and the purpose for which issued, when used or stored within the Town limits.

- The blasting contractor shall be responsible for any damage or injury to any persons, property or structures as a result of his handling, storage or use of explosives.
- Magazines to be used for storage of explosives shall be as specified in the current standards of the National Fire Protection Code. Magazines are to be kept locked, except when being inspected or when explosives are being placed therein or being removed therefrom. All magazines will be stored at a location approved by the Building Inspector. Under no circumstances is the agreed storage location to change without written permission of the Town.
- Prior to the issuance of a permit, the blasting contractor shall submit to the Building Inspector his anticipated route through the Town for the delivery of any explosives. No permit will be issued until the route is approved by the Building Inspector and, if found necessary, the Fire Inspector.

d.) Noise:

While construction noise is an unavoidable short-term impact, the following measures will be employed to mitigate noise impacts:

- All construction equipment shall be maintained in good working order.
- All construction equipment shall include appropriate muffler systems.
- Stationary equipment (such as generators) shall be shielded and sound attenuated.
- Blasting mats shall be used for all blasting operations.
- If comparable equipment is available, the use of quieter equipment shall be specified; electric powered equipment is typically quieter than diesel, and hydraulic powered equipment is quieter than pneumatic power.

e.) Air Quality:

The emission of particulate matter and other airborne pollutants can be minimized through the proper tuning of vehicle engines and maintenance of air pollution controls thereby minimizing their contribution to site generated air pollution during construction.

Minimizing fugitive dust can be accomplished through the following methods:

- Minimizing the area of grading and the extent of exposed soil at any one time to under 5 acres, and stabilizing exposed areas with mulch and seed as soon as practicable.
- Incorporating the use of fast-germinating seed with mulch, hydro-seed or other temporary soil cover.
- Minimizing vehicle movement over areas of exposed soil.
- Covering all haul trucks transporting soil with tarpaulins.
- Spraying water on unpaved areas and areas of construction vehicle traffic to reduce dust generation.

f.) Erosion Control:

The Erosion Control Plan prepared for Eagle Ridge (Figure III-11 presented in Chapter III) and the preliminary SWPPP included in the Appendix, document in detail all proposed erosion control measures. Soil exposure is limited to under 5 acres for any phase of construction, in accordance with NYSDEC SPDES General Permit (GP-0-15-002) for Stormwater Discharges from Construction Activities. The erosion and sedimentation control measures specified on the Plan have been developed specifically for this Project to provide both temporary controls during construction and permanent controls that will be in place and functioning upon final stabilization of the Site.

In addition to the NYSDEC requirements, all construction activities will meet the requirements of the Town Code, Chapters 157 – Excavations, 161 – Filling & Grading and 267 Stormwater Management.

The overall intent of the Erosion Control Plan is to minimize the potential for soil erosion from areas exposed during construction and prevent sediment from entering downgradient wetlands, watercourses and waterbodies. Prior to the commencement of and construction activities or disturbance of any soils, the erosion and sediment control measures will be installed in accordance with the specifications in the SWPPP. The SWPPP has been developed in accordance with New York State Standards and Specifications for Erosion Control and incorporates applicable elements of the New York State Stormwater Design Manual.

The construction contractor would be responsible for complying with all specifications and conditions of the SWPPP. In addition, the Applicant will engage a Certified Professional in Erosion and Sediment Control/Certified Professional in Stormwater Quality or equally qualified professional to oversee the implementation of the SWPPP.

The objectives of the Erosion Control Plan are:

- Control erosion at its source with temporary control measures.
- Minimize the amount of sediment laden runoff from areas of disturbance, and control runoff prior to discharge to off-site areas.
- De-concentrate and distribute stormwater runoff through natural vegetation or structural measures before discharging to critical zones such as streams or wetlands.

Following construction, erosion would be prevented by re-establishing vegetation, and new landscaping and through the installation of the permanent stormwater management devices and facilities as depicted on the Site Plan.

g.) Construction Traffic:

Construction traffic would be generated initially during the mobilization of activities to clear the site, installation of roads and infrastructure. Site grading will result in the greatest number of truck trips.

Truck deliveries will occur periodically throughout the course of construction as materials are brought to the Site including concrete, steel, framing materials and related building materials.

Construction truck traffic will utilize North Castle Drive to Route 22, and exit 3 on I-684 which is located less than ½ mile east of the Site. It is anticipated that this route would be used for the majority of deliveries. To the extent practical, deliveries to the site will be scheduled after the morning peak traffic period and before the afternoon peak traffic period.

Local contractors are expected to use local roads as well as the regional highways to access the Site. these contractors currently use these local roadways to get to and from their job sites. As a result, their travel to and from the Site will have a minimal impact on the traffic volumes of the surrounding roadway network.

Construction traffic will utilize a single stabilized construction entrance on North Castle Drive. Large construction equipment will be brought to the Site and remain there until it is no longer required, and will not make daily trips to and from the Site.

In the Applicant's opinion, potential impacts resulting from the construction of Eagle Ridge are expected to be minimized through the implementing of the construction practices and measures described above, thereby mitigating impacts to the maximum extent practicable.

Chapter V.

Alternatives

V. - ALTERNATIVES

INTRODUCTION

This section of the DEIS evaluates the potential impacts of 5 alternatives to the Proposed Action.

1.) NO ACTION

The “No Action” alternative is required to be addressed pursuant to the adopted Scoping Document and the SEQRA regulations. In this case, the No Action alternative would leave the Site in its current vacant and undeveloped condition. No development, including the hotel and apartment building, as well as the townhouses would be constructed.

The No Build alternative would result in no additional environmental impacts beyond the existing condition (i.e. no additional impervious surfaces, no additional traffic or visual impacts, no increase demand for domestic water or generation of wastewater, etc.)

The open upland portion of the Site would continue its ecological transition from orchard to cleared meadow to woodland. This encroachment of forest woodland would include invasive, non-native volunteer species in addition to native species.

If the property were to remain undeveloped, it is likely that the owner would seek to reduce the property tax levy on the Site through a tax certiorari proceeding.

This alternative does not meet the objectives of the Applicant, nor would it meet the objectives of IBM, the prior owner of the property who sold the parcel in anticipation of its development in accordance with the existing zoning and land use regulations of the Town, nor would it meet the objectives of the Town as articulated in the Comprehensive Plan.

2.) HOTEL ONLY DEVELOPMENT UNDER EXISTING OBH ZONING

Under this alternative, the Site would be developed to support an 80,982, square foot, 3-story (44.82'), 300 room hotel, supported by 661 off-street surface parking spaces. No residential uses would be included in this alternative.

The hotel building is located in the south-central portion of the Site, in the open meadow area. Access would be provided off North Castle Drive, and a driveway would travel south to the hotel, and access a surface parking area located primarily on the south side of the building, but also extending around the east side as well. Stormwater basins would be located along the access driveway.

16.9 acres of the Site would be disturbed in this alternative, and the required cut and fill analysis is presented in Table V-1.

| Table V-1 Hotel Only Alternative - Cut & Fill Analysis | | |
|---|-----------------|------------------|
| | Site Work Alone | Site + Buildings |
| Cut (-) | -96,021 cy | -131,592 cy |
| Fill (+) | +21,918 cy | +21,959 cy |
| Net (+/-) | -74,103 cy | -109,633 cy |

Source: Alfonzetti Engineering

Disturbances to slopes is presented in Table V-2.

| Table V-2 Hotel Only Alternative - Slope Disturbance | | | |
|---|--------------|-------------------|-------------------|
| Slope Category | Area (Acres) | Acreage Disturbed | Percent Disturbed |
| 0 - 15% | 16.8 | 12.2 | 46.04% |
| 15 - 25% | 7.6 | 3.1 | 11.70% |
| 25 - 35% | 3.6 | 0.9 | 3.40% |
| ≥ 35% | 4.5 | 0.6 | 2.26% |
| Total | 32.5 | 16.8 | 100% |

Source: Alfonzetti Engineering

The impervious areas resulting from this alternative are presented in Table V-3.

| Table V-3 Hotel Only Alternative - Impervious Areas | |
|--|-------------------------|
| Impervious Component | Impervious Area (Acres) |
| Buildings | 1.6 |
| Paved | 6.8 |
| Total | 8.4 |

Source: Alfonzetti Engineering

This alternative would generate 141 AM and 180 PM peak hour vehicle trips.

As this alternative does not include any residential uses, the resident population of the Town would not be increased, and no impact on schools would result.

This alternative would produce a water demand of 78,000 gpd and generate 78,000 gpd of wastewater.

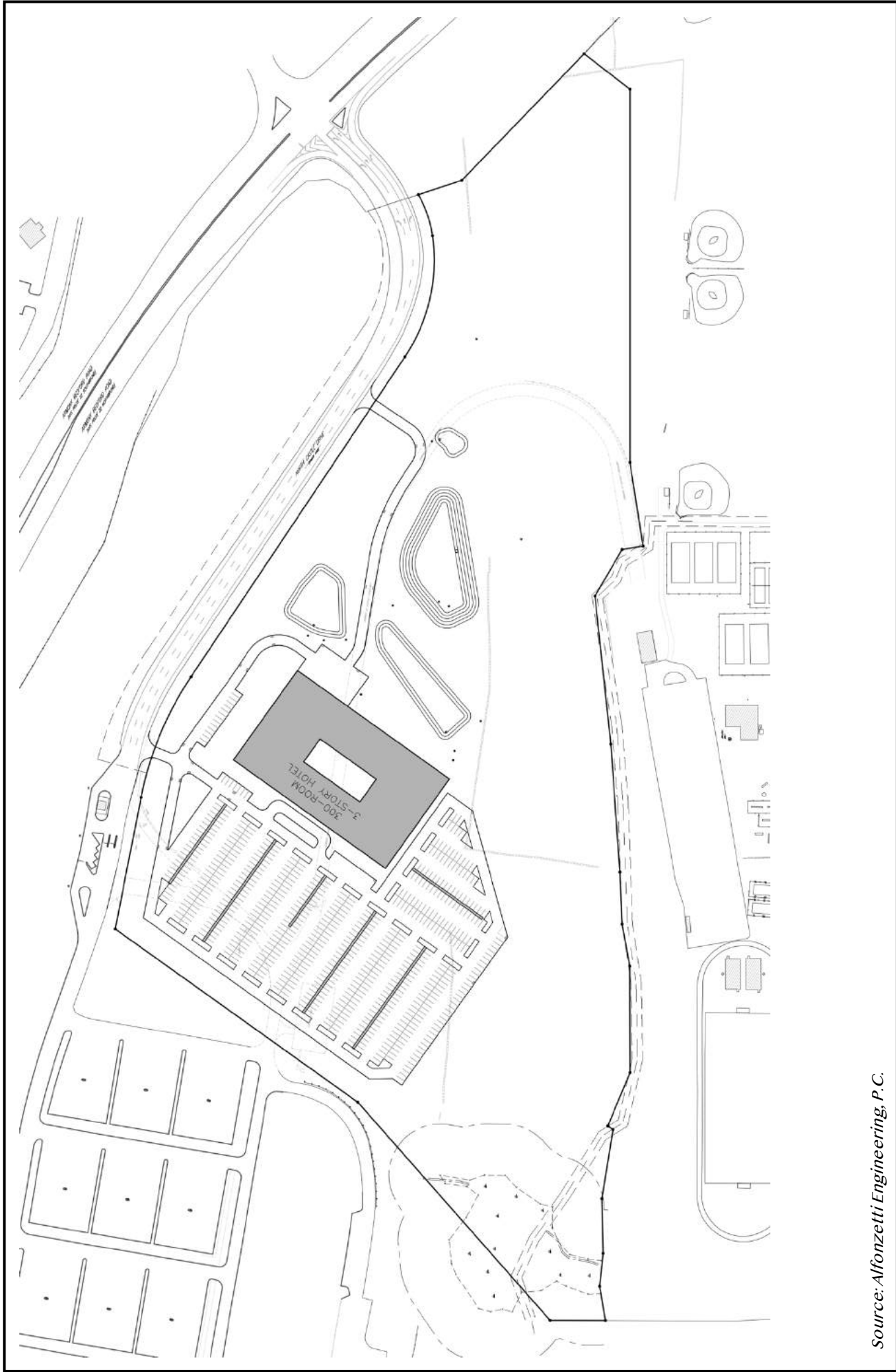
The taxes generated from this alternative is projected to be approximately \$1,815,039.

As documented in the marketing analyses described in Chapter IV. K., a larger hotel such as this is unsupportable in the current market.

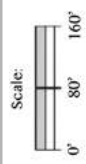
This alternative is documented more fully in Figures V-1 - Site Plan, V-2 - Grading Plan, V-3 - Utility Plan, V-4 - Stormwater Management Plan, V-5 - Erosion Control Plan, V-6 Phasing Plan, V-7 Limits of Disturbance.

3.) HOTEL AND TOWNHOUSE DEVELOPMENT (NO APARTMENTS)

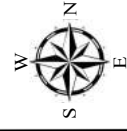
This alternative presents an identical footprint as the Proposed Action. The hotel building is situated in the same location, however, the 3rd – 5th floors that support the apartments in the Proposed Action would be eliminated. The hotel building would consist of 80,982 square feet in two-stories (34.25') and 91 guest rooms above the sub-surface ground parking garage containing 241 spaces along with 67 surface parking spaces.



Source: Alfonzetti Engineering, P.C.



Alternative 1 Hotel Only Under Existing Zoning Site Plan

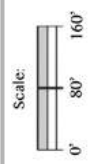


Figure

V-1



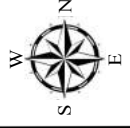
Source: Alfonzetti Engineering, P.C.

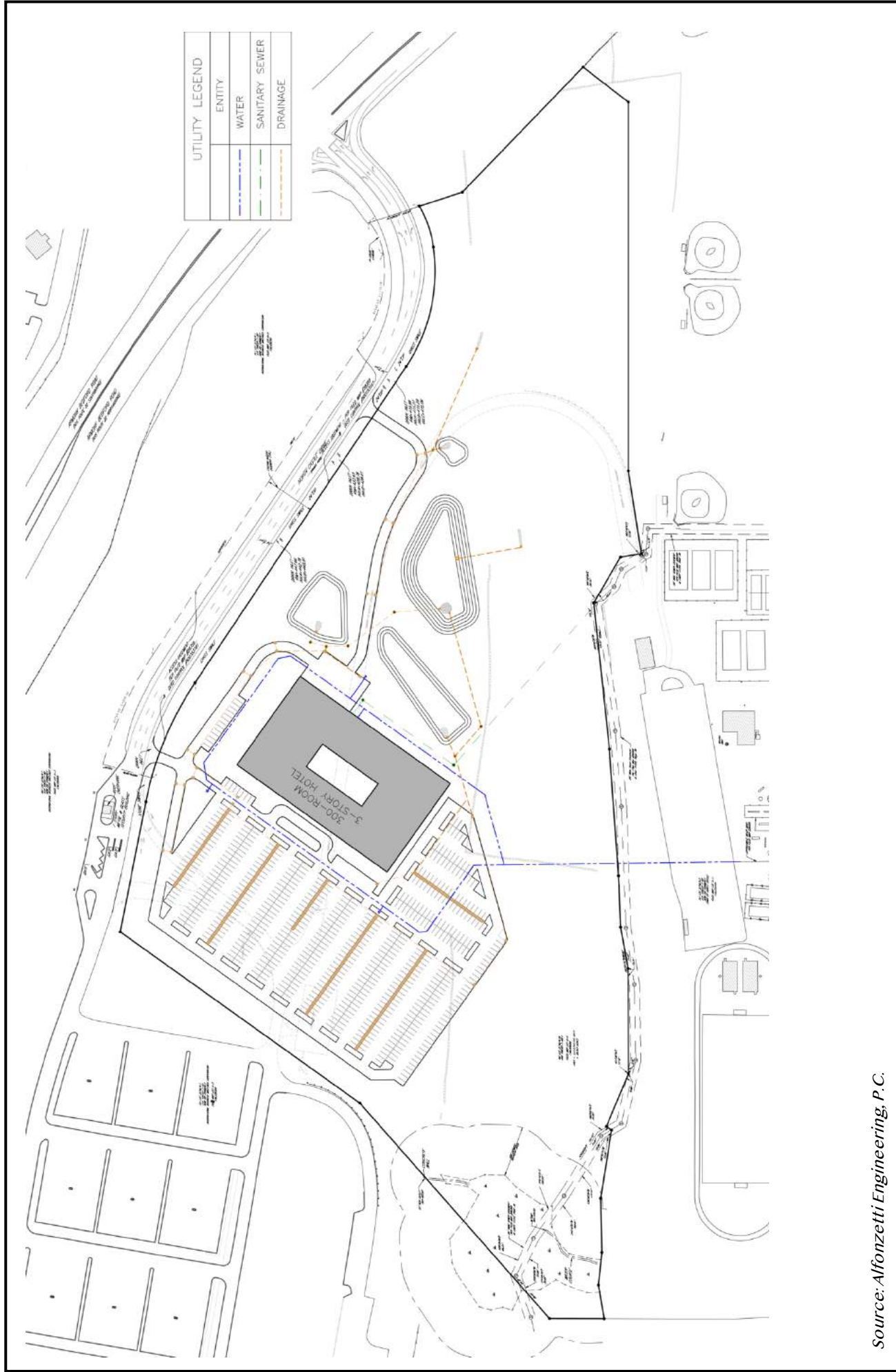


Alternative 1 **Hotel Only Under Existing Zoning** **Grading Plan**

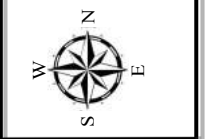
Figure

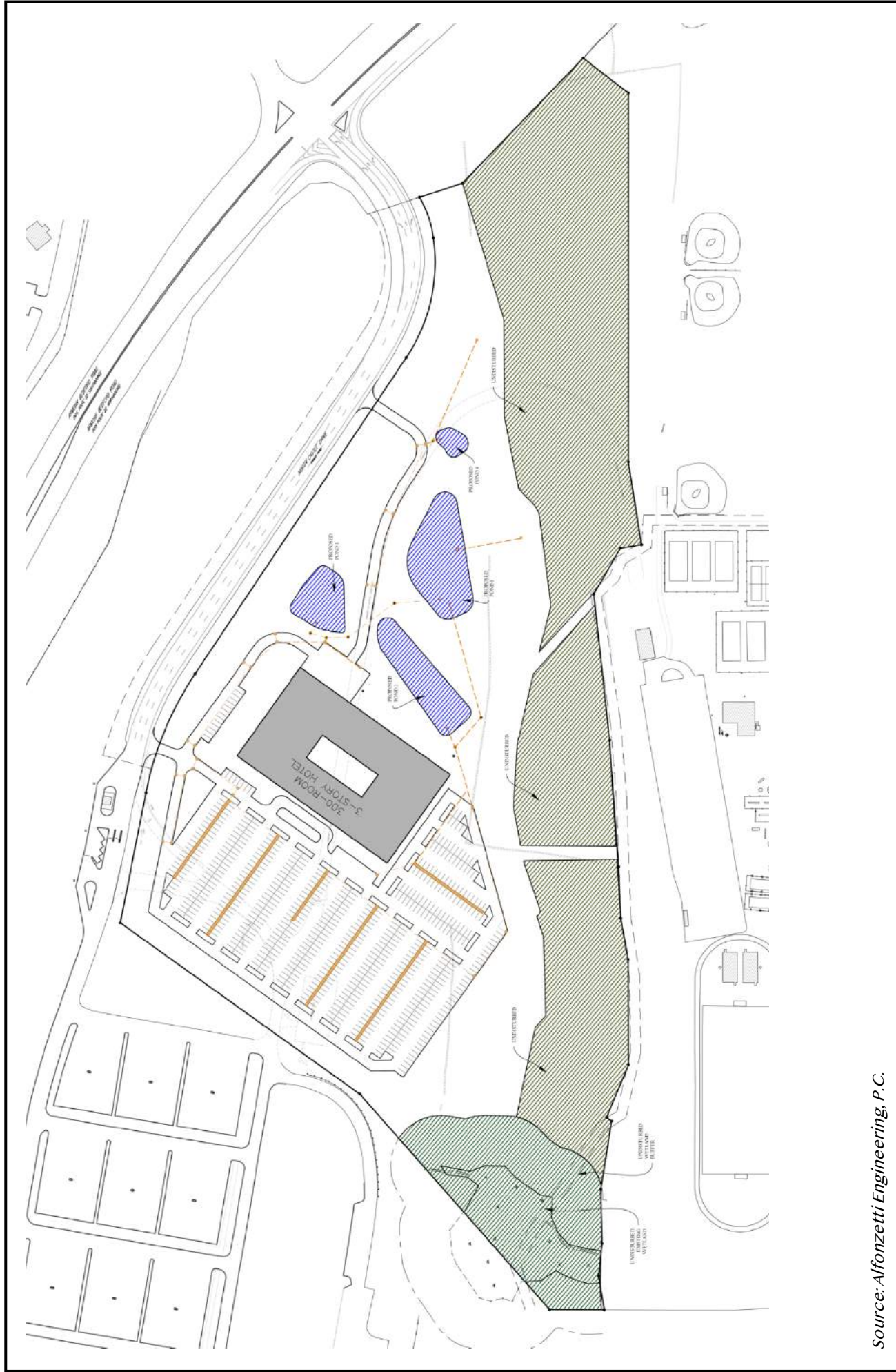
V-2





Alternative 1 **Hotel Only Under Existing Zoning** **Utility Plan**





Alternative 1 **Hotel Only Under Existing Zoning** **Stormwater Management Plan**

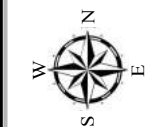
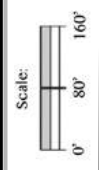
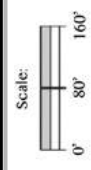


Figure
V-4



| EROSION CONTROL LEGEND | |
|----------------------------------|--|
| ENTITY | |
| SILT FENCE | |
| STAKED HAY BALES | |
| DIVERSION DITCH | |
| TEMPORARY SEDIMENT TRAP | |
| STABILIZED CONSTRUCTION ENTRANCE | |
| SOIL STOCKPILE | |

Source: Alfonzetti Engineering, P.C.



Alternative 1 Hotel Only Under Existing Zoning Erosion Control Plan

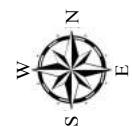
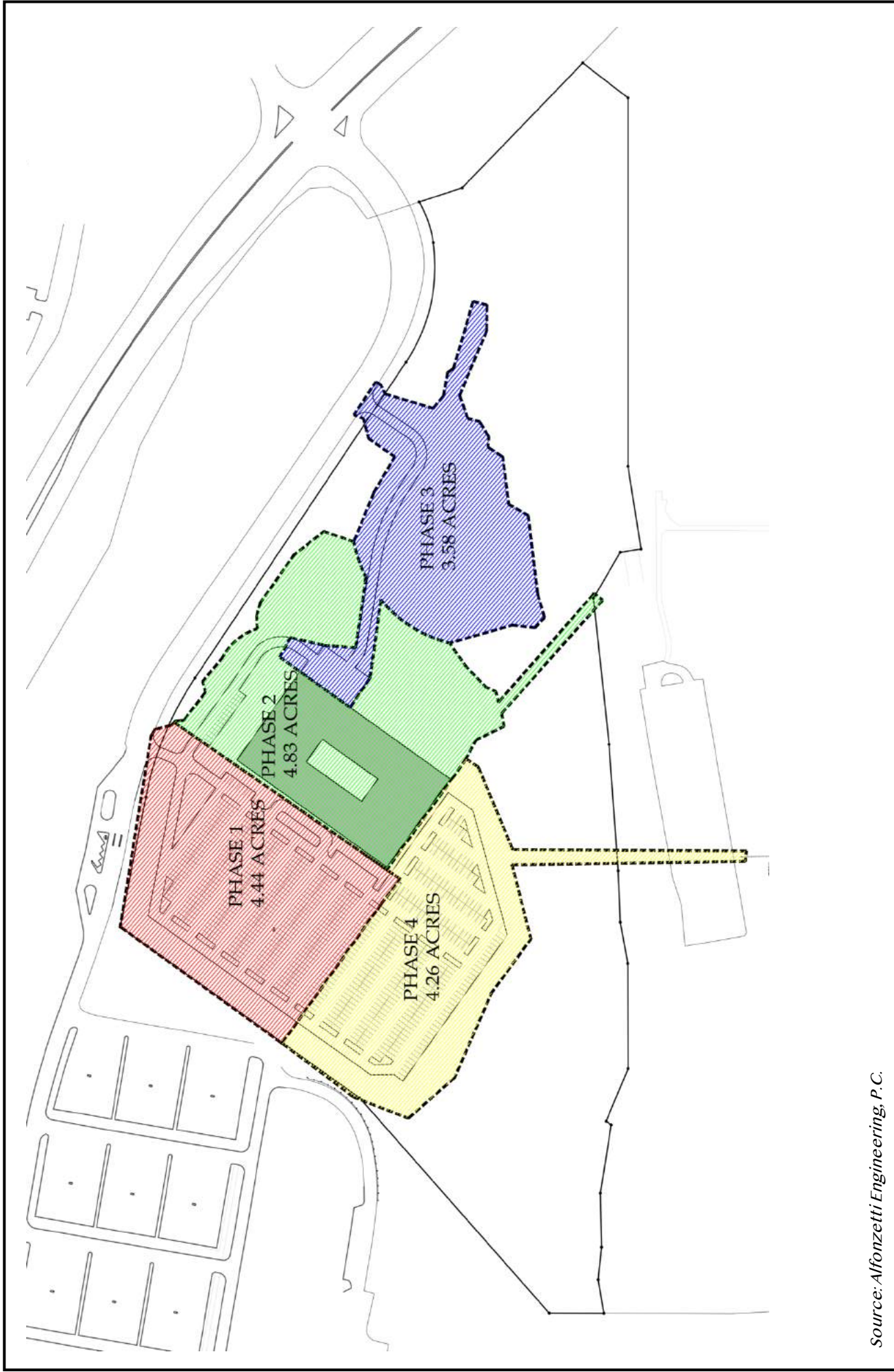
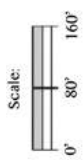
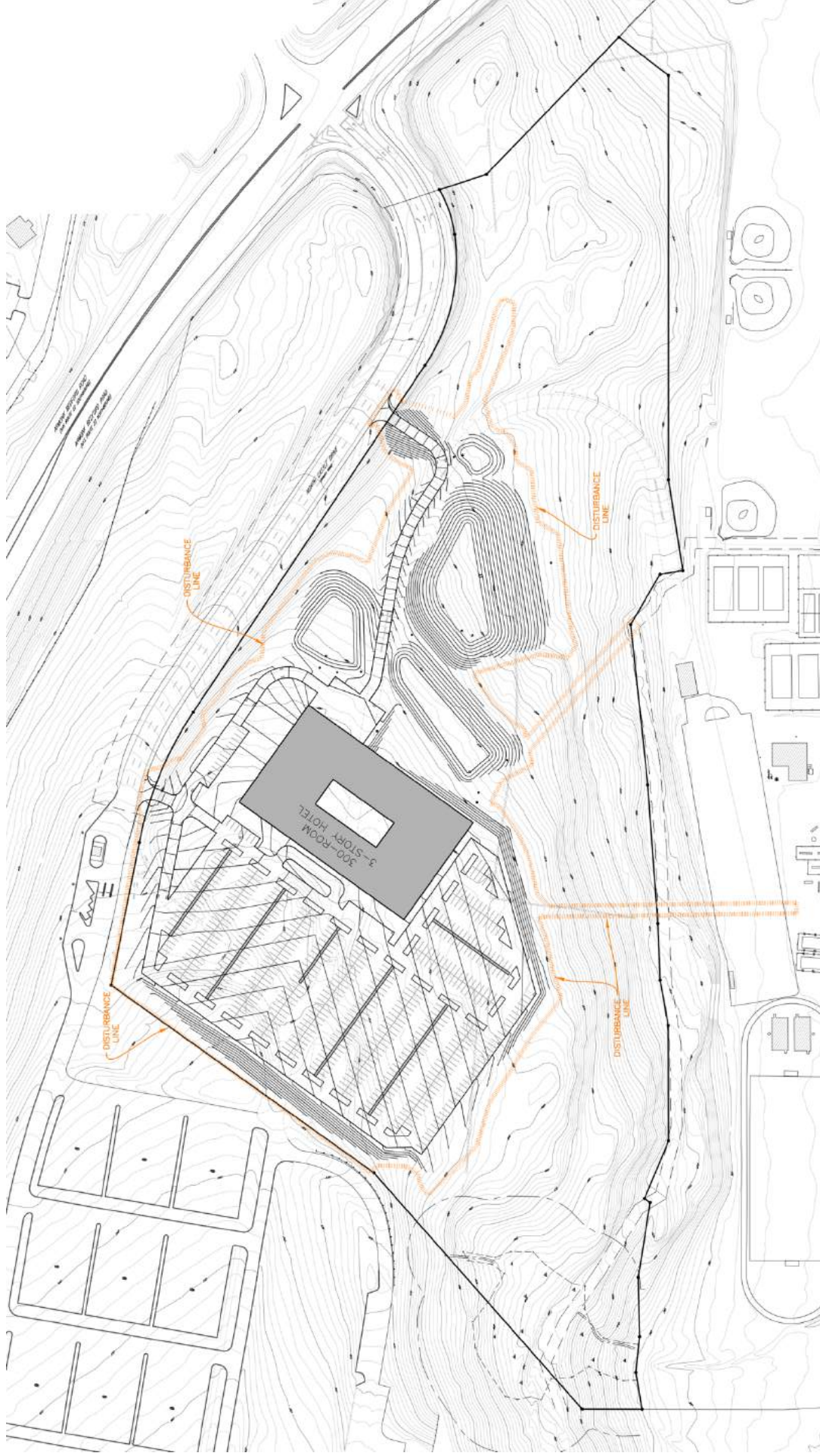


Figure
V-5

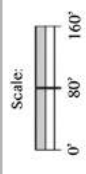


Alternative 1 Hotel Only Under Existing Zoning Phasing Plan



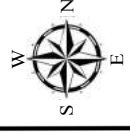


Source: Alfonzetti Engineering, P.C.



Alternative 1 **Hotel Only Under Existing Zoning** **Limits of Disturbance**

Figure
V-7



Similar to the Proposed Action, 94 townhouses are proposed in this alternative supported by 188 resident and 25 visitor parking spaces.

26.5 acres of the Site would be disturbed in this alternative, and the required cut and fill analysis is presented in Table V-4.

| Table V-4 Hotel & Townhouse (No Apartments) Alternative - Cut & Fill Analysis | | |
|--|-----------------|------------------|
| | Site Work Alone | Site + Buildings |
| Cut (-) | -57,832 cy | -113,553 cy |
| Fill (+) | +55,536 cy | +62,160 cy |
| Net (+/-) | -2,296 cy | -51,393 cy |

Source: Alfonzetti Engineering

Disturbances to slopes is presented in Table V-5.

| Table V-5 Hotel & Townhouse (No Apartments) Alternative - Slope Disturbance | | | |
|--|--------------|-------------------|-------------------|
| Slope Category | Area (Acres) | Acreage Disturbed | Percent Disturbed |
| 0 - 15% | 16.8 | 16.0 | 60.38% |
| 15 - 25% | 7.6 | 6.2 | 23.40% |
| 25 - 35% | 3.6 | 2.4 | 9.06% |
| ≥ 35% | 4.5 | 1.9 | 7.17% |
| Total | 32.5 | 26.5 | 100% |

Source: Alfonzetti Engineering

The impervious areas resulting from this alternative are presented in Table V-6.

| Table V-6 Hotel Only Alternative - Impervious Areas | |
|--|-------------------------|
| Impervious Component | Impervious Area (Acres) |
| Buildings | 5.5 |
| Paved | 4.9 |
| Total | 10.4 |

Source: Alfonzetti Engineering

Absent the apartments, this alternative (townhouses only) would result in an additional population of 266 residents, including 37 new school aged children. The taxes generated from this alternative is projected to be \$3,334,571.

This alternative would generate 86 AM and 107 PM peak hour vehicle trips.

As documented in the marketing analyses described in Chapter IV.K., the apartments are necessary to adequately create a financially viable development scenario.

This alternative is documented more fully in Figures V-8 - Site Plan, V-9 - Grading Plan, V-10 - Utility Plan, V-11 - Stormwater Management Plan, V-12 - Erosion Control Plan, V-13 - Phasing Plan, V-14 - Limits of Disturbance.

4.) REDUCED TOWNHOUSE DEVELOPMENT

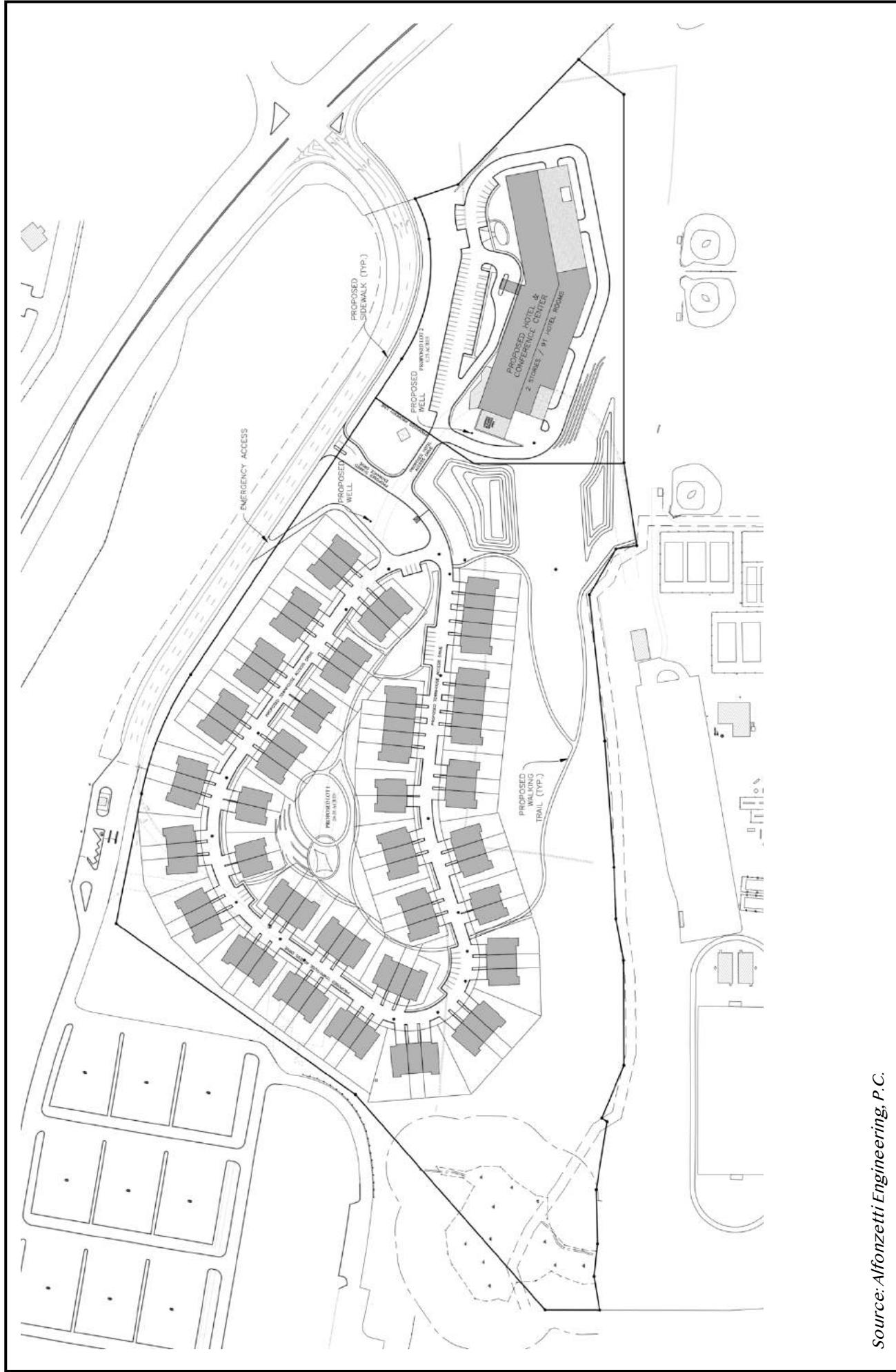
In this alternative, the hotel/apartment building remains identical to the Proposed action, however, the number of townhouses is reduced from 94 to 60. Parking for the hotel would be unchanged in this alternative (241 garage spaces and 67 surface spaces), and 120 parking spaces would be provided for the townhouse residents. 17 visitor spaces are provided for townhouse guests.

As can be seen from the site plan for this alternative (Figure V-15), most of the site disturbances required for the Proposed Action would still be required for this alternative. The same loop roadway is required to access the townhouses and to provide appropriate site circulation.

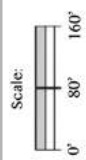
24.3 acres of the Site would be disturbed in this alternative, and the required cut and fill analysis is presented in Table V-7.

| Table V-7 Reduced Townhouse Alternative - Cut & Fill Analysis | | |
|--|-----------------|------------------|
| | Site Work Alone | Site + Buildings |
| Cut (-) | -70,308 cy | -94,660 cy |
| Fill (+) | +51,608 cy | +41,360 cy |
| Net (+/-) | -18,700 cy | -53,300 cy |

Source: Alfonzetti Engineering



Source: Alfonzetti Engineering, P.C.



Alternative 2 **Hotel & Townhouses (No Apartments)** **Site Plan**

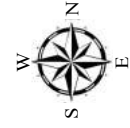
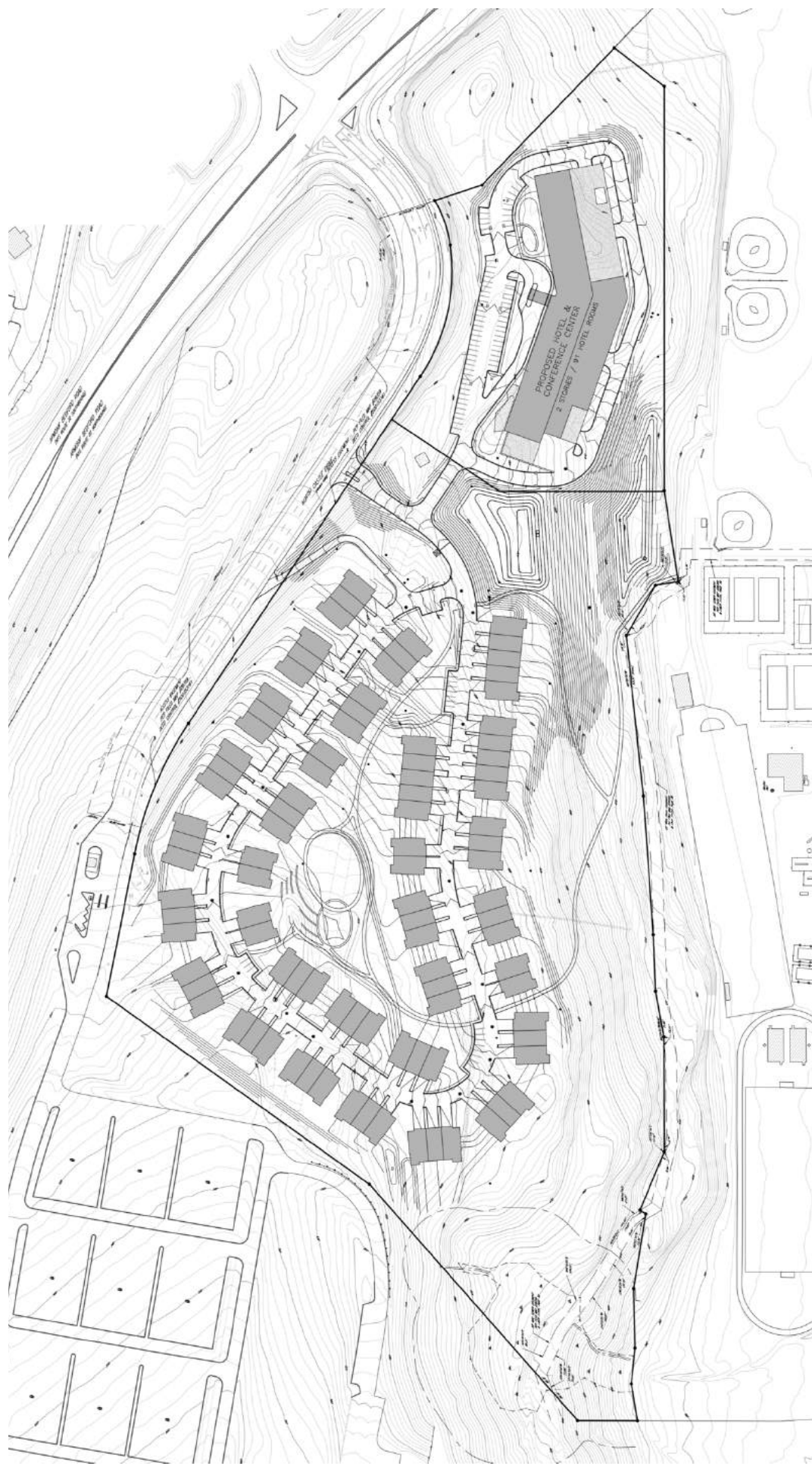



Figure
V-8

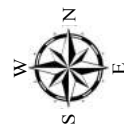


Source: Alfonzetti Engineering, P.C.

Scale:

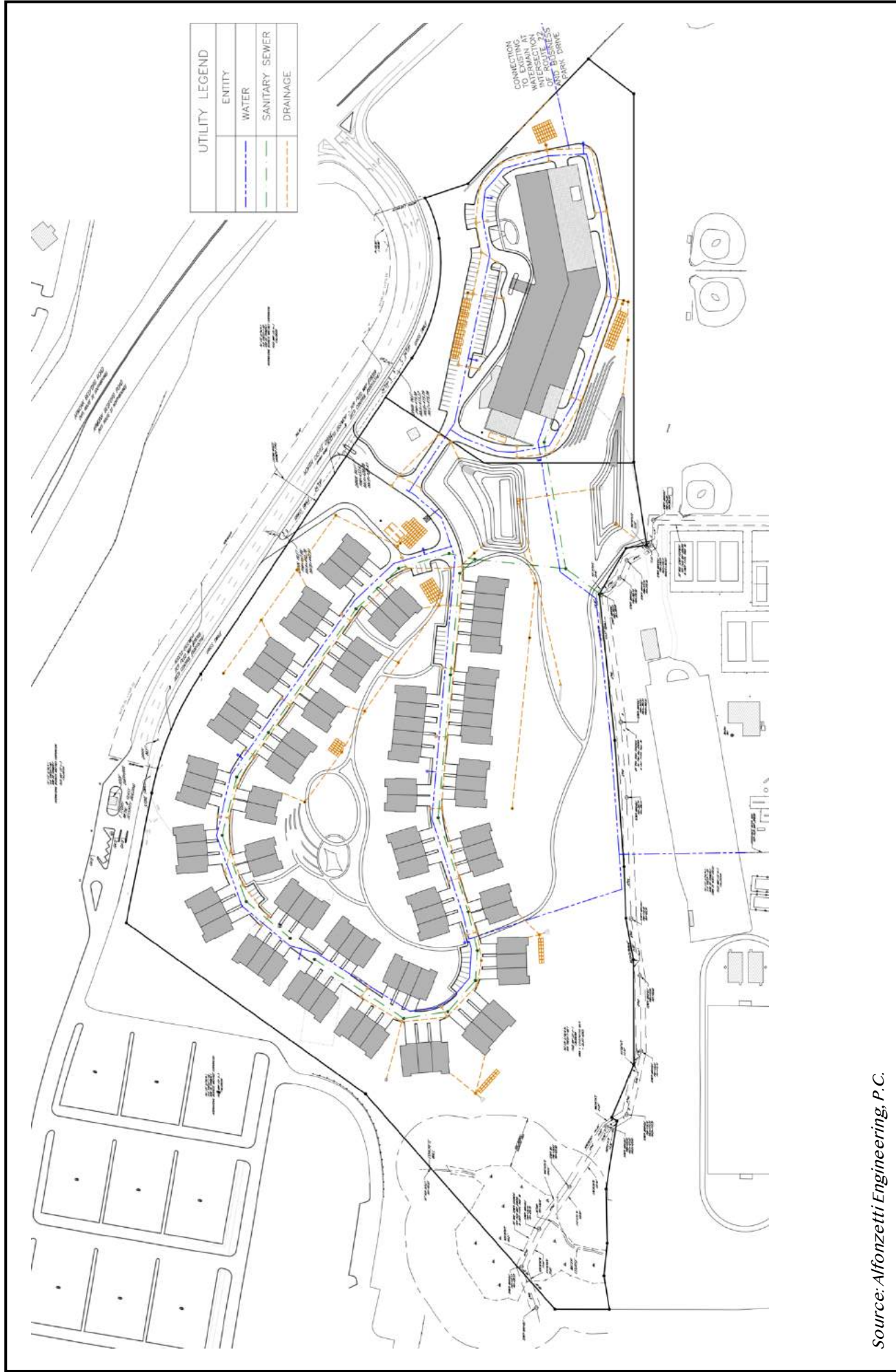


Alternative 2 Hotel & Townhouses (No Apartments) Grading Plan



Figure

6-7



Source: Alfonzetti Engineering, P.C.

Alternative 2 Hotel & Townhouses (No Apartments) Utility Plan

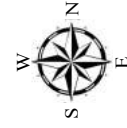
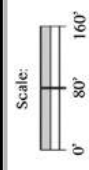


Figure
V-10



Source: Alfonzetti Engineering, P.C.



Alternative 2 **Hotel & Townhouses (No Apartments)** **Stormwater Management Plan**

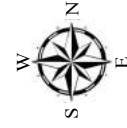
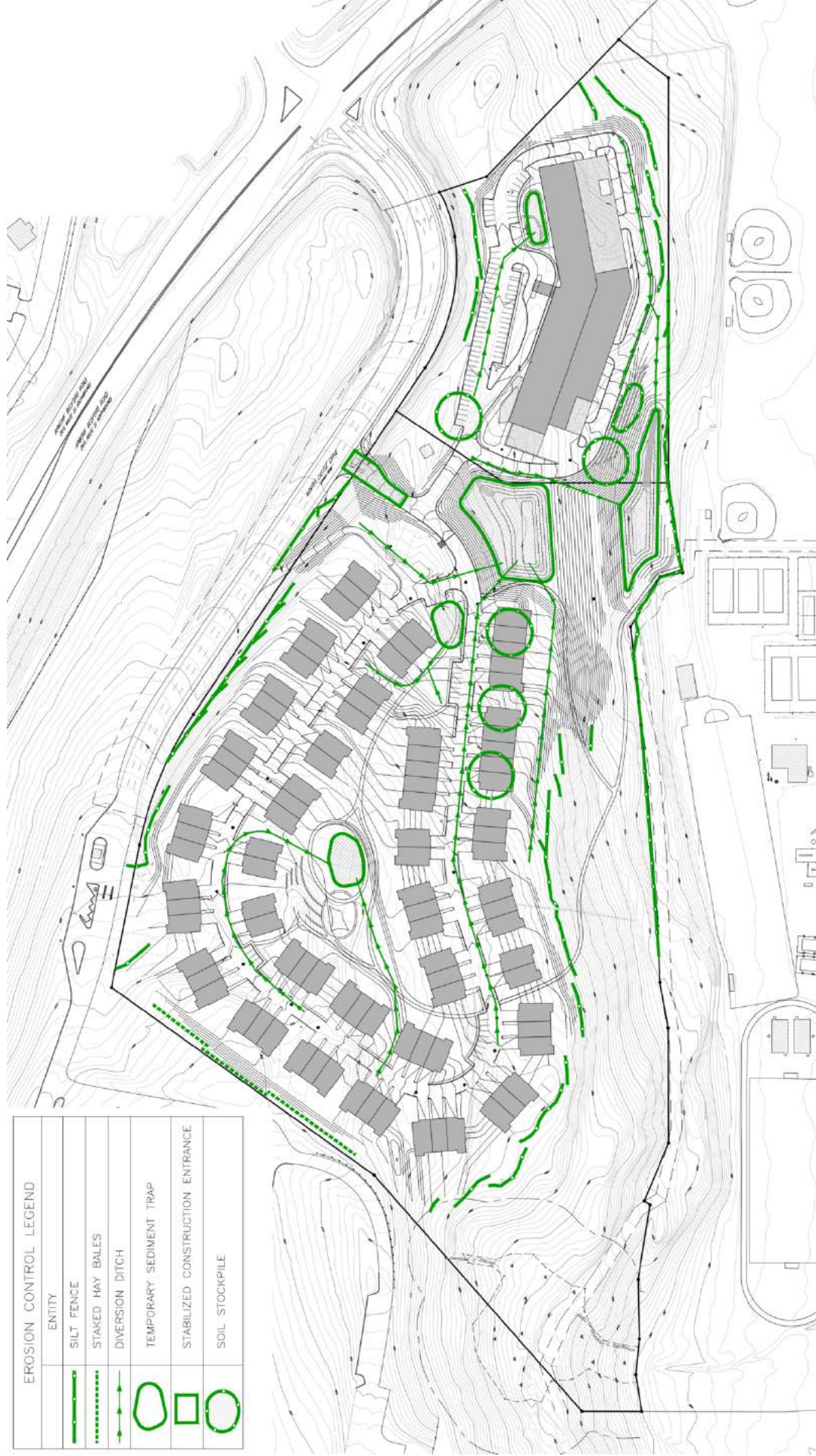
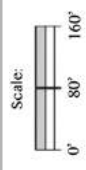


Figure
V-11



Source: Alfonzetti Engineering, P.C.



Alternative 2 Hotel & Townhouses (No Apartments) Erosion Control Plan

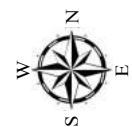
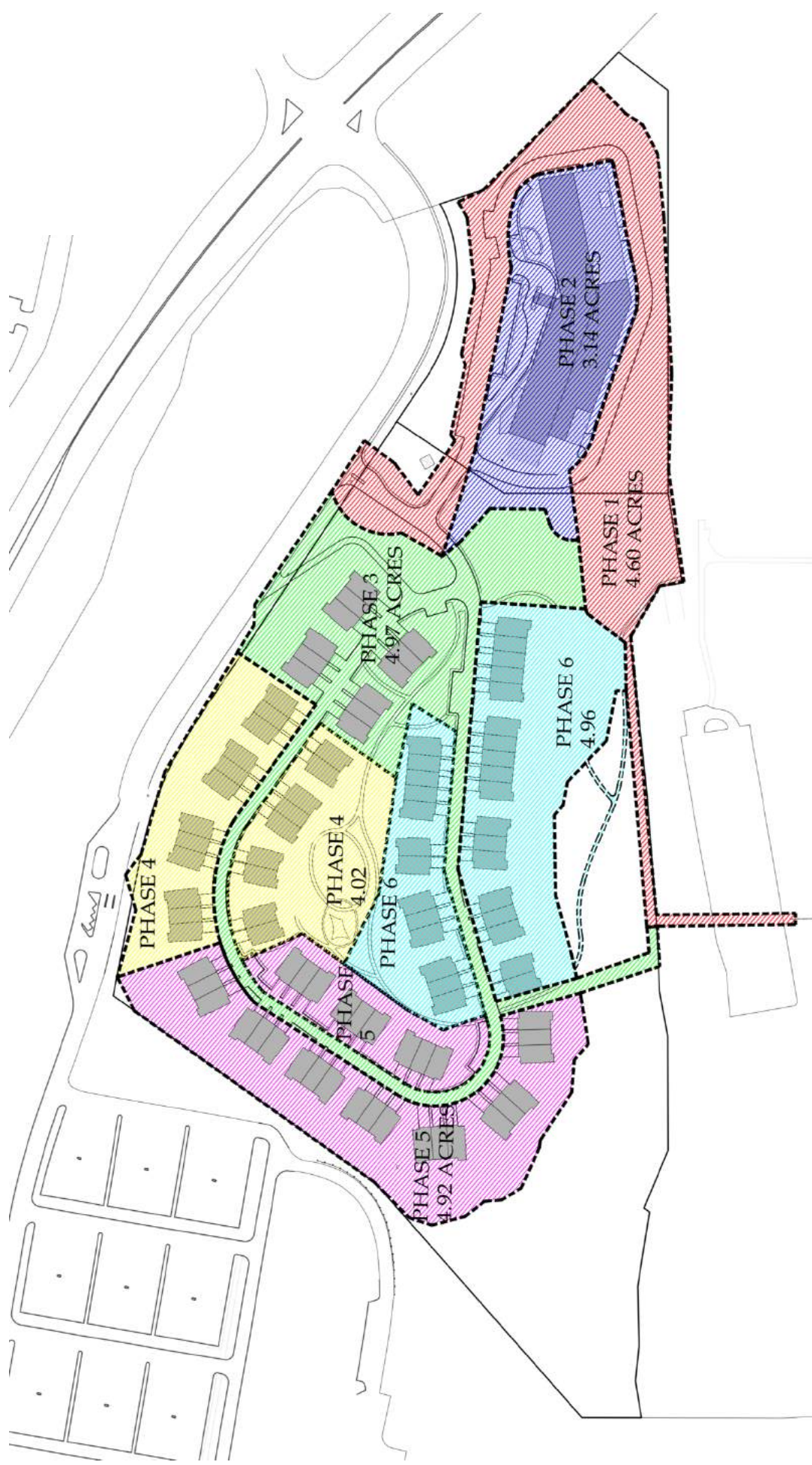
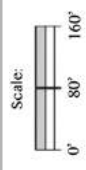


Figure
V-12



Source: Alfonzetti Engineering, P.C.



Alternative 2 **Hotel & Townhouses (No Apartments)** **Phasing Plan**

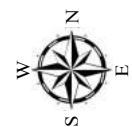
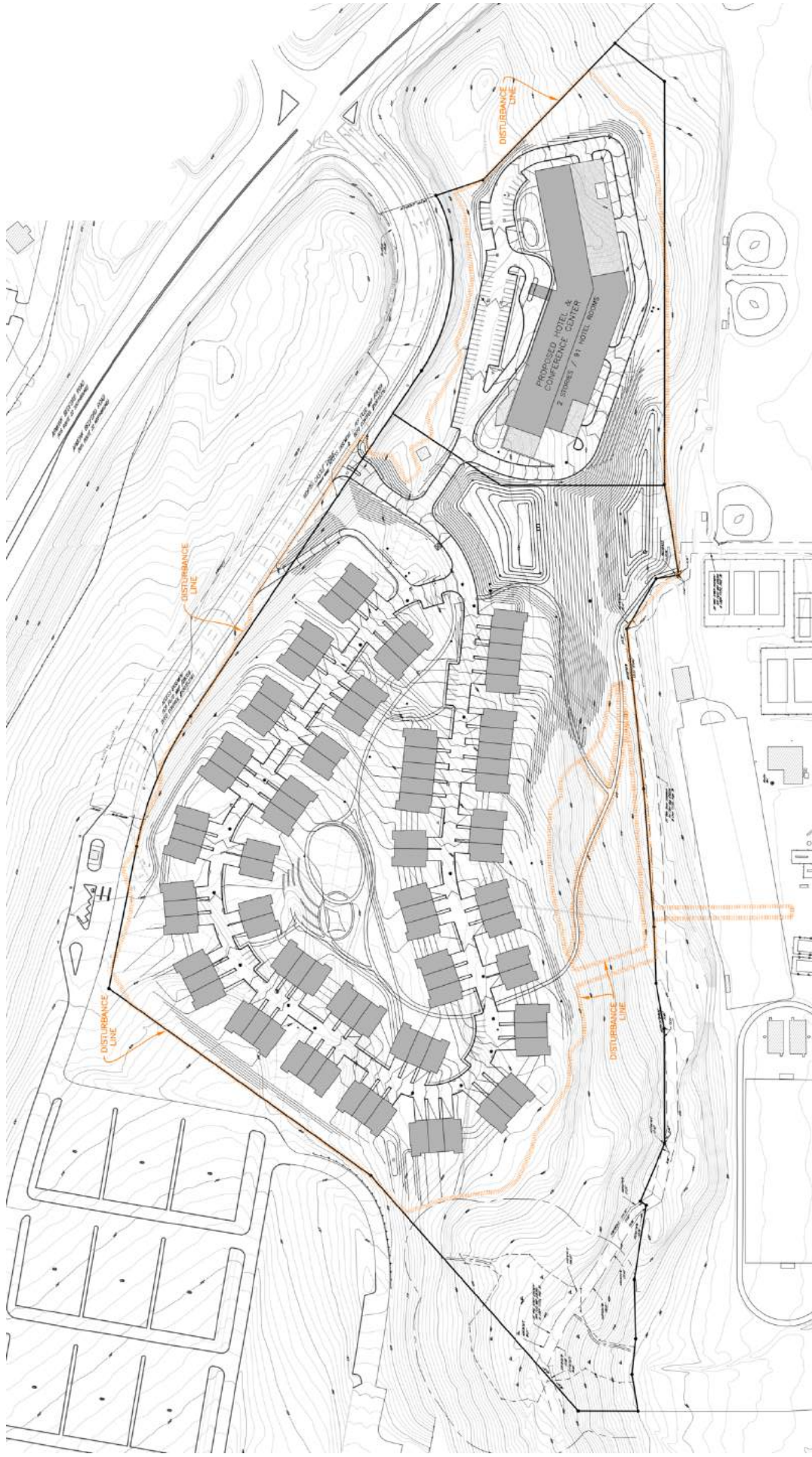
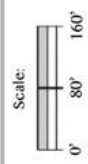


Figure
V-13



Source: Alfonzetti Engineering, P.C.



Alternative 2 **Hotel & Townhouses (No Apartments)** **Limits of Disturbance**

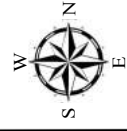


Figure
V-14

Disturbances to slopes is presented in Table V-8.

| Table V-8 Reduced Townhouse Alternative - Slope Disturbance | | | |
|--|--------------|-------------------|-------------------|
| Slope Category | Area (Acres) | Acreage Disturbed | Percent Disturbed |
| 0 - 15% | 16.8 | 15.2 | 57.36% |
| 15 - 25% | 7.6 | 5.3 | 20.00% |
| 25 - 35% | 3.6 | 2.1 | 7.92% |
| ≥ 35% | 4.5 | 1.6 | 6.04% |
| Total | 32.5 | 24.2 | 100% |

Source: Alfonzetti Engineering

The impervious areas resulting from this alternative are presented in Table V-9.

| Table V-9 Reduced Townhouse Alternative - Impervious Areas | |
|---|-------------------------|
| Impervious Component | Impervious Area (Acres) |
| Buildings | 4.1 |
| Paved | 4.6 |
| Total | 8.7 |

Source: Alfonzetti Engineering

This alternative would generate 103 AM and 126 PM peak hour vehicle trips.

This alternative would produce a water demand of 62,190 gpd and generate 62,190 gpd of wastewater.

This alternative would result in an additional population of 318 residents, including 41 new school aged children. The taxes generated from this alternative is projected to be \$1,770,492.

As documented in the marketing analyses described in Chapter IV. K., the 94 townhouses are necessary to adequately create a financially viable development scenario. Furthermore, because the elimination of 34 units does not significantly

reduce the site disturbances, and material reduction in adverse environmental impacts is not achieved.

This alternative is documented more fully in Figures V-15 - Site Plan, V-16 - Grading Plan, V-17 - Utility Plan, V-18 - Stormwater Management Plan, V-19 - Erosion Control Plan, V-20 - Phasing Plan, V-21 - Limits of Disturbance.

5.) OPEN SPACE MAXIMIZATION AND LIMITED HEIGHT ALTERNATIVE

In this alternative, the hotel/apartment building is situated on a 12-acre parcel and the townhouses are situated on a 20-acre parcel. The hotel/apartment building would be limited to 3 stories (44.67') in height. The number of hotel rooms (91) and apartments (70) would remain unchanged, although the building would be redesigned and amenity spaces would be significantly reduced or eliminated, and unit sizes would be reduced. It is anticipated that the building footprint would remain generally similar to the Proposed Action. The 241-space parking garage would remain unchanged as would the 67 surface parking spaces.

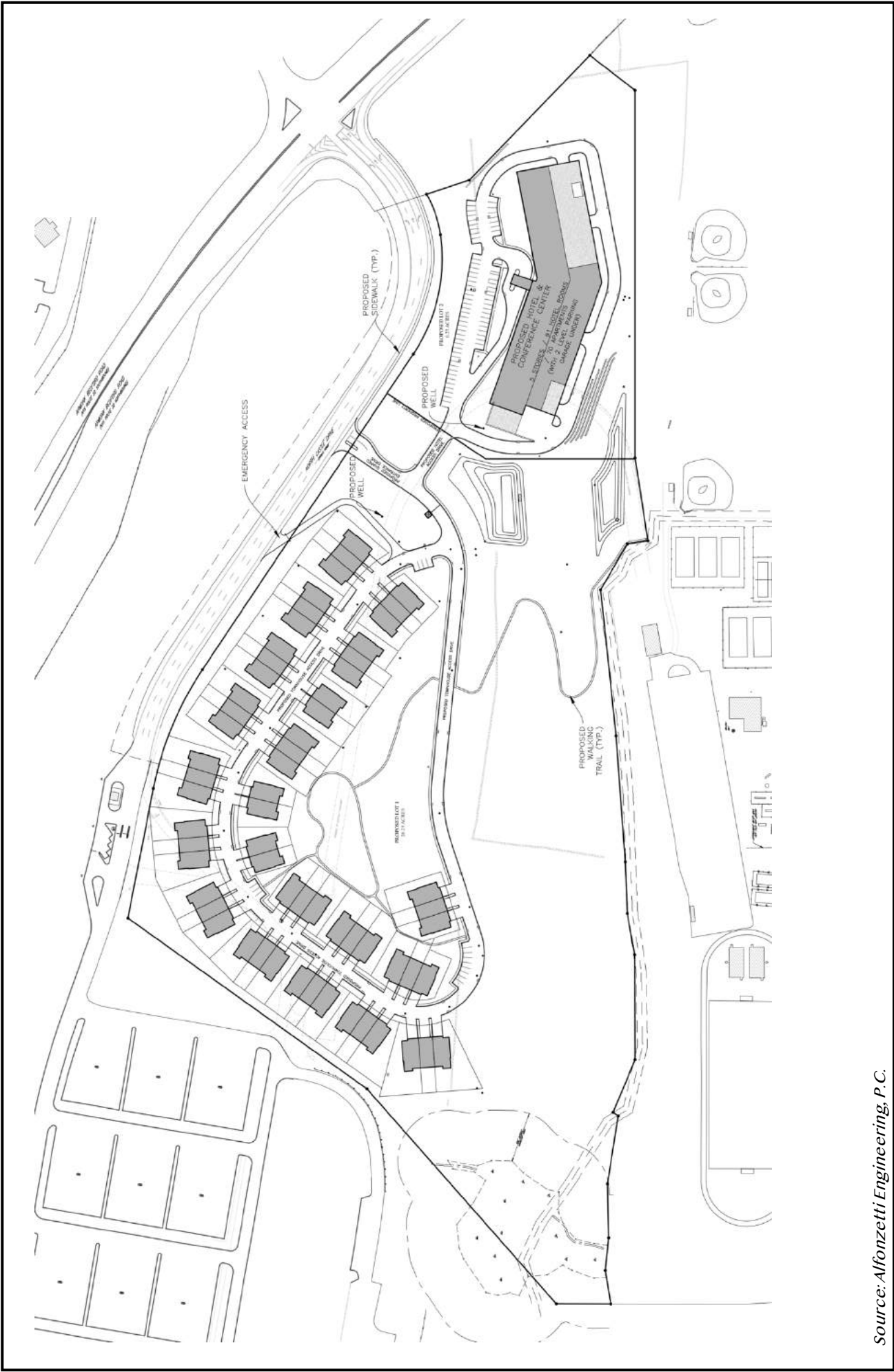
The townhouses would be reduced in number from 94 to 72, but the same loop road would be necessary to access the units. 144 resident and 25 guest parking spaces are provided.

As can be seen from the site plan for this alternative (Figure V-22), the additional open space is situated in the center of the Site between the townhouses and the hotel/apartment building.

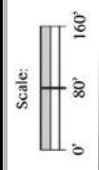
26.1 acres of the Site would be disturbed in this alternative, and the required cut and fill analysis is presented in Table V-10.

| Table V-10 Open Space Maximization & Limited Height Alternative - Cut & Fill Analysis | | |
|--|-----------------|------------------|
| | Site Work Alone | Site + Buildings |
| Cut (-) | -77,687 cy | -101,218 cy |
| Fill (+) | +58,440 cy | +46,627 cy |
| Net (+/-) | -19,247 cy | -54,591 cy |

Source: Alfonzetti Engineering



Source: Alfonzetti Engineering, P.C.



Alternative 3 Reduced Townhouse Development Site Plan

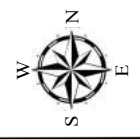
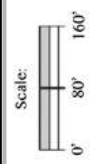


Figure
V-15



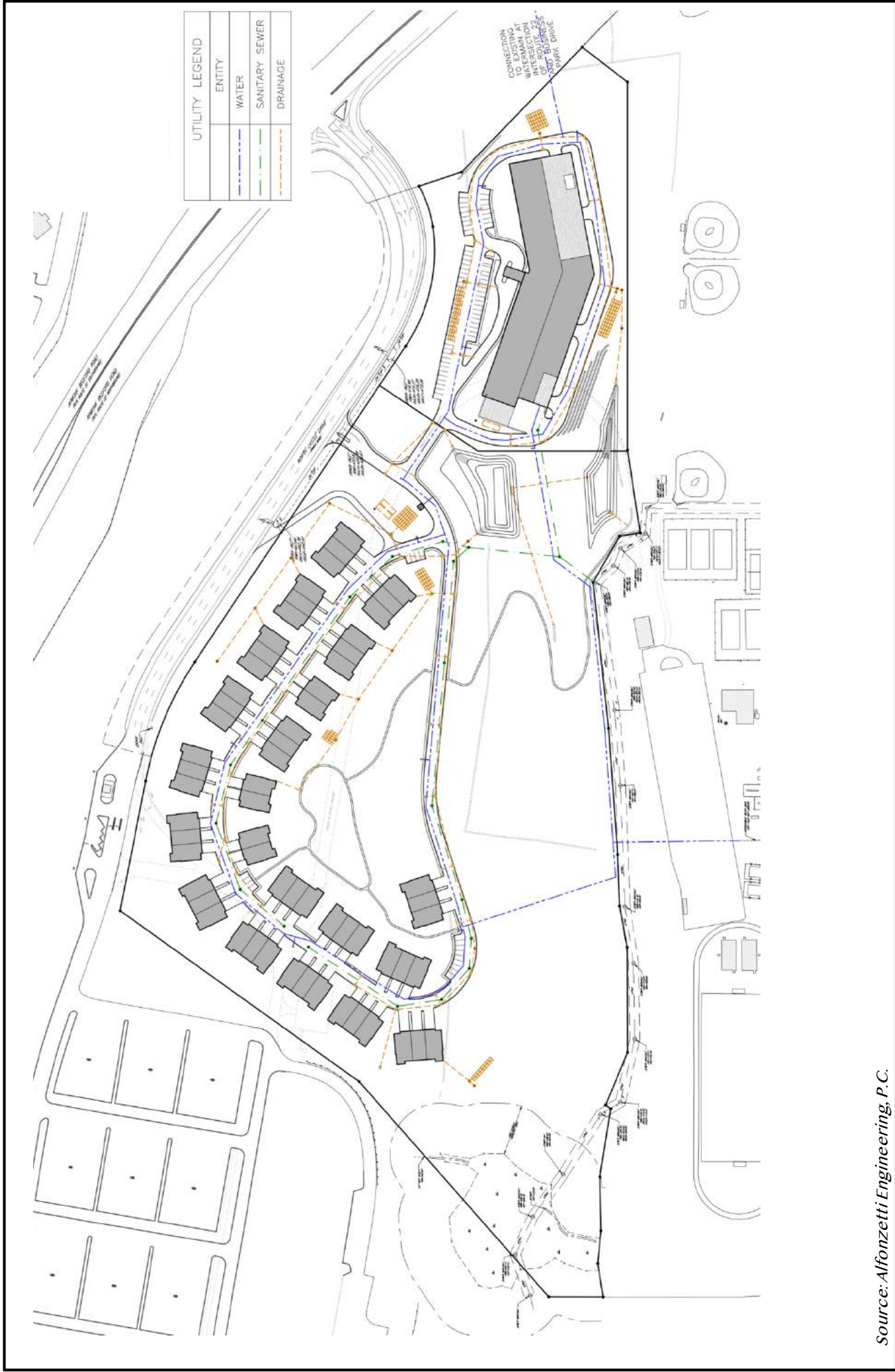
Source: Alfonzetti Engineering, P.C.



Alternative 3 Reduced Townhouse Development Grading Plan



Figure
V-16



Alternative 3 Reduced Townhouse Development Utility Plan

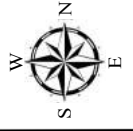


Figure
V-17





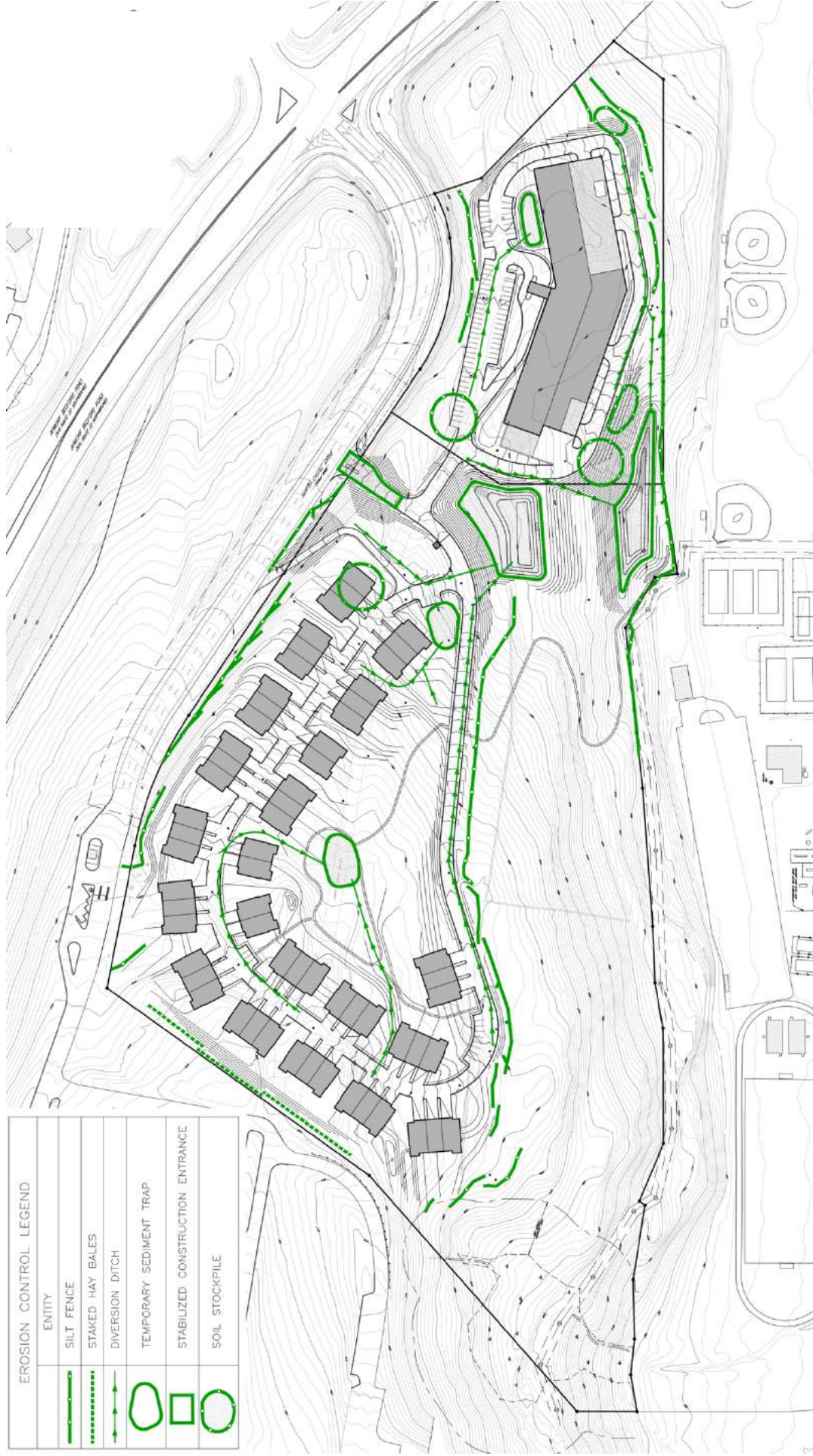
Alternative 3 Reduced Townhouse Development Stormwater Management Plan

Scale:
0' 80' 160'

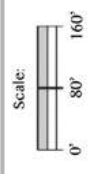
CLEARY CONSULTING

Figure
V-18

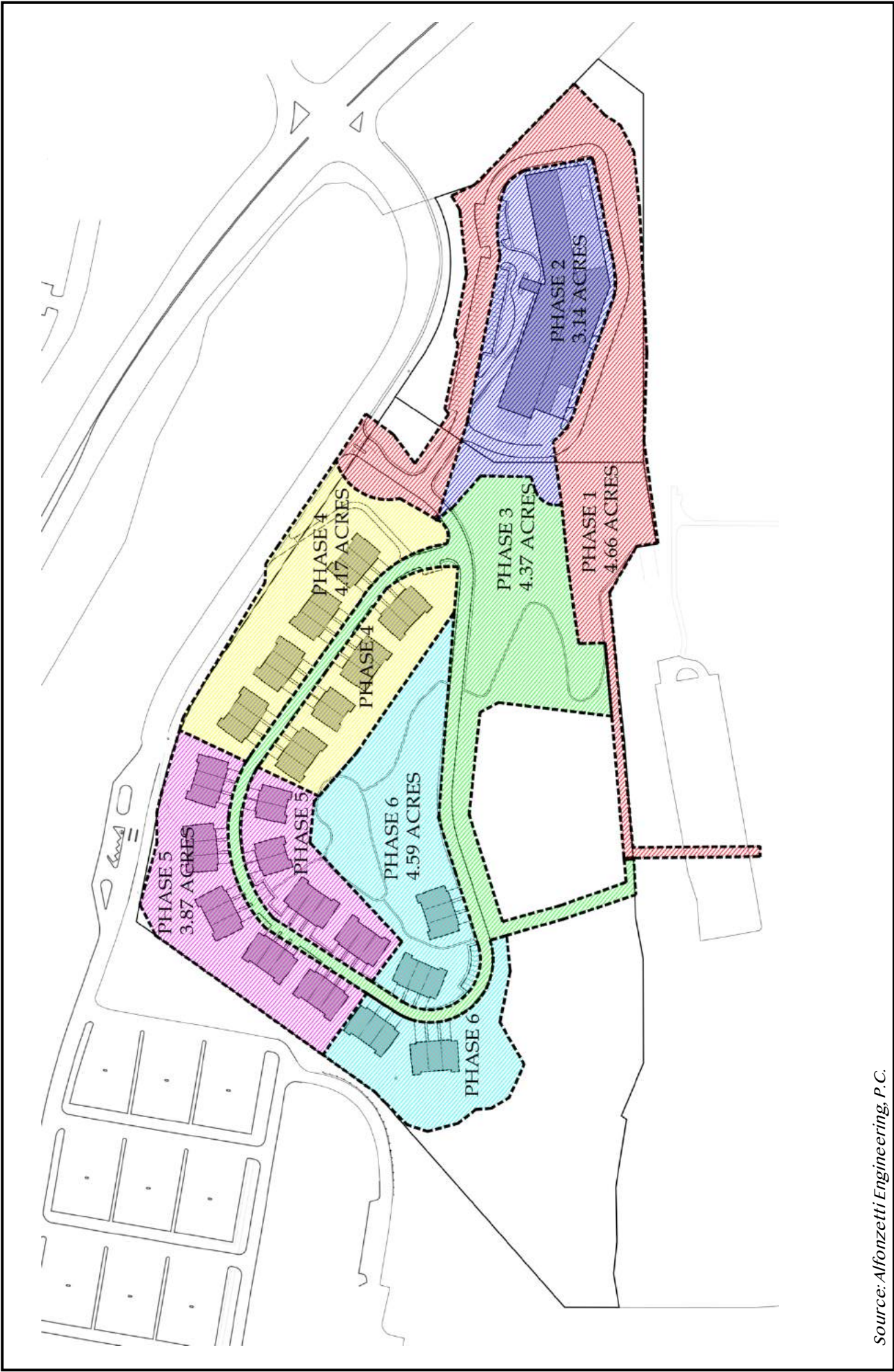
W N
S E



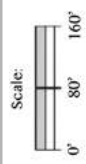
Source: Alfonzetti Engineering, P.C.



Alternative 3 Reduced Townhouse Development Erosion Control Plan



Source: Alfonzetti Engineering, P.C.



Alternative 3 Reduced Townhouse Development Phasing Plan

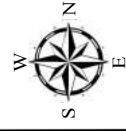
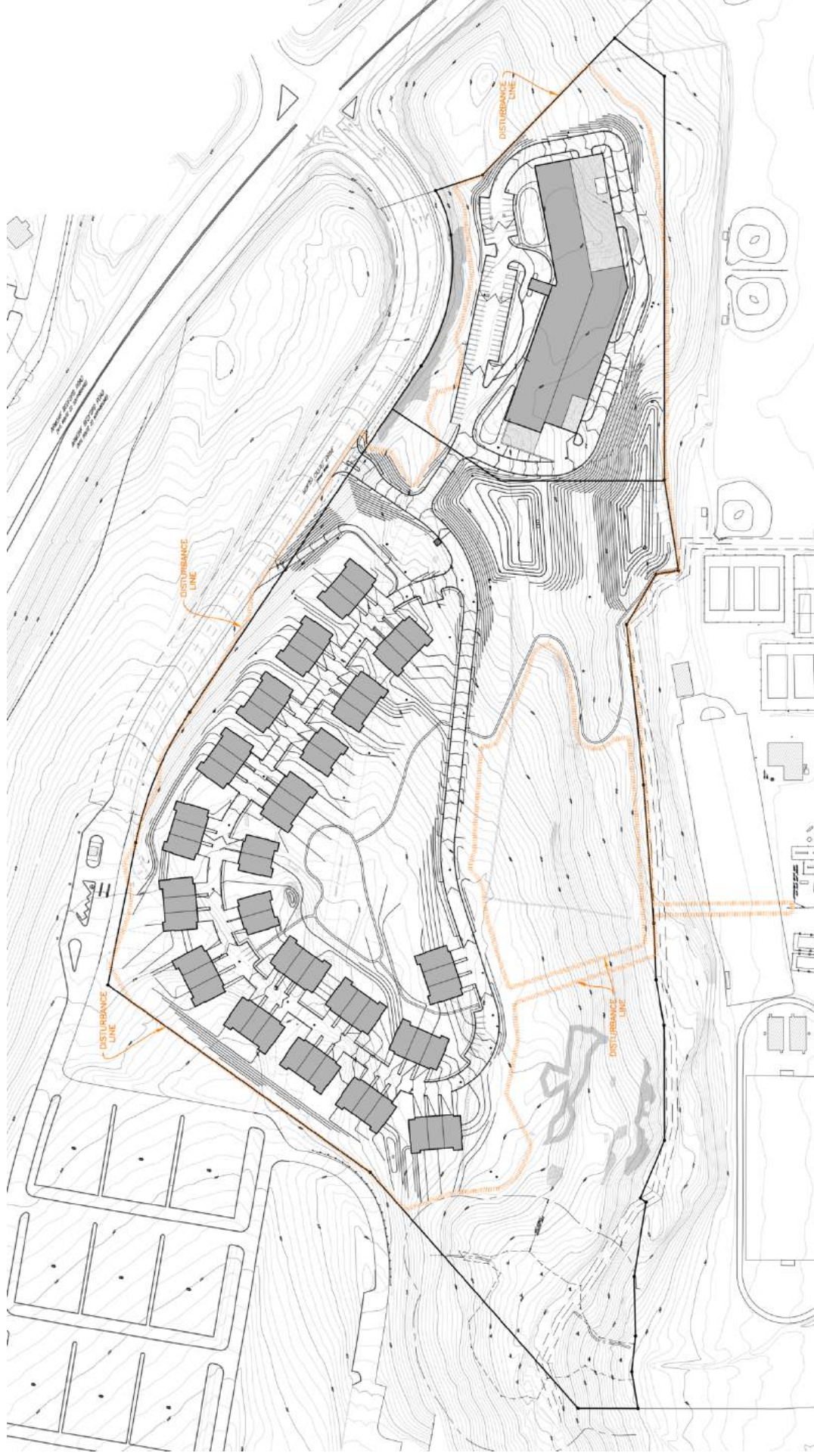
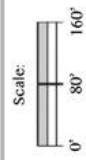


Figure
V-20



Source: Alfonzetti Engineering, P.C.



Alternative 3 **Reduced Townhouse Development** **Limits of Disturbance**

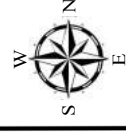


Figure
V-21

Disturbances to slopes is presented in Table V-11.

| Table V-11 Open Space Maximization & Limited Height Alternative - Slope Disturbance | | | |
|--|--------------|-------------------|-------------------|
| Slope Category | Area (Acres) | Acreage Disturbed | Percent Disturbed |
| 0 - 15% | 16.8 | 16.0 | 60.38% |
| 15 - 25% | 7.6 | 6.0 | 22.64% |
| 25 - 35% | 3.6 | 2.3 | 8.68% |
| ≥ 35% | 4.5 | 1.7 | 6.42% |
| Total | 32.5 | 26.0 | 100% |

Source: Alfonzetti Engineering

The impervious areas resulting from this alternative are presented in Table V-12.

| Table V-12 Open Space Maximization & Limited Height Alternative - Impervious Areas | |
|---|-------------------------|
| Impervious Component | Impervious Area (Acres) |
| Buildings | 4.6 |
| Paved | 4.8 |
| Total | 9.4 |

Source: Alfonzetti Engineering

This alternative would generate 108 AM and 133 PM peak hour vehicle trips.

This alternative would produce a water demand of 66,150 gpd and generate 66,150 gpd of wastewater.

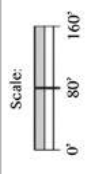
This alternative would result in an additional population of 352 residents, including 45 new school aged children. The taxes generated from this alternative is projected to be \$2,129,722.

This alternative is documented more fully in Figures V-22 - Site Plan, V-23 - Grading Plan, V-24 - Utility Plan, V-25 - Stormwater Management Plan, V-26 - Erosion Control Plan, V-27 - Phasing Plan, V-28 - Limits of Disturbance.





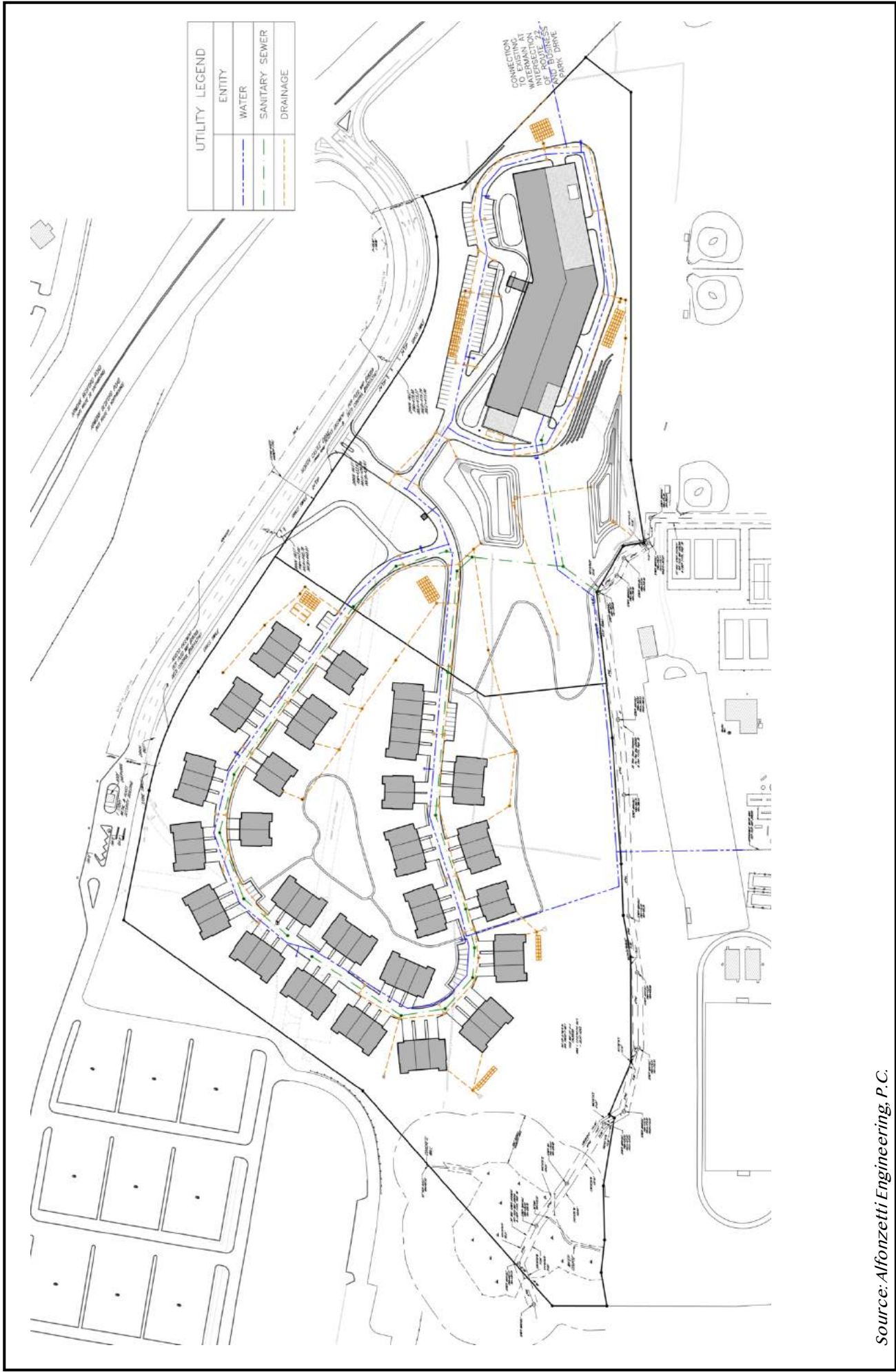
Source: Alfonzetti Engineering, P.C.



Alternative 4 **Open Space Maximization - Limited Height** **Grading Plan**



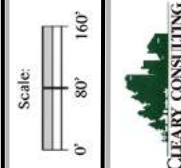
Figure
V-23



Alternative 4 **Open Space Maximization - Limited Height** **Utility Plan**



Source: Alfonzetti Engineering, P.C.



Alternative 4 **Open Space Maximization - Limited Height** **Stormwater Management Plan**

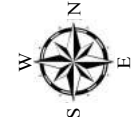
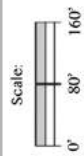


Figure
V-25



| EROSION CONTROL LEGEND | |
|----------------------------------|--|
| ENTITY | |
| SILT FENCE | |
| STAKED HAY BALES | |
| DIVERSION DITCH | |
| TEMPORARY SEDIMENT TRAP | |
| STABILIZED CONSTRUCTION ENTRANCE | |
| SOIL STOCKPILE | |

Source: Alfonzetti Engineering, P.C.



Alternative 4 Open Space Maximization - Limited Height Erosion Control Plan

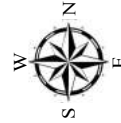
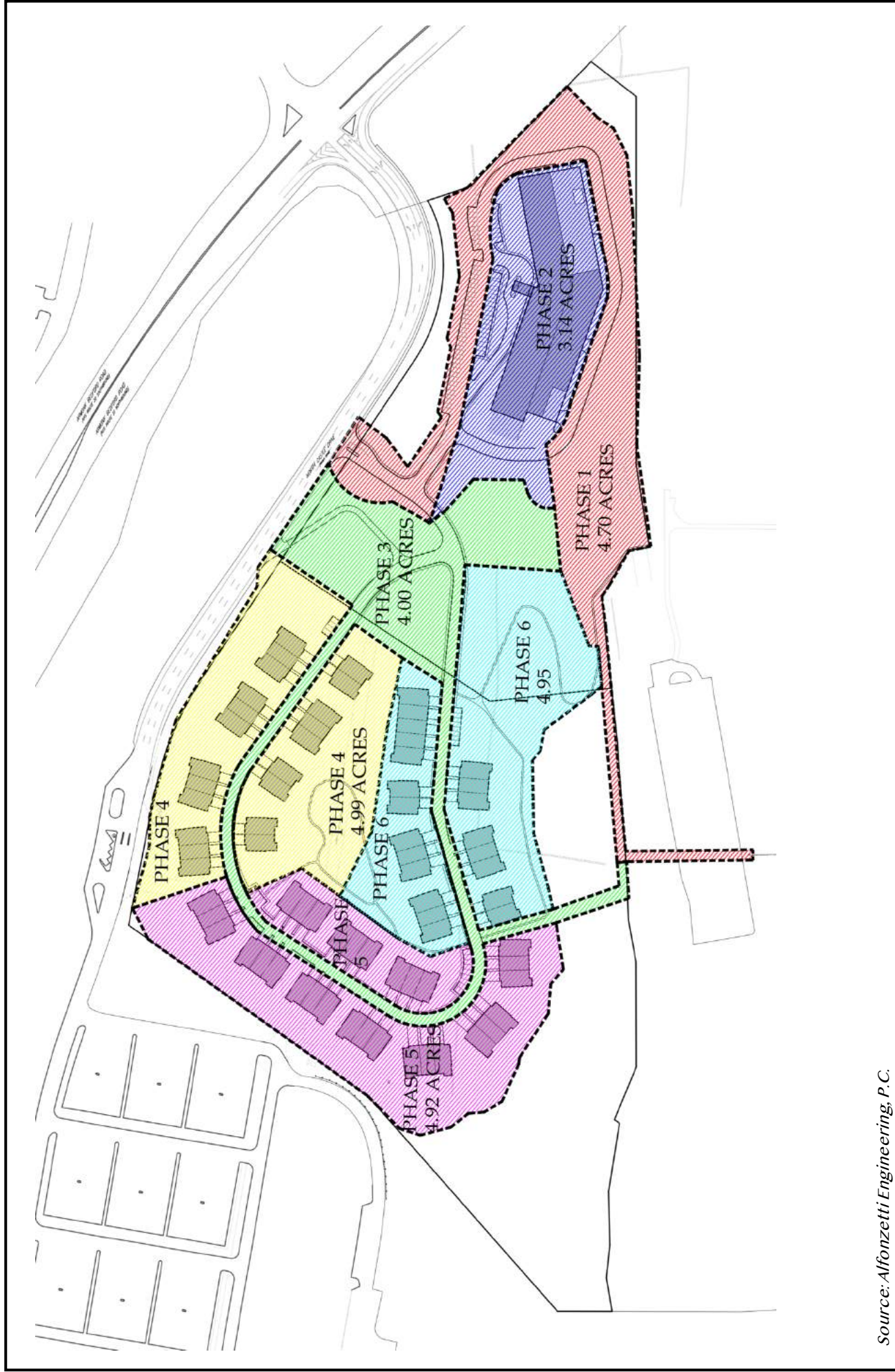
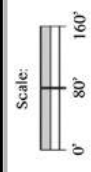


Figure
V-26



Source: Alfonzetti Engineering, P.C.



Alternative 4 Open Space Maximization - Limited Height Phasing Plan

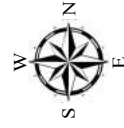
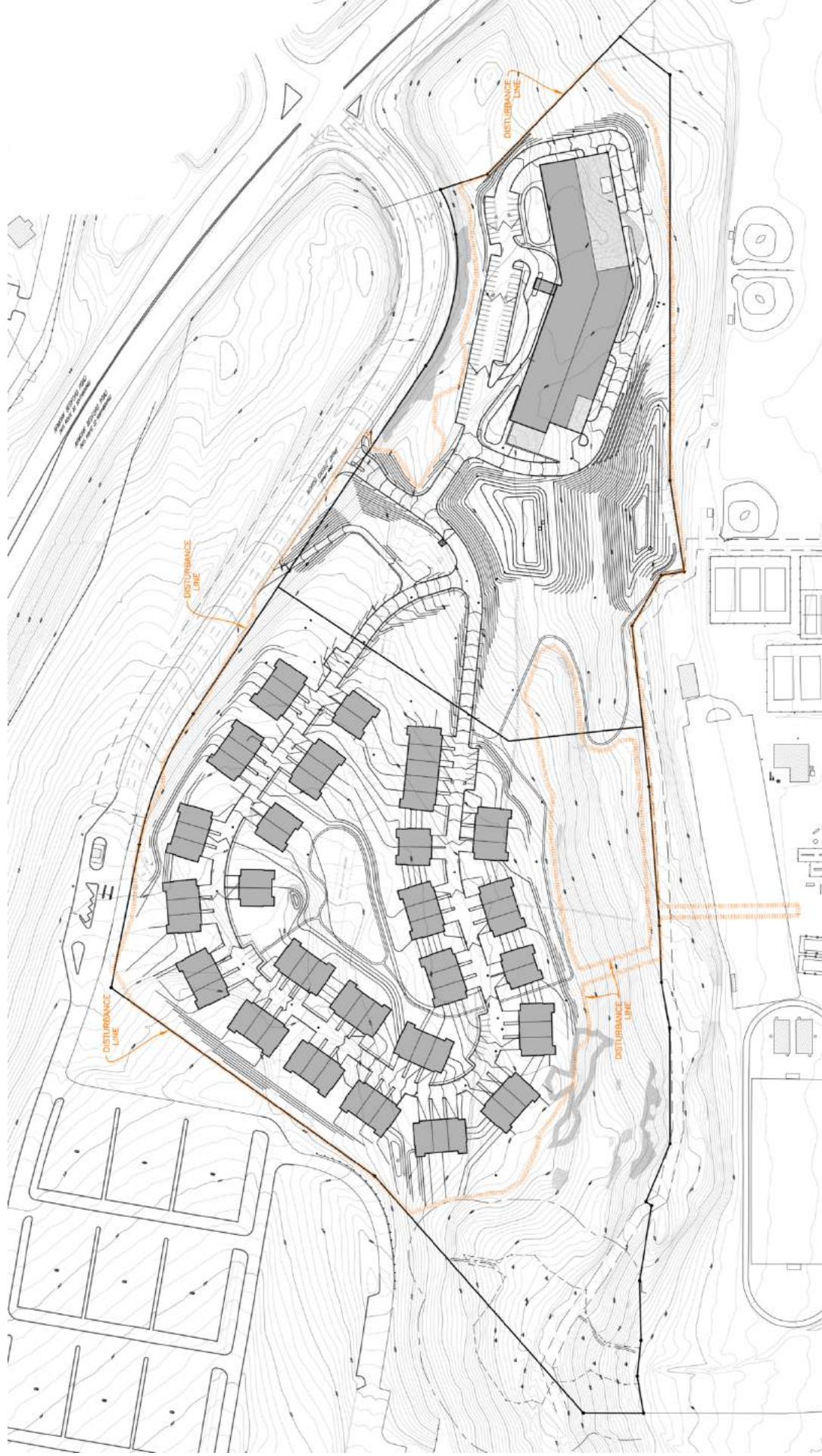


Figure
V-27



Source: Alfonzetti Engineering, P.C.

Scale:
0' 80' 160'



Alternative 4 **Open Space Maximization - Limited Height** **Limits of Disturbance**

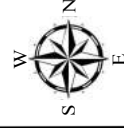


Figure
V-28

6.) COMPARISON OF ALTERNATIVES

| Table V-13 Comparison of Alternatives | | | | | | |
|--|------------------|--------------|------------------|---------------------------|-------------------|------------------|
| Project Element | Proposed Action | No Action | Hotel Only | Hotel/ Townhouses Only | Reduced Townhouse | Limited Height |
| Gross Floor Area | | | | | | |
| ▪ Hotel | 80,982 sqft | N/A | 209,088 sqft | 80,982 sqft | 80,982 sqft | 80,982 sqft |
| ▪ Apartments | 91,911 sqft | | 0 | 0 | 91,911 sqft | 91,911 sqft |
| ▪ Townhouses | 258,160 sqft | | 0 | 258,160 sqft | 164,640 sqft | 197,680 sqft |
| Building Height | | | | | | |
| ▪ Hotel/Apt | | N/A | | | | |
| ○ Stories | 5 stories | | 3 stories | 2 stories | 5 stories | 3 stories |
| ○ Feet | (71.7') | | (44.8') | (34.2') | (71.7') | (44.7') |
| ▪ Townhouses | 2 ½ stories | | 2.5 Stories | 2.5 Stories | 2 ½ stories | 2 ½ stories |
| # Units | | | | | | |
| ▪ Hotel | 91 | N/A | 300 | 91 | 91 | 91 |
| ▪ Apartments | 70 | | 0 | 0 | 70 | 70 |
| ▪ Townhouses | 94 | | 0 | 94 | 60 | 72 |
| # Parking Spaces | | | | | | |
| ▪ Hotel/Apartments | 308 | N/A | 661 | 308 | 308 | 308 |
| ▪ Townhouses | 213 | | | 213 | 137 | 169 |
| Area of Disturbance | 26.5 acres | N/A | 16.9 acres | 26.5 acres | 24.3 acres | 26.1 acres |
| Steep Slope | 4.3 acres | N/A | 1.5 acres | 4.3 acres | 3.7 acres | 4.0 acres |
| Disturbance (>25%) | 16.23% | | 5.66% | 16.23% | 15.1% | 15.1% |
| Net Cut/Fill | | | | | | |
| ▪ Site | -2,296 | N/A | -74,103 | -2,293 | -18,700 | -19,247 |
| ▪ Site + Buildings | -51,393 | | -109,633 | -51,393 | -53,300 | -51,591 |
| Impervious Areas | 10.4 acres | ~.5 acre | 8.4 acres | 10.4 acres | 8.7 acres | 9.4 acres |
| Open Space | 22.1 acres | 32.5 acres | 15.6 acres | 22.1 acres | 23.8 acres | 23.1 acres |
| Water Usage | 73,410 gpd | N/A | 78,000 gpd | 61,750 gpd | 62,190 gpd | 66,150 gpd |
| Wastewater Generation | 73,410 gpd | N/A | 78,000 gpd | 61,750 gpd | 62,190 gpd | 66,150 gpd |
| Residential Population | 414 | N/A | 0 | 266 | 318 | 352 |
| School Children | 53 | N/A | 0 | 37 | 41 | 45 |
| Peak Hour Traffic | 118 AM 146 PM | N/A | 141 AM 180 PM | 86 AM 107 PM | 103 AM 126 PM | 108 AM 133 PM |
| Tax Generation | \$3,985,056 | \$210,369.50 | \$1,815,039 | \$3,334,571 | \$1,770,492 | \$2,129,722 |

Source: Alfonzetti Engineering

Chapter VI.

Adverse Impacts that Cannot be Avoided

VI - ADVERSE IMPACTS THAT CANNOT BE AVOIDED

The development of Eagle Ridge will inevitably result in certain short term and long term adverse environmental impacts that cannot be avoided. Although these impacts cannot be avoided, many can, to some extent, be mitigated as noted in each of the proceeding chapters.

Unavoidable adverse impacts that cannot be avoided include the following:

1.) Short Term Impacts

The primary short term impacts that would result from the Proposed Action are related to construction activities. The presence of construction workers on-site and associated material deliveries to and from the Project Site would result in increased traffic generation in and around the project entrance. Construction activities would result in noise and air quality impacts and potential soil erosion.

Construction activities would occur only during periods permitted by Town Code. Construction workers and material deliveries typically occur outside of normal peak hour traffic periods and therefore the overall impact on the surrounding roadway network would be minor.

The air and noise quality of the surrounding environment would be impacted by exhaust and dust generated as a result of construction activities. Construction noise will comply with the Town of North Castle Noise Ordinance (Chapter 210 of the Town Code). Potential dust and soil erosion impacts resulting from construction activities would be mitigated by the implementation of the Sediment and Erosion Control Plan and details, included in the SWPPP prepared for this Project, in accordance with the General Permit for Stormwater Discharges associated with Construction Activities.

Waste resulting from construction activities will be sorted into waste material and recyclable materials. Waste materials will be disposed of at approved landfill locations. Recyclable materials will be brought to approved recycling facilities.

As part of the proposed development, rock removal will likely be required for site grading, utility construction, and for building foundation construction. Excavated rock may be processed and utilized on-site as backfill and road/parking subbase if the rock quality is found to be suitable. Any rock not re-used on-site will be hauled off site and disposed of in a manner following all local, state, and federal requirements.

The proposed earthwork activities required for the Project result in approximately 51,393± cubic yards of excess cut. This net cut balance (i.e. excess material) will need to be exported from the Project Site. Topsoil from the site will be stripped and stockpiled for reuse in landscaped and planted areas. Utilizing haul trucks with a 16 cubic yard capacity, approximately 3,312 truck trips would be required to remove this excess material, which will be exported in accordance with all applicable regulations to a suitable location(s). It is projected that the build-out of the Proposed Action will extend over a two-year period, and that material will be exported as the project progresses over the course of that time. This translates into approximately 138 truck trips per month, 34 trips per week or roughly 7 truck trips per day.

The development of the Proposed Action will occur in 6 phases, which are anticipated to occur over a period of 24 months. Each phase has been designed to disturb less than 5 acres of land area thereby complying with requirements of the Town as the MS4 and the NYSDEC.

In order to mitigate any potential impacts to existing and undisturbed wetlands, waterbodies, and watercourses and prevent sediment from entering existing waterbodies and watercourses a Sediment and Erosion Control Plan and details has been prepared in accordance with the General Permit and the NYSDEC New York Standards and Specifications for Erosion and Sediment Control, August 2005 for this project. This plan includes the design of both temporary and permanent sediment and erosion control measures including the following: installation of silt fence geotextile barrier installation down gradient of construction limits and upgradient of wetlands areas, installation of sediment traps and diversion swales to channel stormwater runoff during construction, the installation of inlet protection, detention basins and rain gardens.

No significant historical, archeological or cultural resources were identified on or in the immediate vicinity of the Project Site. However, further archaeological investigations are recommended for the northern portion of the APE due to possible middens, privys, wells or cisterns related to the Cornell-Birdsall residence that may have remained intact. If any intact artifacts are identified, they will be excavated and recovered, prior to construction related activity.

2.) **Long Term Impacts**

Long term adverse impacts would result from the project site operating for the foreseeable future and would be mitigated to the maximum extent practical. While the impacts listed below are unavoidable, they are not significant. Potential long-term impacts include:

- **Land Use** - Approximately 26.5 acres of vacant land would be converted to support a mixed-use development consisting of a 5-story, 172,893 square foot building containing a 91-room boutique hotel on the first and second floors and 70 rental apartments on the third, fourth and fifth floors along with an adjacent townhouse development of 94 units. Once committed to these uses, the Site would be unavailable for other used for the foreseeable future.
- **Zoning** - Then Proposed Action involves rezoning the 26.25-acre townhouse parcel (identified as Lot 2) from OBH to RM-F-A. Additionally, amendments to the OBH zoning district are proposed that would allow multi-family residences above hotels, and would also modify the dimensional regulations as documented in Chapter IV.A.
- **Natural Resources** - The Proposed Action will disturb approximately 26.5 acres of the 32.5-acre Site. Of this disturbance, 5.5 acres will be redeveloped to accommodate new buildings, 4.9 acres will be devoted to driveways, walkways and other paved surfaces.

Of the 850 trees in excess of 8" dbh to be removed from the Site, few predate the previous orchard use. The balance were planted or have grown as pioneering species after the 1920's.

The Site supports approximately 9.2 acres of the northern edge of an Oak-Tulip Tree Forest ecological community, which, while considered globally secure, is considered very vulnerable within its limited range in New York State. Approximately 5.3 acres of this cover type would be impacted by the proposed development, however, not all of the area would be cleared, allowing for larger trees to be selectively preserved. The majority of the clearing would occur along the perimeter of the cover type in areas of extensive invasive species encroachments.

During the site clearing and construction phases of the Proposed Action, it is expected that some of the smaller, less mobile or juveniles of some species of wildlife would be impacted. However, the majority of the species that utilize the Site are more mobile and would be able to avoid conflicts or injury. Displaced species are expected to relocate to adjacent contiguous areas of similar habitat. The consequence of this displacement and emigration will be increased competition for resources within the adjacent habitats. This will likely result in comparatively minor decreases in some wildlife populations until equilibrium between populations and available resources is achieved.

The Proposed Action preserves the on-site wetland and surrounding wetland buffer which is prime habitat for many wildlife species, as well as the existing wooded buffer around the perimeter of the Site. Moreover, the Landscaping Plan prepared to support the Project involves the reintroduction of new vegetation, including 400 trees, that will serve as new habitat for certain species. It is therefore likely that some of the species that were displaced during the construction phase of the Project, will re-inhabit the Site after the completion of construction.

- **Utilities** – The Proposed Action will result in an increase demand for water and an associated increase in wastewater generation. The increased water demand will be accommodated through the expansion of Water District #4. The increase in wastewater generation will be accommodated through the transferred reserve capacity from IBM, and by phasing the development to correspond to the increased capacity being developed at the Wastewater Treatment Plant.
- **Traffic** – The Proposed Action will result in generation of 118 Weekday AM Peak Hour Trips and 146 Weekday PM Peak Hour Trips (combined inbound and outbound). The Level of Service (LOS) of the 12 intersections analyzed will be similar in the “No-Build” and “Build” conditions. No adverse will result.
- **Visual** – The development of Eagle Ridge will alter the visual characteristics of the Site. Given the intervening topography, views of the Site from the most heavily travelled vantage point (Route 22) and limited. The Project however, will be visible from Community Park. The open meadow (which is not visible from Community Park), and a portion of the existing woodlands on the Site would be removed and replaced by the 5-story hotel/apartment building, 94 adjacent townhouse and related site improvements.

An extensive portion of the existing wooded buffer along Community Park will remain intact and undisturbed and an elaborate and extensive new landscaping plan is proposed to soften and mitigate the visual impact of the Project.

- **Community Facilities & Services**
Eagle Ridge will result in an increase in population of 414.4 residents. If all of these residents are new to North Castle, they would represent an increase of 3.3%. Included within this increased population would be a conservatively estimated 54.2 school aged children.

This new population would result in a proportional increase in the demand for police, fire and EMS services as well as a proportional increase in the generation of solid waste.

- **Open Space**

The 32.5-acre Project Site is currently vacant, undeveloped and as such is an open space resource. The development of the Proposed Action will permanently eliminate 10.4 acres of that open space resource. Upon completion of the development, 22.1 acres will remain as preserved open space.

Chapter VII.

Other Required Analyses

VII - OTHER REQUIRED ANALYSES

1.) IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The development of Eagle Ridge will commit approximately 26.5 acres of vacant land to support a mixed-use development consisting of a 5-story, 172,893 square foot building containing a 91-room boutique hotel on the first and second floors and 70 rental apartments on the third, fourth and fifth floors along with an adjacent townhouse development of 94 units. Once committed to these uses, the Site would be unavailable for other used for the foreseeable future.

The Proposed Action will result in the disturbance of approximately 26.5 acres of the Site, consisting primarily of open meadow and second growth woodlands.

The Proposed Action would require the commitment and consumption of a variety of resources and materials that once devoted to this development, would be unavailable for future use elsewhere.

Construction materials such as steel, asphalt, lumber, concrete, glass, masonry, paint and surface finishes, topsoil, etc., would be utilized. It should be noted that many of the construction materials utilized for this project may at some time in the future, be recycled or reused. The operation of construction equipment would involve the consumption of fossil fuels. The operation of the completed development would require the use of electricity and fossil fuels for lighting, heating and cooking and water for domestic use and landscaping. A temporary commitment of workers will be necessary during the build-out construction period. Upon completion of the Project a permanent commitment of labor will be required to operate the hotel and apartment building and maintain the townhouses. The short-term and long-term commitment of labor represents beneficial impact to the community and local economy.

2.) IMPACTS ON THE USE AND CONSERVATION OF ENERGY

The Proposed Action will utilize energy resources including electricity and fossil fuels. To offset the impact on energy resources, Eagle Ridge will comply with the New York State Energy Construction Code and standards. The new buildings will

incorporate efficient mechanical equipment, insulated roofs, insulated exterior walls, insulated foundations and windows that have a low emissivity rating.

The following green building measures are proposed to be incorporated into the Project:

- Monitoring of energy systems.
- Energy efficient lighting fixtures with occupant controls and sensors
- The use of Energy Star appliances.
- Green roof and green walls on the hotel/apartment building.
- Low flow water fixtures and water saving devices.
- Zero use of CFC based refrigerants.
- Accessible space for storage and collection of recyclables.
- Constriction waste management.
- Operable windows.
- Parking garage, reducing surface parking and heat island effect.

3.) GROWTH INDUCING ASPECTS OF THE PROPOSED ACTION

The proposed 94 townhomes and 70 apartments would increase the permanent population of the Town of North Castle by 414 residents. If all of these residents were new to North Castle, the population of the Town would increase by approximately 3.3% based on the Town's estimated 2017 population of 12,388.

The new residents, transient guests at the hotel, as well as the associated employees will expand the market for local businesses, including restaurant uses, retail and service providers. Eagle Ridge is fully consistent with the goals of Town's Comprehensive Plan, and notes that:

“Adding a hotel together with limited new residential uses, would increase downtown Armonk’s potential customer base....”¹

¹ Town of North Castle Comprehensive Plan, page 121.

The Comprehensive Plan recognizes that new development such as Eagle Ridge would support the existing central business district, and not likely to create a demand for new commercial construction.

3.) CUMULATIVE IMPACTS

No other similarly scaled mixed-use projects are proposed in the immediate vicinity of the Project Site. All of the analyses of shared facilities and infrastructure, such as sewer, water, traffic, population, schools, etc. have taken into account and considered all other proposed projects; including:

- **Senior Housing** 16-unit age restricted residential building
- **Wampus Mills** 6-lot residential single-family subdivision
- **Mariani Gardens** Five 4-bedroom units, sixteen 3-bedroom units, six 2-bedroom units, sixteen 1-bedroom units (96 bedrooms)
- **Airport Campus** 100,000 sf office space, 125 room hotel, 151-unit multi-family building, 22 townhouses - for analysis purposes 261,000 square feet of existing office space.
- **470 Main Street** six 1-bedroom units, ten 2-bedroom units (26 bedrooms)
- **Lumber Yard** 36 units
- **Brynwood** 88 units

The projected trip generation from all of these projects plus the Eagle Ridge development, combined with a 1% background growth rate, results in acceptable Levels-of-Service at the study area intersections that were evaluated for this project, during the 2022 build out year. While this cumulative volume of traffic will not result in adverse operating conditions on the surrounding roadway network, it is likely that increased trips into the Armonk Hamlet will occur. These trips have the potential to increase the demand on parking.

Parking in the Armonk Hamlet is primarily on-street parking (1-hour parking) with three primary off-street parking areas; the parking areas along Kent Place (behind the

Main Street retail), the 403, 405, 407, 409, 419 Main Street Lot (2-hour parking) and DiCicco's parking lot (2-hour and 12-hour parking).

It is apparent that parking is a challenge in the Hamlet. Properly addressing this parking challenge requires an assessment of the parking regulations for various uses. Correlating the provision of parking to the uses that generate the parking is the key to providing an adequate supply. Customers and patrons that are drawn to the Hamlet are simply fulfilling – figuratively and literally, the parking regulations. Beyond establishing appropriate parking requirements for individual uses, the Town should explore opportunities to expand the supply of public parking in the Hamlet. Eagle Ridge, combined with the seven other developments evaluated will generate tax revenue far in excess of the municipal costs necessary to service these projects. This represents a source of revenue that could be utilized to help resolve the existing and potential future parking challenges in the area.

It is anticipated that a Community Benefit Agreement will be established to financially assist in implementing long-term parking solutions.

It should be noted that Eagle Ridge's proximity to the Hamlet and the sidewalk, crosswalk and other circulation improvements will facilitate and encourage pedestrian access to the Hamlet and reduce vehicle trips and the resulting demand on existing parking resources.

The 54.2 school aged children projected to be generated from Eagle Ridge combined with those generated from the other developments, will result in a school district population of 2,214 students in 2022-2023 school year, which is 98 students less than the current 2018-2019 population of 2,312 students. Water demand current exceeds the capacity of Water District #4. To address the existing demand of 960,000 gpd combined with the cumulative water demand resulting from Eagle Ridge and the other developments of 93,190 gpd, additional capacity is being created, through the installation of additional wells at the Town well site at the wastewater treatment plan off Business Park Drive. Finally, the planned expansion of the Town's wastewater treatment plant from 500,000 gpd to 700,000 gpd has been designed to accommodate the 124,940 gpd of anticipated wastewater generated from Eagle Ridge and the other

developments noted above. The Applicant believes that this demonstrates that no significant cumulative impacts are associated with the Proposed Action.

EAGLE RIDGE



Draft Environmental Impact Statement **APPENDIX**

Lead Agency:

Town of North Castle – Town Board

May 2019

APPENDIX

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| |
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| A – Scoping Document |
| B – Environmental Assessment Form |
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| D – Traffic Study |
| E – Phase IA Cultural Resources Survey |
| F – Stormwater Pollution Prevention Plan |
| G – Wastewater Report |
| H – Water Supply Report |
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| J – Wetland Report |
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Appendix A

Scoping Document

**DRAFT ENVIRONMENTAL IMPACT STATEMENT
SCOPING DOCUMENT**

**EAGLE RIDGE
TOWN OF NORTH CASTLE
WESTCHESTER COUNTY, NEW YORK**

JUNE 27 2018

Name of Project: Eagle Ridge

Project Location: Town of North Castle
3 North Castle Drive
Armonk, NY 10504
Tax Map: 118.03-1-62.1

Applicant: MADDD Madonna Armonk, LLC

Owner: MADDD Madonna Armonk, LLC

SEQRA Classification: Type I Action

Lead Agency: Town of North Castle Town Board
Town Hall
1 Bedford Road
Armonk, New York 10504
(914) 273-3321

Lead Agency Contact: Alison Simon
Town Clerk
15 Bedford Road
Armonk, New York 10504
(914) 273-3321

Scoping Session: June 13, 2018 & June 27, 2018
Town of North Castle
Town Hall
15 Bedford Road
Armonk, New York 10504

Scope Adopted: June 27, 2018

DESCRIPTION OF THE PROPOSED ACTION:

The proposed action involves the subdivision of the 32.5-acre site to create two new lots of approximately 6 acres and 26 acres respectively. The 6-acre parcel will be developed to support a 97-room boutique hotel, which includes a restaurant, cafe, bar, banquet/conference rooms, fitness center and pool. Additionally, 69 one, two and three-bedroom apartments will be constructed above the hotel on the third, fourth and penthouse floors of the building. Parking for the mixed-use building will be provided within a parking structure and 67 adjacent at-grade spaces.

The 26-acre parcel will be developed to support 94 attached and semi-attached townhomes. Dwelling units will range between 2,600 and 2,800 square feet and contain 3 bedrooms, 3 bathrooms, a basement and a two-car garage. Open space and recreational amenities are proposed to support the residents of the development.

POTENTIAL SIGNIFICANT ADVERSE IMPACTS

Based upon a review of the applicant's submitted Full Environmental Assessment Form and all other application materials that were prepared for this action, the Lead Agency has determined that the proposed action may have the following significant adverse impacts:

1. The potential for significant impacts related to land use, zoning, and public policy. The Proposed Action would change the land use on the site from its current vacant condition to mixed-use hotel, multifamily housing and single-family townhouse uses requiring rezoning the 26-acre portion of the site to R-MF-A to accommodate the townhouse use, and amendments to the OBH zone to accommodate the hotel and multi-family housing component of the project.
2. The potential for significant natural resource impacts. The proposed development of the site would result in the physical alteration of approximately 24.5 acres, including land with slopes in excess of 15%, shallow depth to bedrock, land containing areas of existing vegetation and wildlife habitat.
3. The potential for significant open space impacts. The proposed construction would result in the elimination and/or modification of open space to accommodate the hotel, multifamily housing and single-family townhouses and associated site improvements.
4. The potential for significant impacts related to the provision of community facilities and services. The proposed project may create additional demand for municipal services including police, fire, ambulance, and solid waste services.
5. The potential for significant impacts related to the provision of school services. The proposed project may create additional school children.

6. The potential for significant construction impacts. The proposed construction would continue for more than 1 year.
7. The potential for significant impacts related to stormwater runoff. The proposed construction will add new impervious surfaces requiring stormwater quality and quantity management.
8. The potential for significant impacts related to water and sewer infrastructure. The development will result in new water demands and will produce associated sewage generation.
9. The potential for significant design/visual resource impacts and neighborhood character impacts. The currently vacant wooded site would be developed with new buildings, parking areas, infrastructure facilities, open space and associated site amenities.
10. The potential for significant impacts related to transportation. Traffic as a result of the Proposed Action may affect the existing roadway network.

GENERAL GUIDELINES:

"Scoping" means the process by which the Lead Agency identifies the potentially significant adverse impacts related to the Proposed Action that are to be addressed in the Draft Environmental Impact Statement (DEIS), including the content and level of detail of the analysis, the range of alternatives, the mitigation measures needed and the identification of non-relevant issues. Scoping provides a Project Sponsor (also referred to as "the Applicant" herein) with guidance on matters which must be considered and provides an opportunity for early participation by Involved Agencies and the public in the review of the Proposed Action. The primary goals of scoping are to focus the EIS on potentially significant adverse impacts and to eliminate consideration of those impacts that are irrelevant or nonsignificant.

The DEIS for Eagle Ridge shall cover all items in this "Scope of Issues" document. Each impact issue (e.g., soils, surface water, traffic, etc.) can be presented in a separate subsection which includes a discussion of existing conditions, significant impacts associated with the Proposed Action, and mitigation measures designed to minimize the identified impacts. If appropriate, impact issues listed separately in this document may be combined in the DEIS, as long as all issues are addressed.

Narrative discussions shall be accompanied by appropriate tables, charts, graphs, and figures whenever possible. If a particular subject can be most effectively described in graphic format, the narrative discussion should merely summarize and highlight the information presented graphically. All plans and maps showing the site shall include adjacent uses and structures (including but not limited to wells and subsurface sanitary sewage disposal systems), roads and water bodies within a distance of not less than two hundred and fifty (250) feet from the property line of the Proposed Action based upon existing available data sources.

The preferred development plan for the entire site shall be prepared at a scale of 1 inch = 40 feet. Reduced scale drawings shall be incorporated into the DEIS text [Note: The original full-size scale drawings shall also be separately submitted to each of the Involved Agency members as well as their advisors in the quantities required by those agencies.]

Information shall be presented in a manner that can be readily understood by the public. Use of technical terminologies shall be avoided. When practical, impacts shall be described in terms that the lay person can readily understand.

All discussions of mitigation measures shall consider at least those measures mentioned in this "Scope of Issues" document. Where reasonable and necessary, they shall be incorporated into the Proposed Action if they are not already so included. For any mitigation measures listed in this "Scope of Issues" document that are not incorporated into the Proposed Action, the reason why the Applicant considers them unnecessary shall be discussed in the DEIS. The Applicant may suggest additional mitigation measures where appropriate. When no mitigation is needed, the DEIS shall so indicate.

The document shall be written in the third person (i.e., the terms "we" and "our" shall not be used). The Applicant's conclusions and opinions, if given, shall be identified as those of "the Applicant."

Any assumptions incorporated into assessments of impact shall be clearly identified. In such cases, the "worst case" scenario analysis shall also be identified and discussed.

The entire document shall be checked carefully to ensure consistency with respect to the information presented in the various sections.

ENVIRONMENTAL IMPACT STATEMENT CONTENT**I. FRONT MATERIAL****A. Cover Sheet**

The DEIS shall be preceded by a cover sheet that identifies the following:

1. That it is a Draft Environmental Impact Statement.
2. The name or descriptive title of the Proposed Action.
3. Location: Street names, Town of North Castle, Westchester County, New York, as well as the tax map designation numbers of all properties that are part of the subject parcel.
4. The Town of North Castle Town Board as the Lead Agency for the project and the name and telephone number of the following persons to be contacted for further information:
 - Town of North Castle – Alison Simon, Town Clerk (914) 273-3000 (ext. 42)
5. The name and address of the Project Sponsor, and the name and telephone number of a contact person representing the Project Sponsor.
6. The name and address of the primary preparer(s) of the DEIS and the name and telephone number of a contact person representing the preparer(s).
7. Date of acceptance of the DEIS [Note: Specific calendar date to be inserted later].
8. Deadline by which comments on the DEIS are due [Note: Specific calendar date to be inserted later].

B. List of Consultants Involved with the Project

The names, addresses and project responsibilities of all consultants involved with the project shall be listed.

C. Table of Contents

All headings which appear in the text shall be presented in the Table of Contents along with the appropriate page numbers. In addition, the Table of Contents shall

include a list of figures, a list of tables, a list of appendix items, and a list of additional DEIS volumes, if any.

II. SUMMARY

The DEIS shall include a summary. The summary shall only include information found elsewhere in the main body of the DEIS and shall be organized as follows:

- A. Brief description of the Proposed Action.
- B. List of Involved Agencies and required approvals/permits.
- C. Brief listing of the anticipated impacts and proposed mitigation measures for each impact issue discussed in the DEIS. The presentation format shall be simple and concise.
- D. Brief description of the project alternatives considered in the DEIS. A table shall be presented which assesses and compares each alternative relative to the various impact issues.

III. DESCRIPTION OF PROPOSED ACTION

A. Project Overview.

Describe site location and description, including tax map designation, zoning, site access, easements, general site characteristics.

B. Approvals.

Describe jurisdiction of the Town over the site and the various local approvals required. List other County, State, regional and Federal agencies having jurisdiction over the site and the various approvals required. Include list of Involved and Interested Agencies.

C. Site Description.

The site description shall include the following:

1. General location; acreage; zoning; and tax map designations.
2. Frontage and access (vehicular and pedestrian).
3. Existing site improvements and uses.
4. Environmental characteristics, including topography, steep slopes, wetlands, bedrock outcrops, etc.
5. Description of any easements, restrictions and/or other conditions that affect the future development and use of the subject site, including submission of a full title report.

D. Description of Surrounding Uses and Facilities.

The description shall include the following:

1. IBM World Headquarters and IBM North Castle office building
2. North Castle Community Park
3. Wampus Brook Park
4. Westchester Business Park (Business Park Drive)
5. Non-residential uses along Route 22

6. Residential areas located to the northwest
7. Regional and local roadway network
8. Armonk Hamlet
9. Critical Environmental Area(s) (map required) (Westchester County Airport 60 Ldn Noise Contour)

E. Detailed Description of Proposed Action.

1. Submitted plans shall identify the following information:
 - a. Site layout plan
 - b. Floor plans (internal layout) of the proposed structures
 - c. Detailed zoning conformance chart
 - d. Proposed grading plan
 - e. Proposed limits of disturbance
 - f. Proposed signage
 - g. Proposed lighting plan, photometric plan and lighting details
 - h. Location of proposed stormwater management facilities
 - i. Location of proposed erosion controls
 - j. Proposed architectural plans including graphic depictions of façades, building materials, screening of mechanicals and any green building technology
 - k. Proposed green technologies and/or energy efficient aspects of the project.
 - l. Proposed open space.
 - m. Landscaping plan
 - n. Tree removal mitigation plan
 - o. Proposed construction sequencing plan
 - p. Proposed phasing plan

- q. Site limitations and constraints
- 2. Gross Floor Area analysis and building footprint analysis
- 3. Area of land to be cleared (square foot and percent of site), new impervious surfaces (square foot and percent of site)
- 4. Description of zoning amendments
- 5. Operational information including vehicular access, traffic circulation, emergency access, fire protection, and site security.
- 6. Description of any off-site improvements.
- 7. Description of accessory uses, including but not limited to development amenities, recreation facilities, shuttle services and concierge services/amenities.
- 8. Description of Proposed Site Access, including a discussion of emergency access roads, maintenance issues and whether the facility will be gated to control access to the subject site.
- 9. Summary of proposed improvements to water supply, sanitary sewage, stormwater management and other utilities.

F. Project Purpose, Needs and Benefits.

The purpose and objectives of the proposed action will be described from a regional, local, neighborhood and site perspective. Also, the public need for and/or public benefits from implementation of the proposed action are to be identified and described for the Town of North Castle. For needs and benefits not supported by the Town's comprehensive plan, justification with sources should be provided. Describe the Market Study for the project, and summarize existing demographics targeted for the proposed development.

IV. ENVIRONMENTAL ANALYSES

The DEIS shall include a discussion of the existing conditions, potentially significant adverse impacts and proposed mitigation measures for the following:

A. Land Use and Zoning.

1. Existing Conditions.

- a. Describe existing land uses and zoning district designations on the subject site, within a 1/2-mile from the site boundaries.
- b. Discuss history of the land use of the project site.
- c. Discuss history of the land use of the IBM site.
- d. Discuss the history of the land use of North Castle Community Park.
- e. Discuss the recommendations for the site and surrounding area as set forth in the Town of North Castle Comprehensive Plan.
- f. Discuss recommendations of the Westchester County master plan entitled “Westchester 2025” and the previous plan “Patterns” and other pertinent planning documents prepared by the County or other agencies applicable to the areas to be studied identified above.

2. Potential Impacts.

- a. The proposed local law would significantly increase the maximum permitted height as compared to the existing OB-H Zoning District (from 45 feet to 75 feet). The Applicant will need to demonstrate that the height of the hotel does not negatively impact Community Park and is in keeping with the existing character of the Armonk Hamlet.
- b. The proposed local law would significantly increase the hotel density permitted at the site. In order to better evaluate potential impacts, the applicant shall prepare a square foot development potential analysis between the existing OB-H District and the proposed OB-H and RM-F-A zoning districts.

- c. Given the location of the hotel and the proposed side and rear yard setbacks, the Applicant shall evaluate whether larger setbacks would be appropriate on the site.
- d. The Applicant shall evaluate the proposed 30-foot increase in maximum building height and how that may impact adjacent visual resources.
- e. Describe the compatibility of the proposed action with existing land uses and zoning district designations on the subject site and within the areas studied above.
- f. Discuss the consistency of the proposed use with articulated land use and planning policies and recommendations of the Town, Westchester County, State and Federal Government and other pertinent agencies for the subject site and the areas studied above.
- g. Discuss proposed zoning amendments and describe how the zoning amendments would affect development of the project site and other properties within the same zoning district.
- h. Describe potential impacts associated with use of the proposed development on existing neighborhood character.
- i. Discuss how the AFFH unit requirements will be implemented.

3. Mitigation Measures.

Describe mitigation measures including, but not limited to methods such as site configuration and design, use of buffers and screening, building design to reduce impacts on the surrounding community. In addition, describe proposed mitigation measures to minimize potential impacts to surrounding land uses. Consider cumulative impact of other development proposals that are currently planned or proposed for the area surrounding the subject site.

Discuss limiting impervious surfaces, such as internal roads and parking areas, to the minimum necessary to meet local zoning requirements. In addition, discuss further reductions to new impervious surfaces to levels below zoning requirements, where appropriate. Furthermore, discuss providing minimal access road widths, reduced building footprints, multi-

level parking structures, landbanking of parking spaces, and the use of porous alternatives.

Design the townhouse portion as an aesthetically pleasing pedestrian friendly residential village.

Provide sidewalks from Eagle Ridge to the Armonk Hamlet at the intersection of Old Route 22 and NYS Route 128.

Provide pedestrian access from Eagle Ridge to Community Park.

B. Geology and Soils.

1. Existing Conditions.

- a. Describe regional and bedrock geology.
- b. Discuss any special geological features on or adjacent to the subject site, including but not limited to the location of significant rock outcrops. Provide map identifying all such features.
- c. Identify and list soil types on the site based on site-specific mapping, with discussion of soil characteristics. Include a soils map and identify location of areas of sensitive soils (soils with shallow depth to bedrock, shallow water table, high erodibility characteristics or having greater than 20% clay content). Provide tables indicating soil characteristics (e.g., construction-related and long-term erosion potential, runoff, permeability), limitations and suitability of each soil type for particular land uses, specifically, roads, driveways, sewage disposal areas, underground utility installation, and building construction.

2. Potential Impacts.

- a. Describe impacts to special geological features of the subject site, if any. Describe location and amount of blasting anticipated. Include map showing areas of potential blasting activities. Describe blasting procedures to be followed and materials to be used. Discuss compliance with Chapter 122 (Blasting and Explosives) of the Code of the Town of North Castle.

- b. Describe soil types to be impacted, and to what extent, with a grading limit line indicated on the preliminary grading plan. Indicate amount (preliminary cut and fill analysis) and location of earthwork anticipated.
- c. Discuss potential impacts of soil limitations on proposed actions with respect to stormwater management and erodibility during construction.
- d. Discuss whether on-site rock crushing is proposed. If so, discuss rock crushing procedures to be followed.
- e. Provide preliminary grading plan with a limit of disturbance line.

3. Mitigation Measures.

Potential mitigation measures to explore:

- a. Sedimentation and Erosion Control Plan based upon consideration of a 100-year storm event and proposed modifications to vegetative cover. Include discussion of initial installation by phase, maintenance, contingency and emergency measures, notification procedures in the event of failure of sedimentation and erosion control measures, and timing of removal.
- b. Corrective measures necessary to overcome any soil limitations.
- c. If blasting is proposed, provide a draft blasting mitigation plan, including a discussion of alternatives to blasting (e.g., cutting, ripping, chipping); a description of blasting activities, methods and schedules; and a description of the procedures that will be followed to document existing conditions, notify neighboring properties and the pertinent municipal jurisdiction(s) of the timing of blasting activities and remediate potential impacts.
- d. If required, provide a draft rock crushing mitigation plan, including a discussion of alternatives to on-site crushing; a description of crushing activities, methods and schedules.
- e. Construction Phasing Plan.
- f. Other.

C. Topography and Slopes.**1. Existing Conditions.**

- a. Describe existing topography, variation in elevation and relationship to surrounding topography.
- b. Prepare slope analysis of the overall site showing slope categories 0- 15%, 15-25%, 25-35% and 35%+.

2. Potential Impacts.

- a. Prepare cut and fill analysis for proposed development (preliminary grading plan required). Discuss quality of fill to be brought onto the subject site from off-site locations (if any).
- b. Describe potential impacts to the steep slopes (15% and greater) on the entire site, including but not limited to potential sedimentation impacts and the potential for slope failure.
- c. Describe steep slope permits required in North Castle based upon steep slopes analysis as required by Section 355-18 (Steep Slopes) of the Code of the Town of North Castle.
- d. Discuss long-term post-development impacts due to changes in surface coverage and topography.

3. Mitigation Measures.

- a. Sedimentation and Erosion Control Plan prepared for the entire site.
- b. Use of retaining walls to minimize proposed grading
- c. Other

D. Vegetation & Wildlife.**1. Existing Conditions.**

- a. Woody and herbaceous species on the subject site.
 - (1) Distribution of vegetative cover types for the entire site (map required).
 - (2) General species abundance.

- (3) Approximate age and sizes of woody species.
- b. Presence of threatened, rare or endangered plant species on or near the subject site based upon existing available data (NYSDEC, NYNHP) and recent field inspection (map required). Include description of species, size, abundance and health condition.
- c. Site-specific analysis of resident and migratory wildlife, including amphibian, reptile, mammal and bird species. Assessment shall examine habitat functions (i.e., breeding habitat, transitional, staging areas, feeding and roosting sites and travel lanes).
- d. Survey of location, species, size and health condition of individual trees on the subject site that are regulated by Chapter 308 (Tree Preservation) of the Code of the Town of North Castle (i.e., trees greater than eight (8) inches in diameter at breast height (DBH) in areas proposed to be disturbed, including significant trees) (map required).
- e. Location of unique trees on the subject site that are not regulated by the Town (if any).

2. Potential Impacts.

- a. Description of proposed limits of site disturbance and impacts to each vegetative cover type and threatened, rare or endangered plant species on entire site; and other trees (including specimen trees) identified above.
- b. Cumulative loss of vegetation, overall and by vegetative cover type, upon project completion.
- c. Vegetation to remain as a result of residential construction, especially at critical buffering locations, such as the site's property lines.
- d. Unique or specimen trees worthy of preservation as part of the residential development, and discussion of any compelling reasons justifying the removal of such trees.
- e. Increased erosion resulting from removal of vegetation.

- f. Impacts of construction traffic on street trees, 24" dbh or greater, located along roadways where roadway and utility improvements are proposed.
- g. Impact on habitat and habitat functions caused by site development (e.g., clearing of vegetation, loss of wetlands).
- h. Impacts of use of fertilizer, pesticides, herbicides, fungicides and other chemicals on the subject site.
- i. Habitat and wildlife corridor fragmentation.
- j. Wildlife impacts on neighboring properties caused by displacement of wildlife from the subject site.

3. Mitigation Measures.

Potential mitigation measures to explore:

- a. Utilization of existing cleared areas to maximum extent possible.
- b. Establishment of Clearing Limit Lines and Clearing and Grading Limit Lines (if not the same) to depict maximum limits of areas of disturbance.
- c. Schematic landscape plan for the subject site showing proposed planting areas, as well as their design intent and function (e.g., visual buffer, wetland enhancement, wildlife, street trees, slope stabilization, formal garden, etc). Typical plant lists for each of specified functions shall be provided. Include a description of the resulting planting character of the site and the length of time it will take to achieve that character. Include scientific names on the proposed landscaping plan, and review New York State invasive species regulations to assure that no invasive species will be used. In addition, avoid the use of plant species known to be invasive in other states, particularly those listed as invasive in neighboring states but which may not yet appear on the New York list. Species of plants native to New York should be used to the extent practicable for landscaping, soil stabilization, and stormwater mitigation features.
- d. Buffer screening to reduce impacts on neighboring properties and area roadways.

- e. Preservation of trees, to the maximum extent possible.
- f. Proposed method of identification and preservation of unique and/or specimen (significant) trees, to the maximum extent possible.
- g. Preservation of existing conditions (e.g., forested areas, wetlands).
- h. Protection of wetlands.
- i. Preservation and creation of wildlife corridors.
- j. Fertilizer, Herbicide, Fungicide and Pesticide Application Plan, if proposed.

E. Wetlands.

1. Existing Conditions.

- a. Delineate in the field, survey for accurate location and map existing Town of North Castle, NYSDEC and U.S Army Corps of Engineers (USACOE) wetlands on the subject site using wetlands definition appropriate to each jurisdiction. All wetlands should be identified regardless of size.
- b. Identify and map existing Town of North Castle, NYSDEC and USACOE wetlands within a distance of not less than 1/4-mile from the site boundaries, expanded as necessary to include all areas that are functionally related to and which might reasonably be expected to be impacted by development of the subject site. All wetlands should be identified regardless of size.
- c. For each on-site wetland, indicate:
 - (1) Location.
 - (2) Wetlands type, including soils, vegetation and hydrology.
 - (3) Wetlands acreage (approximate for off-site wetlands).
 - (4) Pertinent jurisdiction.
 - (5) Wetlands functions, as identified in Chapter 340 (Wetlands and Watercourse Protection) of the Code of the Town of North Castle. Functional analysis shall be based upon one of the accepted methodologies, such as the U.S. Army Corps of

Engineers HGM (hydrogeomorphic model), EPW (Evaluation of Planned Wetlands) model or Hollands-Magee Method.

- d. Identify total wetlands acreage on the subject site and percent of site occupied by all wetlands, regulated wetlands and regulated wetlands buffer/adjacent areas using definitions appropriate to each jurisdiction.
- e. Identify any applicable regulatory authorities including Town, NYCDEP, NYSDEC, and the USACOE.
- f. Discuss existing drainage patterns, existing discharge points of drainage.

2. Potential Impacts.

- a. Identify acreage of proposed wetlands and wetlands buffer/adjacent area disturbances and analyze potential direct and indirect impacts on survey-located wetlands as regulated by the Town of North Castle, the NYSDEC and the USACOE. Discuss area to be disturbed, types of potential disturbance, impact to functional values of the wetland, changes to wetland vegetative composition, modifications to hydrology and hydroperiod, and modifications to the 100-year floodplain, if any.
- b. Describe permits required for local, State and Federal jurisdictions, if any.
- c. Describe potential for and evaluate the impact of increased sedimentation of wetlands.
- d. Describe potential for and evaluate the impact of increased concentrations of fertilizer, pesticides, herbicides, fungicides and other chemicals proposed for use on the subject site in the existing and proposed wetlands.
- e. Include qualitative analysis of construction-related and long-term impacts to wetlands and their functions, including impact on wildlife habitat, pollution abatement capabilities, stormwater control capabilities and changes in aesthetic value based upon evaluation methodology described above.

- f. For each of above analyses include consideration of cumulative impacts of other developments planned or proposed in the immediate area of the subject site.
- g. Identify and assess any altered drainage patterns and the potential adverse impacts that increased or, in some cases, decreased runoff amounts would pose to wetlands and streams.

3. Mitigation Measures.

Potential mitigation measures to explore:

- a. Minimization of wetland impacts.
- b. Elimination and minimization of fertilizer, pesticide, herbicide, fungicide and other chemical concentrations in existing and proposed wetlands through avoidance and containment, respectively.
- c. Other.

F. Stormwater Management.

1. Existing Conditions.

- a. Discuss existing stormwater runoff quality and quantity within the watersheds of which the subject site is a part, with modeling for 1-, 2-, 5-, 10-, 25-, 50- and 100-year storm events.
- b. Discuss and quantify existing conditions in the contributing watershed.
- c. Discuss existing point and nonpoint pollution sources within the watershed of which the subject site is a part.
 - (1) Subsurface sewage disposal systems.
 - (2) Roadway runoff.
 - (3) Grass clippings and other organic materials containing chemical residues.
 - (4) Other.

- d. Describe and map North Castle, NYCDEP, NYSDEC and USACOE regulated existing surface water bodies, intermittent and perennial streams; and 100-year floodplains on the site, and immediately surrounding the site (within 100' of site property lines).
- e. Existing pollutant loading as required by NYCDEP, NYSDEC. Methodologies in the manual Reducing the Impacts of Storm water Runoff from New Development shall be utilized. In addition, the stormwater analysis shall demonstrate that the practices proposed can adequately treat and attenuate the runoff to approximately predevelopment pollutant levels.

2. Potential Impacts.

- a. Calculate the total impervious areas for the site.
- b. Calculate stormwater runoff quantity; volume of stormwater runoff and peak discharge rates within the watersheds of which the subject site is a part for 1-, 2-, 5-, 10-, 25-, 50- and 100-year storm events.
- c. Identify surface water quality and quantity impacts on receiving wetlands, streams, ponds, and tributary watercourses within the watersheds of which the subject site is a part. Include potential short-term and long-term impacts of runoff carrying fertilizers, pesticides, herbicides, fungicides and other chemicals from lawns, roadways and other impervious surfaces, and sedimentation. Evaluate potential impact of failure of erosion and sedimentation control measures and stormwater control measures both during the construction process and after the proposed development is in operation.
- d. Identify stormwater permits required from the New York State Department of Environmental Conservation (NYSDEC), New York City Department of Environmental Protection (NYCDEP), or other agencies having jurisdiction.
- e. Discuss impacts associated with construction of proposed infrastructure.
- f. Provide an analysis of the impact of the proposed development on stormwater pollutants, as required by NYCDEP and NYSDEC, construction related erosion and sedimentation, discharges of turbidity in runoff, increased stormwater flow from additional

impervious surfaces, and the creation of runoff containing pollutants.

- g. Identify potential impacts to groundwater due to interception and/or capture during construction, change in land coverage, recharge, and on-site.
- h. For each of above analyses, also include consideration of cumulative impacts of other developments planned or proposed in the immediate area of the subject site.

3. Mitigation Measures.

Potential mitigation measures to explore:

- a. Description of erosion and sedimentation control measures to protect water bodies, wetlands, and tributary watercourses, and maintenance of such measures during construction.
- b. Preliminary Stormwater Pollution Prevention Plan (SWPPP) prepared for the project site in accordance with the Chapter 267 of the Town Code.
- c. Fertilizer, Herbicide, Fungicide and Pesticide Application Plan, if applicable.
- d. Compliance with the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities (Permit #GP 0-015-002).
- e. Compliance with the NYCDEP Rules and Regulations for the Protection from Contamination, Degradation, and Pollution of the New York City Water Supply and Its Sources.
- f. Discuss need to provide bond for construction pollution/environmental damage and/or need to provide environmental liability insurance, if applicable.
- g. Discuss alternatives such as enhanced treatment and/or the use of green infrastructure practices.
- h. Other.

G. Utilities.**1. Water Supply****a. Existing Conditions.**

- (i) Identify public water supply system in the vicinity of the site including interconnections with adjacent sites and associated easements (if any).
- (ii) Identify location of existing water main(s) serving the site and point(s) of connection, and available capacity.

b. Potential Impacts.

- (i) Provide average daily water demand for proposed use. Include water demand for fire, domestic and irrigation. A common irrigation system shall be designed with a master meter, for both the housing and the hotel, if the public water supply is intended to be used for this purpose.
- (ii) Identify proposed method of supplying water to the development.
- (iii) Evaluate capacity of the water district and describe proposed water connection. A looped distribution system within the project service area (more than one water main feed into the project shall be designed.
- (iv) Identify off-site improvements that would be required to adequately supply water to the project site.
- (v) Identify provisions for fire protection water supply.
- (vi) Discuss impacts related to construction of proposed infrastructure.
- (vii) For each of above analyses, also include consideration of cumulative impacts of other developments planned or proposed in the immediate area of the subject site.

c. Mitigation Measures.

- (i) Discuss potential mitigation measures, if necessary.
- (ii) Provision of new public water source for the Water District.
- (iii) Harvesting of rainwater for irrigation purposes.

2. Sanitary Sewer

a. Existing Conditions.

- (i) Identify existing wastewater district, treatment facilities to be used and capacity to accept additional sanitary waste from the project.
- (ii) Identify existing service lines and downstream sewer district mains.

b. Potential Impacts.

- (i) Provide anticipated wastewater generation for the proposed project.
- (ii) Evaluate capacity of the sewer district.
- (iii) Describe proposed wastewater treatment connections.
- (iv) Provide description of proposed sanitary sewage treatment facilities and NYSDEC, NYCDEP and WCDOH jurisdiction.
- (v) Discuss impacts related to construction of proposed infrastructure.
- (vi) For each of above analyses, also include consideration of cumulative impacts of other developments planned or proposed in the immediate area of the subject site.

c. Mitigation Measures.

Potential mitigation measures to explore:

- (i) Provision of additional sewer capacity at waste treatment plant for the Sewer District.

- (ii) The concept of inflow/infiltration reductions help to free up valuable treatment capacity, however, SD2 has minimal I&I to contend with. Nevertheless, any new construction shall be designed in a way to help prevent the burden of I&I. Discuss mitigation measures that will offset the projected increase in sewer flow through reductions in inflow/infiltration (I&I) at a ratio of three for one. In particular, provide specific details on how implementation of these improvements is to be accomplished. For example, will the applicant be required to place funds into a dedicated account for I&I work based on a per gallon cost of removal of flow through I&I? How will I&I projects be identified? Who will conduct the work and in what timeframe?

3. Alternative Energy.

a. Existing Conditions.

- (i) Identify site solar suitability.
- (ii) Discuss sustainable building methods and technologies.

b. Potential Impacts.

- (i) Describe potential/proposal for solar power generation on proposed buildings.
- (ii) Describe potential/proposal for electric vehicle charging stations.

c. Mitigation Measures.

H. Traffic and Transportation.

1. Existing Conditions.

Describe the roadway characteristics in the area surrounding the Project Site (number of lanes, posted speed limits, travel-way width, surface treatment and condition, horizontal and vertical curves, grades, drainage, parking, traffic controls, vehicle classification restrictions and general character).

For the weekday AM and PM Peak Hours, document and show on a figure, the existing traffic volumes using historical data and manual

turning movements traffic counts at the following intersections (i.e., “Study Area”):

- NYS Route 22 and Old Route 22
- NYS Route 22 and Route 128/North Castle Drive
- NYS Route 22 and Maple Avenue
- NYS Route 22 and I-684 Southbound Entry/Exit Ramps
- NYS Route 22 and I-684 Northbound Entry/Exit Ramps
- NYS Route 22 and Route 120
- Bedford Road and Maple Avenue
- Bedford Road/Kent Place and Route 120
- Route 120 and Whippoorwill Road East and Maple Avenue

Conduct capacity analysis (Level of Service) for each of the above intersections using the SYNCHRO software.

Summarize the existing Levels of Service in tabular format.

Provide a summary description of existing public transportation facilities in the vicinity of the site.

Provide Accident History Update or new data for each of the intersections listed for the most recent three-year period.

Discuss present ownership and maintenance of North Castle Drive.

Discuss existing public transportation access to the site.

2. Future Without the Proposed Project.

Estimate traffic volumes in the Study Area in the future without the Proposed Project (i.e., “No Build”) in a future design year, 2022, utilizing:

- A background growth factor based on historical data
- Estimated traffic volumes from other pending or approved projects in the area, if any, as identified and provided by the Town.

Calculate the Design Year No-Build traffic volumes for each of the peak hours and show on a figure.

Conduct capacity analysis (Level of Service) for each of the above intersection using the SYNCHRO software for the Design Year No-Build condition.

Summarize the Levels of Service in tabular form for the Design Year No-Build condition.

3. Potential Impacts of the Proposed Project.

Estimate Site Generated Traffic based on the information published by the Institute of Transportation Engineers (ITE) as contained in their report entitled *Trip Generation, 10th Edition, 2017*. Assign the Site Generated Traffic Volumes to the roadway network based on the anticipated arrival and departure distributions.

Combine the Site Generated Traffic Volume with the Design Year No-Build traffic volumes to obtain the Build Traffic Volumes for each of the peak hours and show on a figure.

Conduct capacity analysis (Level of Service) for each of the above intersections using the SYNCHRO software for the Build condition.

Provide intersection sight distance analysis of any new site access drives.

Discuss future ownership and maintenance plans for North Castle Drive. Discuss potential impacts the Proposed Action would have on existing public transportation services.

4. Mitigation Measures.

Based on the results of the traffic analyses, identify improvements to the traffic and transportation system where necessary. The impact of proposed improvements shall be identified consistent with the methodology and format of the Project-impact analysis.

Study the possibility of extending the Community Park roadways to provide for additional parking in close proximity to Field 4.

Discuss sidewalk connections between project site and Bee Line Route 12 and Loop H stops.

Reach out to the Transportation Division of the County Department of Public Works and Transportation to determine if other measures can be taken to accommodate transit accessibility to the proposed development site.

Discuss provision of bicycle parking.

I. Visual Resources and Community Character.**1. Existing Conditions.**

- a. Provide analysis of the existing visual character of the subject site as viewed from surrounding roads and surrounding properties, based upon use of photographs, site line diagrams and/or cross-sections, as appropriate. Include, North Castle Drive, IBM North Castle, NYS Route 22, Main Street and North Castle Community Park. Existing views shall be clearly described in narrative form and supplemented with appropriate graphic illustrations.

2. Potential Impacts.

- a. Provide analysis of the visual character of the subject site after development as viewed from surrounding roads and surrounding adjacent properties, based upon use of photographs, computer simulations, site line diagrams and/or cross-sections, as appropriate, using the NYSDEC Program Policy, Assessing and Mitigating Visual Impacts, DEP-00-2 as a guideline. Altered views shall be clearly described in narrative form and supplemented with appropriate graphic illustrations. Any plans to erect walls, fences and/or gates along some or all of the subject site's perimeter during construction and after development of the subject site shall be identified, including but not limited to a description of the type, materials and height of proposed walls, fencing and/or gates.
- b. Assess the visual impact of the proposed project in context with other existing structures in the study area.
- c. Provide architectural renderings, details and photosimulations illustrating height massing, scale and façade treatments. Photosimulations shall use photographs of existing and proposed conditions during the leaf and leafless seasons.
- d. Describe impacts associated with proposed lighting plan and how lighting may impact adjoining properties.
- e. Discuss potential impacts to the view shed of and significant habitats within North Castle Community Park.

3. Mitigation Measures.

Potential mitigation measures to explore:

- a. Capital contributions to the Town and its special districts (i.e. water and sewer) and that the specifics of such contributions will be embodied in a Community Benefits Agreement.
- b. Measures aimed at reducing visual impact.
- c. Preservation of existing trees.
- d. Establishment of setbacks from property lines.
- e. Height of structures
- f. Establishment of Clearing Limit Lines to depict maximum limits of areas of disturbance.
- g. Landscaping, including buffer screening plans.
- h. Building architecture
- i. Other.

J. Community Facilities and Services.**1. Schools.****a. Existing Conditions.**

- (1) Describe the location of the subject site in relation to the Byram Hills public school district that serves the site.

b. Potential Impacts.

- (1) Estimate the public school child generation from the townhomes and multi-family apartments by use of accepted school child multipliers (Rutgers CUPR or ACS PUMA cross tabs), segmented by unit mix, tenure and rent or income level; if possible, confirmed by experience of similar developments.
- (2) Apply the average annual current enrollment expenditure per student as borne by property taxes net of state aid (based on the average of all grades and special needs) to the number of

proposed development students for the measure of the development costs. Evaluate the impacts of projected enrollment increases, from the project, on the Byram Hills school district, school facilities and budgets. Consider long term cumulative impacts of enrollment increases within the district. Communicate with the school district and evaluate the potential for the need for new buildings, fields or other facilities. Impacts on property tax revenues to the School District and other taxing jurisdictions should take into consideration the need for capital improvements resulting from the proposed project.

- (3) Discuss transportation impacts upon the Byram Hills School District, including need for the District to add a transportation route and pick up location to accommodate students.
- (4) Discuss impacts associated with the NYS tax levy limit with new assessed values.
- (5) Compute the school district's property tax benefit from the proposed development by applying the current North Castle school tax rate to the estimated Assessed Value for the measure of the development benefit.
- (6) Compare the cost and benefit of the proposed development.

c. Mitigation Measures.

- (1) Discuss potential mitigation measures, if necessary. Discuss tax implications of the project.

2. Police, Fire and EMS Protection.

a. Existing Conditions.

- (1) Staff size and organization of service provider in town.
- (2) Location of stations in relation to the subject site.
- (3) Average response time to the subject site for service provider.
- (4) Service ratio for service provider.

- (5) Number and type of apparatus for service provider.
- (6) Water supply and capacity for fire-fighting purposes.
- (7) Transport time to the nearest hospital for service provider.
- (8) Adequacy of access for service provider.

b. Potential Impacts.

- (1) Increased demand for services (based upon normal usage of the subject site) and allocation of responsibilities between service provider.
- (2) Increased costs for service provider.
- (3) Adequacy of access to/from and on the subject site, including roadway surface and width, barriers and maintenance.
- (4) Documented concerns of service provider.
- (5) Water supply and pressure for firefighting purposes.
- (6) For each of above analyses, also include consideration of cumulative impacts of other developments planned or proposed in the immediate area of the subject site.
- (7) Other.

c. Mitigation Measures.

Potential mitigation measures to explore:

- (1) Real estate property taxes generated.
- (2) Site access modifications.
- (3) Fire suppression sprinklers and standpipe systems.
- (4) Provision of fire hydrants and water supply systems for the subject site.
- (5) Provision of AFFH housing for emergency service providers serving the Town of North Castle.

- (6) Generator power receptacle for the NYSDOT traffic signal at NYS Route 128 and NYS Route 22.
- (7) Installation of street lights for North Castle Drive.
- (6) Other.

3. Solid Waste and Recycling.

a. Existing Conditions.

- (1) Discuss recycling requirements of the hotel and multifamily development
- (2) Discuss solid waste requirements of the hotel and multifamily development

b. Potential Impacts.

- (1) Discuss whether adequate storage measures and proposed to accommodate the expanded County recycling program.
- (2) Discuss whether adequate storage measures are proposed for solid waste.

c. Mitigation Measures.

Discuss the potential for on-site food composting for the restaurant and catering uses.

K. Fiscal and Market Impacts

1. Existing Conditions.

- a. Provide existing tax revenues to the Town of North Castle, Byram Hills Central School District, Westchester County, and New York State from the existing subject site.
- b. Provide an overview of the market for townhomes in North Castle.
- c. Provide an overview of the market for apartments.
- d. Provide an overview of the hotel market.

2. Potential Impacts.

- a. Estimate temporary (construction) employment and permanent hotel employment associated with the proposed action.
- b. Prepare an economic impact assessment of the direct, indirect and induced effects on employment, output and earnings in the Town of North Castle by the temporary (construction) and permanent (operations) activity associated with the proposed development. Quantify the expected economic impacts to the local economy during the construction period. Identify the number of jobs (in person-years) to be generated directly and indirectly as a result of construction. Calculate income to the local economy from sales of construction material, construction labor and sales tax. Address hotel tax impacts.
- c. Compare future tax revenues resulting from the proposed project with current tax revenues generated from the existing project site.
- d. Address economic impacts of hotel operations.

3. Mitigation Measures.

- a. Describe any measures that would be pursued to maximize economic benefits to the community from the proposed project.
- b. Other.

M. Historic, Archaeological and Cultural Resources.**1. Existing Conditions.**

- a. Describe historic resources on the subject site. Include information obtained from the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) and North Castle Historical Society.
- b. A descriptive detail of the Project including the proposed direct impact areas will be submitted to the New York State Office of Parks, Recreation and Historic Preservation (NYOPRHP) as part of the SEQR consultation process. The project notification paperwork will be submitted electronically to NYOPRHP using that agency's Cultural Resources Information System (CRIS). If NYOPRHP determines that a Phase I or II cultural resources assessment is needed, the appropriate Cultural Resources study will be conducted.

- c. Identify any properties listed on the State or National Register of Historic Places on or within a 1/2-mile of the subject site's boundaries.
- d. Identify locally significant properties within a 1/2-mile of the subject site's boundaries.
- e. Identify and map existing on-site stone walls.

2. Potential Impacts.

- a. Discuss how the project would impact historic, cultural or archaeological resources on, or in the vicinity of the project site.
- b. Other.

3. Mitigation Measures.

Potential mitigation measures to explore:

- a. Preserve historic and archeological resources on the subject site.
- b. Other.

N. Open Space

1. Existing Conditions.

- a. Include description of surrounding open spaces within 1/2 mile, including North Castle Community Park to the east. Provide summary of parks and recreation facilities in the Town of North Castle.

2. Potential Impacts.

- a. Describe potential impacts to open space areas.
- b. Discuss the open space plan for the proposed development.

3. Mitigation Measures.

- a. Any proposed mitigation as a result of impacts to open spaces.
- b. Discuss how proposed open space areas are to be protected and maintained. If restrictions such as deed restrictions, conservation

easements or other prohibitions in future development are proposed, discuss what legal mechanism will be put into place to ensure perpetual preservation of open spaces.

- c. Discuss the potential for connections of on-site open spaces to off-site open spaces and how this could be implemented and maintained.
- d. Other.

L. Construction Impacts

1. Potential Impacts.

- a. Describe proposed construction phasing, overall schedule for project completion, and hours of construction operation.
- b. Describe the equipment and materials storage and/or staging area, anticipated number of construction workers, anticipated lighting and security, and the delivery means and methods.
- c. Describe the erosion and sediment control plan for the proposed project and any stormwater management practices to be used on a temporary basis.
- d. Describe how the infrastructure relevant to the completion of each phase will be implemented, and any potential impacts.
- e. Assess the potential environmental impacts anticipated due to the construction of the proposed project including traffic, noise, air quality, dust, erosion and sedimentation and its impact on the surrounding area.
- f. Specifically address whether blasting is proposed and discuss potential impacts upon surrounding land uses.

2. Mitigation Measures.

- a. Discuss construction management techniques
- b. Enforcement
- c. Erosion control plans

- d. Ideal management practices to be employed, along with mechanisms to minimize impacts related to partial project completion.
- e. If blasting is proposed, discuss potential mitigation measures.
- f. Other.

V. REASONABLE ALTERNATIVES TO BE CONSIDERED

The description and evaluation of the following alternatives to the Proposed Action shall address all of the topics in Section IV of this document, shall be at a level of detail sufficient to permit a comparative assessment of the alternatives discussed, shall be analyzed in terms of the impact issues listed above in summary and matrix format, and shall reflect compliance with all applicable regulations of the Town of North Castle. Alternatives shall include the following:

1. No Action.

2. Hotel Only Development Under Existing OBH Zoning

The analysis of this alternative shall evaluate the development of a single, larger hotel on the entire site, with no residential uses.

3. Hotel and Townhouse Development (No Apartments)

The analysis of this alternative shall evaluate the development of the 6 acres site to support a hotel use only, without the associated multi-family residences.

4. Reduced Townhouse Development

The analysis of this alternative shall evaluate a reduced townhouse development on the 26 acre parcel consisting of 60 units arranged along the western side of the site, thereby preserving a wider buffer between the Town Park.

5. Open Space Maximization and Limited Height Alternative.

The analysis of this alternative shall evaluate a minimum hotel lot size of 12 acres and multifamily residential minimum lot size of 20 acres. In addition, the maximum permitted height of the hotel shall not exceed three stories/45 feet.

VI. ADVERSE IMPACTS THAT CANNOT BE AVOIDED IF THE PROPOSED ACTION IS IMPLEMENTED

Identify adverse environmental impacts identified in Chapter IV of the DEIS that cannot be avoided based on the implementation and construction of the Proposed Action.

VII. OTHER REQUIRED ANALYSES

A. Irreversible and Irretrievable Commitment of Resources.

Identify natural and human resources that will be consumed, converted or made unavailable for future use from the implementation and construction of the Proposed Action.

B. Impacts on the Use and Conservation of Energy.

Identify impacts that could result as potential impacts from the implementation and construction of the Proposed Action on the use and conservation of energy. Identify sustainable and green building practices.

C. Growth Inducing Aspects of the Proposed Action

This section should evaluate the effects of the proposed action as it relates to the potential to increase the permanent residential population in the Town of North Castle or similar commercial development. The growth inducing aspect of the proposed action will describe and evaluate any potential that the proposed action may have for triggering further development in terms of attracting similar, additional, or ancillary uses, significant increases in local population, increasing the demand for support facilities, and increasing the commercial and residential development potential for the local area. This section shall present secondary and cumulative impacts to housing, commercial economic development, additional traffic, water and wastewater needs.

D. Cumulative Impacts

This section should evaluate the effects of the proposed action as it relates to when multiple actions affect the same resource(s). These impacts can occur when the incremental or increased impacts of an action, or actions, are added to other past, present and reasonably foreseeable future actions.

VIII. SOURCES AND BIBLIOGRAPHY

IX. APPENDICES

- A. All SEQRA documentation, including a copy of the Environmental Assessment Form (EAF), the Positive Declaration and the DEIS Scope.
- B. Copies of all official correspondence related to issues discussed in the DEIS.
- C. Copies of all technical studies, in their entirety, including the following:
 - 1. Market study
 - 2. Traffic study
 - 3. Architectural, historic and/or archaeological reports
 - 4. Tree Data
 - 5. Rare, threatened and endangered species documentation
 - 6. Geotechnical data
 - 7. Preliminary SWPPP

Appendix B

Environmental Assessment Form

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Sponsor Information.

| | | |
|---|-----------|---|
| Name of Action or Project: Eagle Ridge | | |
| Project Location (describe, and attach a general location map): 3 North Castle Drive, Armonk, Westchester County (Tax Map Parcel ID 118.03-1-62.1) | | |
| Brief Description of Proposed Action (include purpose or need): The proposed action involves the subdivision of the 32.5 acre site to create two new lots of approximately 6 acres and 26 acres respectively. The 6 acre parcel will be developed to support a 97-room boutique hotel, which includes a restaurant, cafe, bar, banquet/conference rooms, fitness center and pool. Additionally, 69 one, two and three bedroom apartments will be constructed above the hotel on the third, fourth and penthouse floors of the building. Parking for the mixed-use building will be provided within a parking structure and 67 adjacent at-grade spaces. The 26 acre parcel will be developed to support 94 attached and semi-attached townhomes. Dwelling units will range between 2,600 and 2,800 square feet and contain 3 bedrooms, 3 bathrooms, a basement and a two-car garage. Open space and recreational amenities are proposed to support the residents of the development. Access to both parcels will be provided from a single driveway located off North Castle Drive | | |
| Name of Applicant/Sponsor: MADDD Madonna Armonk, LLC | | Telephone: 516-821-2003 E-Mail: fjmaddonna@aol.com |
| Address: 15 Verbena Avenue, Suite 200 | | |
| City/PO: Floral Park | State: NY | Zip Code: 11001 |
| Project Contact (if not same as sponsor; give name and title/role): Same | | Telephone: E-Mail: |
| Address: | | |
| City/PO: | State: | Zip Code: |
| Property Owner (if not same as sponsor): Same | | Telephone: E-Mail: |
| Address: | | |
| City/PO: | State: | Zip Code: |

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

| Government Entity | If Yes: Identify Agency and Approval(s) Required | Application Date (Actual or projected) |
|--|---|---|
| a. City Council, Town Board, <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No or Village Board of Trustees | Town Board - Rezoning | |
| b. City, Town or Village <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Planning Board or Commission | Site Plan Approval, Subdivision Approval | |
| c. City Council, Town or <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Village Zoning Board of Appeals | | |
| d. Other local agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Town Water & Sewer Dept - Sewer & Water Connections Town Building & Engineering Dept - SWPPP Planning Board - 239 m & n Review Health Dept - Sewer/Subdivision | |
| e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | |
| f. Regional agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | NYSDEC - SWPPP | |
| h. Federal agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| i. Coastal Resources. | | |
| i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| iii. Is the project site within a Coastal Erosion Hazard Area? | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☒ Yes ☐ No

- If Yes, complete sections C, F and G.
- If No, proceed to question C.2 and complete all remaining sections and questions in Part I

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☒ Yes ☐ No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☒ Yes ☐ No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐ Yes ☒ No

If Yes, identify the plan(s):

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐ Yes ☒ No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☒ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
OBH - Office Business Hotel

b. Is the use permitted or allowed by a special or conditional use permit? ☒ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☒ Yes ☐ No

If Yes,
i. What is the proposed new zoning for the site? R-MF-A for the 26 acre portion of the parcel

C.4. Existing community services.

a. In what school district is the project site located? Byram Hills

b. What police or other public protection forces serve the project site?
Town of North Castle Police Department

c. Which fire protection and emergency medical services serve the project site?
Armonk Fire Department

d. What parks serve the project site?
Community Park

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Mixed-use - hotel with ancillary accessory uses and residential

b. a. Total acreage of the site of the proposed action? 32.5 acres

b. Total acreage to be physically disturbed? 24.5 acres

c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 32.5 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☒ No

i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % Units:

d. Is the proposed action a subdivision, or does it include a subdivision? ☒ Yes ☐ No

If Yes,

i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
Hotel and multi-family residential on 6 acre parcel, single-family residential townhouses on 26 acre parcel

ii. Is a cluster/conservation layout proposed? ☐ Yes ☒ No

iii. Number of lots proposed? 2

iv. Minimum and maximum proposed lot sizes? Minimum 6 acres Maximum 26 acres

e. Will proposed action be constructed in multiple phases? ☒ Yes ☐ No

i. If No, anticipated period of construction: months

ii. If Yes:

• Total number of phases anticipated 2

• Anticipated commencement date of phase 1 (including demolition) month 2019 year

• Anticipated completion date of final phase month 2021 year

• Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases:

| | | | | |
|---|-------------------|-------------------|---------------------|---------------------------------------|
| f. Does the project include new residential uses? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, show numbers of units proposed. | | | | |
| | <u>One Family</u> | <u>Two Family</u> | <u>Three Family</u> | <u>Multiple Family (four or more)</u> |
| Initial Phase | | | | 69 |
| At completion | | | | 163 |
| of all phases | | | | |

| | |
|--|--|
| g. Does the proposed action include new non-residential construction (including expansions)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, | |
| i. Total number of structures <u>1</u> ii. Dimensions (in feet) of largest proposed structure: <u>69'</u> height; <u>126'</u> width; and <u>500'</u> length iii. Approximate extent of building space to be heated or cooled: <u>85%</u> square feet | |

| | |
|--|--|
| h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, | |
| i. Purpose of the impoundment: _____ ii. If a water impoundment, the principal source of the water: <input type="checkbox"/> Ground water <input type="checkbox"/> Surface water streams <input type="checkbox"/> Other specify: _____ iii. If other than water, identify the type of impounded/contained liquids and their source. _____ iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____ | |

D.2. Project Operations

| | |
|--|--|
| a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) If Yes: | |
| i. What is the purpose of the excavation or dredging? _____ ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site? • Volume (specify tons or cubic yards): _____ • Over what duration of time? _____ iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. _____ _____ iv. Will there be onsite dewatering or processing of excavated materials? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe. _____ _____ v. What is the total area to be dredged or excavated? _____ acres vi. What is the maximum area to be worked at any one time? _____ acres vii. What would be the maximum depth of excavation or dredging? _____ feet viii. Will the excavation require blasting? <input type="checkbox"/> Yes <input type="checkbox"/> No ix. Summarize site reclamation goals and plan: _____ _____ _____ | |

| | |
|--|--|
| b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes: | |
| i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____ _____ _____ | |

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will proposed action cause or result in disturbance to bottom sediments?

☐ Yes ☐ No

If Yes, describe: _____

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation?

☐ Yes ☐ No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

c. Will the proposed action use, or create a new demand for water?

☒ Yes ☐ No

If Yes:

i. Total anticipated water usage/demand per day: _____ 45,000 gallons/day

ii. Will the proposed action obtain water from an existing public water supply?

☐ Yes ☐ No

If Yes:

• Name of district or service area: Water District #4

• Does the existing public water supply have capacity to serve the proposal?

☒ Yes ☐ No

• Is the project site in the existing district?

☒ Yes ☐ No

• Is expansion of the district needed?

☒ Yes ☐ No

• Do existing lines serve the project site?

☒ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project?

☒ Yes ☐ No

If Yes:

• Describe extensions or capacity expansions proposed to serve this project: _____

• Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site?

☐ Yes ☒ No

If, Yes:

• Applicant/sponsor for new district: _____

• Date application submitted or anticipated: _____

• Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes?

☒ Yes ☐ No

If Yes:

i. Total anticipated liquid waste generation per day: _____ <45,000 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): sanitary wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities?

☒ Yes ☐ No

If Yes:

• Name of wastewater treatment plant to be used: Blind Brook STP

• Name of district: Sewer District #2

• Does the existing wastewater treatment plant have capacity to serve the project?

☒ Yes ☐ No

• Is the project site in the existing district?

☒ Yes ☐ No

• Is expansion of the district needed?

☐ Yes ☒ No

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h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐ Yes ☒ No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐ Yes ☒ No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☒ Yes ☐ No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☒ Morning ☒ Evening ☒ Weekend
☒ Randomly between hours of 8:00 am to 6:00 pm.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: _____ 0

iii. Parking spaces: Existing _____ 0 Proposed _____ 601* Net increase/decrease _____ +609

iv. Does the proposed action include any shared use parking? ☐ Yes ☒ No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:
 A new access driveway is proposed off North Castle Drive (private road)

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☒ Yes ☐ No

vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☒ Yes ☐ No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☒ Yes ☐ No

k. Will the proposed action (for commercial or industrial projects ^{ext}only) generate new or additional demand for energy? ☒ Yes ☐ No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____ T.B.D.

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):
 ConEd utility grid

iii. Will the proposed action require a new, or an upgrade to, an existing substation? ☐ Yes ☒ No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: _____ In accordance with Town regulations
- Saturday: _____
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: _____ Hotel - 24/7/365
- Saturday: _____
- Sunday: _____
- Holidays: _____

*
 Hotel = 247 spaces
 Apartments = 141 spaces
 Townhouses = 213 spaces
 Total = 609 spaces

| | |
|---|---|
| <p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both?</p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration: Construction noise will occur during the development of the site. Noise generation will comply with Chapter 210 of the Town Code</p> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <p>ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen?</p> <p>Describe: _____</p> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <p>n.. Will the proposed action have outdoor lighting?</p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures: Exterior building lighting, driveway and parking lighting and ambient site lighting. Details T.B.D.</p> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen?</p> <p>Describe: _____</p> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <p>o. Does the proposed action have the potential to produce odors for more than one hour per day?</p> <p>If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____</p> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <p>p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage?</p> <p>If Yes:</p> <p>i. Product(s) to be stored _____</p> <p>ii. Volume(s) _____ per unit time _____ (e.g., month, year)</p> <p>iii. Generally describe proposed storage facilities: _____</p> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation?</p> <p>If Yes:</p> <p>i. Describe proposed treatment(s): _____</p> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <p>ii. Will the proposed action use Integrated Pest Management Practices?</p> | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)?</p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> • Construction: _____ T.B.D. tons per _____ (unit of time) • Operation : _____ T.B.D. tons per _____ (unit of time) <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> • Construction: Recycling of construction debris _____ • Operation: Hotel will recycle waste _____ <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> • Construction: Private carters - Yonkers Material Recovery Facility _____ • Operation: Private carters - Yonkers Material Recovery Facility _____ | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☒ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☒ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility: _____

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

- ☐ Urban ☐ Industrial ☒ Commercial ☒ Residential (suburban) ☐ Rural (non-farm)
- ☐ Forest ☐ Agriculture ☐ Aquatic ☒ Other (specify): Recreation

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

| Land use or Covertype | Current Acreage | Acreage After Project Completion | Change (Acres +/-) |
|--|-----------------|----------------------------------|--------------------|
| • Roads, buildings, and other paved or impervious surfaces | 0 | 10.2 | +10.2 |
| • Forested | 27.8 | 12.8 | - 15.0 |
| • Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural) | 4.0 | 1.8 | - 2.2 |
| • Agricultural (includes active orchards, field, greenhouse etc.) | 0 | 0 | 0 |
| • Surface water features (lakes, ponds, streams, rivers, etc.) | 0 | 2.0 | + 2.0 |
| • Wetlands (freshwater or tidal) | 0 | 0 | 0 |
| • Non-vegetated (bare rock, earth or fill) | .7 | .2 | - 0.5 |
| • Other Describe: Lawn and landscaping | 0 | 5.5 | +5.5 |

| | |
|--|--|
| <p>c. Is the project site presently used by members of the community for public recreation? i. If Yes: explain: _____</p> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <p>d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? If Yes, i. Identify Facilities: _____ _____</p> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <p>e. Does the project site contain an existing dam? If Yes: i. Dimensions of the dam and impoundment: • Dam height: _____ feet • Dam length: _____ feet • Surface area: _____ acres • Volume impounded: _____ gallons OR acre-feet ii. Dam's existing hazard classification: _____ iii. Provide date and summarize results of last inspection: _____ _____</p> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <p>f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? If Yes: i. Has the facility been formally closed? • If yes, cite sources/documentation: _____ ii. Describe the location of the project site relative to the boundaries of the solid waste management facility: _____ _____</p> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <p>iii. Describe any development constraints due to the prior solid waste activities: _____ _____</p> | |
| <p>g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? If Yes: i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred: _____ _____</p> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <p>h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? If Yes: i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: <input type="checkbox"/> Yes – Spills Incidents database <input type="checkbox"/> Yes – Environmental Site Remediation database <input type="checkbox"/> Neither database Provide DEC ID number(s): _____ Provide DEC ID number(s): _____ ii. If site has been subject of RCRA corrective activities, describe control measures: _____ _____</p> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <p>iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? If yes, provide DEC ID number(s): 360005 iv. If yes to (i), (ii) or (iii) above, describe current status of site(s): _____ _____</p> | |

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☒ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☒ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? _____ ~ 2' to 5' feet

b. Are there bedrock outcroppings on the project site? ☒ Yes ☐ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ 2 %

c. Predominant soil type(s) present on project site:

| | |
|----------------------------|---------|
| Charlton Chatfield Complex | 85 % |
| Charlton Loam | 15 % |
| _____ | _____ % |

d. What is the average depth to the water table on the project site? Average: _____ 6 feet

e. Drainage status of project site soils: ☒ Well Drained: _____ 100 % of site
☐ Moderately Well Drained: _____ % of site
☐ Poorly Drained: _____ % of site

f. Approximate proportion of proposed action site with slopes: ☒ 0-10%: _____ 20 % of site
☒ 10-15%: _____ 60 % of site
☒ 15% or greater: _____ 20 % of site

g. Are there any unique geologic features on the project site? ☐ Yes ☒ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☒ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☒ Yes ☐ No
If Yes to either i or ii, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☒ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name Wampus Brook Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☒ No
If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☒ No

j. Is the project site in the 100 year Floodplain? ☐ Yes ☒ No

k. Is the project site in the 500 year Floodplain? ☐ Yes ☒ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☒ Yes ☐ No
If Yes:
i. Name of aquifer: Principal Aquifer

| | |
|---|--|
| <p>m. Identify the predominant wildlife species that occupy or use the project site: _____ <small>Typical species found in Westchester</small> _____ _____</p> | |
| <p>n. Does the project site contain a designated significant natural community? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Describe the habitat/community (composition, function, and basis for designation): _____</p> <p style="margin-left: 20px;">ii. Source(s) of description or evaluation: _____</p> <p style="margin-left: 20px;">iii. Extent of community/habitat:</p> <ul style="list-style-type: none"> • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres | |
| <p>o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> | |
| <p>p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> | |
| <p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes, give a brief description of how the proposed action may affect that use: _____</p> | |
| <p>E.3. Designated Public Resources On or Near Project Site</p> | |
| <p>a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes, provide county plus district name/number: _____</p> | |
| <p>b. Are agricultural lands consisting of highly productive soils present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p style="margin-left: 20px;">i. If Yes: acreage(s) on project site? _____</p> <p style="margin-left: 20px;">ii. Source(s) of soil rating(s): _____</p> | |
| <p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature</p> <p style="margin-left: 20px;">ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____</p> | |
| <p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. CEA name: _____</p> <p style="margin-left: 20px;">ii. Basis for designation: _____</p> <p style="margin-left: 20px;">iii. Designating agency and date: _____</p> | |

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? ☐ Yes ☒ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based: _____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☒ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☒ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☒ No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☒ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6 NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

F. Additional Information
Attach any additional information which may be needed to clarify your project.

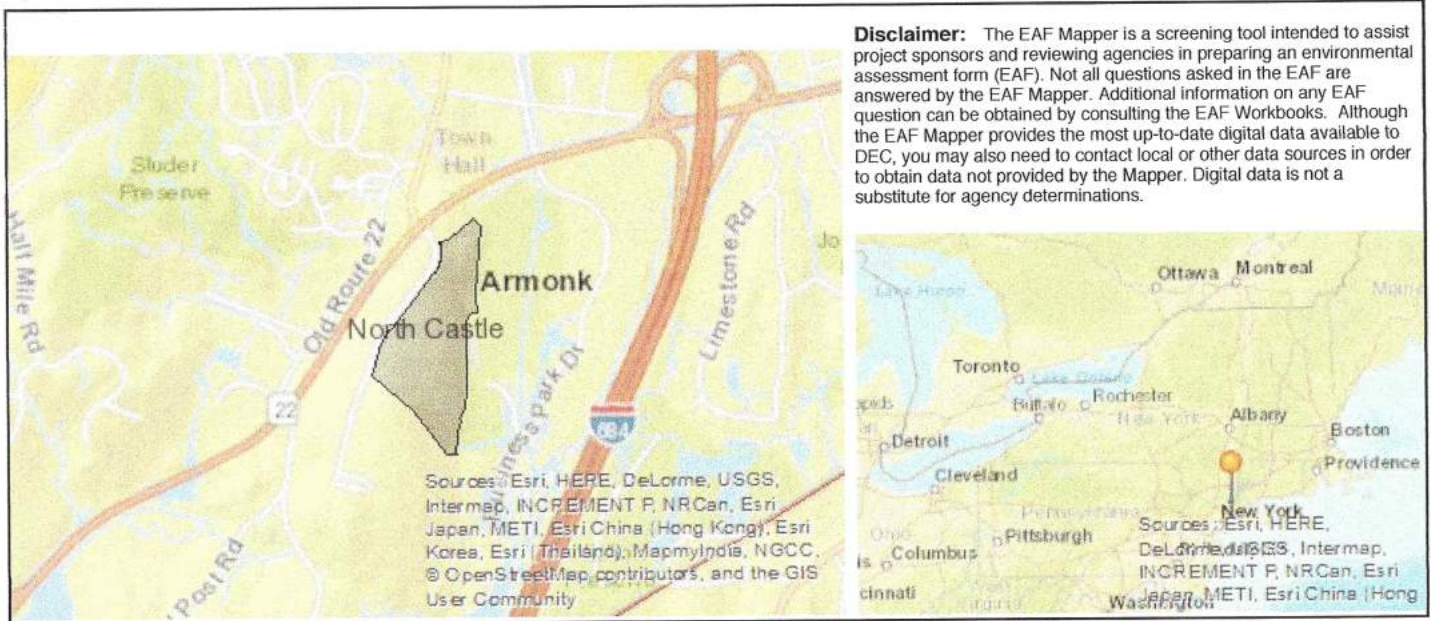
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name MADD Madonna Armonk LLC Date March, 2018

Signature Title Cleary Consulting



| | |
|--|---|
| B.i.i [Coastal or Waterfront Area] | No |
| B.i.ii [Local Waterfront Revitalization Area] | No |
| C.2.b. [Special Planning District] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h [DEC Spills or Remediation Site - Potential Contamination History] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h.i [DEC Spills or Remediation Site - Listed] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h.iii [Within 2,000' of DEC Remediation Site] | Yes |
| E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID] | 360005 |
| E.2.g [Unique Geologic Features] | No |
| E.2.h.i [Surface Water Features] | No |
| E.2.h.ii [Surface Water Features] | Yes |
| E.2.h.iii [Surface Water Features] | Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook. |
| E.2.h.v [Impaired Water Bodies] | No |
| E.2.i. [Floodway] | No |
| E.2.j. [100 Year Floodplain] | No |
| E.2.k. [500 Year Floodplain] | No |
| E.2.l. [Aquifers] | Yes |
| E.2.l. [Aquifer Names] | Principal Aquifer |
| E.2.n. [Natural Communities] | No |

| | |
|---|--|
| E.2.p. [Rare Plants or Animals] | No |
| E.3.a. [Agricultural District] | No |
| E.3.c. [National Natural Landmark] | No |
| E.3.d [Critical Environmental Area] | No |
| E.3.e. [National Register of Historic Places] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.3.f. [Archeological Sites] | Yes |
| E.3.i. [Designated River Corridor] | No |

Appendix C

Correspondence

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 3
21 South Platt Corners Road, New Paltz, NY 12561-1620
P: (845) 256-3054 | F: (845) 255-4659
www.dec.ny.gov



Department of
Environmental
Conservation

June 26, 2018

Ms. Alison Simon
Town of North Castle
15 Bedford Road
Armonk, NY 10504

RE: Eagle Ridge, 3 North Castle Drive
Town of North Castle, Westchester County
CH#: 7688

Dear Ms. Simon:

The New York State Department of Environmental Conservation (DEC) staff have reviewed the Town of North Castle's State Environmental Quality Review (SEQR) Lead Agency coordination, including the Full Environmental Assessment Form (FEAF), scope of issues document, and plans entitled "Eagle Ridge," sheets 1 through 8. The project involves the subdivision of a 32.5-acre site to create a 6-acre parcel and 26-acre parcel, respectively. The 6-acre parcel will be developed with a 97-room boutique hotel with restaurant, café, bar, conference rooms, fitness center, pool, and 69 apartments, as well as parking accommodations. The 26-acre parcel will be developed with approximately 94 attached and semi-attached townhomes. Approximately 24.5 acres will be disturbed. The DEC has no objection to the Town assuming Lead Agency and we offer the following comments:

PROTECTION OF WATERS

There are no waterbodies that appear on our regulatory maps at the location/project site identified. Therefore, if there is a stream or pond outlet present at the site with year-round flow, it assumes the classification of the watercourse into which it feeds, Wampus River, class C and a Protection of Waters permit is not required. If there is a stream or pond outlet present at the site that runs intermittently (seasonally), it is not protected, and a Protection of Waters permit is not required.

If a permit is not required, please note, the project sponsor is still responsible for ensuring that work shall not pollute any stream or waterbody. Care shall be taken to stabilize any disturbed areas promptly after construction, and all necessary precautions shall be taken to prevent contamination of the stream or waterbody by silt, sediment, fuels, solvents, lubricants, or any other pollutant associated with the project.



Department of
Environmental
Conservation

FRESHWATER WETLANDS

The project/site is not within a New York State protected Freshwater Wetland. An Army Corps of Engineers permit may be required pursuant to Section 404 of the Clean Water Act. If a Section 404 permit is required, you will also require a Water Quality Certification pursuant to Section 401 of the Clean Water Act. Issuance of these certifications in NYS has been delegated to the DEC. Please contact the Army Corps of Engineers in New York City, at 917-790-8511, for any permitting they might require.

STATE-LISTED SPECIES

No records of sensitive resources were identified by this review.

The absence of data does not necessarily mean that rare or state-listed species, natural communities or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information which indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

CULTURAL RESOURCES

We have reviewed the statewide inventory of archaeological resources maintained by the New York State Museum and the New York State Office of Parks, Recreation, and Historic Preservation. These records indicate that the project is located within an area considered to be sensitive with regard to archaeological resources. For more information, please visit the New York State Office of Historic Preservation website at <http://www.nysparks.com/shpo/>.

STATE POLLUTION DISCHARGE ELIMINATION SYSTEM (SPDES) STORMWATER - CONSTRUCTION

If the overall project will disturb over one acre of land, the project sponsor must obtain coverage under the current SPDES General Permit (GP-0-15-002) for Stormwater Discharge from Construction Activities, and a Stormwater Pollution Prevention Plan (SWPPP) must be developed which conforms to requirements of the General Permit. As this site is within a Municipal Separate Storm Sewer System (MS4) community, the Stormwater Pollution Prevention Plan (SWPPP) must be reviewed and accepted by the municipality, and the MS4 Acceptance Form submitted with the SWPPP and the application for coverage, in accordance with the application instructions.

OTHER

Other permits from this Department or other agencies may be required for projects conducted on this property now or in the future. Also, regulations applicable to the location subject to this determination occasionally are revised and the project sponsor should, therefore, verify the need for permits if the project is delayed or postponed. This determination regarding the need for permits will remain effective for a maximum of one year. Applications may be downloaded from our website at www.dec.ny.gov under "Programs" then "Division of Environmental Permits."

RE: Eagle Ridge, 3 North Castle Drive, Armonk, NY
Date: June 26, 2018

Please contact this office if you have questions regarding the above information. Thank you.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sarah Pawliczak".

Sarah Pawliczak

Division of Environmental Permits

Region 3, Telephone No. 845-256-3050

cc: Natalie Browne, NYSDEC Division of Water
MADDD Madonna Armonk LLC



George Latimer
County Executive

County Planning Board

June 8, 2018

Alison Simon, Town Clerk
Town of North Castle
15 Bedford Road
Armonk, NY 10504

Subject: Referral File No. NOC 18-004B – Eagle Ridge
Petition for Zoning Text & Map Amendments
Site Plan Approval
Draft Scoping Document

Dear Ms. Simon:

The Westchester County Planning Board has received a draft scoping document for the preparation of an environmental impact statement (EIS) for the above referenced petition to amend the text of the North Castle Zoning Ordinance and Zoning Map with respect to an application to construct a new mixed-use development that includes a 97-room hotel with 69 apartments on a six-acre parcel located on North Castle Drive. An adjacent 26-acre parcel would also be developed with 94 attached and semi-attached townhouses.

Currently the site is entirely located within the OBH – Office Business Hotel zoning district. The applicant is proposing a zoning text amendment to permit multi-family housing in the OBH district to accommodate the 69 apartments to be constructed on the top three floors of the proposed hotel building. In addition, the applicant is seeking to rezone a portion of the site where the townhouses are considered to R-MF-A Residence Multi-family-A Residence District, which would permit the townhouses.

We have reviewed the draft scoping document under the provisions of Section 239 L, M and N of the General Municipal Law and Section 277.61 of the County Administrative Code and we offer the following comments:

1. Affordable affirmatively furthering fair housing (AFFH) units. It is our understanding that the Town Zoning Ordinance would require at least 17 affordable AFFH units to be provided in the proposed development. We recommend the scoping document be revised to include a section that discusses how the affordable AFFH unit requirements will be implemented in the proposal.

2. Bee-Line bus access. We recommend the scoping document be revised to include a section on public transportation. The proposed development site is located very close to Bee-Line bus stops for

Route 12 and Loop H. The scoping document should require the discussion of sidewalk connections from the site to the Route 12 bus stops along Route 22. The scoping document should also require the applicant reach out to the Transportation Division of the County Department of Public Works and Transportation to determine if other measures can be taken to accommodate transit accessibility to the proposed development site.

3. **Recycling provisions** We note that the draft scoping document does not include a section concerning solid waste and recycling. We recommend that the scoping document be revised to include these topics. As part of the discussion, the Town should require the applicant to verify that sufficient storage measures are provided to accommodate the expanded County recycling program. County regulations for recycling may be found at <http://environment.westchestergov.com>. We also recommend the scoping document include a discussion about the potential for on-site food composting for the restaurant and catering uses.

4. **Green building technology and bicycle parking**. We recommend that the scoping document be revised to include a discussion of sustainability, such as the inclusion of “green” or sustainable building methods and technologies into the proposed redevelopment. This discussion should include the provision of bicycle parking.

Thank you for calling this matter to our attention.

Respectfully,
WESTCHESTER COUNTY PLANNING BOARD

By:



Norma V. Drummond
Acting Commissioner

NVD/LH

cc: Naomi Klein, Planning Director, County Department of Public Works and Transportation



Department of Transportation

ANDREW M. CUOMO
Governor

PAUL A. KARAS
Acting Commissioner

LANCE MacMILLAN, P.E.
Acting Regional Director

May 4, 2018

Adam R. Kaufman, AICP
Director of Planning
Town of North Castle
17 Bedford Road
Armonk, NY 10504-1898

**Re: NYSDOT SEQR #18-081
Eagle Ridge, N. Castle Dr.
Town of North Castle
Westchester County**

Dear Mr. Kaufman:

The New York State Department of Transportation is in receipt of a Lead Agency Designation request from the Town of North Castle dated April 6, 2018, for the above referenced proposal. Included in the request was a Full Environmental Assessment (FEA) form and conceptual site plan. The Department consents to the Town Board assuming the role of Lead Agency for review of the referenced proposal.

This is a large development that will generate a considerable amount of traffic and therefore have a substantial traffic impact. Please have Applicant provide a Traffic Impact Study along with any proposed mitigations. Upon review, it will then be determined if this project will be considered a NYSDOT "Major" and be handled accordingly.

In addition, please provide present and future ownership and maintenance plans for North Castle Drive.

Thank you for your interest in highway safety.

Very truly yours,

Mary McCullough
SEQRA – HWP Unit

cc:
Permit Field Engineer, Residency 8-9
Westchester County Planning



**TOWN OF NORTH CASTLE
WESTCHESTER COUNTY
17 Bedford Road
Armonk, New York 10504-1898**

**PLANNING DEPARTMENT
Adam R. Kaufman, AICP
Director of Planning**

**Telephone: (914) 273-3542
Fax: (914) 273-3554
www.northcastleny.com**

April 6, 2018

To: All Interested and Involved Agencies
(See Enclosed Circulation List)

Subject: Notification of Intent to Act as Lead Agency Pursuant to Part 617 of Title 6
NYCRR and/or Referral Pursuant to General Municipal Law or Westchester
County Administrative Code.

Project Name: **Eagle Ridge**

Project Location: 3 North Castle Drive, North Castle, Westchester County, NY

SEQRA Action: Type I Action

Dear Sir or Madam:

The Town Board is currently reviewing an application for the development of a new mixed-use development that includes a 97 room hotel with 69 one, two and three bedroom apartments on a six-acre parcel. In addition, a proposed adjacent 24-acre parcel is proposed to be developed with 94 townhouses.

Currently, the site is entirely located in the Office Business Hotel (OBH) zoning district. The Applicant is proposing a zoning text amendment to permit multifamily housing in the OBH district. In addition, the Applicant is seeking a rezoning of a portion of the property from the OBH zone to the Residence Multifamily-A Residence District (R-MF-A).

At this time, the Town Board has declared its intent to be Lead Agency with respect to the proposed action. Unless written objection is received from you within thirty (30) days of the date of this notification the Town Board will declare itself Lead Agency.

This matter is also being referred to the Westchester County Planning Department pursuant to the requirements of Section 239-m of General Municipal Law. Enclosed for your review is a copy of the Environmental Assessment Form (EAF) and plans prepared in connection with this action.

Any other comments you may have at this time on this application are appreciated.

Adam R. Kaufman, AICP
Director of Planning



August 27, 2018

Ms. Alison Simon, Town Clerk
Town of North Castle
17 Bedford Road
Armonk, NY 10504-1898

Vincent Sapienza P.E.
Acting Commissioner

Re: **Eagle Ridge**
3 North Castle Drive
Town of North Castle, Westchester, NY
Tax map #: 108.03-1-62
DEP Log#: 2018-OUT-0132-SQ.1

Paul V. Rush, P.E.
Deputy Commissioner
Bureau of Water Supply
prush@dep.nyc.gov

465 Columbus Avenue
Valhalla, NY 10595

T: (845) 340-7800
F: (845) 334-7175

Dear Ms. Smith and Members of the Town Board:

With regard to the above referenced action, DEP conducted a site walk on June 15, 2018 to confirm the watershed boundary associated with this parcel. Together with the survey that was provided by the project sponsor, DEP's mapping system and the site walk, it has been determined that the project site is located outside of New York City's (NYC) Water Supply Watershed.

DEP has no regulatory authority with respect to the proposed development; as such, the subject proposal requires no further review or approval by DEP pursuant to the *Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and Its Sources*.

Thank you for the opportunity to provide comments. If necessary, you may reach the undersigned at cgarcia@dep.nyc.gov or (914) 749-5302.

Sincerely,

Cynthia Garcia, Supervisor
SEQRA Coordination Section

X: J. Petronella, NYSDEC
Alfonzetti Engineering, P.C.



August 27, 2018

Chief Phil Goulet
Armonk Independent Fire Company
400 Bedford Road
Armonk, New York 10504

Re: Eagle Ridge Project – Draft Environmental Impact Statement

Dear Chief Goulet,

Our firm is currently preparing the Draft Environmental Impact Statement (DEIS) for a development known as Eagle Ridge, located on a 32.5 acre parcel located just off North Castle Drive, that was formerly part of the IBM campus.

The proposed development involves subdividing the parcel to create a 6-acre lot that would support a 5-story, 97 room boutique hotel which includes a restaurant, café, bar, banquet/conference rooms, fitness center and pool. Additionally, 69 one, two and three-bedroom apartments are proposed above the hotel on the third, fourth and penthouse floors. Parking will be located primary in a below ground parking structure, and 67 at-grade parking spaces. The remaining 26-acre parcel would be developed to support 94 attached and semi-attached townhouses.

Attached is a location map and preliminary site plan.

We have been directed by the Town Board (the Lead Agency) to evaluate the potential impacts of the project on fire and EMS service in the area. In this context, we are requesting, and would appreciate your written responses to the following items, which will be included in the DEIS:

1. Staff size and organization.
2. Department apparatus.
3. Location of headquarters and any ancillary facilities.
4. Number of calls per year and type of call
5. Average response time to the site.
6. Identification of any increased demand for fire or EMS services resulting from the project.
7. Fire Department concerns (if any).

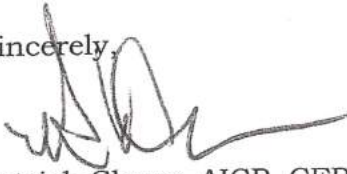
529 Asharoken Avenue • Northport, NY 11768
Phone (631) 754-3085 • Fax (631) 754-0701
Email: cleary@optonline.net
www.clearyplanning.com

8. Adequacy of access to the site.
9. Identification of any impediments to public safety created by the layout, configuration or operation of the development.

You will have an opportunity to review and comment on the DEIS once it has been accepted by the Lead Agency for distribution.

If you require any further clarification about the project or the information requested, please feel free to contact me at 631-754-3085 or at cleary@optonline.net. Otherwise, I look forward to your written response. Thank you in advance for your cooperation.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Patrick Cleary', with a long horizontal flourish extending to the right.

Patrick Cleary, AICP, CEP, PP, LEED AP
Cleary Consulting



Source: Westchester County GIS

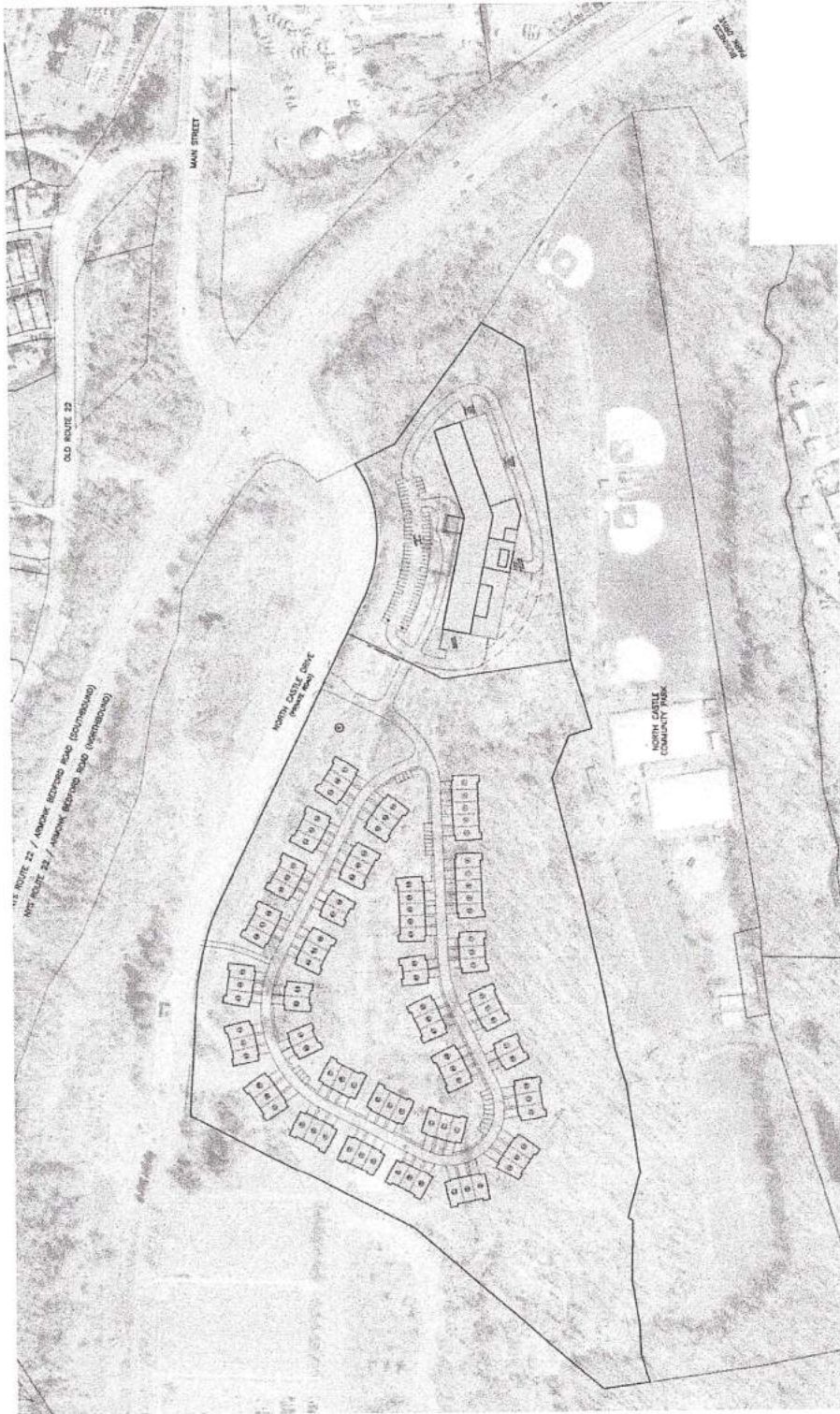
Scale: N.T.S.



Site Location Map



Figure
1



Source: Alfonzetti Engineering

Scale: N.T.S.



Site Plan



Figure
2

ARMONK FIRE DEPARTMENT
PO BOX 116 ARMONK, NEW YORK 10504
OFFICE OF THE CHIEF
TEL 914-273-3357 FAX 914-273-3178

October 18, 2018

Patrick Cleary
Cleary Consulting
529 Asharoken Avenue
Northport, New York 11768

CC: North Castle Planning Board, North Castle Town Board, North Castle Fire District
#2

Dear Mr. Cleary,

Thank you for taking the time to write to me regarding the proposed Eagle Ridge Project. In this document you will find the answers to your questions as well as the estimated impact on the Armonk Fire Department. I have worked closely with the North Castle Fire District #2 Board of Fire Commissioners and the statements below reflect both the opinions of the Board and myself.

The Armonk Fire Department is 100% Volunteer and relies on community support to ensure the safety of the town. We respond to approximately 1,000 medical and fire calls per year throughout Armonk, Banksville, and surrounding communities. The Town of North Castle has seen dramatic growth over the last number of years, and as a result the amount of alarms have also risen. The department has seen a 17 percent increase in call volume over the last 5 years alone. The members of the Armonk Fire Department save the residents and businesses millions of dollars in taxes.

Unfortunately new developments, including ones like Eagle Ridge, have brought an increase in call volume, but not a similar increase in membership. In my opinion Eagle Ridge will ultimately strain the department more than it will help. It is vital for new developments to help support the Armonk Fire Department. I hope this document helps you to evaluate the impact Eagle Ridge will have on our resources.

Staff size:

The Armonk Fire Department consists of approximately 61 volunteers including two volunteer Chiefs.

Department Apparatus:

The Armonk Fire Department provides not only fire suppression, but also emergency medical service. We are also a primary responding agency for the Westchester County Airport, and New York City Kensico Reservoir.

Our fleet of apparatus includes:

1. 1st due attack engine (1998)
2. Source engine (1976)
3. Brush / Spare engine (1991)
4. Tanker (1994)
5. Rescue (2012)
6. (3) Ambulances
7. (3) Chief vehicles
8. (1) Utility
9. (1) Polaris UTV
10. (1) Boat

It is important to note that we do not currently possess a ladder truck and as a result rely on mutual aid from departments like: North White Plains, Chappaqua, Purchase, and Bedford Hills. Considering the scale of the project and the amount of livable space not within reach of ground ladders, it will be crucial for the department to have a ladder truck. At the same time be incredibly difficult to squeeze it into the apparatus replacement plan without overburdening the taxpayers and staying within the 2% New York State tax cap.

Location of headquarters:

There is only one firehouse that serves all of Armonk, located at 400 Bedford Road. It is approximately 1.5 miles from the proposed location of Eagle Ridge.

Number of calls per year:

The Armonk Fire Department provides fire and emergency medical service to Armonk, and emergency medical service to Banksville. We have responded to 1,141 calls in the previous 12 months.

- Fires (20)
- Overpressure or explosions (1)
- Emergency Medical Services, including car accidents (552)

- Hazardous Conditions (71)
- Calls for service (20)
- Good intent (111)
- False Alarms (366)

Over the last few years we have typically responded to approximately 1,000 calls, however each year the department is responding to more and more emergencies.

Average response time:

The average time it will take one of our units to be on scene varies greatly due to the large geographic area of our district. The North Castle Fire District #2 is approximately 17 square miles. Our Fire department is centrally located in the district and would be an approximately three minute response time, once the apparatus leaves the firehouse. The two Chief's who are also volunteer respond from home and as a result our response time will vary. On average I would estimate that the first unit would arrive on scene in approximately six minutes.

Increase in demand for Fire and EMS services resulting in the project:

Eagle Ridge is an incredibly large development and will have a severe impact on the department. Below is my analysis of the expected increase in call volume Eagle Ridge will generate. Based upon the plans and your answers to previous questions, I have created estimates based on current and similar developments and their call volume over the last 2 years. The developer has not been involved in any similar projects and we're unable to compare the previous developments to assist with call volume estimates.

- 5 Story, 97 room boutique hotel
 - The proposed hotel has a similar room count to LaQuinta on Business Park Drive. It is expected that the hotel will create 6 EMS calls per year, and 3 Fire Calls, for a total of **9 additional alarms.**
- Restaurant / Bar
 - The proposed restaurant, although the current size is unknown, is expected to be busy due to the location, and density of residents and hotel guests in the area. Based on this assumption, we expect the restaurant will be similar to the Modern Barn, or Fortina and will generate between 2 – 5 EMS calls per year, and 3 – 9 Fire Calls per year for a total of **5-14 additional alarms.**
- Banquet / conference rooms
 - The Armonk Fire Department has a number of banquet and conference facilities throughout the district. Based on the comparison of IBM learning

center and other facilities we expect the Banquet and conference rooms to generate 5 EMS calls and 4 Fire calls for a total of **9 additional alarms**.

- Fitness center / pool
 - We do not have a comparable fitness center and pool in our district however we expect that it will create an additional 2 EMS calls and 2 Fire calls for a total of **4 additional alarms**.
- 69 one, two and three bedroom apartments
 - The district does not have any similar sized apartment buildings. In this case we have compared 20 Whippoorwill Road East, which has 22 apartments of similar size, and 4, 6, and 8 Agnew Farm Road which contains 24 units. Based on these comparisons, we expect the apartments to generate 6 EMS calls and 15 Fire calls for a total of **21 additional alarms**.
- Below grade parking structure
 - The district does not currently have any below grade parking structures to compare. We expect a minimal increase in alarms for the parking structure.
- 94 attached and semi attached townhomes
 - A large development of 94 town homes is similar to Whippoorwill Hills development with similar demographics located in Armonk. It is estimated that the town homes will generate 10 EMS calls and 23 fire alarms for a total of **33 additional alarms**.

Overall we expect this project will add an additional 81 – 90 calls representing a 7-8% increase in alarms.

Adequacy of access to the site:

The initial site plans show a single access road to both the hotel / apartments and the town homes. In the event of a larger emergency, such as a fire, or hazardous material incident nearby, any evacuation would prove to be difficult. The small access road does not allow for emergency vehicles to easily move into the area, while residents and guests are leaving. Additionally, the site is on a large ridge and there is no access from the Business Park baseball fields to the back of the structures. It is unclear how much room will be behind the hotel / apartments, based on the height of the building, emergency services would need a considerable amount of room. Additionally, there does not appear to be any access to the rear of many of the townhomes throughout the development.

The Eagle Ridge site sits approximately 2,600 feet from a proposed chemical storage facility that is currently undergoing town review and approval. In the event of an emergency at that facility, Eagle Ridge sits within the evacuation radius.

Identification of any impediments to public safety created by the layout, configuration or operation of the development:

Based on the supplied information, there does not appear to be any impediments to public safety that has not already been listed due to the configuration or operation of the development. This does not take into consideration other issues, which are currently unknown such as fire hydrant locations, or final sizing of access areas throughout the complex.

Fire Department concerns:

At this stage in the project, the department has a number of concerns that will need to be addressed prior to approval of any building plans. It is the expectation of the department to have a fully sprinkled buildings, including the apartments, hotel, and any parking structures. Additionally due to the density of the townhomes and potential exposure to adjacent buildings it would be beneficial for the safety of the residents if the town homes were sprinkled. The department has additional concerns with fire safety specific to the buildings themselves, however at this point it is too early to provide specific input as to what those concerns are.

The members of the Armonk Fire Department dedicate thousands of hours each year to the community for free. A significant increase in call volume puts additional stress on our members. A large portion of this development contains facilities that will not contribute to the membership of the fire department. The apartments, which are rental and marketed to young adults, single adults, retirees, downsizing seniors, and empty-nesters, do not typically create additional volunteers. The town homes may generate additional volunteers, but not enough to provide a meaningful impact to help offset the additional alarms. It is expected that this development, will only create one or two additional volunteers for the department. An increase of 2% in our membership generated by this facility will not offset the 7-8% increase in call volume.

The expected cost of the apartments and town homes are prohibitively expensive for a majority of our volunteer members. As younger members start their careers, and look to move from their parents homes, they are forced to move out of the district and we loose an experienced volunteer member. Likewise as more senior members and empty nesters look to downsize, the cost is not conducive to staying in the area. Just as important as member recruitment, is retention of our current members. Affordable units often created to help offset more expensive developments are not designated specifically for fire department members. They do not assist our members to stay in the area and continue to serve the community.

The Board of Fire Commissioners has created an apparatus replacement plan to help replace our aging apparatus. Once we have replaced a majority of our aging apparatus it is the intention of the Armonk Fire Department to add a ladder truck to our fleet. A ladder truck is crucial to quickly mitigate situations and perform rescue of livable

spaces outside the reach of ground ladders. Eagle Ridge will dramatically increase those livable spaces outside our current reach. With the development of Eagle Ridge, it will be crucial to have a ladder truck. Without help from this project, it will not be possible to obtain at this accelerated pace.

Although Eagle Ridge will have a negative impact on the fire department, there are some ways in which the developer can limit these impacts. It is crucial that the town and developer work with the Fire Department throughout the process to ensure the safety of the community through fire safety best practices. This includes sprinkled buildings, including the townhomes, and all spaces throughout the complex. Fire sprinklers are known to save lives and they will not only help the community, reduce insurance premiums, but help ensure the safety of our volunteers.

A group of apartments or town homes should be dedicated specifically for members of the fire department at a significantly reduced rate. Volunteers should be able to rent or buy units contingent on their membership / performance in the department. Young adults do not have the financial ability to rent or buy the units within Eagle Ridge, thus forcing them to move away. By members having the ability to stay in town longer, and raise a family it will help keep the department volunteer and continue to save the Armonk community multi millions of dollars per year.

In order to provide adequate fire protection for the residents and guests of Eagle Ridge, the developer should assist with the purchase of a ladder truck. Typical ladder trucks cost approximately \$900,000, and it is not possible for the Board of Fire Commissioners to add that expense at this time.

I cannot overstate the significance this project will have on the fire department and community as a whole. The call numbers will significantly increase, while not creating an increase in membership. Eagle Ridge, in its proposed form will not allow our current membership to rent or purchase units at an affordable price thus reducing not helping with our retention rate. The Fire District does not have the funds necessary to purchase life saving equipment, which will now be necessary to protect the Eagle Ridge community. The concerns mentioned relate directly to the fire department, and do not consider other factors, which may be present such as an increase in traffic in the area, affecting emergency response, or other issues town wide. It is the hope of the department that we have adequately expressed some of our immediate concerns related to Eagle Ridge.

Please contact me with any further questions

Sincerely,

A handwritten signature in black ink, appearing to read 'Phil Goulet', with a long horizontal flourish extending to the right.

Phil Goulet

Chief of Department

Armonk Fire Department

400 Bedford Road, Armonk, NY, 10504

chief@armonkfd.com

914-273-3357

A handwritten signature in black ink, appearing to read 'William Fisher', with a long horizontal flourish extending to the right.

William Fisher

Chairman

North Castle Fire District #2

Armonk Fire Department

400 Bedford Road, Armonk, NY, 10504

ncfd2@optonline.net



August 27, 2018

Chief of Police Peter J. Simonsen
North Castle Police Department
15 Bedford Road
Armonk, New York 10504

Re: Eagle Ridge Project – Draft Environmental Impact Statement

Dear Chief Simonsen,

Our firm is currently preparing the Draft Environmental Impact Statement (DEIS) for a development known as Eagle Ridge, located on a 32.5 acre parcel located just off North Castle Drive, that was formerly part of the IBM campus.

The proposed development involves subdividing the parcel to create a 6-acre lot that would support a 5-story, 97 room boutique hotel which includes a restaurant, café, bar, banquet/conference rooms, fitness center and pool. Additionally, 69 one, two and three-bedroom apartments are proposed above the hotel on the third, fourth and penthouse floors. Parking will be located primary in a below ground parking structure, and 67 at-grade parking spaces. The remaining 26-acre parcel would be developed to support 94 attached and semi-attached townhouses.

Attached is a location map and preliminary site plan.

We have been directed by the Town Board (the Lead Agency) to evaluate the potential impacts of the project on police service in the area. In this context, we are requesting, and would appreciate your written responses to the following items, which will be included in the DEIS:

1. Staff size and organization.
2. Department equipment.
3. Location of headquarters and any ancillary facilities.
4. Average response time to the site.
5. Any crime trends in the vicinity of the site
6. Identification of any increased demand for police services resulting from the project.
7. Police Department concerns (if any).

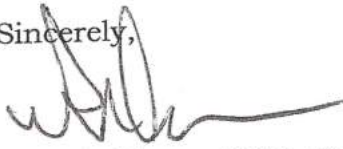
529 Asharoken Avenue • Northport, NY 11768
Phone (631) 754-3085 • Fax (631) 754-0701
Email: cleary@optonline.net
www.clearyplanning.com

8. Adequacy of access to the site.
9. Identification of any impediments to public safety created by the layout, configuration or operation of the development.

You will have an opportunity to review and comment on the DEIS once it has been accepted by the Lead Agency for distribution.

If you require any further clarification about the project or the information requested, please feel free to contact me at 631-754-3085 or at cleary@optonline.net. Otherwise, I look forward to your written response. Thank you in advance for your cooperation.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Patrick Cleary', with a long horizontal flourish extending to the right.

Patrick Cleary, AICP, CEP, PP, LEED AP
Cleary Consulting



Source: Westchester County GIS

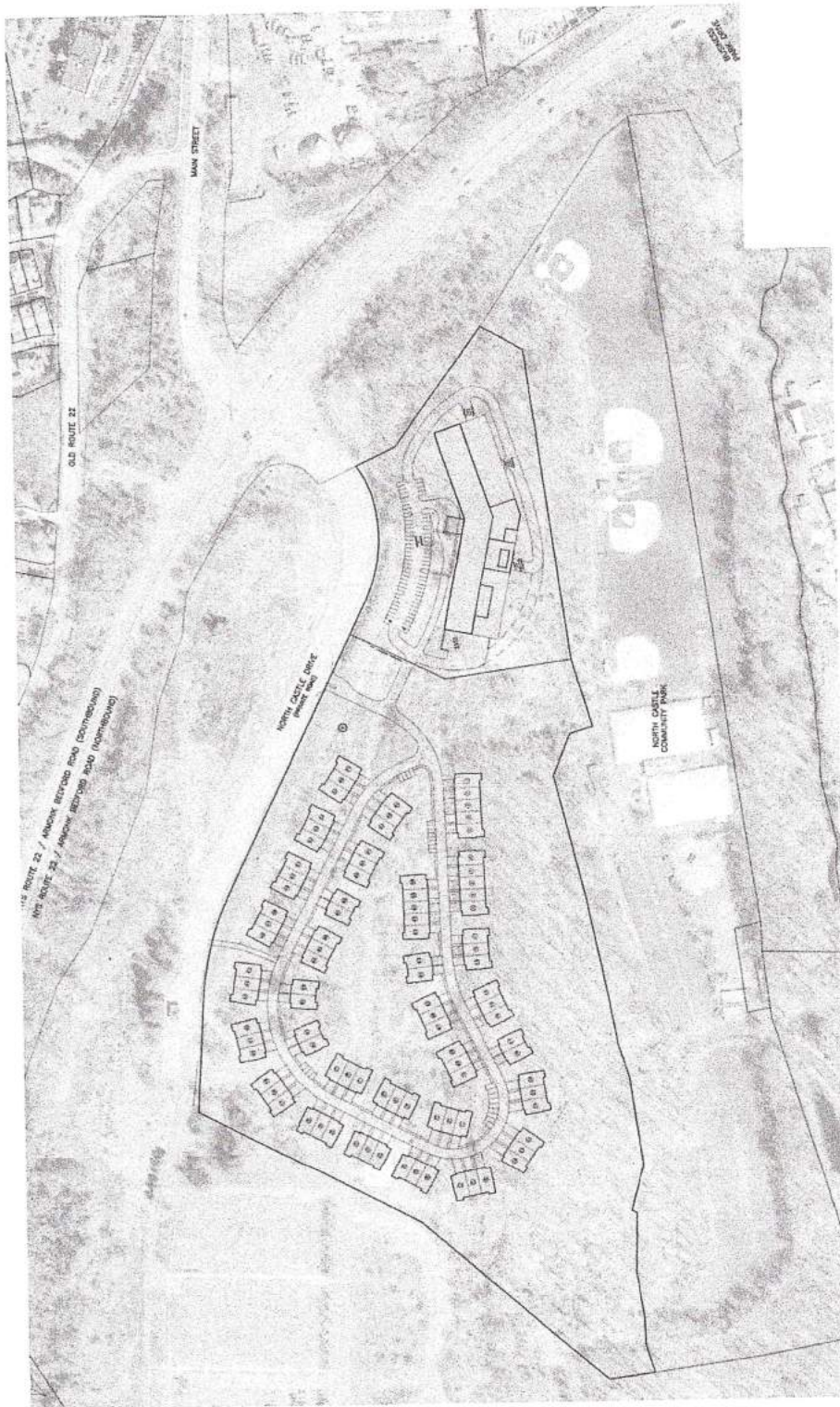
Scale: N.T.S.



Site Location Map



Figure
1



Source: Alfonzetti Engineering

Scale: N.T.S.



Site Plan



Figure
2



PETER J. SIMONSEN
Chief of Police

TOWN OF NORTH CASTLE

15 BEDFORD ROAD
Armonk, New York 10504

Established 1736



DEPARTMENT OF POLICE

Tel: 914-273-9500

Fax: 914-273-5412

October 5, 2018, 2018

Patrick Cleary
Clearly Consulting
529 Asharoken Avenue
Northport, NY 1768

Re: Eagle Ridge Project-Draft Environmental Impact Statement

Dear Mr. Clearly

The Town of North Castle Police Department is a full time municipal police department. The department provides police services to the three hamlets in the Town of North Castle; Armonk, Banksville, and North White Plains. These services are carried out under the direction of Police Chief Peter J. Simonsen. The department has an authorized strength of thirty four Officers, and four civilian staff members.

The Department is divided into the Patrol Division and the Detective Division. The patrol division is commanded by a Police Lieutenant. The patrol division is staffed by sworn members who provide police coverage on a twenty four hours basis, which is divided into three eight hour shifts. Further, there are three patrol sectors which generally correspond to each hamlet's geographical boundaries and encompass the twenty six square miles of the town. Within the patrol division there are number of units that carry out specialized services and community policing initiatives. These units are the Emergency Service Unit, the Bicycle Patrol Unit, the Child Safety Seat Unit, the School Resource Officer Unit, the Commercial Vehicle Enforcement Unit, and the Accident Investigation Unit. The detective division is commanded by a Detective Sergeant. The Detective Division investigates reported crimes and deploys a number of initiatives for crime prevention purposes.

The Department places a strong emphasis on training to ensure all department members have the necessary skills to carry out their duties. This department is unique in that there are currently twenty Officers who are certified Emergency Medical Technicians, and the department is a New York State Department of Health certified basic life support (non-transporting) emergency medical service agency. This unique training enables a collaborative working relationship with the all-volunteer emergency medical services and fire departments to ensure the best possible service to residents of North Castle.

The department's headquarters is located in Armonk, within the Town Hall building. The hamlet of North White Plains has a police substation that is located in the community center/library, and enables officers assigned to that patrol sector to interact with community members and prepare reports without leaving their patrol area.



A New York State Accredited Law Enforcement Agency



PETER J. SIMONSEN
Chief of Police

TOWN OF NORTH CASTLE

15 BEDFORD ROAD
Armonk, New York 10504

Established 1736



DEPARTMENT OF POLICE
Tel: 914-273-9500
Fax: 914-273-5412

Response times vary to the area of the proposed site due to calls for service and other varying conditions, but generally response times are timely due to its close proximity to police headquarters. There are no current crime trends in vicinity of the proposed site, but the department does address a number of traffic issues in the area due to Route 22 being a main artery for motorists that work, live, or commute through the area. The department addresses these issues with directed traffic enforcement and increased police presence.

This department did receive the Eagle Ridge draft environmental impact statement scoping document and the department has concerns related to the delivery of police services to this proposed development. The police department currently operates at an efficient level with the town's existing population, and the addition of;

1. a 97 room hotel with a restaurant, café, bar, banquet/conference rooms, fitness center and pool
2. 69 one, two and three bedroom apartments above the hotel
3. 94 attached and semi-attached townhomes

would most likely provide a strain on current department resources and require the need for additional officer(s) to supplement the delivery of police services. The proposed development will likely affect all three patrol shifts as there is a need to provide police services to the hotel and residential components during all tours.

Access to the site was discussed with Director of Planning Kaufman. IBM has a large presence at the existing site. In addition, IBM recently has fully occupied the old IBM headquarters building which was previously largely vacant. Increased vehicle and pedestrian traffic at the Route 22/Route 128 intersection is a very large concern for the police department. The existence of a residential component would add increased volume during peak travel times. Director of Planning Kaufman discussed the addition of sidewalks that would create a safe means of pedestrian access from the site onto the Main Street area. The Police Department believes that a safe pedestrian crossing of NYS Route 22 is needed. Additionally, the need for additional street lighting on the north and south sides of Route 22 at Route 128 should be studied.

Please state whether the 26 acre residential parcel will have access controls (coded gate access/security booth) similar to other townhouse developments in Town. If so, pursuant to Section 169-3 of the Town Code, an access code is required to be provided to the Town for emergency access to the property. Additionally, it is recommended that the hotel and residential development be provided with secondary emergency ingress/egress capabilities.



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PETER J. SIMONSEN
Chief of Police

TOWN OF NORTH CASTLE

**15 BEDFORD ROAD
Armonk, New York 10504**

Established 1736



DEPARTMENT OF POLICE

Tel: 914-273-9500

Fax: 914-273-5412

It is anticipated that the police department would have to add Officers to provide proper police coverage to the new development to ensure that the current standard of police protection to the town is continued. Please state what type of police call volume would be anticipated based on similar sized/located hotels that have a restaurant, café, bar, banquet/conference rooms, fitness center, pool, and 69 residential apartments above.

The police department looks forward to working with all involved stakeholders on this proposed development. Thank you in advance for your attention to this department's concerns.

Thank you,

Sgt. T. McCormack



A New York State Accredited Law Enforcement Agency



August 27, 2018

Ms Jen Lamia
Superintendent of Schools
Byram Hills Central School District
10 Tripp Lane
Armonk, New York 10504

Re: Eagle Ridge Project – Draft Environmental Impact Statement

Dear Superintendent Lamia,

Our firm is currently preparing the Draft Environmental Impact Statement (DEIS) for a development known as Eagle Ridge, located on a 32.5 acre parcel located just off North Castle Drive, that was formerly part of the IBM campus.

We are in the process of scheduling a meeting with you for early September to discuss the District's concerns about the project. The following identifies the information we are requesting from your office to assist us in preparing the DEIS.

The proposed development involves subdividing the parcel to create a 6-acre lot that would support a 5-story, 97 room boutique hotel which includes a restaurant, café, bar, banquet/conference rooms, fitness center and pool. Additionally, 69 one, two and three-bedroom apartments are proposed above the hotel on the third, fourth and penthouse floors. Parking will be located primary in a below ground parking structure, and 67 at-grade parking spaces. The remaining 26-acre parcel would be developed to support 94 attached and semi-attached townhouses.

Attached is a location map and preliminary site plan.

We have been directed by the Town Board (the Lead Agency) to evaluate the potential impacts of the project on the Byram Hills School District. In this context, we are requesting, and would appreciate your written responses to the following items, which will be included in the DEIS:

1. Location, enrollment and capacity of the existing schools in the Byram Hills School District.

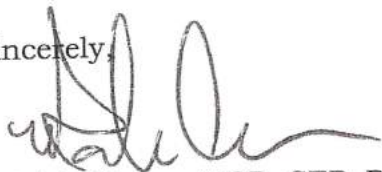
529 Asharoken Avenue • Northport, NY 11768
Phone (631) 754-3085 • Fax (631) 754-0701
Email: cleary@optonline.net
www.clearyplanning.com

2. Any existing studies the project future enrollments and school capacities by building
3. Current school district per pupil costs (broken out to overall costs, and educational cost per pupil)
4. School district concerns regarding capacity at the existing schools resulting from additional students generated by the project.
5. School district concerns regarding programmatic impacts resulting from the project.
6. Identification of concerns related to the transportation of new students generated by the project.
7. Examples of school children generation rates at other generally sinmimalt multi-family developments or townhouse developments within the district.

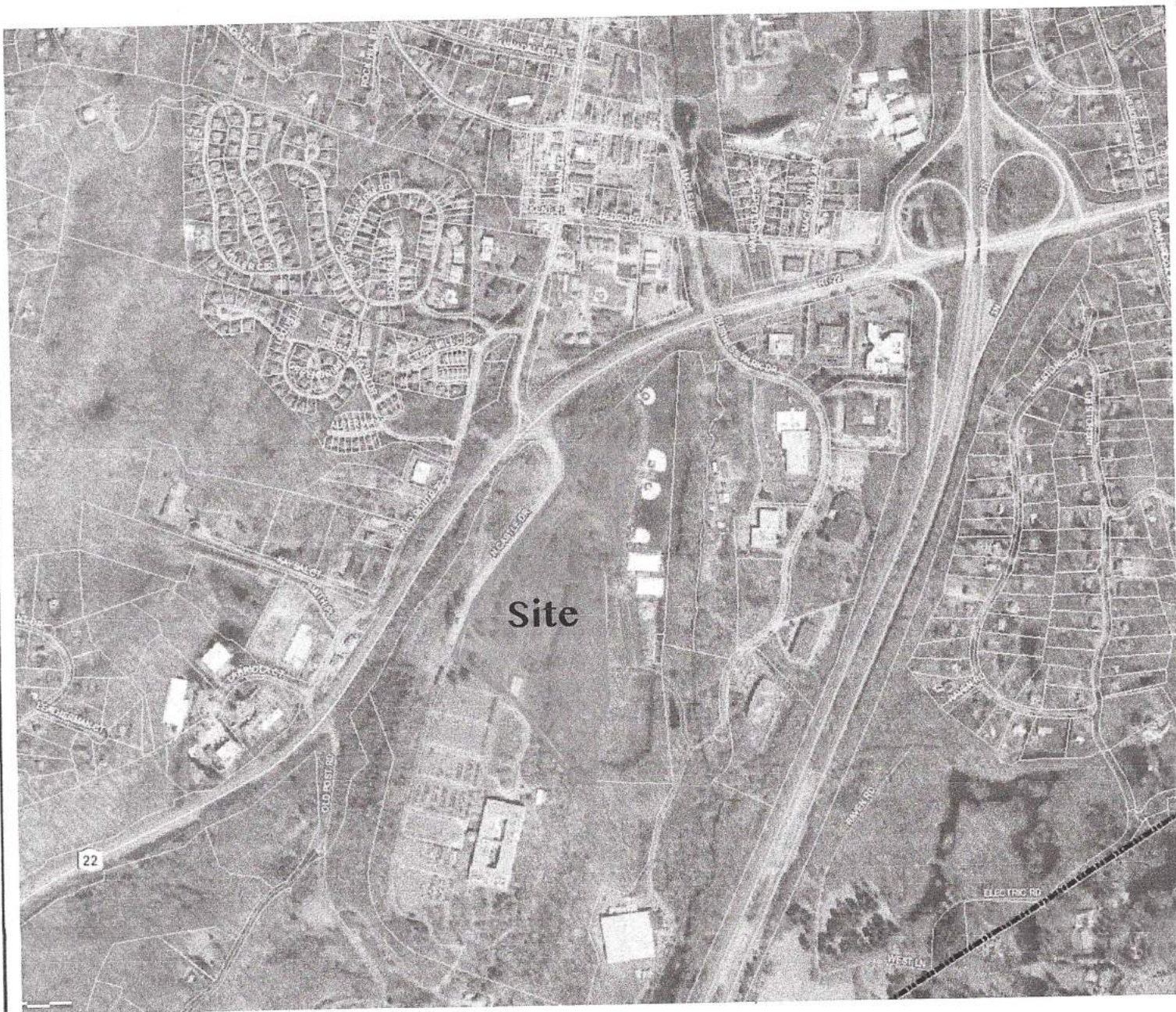
You will have an opportunity to review and comment on the DEIS once it has been accepted by the Lead Agency for distribution.

If you require any further clarification about the project or the information requested, please feel free to contact me at 631-754-3085 or at clearv@optonline.net. Otherwise, I look forward to your written response. Thank you in advance for your cooperation.

Sincerely,



Patrick Cleary, AICP, CEP, PP, LEED AP
Cleary Consulting



Source: Westchester County GIS

Scale: N.T.S.

Site Location Map



Figure
1



BYRAM HILLS SCHOOL DISTRICT

10 Tripp Lane, Armonk, New York 10504
914-273-4082, Ext. 5910 Fax: 914-273-2516

Ms. Jen Lamia Ed.D
Superintendent of Schools

To: Cleary Consulting
Re: Environmental Impact Request
Date: September 13, 2018

To Whom It May Concern,

On August 27, 2018 the Byram Hills School District was asked by Cleary Consulting to provide responses and figures for seven questions in order to prepare a Draft Environmental Impact Statement for a development known as Eagle Ridge located just off North Castle Drive in Armonk, NY. Herein please find the District's response to the questions, which will also be discussed in a meeting with Mr. Salomone who represents the builder.

Questions 1, 2, 3 and 7 are included on the attached spreadsheet. The answers include location and enrollment of each of our four schools, projected enrollment at the schools, current per pupil costs, and examples of school children rates at other multi-family developments in Armonk. Although the figures for the rates are depicted, the District does not know how many homes are included in each multi-family development.

Regarding capacity of the schools, our past enrollment at its peak was indicated on the spreadsheet. District concerns are not regarding the capacity of meeting the needs of our current homes, as we have met those needs with facilities expansion in the past. The concern is that, should our school enrollment increase based on existing homes (as per past numbers), we cannot guarantee that new home buildings will not require us to expand our facilities. Additional students would impact our program costs as more teachers would be needed for additional students. Transportation would require additional cost also, as new bus routes would need to be created and new buses purchased. There would also be the added cost of employees.

I hope that you find this helpful, as well as our discussion.

Sincerely,

Jen Lamia

INFORMATION FOR CLEARLY CONSULTING REQUEST

9/4/2018

| ITEM | DESCRIPTION | SCHOOL NAME | ADDRESS | ANTICIPATED 2018-2019 ENROLLMENT | CAPACITY | NOTES |
|------|---|-----------------------------|-----------------------------|----------------------------------|----------|------------------------|
| 1 | LOCATION, ENROLLMENT & CAPACITY OF DISTRICT SCHOOLS | COMAN HILL SCHOOL | 558 BEDFORD ROAD, ARMONK | 435 | 626 | 626 was largest - 2007 |
| | | WAMPUS SCHOOL | 41 WAMPUS AVENUE, ARMONK | 545 | 710 | 710 was largest - 2007 |
| | | HC CRITTENDEN MIDDLE SCHOOL | 10 MACDONALD AVENUE, ARMONK | 535 | 700 | 690 was largest - 2009 |
| | | BYRAM HILLS HIGH SCHOOL | 12 TRIPP LANE, ARMONK | 792 | 900 | 893 was largest - 2013 |
| | | TOTALS | | 2312 | 2936 | |

| ITEM | DESCRIPTION | SCHOOL NAME | PROJECTED | | | | |
|------|----------------------------------|-----------------------------|-----------|-----------|-----------|-----------|-----------|
| | | | 2019-2020 | 2020-2021 | 2021-2022 | 2022-2023 | 2023-2024 |
| 2 | PROJECTIONS OF FUTURE ENROLLMENT | COMAN HILL SCHOOL | 475 | 485 | 485 | 468 | 462 |
| | AND SCHOOL CAPACITIES | WAMPUS SCHOOL | 535 | 501 | 496 | 510 | 520 |
| | | HC CRITTENDEN MIDDLE SCHOOL | 557 | 580 | 557 | 536 | 503 |
| | | BYRAM HILLS HIGH SCHOOL | 727 | 709 | 709 | 700 | 739 |
| | | TOTALS | 2294 | 2275 | 2247 | 2214 | 2224 |

| ITEM | DESCRIPTION | INCLUDING ALL COSTS | EDUCATIONAL COST ONLY |
|------|---|---------------------|-----------------------|
| 3 | CURRENT SCHOOL DISTRICT PER PUPIL COSTS (2017-2018 INFORMATION) | \$37,121.96 | \$19,938.65 |

| ITEM | DESCRIPTION | DEVELOPMENT | NUMBER OF SCHOOL-AGE CHILDREN, 2018-2019 |
|------|--|--|--|
| 7 | EXAMPLES OF SCHOOL CHILDREN RATES AT OTHER MULTI-FAMILY DEVELOPMENTS WITHIN THE DISTRICT | WHIPPOORWILL HILLS WHIPPOORWILL RIDGE CIDER MILL WAMPUS CLOSE | 143 27 36 3 |

Appendix D

Traffic Study



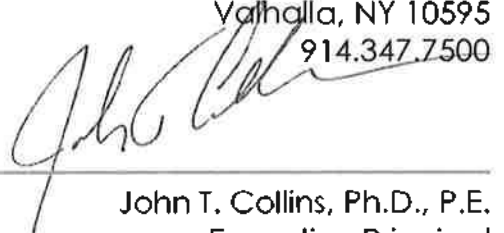
Traffic Impact Study

Eagle Ridge
Town of North Castle, Westchester County, New York

February 27, 2019

Prepared For
MADDD Madonna Armonk, LLC
c/o Kory Solomone
The Law Offices of Kory Solomone, P.C.
501 marble Avenue
Pleasantville, NY 10570

Prepared By
Maser Consulting P.A.
400 Columbus Avenue - Suite 180E
Valhalla, NY 10595
914.347.7500

A handwritten signature in black ink, appearing to read 'John T. Collins', is written over a horizontal line.

John T. Collins, Ph.D., P.E.
Executive Principal
License No. 46029

A handwritten signature in blue ink, appearing to read 'Ronald P. Rieman', is written over a horizontal line.

Ronald P. Rieman, Project Manager

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A. INTRODUCTION

The Traffic Impact Study was prepared to evaluate the potential traffic impacts of the proposed Eagle Ridge development (3 North Castle Drive) on the surrounding roadway network. The following sections provide a description of the proposed development and the tasks undertaken in completing our evaluation.

B. PROJECT DESCRIPTION AND LOCATION *(Figures No. 1, 1A)*

Eagle Ridge is proposed to consist of a 91 room hotel with conference center, 70 apartments above the hotel and 94 townhouse units on property located on the east side of North Castle Drive, in the hamlet of Armonk, Town of New Castle. Access to the Site will be provided via a driveway connection to North Castle Drive. The Site Location and Study Area Intersections are shown on Figures No. 1 and 1A.

C. DESCRIPTION OF EXISTING ROADWAY NETWORK

As discussed in Section B, the Eagle Ridge development will have access via existing North Castle Drive and will be served by the NYS Route 22/NYS Route 128/North Castle Drive signalized intersection. The following is a description of the roadways located within the Study Area. In addition, Section K provides a description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service for each of the Study Area Intersections. The capacity analysis (Appendix D) also shows the existing geometry including lane widths, traffic control including signal phasing/timing (where appropriate), pedestrians, roadway grades, truck percentages as well as the results of the analysis.

1. NYS Route 22

NYS Route 22 is a State roadway that travels throughout Westchester County. NYS Route 22 intersects with NYS Route 128 (Main Street) opposite North Castle Drive which will provide access to the Site at a signalized intersection. Within the study area, NYS Route 22 consists of two travel lanes with shoulders in each direction and turning lanes at the NYS Route 120 North, NYS Route 120 South, Old Post Road/Old Route 22, NYS Route 128/North Castle Drive, Maple Avenue/Business Park Drive and the I-684 Southbound and Northbound On/Off Ramps signalized intersections. No sidewalks are provided along NYS Route 22 within the study area. Within the study area, NYS Route 22 has a speed limit of 55 mph. Pavement conditions along NYS Route 22 are generally good.

2. NYS Route 128 (Main Street)

NYS Route 128 (Main Street) is a two-lane, generally north/south State roadway that originates at NYS Route 22 opposite North Castle Drive at a signalized intersection. Within the study area, NYS Route 128 (Main Street) continues in a northerly direction with shoulders on both sides, intersecting with Old Route 22 at an unsignalized intersection. Continuing north, a sidewalk is provided on the west side of Route 128 with a sidewalk provided on the eastside approaching the Kent Placed/Bedford Road unsignalized intersection. Continuing north, there are sidewalks and crosswalks along NYS Route 128 (Main Street) with 1 hour parking provided along both sides of the street approaching the Whippoorwill Road/Maple Avenue signalized intersection. NYS Route 128 (Main Street) has a posted speed limit of 30 mph. Pavement conditions along NYS Route 128 (Main Street) are generally good.

3. North Castle Drive

North Castle Drive is a private road that currently serves the IBM Main Campus and intersects with NYS Route 22 opposite NYS Route 128 at a signalized intersection. At the intersection, North Castle Drive has two entering lanes and three exiting lanes which becomes a 3 lane reversable road some 400' feet to the south (use right lane during 8am – 9am only). There are no sidewalks provided and North Castle Drive has a posted speed limit of 15 mph. Pavement conditions along North Castle Drive are generally good. North Castle Drive is owned and maintained by IBM and is anticipated to continue to be owned/maintained by IBM.

4. NYS Route 120 (King Street)

NYS Route 120 is a State roadway that travels throughout southern Westchester County west of the site. The NYS Route 120 (King Street) northern leg intersects NYS Route 22 at a “Y” type signalized intersection and continues in a northerly direction intersecting with local roads such as Whippoorwill Road, Nanny Hagen Road as well as NYS Route 117 and NYS Route 100. There are no sidewalks provided and this section of NYS Route 120 has a posted speed limit of 45 mph which is reduced to 35 mph approaching Whippoorwill Crossing. Pavement conditions are fair to good.

The NYS Route 120 (King Street) southern leg intersects NYS Route 22 further to the west/south at a “Y” type signalized intersection and continues in a southerly direction providing access to SwissRe, IBM Corporate Headquarters, Greenwich American Centre, other roadways such as NYS Route 120A, I-684 and to the Westchester County Airport. There are no sidewalks provided and has a posted speed limit of 55 mph. Pavement conditions are fair to good.

5. Bedford Road

Bedford Road is a two-lane, east/west Town roadway that originates at NYS Route 128 (Main Street) opposite Kent Place at an unsignalized intersection. Bedford Road continues in an easterly direction providing access to Town Hall, Police Department, Courthouse, St. Stephen's Episcopal Church as well as other commercial uses. Bedford Road continues intersecting with Maple Avenue at a signalized intersection. Bedford Road continues through the intersection providing access to commercial uses as well as access to the H.C. Crittenden Middle School and Wampus School via MacDonald Avenue before terminating at a dead end. A sidewalk is provided along the entire south side of Bedford Road with "no parking anytime". The Route 12 bus has a bus stop located on the southside of Bedford Road in front of Town Hall. No sidewalks are provided along the northside of Bedford Road with some parking allowed between Maple Avenue and NYS Route 128 (Main Street). Bedford Road has a posted speed limit of 30 mph. Pavement conditions along Bedford Road are generally good.

6. Maple Avenue

Maple Avenue is a two-lane, Town roadway that originates at NYS Route 128 (Main Street) opposite Whippoorwill Road at a signalized intersection. Maple Avenue continues in an easterly direction providing access to commercial uses as well as the John & Goldie Hergenhan Recreational Center and Wampus Brook Park. Sidewalks are provided along both sides of this section of Maple Avenue with "no parking anytime" with the exception of on the southside of Maple Avenue (4 spaces – 1 hour parking) near the corner of NYS Route 128 (Main Street). Maple Avenue continues in a southerly direction proving access to the St. Stephen's Episcopal Church parking area before intersecting with Bedford Road and terminating at NYS Route 22 opposite Business Park Drive at a signalized intersections. There are no sidewalks and "no parking anytime along this section of Maple Avenue. The Route 12 bus has a bus stop located on the west side of Maple Avenue south of Bedford Road. Maple Avenue has a posted speed limit of 30 mph. Pavement conditions along Maple Avenue are generally good.

7. Whippoorwill Road East

Whippoorwill Road East is a two-lane, Town roadway that originates at NYS Route 128 (Main Street) opposite Maple Avenue at a signalized intersection. Whippoorwill Road East continues in a westerly direction providing access to the 403, 405, 407, 409, 419 Main Street parking lot (2 Hour Parking with No Overnight Parking), the exit driveway to CitiBank, egress only from Kent Place, North Castle Public Library, Whippoorwill Commons Apartments and other local roads. Sidewalks are provided

along both sides of Whippoorwill Road East from NYS Route 128 (Main Street) to the North Castle Library/Whippoorwill Commons Apartments (in the vicinity of the commercial uses). Whippoorwill Road East has a posted speed limit of 30 mph. Pavement conditions along Whippoorwill Road East are generally good.

8. Business Park Drive

Business Park Drive is a two lane, Town road which intersects with NYS Route 22 opposite Maple Avenue at a signalized intersection. Business Park Drive provides access to various commercial uses including La Quinta Inn & Suites, Equinox, Burke Rehabilitation, White Plains Medical & Wellness, White Plains Urgent Care & Imaging, Bristol Assisted Living as well as the Armonk Indoor Sports Center and Town of North Castle Community Park. There are no sidewalks provided and Business Park Drive has a posted speed limit of 30 mph. Pavement conditions along Business Park Drive are generally good.

9. Interstate 684

Interstate 684 is a State Highway that travels in a generally north/south direction and connects Interstate 84 with Interstate 287 and the Hutchinson River Parkway. Interstate 684 intersects with NYS Route 22 east of the site. The I-684 Northbound On-Ramp is under signal control, the I-684 Northbound Off-Ramp to NYS Route 22 north is under “Stop” sign control, and the I-684 Northbound Off-Ramp to NYS Route 22 south is under “Yield” sign control. I-684 Southbound Off Ramp left turn is under signal control, the I-684 southbound Off-Ramp right turn to NYS Route 22 south is under “Yield” control, the NYS Route 22 North On-Ramp and NYS Route 22 South On-Ramp to I-684 Southbound are free flow right turns.

D. PUBLIC TRANSPORTATION

Within the study area, the Westchester Bee Line provides local bus service via the Route 12 Bus. In the vicinity of the site, the Route 12 Bus runs northbound along NYS Route 22, continues to NYS Route 128 (Main Street), Bedford Road and Maple Avenue before continuing back to NYS Route 22 southbound. The nearest bus stop to the Site is located on NYS Route 128 (Main Street) at the intersection of NYS Route 22/NYS Route 128/North Castle Drive. The Route 12 Bus operates Monday – Friday between the White Plains Trans Center, Harrison, Purchase including the Westchester County Airport and Armonk. A copy of the Westchester Bee Line Route 12 schedule and route map is contained in Appendix F. It is anticipated that the Proposed Project will not have a significant impact on the existing ridership of the Bee Line Bus service.

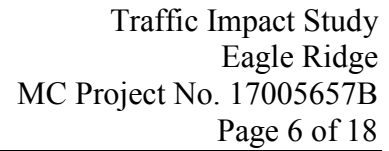
Sidewalks are proposed throughout the site and along North Castle Drive from the site access to NYS Route 22. At NYS Route 22 a crosswalk will be provided with associated pedestrian identifications for access to the existing bus stop at NYS Route 128 subject to NYSDOT approval. The Applicant will reach out to the Transportation Division of the County DPW and Westchester Bee Line to determine if any other measures can be taken to accommodate transit accessibility to the proposed development site. In addition, the crosswalk should be extended along the northeast corner of North Castle Drive and NYS Route 22 (for approximately 200 feet) for school bus pick-up/drop-off. This will have to be coordinated with the North Castle School District.

E. YEAR 2018 EXISTING TRAFFIC VOLUMES *(Figures No. 2, 2A and 3, 3A)*

In order to establish existing traffic conditions in the vicinity of the Site, turning movement traffic counts were conducted on Wednesday, October 24, 2018 ⁽¹⁾ between the hours of 7:00 AM – 10:00 AM to determine the Weekday Peak AM Hour and 4:00 PM – 6:00 PM to determine the Weekday Peak PM Hour. These traffic counts were compared to and supplemented with existing traffic volumes conducted on November 2, 2017 ⁽²⁾ (adjusted to baseline conditions) and future traffic projection contained in the IBM Parking Lot Expansion Traffic Impact Study dated November 22, 2017. The following intersections were analyzed as per the Scope.

1. NYS Route 22 and Old Route 22/Old Post Road ⁽¹⁾
2. NYS Route 22 and NYS Route 128/North Castle Drive (IBM) ⁽¹⁾
3. NYS Route 22 and Maple Avenue/Business Park Drive ⁽¹⁾
4. NYS Route 128 & Bedford Road/Kent Place ⁽¹⁾
5. Bedford Road & Maple Avenue ⁽¹⁾
6. NYS Route 128 & Whipoorwill Road East/Maple Avenue ⁽¹⁾
7. NYS Route 22 & NYS Route 120 North (King Street) ⁽²⁾
8. NYS Route 22 & NYS Route 120 South (King Street) ⁽²⁾
9. NYS Route 120 (King Street) and Old Post Road ⁽²⁾
10. NYS Route 22 & I-684 SB On/Off Ramps ⁽²⁾
11. NYS Route 22 & I-684 NB On/Off Ramps ⁽²⁾

A copy of the traffic count data including the NYSDOT historical traffic counts data is contained in Appendix “E” of this Study.



- Weekday Peak AM Hour 8:00 AM – 9:00 AM
- Weekday Peak PM Hour 5:00 PM – 6:00 PM

F. YEAR 2022 NO-BUILD TRAFFIC VOLUMES (Figures No. 4, 4A - 9, 9A)

In order to account for normal background traffic growth in the area, the Year 2018 Existing Traffic Volumes were increased by a growth factor of 1.0% per year for a total background growth of 4% based on NYSDOT historical data. The resulting Year 2022 Projected Traffic Volumes are shown on Figures No. 4, 4A and 5, 5A for each of the Peak Hours, respectively. In addition to the background growth factor, traffic generated for other potential developments in the area was also accounted for. These include Brynwood (88 units), Mariani Gardens (50 units), Madonna Senior Housing (16 units). Wampus Mills (6 single family), 162 Bedford Road – Former Armonk Lumber Yard (36 units), 470 Main Street (16 units) as well as the re-occupancy of the former MBIA site (261,000 s.f. of Office space). [It should be noted that based on a comparison of the Year 2018 Existing Traffic Volumes and the Year 2019 traffic volume projections contained in the IBM Parking Lot Expansion Traffic Impact Study dated November 22, 2017, the IBM Expansion is accounted for in the 2018 baseline conditions utilized in this Study]. The other development traffic volumes are shown on Figures No. 6, 6A and 7, 7A for each of the Peak Hours, respectively.

The resulting Year 2022 No-Build Traffic Volumes are shown on Figures No. 8, 8A and 9, 9A for each of the Peak Hours, respectively.

G. SITE GENERATED TRAFFIC VOLUMES *(Table No. 1)*

As discussed in Section B, the Site is proposed to consist of a 91 room hotel with conference center, 70 apartments above the hotel and 94 townhouse units. In order to estimate the amount of traffic to be generated by the proposed project, the Hourly Trip Generation Rates and Anticipated Site Generated Traffic Volumes were developed based on information contained in the Institute of Transportation Engineers (ITE) “Trip Generation Handbook”, 10th Edition, 2017. Table No. 1 summarizes the Hourly Trip Generation Rates and the anticipated Site Generated Traffic Volumes.

As shown on Table No. 1, the proposed development will generate a total of 118 trips (44 entering trips and 74 exiting trips) during the Weekday Peak AM Hour and a total of 146 trips (85 entering trips and 61 exiting trips) during the Weekday Peak PM Hour.

H. ARRIVAL/DEPARTURE DISTRIBUTION *(Figures No. 10, 10A and 11, 11A)*

Arrival and departure distributions were developed to assign the site generated traffic volumes to the Study Area intersections. The distributions were based on a review of existing traffic volumes and expected travel patterns. The resulting arrival/departure distributions for the proposed development are shown on Figures No. 10, 10A and 11, 11A, respectively.

I. YEAR 2022 BUILD TRAFFIC VOLUMES *(Figures No. 12, 12A - 15, 15A)*

The Site Generated Traffic Volumes were assigned to the roadway network based on the arrival/departure distributions shown on Figures No. 10, 10A and 11, 11A. The resulting Site Generated Traffic Volumes are shown on Figures No. 12, 12A and 13, 13A, respectively. The Site Generated Traffic Volumes were then added to the Year 2022 No-Build Traffic volumes to obtain the Year 2022 Build Traffic Volumes.

The resulting Year 2022 Build Traffic Volumes are shown on Figures No. 14, 14A and 15, 15A for the Weekday Peak AM and Weekday Peak PM hours, respectively.

J. DESCRIPTION OF ANALYSIS PROCEDURES

In order to determine existing and future traffic operating conditions at the Study Area Intersections, it was necessary to perform capacity analyses. The following is a brief description of the analysis method utilized in this report:

Signalized Intersection Capacity Analysis

The capacity analysis for signalized intersections were performed in accordance with the procedures described in the in the 6th Edition Highway Capacity Manual published by the Transportation Research Board. The terminology used in identifying traffic flow conditions is Levels of Service. A Level of Service “A” represents the best condition and a Level of Service “F” represents the worst condition. A Level of Service “C” is generally used as a design standard while a Level of Service “D” is acceptable during peak periods. A Level of Service “E” represents an operation near capacity. In order to identify an intersection’s Level of Service, the average amount of vehicle delay is computed for each approach to the intersection as well as for the overall intersection.

Unsignalized Intersection Capacity Analysis

The unsignalized intersection capacity analysis method utilized in this report was also performed in accordance with the procedures described in the in the 6th Edition Highway Capacity Manual. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement (major street left turns and minor street movements) to the intersection.

Additional information concerning signalized and unsignalized Levels of Service can be found in Appendix C of this Study.

K. RESULTS OF ANALYSIS *(Tables No. 2 and 3)*

In order to evaluate current and future traffic operating conditions at each of the Study Area Intersections, a SYNCHRO analysis was conducted utilizing the procedures described above. Summarized below is a description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service.

Table No. 2 summarizes the results of the capacity analysis (Levels of Service, Delays and Volume-to-Capacity (v/c) Ratios) and Table No. 3 summarizes the queues for the Year 2018 Existing, Year 2022 No-Build and Year 2022 Build Conditions. Copies of the SYNCHRO analysis are contained in Appendix “D” of this Study. [The Traffic Signal Timings for the NYS Route 22 signalized intersections were based on the phasing/timings contained in the IBM Parking Lot Expansion Traffic Impact Study (November 22, 2017) which included recently modified traffic signal operations. The Traffic Signal Timing Plans for Maple Avenue/Bedford Road and NYS Route 128 (Main Street)/Maple Avenue/Whippoorwill Road East are contained in Appendix H of this Study].

1. NYS Route 22 and Old Route 22/Old Post Road

Old Route 22 intersects NYS Route 22 opposite Old Post Road at a full movement, signalized intersection. The NYS Route 22 northbound approach consists of four lanes in the form of a separate left turn lane, two through lanes and a separate right turn lane and the NYS Route 22 southbound approach consists of four lanes in the form of a separate left turn lane, two through lanes and separate right turn lane. The Old Route 22 eastbound approach consists of two lanes in the form of a shared left/through lane and separate right turn lane and the Old Post Road westbound approach consists of two lanes in the form of a shared left/through lane and separate right turn lane.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “B” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “B” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “B” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “B” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak PM Hour.

2. NYS Route 22 and NYS Route 128/North Castle Drive (IBM)

NYS Route 128 intersects NYS Route 22 opposite North Castle Drive (IBM) at a full movement, signalized intersection. The NYS Route 22 northbound approach consists of four lanes in the form of a separate left turn lane, two through lanes and a channelized right turn lane and the NYS Route 22 southbound approach consists of four lanes in the form of a separate left turn lane, two through lanes and separate right turn lane. The NYS Route 128 eastbound approach consists of two lanes in the form of a shared left/through lane and a channelized right turn lane and the North Castle Drive (IBM) westbound approach consists of three lanes in the form of a separate left turn lane, separate through lane and a channelized right turn lane.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “C” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “C” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “C” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “C” during the Weekday Peak PM Hour.

3. NYS Route 22 and Maple Avenue/Business Park Drive

Maple Avenue intersects NYS Route 22 opposite Business Park Drive at a full movement, signalized intersection. The NYS Route 22 northbound approach consists of three lanes in the form of a separate left turn lane, a separate through lane and a shared through/right turn lane and the NYS Route 22 southbound approach consists of four lanes in the form of a separate left turn lane, two through lanes and separate right turn lane. The Maple Avenue eastbound approach consists of two lanes in the form of a separate left turn lane and shared through/right lane and the Business Park Drive westbound approach consists of two lanes in the form of a shared left/through lane and separate right turn lane.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “C” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “D” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “D” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “D” during the Weekday Peak PM Hour.

4. NYS Route 128 (Main Street) and Kent Place/Bedford Road

Kent Place intersects NYS Route 128 (Main Street) opposite Bedford Road at a full movement, unsignalized intersection. All approaches to the intersection consist of one lane for left, through and right turn movements. The Kent Pace and Bedford Road approaches are “stop” sign controlled.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the Kent Road approach (eastbound approach) is currently operating at a Level of Service “C” or better during both the Weekday Peak AM and Weekday Peak PM Hours and Bedford Road approach (westbound approach) is currently operating at a Level of Service “C” during both the Weekday Peak AM and Weekday Peak PM Hours.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the Kent Road approach (eastbound approach) is projected to operate a Level of Service “C” or better during both the Weekday Peak AM and Weekday Peak PM Hours and Bedford Road approach (westbound approach) is projected to operate at a Level of Service “C” during the Weekday Peak AM Hour and projected to operate at a level of Service “D” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the Kent Road approach (eastbound approach) is projected to continue to operate a Level of Service “C” or better during both the Weekday Peak AM and Weekday Peak

PM Hours and Bedford Road approach (westbound approach) is projected to continue to operate at a Level of Service “C” during the Weekday Peak AM Hour and continue to operate at a level of Service “D” during the Weekday Peak PM Hour.

5. Maple Avenue and Bedford Road

Maple Avenue intersects Bedford Road at a full movement, signalized intersection with crosswalk and pedestrian indication on the Maple Avenue northbound approach. The Maple Avenue northbound approach consists of two lanes in the form of a separate left turn lane and a shared through/right turn lane and the Maple Avenue southbound approach consists of one lane for left, through and right turn movements. The Bedford Road eastbound and westbound approaches each consist of one lane for left, through and right turn movements.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “C” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “B” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “B” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak PM Hour.

6. NYS Route 128 (Main Street) and Whipoorwill Road/Maple Avenue

Maple Avenue intersects NYS Route 128 (Main Street) opposite Whipoorwill Road at a full movement, signalized intersection with crosswalks and pedestrian indication on all approaches. All approaches to the intersection consist of one lane for left, through and right turn movements.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “B” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “B” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “B” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “B” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak PM Hour.

7. NYS Route 22 and NYS Route 120 North (King Street)

NYS Route 22 and NYS Route 120 North (King Street) at a “Y” type, signalized intersection. The NYS Route 22 northbound approach consists of three lanes in the form of a separate left turn lane and two through lanes and the NYS Route 22 southbound approach consists of three lanes in the form of two through lanes and a channelized right turn lane. The NYS Route 120 North (King Street) eastbound approach consists of two lanes in the form of a separate left turn lane and a channelized right turn lane.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “C” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “D” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “D” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “D” during the Weekday Peak PM Hour.

8. NYS Route 22 and NYS Route 120 South (King Street)

NYS Route 22 and NYS Route 120 South (King Street) at a “Y” type, signalized intersection. The NYS Route 22 northbound approach consists of three lanes in the form of two through lanes and a separate right turn lane and the NYS Route 22 southbound approach consists of four lanes in the form of two left turn lanes and two through lanes. The NYS Route 120 South (King Street) westbound approach consists of one lane for left and right movements.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “B” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “C” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “B” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “C” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “C” during the Weekday Peak PM Hour.

9. NYS Route 120 (King Street) and Old Post Road

Old Post Road intersects NYS Route 120 (King Street) at an unsignalized intersection. The NYS Route 120 (King Street) northbound approach consists of one lane for left, through and right turn movements and the Old Post Road westbound approach consist of one lane for through and right turn movements. Old Post Road provides access to Bright Horizons at TimberRidge and the IBM Learning Center.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at a Level of Service “A” during the Weekday Peak AM Hour and is currently operating at a Level of Service “C” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at a Level of Service “A” during the Weekday Peak AM Hour and is projected to operate at a Level of Service “C” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at a Level of Service “A” during the Weekday Peak AM Hour and is projected to continue to operate at a Level of Service “C” during the Weekday Peak PM Hour.

10. NYS Route 22 and I-684 SB On/Off Ramps

The I-684 Southbound On/Off Ramps intersects NYS Route 22 with the I-684 Southbound Off-Ramp left turn under signal control and the I-684 Southbound Off-Ramp right turn to NYS Route 22 south under “Yield” sign control. The NYS Route 22 North On-Ramp and NYS Route 22 South On-Ramp to I-684 Southbound are free flow right turns.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “A” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “A” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “A” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “A” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “A” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “A” during the Weekday Peak PM Hour

11. NYS Route 22 and I-684 NB On/Off Ramps

The I-684 Northbound On/Off Ramps intersects NYS Route 22 with the I-684 Northbound On-Ramp under signal control and the I-684 Northbound Off-Ramp to NYS Route 22 north under “Stop” sign control and the I-684 Northbound Off-Ramp to NYS Route 22 south under “Yield” sign control. The NYS Route 22 northbound approach consists of a double left turn lane for I-684 northbound traffic and two through lanes and the NYS Route 22 southbound approach consists of two through lanes and a separate right turn lane for I-684 northbound traffic.

Year 2018 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “A” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “B” during the Weekday Peak PM Hour.

Year 2022 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “A” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “B” during the Weekday Peak PM Hour.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak AM Hour and is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak PM Hour

12. North Castle Road and Proposed Site Driveway

As discussed in Section B, access to the Site will be provided via a driveway connection to North Castle Drive.

Year 2022 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the proposed Driveway is projected to operate at a Level of Service “B” or better during both the Weekday Peak AM and Weekday Peak PM Hours.

Sight Distances

The proposed driveway to North castle Drive is proposed as a full movement driveway, however it is unlikely that vehicles will make exiting left turns (to the IBM Campus). The sight distance at the proposed Site access will be some 500+ feet looking to the left and some 500’ feet looking to the right. Based on AASHTO Standards as contained in “A Policy on Geometric Design of Highway and Streets – 2018” the recommended Stopping Sight Distance (SSD) is 165’ feet (adjusted for a downgrade of 6%) for a speed limit of 25 mph (posted speed limit of 15 mph plus 10 mph). The Intersection Sight Distance (ISD) for the exiting left turn is 280’ feet and the exiting right turn is 240’ feet for a speed limit of 25 mph (posted speed limit of 15 mph plus 10 mph). Based on the above, there will be adequate sight distance provided at the driveway.

The Intersection Sight Distance (ISD) will be shown on the Site Plan.

L. ACCIDENT SUMMARY (Tables No. 4 and 5)

Accident information was obtained for the Study Area Intersections from the NYSDOT Records Access Office for the most recent three full year period (January 1, 2015 to December 31, 2017) and Year 2018* (available through August 31, 2018). This data is summarized in Table No. 4 for the NYS Route 128/Bedford Road/Kent Place, NYS Route 128/Maple Avenue/Whippoorwill Road East and Maple Avenue/Bedford Road intersections and in Table No. 5 for the NYS Route 22 intersections by location, date, time, traffic control, severity, number of vehicles/injuries, light conditions, road surface condition, weather, manner of collision and apparent contributing factors.

As summarized on Table No. 5, there were 4 reportable accidents in 2015, 3 reportable accidents in 2016, 9 reportable accidents in 2017, and 1 reportable accident in 2018* at the intersection of NYS Route 22/NYS Route 128/North Castle Road (Site Access).

A review of the accident data indicates typical type of accidents which includes rear-end accidents with apparent contributing factors such as failure to yield right of way, following too closely and driver inattention. Appendix G also contains a copy of the NYSDOT Accident Severity Summary and Verbal Description Reports.

Based on a review of the accident data and based on the anticipated generation for the proposed Eagle Ridge development, it is expected that the Proposed Project will not have a significant impact on the accident rates on the area roadways.

M. SUMMARY AND CONCLUSION

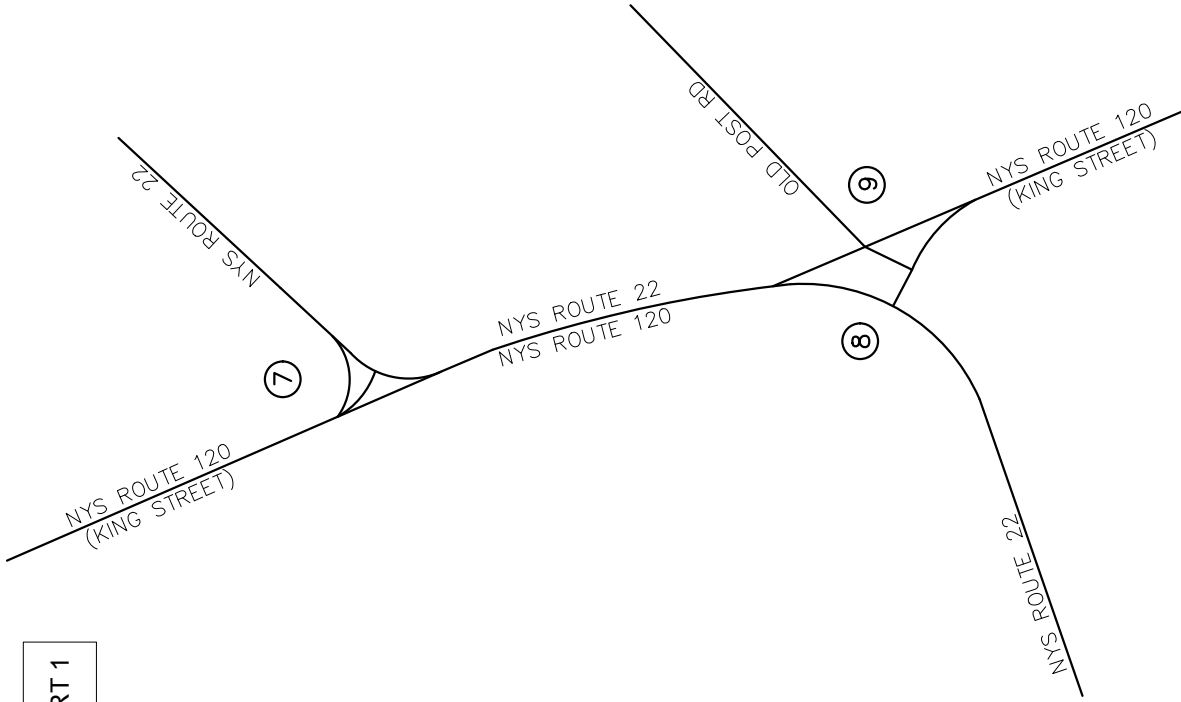
As summarized in this Study and as shown on the Level of Service Summary Table (Table No. 2), similar Levels of Service and delays will be experienced under future No-Build and future Build Conditions. Thus, the proposed Eagle Ridge development is not expected to significantly affect the area roadways. It should be noted that the Applicant is committed to providing bicycle storage/bicycle racks on Site.

EAGLE RIDGE

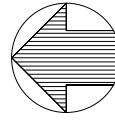
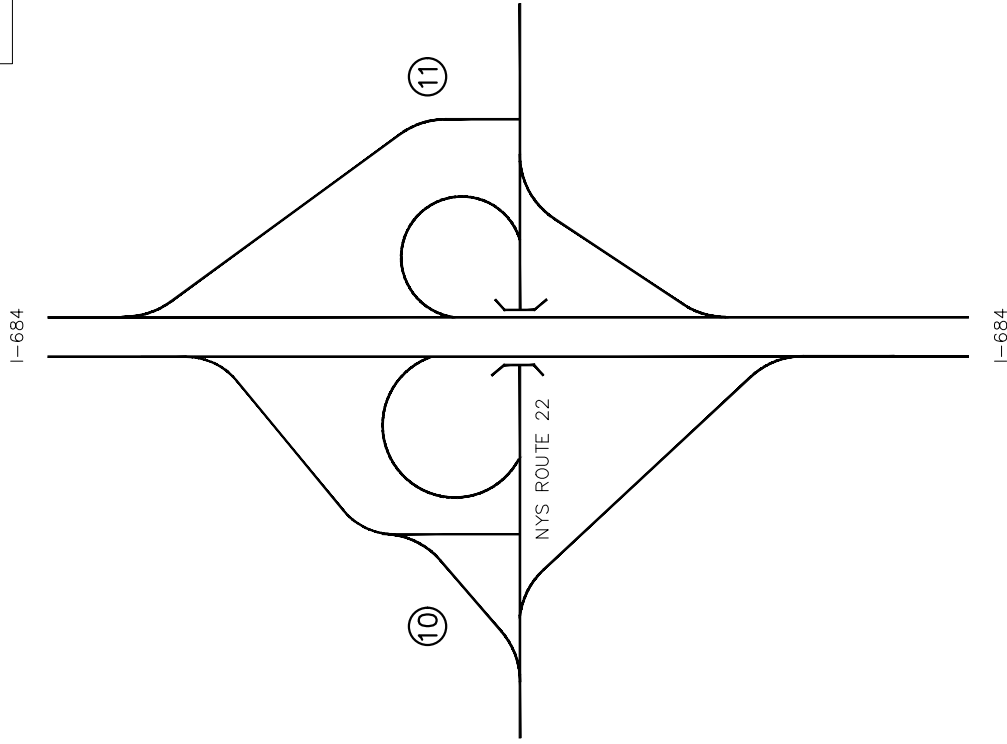
APPENDIX A

FIGURES

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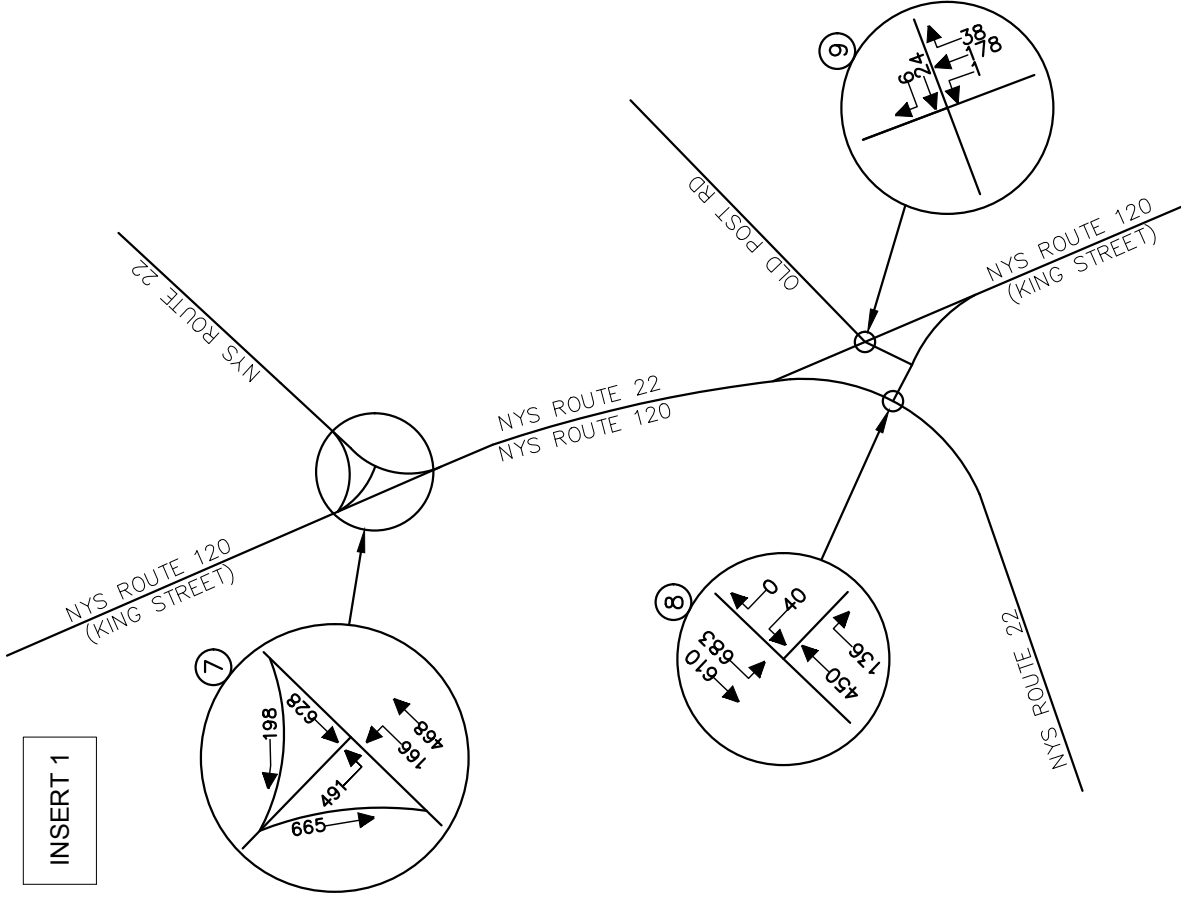
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SITE LOCATION

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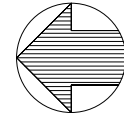
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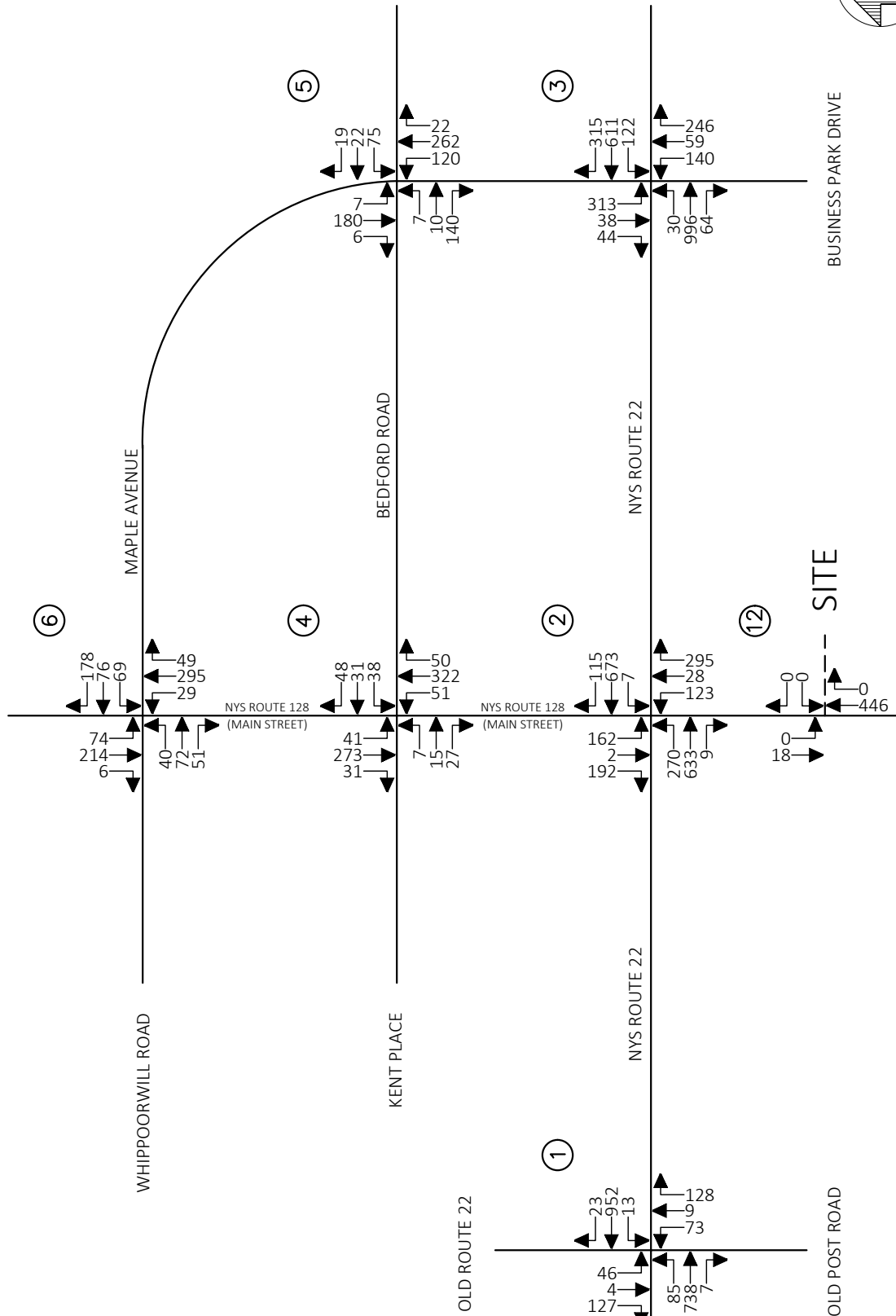


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NYS ROUTE 128 (MAIN STREET)



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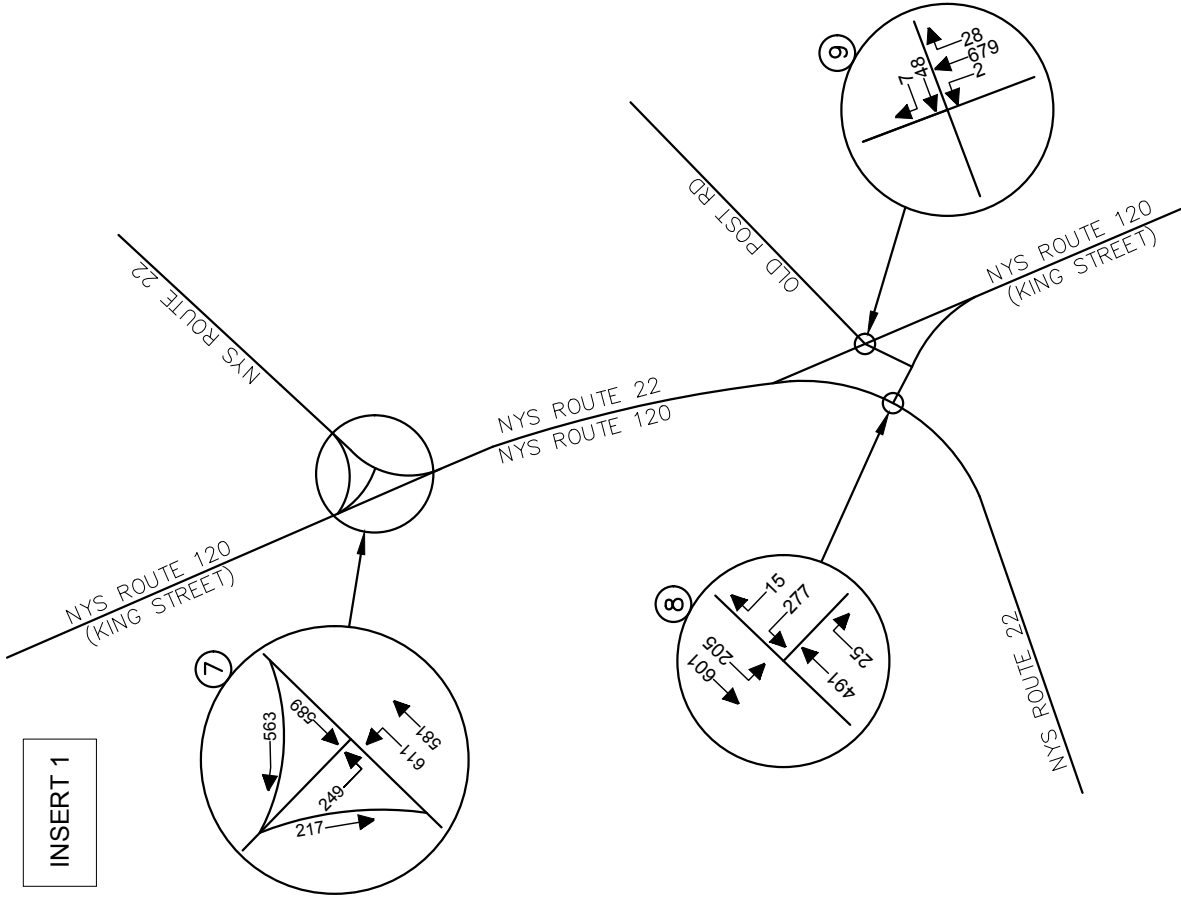
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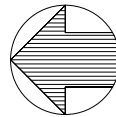
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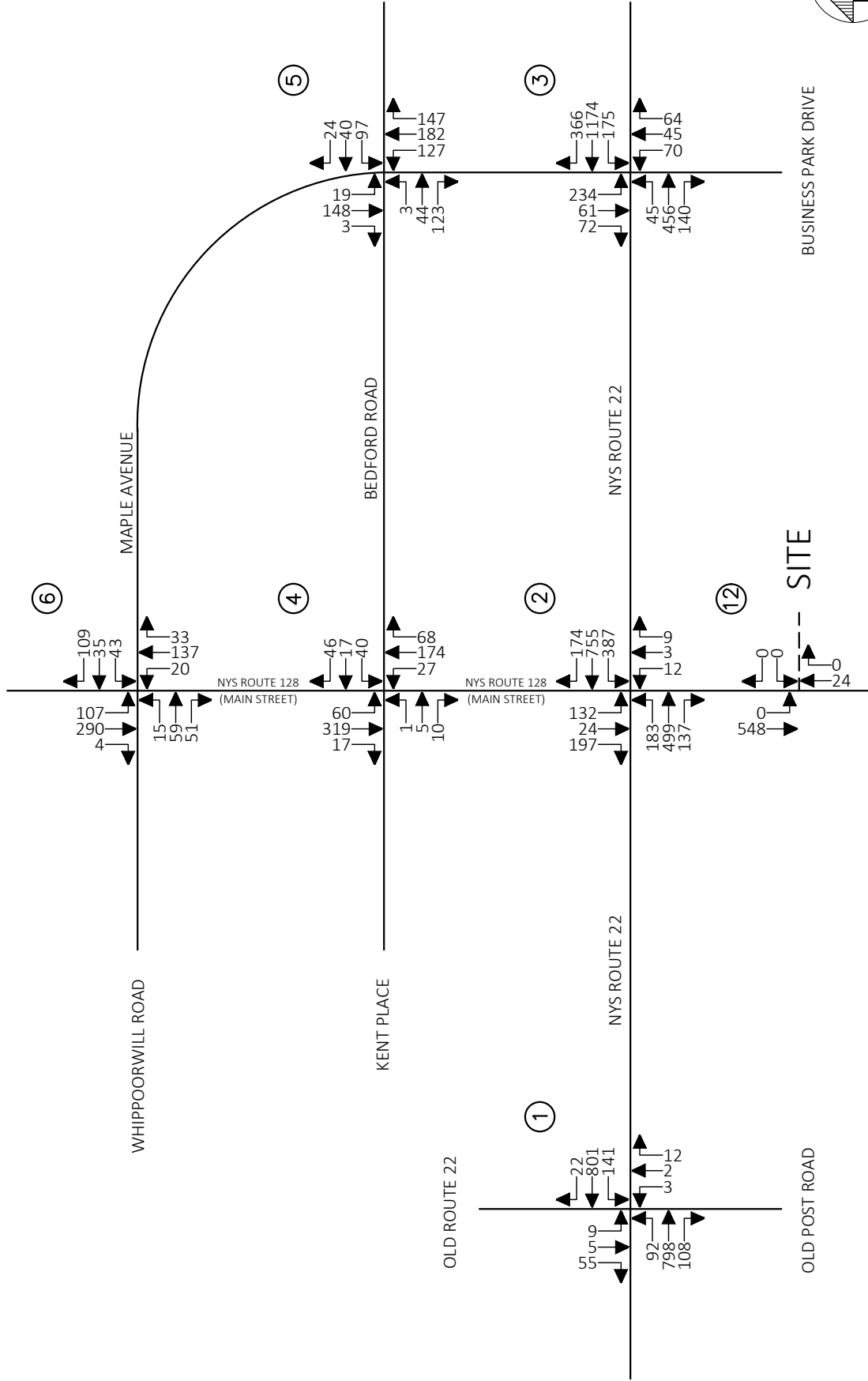
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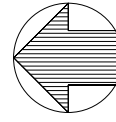
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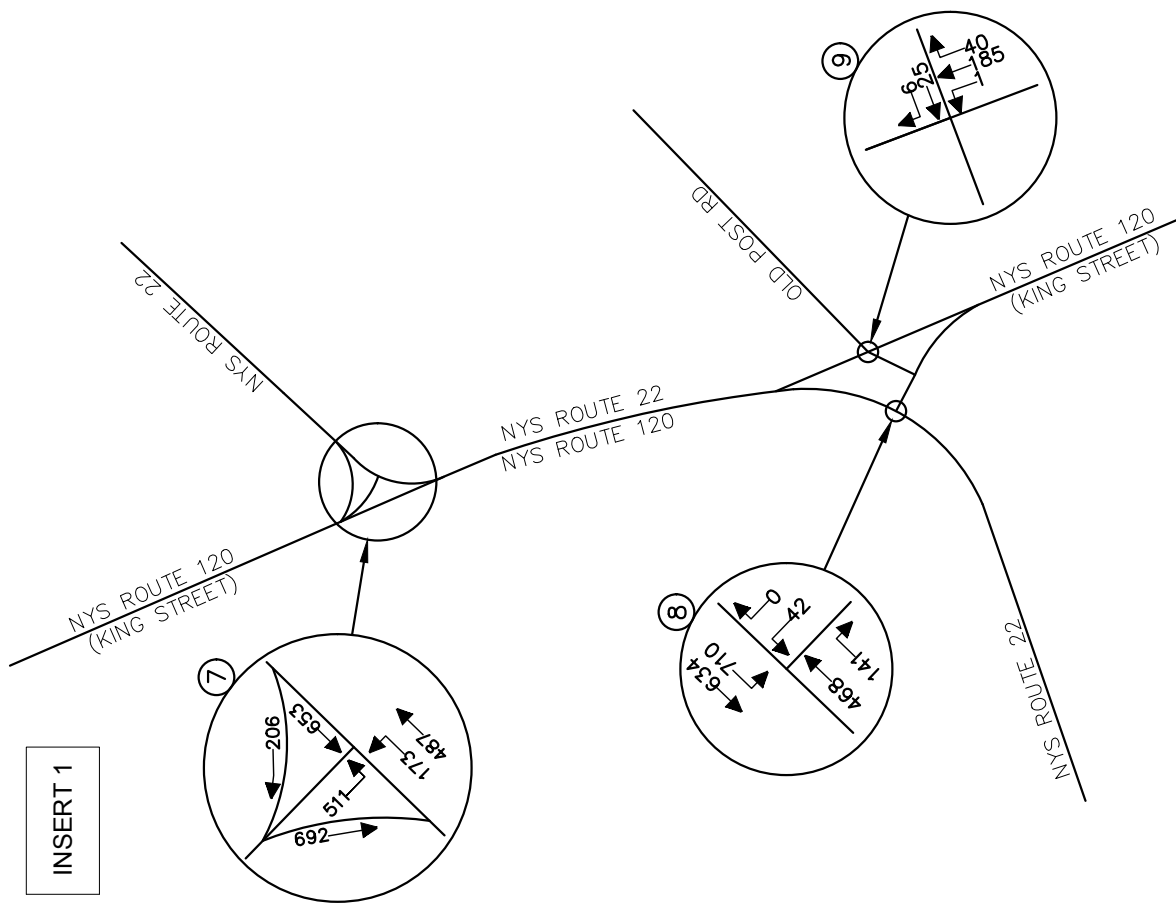
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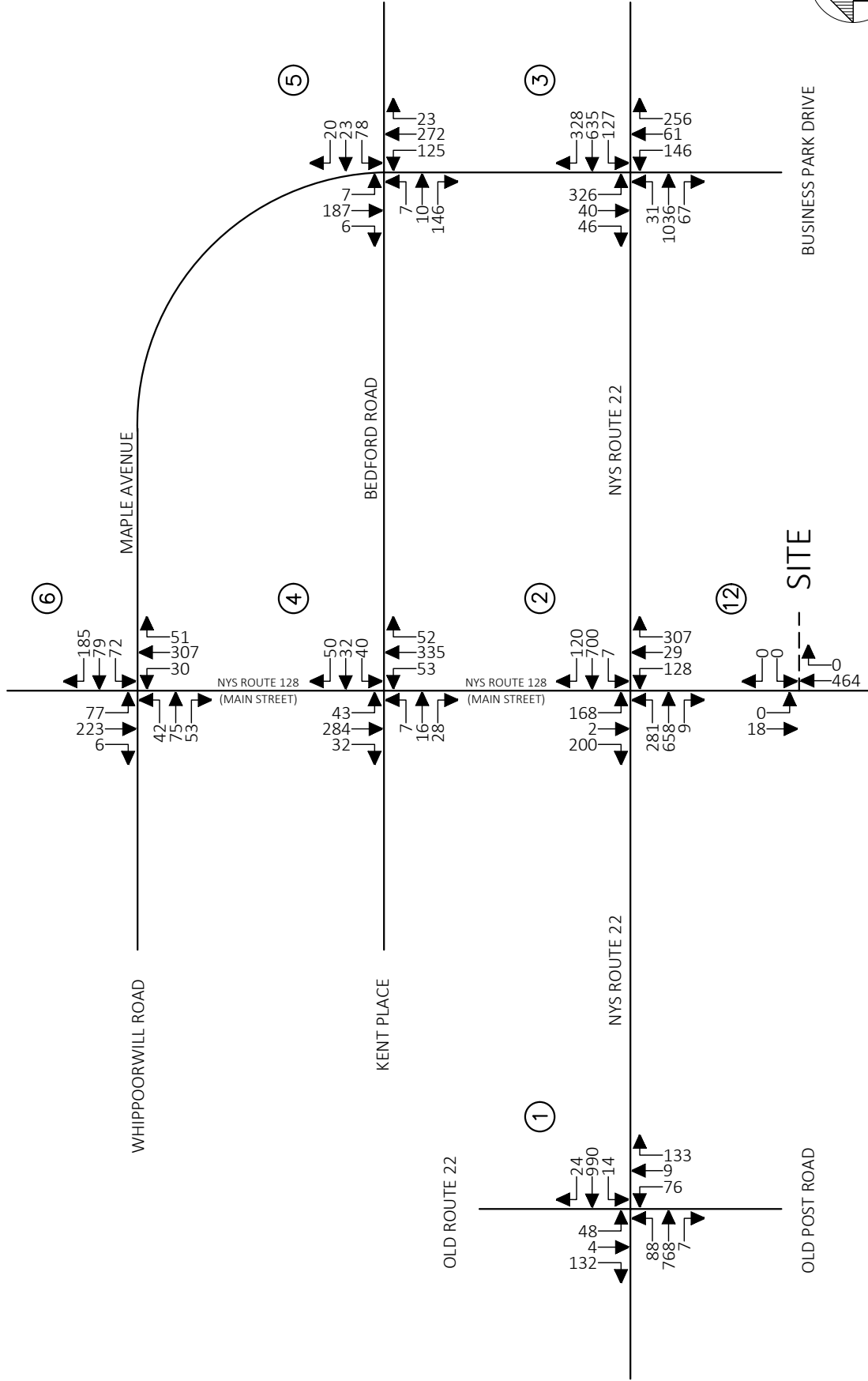
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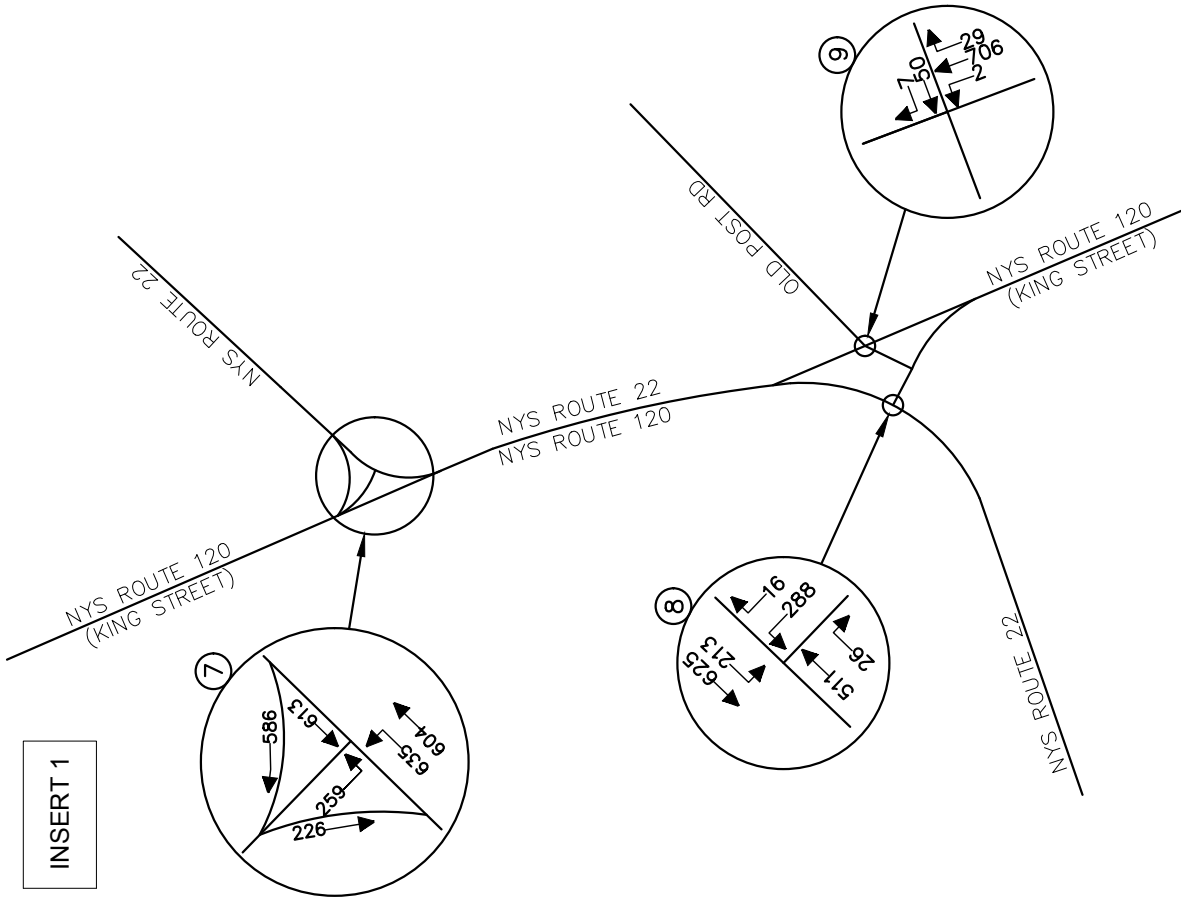
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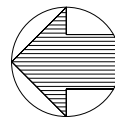
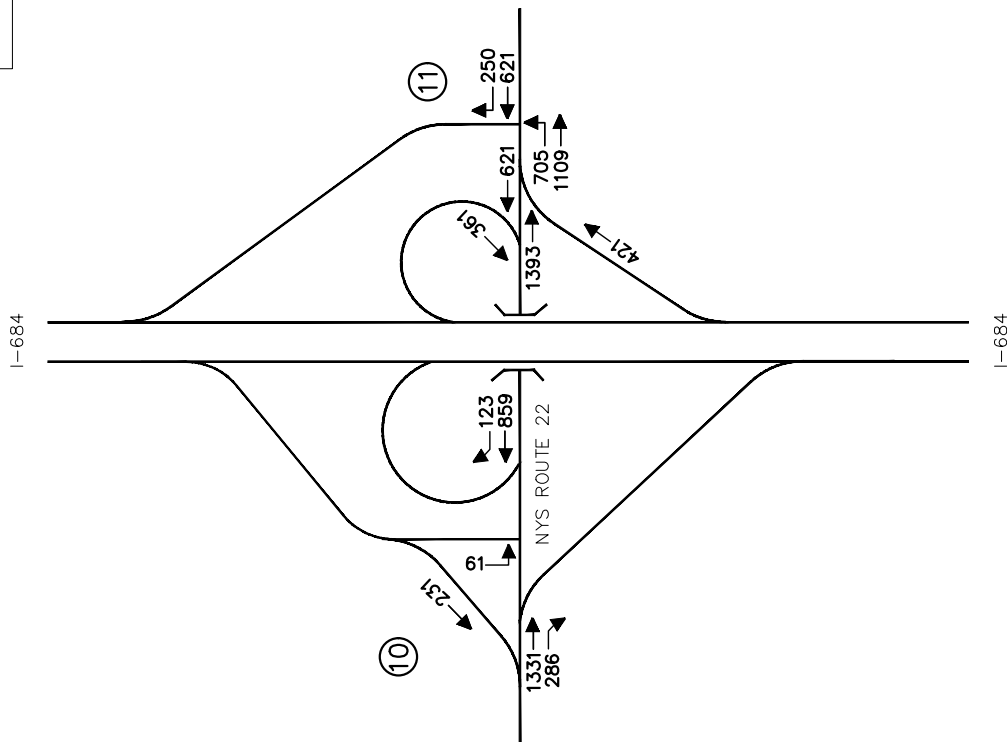
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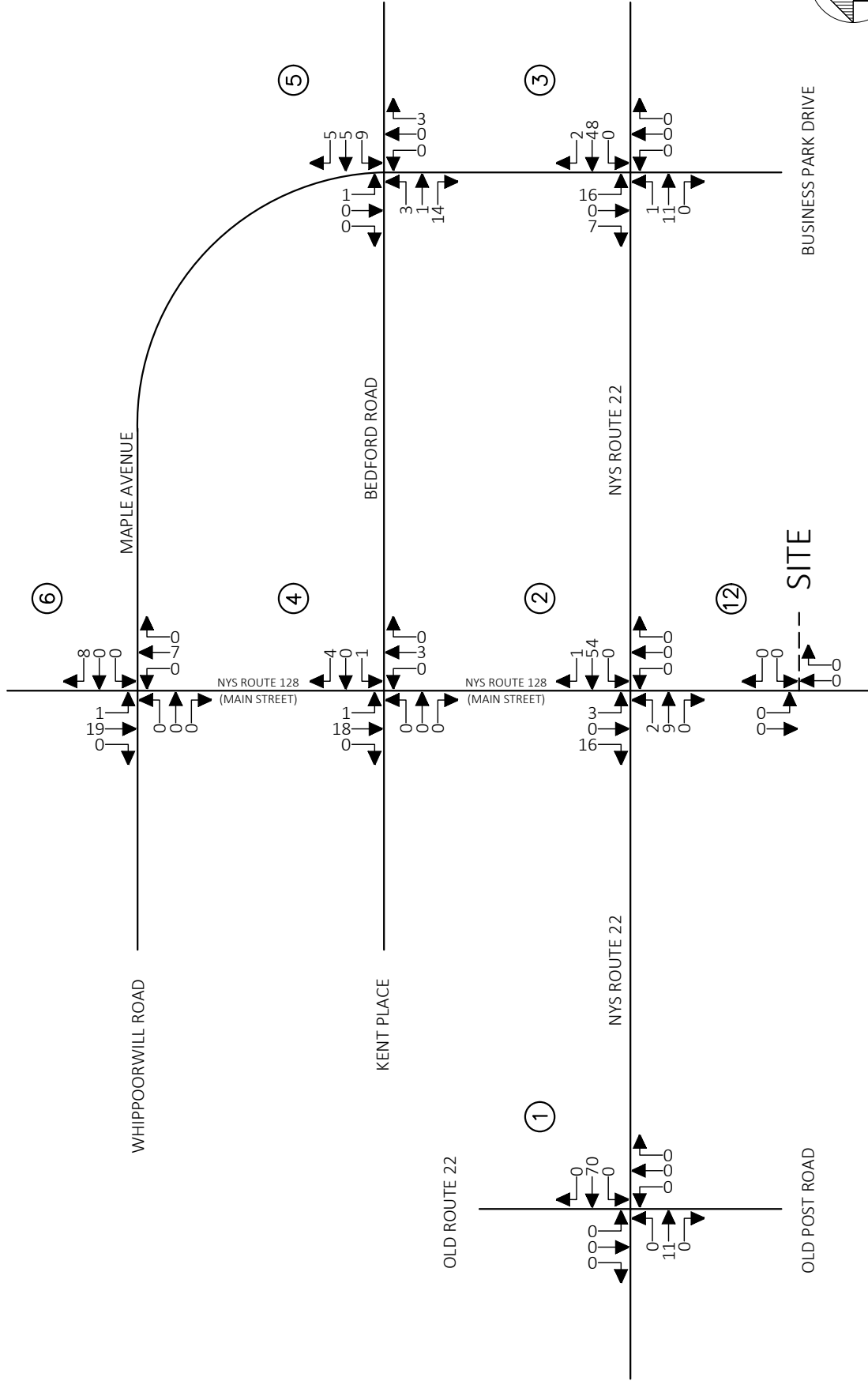
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NYS ROUTE 128 (MAIN STREET)



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BUSINESS PARK DRIVE

NORTH CASTLE DRIVE

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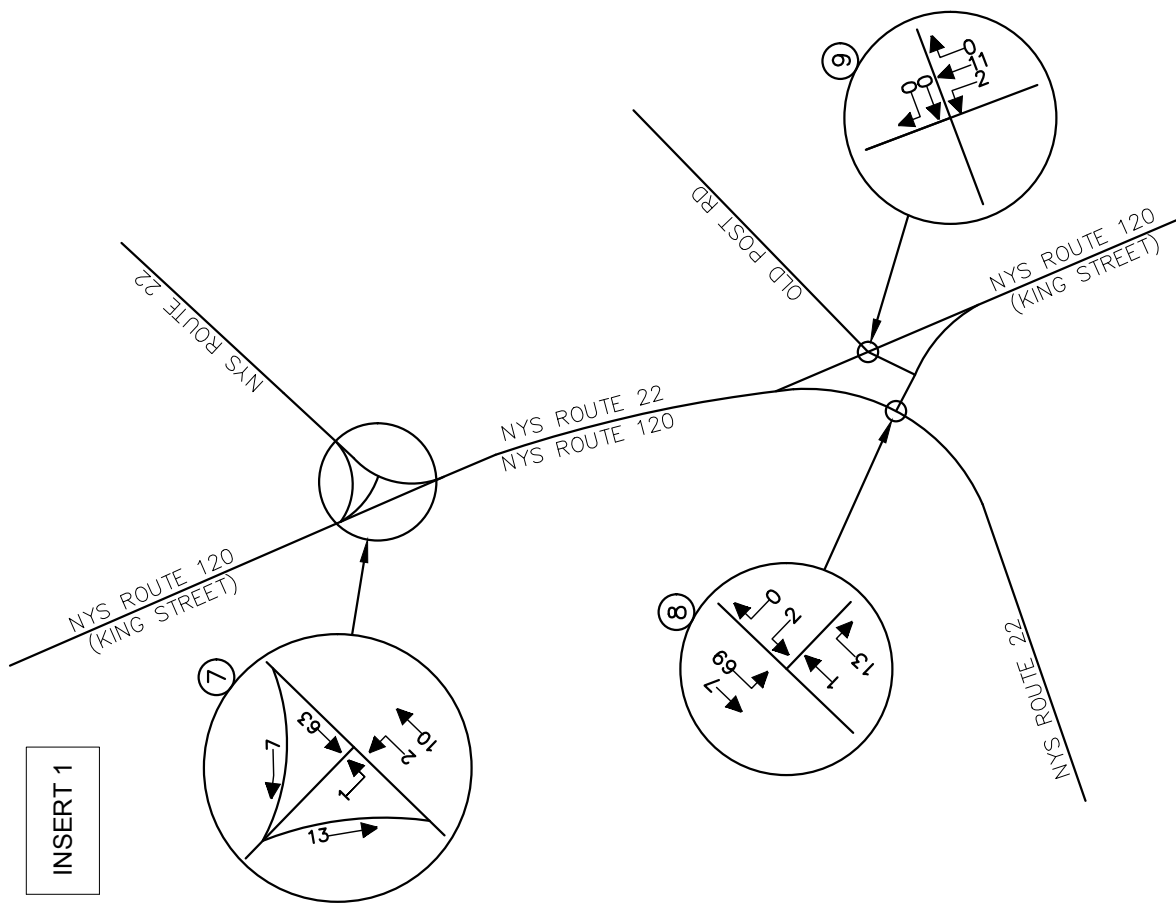
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NORTH CASTLE DRIVE
TOWN OF NORTH CASTLE
WESTCHESTER COUNTY
NEW YORK

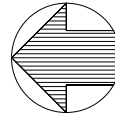
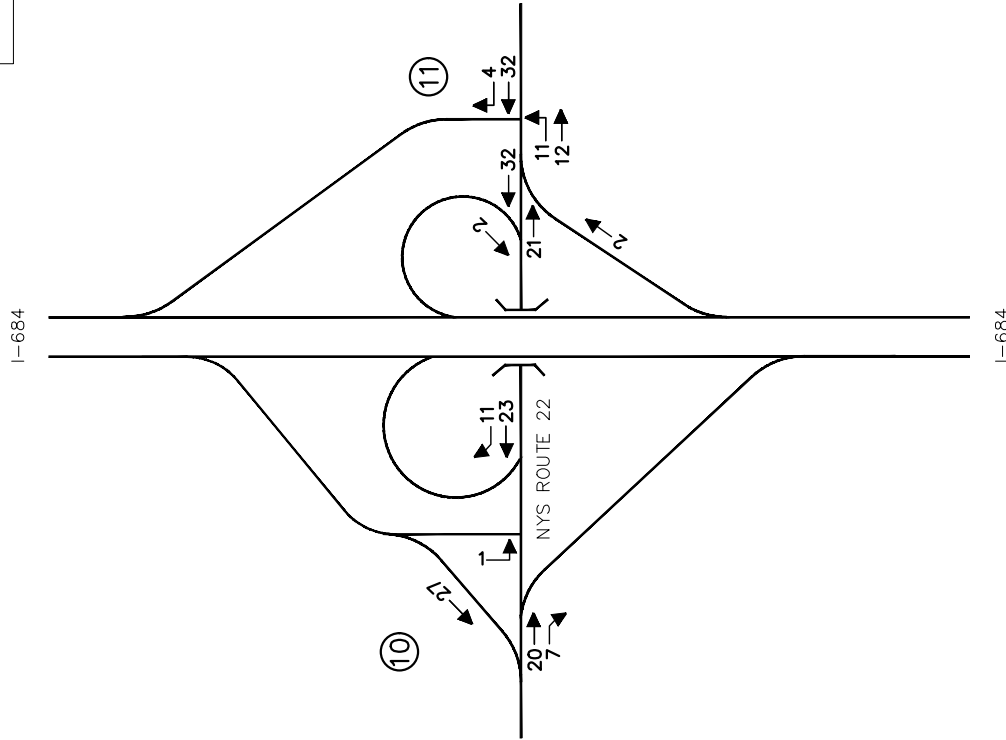
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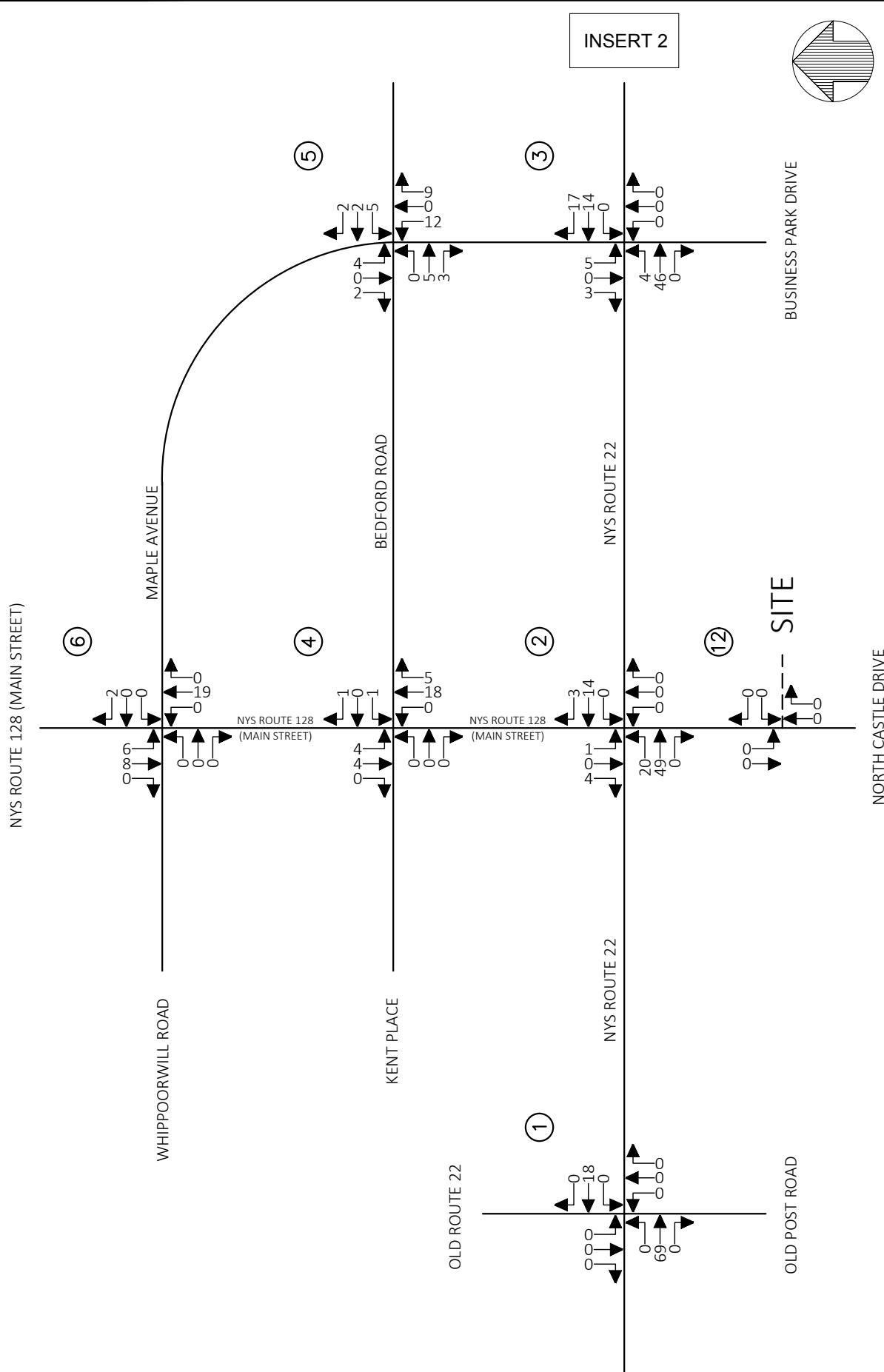
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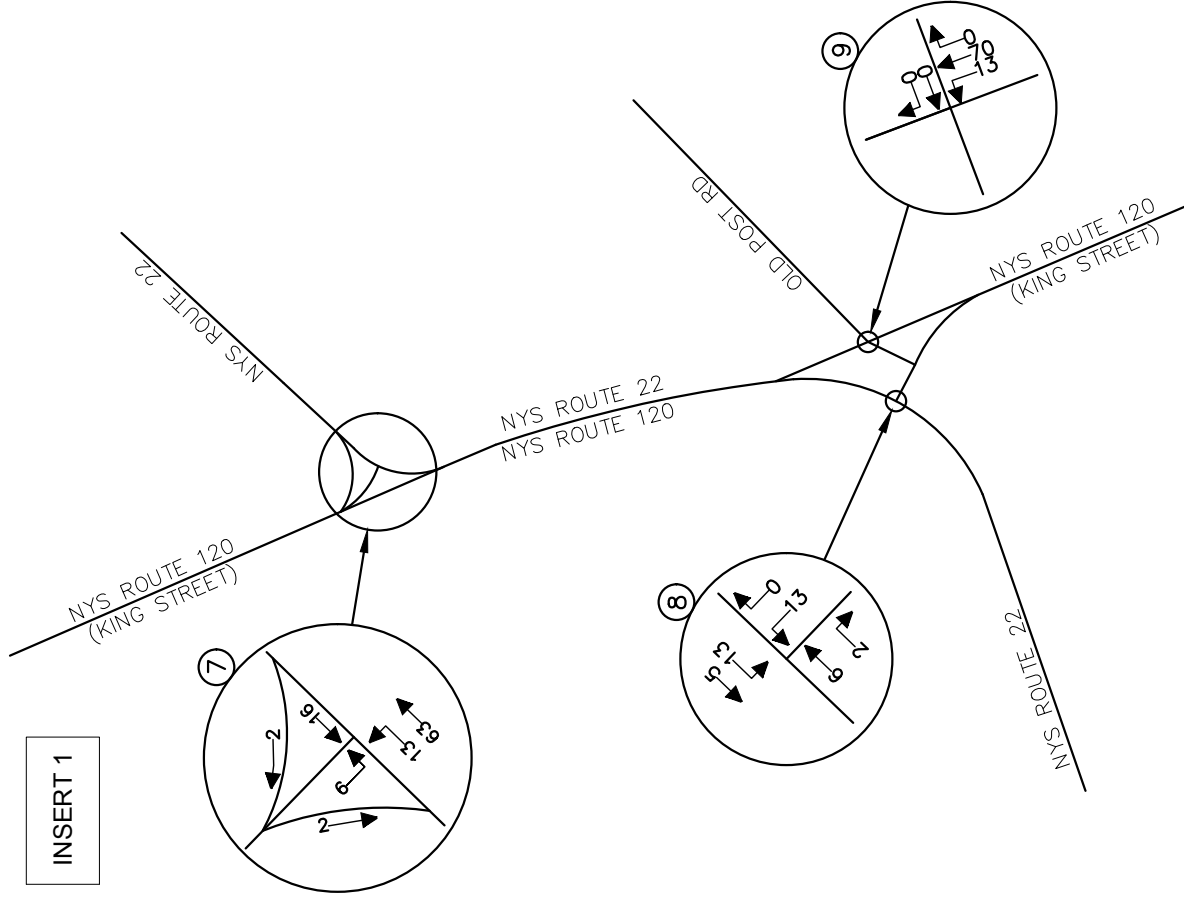
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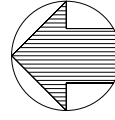
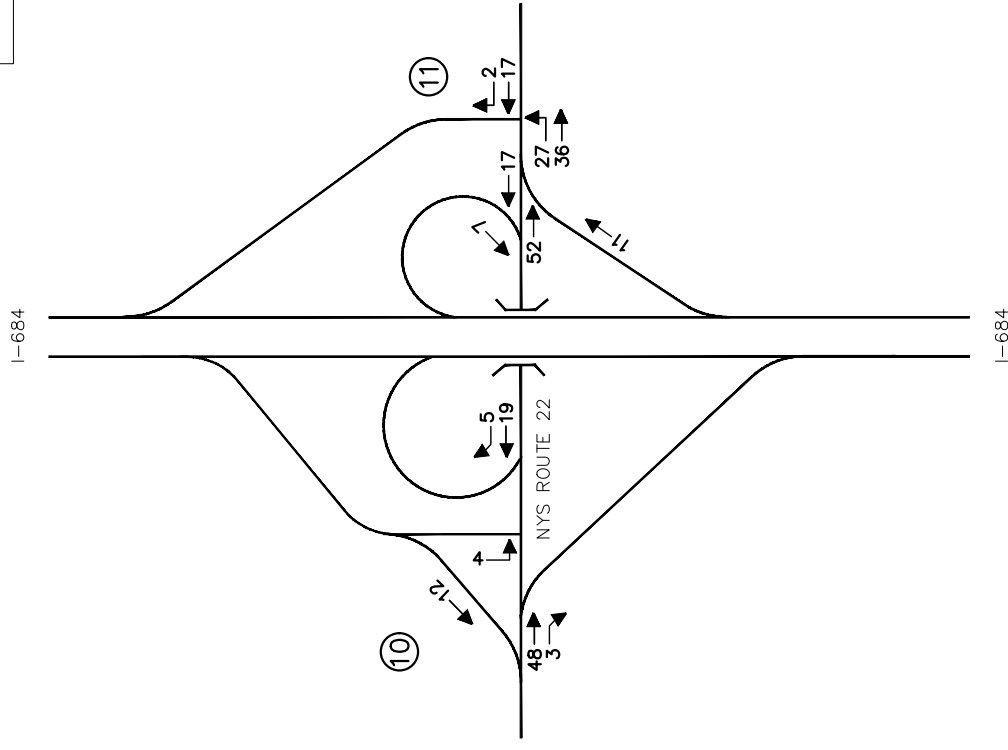
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OTHER DEVELOPMENT TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

FIGURE NO. 7A

NYS ROUTE 128 (MAIN STREET)

MAPLE AVENUE

WHIPPOORWILL ROAD

BEDFORD ROAD

KENT PLACE

OLD ROUTE 22

OLD POST ROAD

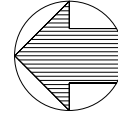
BUSINESS PARK DRIVE

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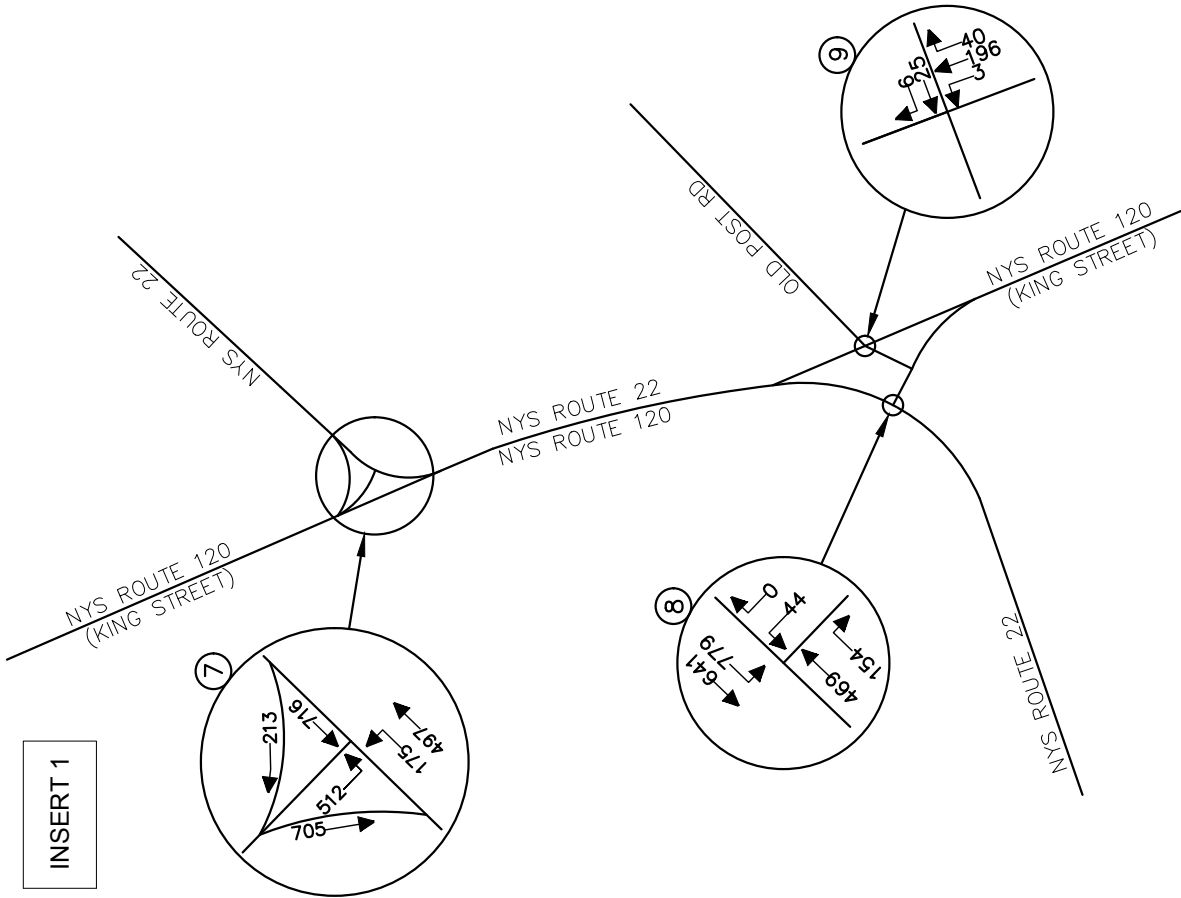


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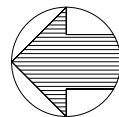
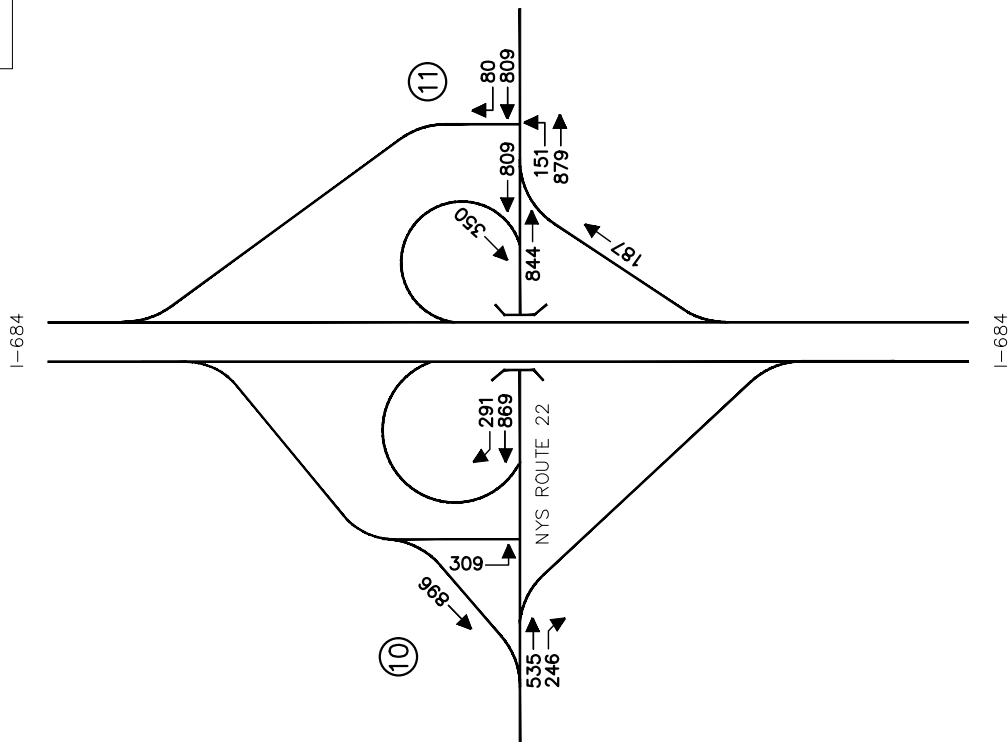
YEAR 2022 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

FIGURE NO. 8

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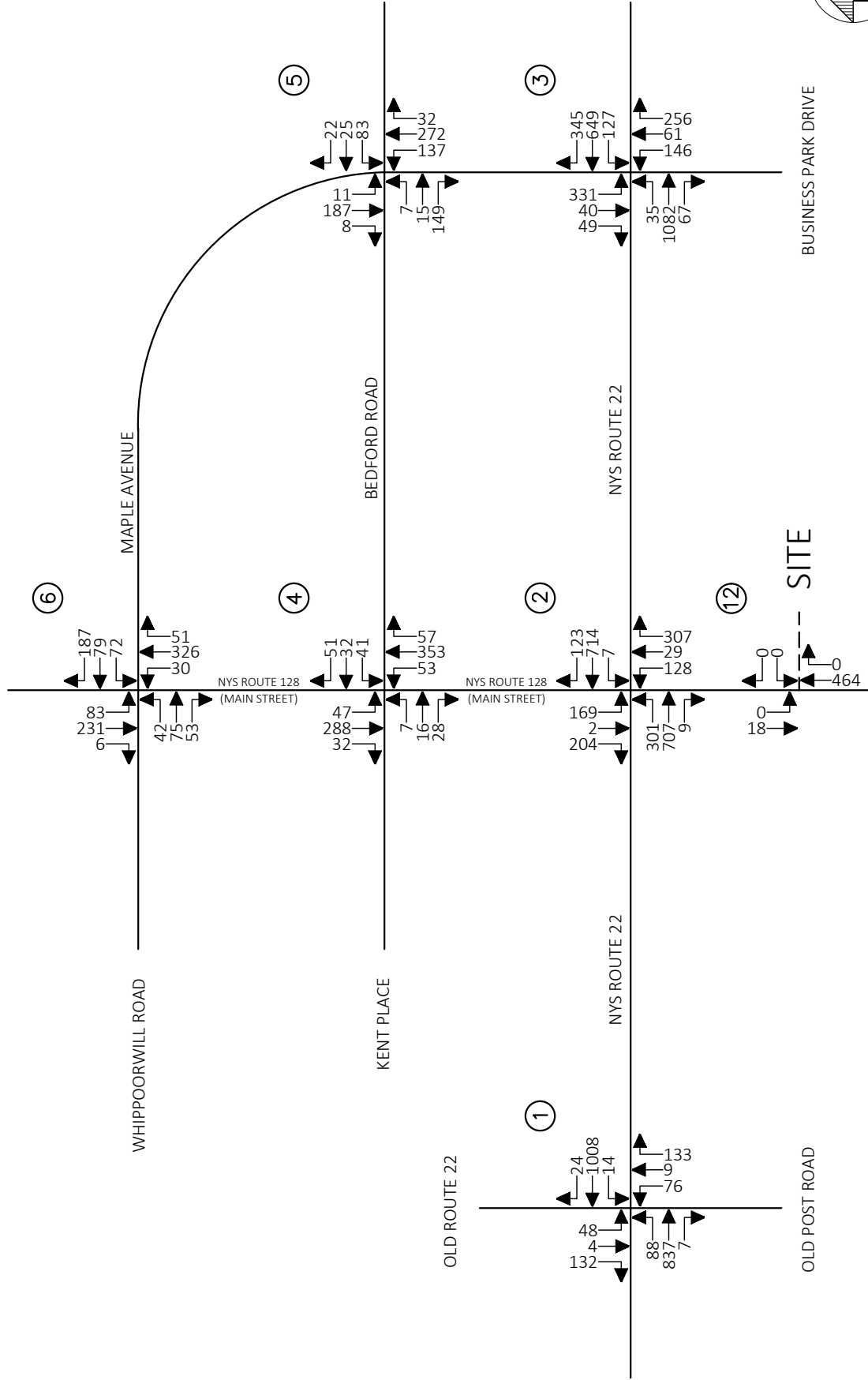
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YEAR 2022 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER: 8A

NYS ROUTE 128 (MAIN STREET)



INSERT 2

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BUSINESS PARK DRIVE

NORTH CASTLE DRIVE

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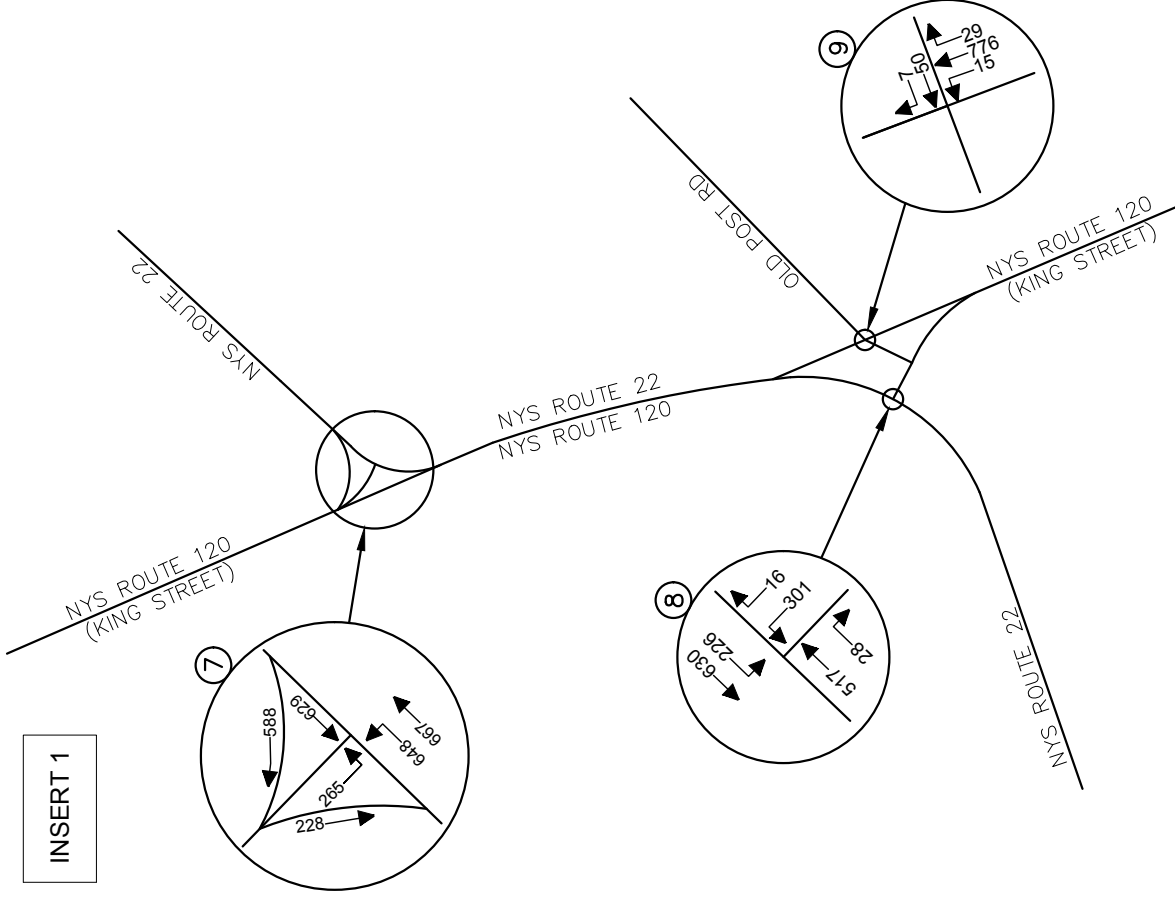
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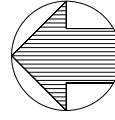
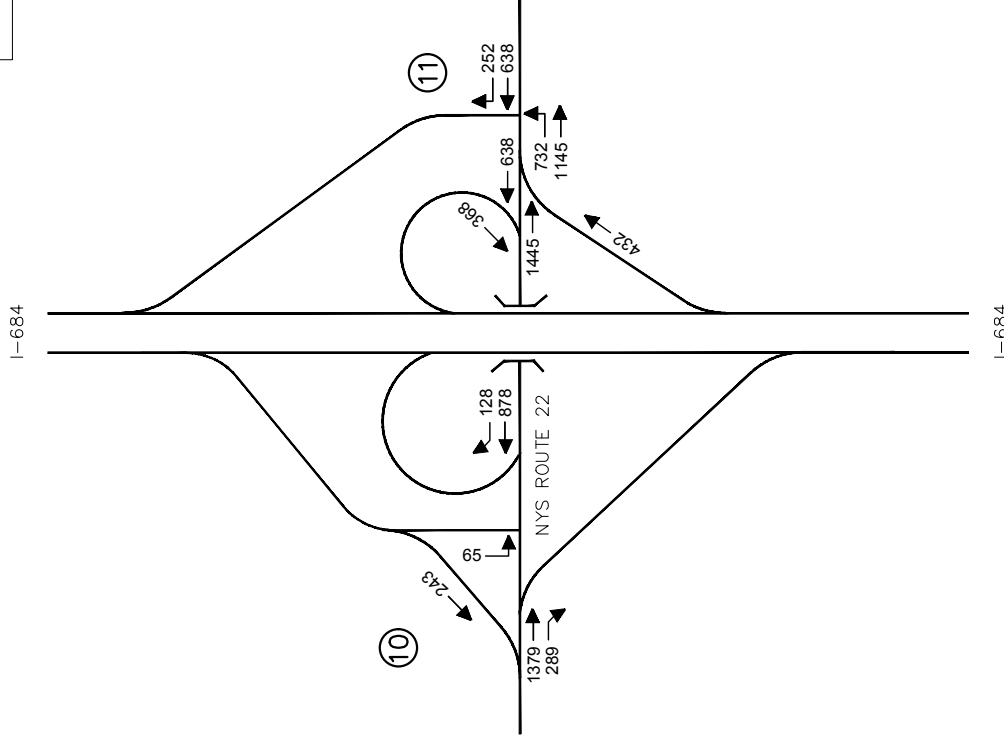
FIGURE NO. 9

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SHEET TITLE

YEAR 2022 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER

FIGURE NO. 9A

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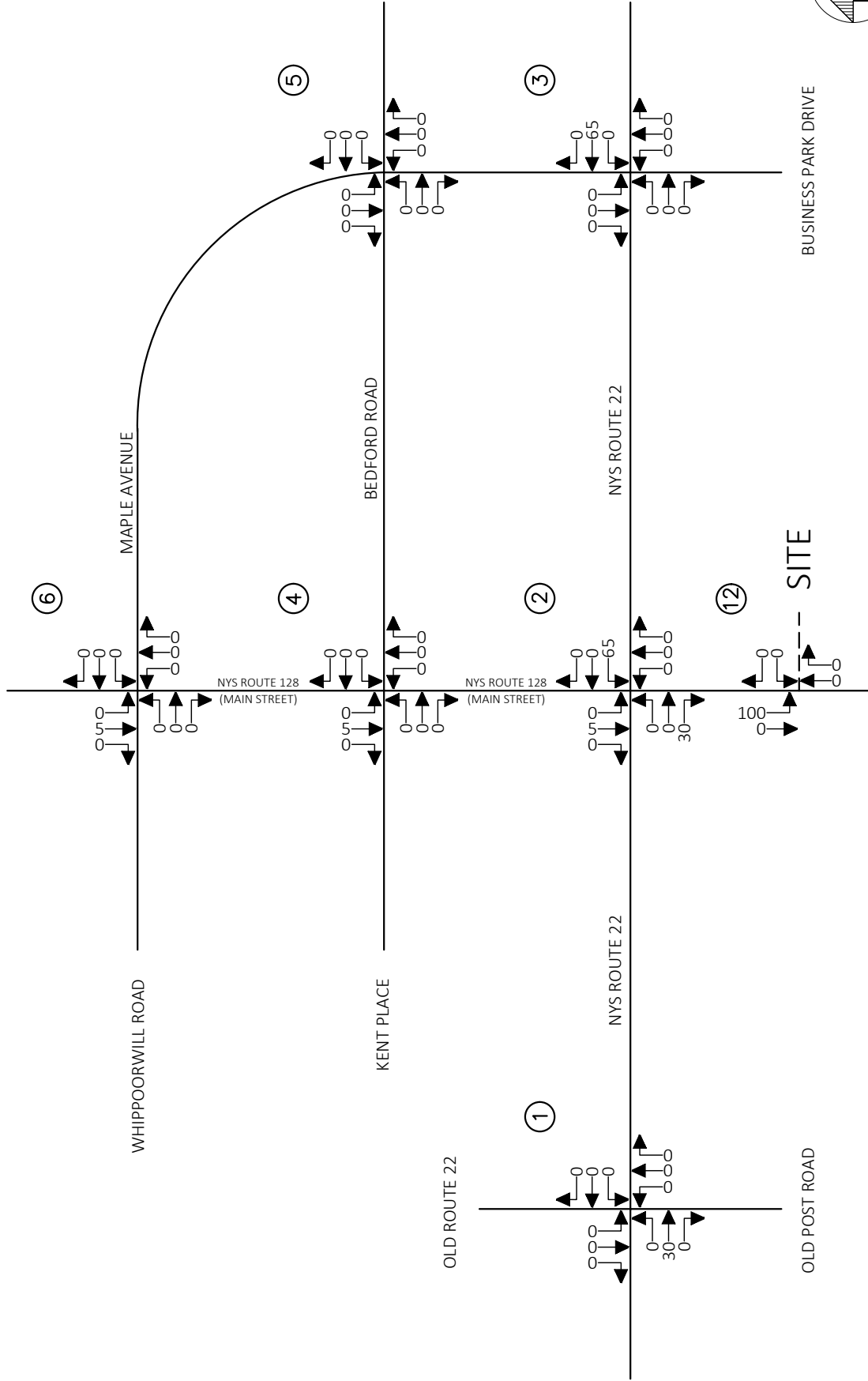
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NYS ROUTE 128 (MAIN STREET)



BUSINESS PARK DRIVE

NORTH CASTLE DRIVE

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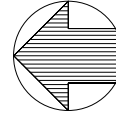
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PROJECT NUMBER: 170054578
DRAWING NAME: 190218_NT_FIGURES

**ARRIVAL DISTRIBUTION
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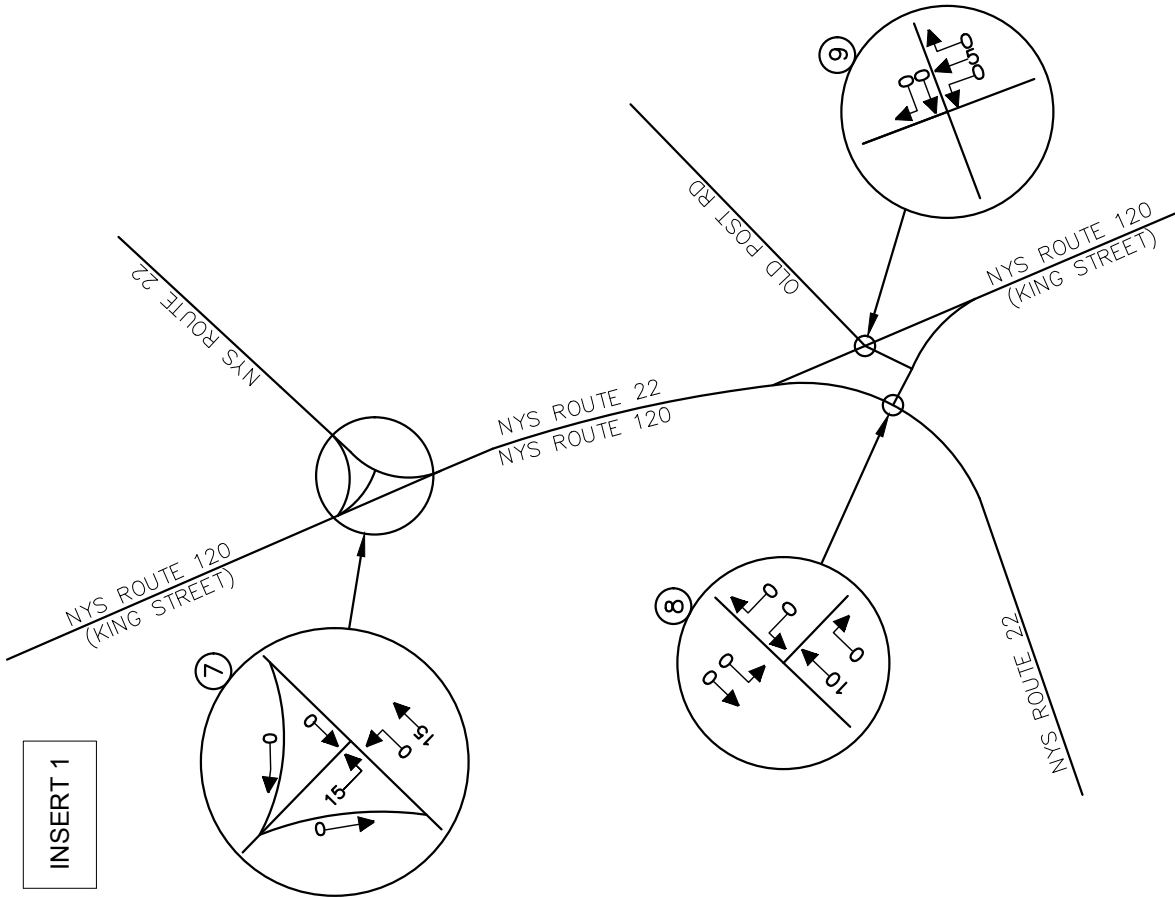
SHEET NUMBER: 10
FIGURE NO. 10



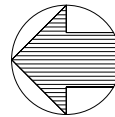
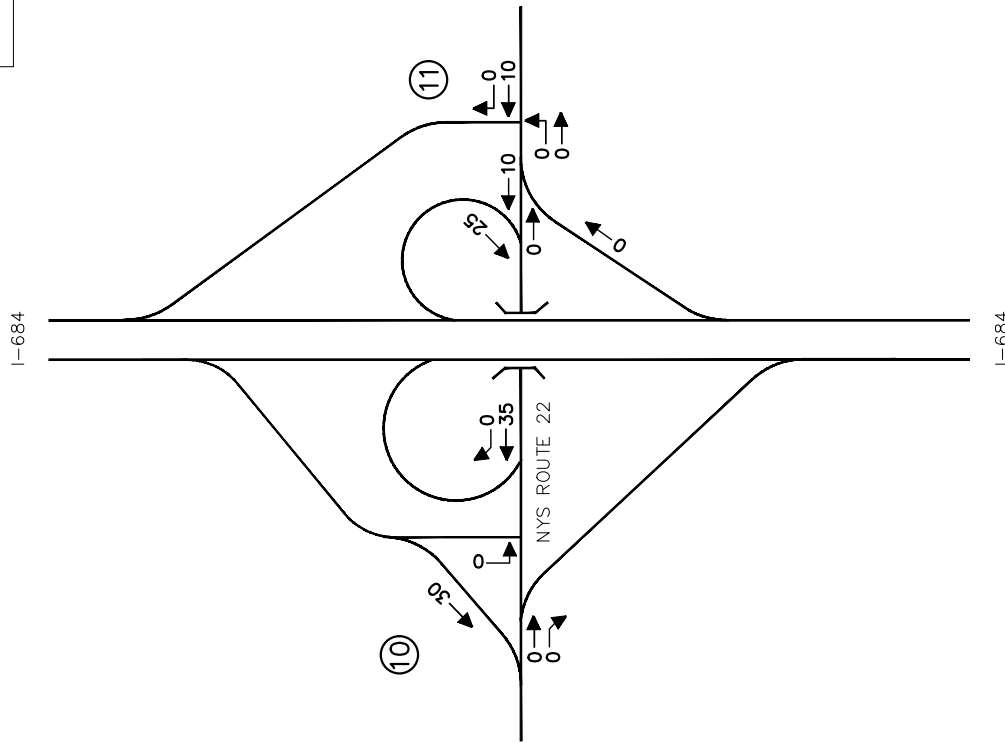
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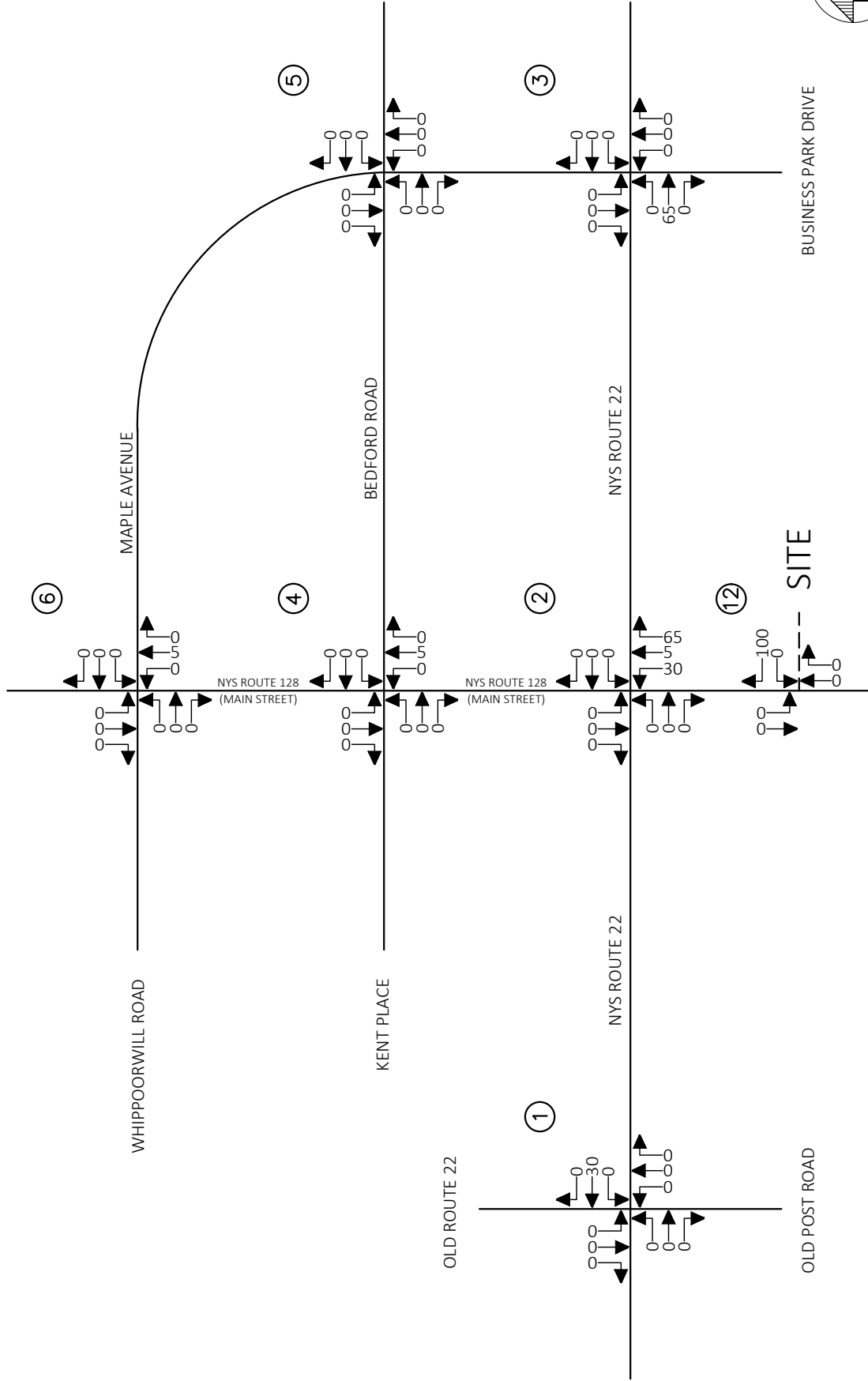
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NYS ROUTE 128 (MAIN STREET)



BUSINESS PARK DRIVE

NORTH CASTLE DRIVE

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PROJECT NUMBER: 170054578 DRAWING NAME: 190218_NT_FIGURES
SHEET TITLE:

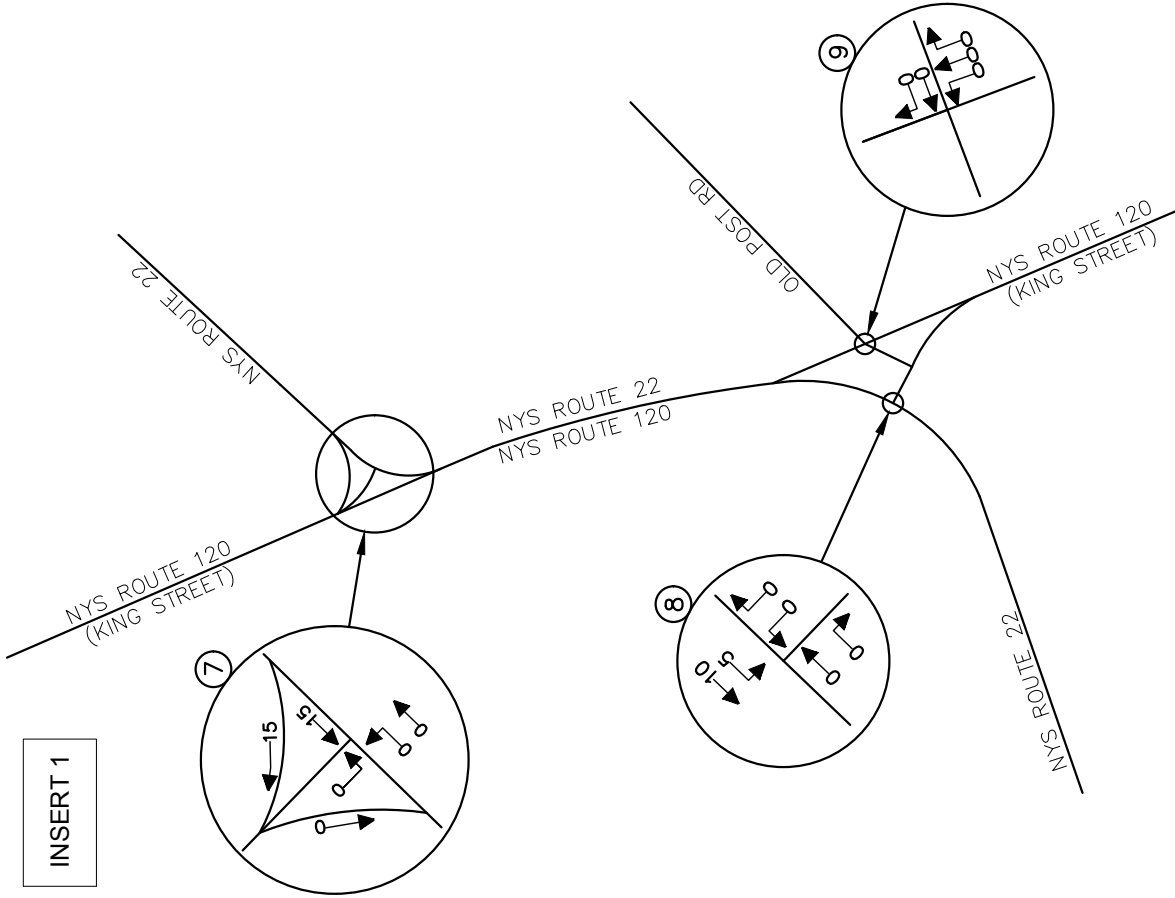
DEPARTURE DISTRIBUTION
(EXPRESSED AS A %)
SHEET NUMBER: 11
FIGURE NO. 11

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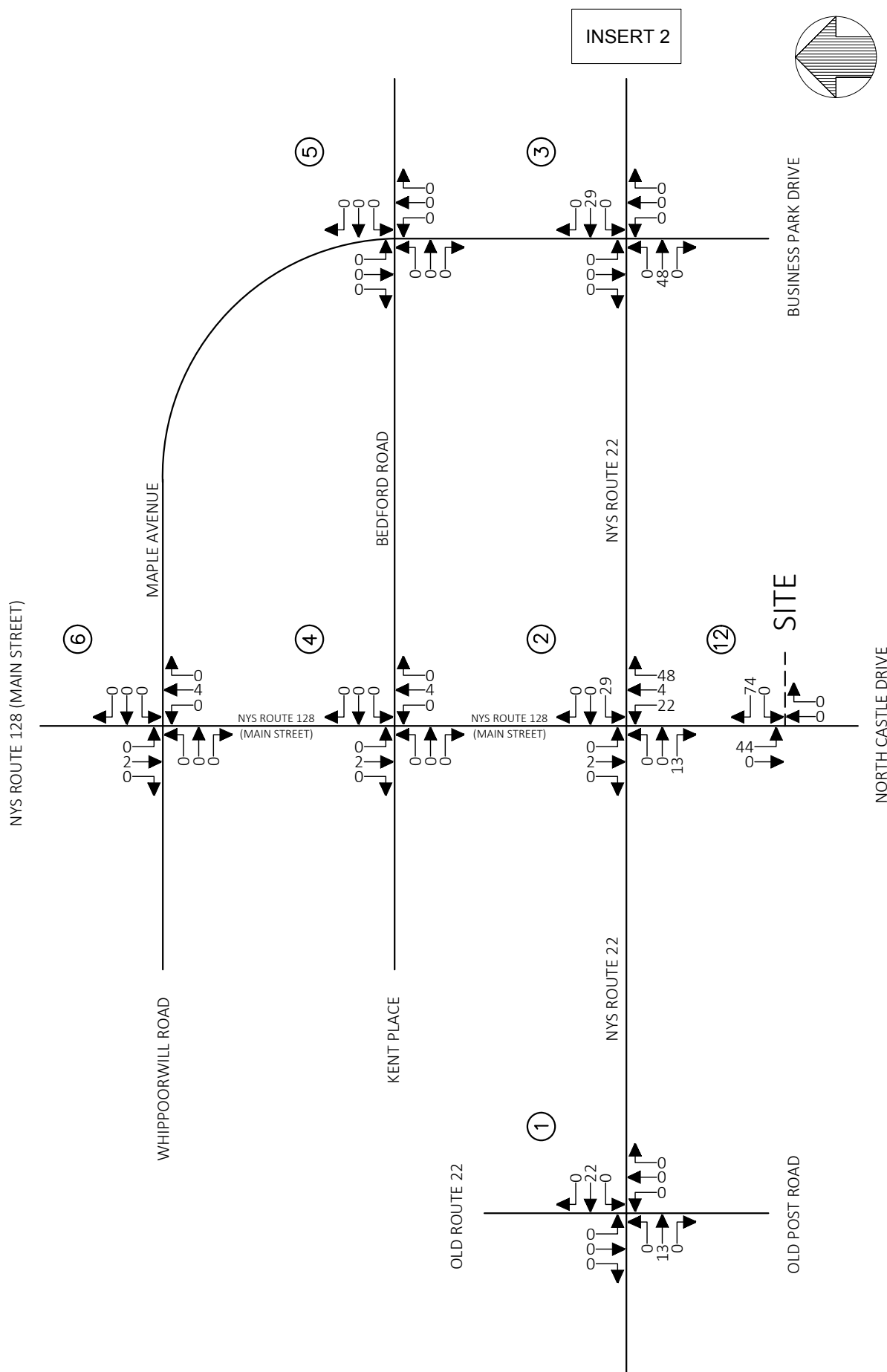
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PROJECT NUMBER: 17005457B
DRAWING NAME: I90218_NT_FIGURES

**DEPARTURE DISTRIBUTION
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SHEET NUMBER: 11A
FIGURE NO. 11A

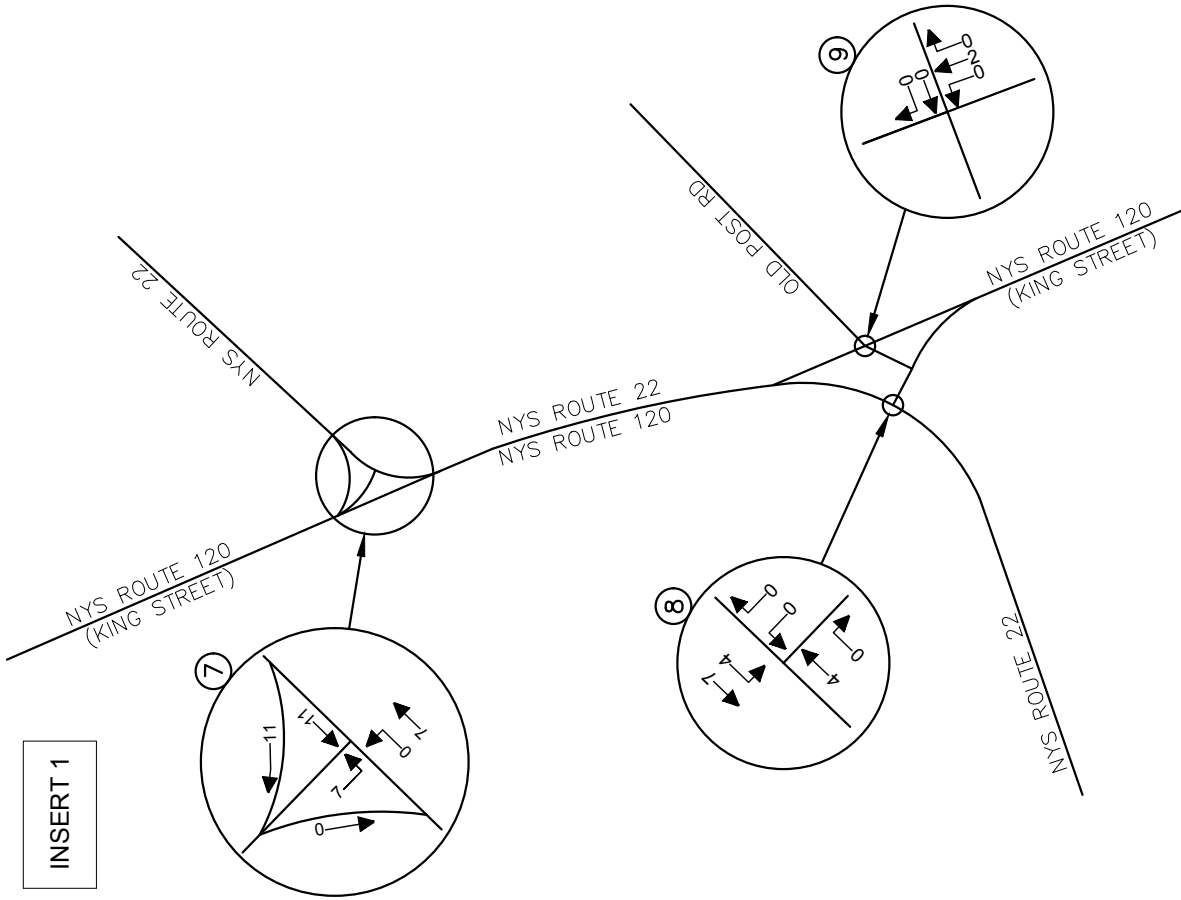


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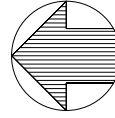
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| PROJECT NUMBER: 17005457B | DRAWING NAME: 190218_NT_FIGURES |
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| SHEET NUMBER: 12A | |

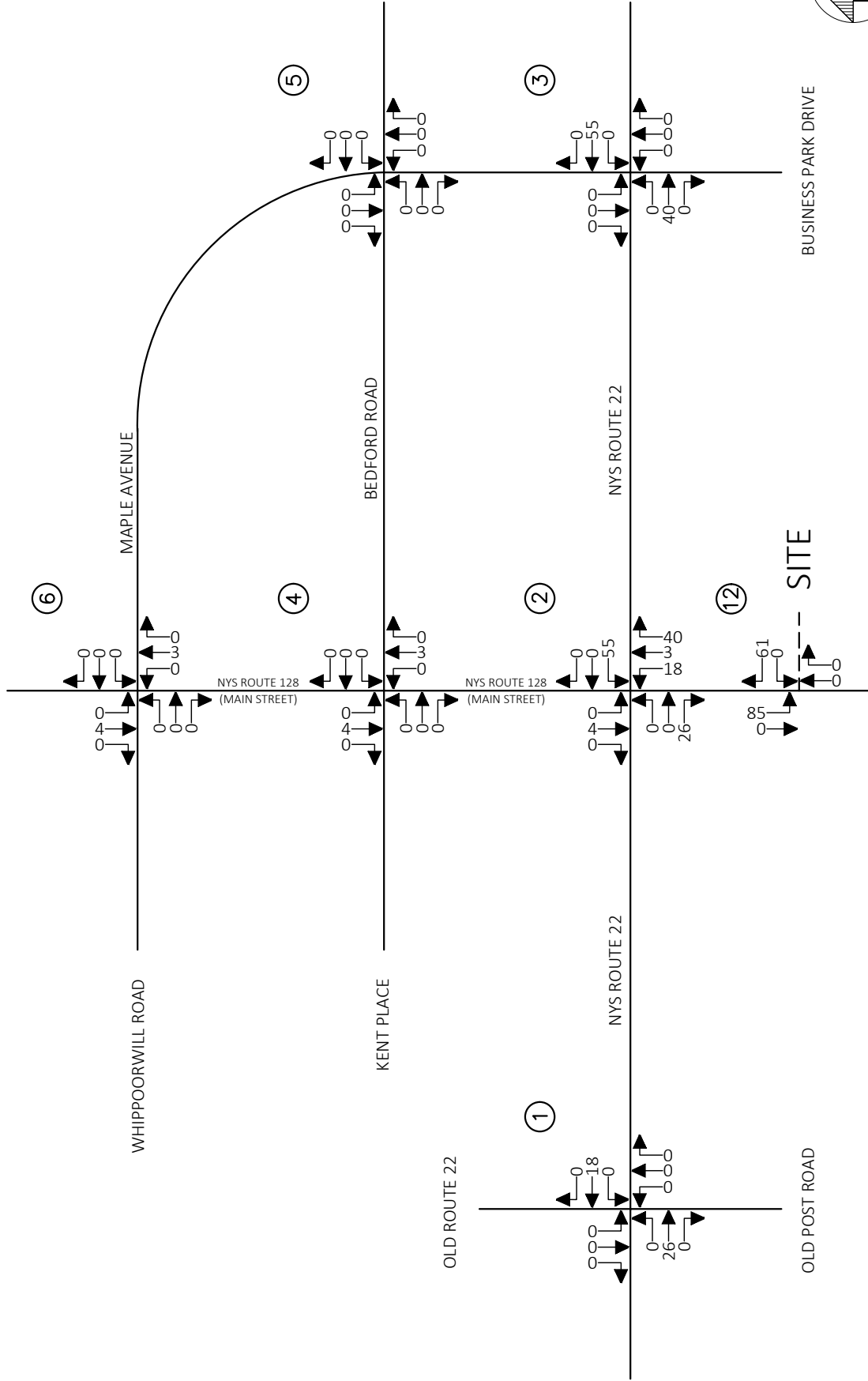
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BUSINESS PARK DRIVE

NORTH CASTLE DRIVE

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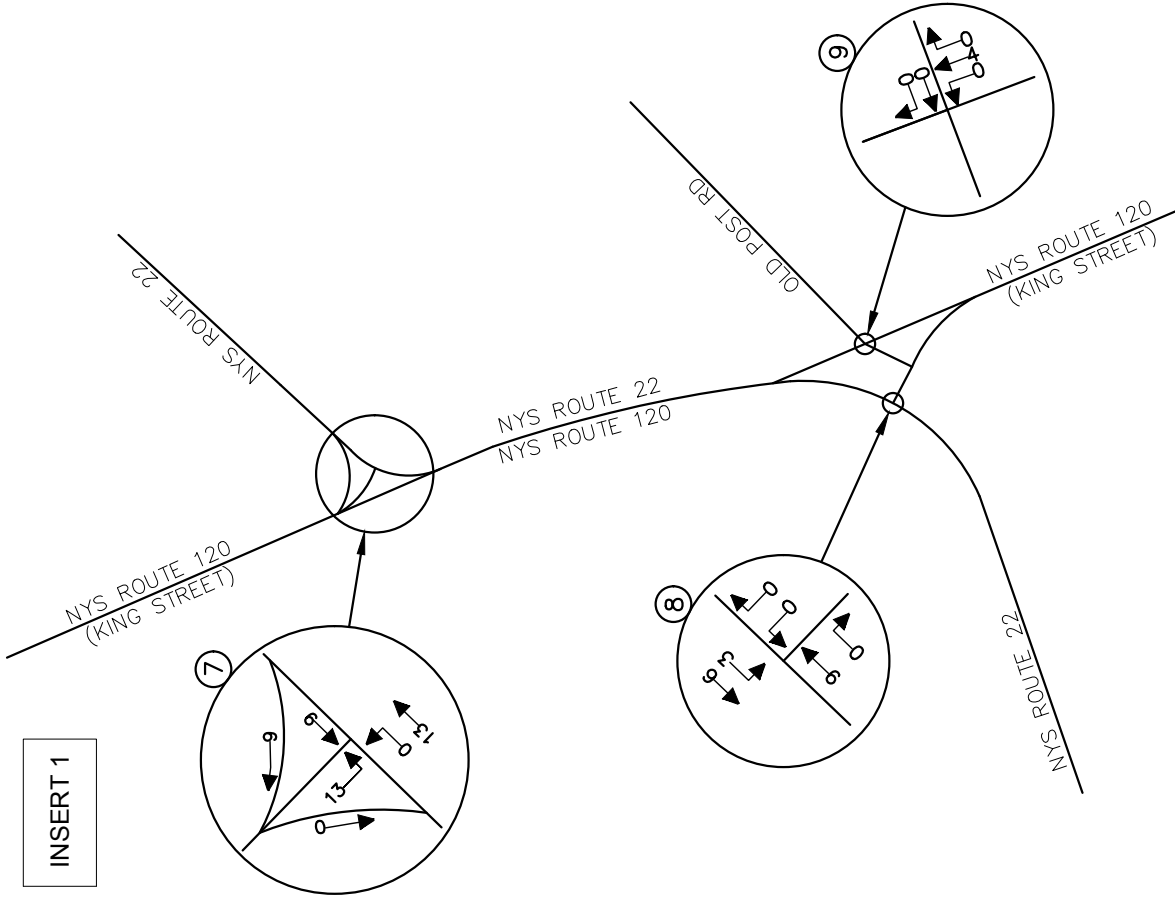


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| PROJECT NUMBER: 17005457B | DRAWING NAME: 190218_NT_FIGURES |
| SHEET TITLE: SITE GENERATED TRAFFIC VOLUMES WEEKDAY PEAK PM HOUR | |
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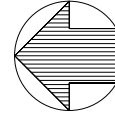
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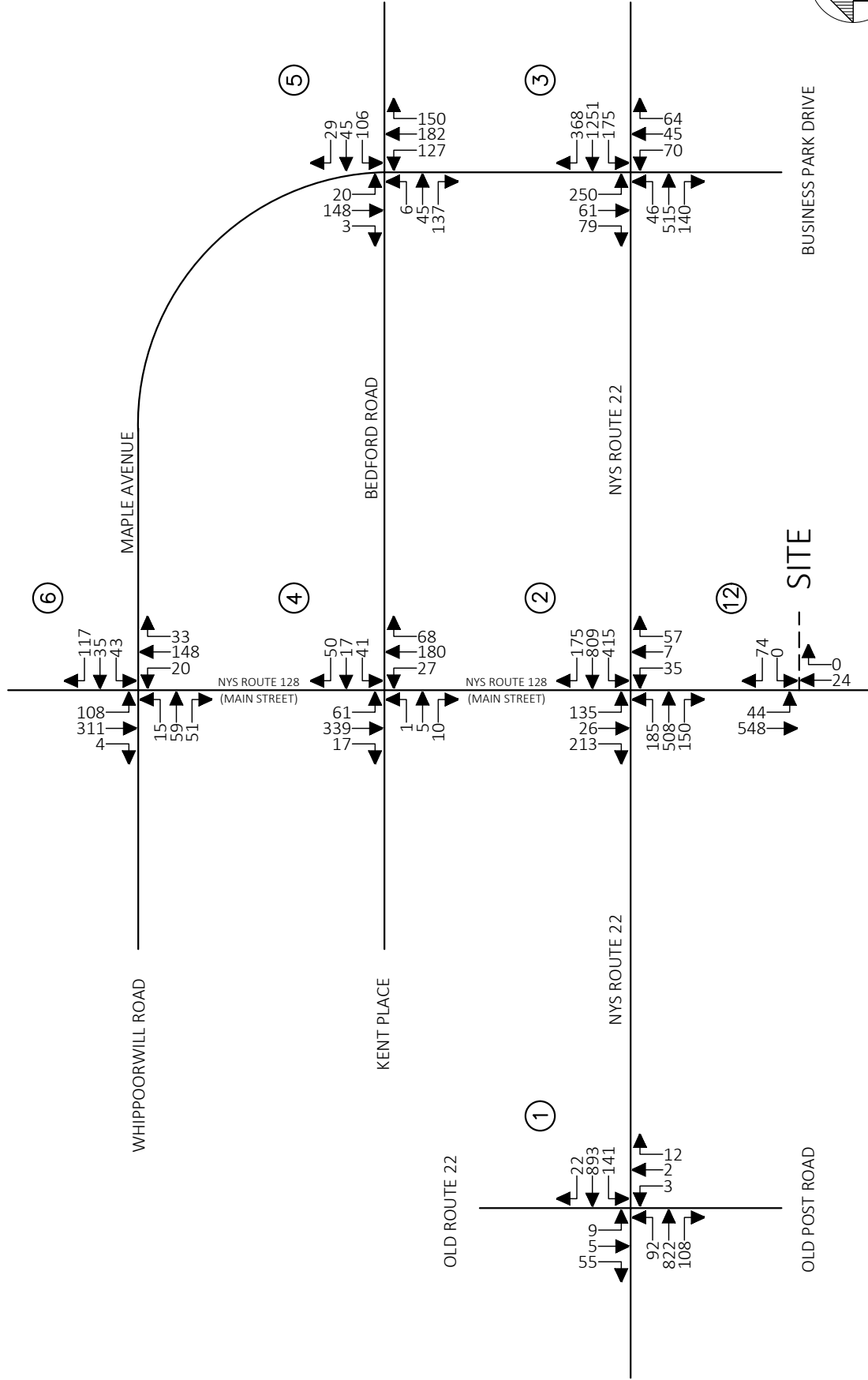
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| DATE: 2/18/2019 | DRAWN BY: N.S.T. |
| PROJECT NUMBER: 170054578 | DRAWING NAME: 190218_NT_FIGURES |
| SHEET TITLE: SITE GENERATED TRAFFIC VOLUMES WEEKDAY PEAK PM HOUR | |
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NYS ROUTE 128 (MAIN STREET)



INSERT 2

BUSINESS PARK DRIVE

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NORTH CASTLE DRIVE

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EAGLE RIDGE

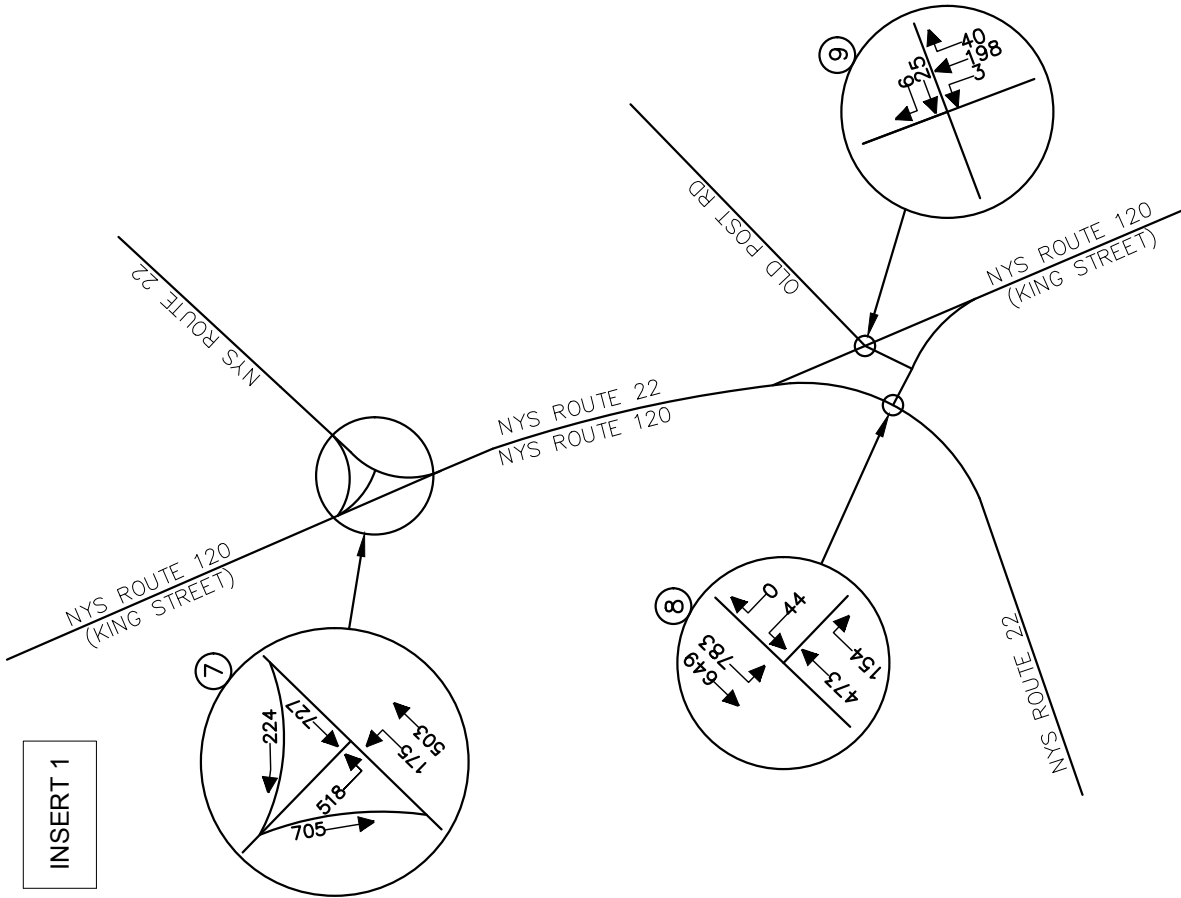
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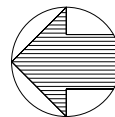
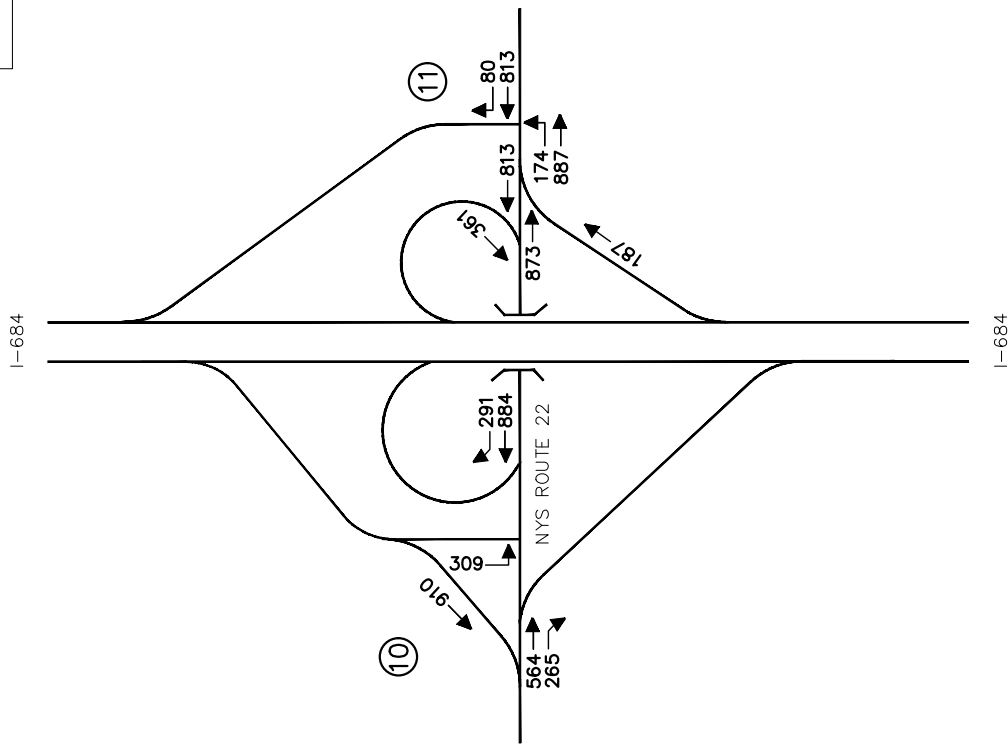
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PROJECT NUMBER: 170054578 DRAWING NAME: 190218_NT_FIGURES
SHEET TITLE: YEAR 2022 BUILD TRAFFIC VOLUMES WEEKDAY PEAK AM HOUR
SHEET NUMBER: FIGURE NO. 14

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NOTE: LINE DIAGRAM NOT TO SCALE

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| TRAFFIC IMPACT STUDY | |
| SCALE | DATE |
| N.T.S. | 2/18/2019 |
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| SHEET TITLE | |
| YEAR 2022 BUILD TRAFFIC VOLUMES | |
| WEEKDAY PEAK AM HOUR | |
| SHEET NUMBER | |
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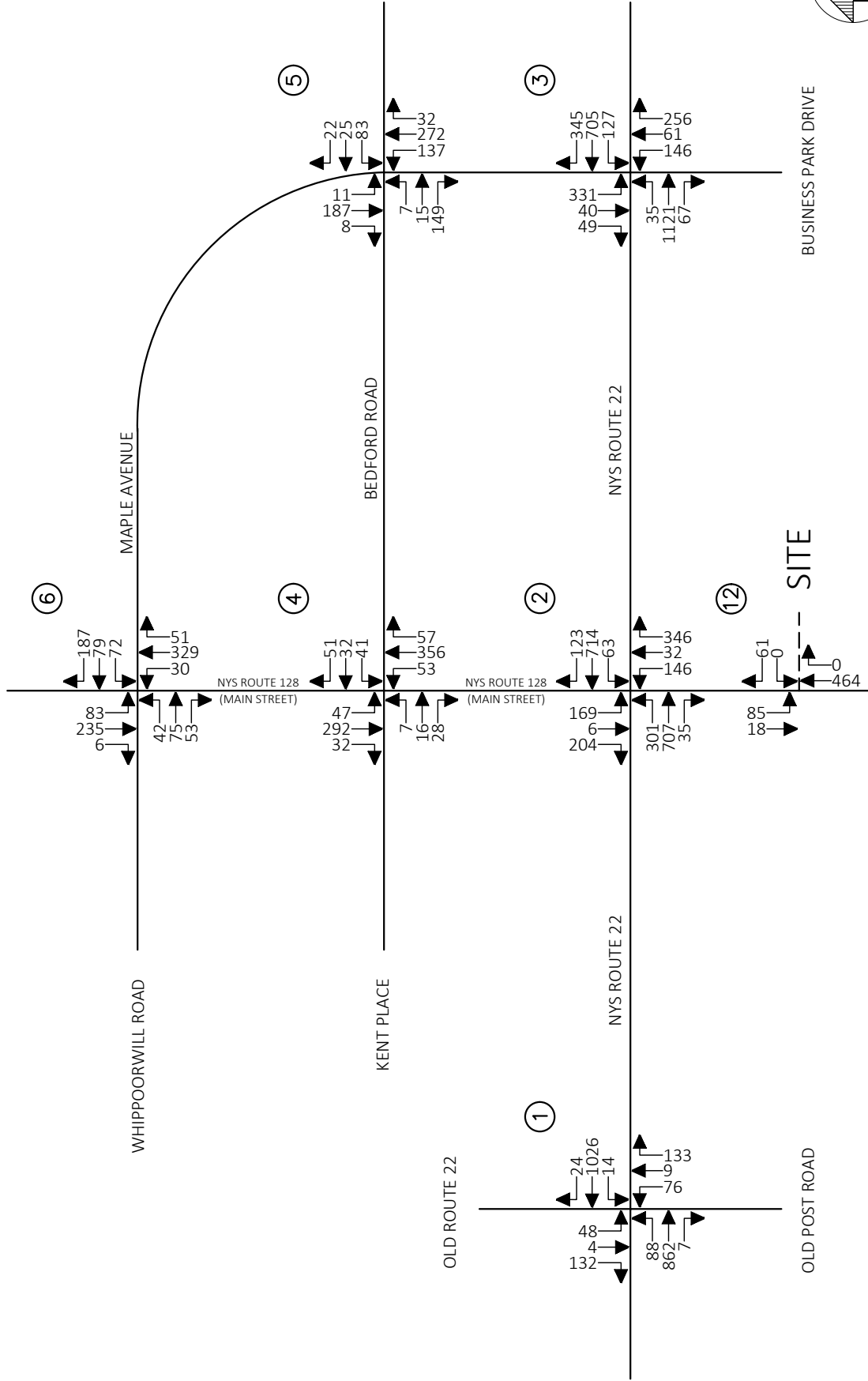
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| <p>EAGLE RIDGE</p> <p>NYS ROUTE 22 & NORTH CASTLE DRIVE TOWN OF NORTH CASTLE WESTCHESTER COUNTY NEW YORK</p> |
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NYS ROUTE 128 (MAIN STREET)



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BUSINESS PARK DRIVE

NORTH CASTLE DRIVE

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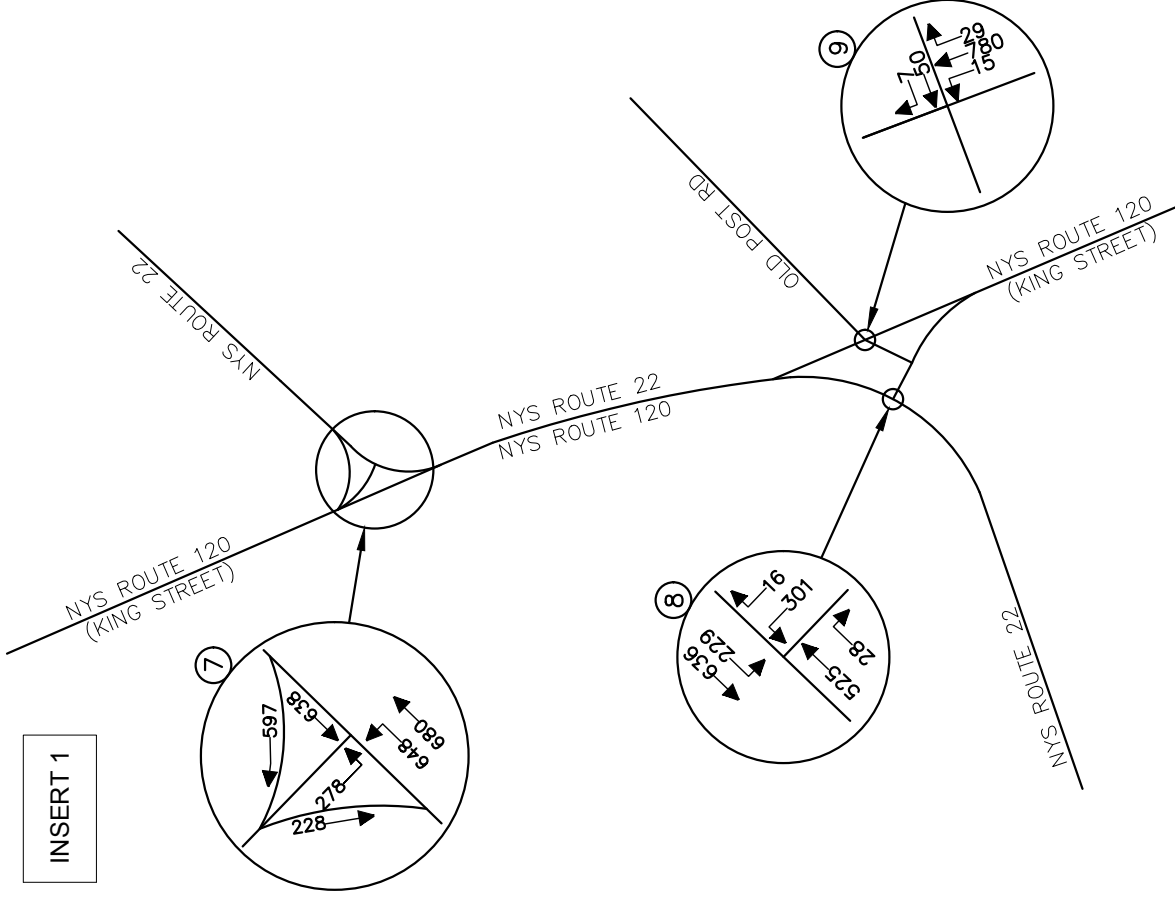
SHEET TITLE: YEAR 2022 BUILD TRAFFIC VOLUMES WEEKDAY PEAK PM HOUR

SHEET NUMBER: 15

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| PROJECT NUMBER | | DRAWING NAME | |
| 17005457B | | 190218_NT_FIGURES | |

SHEET TITLE

YEAR 2022 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER

FIGURE NO. 15A

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EAGLE RIDGE

APPENDIX B

TABLES

TABLE NO. 1
HOURLY TRIP GENERATION RATES &
ANTICIPATED SITE GENERATED TRAFFIC VOLUMES

| EAGLE RIDGE | ENTRY HTGR* VOLUME | EXIT HTGR* VOLUME | TOTAL HTGR* VOLUME |
|---|-------------------------------|------------------------------|-------------------------------|
| HOTEL/CONFERENCE CENTER (1) (91 ROOMS) | | | |
| WEEKDAY PEAK AM HOUR | 0.28 26 | 0.19 17 | 0.47 43 |
| WEEKDAY PEAK PM HOUR | 0.31 28 | 0.29 26 | 0.60 54 |
| APARTMENTS (2) (70 DWELLING UNITS) | | | |
| WEEKDAY PEAK AM HOUR | 0.11 8 | 0.35 24 | 0.46 32 |
| WEEKDAY PEAK PM HOUR | 0.35 24 | 0.21 15 | 0.56 39 |
| TOWNHOUSES (3) (94 DWELLING UNITS) | | | |
| WEEKDAY PEAK AM HOUR | 0.11 10 | 0.35 33 | 0.46 43 |
| WEEKDAY PEAK PM HOUR | 0.35 33 | 0.21 20 | 0.56 53 |
| TOTAL TRIPS | | | |
| WEEKDAY PEAK AM HOUR | ----- 44 | ----- 74 | ----- 118 |
| WEEKDAY PEAK PM HOUR | ----- 85 | ----- 61 | ----- 146 |

THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE)
TRIP GENERATION HANDBOOK - 10TH EDITION
(1) ITE LAND USE 310 - HOTEL
(2) ITE LAND USE 220 - MULTIFAMILY HOUSING
(3) ITE LAND USE 220 - MULTIFAMILY HOUSING

TABLE NO. 2

LEVEL OF SERVICE SUMMARY TABLE

| | LOCATION | | YEAR 2018 EXISTING | | | | | | YEAR 2022 NO-BUILD | | | | | | YEAR 2022 BUILD | | | | | |
|---|--|---------------------|--------------------|-------------|------|------------|-------------|------|--------------------|-------------|------|------------|-------------|------|-----------------|-------------|------|------------|-------------|------|
| | | | WEEKDAY AM | | | WEEKDAY PM | | | WEEKDAY AM | | | WEEKDAY PM | | | WEEKDAY AM | | | WEEKDAY PM | | |
| | | | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C |
| 1 | NYS ROUTE 22 OLD ROUTE 22 / OLD POST ROAD | | | | | | | | | | | | | | | | | | | |
| | SIGNALIZED | | | | | | | | | | | | | | | | | | | |
| | NYS ROUTE 22 | NB L | D | 48.7 | 0.50 | D | 53.3 | 0.50 | D | 48.8 | 0.51 | D | 54.7 | 0.53 | D | 48.8 | 0.51 | D | 54.7 | 0.53 |
| | | NB T | A | 8.7 | 0.35 | A | 8.1 | 0.31 | A | 9.0 | 0.37 | A | 9.3 | 0.37 | A | 9.0 | 0.37 | A | 9.4 | 0.38 |
| | | NB R | A | 1.9 | 0.10 | A | 0.0 | 0.01 | A | 2.0 | 0.10 | A | 0.0 | 0.01 | A | 2.0 | 0.10 | A | 0.0 | 0.01 |
| | | NB APPROACH | B | 11.6 | ---- | B | 12.6 | ---- | B | 11.9 | ---- | B | 13.5 | ---- | B | 11.9 | ---- | B | 13.5 | ---- |
| | NYS ROUTE 22 | SB L | D | 49.6 | 0.62 | D | 49.6 | 0.14 | D | 49.8 | 0.63 | D | 50.4 | 0.16 | D | 49.8 | 0.63 | D | 50.4 | 0.16 |
| | | SB T | A | 7.3 | 0.33 | B | 11.1 | 0.43 | A | 7.7 | 0.38 | B | 12.5 | 0.48 | A | 7.8 | 0.39 | B | 12.6 | 0.48 |
| | | SB R | A | 0.0 | 0.02 | A | 0.0 | 0.02 | A | 0.0 | 0.02 | A | 0.0 | 0.02 | A | 0.0 | 0.02 | A | 0.0 | 0.02 |
| | | SB APPROACH | B | 13.3 | ---- | B | 11.3 | ---- | B | 13.3 | ---- | B | 12.7 | ---- | B | 13.2 | ---- | B | 12.8 | ---- |
| | OLD ROUTE 22 | SEB L-T | D | 40.5 | 0.08 | D | 47.2 | 0.34 | D | 40.6 | 0.08 | D | 48.0 | 0.36 | D | 40.6 | 0.08 | D | 48.0 | 0.36 |
| | | SEB R | C | 31.4 | 0.22 | C | 31.4 | 0.35 | C | 31.4 | 0.23 | C | 30.5 | 0.32 | C | 31.4 | 0.23 | C | 30.5 | 0.32 |
| | | SEB APPROACH | C | 33.3 | ---- | D | 35.9 | ---- | C | 33.2 | ---- | C | 35.4 | ---- | C | 33.2 | ---- | D | 35.4 | ---- |
| | OLD POST ROAD | NWB L-T | D | 40.4 | 0.03 | D | 52.9 | 0.50 | D | 40.6 | 0.03 | D | 54.8 | 0.54 | D | 40.6 | 0.03 | D | 54.8 | 0.54 |
| | | NWB R | A | 5.1 | 0.05 | B | 18.9 | 0.35 | A | 4.8 | 0.05 | C | 23.0 | 0.33 | A | 4.8 | 0.05 | C | 24.1 | 0.33 |
| | | NWB APPROACH | B | 15.5 | ---- | C | 32.1 | ---- | B | 15.3 | ---- | D | 35.4 | ---- | B | 15.3 | ---- | D | 36.1 | ---- |
| | OVERALL | | B | 13.2 | ---- | B | 15.8 | ---- | B | 13.3 | ---- | B | 16.9 | ---- | B | 13.3 | ---- | B | 16.9 | ---- |
| 2 | NYS ROUTE 22 NYS ROUTE 128 / NORTH CASTLE DRIVE (IBM) | | | | | | | | | | | | | | | | | | | |
| | SIGNALIZED | | | | | | | | | | | | | | | | | | | |
| | NYS ROUTE 22 | NEB L | E | 68.1 | 0.75 | E | 66.9 | 0.83 | E | 68.9 | 0.77 | E | 68.6 | 0.85 | E | 69.4 | 0.77 | E | 71.7 | 0.87 |
| | | NEB T | C | 24.4 | 0.34 | A | 9.9 | 0.27 | C | 25.4 | 0.36 | B | 10.2 | 0.30 | C | 25.8 | 0.36 | B | 17.0 | 0.35 |
| | | NEB R | A | 4.4 | 0.18 | A | 0.0 | 0.01 | A | 4.5 | 0.19 | A | 0.0 | 0.01 | A | 4.5 | 0.21 | A | 0.4 | 0.04 |
| | | NEB APPROACH | C | 30.8 | ---- | C | 26.7 | ---- | C | 31.7 | ---- | C | 27.4 | ---- | C | 31.6 | ---- | C | 32.2 | ---- |
| | NYS ROUTE 22 | SWB L | E | 61.8 | 0.85 | E | 61.4 | 0.09 | E | 66.7 | 0.89 | E | 62.1 | 0.09 | E | 79.5 | 0.96 | E | 69.7 | 0.49 |
| | | SWB T | B | 18.8 | 0.40 | C | 26.4 | 0.44 | C | 20.7 | 0.45 | C | 28.0 | 0.48 | C | 21.2 | 0.46 | C | 29.7 | 0.49 |
| | | SWB R | A | 3.3 | 0.19 | A | 5.2 | 0.16 | A | 3.5 | 0.20 | A | 5.1 | 0.17 | A | 3.6 | 0.20 | A | 5.3 | 0.17 |
| | | SWB APPROACH | C | 29.4 | ---- | C | 23.6 | ---- | C | 31.5 | ---- | C | 25.0 | ---- | D | 36.3 | ---- | C | 29.2 | ---- |
| | NYS ROUTE 128 | SB L-T | D | 54.8 | 0.59 | D | 47.4 | 0.53 | D | 54.6 | 0.60 | D | 49.3 | 0.56 | D | 53.8 | 0.59 | D | 47.3 | 0.53 |
| | | SB R | A | 9.5 | 0.47 | A | 7.6 | 0.39 | A | 9.2 | 0.49 | A | 7.5 | 0.41 | A | 9.0 | 0.48 | A | 7.1 | 0.39 |
| | | SB APPROACH | C | 29.6 | ---- | C | 26.0 | ---- | C | 28.6 | ---- | C | 26.6 | ---- | C | 28.3 | ---- | C | 25.7 | ---- |
| | NORTH CASTLE DRIVE (IBM) | NB L | D | 41.8 | 0.09 | D | 51.5 | 0.56 | D | 41.2 | 0.09 | E | 55.5 | 0.61 | D | 46.1 | 0.26 | E | 55.2 | 0.63 |
| | | NB T | D | 39.3 | 0.01 | D | 37.1 | 0.07 | D | 38.7 | 0.01 | D | 37.9 | 0.07 | D | 39.0 | 0.03 | D | 37.1 | 0.07 |
| | | NB R | A | 0.2 | 0.03 | A | 7.6 | 0.51 | A | 0.1 | 0.03 | A | 7.6 | 0.53 | A | 7.9 | 0.18 | A | 7.2 | 0.54 |
| | | NB APPROACH | C | 25.9 | ---- | C | 21.5 | ---- | C | 25.5 | ---- | C | 22.7 | ---- | C | 23.5 | ---- | C | 22.4 | ---- |
| | OVERALL | | C | 29.9 | ---- | C | 24.7 | ---- | C | 31.1 | ---- | C | 25.7 | ---- | C | 33.3 | ---- | C | 28.6 | ---- |

TABLE NO. 2

LEVEL OF SERVICE SUMMARY TABLE

| | LOCATION | YEAR 2018 EXISTING | | | | | | YEAR 2022 NO-BUILD | | | | | | YEAR 2022 BUILD | | | | | |
|---|---|--------------------|---------------|-------|---------------|-------|-----|--------------------|-------|-----|---------------|-------|-----|-----------------|-------|-----|---------------|-------|-----|
| | | WEEKDAY AM | | | WEEKDAY PM | | | WEEKDAY AM | | | WEEKDAY PM | | | WEEKDAY AM | | | WEEKDAY PM | | |
| | | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C |
| 3 | NYS ROUTE 22 MAPLE AVENUE / BUSINESS PARK DRIVE | | | | | | | | | | | | | | | | | | |
| | SIGNALIZED | | | | | | | | | | | | | | | | | | |
| | NYS ROUTE 22 | EB L | D 53.4 | 0.32 | E 59.1 | 0.23 | | E 56.0 | 0.35 | | E 61.2 | 0.27 | | E 56.4 | 0.35 | | E 61.7 | 0.28 | |
| | | EB T-R | C 27.6 | 0.54 | D 40.3 | 0.84 | | C 28.5 | 0.55 | | D 43.0 | 0.88 | | C 29.4 | 0.58 | | D 43.9 | 0.89 | |
| | | EB APPROACH | C 29.4 | ---- | D 40.8 | ---- | | C 30.5 | ---- | | D 43.5 | ---- | | C 31.1 | ---- | | D 44.4 | ---- | |
| | NYS ROUTE 22 | WB L | D 51.2 | 0.61 | E 59.1 | 0.57 | | D 54.8 | 0.64 | | E 61.9 | 0.59 | | D 55.5 | 0.65 | | E 62.6 | 0.60 | |
| | | WB T | C 29.8 | 0.77 | C 21.4 | 0.38 | | C 32.5 | 0.82 | | C 21.6 | 0.39 | | C 32.9 | 0.83 | | C 22.0 | 0.42 | |
| | | WB R | A 8.8 | 0.46 | A 3.2 | 0.35 | | B 10.0 | 0.48 | | A 3.2 | 0.37 | | B 10.3 | 0.48 | | A 3.2 | 0.37 | |
| | | WB APPROACH | C 27.5 | ---- | C 20.3 | ---- | | C 30.0 | ---- | | C 20.5 | ---- | | C 30.4 | ---- | | C 20.8 | ---- | |
| | BUSINESS PARK DRIVE | NB L-T | D 51.6 | 0.47 | E 64.3 | 0.74 | | D 54.7 | 0.51 | | E 67.8 | 0.76 | | D 55.2 | 0.52 | | E 68.9 | 0.77 | |
| | | NB R | A 2.5 | 0.21 | B 10.5 | 0.55 | | A 3.0 | 0.22 | | B 10.6 | 0.56 | | A 3.1 | 0.22 | | B 10.8 | 0.56 | |
| | | NB APPROACH | C 34.0 | ---- | C 34.5 | ---- | | D 36.3 | ---- | | D 36.2 | ---- | | D 36.6 | ---- | | D 36.8 | ---- | |
| | MAPLE AVENUE | SB L | D 54.1 | 0.71 | F 80.6 | 0.93 | | E 58.5 | 0.76 | | F 105.4 | 1.03 | | E 59.5 | 0.77 | | F 110.1 | 1.04 | |
| | | SB T-R | C 32.4 | 0.39 | C 29.7 | 0.23 | | C 33.2 | 0.40 | | C 30.9 | 0.26 | | C 33.4 | 0.41 | | C 31.1 | 0.27 | |
| | | SB APPROACH | D 46.2 | ---- | E 70.0 | ---- | | D 49.4 | ---- | | F 89.6 | ---- | | D 50.1 | ---- | | F 93.3 | ---- | |
| | OVERALL | | C 30.7 | ---- | D 36.5 | ---- | | C 33.0 | ---- | | D 40.4 | ---- | | C 33.5 | ---- | | D 41.2 | ---- | |
| 4 | NYS ROUTE 128 (MAIN STREET) & KENT PLACE/BEDFORD ROAD | | | | | | | | | | | | | | | | | | |
| | UNSIGNALIZED | | | | | | | | | | | | | | | | | | |
| | NYS ROUTE 128 (MAIN STREET) | NB L-T-R | A 8.1 | 0.024 | A 8.1 | 0.043 | | A 8.2 | 0.026 | | A 8.2 | 0.045 | | A 8.2 | 0.026 | | A 8.2 | 0.046 | |
| | NYS ROUTE 128 (MAIN STREET) | SB L-T-R | A 8.0 | 0.049 | A 8.3 | 0.037 | | A 8.0 | 0.052 | | A 8.4 | 0.044 | | A 8.0 | 0.053 | | A 8.4 | 0.044 | |
| | KENT PLACE | EB L-T-R | B 13.7 | 0.040 | C 17.2 | 0.145 | | B 14.4 | 0.043 | | C 18.8 | 0.167 | | B 14.4 | 0.044 | | C 19.0 | 0.168 | |
| | BEDFORD ROAD | WB L-T-R | C 18.4 | 0.285 | C 24.5 | 0.395 | | C 20.3 | 0.333 | | D 29.2 | 0.465 | | C 20.5 | 0.336 | | D 29.7 | 0.470 | |
| 5 | MAPLE AVENUE & BEDFORD ROAD | | | | | | | | | | | | | | | | | | |
| | SIGNALIZED | | | | | | | | | | | | | | | | | | |
| | BEDFORD ROAD | EB L-T-R | C 21.3 | 0.61 | B 13.9 | 0.53 | | C 24.2 | 0.66 | | B 14.3 | 0.55 | | C 24.2 | 0.66 | | B 14.3 | 0.55 | |
| | | EB APPROACH | C 21.3 | ---- | B 13.9 | ---- | | C 24.2 | ---- | | B 14.3 | ---- | | C 24.2 | ---- | | B 14.3 | ---- | |
| | BEDFORD ROAD | WB L-T-R | C 24.4 | 0.45 | B 19.1 | 0.27 | | C 26.8 | 0.52 | | B 19.9 | 0.30 | | C 26.8 | 0.52 | | B 19.9 | 0.30 | |
| | | WB APPROACH | C 24.4 | ---- | B 19.1 | ---- | | C 26.8 | ---- | | B 19.9 | ---- | | C 26.8 | ---- | | B 19.9 | ---- | |
| | MAPLE AVENUE | NB L | B 14.6 | 0.31 | B 12.9 | 0.26 | | B 15.7 | 0.34 | | B 13.4 | 0.30 | | B 15.7 | 0.34 | | B 13.4 | 0.30 | |
| | | NB T-R | B 17.0 | 0.56 | B 14.3 | 0.39 | | B 18.6 | 0.60 | | B 14.6 | 0.41 | | B 18.6 | 0.60 | | B 14.6 | 0.41 | |
| | | NB APPROACH | B 16.3 | ---- | B 13.9 | ---- | | B 17.8 | ---- | | B 14.2 | ---- | | B 17.8 | ---- | | B 14.2 | ---- | |
| | MAPLE AVENUE | SB L-T-R | C 24.5 | 0.45 | C 22.3 | 0.41 | | C 25.7 | 0.47 | | C 22.7 | 0.44 | | C 25.7 | 0.47 | | C 22.7 | 0.44 | |
| | | SB APPROACH | C 24.5 | ---- | C 22.3 | ---- | | C 25.7 | ---- | | C 22.7 | ---- | | C 25.7 | ---- | | C 22.7 | ---- | |
| | OVERALL | | C 20.0 | ---- | B 16.4 | ---- | | C 22.0 | ---- | | B 16.9 | ---- | | C 22.0 | ---- | | B 16.9 | ---- | |
| 6 | NYS ROUTE 128 (MAIN STREET) & WHIPPOORWILL ROAD/MAPLE AVENUE | | | | | | | | | | | | | | | | | | |
| | SIGNALIZED | | | | | | | | | | | | | | | | | | |
| | WHIPPOORWILL ROAD | EB L-T-R | B 10.4 | 0.27 | B 11.1 | 0.31 | | B 11.4 | 0.28 | | B 11.9 | 0.32 | | B 11.4 | 0.28 | | B 12.0 | 0.33 | |
| | | EB APPROACH | B 10.4 | ---- | B 11.1 | ---- | | B 11.4 | ---- | | B 11.9 | ---- | | B 11.4 | ---- | | B 12.0 | ---- | |
| | MAPLE AVENUE | WB L-T-R | B 17.2 | 0.45 | B 19.6 | 0.65 | | B 18.9 | 0.48 | | C 21.3 | 0.68 | | B 19.0 | 0.48 | | C 21.6 | 0.68 | |
| | | WB APPROACH | B 17.2 | ---- | B 19.6 | ---- | | B 18.9 | ---- | | C 21.3 | ---- | | B 19.0 | ---- | | C 21.6 | ---- | |
| | NYS ROUTE 128 (MAIN STREET) | NB L-T-R | A 8.2 | 0.24 | B 16.9 | 0.63 | | A 8.3 | 0.26 | | B 18.3 | 0.67 | | A 8.3 | 0.26 | | B 18.3 | 0.67 | |
| | | NB APPROACH | A 8.2 | ---- | B 16.9 | ---- | | A 8.3 | ---- | | B 18.3 | ---- | | A 8.3 | ---- | | B 18.3 | ---- | |
| | NYS ROUTE 128 (MAIN STREET) | SB L-T-R | B 11.1 | 0.51 | B 15.6 | 0.55 | | B 11.8 | 0.54 | | B 17.0 | 0.60 | | B 11.8 | 0.54 | | B 17.0 | 0.60 | |
| | | SB APPROACH | B 11.1 | ---- | B 15.6 | ---- | | B 11.8 | ---- | | B 17.0 | ---- | | B 11.8 | ---- | | B 17.0 | ---- | |
| | OVERALL | | B 11.6 | ---- | B 16.5 | ---- | | B 12.5 | ---- | | B 17.9 | ---- | | B 12.5 | ---- | | B 18.0 | ---- | |

TABLE NO. 2

LEVEL OF SERVICE SUMMARY TABLE

| | LOCATION | YEAR 2018 EXISTING | | | | | | YEAR 2022 NO-BUILD | | | | | | YEAR 2022 BUILD | | | | | |
|----|--------------------------------------|--------------------|-------|-------|------------|-------|-------|--------------------|-------|-------|------------|-------|-------|-----------------|-------|-------|------------|-------|-------|
| | | WEEKDAY AM | | | WEEKDAY PM | | | WEEKDAY AM | | | WEEKDAY PM | | | WEEKDAY AM | | | WEEKDAY PM | | |
| | | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C |
| 7 | NYS ROUTE 22 & NYS ROUTE 120 (NORTH) | | | | | | | | | | | | | | | | | | |
| | SIGNALIZED | | | | | | | | | | | | | | | | | | |
| | NYS ROUTE 22 NB L | D | 43.4 | 0.57 | F | 122.8 | 1.15 | D | 45.1 | 0.60 | F | 163.9 | 1.26 | D | 45.2 | 0.60 | F | 166.5 | 1.26 |
| | NYS ROUTE 22 NB T | B | 11.1 | 0.27 | A | 8.3 | 0.28 | B | 10.9 | 0.28 | A | 8.8 | 0.32 | B | 10.9 | 0.28 | A | 9.1 | 0.33 |
| | NYS ROUTE 22 NB APPROACH | B | 19.5 | ---- | E | 67.0 | ---- | B | 19.8 | ---- | F | 85.2 | ---- | B | 19.7 | ---- | F | 85.9 | ---- |
| | NYS ROUTE 22 SB T | C | 33.7 | 0.66 | D | 39.6 | 0.70 | D | 35.5 | 0.72 | D | 40.5 | 0.72 | D | 35.8 | 0.73 | D | 41.3 | 0.73 |
| | NYS ROUTE 22 SB R | A | 0.2 | 0.14 | A | 0.8 | 0.40 | A | 0.2 | 0.15 | A | 0.8 | 0.42 | A | 0.2 | 0.15 | A | 0.9 | 0.42 |
| | NYS ROUTE 22 SB APPROACH | C | 25.7 | ---- | C | 20.7 | ---- | C | 27.5 | ---- | C | 21.3 | ---- | C | 27.4 | ---- | C | 21.8 | ---- |
| | NYS ROUTE 120 SEB L | E | 72.4 | 0.99 | D | 49.1 | 0.70 | F | 94.6 | 1.07 | D | 51.5 | 0.73 | F | 99.9 | 1.08 | D | 52.7 | 0.76 |
| | NYS ROUTE 120 SEB R | A | 1.1 | 0.47 | A | 0.2 | 0.15 | A | 1.2 | 0.50 | A | 0.2 | 0.16 | A | 1.2 | 0.50 | A | 0.2 | 0.16 |
| | NYS ROUTE 120 SEB APPROACH | C | 31.4 | ---- | C | 26.3 | ---- | D | 40.5 | ---- | C | 27.8 | ---- | D | 43.1 | ---- | C | 29.0 | ---- |
| | OVERALL | C | 26.7 | ---- | D | 41.2 | ---- | C | 31.3 | ---- | D | 50.1 | ---- | C | 32.3 | ---- | D | 50.7 | ---- |
| 8 | NYS ROUTE 22 & NYS ROUTE 120 (SOUTH) | | | | | | | | | | | | | | | | | | |
| | SIGNALIZED | | | | | | | | | | | | | | | | | | |
| | NYS ROUTE 22 NB T | C | 24.9 | 0.58 | C | 27.7 | 0.68 | C | 27.3 | 0.61 | C | 27.8 | 0.69 | C | 27.4 | 0.61 | C | 27.9 | 0.69 |
| | NYS ROUTE 22 NB R | A | 6.0 | 0.18 | A | 1.9 | 0.03 | A | 8.7 | 0.22 | A | 1.9 | 0.03 | A | 8.8 | 0.22 | A | 1.9 | 0.03 |
| | NYS ROUTE 22 NB APPROACH | C | 20.5 | ---- | C | 26.4 | ---- | C | 22.7 | ---- | C | 26.5 | ---- | C | 22.8 | ---- | C | 26.6 | ---- |
| | NYS ROUTE 22 SB L | C | 23.6 | 0.69 | C | 27.8 | 0.40 | C | 25.1 | 0.74 | C | 28.8 | 0.44 | C | 25.2 | 0.74 | C | 29.0 | 0.44 |
| | NYS ROUTE 22 SB T | A | 5.0 | 0.29 | B | 10.6 | 0.39 | A | 4.9 | 0.30 | B | 10.6 | 0.41 | A | 5.0 | 0.30 | B | 10.5 | 0.41 |
| | NYS ROUTE 22 SB APPROACH | B | 14.8 | ---- | B | 15.0 | ---- | B | 16.0 | ---- | B | 15.4 | ---- | B | 16.0 | ---- | B | 15.4 | ---- |
| | NYS ROUTE 120 WB L-R | C | 28.3 | 0.15 | C | 26.4 | 0.60 | C | 31.0 | 0.17 | C | 29.8 | 0.67 | C | 31.2 | 0.17 | C | 30.1 | 0.67 |
| | NYS ROUTE 120 WB APPROACH | C | 28.3 | ---- | C | 26.4 | ---- | C | 31.0 | ---- | C | 29.8 | ---- | C | 31.2 | ---- | C | 30.1 | ---- |
| | OVERALL | B | 16.9 | ---- | C | 20.7 | ---- | B | 18.3 | ---- | C | 21.6 | ---- | B | 18.4 | ---- | C | 21.7 | ---- |
| 9 | KING STREET & OLD POST ROAD | | | | | | | | | | | | | | | | | | |
| | UNSIGNALIZED | | | | | | | | | | | | | | | | | | |
| | OLD POST ROAD WB T-R | A | 9.4 | 0.040 | C | 15.6 | 0.167 | A | 9.6 | 0.043 | C | 17.8 | 0.200 | A | 9.6 | 0.043 | C | 17.9 | 0.201 |
| 10 | NYS ROUTE 22 & I-684 SB ON/OFF RAMP | | | | | | | | | | | | | | | | | | |
| | SIGNALIZED | | | | | | | | | | | | | | | | | | |
| | NYS ROUTE 22 EB T | A | 6.8 | 0.23 | A | 3.7 | 0.47 | A | 7.2 | 0.25 | A | 4.1 | 0.50 | A | 7.3 | 0.27 | A | 4.2 | 0.51 |
| | NYS ROUTE 22 EB R | A | 0.2 | 0.16 | A | 0.3 | 0.19 | A | 0.3 | 0.18 | A | 0.3 | 0.20 | A | 0.3 | 0.19 | A | 0.3 | 0.21 |
| | NYS ROUTE 22 EB APPROACH | A | 4.7 | ---- | A | 3.1 | ---- | A | 5.0 | ---- | A | 3.5 | ---- | A | 5.0 | ---- | A | 3.5 | ---- |
| | NYS ROUTE 22 WB T | A | 7.7 | 0.37 | A | 2.9 | 0.30 | A | 8.3 | 0.40 | A | 3.1 | 0.32 | A | 8.3 | 0.40 | A | 3.1 | 0.34 |
| | NYS ROUTE 22 WB R | A | 0.3 | 0.18 | A | 0.1 | 0.08 | A | 0.3 | 0.20 | A | 0.1 | 0.09 | A | 0.3 | 0.20 | A | 0.1 | 0.09 |
| | NYS ROUTE 22 WB APPROACH | A | 5.9 | ---- | A | 2.5 | ---- | A | 6.3 | ---- | A | 2.7 | ---- | A | 6.3 | ---- | A | 2.8 | ---- |
| | I-684 SB OFF RAMP SB L (NYS 22 EB) | D | 47.6 | 0.77 | D | 46.7 | 0.40 | D | 46.9 | 0.77 | D | 47.0 | 0.42 | D | 46.9 | 0.77 | D | 47.0 | 0.42 |
| | I-684 SB OFF RAMP SB R (NYS 22 WB) | A | 0.9 | 0.49 | A | 0.2 | 0.14 | A | 1.1 | 0.52 | A | 0.2 | 0.15 | A | 1.1 | 0.53 | A | 0.2 | 0.16 |
| | I-684 SB OFF RAMP SB APPROACH | B | 13.1 | ---- | A | 9.9 | ---- | B | 12.8 | ---- | B | 10.1 | ---- | B | 12.7 | ---- | A | 9.4 | ---- |
| | OVERALL | A | 8.4 | ---- | A | 3.6 | ---- | A | 8.5 | ---- | A | 3.9 | ---- | A | 8.4 | ---- | A | 3.9 | ---- |
| 11 | NYS ROUTE 22 & I-684 NB ON/OFF RAMP | | | | | | | | | | | | | | | | | | |
| | SIGNALIZED | | | | | | | | | | | | | | | | | | |
| | NYS ROUTE 22 EB L | E | 58.3 | 0.52 | D | 48.3 | 0.82 | E | 58.4 | 0.55 | D | 47.0 | 0.83 | E | 58.4 | 0.59 | D | 46.8 | 0.83 |
| | NYS ROUTE 22 EB T | A | 0.2 | 0.25 | A | 0.2 | 0.33 | A | 0.2 | 0.27 | A | 0.3 | 0.36 | A | 0.2 | 0.27 | A | 0.3 | 0.36 |
| | NYS ROUTE 22 EB APPROACH | A | 8.3 | ---- | B | 18.9 | ---- | A | 8.7 | ---- | B | 18.5 | ---- | A | 9.7 | ---- | B | 18.6 | ---- |
| | NYS ROUTE 22 WB T | A | 2.9 | 0.27 | B | 10.7 | 0.30 | A | 3.2 | 0.30 | B | 12.0 | 0.33 | A | 3.4 | 0.30 | B | 12.4 | 0.33 |
| | NYS ROUTE 22 WB R | A | 2.5 | 0.06 | B | 11.1 | 0.26 | A | 2.6 | 0.07 | B | 12.4 | 0.28 | A | 2.8 | 0.07 | B | 12.7 | 0.28 |
| | NYS ROUTE 22 WB APPROACH | A | 2.9 | ---- | B | 10.8 | ---- | A | 3.1 | ---- | B | 12.1 | ---- | A | 3.4 | ---- | B | 12.5 | ---- |
| | I-684 NB OFF RAMP SB R (NYS 22 WB) | A | 0.3 | 0.22 | A | 0.4 | 0.24 | A | 0.3 | 0.23 | A | 0.4 | 0.25 | A | 0.4 | 0.24 | A | 0.4 | 0.27 |
| | I-684 NB OFF RAMP SB APPROACH | A | 0.3 | ---- | A | 0.4 | ---- | A | 0.3 | ---- | A | 0.4 | ---- | A | 0.4 | ---- | A | 0.4 | ---- |
| | OVERALL | A | 4.9 | ---- | B | 14.4 | ---- | A | 5.3 | ---- | B | 14.6 | ---- | A | 5.8 | ---- | B | 14.7 | ---- |

TABLE NO. 2

LEVEL OF SERVICE SUMMARY TABLE

| | LOCATION | YEAR 2018 EXISTING | | | | | | YEAR 2022 NO-BUILD | | | | | | YEAR 2022 BUILD | | | | | |
|----|---|--------------------|-------|-----|------------|-------|-----|--------------------|-------|-----|------------|-------|-----|-----------------|-------|-------|------------|-------|-------|
| | | WEEKDAY AM | | | WEEKDAY PM | | | WEEKDAY AM | | | WEEKDAY PM | | | WEEKDAY AM | | | WEEKDAY PM | | |
| | | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C | LOS | DELAY | V/C |
| 12 | NEW CASTLE DRIVE & PROPOSED SITE DRIVEWAY UNSIGNALIZED NEW CASTLE DRIVE SB L-T PROPOSED SITE DRIVEWAY WB L-R | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | A | 7.3 | 0.030 | A | 8.7 | 0.087 |
| | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | A | 8.7 | 0.076 | B | 10.3 | 0.089 |

THE ABOVE REPRESENTS THE LEVELS OF SERVICE, VEHICLE DELAY IN SECONDS AND VOLUME-TO-CAPACITY (V/C) RATIO FOR THE ABOVE INTERSECTIONS.

TABLE NO. 3

LEVEL OF SERVICE SUMMARY TABLE

| | LOCATION | STORAGE LENGTH (FT.) | YEAR 2018 EXISTING | | | | YEAR 2022 NO-BUILD | | | | YEAR 2022 BUILD | | | |
|---|---|---|--|--|---|---|--|--|--|--|---|--|---|---|
| | | | WEEKDAY AM | | WEEKDAY PM | | WEEKDAY AM | | WEEKDAY PM | | WEEKDAY AM | | WEEKDAY PM | |
| | | | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% |
| 1 | NYS ROUTE 22 OLD ROUTE 22 / OLD POST ROAD SIGNALIZED NYS ROUTE 22 NB L NB T NB R NYS ROUTE 22 SB L SB T SB R OLD ROUTE 22 SEB L-T SEB R OLD POST ROAD NWB L-T NWB R | 350' 500'+ 230' 315' 500'+ 155' 150' 150' 500'+ 125' | 44' 63' 0' 68' 55' 0' 6' 26' 2' 0' | 105' 190' 20' 144' 172' 0' 28' 57' 14' 7' | 52' 96' 0' 8' 154' 0' 30' 69' 114' 102' 32' | 105' 156' 0' 28' 250' 0' 69' 114' 102' 83' | 46' 68' 0' 70' 65' 0' 6' 27' 2' 0' | 108' 205' 21' 149' 202' 0' 28' 59' 15' 7' | 54' 115' 0' 9' 170' 0' 31' 72' 68' 46' | 109' 184' 0' 30' 275' 0' 72' 118' 106' 100' | 46' 70' 0' 70' 68' 0' 6' 27' 2' 0' | 108' 210' 21' 149' 208' 0' 28' 59' 15' 7' | 54' 121' 0' 9' 174' 0' 31' 68' 53' 49' | 109' 191' 0' 30' 282' 0' 72' 118' 106' 103' |
| 2 | NYS ROUTE 22 NYS ROUTE 128 / NORTH CASTLE DRIVE (IBM) SIGNALIZED NYS ROUTE 22 NEB L NEB T NEB R NYS ROUTE 22 SWB L SWB T SWB R NYS ROUTE 128 SB L-T SB R NORTH CASTLE DRIVE (IBM) NB L NB T NB R | 680' 500'+ 350' 400' 500'+ 250' 500'+ 250' 0' 500'+ 0' 0' 500'+ 500' | 135' 132' 0' 282' 173' 0' 110' 0' 8' 2' 0' | 212' 191' 40' #482' 274' 40' 181' 62' 26' 10' 0' | 201' 93' 0' 5' 192' 0' 111' 0' 84' 17' 0' | 319' 187' 0' 23' 294' 39' 192' 60' 157' 44' 71' | 144' 143' 0' 298' 205' 0' 117' 0' 8' 2' 0' | 225' 208' 42' #523' 327' 43' 189' 65' 26' 10' 0' | 232' 111' 0' 5' 222' 0' 121' 0' 92' 18' 0' | #392' 221' 0' 23' 322' 42' 200' 60' 164' 45' 72' | 145' 146' 0' 331' 211' 0' 119' 0' 24' 4' 0' | 225' 208' 43' #577' 328' 0' 192' 65' 57' 18' 28' | 240' 171' 0' 52' 235' 43' 126' 0' 107' 20' 0' | #407' 262' 3' 104' 334' 43' 202' 60' 184' 48' 74' |

TABLE NO. 3

LEVEL OF SERVICE SUMMARY TABLE

| | LOCATION | STORAGE LENGTH (FT.) | YEAR 2018 EXISTING | | | | YEAR 2022 NO-BUILD | | | | YEAR 2022 BUILD | | | |
|---|---|----------------------------|--------------------|-------|------------|-------|--------------------|-------|------------|-------|-----------------|-------|------------|-------|
| | | | WEEKDAY AM | | WEEKDAY PM | | WEEKDAY AM | | WEEKDAY PM | | WEEKDAY AM | | WEEKDAY PM | |
| | | | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% |
| 3 | NYS ROUTE 22 MAPLE AVENUE / BUSINESS PARK DRIVE | | | | | | | | | | | | | |
| | SIGNALIZED | | | | | | | | | | | | | |
| | NYS ROUTE 22 EB L | 575' | 29' | 72' | 22' | 59' | 33' | 76' | 28' | 66' | 34' | 76' | 29' | 66' |
| | EB T-R | 500'+ | 157' | 237' | 390' | 533' | 172' | 257' | 457' | 598' | 191' | 282' | 480' | #631' |
| | NYS ROUTE 22 WB L | 265' | 110' | 206' | 90' | 168' | 127' | 216' | 103' | 174' | 127' | 216' | 104' | 174' |
| | WB T | 500'+ | 357' | 510' | 170' | 235' | 408' | 581' | 189' | 254' | 424' | 602' | 210' | 280' |
| | WB R | 225' | 45' | 134' | 0' | 52' | 57' | 158' | 0' | 55' | 60' | 162' | 0' | 55' |
| | BUSINESS PARK DRIVE NB L-T | 425' | 74' | 146' | 148' | #262' | 85' | 151' | 168' | #287' | 85' | 151' | 171' | #287' |
| | NB R | 125' | 0' | 6' | 0' | 78' | 0' | 8' | 1' | 80' | 0' | 8' | 1' | 81' |
| | MAPLE AVENUE SB L | 100' | 146' | #302' | 244' | #515' | 184' | #354' | ~319' | #553' | 184' | #354' | ~328' | #553' |
| | SB T-R | 470' | 55' | 131' | 31' | 89' | 66' | 143' | 38' | 95' | 66' | 143' | 39' | 95' |
| 4 | NYS ROUTE 128 (MAIN STREET) & KENT PLACE/BEDFORD ROAD | | | | | | | | | | | | | |
| | UNSIGNALIZED | | | | | | | | | | | | | |
| | NYS ROUTE 128 (MAIN STREET) NB L-T-R | 430' | -- | 3' | -- | 3' | -- | 3' | -- | 3' | -- | 3' | -- | 3' |
| | NYS ROUTE 128 (MAIN STREET) SB L-T-R | 500' | -- | 5' | -- | 3' | -- | 5' | -- | 3' | -- | 5' | -- | 3' |
| | KENT PLACE EB L-T-R | 500'+ | -- | 3' | -- | 13' | -- | 3' | -- | 15' | -- | 3' | -- | 15' |
| | BEDFORD ROAD WB L-T-R | 500' | -- | 30' | -- | 45' | -- | 35' | -- | 58' | -- | 35' | -- | 60' |
| 5 | MAPLE AVENUE & BEDFORD ROAD | | | | | | | | | | | | | |
| | SIGNALIZED | | | | | | | | | | | | | |
| | BEDFORD ROAD EB L-T-R | 260' | 23' | 89' | 5' | 60' | 32' | 109' | 7' | 65' | 32' | 109' | 7' | 65' |
| | BEDFORD ROAD WB L-T-R | 360' | 49' | 119' | 30' | 77' | 60' | 144' | 34' | 88' | 60' | 144' | 34' | 88' |
| | MAPLE AVENUE NB L | 50' | 27' | 82' | 22' | 74' | 30' | 87' | 25' | 84' | 30' | 87' | 25' | 84' |
| | NB T-R | 470' | 72' | 202' | 60' | 171' | 83' | 221' | 64' | 184' | 83' | 221' | 64' | 184' |
| | MAPLE AVENUE SB L-T-R | 500'+ | 52' | 132' | 54' | 141' | 57' | 139' | 58' | 151' | 57' | 139' | 58' | 151' |
| 6 | NYS ROUTE 128 (MAIN STREET) & WHIPPOORWILL ROAD/MAPLE AVENUE | | | | | | | | | | | | | |
| | SIGNALIZED | | | | | | | | | | | | | |
| | WHIPPOORWILL ROAD EB L-T-R | 500'+ | 11' | 53' | 23' | 72' | 13' | 61' | 26' | 81' | 13' | 61' | 27' | 81' |
| | MAPLE AVENUE WB L-T-R | 190' | 31' | 103' | 67' | 172' | 37' | 121' | 76' | 196' | 37' | 122' | 77' | 197' |
| | NYS ROUTE 128 (MAIN STREET) NB L-T-R | 500' | 22' | 68' | 72' | 181' | 26' | 77' | 88' | 200' | 26' | 78' | 89' | 202' |
| | NYS ROUTE 128 (MAIN STREET) SB L-T-R | 355' | 57' | 160' | 54' | 143' | 68' | 191' | 67' | 158' | 69' | 192' | 68' | 160' |

TABLE NO. 3

LEVEL OF SERVICE SUMMARY TABLE

| | LOCATION | STORAGE LENGTH (FT.) | YEAR 2018 EXISTING | | | | YEAR 2022 NO-BUILD | | | | YEAR 2022 BUILD | | | |
|----|--|----------------------------|--------------------|-------|------------|-------|--------------------|-------|------------|-------|-----------------|-------|------------|-------|
| | | | WEEKDAY AM | | WEEKDAY PM | | WEEKDAY AM | | WEEKDAY PM | | WEEKDAY AM | | WEEKDAY PM | |
| | | | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% |
| 7 | NYS ROUTE 22 & NYS ROUTE 120 (NORTH) SIGNALIZED | | | | | | | | | | | | | |
| | NYS ROUTE 22 NB L | 250' | 94' | 170' | ~523' | #862' | 103' | 180' | ~620' | #925' | 103' | 180' | ~638' | #925' |
| | NYS ROUTE 22 NB T | 500'+ | 74' | 100' | 84' | 129' | 79' | 106' | 105' | 151' | 80' | 107' | 112' | 155' |
| | NYS ROUTE 22 SB T | 500'+ | 177' | 261' | 201' | 282' | 213' | 310' | 223' | 303' | 217' | 315' | 231' | 308' |
| | NYS ROUTE 22 SB R | 700' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' |
| | NYS ROUTE 120 SEB L | 200' | ~308' | #621' | 164' | 272' | ~368' | #662' | 183' | 291' | ~380' | #674' | 196' | 306' |
| | NYS ROUTE 120 SEB R | 500'+ | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' |
| 8 | NYS ROUTE 22 & NYS ROUTE 120 (SOUTH) SIGNALIZED | | | | | | | | | | | | | |
| | NYS ROUTE 22 NB T | 500'+ | 83' | 146' | 114' | 157' | 95' | 171' | 121' | 168' | 96' | 173' | 124' | 172' |
| | NYS ROUTE 22 NB R | 200' | 13' | 46' | 0' | 7' | 24' | 68' | 0' | 7' | 25' | 69' | 0' | 7' |
| | NYS ROUTE 22 SB L | 215' | 121' | 200' | 46' | 78' | 148' | 254' | 53' | 88' | 150' | 258' | 54' | 89' |
| | NYS ROUTE 22 SB T | 500'+ | 46' | 65' | 87' | 112' | 49' | 78' | 93' | 117' | 50' | 80' | 94' | 118' |
| | NYS ROUTE 120 WB L-R | 500'+ | 14' | 47' | 121' | 211' | 17' | 54' | 136' | #245' | 17' | 54' | 137' | #250' |
| 9 | KING STREET & OLD POST ROAD UNSIGNALIZED | | | | | | | | | | | | | |
| | OLD POST ROAD WB T-R | 500'+ | -- | 3' | -- | 15' | -- | 3' | -- | 18' | -- | 3' | -- | 18' |
| 10 | NYS ROUTE 22 & I-684 SB ON/OFF RAMP SIGNALIZED | | | | | | | | | | | | | |
| | NYS ROUTE 22 EB T | 500'+ | 54' | 94' | 110' | 168' | 62' | 104' | 127' | 196' | 66' | 111' | 132' | 203' |
| | NYS ROUTE 22 EB R | 500'+ | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' |
| | NYS ROUTE 22 WB T | 500'+ | 101' | 163' | 58' | 91' | 114' | 181' | 65' | 102' | 116' | 186' | 67' | 106' |
| | NYS ROUTE 22 WB R | 1000'+ | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' |
| | I-684 SB OFF RAMP SB L (NYS 22 EB) | 200' | 173' | 244' | 36' | 74' | 180' | 253' | 40' | 80' | 180' | 253' | 40' | 80' |
| | I-684 SB OFF RAMP SB R (NYS 22 WB) | 500'+ | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' |
| 11 | NYS ROUTE 22 & I-684 NB ON/OFF RAMP SIGNALIZED | | | | | | | | | | | | | |
| | NYS ROUTE 22 EB L | 400' | 52' | 84' | 276' | 319' | 59' | 91' | 294' | 340' | 68' | 102' | 302' | 346' |
| | NYS ROUTE 22 EB T | 500'+ | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' |
| | NYS ROUTE 22 WB T | 400' | 56' | 85' | 109' | 168' | 64' | 97' | 127' | 190' | 68' | 103' | 132' | 195' |
| | NYS ROUTE 22 WB R | 200' | 9' | 20' | 82' | 148' | 10' | 22' | 93' | 164' | 10' | 23' | 94' | 166' |
| | I-684 NB OFF RAMP SB R (NYS 22 WB) | 500'+ | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' | 0' |

TABLE NO. 3

LEVEL OF SERVICE SUMMARY TABLE

| | LOCATION | STORAGE LENGTH (FT.) | YEAR 2018 EXISTING | | | | YEAR 2022 NO-BUILD | | | | YEAR 2022 BUILD | | | |
|----|---|----------------------------|--------------------|-----|------------|-----|--------------------|-----|------------|-----|-----------------|----------|------------|----------|
| | | | WEEKDAY AM | | WEEKDAY PM | | WEEKDAY AM | | WEEKDAY PM | | WEEKDAY AM | | WEEKDAY PM | |
| | | | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% | 50% | 95% |
| 12 | NEW CASTLE DRIVE & PROPOSED SITE DRIVEWAY UNSIGNALIZED NEW CASTLE DRIVE SB L-T PROPOSED SITE DRIVEWAY WB L-R | 345' | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3' 5' | -- -- | 8' 8' |

THE ABOVE REPRESENTS THE LEVELS OF SERVICE, VEHICLE DELAY IN SECONDS AND VOLUME-TO-CAPACITY (V/C) RATIO FOR THE ABOVE INTERSECTIONS.

TABLE NO. 4

ACCIDENT SUMMARY TABLE

NYS ROUTE 128 & BEDFORD ROAD / KENT PLACE
NYS ROUTE 128 & MAPLE AVENUE / WHIPPOORWILL ROAD E
MAPLE AVENUE & BEDFORD ROAD

| NODE/LINK | LOCATION | DATE | TIME | TRAFFIC CONTROL | ACCIDENT CLASS ¹ | # OF VEHICLES INVOLVED | ROAD CONDITION | WEATHER | MANNER OF COLLISION | APPARENT CONTRIBUTING FACTORS |
|--------------------|---------------------------------------|----------|----------|-----------------|-----------------------------|------------------------|-------------------|---------|---------------------------|--|
| 2015 | | | | | | | | | | |
| 128 8701 1003 | 53 Meters North of Kent Pl | 02/18/15 | 9:23 AM | None | PDO | 2-0 | Daylight | Clear | Rear End | Following too Closely, Driver Inattentior |
| 128 8701 1003 | 20 Meters North of Kent Pl | 02/28/15 | 10:24 AM | None | PDO | 2-0 | Daylight | Clear | Right Angle | Turning Improper |
| 128 8701 1003 | 47 Meters North of Kent Pl | 05/07/15 | 11:00 AM | None | NIR | 2-0 | Daylight | Clear | Overlapping | Unknown |
| 128 8701 1003 | At Intersection with Kent Pl | 05/29/15 | 6:18 AM | None | PDO | 2-0 | Daylight | Cloudy | Overlapping | Failure to Yield Right-of-Way |
| 128 8701 1003 | 30 Meters South of Bedford Rd | 06/17/15 | 8:13 AM | None | NIR | 2-0 | Daylight | Clear | Left Turn | Turning Improper |
| 128 8701 1004 | 15 Meters North of Whipponwill Rd E | 06/13/15 | 12:48 PM | None | PDO | 2-0 | Daylight | Clear | Overlapping | Driver Inattention |
| 128 8701 1004 | 30 Meters South of Maple Ave | 08/14/15 | 12:16 PM | None | PDO | 2-0 | Daylight | Clear | Rear End | Other (Vehicle) |
| Whipponwill Road E | At Intersection with Main Street | 08/28/15 | 4:13 PM | None | PDO & I | 2-1 | Daylight | Clear | Sideswipe(same direction) | Unsafe Speed, Passing or Lane Usage Improperly |
| 128 8701 1004 | 46 Meters North of Maple Ave | 11/25/15 | 10:55 AM | None | NIR | 2-0 | Daylight | Clear | Other | Backing Unsafe) |
| 128 8701 1004 | 17 Meters South of Whipponwill Rd E | 12/12/15 | 4:04 PM | None | PDO | 2-0 | Daylight | Cloudy | Overlapping | Driver Inattention |
| Maple Avenue | At Intersection with Bedford Rd | 01/28/15 | 11:51 AM | Traffic Signal | PDO | 2-0 | Daylight | Clear | Rear End | Following too Closely |
| Maple Avenue | At Intersection with Bedford Rd | 02/11/15 | 12:57 PM | Traffic Signal | PDO | 2-0 | Daylight | Clear | Rear End | Following too Closely, Driver Inattentior |
| Bedford Road | At Intersection with Maple Ave | 03/06/15 | 5:12 PM | Traffic Signal | PDO | 2-0 | Daylight | Clear | Overlapping | Passing or Lane Usage Improperly |
| Bedford Road | At Intersection with Maple Ave | 10/07/15 | 7:00 PM | Traffic Signal | PDO | 2-0 | Daylight | Clear | Overlapping | Passing or Lane Usage Improperly |
| 2016 | | | | | | | | | | |
| 128 8701 1003 | At Intersection with Main Street | 02/15/16 | 4:36 PM | Flashing Light | NIR | 2-0 | Daylight | Snow | Rear End | Pavement Slipper) |
| 128 8701 1003 | At Intersection with Kent Pl | 02/26/16 | 9:45 AM | Flashing Light | NIR | 2-0 | Daylight | Clear | Left Turn | Failure to Yield Right-of-Way, Turning Improper |
| 128 8701 1003 | At Intersection with Kent Pl | 03/11/16 | 11:07 PM | Stop Sign | PDO | 2-0 | Dark-Road Lighted | Clear | Right Angle | Failure to Yield Right-of-Way |
| 128 8701 1003 | At Intersection with Kent Pl | 03/28/16 | 12:38 PM | Stop Sign | PDO | 2-0 | Daylight | Wet | Left Turn | Failure to Yield Right-of-Way |
| 128 8701 1003 | 23 Meters North of Bedford Rd | 05/04/16 | 12:47 PM | None | PDO | 2-0 | Daylight | Rain | Other | Turning Improper, Driver Inattentior |
| 128 8701 1003 | At Intersection with Kent Pl | 05/04/16 | 5:55 PM | Stop Sign | PDO | 2-0 | Daylight | Wet | Left Turn | Turning Improper, Failure to Yield Right-of-Way |
| 128 8701 1003 | At Intersection with Kent Pl | 06/04/16 | 1:26 PM | None | PDO | 2-0 | Daylight | Clear | Right Turn | Driver Inexperience |
| 128 8701 1003 | At Intersection with Main Street | 07/21/16 | 11:35 AM | Stop Sign | NIR | 1-0 | Daylight | Clear | Other | Driver Inattention |
| 128 8701 1003 | At Intersection with Kent Pl | 11/23/16 | 7:00 PM | Stop Sign | PDO | 2-0 | Dark-Road Lighted | Cloudy | Right Angle | Driver Inattention, Failure to Yield Right-of-Way |
| 128 8701 1004 | At Intersection with Whipponwill Rd E | 05/04/16 | 3:53 PM | None | PDO | 2-0 | Daylight | Clear | Right Turn | Turning Improper |
| 128 8701 1004 | 16 Meters South of Whipponwill Rd E | 09/30/16 | 2:41 PM | None | PDO & I | 2-1 | Daylight | Wet | Right Angle | Driver Inattention |
| 128 8701 1004 | At Intersection with Whipponwill Rd E | 10/12/16 | 9:05 AM | None | PDO | 2-0 | Daylight | Cloudy | Overlapping | View Obstructed/Limited |
| 128 8701 1004 | At Intersection with Whipponwill Rd E | 12/08/16 | 5:55 PM | Traffic Signal | PDO | 2-0 | Dark-Road Lighted | Cloudy | Left Turn | Driver Inattention, Failure to Yield Right-of-Way |
| Maple Avenue | 41 Meters North of Bedford Rd | 12/28/16 | 2:08 PM | None | PDO | 2-0 | Daylight | Clear | Right Angle | Backing Unsafe) |
| 2017 | | | | | | | | | | |
| 128 8701 1003 | 30 Meters North of Bedford Rd | 02/19/17 | 10:05 AM | No Passing Zone | PDO | 2-0 | Daylight | Cloudy | Right Turn | Reaction to Other Uninvolved Vehicle, Driver Inattentior |
| Kent Place | 34 Meters West of Main Street | 02/20/17 | 10:37 AM | None | PDO | 2-0 | Daylight | Clear | Rear End | Driver Inattention |
| 128 8701 1003 | At Intersection with NYS 128 | 03/17/17 | 1:55 PM | None | PDO | 2-0 | Daylight | Clear | Overlapping | Driver Inattention |
| 128 8701 1003 | 17 Meters North of Kent Pl | 06/07/17 | 8:52 AM | None | PDO | 2-0 | Daylight | Clear | Overlapping | Driver Inattention |
| 128 8701 1003 | At Intersection with Kent Pl | 06/29/17 | 2:10 PM | Stop Sign | NIR | 2-0 | Daylight | Clear | Rear End | Driver Inattention |
| 128 8701 1003 | 15 Meters North of Bedford Rd | 07/05/17 | 9:48 AM | None | PDO | 2-0 | Daylight | Clear | UNKNOWN | Driver Inattention |
| 128 8701 1003 | 22 Meters North of Kent Pl | 09/30/17 | 10:21 AM | None | PDO | 2-0 | Daylight | Cloudy | Other | Driver Inattention |
| 128 8701 1003 | At Intersection with Kent Pl | 11/19/17 | 12:45 PM | Stop Sign | PDO | 2-0 | Daylight | Cloudy | Right Angle | Failure to Yield Right-of-Way |
| 128 8701 1003 | At Intersection with Kent Pl | 11/21/17 | 7:56 AM | Stop Sign | PDO | 2-0 | Daylight | Clear | Sideswipe(same direction) | Driver Inattention |
| 128 8701 1003 | 46 Meters North of Kent Pl | 12/26/17 | 9:24 AM | None | PDO | 2-0 | Daylight | Clear | Overlapping | Driver Inattention |
| 128 8701 1004 | At Intersection with Main Street | 09/18/17 | 8:12 AM | None | PDO | 2-0 | Daylight | Cloudy | Left Turn | Unsafe Speed, Steering Failure |
| 128 8701 1004 | 44 Meters North of Whipponwill Rd E | 11/22/17 | 2:23 PM | Stop Sign | PDO | 2-0 | Daylight | Clear | Left Turn | Failure to Yield Right-of-Way, View Obstructed/Limited |
| 2018 * | | | | | | | | | | |
| 128 8701 1003 | At Intersection with Kent Pl | 07/06/18 | 1:08 PM | None | PDO | 2-0 | Daylight | Clear | Overlapping | Driver Inexperience |
| 128 8701 1003 | 48 Meters North of Kent Pl | 03/13/18 | 1:08 PM | No Passing Zone | PDO | 2-0 | Daylight | Snow | Sideswipe(same direction) | View Obstructed/Limited, Backing Unsafe) |
| 128 8701 1004 | At Intersection with Whipponwill Rd E | 01/04/18 | 12:37 PM | Traffic Signal | PDO | 2-0 | Daylight | Snow | Right Turn | Turning Improper |
| 128 8701 1004 | At Intersection with Whipponwill Rd E | 04/06/18 | 1:52 PM | Traffic Signal | PDO | 1-0 | Daylight | Rain | Right Turn | Driver Inattention |
| Whipponwill Road E | At Intersection with Main Street | 05/30/18 | 7:28 PM | Traffic Signal | PDO | 1-0 | Daylight | Clear | Other | Driver Inattention |
| Maple Avenue | At Intersection with Whipponwill Rd E | 06/19/18 | 10:49 AM | Traffic Signal | PDO | 2-0 | Daylight | Clear | Sideswipe(same direction) | Passing or Lane Usage Improperly |
| Bedford Road | On Bedford Road | 05/03/18 | 10:00 PM | None | PDO | 1-0 | UNKNOWN | UNKNOWN | Other | Driver Inattention |
| Bedford Road | On Bedford Road | 07/14/18 | 11:28 AM | None | PDO | 1-0 | Dry | Clear | Other | Driver Inattention |

NOTES:

1) ACCIDENT OBTAINED FROM THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION FOR THE TIME PERIOD BETWEEN 1/1/2015 - 8/31/2018 *

2) ACCIDENT CLASS: PDO = PROPERTY DAMAGE ONLY, I = INJURY, F = FATALITY, UNKNOWN = NON-REPORTABLE

TABLE NO. 5

ACCIDENT SUMMARY TABLE

NYS ROUTE 22 / NYS ROUTE 128 / NORTH CASTLE DRIVE
 NYS ROUTE 22 / MAPLE AVENUE / BUSINESS PARK DRIVE
 NYS ROUTE 22 / OLD ROUTE 22 / OLD POST ROAD
 NYS ROUTE 22 / NYS ROUTE 120 (NORTH)
 NYS ROUTE 22 / NYS ROUTE 120 (SOUTH)

| NODE/LINK | LOCATION | DATE | TIME | TRAFFIC CONTROL | ACCIDENT CLASS ¹ | # OF VEHICLES INVOLVED | LIGHT CONDITION | ROAD CONDITION | WEATHER | MANNER OF COLLISION | APPARENT CONTRIBUTING FACTORS |
|---------------------|--|----------|----------|-----------------|-----------------------------|------------------------|---------------------|----------------|---------|---------------------|---|
| 22 8702 4044 | On NYS Route 22 | 04/02/15 | 7:56 PM | No Passing Zone | PDO & I | 2-3 | Dark-Road Unlighted | Dry | Cloudy | Rear End | View Obstructed/Limited |
| 22 8702 4045 | 19 Meters South of King Street | 01/03/15 | 2:18 PM | Traffic Signal | PDO | 2-0 | Daylight | Snow/Ice | Snow | Rear End | Pavement Slippery |
| King Street | At Intersection with Ramp | 06/26/15 | 8:59 AM | Yield Sign | PDO & I | 2-2 | Daylight | Dry | Clear | Rear End | Following too Closely |
| 22 8702 4047 | At Intersection with Ramp | 04/10/15 | 5:15 PM | Yield Sign | PDO & I | 2-1 | Daylight | Dry | Cloudy | Rear End | Following too Closely, Driver Inattention |
| 22 8702 4047 | 31 Meters South of Ramp | 08/11/15 | 9:41 AM | Yield Sign | I | 2-1 | Daylight | Wet | Rain | Rear End | Driver Inexperience, Following too Closely |
| 120 8701 2090 | At Intersection with NYS 120 | 01/07/15 | 9:40 AM | Yield Sign | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Following Too Closely |
| 120 8701 2090 | At Intersection with NYS 120 | 05/20/15 | 7:48 AM | Yield Sign | PDO | 2-0 | Daylight | Dry | Cloudy | Rear End | Stopped in Traffic, Following too Closely |
| 120 8701 2090 | At Intersection with NYS 22 | 07/06/15 | 6:42 PM | Yield Sign | PDO & I | 2-1 | Daylight | Dry | Cloudy | Rear End | Following too Closely |
| 120 8701 2090 | 20 Meters South of Ramp | 08/08/15 | 4:56 AM | None | PDO | 1-0 | Dark-Road Lighted | Dry | Clear | Other | Unsafe Speed |
| 120 8701 2090 | 2 Meters West of Armonk-Bedford Rd | 10/01/15 | 8:23 PM | No Passing Zone | NR | 2-0 | Dark-Road Lighted | Wet | Rain | Rear End | Turning Improper, Cell Phone (Hand Held) |
| 120 8701 2090 | At Intersection with NYS 22 | 11/18/15 | 9:09 AM | Yield Sign | PDO & I | 2-1 | Daylight | Dry | Cloudy | Rear End | Driver Inattention |
| NYS Route 120 | At Intersection with Armonk-Bedford Rd | 11/30/15 | 9:09 PM | Yield Sign | PDO | 1-0 | Dark-Road Lighted | Dry | Cloudy | Other | Reaction to Other Uninvolved Vehicle |
| 120 8701 2090 | On King Street | 12/09/15 | 8:58 AM | Traffic Signal | NR | 2-0 | Daylight | Dry | Cloudy | Rear End | Driver Inattention |
| 22 8702 4060 | On NYS Route 22 | 02/18/15 | 8:39 AM | Traffic Signal | NR | 2-0 | Daylight | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 4066 | At Intersection with Old Post Rd | 09/28/15 | 8:08 AM | Traffic Signal | NR | 2-0 | Daylight | Dry | Cloudy | Rear End | Following too Closely |
| 128 8701 1000 | At Intersection with NYS Route 22 | 10/29/15 | 7:00 PM | UNKNOWN | PDO | 2-0 | UNKNOWN | UNKNOWN | UNKNOWN | UNKNOWN | Not Entered |
| 22 8702 4061 | At Intersection with Main Street | 04/06/15 | 2:11 PM | Traffic Signal | NR | 2-0 | Daylight | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 4061 | At Intersection with Ramp | 05/09/15 | 2:18 PM | Stop Sign | PDO & I | 2-1 | Daylight | Dry | Clear | Left Turn | Driver Inattention |
| 22 8702 4061 | At Intersection with Main Street | 09/26/15 | 10:55 AM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 4062 | 234 Meters East of Ramp | 05/14/15 | 5:45 PM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 4063 | At Intersection with Maple Ave | 01/16/15 | 2:51 PM | Traffic Signal | NR | 2-0 | Daylight | Dry | Cloudy | Rear End | Driver Inattention |
| Business Park Drive | At Intersection with Maple Ave | 03/19/15 | 10:46 AM | Traffic Signal | NR | 2-0 | Daylight | Dry | Clear | Overlapping | Failure to Yield Right of Way, Driver Inattention |
| 22 8702 4063 | On NYS Route 22 | 08/27/15 | 6:04 PM | No Passing Zone | PDO | 2-0 | Daylight | Dry | Clear | Overlapping | View Obstructed, Driver Inattention |
| 22 8702 4063 | At Intersection with Maple Ave | 11/03/15 | 2:56 PM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Stopped in Traffic, Driver Inattention |
| 22 8702 4063 | At Intersection with Maple Ave | 12/17/15 | 9:15 PM | Traffic Signal | PDO & I | 2-1 | Dark-Road Lighted | Wet | Rain | Rear End | Following too Closely |
| 22 8702 4066 | 18 Meters East of Ramp | 02/04/15 | 6:47 PM | Traffic Signal | PDO & I | 2-1 | Dark-Road Lighted | Dry | Cloudy | Rear End | Unsafe Speed |
| Ramp | 15 Meters East of Bedford Road | 05/20/15 | 10:56 AM | Stop Sign | NR | 2-0 | Daylight | Dry | Clear | Rear End | Following too Closely, Driver Inattention |
| Ramp | At Intersection with Bedford Rd | 07/17/15 | 9:08 AM | Stop Sign | NR | 2-0 | Daylight | Dry | Clear | Rear End | Following too Closely, Driver Inattention |
| Ramp | At Intersection with Bedford Rd | 10/27/15 | 7:27 AM | Traffic Signal | NR | 2-0 | Daylight | Dry | Clear | Rear End | Following too Closely, Unsafe Speed |

TABLE NO. 5

ACCIDENT SUMMARY TABLE

NYS ROUTE 22 / NYS ROUTE 128 / NORTH CASTLE DRIVE
 NYS ROUTE 22 / MAPLE AVENUE / BUSINESS PARK DRIVE
 NYS ROUTE 22 / OLD ROUTE 22 / OLD POST ROAD
 NYS ROUTE 22 / NYS ROUTE 120 (NORTH)
 NYS ROUTE 22 / NYS ROUTE 120 (SOUTH)

| NODE/LINK | LOCATION | DATE | TIME | TRAFFIC CONTROL | ACCIDENT CLASS | # OF VEHICLES INVOLVED | INJURIES | LIGHT CONDITION | ROAD CONDITION | WEATHER | MANNER OF COLLISION | APPARENT CONTRIBUTING FACTORS |
|---------------|---------------------------------------|----------|----------|-----------------|----------------|------------------------|----------|---------------------|----------------|---------|---------------------|--|
| 22 8702 4045 | 48 Meters South of King Street | 04/09/16 | 4:22 AM | Traffic Signal | PDO | 1-0 | | Dark-Road Unlighted | Dry | Clear | Other | Alcohol Involvement, Unsafe Speed |
| 120 8701 2086 | At Intersection with Ramp | 10/18/16 | 2:34 PM | Other | NR | 2-0 | | Daylight | Dry | Clear | Overtaking | Failure to Yield Right-of-Way, Traffic Control Disregarded |
| 120 8701 2087 | At Intersection with Old Post Road | 03/24/16 | 4:56 PM | Stop Sign | PDO | 2-0 | | Dusk | Dry | Cloudy | Right Angle | Failure to Yield Right-of-Way, Driver Inattention |
| 120 8701 2087 | At Intersection with Mt Kisco Rd | 04/15/16 | 6:50 PM | Traffic Signal | PDO & I | 3-4 | | Daylight | Dry | Clear | Other | Unsafe Speed, Following too Closely |
| 120 8701 2087 | At Intersection with Mt Kisco Rd | 05/19/16 | 3:04 AM | None | PDO | 1-0 | | Dark-Road Lighted | Wet | Cloudy | Other | Animal's Action, Pavement Slippery |
| 22 8702 4047 | 88 Meters North of Mt Kisco Rd | 09/08/16 | 8:47 AM | None | PDO & I | 1-1 | | Daylight | Dry | Clear | Other | Reaction to Other Uninvolved Vehicle |
| 22 8702 4048 | On King Street | 09/15/16 | 7:44 PM | None | PDO | 2-0 | | Daylight | Dry | Clear | Rear End | Brakes Defective, Steering Failure |
| 120 8701 2090 | At Intersection with NYS 120 | 01/06/16 | 3:45 PM | Yield Sign | PDO & I | 2-0 | | Daylight | Dry | Clear | Rear End | Not Entered |
| 120 8701 2090 | At Intersection with NYS 120 | 02/15/16 | 4:01 PM | Traffic Signal | NR | 2-0 | | Daylight | Snow/Ice | Cloudy | Rear End | Pavement Slippery |
| 120 8701 2090 | On NYS Route 22 S 22 | 02/16/16 | 1:18 AM | None | PDO | 1-0 | | Dark-Road Unlighted | Slush | Cloudy | Other | Pavement Slippery |
| 120 8701 2090 | At Intersection with NYS 22 | 02/16/16 | 1:18 AM | Yield Sign | PDO | 2-0 | | Dawn | Dry | Cloudy | Rear End | Following too Closely |
| 120 8701 2090 | At Intersection with NYS 22 | 03/15/16 | 8:15 AM | Yield Sign | PDO | 2-0 | | Daylight | Wet | Cloudy | Rear End | Pavement Slippery |
| 120 8701 2090 | At Intersection with NYS 22 | 06/20/16 | 4:11 PM | Traffic Signal | PDO & I | 2-1 | | Daylight | Wet | Clear | Rear End | Pavement Slippery |
| 120 8701 2090 | At Intersection with NYS 22 | 07/06/16 | 12:01 PM | Yield Sign | NR | 2-0 | | Daylight | Dry | Clear | Rear End | Driver Inattention |
| 120 8701 2090 | At Intersection with NYS 22 | 11/18/16 | 12:00 AM | Yield Sign | NR | 2-0 | | Daylight | Dry | Cloudy | Overtaking | Not Entered |
| 120 8701 2090 | At Intersection with NYS 22 | 12/13/16 | 3:02 PM | Yield Sign | PDO | 2-0 | | Daylight | Dry | Cloudy | Rear End | Following too Closely |
| 22 8702 4056 | At Intersection with Old Route 22 | 04/25/16 | 8:21 PM | Traffic Signal | PDO & I | 2-2 | | Dark-Road Lighted | Dry | Clear | Left Turn | Traffic Control Devices Disregarded, Driver Inattention |
| 22 8702 4061 | 12 Meters West of Main Street | 02/24/16 | 8:31 AM | None | PDO | 2-0 | | Daylight | Wet | Rain | Overtaking | Failure to Yield Right-of-Way |
| 128 8701 1000 | At Intersection with NYS 22 | 04/08/16 | 2:58 PM | Traffic Signal | PDO & I | 2-1 | | Daylight | Dry | Cloudy | Right Turn | Turning Improper |
| 22 8702 4061 | At Intersection with Main Street | 06/28/16 | 9:10 AM | Traffic Signal | PDO & I | 2-1 | | Daylight | Dry | Cloudy | Rear End | Driver Inattention |
| 22 8702 4063 | At Intersection with Maple Ave | 02/05/16 | 8:55 AM | Traffic Signal | PDO | 2-0 | | Daylight | Snow/Ice | Snow | Rear End | Pavement Slippery |
| 22 8702 4063 | At Intersection with Maple Ave | 04/30/16 | 11:40 AM | Traffic Signal | PDO | 2-0 | | Daylight | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 4063 | At Intersection with Maple Ave | 05/24/16 | 10:45 AM | Traffic Signal | PDO | 2-0 | | Daylight | Dry | Cloudy | Rear End | Driver Inattention |
| 22 8702 4063 | At Intersection with Maple Ave | 06/10/16 | 6:09 PM | Traffic Signal | PDO | 2-0 | | Daylight | Dry | Clear | Overtaking | Unsafe Lane Change |
| 22 8702 4063 | At Intersection with Maple Ave | 12/11/16 | 1:00 PM | Traffic Signal | PDO | 2-0 | | Daylight | Dry | Cloudy | Left Turn | Turning Improper, Traffic Control Devices Disregarded |
| 22 8702 4063 | At Intersection with Business Park Dr | 12/19/16 | 9:30 PM | UNKNOWN | PDO | 1-0 | | UNKNOWN | UNKNOWN | UNKNOWN | UNKNOWN | Not Entered |
| 22 8702 4063 | At Intersection with NYS 22 | 12/29/16 | 6:58 AM | None | PDO | 1-0 | | Dawn | Dry | Cloudy | Other | Fell Asleep |
| 22 8702 4064 | At Intersection with NYS 22 | 01/10/16 | 2:11 PM | UNKNOWN | PDO | 2-0 | | UNKNOWN | UNKNOWN | UNKNOWN | UNKNOWN | Not Entered |
| 22 8702 4064 | At Intersection with Maple Ave | 08/21/16 | 11:52 AM | Traffic Signal | PDO & I | 2-1 | | Daylight | Dry | Clear | Left Turn | Traffic Control Devices Disregarded, Driver Inattention |
| 22 8702 4065 | 249 Meters East of Maple Ave | 11/14/16 | 5:16 PM | None | PDO | 4-0 | | Dawn | Dry | Clear | Other | Following too Closely |
| 22 8702 4066 | At Intersection with Ramp | 02/28/16 | 5:31 PM | Traffic Signal | PDO | 2-0 | | Daylight | Dry | Clear | Right Angle | Driver Inattention |
| 22 8702 4066 | 16 Meters West of Ramp | 03/04/16 | 10:48 AM | Traffic Signal | PDO & I | 2-1 | | Daylight | Wet | Clear | Rear End | Failure to Yield Right-of-Way |
| 22 8702 4066 | 26 Meters East of Ramp | 07/06/16 | 4:53 PM | None | PDO | 2-0 | | Daylight | Dry | Clear | Rear End | Following too Closely |
| 22 8702 4066 | At Intersection with Bedford Rd | 10/10/16 | 3:46 PM | Stop Sign | PDO & I | 2-3 | | Daylight | Dry | Clear | Rear End | Following too Closely, Unsafe Speed |
| 22 8702 4067 | On NYS Route 22 | 06/21/16 | 12:20 PM | Traffic Signal | PDO & I | 2-1 | | Daylight | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 4067 | On Bedford Road | 09/01/16 | 12:56 PM | Traffic Signal | PDO & I | 1-1 | | Daylight | Wet | Rain | Other | Driver Inattention |
| 22 8702 4068 | At Intersection with Ramp | 04/15/16 | 1:19 AM | None | NR | 1-0 | | Dark-Road Lighted | Dry | Clear | Other | Driver Inexperience |
| 22 8702 4069 | At Intersection with Hunter Ave | 05/25/16 | 6:06 PM | None | PDO | 2-0 | | Daylight | Dry | Clear | Rear End | Unsafe Speed, Following too Closely |
| 22 8702 4069 | At Intersection with Hunter Ave | 11/18/16 | 4:37 PM | Stop Sign | PDO | 2-0 | | Dawn | Dry | Clear | Right Angle | Failure to Yield Right-of-Way, Driver Inexperience |
| 22 8702 4069 | At Intersection with Hunter Ave | 01/23/16 | 7:42 AM | Traffic Signal | PDO | 1-0 | | Dawn | Snow/Ice | Snow | Other | Pavement Slippery |
| 22 8702 4069 | At Intersection with Hunter Ave | 06/18/16 | 4:59 PM | Traffic Signal | PDO | 2-0 | | Daylight | Dry | Clear | Rear End | Following too Closely |

TABLE NO. 5

ACCIDENT SUMMARY TABLE

NYS ROUTE 22 / NYS ROUTE 128 / NORTH CASTLE DRIVE
 NYS ROUTE 22 / MAPLE AVENUE / BUSINESS PARK DRIVE
 NYS ROUTE 22 / OLD ROUTE 22 / OLD POST ROAD
 NYS ROUTE 22 / NYS ROUTE 120 (NORTH)
 NYS ROUTE 22 / NYS ROUTE 120 (SOUTH)

| NODE/LINK | LOCATION | DATE | TIME | TRAFFIC CONTROL | ACCIDENT CLASS ¹ | # OF VEHICLES - INJURIES | LIGHT CONDITION | ROAD CONDITION | WEATHER | MANNER OF COLLISION | APPARENT CONTRIBUTING FACTORS |
|---------------|--|----------|----------|-----------------|-----------------------------|--------------------------|---------------------|----------------|--------------------------|---------------------|---|
| 22 8702 4044 | At Intersection with King Street | 01/23/17 | 8:38 PM | Traffic Signal | PDO | 2-0 | Dark-Road Unlighted | Wet | Sleet/Hail/Freezing Rain | Left Turn | Pavement Slippery, Traffic Control Devices Disregarded |
| 22 8702 4045 | 11 Meters South of King Street | 11/08/17 | 8:37 AM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Driver Inattention |
| Ramp | At Intersection with King Street | 12/01/17 | 5:36 PM | Yield Sign | PDO | 2-0 | Dark-Road Lighted | Dry | Clear | Rear End | Following too Closely |
| 120 8701 2086 | 42 Meters South of Ramp | 05/16/17 | 8:31 AM | None | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Following too Closely |
| 120 8701 2086 | At Intersection with Ramp | 11/21/17 | 6:06 PM | None | PDO | 2-0 | Dark-Road Unlighted | Dry | Clear | Overtaking | Passing or Lane Usage Improperly |
| King Street | On King Street | 11/08/17 | 5:53 PM | Traffic Signal | PDO | 2-0 | Dark-Road Lighted | Dry | Cloudy | Rear End | Brakes Defective |
| 120 8701 2087 | At Intersection with Mt. Kisco Rd | 05/05/17 | 1:46 PM | Yield Sign | PDO | 2-0 | Daylight | Wet | Rain | Rear End | Not Entered |
| 120 8701 2087 | At Intersection with King Street | 08/27/17 | 12:00 AM | None | PDO | 1-0 | Dark-Road Unlighted | Dry | Clear | Other | Not Entered |
| 120 8701 2087 | 41 Meters East of Old Post Rd | 09/15/17 | 8:15 AM | None | PDO & I | 2-1 | Daylight | Dry | Clear | Rear End | Animal's Action |
| 22 8702 4047 | 21 Meters South of Ramp | 09/29/17 | 5:33 PM | Yield Sign | PDO & I | 3-2 | Daylight | Dry | Clear | Other | Following too Closely |
| 22 8702 4048 | On King Street | 05/22/17 | 2:11 PM | Traffic Signal | PDO | 2-0 | Daylight | Wet | Rain | Rear End | Following too Closely, Pavement Slippery |
| 22 8702 4049 | 42 Meters South of Armonk-Bedford Rd | 01/27/17 | 8:00 PM | Traffic Signal | PDO | 1-0 | Dark-Road Lighted | Dry | Cloudy | Rear End | Not Entered |
| 22 8702 4049 | At Intersection with King Street | 02/25/17 | 6:35 PM | Traffic Signal | PDO & I | 1-1 | Dark-Road Lighted | Wet | Rain | Other | Pavement Slippery |
| 22 8702 4049 | At Intersection with King Street | 03/25/17 | 7:08 AM | Traffic Signal | PDO | 1-0 | Daylight | Dry | Clear | Other | Brakes Defective |
| 120 8701 2080 | At Intersection with NYS 22 | 05/08/17 | 7:36 AM | Yield Sign | NR | 2-0 | Daylight | Dry | Clear | Rear End | Following too Closely |
| 120 8701 2080 | At Intersection with NYS 120 | 08/08/17 | 9:02 AM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Reaction to Other Uninvolved Vehicle, Following too Closely |
| 120 8701 2080 | At Intersection with NYS 120 | 08/08/17 | 9:02 AM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Failure to Yield Right-of-Way, Passing or Lane Usage Improperly |
| 120 8701 2090 | At Intersection with NYS 120 | 08/08/17 | 5:54 PM | Yield Sign | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Following too Closely, Driver Inattention |
| 120 8701 2090 | At Intersection with Ramp | 10/04/17 | 7:04 AM | Yield Sign | PDO | 2-0 | Daylight | Dry | Cloudy | Rear End | Driver Inexperience |
| 120 8701 2090 | At Intersection with NYS 120 | 11/02/17 | 11:49 AM | Traffic Signal | PDO & I | 2-2 | Daylight | Dry | Cloudy | Rear End | Following too Closely |
| 22 8702 4049 | 15 Meters South of Armonk-Bedford Rd | 11/10/17 | 10:05 AM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Not Entered |
| 120 8701 2090 | On NYS Route 120 | 11/19/17 | 5:30 PM | None | PDO | 1-0 | Dark-Road Unlighted | Dry | Clear | Other | Unsafe Speed |
| 22 8702 4050 | On NYS Route 22 | 01/16/17 | 1:02 AM | None | PDO | 1-0 | Dark-Road Lighted | Wet | Cloudy | Other | Fell Asleep |
| 22 8702 4050 | On Armonk-Bedford Rd | 08/05/17 | 1:56 AM | None | PDO & I | 1-1 | Dark-Road Unlighted | Dry | Cloudy | Other | Driver Inattention |
| 22 8702 4056 | At Intersection with NYS 22 | 05/13/17 | 1:43 PM | Traffic Signal | PDO & I | 3-1 | Daylight | Wet | Rain | Other | Following too Closely |
| 22 8702 4056 | At Intersection with Old Route 22 | 05/22/17 | 5:02 PM | Traffic Signal | PDO | 2-0 | Daylight | Wet | Rain | Rear End | Driver Inattention |
| 22 8702 4056 | At Intersection with Old Route 22 | 08/01/17 | 6:02 PM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Right Angle | Driver Inattention |
| 22 8702 4056 | 15 Meters North of Old Post Road | 08/15/17 | 7:18 AM | None | PDO | 2-0 | Daylight | Dry | Cloudy | Overtaking | Unsafe Lane Change |
| 128 8701 1000 | At Intersection with NYS 22 | 03/12/17 | 10:00 AM | Traffic Signal | PDO & I | 2-2 | Daylight | Dry | Clear | Left Turn | Traffic Control Devices Disregarded |
| 128 8701 1000 | At Intersection with Armonk-Bedford Rd | 12/12/17 | 11:06 AM | Traffic Signal | NR | 2-0 | Daylight | Wet | Rain | Rear End | Following too Closely |
| 22 8702 4061 | At Intersection with Ramp | 08/10/17 | 9:01 AM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Following too Closely, Driver Inattention |
| 22 8702 4061 | At Intersection with NYS 128 | 08/28/17 | 5:00 PM | UNKNOWN | PDO | 2-0 | UNKNOWN | UNKNOWN | UNKNOWN | Rear End | Not Entered |
| 22 8702 4061 | At Intersection with Main Street | 09/02/17 | 7:48 PM | Traffic Signal | PDO | 2-0 | Dark-Road Lighted | Wet | Rain | Right Angle | Driver Inattention |
| 22 8702 4061 | At Intersection with Main Street | 10/11/17 | 9:06 AM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Cloudy | Rear End | Driver Inattention |
| 22 8702 4061 | At Intersection with Main Street | 10/13/17 | 5:27 PM | Traffic Signal | NR | 3-0 | Daylight | Dry | Clear | Other | Driver Inattention |
| 22 8702 4061 | At Intersection with Main Street | 11/14/17 | 12:40 AM | Traffic Signal | NR | 1-0 | Dark-Road Unlighted | Dry | Clear | Other | Animal's Action |
| 22 8702 4061 | 23 Meters West of Main Street | 11/25/17 | 5:45 AM | None | PDO | 1-0 | Dark-Road Unlighted | Dry | Clear | Other | Not Entered |
| 22 8702 4063 | At Intersection with Maple Ave | 02/10/17 | 5:50 PM | Traffic Signal | NR | 2-0 | Dark-Road Lighted | Dry | Cloudy | Rear End | Driver Inattention |
| 22 8702 4063 | At Intersection with Maple Ave | 02/14/17 | 6:19 PM | Traffic Signal | PDO | 2-0 | Dark-Road Lighted | Dry | Cloudy | Rear End | Driver Inattention |
| 22 8702 4063 | At Intersection with Maple Ave | 03/17/17 | 6:21 PM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Left Turn | Driver Inattention |
| 22 8702 4063 | At Intersection with Maple Ave | 05/12/17 | 3:10 PM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Right Angle | Driver Inexperience, Driver Inattention |
| 22 8702 4063 | At Intersection with Business Park Dr | 05/23/17 | 1:50 PM | Traffic Signal | PDO & I | 2-1 | Daylight | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 4063 | At Intersection with Maple Ave | 06/02/17 | 8:14 AM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 4063 | At Intersection with Maple Ave | 06/10/17 | 7:07 AM | Traffic Signal | NR | 2-0 | Daylight | Dry | Clear | Rear End | Driver Inattention, Failed/Drowsy |
| 22 8702 4063 | At Intersection with Maple Ave | 09/16/17 | 2:05 PM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Cloudy | Rear End | Following too Closely, Driver Inattention |
| 22 8702 4064 | At Intersection with Maple Ave | 03/20/17 | 12:04 PM | Traffic Signal | I | 2-3 | Daylight | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 4064 | 30 Meters East of Business Park Dr | 04/03/17 | 9:00 PM | Traffic Signal | PDO | 2-0 | Dark-Road Lighted | Dry | Cloudy | Overtaking | Passing or Lane Usage Improperly |
| 22 8702 4066 | At Intersection with Ramp | 12/12/17 | 7:14 AM | Traffic Signal | PDO | 2-0 | Daylight | Wet | Rain | Rear End | Driver Inattention |
| 22 8702 4067 | 84 Meters West of Ramp | 05/08/17 | 3:27 PM | None | PDO & I | 1-2 | Daylight | Dry | Clear | Other | Unknown |
| 22 8702 4068 | At Intersection with Ramp | 07/14/17 | 3:20 PM | Traffic Signal | PDO | 2-0 | Daylight | Wet | Rain | UNKNOWN | Not Entered |
| 22 8702 4069 | At Intersection with Byram Brook Place | 01/10/17 | 2:02 PM | Stop Sign | PDO & I | 2-2 | Daylight | Dry | Clear | Right Angle | Failure to Yield Right-of-Way |
| 22 8702 4069 | At Intersection with Hunter Ave | 11/02/17 | 1:24 PM | Stop Sign | PDO | 1-0 | Daylight | Dry | Cloudy | Other | Reaction to Other Uninvolved Vehicle |
| Hunter Avenue | At Intersection with Bedford Rd | 02/05/17 | 2:53 PM | None | PDO & I | 1-1 | Daylight | Dry | Cloudy | Other | Driver Inexperience, Turning Improper |

TABLE NO. 5

ACCIDENT SUMMARY TABLE

NYS ROUTE 22 / NYS ROUTE 128 / NORTH CASTLE DRIVE
 NYS ROUTE 22 / MAPLE AVENUE / BUSINESS PARK DRIVE
 NYS ROUTE 22 / OLD ROUTE 22 / OLD POST ROAD
 NYS ROUTE 22 / NYS ROUTE 120 (NORTH)
 NYS ROUTE 22 / NYS ROUTE 120 (SOUTH)

| NODE/LINK | LOCATION | DATE | TIME | TRAFFIC CONTROL | ACCIDENT CLASS ¹ | # OF VEHICLES INVOLVED | LIGHT CONDITION | ROAD CONDITION | WEATHER | MANNER OF COLLISION | APPARENT CONTRIBUTING FACTORS |
|---------------|--|----------|----------|-----------------|-----------------------------|------------------------|-------------------|----------------|--------------------------|--------------------------------|--|
| 22 8702 4044 | At Intersection with King Street | 01/26/18 | 9:02 AM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Driver Inattention, Eating or Drinking |
| 22 8702 4044 | At Intersection with King Street | 03/06/18 | 6:14 PM | Traffic Signal | PDO & I | 3-1 | Dark-Road Lighted | Dry | Cloudy | Other | Reaction to Other Uninvolved Vehicle, Unsafe Lane Change |
| 22 8702 4045 | At Intersection with King Street | 07/17/18 | 5:08 PM | Traffic Signal | PDO & I | 2-1 | Daylight | Wet | Rain | Right Angle | Traffic Control Devices Disregarded, Driver Inattention |
| 120 8701 2087 | At Intersection with NYS 22 | 05/24/18 | 6:38 PM | Yield Sign | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Driver Inexperience, Following too Closely |
| 22 8702 4048 | On King Street | 02/17/18 | 9:04 PM | None | PDO | 1-0 | Dark-Road Lighted | Snow/Ice | Snow | Other | Pavement Slippery |
| 120 8701 2090 | At Intersection with Ramp | 01/10/18 | 8:49 AM | Yield Sign | PDO | 2-0 | Daylight | Dry | Cloudy | Overlapping | Failure to Yield Right-of-Way |
| 120 8701 2090 | At Intersection with Ramp | 01/31/18 | 8:18 AM | Yield Sign | PDO | 2-0 | Daylight | Dry | Clear | Overlapping | Traffic Control Devices Disregarded, Failure to Yield Right-of-Way |
| 120 8701 2090 | At Intersection with NYS 120 | 02/07/18 | 9:47 AM | Traffic Signal | PDO | 2-0 | Daylight | Snow/Ice | Steel/Hail/Freezing Rain | Rear End | Pavement Slippery |
| 120 8701 2090 | On NYS Route 120 | 02/16/18 | 5:45 PM | UNKNOWN | PDO | 1-0 | Dusk | Wet | Clear | Other | Not Entered |
| 120 8701 2090 | At Intersection with Ramp | 03/02/18 | 11:36 AM | Yield Sign | PDO & I | 2-2 | Daylight | Snow/Ice | Steel/Hail/Freezing Rain | Overlapping | Driver Inattention, Failure to Yield Right-of-Way |
| 120 8701 2090 | At Intersection with Ramp | 03/11/18 | 6:03 PM | Yield Sign | PDO | 2-0 | Daylight | Dry | Clear | Overlapping | Failure to Yield Right-of-Way, Driver Inattention |
| 120 8701 2090 | On NYS Route 120 | 05/31/18 | 6:04 PM | None | NR | 2-0 | Daylight | Wet | Rain | Rear End | Following too Closely, Driver Inattention |
| 22 8702 4049 | 23 Meters South of NYS 120 | 06/13/18 | 5:02 PM | Traffic Signal | PDO | 2-0 | Daylight | Wet | Clear | Rear End | Reaction to Other Uninvolved Vehicle, Following too Closely, Pavement Slippery |
| 22 8702 4050 | At Intersection with King Street | 05/11/18 | 5:01 PM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 4056 | At Intersection with Old Post Rd | 04/02/18 | 11:00 PM | None | PDO & I | 2-1 | Dark-Road Lighted | Dry | Clear | Sideswipe (opposite direction) | Traffic Control Devices Disregarded, Passing or Lane Usage Improperly |
| 128 8701 1000 | At Intersection with NYS Route 22 | 02/01/18 | 6:33 PM | Traffic Signal | PDO & I | 3-1 | Dark-Road Lighted | Wet | Rain | Other | Traffic Control Devices Disregarded |
| Maple Avenue | At Intersection with Armork-Bedford Rd | 03/29/18 | 2:57 PM | Traffic Signal | PDO | 2-0 | Daylight | Wet | Cloudy | Rear End | Driver Inattention, Following too Closely |
| 22 8702 4064 | At Intersection with Maple Ave | 03/03/18 | 12:35 PM | Traffic Signal | PDO & I | 2-1 | Daylight | Dry | Cloudy | Right Angle | Traffic Control Device Improper/Non-Working |
| 22 8702 4064 | At Intersection with Maple Ave | 03/03/18 | 1:45 PM | Traffic Signal | PDO & I | 2-1 | Dark-Road Lighted | Dry | Cloudy | Right Angle | Traffic Control Devices Disregarded |
| 22 8702 4064 | At Intersection with Maple Ave | 05/12/18 | 9:20 PM | Traffic Signal | PDO | 2-0 | Dark-Road Lighted | Wet | Cloudy | Other | View Obstructed/Unlimited, Turning Improper |
| 22 8702 4064 | At Intersection with Maple Ave | 05/29/18 | 6:11 PM | Traffic Signal | PDO | 2-0 | Daylight | Dry | Clear | Rear End | Driver Inattention |
| 22 8702 4067 | At Intersection with Ramp | 03/19/18 | 5:24 PM | Stop Sign | PDO | 2-0 | Daylight | Dry | Clear | Overlapping | Driver Inattention, Glare |

NOTES:

1) ACCIDENT OBTAINED FROM THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION FOR THE TIME PERIOD BETWEEN 1/1/2015 - 8/31/2018 *

2) ACCIDENT CLASS: PDO = PROPERTY DAMAGE ONLY, I = INJURY, F = FATALITY, UNKNOWN = NON-REPORTABLE



EAGLE RIDGE

APPENDIX C

LEVEL OF SERVICE STANDARDS

LEVEL OF SERVICE STANDARDS

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

Level of Service (LOS) can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Control delay and volume-to-capacity (v/c) ratio are used to characterize LOS for a lane group. Delay quantifies the increase in travel time due to traffic signal control. It is also a measure of driver discomfort and fuel consumption. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group.

LOS A describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate.

LOS D describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long.

LOS E describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long.

LOS F describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long.

A lane group can incur a delay less than 80 s/veh when the volume-to-capacity ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and volume-to-capacity ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of 80 s/veh represents failure from a delay perspective).

The Level of Service Criteria for signalized intersections are given in Exhibit 19-8 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 19-8

| Control Delay (s/veh) | LOS by Volume-to-Capacity Ratio | |
|------------------------------|--|--------------------|
| | v/c ≤1.0 | v/c >1.0 |
| ≤10 | A | F |
| >10-20 | B | F |
| >20-35 | C | F |
| >35-55 | D | F |
| >55-80 | E | F |
| >80 | F | F |

For approach-based and intersection wide assessments, LOS is defined solely by control delay.

LEVEL OF SERVICE CRITERIA

FOR TWO-WAY STOP-CONTROLLED (TWSC) UNSIGNALIZED INTERSECTIONS

Level of Service (LOS) for a two-way stop-controlled (TWSC) intersection is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns. LOS is not defined for the intersection as a whole or for major-street approaches.

The Level of Service Criteria for TWSC unsignalized intersections are given in Exhibit 20-2 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 20-2

| Control Delay (s/veh) | LOS by Volume-to-Capacity Ratio | |
|------------------------------|--|--------------------|
| | v/c ≤1.0 | v/c >1.0 |
| 0-10 | A | F |
| >10-15 | B | F |
| >15-25 | C | F |
| >25-35 | D | F |
| >35-50 | E | F |
| >50 | F | F |

The LOS criteria apply to each lane on a given approach and to each approach on the minor street.
LOS is not calculated for major-street approaches or for the intersection as a whole.

As Exhibit 20-2 notes, LOS F is assigned to the movement if the volume-to-capacity ratio for the movement exceeds 1.0, regardless of the control delay.

The Level of Service Criteria for unsignalized intersections are somewhat different from the criteria for signalized intersections.

LEVEL OF SERVICE CRITERIA

FOR ALL-WAY STOP-CONTROLLED (AWSC) UNSIGNALIZED INTERSECTIONS

The Levels of Service (LOS) for all-way stop-controlled (AWSC) intersections are given in Exhibit 21-8. As the exhibit notes, LOS F is assigned if the volume-to-capacity (v/c) ratio of a lane exceeds 1.0, regardless of the control delay. For assessment of LOS at the approach and intersection levels, LOS is based solely on control delay.

The Level of Service Criteria for AWSC unsignalized intersections are given in Exhibit 21-8 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 21-8

| Control Delay (s/veh) | LOS by Volume-to-Capacity Ratio | |
|------------------------------|--|--------------------|
| | v/c ≤1.0 | v/c >1.0 |
| 0-10 | A | F |
| >10-15 | B | F |
| >15-25 | C | F |
| >25-35 | D | F |
| >35-50 | E | F |
| >50 | F | F |

For approaches and intersection wide assessment, LOS is defined solely by control delay.

























EAGLE BAY

APPENDIX D

CAPACITY ANALYSIS













Year 2018 Existing Traffic Volumes
1: NYS Route 22 & Old Post Road/Old Route 22

Weekday Peak AM Hour
02/19/2019

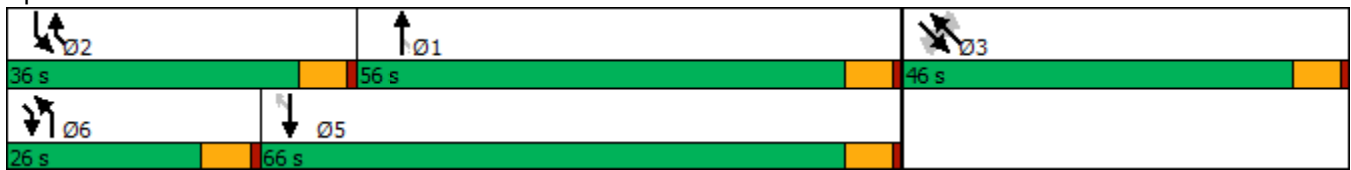
| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  |  |
| Traffic Volume (vph) | 88 | 767 | 104 | 136 | 770 | 21 | 9 | 5 | 53 | 3 | 2 | 12 |
| Future Volume (vph) | 88 | 767 | 104 | 136 | 770 | 21 | 9 | 5 | 53 | 3 | 2 | 12 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 11 | 12 | 12 | 11 | 11 | 11 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 350 | | 230 | 315 | | 155 | 0 | | 150 | 0 | | 125 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 86 | | | 86 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | 1.00 | | | | 0.99 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.969 | | | 0.971 | |
| Satd. Flow (prot) | 1770 | 3406 | 1599 | 1711 | 3438 | 1538 | 0 | 1662 | 1501 | 0 | 1320 | 1380 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.939 | | | 0.914 | |
| Satd. Flow (perm) | 1770 | 3406 | 1599 | 1711 | 3438 | 1538 | 0 | 1606 | 1501 | 0 | 1242 | 1361 |
| Right Turn on Red | | | Yes | | | Yes | | | No | | | Yes |
| Satd. Flow (RTOR) | | | 119 | | | 71 | | | | | | 24 |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | | 30 | |
| Link Distance (ft) | | 2626 | | | 1235 | | | 276 | | | 807 | |
| Travel Time (s) | | 32.6 | | | 15.3 | | | 6.3 | | | 18.3 | |
| Confl. Peds. (#/hr) | | | | | | | 4 | | | | | 4 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 6% | 1% | 2% | 5% | 5% | 11% | 0% | 4% | 33% | 50% | 17% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 91 | 791 | 107 | 140 | 794 | 22 | 9 | 5 | 55 | 3 | 2 | 12 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 91 | 791 | 107 | 140 | 794 | 22 | 0 | 14 | 55 | 0 | 5 | 12 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 20 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.04 | 1.00 | 1.00 | 1.04 | 1.04 | 1.04 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 |
| Detector Template | | | | | | | Left | | | Left | | |
| Leading Detector (ft) | 83 | 0 | 0 | 83 | 0 | 0 | 20 | 83 | 83 | 20 | 83 | 83 |
| Trailing Detector (ft) | -5 | 0 | 0 | -5 | 0 | 0 | 0 | -5 | -5 | 0 | -5 | -5 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA pm+ov | Perm | NA pm+ov | Perm | NA pm+ov |
| Protected Phases | 6 | 1 | | 2 | 5 | | | 3 | 6 | | 3 | 2 |
| Permitted Phases | | | 1 | | | 5 | 3 | | 3 | 3 | | 3 |
| Detector Phase | 6 | 1 | 1 | 2 | 5 | 5 | 3 | 3 | 6 | 3 | 3 | 2 |
| Switch Phase | | | | | | | | | | | | |

Year 2018 Existing Traffic Volumes
1: NYS Route 22 & Old Post Road/Old Route 22

Weekday Peak AM Hour
02/19/2019
























| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
| Minimum Initial (s) | 2.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 | 5.0 |
| Minimum Split (s) | 20.0 | 56.0 | 56.0 | 26.0 | 56.0 | 56.0 | 33.0 | 33.0 | 20.0 | 33.0 | 33.0 | 26.0 |
| Total Split (s) | 26.0 | 56.0 | 56.0 | 36.0 | 66.0 | 66.0 | 46.0 | 46.0 | 26.0 | 46.0 | 46.0 | 36.0 |
| Total Split (%) | 18.8% | 40.6% | 40.6% | 26.1% | 47.8% | 47.8% | 33.3% | 33.3% | 18.8% | 33.3% | 33.3% | 26.1% |
| Maximum Green (s) | 20.0 | 50.0 | 50.0 | 30.0 | 60.0 | 60.0 | 40.0 | 40.0 | 20.0 | 40.0 | 40.0 | 30.0 |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | | | Lead | | | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | | | Yes | | | Yes |
| Vehicle Extension (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Minimum Gap (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None | None |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 9.0 | 58.3 | 58.3 | 11.5 | 60.8 | 60.8 | | 10.1 | 14.6 | | 10.1 | 15.0 |
| Actuated g/C Ratio | 0.10 | 0.67 | 0.67 | 0.13 | 0.69 | 0.69 | | 0.12 | 0.17 | | 0.12 | 0.17 |
| v/c Ratio | 0.50 | 0.35 | 0.10 | 0.62 | 0.33 | 0.02 | | 0.08 | 0.22 | | 0.03 | 0.05 |
| Control Delay | 48.7 | 8.7 | 1.9 | 49.6 | 7.3 | 0.0 | | 40.5 | 31.4 | | 40.4 | 5.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 48.7 | 8.7 | 1.9 | 49.6 | 7.3 | 0.0 | | 40.5 | 31.4 | | 40.4 | 5.1 |
| LOS | D | A | A | D | A | A | | D | C | | D | A |
| Approach Delay | 11.6 | | | | 13.3 | | | | 33.3 | | 15.5 | |
| Approach LOS | B | | | | B | | | | C | | B | |
| Queue Length 50th (ft) | 44 | 63 | 0 | 68 | 55 | 0 | | 6 | 26 | | 2 | 0 |
| Queue Length 95th (ft) | 105 | 190 | 20 | 144 | 172 | 0 | | 28 | 57 | | 14 | 7 |
| Internal Link Dist (ft) | 2546 | | | | 1155 | | | | 196 | | 727 | |
| Turn Bay Length (ft) | 350 | | 230 | 315 | | 155 | | | 150 | | | 125 |
| Base Capacity (vph) | 409 | 2266 | 1103 | 593 | 2386 | 1089 | | 743 | 443 | | 574 | 547 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.22 | 0.35 | 0.10 | 0.24 | 0.33 | 0.02 | | 0.02 | 0.12 | | 0.01 | 0.02 |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: | 138 | | | | | | | | | | | |
| Actuated Cycle Length: | 87.6 | | | | | | | | | | | |
| Natural Cycle: | 115 | | | | | | | | | | | |
| Control Type: | Semi Act-Uncoord | | | | | | | | | | | |
| Maximum v/c Ratio: | 0.62 | | | | | | | | | | | |
| Intersection Signal Delay: | 13.2 | | | | Intersection LOS: B | | | | | | | |
| Intersection Capacity Utilization | 52.1% | | | | ICU Level of Service A | | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |

Splits and Phases: 1: NYS Route 22 & Old Post Road/Old Route 22















Year 2018 Existing Traffic Volumes
2: NYS Route 22 & North Castle Drive (IBM)/NYS Route 128

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  | |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 12 | 3 | 9 | 127 | 23 | 189 | 176 | 480 | 132 | 372 | 726 | 167 |
| Future Volume (vph) | 12 | 3 | 9 | 127 | 23 | 189 | 176 | 480 | 132 | 372 | 726 | 167 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 15 | 12 | 11 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 225 | 0 | | 250 | 680 | | 250 | 400 | | 250 |
| Storage Lanes | 1 | | 1 | 0 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 86 | | | 86 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.959 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1357 | 1429 | 1455 | 0 | 1927 | 1495 | 1662 | 3471 | 1553 | 1787 | 3539 | 1553 |
| Flt Permitted | 0.554 | | | | 0.757 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 791 | 1429 | 1455 | 0 | 1521 | 1495 | 1662 | 3471 | 1553 | 1787 | 3539 | 1553 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 71 | | | 195 | | | 136 | | | 172 |
| Link Speed (mph) | | 30 | | | 30 | | | 55 | | | 55 | |
| Link Distance (ft) | | 298 | | | 237 | | | 1202 | | | 815 | |
| Travel Time (s) | | 6.8 | | | 5.4 | | | 14.9 | | | 10.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 33% | 33% | 11% | 4% | 4% | 8% | 5% | 4% | 4% | 1% | 2% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 12 | 3 | 9 | 131 | 24 | 195 | 181 | 495 | 136 | 384 | 748 | 172 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 12 | 3 | 9 | 0 | 155 | 195 | 181 | 495 | 136 | 384 | 748 | 172 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.88 | 1.00 | 1.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 |
| Detector Template | | | | Left | | | | | | | | |
| Leading Detector (ft) | 6 | 6 | 6 | 20 | 43 | 6 | 83 | 6 | 6 | 83 | 6 | 6 |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | -5 | 0 | 0 | -5 | 0 | 0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | | 3 | | | 3 | | 6 | 1 | | 2 | 5 | |
| Permitted Phases | 3 | | 3 | 3 | | 3 | | | 1 | | | 5 |
| Detector Phase | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 1 | 1 | 2 | 5 | 5 |
| Switch Phase | | | | | | | | | | | | |

Year 2018 Existing Traffic Volumes
2: NYS Route 22 & North Castle Drive (IBM)/NYS Route 128

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 |
| Minimum Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 16.0 | 56.0 | 56.0 | 16.0 | 56.0 | 56.0 |
| Total Split (s) | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 36.0 | 56.0 | 56.0 | 36.0 | 56.0 | 56.0 |
| Total Split (%) | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 26.1% | 40.6% | 40.6% | 26.1% | 40.6% | 40.6% |
| Maximum Green (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 30.0 | 50.0 | 50.0 | 30.0 | 50.0 | 50.0 |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 2.0 | 6.0 | 6.0 | 2.0 | 6.0 | 6.0 |
| Minimum Gap (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 | 3.0 | 3.0 | 2.0 | 4.0 | 4.0 |
| Time Before Reduce (s) | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 0.0 | 20.0 | 20.0 | 0.0 | 20.0 | 20.0 |
| Time To Reduce (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 0.0 | 10.0 | 10.0 | 0.0 | 10.0 | 10.0 |
| Recall Mode | Min | Min | Min | Min | Min | Min | None | Max | Max | None | Max | Max |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 20.3 | 20.3 | 20.3 | | 20.3 | 20.3 | 17.1 | 50.1 | 50.1 | 29.8 | 62.8 | 62.8 |
| Actuated g/C Ratio | 0.17 | 0.17 | 0.17 | | 0.17 | 0.17 | 0.14 | 0.42 | 0.42 | 0.25 | 0.53 | 0.53 |
| v/c Ratio | 0.09 | 0.01 | 0.03 | | 0.59 | 0.47 | 0.75 | 0.34 | 0.18 | 0.85 | 0.40 | 0.19 |
| Control Delay | 41.8 | 39.3 | 0.2 | | 54.8 | 9.5 | 68.1 | 24.4 | 4.4 | 61.8 | 18.8 | 3.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 41.8 | 39.3 | 0.2 | | 54.8 | 9.5 | 68.1 | 24.4 | 4.4 | 61.8 | 18.8 | 3.3 |
| LOS | D | D | A | | D | A | E | C | A | E | B | A |
| Approach Delay | | 25.9 | | | 29.6 | | | 30.8 | | | 29.4 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Queue Length 50th (ft) | 8 | 2 | 0 | | 110 | 0 | 135 | 132 | 0 | 282 | 173 | 0 |
| Queue Length 95th (ft) | 26 | 10 | 0 | | 181 | 62 | 212 | 191 | 40 | #482 | 274 | 40 |
| Internal Link Dist (ft) | | 218 | | | 157 | | | 1122 | | | 735 | |
| Turn Bay Length (ft) | | | 225 | | | 250 | 680 | | 250 | 400 | | 250 |
| Base Capacity (vph) | 268 | 484 | 540 | | 515 | 635 | 422 | 1471 | 736 | 454 | 1879 | 905 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.04 | 0.01 | 0.02 | | 0.30 | 0.31 | 0.43 | 0.34 | 0.18 | 0.85 | 0.40 | 0.19 |

Intersection Summary

Area Type: Other

Cycle Length: 138

Actuated Cycle Length: 118.2

Natural Cycle: 115

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 29.9

Intersection LOS: C

Intersection Capacity Utilization 63.8%

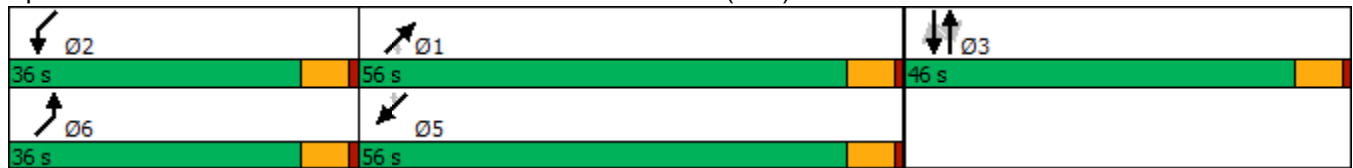
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.























Queue shown is maximum after two cycles.

Splits and Phases: 2: NYS Route 22 & North Castle Drive (IBM)/NYS Route 128















Year 2018 Existing Traffic Volumes
3: Business Park Drive/Maple Avenue & NYS Route 22

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  |  |  |  |  |
| Traffic Volume (vph) | 43 | 438 | 135 | 168 | 1129 | 352 | 67 | 43 | 62 | 225 | 59 | 69 |
| Future Volume (vph) | 43 | 438 | 135 | 168 | 1129 | 352 | 67 | 43 | 62 | 225 | 59 | 69 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 11 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 600 | | 0 | 265 | | 225 | 0 | | 0 | 100 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 0 | | 1 | 1 | | 0 |
| Taper Length (ft) | 86 | | | 86 | | | 25 | | | 86 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | 1.00 | | | 0.99 | |
| Frt | | 0.965 | | | | 0.850 | | | 0.850 | | 0.919 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.970 | | 0.950 | | |
| Satd. Flow (prot) | 1419 | 3299 | 0 | 1728 | 3539 | 1509 | 0 | 1821 | 1583 | 1703 | 1641 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.970 | | 0.950 | | |
| Satd. Flow (perm) | 1419 | 3299 | 0 | 1728 | 3539 | 1509 | 0 | 1816 | 1583 | 1703 | 1641 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 36 | | | | 261 | | | 114 | | 38 | |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | | 30 | |
| Link Distance (ft) | | 561 | | | 541 | | | 577 | | | 575 | |
| Travel Time (s) | | 7.0 | | | 6.7 | | | 13.1 | | | 13.1 | |
| Confl. Peds. (#/hr) | | | | | | | 3 | | | | | 3 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 23% | 7% | 1% | 1% | 2% | 7% | 2% | 0% | 2% | 6% | 0% | 10% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 45 | 461 | 142 | 177 | 1188 | 371 | 71 | 45 | 65 | 237 | 62 | 73 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 45 | 603 | 0 | 177 | 1188 | 371 | 0 | 116 | 65 | 237 | 135 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 11 | | | 11 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.04 | 1.00 | 1.00 | 1.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 2 | 2 | | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | |
| Detector Template | | | | | | | Left | | | Left | | |
| Leading Detector (ft) | 83 | 83 | | 83 | 83 | 40 | 50 | 83 | 83 | 83 | 83 | |
| Trailing Detector (ft) | -5 | -5 | | -5 | -5 | 0 | 0 | -5 | -5 | 0 | 0 | |
| Turn Type | Prot | NA | | Prot | NA | Perm | Split | NA | Perm | Split | NA | |
| Protected Phases | 6 | 1 | | 2 | 5 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | 5 | | | 3 | | | |
| Detector Phase | 6 | 1 | | 2 | 5 | 5 | 3 | 3 | 3 | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |

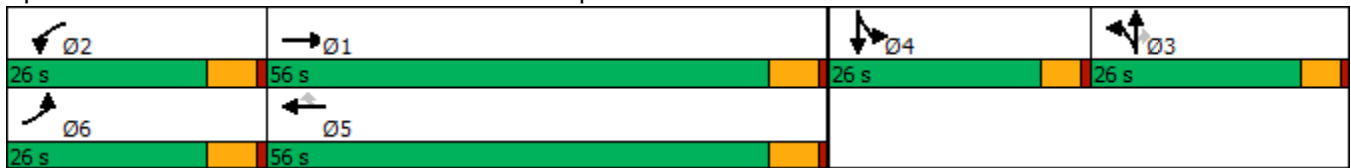
Year 2018 Existing Traffic Volumes
3: Business Park Drive/Maple Avenue & NYS Route 22

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | 15.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | |
| Minimum Split (s) | 9.0 | 21.0 | | 9.0 | 21.0 | 21.0 | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 | |
| Total Split (s) | 26.0 | 56.0 | | 26.0 | 56.0 | 56.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | |
| Total Split (%) | 19.4% | 41.8% | | 19.4% | 41.8% | 41.8% | 19.4% | 19.4% | 19.4% | 19.4% | 19.4% | |
| Maximum Green (s) | 20.0 | 50.0 | | 20.0 | 50.0 | 50.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | |
| Yellow Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | -2.0 | -2.0 | | -2.0 | -2.0 | -2.0 | | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lag | Lag | Lag | Lead | Lead | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | |
| Minimum Gap (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | None | None | None | None | None | None | |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 10.1 | 33.5 | | 17.0 | 43.5 | 43.5 | | 13.6 | 13.6 | 19.6 | 19.6 | |
| Actuated g/C Ratio | 0.10 | 0.33 | | 0.17 | 0.43 | 0.43 | | 0.14 | 0.14 | 0.20 | 0.20 | |
| v/c Ratio | 0.32 | 0.54 | | 0.61 | 0.77 | 0.46 | | 0.47 | 0.21 | 0.71 | 0.39 | |
| Control Delay | 53.4 | 27.6 | | 51.2 | 29.8 | 8.8 | | 51.6 | 2.5 | 54.1 | 32.4 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 53.4 | 27.6 | | 51.2 | 29.8 | 8.8 | | 51.6 | 2.5 | 54.1 | 32.4 | |
| LOS | D | C | | D | C | A | | D | A | D | C | |
| Approach Delay | | 29.4 | | | 27.5 | | | 34.0 | | | 46.2 | |
| Approach LOS | | C | | | C | | | C | | | D | |
| Queue Length 50th (ft) | 29 | 157 | | 110 | 357 | 45 | | 74 | 0 | 146 | 55 | |
| Queue Length 95th (ft) | 72 | 237 | | 206 | 510 | 134 | | 146 | 6 | #302 | 131 | |
| Internal Link Dist (ft) | | 481 | | | 461 | | | 497 | | | 495 | |
| Turn Bay Length (ft) | 600 | | | 265 | | 225 | | | | 100 | | |
| Base Capacity (vph) | 325 | 1802 | | 396 | 1916 | 936 | | 417 | 450 | 390 | 405 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.14 | 0.33 | | 0.45 | 0.62 | 0.40 | | 0.28 | 0.14 | 0.61 | 0.33 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: | 134 | | | | | | | | | | | |
| Actuated Cycle Length: | 100.4 | | | | | | | | | | | |
| Natural Cycle: | 65 | | | | | | | | | | | |
| Control Type: | Actuated-Uncoordinated | | | | | | | | | | | |
| Maximum v/c Ratio: | 0.77 | | | | | | | | | | | |
| Intersection Signal Delay: | 30.7 | | | | | Intersection LOS: C | | | | | | |
| Intersection Capacity Utilization | 68.7% | | | | | ICU Level of Service C | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | | | | | | | | | | |

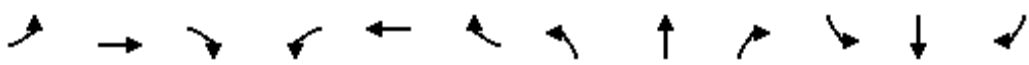
Queue shown is maximum after two cycles.

Splits and Phases: 3: Business Park Drive/Maple Avenue & NYS Route 22



Year 2018 Existing Traffic Volumes
4: NYS Route 128 (Main Street) & Kent Place/Bedford Road

Weekday Peak AM Hour
02/19/2019

| |  | | | | | | | | | | | |
|----------------------------|--|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Volume (vph) | 1 | 5 | 10 | 38 | 16 | 44 | 26 | 167 | 65 | 58 | 307 | 16 |
| Future Volume (vph) | 1 | 5 | 10 | 38 | 16 | 44 | 26 | 167 | 65 | 58 | 307 | 16 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 1% | | | 1% | | | -1% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.913 | | | 0.939 | | | 0.966 | | | 0.994 | |
| Flt Protected | | 0.997 | | | 0.981 | | | 0.995 | | | 0.992 | |
| Satd. Flow (prot) | 0 | 1549 | 0 | 0 | 1370 | 0 | 0 | 1521 | 0 | 0 | 1590 | 0 |
| Flt Permitted | | 0.997 | | | 0.981 | | | 0.995 | | | 0.992 | |
| Satd. Flow (perm) | 0 | 1549 | 0 | 0 | 1370 | 0 | 0 | 1521 | 0 | 0 | 1590 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 231 | | | 878 | | | 1228 | | | 584 | |
| Travel Time (s) | | 5.3 | | | 20.0 | | | 27.9 | | | 13.3 | |
| Confl. Peds. (#/hr) | 12 | | | | | | 12 | | | | 12 | 12 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 16% | 6% | 16% | 4% | 8% | 12% | 3% | 6% | 19% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 1 | 5 | 11 | 41 | 17 | 48 | 28 | 182 | 71 | 63 | 334 | 17 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 17 | 0 | 0 | 106 | 0 | 0 | 281 | 0 | 0 | 414 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Area Type: CBD

Control Type: Unsignalized

Intersection Capacity Utilization 54.5% ICU Level of Service A

Analysis Period (min) 15

Year 2018 Existing Traffic Volumes
4: NYS Route 128 (Main Street) & Kent Place/Bedford Road

Weekday Peak AM Hour
02/19/2019

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 1 | 5 | 10 | 38 | 16 | 44 | 26 | 167 | 65 | 58 | 307 | 16 |
| Future Vol, veh/h | 1 | 5 | 10 | 38 | 16 | 44 | 26 | 167 | 65 | 58 | 307 | 16 |
| Conflicting Peds, #/hr | 12 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 12 | 0 | 12 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 1 | - | - | 1 | - | - | -1 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 16 | 6 | 16 | 4 | 8 | 12 | 3 | 6 | 19 |
| Mvmt Flow | 1 | 5 | 11 | 41 | 17 | 48 | 28 | 182 | 71 | 63 | 334 | 17 |


















| Major/Minor | Minor2 | Minor1 | | | | Major1 | | | Major2 | | | | |
|----------------------|--------|--------|-----|-------|-------|--------|-------|---|--------|-------|---|---|--|
| Conflicting Flow All | 799 | 802 | 355 | 763 | 775 | 242 | 363 | 0 | 0 | 265 | 0 | 0 | |
| Stage 1 | 481 | 481 | - | 286 | 286 | - | - | - | - | - | - | - | |
| Stage 2 | 318 | 321 | - | 477 | 489 | - | - | - | - | - | - | - | |
| Critical Hdwy | 7.3 | 6.7 | 6.3 | 7.46 | 6.76 | 6.46 | 4.14 | - | - | 4.13 | - | - | |
| Critical Hdwy Stg 1 | 6.3 | 5.7 | - | 6.46 | 5.76 | - | - | - | - | - | - | - | |
| Critical Hdwy Stg 2 | 6.3 | 5.7 | - | 6.46 | 5.76 | - | - | - | - | - | - | - | |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | 3.644 | 4.054 | 3.444 | 2.236 | - | - | 2.227 | - | - | |
| Pot Cap-1 Maneuve | 293 | 306 | 687 | 292 | 311 | 758 | 1185 | - | - | 1293 | - | - | |
| Stage 1 | 555 | 542 | - | 681 | 657 | - | - | - | - | - | - | - | |
| Stage 2 | 685 | 644 | - | 529 | 528 | - | - | - | - | - | - | - | |
| Platoon blocked, % | | | | | | | | - | - | | - | - | |
| Mov Cap-1 Maneuve | 239 | 274 | 680 | 262 | 278 | 743 | 1173 | - | - | 1280 | - | - | |
| Mov Cap-2 Maneuve | 239 | 274 | - | 262 | 278 | - | - | - | - | - | - | - | |
| Stage 1 | 534 | 504 | - | 655 | 632 | - | - | - | - | - | - | - | |
| Stage 2 | 600 | 620 | - | 484 | 491 | - | - | - | - | - | - | - | |

| Approach | EB | WB | NB | SB |
|----------------------|------|------|-----|-----|
| HCM Control Delay, s | 18.7 | 18.4 | 0.8 | 1.2 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1173 | - | - | 431 | 374 | 1280 | - | - |
| HCM Lane V/C Ratio | 0.024 | - | - | 0.04 | 0.285 | 0.049 | - | - |
| HCM Control Delay (s) | 8.1 | 0 | - | 13.7 | 18.4 | 8 | 0 | - |
| HCM Lane LOS | A | A | - | B | C | A | A | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.1 | 1.2 | 0.2 | - | - |













Year 2018 Existing Traffic Volumes
5: Maple Avenue & Bedford Road

Weekday Peak AM Hour
02/19/2019

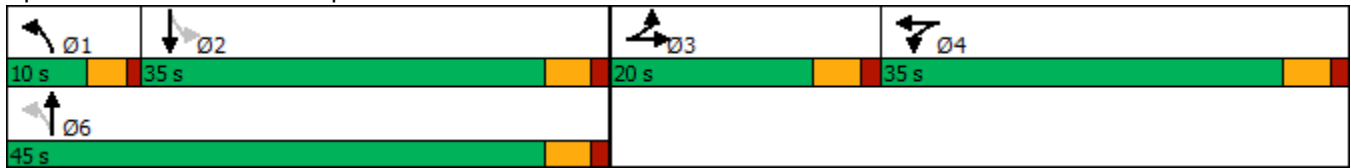
| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | | |  | |
| Traffic Volume (vph) | 3 | 42 | 118 | 93 | 38 | 23 | 122 | 175 | 141 | 18 | 142 | 3 |
| Future Volume (vph) | 3 | 42 | 118 | 93 | 38 | 23 | 122 | 175 | 141 | 18 | 142 | 3 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 15 | 15 | 15 | 15 | 15 | 15 | 10 | 10 | 10 | 15 | 15 | 15 |
| Grade (%) | | -1% | | | -1% | | | -2% | | | -1% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 50 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 86 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.98 | | | 1.00 | | | | | | | |
| Frt | | 0.902 | | | 0.980 | | | 0.933 | | | 0.998 | |
| Flt Protected | | 0.999 | | | 0.971 | | 0.950 | | | | 0.994 | |
| Satd. Flow (prot) | 0 | 1729 | 0 | 0 | 1884 | 0 | 1668 | 1522 | 0 | 0 | 1923 | 0 |
| Flt Permitted | | 0.999 | | | 0.971 | | 0.495 | | | | 0.928 | |
| Satd. Flow (perm) | 0 | 1729 | 0 | 0 | 1882 | 0 | 869 | 1522 | 0 | 0 | 1795 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 112 | | | 9 | | | 48 | | | 1 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 878 | | | 570 | | | 575 | | | 384 | |
| Travel Time (s) | | 20.0 | | | 13.0 | | | 13.1 | | | 8.7 | |
| Confl. Peds. (#/hr) | | | 1 | 1 | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 7% | 8% | 5% | 10% | 4% | 2% | 4% | 17% | 28% | 6% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 3 | 49 | 137 | 108 | 44 | 27 | 142 | 203 | 164 | 21 | 165 | 3 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 189 | 0 | 0 | 179 | 0 | 142 | 367 | 0 | 0 | 189 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 1.08 | 1.08 | 1.08 | 0.88 | 0.88 | 0.88 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turn Type | Split | NA | | Split | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 3 | 3 | | 4 | 4 | | 1 | 6 | | | 2 | |
| Permitted Phases | | | | | | | 6 | | | 2 | | |
| Detector Phase | 3 | 3 | | 4 | 4 | | 1 | 6 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |

Year 2018 Existing Traffic Volumes
5: Maple Avenue & Bedford Road

Weekday Peak AM Hour
02/19/2019

















| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 3.0 | 3.0 | | 10.0 | 10.0 | | 3.0 | 12.0 | | 12.0 | 12.0 | |
| Minimum Split (s) | 8.0 | 8.0 | | 15.0 | 15.0 | | 7.0 | 17.0 | | 17.0 | 17.0 | |
| Total Split (s) | 20.0 | 20.0 | | 35.0 | 35.0 | | 10.0 | 45.0 | | 35.0 | 35.0 | |
| Total Split (%) | 20.0% | 20.0% | | 35.0% | 35.0% | | 10.0% | 45.0% | | 35.0% | 35.0% | |
| Maximum Green (s) | 15.0 | 15.0 | | 30.0 | 30.0 | | 6.0 | 40.0 | | 30.0 | 30.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.0 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.0 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 4.0 | 5.0 | | | 5.0 | |
| Lead/Lag | Lead | Lead | | Lag | Lag | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | | | Yes | Yes | |
| Vehicle Extension (s) | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | | Max | None | | Min | Min | |
| Walk Time (s) | | | | 7.0 | 7.0 | | | | | | | |
| Flash Dont Walk (s) | | | | 15.0 | 15.0 | | | | | | | |
| Pedestrian Calls (#/hr) | | | | 1 | 1 | | | | | | | |
| Act Effct Green (s) | | 7.2 | | | 12.4 | | 25.3 | 24.3 | | | 14.0 | |
| Actuated g/C Ratio | | 0.12 | | | 0.21 | | 0.43 | 0.41 | | | 0.24 | |
| v/c Ratio | | 0.61 | | | 0.45 | | 0.31 | 0.56 | | | 0.45 | |
| Control Delay | | 21.3 | | | 24.4 | | 14.6 | 17.0 | | | 24.5 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Delay | | 21.3 | | | 24.4 | | 14.6 | 17.0 | | | 24.5 | |
| LOS | | C | | | C | | B | B | | | C | |
| Approach Delay | | 21.3 | | | 24.4 | | | 16.3 | | | 24.5 | |
| Approach LOS | | C | | | C | | | B | | | C | |
| Queue Length 50th (ft) | | 23 | | | 49 | | 27 | 72 | | | 52 | |
| Queue Length 95th (ft) | | 89 | | | 119 | | 82 | 202 | | | 132 | |
| Internal Link Dist (ft) | | 798 | | | 490 | | | 495 | | | 304 | |
| Turn Bay Length (ft) | | | | | | | 50 | | | | | |
| Base Capacity (vph) | | 533 | | | 986 | | 454 | 1072 | | | 936 | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.35 | | | 0.18 | | 0.31 | 0.34 | | | 0.20 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: | 100 | | | | | | | | | | | |
| Actuated Cycle Length: | 59.4 | | | | | | | | | | | |
| Natural Cycle: | 50 | | | | | | | | | | | |
| Control Type: | Semi Act-Uncoord | | | | | | | | | | | |
| Maximum v/c Ratio: | 0.61 | | | | | | | | | | | |
| Intersection Signal Delay: | 20.0 | | | | | Intersection LOS: C | | | | | | |
| Intersection Capacity Utilization | 62.8% | | | | | ICU Level of Service B | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |

Splits and Phases: 5: Maple Avenue & Bedford Road















Year 2018 Existing Traffic Volumes
6: NYS Route 128 (Main Street) & Whippoorwill Road/Maple Avenue

Weekday Peak AM Hour
02/19/2019

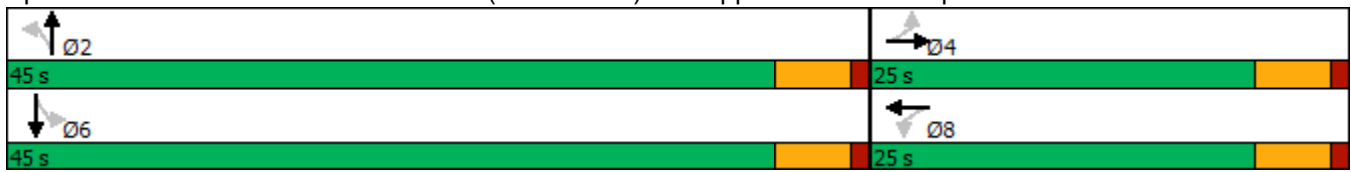
| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | | |  | | |  | |
| Traffic Volume (vph) | 14 | 57 | 49 | 41 | 34 | 105 | 19 | 132 | 32 | 103 | 279 | 4 |
| Future Volume (vph) | 14 | 57 | 49 | 41 | 34 | 105 | 19 | 132 | 32 | 103 | 279 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | -6% | | | 1% | | | 1% | | | -3% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.99 | | | 1.00 | | | 1.00 | | | 1.00 | |
| Frt | | 0.945 | | | 0.921 | | | 0.976 | | | 0.999 | |
| Flt Protected | | 0.994 | | | 0.989 | | | 0.995 | | | 0.987 | |
| Satd. Flow (prot) | 0 | 1507 | 0 | 0 | 1532 | 0 | 0 | 1475 | 0 | 0 | 1612 | 0 |
| Flt Permitted | | 0.943 | | | 0.892 | | | 0.947 | | | 0.868 | |
| Satd. Flow (perm) | 0 | 1429 | 0 | 0 | 1381 | 0 | 0 | 1403 | 0 | 0 | 1416 | 0 |
| Right Turn on Red | | | Yes | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | 50 | | | | | | | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 410 | | | 373 | | | 584 | | | 389 | |
| Travel Time (s) | | 9.3 | | | 8.5 | | | 13.3 | | | 8.8 | |
| Confl. Peds. (#/hr) | | | 1 | 1 | | | | | 3 | 3 | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 14% | 10% | 6% | 0% | 3% | 1% | 16% | 13% | 3% | 5% | 6% | 50% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 15 | 60 | 52 | 43 | 36 | 111 | 20 | 139 | 34 | 108 | 294 | 4 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 127 | 0 | 0 | 190 | 0 | 0 | 193 | 0 | 0 | 406 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.10 | 1.10 | 1.10 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.12 | 1.12 | 1.12 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |

Year 2018 Existing Traffic Volumes
6: NYS Route 128 (Main Street) & Whippoorwill Road/Maple Avenue

Weekday Peak AM Hour
02/19/2019













| |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | |
| Total Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 45.0 | 45.0 | | 45.0 | 45.0 | |
| Total Split (%) | 35.7% | 35.7% | | 35.7% | 35.7% | | 64.3% | 64.3% | | 64.3% | 64.3% | |
| Maximum Green (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | | Min | Min | | Min | Min | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 13.0 | 13.0 | | 13.0 | 13.0 | | 13.0 | 13.0 | | 13.0 | 13.0 | |
| Pedestrian Calls (#/hr) | 1 | 1 | | 0 | 0 | | 3 | 3 | | 0 | 0 | |
| Act Effct Green (s) | | 12.3 | | | 12.3 | | | 22.7 | | | 22.7 | |
| Actuated g/C Ratio | | 0.31 | | | 0.31 | | | 0.56 | | | 0.56 | |
| v/c Ratio | | 0.27 | | | 0.45 | | | 0.24 | | | 0.51 | |
| Control Delay | | 10.4 | | | 17.2 | | | 8.2 | | | 11.1 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 10.4 | | | 17.2 | | | 8.2 | | | 11.1 | |
| LOS | | B | | | B | | | A | | | B | |
| Approach Delay | | 10.4 | | | 17.2 | | | 8.2 | | | 11.1 | |
| Approach LOS | | B | | | B | | | A | | | B | |
| Queue Length 50th (ft) | | 11 | | | 31 | | | 22 | | | 57 | |
| Queue Length 95th (ft) | | 53 | | | 103 | | | 68 | | | 160 | |
| Internal Link Dist (ft) | | 330 | | | 293 | | | 504 | | | 309 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 774 | | | 725 | | | 1289 | | | 1301 | |
| Starvation Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.16 | | | 0.26 | | | 0.15 | | | 0.31 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | CBD | | | | | | | | | | | |
| Cycle Length: 70 | | | | | | | | | | | | |
| Actuated Cycle Length: 40.2 | | | | | | | | | | | | |
| Natural Cycle: 50 | | | | | | | | | | | | |
| Control Type: Actuated-Uncoordinated | | | | | | | | | | | | |
| Maximum v/c Ratio: 0.51 | | | | | | | | | | | | |
| Intersection Signal Delay: 11.6 | | | | | | Intersection LOS: B | | | | | | |
| Intersection Capacity Utilization 65.2% | | | | | | ICU Level of Service C | | | | | | |
| Analysis Period (min) 15 | | | | | | | | | | | | |

Splits and Phases: 6: NYS Route 128 (Main Street) & Whippoorwill Road/Maple Avenue









Year 2018 Existing Traffic Volumes
7: NYS Route 22 & NYS Route 120 (North)

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|
| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 166 | 468 | 628 | 198 | 491 | 665 |
| Future Volume (vph) | 166 | 468 | 628 | 198 | 491 | 665 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 10 | 10 | 10 | 10 | 10 | 10 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 250 | | | 500 | 250 | 0 |
| Storage Lanes | 1 | | | 1 | 1 | 1 |
| Taper Length (ft) | 86 | | | | 86 | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1478 | 3209 | 3303 | 1478 | 1604 | 1436 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 1478 | 3209 | 3303 | 1478 | 1604 | 1436 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 202 | | 455 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 770 | 1056 | | 861 | |
| Travel Time (s) | | 9.5 | 13.1 | | 19.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 14% | 5% | 2% | 2% | 5% | 5% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 169 | 478 | 641 | 202 | 501 | 679 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 169 | 478 | 641 | 202 | 501 | 679 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 10 | 15 | | 10 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Number of Detectors | 1 | 2 | 2 | 1 | 2 | 0 |
| Detector Template | | | | | | |
| Leading Detector (ft) | 35 | 104 | 104 | 0 | 104 | 0 |
| Trailing Detector (ft) | -5 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | NA | Free | Prot | Free |
| Protected Phases | 2 | 5 | 1 | | 3 | |
| Permitted Phases | | | | Free | | Free |
| Detector Phase | 2 | 5 | 1 | | 3 | |
| Switch Phase | | | | | | |

Year 2018 Existing Traffic Volumes
7: NYS Route 22 & NYS Route 120 (North)

Weekday Peak AM Hour
02/19/2019

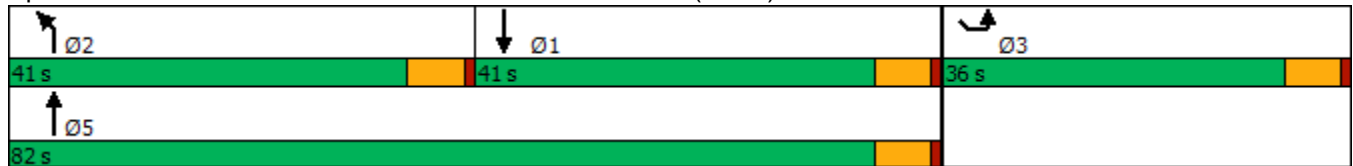
| |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
| Minimum Initial (s) | 12.0 | 12.0 | 12.0 | | 10.0 | |
| Minimum Split (s) | 36.0 | 36.0 | 36.0 | | 26.0 | |
| Total Split (s) | 41.0 | 82.0 | 41.0 | | 36.0 | |
| Total Split (%) | 34.7% | 69.5% | 34.7% | | 30.5% | |
| Maximum Green (s) | 35.0 | 76.0 | 35.0 | | 30.0 | |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | | 5.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | | 6.0 | |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 6.0 | 6.0 | 6.0 | | 6.0 | |
| Minimum Gap (s) | 4.0 | 4.0 | 4.0 | | 4.0 | |
| Time Before Reduce (s) | 20.0 | 20.0 | 20.0 | | 20.0 | |
| Time To Reduce (s) | 8.0 | 8.0 | 8.0 | | 5.0 | |
| Recall Mode | None | Min | Min | | Min | |
| Walk Time (s) | | | | | | |
| Flash Dont Walk (s) | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | |
| Act Effct Green (s) | 19.1 | 53.2 | 28.0 | 95.6 | 30.3 | 95.6 |
| Actuated g/C Ratio | 0.20 | 0.56 | 0.29 | 1.00 | 0.32 | 1.00 |
| v/c Ratio | 0.57 | 0.27 | 0.66 | 0.14 | 0.99 | 0.47 |
| Control Delay | 43.4 | 11.1 | 33.7 | 0.2 | 72.4 | 1.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 43.4 | 11.1 | 33.7 | 0.2 | 72.4 | 1.1 |
| LOS | D | B | C | A | E | A |
| Approach Delay | | 19.5 | 25.7 | | 31.4 | |
| Approach LOS | | B | C | | C | |
| Queue Length 50th (ft) | 94 | 74 | 177 | 0 | ~308 | 0 |
| Queue Length 95th (ft) | 170 | 100 | 261 | 0 | #621 | 0 |
| Internal Link Dist (ft) | | 690 | 976 | | 781 | |
| Turn Bay Length (ft) | 250 | | | 500 | 250 | |
| Base Capacity (vph) | 546 | 2576 | 1221 | 1478 | 508 | 1436 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.31 | 0.19 | 0.52 | 0.14 | 0.99 | 0.47 |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Cycle Length: | 118 | | | | | |
| Actuated Cycle Length: | 95.6 | | | | | |
| Natural Cycle: | 110 | | | | | |
| Control Type: | Actuated-Uncoordinated | | | | | |
| Maximum v/c Ratio: | 0.99 | | | | | |
| Intersection Signal Delay: | 26.7 | | | Intersection LOS: C | | |
| Intersection Capacity Utilization | 69.6% | | | ICU Level of Service C | | |
| Analysis Period (min) | 15 | | | | | |
| ~ Volume exceeds capacity, queue is theoretically infinite. | | | | | | |

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.












Queue shown is maximum after two cycles.

Splits and Phases: 7: NYS Route 22 & NYS Route 120 (North)









Year 2018 Existing Traffic Volumes
8: NYS Route 22 & NYS Route 120 (South)

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  | |  |  |  |  |
| Traffic Volume (vph) | 40 | 0 | 450 | 136 | 683 | 610 |
| Future Volume (vph) | 40 | 0 | 450 | 136 | 683 | 610 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 10 | 10 | 11 | 11 |
| Grade (%) | -8% | | -2% | | | -1% |
| Storage Length (ft) | 0 | 0 | | 200 | 215 | |
| Storage Lanes | 1 | 0 | | 1 | 2 | |
| Taper Length (ft) | 25 | | | | 86 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1707 | 0 | 3304 | 1478 | 3368 | 3405 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 1707 | 0 | 3304 | 1478 | 3368 | 3405 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | | | 74 | | |
| Link Speed (mph) | 30 | | 50 | | | 50 |
| Link Distance (ft) | 334 | | 905 | | | 488 |
| Travel Time (s) | 7.6 | | 12.3 | | | 6.7 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 10% | 0% | 3% | 3% | 1% | 3% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | 0% | | | 0% |
| Adj. Flow (vph) | 42 | 0 | 474 | 143 | 719 | 642 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 42 | 0 | 474 | 143 | 719 | 642 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 22 | | | 22 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 0.95 | 0.95 | 1.08 | 1.08 | 1.04 | 1.04 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Number of Detectors | 1 | | 2 | 1 | 1 | 2 |
| Detector Template | Left | | Thru | Right | Left | Thru |
| Leading Detector (ft) | 20 | | 100 | 20 | 20 | 100 |
| Trailing Detector (ft) | 0 | | 0 | 0 | 0 | 0 |
| Turn Type | Prot | | NA pm+ov | | Prot | NA |
| Protected Phases | 8 | | 2 | 8 | 1 | 6 |
| Permitted Phases | | | | 2 | | |
| Detector Phase | 8 | | 2 | 8 | 1 | 6 |
| Switch Phase | | | | | | |

Year 2018 Existing Traffic Volumes
8: NYS Route 22 & NYS Route 120 (South)

Weekday Peak AM Hour
02/19/2019















| |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Minimum Initial (s) | 10.0 | | 12.0 | 10.0 | 12.0 | 12.0 |
| Minimum Split (s) | 26.0 | | 36.0 | 26.0 | 36.0 | 36.0 |
| Total Split (s) | 27.0 | | 43.0 | 27.0 | 48.0 | 91.0 |
| Total Split (%) | 22.9% | | 36.4% | 22.9% | 40.7% | 77.1% |
| Maximum Green (s) | 21.0 | | 37.0 | 21.0 | 42.0 | 85.0 |
| Yellow Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | | Min | None | Min | Min |
| Walk Time (s) | 5.0 | | 5.0 | 5.0 | | 5.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | 11.0 | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | | 0 |
| Act Effct Green (s) | 10.2 | | 15.8 | 32.1 | 19.7 | 41.6 |
| Actuated g/C Ratio | 0.16 | | 0.25 | 0.50 | 0.31 | 0.65 |
| v/c Ratio | 0.15 | | 0.58 | 0.18 | 0.69 | 0.29 |
| Control Delay | 28.3 | | 24.9 | 6.0 | 23.6 | 5.0 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 28.3 | | 24.9 | 6.0 | 23.6 | 5.0 |
| LOS | C | | C | A | C | A |
| Approach Delay | 28.3 | | 20.5 | | | 14.8 |
| Approach LOS | C | | C | | | B |
| Queue Length 50th (ft) | 14 | | 83 | 13 | 121 | 46 |
| Queue Length 95th (ft) | 47 | | 146 | 46 | 200 | 65 |
| Internal Link Dist (ft) | 254 | | 825 | | | 408 |
| Turn Bay Length (ft) | | | | 200 | 215 | |
| Base Capacity (vph) | 570 | | 1943 | 778 | 2249 | 3405 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | | 0.24 | 0.18 | 0.32 | 0.19 |
| Intersection Summary | | | | | | |
| Area Type: Other | | | | | | |
| Cycle Length: 118 | | | | | | |
| Actuated Cycle Length: 64 | | | | | | |
| Natural Cycle: 100 | | | | | | |
| Control Type: Semi Act-Uncoord | | | | | | |
| Maximum v/c Ratio: 0.69 | | | | | | |
| Intersection Signal Delay: 16.9 | | | | Intersection LOS: B | | |
| Intersection Capacity Utilization 55.3% | | | | ICU Level of Service B | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 8: NYS Route 22 & NYS Route 120 (South)



Year 2018 Existing Traffic Volumes
9: King Street & Old Post Road

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | |  | | |  | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 0 | 24 | 6 | 1 | 178 | 38 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 0 | 0 | 0 | 24 | 6 | 1 | 178 | 38 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 13 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | -5% | | | -7% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | 0.972 | | | 0.976 | | | | |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 1835 | 0 | 0 | 1745 | 0 | 0 | 0 | 0 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 1835 | 0 | 0 | 1745 | 0 | 0 | 0 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 63 | | | 297 | | | 300 | | | 404 | |
| Travel Time (s) | | 1.4 | | | 6.8 | | | 6.8 | | | 9.2 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 4% | 0% | 0% | 16% | 3% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 0 | 0 | 0 | 0 | 27 | 7 | 1 | 202 | 43 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 34 | 0 | 0 | 246 | 0 | 0 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 0.97 | 0.97 | 0.97 | 0.96 | 0.92 | 0.96 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Stop | | | Stop | | | Free | | | Stop | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |
| Intersection Capacity Utilization | 21.7% | | | | | | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |
| ICU Level of Service A | | | | | | | | | | | | |

Intersection

Int Delay, s/veh 1.1

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | ↑ | | ↑ | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 24 | 6 | 1 | 178 | 38 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 24 | 6 | 1 | 178 | 38 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | 2 | - | - | - | 0 | - | - | 0 | - | -16 | 965 | - |
| Grade, % | - | 0 | - | - | -5 | - | - | -7 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 16 | 3 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 27 | 7 | 1 | 202 | 43 | 0 | 0 | 0 |












| Major/Minor | Minor1 | Major1 |
|----------------------|--------|-------------|
| Conflicting Flow All | - 226 | 224 0 0 0 |
| Stage 1 | - 226 | - - - - |
| Stage 2 | - 0 | - - - - |
| Critical Hdwy | - 5.54 | 5.7 4.1 - - |
| Critical Hdwy Stg 1 | - 4.54 | - - - - |
| Critical Hdwy Stg 2 | - - | - - - - |
| Follow-up Hdwy | -4.036 | 3.3 2.2 - - |
| Pot Cap-1 Maneuver | 0 713 | 846 - - - |
| Stage 1 | 0 759 | - - - - |
| Stage 2 | 0 - | - - - - |
| Platoon blocked, % | | - - |
| Mov Cap-1 Maneuver | - 0 | 846 - - - |
| Mov Cap-2 Maneuver | - 0 | - - - - |
| Stage 1 | - 0 | - - - - |
| Stage 2 | - 0 | - - - - |

| Approach | WB | NB |
|----------------------|-----|----|
| HCM Control Delay, s | 9.4 | |
| HCM LOS | A | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | WBLn1 |
|-----------------------|-----|-----|-----|-------|
| Capacity (veh/h) | - | - | - | 846 |
| HCM Lane V/C Ratio | - | - | - | 0.04 |
| HCM Control Delay (s) | - | - | - | 9.4 |
| HCM Lane LOS | - | - | - | A |
| HCM 95th %tile Q(veh) | - | - | - | 0.1 |

Year 2018 Existing Traffic Volumes
10: NYS Route 22 & I-684 SB On/Off Ramp

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SBL2 | SBL | SBR | NWL | NWR |
| Lane Configurations | | ↑↑ | ↑ | | ↑↑ | ↑ | ↑ | | ↑ | | |
| Traffic Volume (vph) | 0 | 495 | 230 | 0 | 813 | 269 | 296 | 0 | 836 | 0 | 0 |
| Future Volume (vph) | 0 | 495 | 230 | 0 | 813 | 269 | 296 | 0 | 836 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 16 | 16 | 16 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | 0% | |
| Storage Length (ft) | 0 | | 275 | 0 | | 0 | | 200 | 0 | 0 | 0 |
| Storage Lanes | 0 | | 1 | 0 | | 1 | | 1 | 1 | 0 | 0 |
| Taper Length (ft) | 25 | | | 25 | | | | 25 | | 25 | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | |
| Flt Protected | | | | | | | 0.950 | | | | |
| Satd. Flow (prot) | 0 | 3343 | 1468 | 0 | 3471 | 1553 | 2046 | 0 | 1812 | 0 | 0 |
| Flt Permitted | | | | | | | 0.950 | | | | |
| Satd. Flow (perm) | 0 | 3343 | 1468 | 0 | 3471 | 1553 | 2046 | 0 | 1812 | 0 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | |
| Satd. Flow (RTOR) | | | 242 | | | 270 | | | 419 | | |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | 30 | |
| Link Distance (ft) | | 796 | | | 930 | | | 572 | | 532 | |
| Travel Time (s) | | 9.9 | | | 11.5 | | | 13.0 | | 12.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 8% | 10% | 0% | 4% | 4% | 0% | 3% | 1% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | 0% | |
| Adj. Flow (vph) | 0 | 521 | 242 | 0 | 856 | 283 | 312 | 0 | 880 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 521 | 242 | 0 | 856 | 283 | 312 | 0 | 880 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 16 | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.85 | 0.85 | 0.85 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | 15 | 9 | 15 | 9 |
| Number of Detectors | | 3 | 1 | | 3 | 1 | 1 | | 1 | | |
| Detector Template | | | | | | | Left | | | | |
| Leading Detector (ft) | | 199 | 0 | | 199 | 0 | 20 | | 0 | | |
| Trailing Detector (ft) | | -5 | 0 | | -5 | 0 | 0 | | 0 | | |
| Turn Type | | NA | Free | | NA | Free | Perm | | Free | | |
| Protected Phases | | 6 | | | 2 | | | | | | |
| Permitted Phases | | | Free | | | Free | 3 | | Free | | |
| Detector Phase | | 6 | | | 2 | | 3 | | | | |
| Switch Phase | | | | | | | | | | | |

Year 2018 Existing Traffic Volumes
10: NYS Route 22 & I-684 SB On/Off Ramp

Weekday Peak AM Hour
02/19/2019



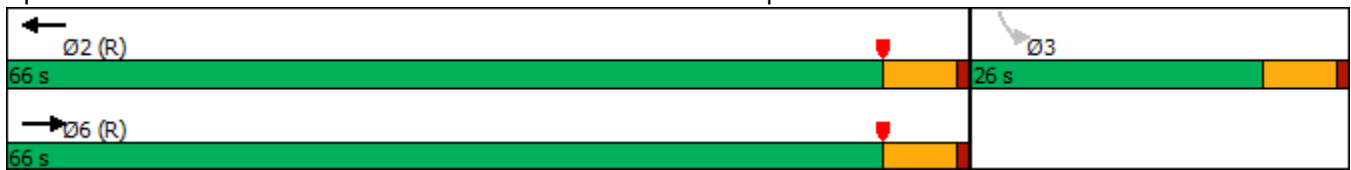
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SBL2 | SBL | SBR | NWL | NWR |
|-------------------------|-----|-------|------|-----|-------|------|-------|------|------|-----|-----|
| Minimum Initial (s) | | 10.0 | | | 10.0 | | 3.0 | | | | |
| Minimum Split (s) | | 56.0 | | | 56.0 | | 21.0 | | | | |
| Total Split (s) | | 66.0 | | | 66.0 | | 26.0 | | | | |
| Total Split (%) | | 71.7% | | | 71.7% | | 28.3% | | | | |
| Maximum Green (s) | | 60.0 | | | 60.0 | | 20.0 | | | | |
| Yellow Time (s) | | 5.0 | | | 5.0 | | 5.0 | | | | |
| All-Red Time (s) | | 1.0 | | | 1.0 | | 1.0 | | | | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | | | | |
| Lead/Lag | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Vehicle Extension (s) | | 2.0 | | | 2.0 | | 2.0 | | | | |
| Minimum Gap (s) | | 0.2 | | | 0.2 | | 0.2 | | | | |
| Time Before Reduce (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Time To Reduce (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Recall Mode | | C-Min | | | C-Min | | None | | | | |
| Walk Time (s) | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | |
| Act Effct Green (s) | | 61.8 | 92.0 | | 61.8 | 92.0 | 18.2 | | 92.0 | | |
| Actuated g/C Ratio | | 0.67 | 1.00 | | 0.67 | 1.00 | 0.20 | | 1.00 | | |
| v/c Ratio | | 0.23 | 0.16 | | 0.37 | 0.18 | 0.77 | | 0.49 | | |
| Control Delay | | 6.8 | 0.2 | | 7.7 | 0.3 | 47.6 | | 0.9 | | |
| Queue Delay | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | |
| Total Delay | | 6.8 | 0.2 | | 7.7 | 0.3 | 47.6 | | 0.9 | | |
| LOS | | A | A | | A | A | D | | A | | |
| Approach Delay | | 4.7 | | | 5.9 | | | 13.1 | | | |
| Approach LOS | | A | | | A | | | B | | | |
| Queue Length 50th (ft) | | 54 | 0 | | 101 | 0 | 173 | | 0 | | |
| Queue Length 95th (ft) | | 94 | 0 | | 163 | 0 | 244 | | 0 | | |
| Internal Link Dist (ft) | | 716 | | | 850 | | | 492 | | 452 | |
| Turn Bay Length (ft) | | | 275 | | | | 200 | | | | |
| Base Capacity (vph) | | 2280 | 1468 | | 2367 | 1553 | 466 | | 1812 | | |
| Starvation Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Spillback Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Storage Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Reduced v/c Ratio | | 0.23 | 0.16 | | 0.36 | 0.18 | 0.67 | | 0.49 | | |

Intersection Summary

Area Type: Other
Cycle Length: 92
Actuated Cycle Length: 92
Offset: 60 (65%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 8.4
Intersection Capacity Utilization 47.2%
Analysis Period (min) 15

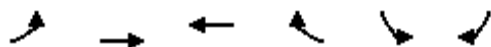
Intersection LOS: A
ICU Level of Service A

Splits and Phases: 10: NYS Route 22 & I-684 SB On/Off Ramp



Year 2018 Existing Traffic Volumes
11: NYS Route 22 & I-684 NB On/Off Ramp

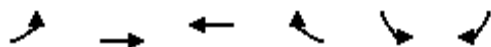
Weekday Peak AM Hour
02/19/2019



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|-------|------|------|-------|------|-------|
| Lane Configurations | ↰↰ | ↑↑ | ↑↑ | ↱ | | ↱ |
| Traffic Volume (vph) | 135 | 834 | 747 | 73 | 0 | 335 |
| Future Volume (vph) | 135 | 834 | 747 | 73 | 0 | 335 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 400 | | | 400 | 1 | 0 |
| Storage Lanes | 2 | | | 1 | 0 | 1 |
| Taper Length (ft) | 300 | | | | 25 | |
| Lane Util. Factor | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.865 |
| Flt Protected | 0.950 | | | | | |
| Satd. Flow (prot) | 3273 | 3406 | 3471 | 1509 | 0 | 1580 |
| Flt Permitted | 0.950 | | | | | |
| Satd. Flow (perm) | 3273 | 3406 | 3471 | 1509 | 0 | 1580 |
| Right Turn on Red | | | | No | | Yes |
| Satd. Flow (RTOR) | | | | | | 554 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 287 | 1186 | | 622 | |
| Travel Time (s) | | 3.6 | 14.7 | | 14.1 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 7% | 6% | 4% | 7% | 0% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 139 | 860 | 770 | 75 | 0 | 345 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 139 | 860 | 770 | 75 | 0 | 345 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 24 | 24 | | 0 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Number of Detectors | 2 | 2 | 2 | 2 | | 1 |
| Detector Template | | | | | | |
| Leading Detector (ft) | 83 | 83 | 83 | 83 | | 0 |
| Trailing Detector (ft) | -5 | -5 | -5 | -5 | | 0 |
| Turn Type | Prot | NA | NA | Perm | | Free |
| Protected Phases | 1 | 6 | 2 | | | |
| Permitted Phases | | | | 2 | | Free |
| Detector Phase | 1 | 6 | 2 | 2 | | |
| Switch Phase | | | | | | |

Year 2018 Existing Traffic Volumes
11: NYS Route 22 & I-684 NB On/Off Ramp

Weekday Peak AM Hour
02/19/2019



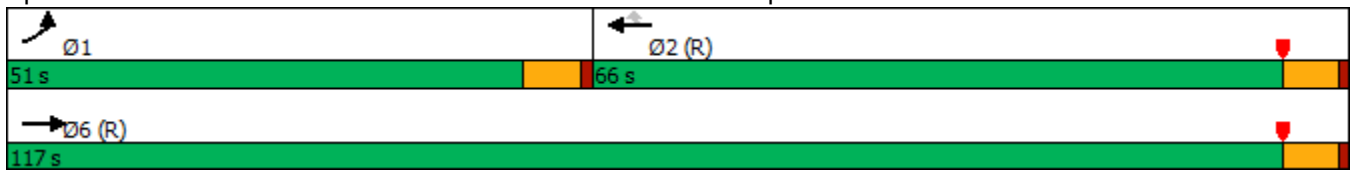
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|-------|--------|-------|-------|-----|-------|
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | | |
| Minimum Split (s) | 41.0 | 56.0 | 56.0 | 56.0 | | |
| Total Split (s) | 51.0 | 117.0 | 66.0 | 66.0 | | |
| Total Split (%) | 43.6% | 100.0% | 56.4% | 56.4% | | |
| Maximum Green (s) | 45.0 | 111.0 | 60.0 | 60.0 | | |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | | |
| Lead/Lag | Lead | | Lag | Lag | | |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | |
| Vehicle Extension (s) | 2.0 | 2.0 | 2.0 | 2.0 | | |
| Minimum Gap (s) | 0.2 | 0.2 | 0.2 | 0.2 | | |
| Time Before Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Time To Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Recall Mode | None | C-Min | C-Min | C-Min | | |
| Walk Time (s) | | | | | | |
| Flash Dont Walk (s) | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | |
| Act Effct Green (s) | 9.5 | 117.0 | 95.5 | 95.5 | | 117.0 |
| Actuated g/C Ratio | 0.08 | 1.00 | 0.82 | 0.82 | | 1.00 |
| v/c Ratio | 0.52 | 0.25 | 0.27 | 0.06 | | 0.22 |
| Control Delay | 58.3 | 0.2 | 2.9 | 2.5 | | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 58.3 | 0.2 | 2.9 | 2.5 | | 0.3 |
| LOS | E | A | A | A | | A |
| Approach Delay | | 8.3 | 2.9 | | 0.3 | |
| Approach LOS | | A | A | | A | |
| Queue Length 50th (ft) | 52 | 0 | 56 | 9 | | 0 |
| Queue Length 95th (ft) | 84 | 0 | 85 | 20 | | 0 |
| Internal Link Dist (ft) | | 207 | 1106 | | 542 | |
| Turn Bay Length (ft) | 400 | | | 400 | | |
| Base Capacity (vph) | 1258 | 3406 | 2832 | 1231 | | 1580 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.11 | 0.25 | 0.27 | 0.06 | | 0.22 |

Intersection Summary

Area Type: Other
Cycle Length: 117
Actuated Cycle Length: 117
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay: 4.9
Intersection Capacity Utilization 34.8%
Analysis Period (min) 15























Intersection LOS: A
ICU Level of Service A

Splits and Phases: 11: NYS Route 22 & I-684 NB On/Off Ramp















Year 2018 Existing Traffic Volumes
1: NYS Route 22 & Old Post Road/Old Route 22

Weekday Peak PM Hour
02/19/2019

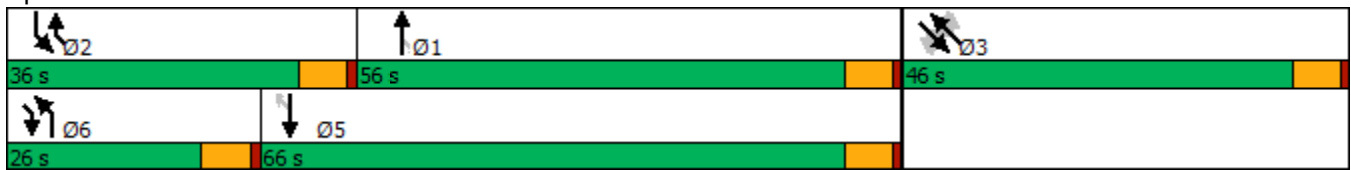
| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  |  |
| Traffic Volume (vph) | 85 | 738 | 7 | 13 | 952 | 23 | 46 | 4 | 127 | 73 | 9 | 128 |
| Future Volume (vph) | 85 | 738 | 7 | 13 | 952 | 23 | 46 | 4 | 127 | 73 | 9 | 128 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 11 | 12 | 12 | 11 | 11 | 11 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 350 | | 230 | 315 | | 155 | 0 | | 150 | 0 | | 125 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 86 | | | 86 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 1.00 | | | | | 0.98 | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.956 | | | 0.957 | |
| Satd. Flow (prot) | 1805 | 3574 | 1417 | 1517 | 3574 | 1615 | 0 | 1756 | 1546 | 0 | 1818 | 1583 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.683 | | | 0.713 | |
| Satd. Flow (perm) | 1803 | 3574 | 1417 | 1517 | 3574 | 1581 | 0 | 1254 | 1546 | 0 | 1355 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | No | | | Yes |
| Satd. Flow (RTOR) | | | 119 | | | 71 | | | | | | 68 |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | | 30 | |
| Link Distance (ft) | | 2626 | | | 1235 | | | 276 | | | 807 | |
| Travel Time (s) | | 32.6 | | | 15.3 | | | 6.3 | | | 18.3 | |
| Confl. Peds. (#/hr) | 1 | | | | | 1 | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 1% | 14% | 15% | 1% | 0% | 0% | 0% | 1% | 0% | 0% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 87 | 753 | 7 | 13 | 971 | 23 | 47 | 4 | 130 | 74 | 9 | 131 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 87 | 753 | 7 | 13 | 971 | 23 | 0 | 51 | 130 | 0 | 83 | 131 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 20 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.04 | 1.00 | 1.00 | 1.04 | 1.04 | 1.04 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 |
| Detector Template | | | | | | | Left | | | Left | | |
| Leading Detector (ft) | 83 | 0 | 0 | 83 | 0 | 0 | 20 | 83 | 83 | 20 | 83 | 83 |
| Trailing Detector (ft) | -5 | 0 | 0 | -5 | 0 | 0 | 0 | -5 | -5 | 0 | -5 | -5 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA pm+ov | Perm | NA pm+ov | Perm | NA pm+ov |
| Protected Phases | 6 | 1 | | 2 | 5 | | | 3 | 6 | | 3 | 2 |
| Permitted Phases | | | 1 | | | 5 | 3 | | 3 | 3 | | 3 |
| Detector Phase | 6 | 1 | 1 | 2 | 5 | 5 | 3 | 3 | 6 | 3 | 3 | 2 |
| Switch Phase | | | | | | | | | | | | |

Year 2018 Existing Traffic Volumes
1: NYS Route 22 & Old Post Road/Old Route 22

Weekday Peak PM Hour
02/19/2019
























| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
| Minimum Initial (s) | 2.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 | 5.0 |
| Minimum Split (s) | 20.0 | 56.0 | 56.0 | 26.0 | 56.0 | 56.0 | 33.0 | 33.0 | 20.0 | 33.0 | 33.0 | 26.0 |
| Total Split (s) | 26.0 | 56.0 | 56.0 | 36.0 | 66.0 | 66.0 | 46.0 | 46.0 | 26.0 | 46.0 | 46.0 | 36.0 |
| Total Split (%) | 18.8% | 40.6% | 40.6% | 26.1% | 47.8% | 47.8% | 33.3% | 33.3% | 18.8% | 33.3% | 33.3% | 26.1% |
| Maximum Green (s) | 20.0 | 50.0 | 50.0 | 30.0 | 60.0 | 60.0 | 40.0 | 40.0 | 20.0 | 40.0 | 40.0 | 30.0 |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | | | Lead | | | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | | | Yes | | | Yes |
| Vehicle Extension (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Minimum Gap (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None | None |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 9.2 | 64.2 | 64.2 | 5.7 | 60.7 | 60.7 | | 11.7 | 23.0 | | 11.7 | 19.6 |
| Actuated g/C Ratio | 0.10 | 0.67 | 0.67 | 0.06 | 0.63 | 0.63 | | 0.12 | 0.24 | | 0.12 | 0.20 |
| v/c Ratio | 0.50 | 0.31 | 0.01 | 0.14 | 0.43 | 0.02 | | 0.34 | 0.35 | | 0.50 | 0.35 |
| Control Delay | 53.3 | 8.1 | 0.0 | 49.6 | 11.1 | 0.0 | | 47.2 | 31.4 | | 52.9 | 18.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 53.3 | 8.1 | 0.0 | 49.6 | 11.1 | 0.0 | | 47.2 | 31.4 | | 52.9 | 18.9 |
| LOS | D | A | A | D | B | A | | D | C | | D | B |
| Approach Delay | | 12.6 | | | 11.3 | | | 35.9 | | | 32.1 | |
| Approach LOS | | B | | | B | | | D | | | C | |
| Queue Length 50th (ft) | 52 | 96 | 0 | 8 | 154 | 0 | | 30 | 65 | | 50 | 32 |
| Queue Length 95th (ft) | 105 | 156 | 0 | 28 | 250 | 0 | | 69 | 114 | | 102 | 83 |
| Internal Link Dist (ft) | | 2546 | | | 1155 | | | 196 | | | 727 | |
| Turn Bay Length (ft) | 350 | | 230 | 315 | | 155 | | | 150 | | | 125 |
| Base Capacity (vph) | 380 | 2392 | 987 | 480 | 2263 | 1027 | | 529 | 548 | | 572 | 765 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.23 | 0.31 | 0.01 | 0.03 | 0.43 | 0.02 | | 0.10 | 0.24 | | 0.15 | 0.17 |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: | 138 | | | | | | | | | | | |
| Actuated Cycle Length: | 95.9 | | | | | | | | | | | |
| Natural Cycle: | 115 | | | | | | | | | | | |
| Control Type: | Semi Act-Uncoord | | | | | | | | | | | |
| Maximum v/c Ratio: | 0.50 | | | | | | | | | | | |
| Intersection Signal Delay: | 15.8 | | | | | | Intersection LOS: B | | | | | |
| Intersection Capacity Utilization | 57.5% | | | | | | ICU Level of Service B | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |

Splits and Phases: 1: NYS Route 22 & Old Post Road/Old Route 22















Year 2018 Existing Traffic Volumes
2: NYS Route 22 & North Castle Drive (IBM)/NYS Route 128

Weekday Peak PM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  | |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 123 | 28 | 295 | 162 | 2 | 192 | 270 | 633 | 9 | 7 | 673 | 115 |
| Future Volume (vph) | 123 | 28 | 295 | 162 | 2 | 192 | 270 | 633 | 9 | 7 | 673 | 115 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 15 | 12 | 11 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 225 | 0 | | 250 | 680 | | 250 | 400 | | 250 |
| Storage Lanes | 1 | | 1 | 0 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 86 | | | 86 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | 1.00 | | | | | 0.98 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.953 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 1900 | 1615 | 0 | 1953 | 1615 | 1711 | 3574 | 1324 | 1805 | 3539 | 1599 |
| Flt Permitted | 0.554 | | | | 0.708 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1032 | 1900 | 1615 | 0 | 1451 | 1615 | 1709 | 3574 | 1324 | 1805 | 3539 | 1565 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 298 | | | 194 | | | 71 | | | 116 |
| Link Speed (mph) | | 30 | | | 30 | | | 55 | | | 55 | |
| Link Distance (ft) | | 298 | | | 237 | | | 1202 | | | 815 | |
| Travel Time (s) | | 6.8 | | | 5.4 | | | 14.9 | | | 10.1 | |
| Confl. Peds. (#/hr) | | | | | | | 1 | | | | | 1 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 0% | 0% | 2% | 0% | 0% | 2% | 1% | 22% | 0% | 2% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 124 | 28 | 298 | 164 | 2 | 194 | 273 | 639 | 9 | 7 | 680 | 116 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 124 | 28 | 298 | 0 | 166 | 194 | 273 | 639 | 9 | 7 | 680 | 116 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.88 | 1.00 | 1.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 |
| Detector Template | | | | Left | | | | | | | | |
| Leading Detector (ft) | 6 | 6 | 6 | 20 | 43 | 6 | 83 | 6 | 6 | 83 | 6 | 6 |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | -5 | 0 | 0 | -5 | 0 | 0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | | 3 | | | 3 | | 6 | 1 | | 2 | 5 | |
| Permitted Phases | 3 | | 3 | 3 | | 3 | | | 1 | | | 5 |
| Detector Phase | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 1 | 1 | 2 | 5 | 5 |
| Switch Phase | | | | | | | | | | | | |

Year 2018 Existing Traffic Volumes
2: NYS Route 22 & North Castle Drive (IBM)/NYS Route 128

Weekday Peak PM Hour
02/19/2019






















| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 |
| Minimum Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 16.0 | 56.0 | 56.0 | 16.0 | 56.0 | 56.0 |
| Total Split (s) | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 36.0 | 56.0 | 56.0 | 36.0 | 56.0 | 56.0 |
| Total Split (%) | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 26.1% | 40.6% | 40.6% | 26.1% | 40.6% | 40.6% |
| Maximum Green (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 30.0 | 50.0 | 50.0 | 30.0 | 50.0 | 50.0 |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 2.0 | 6.0 | 6.0 | 2.0 | 6.0 | 6.0 |
| Minimum Gap (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 | 3.0 | 3.0 | 2.0 | 4.0 | 4.0 |
| Time Before Reduce (s) | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 0.0 | 20.0 | 20.0 | 0.0 | 20.0 | 20.0 |
| Time To Reduce (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 0.0 | 10.0 | 10.0 | 0.0 | 10.0 | 10.0 |
| Recall Mode | Min | Min | Min | Min | Min | Min | None | Max | Max | None | Max | Max |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 25.2 | 25.2 | 25.2 | | 25.2 | 25.2 | 22.6 | 77.1 | 77.1 | 5.2 | 50.7 | 50.7 |
| Actuated g/C Ratio | 0.22 | 0.22 | 0.22 | | 0.22 | 0.22 | 0.19 | 0.66 | 0.66 | 0.04 | 0.43 | 0.43 |
| v/c Ratio | 0.56 | 0.07 | 0.51 | | 0.53 | 0.39 | 0.83 | 0.27 | 0.01 | 0.09 | 0.44 | 0.16 |
| Control Delay | 51.6 | 37.2 | 7.6 | | 47.5 | 7.6 | 66.8 | 9.9 | 0.0 | 61.4 | 26.4 | 5.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.6 | 37.2 | 7.6 | | 47.5 | 7.6 | 66.8 | 9.9 | 0.0 | 61.4 | 26.4 | 5.1 |
| LOS | D | D | A | | D | A | E | A | A | E | C | A |
| Approach Delay | | 21.5 | | | 26.0 | | | 26.7 | | | 23.6 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Queue Length 50th (ft) | 84 | 17 | 0 | | 111 | 0 | 201 | 93 | 0 | 5 | 191 | 0 |
| Queue Length 95th (ft) | 157 | 44 | 72 | | 192 | 60 | 317 | 186 | 0 | 23 | 291 | 40 |
| Internal Link Dist (ft) | | 218 | | | 157 | | | 1122 | | | 735 | |
| Turn Bay Length (ft) | | | 225 | | | 250 | 680 | | 250 | 400 | | 250 |
| Base Capacity (vph) | 358 | 660 | 755 | | 504 | 687 | 445 | 2362 | 899 | 470 | 1536 | 745 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.35 | 0.04 | 0.39 | | 0.33 | 0.28 | 0.61 | 0.27 | 0.01 | 0.01 | 0.44 | 0.16 |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: | 138 | | | | | | | | | | | |
| Actuated Cycle Length: | 116.7 | | | | | | | | | | | |
| Natural Cycle: | 105 | | | | | | | | | | | |
| Control Type: | Semi Act-Uncoord | | | | | | | | | | | |
| Maximum v/c Ratio: | 0.83 | | | | | | | | | | | |
| Intersection Signal Delay: | 24.7 | | | | | | Intersection LOS: C | | | | | |
| Intersection Capacity Utilization | 64.3% | | | | | | ICU Level of Service C | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |

Splits and Phases: 2: NYS Route 22 & North Castle Drive (IBM)/NYS Route 128

| | | |
|--|--|--|
|  Ø2 36 s |  Ø1 56 s |  Ø3 46 s |
|  Ø6 36 s |  Ø5 56 s | |












Year 2018 Existing Traffic Volumes
3: Business Park Drive/Maple Avenue & NYS Route 22

Weekday Peak PM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  |  |  |  | |
| Traffic Volume (vph) | 30 | 996 | 64 | 122 | 611 | 315 | 140 | 59 | 246 | 313 | 38 | 44 |
| Future Volume (vph) | 30 | 996 | 64 | 122 | 611 | 315 | 140 | 59 | 246 | 313 | 38 | 44 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 11 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 600 | | 0 | 265 | | 225 | 0 | | 0 | 100 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 0 | | 1 | 1 | | 0 |
| Taper Length (ft) | 86 | | | 86 | | | 25 | | | 86 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | 1.00 | | | 0.99 | |
| Frt | | 0.991 | | | | 0.850 | | | 0.850 | | 0.920 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.966 | | 0.950 | | |
| Satd. Flow (prot) | 1694 | 3544 | 0 | 1662 | 3539 | 1615 | 0 | 1807 | 1615 | 1787 | 1711 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.966 | | 0.950 | | |
| Satd. Flow (perm) | 1694 | 3544 | 0 | 1662 | 3539 | 1615 | 0 | 1805 | 1615 | 1787 | 1711 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 6 | | | | 328 | | | 256 | | 37 | |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | | 30 | |
| Link Distance (ft) | | 561 | | | 541 | | | 577 | | | 575 | |
| Travel Time (s) | | 7.0 | | | 6.7 | | | 13.1 | | | 13.1 | |
| Confl. Peds. (#/hr) | | | | | | | 1 | | | | | 1 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 3% | 1% | 0% | 5% | 2% | 0% | 1% | 3% | 0% | 1% | 3% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 31 | 1038 | 67 | 127 | 636 | 328 | 146 | 61 | 256 | 326 | 40 | 46 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 31 | 1105 | 0 | 127 | 636 | 328 | 0 | 207 | 256 | 326 | 86 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 11 | | | 11 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.04 | 1.00 | 1.00 | 1.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 2 | 2 | | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | |
| Detector Template | | | | | | | Left | | | Left | | |
| Leading Detector (ft) | 83 | 83 | | 83 | 83 | 40 | 50 | 83 | 83 | 83 | 83 | |
| Trailing Detector (ft) | -5 | -5 | | -5 | -5 | 0 | 0 | -5 | -5 | 0 | 0 | |
| Turn Type | Prot | NA | | Prot | NA | Perm | Split | NA | Perm | Split | NA | |
| Protected Phases | 6 | 1 | | 2 | 5 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | 5 | | | 3 | | | |
| Detector Phase | 6 | 1 | | 2 | 5 | 5 | 3 | 3 | 3 | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |







Year 2018 Existing Traffic Volumes
3: Business Park Drive/Maple Avenue & NYS Route 22

Weekday Peak PM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | 15.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | |
| Minimum Split (s) | 9.0 | 21.0 | | 9.0 | 21.0 | 21.0 | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 | |
| Total Split (s) | 26.0 | 56.0 | | 26.0 | 56.0 | 56.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | |
| Total Split (%) | 19.4% | 41.8% | | 19.4% | 41.8% | 41.8% | 19.4% | 19.4% | 19.4% | 19.4% | 19.4% | |
| Maximum Green (s) | 20.0 | 50.0 | | 20.0 | 50.0 | 50.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | |
| Yellow Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | -2.0 | -2.0 | | -2.0 | -2.0 | -2.0 | | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lag | Lag | Lag | Lead | Lead | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | |
| Minimum Gap (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | None | None | None | None | None | None | |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 8.9 | 42.1 | | 15.4 | 53.9 | 53.9 | | 17.8 | 17.8 | 22.5 | 22.5 | |
| Actuated g/C Ratio | 0.08 | 0.37 | | 0.13 | 0.47 | 0.47 | | 0.16 | 0.16 | 0.20 | 0.20 | |
| v/c Ratio | 0.23 | 0.84 | | 0.57 | 0.38 | 0.35 | | 0.74 | 0.55 | 0.93 | 0.23 | |
| Control Delay | 59.1 | 40.3 | | 59.1 | 21.4 | 3.2 | | 64.3 | 10.5 | 80.6 | 29.7 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 59.1 | 40.3 | | 59.1 | 21.4 | 3.2 | | 64.3 | 10.5 | 80.6 | 29.7 | |
| LOS | E | D | | E | C | A | | E | B | F | C | |
| Approach Delay | | 40.8 | | | 20.3 | | | 34.5 | | | 70.0 | |
| Approach LOS | | D | | | C | | | C | | | E | |
| Queue Length 50th (ft) | 22 | 390 | | 90 | 170 | 0 | | 148 | 0 | 244 | 31 | |
| Queue Length 95th (ft) | 59 | 533 | | 168 | 235 | 52 | | #262 | 78 | #515 | 89 | |
| Internal Link Dist (ft) | | 481 | | | 461 | | | 497 | | | 495 | |
| Turn Bay Length (ft) | 600 | | | 265 | | 225 | | | | 100 | | |
| Base Capacity (vph) | 333 | 1654 | | 327 | 1755 | 966 | | 356 | 523 | 352 | 366 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.09 | 0.67 | | 0.39 | 0.36 | 0.34 | | 0.58 | 0.49 | 0.93 | 0.23 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: | 134 | | | | | | | | | | | |
| Actuated Cycle Length: | 114.3 | | | | | | | | | | | |
| Natural Cycle: | 75 | | | | | | | | | | | |
| Control Type: | Actuated-Uncoordinated | | | | | | | | | | | |
| Maximum v/c Ratio: | 0.93 | | | | | | | | | | | |
| Intersection Signal Delay: | 36.5 | | | | | Intersection LOS: D | | | | | | |
| Intersection Capacity Utilization | 72.1% | | | | | ICU Level of Service C | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | | | | | | | | | | |


Queue shown is maximum after two cycles.

Splits and Phases: 3: Business Park Drive/Maple Avenue & NYS Route 22

| | | | |
|--|--|---|--|
|  Ø2 26 s |  Ø1 56 s |  Ø4 26 s |  Ø3 26 s |
|  Ø6 26 s |  Ø5 56 s | | |

Year 2018 Existing Traffic Volumes
4: NYS Route 128 (Main Street) & Kent Place/Bedford Road

Weekday Peak PM Hour
02/19/2019

| |  | | | | | | | | | | | |
|----------------------------|--|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Volume (vph) | 7 | 15 | 27 | 38 | 31 | 48 | 51 | 322 | 50 | 41 | 273 | 31 |
| Future Volume (vph) | 7 | 15 | 27 | 38 | 31 | 48 | 51 | 322 | 50 | 41 | 273 | 31 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 1% | | | 1% | | | -1% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.924 | | | 0.945 | | | 0.984 | | | 0.988 | |
| Flt Protected | | 0.993 | | | 0.984 | | | 0.994 | | | 0.994 | |
| Satd. Flow (prot) | 0 | 1561 | 0 | 0 | 1582 | 0 | 0 | 1660 | 0 | 0 | 1662 | 0 |
| Flt Permitted | | 0.993 | | | 0.984 | | | 0.994 | | | 0.994 | |
| Satd. Flow (perm) | 0 | 1561 | 0 | 0 | 1582 | 0 | 0 | 1660 | 0 | 0 | 1662 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 231 | | | 878 | | | 1228 | | | 584 | |
| Travel Time (s) | | 5.3 | | | 20.0 | | | 27.9 | | | 13.3 | |
| Confl. Peds. (#/hr) | 20 | | | 1 | | 21 | | | 1 | 21 | | 20 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% | 2% | 1% | 2% | 2% | 1% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 7 | 15 | 28 | 39 | 32 | 49 | 52 | 329 | 51 | 42 | 279 | 32 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 50 | 0 | 0 | 120 | 0 | 0 | 432 | 0 | 0 | 353 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Area Type: CBD

Control Type: Unsignalized

Intersection Capacity Utilization 55.4% ICU Level of Service B

Analysis Period (min) 15

Year 2018 Existing Traffic Volumes
4: NYS Route 128 (Main Street) & Kent Place/Bedford Road

Weekday Peak PM Hour
02/19/2019

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 7 | 15 | 27 | 38 | 31 | 48 | 51 | 322 | 50 | 41 | 273 | 31 |
| Future Vol, veh/h | 7 | 15 | 27 | 38 | 31 | 48 | 51 | 322 | 50 | 41 | 273 | 31 |
| Conflicting Peds, #/hr20 | 0 | 0 | 1 | 0 | 21 | 0 | 0 | 0 | 1 | 21 | 0 | 20 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - | - |
| Grade, % | - | 1 | - | - | 1 | - | - | -1 | - | - | 0 | - |
| Peak Hour Factor | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 2 | 1 | 0 |
| Mvmt Flow | 7 | 15 | 28 | 39 | 32 | 49 | 52 | 329 | 51 | 42 | 279 | 32 |






| Major/Minor | Minor2 | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|--------|
| Conflicting Flow All | 919 | 904 | 316 | 882 |
| Stage 1 | 399 | 399 | - | 480 |
| Stage 2 | 520 | 505 | - | 402 |
| Critical Hdwy | 7.3 | 6.7 | 6.3 | 7.3 |
| Critical Hdwy Stg 1 | 6.3 | 5.7 | - | 6.3 |
| Critical Hdwy Stg 2 | 6.3 | 5.7 | - | 6.3 |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | 3.5 |
| Pot Cap-1 Maneuver | 241 | 265 | 723 | 256 |
| Stage 1 | 617 | 592 | - | 556 |
| Stage 2 | 527 | 529 | - | 615 |
| Platoon blocked, % | | | | |
| Mov Cap-1 Maneuver | 178 | 231 | 710 | 212 |
| Mov Cap-2 Maneuver | 178 | 231 | - | 212 |
| Stage 1 | 573 | 556 | - | 516 |
| Stage 2 | 423 | 491 | - | 549 |

| Approach | EB | WB | NB | SB |
|----------------------|------|------|----|----|
| HCM Control Delay, s | 17.2 | 24.5 | 1 | 1 |
| HCM LOS | C | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1208 | - | - | 344 | 302 | 1138 | - | - |
| HCM Lane V/C Ratio | 0.043 | - | - | 0.145 | 0.395 | 0.037 | - | - |
| HCM Control Delay (s) | 8.1 | 0 | - | 17.2 | 24.5 | 8.3 | 0 | - |
| HCM Lane LOS | A | A | - | C | C | A | A | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.5 | 1.8 | 0.1 | - | - |













Year 2018 Existing Traffic Volumes
5: Maple Avenue & Bedford Road

Weekday Peak PM Hour
02/19/2019

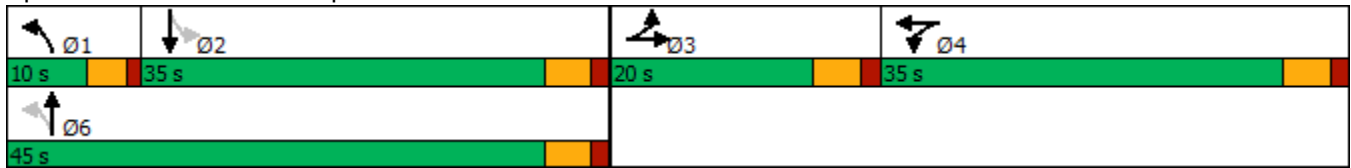
| |  | | | | | | | | | | | |
|----------------------------|--|---|-------|-------|---|-------|---|---|-------|------|---|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | | | | |
| Traffic Volume (vph) | 7 | 10 | 140 | 75 | 22 | 19 | 120 | 262 | 22 | 7 | 180 | 6 |
| Future Volume (vph) | 7 | 10 | 140 | 75 | 22 | 19 | 120 | 262 | 22 | 7 | 180 | 6 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 15 | 15 | 15 | 15 | 15 | 15 | 10 | 10 | 10 | 15 | 15 | 15 |
| Grade (%) | | -1% | | | -1% | | | -2% | | | -1% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 50 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 86 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.97 | | | 1.00 | | | | | | | |
| Frt | | 0.880 | | | 0.978 | | | 0.988 | | | 0.996 | |
| Flt Protected | | 0.998 | | | 0.969 | | 0.950 | | | | 0.998 | |
| Satd. Flow (prot) | 0 | 1780 | 0 | 0 | 1978 | 0 | 1702 | 1747 | 0 | 0 | 2046 | 0 |
| Flt Permitted | | 0.998 | | | 0.969 | | 0.476 | | | | 0.981 | |
| Satd. Flow (perm) | 0 | 1780 | 0 | 0 | 1971 | 0 | 853 | 1747 | 0 | 0 | 2011 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 151 | | | 10 | | | 5 | | | 2 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 878 | | | 570 | | | 575 | | | 384 | |
| Travel Time (s) | | 20.0 | | | 13.0 | | | 13.1 | | | 8.7 | |
| Confl. Peds. (#/hr) | | | 3 | 3 | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 1% | 1% | 0% | 0% | 0% | 1% | 5% | 29% | 1% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 8 | 11 | 151 | 81 | 24 | 20 | 129 | 282 | 24 | 8 | 194 | 6 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 170 | 0 | 0 | 125 | 0 | 129 | 306 | 0 | 0 | 208 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 1.08 | 1.08 | 1.08 | 0.88 | 0.88 | 0.88 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turn Type | Split | NA | | Split | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 3 | 3 | | 4 | 4 | | 1 | 6 | | | 2 | |
| Permitted Phases | | | | | | | 6 | | | 2 | 2 | |
| Detector Phase | 3 | 3 | | 4 | 4 | | 1 | 6 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |

















Year 2018 Existing Traffic Volumes
5: Maple Avenue & Bedford Road

Weekday Peak PM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 3.0 | 3.0 | | 10.0 | 10.0 | | 2.0 | 12.0 | | 12.0 | 12.0 | |
| Minimum Split (s) | 8.0 | 8.0 | | 15.0 | 15.0 | | 7.0 | 17.0 | | 17.0 | 17.0 | |
| Total Split (s) | 20.0 | 20.0 | | 35.0 | 35.0 | | 10.0 | 45.0 | | 35.0 | 35.0 | |
| Total Split (%) | 20.0% | 20.0% | | 35.0% | 35.0% | | 10.0% | 45.0% | | 35.0% | 35.0% | |
| Maximum Green (s) | 15.0 | 15.0 | | 30.0 | 30.0 | | 6.0 | 40.0 | | 30.0 | 30.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.0 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.0 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 4.0 | 5.0 | | | 5.0 | |
| Lead/Lag | Lead | Lead | | Lag | Lag | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | | | Yes | Yes | |
| Vehicle Extension (s) | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | | Max | None | | Min | Min | |
| Walk Time (s) | | | | 7.0 | 7.0 | | | | | | | |
| Flash Dont Walk (s) | | | | 15.0 | 15.0 | | | | | | | |
| Pedestrian Calls (#/hr) | | | | 3 | 3 | | | | | | | |
| Act Effct Green (s) | 5.5 | | | | 12.2 | 24.9 | | 23.8 | | | 13.3 | |
| Actuated g/C Ratio | 0.10 | | | | 0.23 | 0.47 | | 0.45 | | | 0.25 | |
| v/c Ratio | 0.53 | | | | 0.27 | 0.26 | | 0.39 | | | 0.41 | |
| Control Delay | 13.9 | | | | 19.1 | 12.9 | | 14.3 | | | 22.3 | |
| Queue Delay | 0.0 | | | | 0.0 | 0.0 | | 0.0 | | | 0.0 | |
| Total Delay | 13.9 | | | | 19.1 | 12.9 | | 14.3 | | | 22.3 | |
| LOS | B | | | | B | B | | B | | | C | |
| Approach Delay | 13.9 | | | | 19.1 | | | 13.9 | | | 22.3 | |
| Approach LOS | B | | | | B | | | B | | | C | |
| Queue Length 50th (ft) | 5 | | | | 30 | 22 | | 60 | | | 54 | |
| Queue Length 95th (ft) | 60 | | | | 77 | 74 | | 171 | | | 141 | |
| Internal Link Dist (ft) | 798 | | | | 490 | | | 495 | | | 304 | |
| Turn Bay Length (ft) | | | | | | 50 | | | | | | |
| Base Capacity (vph) | 636 | | | | 1182 | 501 | | 1350 | | | 1199 | |
| Starvation Cap Reductn | 0 | | | | 0 | 0 | | 0 | | | 0 | |
| Spillback Cap Reductn | 0 | | | | 0 | 0 | | 0 | | | 0 | |
| Storage Cap Reductn | 0 | | | | 0 | 0 | | 0 | | | 0 | |
| Reduced v/c Ratio | 0.27 | | | | 0.11 | 0.26 | | 0.23 | | | 0.17 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: Other | | | | | | | | | | | | |
| Cycle Length: 100 | | | | | | | | | | | | |
| Actuated Cycle Length: 52.9 | | | | | | | | | | | | |
| Natural Cycle: 50 | | | | | | | | | | | | |
| Control Type: Semi Act-Uncoord | | | | | | | | | | | | |
| Maximum v/c Ratio: 0.53 | | | | | | | | | | | | |
| Intersection Signal Delay: 16.4 Intersection LOS: B | | | | | | | | | | | | |
| Intersection Capacity Utilization 60.2% ICU Level of Service B | | | | | | | | | | | | |
| Analysis Period (min) 15 | | | | | | | | | | | | |













Splits and Phases: 5: Maple Avenue & Bedford Road



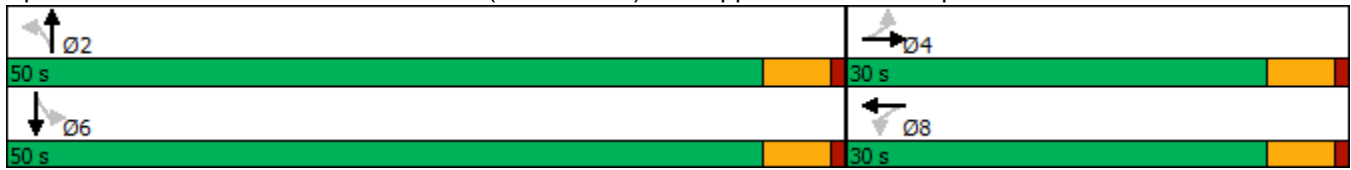
| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | | |  | | |  | |
| Traffic Volume (vph) | 40 | 72 | 51 | 69 | 76 | 178 | 29 | 295 | 49 | 74 | 214 | 6 |
| Future Volume (vph) | 40 | 72 | 51 | 69 | 76 | 178 | 29 | 295 | 49 | 74 | 214 | 6 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | -6% | | | 1% | | | 1% | | | -3% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.99 | | | 0.98 | | | 0.99 | | | 1.00 | |
| Frt | | 0.958 | | | 0.926 | | | 0.982 | | | 0.997 | |
| Flt Protected | | 0.988 | | | 0.989 | | | 0.996 | | | 0.988 | |
| Satd. Flow (prot) | 0 | 1618 | 0 | 0 | 1527 | 0 | 0 | 1643 | 0 | 0 | 1672 | 0 |
| Flt Permitted | | 0.860 | | | 0.897 | | | 0.958 | | | 0.846 | |
| Satd. Flow (perm) | 0 | 1407 | 0 | 0 | 1384 | 0 | 0 | 1580 | 0 | 0 | 1429 | 0 |
| Right Turn on Red | | | Yes | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | 30 | | | | | | | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 410 | | | 373 | | | 584 | | | 389 | |
| Travel Time (s) | | 9.3 | | | 8.5 | | | 13.3 | | | 8.8 | |
| Confl. Peds. (#/hr) | 3 | | 2 | 2 | | 3 | 4 | | 7 | 7 | | 4 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 4% | 0% | 0% | 0% | 1% | 0% | 1% | 0% | 0% | 3% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 42 | 75 | 53 | 72 | 79 | 185 | 30 | 307 | 51 | 77 | 223 | 6 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 170 | 0 | 0 | 336 | 0 | 0 | 388 | 0 | 0 | 306 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.10 | 1.10 | 1.10 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.12 | 1.12 | 1.12 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |

Year 2018 Existing Traffic Volumes
6: NYS Route 128 (Main Street) & Whippoorwill Road/Maple Avenue

Weekday Peak PM Hour
02/19/2019













| |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 50.0 | 50.0 | | 50.0 | 50.0 | |
| Total Split (%) | 37.5% | 37.5% | | 37.5% | 37.5% | | 62.5% | 62.5% | | 62.5% | 62.5% | |
| Maximum Green (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 45.0 | 45.0 | | 45.0 | 45.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | | Min | Min | | Min | Min | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 13.0 | 13.0 | | 13.0 | 13.0 | | 13.0 | 13.0 | | 13.0 | 13.0 | |
| Pedestrian Calls (#/hr) | 2 | 2 | | 3 | 3 | | 7 | 7 | | 4 | 4 | |
| Act Effct Green (s) | | 16.6 | | | 16.6 | | | 17.4 | | | 17.4 | |
| Actuated g/C Ratio | | 0.37 | | | 0.37 | | | 0.39 | | | 0.39 | |
| v/c Ratio | | 0.31 | | | 0.65 | | | 0.63 | | | 0.55 | |
| Control Delay | | 11.0 | | | 19.6 | | | 16.9 | | | 15.6 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 11.0 | | | 19.6 | | | 16.9 | | | 15.6 | |
| LOS | | B | | | B | | | B | | | B | |
| Approach Delay | | 11.0 | | | 19.6 | | | 16.9 | | | 15.6 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Queue Length 50th (ft) | | 23 | | | 67 | | | 72 | | | 54 | |
| Queue Length 95th (ft) | | 72 | | | 172 | | | 181 | | | 143 | |
| Internal Link Dist (ft) | | 330 | | | 293 | | | 504 | | | 309 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 897 | | | 871 | | | 1459 | | | 1319 | |
| Starvation Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.19 | | | 0.39 | | | 0.27 | | | 0.23 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | CBD | | | | | | | | | | | |
| Cycle Length: 80 | | | | | | | | | | | | |
| Actuated Cycle Length: 44.6 | | | | | | | | | | | | |
| Natural Cycle: 50 | | | | | | | | | | | | |
| Control Type: Actuated-Uncoordinated | | | | | | | | | | | | |
| Maximum v/c Ratio: 0.65 | | | | | | | | | | | | |
| Intersection Signal Delay: 16.5 | | | | | | Intersection LOS: B | | | | | | |
| Intersection Capacity Utilization 73.3% | | | | | | ICU Level of Service D | | | | | | |
| Analysis Period (min) 15 | | | | | | | | | | | | |

Splits and Phases: 6: NYS Route 128 (Main Street) & Whippoorwill Road/Maple Avenue









Year 2018 Existing Traffic Volumes
7: NYS Route 22 & NYS Route 120 (North)

Weekday Peak PM Hour
02/19/2019

| |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|
| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 611 | 581 | 589 | 563 | 249 | 217 |
| Future Volume (vph) | 611 | 581 | 589 | 563 | 249 | 217 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 10 | 10 | 10 | 10 | 10 | 10 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 250 | | | 500 | 250 | 0 |
| Storage Lanes | 1 | | | 1 | 1 | 1 |
| Taper Length (ft) | 86 | | | | 86 | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1685 | 3336 | 3336 | 1507 | 1685 | 1507 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 1685 | 3336 | 3336 | 1507 | 1685 | 1507 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 599 | | 231 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 770 | 1056 | | 861 | |
| Travel Time (s) | | 9.5 | 13.1 | | 19.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 1% | 1% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 650 | 618 | 627 | 599 | 265 | 231 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 650 | 618 | 627 | 599 | 265 | 231 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 10 | 15 | | 10 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Number of Detectors | 1 | 2 | 2 | 1 | 2 | 0 |
| Detector Template | | | | | | |
| Leading Detector (ft) | 35 | 104 | 104 | 0 | 104 | 0 |
| Trailing Detector (ft) | -5 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | NA | Free | Prot | Free |
| Protected Phases | 2 | 5 | 1 | | 3 | |
| Permitted Phases | | | | Free | | Free |
| Detector Phase | 2 | 5 | 1 | | 3 | |
| Switch Phase | | | | | | |

Year 2018 Existing Traffic Volumes
7: NYS Route 22 & NYS Route 120 (North)

Weekday Peak PM Hour
02/19/2019

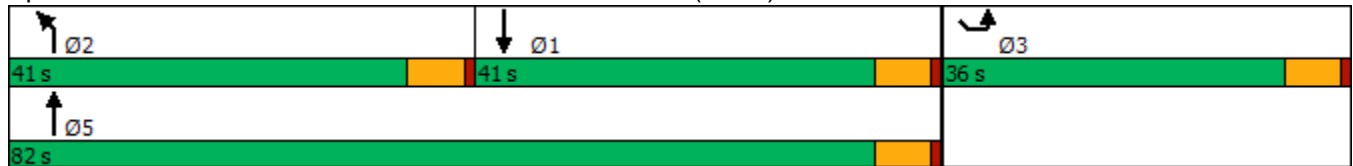
| |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
| Minimum Initial (s) | 12.0 | 12.0 | 12.0 | | 10.0 | |
| Minimum Split (s) | 36.0 | 36.0 | 36.0 | | 26.0 | |
| Total Split (s) | 41.0 | 82.0 | 41.0 | | 36.0 | |
| Total Split (%) | 34.7% | 69.5% | 34.7% | | 30.5% | |
| Maximum Green (s) | 35.0 | 76.0 | 35.0 | | 30.0 | |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | | 5.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | | 6.0 | |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 6.0 | 6.0 | 6.0 | | 6.0 | |
| Minimum Gap (s) | 4.0 | 4.0 | 4.0 | | 4.0 | |
| Time Before Reduce (s) | 20.0 | 20.0 | 20.0 | | 20.0 | |
| Time To Reduce (s) | 8.0 | 8.0 | 8.0 | | 5.0 | |
| Recall Mode | None | Min | Min | | Min | |
| Walk Time (s) | | | | | | |
| Flash Dont Walk (s) | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | |
| Act Effct Green (s) | 35.3 | 69.9 | 28.5 | 105.7 | 23.7 | 105.7 |
| Actuated g/C Ratio | 0.33 | 0.66 | 0.27 | 1.00 | 0.22 | 1.00 |
| v/c Ratio | 1.15 | 0.28 | 0.70 | 0.40 | 0.70 | 0.15 |
| Control Delay | 122.8 | 8.3 | 39.6 | 0.8 | 49.1 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 122.8 | 8.3 | 39.6 | 0.8 | 49.1 | 0.2 |
| LOS | F | A | D | A | D | A |
| Approach Delay | | 67.0 | 20.7 | | 26.3 | |
| Approach LOS | | E | C | | C | |
| Queue Length 50th (ft) | ~523 | 84 | 201 | 0 | 164 | 0 |
| Queue Length 95th (ft) | #862 | 129 | 282 | 0 | 272 | 0 |
| Internal Link Dist (ft) | | 690 | 976 | | 781 | |
| Turn Bay Length (ft) | 250 | | | 500 | 250 | |
| Base Capacity (vph) | 563 | 2420 | 1114 | 1507 | 482 | 1507 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.15 | 0.26 | 0.56 | 0.40 | 0.55 | 0.15 |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Cycle Length: | 118 | | | | | |
| Actuated Cycle Length: | 105.7 | | | | | |
| Natural Cycle: | 100 | | | | | |
| Control Type: | Actuated-Uncoordinated | | | | | |
| Maximum v/c Ratio: | 1.15 | | | | | |
| Intersection Signal Delay: | 41.2 | | | Intersection LOS: D | | |
| Intersection Capacity Utilization | 78.9% | | | ICU Level of Service D | | |
| Analysis Period (min) | 15 | | | | | |
| ~ Volume exceeds capacity, queue is theoretically infinite. | | | | | | |

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.












Queue shown is maximum after two cycles.

Splits and Phases: 7: NYS Route 22 & NYS Route 120 (North)









Year 2018 Existing Traffic Volumes
8: NYS Route 22 & NYS Route 120 (South)

Weekday Peak PM Hour
02/19/2019

| |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  | |  |  |  |  |
| Traffic Volume (vph) | 277 | 15 | 491 | 25 | 205 | 601 |
| Future Volume (vph) | 277 | 15 | 491 | 25 | 205 | 601 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 10 | 10 | 11 | 11 |
| Grade (%) | -8% | | -2% | | | -1% |
| Storage Length (ft) | 0 | 0 | | 200 | 215 | |
| Storage Lanes | 1 | 0 | | 1 | 2 | |
| Taper Length (ft) | 25 | | | | 86 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | | | | | |
| Frt | 0.993 | | | 0.850 | | |
| Flt Protected | 0.955 | | | | 0.950 | |
| Satd. Flow (prot) | 1856 | 0 | 3403 | 1464 | 3335 | 3472 |
| Flt Permitted | 0.955 | | | | 0.950 | |
| Satd. Flow (perm) | 1856 | 0 | 3403 | 1464 | 3335 | 3472 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 2 | | | 29 | | |
| Link Speed (mph) | 30 | | 50 | | | 50 |
| Link Distance (ft) | 334 | | 905 | | | 488 |
| Travel Time (s) | 7.6 | | 12.3 | | | 6.7 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 0% | 0% | 4% | 2% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | 0% | | | 0% |
| Adj. Flow (vph) | 326 | 18 | 578 | 29 | 241 | 707 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 344 | 0 | 578 | 29 | 241 | 707 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 22 | | | 22 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 0.95 | 0.95 | 1.08 | 1.08 | 1.04 | 1.04 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Number of Detectors | 1 | | 2 | 1 | 1 | 2 |
| Detector Template | Left | | Thru | Right | Left | Thru |
| Leading Detector (ft) | 20 | | 100 | 20 | 20 | 100 |
| Trailing Detector (ft) | 0 | | 0 | 0 | 0 | 0 |
| Turn Type | Prot | | NA pm+ov | | Prot | NA |
| Protected Phases | 8 | | 2 | 8 | 1 | 6 |
| Permitted Phases | | | | 2 | | |
| Detector Phase | 8 | | 2 | 8 | 1 | 6 |
| Switch Phase | | | | | | |

Year 2018 Existing Traffic Volumes
8: NYS Route 22 & NYS Route 120 (South)

Weekday Peak PM Hour
02/19/2019















| |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Minimum Initial (s) | 10.0 | | 12.0 | 10.0 | 12.0 | 12.0 |
| Minimum Split (s) | 26.0 | | 36.0 | 26.0 | 36.0 | 36.0 |
| Total Split (s) | 27.0 | | 43.0 | 27.0 | 48.0 | 91.0 |
| Total Split (%) | 22.9% | | 36.4% | 22.9% | 40.7% | 77.1% |
| Maximum Green (s) | 21.0 | | 37.0 | 21.0 | 42.0 | 85.0 |
| Yellow Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | | Min | None | Min | Min |
| Walk Time (s) | 5.0 | | 5.0 | 5.0 | | 5.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | 11.0 | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | | 0 |
| Act Effct Green (s) | 21.1 | | 17.2 | 44.3 | 12.4 | 35.6 |
| Actuated g/C Ratio | 0.31 | | 0.25 | 0.64 | 0.18 | 0.52 |
| v/c Ratio | 0.60 | | 0.68 | 0.03 | 0.40 | 0.39 |
| Control Delay | 26.4 | | 27.7 | 1.9 | 27.8 | 10.6 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 26.4 | | 27.7 | 1.9 | 27.8 | 10.6 |
| LOS | C | | C | A | C | B |
| Approach Delay | 26.4 | | 26.4 | | | 15.0 |
| Approach LOS | C | | C | | | B |
| Queue Length 50th (ft) | 121 | | 114 | 0 | 46 | 87 |
| Queue Length 95th (ft) | 211 | | 157 | 7 | 78 | 112 |
| Internal Link Dist (ft) | 254 | | 825 | | | 408 |
| Turn Bay Length (ft) | | | | 200 | 215 | |
| Base Capacity (vph) | 570 | | 1839 | 953 | 2046 | 3472 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.60 | | 0.31 | 0.03 | 0.12 | 0.20 |
| Intersection Summary | | | | | | |
| Area Type: Other | | | | | | |
| Cycle Length: 118 | | | | | | |
| Actuated Cycle Length: 68.7 | | | | | | |
| Natural Cycle: 100 | | | | | | |
| Control Type: Semi Act-Uncoord | | | | | | |
| Maximum v/c Ratio: 0.68 | | | | | | |
| Intersection Signal Delay: 20.7 | | | | Intersection LOS: C | | |
| Intersection Capacity Utilization 54.8% | | | | ICU Level of Service A | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 8: NYS Route 22 & NYS Route 120 (South)



Year 2018 Existing Traffic Volumes
9: King Street & Old Post Road

Weekday Peak PM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | |  | | |  | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 0 | 48 | 7 | 2 | 679 | 28 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 0 | 0 | 0 | 48 | 7 | 2 | 679 | 28 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 13 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | -5% | | | -7% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | 0.982 | | | 0.995 | | | | |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 1848 | 0 | 0 | 2000 | 0 | 0 | 0 | 0 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 1848 | 0 | 0 | 2000 | 0 | 0 | 0 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 63 | | | 297 | | | 300 | | | 404 | |
| Travel Time (s) | | 1.4 | | | 6.8 | | | 6.8 | | | 9.2 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 4% | 0% | 0% | 1% | 4% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 0 | 0 | 0 | 0 | 59 | 9 | 2 | 838 | 35 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 68 | 0 | 0 | 875 | 0 | 0 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 0.97 | 0.97 | 0.97 | 0.96 | 0.92 | 0.96 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Stop | | | Stop | | | Free | | | Stop | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |
| Intersection Capacity Utilization | 47.5% | | | | ICU Level of Service A | | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |

Intersection

Int Delay, s/veh 1.1

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | ↑ | | ↑ | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 48 | 7 | 2 | 679 | 28 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 48 | 7 | 2 | 679 | 28 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | 2 | - | - | - | 0 | - | - | 0 | - | -169 | 65 | - |
| Grade, % | - | 0 | - | - | -5 | - | - | -7 | - | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 4 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 59 | 9 | 2 | 838 | 35 | 0 | 0 | 0 |












| Major/Minor | Minor1 | Major1 |
|----------------------|--------|-------------|
| Conflicting Flow All | - 860 | 856 0 0 0 |
| Stage 1 | - 860 | - - - - |
| Stage 2 | - 0 | - - - - |
| Critical Hdwy | - 5.54 | 5.7 4.1 - - |
| Critical Hdwy Stg 1 | - 4.54 | - - - - |
| Critical Hdwy Stg 2 | - - | - - - - |
| Follow-up Hdwy | -4.036 | 3.3 2.2 - - |
| Pot Cap-1 Maneuver | 0 370 | 406 - - - |
| Stage 1 | 0 470 | - - - - |
| Stage 2 | 0 - | - - - - |
| Platoon blocked, % | | - - |
| Mov Cap-1 Maneuver | - 0 | 406 - - - |
| Mov Cap-2 Maneuver | - 0 | - - - - |
| Stage 1 | - 0 | - - - - |
| Stage 2 | - 0 | - - - - |

| Approach | WB | NB |
|----------------------|------|----|
| HCM Control Delay, s | 15.6 | |
| HCM LOS | C | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | WBLn1 |
|-----------------------|-----|-----|-----|-------|
| Capacity (veh/h) | - | - | - | 406 |
| HCM Lane V/C Ratio | - | - | - | 0.167 |
| HCM Control Delay (s) | - | - | - | 15.6 |
| HCM Lane LOS | - | - | - | C |
| HCM 95th %tile Q(veh) | - | - | - | 0.6 |

Year 2018 Existing Traffic Volumes
10: NYS Route 22 & I-684 SB On/Off Ramp

Weekday Peak PM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SBL2 | SBL | SBR | NWL | NWR |
| Lane Configurations | | ↑↑ | ↑ | | ↑↑ | ↑ | ↑ | | ↑ | | |
| Traffic Volume (vph) | 0 | 1280 | 275 | 0 | 826 | 118 | 59 | 0 | 222 | 0 | 0 |
| Future Volume (vph) | 0 | 1280 | 275 | 0 | 826 | 118 | 59 | 0 | 222 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 16 | 16 | 16 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | 0% | |
| Storage Length (ft) | 0 | | 275 | 0 | | 0 | | 200 | 0 | 0 | 0 |
| Storage Lanes | 0 | | 1 | 0 | | 1 | | 1 | 1 | 0 | 0 |
| Taper Length (ft) | 25 | | | 25 | | | | 25 | | 25 | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | |
| Flt Protected | | | | | | | 0.950 | | | | |
| Satd. Flow (prot) | 0 | 3610 | 1599 | 0 | 3574 | 1583 | 2046 | 0 | 1777 | 0 | 0 |
| Flt Permitted | | | | | | | 0.950 | | | | |
| Satd. Flow (perm) | 0 | 3610 | 1599 | 0 | 3574 | 1583 | 2046 | 0 | 1777 | 0 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | |
| Satd. Flow (RTOR) | | | 192 | | | 116 | | | 407 | | |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | 30 | |
| Link Distance (ft) | | 796 | | | 930 | | | 572 | | 532 | |
| Travel Time (s) | | 9.9 | | | 11.5 | | | 13.0 | | 12.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 1% | 0% | 1% | 2% | 0% | 2% | 3% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | 0% | |
| Adj. Flow (vph) | 0 | 1391 | 299 | 0 | 898 | 128 | 64 | 0 | 241 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1391 | 299 | 0 | 898 | 128 | 64 | 0 | 241 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 16 | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.85 | 0.85 | 0.85 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | 15 | 9 | 15 | 9 |
| Number of Detectors | | 3 | 1 | | 3 | 1 | 1 | | 1 | | |
| Detector Template | | | | | | | Left | | | | |
| Leading Detector (ft) | | 199 | 0 | | 199 | 0 | 20 | | 0 | | |
| Trailing Detector (ft) | | -5 | 0 | | -5 | 0 | 0 | | 0 | | |
| Turn Type | | NA | Free | | NA | Free | Perm | | Free | | |
| Protected Phases | | 6 | | | 2 | | | | | | |
| Permitted Phases | | | Free | | | Free | 3 | | Free | | |
| Detector Phase | | 6 | | | 2 | | 3 | | | | |
| Switch Phase | | | | | | | | | | | |

Year 2018 Existing Traffic Volumes
10: NYS Route 22 & I-684 SB On/Off Ramp

Weekday Peak PM Hour
02/19/2019

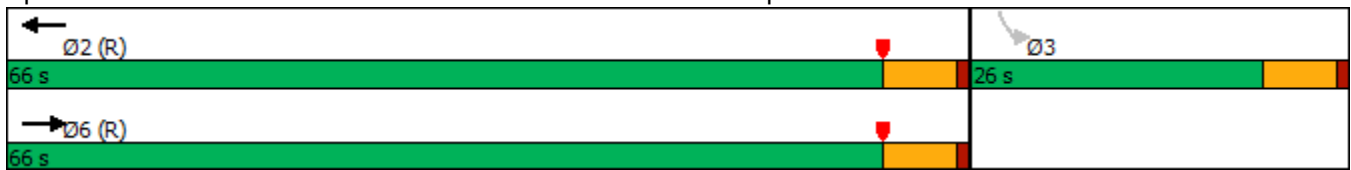


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SBL2 | SBL | SBR | NWL | NWR |
|-------------------------|-----|-------|------|-----|-------|------|-------|-----|------|-----|-----|
| Minimum Initial (s) | | 10.0 | | | 10.0 | | 3.0 | | | | |
| Minimum Split (s) | | 56.0 | | | 56.0 | | 21.0 | | | | |
| Total Split (s) | | 66.0 | | | 66.0 | | 26.0 | | | | |
| Total Split (%) | | 71.7% | | | 71.7% | | 28.3% | | | | |
| Maximum Green (s) | | 60.0 | | | 60.0 | | 20.0 | | | | |
| Yellow Time (s) | | 5.0 | | | 5.0 | | 5.0 | | | | |
| All-Red Time (s) | | 1.0 | | | 1.0 | | 1.0 | | | | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | | | | |
| Lead/Lag | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Vehicle Extension (s) | | 2.0 | | | 2.0 | | 2.0 | | | | |
| Minimum Gap (s) | | 0.2 | | | 0.2 | | 0.2 | | | | |
| Time Before Reduce (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Time To Reduce (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Recall Mode | | C-Min | | | C-Min | | None | | | | |
| Walk Time (s) | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | |
| Act Effct Green (s) | | 76.0 | 92.0 | | 76.0 | 92.0 | 7.3 | | 92.0 | | |
| Actuated g/C Ratio | | 0.83 | 1.00 | | 0.83 | 1.00 | 0.08 | | 1.00 | | |
| v/c Ratio | | 0.47 | 0.19 | | 0.30 | 0.08 | 0.40 | | 0.14 | | |
| Control Delay | | 3.7 | 0.3 | | 2.9 | 0.1 | 46.7 | | 0.2 | | |
| Queue Delay | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | |
| Total Delay | | 3.7 | 0.3 | | 2.9 | 0.1 | 46.7 | | 0.2 | | |
| LOS | | A | A | | A | A | D | | A | | |
| Approach Delay | | 3.1 | | | 2.5 | | | 9.9 | | | |
| Approach LOS | | A | | | A | | | A | | | |
| Queue Length 50th (ft) | | 110 | 0 | | 58 | 0 | 36 | | 0 | | |
| Queue Length 95th (ft) | | 168 | 0 | | 91 | 0 | 74 | | 0 | | |
| Internal Link Dist (ft) | | 716 | | | 850 | | | 492 | | 452 | |
| Turn Bay Length (ft) | | | 275 | | | | 200 | | | | |
| Base Capacity (vph) | | 2982 | 1599 | | 2953 | 1583 | 444 | | 1777 | | |
| Starvation Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Spillback Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Storage Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Reduced v/c Ratio | | 0.47 | 0.19 | | 0.30 | 0.08 | 0.14 | | 0.14 | | |

Intersection Summary

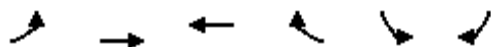
Area Type: Other
Cycle Length: 92
Actuated Cycle Length: 92
Offset: 60 (65%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47
Intersection Signal Delay: 3.6
Intersection Capacity Utilization 47.0%
Analysis Period (min) 15
Intersection LOS: A
ICU Level of Service A

Splits and Phases: 10: NYS Route 22 & I-684 SB On/Off Ramp



Year 2018 Existing Traffic Volumes
11: NYS Route 22 & I-684 NB On/Off Ramp

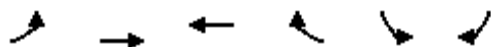
Weekday Peak PM Hour
02/19/2019



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|-------|------|------|-------|------|-------|
| Lane Configurations | ↰↰ | ↑↑ | ↰↰ | ↰ | | ↰ |
| Traffic Volume (vph) | 678 | 1066 | 597 | 240 | 0 | 347 |
| Future Volume (vph) | 678 | 1066 | 597 | 240 | 0 | 347 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 400 | | | 400 | 1 | 0 |
| Storage Lanes | 2 | | | 1 | 0 | 1 |
| Taper Length (ft) | 300 | | | | 25 | |
| Lane Util. Factor | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.865 |
| Flt Protected | 0.950 | | | | | |
| Satd. Flow (prot) | 3467 | 3574 | 3539 | 1615 | 0 | 1611 |
| Flt Permitted | 0.950 | | | | | |
| Satd. Flow (perm) | 3467 | 3574 | 3539 | 1615 | 0 | 1611 |
| Right Turn on Red | | | | No | | Yes |
| Satd. Flow (RTOR) | | | | | | 582 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 287 | 1186 | | 622 | |
| Travel Time (s) | | 3.6 | 14.7 | | 14.1 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 2% | 0% | 0% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 753 | 1184 | 663 | 267 | 0 | 386 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 753 | 1184 | 663 | 267 | 0 | 386 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 24 | 24 | | 0 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Number of Detectors | 2 | 2 | 2 | 2 | | 1 |
| Detector Template | | | | | | |
| Leading Detector (ft) | 83 | 83 | 83 | 83 | | 0 |
| Trailing Detector (ft) | -5 | -5 | -5 | -5 | | 0 |
| Turn Type | Prot | NA | NA | Perm | | Free |
| Protected Phases | 1 | 6 | 2 | | | |
| Permitted Phases | | | | 2 | | Free |
| Detector Phase | 1 | 6 | 2 | 2 | | |
| Switch Phase | | | | | | |

Year 2018 Existing Traffic Volumes
11: NYS Route 22 & I-684 NB On/Off Ramp

Weekday Peak PM Hour
02/19/2019

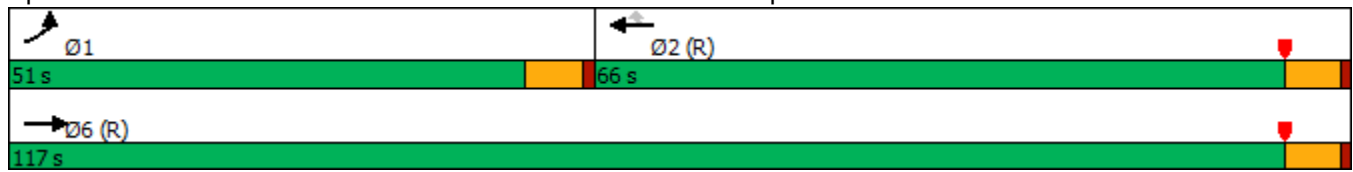


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|-------|--------|-------|-------|-----|-------|
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | | |
| Minimum Split (s) | 41.0 | 56.0 | 56.0 | 56.0 | | |
| Total Split (s) | 51.0 | 117.0 | 66.0 | 66.0 | | |
| Total Split (%) | 43.6% | 100.0% | 56.4% | 56.4% | | |
| Maximum Green (s) | 45.0 | 111.0 | 60.0 | 60.0 | | |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | | |
| Lead/Lag | Lead | | Lag | Lag | | |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | |
| Vehicle Extension (s) | 2.0 | 2.0 | 2.0 | 2.0 | | |
| Minimum Gap (s) | 0.2 | 0.2 | 0.2 | 0.2 | | |
| Time Before Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Time To Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Recall Mode | None | C-Min | C-Min | C-Min | | |
| Walk Time (s) | | | | | | |
| Flash Dont Walk (s) | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | |
| Act Effct Green (s) | 30.9 | 117.0 | 74.1 | 74.1 | | 117.0 |
| Actuated g/C Ratio | 0.26 | 1.00 | 0.63 | 0.63 | | 1.00 |
| v/c Ratio | 0.82 | 0.33 | 0.30 | 0.26 | | 0.24 |
| Control Delay | 48.3 | 0.2 | 10.7 | 11.1 | | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 48.3 | 0.2 | 10.7 | 11.1 | | 0.4 |
| LOS | D | A | B | B | | A |
| Approach Delay | | 18.9 | 10.8 | | 0.4 | |
| Approach LOS | | B | B | | A | |
| Queue Length 50th (ft) | 276 | 0 | 109 | 82 | | 0 |
| Queue Length 95th (ft) | 319 | 0 | 168 | 148 | | 0 |
| Internal Link Dist (ft) | | 207 | 1106 | | 542 | |
| Turn Bay Length (ft) | 400 | | | 400 | | |
| Base Capacity (vph) | 1333 | 3574 | 2241 | 1022 | | 1611 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.56 | 0.33 | 0.30 | 0.26 | | 0.24 |

Intersection Summary























| | |
|-----------------------------------|---|
| Area Type: | Other |
| Cycle Length: | 117 |
| Actuated Cycle Length: | 117 |
| Offset: | 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow, Master Intersection |
| Natural Cycle: | 100 |
| Control Type: | Actuated-Coordinated |
| Maximum v/c Ratio: | 0.82 |
| Intersection Signal Delay: | 14.4 |
| Intersection Capacity Utilization | 45.8% |
| Analysis Period (min) | 15 |
| Intersection LOS: | B |
| ICU Level of Service | A |

Splits and Phases: 11: NYS Route 22 & I-684 NB On/Off Ramp















Year 2022 No-Build Traffic Volumes
1: NYS Route 22 & Old Post Road/Old Route 22

Weekday Peak AM Hour
02/19/2019

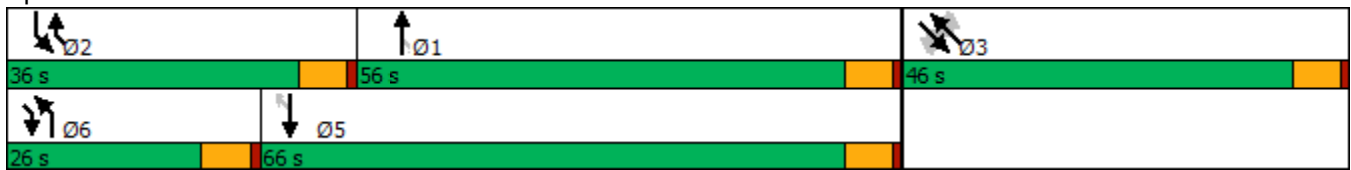
| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  |  |
| Traffic Volume (vph) | 92 | 809 | 108 | 141 | 871 | 22 | 9 | 5 | 55 | 3 | 2 | 12 |
| Future Volume (vph) | 92 | 809 | 108 | 141 | 871 | 22 | 9 | 5 | 55 | 3 | 2 | 12 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 11 | 12 | 12 | 11 | 11 | 11 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 350 | | 230 | 315 | | 155 | 0 | | 150 | 0 | | 125 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 86 | | | 86 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | 1.00 | | | | 0.99 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.969 | | | 0.971 | |
| Satd. Flow (prot) | 1770 | 3406 | 1599 | 1711 | 3438 | 1538 | 0 | 1662 | 1501 | 0 | 1320 | 1380 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.939 | | | 0.914 | |
| Satd. Flow (perm) | 1770 | 3406 | 1599 | 1711 | 3438 | 1538 | 0 | 1606 | 1501 | 0 | 1242 | 1361 |
| Right Turn on Red | | | Yes | | | Yes | | | No | | | Yes |
| Satd. Flow (RTOR) | | | 119 | | | 71 | | | | | | 24 |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | | 30 | |
| Link Distance (ft) | | 2626 | | | 1235 | | | 276 | | | 807 | |
| Travel Time (s) | | 32.6 | | | 15.3 | | | 6.3 | | | 18.3 | |
| Confl. Peds. (#/hr) | | | | | | | 4 | | | | | 4 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 6% | 1% | 2% | 5% | 5% | 11% | 0% | 4% | 33% | 50% | 17% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 95 | 834 | 111 | 145 | 898 | 23 | 9 | 5 | 57 | 3 | 2 | 12 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 95 | 834 | 111 | 145 | 898 | 23 | 0 | 14 | 57 | 0 | 5 | 12 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 20 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.04 | 1.00 | 1.00 | 1.04 | 1.04 | 1.04 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 |
| Detector Template | | | | | | | Left | | | Left | | |
| Leading Detector (ft) | 83 | 0 | 0 | 83 | 0 | 0 | 20 | 83 | 83 | 20 | 83 | 83 |
| Trailing Detector (ft) | -5 | 0 | 0 | -5 | 0 | 0 | 0 | -5 | -5 | 0 | -5 | -5 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA pm+ov | Perm | NA pm+ov | Perm | NA pm+ov |
| Protected Phases | 6 | 1 | | 2 | 5 | | | 3 | 6 | | 3 | 2 |
| Permitted Phases | | | 1 | | | 5 | 3 | | 3 | 3 | | 3 |
| Detector Phase | 6 | 1 | 1 | 2 | 5 | 5 | 3 | 3 | 6 | 3 | 3 | 2 |
| Switch Phase | | | | | | | | | | | | |

Year 2022 No-Build Traffic Volumes
1: NYS Route 22 & Old Post Road/Old Route 22

Weekday Peak AM Hour
02/19/2019
























| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
| Minimum Initial (s) | 2.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 | 5.0 |
| Minimum Split (s) | 20.0 | 56.0 | 56.0 | 26.0 | 56.0 | 56.0 | 33.0 | 33.0 | 20.0 | 33.0 | 33.0 | 26.0 |
| Total Split (s) | 26.0 | 56.0 | 56.0 | 36.0 | 66.0 | 66.0 | 46.0 | 46.0 | 26.0 | 46.0 | 46.0 | 36.0 |
| Total Split (%) | 18.8% | 40.6% | 40.6% | 26.1% | 47.8% | 47.8% | 33.3% | 33.3% | 18.8% | 33.3% | 33.3% | 26.1% |
| Maximum Green (s) | 20.0 | 50.0 | 50.0 | 30.0 | 60.0 | 60.0 | 40.0 | 40.0 | 20.0 | 40.0 | 40.0 | 30.0 |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | | | Lead | | | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | | | Yes | | | Yes |
| Vehicle Extension (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Minimum Gap (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None | None |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 9.2 | 58.2 | 58.2 | 11.8 | 60.8 | 60.8 | | 10.1 | 14.8 | | 10.1 | 15.3 |
| Actuated g/C Ratio | 0.10 | 0.66 | 0.66 | 0.13 | 0.69 | 0.69 | | 0.12 | 0.17 | | 0.12 | 0.17 |
| v/c Ratio | 0.51 | 0.37 | 0.10 | 0.63 | 0.38 | 0.02 | | 0.08 | 0.23 | | 0.03 | 0.05 |
| Control Delay | 48.8 | 9.0 | 2.0 | 49.8 | 7.7 | 0.0 | | 40.6 | 31.4 | | 40.6 | 4.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 48.8 | 9.0 | 2.0 | 49.8 | 7.7 | 0.0 | | 40.6 | 31.4 | | 40.6 | 4.8 |
| LOS | D | A | A | D | A | A | | D | C | | D | A |
| Approach Delay | | 11.9 | | | 13.3 | | | 33.2 | | | 15.3 | |
| Approach LOS | | B | | | B | | | C | | | B | |
| Queue Length 50th (ft) | 46 | 68 | 0 | 70 | 65 | 0 | | 6 | 27 | | 2 | 0 |
| Queue Length 95th (ft) | 108 | 205 | 21 | 149 | 202 | 0 | | 28 | 59 | | 15 | 7 |
| Internal Link Dist (ft) | | 2546 | | | 1155 | | | 196 | | | 727 | |
| Turn Bay Length (ft) | 350 | | 230 | 315 | | 155 | | | 150 | | | 125 |
| Base Capacity (vph) | 408 | 2259 | 1100 | 592 | 2380 | 1086 | | 741 | 442 | | 573 | 546 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.23 | 0.37 | 0.10 | 0.24 | 0.38 | 0.02 | | 0.02 | 0.13 | | 0.01 | 0.02 |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: | 138 | | | | | | | | | | | |
| Actuated Cycle Length: | 87.8 | | | | | | | | | | | |
| Natural Cycle: | 115 | | | | | | | | | | | |
| Control Type: | Semi Act-Uncoord | | | | | | | | | | | |
| Maximum v/c Ratio: | 0.63 | | | | | | | | | | | |
| Intersection Signal Delay: | 13.3 | | | | | Intersection LOS: B | | | | | | |
| Intersection Capacity Utilization | 53.5% | | | | | ICU Level of Service A | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |

Splits and Phases: 1: NYS Route 22 & Old Post Road/Old Route 22















Year 2022 No-Build Traffic Volumes
2: NYS Route 22 & North Castle Drive (IBM)/NYS Route 128

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  | |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 12 | 3 | 9 | 135 | 24 | 213 | 185 | 508 | 137 | 387 | 809 | 175 |
| Future Volume (vph) | 12 | 3 | 9 | 135 | 24 | 213 | 185 | 508 | 137 | 387 | 809 | 175 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 15 | 12 | 11 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 225 | 0 | | 250 | 680 | | 250 | 400 | | 250 |
| Storage Lanes | 1 | | 1 | 0 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 86 | | | 86 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.959 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1357 | 1429 | 1455 | 0 | 1927 | 1495 | 1662 | 3471 | 1553 | 1787 | 3539 | 1553 |
| Flt Permitted | 0.536 | | | | 0.757 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 766 | 1429 | 1455 | 0 | 1521 | 1495 | 1662 | 3471 | 1553 | 1787 | 3539 | 1553 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 71 | | | 220 | | | 141 | | | 180 |
| Link Speed (mph) | | 30 | | | 30 | | | 55 | | | 55 | |
| Link Distance (ft) | | 298 | | | 237 | | | 1202 | | | 815 | |
| Travel Time (s) | | 6.8 | | | 5.4 | | | 14.9 | | | 10.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 33% | 33% | 11% | 4% | 4% | 8% | 5% | 4% | 4% | 1% | 2% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 12 | 3 | 9 | 139 | 25 | 220 | 191 | 524 | 141 | 399 | 834 | 180 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 12 | 3 | 9 | 0 | 164 | 220 | 191 | 524 | 141 | 399 | 834 | 180 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.88 | 1.00 | 1.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 |
| Detector Template | | | | Left | | | | | | | | |
| Leading Detector (ft) | 6 | 6 | 6 | 20 | 43 | 6 | 83 | 6 | 6 | 83 | 6 | 6 |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | -5 | 0 | 0 | -5 | 0 | 0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | | 3 | | | 3 | | 6 | 1 | | 2 | 5 | |
| Permitted Phases | 3 | | 3 | 3 | | 3 | | | 1 | | | 5 |
| Detector Phase | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 1 | 1 | 2 | 5 | 5 |
| Switch Phase | | | | | | | | | | | | |

Year 2022 No-Build Traffic Volumes
2: NYS Route 22 & North Castle Drive (IBM)/NYS Route 128

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 |
| Minimum Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 16.0 | 56.0 | 56.0 | 16.0 | 56.0 | 56.0 |
| Total Split (s) | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 36.0 | 56.0 | 56.0 | 36.0 | 56.0 | 56.0 |
| Total Split (%) | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 26.1% | 40.6% | 40.6% | 26.1% | 40.6% | 40.6% |
| Maximum Green (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 30.0 | 50.0 | 50.0 | 30.0 | 50.0 | 50.0 |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 2.0 | 6.0 | 6.0 | 2.0 | 6.0 | 6.0 |
| Minimum Gap (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 | 3.0 | 3.0 | 2.0 | 4.0 | 4.0 |
| Time Before Reduce (s) | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 0.0 | 20.0 | 20.0 | 0.0 | 20.0 | 20.0 |
| Time To Reduce (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 0.0 | 10.0 | 10.0 | 0.0 | 10.0 | 10.0 |
| Recall Mode | Min | Min | Min | Min | Min | Min | None | Max | Max | None | Max | Max |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 21.4 | 21.4 | 21.4 | | 21.4 | 21.4 | 17.9 | 50.1 | 50.1 | 30.1 | 62.2 | 62.2 |
| Actuated g/C Ratio | 0.18 | 0.18 | 0.18 | | 0.18 | 0.18 | 0.15 | 0.42 | 0.42 | 0.25 | 0.52 | 0.52 |
| v/c Ratio | 0.09 | 0.01 | 0.03 | | 0.60 | 0.49 | 0.77 | 0.36 | 0.19 | 0.89 | 0.45 | 0.20 |
| Control Delay | 41.2 | 38.7 | 0.1 | | 54.6 | 9.2 | 68.9 | 25.4 | 4.5 | 66.7 | 20.7 | 3.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 41.2 | 38.7 | 0.1 | | 54.6 | 9.2 | 68.9 | 25.4 | 4.5 | 66.7 | 20.7 | 3.5 |
| LOS | D | D | A | | D | A | E | C | A | E | C | A |
| Approach Delay | | 25.5 | | | 28.6 | | | 31.7 | | | 31.5 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Queue Length 50th (ft) | 8 | 2 | 0 | | 117 | 0 | 144 | 143 | 0 | 298 | 205 | 0 |
| Queue Length 95th (ft) | 26 | 10 | 0 | | 189 | 65 | 225 | 208 | 42 | #523 | 327 | 43 |
| Internal Link Dist (ft) | | 218 | | | 157 | | | 1122 | | | 735 | |
| Turn Bay Length (ft) | | | 225 | | | 250 | 680 | | 250 | 400 | | 250 |
| Base Capacity (vph) | 256 | 478 | 534 | | 509 | 647 | 417 | 1454 | 732 | 449 | 1841 | 894 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.01 | 0.02 | | 0.32 | 0.34 | 0.46 | 0.36 | 0.19 | 0.89 | 0.45 | 0.20 |

Intersection Summary

Area Type: Other

Cycle Length: 138

Actuated Cycle Length: 119.6

Natural Cycle: 115

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 31.1

Intersection LOS: C

Intersection Capacity Utilization 65.9%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.






















Queue shown is maximum after two cycles.

Splits and Phases: 2: NYS Route 22 & North Castle Drive (IBM)/NYS Route 128















Year 2022 No-Build Traffic Volumes
3: Business Park Drive/Maple Avenue & NYS Route 22

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  |  |  |  | |
| Traffic Volume (vph) | 46 | 467 | 140 | 175 | 1222 | 368 | 70 | 45 | 64 | 250 | 61 | 79 |
| Future Volume (vph) | 46 | 467 | 140 | 175 | 1222 | 368 | 70 | 45 | 64 | 250 | 61 | 79 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 11 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 600 | | 0 | 265 | | 225 | 0 | | 0 | 100 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 0 | | 1 | 1 | | 0 |
| Taper Length (ft) | 86 | | | 86 | | | 25 | | | 86 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | 1.00 | | | 0.99 | |
| Frt | | 0.965 | | | | 0.850 | | | 0.850 | | 0.915 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.970 | | 0.950 | | |
| Satd. Flow (prot) | 1419 | 3298 | 0 | 1728 | 3539 | 1509 | 0 | 1821 | 1583 | 1703 | 1629 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.970 | | 0.950 | | |
| Satd. Flow (perm) | 1419 | 3298 | 0 | 1728 | 3539 | 1509 | 0 | 1816 | 1583 | 1703 | 1629 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 34 | | | | 251 | | | 114 | | 42 | |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | | 30 | |
| Link Distance (ft) | | 561 | | | 541 | | | 577 | | | 575 | |
| Travel Time (s) | | 7.0 | | | 6.7 | | | 13.1 | | | 13.1 | |
| Confl. Peds. (#/hr) | | | | | | | 3 | | | | | 3 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 23% | 7% | 1% | 1% | 2% | 7% | 2% | 0% | 2% | 6% | 0% | 10% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 48 | 492 | 147 | 184 | 1286 | 387 | 74 | 47 | 67 | 263 | 64 | 83 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 48 | 639 | 0 | 184 | 1286 | 387 | 0 | 121 | 67 | 263 | 147 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 11 | | | 11 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.04 | 1.00 | 1.00 | 1.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 2 | 2 | | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | |
| Detector Template | | | | | | | Left | | | Left | | |
| Leading Detector (ft) | 83 | 83 | | 83 | 83 | 40 | 50 | 83 | 83 | 83 | 83 | |
| Trailing Detector (ft) | -5 | -5 | | -5 | -5 | 0 | 0 | -5 | -5 | 0 | 0 | |
| Turn Type | Prot | NA | | Prot | NA | Perm | Split | NA | Perm | Split | NA | |
| Protected Phases | 6 | 1 | | 2 | 5 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | 5 | | | 3 | | | |
| Detector Phase | 6 | 1 | | 2 | 5 | 5 | 3 | 3 | 3 | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |







Year 2022 No-Build Traffic Volumes
3: Business Park Drive/Maple Avenue & NYS Route 22

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | 15.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | |
| Minimum Split (s) | 9.0 | 21.0 | | 9.0 | 21.0 | 21.0 | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 | |
| Total Split (s) | 26.0 | 56.0 | | 26.0 | 56.0 | 56.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | |
| Total Split (%) | 19.4% | 41.8% | | 19.4% | 41.8% | 41.8% | 19.4% | 19.4% | 19.4% | 19.4% | 19.4% | |
| Maximum Green (s) | 20.0 | 50.0 | | 20.0 | 50.0 | 50.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | |
| Yellow Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | -2.0 | -2.0 | | -2.0 | -2.0 | -2.0 | | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lag | Lag | Lag | Lead | Lead | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | |
| Minimum Gap (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | None | None | None | None | None | None | |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 10.4 | 36.3 | | 17.6 | 46.6 | 46.6 | | 13.8 | 13.8 | 21.5 | 21.5 | |
| Actuated g/C Ratio | 0.10 | 0.34 | | 0.17 | 0.44 | 0.44 | | 0.13 | 0.13 | 0.20 | 0.20 | |
| v/c Ratio | 0.35 | 0.55 | | 0.64 | 0.82 | 0.48 | | 0.51 | 0.22 | 0.76 | 0.40 | |
| Control Delay | 56.0 | 28.5 | | 54.8 | 32.5 | 10.0 | | 54.7 | 3.0 | 58.5 | 33.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 56.0 | 28.5 | | 54.8 | 32.5 | 10.0 | | 54.7 | 3.0 | 58.5 | 33.2 | |
| LOS | E | C | | D | C | B | | D | A | E | C | |
| Approach Delay | | 30.5 | | | 30.0 | | | 36.3 | | | 49.4 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Queue Length 50th (ft) | 33 | 172 | | 127 | 408 | 57 | | 85 | 0 | 184 | 66 | |
| Queue Length 95th (ft) | 76 | 257 | | 216 | 581 | 158 | | 151 | 8 | #354 | 143 | |
| Internal Link Dist (ft) | | 481 | | | 461 | | | 497 | | | 495 | |
| Turn Bay Length (ft) | 600 | | | 265 | | 225 | | | | 100 | | |
| Base Capacity (vph) | 305 | 1697 | | 372 | 1803 | 892 | | 392 | 430 | 367 | 384 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.16 | 0.38 | | 0.49 | 0.71 | 0.43 | | 0.31 | 0.16 | 0.72 | 0.38 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: 134 | | | | | | | | | | | | |
| Actuated Cycle Length: 105.7 | | | | | | | | | | | | |
| Natural Cycle: 75 | | | | | | | | | | | | |
| Control Type: Actuated-Uncoordinated | | | | | | | | | | | | |
| Maximum v/c Ratio: 0.82 | | | | | | | | | | | | |
| Intersection Signal Delay: 33.0 | | | | Intersection LOS: C | | | | | | | | |
| Intersection Capacity Utilization 72.6% | | | | ICU Level of Service C | | | | | | | | |
| Analysis Period (min) 15 | | | | | | | | | | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | | | | | | | | | | |

















Queue shown is maximum after two cycles.

Splits and Phases: 3: Business Park Drive/Maple Avenue & NYS Route 22

| | | | |
|--|--|---|--|
|  Ø2 |  Ø1 |  Ø4 |  Ø3 |
| 26 s | 56 s | 26 s | 26 s |
|  Ø6 |  Ø5 | | |
| 26 s | 56 s | | |

Year 2022 No-Build Traffic Volumes
4: NYS Route 128 (Main Street) & Kent Place/Bedford Road

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | | |  | | |  | |
| Traffic Volume (vph) | 1 | 5 | 10 | 41 | 17 | 50 | 27 | 177 | 68 | 61 | 337 | 17 |
| Future Volume (vph) | 1 | 5 | 10 | 41 | 17 | 50 | 27 | 177 | 68 | 61 | 337 | 17 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 1% | | | 1% | | | -1% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.913 | | | 0.938 | | | 0.966 | | | 0.995 | |
| Flt Protected | | 0.997 | | | 0.981 | | | 0.995 | | | 0.993 | |
| Satd. Flow (prot) | 0 | 1549 | 0 | 0 | 1368 | 0 | 0 | 1521 | 0 | 0 | 1593 | 0 |
| Flt Permitted | | 0.997 | | | 0.981 | | | 0.995 | | | 0.993 | |
| Satd. Flow (perm) | 0 | 1549 | 0 | 0 | 1368 | 0 | 0 | 1521 | 0 | 0 | 1593 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 231 | | | 878 | | | 1228 | | | 584 | |
| Travel Time (s) | | 5.3 | | | 20.0 | | | 27.9 | | | 13.3 | |
| Confl. Peds. (#/hr) | 12 | | | | | | 12 | | | | 12 | 12 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 16% | 6% | 16% | 4% | 8% | 12% | 3% | 6% | 19% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 1 | 5 | 11 | 45 | 18 | 54 | 29 | 192 | 74 | 66 | 366 | 18 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 17 | 0 | 0 | 117 | 0 | 0 | 295 | 0 | 0 | 450 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Area Type: CBD

Control Type: Unsignalized

Intersection Capacity Utilization 57.9% ICU Level of Service B

Analysis Period (min) 15

Year 2022 No-Build Traffic Volumes
 4: NYS Route 128 (Main Street) & Kent Place/Bedford Road

Weekday Peak AM Hour
 02/19/2019

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.9 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 1 | 5 | 10 | 41 | 17 | 50 | 27 | 177 | 68 | 61 | 337 | 17 |
| Future Vol, veh/h | 1 | 5 | 10 | 41 | 17 | 50 | 27 | 177 | 68 | 61 | 337 | 17 |
| Conflicting Peds, #/hr | 12 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 12 | 0 | 12 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 1 | - | - | 1 | - | - | -1 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 16 | 6 | 16 | 4 | 8 | 12 | 3 | 6 | 19 |
| Mvmt Flow | 1 | 5 | 11 | 45 | 18 | 54 | 29 | 192 | 74 | 66 | 366 | 18 |






| Major/Minor | Minor2 | Minor1 | | Major1 | | Major2 | | | | | | |
|----------------------|--------|--------|-----|--------|-------|--------|-------|---|---|-------|---|---|
| Conflicting Flow All | 854 | 855 | 387 | 814 | 827 | 253 | 396 | 0 | 0 | 278 | 0 | 0 |
| Stage 1 | 519 | 519 | - | 299 | 299 | - | - | - | - | - | - | - |
| Stage 2 | 335 | 336 | - | 515 | 528 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.3 | 6.7 | 6.3 | 7.46 | 6.76 | 6.46 | 4.14 | - | - | 4.13 | - | - |
| Critical Hdwy Stg 1 | 6.3 | 5.7 | - | 6.46 | 5.76 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.3 | 5.7 | - | 6.46 | 5.76 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | 3.644 | 4.054 | 3.444 | 2.236 | - | - | 2.227 | - | - |
| Pot Cap-1 Maneuve | 268 | 284 | 658 | 268 | 289 | 747 | 1152 | - | - | 1279 | - | - |
| Stage 1 | 528 | 521 | - | 670 | 648 | - | - | - | - | - | - | - |
| Stage 2 | 671 | 634 | - | 503 | 506 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuve | 213 | 252 | 651 | 238 | 257 | 732 | 1140 | - | - | 1266 | - | - |
| Mov Cap-2 Maneuve | 213 | 252 | - | 238 | 257 | - | - | - | - | - | - | - |
| Stage 1 | 507 | 482 | - | 643 | 622 | - | - | - | - | - | - | - |
| Stage 2 | 579 | 609 | - | 457 | 468 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|------|------|-----|-----|
| HCM Control Delay, s | 14.4 | 20.3 | 0.8 | 1.2 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1140 | - | - | 401 | 352 | 1266 | - | - |
| HCM Lane V/C Ratio | 0.026 | - | - | 0.043 | 0.333 | 0.052 | - | - |
| HCM Control Delay (s) | 8.2 | 0 | - | 14.4 | 20.3 | 8 | 0 | - |
| HCM Lane LOS | A | A | - | B | C | A | A | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.1 | 1.4 | 0.2 | - | - |













Year 2022 No-Build Traffic Volumes
5: Maple Avenue & Bedford Road

Weekday Peak AM Hour
02/19/2019

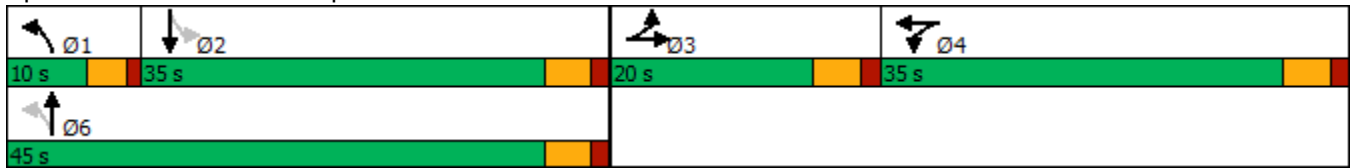
| |  | | | | | | | | | | | |
|----------------------------|--|---|-------|-------|---|-------|---|---|-------|------|---|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | | | | |
| Traffic Volume (vph) | 6 | 45 | 137 | 106 | 45 | 29 | 127 | 182 | 150 | 20 | 148 | 3 |
| Future Volume (vph) | 6 | 45 | 137 | 106 | 45 | 29 | 127 | 182 | 150 | 20 | 148 | 3 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 15 | 15 | 15 | 15 | 15 | 15 | 10 | 10 | 10 | 15 | 15 | 15 |
| Grade (%) | | -1% | | | -1% | | | -2% | | | -1% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 50 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 86 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.98 | | | 1.00 | | | | | | | |
| Frt | | 0.902 | | | 0.978 | | | 0.932 | | | 0.998 | |
| Flt Protected | | 0.998 | | | 0.971 | | 0.950 | | | | 0.994 | |
| Satd. Flow (prot) | 0 | 1729 | 0 | 0 | 1880 | 0 | 1668 | 1519 | 0 | 0 | 1921 | 0 |
| Flt Permitted | | 0.998 | | | 0.971 | | 0.481 | | | | 0.922 | |
| Satd. Flow (perm) | 0 | 1729 | 0 | 0 | 1878 | 0 | 845 | 1519 | 0 | 0 | 1782 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 114 | | | 10 | | | 49 | | | 1 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 878 | | | 570 | | | 575 | | | 384 | |
| Travel Time (s) | | 20.0 | | | 13.0 | | | 13.1 | | | 8.7 | |
| Confl. Peds. (#/hr) | | | 1 | 1 | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 7% | 8% | 5% | 10% | 4% | 2% | 4% | 17% | 28% | 6% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 7 | 52 | 159 | 123 | 52 | 34 | 148 | 212 | 174 | 23 | 172 | 3 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 218 | 0 | 0 | 209 | 0 | 148 | 386 | 0 | 0 | 198 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 1.08 | 1.08 | 1.08 | 0.88 | 0.88 | 0.88 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turn Type | Split | NA | | Split | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 3 | 3 | | 4 | 4 | | 1 | 6 | | | 2 | |
| Permitted Phases | | | | | | | 6 | | | 2 | | |
| Detector Phase | 3 | 3 | | 4 | 4 | | 1 | 6 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |

Year 2022 No-Build Traffic Volumes
5: Maple Avenue & Bedford Road

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 3.0 | 3.0 | | 10.0 | 10.0 | | 3.0 | 12.0 | | 12.0 | 12.0 | |
| Minimum Split (s) | 8.0 | 8.0 | | 15.0 | 15.0 | | 7.0 | 17.0 | | 17.0 | 17.0 | |
| Total Split (s) | 20.0 | 20.0 | | 35.0 | 35.0 | | 10.0 | 45.0 | | 35.0 | 35.0 | |
| Total Split (%) | 20.0% | 20.0% | | 35.0% | 35.0% | | 10.0% | 45.0% | | 35.0% | 35.0% | |
| Maximum Green (s) | 15.0 | 15.0 | | 30.0 | 30.0 | | 6.0 | 40.0 | | 30.0 | 30.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.0 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.0 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 4.0 | 5.0 | | | 5.0 | |
| Lead/Lag | Lead | Lead | | Lag | Lag | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | | | Yes | Yes | |
| Vehicle Extension (s) | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | | Max | None | | Min | Min | |
| Walk Time (s) | | | | 7.0 | 7.0 | | | | | | | |
| Flash Dont Walk (s) | | | | 15.0 | 15.0 | | | | | | | |
| Pedestrian Calls (#/hr) | | | | 1 | 1 | | | | | | | |
| Act Effct Green (s) | | 8.2 | | | 12.9 | | 25.9 | 24.9 | | | 14.5 | |
| Actuated g/C Ratio | | 0.13 | | | 0.21 | | 0.42 | 0.40 | | | 0.24 | |
| v/c Ratio | | 0.66 | | | 0.52 | | 0.34 | 0.60 | | | 0.47 | |
| Control Delay | | 24.2 | | | 26.8 | | 15.7 | 18.6 | | | 25.7 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Delay | | 24.2 | | | 26.8 | | 15.7 | 18.6 | | | 25.7 | |
| LOS | | C | | | C | | B | B | | | C | |
| Approach Delay | | 24.2 | | | 26.8 | | | 17.8 | | | 25.7 | |
| Approach LOS | | C | | | C | | | B | | | C | |
| Queue Length 50th (ft) | | 32 | | | 60 | | 30 | 83 | | | 57 | |
| Queue Length 95th (ft) | | 109 | | | 144 | | 87 | 221 | | | 139 | |
| Internal Link Dist (ft) | | 798 | | | 490 | | | 495 | | | 304 | |
| Turn Bay Length (ft) | | | | | | | 50 | | | | | |
| Base Capacity (vph) | | 522 | | | 955 | | 438 | 1039 | | | 901 | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.42 | | | 0.22 | | 0.34 | 0.37 | | | 0.22 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: | 100 | | | | | | | | | | | |
| Actuated Cycle Length: | 61.5 | | | | | | | | | | | |
| Natural Cycle: | 50 | | | | | | | | | | | |
| Control Type: | Semi Act-Uncoord | | | | | | | | | | | |
| Maximum v/c Ratio: | 0.66 | | | | | | | | | | | |
| Intersection Signal Delay: | 22.0 | | | | | Intersection LOS: C | | | | | | |
| Intersection Capacity Utilization | 66.6% | | | | | ICU Level of Service C | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |

Splits and Phases: 5: Maple Avenue & Bedford Road



















Year 2022 No-Build Traffic Volumes

Weekday Peak AM Hour













6: NYS Route 128 (Main Street) & Whippoorwill Road/Maple Avenue

02/19/2019

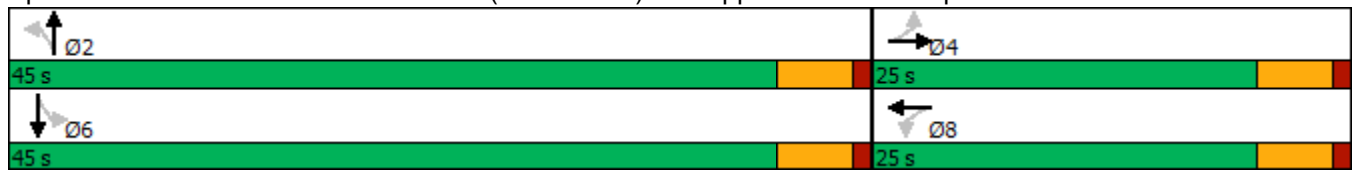
| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | | |  | | |  | |
| Traffic Volume (vph) | 15 | 59 | 51 | 43 | 35 | 117 | 20 | 144 | 33 | 108 | 309 | 4 |
| Future Volume (vph) | 15 | 59 | 51 | 43 | 35 | 117 | 20 | 144 | 33 | 108 | 309 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | -6% | | | 1% | | | 1% | | | -3% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.99 | | | 1.00 | | | 1.00 | | | 1.00 | |
| Frt | | 0.945 | | | 0.919 | | | 0.977 | | | 0.999 | |
| Flt Protected | | 0.994 | | | 0.989 | | | 0.995 | | | 0.987 | |
| Satd. Flow (prot) | 0 | 1506 | 0 | 0 | 1529 | 0 | 0 | 1475 | 0 | 0 | 1612 | 0 |
| Flt Permitted | | 0.940 | | | 0.894 | | | 0.945 | | | 0.866 | |
| Satd. Flow (perm) | 0 | 1424 | 0 | 0 | 1382 | 0 | 0 | 1401 | 0 | 0 | 1413 | 0 |
| Right Turn on Red | | | Yes | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | 50 | | | | | | | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 410 | | | 373 | | | 584 | | | 389 | |
| Travel Time (s) | | 9.3 | | | 8.5 | | | 13.3 | | | 8.8 | |
| Confl. Peds. (#/hr) | | | 1 | 1 | | | | | 3 | 3 | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 14% | 10% | 6% | 0% | 3% | 1% | 16% | 13% | 3% | 5% | 6% | 50% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 16 | 62 | 54 | 45 | 37 | 123 | 21 | 152 | 35 | 114 | 325 | 4 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 132 | 0 | 0 | 205 | 0 | 0 | 208 | 0 | 0 | 443 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.10 | 1.10 | 1.10 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.12 | 1.12 | 1.12 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |

Year 2022 No-Build Traffic Volumes
6: NYS Route 128 (Main Street) & Whippoorwill Road/Maple Avenue

Weekday Peak AM Hour
02/19/2019















| |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | |
| Total Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 45.0 | 45.0 | | 45.0 | 45.0 | |
| Total Split (%) | 35.7% | 35.7% | | 35.7% | 35.7% | | 64.3% | 64.3% | | 64.3% | 64.3% | |
| Maximum Green (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | | Min | Min | | Min | Min | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 13.0 | 13.0 | | 13.0 | 13.0 | | 13.0 | 13.0 | | 13.0 | 13.0 | |
| Pedestrian Calls (#/hr) | 1 | 1 | | 0 | 0 | | 3 | 3 | | 0 | 0 | |
| Act Effct Green (s) | | 13.1 | | | 13.1 | | | 24.7 | | | 24.7 | |
| Actuated g/C Ratio | | 0.31 | | | 0.31 | | | 0.58 | | | 0.58 | |
| v/c Ratio | | 0.28 | | | 0.48 | | | 0.26 | | | 0.54 | |
| Control Delay | | 11.4 | | | 18.9 | | | 8.3 | | | 11.8 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 11.4 | | | 18.9 | | | 8.3 | | | 11.8 | |
| LOS | | B | | | B | | | A | | | B | |
| Approach Delay | | 11.4 | | | 18.9 | | | 8.3 | | | 11.8 | |
| Approach LOS | | B | | | B | | | A | | | B | |
| Queue Length 50th (ft) | | 13 | | | 37 | | | 26 | | | 68 | |
| Queue Length 95th (ft) | | 61 | | | 121 | | | 77 | | | 191 | |
| Internal Link Dist (ft) | | 330 | | | 293 | | | 504 | | | 309 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 749 | | | 703 | | | 1248 | | | 1259 | |
| Starvation Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.18 | | | 0.29 | | | 0.17 | | | 0.35 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | CBD | | | | | | | | | | | |
| Cycle Length: 70 | | | | | | | | | | | | |
| Actuated Cycle Length: 42.6 | | | | | | | | | | | | |
| Natural Cycle: 55 | | | | | | | | | | | | |
| Control Type: Actuated-Uncoordinated | | | | | | | | | | | | |
| Maximum v/c Ratio: 0.54 | | | | | | | | | | | | |
| Intersection Signal Delay: 12.5 | | | | | | | Intersection LOS: B | | | | | |
| Intersection Capacity Utilization 69.0% | | | | | | | ICU Level of Service C | | | | | |
| Analysis Period (min) 15 | | | | | | | | | | | | |

Splits and Phases: 6: NYS Route 128 (Main Street) & Whippoorwill Road/Maple Avenue









Year 2022 No-Build Traffic Volumes
7: NYS Route 22 & NYS Route 120 (North)

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|
| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
| Lane Configurations |  |   |   |  |  |  |
| Traffic Volume (vph) | 175 | 497 | 716 | 213 | 512 | 705 |
| Future Volume (vph) | 175 | 497 | 716 | 213 | 512 | 705 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 10 | 10 | 10 | 10 | 10 | 10 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 250 | | | 500 | 250 | 0 |
| Storage Lanes | 1 | | | 1 | 1 | 1 |
| Taper Length (ft) | 86 | | | | 86 | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1478 | 3209 | 3303 | 1478 | 1604 | 1436 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 1478 | 3209 | 3303 | 1478 | 1604 | 1436 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 217 | | 462 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 770 | 1056 | | 861 | |
| Travel Time (s) | | 9.5 | 13.1 | | 19.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 14% | 5% | 2% | 2% | 5% | 5% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 179 | 507 | 731 | 217 | 522 | 719 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 179 | 507 | 731 | 217 | 522 | 719 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 10 | 15 | | 10 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Number of Detectors | 1 | 2 | 2 | 1 | 2 | 0 |
| Detector Template | | | | | | |
| Leading Detector (ft) | 35 | 104 | 104 | 0 | 104 | 0 |
| Trailing Detector (ft) | -5 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | NA | Free | Prot | Free |
| Protected Phases | 2 | 5 | 1 | | 3 | |
| Permitted Phases | | | | Free | | Free |
| Detector Phase | 2 | 5 | 1 | | 3 | |
| Switch Phase | | | | | | |

Year 2022 No-Build Traffic Volumes
7: NYS Route 22 & NYS Route 120 (North)

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
| Minimum Initial (s) | 12.0 | 12.0 | 12.0 | | 10.0 | |
| Minimum Split (s) | 36.0 | 36.0 | 36.0 | | 26.0 | |
| Total Split (s) | 41.0 | 82.0 | 41.0 | | 36.0 | |
| Total Split (%) | 34.7% | 69.5% | 34.7% | | 30.5% | |
| Maximum Green (s) | 35.0 | 76.0 | 35.0 | | 30.0 | |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | | 5.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | | 6.0 | |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 6.0 | 6.0 | 6.0 | | 6.0 | |
| Minimum Gap (s) | 4.0 | 4.0 | 4.0 | | 4.0 | |
| Time Before Reduce (s) | 20.0 | 20.0 | 20.0 | | 20.0 | |
| Time To Reduce (s) | 8.0 | 8.0 | 8.0 | | 5.0 | |
| Recall Mode | None | Min | Min | | Min | |
| Walk Time (s) | | | | | | |
| Flash Dont Walk (s) | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | |
| Act Effct Green (s) | 20.1 | 56.5 | 30.4 | 98.9 | 30.3 | 98.9 |
| Actuated g/C Ratio | 0.20 | 0.57 | 0.31 | 1.00 | 0.31 | 1.00 |
| v/c Ratio | 0.60 | 0.28 | 0.72 | 0.15 | 1.07 | 0.50 |
| Control Delay | 45.1 | 10.9 | 35.5 | 0.2 | 94.6 | 1.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 45.1 | 10.9 | 35.5 | 0.2 | 94.6 | 1.2 |
| LOS | D | B | D | A | F | A |
| Approach Delay | | 19.8 | 27.5 | | 40.5 | |
| Approach LOS | | B | C | | D | |
| Queue Length 50th (ft) | 103 | 79 | 213 | 0 | ~368 | 0 |
| Queue Length 95th (ft) | 180 | 106 | 310 | 0 | #662 | 0 |
| Internal Link Dist (ft) | | 690 | 976 | | 781 | |
| Turn Bay Length (ft) | 250 | | | 500 | 250 | |
| Base Capacity (vph) | 527 | 2488 | 1179 | 1478 | 490 | 1436 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.20 | 0.62 | 0.15 | 1.07 | 0.50 |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Cycle Length: | 118 | | | | | |
| Actuated Cycle Length: | 98.9 | | | | | |
| Natural Cycle: | 110 | | | | | |
| Control Type: | Actuated-Uncoordinated | | | | | |
| Maximum v/c Ratio: | 1.07 | | | | | |
| Intersection Signal Delay: | 31.3 | | | Intersection LOS: C | | |
| Intersection Capacity Utilization | 73.2% | | | ICU Level of Service D | | |
| Analysis Period (min) | 15 | | | | | |
| ~ Volume exceeds capacity, queue is theoretically infinite. | | | | | | |

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: NYS Route 22 & NYS Route 120 (North)









Year 2022 No-Build Traffic Volumes
8: NYS Route 22 & NYS Route 120 (South)

Weekday Peak AM Hour
02/19/2019

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|----------------------------|-------|-------|----------|-------|-------|------|
| Lane Configurations | W | R | L | R | L | R |
| Traffic Volume (vph) | 44 | 0 | 469 | 154 | 779 | 641 |
| Future Volume (vph) | 44 | 0 | 469 | 154 | 779 | 641 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 10 | 10 | 11 | 11 |
| Grade (%) | -8% | | -2% | | | -1% |
| Storage Length (ft) | 0 | 0 | | 200 | 215 | |
| Storage Lanes | 1 | 0 | | 1 | 2 | |
| Taper Length (ft) | 25 | | | | 86 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1707 | 0 | 3304 | 1478 | 3368 | 3405 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 1707 | 0 | 3304 | 1478 | 3368 | 3405 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | | | 49 | | |
| Link Speed (mph) | 30 | | 50 | | | 50 |
| Link Distance (ft) | 334 | | 905 | | | 488 |
| Travel Time (s) | 7.6 | | 12.3 | | | 6.7 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 10% | 0% | 3% | 3% | 1% | 3% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | 0% | | | 0% |
| Adj. Flow (vph) | 46 | 0 | 494 | 162 | 820 | 675 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 46 | 0 | 494 | 162 | 820 | 675 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 22 | | | 22 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 0.95 | 0.95 | 1.08 | 1.08 | 1.04 | 1.04 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Number of Detectors | 1 | | 2 | 1 | 1 | 2 |
| Detector Template | Left | | Thru | Right | Left | Thru |
| Leading Detector (ft) | 20 | | 100 | 20 | 20 | 100 |
| Trailing Detector (ft) | 0 | | 0 | 0 | 0 | 0 |
| Turn Type | Prot | | NA pm+ov | | Prot | NA |
| Protected Phases | 8 | | 2 | 8 | 1 | 6 |
| Permitted Phases | | | | 2 | | |
| Detector Phase | 8 | | 2 | 8 | 1 | 6 |
| Switch Phase | | | | | | |

Year 2022 No-Build Traffic Volumes
8: NYS Route 22 & NYS Route 120 (South)

Weekday Peak AM Hour
02/19/2019















| |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Minimum Initial (s) | 10.0 | | 12.0 | 10.0 | 12.0 | 12.0 |
| Minimum Split (s) | 26.0 | | 36.0 | 26.0 | 36.0 | 36.0 |
| Total Split (s) | 27.0 | | 43.0 | 27.0 | 48.0 | 91.0 |
| Total Split (%) | 22.9% | | 36.4% | 22.9% | 40.7% | 77.1% |
| Maximum Green (s) | 21.0 | | 37.0 | 21.0 | 42.0 | 85.0 |
| Yellow Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | | Min | None | Min | Min |
| Walk Time (s) | 5.0 | | 5.0 | 5.0 | | 5.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | 11.0 | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | | 0 |
| Act Effct Green (s) | 10.7 | | 16.9 | 33.8 | 22.8 | 45.9 |
| Actuated g/C Ratio | 0.16 | | 0.25 | 0.49 | 0.33 | 0.67 |
| v/c Ratio | 0.17 | | 0.61 | 0.22 | 0.74 | 0.30 |
| Control Delay | 31.0 | | 27.3 | 8.7 | 25.1 | 4.9 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 31.0 | | 27.3 | 8.7 | 25.1 | 4.9 |
| LOS | C | | C | A | C | A |
| Approach Delay | 31.0 | | 22.7 | | | 16.0 |
| Approach LOS | C | | C | | | B |
| Queue Length 50th (ft) | 17 | | 95 | 24 | 148 | 49 |
| Queue Length 95th (ft) | 54 | | 171 | 68 | 254 | 78 |
| Internal Link Dist (ft) | 254 | | 825 | | | 408 |
| Turn Bay Length (ft) | | | | 200 | 215 | |
| Base Capacity (vph) | 533 | | 1818 | 749 | 2105 | 3382 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.09 | | 0.27 | 0.22 | 0.39 | 0.20 |
| Intersection Summary | | | | | | |
| Area Type: Other | | | | | | |
| Cycle Length: 118 | | | | | | |
| Actuated Cycle Length: 68.9 | | | | | | |
| Natural Cycle: 100 | | | | | | |
| Control Type: Semi Act-Uncoord | | | | | | |
| Maximum v/c Ratio: 0.74 | | | | | | |
| Intersection Signal Delay: 18.3 | | | | Intersection LOS: B | | |
| Intersection Capacity Utilization 58.5% | | | | ICU Level of Service B | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 8: NYS Route 22 & NYS Route 120 (South)



Year 2022 No-Build Traffic Volumes
9: King Street & Old Post Road

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | |  | | |  | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 0 | 25 | 6 | 3 | 196 | 40 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 0 | 0 | 0 | 25 | 6 | 3 | 196 | 40 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 13 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | -5% | | | -7% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | 0.973 | | | 0.978 | | | | |
| Flt Protected | | | | | | | | 0.999 | | | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 1836 | 0 | 0 | 1747 | 0 | 0 | 0 | 0 |
| Flt Permitted | | | | | | | | 0.999 | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 1836 | 0 | 0 | 1747 | 0 | 0 | 0 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 63 | | | 297 | | | 300 | | | 404 | |
| Travel Time (s) | | 1.4 | | | 6.8 | | | 6.8 | | | 9.2 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 4% | 0% | 0% | 16% | 3% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 0 | 0 | 0 | 0 | 28 | 7 | 3 | 223 | 45 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 271 | 0 | 0 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 0.97 | 0.97 | 0.97 | 0.96 | 0.92 | 0.96 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Stop | | | Stop | | | Free | | | Stop | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |
| Intersection Capacity Utilization | 22.9% | | | | ICU Level of Service A | | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | | | ↑ | | ↑ | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 25 | 6 | 3 | 196 | 40 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 25 | 6 | 3 | 196 | 40 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | 2 | - | - | - | 0 | - | - | 0 | - | -16 | 965 | - |
| Grade, % | - | 0 | - | - | -5 | - | - | -7 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 16 | 3 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 28 | 7 | 3 | 223 | 45 | 0 | 0 | 0 |












| Major/Minor | Minor1 | Major1 | | | | | | |
|----------------------|--------|--------|-----|-----|---|---|--|--|
| Conflicting Flow All | - | 252 | 246 | 0 | 0 | 0 | | |
| Stage 1 | - | 252 | - | - | - | - | | |
| Stage 2 | - | 0 | - | - | - | - | | |
| Critical Hdwy | - | 5.54 | 5.7 | 4.1 | - | - | | |
| Critical Hdwy Stg 1 | - | 4.54 | - | - | - | - | | |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | | |
| Follow-up Hdwy | - | 4.036 | 3.3 | 2.2 | - | - | | |
| Pot Cap-1 Maneuver | 0 | 695 | 825 | - | - | - | | |
| Stage 1 | 0 | 745 | - | - | - | - | | |
| Stage 2 | 0 | - | - | - | - | - | | |
| Platoon blocked, % | | | | | - | - | | |
| Mov Cap-1 Maneuver | - | 0 | 825 | - | - | - | | |
| Mov Cap-2 Maneuver | - | 0 | - | - | - | - | | |
| Stage 1 | - | 0 | - | - | - | - | | |
| Stage 2 | - | 0 | - | - | - | - | | |

| Approach | WB | NB |
|----------------------|-----|----|
| HCM Control Delay, s | 9.6 | |
| HCM LOS | A | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | WBLn1 |
|-----------------------|-----|-----|-----|-------|
| Capacity (veh/h) | - | - | - | 825 |
| HCM Lane V/C Ratio | - | - | - | 0.043 |
| HCM Control Delay (s) | - | - | - | 9.6 |
| HCM Lane LOS | - | - | - | A |
| HCM 95th %tile Q(veh) | - | - | - | 0.1 |

Year 2022 No-Build Traffic Volumes
10: NYS Route 22 & I-684 SB On/Off Ramp

Weekday Peak AM Hour
02/19/2019

| |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SBL2 | SBL | SBR | NWL | NWR |
| Lane Configurations | | ↑↑ | ↑ | | ↑↑ | ↑ | ↑ | | ↑ | | |
| Traffic Volume (vph) | 0 | 535 | 246 | 0 | 869 | 291 | 309 | 0 | 896 | 0 | 0 |
| Future Volume (vph) | 0 | 535 | 246 | 0 | 869 | 291 | 309 | 0 | 896 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 16 | 16 | 16 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | 0% | |
| Storage Length (ft) | 0 | | 275 | 0 | | 0 | | 200 | 0 | 0 | 0 |
| Storage Lanes | 0 | | 1 | 0 | | 1 | | 1 | 1 | 0 | 0 |
| Taper Length (ft) | 25 | | | 25 | | | | 25 | | 25 | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | |
| Flt Protected | | | | | | | 0.950 | | | | |
| Satd. Flow (prot) | 0 | 3343 | 1468 | 0 | 3471 | 1553 | 2046 | 0 | 1812 | 0 | 0 |
| Flt Permitted | | | | | | | 0.950 | | | | |
| Satd. Flow (perm) | 0 | 3343 | 1468 | 0 | 3471 | 1553 | 2046 | 0 | 1812 | 0 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | |
| Satd. Flow (RTOR) | | | 259 | | | 273 | | | 403 | | |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | 30 | |
| Link Distance (ft) | | 796 | | | 930 | | | 572 | | 532 | |
| Travel Time (s) | | 9.9 | | | 11.5 | | | 13.0 | | 12.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 8% | 10% | 0% | 4% | 4% | 0% | 3% | 1% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | 0% | |
| Adj. Flow (vph) | 0 | 563 | 259 | 0 | 915 | 306 | 325 | 0 | 943 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 563 | 259 | 0 | 915 | 306 | 325 | 0 | 943 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 16 | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.85 | 0.85 | 0.85 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | 15 | 9 | 15 | 9 |
| Number of Detectors | | 3 | 1 | | 3 | 1 | 1 | | 1 | | |
| Detector Template | | | | | | | Left | | | | |
| Leading Detector (ft) | | 199 | 0 | | 199 | 0 | 20 | | 0 | | |
| Trailing Detector (ft) | | -5 | 0 | | -5 | 0 | 0 | | 0 | | |
| Turn Type | | NA | Free | | NA | Free | Perm | | Free | | |
| Protected Phases | | 6 | | | 2 | | | | | | |
| Permitted Phases | | | Free | | | Free | 3 | | Free | | |
| Detector Phase | | 6 | | | 2 | | 3 | | | | |
| Switch Phase | | | | | | | | | | | |

Year 2022 No-Build Traffic Volumes
10: NYS Route 22 & I-684 SB On/Off Ramp

Weekday Peak AM Hour
02/19/2019

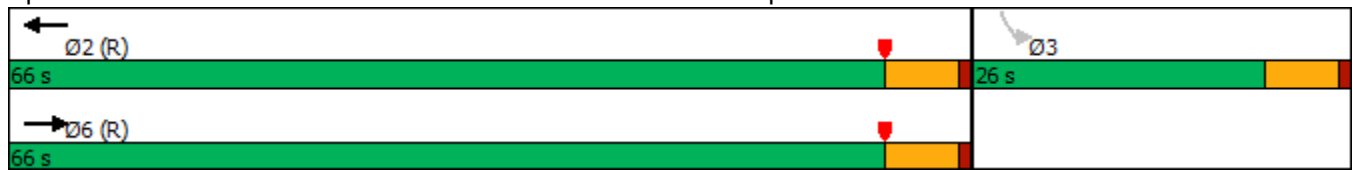


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SBL2 | SBL | SBR | NWL | NWR |
|-------------------------|-----|-------|------|-----|-------|------|-------|------|------|-----|-----|
| Minimum Initial (s) | | 10.0 | | | 10.0 | | 3.0 | | | | |
| Minimum Split (s) | | 56.0 | | | 56.0 | | 21.0 | | | | |
| Total Split (s) | | 66.0 | | | 66.0 | | 26.0 | | | | |
| Total Split (%) | | 71.7% | | | 71.7% | | 28.3% | | | | |
| Maximum Green (s) | | 60.0 | | | 60.0 | | 20.0 | | | | |
| Yellow Time (s) | | 5.0 | | | 5.0 | | 5.0 | | | | |
| All-Red Time (s) | | 1.0 | | | 1.0 | | 1.0 | | | | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | | | | |
| Lead/Lag | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Vehicle Extension (s) | | 2.0 | | | 2.0 | | 2.0 | | | | |
| Minimum Gap (s) | | 0.2 | | | 0.2 | | 0.2 | | | | |
| Time Before Reduce (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Time To Reduce (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Recall Mode | | C-Min | | | C-Min | | None | | | | |
| Walk Time (s) | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | |
| Act Effct Green (s) | | 61.1 | 92.0 | | 61.1 | 92.0 | 18.9 | | 92.0 | | |
| Actuated g/C Ratio | | 0.66 | 1.00 | | 0.66 | 1.00 | 0.21 | | 1.00 | | |
| v/c Ratio | | 0.25 | 0.18 | | 0.40 | 0.20 | 0.77 | | 0.52 | | |
| Control Delay | | 7.2 | 0.3 | | 8.3 | 0.3 | 46.9 | | 1.1 | | |
| Queue Delay | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | |
| Total Delay | | 7.2 | 0.3 | | 8.3 | 0.3 | 46.9 | | 1.1 | | |
| LOS | | A | A | | A | A | D | | A | | |
| Approach Delay | | 5.0 | | | 6.3 | | | 12.8 | | | |
| Approach LOS | | A | | | A | | | B | | | |
| Queue Length 50th (ft) | | 62 | 0 | | 114 | 0 | 180 | | 0 | | |
| Queue Length 95th (ft) | | 104 | 0 | | 181 | 0 | 253 | | 0 | | |
| Internal Link Dist (ft) | | 716 | | | 850 | | | 492 | | 452 | |
| Turn Bay Length (ft) | | | 275 | | | | 200 | | | | |
| Base Capacity (vph) | | 2265 | 1468 | | 2351 | 1553 | 472 | | 1812 | | |
| Starvation Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Spillback Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Storage Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Reduced v/c Ratio | | 0.25 | 0.18 | | 0.39 | 0.20 | 0.69 | | 0.52 | | |

Intersection Summary

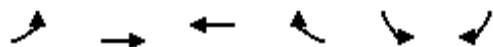
Area Type: Other
Cycle Length: 92
Actuated Cycle Length: 92
Offset: 60 (65%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 8.5
Intersection Capacity Utilization 49.5%
Analysis Period (min) 15
Intersection LOS: A
ICU Level of Service A

Splits and Phases: 10: NYS Route 22 & I-684 SB On/Off Ramp



Year 2022 No-Build Traffic Volumes
11: NYS Route 22 & I-684 NB On/Off Ramp

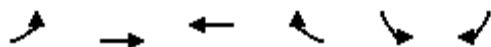
Weekday Peak AM Hour
02/19/2019



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|-------|------|------|-------|------|-------|
| Lane Configurations | ↖↖ | ↑↑ | ↑↑ | ↗ | | ↗ |
| Traffic Volume (vph) | 151 | 879 | 809 | 80 | 0 | 350 |
| Future Volume (vph) | 151 | 879 | 809 | 80 | 0 | 350 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 400 | | | 400 | 1 | 0 |
| Storage Lanes | 2 | | | 1 | 0 | 1 |
| Taper Length (ft) | 300 | | | | 25 | |
| Lane Util. Factor | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.865 |
| Flt Protected | 0.950 | | | | | |
| Satd. Flow (prot) | 3273 | 3406 | 3471 | 1509 | 0 | 1580 |
| Flt Permitted | 0.950 | | | | | |
| Satd. Flow (perm) | 3273 | 3406 | 3471 | 1509 | 0 | 1580 |
| Right Turn on Red | | | | No | | Yes |
| Satd. Flow (RTOR) | | | | | | 540 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 287 | 1186 | | 622 | |
| Travel Time (s) | | 3.6 | 14.7 | | 14.1 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 7% | 6% | 4% | 7% | 0% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 156 | 906 | 834 | 82 | 0 | 361 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 156 | 906 | 834 | 82 | 0 | 361 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 24 | 24 | | 0 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Number of Detectors | 2 | 2 | 2 | 2 | | 1 |
| Detector Template | | | | | | |
| Leading Detector (ft) | 83 | 83 | 83 | 83 | | 0 |
| Trailing Detector (ft) | -5 | -5 | -5 | -5 | | 0 |
| Turn Type | Prot | NA | NA | Perm | | Free |
| Protected Phases | 1 | 6 | 2 | | | |
| Permitted Phases | | | | 2 | | Free |
| Detector Phase | 1 | 6 | 2 | 2 | | |
| Switch Phase | | | | | | |

Year 2022 No-Build Traffic Volumes
11: NYS Route 22 & I-684 NB On/Off Ramp

Weekday Peak AM Hour
02/19/2019



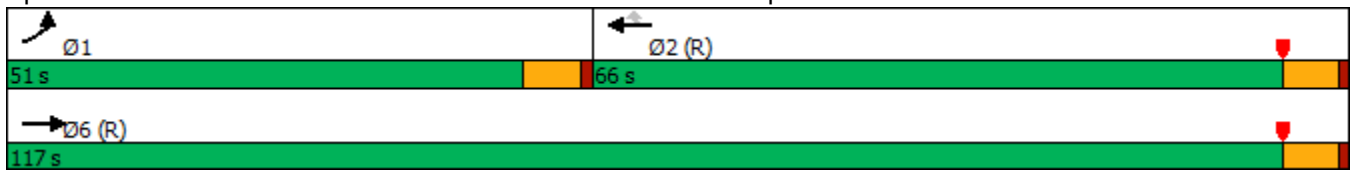
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|-------|--------|-------|-------|-----|-------|
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | | |
| Minimum Split (s) | 41.0 | 56.0 | 56.0 | 56.0 | | |
| Total Split (s) | 51.0 | 117.0 | 66.0 | 66.0 | | |
| Total Split (%) | 43.6% | 100.0% | 56.4% | 56.4% | | |
| Maximum Green (s) | 45.0 | 111.0 | 60.0 | 60.0 | | |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | | |
| Lead/Lag | Lead | | Lag | Lag | | |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | |
| Vehicle Extension (s) | 2.0 | 2.0 | 2.0 | 2.0 | | |
| Minimum Gap (s) | 0.2 | 0.2 | 0.2 | 0.2 | | |
| Time Before Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Time To Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Recall Mode | None | C-Min | C-Min | C-Min | | |
| Walk Time (s) | | | | | | |
| Flash Dont Walk (s) | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | |
| Act Effct Green (s) | 10.1 | 117.0 | 94.9 | 94.9 | | 117.0 |
| Actuated g/C Ratio | 0.09 | 1.00 | 0.81 | 0.81 | | 1.00 |
| v/c Ratio | 0.55 | 0.27 | 0.30 | 0.07 | | 0.23 |
| Control Delay | 58.4 | 0.2 | 3.2 | 2.6 | | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 58.4 | 0.2 | 3.2 | 2.6 | | 0.3 |
| LOS | E | A | A | A | | A |
| Approach Delay | | 8.7 | 3.1 | | 0.3 | |
| Approach LOS | | A | A | | A | |
| Queue Length 50th (ft) | 59 | 0 | 64 | 10 | | 0 |
| Queue Length 95th (ft) | 91 | 0 | 97 | 22 | | 0 |
| Internal Link Dist (ft) | | 207 | 1106 | | 542 | |
| Turn Bay Length (ft) | 400 | | | 400 | | |
| Base Capacity (vph) | 1258 | 3406 | 2814 | 1223 | | 1580 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.12 | 0.27 | 0.30 | 0.07 | | 0.23 |

Intersection Summary

Area Type: Other
Cycle Length: 117
Actuated Cycle Length: 117
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 5.3
Intersection Capacity Utilization 36.7%
Analysis Period (min) 15























Intersection LOS: A
ICU Level of Service A

Splits and Phases: 11: NYS Route 22 & I-684 NB On/Off Ramp















Year 2022 No-Build Traffic Volumes
1: NYS Route 22 & Old Post Road/Old Route 22

Weekday Peak PM Hour
02/20/2019

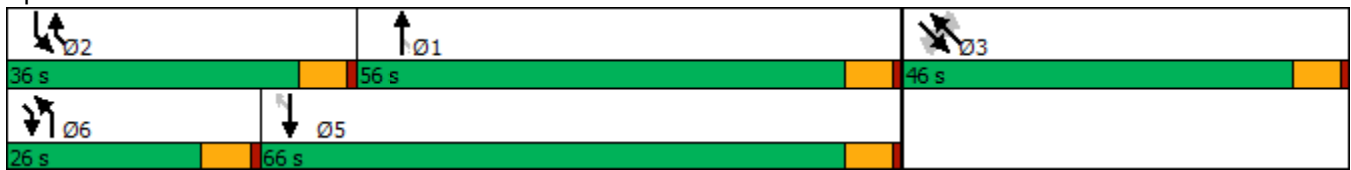
| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  |  |
| Traffic Volume (vph) | 88 | 837 | 7 | 14 | 1008 | 24 | 48 | 4 | 132 | 76 | 9 | 133 |
| Future Volume (vph) | 88 | 837 | 7 | 14 | 1008 | 24 | 48 | 4 | 132 | 76 | 9 | 133 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 11 | 12 | 12 | 11 | 11 | 11 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 350 | | 230 | 315 | | 155 | 0 | | 150 | 0 | | 125 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 86 | | | 86 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 1.00 | | | | | 0.98 | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.956 | | | 0.957 | |
| Satd. Flow (prot) | 1805 | 3574 | 1417 | 1517 | 3574 | 1615 | 0 | 1756 | 1546 | 0 | 1818 | 1583 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.680 | | | 0.710 | |
| Satd. Flow (perm) | 1804 | 3574 | 1417 | 1517 | 3574 | 1581 | 0 | 1249 | 1546 | 0 | 1349 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | No | | | Yes |
| Satd. Flow (RTOR) | | | 119 | | | 71 | | | | | | 46 |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | | 30 | |
| Link Distance (ft) | | 2626 | | | 1235 | | | 276 | | | 807 | |
| Travel Time (s) | | 32.6 | | | 15.3 | | | 6.3 | | | 18.3 | |
| Confl. Peds. (#/hr) | 1 | | | | | 1 | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 1% | 14% | 15% | 1% | 0% | 0% | 0% | 1% | 0% | 0% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 90 | 854 | 7 | 14 | 1029 | 24 | 49 | 4 | 135 | 78 | 9 | 136 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 90 | 854 | 7 | 14 | 1029 | 24 | 0 | 53 | 135 | 0 | 87 | 136 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 20 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.04 | 1.00 | 1.00 | 1.04 | 1.04 | 1.04 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 |
| Detector Template | | | | | | | Left | | | Left | | |
| Leading Detector (ft) | 83 | 0 | 0 | 83 | 0 | 0 | 20 | 83 | 83 | 20 | 83 | 83 |
| Trailing Detector (ft) | -5 | 0 | 0 | -5 | 0 | 0 | 0 | -5 | -5 | 0 | -5 | -5 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA pm+ov | Perm | NA pm+ov | Perm | NA pm+ov |
| Protected Phases | 6 | 1 | | 2 | 5 | | | 3 | 6 | | 3 | 2 |
| Permitted Phases | | | 1 | | | 5 | 3 | | 3 | 3 | | 3 |
| Detector Phase | 6 | 1 | 1 | 2 | 5 | 5 | 3 | 3 | 6 | 3 | 3 | 2 |
| Switch Phase | | | | | | | | | | | | |

Year 2022 No-Build Traffic Volumes
1: NYS Route 22 & Old Post Road/Old Route 22

Weekday Peak PM Hour
02/20/2019
























| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
| Minimum Initial (s) | 2.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 | 5.0 |
| Minimum Split (s) | 20.0 | 56.0 | 56.0 | 26.0 | 56.0 | 56.0 | 33.0 | 33.0 | 20.0 | 33.0 | 33.0 | 26.0 |
| Total Split (s) | 26.0 | 56.0 | 56.0 | 36.0 | 66.0 | 66.0 | 46.0 | 46.0 | 26.0 | 46.0 | 46.0 | 36.0 |
| Total Split (%) | 18.8% | 40.6% | 40.6% | 26.1% | 47.8% | 47.8% | 33.3% | 33.3% | 18.8% | 33.3% | 33.3% | 26.1% |
| Maximum Green (s) | 20.0 | 50.0 | 50.0 | 30.0 | 60.0 | 60.0 | 40.0 | 40.0 | 20.0 | 40.0 | 40.0 | 30.0 |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | | | Lead | | | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | | | Yes | | | Yes |
| Vehicle Extension (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Minimum Gap (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None | None |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 9.4 | 63.8 | 63.8 | 5.8 | 60.1 | 60.1 | | 11.9 | 27.3 | | 11.9 | 23.7 |
| Actuated g/C Ratio | 0.09 | 0.64 | 0.64 | 0.06 | 0.60 | 0.60 | | 0.12 | 0.27 | | 0.12 | 0.24 |
| v/c Ratio | 0.53 | 0.37 | 0.01 | 0.16 | 0.48 | 0.02 | | 0.36 | 0.32 | | 0.54 | 0.33 |
| Control Delay | 54.7 | 9.3 | 0.0 | 50.4 | 12.5 | 0.0 | | 48.0 | 30.5 | | 54.8 | 23.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 54.7 | 9.3 | 0.0 | 50.4 | 12.5 | 0.0 | | 48.0 | 30.5 | | 54.8 | 23.0 |
| LOS | D | A | A | D | B | A | | D | C | | D | C |
| Approach Delay | | 13.5 | | | 12.7 | | | 35.4 | | | 35.4 | |
| Approach LOS | | B | | | B | | | D | | | D | |
| Queue Length 50th (ft) | 54 | 115 | 0 | 9 | 170 | 0 | | 31 | 68 | | 53 | 46 |
| Queue Length 95th (ft) | 109 | 184 | 0 | 30 | 275 | 0 | | 72 | 118 | | 106 | 100 |
| Internal Link Dist (ft) | | 2546 | | | 1155 | | | 196 | | | 727 | |
| Turn Bay Length (ft) | 350 | | 230 | 315 | | 155 | | | 150 | | | 125 |
| Base Capacity (vph) | 363 | 2291 | 951 | 458 | 2159 | 983 | | 502 | 589 | | 543 | 787 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.25 | 0.37 | 0.01 | 0.03 | 0.48 | 0.02 | | 0.11 | 0.23 | | 0.16 | 0.17 |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: | 138 | | | | | | | | | | | |
| Actuated Cycle Length: | 99.5 | | | | | | | | | | | |
| Natural Cycle: | 115 | | | | | | | | | | | |
| Control Type: | Semi Act-Uncoord | | | | | | | | | | | |
| Maximum v/c Ratio: | 0.54 | | | | | | | | | | | |
| Intersection Signal Delay: | 16.9 | | | | | Intersection LOS: B | | | | | | |
| Intersection Capacity Utilization | 59.4% | | | | | ICU Level of Service B | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |

Splits and Phases: 1: NYS Route 22 & Old Post Road/Old Route 22















Year 2022 No-Build Traffic Volumes
2: NYS Route 22 & North Castle Drive (IBM)/NYS Route 128

Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  | |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 129 | 29 | 307 | 169 | 2 | 204 | 301 | 707 | 9 | 7 | 714 | 123 |
| Future Volume (vph) | 129 | 29 | 307 | 169 | 2 | 204 | 301 | 707 | 9 | 7 | 714 | 123 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 15 | 12 | 11 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 225 | 0 | | 250 | 680 | | 250 | 400 | | 250 |
| Storage Lanes | 1 | | 1 | 0 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 86 | | | 86 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | 1.00 | | | | | 0.98 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.953 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 1900 | 1615 | 0 | 1953 | 1615 | 1711 | 3574 | 1324 | 1805 | 3539 | 1599 |
| Flt Permitted | 0.535 | | | | 0.707 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 997 | 1900 | 1615 | 0 | 1449 | 1615 | 1709 | 3574 | 1324 | 1805 | 3539 | 1565 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 310 | | | 206 | | | 71 | | | 124 |
| Link Speed (mph) | | 30 | | | 30 | | | 55 | | | 55 | |
| Link Distance (ft) | | 298 | | | 237 | | | 1202 | | | 815 | |
| Travel Time (s) | | 6.8 | | | 5.4 | | | 14.9 | | | 10.1 | |
| Confl. Peds. (#/hr) | | | | | | | 1 | | | | | 1 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 0% | 0% | 2% | 0% | 0% | 2% | 1% | 22% | 0% | 2% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 130 | 29 | 310 | 171 | 2 | 206 | 304 | 714 | 9 | 7 | 721 | 124 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 130 | 29 | 310 | 0 | 173 | 206 | 304 | 714 | 9 | 7 | 721 | 124 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.88 | 1.00 | 1.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 |
| Detector Template | | | | Left | | | | | | | | |
| Leading Detector (ft) | 6 | 6 | 6 | 20 | 43 | 6 | 83 | 6 | 6 | 83 | 6 | 6 |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | -5 | 0 | 0 | -5 | 0 | 0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | | 3 | | | 3 | | 6 | 1 | | 2 | 5 | |
| Permitted Phases | 3 | | 3 | 3 | | 3 | | | 1 | | | 5 |
| Detector Phase | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 1 | 1 | 2 | 5 | 5 |
| Switch Phase | | | | | | | | | | | | |

Year 2022 No-Build Traffic Volumes
2: NYS Route 22 & North Castle Drive (IBM)/NYS Route 128

Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 |
| Minimum Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 16.0 | 56.0 | 56.0 | 16.0 | 56.0 | 56.0 |
| Total Split (s) | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 36.0 | 56.0 | 56.0 | 36.0 | 56.0 | 56.0 |
| Total Split (%) | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 26.1% | 40.6% | 40.6% | 26.1% | 40.6% | 40.6% |
| Maximum Green (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 30.0 | 50.0 | 50.0 | 30.0 | 50.0 | 50.0 |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 2.0 | 6.0 | 6.0 | 2.0 | 6.0 | 6.0 |
| Minimum Gap (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 | 3.0 | 3.0 | 2.0 | 4.0 | 4.0 |
| Time Before Reduce (s) | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 0.0 | 20.0 | 20.0 | 0.0 | 20.0 | 20.0 |
| Time To Reduce (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 0.0 | 10.0 | 10.0 | 0.0 | 10.0 | 10.0 |
| Recall Mode | Min | Min | Min | Min | Min | Min | None | Max | Max | None | Max | Max |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 25.6 | 25.6 | 25.6 | | 25.6 | 25.6 | 24.8 | 79.3 | 79.3 | 5.2 | 50.5 | 50.5 |
| Actuated g/C Ratio | 0.21 | 0.21 | 0.21 | | 0.21 | 0.21 | 0.21 | 0.67 | 0.67 | 0.04 | 0.42 | 0.42 |
| v/c Ratio | 0.61 | 0.07 | 0.53 | | 0.56 | 0.41 | 0.85 | 0.30 | 0.01 | 0.09 | 0.48 | 0.17 |
| Control Delay | 55.5 | 37.9 | 7.6 | | 49.3 | 7.5 | 68.6 | 10.2 | 0.0 | 62.1 | 28.0 | 5.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 55.5 | 37.9 | 7.6 | | 49.3 | 7.5 | 68.6 | 10.2 | 0.0 | 62.1 | 28.0 | 5.1 |
| LOS | E | D | A | | D | A | E | B | A | E | C | A |
| Approach Delay | | 22.7 | | | 26.6 | | | 27.4 | | | 25.0 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Queue Length 50th (ft) | 92 | 18 | 0 | | 121 | 0 | 232 | 111 | 0 | 5 | 222 | 0 |
| Queue Length 95th (ft) | 164 | 45 | 72 | | 200 | 60 | #392 | 221 | 0 | 23 | 322 | 42 |
| Internal Link Dist (ft) | | 218 | | | 157 | | | 1122 | | | 735 | |
| Turn Bay Length (ft) | | | 225 | | | 250 | 680 | | 250 | 400 | | 250 |
| Base Capacity (vph) | 338 | 644 | 752 | | 491 | 683 | 435 | 2376 | 904 | 459 | 1500 | 734 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.38 | 0.05 | 0.41 | | 0.35 | 0.30 | 0.70 | 0.30 | 0.01 | 0.02 | 0.48 | 0.17 |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: 138 | | | | | | | | | | | | |
| Actuated Cycle Length: 119.2 | | | | | | | | | | | | |
| Natural Cycle: 105 | | | | | | | | | | | | |
| Control Type: Semi Act-Uncoord | | | | | | | | | | | | |
| Maximum v/c Ratio: 0.85 | | | | | | | | | | | | |
| Intersection Signal Delay: 25.7 | | | | | | | | | | | | |
| Intersection LOS: C | | | | | | | | | | | | |
| Intersection Capacity Utilization 67.5% | | | | | | | | | | | | |
| ICU Level of Service C | | | | | | | | | | | | |
| Analysis Period (min) 15 | | | | | | | | | | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | | | | | | | | | | |






















Queue shown is maximum after two cycles.

Splits and Phases: 2: NYS Route 22 & North Castle Drive (IBM)/NYS Route 128















Year 2022 No-Build Traffic Volumes
3: Business Park Drive/Maple Avenue & NYS Route 22

Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  | |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|--|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | |
| Lane Configurations |  |  | |  |  |  | |  |  |  |  | | |
| Traffic Volume (vph) | 35 | 1082 | 67 | 127 | 649 | 345 | 146 | 61 | 256 | 331 | 40 | 49 | |
| Future Volume (vph) | 35 | 1082 | 67 | 127 | 649 | 345 | 146 | 61 | 256 | 331 | 40 | 49 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | 0% | | | 0% | | | 0% | | | 0% | | | |
| Storage Length (ft) | 600 | | 0 | 265 | | 225 | 0 | | 0 | 100 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 0 | | 1 | 1 | | 0 | |
| Taper Length (ft) | 86 | | | 86 | | | 25 | | | 86 | | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Ped Bike Factor | | | | | | | | 1.00 | | | 0.99 | | |
| Frt | 0.991 | | | | | 0.850 | | | 0.850 | 0.918 | | | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.966 | | 0.950 | | | |
| Satd. Flow (prot) | 1694 | 3544 | 0 | 1662 | 3539 | 1615 | 0 | 1807 | 1615 | 1787 | 1708 | 0 | |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.966 | | 0.950 | | | |
| Satd. Flow (perm) | 1694 | 3544 | 0 | 1662 | 3539 | 1615 | 0 | 1805 | 1615 | 1787 | 1708 | 0 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 5 | | | | 359 | | | 266 | | 39 | | |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | | 30 | | |
| Link Distance (ft) | | 561 | | | 541 | | | 577 | | | 575 | | |
| Travel Time (s) | | 7.0 | | | 6.7 | | | 13.1 | | | 13.1 | | |
| Confl. Peds. (#/hr) | | | | | | | 1 | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 3% | 1% | 0% | 5% | 2% | 0% | 1% | 3% | 0% | 1% | 3% | 0% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Adj. Flow (vph) | 36 | 1127 | 70 | 132 | 676 | 359 | 152 | 64 | 267 | 345 | 42 | 51 | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 36 | 1197 | 0 | 132 | 676 | 359 | 0 | 216 | 267 | 345 | 93 | 0 | |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No | |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right | |
| Median Width(ft) | | 11 | | | 11 | | | 12 | | | 12 | | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | | |
| Two way Left Turn Lane | | | | | | | | | | | | | |
| Headway Factor | 1.04 | 1.00 | 1.00 | 1.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 | |
| Number of Detectors | 2 | 2 | | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | | |
| Detector Template | Left | | | | | | Left | | | | | | |
| Leading Detector (ft) | 83 | 83 | | 83 | 83 | 40 | 50 | 83 | 83 | 83 | 83 | | |
| Trailing Detector (ft) | -5 | -5 | | -5 | -5 | 0 | 0 | -5 | -5 | 0 | 0 | | |
| Turn Type | Prot | NA | | Prot | NA | Perm | Split | NA | Perm | Split | NA | | |
| Protected Phases | 6 | 1 | | 2 | 5 | | 3 | 3 | | 4 | 4 | | |
| Permitted Phases | | | | | | 5 | | | 3 | | | | |
| Detector Phase | 6 | 1 | | 2 | 5 | 5 | 3 | 3 | 3 | 4 | 4 | | |
| Switch Phase | | | | | | | | | | | | | |

Year 2022 No-Build Traffic Volumes
3: Business Park Drive/Maple Avenue & NYS Route 22

Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | 15.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | |
| Minimum Split (s) | 9.0 | 21.0 | | 9.0 | 21.0 | 21.0 | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 | |
| Total Split (s) | 26.0 | 56.0 | | 26.0 | 56.0 | 56.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | |
| Total Split (%) | 19.4% | 41.8% | | 19.4% | 41.8% | 41.8% | 19.4% | 19.4% | 19.4% | 19.4% | 19.4% | |
| Maximum Green (s) | 20.0 | 50.0 | | 20.0 | 50.0 | 50.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | |
| Yellow Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | -2.0 | -2.0 | | -2.0 | -2.0 | -2.0 | | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lag | Lag | Lag | Lead | Lead | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | |
| Minimum Gap (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | None | None | None | None | None | None | |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 9.2 | 45.7 | | 16.0 | 57.6 | 57.6 | | 18.7 | 18.7 | 22.4 | 22.4 | |
| Actuated g/C Ratio | 0.08 | 0.38 | | 0.13 | 0.48 | 0.48 | | 0.16 | 0.16 | 0.19 | 0.19 | |
| v/c Ratio | 0.27 | 0.88 | | 0.59 | 0.39 | 0.37 | | 0.76 | 0.56 | 1.03 | 0.26 | |
| Control Delay | 61.2 | 43.0 | | 61.9 | 21.6 | 3.2 | | 67.8 | 10.6 | 105.4 | 30.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 61.2 | 43.0 | | 61.9 | 21.6 | 3.2 | | 67.8 | 10.6 | 105.4 | 30.9 | |
| LOS | E | D | | E | C | A | | E | B | F | C | |
| Approach Delay | | 43.5 | | | 20.5 | | | 36.2 | | | 89.6 | |
| Approach LOS | | D | | | C | | | D | | | F | |
| Queue Length 50th (ft) | 28 | 457 | | 103 | 189 | 0 | | 168 | 1 | ~319 | 38 | |
| Queue Length 95th (ft) | 66 | 598 | | 174 | 254 | 55 | | #287 | 80 | #553 | 95 | |
| Internal Link Dist (ft) | | 481 | | | 461 | | | 497 | | | 495 | |
| Turn Bay Length (ft) | 600 | | | 265 | | 225 | | | | 100 | | |
| Base Capacity (vph) | 319 | 1579 | | 312 | 1751 | 980 | | 340 | 520 | 336 | 353 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.11 | 0.76 | | 0.42 | 0.39 | 0.37 | | 0.64 | 0.51 | 1.03 | 0.26 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: | 134 | | | | | | | | | | | |
| Actuated Cycle Length: | 119 | | | | | | | | | | | |
| Natural Cycle: | 90 | | | | | | | | | | | |
| Control Type: | Actuated-Uncoordinated | | | | | | | | | | | |
| Maximum v/c Ratio: | 1.03 | | | | | | | | | | | |
| Intersection Signal Delay: | 40.4 | | | | | Intersection LOS: D | | | | | | |
| Intersection Capacity Utilization | 76.2% | | | | | ICU Level of Service D | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |
| ~ Volume exceeds capacity, queue is theoretically infinite. | | | | | | | | | | | | |

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

















Queue shown is maximum after two cycles.

Splits and Phases: 3: Business Park Drive/Maple Avenue & NYS Route 22

| | | | |
|--|--|---|--|
|  Ø2 |  Ø1 |  Ø4 |  Ø3 |
| 26 s | 56 s | 26 s | 26 s |
|  Ø6 |  Ø5 | | |
| 26 s | 56 s | | |

Year 2022 No-Build Traffic Volumes
4: NYS Route 128 (Main Street) & Kent Place/Bedford Road

Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | | |  | | |  | |
| Traffic Volume (vph) | 7 | 16 | 28 | 41 | 32 | 51 | 53 | 353 | 57 | 47 | 288 | 32 |
| Future Volume (vph) | 7 | 16 | 28 | 41 | 32 | 51 | 53 | 353 | 57 | 47 | 288 | 32 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 1% | | | 1% | | | -1% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.925 | | | 0.945 | | | 0.983 | | | 0.988 | |
| Flt Protected | | 0.993 | | | 0.984 | | | 0.994 | | | 0.994 | |
| Satd. Flow (prot) | 0 | 1563 | 0 | 0 | 1582 | 0 | 0 | 1659 | 0 | 0 | 1662 | 0 |
| Flt Permitted | | 0.993 | | | 0.984 | | | 0.994 | | | 0.994 | |
| Satd. Flow (perm) | 0 | 1563 | 0 | 0 | 1582 | 0 | 0 | 1659 | 0 | 0 | 1662 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 231 | | | 878 | | | 1228 | | | 584 | |
| Travel Time (s) | | 5.3 | | | 20.0 | | | 27.9 | | | 13.3 | |
| Confl. Peds. (#/hr) | 20 | | | 1 | | 21 | | | 1 | 21 | | 20 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% | 2% | 1% | 2% | 2% | 1% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 7 | 16 | 29 | 42 | 33 | 52 | 54 | 360 | 58 | 48 | 294 | 33 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 52 | 0 | 0 | 127 | 0 | 0 | 472 | 0 | 0 | 375 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Area Type: CBD

Control Type: Unsignalized

Intersection Capacity Utilization 57.9% ICU Level of Service B

Analysis Period (min) 15

Year 2022 No-Build Traffic Volumes
 4: NYS Route 128 (Main Street) & Kent Place/Bedford Road

Weekday Peak PM Hour
 02/20/2019

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 7 | 16 | 28 | 41 | 32 | 51 | 53 | 353 | 57 | 47 | 288 | 32 |
| Future Vol, veh/h | 7 | 16 | 28 | 41 | 32 | 51 | 53 | 353 | 57 | 47 | 288 | 32 |
| Conflicting Peds, #/hr20 | 0 | 0 | 1 | 0 | 21 | 0 | 0 | 0 | 1 | 21 | 0 | 20 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - | - |
| Grade, % | - | 1 | - | - | 1 | - | - | -1 | - | - | 0 | - |
| Peak Hour Factor | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 2 | 1 | 0 |
| Mvmt Flow | 7 | 16 | 29 | 42 | 33 | 52 | 54 | 360 | 58 | 48 | 294 | 33 |






| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-----|--------|-----|--------|-----|--------|---|---|-------|---|---|
| Conflicting Flow All | 988 | 974 | 332 | 948 | 961 | 431 | 347 | 0 | 0 | 439 | 0 | 0 |
| Stage 1 | 427 | 427 | - | 518 | 518 | - | - | - | - | - | - | - |
| Stage 2 | 561 | 547 | - | 430 | 443 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.3 | 6.7 | 6.3 | 7.3 | 6.7 | 6.3 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.3 | 5.7 | - | 6.3 | 5.7 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.3 | 5.7 | - | 6.3 | 5.7 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 216 | 240 | 708 | 230 | 245 | 621 | 1212 | - | - | 1121 | - | - |
| Stage 1 | 595 | 575 | - | 529 | 521 | - | - | - | - | - | - | - |
| Stage 2 | 500 | 505 | - | 593 | 565 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 154 | 206 | 696 | 187 | 211 | 599 | 1192 | - | - | 1101 | - | - |
| Mov Cap-2 Maneuver | 154 | 206 | - | 187 | 211 | - | - | - | - | - | - | - |
| Stage 1 | 550 | 535 | - | 489 | 481 | - | - | - | - | - | - | - |
| Stage 2 | 393 | 467 | - | 522 | 526 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 18.8 | | 29.2 | | 0.9 | | 1.1 | |
| HCM LOS | C | | D | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1192 | - | - | 312 | 272 | 1101 | - | - |
| HCM Lane V/C Ratio | 0.045 | - | - | 0.167 | 0.465 | 0.044 | - | - |
| HCM Control Delay (s) | 8.2 | 0 | - | 18.8 | 29.2 | 8.4 | 0 | - |
| HCM Lane LOS | A | A | - | C | D | A | A | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.6 | 2.3 | 0.1 | - | - |













Year 2022 No-Build Traffic Volumes
5: Maple Avenue & Bedford Road

Weekday Peak PM Hour
02/20/2019

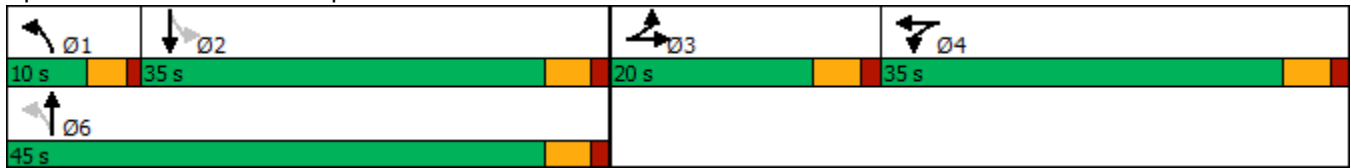
| |  | | | | | | | | | | | |
|----------------------------|--|---|-------|-------|---|-------|---|---|-------|------|---|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | | | | |
| Traffic Volume (vph) | 7 | 15 | 149 | 83 | 25 | 22 | 137 | 272 | 32 | 11 | 187 | 8 |
| Future Volume (vph) | 7 | 15 | 149 | 83 | 25 | 22 | 137 | 272 | 32 | 11 | 187 | 8 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 15 | 15 | 15 | 15 | 15 | 15 | 10 | 10 | 10 | 15 | 15 | 15 |
| Grade (%) | | -1% | | | -1% | | | -2% | | | -1% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 50 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 86 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.97 | | | 1.00 | | | | | | | |
| Frt | | 0.883 | | | 0.977 | | | 0.984 | | | 0.995 | |
| Flt Protected | | 0.998 | | | 0.969 | | 0.950 | | | | 0.997 | |
| Satd. Flow (prot) | 0 | 1787 | 0 | 0 | 1976 | 0 | 1702 | 1738 | 0 | 0 | 2033 | 0 |
| Flt Permitted | | 0.998 | | | 0.969 | | 0.462 | | | | 0.971 | |
| Satd. Flow (perm) | 0 | 1787 | 0 | 0 | 1969 | 0 | 827 | 1738 | 0 | 0 | 1980 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 160 | | | 11 | | | 7 | | | 2 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 878 | | | 570 | | | 575 | | | 384 | |
| Travel Time (s) | | 20.0 | | | 13.0 | | | 13.1 | | | 8.7 | |
| Confl. Peds. (#/hr) | | | 3 | 3 | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 1% | 1% | 0% | 0% | 0% | 1% | 5% | 29% | 1% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 8 | 16 | 160 | 89 | 27 | 24 | 147 | 292 | 34 | 12 | 201 | 9 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 184 | 0 | 0 | 140 | 0 | 147 | 326 | 0 | 0 | 222 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 1.08 | 1.08 | 1.08 | 0.88 | 0.88 | 0.88 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turn Type | Split | NA | | Split | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 3 | 3 | | 4 | 4 | | 1 | 6 | | | 2 | |
| Permitted Phases | | | | | | | 6 | | | 2 | 2 | |
| Detector Phase | 3 | 3 | | 4 | 4 | | 1 | 6 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |

















Year 2022 No-Build Traffic Volumes
5: Maple Avenue & Bedford Road

Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 3.0 | 3.0 | | 10.0 | 10.0 | | 2.0 | 12.0 | | 12.0 | 12.0 | |
| Minimum Split (s) | 8.0 | 8.0 | | 15.0 | 15.0 | | 7.0 | 17.0 | | 17.0 | 17.0 | |
| Total Split (s) | 20.0 | 20.0 | | 35.0 | 35.0 | | 10.0 | 45.0 | | 35.0 | 35.0 | |
| Total Split (%) | 20.0% | 20.0% | | 35.0% | 35.0% | | 10.0% | 45.0% | | 35.0% | 35.0% | |
| Maximum Green (s) | 15.0 | 15.0 | | 30.0 | 30.0 | | 6.0 | 40.0 | | 30.0 | 30.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.0 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.0 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 4.0 | 5.0 | | | 5.0 | |
| Lead/Lag | Lead | Lead | | Lag | Lag | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | | | Yes | Yes | |
| Vehicle Extension (s) | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | | Max | None | | Min | Min | |
| Walk Time (s) | | | | 7.0 | 7.0 | | | | | | | |
| Flash Dont Walk (s) | | | | 15.0 | 15.0 | | | | | | | |
| Pedestrian Calls (#/hr) | | | | 3 | 3 | | | | | | | |
| Act Effct Green (s) | | 5.7 | | | 12.3 | | 25.2 | 24.2 | | | 13.6 | |
| Actuated g/C Ratio | | 0.11 | | | 0.23 | | 0.47 | 0.45 | | | 0.25 | |
| v/c Ratio | | 0.55 | | | 0.30 | | 0.30 | 0.41 | | | 0.44 | |
| Control Delay | | 14.3 | | | 19.9 | | 13.4 | 14.6 | | | 22.7 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Delay | | 14.3 | | | 19.9 | | 13.4 | 14.6 | | | 22.7 | |
| LOS | | B | | | B | | B | B | | | C | |
| Approach Delay | | 14.3 | | | 19.9 | | | 14.2 | | | 22.7 | |
| Approach LOS | | B | | | B | | | B | | | C | |
| Queue Length 50th (ft) | | 7 | | | 34 | | 25 | 64 | | | 58 | |
| Queue Length 95th (ft) | | 65 | | | 88 | | 84 | 184 | | | 151 | |
| Internal Link Dist (ft) | | 798 | | | 490 | | | 495 | | | 304 | |
| Turn Bay Length (ft) | | | | | | | 50 | | | | | |
| Base Capacity (vph) | | 641 | | | 1174 | | 493 | 1334 | | | 1172 | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.29 | | | 0.12 | | 0.30 | 0.24 | | | 0.19 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: Other | | | | | | | | | | | | |
| Cycle Length: 100 | | | | | | | | | | | | |
| Actuated Cycle Length: 53.5 | | | | | | | | | | | | |
| Natural Cycle: 50 | | | | | | | | | | | | |
| Control Type: Semi Act-Uncoord | | | | | | | | | | | | |
| Maximum v/c Ratio: 0.55 | | | | | | | | | | | | |
| Intersection Signal Delay: 16.9 Intersection LOS: B | | | | | | | | | | | | |
| Intersection Capacity Utilization 62.9% ICU Level of Service B | | | | | | | | | | | | |
| Analysis Period (min) 15 | | | | | | | | | | | | |













Splits and Phases: 5: Maple Avenue & Bedford Road



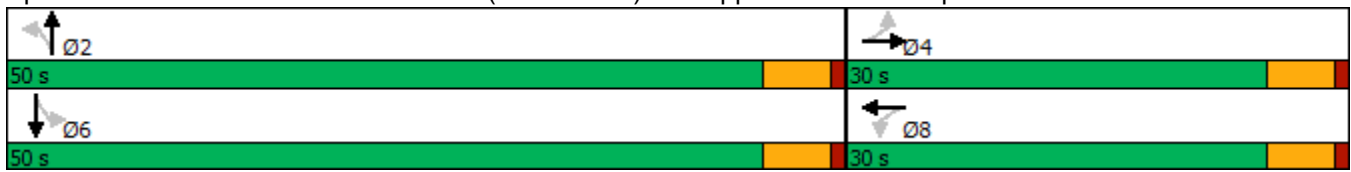
| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | | |  | | |  | |
| Traffic Volume (vph) | 42 | 75 | 53 | 72 | 79 | 187 | 30 | 326 | 51 | 83 | 231 | 6 |
| Future Volume (vph) | 42 | 75 | 53 | 72 | 79 | 187 | 30 | 326 | 51 | 83 | 231 | 6 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | -6% | | | 1% | | | 1% | | | -3% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.99 | | | 0.98 | | | 1.00 | | | 1.00 | |
| Frt | | 0.958 | | | 0.925 | | | 0.983 | | | 0.998 | |
| Flt Protected | | 0.988 | | | 0.989 | | | 0.996 | | | 0.987 | |
| Satd. Flow (prot) | 0 | 1618 | 0 | 0 | 1525 | 0 | 0 | 1645 | 0 | 0 | 1672 | 0 |
| Flt Permitted | | 0.856 | | | 0.895 | | | 0.958 | | | 0.823 | |
| Satd. Flow (perm) | 0 | 1401 | 0 | 0 | 1379 | 0 | 0 | 1582 | 0 | 0 | 1392 | 0 |
| Right Turn on Red | | | Yes | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | 30 | | | | | | | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 410 | | | 373 | | | 584 | | | 389 | |
| Travel Time (s) | | 9.3 | | | 8.5 | | | 13.3 | | | 8.8 | |
| Confl. Peds. (#/hr) | 3 | | 2 | 2 | | 3 | 4 | | 7 | 7 | | 4 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 4% | 0% | 0% | 0% | 1% | 0% | 1% | 0% | 0% | 3% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 44 | 78 | 55 | 75 | 82 | 195 | 31 | 340 | 53 | 86 | 241 | 6 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 177 | 0 | 0 | 352 | 0 | 0 | 424 | 0 | 0 | 333 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.10 | 1.10 | 1.10 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.12 | 1.12 | 1.12 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |

Year 2022 No-Build Traffic Volumes
6: NYS Route 128 (Main Street) & Whippoorwill Road/Maple Avenue

Weekday Peak PM Hour
02/20/2019













| |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 50.0 | 50.0 | | 50.0 | 50.0 | |
| Total Split (%) | 37.5% | 37.5% | | 37.5% | 37.5% | | 62.5% | 62.5% | | 62.5% | 62.5% | |
| Maximum Green (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 45.0 | 45.0 | | 45.0 | 45.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | | Min | Min | | Min | Min | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 13.0 | 13.0 | | 13.0 | 13.0 | | 13.0 | 13.0 | | 13.0 | 13.0 | |
| Pedestrian Calls (#/hr) | 2 | 2 | | 3 | 3 | | 7 | 7 | | 4 | 4 | |
| Act Effct Green (s) | | 18.0 | | | 18.0 | | | 19.1 | | | 19.1 | |
| Actuated g/C Ratio | | 0.38 | | | 0.38 | | | 0.40 | | | 0.40 | |
| v/c Ratio | | 0.32 | | | 0.68 | | | 0.67 | | | 0.60 | |
| Control Delay | | 11.9 | | | 21.3 | | | 18.3 | | | 17.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 11.9 | | | 21.3 | | | 18.3 | | | 17.0 | |
| LOS | | B | | | C | | | B | | | B | |
| Approach Delay | | 11.9 | | | 21.3 | | | 18.3 | | | 17.0 | |
| Approach LOS | | B | | | C | | | B | | | B | |
| Queue Length 50th (ft) | | 26 | | | 76 | | | 88 | | | 67 | |
| Queue Length 95th (ft) | | 81 | | | 196 | | | 200 | | | 158 | |
| Internal Link Dist (ft) | | 330 | | | 293 | | | 504 | | | 309 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 794 | | | 768 | | | 1411 | | | 1241 | |
| Starvation Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.22 | | | 0.46 | | | 0.30 | | | 0.27 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | CBD | | | | | | | | | | | |
| Cycle Length: 80 | | | | | | | | | | | | |
| Actuated Cycle Length: 47.7 | | | | | | | | | | | | |
| Natural Cycle: 50 | | | | | | | | | | | | |
| Control Type: Actuated-Uncoordinated | | | | | | | | | | | | |
| Maximum v/c Ratio: 0.68 | | | | | | | | | | | | |
| Intersection Signal Delay: 17.9 | | | | | | Intersection LOS: B | | | | | | |
| Intersection Capacity Utilization 79.6% | | | | | | ICU Level of Service D | | | | | | |
| Analysis Period (min) 15 | | | | | | | | | | | | |

Splits and Phases: 6: NYS Route 128 (Main Street) & Whippoorwill Road/Maple Avenue









Year 2022 No-Build Traffic Volumes
7: NYS Route 22 & NYS Route 120 (North)

Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|
| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 648 | 667 | 629 | 588 | 265 | 228 |
| Future Volume (vph) | 648 | 667 | 629 | 588 | 265 | 228 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 10 | 10 | 10 | 10 | 10 | 10 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 250 | | | 500 | 250 | 0 |
| Storage Lanes | 1 | | | 1 | 1 | 1 |
| Taper Length (ft) | 86 | | | | 86 | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1685 | 3336 | 3336 | 1507 | 1685 | 1507 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 1685 | 3336 | 3336 | 1507 | 1685 | 1507 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 626 | | 243 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 770 | 1056 | | 861 | |
| Travel Time (s) | | 9.5 | 13.1 | | 19.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 1% | 1% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 689 | 710 | 669 | 626 | 282 | 243 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 689 | 710 | 669 | 626 | 282 | 243 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 10 | 15 | | 10 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Number of Detectors | 1 | 2 | 2 | 1 | 2 | 0 |
| Detector Template | | | | | | |
| Leading Detector (ft) | 35 | 104 | 104 | 0 | 104 | 0 |
| Trailing Detector (ft) | -5 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | NA | Free | Prot | Free |
| Protected Phases | 2 | 5 | 1 | | 3 | |
| Permitted Phases | | | | Free | | Free |
| Detector Phase | 2 | 5 | 1 | | 3 | |
| Switch Phase | | | | | | |

Year 2022 No-Build Traffic Volumes
7: NYS Route 22 & NYS Route 120 (North)

Weekday Peak PM Hour
02/20/2019

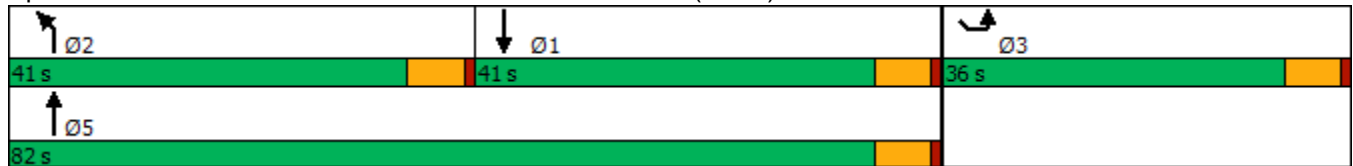
| |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
| Minimum Initial (s) | 12.0 | 12.0 | 12.0 | | 10.0 | |
| Minimum Split (s) | 36.0 | 36.0 | 36.0 | | 26.0 | |
| Total Split (s) | 41.0 | 82.0 | 41.0 | | 36.0 | |
| Total Split (%) | 34.7% | 69.5% | 34.7% | | 30.5% | |
| Maximum Green (s) | 35.0 | 76.0 | 35.0 | | 30.0 | |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | | 5.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | | 6.0 | |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 6.0 | 6.0 | 6.0 | | 6.0 | |
| Minimum Gap (s) | 4.0 | 4.0 | 4.0 | | 4.0 | |
| Time Before Reduce (s) | 20.0 | 20.0 | 20.0 | | 20.0 | |
| Time To Reduce (s) | 8.0 | 8.0 | 8.0 | | 5.0 | |
| Recall Mode | None | Min | Min | | Min | |
| Walk Time (s) | | | | | | |
| Flash Dont Walk (s) | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | |
| Act Effct Green (s) | 35.3 | 71.7 | 30.3 | 108.5 | 24.7 | 108.5 |
| Actuated g/C Ratio | 0.33 | 0.66 | 0.28 | 1.00 | 0.23 | 1.00 |
| v/c Ratio | 1.26 | 0.32 | 0.72 | 0.42 | 0.73 | 0.16 |
| Control Delay | 163.9 | 8.8 | 40.5 | 0.8 | 51.5 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 163.9 | 8.8 | 40.5 | 0.8 | 51.5 | 0.2 |
| LOS | F | A | D | A | D | A |
| Approach Delay | | 85.2 | 21.3 | | 27.8 | |
| Approach LOS | | F | C | | C | |
| Queue Length 50th (ft) | ~620 | 105 | 223 | 0 | 183 | 0 |
| Queue Length 95th (ft) | #925 | 151 | 303 | 0 | 291 | 0 |
| Internal Link Dist (ft) | | 690 | 976 | | 781 | |
| Turn Bay Length (ft) | 250 | | | 500 | 250 | |
| Base Capacity (vph) | 547 | 2355 | 1085 | 1507 | 469 | 1507 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.26 | 0.30 | 0.62 | 0.42 | 0.60 | 0.16 |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Cycle Length: | 118 | | | | | |
| Actuated Cycle Length: | 108.5 | | | | | |
| Natural Cycle: | 110 | | | | | |
| Control Type: | Actuated-Uncoordinated | | | | | |
| Maximum v/c Ratio: | 1.26 | | | | | |
| Intersection Signal Delay: | 50.1 | | | Intersection LOS: D | | |
| Intersection Capacity Utilization | 83.0% | | | ICU Level of Service E | | |
| Analysis Period (min) | 15 | | | | | |
| ~ Volume exceeds capacity, queue is theoretically infinite. | | | | | | |

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.












Queue shown is maximum after two cycles.

Splits and Phases: 7: NYS Route 22 & NYS Route 120 (North)



Year 2022 No-Build Traffic Volumes
8: NYS Route 22 & NYS Route 120 (South)

Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  | |  |  |  |  |
| Traffic Volume (vph) | 301 | 16 | 517 | 28 | 226 | 630 |
| Future Volume (vph) | 301 | 16 | 517 | 28 | 226 | 630 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 10 | 10 | 11 | 11 |
| Grade (%) | -8% | | -2% | | | -1% |
| Storage Length (ft) | 0 | 0 | | 200 | 215 | |
| Storage Lanes | 1 | 0 | | 1 | 2 | |
| Taper Length (ft) | 25 | | | | 86 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | | | | | |
| Frt | 0.993 | | | 0.850 | | |
| Flt Protected | 0.955 | | | | 0.950 | |
| Satd. Flow (prot) | 1856 | 0 | 3403 | 1464 | 3335 | 3472 |
| Flt Permitted | 0.955 | | | | 0.950 | |
| Satd. Flow (perm) | 1856 | 0 | 3403 | 1464 | 3335 | 3472 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 2 | | | 33 | | |
| Link Speed (mph) | 30 | | 50 | | | 50 |
| Link Distance (ft) | 334 | | 905 | | | 488 |
| Travel Time (s) | 7.6 | | 12.3 | | | 6.7 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 0% | 0% | 4% | 2% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | 0% | | | 0% |
| Adj. Flow (vph) | 354 | 19 | 608 | 33 | 266 | 741 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 373 | 0 | 608 | 33 | 266 | 741 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 22 | | | 22 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 0.95 | 0.95 | 1.08 | 1.08 | 1.04 | 1.04 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Number of Detectors | 1 | | 2 | 1 | 1 | 2 |
| Detector Template | Left | | Thru | Right | Left | Thru |
| Leading Detector (ft) | 20 | | 100 | 20 | 20 | 100 |
| Trailing Detector (ft) | 0 | | 0 | 0 | 0 | 0 |
| Turn Type | Prot | | NA pm+ov | | Prot | NA |
| Protected Phases | 8 | | 2 | 8 | 1 | 6 |
| Permitted Phases | | | | 2 | | |
| Detector Phase | 8 | | 2 | 8 | 1 | 6 |
| Switch Phase | | | | | | |

Year 2022 No-Build Traffic Volumes
8: NYS Route 22 & NYS Route 120 (South)

Weekday Peak PM Hour
02/20/2019

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|-------|-----|-------|-------|-------|-------|
| Minimum Initial (s) | 10.0 | | 12.0 | 10.0 | 12.0 | 12.0 |
| Minimum Split (s) | 26.0 | | 36.0 | 26.0 | 36.0 | 36.0 |
| Total Split (s) | 27.0 | | 43.0 | 27.0 | 48.0 | 91.0 |
| Total Split (%) | 22.9% | | 36.4% | 22.9% | 40.7% | 77.1% |
| Maximum Green (s) | 21.0 | | 37.0 | 21.0 | 42.0 | 85.0 |
| Yellow Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | | Min | None | Min | Min |
| Walk Time (s) | 5.0 | | 5.0 | 5.0 | | 5.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | 11.0 | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | | 0 |
| Act Effct Green (s) | 21.1 | | 18.1 | 45.2 | 12.7 | 36.9 |
| Actuated g/C Ratio | 0.30 | | 0.26 | 0.65 | 0.18 | 0.53 |
| v/c Ratio | 0.67 | | 0.69 | 0.03 | 0.44 | 0.41 |
| Control Delay | 29.8 | | 27.8 | 1.9 | 28.8 | 10.6 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 29.8 | | 27.8 | 1.9 | 28.8 | 10.6 |
| LOS | C | | C | A | C | B |
| Approach Delay | 29.8 | | 26.5 | | | 15.4 |
| Approach LOS | C | | C | | | B |
| Queue Length 50th (ft) | 136 | | 121 | 0 | 53 | 93 |
| Queue Length 95th (ft) | #245 | | 168 | 7 | 88 | 117 |
| Internal Link Dist (ft) | 254 | | 825 | | | 408 |
| Turn Bay Length (ft) | | | | 200 | 215 | |
| Base Capacity (vph) | 560 | | 1806 | 957 | 2009 | 3472 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.67 | | 0.34 | 0.03 | 0.13 | 0.21 |

Intersection Summary

Area Type: Other
Cycle Length: 118
Actuated Cycle Length: 70
Natural Cycle: 100
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 21.6
Intersection Capacity Utilization 56.9%
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.















Queue shown is maximum after two cycles.

Splits and Phases: 8: NYS Route 22 & NYS Route 120 (South)



Year 2022 No-Build Traffic Volumes
9: King Street & Old Post Road

Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | |  | | |  | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 0 | 50 | 7 | 15 | 776 | 29 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 0 | 0 | 0 | 50 | 7 | 15 | 776 | 29 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 13 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | -5% | | | -7% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | 0.983 | | | 0.995 | | | | |
| Flt Protected | | | | | | | | 0.999 | | | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 1850 | 0 | 0 | 1998 | 0 | 0 | 0 | 0 |
| Flt Permitted | | | | | | | | 0.999 | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 1850 | 0 | 0 | 1998 | 0 | 0 | 0 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 63 | | | 297 | | | 300 | | | 404 | |
| Travel Time (s) | | 1.4 | | | 6.8 | | | 6.8 | | | 9.2 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 4% | 0% | 0% | 1% | 4% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 0 | 0 | 0 | 0 | 62 | 9 | 19 | 958 | 36 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 71 | 0 | 0 | 1013 | 0 | 0 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 0.97 | 0.97 | 0.97 | 0.96 | 0.92 | 0.96 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Stop | | | Stop | | | Free | | | Stop | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |
| Intersection Capacity Utilization | 53.4% | | | | | | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |
| ICU Level of Service A | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | | | ↑ | | ↑ | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 50 | 7 | 15 | 776 | 29 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 50 | 7 | 15 | 776 | 29 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | 2 | - | - | - | 0 | - | - | 0 | - | -16 | 965 | - |
| Grade, % | - | 0 | - | - | -5 | - | - | -7 | - | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 4 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 62 | 9 | 19 | 958 | 36 | 0 | 0 | 0 |


| Major/Minor | Minor1 | | | Major1 | | |
|----------------------|--------|-------|-----|--------|---|---|
| Conflicting Flow All | - | 1014 | 976 | 0 | 0 | 0 |
| Stage 1 | - | 1014 | - | - | - | - |
| Stage 2 | - | 0 | - | - | - | - |
| Critical Hdwy | - | 5.54 | 5.7 | 4.1 | - | - |
| Critical Hdwy Stg 1 | - | 4.54 | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 4.036 | 3.3 | 2.2 | - | - |
| Pot Cap-1 Maneuver | 0 | 314 | 352 | - | - | - |
| Stage 1 | 0 | 416 | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Platoon blocked, % | | | | | - | - |
| Mov Cap-1 Maneuver | - | 0 | 352 | - | - | - |
| Mov Cap-2 Maneuver | - | 0 | - | - | - | - |
| Stage 1 | - | 0 | - | - | - | - |
| Stage 2 | - | 0 | - | - | - | - |

| Approach | WB | NB |
|----------------------|------|----|
| HCM Control Delay, s | 17.8 | |
| HCM LOS | C | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | WBLn1 |
|-----------------------|-----|-----|-----|-------|
| Capacity (veh/h) | - | - | - | 352 |
| HCM Lane V/C Ratio | - | - | - | 0.2 |
| HCM Control Delay (s) | - | - | - | 17.8 |
| HCM Lane LOS | - | - | - | C |
| HCM 95th %tile Q(veh) | - | - | - | 0.7 |

Year 2022 No-Build Traffic Volumes
10: NYS Route 22 & I-684 SB On/Off Ramp

Weekday Peak PM Hour
02/20/2019

| |  | | | | | | | | | | |
|----------------------------|--|------|-------|------|------|-------|-------|------|-------|------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SBL2 | SBL | SBR | NWL | NWR |
| Lane Configurations | | ↑↑ | ↑ | | ↑↑ | ↑ | ↑ | | ↑ | | |
| Traffic Volume (vph) | 0 | 1379 | 289 | 0 | 878 | 128 | 65 | 0 | 243 | 0 | 0 |
| Future Volume (vph) | 0 | 1379 | 289 | 0 | 878 | 128 | 65 | 0 | 243 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 16 | 16 | 16 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | 0% | |
| Storage Length (ft) | 0 | | 275 | 0 | | 0 | | 200 | 0 | 0 | 0 |
| Storage Lanes | 0 | | 1 | 0 | | 1 | | 1 | 1 | 0 | 0 |
| Taper Length (ft) | 25 | | | 25 | | | | 25 | | 25 | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | |
| Flt Protected | | | | | | | 0.950 | | | | |
| Satd. Flow (prot) | 0 | 3610 | 1599 | 0 | 3574 | 1583 | 2046 | 0 | 1777 | 0 | 0 |
| Flt Permitted | | | | | | | 0.950 | | | | |
| Satd. Flow (perm) | 0 | 3610 | 1599 | 0 | 3574 | 1583 | 2046 | 0 | 1777 | 0 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | |
| Satd. Flow (RTOR) | | | 187 | | | 119 | | | 392 | | |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | 30 | |
| Link Distance (ft) | | 796 | | | 930 | | | 572 | | 532 | |
| Travel Time (s) | | 9.9 | | | 11.5 | | | 13.0 | | 12.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 1% | 0% | 1% | 2% | 0% | 2% | 3% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | 0% | |
| Adj. Flow (vph) | 0 | 1499 | 314 | 0 | 954 | 139 | 71 | 0 | 264 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1499 | 314 | 0 | 954 | 139 | 71 | 0 | 264 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 16 | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.85 | 0.85 | 0.85 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | 15 | 9 | 15 | 9 |
| Number of Detectors | | 3 | 1 | | 3 | 1 | 1 | | 1 | | |
| Detector Template | | | | | | | Left | | | | |
| Leading Detector (ft) | | 199 | 0 | | 199 | 0 | 20 | | 0 | | |
| Trailing Detector (ft) | | -5 | 0 | | -5 | 0 | 0 | | 0 | | |
| Turn Type | | NA | Free | | NA | Free | Perm | | Free | | |
| Protected Phases | | 6 | | | 2 | | | | | | |
| Permitted Phases | | | Free | | | Free | 3 | | Free | | |
| Detector Phase | | 6 | | | 2 | | 3 | | | | |
| Switch Phase | | | | | | | | | | | |

Year 2022 No-Build Traffic Volumes
10: NYS Route 22 & I-684 SB On/Off Ramp

Weekday Peak PM Hour
02/20/2019



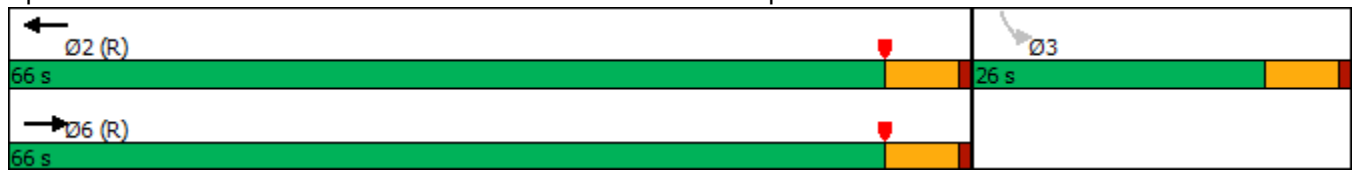
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SBL2 | SBL | SBR | NWL | NWR |
|-------------------------|-----|-------|------|-----|-------|------|-------|------|------|-----|-----|
| Minimum Initial (s) | | 10.0 | | | 10.0 | | 3.0 | | | | |
| Minimum Split (s) | | 56.0 | | | 56.0 | | 21.0 | | | | |
| Total Split (s) | | 66.0 | | | 66.0 | | 26.0 | | | | |
| Total Split (%) | | 71.7% | | | 71.7% | | 28.3% | | | | |
| Maximum Green (s) | | 60.0 | | | 60.0 | | 20.0 | | | | |
| Yellow Time (s) | | 5.0 | | | 5.0 | | 5.0 | | | | |
| All-Red Time (s) | | 1.0 | | | 1.0 | | 1.0 | | | | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | | | | |
| Lead/Lag | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Vehicle Extension (s) | | 2.0 | | | 2.0 | | 2.0 | | | | |
| Minimum Gap (s) | | 0.2 | | | 0.2 | | 0.2 | | | | |
| Time Before Reduce (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Time To Reduce (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Recall Mode | | C-Min | | | C-Min | | None | | | | |
| Walk Time (s) | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | |
| Act Effct Green (s) | | 75.7 | 92.0 | | 75.7 | 92.0 | 7.6 | | 92.0 | | |
| Actuated g/C Ratio | | 0.82 | 1.00 | | 0.82 | 1.00 | 0.08 | | 1.00 | | |
| v/c Ratio | | 0.50 | 0.20 | | 0.32 | 0.09 | 0.42 | | 0.15 | | |
| Control Delay | | 4.1 | 0.3 | | 3.1 | 0.1 | 47.0 | | 0.2 | | |
| Queue Delay | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | |
| Total Delay | | 4.1 | 0.3 | | 3.1 | 0.1 | 47.0 | | 0.2 | | |
| LOS | | A | A | | A | A | D | | A | | |
| Approach Delay | | 3.5 | | | 2.7 | | | 10.1 | | | |
| Approach LOS | | A | | | A | | | B | | | |
| Queue Length 50th (ft) | | 127 | 0 | | 65 | 0 | 40 | | 0 | | |
| Queue Length 95th (ft) | | 196 | 0 | | 102 | 0 | 80 | | 0 | | |
| Internal Link Dist (ft) | | 716 | | | 850 | | | 492 | | 452 | |
| Turn Bay Length (ft) | | | 275 | | | | 200 | | | | |
| Base Capacity (vph) | | 2971 | 1599 | | 2942 | 1583 | 444 | | 1777 | | |
| Starvation Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Spillback Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Storage Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Reduced v/c Ratio | | 0.50 | 0.20 | | 0.32 | 0.09 | 0.16 | | 0.15 | | |

Intersection Summary

Area Type: Other
Cycle Length: 92
Actuated Cycle Length: 92
Offset: 60 (65%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.50
Intersection Signal Delay: 3.9
Intersection Capacity Utilization 50.1%
Analysis Period (min) 15

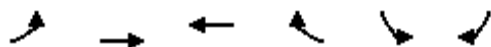
Intersection LOS: A
ICU Level of Service A

Splits and Phases: 10: NYS Route 22 & I-684 SB On/Off Ramp



Year 2022 No-Build Traffic Volumes
11: NYS Route 22 & I-684 NB On/Off Ramp

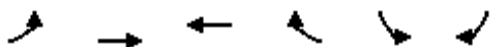
Weekday Peak PM Hour
02/20/2019



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|-------|------|------|-------|------|-------|
| Lane Configurations | ↰↰ | ↑↑ | ↑↑ | ↱ | | ↱ |
| Traffic Volume (vph) | 732 | 1145 | 638 | 252 | 0 | 368 |
| Future Volume (vph) | 732 | 1145 | 638 | 252 | 0 | 368 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 400 | | | 400 | 1 | 0 |
| Storage Lanes | 2 | | | 1 | 0 | 1 |
| Taper Length (ft) | 300 | | | | 25 | |
| Lane Util. Factor | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.865 |
| Flt Protected | 0.950 | | | | | |
| Satd. Flow (prot) | 3467 | 3574 | 3539 | 1615 | 0 | 1611 |
| Flt Permitted | 0.950 | | | | | |
| Satd. Flow (perm) | 3467 | 3574 | 3539 | 1615 | 0 | 1611 |
| Right Turn on Red | | | | No | | Yes |
| Satd. Flow (RTOR) | | | | | | 569 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 287 | 1186 | | 622 | |
| Travel Time (s) | | 3.6 | 14.7 | | 14.1 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 2% | 0% | 0% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 813 | 1272 | 709 | 280 | 0 | 409 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 813 | 1272 | 709 | 280 | 0 | 409 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 24 | 24 | | 0 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Number of Detectors | 2 | 2 | 2 | 2 | | 1 |
| Detector Template | | | | | | |
| Leading Detector (ft) | 83 | 83 | 83 | 83 | | 0 |
| Trailing Detector (ft) | -5 | -5 | -5 | -5 | | 0 |
| Turn Type | Prot | NA | NA | Perm | | Free |
| Protected Phases | 1 | 6 | 2 | | | |
| Permitted Phases | | | | 2 | | Free |
| Detector Phase | 1 | 6 | 2 | 2 | | |
| Switch Phase | | | | | | |

Year 2022 No-Build Traffic Volumes
11: NYS Route 22 & I-684 NB On/Off Ramp

Weekday Peak PM Hour
02/20/2019



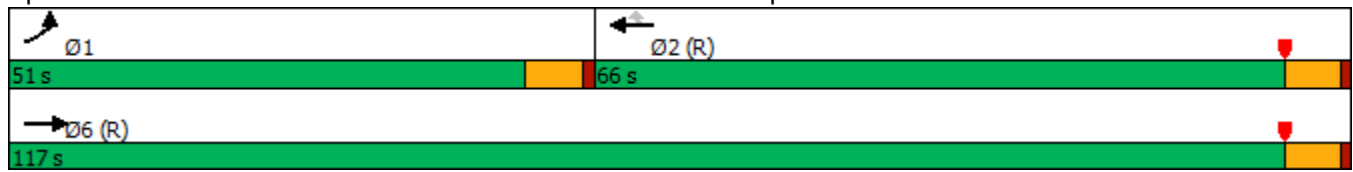
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|-------|--------|-------|-------|-----|-------|
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | | |
| Minimum Split (s) | 41.0 | 56.0 | 56.0 | 56.0 | | |
| Total Split (s) | 51.0 | 117.0 | 66.0 | 66.0 | | |
| Total Split (%) | 43.6% | 100.0% | 56.4% | 56.4% | | |
| Maximum Green (s) | 45.0 | 111.0 | 60.0 | 60.0 | | |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | | |
| Lead/Lag | Lead | | Lag | Lag | | |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | |
| Vehicle Extension (s) | 2.0 | 2.0 | 2.0 | 2.0 | | |
| Minimum Gap (s) | 0.2 | 0.2 | 0.2 | 0.2 | | |
| Time Before Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Time To Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Recall Mode | None | C-Min | C-Min | C-Min | | |
| Walk Time (s) | | | | | | |
| Flash Dont Walk (s) | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | |
| Act Effct Green (s) | 33.1 | 117.0 | 71.9 | 71.9 | | 117.0 |
| Actuated g/C Ratio | 0.28 | 1.00 | 0.61 | 0.61 | | 1.00 |
| v/c Ratio | 0.83 | 0.36 | 0.33 | 0.28 | | 0.25 |
| Control Delay | 47.0 | 0.3 | 12.0 | 12.4 | | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 47.0 | 0.3 | 12.0 | 12.4 | | 0.4 |
| LOS | D | A | B | B | | A |
| Approach Delay | | 18.5 | 12.1 | | 0.4 | |
| Approach LOS | | B | B | | A | |
| Queue Length 50th (ft) | 294 | 0 | 127 | 93 | | 0 |
| Queue Length 95th (ft) | 340 | 0 | 190 | 164 | | 0 |
| Internal Link Dist (ft) | | 207 | 1106 | | 542 | |
| Turn Bay Length (ft) | 400 | | | 400 | | |
| Base Capacity (vph) | 1333 | 3574 | 2176 | 992 | | 1611 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.61 | 0.36 | 0.33 | 0.28 | | 0.25 |

Intersection Summary

Area Type: Other
Cycle Length: 117
Actuated Cycle Length: 117
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 14.6
Intersection Capacity Utilization 48.5%
Analysis Period (min) 15























Intersection LOS: B
ICU Level of Service A

Splits and Phases: 11: NYS Route 22 & I-684 NB On/Off Ramp















Year 2022 Build Traffic Volumes
1: NYS Route 22 & Old Post Road/Old Route 22

Weekday Peak AM Hour
02/20/2019

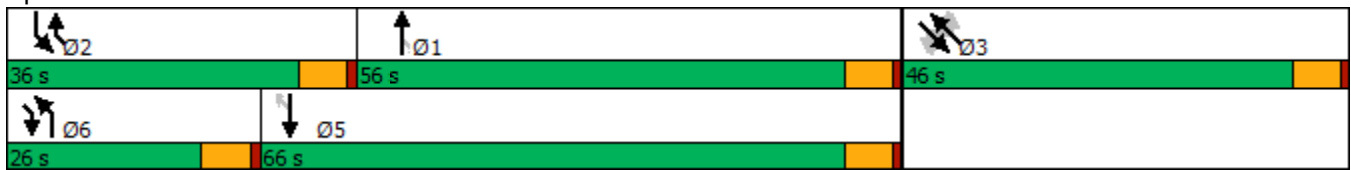
| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  |  |
| Traffic Volume (vph) | 92 | 822 | 108 | 141 | 893 | 22 | 9 | 5 | 55 | 3 | 2 | 12 |
| Future Volume (vph) | 92 | 822 | 108 | 141 | 893 | 22 | 9 | 5 | 55 | 3 | 2 | 12 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 11 | 12 | 12 | 11 | 11 | 11 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 350 | | 230 | 315 | | 155 | 0 | | 150 | 0 | | 125 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 86 | | | 86 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | 1.00 | | | | 0.99 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.969 | | | 0.971 | |
| Satd. Flow (prot) | 1770 | 3406 | 1599 | 1711 | 3438 | 1538 | 0 | 1662 | 1501 | 0 | 1320 | 1380 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.939 | | | 0.914 | |
| Satd. Flow (perm) | 1770 | 3406 | 1599 | 1711 | 3438 | 1538 | 0 | 1606 | 1501 | 0 | 1242 | 1361 |
| Right Turn on Red | | | Yes | | | Yes | | | No | | | Yes |
| Satd. Flow (RTOR) | | | 119 | | | 71 | | | | | | 24 |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | | 30 | |
| Link Distance (ft) | | 2626 | | | 1235 | | | 276 | | | 807 | |
| Travel Time (s) | | 32.6 | | | 15.3 | | | 6.3 | | | 18.3 | |
| Confl. Peds. (#/hr) | | | | | | | 4 | | | | | 4 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 6% | 1% | 2% | 5% | 5% | 11% | 0% | 4% | 33% | 50% | 17% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 95 | 847 | 111 | 145 | 921 | 23 | 9 | 5 | 57 | 3 | 2 | 12 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 95 | 847 | 111 | 145 | 921 | 23 | 0 | 14 | 57 | 0 | 5 | 12 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 20 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.04 | 1.00 | 1.00 | 1.04 | 1.04 | 1.04 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 |
| Detector Template | | | | | | | Left | | | Left | | |
| Leading Detector (ft) | 83 | 0 | 0 | 83 | 0 | 0 | 20 | 83 | 83 | 20 | 83 | 83 |
| Trailing Detector (ft) | -5 | 0 | 0 | -5 | 0 | 0 | 0 | -5 | -5 | 0 | -5 | -5 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA pm+ov | Perm | NA pm+ov | Perm | NA pm+ov |
| Protected Phases | 6 | 1 | | 2 | 5 | | | 3 | 6 | | 3 | 2 |
| Permitted Phases | | | 1 | | | 5 | 3 | | 3 | 3 | | 3 |
| Detector Phase | 6 | 1 | 1 | 2 | 5 | 5 | 3 | 3 | 6 | 3 | 3 | 2 |
| Switch Phase | | | | | | | | | | | | |
























Year 2022 Build Traffic Volumes
1: NYS Route 22 & Old Post Road/Old Route 22













Weekday Peak AM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
| Minimum Initial (s) | 2.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 | 5.0 |
| Minimum Split (s) | 20.0 | 56.0 | 56.0 | 26.0 | 56.0 | 56.0 | 33.0 | 33.0 | 20.0 | 33.0 | 33.0 | 26.0 |
| Total Split (s) | 26.0 | 56.0 | 56.0 | 36.0 | 66.0 | 66.0 | 46.0 | 46.0 | 26.0 | 46.0 | 46.0 | 36.0 |
| Total Split (%) | 18.8% | 40.6% | 40.6% | 26.1% | 47.8% | 47.8% | 33.3% | 33.3% | 18.8% | 33.3% | 33.3% | 26.1% |
| Maximum Green (s) | 20.0 | 50.0 | 50.0 | 30.0 | 60.0 | 60.0 | 40.0 | 40.0 | 20.0 | 40.0 | 40.0 | 30.0 |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | | | Lead | | | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | | | Yes | | | Yes |
| Vehicle Extension (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Minimum Gap (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None | None |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 9.2 | 58.2 | 58.2 | 11.8 | 60.8 | 60.8 | | 10.1 | 14.8 | | 10.1 | 15.3 |
| Actuated g/C Ratio | 0.10 | 0.66 | 0.66 | 0.13 | 0.69 | 0.69 | | 0.12 | 0.17 | | 0.12 | 0.17 |
| v/c Ratio | 0.51 | 0.37 | 0.10 | 0.63 | 0.39 | 0.02 | | 0.08 | 0.23 | | 0.03 | 0.05 |
| Control Delay | 48.8 | 9.0 | 2.0 | 49.8 | 7.8 | 0.0 | | 40.6 | 31.4 | | 40.6 | 4.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 48.8 | 9.0 | 2.0 | 49.8 | 7.8 | 0.0 | | 40.6 | 31.4 | | 40.6 | 4.8 |
| LOS | D | A | A | D | A | A | | D | C | | D | A |
| Approach Delay | | 11.9 | | | 13.2 | | | 33.2 | | | 15.3 | |
| Approach LOS | | B | | | B | | | C | | | B | |
| Queue Length 50th (ft) | 46 | 70 | 0 | 70 | 68 | 0 | | 6 | 27 | | 2 | 0 |
| Queue Length 95th (ft) | 108 | 210 | 21 | 149 | 208 | 0 | | 28 | 59 | | 15 | 7 |
| Internal Link Dist (ft) | | 2546 | | | 1155 | | | 196 | | | 727 | |
| Turn Bay Length (ft) | 350 | | 230 | 315 | | 155 | | | 150 | | | 125 |
| Base Capacity (vph) | 408 | 2259 | 1100 | 592 | 2380 | 1086 | | 741 | 442 | | 573 | 546 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.23 | 0.37 | 0.10 | 0.24 | 0.39 | 0.02 | | 0.02 | 0.13 | | 0.01 | 0.02 |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: | 138 | | | | | | | | | | | |
| Actuated Cycle Length: | 87.8 | | | | | | | | | | | |
| Natural Cycle: | 115 | | | | | | | | | | | |
| Control Type: | Semi Act-Uncoord | | | | | | | | | | | |
| Maximum v/c Ratio: | 0.63 | | | | | | | | | | | |
| Intersection Signal Delay: | 13.3 | | | | | | Intersection LOS: B | | | | | |
| Intersection Capacity Utilization | 53.9% | | | | | | ICU Level of Service A | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |

Splits and Phases: 1: NYS Route 22 & Old Post Road/Old Route 22

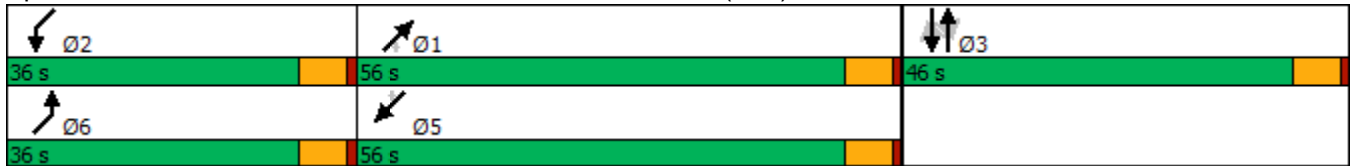


| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  | |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 35 | 7 | 57 | 135 | 26 | 213 | 185 | 508 | 150 | 415 | 809 | 175 |
| Future Volume (vph) | 35 | 7 | 57 | 135 | 26 | 213 | 185 | 508 | 150 | 415 | 809 | 175 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 15 | 12 | 11 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 225 | 0 | | 250 | 680 | | 250 | 400 | | 250 |
| Storage Lanes | 1 | | 1 | 0 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 86 | | | 86 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.960 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1357 | 1429 | 1455 | 0 | 1929 | 1495 | 1662 | 3471 | 1553 | 1787 | 3539 | 1553 |
| Flt Permitted | 0.535 | | | | 0.756 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 764 | 1429 | 1455 | 0 | 1519 | 1495 | 1662 | 3471 | 1553 | 1787 | 3539 | 1553 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 71 | | | 220 | | | 155 | | | 180 |
| Link Speed (mph) | | 30 | | | 30 | | | 55 | | | 55 | |
| Link Distance (ft) | | 298 | | | 237 | | | 1202 | | | 815 | |
| Travel Time (s) | | 6.8 | | | 5.4 | | | 14.9 | | | 10.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 33% | 33% | 11% | 4% | 4% | 8% | 5% | 4% | 4% | 1% | 2% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 36 | 7 | 59 | 139 | 27 | 220 | 191 | 524 | 155 | 428 | 834 | 180 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 36 | 7 | 59 | 0 | 166 | 220 | 191 | 524 | 155 | 428 | 834 | 180 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.88 | 1.00 | 1.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 |
| Detector Template | | | | Left | | | | | | | | |
| Leading Detector (ft) | 6 | 6 | 6 | 20 | 43 | 6 | 83 | 6 | 6 | 83 | 6 | 6 |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | -5 | 0 | 0 | -5 | 0 | 0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | | 3 | | | 3 | | 6 | 1 | | 2 | 5 | |
| Permitted Phases | 3 | | 3 | 3 | | 3 | | | 1 | | | 5 |
| Detector Phase | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 1 | 1 | 2 | 5 | 5 |
| Switch Phase | | | | | | | | | | | | |

| |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 |
| Minimum Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 16.0 | 56.0 | 56.0 | 16.0 | 56.0 | 56.0 |
| Total Split (s) | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 36.0 | 56.0 | 56.0 | 36.0 | 56.0 | 56.0 |
| Total Split (%) | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 26.1% | 40.6% | 40.6% | 26.1% | 40.6% | 40.6% |
| Maximum Green (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 30.0 | 50.0 | 50.0 | 30.0 | 50.0 | 50.0 |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 2.0 | 6.0 | 6.0 | 2.0 | 6.0 | 6.0 |
| Minimum Gap (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 | 3.0 | 3.0 | 2.0 | 4.0 | 4.0 |
| Time Before Reduce (s) | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 0.0 | 20.0 | 20.0 | 0.0 | 20.0 | 20.0 |
| Time To Reduce (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 0.0 | 10.0 | 10.0 | 0.0 | 10.0 | 10.0 |
| Recall Mode | Min | Min | Min | Min | Min | Min | None | Max | Max | None | Max | Max |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 22.2 | 22.2 | 22.2 | | 22.2 | 22.2 | 18.0 | 50.1 | 50.1 | 30.1 | 62.1 | 62.1 |
| Actuated g/C Ratio | 0.18 | 0.18 | 0.18 | | 0.18 | 0.18 | 0.15 | 0.42 | 0.42 | 0.25 | 0.52 | 0.52 |
| v/c Ratio | 0.26 | 0.03 | 0.18 | | 0.59 | 0.48 | 0.77 | 0.36 | 0.21 | 0.96 | 0.46 | 0.20 |
| Control Delay | 46.1 | 39.0 | 7.9 | | 53.8 | 9.0 | 69.4 | 25.8 | 4.5 | 79.5 | 21.2 | 3.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 46.1 | 39.0 | 7.9 | | 53.8 | 9.0 | 69.4 | 25.8 | 4.5 | 79.5 | 21.2 | 3.6 |
| LOS | D | D | A | | D | A | E | C | A | E | C | A |
| Approach Delay | | 23.5 | | | 28.3 | | | 31.6 | | | 36.3 | |
| Approach LOS | | C | | | C | | | C | | | D | |
| Queue Length 50th (ft) | 24 | 4 | 0 | | 119 | 0 | 145 | 146 | 0 | 331 | 211 | 0 |
| Queue Length 95th (ft) | 57 | 18 | 28 | | 192 | 65 | 225 | 208 | 43 | #577 | 328 | 43 |
| Internal Link Dist (ft) | | 218 | | | 157 | | | 1122 | | | 735 | |
| Turn Bay Length (ft) | | | 225 | | | 250 | 680 | | 250 | 400 | | 250 |
| Base Capacity (vph) | 254 | 475 | 531 | | 505 | 644 | 414 | 1444 | 736 | 446 | 1826 | 888 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.14 | 0.01 | 0.11 | | 0.33 | 0.34 | 0.46 | 0.36 | 0.21 | 0.96 | 0.46 | 0.20 |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: 138 | | | | | | | | | | | | |
| Actuated Cycle Length: 120.4 | | | | | | | | | | | | |
| Natural Cycle: 115 | | | | | | | | | | | | |
| Control Type: Semi Act-Uncoord | | | | | | | | | | | | |
| Maximum v/c Ratio: 0.96 | | | | | | | | | | | | |
| Intersection Signal Delay: 33.3 | | | | Intersection LOS: C | | | | | | | | |
| Intersection Capacity Utilization 67.5% | | | | ICU Level of Service C | | | | | | | | |
| Analysis Period (min) 15 | | | | | | | | | | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | | | | | | | | | | |























Queue shown is maximum after two cycles.

Splits and Phases: 2: NYS Route 22 & North Castle Drive (IBM)/NYS Route 128















Year 2022 Build Traffic Volumes
3: Business Park Drive/Maple Avenue & NYS Route 22

Weekday Peak AM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  |  |  |  |  |
| Traffic Volume (vph) | 46 | 515 | 140 | 175 | 1251 | 368 | 70 | 45 | 64 | 250 | 61 | 79 |
| Future Volume (vph) | 46 | 515 | 140 | 175 | 1251 | 368 | 70 | 45 | 64 | 250 | 61 | 79 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 11 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 600 | | 0 | 265 | | 225 | 0 | | 0 | 100 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 0 | | 1 | 1 | | 0 |
| Taper Length (ft) | 86 | | | 86 | | | 25 | | | 86 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | 1.00 | | | 0.99 | |
| Frt | | 0.968 | | | | 0.850 | | | 0.850 | | 0.915 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.970 | | 0.950 | | |
| Satd. Flow (prot) | 1419 | 3305 | 0 | 1728 | 3539 | 1509 | 0 | 1821 | 1583 | 1703 | 1629 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.970 | | 0.950 | | |
| Satd. Flow (perm) | 1419 | 3305 | 0 | 1728 | 3539 | 1509 | 0 | 1816 | 1583 | 1703 | 1629 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 30 | | | | 245 | | | 114 | | 42 | |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | | 30 | |
| Link Distance (ft) | | 561 | | | 541 | | | 577 | | | 575 | |
| Travel Time (s) | | 7.0 | | | 6.7 | | | 13.1 | | | 13.1 | |
| Confl. Peds. (#/hr) | | | | | | | 3 | | | | | 3 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 23% | 7% | 1% | 1% | 2% | 7% | 2% | 0% | 2% | 6% | 0% | 10% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 48 | 542 | 147 | 184 | 1317 | 387 | 74 | 47 | 67 | 263 | 64 | 83 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 48 | 689 | 0 | 184 | 1317 | 387 | 0 | 121 | 67 | 263 | 147 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 11 | | | 11 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.04 | 1.00 | 1.00 | 1.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 2 | 2 | | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | |
| Detector Template | | | | | | | Left | | | Left | | |
| Leading Detector (ft) | 83 | 83 | | 83 | 83 | 40 | 50 | 83 | 83 | 83 | 83 | |
| Trailing Detector (ft) | -5 | -5 | | -5 | -5 | 0 | 0 | -5 | -5 | 0 | 0 | |
| Turn Type | Prot | NA | | Prot | NA | Perm | Split | NA | Perm | Split | NA | |
| Protected Phases | 6 | 1 | | 2 | 5 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | 5 | | | 3 | | | |
| Detector Phase | 6 | 1 | | 2 | 5 | 5 | 3 | 3 | 3 | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |







Year 2022 Build Traffic Volumes
3: Business Park Drive/Maple Avenue & NYS Route 22

Weekday Peak AM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | 15.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | |
| Minimum Split (s) | 9.0 | 21.0 | | 9.0 | 21.0 | 21.0 | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 | |
| Total Split (s) | 26.0 | 56.0 | | 26.0 | 56.0 | 56.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | |
| Total Split (%) | 19.4% | 41.8% | | 19.4% | 41.8% | 41.8% | 19.4% | 19.4% | 19.4% | 19.4% | 19.4% | |
| Maximum Green (s) | 20.0 | 50.0 | | 20.0 | 50.0 | 50.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | |
| Yellow Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | -2.0 | -2.0 | | -2.0 | -2.0 | -2.0 | | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lag | Lag | Lag | Lead | Lead | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | |
| Minimum Gap (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | None | None | None | None | None | None | |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 10.3 | 37.5 | | 17.6 | 47.8 | 47.8 | | 13.8 | 13.8 | 21.5 | 21.5 | |
| Actuated g/C Ratio | 0.10 | 0.35 | | 0.16 | 0.45 | 0.45 | | 0.13 | 0.13 | 0.20 | 0.20 | |
| v/c Ratio | 0.35 | 0.58 | | 0.65 | 0.83 | 0.48 | | 0.52 | 0.22 | 0.77 | 0.41 | |
| Control Delay | 56.4 | 29.4 | | 55.5 | 32.9 | 10.3 | | 55.2 | 3.1 | 59.5 | 33.4 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 56.4 | 29.4 | | 55.5 | 32.9 | 10.3 | | 55.2 | 3.1 | 59.5 | 33.4 | |
| LOS | E | C | | E | C | B | | E | A | E | C | |
| Approach Delay | | 31.1 | | | 30.4 | | | 36.6 | | | 50.1 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Queue Length 50th (ft) | 34 | 191 | | 127 | 424 | 60 | | 85 | 0 | 184 | 66 | |
| Queue Length 95th (ft) | 76 | 282 | | 216 | 602 | 162 | | 151 | 8 | #354 | 143 | |
| Internal Link Dist (ft) | | 481 | | | 461 | | | 497 | | | 495 | |
| Turn Bay Length (ft) | 600 | | | 265 | | 225 | | | | 100 | | |
| Base Capacity (vph) | 301 | 1673 | | 366 | 1775 | 879 | | 386 | 425 | 361 | 379 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.16 | 0.41 | | 0.50 | 0.74 | 0.44 | | 0.31 | 0.16 | 0.73 | 0.39 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: 134 | | | | | | | | | | | | |
| Actuated Cycle Length: 106.8 | | | | | | | | | | | | |
| Natural Cycle: 70 | | | | | | | | | | | | |
| Control Type: Actuated-Uncoordinated | | | | | | | | | | | | |
| Maximum v/c Ratio: 0.83 | | | | | | | | | | | | |
| Intersection Signal Delay: 33.5 | | | | | | Intersection LOS: C | | | | | | |
| Intersection Capacity Utilization 73.4% | | | | | | ICU Level of Service D | | | | | | |
| Analysis Period (min) 15 | | | | | | | | | | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | | | | | | | | | | |

















Queue shown is maximum after two cycles.

Splits and Phases: 3: Business Park Drive/Maple Avenue & NYS Route 22

| | | | |
|--|--|---|--|
|  Ø2 |  Ø1 |  Ø4 |  Ø3 |
| 26 s | 56 s | 26 s | 26 s |
|  Ø6 |  Ø5 | | |
| 26 s | 56 s | | |

Year 2022 Build Traffic Volumes
4: NYS Route 128 (Main Street) & Kent Place/Bedford Road

Weekday Peak AM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | | |  | | |  | |
| Traffic Volume (vph) | 1 | 5 | 10 | 41 | 17 | 50 | 27 | 180 | 68 | 61 | 339 | 17 |
| Future Volume (vph) | 1 | 5 | 10 | 41 | 17 | 50 | 27 | 180 | 68 | 61 | 339 | 17 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 1% | | | 1% | | | -1% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.913 | | | 0.938 | | | 0.967 | | | 0.995 | |
| Flt Protected | | 0.997 | | | 0.981 | | | 0.995 | | | 0.993 | |
| Satd. Flow (prot) | 0 | 1549 | 0 | 0 | 1368 | 0 | 0 | 1523 | 0 | 0 | 1593 | 0 |
| Flt Permitted | | 0.997 | | | 0.981 | | | 0.995 | | | 0.993 | |
| Satd. Flow (perm) | 0 | 1549 | 0 | 0 | 1368 | 0 | 0 | 1523 | 0 | 0 | 1593 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 231 | | | 878 | | | 1228 | | | 584 | |
| Travel Time (s) | | 5.3 | | | 20.0 | | | 27.9 | | | 13.3 | |
| Confl. Peds. (#/hr) | 12 | | | | | | 12 | | | | 12 | 12 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 16% | 6% | 16% | 4% | 8% | 12% | 3% | 6% | 19% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 1 | 5 | 11 | 45 | 18 | 54 | 29 | 196 | 74 | 66 | 368 | 18 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 17 | 0 | 0 | 117 | 0 | 0 | 299 | 0 | 0 | 452 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Area Type: CBD

Control Type: Unsignalized

Intersection Capacity Utilization 58.2%

ICU Level of Service B

Analysis Period (min) 15

Year 2022 Build Traffic Volumes
4: NYS Route 128 (Main Street) & Kent Place/Bedford Road

Weekday Peak AM Hour
02/20/2019

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.9 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 1 | 5 | 10 | 41 | 17 | 50 | 27 | 180 | 68 | 61 | 339 | 17 |
| Future Vol, veh/h | 1 | 5 | 10 | 41 | 17 | 50 | 27 | 180 | 68 | 61 | 339 | 17 |
| Conflicting Peds, #/hr | 12 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 12 | 0 | 12 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 1 | - | - | 1 | - | - | -1 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 16 | 6 | 16 | 4 | 8 | 12 | 3 | 6 | 19 |
| Mvmt Flow | 1 | 5 | 11 | 45 | 18 | 54 | 29 | 196 | 74 | 66 | 368 | 18 |







| Major/Minor | Minor2 | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|--------|
| Conflicting Flow All | 860 | 861 | 389 | 820 |
| Stage 1 | 521 | 521 | - | 303 |
| Stage 2 | 339 | 340 | - | 517 |
| Critical Hdwy | 7.3 | 6.7 | 6.3 | 7.46 |
| Critical Hdwy Stg 1 | 6.3 | 5.7 | - | 6.46 |
| Critical Hdwy Stg 2 | 6.3 | 5.7 | - | 6.46 |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | 3.644 |
| Pot Cap-1 Maneuver | 265 | 282 | 657 | 266 |
| Stage 1 | 527 | 520 | - | 666 |
| Stage 2 | 667 | 631 | - | 502 |
| Platoon blocked, % | | | | |
| Mov Cap-1 Maneuver | 211 | 250 | 650 | 236 |
| Mov Cap-2 Maneuver | 211 | 250 | - | 236 |
| Stage 1 | 506 | 480 | - | 639 |
| Stage 2 | 575 | 606 | - | 455 |

| Approach | EB | WB | NB | SB |
|----------------------|------|------|-----|-----|
| HCM Control Delay, s | 14.4 | 20.5 | 0.8 | 1.2 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1139 | - | - | 399 | 349 | 1262 | - | - |
| HCM Lane V/C Ratio | 0.026 | - | - | 0.044 | 0.336 | 0.053 | - | - |
| HCM Control Delay (s) | 8.2 | 0 | - | 14.4 | 20.5 | 8 | 0 | - |
| HCM Lane LOS | A | A | - | B | C | A | A | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.1 | 1.4 | 0.2 | - | - |













Year 2022 Build Traffic Volumes
5: Maple Avenue & Bedford Road

Weekday Peak AM Hour
02/20/2019

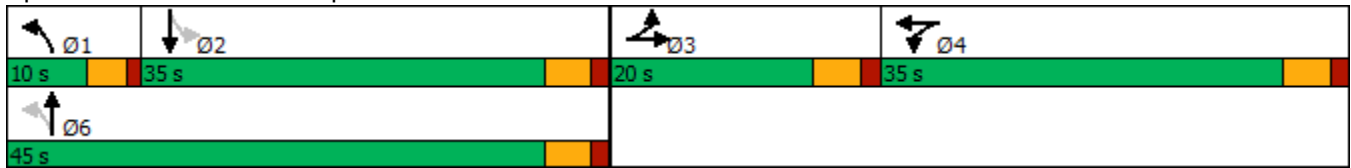
| |  | | | | | | | | | | | |
|----------------------------|--|---|-------|-------|---|-------|---|---|-------|------|---|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | | |  | |
| Traffic Volume (vph) | 6 | 45 | 137 | 106 | 45 | 29 | 127 | 182 | 150 | 20 | 148 | 3 |
| Future Volume (vph) | 6 | 45 | 137 | 106 | 45 | 29 | 127 | 182 | 150 | 20 | 148 | 3 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 15 | 15 | 15 | 15 | 15 | 15 | 10 | 10 | 10 | 15 | 15 | 15 |
| Grade (%) | | -1% | | | -1% | | | -2% | | | -1% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 50 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 86 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.98 | | | 1.00 | | | | | | | |
| Frt | | 0.902 | | | 0.978 | | | 0.932 | | | 0.998 | |
| Flt Protected | | 0.998 | | | 0.971 | | 0.950 | | | | 0.994 | |
| Satd. Flow (prot) | 0 | 1729 | 0 | 0 | 1880 | 0 | 1668 | 1519 | 0 | 0 | 1921 | 0 |
| Flt Permitted | | 0.998 | | | 0.971 | | 0.481 | | | | 0.922 | |
| Satd. Flow (perm) | 0 | 1729 | 0 | 0 | 1878 | 0 | 845 | 1519 | 0 | 0 | 1782 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 114 | | | 10 | | | 49 | | | 1 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 878 | | | 570 | | | 575 | | | 384 | |
| Travel Time (s) | | 20.0 | | | 13.0 | | | 13.1 | | | 8.7 | |
| Confl. Peds. (#/hr) | | | 1 | 1 | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 7% | 8% | 5% | 10% | 4% | 2% | 4% | 17% | 28% | 6% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 7 | 52 | 159 | 123 | 52 | 34 | 148 | 212 | 174 | 23 | 172 | 3 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 218 | 0 | 0 | 209 | 0 | 148 | 386 | 0 | 0 | 198 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 1.08 | 1.08 | 1.08 | 0.88 | 0.88 | 0.88 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turn Type | Split | NA | | Split | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 3 | 3 | | 4 | 4 | | 1 | 6 | | | 2 | |
| Permitted Phases | | | | | | | 6 | | | 2 | | |
| Detector Phase | 3 | 3 | | 4 | 4 | | 1 | 6 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |

















Year 2022 Build Traffic Volumes
5: Maple Avenue & Bedford Road












Weekday Peak AM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 3.0 | 3.0 | | 10.0 | 10.0 | | 3.0 | 12.0 | | 12.0 | 12.0 | |
| Minimum Split (s) | 8.0 | 8.0 | | 15.0 | 15.0 | | 7.0 | 17.0 | | 17.0 | 17.0 | |
| Total Split (s) | 20.0 | 20.0 | | 35.0 | 35.0 | | 10.0 | 45.0 | | 35.0 | 35.0 | |
| Total Split (%) | 20.0% | 20.0% | | 35.0% | 35.0% | | 10.0% | 45.0% | | 35.0% | 35.0% | |
| Maximum Green (s) | 15.0 | 15.0 | | 30.0 | 30.0 | | 6.0 | 40.0 | | 30.0 | 30.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.0 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.0 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 4.0 | 5.0 | | | 5.0 | |
| Lead/Lag | Lead | Lead | | Lag | Lag | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | | | Yes | Yes | |
| Vehicle Extension (s) | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | | Max | None | | Min | Min | |
| Walk Time (s) | | | | 7.0 | 7.0 | | | | | | | |
| Flash Dont Walk (s) | | | | 15.0 | 15.0 | | | | | | | |
| Pedestrian Calls (#/hr) | | | | 1 | 1 | | | | | | | |
| Act Effct Green (s) | | 8.2 | | | 12.9 | | 25.9 | 24.9 | | | 14.5 | |
| Actuated g/C Ratio | | 0.13 | | | 0.21 | | 0.42 | 0.40 | | | 0.24 | |
| v/c Ratio | | 0.66 | | | 0.52 | | 0.34 | 0.60 | | | 0.47 | |
| Control Delay | | 24.2 | | | 26.8 | | 15.7 | 18.6 | | | 25.7 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Delay | | 24.2 | | | 26.8 | | 15.7 | 18.6 | | | 25.7 | |
| LOS | | C | | | C | | B | B | | | C | |
| Approach Delay | | 24.2 | | | 26.8 | | | 17.8 | | | 25.7 | |
| Approach LOS | | C | | | C | | | B | | | C | |
| Queue Length 50th (ft) | | 32 | | | 60 | | 30 | 83 | | | 57 | |
| Queue Length 95th (ft) | | 109 | | | 144 | | 87 | 221 | | | 139 | |
| Internal Link Dist (ft) | | 798 | | | 490 | | | 495 | | | 304 | |
| Turn Bay Length (ft) | | | | | | | 50 | | | | | |
| Base Capacity (vph) | | 522 | | | 955 | | 438 | 1039 | | | 901 | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.42 | | | 0.22 | | 0.34 | 0.37 | | | 0.22 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: | 100 | | | | | | | | | | | |
| Actuated Cycle Length: | 61.5 | | | | | | | | | | | |
| Natural Cycle: | 50 | | | | | | | | | | | |
| Control Type: | Semi Act-Uncoord | | | | | | | | | | | |
| Maximum v/c Ratio: | 0.66 | | | | | | | | | | | |
| Intersection Signal Delay: | 22.0 | | | | | Intersection LOS: C | | | | | | |
| Intersection Capacity Utilization | 66.6% | | | | | ICU Level of Service C | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |

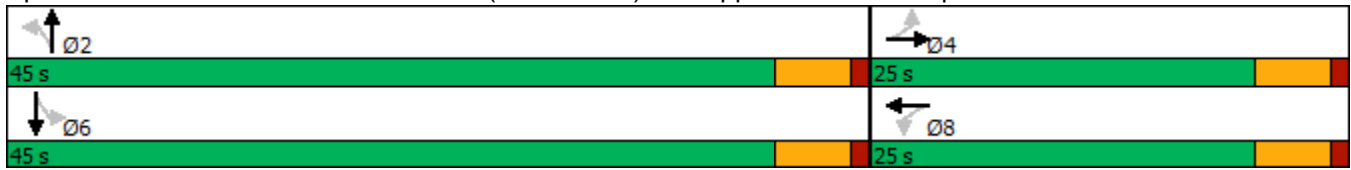
Splits and Phases: 5: Maple Avenue & Bedford Road



| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | | |  | | |  | |
| Traffic Volume (vph) | 15 | 59 | 51 | 43 | 35 | 117 | 20 | 148 | 33 | 108 | 311 | 4 |
| Future Volume (vph) | 15 | 59 | 51 | 43 | 35 | 117 | 20 | 148 | 33 | 108 | 311 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | -6% | | | 1% | | | 1% | | | -3% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.99 | | | 1.00 | | | 1.00 | | | 1.00 | |
| Frt | | 0.945 | | | 0.919 | | | 0.978 | | | 0.999 | |
| Flt Protected | | 0.994 | | | 0.989 | | | 0.995 | | | 0.987 | |
| Satd. Flow (prot) | 0 | 1506 | 0 | 0 | 1529 | 0 | 0 | 1477 | 0 | 0 | 1612 | 0 |
| Flt Permitted | | 0.940 | | | 0.894 | | | 0.946 | | | 0.865 | |
| Satd. Flow (perm) | 0 | 1424 | 0 | 0 | 1382 | 0 | 0 | 1404 | 0 | 0 | 1412 | 0 |
| Right Turn on Red | | | Yes | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | 50 | | | | | | | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 410 | | | 373 | | | 584 | | | 389 | |
| Travel Time (s) | | 9.3 | | | 8.5 | | | 13.3 | | | 8.8 | |
| Confl. Peds. (#/hr) | | | 1 | 1 | | | | | 3 | 3 | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 14% | 10% | 6% | 0% | 3% | 1% | 16% | 13% | 3% | 5% | 6% | 50% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 16 | 62 | 54 | 45 | 37 | 123 | 21 | 156 | 35 | 114 | 327 | 4 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 132 | 0 | 0 | 205 | 0 | 0 | 212 | 0 | 0 | 445 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.10 | 1.10 | 1.10 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.12 | 1.12 | 1.12 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |













| |  |  |  |  |  |  |  |  |  |  |  | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | |
| Total Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 45.0 | 45.0 | | 45.0 | 45.0 | |
| Total Split (%) | 35.7% | 35.7% | | 35.7% | 35.7% | | 64.3% | 64.3% | | 64.3% | 64.3% | |
| Maximum Green (s) | 20.0 | 20.0 | | 20.0 | 20.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | | Min | Min | | Min | Min | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 13.0 | 13.0 | | 13.0 | 13.0 | | 13.0 | 13.0 | | 13.0 | 13.0 | |
| Pedestrian Calls (#/hr) | 1 | 1 | | 0 | 0 | | 3 | 3 | | 0 | 0 | |
| Act Effct Green (s) | | 13.1 | | | 13.1 | | | 24.8 | | | 24.8 | |
| Actuated g/C Ratio | | 0.31 | | | 0.31 | | | 0.58 | | | 0.58 | |
| v/c Ratio | | 0.28 | | | 0.48 | | | 0.26 | | | 0.54 | |
| Control Delay | | 11.4 | | | 19.0 | | | 8.3 | | | 11.8 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 11.4 | | | 19.0 | | | 8.3 | | | 11.8 | |
| LOS | | B | | | B | | | A | | | B | |
| Approach Delay | | 11.4 | | | 19.0 | | | 8.3 | | | 11.8 | |
| Approach LOS | | B | | | B | | | A | | | B | |
| Queue Length 50th (ft) | | 13 | | | 37 | | | 26 | | | 69 | |
| Queue Length 95th (ft) | | 61 | | | 122 | | | 78 | | | 192 | |
| Internal Link Dist (ft) | | 330 | | | 293 | | | 504 | | | 309 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 748 | | | 702 | | | 1249 | | | 1256 | |
| Starvation Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.18 | | | 0.29 | | | 0.17 | | | 0.35 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | CBD | | | | | | | | | | | |
| Cycle Length: 70 | | | | | | | | | | | | |
| Actuated Cycle Length: 42.7 | | | | | | | | | | | | |
| Natural Cycle: 55 | | | | | | | | | | | | |
| Control Type: Actuated-Uncoordinated | | | | | | | | | | | | |
| Maximum v/c Ratio: 0.54 | | | | | | | | | | | | |
| Intersection Signal Delay: 12.5 | | | | | | | Intersection LOS: B | | | | | |
| Intersection Capacity Utilization 69.4% | | | | | | | ICU Level of Service C | | | | | |
| Analysis Period (min) 15 | | | | | | | | | | | | |







Splits and Phases: 6: NYS Route 128 (Main Street) & Whippoorwill Road/Maple Avenue



Year 2022 Build Traffic Volumes
7: NYS Route 22 & NYS Route 120 (North)

Weekday Peak AM Hour
02/20/2019

| |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|
| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 175 | 503 | 727 | 224 | 518 | 705 |
| Future Volume (vph) | 175 | 503 | 727 | 224 | 518 | 705 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 10 | 10 | 10 | 10 | 10 | 10 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 250 | | | 500 | 250 | 0 |
| Storage Lanes | 1 | | | 1 | 1 | 1 |
| Taper Length (ft) | 86 | | | | 86 | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1478 | 3209 | 3303 | 1478 | 1604 | 1436 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 1478 | 3209 | 3303 | 1478 | 1604 | 1436 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 229 | | 456 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 770 | 1056 | | 861 | |
| Travel Time (s) | | 9.5 | 13.1 | | 19.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 14% | 5% | 2% | 2% | 5% | 5% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 179 | 513 | 742 | 229 | 529 | 719 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 179 | 513 | 742 | 229 | 529 | 719 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 10 | 15 | | 10 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Number of Detectors | 1 | 2 | 2 | 1 | 2 | 0 |
| Detector Template | | | | | | |
| Leading Detector (ft) | 35 | 104 | 104 | 0 | 104 | 0 |
| Trailing Detector (ft) | -5 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | NA | Free | Prot | Free |
| Protected Phases | 2 | 5 | 1 | | 3 | |
| Permitted Phases | | | | Free | | Free |
| Detector Phase | 2 | 5 | 1 | | 3 | |
| Switch Phase | | | | | | |

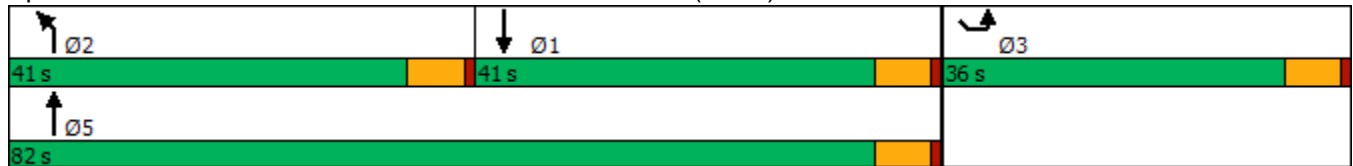
| |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
| Minimum Initial (s) | 12.0 | 12.0 | 12.0 | | 10.0 | |
| Minimum Split (s) | 36.0 | 36.0 | 36.0 | | 26.0 | |
| Total Split (s) | 41.0 | 82.0 | 41.0 | | 36.0 | |
| Total Split (%) | 34.7% | 69.5% | 34.7% | | 30.5% | |
| Maximum Green (s) | 35.0 | 76.0 | 35.0 | | 30.0 | |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | | 5.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | | 6.0 | |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 6.0 | 6.0 | 6.0 | | 6.0 | |
| Minimum Gap (s) | 4.0 | 4.0 | 4.0 | | 4.0 | |
| Time Before Reduce (s) | 20.0 | 20.0 | 20.0 | | 20.0 | |
| Time To Reduce (s) | 8.0 | 8.0 | 8.0 | | 5.0 | |
| Recall Mode | None | Min | Min | | Min | |
| Walk Time (s) | | | | | | |
| Flash Dont Walk (s) | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | |
| Act Effct Green (s) | 20.1 | 56.8 | 30.6 | 99.2 | 30.3 | 99.2 |
| Actuated g/C Ratio | 0.20 | 0.57 | 0.31 | 1.00 | 0.31 | 1.00 |
| v/c Ratio | 0.60 | 0.28 | 0.73 | 0.15 | 1.08 | 0.50 |
| Control Delay | 45.2 | 10.9 | 35.8 | 0.2 | 99.9 | 1.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 45.2 | 10.9 | 35.8 | 0.2 | 99.9 | 1.2 |
| LOS | D | B | D | A | F | A |
| Approach Delay | | 19.7 | 27.4 | | 43.1 | |
| Approach LOS | | B | C | | D | |
| Queue Length 50th (ft) | 103 | 80 | 217 | 0 | ~380 | 0 |
| Queue Length 95th (ft) | 180 | 107 | 315 | 0 | #674 | 0 |
| Internal Link Dist (ft) | | 690 | 976 | | 781 | |
| Turn Bay Length (ft) | 250 | | | 500 | 250 | |
| Base Capacity (vph) | 526 | 2482 | 1176 | 1478 | 489 | 1436 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.21 | 0.63 | 0.15 | 1.08 | 0.50 |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Cycle Length: | 118 | | | | | |
| Actuated Cycle Length: | 99.2 | | | | | |
| Natural Cycle: | 110 | | | | | |
| Control Type: | Actuated-Uncoordinated | | | | | |
| Maximum v/c Ratio: | 1.08 | | | | | |
| Intersection Signal Delay: | 32.3 | | | Intersection LOS: C | | |
| Intersection Capacity Utilization | 73.8% | | | ICU Level of Service D | | |
| Analysis Period (min) | 15 | | | | | |
| ~ Volume exceeds capacity, queue is theoretically infinite. | | | | | | |

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.












Queue shown is maximum after two cycles.







Splits and Phases: 7: NYS Route 22 & NYS Route 120 (North)



Year 2022 Build Traffic Volumes
8: NYS Route 22 & NYS Route 120 (South)

Weekday Peak AM Hour
02/20/2019

| |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  | |  |  |  |  |
| Traffic Volume (vph) | 44 | 0 | 473 | 154 | 783 | 649 |
| Future Volume (vph) | 44 | 0 | 473 | 154 | 783 | 649 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 10 | 10 | 11 | 11 |
| Grade (%) | -8% | | -2% | | | -1% |
| Storage Length (ft) | 0 | 0 | | 200 | 215 | |
| Storage Lanes | 1 | 0 | | 1 | 2 | |
| Taper Length (ft) | 25 | | | | 86 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1707 | 0 | 3304 | 1478 | 3368 | 3405 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 1707 | 0 | 3304 | 1478 | 3368 | 3405 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | | | 49 | | |
| Link Speed (mph) | 30 | | 50 | | | 50 |
| Link Distance (ft) | 334 | | 905 | | | 488 |
| Travel Time (s) | 7.6 | | 12.3 | | | 6.7 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 10% | 0% | 3% | 3% | 1% | 3% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | 0% | | | 0% |
| Adj. Flow (vph) | 46 | 0 | 498 | 162 | 824 | 683 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 46 | 0 | 498 | 162 | 824 | 683 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 22 | | | 22 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 0.95 | 0.95 | 1.08 | 1.08 | 1.04 | 1.04 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Number of Detectors | 1 | | 2 | 1 | 1 | 2 |
| Detector Template | Left | | Thru | Right | Left | Thru |
| Leading Detector (ft) | 20 | | 100 | 20 | 20 | 100 |
| Trailing Detector (ft) | 0 | | 0 | 0 | 0 | 0 |
| Turn Type | Prot | | NA pm+ov | | Prot | NA |
| Protected Phases | 8 | | 2 | 8 | 1 | 6 |
| Permitted Phases | | | | 2 | | |
| Detector Phase | 8 | | 2 | 8 | 1 | 6 |
| Switch Phase | | | | | | |















| |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Minimum Initial (s) | 10.0 | | 12.0 | 10.0 | 12.0 | 12.0 |
| Minimum Split (s) | 26.0 | | 36.0 | 26.0 | 36.0 | 36.0 |
| Total Split (s) | 27.0 | | 43.0 | 27.0 | 48.0 | 91.0 |
| Total Split (%) | 22.9% | | 36.4% | 22.9% | 40.7% | 77.1% |
| Maximum Green (s) | 21.0 | | 37.0 | 21.0 | 42.0 | 85.0 |
| Yellow Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | | Min | None | Min | Min |
| Walk Time (s) | 5.0 | | 5.0 | 5.0 | | 5.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | 11.0 | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | | 0 |
| Act Effct Green (s) | 10.7 | | 17.1 | 33.9 | 23.0 | 46.2 |
| Actuated g/C Ratio | 0.15 | | 0.25 | 0.49 | 0.33 | 0.67 |
| v/c Ratio | 0.17 | | 0.61 | 0.22 | 0.74 | 0.30 |
| Control Delay | 31.2 | | 27.4 | 8.8 | 25.2 | 5.0 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 31.2 | | 27.4 | 8.8 | 25.2 | 5.0 |
| LOS | C | | C | A | C | A |
| Approach Delay | 31.2 | | 22.8 | | | 16.0 |
| Approach LOS | C | | C | | | B |
| Queue Length 50th (ft) | 17 | | 96 | 25 | 150 | 50 |
| Queue Length 95th (ft) | 54 | | 173 | 69 | 258 | 80 |
| Internal Link Dist (ft) | 254 | | 825 | | | 408 |
| Turn Bay Length (ft) | | | | 200 | 215 | |
| Base Capacity (vph) | 531 | | 1811 | 749 | 2095 | 3377 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.09 | | 0.27 | 0.22 | 0.39 | 0.20 |
| Intersection Summary | | | | | | |
| Area Type: Other | | | | | | |
| Cycle Length: 118 | | | | | | |
| Actuated Cycle Length: 69.2 | | | | | | |
| Natural Cycle: 100 | | | | | | |
| Control Type: Semi Act-Uncoord | | | | | | |
| Maximum v/c Ratio: 0.74 | | | | | | |
| Intersection Signal Delay: 18.4 | | | | Intersection LOS: B | | |
| Intersection Capacity Utilization 58.7% | | | | ICU Level of Service B | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 8: NYS Route 22 & NYS Route 120 (South)



Year 2022 Build Traffic Volumes
9: King Street & Old Post Road

Weekday Peak AM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | |  | | |  | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 0 | 25 | 6 | 3 | 198 | 40 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 0 | 0 | 0 | 25 | 6 | 3 | 198 | 40 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 13 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | -5% | | | -7% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | 0.973 | | | 0.978 | | | | |
| Flt Protected | | | | | | | | 0.999 | | | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 1836 | 0 | 0 | 1746 | 0 | 0 | 0 | 0 |
| Flt Permitted | | | | | | | | 0.999 | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 1836 | 0 | 0 | 1746 | 0 | 0 | 0 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 63 | | | 297 | | | 300 | | | 404 | |
| Travel Time (s) | | 1.4 | | | 6.8 | | | 6.8 | | | 9.2 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 4% | 0% | 0% | 16% | 3% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 0 | 0 | 0 | 0 | 28 | 7 | 3 | 225 | 45 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 273 | 0 | 0 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 0.97 | 0.97 | 0.97 | 0.96 | 0.92 | 0.96 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Stop | | | Stop | | | Free | | | Stop | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |
| Intersection Capacity Utilization | 23.0% | | | | | | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |
| ICU Level of Service A | | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | | | ↑ | | ↑ | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 25 | 6 | 3 | 198 | 40 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 25 | 6 | 3 | 198 | 40 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | 2 | - | - | - | 0 | - | - | 0 | - | -16 | 965 | - |
| Grade, % | - | 0 | - | - | -5 | - | - | -7 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 16 | 3 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 28 | 7 | 3 | 225 | 45 | 0 | 0 | 0 |


| Major/Minor | Minor1 | | | Major1 | | |
|----------------------|--------|-------|-----|--------|---|---|
| Conflicting Flow All | - | 254 | 248 | 0 | 0 | 0 |
| Stage 1 | - | 254 | - | - | - | - |
| Stage 2 | - | 0 | - | - | - | - |
| Critical Hdwy | - | 5.54 | 5.7 | 4.1 | - | - |
| Critical Hdwy Stg 1 | - | 4.54 | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 4.036 | 3.3 | 2.2 | - | - |
| Pot Cap-1 Maneuver | 0 | 693 | 824 | - | - | - |
| Stage 1 | 0 | 744 | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Platoon blocked, % | | | | | - | - |
| Mov Cap-1 Maneuver | - | 0 | 824 | - | - | - |
| Mov Cap-2 Maneuver | - | 0 | - | - | - | - |
| Stage 1 | - | 0 | - | - | - | - |
| Stage 2 | - | 0 | - | - | - | - |

| Approach | WB | NB |
|----------------------|-----|----|
| HCM Control Delay, s | 9.6 | |
| HCM LOS | A | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | WBLn1 |
|-----------------------|-----|-----|-----|-------|
| Capacity (veh/h) | - | - | - | 824 |
| HCM Lane V/C Ratio | - | - | - | 0.043 |
| HCM Control Delay (s) | - | - | - | 9.6 |
| HCM Lane LOS | - | - | - | A |
| HCM 95th %tile Q(veh) | - | - | - | 0.1 |

Year 2022 Build Traffic Volumes
10: NYS Route 22 & I-684 SB On/Off Ramp

Weekday Peak AM Hour
02/20/2019

| |  | | | | | | | | | | |
|----------------------------|--|------|-------|------|------|-------|-------|------|-------|------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SBL2 | SBL | SBR | NWL | NWR |
| Lane Configurations | | ↑↑ | ↑ | | ↑↑ | ↑ | ↑ | | ↑ | | |
| Traffic Volume (vph) | 0 | 564 | 265 | 0 | 884 | 291 | 309 | 0 | 910 | 0 | 0 |
| Future Volume (vph) | 0 | 564 | 265 | 0 | 884 | 291 | 309 | 0 | 910 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 16 | 16 | 16 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | 0% | |
| Storage Length (ft) | 0 | | 275 | 0 | | 0 | | 200 | 0 | 0 | 0 |
| Storage Lanes | 0 | | 1 | 0 | | 1 | | 1 | 1 | 0 | 0 |
| Taper Length (ft) | 25 | | | 25 | | | | 25 | | 25 | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | |
| Flt Protected | | | | | | | 0.950 | | | | |
| Satd. Flow (prot) | 0 | 3343 | 1468 | 0 | 3471 | 1553 | 2046 | 0 | 1812 | 0 | 0 |
| Flt Permitted | | | | | | | 0.950 | | | | |
| Satd. Flow (perm) | 0 | 3343 | 1468 | 0 | 3471 | 1553 | 2046 | 0 | 1812 | 0 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | |
| Satd. Flow (RTOR) | | | 279 | | | 269 | | | 398 | | |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | 30 | |
| Link Distance (ft) | | 796 | | | 930 | | | 572 | | 532 | |
| Travel Time (s) | | 9.9 | | | 11.5 | | | 13.0 | | 12.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 8% | 10% | 0% | 4% | 4% | 0% | 3% | 1% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | 0% | |
| Adj. Flow (vph) | 0 | 594 | 279 | 0 | 931 | 306 | 325 | 0 | 958 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 594 | 279 | 0 | 931 | 306 | 325 | 0 | 958 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 16 | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.85 | 0.85 | 0.85 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | 15 | 9 | 15 | 9 |
| Number of Detectors | | 3 | 1 | | 3 | 1 | 1 | | 1 | | |
| Detector Template | | | | | | | Left | | | | |
| Leading Detector (ft) | | 199 | 0 | | 199 | 0 | 20 | | 0 | | |
| Trailing Detector (ft) | | -5 | 0 | | -5 | 0 | 0 | | 0 | | |
| Turn Type | | NA | Free | | NA | Free | Perm | | Free | | |
| Protected Phases | | 6 | | | 2 | | | | | | |
| Permitted Phases | | | Free | | | Free | 3 | | Free | | |
| Detector Phase | | 6 | | | 2 | | 3 | | | | |
| Switch Phase | | | | | | | | | | | |

Year 2022 Build Traffic Volumes
10: NYS Route 22 & I-684 SB On/Off Ramp

Weekday Peak AM Hour
02/20/2019

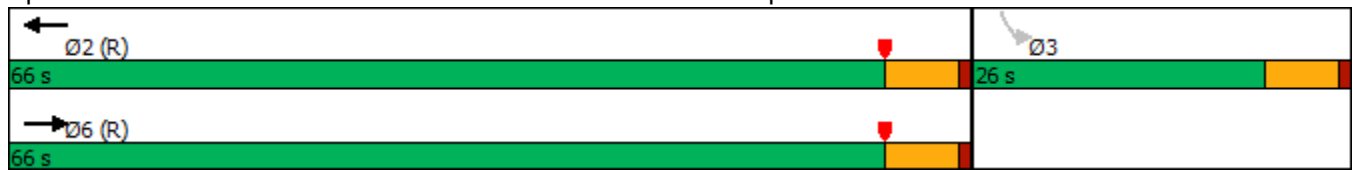


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SBL2 | SBL | SBR | NWL | NWR |
|-------------------------|-----|-------|------|-----|-------|------|-------|------|------|-----|-----|
| Minimum Initial (s) | | 10.0 | | | 10.0 | | 3.0 | | | | |
| Minimum Split (s) | | 56.0 | | | 56.0 | | 21.0 | | | | |
| Total Split (s) | | 66.0 | | | 66.0 | | 26.0 | | | | |
| Total Split (%) | | 71.7% | | | 71.7% | | 28.3% | | | | |
| Maximum Green (s) | | 60.0 | | | 60.0 | | 20.0 | | | | |
| Yellow Time (s) | | 5.0 | | | 5.0 | | 5.0 | | | | |
| All-Red Time (s) | | 1.0 | | | 1.0 | | 1.0 | | | | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | | | | |
| Lead/Lag | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Vehicle Extension (s) | | 2.0 | | | 2.0 | | 2.0 | | | | |
| Minimum Gap (s) | | 0.2 | | | 0.2 | | 0.2 | | | | |
| Time Before Reduce (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Time To Reduce (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Recall Mode | | C-Min | | | C-Min | | None | | | | |
| Walk Time (s) | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | |
| Act Effct Green (s) | | 61.1 | 92.0 | | 61.1 | 92.0 | 18.9 | | 92.0 | | |
| Actuated g/C Ratio | | 0.66 | 1.00 | | 0.66 | 1.00 | 0.21 | | 1.00 | | |
| v/c Ratio | | 0.27 | 0.19 | | 0.40 | 0.20 | 0.77 | | 0.53 | | |
| Control Delay | | 7.3 | 0.3 | | 8.3 | 0.3 | 46.9 | | 1.1 | | |
| Queue Delay | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | |
| Total Delay | | 7.3 | 0.3 | | 8.3 | 0.3 | 46.9 | | 1.1 | | |
| LOS | | A | A | | A | A | D | | A | | |
| Approach Delay | | 5.0 | | | 6.3 | | | 12.7 | | | |
| Approach LOS | | A | | | A | | | B | | | |
| Queue Length 50th (ft) | | 66 | 0 | | 116 | 0 | 180 | | 0 | | |
| Queue Length 95th (ft) | | 111 | 0 | | 186 | 0 | 253 | | 0 | | |
| Internal Link Dist (ft) | | 716 | | | 850 | | | 492 | | 452 | |
| Turn Bay Length (ft) | | | 275 | | | | 200 | | | | |
| Base Capacity (vph) | | 2265 | 1468 | | 2351 | 1553 | 472 | | 1812 | | |
| Starvation Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Spillback Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Storage Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Reduced v/c Ratio | | 0.26 | 0.19 | | 0.40 | 0.20 | 0.69 | | 0.53 | | |

Intersection Summary

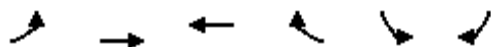
Area Type: Other
Cycle Length: 92
Actuated Cycle Length: 92
Offset: 60 (65%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 8.4
Intersection Capacity Utilization 49.9%
Analysis Period (min) 15
Intersection LOS: A
ICU Level of Service A

Splits and Phases: 10: NYS Route 22 & I-684 SB On/Off Ramp

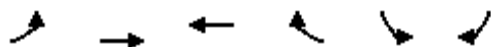


Year 2022 Build Traffic Volumes
11: NYS Route 22 & I-684 NB On/Off Ramp

Weekday Peak AM Hour
02/20/2019



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|-------|------|------|-------|------|-------|
| Lane Configurations | ↖↗ | ↑↑ | ↑↑ | ↖ | | ↖ |
| Traffic Volume (vph) | 174 | 887 | 813 | 80 | 0 | 361 |
| Future Volume (vph) | 174 | 887 | 813 | 80 | 0 | 361 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 400 | | | 400 | 1 | 0 |
| Storage Lanes | 2 | | | 1 | 0 | 1 |
| Taper Length (ft) | 300 | | | | 25 | |
| Lane Util. Factor | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.865 |
| Flt Protected | 0.950 | | | | | |
| Satd. Flow (prot) | 3273 | 3406 | 3471 | 1509 | 0 | 1580 |
| Flt Permitted | 0.950 | | | | | |
| Satd. Flow (perm) | 3273 | 3406 | 3471 | 1509 | 0 | 1580 |
| Right Turn on Red | | | | No | | Yes |
| Satd. Flow (RTOR) | | | | | | 540 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 287 | 1186 | | 622 | |
| Travel Time (s) | | 3.6 | 14.7 | | 14.1 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 7% | 6% | 4% | 7% | 0% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 179 | 914 | 838 | 82 | 0 | 372 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 179 | 914 | 838 | 82 | 0 | 372 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 24 | 24 | | 0 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Number of Detectors | 2 | 2 | 2 | 2 | | 1 |
| Detector Template | | | | | | |
| Leading Detector (ft) | 83 | 83 | 83 | 83 | | 0 |
| Trailing Detector (ft) | -5 | -5 | -5 | -5 | | 0 |
| Turn Type | Prot | NA | NA | Perm | | Free |
| Protected Phases | 1 | 6 | 2 | | | |
| Permitted Phases | | | | 2 | | Free |
| Detector Phase | 1 | 6 | 2 | 2 | | |
| Switch Phase | | | | | | |



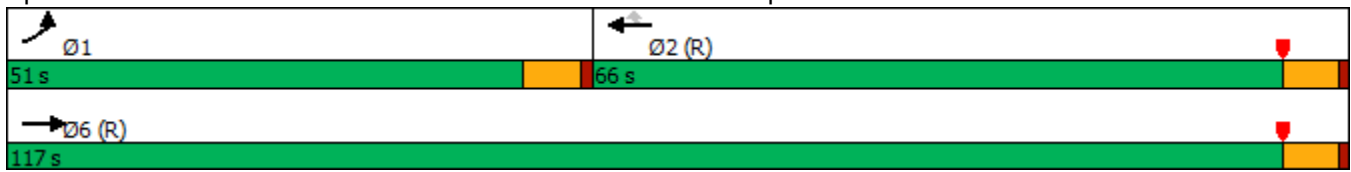
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|-------|--------|-------|-------|-----|-------|
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | | |
| Minimum Split (s) | 41.0 | 56.0 | 56.0 | 56.0 | | |
| Total Split (s) | 51.0 | 117.0 | 66.0 | 66.0 | | |
| Total Split (%) | 43.6% | 100.0% | 56.4% | 56.4% | | |
| Maximum Green (s) | 45.0 | 111.0 | 60.0 | 60.0 | | |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | | |
| Lead/Lag | Lead | | Lag | Lag | | |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | |
| Vehicle Extension (s) | 2.0 | 2.0 | 2.0 | 2.0 | | |
| Minimum Gap (s) | 0.2 | 0.2 | 0.2 | 0.2 | | |
| Time Before Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Time To Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Recall Mode | None | C-Min | C-Min | C-Min | | |
| Walk Time (s) | | | | | | |
| Flash Dont Walk (s) | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | |
| Act Effct Green (s) | 10.9 | 117.0 | 94.1 | 94.1 | | 117.0 |
| Actuated g/C Ratio | 0.09 | 1.00 | 0.80 | 0.80 | | 1.00 |
| v/c Ratio | 0.59 | 0.27 | 0.30 | 0.07 | | 0.24 |
| Control Delay | 58.4 | 0.2 | 3.4 | 2.8 | | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 58.4 | 0.2 | 3.4 | 2.8 | | 0.4 |
| LOS | E | A | A | A | | A |
| Approach Delay | | 9.7 | 3.4 | | 0.4 | |
| Approach LOS | | A | A | | A | |
| Queue Length 50th (ft) | 68 | 0 | 68 | 10 | | 0 |
| Queue Length 95th (ft) | 102 | 0 | 103 | 23 | | 0 |
| Internal Link Dist (ft) | | 207 | 1106 | | 542 | |
| Turn Bay Length (ft) | 400 | | | 400 | | |
| Base Capacity (vph) | 1258 | 3406 | 2790 | 1213 | | 1580 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.14 | 0.27 | 0.30 | 0.07 | | 0.24 |

Intersection Summary

Area Type: Other
Cycle Length: 117
Actuated Cycle Length: 117
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 5.8
Intersection Capacity Utilization 37.4%
Analysis Period (min) 15










Intersection LOS: A
ICU Level of Service A

Splits and Phases: 11: NYS Route 22 & I-684 NB On/Off Ramp



Year 2022 Build Traffic Volumes
12: NORTH CASTLE DRIVE (IBM) & Proposed Site Driveway

Weekday Peak AM Hour
02/20/2019

| |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  | |  | | |  |
| Traffic Volume (vph) | 0 | 74 | 24 | 0 | 44 | 548 |
| Future Volume (vph) | 0 | 74 | 24 | 0 | 44 | 548 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | 0% | | | 0% |
| Storage Length (ft) | 0 | 0 | | 0 | 0 | |
| Storage Lanes | 1 | 0 | | 0 | 0 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.865 | | | | | |
| Flt Protected | | | | | | 0.996 |
| Satd. Flow (prot) | 1611 | 0 | 3539 | 0 | 0 | 1855 |
| Flt Permitted | | | | | | 0.996 |
| Satd. Flow (perm) | 1611 | 0 | 3539 | 0 | 0 | 1855 |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 235 | | 679 | | | 299 |
| Travel Time (s) | 5.3 | | 15.4 | | | 6.8 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | 0% | | | 0% |
| Adj. Flow (vph) | 0 | 80 | 26 | 0 | 48 | 596 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 80 | 0 | 26 | 0 | 0 | 644 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 0 | | | 0 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Sign Control | Stop | | Free | | | Free |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Control Type: | Unsignalized | | | | | |
| Intersection Capacity Utilization | 49.2% | | | ICU Level of Service A | | |
| Analysis Period (min) | 15 | | | | | |

Year 2022 Build Traffic Volumes
12: NORTH CASTLE DRIVE (IBM) & Proposed Site Driveway

Weekday Peak AM Hour
02/20/2019

Intersection

Int Delay, s/veh 1.4

Movement WBL WBR NBT NBR SBL SBT

Lane Configurations 

Traffic Vol, veh/h 0 74 24 0 44 548

Future Vol, veh/h 0 74 24 0 44 548

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage 0# - 0 - - 0

Grade, % 0 - 0 - - 0

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 80 26 0 48 596

Major/Minor Minor1 Major1 Major2

Conflicting Flow All 718 13 0 0 26 0

Stage 1 26 - - - - -

Stage 2 692 - - - - -

Critical Hdwy 6.63 6.93 - - 4.13 -

Critical Hdwy Stg 1 5.83 - - - - -

Critical Hdwy Stg 2 5.43 - - - - -

Follow-up Hdwy 3.519 3.319 - - 2.219 -

Pot Cap-1 Maneuve 879 1064 - - 1587 -

Stage 1 993 - - - - -

Stage 2 496 - - - - -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuve 862 1064 - - 1587 -

Mov Cap-2 Maneuve 862 - - - - -

Stage 1 948 - - - - -

Stage 2 496 - - - - -

Approach WB NB SB

HCM Control Delay, s 8.7 0 0.5

HCM LOS A

Minor Lane/Major Mvmt NBT NBR WBLn1 SBL SBT

Capacity (veh/h) - - 1064 1587 -

HCM Lane V/C Ratio - - 0.076 0.03 -























HCM Control Delay (s) - - 8.7 7.3 0

HCM Lane LOS - - A A A

HCM 95th %tile Q(veh) - - 0.2 0.1 -













Year 2022 Build Traffic Volumes
1: NYS Route 22 & Old Post Road/Old Route 22

Weekday Peak PM Hour
02/20/2019

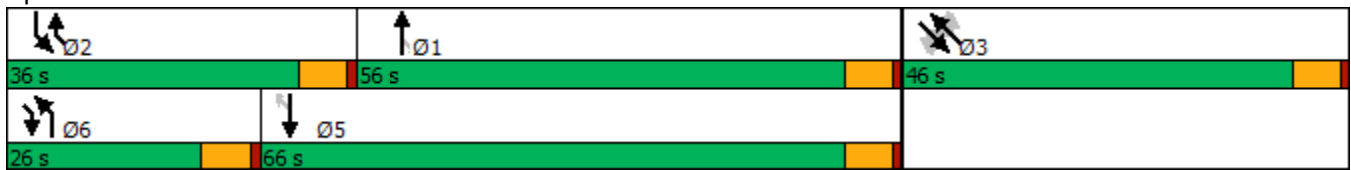
| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
| Lane Configurations |  |  |  |  |  |  | |  |  | |  |  |
| Traffic Volume (vph) | 88 | 862 | 7 | 14 | 1026 | 24 | 48 | 4 | 132 | 76 | 9 | 133 |
| Future Volume (vph) | 88 | 862 | 7 | 14 | 1026 | 24 | 48 | 4 | 132 | 76 | 9 | 133 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 11 | 12 | 12 | 11 | 11 | 11 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 350 | | 230 | 315 | | 155 | 0 | | 150 | 0 | | 125 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 0 | | 1 | 0 | | 1 |
| Taper Length (ft) | 86 | | | 86 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 1.00 | | | | | 0.98 | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.956 | | | 0.957 | |
| Satd. Flow (prot) | 1805 | 3574 | 1417 | 1517 | 3574 | 1615 | 0 | 1756 | 1546 | 0 | 1818 | 1583 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.680 | | | 0.710 | |
| Satd. Flow (perm) | 1804 | 3574 | 1417 | 1517 | 3574 | 1581 | 0 | 1249 | 1546 | 0 | 1349 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | No | | | Yes |
| Satd. Flow (RTOR) | | | 119 | | | 71 | | | | | | 41 |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | | 30 | |
| Link Distance (ft) | | 2626 | | | 1235 | | | 276 | | | 807 | |
| Travel Time (s) | | 32.6 | | | 15.3 | | | 6.3 | | | 18.3 | |
| Confl. Peds. (#/hr) | 1 | | | | | 1 | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 1% | 14% | 15% | 1% | 0% | 0% | 0% | 1% | 0% | 0% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 90 | 880 | 7 | 14 | 1047 | 24 | 49 | 4 | 135 | 78 | 9 | 136 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 90 | 880 | 7 | 14 | 1047 | 24 | 0 | 53 | 135 | 0 | 87 | 136 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 20 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.04 | 1.00 | 1.00 | 1.04 | 1.04 | 1.04 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 |
| Detector Template | | | | | | | Left | | | Left | | |
| Leading Detector (ft) | 83 | 0 | 0 | 83 | 0 | 0 | 20 | 83 | 83 | 20 | 83 | 83 |
| Trailing Detector (ft) | -5 | 0 | 0 | -5 | 0 | 0 | 0 | -5 | -5 | 0 | -5 | -5 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA pm+ov | Perm | NA pm+ov | Perm | NA pm+ov |
| Protected Phases | 6 | 1 | | 2 | 5 | | | 3 | 6 | | 3 | 2 |
| Permitted Phases | | | 1 | | | 5 | 3 | | 3 | 3 | | 3 |
| Detector Phase | 6 | 1 | 1 | 2 | 5 | 5 | 3 | 3 | 6 | 3 | 3 | 2 |
| Switch Phase | | | | | | | | | | | | |
























Year 2022 Build Traffic Volumes
1: NYS Route 22 & Old Post Road/Old Route 22













Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
| Minimum Initial (s) | 2.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 | 5.0 |
| Minimum Split (s) | 20.0 | 56.0 | 56.0 | 26.0 | 56.0 | 56.0 | 33.0 | 33.0 | 20.0 | 33.0 | 33.0 | 26.0 |
| Total Split (s) | 26.0 | 56.0 | 56.0 | 36.0 | 66.0 | 66.0 | 46.0 | 46.0 | 26.0 | 46.0 | 46.0 | 36.0 |
| Total Split (%) | 18.8% | 40.6% | 40.6% | 26.1% | 47.8% | 47.8% | 33.3% | 33.3% | 18.8% | 33.3% | 33.3% | 26.1% |
| Maximum Green (s) | 20.0 | 50.0 | 50.0 | 30.0 | 60.0 | 60.0 | 40.0 | 40.0 | 20.0 | 40.0 | 40.0 | 30.0 |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | | | Lead | | | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | | | Yes | | | Yes |
| Vehicle Extension (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Minimum Gap (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Time Before Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None | None |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 9.4 | 63.8 | 63.8 | 5.8 | 60.1 | 60.1 | | 11.9 | 27.3 | | 11.9 | 23.7 |
| Actuated g/C Ratio | 0.09 | 0.64 | 0.64 | 0.06 | 0.60 | 0.60 | | 0.12 | 0.27 | | 0.12 | 0.24 |
| v/c Ratio | 0.53 | 0.38 | 0.01 | 0.16 | 0.48 | 0.02 | | 0.36 | 0.32 | | 0.54 | 0.33 |
| Control Delay | 54.7 | 9.4 | 0.0 | 50.4 | 12.6 | 0.0 | | 48.0 | 30.5 | | 54.8 | 24.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 54.7 | 9.4 | 0.0 | 50.4 | 12.6 | 0.0 | | 48.0 | 30.5 | | 54.8 | 24.1 |
| LOS | D | A | A | D | B | A | | D | C | | D | C |
| Approach Delay | | 13.5 | | | 12.8 | | | 35.4 | | | 36.1 | |
| Approach LOS | | B | | | B | | | D | | | D | |
| Queue Length 50th (ft) | 54 | 121 | 0 | 9 | 174 | 0 | | 31 | 68 | | 53 | 49 |
| Queue Length 95th (ft) | 109 | 191 | 0 | 30 | 282 | 0 | | 72 | 118 | | 106 | 103 |
| Internal Link Dist (ft) | | 2546 | | | 1155 | | | 196 | | | 727 | |
| Turn Bay Length (ft) | 350 | | 230 | 315 | | 155 | | | 150 | | | 125 |
| Base Capacity (vph) | 363 | 2291 | 951 | 458 | 2159 | 983 | | 502 | 589 | | 543 | 784 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.25 | 0.38 | 0.01 | 0.03 | 0.48 | 0.02 | | 0.11 | 0.23 | | 0.16 | 0.17 |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: | 138 | | | | | | | | | | | |
| Actuated Cycle Length: | 99.5 | | | | | | | | | | | |
| Natural Cycle: | 115 | | | | | | | | | | | |
| Control Type: | Semi Act-Uncoord | | | | | | | | | | | |
| Maximum v/c Ratio: | 0.54 | | | | | | | | | | | |
| Intersection Signal Delay: | 16.9 | | | | | Intersection LOS: B | | | | | | |
| Intersection Capacity Utilization | 59.9% | | | | | ICU Level of Service B | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |

Splits and Phases: 1: NYS Route 22 & Old Post Road/Old Route 22



| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  | |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 146 | 32 | 346 | 169 | 6 | 204 | 301 | 707 | 35 | 63 | 714 | 123 |
| Future Volume (vph) | 146 | 32 | 346 | 169 | 6 | 204 | 301 | 707 | 35 | 63 | 714 | 123 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 15 | 12 | 11 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 225 | 0 | | 250 | 680 | | 250 | 400 | | 250 |
| Storage Lanes | 1 | | 1 | 0 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 86 | | | 86 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | 1.00 | | | | | 0.98 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.954 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 1900 | 1615 | 0 | 1956 | 1615 | 1711 | 3574 | 1324 | 1805 | 3539 | 1599 |
| Flt Permitted | 0.545 | | | | 0.710 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1015 | 1900 | 1615 | 0 | 1456 | 1615 | 1709 | 3574 | 1324 | 1805 | 3539 | 1565 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 349 | | | 206 | | | 71 | | | 124 |
| Link Speed (mph) | | 30 | | | 30 | | | 55 | | | 55 | |
| Link Distance (ft) | | 298 | | | 237 | | | 1202 | | | 815 | |
| Travel Time (s) | | 6.8 | | | 5.4 | | | 14.9 | | | 10.1 | |
| Confl. Peds. (#/hr) | | | | | | | 1 | | | | | 1 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 0% | 0% | 2% | 0% | 0% | 2% | 1% | 22% | 0% | 2% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 147 | 32 | 349 | 171 | 6 | 206 | 304 | 714 | 35 | 64 | 721 | 124 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 147 | 32 | 349 | 0 | 177 | 206 | 304 | 714 | 35 | 64 | 721 | 124 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.88 | 1.00 | 1.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 |
| Detector Template | | | | Left | | | | | | | | |
| Leading Detector (ft) | 6 | 6 | 6 | 20 | 43 | 6 | 83 | 6 | 6 | 83 | 6 | 6 |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | -5 | 0 | 0 | -5 | 0 | 0 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | | 3 | | | 3 | | 6 | 1 | | 2 | 5 | |
| Permitted Phases | 3 | | 3 | 3 | | 3 | | | 1 | | | 5 |
| Detector Phase | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 1 | 1 | 2 | 5 | 5 |
| Switch Phase | | | | | | | | | | | | |

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | NEL | NET | NER | SWL | SWT | SWR |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 | 2.0 | 10.0 | 10.0 |
| Minimum Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 16.0 | 56.0 | 56.0 | 16.0 | 56.0 | 56.0 |
| Total Split (s) | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 36.0 | 56.0 | 56.0 | 36.0 | 56.0 | 56.0 |
| Total Split (%) | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 26.1% | 40.6% | 40.6% | 26.1% | 40.6% | 40.6% |
| Maximum Green (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 30.0 | 50.0 | 50.0 | 30.0 | 50.0 | 50.0 |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 2.0 | 6.0 | 6.0 | 2.0 | 6.0 | 6.0 |
| Minimum Gap (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 | 3.0 | 3.0 | 2.0 | 4.0 | 4.0 |
| Time Before Reduce (s) | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 0.0 | 20.0 | 20.0 | 0.0 | 20.0 | 20.0 |
| Time To Reduce (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 0.0 | 10.0 | 10.0 | 0.0 | 10.0 | 10.0 |
| Recall Mode | Min | Min | Min | Min | Min | Min | None | Max | Max | None | Max | Max |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 28.2 | 28.2 | 28.2 | | 28.2 | 28.2 | 25.1 | 69.5 | 69.5 | 8.9 | 50.6 | 50.6 |
| Actuated g/C Ratio | 0.23 | 0.23 | 0.23 | | 0.23 | 0.23 | 0.21 | 0.57 | 0.57 | 0.07 | 0.41 | 0.41 |
| v/c Ratio | 0.63 | 0.07 | 0.54 | | 0.53 | 0.39 | 0.87 | 0.35 | 0.04 | 0.49 | 0.49 | 0.17 |
| Control Delay | 55.2 | 37.1 | 7.2 | | 47.3 | 7.1 | 71.7 | 17.0 | 0.4 | 69.7 | 29.7 | 5.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 55.2 | 37.1 | 7.2 | | 47.3 | 7.1 | 71.7 | 17.0 | 0.4 | 69.7 | 29.7 | 5.3 |
| LOS | E | D | A | | D | A | E | B | A | E | C | A |
| Approach Delay | | 22.4 | | | 25.7 | | | 32.2 | | | 29.2 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Queue Length 50th (ft) | 107 | 20 | 0 | | 126 | 0 | 240 | 171 | 0 | 52 | 235 | 0 |
| Queue Length 95th (ft) | 184 | 48 | 74 | | 202 | 60 | #407 | 262 | 3 | 104 | 334 | 43 |
| Internal Link Dist (ft) | | 218 | | | 157 | | | 1122 | | | 735 | |
| Turn Bay Length (ft) | | | 225 | | | 250 | 680 | | 250 | 400 | | 250 |
| Base Capacity (vph) | 336 | 629 | 768 | | 482 | 672 | 425 | 2033 | 783 | 448 | 1466 | 720 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.44 | 0.05 | 0.45 | | 0.37 | 0.31 | 0.72 | 0.35 | 0.04 | 0.14 | 0.49 | 0.17 |

Intersection Summary

Area Type: Other

Cycle Length: 138

Actuated Cycle Length: 122.1

Natural Cycle: 105

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 28.6

Intersection LOS: C

Intersection Capacity Utilization 67.8%

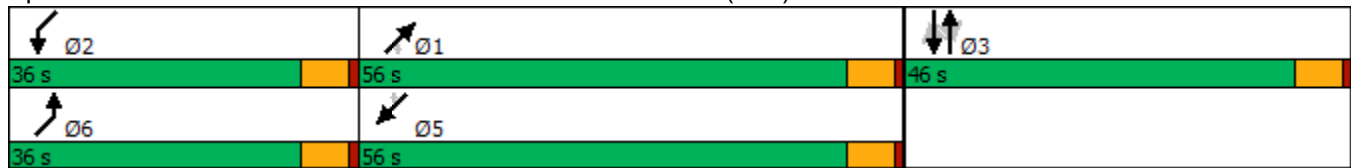
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.























Queue shown is maximum after two cycles.

Splits and Phases: 2: NYS Route 22 & North Castle Drive (IBM)/NYS Route 128















Year 2022 Build Traffic Volumes
3: Business Park Drive/Maple Avenue & NYS Route 22

Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  | |  |  |  |  |  |
| Traffic Volume (vph) | 35 | 1121 | 67 | 127 | 705 | 345 | 146 | 61 | 256 | 331 | 40 | 49 |
| Future Volume (vph) | 35 | 1121 | 67 | 127 | 705 | 345 | 146 | 61 | 256 | 331 | 40 | 49 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 11 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 600 | | 0 | 265 | | 225 | 0 | | 0 | 100 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 0 | | 1 | 1 | | 0 |
| Taper Length (ft) | 86 | | | 86 | | | 25 | | | 86 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | 1.00 | | | 0.99 | |
| Frt | | 0.992 | | | | 0.850 | | | 0.850 | | 0.918 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.966 | | 0.950 | | |
| Satd. Flow (prot) | 1694 | 3548 | 0 | 1662 | 3539 | 1615 | 0 | 1807 | 1615 | 1787 | 1708 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.966 | | 0.950 | | |
| Satd. Flow (perm) | 1694 | 3548 | 0 | 1662 | 3539 | 1615 | 0 | 1805 | 1615 | 1787 | 1708 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 5 | | | | 359 | | | 265 | | 39 | |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | | 30 | |
| Link Distance (ft) | | 561 | | | 541 | | | 577 | | | 575 | |
| Travel Time (s) | | 7.0 | | | 6.7 | | | 13.1 | | | 13.1 | |
| Confl. Peds. (#/hr) | | | | | | | 1 | | | | | 1 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 3% | 1% | 0% | 5% | 2% | 0% | 1% | 3% | 0% | 1% | 3% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 36 | 1168 | 70 | 132 | 734 | 359 | 152 | 64 | 267 | 345 | 42 | 51 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 36 | 1238 | 0 | 132 | 734 | 359 | 0 | 216 | 267 | 345 | 93 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 11 | | | 11 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.04 | 1.00 | 1.00 | 1.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 2 | 2 | | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | |
| Detector Template | | | | | | | Left | | | Left | | |
| Leading Detector (ft) | 83 | 83 | | 83 | 83 | 40 | 50 | 83 | 83 | 83 | 83 | |
| Trailing Detector (ft) | -5 | -5 | | -5 | -5 | 0 | 0 | -5 | -5 | 0 | 0 | |
| Turn Type | Prot | NA | | Prot | NA | Perm | Split | NA | Perm | Split | NA | |
| Protected Phases | 6 | 1 | | 2 | 5 | | 3 | 3 | | 4 | 4 | |
| Permitted Phases | | | | | | 5 | | | 3 | | | |
| Detector Phase | 6 | 1 | | 2 | 5 | 5 | 3 | 3 | 3 | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |

Year 2022 Build Traffic Volumes
3: Business Park Drive/Maple Avenue & NYS Route 22

Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | 15.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | |
| Minimum Split (s) | 9.0 | 21.0 | | 9.0 | 21.0 | 21.0 | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 | |
| Total Split (s) | 26.0 | 56.0 | | 26.0 | 56.0 | 56.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | |
| Total Split (%) | 19.4% | 41.8% | | 19.4% | 41.8% | 41.8% | 19.4% | 19.4% | 19.4% | 19.4% | 19.4% | |
| Maximum Green (s) | 20.0 | 50.0 | | 20.0 | 50.0 | 50.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | |
| Yellow Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | -2.0 | -2.0 | | -2.0 | -2.0 | -2.0 | | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lag | Lag | Lag | Lead | Lead | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | |
| Minimum Gap (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | None | None | None | None | None | None | |
| Walk Time (s) | | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | | |
| Act Effct Green (s) | 9.3 | 47.2 | | 16.1 | 59.1 | 59.1 | | 18.8 | 18.8 | 22.4 | 22.4 | |
| Actuated g/C Ratio | 0.08 | 0.39 | | 0.13 | 0.49 | 0.49 | | 0.16 | 0.16 | 0.19 | 0.19 | |
| v/c Ratio | 0.28 | 0.89 | | 0.60 | 0.42 | 0.37 | | 0.77 | 0.56 | 1.04 | 0.27 | |
| Control Delay | 61.7 | 43.9 | | 62.6 | 22.0 | 3.2 | | 68.9 | 10.8 | 110.1 | 31.1 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 61.7 | 43.9 | | 62.6 | 22.0 | 3.2 | | 68.9 | 10.8 | 110.1 | 31.1 | |
| LOS | E | D | | E | C | A | | E | B | F | C | |
| Approach Delay | | 44.4 | | | 20.8 | | | 36.8 | | | 93.3 | |
| Approach LOS | | D | | | C | | | D | | | F | |
| Queue Length 50th (ft) | 29 | 480 | | 104 | 210 | 0 | | 171 | 1 | ~328 | 39 | |
| Queue Length 95th (ft) | 66 | #631 | | 174 | 280 | 55 | | #287 | 81 | #553 | 95 | |
| Internal Link Dist (ft) | | 481 | | | 461 | | | 497 | | | 495 | |
| Turn Bay Length (ft) | 600 | | | 265 | | 225 | | | | 100 | | |
| Base Capacity (vph) | 314 | 1557 | | 307 | 1757 | 982 | | 334 | 515 | 331 | 348 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.11 | 0.80 | | 0.43 | 0.42 | 0.37 | | 0.65 | 0.52 | 1.04 | 0.27 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: 134 | | | | | | | | | | | | |
| Actuated Cycle Length: 120.6 | | | | | | | | | | | | |
| Natural Cycle: 90 | | | | | | | | | | | | |
| Control Type: Actuated-Uncoordinated | | | | | | | | | | | | |
| Maximum v/c Ratio: 1.04 | | | | | | | | | | | | |
| Intersection Signal Delay: 41.2 | | | | | | | Intersection LOS: D | | | | | |
| Intersection Capacity Utilization 77.3% | | | | | | | ICU Level of Service D | | | | | |
| Analysis Period (min) 15 | | | | | | | | | | | | |
| ~ Volume exceeds capacity, queue is theoretically infinite. | | | | | | | | | | | | |

















Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Business Park Drive/Maple Avenue & NYS Route 22

| | | | |
|--|--|---|--|
|  Ø2 |  Ø1 |  Ø4 |  Ø3 |
| 26 s | 56 s | 26 s | 26 s |
|  Ø6 |  Ø5 | | |
| 26 s | 56 s | | |

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | | |  | | |  | |
| Traffic Volume (vph) | 7 | 16 | 28 | 41 | 32 | 51 | 53 | 356 | 57 | 47 | 292 | 32 |
| Future Volume (vph) | 7 | 16 | 28 | 41 | 32 | 51 | 53 | 356 | 57 | 47 | 292 | 32 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 1% | | | 1% | | | -1% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.925 | | | 0.945 | | | 0.984 | | | 0.988 | |
| Flt Protected | | 0.993 | | | 0.984 | | | 0.994 | | | 0.994 | |
| Satd. Flow (prot) | 0 | 1563 | 0 | 0 | 1582 | 0 | 0 | 1660 | 0 | 0 | 1662 | 0 |
| Flt Permitted | | 0.993 | | | 0.984 | | | 0.994 | | | 0.994 | |
| Satd. Flow (perm) | 0 | 1563 | 0 | 0 | 1582 | 0 | 0 | 1660 | 0 | 0 | 1662 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 231 | | | 878 | | | 1228 | | | 584 | |
| Travel Time (s) | | 5.3 | | | 20.0 | | | 27.9 | | | 13.3 | |
| Confl. Peds. (#/hr) | 20 | | | 1 | | 21 | | | 1 | 21 | | 20 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% | 2% | 1% | 2% | 2% | 1% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 7 | 16 | 29 | 42 | 33 | 52 | 54 | 363 | 58 | 48 | 298 | 33 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 52 | 0 | 0 | 127 | 0 | 0 | 475 | 0 | 0 | 379 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Area Type: CBD

Control Type: Unsignalized

Intersection Capacity Utilization 58.2%

ICU Level of Service B

Analysis Period (min) 15

Year 2022 Build Traffic Volumes
4: NYS Route 128 (Main Street) & Kent Place/Bedford Road

Weekday Peak PM Hour
02/20/2019

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 7 | 16 | 28 | 41 | 32 | 51 | 53 | 356 | 57 | 47 | 292 | 32 |
| Future Vol, veh/h | 7 | 16 | 28 | 41 | 32 | 51 | 53 | 356 | 57 | 47 | 292 | 32 |
| Conflicting Peds, #/hr20 | 0 | 0 | 1 | 0 | 21 | 0 | 0 | 0 | 1 | 21 | 0 | 20 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - | - |
| Grade, % | - | 1 | - | - | 1 | - | - | -1 | - | - | 0 | - |
| Peak Hour Factor | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 2 | 1 | 0 |
| Mvmt Flow | 7 | 16 | 29 | 42 | 33 | 52 | 54 | 363 | 58 | 48 | 298 | 33 |


















| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-----|--------|-----|--------|-----|--------|---|---|-------|---|---|
| Conflicting Flow All | 995 | 981 | 336 | 955 | 968 | 434 | 351 | 0 | 0 | 442 | 0 | 0 |
| Stage 1 | 431 | 431 | - | 521 | 521 | - | - | - | - | - | - | - |
| Stage 2 | 564 | 550 | - | 434 | 447 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.3 | 6.7 | 6.3 | 7.3 | 6.7 | 6.3 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.3 | 5.7 | - | 6.3 | 5.7 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.3 | 5.7 | - | 6.3 | 5.7 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 213 | 238 | 704 | 228 | 242 | 619 | 1208 | - | - | 1118 | - | - |
| Stage 1 | 592 | 572 | - | 527 | 520 | - | - | - | - | - | - | - |
| Stage 2 | 498 | 504 | - | 590 | 563 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 152 | 204 | 692 | 185 | 208 | 598 | 1188 | - | - | 1098 | - | - |
| Mov Cap-2 Maneuver | 152 | 204 | - | 185 | 208 | - | - | - | - | - | - | - |
| Stage 1 | 547 | 532 | - | 487 | 480 | - | - | - | - | - | - | - |
| Stage 2 | 391 | 466 | - | 518 | 524 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|----|------|-----|-----|
| HCM Control Delay, s | 19 | 29.7 | 0.9 | 1.1 |
| HCM LOS | C | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1188 | - | - | 309 | 269 | 1098 | - | - |
| HCM Lane V/C Ratio | 0.046 | - | - | 0.168 | 0.47 | 0.044 | - | - |
| HCM Control Delay (s) | 8.2 | 0 | - | 19 | 29.7 | 8.4 | 0 | - |
| HCM Lane LOS | A | A | - | C | D | A | A | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.6 | 2.4 | 0.1 | - | - |













Year 2022 Build Traffic Volumes
5: Maple Avenue & Bedford Road

Weekday Peak PM Hour
02/20/2019

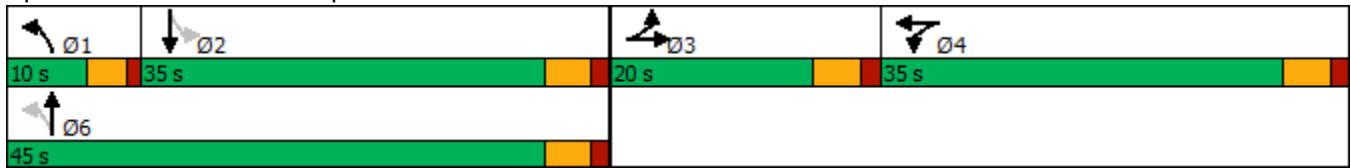
| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | | |  | |
| Traffic Volume (vph) | 7 | 15 | 149 | 83 | 25 | 22 | 137 | 272 | 32 | 11 | 187 | 8 |
| Future Volume (vph) | 7 | 15 | 149 | 83 | 25 | 22 | 137 | 272 | 32 | 11 | 187 | 8 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 15 | 15 | 15 | 15 | 15 | 15 | 10 | 10 | 10 | 15 | 15 | 15 |
| Grade (%) | | -1% | | | -1% | | | -2% | | | -1% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 50 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 86 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.97 | | | 1.00 | | | | | | | |
| Frt | | 0.883 | | | 0.977 | | | 0.984 | | | 0.995 | |
| Flt Protected | | 0.998 | | | 0.969 | | 0.950 | | | | 0.997 | |
| Satd. Flow (prot) | 0 | 1787 | 0 | 0 | 1976 | 0 | 1702 | 1738 | 0 | 0 | 2033 | 0 |
| Flt Permitted | | 0.998 | | | 0.969 | | 0.462 | | | | 0.971 | |
| Satd. Flow (perm) | 0 | 1787 | 0 | 0 | 1969 | 0 | 827 | 1738 | 0 | 0 | 1980 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 160 | | | 11 | | | 7 | | | 2 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 878 | | | 570 | | | 575 | | | 384 | |
| Travel Time (s) | | 20.0 | | | 13.0 | | | 13.1 | | | 8.7 | |
| Confl. Peds. (#/hr) | | | 3 | 3 | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 1% | 1% | 0% | 0% | 0% | 1% | 5% | 29% | 1% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 8 | 16 | 160 | 89 | 27 | 24 | 147 | 292 | 34 | 12 | 201 | 9 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 184 | 0 | 0 | 140 | 0 | 147 | 326 | 0 | 0 | 222 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 1.08 | 1.08 | 1.08 | 0.88 | 0.88 | 0.88 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turn Type | Split | NA | | Split | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 3 | 3 | | 4 | 4 | | 1 | 6 | | | 2 | |
| Permitted Phases | | | | | | | 6 | | | 2 | 2 | |
| Detector Phase | 3 | 3 | | 4 | 4 | | 1 | 6 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |

















Year 2022 Build Traffic Volumes
5: Maple Avenue & Bedford Road













Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 3.0 | 3.0 | | 10.0 | 10.0 | | 2.0 | 12.0 | | 12.0 | 12.0 | |
| Minimum Split (s) | 8.0 | 8.0 | | 15.0 | 15.0 | | 7.0 | 17.0 | | 17.0 | 17.0 | |
| Total Split (s) | 20.0 | 20.0 | | 35.0 | 35.0 | | 10.0 | 45.0 | | 35.0 | 35.0 | |
| Total Split (%) | 20.0% | 20.0% | | 35.0% | 35.0% | | 10.0% | 45.0% | | 35.0% | 35.0% | |
| Maximum Green (s) | 15.0 | 15.0 | | 30.0 | 30.0 | | 6.0 | 40.0 | | 30.0 | 30.0 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.0 | 3.5 | | 3.5 | 3.5 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.0 | 1.5 | | 1.5 | 1.5 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 4.0 | 5.0 | | | 5.0 | |
| Lead/Lag | Lead | Lead | | Lag | Lag | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | | | Yes | Yes | |
| Vehicle Extension (s) | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | | Max | None | | Min | Min | |
| Walk Time (s) | | | | 7.0 | 7.0 | | | | | | | |
| Flash Dont Walk (s) | | | | 15.0 | 15.0 | | | | | | | |
| Pedestrian Calls (#/hr) | | | | 3 | 3 | | | | | | | |
| Act Effct Green (s) | | 5.7 | | | 12.3 | | 25.2 | 24.2 | | | 13.6 | |
| Actuated g/C Ratio | | 0.11 | | | 0.23 | | 0.47 | 0.45 | | | 0.25 | |
| v/c Ratio | | 0.55 | | | 0.30 | | 0.30 | 0.41 | | | 0.44 | |
| Control Delay | | 14.3 | | | 19.9 | | 13.4 | 14.6 | | | 22.7 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | |
| Total Delay | | 14.3 | | | 19.9 | | 13.4 | 14.6 | | | 22.7 | |
| LOS | | B | | | B | | B | B | | | C | |
| Approach Delay | | 14.3 | | | 19.9 | | | 14.2 | | | 22.7 | |
| Approach LOS | | B | | | B | | | B | | | C | |
| Queue Length 50th (ft) | | 7 | | | 34 | | 25 | 64 | | | 58 | |
| Queue Length 95th (ft) | | 65 | | | 88 | | 84 | 184 | | | 151 | |
| Internal Link Dist (ft) | | 798 | | | 490 | | | 495 | | | 304 | |
| Turn Bay Length (ft) | | | | | | | 50 | | | | | |
| Base Capacity (vph) | | 641 | | | 1174 | | 493 | 1334 | | | 1172 | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.29 | | | 0.12 | | 0.30 | 0.24 | | | 0.19 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Cycle Length: | 100 | | | | | | | | | | | |
| Actuated Cycle Length: | 53.5 | | | | | | | | | | | |
| Natural Cycle: | 50 | | | | | | | | | | | |
| Control Type: | Semi Act-Uncoord | | | | | | | | | | | |
| Maximum v/c Ratio: | 0.55 | | | | | | | | | | | |
| Intersection Signal Delay: | 16.9 | | | | | Intersection LOS: B | | | | | | |
| Intersection Capacity Utilization | 62.9% | | | | | ICU Level of Service B | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |

Splits and Phases: 5: Maple Avenue & Bedford Road



| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | | |  | | |  | |
| Traffic Volume (vph) | 42 | 75 | 53 | 72 | 79 | 187 | 30 | 329 | 51 | 83 | 235 | 6 |
| Future Volume (vph) | 42 | 75 | 53 | 72 | 79 | 187 | 30 | 329 | 51 | 83 | 235 | 6 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | -6% | | | 1% | | | 1% | | | -3% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.99 | | | 0.98 | | | 1.00 | | | 1.00 | |
| Frt | | 0.958 | | | 0.925 | | | 0.983 | | | 0.998 | |
| Flt Protected | | 0.988 | | | 0.989 | | | 0.996 | | | 0.987 | |
| Satd. Flow (prot) | 0 | 1618 | 0 | 0 | 1525 | 0 | 0 | 1645 | 0 | 0 | 1672 | 0 |
| Flt Permitted | | 0.856 | | | 0.895 | | | 0.958 | | | 0.824 | |
| Satd. Flow (perm) | 0 | 1401 | 0 | 0 | 1379 | 0 | 0 | 1582 | 0 | 0 | 1394 | 0 |
| Right Turn on Red | | | Yes | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | 30 | | | | | | | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 410 | | | 373 | | | 584 | | | 389 | |
| Travel Time (s) | | 9.3 | | | 8.5 | | | 13.3 | | | 8.8 | |
| Confl. Peds. (#/hr) | 3 | | 2 | 2 | | 3 | 4 | | 7 | 7 | | 4 |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 4% | 0% | 0% | 0% | 1% | 0% | 1% | 0% | 0% | 3% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 44 | 78 | 55 | 75 | 82 | 195 | 31 | 343 | 53 | 86 | 245 | 6 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 177 | 0 | 0 | 352 | 0 | 0 | 427 | 0 | 0 | 337 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.10 | 1.10 | 1.10 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.12 | 1.12 | 1.12 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | | 20 | 100 | | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |













| |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 50.0 | 50.0 | | 50.0 | 50.0 | |
| Total Split (%) | 37.5% | 37.5% | | 37.5% | 37.5% | | 62.5% | 62.5% | | 62.5% | 62.5% | |
| Maximum Green (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 45.0 | 45.0 | | 45.0 | 45.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Gap (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Time Before Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Time To Reduce (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Recall Mode | None | None | | None | None | | Min | Min | | Min | Min | |
| Walk Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | 13.0 | 13.0 | | 13.0 | 13.0 | | 13.0 | 13.0 | | 13.0 | 13.0 | |
| Pedestrian Calls (#/hr) | 2 | 2 | | 3 | 3 | | 7 | 7 | | 4 | 4 | |
| Act Effct Green (s) | | 18.0 | | | 18.0 | | | 19.3 | | | 19.3 | |
| Actuated g/C Ratio | | 0.38 | | | 0.38 | | | 0.40 | | | 0.40 | |
| v/c Ratio | | 0.33 | | | 0.68 | | | 0.67 | | | 0.60 | |
| Control Delay | | 12.0 | | | 21.6 | | | 18.3 | | | 17.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 12.0 | | | 21.6 | | | 18.3 | | | 17.0 | |
| LOS | | B | | | C | | | B | | | B | |
| Approach Delay | | 12.0 | | | 21.6 | | | 18.3 | | | 17.0 | |
| Approach LOS | | B | | | C | | | B | | | B | |
| Queue Length 50th (ft) | | 27 | | | 77 | | | 89 | | | 68 | |
| Queue Length 95th (ft) | | 81 | | | 197 | | | 202 | | | 160 | |
| Internal Link Dist (ft) | | 330 | | | 293 | | | 504 | | | 309 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 791 | | | 765 | | | 1407 | | | 1240 | |
| Starvation Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.22 | | | 0.46 | | | 0.30 | | | 0.27 | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | CBD | | | | | | | | | | | |
| Cycle Length: 80 | | | | | | | | | | | | |
| Actuated Cycle Length: 48 | | | | | | | | | | | | |
| Natural Cycle: 50 | | | | | | | | | | | | |
| Control Type: Actuated-Uncoordinated | | | | | | | | | | | | |
| Maximum v/c Ratio: 0.68 | | | | | | | | | | | | |
| Intersection Signal Delay: 18.0 | | | | | | Intersection LOS: B | | | | | | |
| Intersection Capacity Utilization 80.0% | | | | | | ICU Level of Service D | | | | | | |
| Analysis Period (min) 15 | | | | | | | | | | | | |







Splits and Phases: 6: NYS Route 128 (Main Street) & Whippoorwill Road/Maple Avenue



Year 2022 Build Traffic Volumes
7: NYS Route 22 & NYS Route 120 (North)

Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|
| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 648 | 680 | 638 | 597 | 278 | 228 |
| Future Volume (vph) | 648 | 680 | 638 | 597 | 278 | 228 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 10 | 10 | 10 | 10 | 10 | 10 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 250 | | | 500 | 250 | 0 |
| Storage Lanes | 1 | | | 1 | 1 | 1 |
| Taper Length (ft) | 86 | | | | 86 | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1685 | 3336 | 3336 | 1507 | 1685 | 1507 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 1685 | 3336 | 3336 | 1507 | 1685 | 1507 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 635 | | 243 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 770 | 1056 | | 861 | |
| Travel Time (s) | | 9.5 | 13.1 | | 19.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 1% | 1% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 689 | 723 | 679 | 635 | 296 | 243 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 689 | 723 | 679 | 635 | 296 | 243 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 10 | 15 | | 10 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Number of Detectors | 1 | 2 | 2 | 1 | 2 | 0 |
| Detector Template | | | | | | |
| Leading Detector (ft) | 35 | 104 | 104 | 0 | 104 | 0 |
| Trailing Detector (ft) | -5 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | Prot | NA | NA | Free | Prot | Free |
| Protected Phases | 2 | 5 | 1 | | 3 | |
| Permitted Phases | | | | Free | | Free |
| Detector Phase | 2 | 5 | 1 | | 3 | |
| Switch Phase | | | | | | |

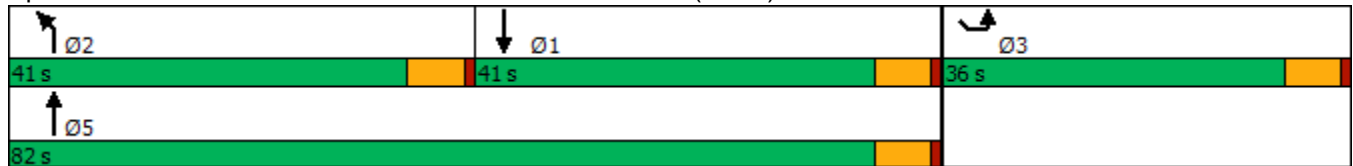
| |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
| Minimum Initial (s) | 12.0 | 12.0 | 12.0 | | 10.0 | |
| Minimum Split (s) | 36.0 | 36.0 | 36.0 | | 26.0 | |
| Total Split (s) | 41.0 | 82.0 | 41.0 | | 36.0 | |
| Total Split (%) | 34.7% | 69.5% | 34.7% | | 30.5% | |
| Maximum Green (s) | 35.0 | 76.0 | 35.0 | | 30.0 | |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | | 5.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | | 6.0 | |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 6.0 | 6.0 | 6.0 | | 6.0 | |
| Minimum Gap (s) | 4.0 | 4.0 | 4.0 | | 4.0 | |
| Time Before Reduce (s) | 20.0 | 20.0 | 20.0 | | 20.0 | |
| Time To Reduce (s) | 8.0 | 8.0 | 8.0 | | 5.0 | |
| Recall Mode | None | Min | Min | | Min | |
| Walk Time (s) | | | | | | |
| Flash Dont Walk (s) | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | |
| Act Effct Green (s) | 35.3 | 71.6 | 30.2 | 109.0 | 25.3 | 109.0 |
| Actuated g/C Ratio | 0.32 | 0.66 | 0.28 | 1.00 | 0.23 | 1.00 |
| v/c Ratio | 1.26 | 0.33 | 0.73 | 0.42 | 0.76 | 0.16 |
| Control Delay | 166.5 | 9.1 | 41.3 | 0.9 | 52.7 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 166.5 | 9.1 | 41.3 | 0.9 | 52.7 | 0.2 |
| LOS | F | A | D | A | D | A |
| Approach Delay | | 85.9 | 21.8 | | 29.0 | |
| Approach LOS | | F | C | | C | |
| Queue Length 50th (ft) | ~638 | 112 | 231 | 0 | 196 | 0 |
| Queue Length 95th (ft) | #925 | 155 | 308 | 0 | 306 | 0 |
| Internal Link Dist (ft) | | 690 | 976 | | 781 | |
| Turn Bay Length (ft) | 250 | | | 500 | 250 | |
| Base Capacity (vph) | 545 | 2344 | 1079 | 1507 | 467 | 1507 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.26 | 0.31 | 0.63 | 0.42 | 0.63 | 0.16 |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Cycle Length: | 118 | | | | | |
| Actuated Cycle Length: | 109 | | | | | |
| Natural Cycle: | 110 | | | | | |
| Control Type: | Actuated-Uncoordinated | | | | | |
| Maximum v/c Ratio: | 1.26 | | | | | |
| Intersection Signal Delay: | 50.7 | | | Intersection LOS: D | | |
| Intersection Capacity Utilization | 83.9% | | | ICU Level of Service E | | |
| Analysis Period (min) | 15 | | | | | |
| ~ Volume exceeds capacity, queue is theoretically infinite. | | | | | | |

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: NYS Route 22 & NYS Route 120 (North)









Year 2022 Build Traffic Volumes
8: NYS Route 22 & NYS Route 120 (South)

Weekday Peak PM Hour
02/20/2019

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|----------------------------|-------|-------|----------|-------|-------|------|
| Lane Configurations | W | W | W | W | W | W |
| Traffic Volume (vph) | 301 | 16 | 525 | 28 | 229 | 636 |
| Future Volume (vph) | 301 | 16 | 525 | 28 | 229 | 636 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 10 | 10 | 11 | 11 |
| Grade (%) | -8% | | -2% | | | -1% |
| Storage Length (ft) | 0 | 0 | | 200 | 215 | |
| Storage Lanes | 1 | 0 | | 1 | 2 | |
| Taper Length (ft) | 25 | | | | 86 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | | | | | |
| Frt | 0.993 | | | 0.850 | | |
| Flt Protected | 0.955 | | | | 0.950 | |
| Satd. Flow (prot) | 1856 | 0 | 3403 | 1464 | 3335 | 3472 |
| Flt Permitted | 0.955 | | | | 0.950 | |
| Satd. Flow (perm) | 1856 | 0 | 3403 | 1464 | 3335 | 3472 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 2 | | | 33 | | |
| Link Speed (mph) | 30 | | 50 | | | 50 |
| Link Distance (ft) | 334 | | 905 | | | 488 |
| Travel Time (s) | 7.6 | | 12.3 | | | 6.7 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 0% | 0% | 4% | 2% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | 0% | | | 0% |
| Adj. Flow (vph) | 354 | 19 | 618 | 33 | 269 | 748 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 373 | 0 | 618 | 33 | 269 | 748 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 22 | | | 22 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 0.95 | 0.95 | 1.08 | 1.08 | 1.04 | 1.04 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Number of Detectors | 1 | | 2 | 1 | 1 | 2 |
| Detector Template | Left | | Thru | Right | Left | Thru |
| Leading Detector (ft) | 20 | | 100 | 20 | 20 | 100 |
| Trailing Detector (ft) | 0 | | 0 | 0 | 0 | 0 |
| Turn Type | Prot | | NA pm+ov | | Prot | NA |
| Protected Phases | 8 | | 2 | 8 | 1 | 6 |
| Permitted Phases | | | | 2 | | |
| Detector Phase | 8 | | 2 | 8 | 1 | 6 |
| Switch Phase | | | | | | |

Year 2022 Build Traffic Volumes
8: NYS Route 22 & NYS Route 120 (South)

Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Minimum Initial (s) | 10.0 | | 12.0 | 10.0 | 12.0 | 12.0 |
| Minimum Split (s) | 26.0 | | 36.0 | 26.0 | 36.0 | 36.0 |
| Total Split (s) | 27.0 | | 43.0 | 27.0 | 48.0 | 91.0 |
| Total Split (%) | 22.9% | | 36.4% | 22.9% | 40.7% | 77.1% |
| Maximum Green (s) | 21.0 | | 37.0 | 21.0 | 42.0 | 85.0 |
| Yellow Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Minimum Gap (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Time Before Reduce (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Time To Reduce (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Recall Mode | None | | Min | None | Min | Min |
| Walk Time (s) | 5.0 | | 5.0 | 5.0 | | 5.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | 11.0 | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | | 0 |
| Act Effct Green (s) | 21.1 | | 18.4 | 45.6 | 12.8 | 37.2 |
| Actuated g/C Ratio | 0.30 | | 0.26 | 0.65 | 0.18 | 0.53 |
| v/c Ratio | 0.67 | | 0.69 | 0.03 | 0.44 | 0.41 |
| Control Delay | 30.1 | | 27.9 | 1.9 | 29.0 | 10.5 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 30.1 | | 27.9 | 1.9 | 29.0 | 10.5 |
| LOS | C | | C | A | C | B |
| Approach Delay | 30.1 | | 26.6 | | | 15.4 |
| Approach LOS | C | | C | | | B |
| Queue Length 50th (ft) | 137 | | 124 | 0 | 54 | 94 |
| Queue Length 95th (ft) | #250 | | 172 | 7 | 89 | 118 |
| Internal Link Dist (ft) | 254 | | 825 | | | 408 |
| Turn Bay Length (ft) | | | | 200 | 215 | |
| Base Capacity (vph) | 558 | | 1798 | 959 | 2001 | 3472 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.67 | | 0.34 | 0.03 | 0.13 | 0.22 |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Cycle Length: | 118 | | | | | |
| Actuated Cycle Length: | 70.4 | | | | | |
| Natural Cycle: | 100 | | | | | |
| Control Type: | Semi Act-Uncoord | | | | | |
| Maximum v/c Ratio: | 0.69 | | | | | |
| Intersection Signal Delay: | 21.7 | | | Intersection LOS: C | | |
| Intersection Capacity Utilization | 57.2% | | | ICU Level of Service B | | |
| Analysis Period (min) | 15 | | | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | | | | |














Queue shown is maximum after two cycles.

Splits and Phases: 8: NYS Route 22 & NYS Route 120 (South)



Year 2022 Build Traffic Volumes
9: King Street & Old Post Road

Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |  |  |  |  |  | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | |  | | |  | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 0 | 50 | 7 | 15 | 780 | 29 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 0 | 0 | 0 | 50 | 7 | 15 | 780 | 29 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 13 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | -5% | | | -7% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | 0.983 | | | 0.995 | | | | |
| Flt Protected | | | | | | | | 0.999 | | | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 1850 | 0 | 0 | 1998 | 0 | 0 | 0 | 0 |
| Flt Permitted | | | | | | | | 0.999 | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 1850 | 0 | 0 | 1998 | 0 | 0 | 0 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 63 | | | 297 | | | 300 | | | 404 | |
| Travel Time (s) | | 1.4 | | | 6.8 | | | 6.8 | | | 9.2 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 4% | 0% | 0% | 1% | 4% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 0 | 0 | 0 | 0 | 62 | 9 | 19 | 963 | 36 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 71 | 0 | 0 | 1018 | 0 | 0 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 0.97 | 0.97 | 0.97 | 0.96 | 0.92 | 0.96 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Stop | | | Stop | | | Free | | | Stop | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |
| Intersection Capacity Utilization | 53.6% | | | | ICU Level of Service A | | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | | | ↑ | | ↑ | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 50 | 7 | 15 | 780 | 29 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 50 | 7 | 15 | 780 | 29 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | 2 | - | - | - | 0 | - | - | 0 | - | -16 | 965 | - |
| Grade, % | - | 0 | - | - | -5 | - | - | -7 | - | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 4 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 62 | 9 | 19 | 963 | 36 | 0 | 0 | 0 |


| Major/Minor | Minor1 | | Major1 | |
|----------------------|--------|-------|--------|---------|
| Conflicting Flow All | - | 1019 | 981 | 0 0 0 |
| Stage 1 | - | 1019 | - | - - - |
| Stage 2 | - | 0 | - | - - - |
| Critical Hdwy | - | 5.54 | 5.7 | 4.1 - - |
| Critical Hdwy Stg 1 | - | 4.54 | - | - - - |
| Critical Hdwy Stg 2 | - | - | - | - - - |
| Follow-up Hdwy | - | 4.036 | 3.3 | 2.2 - - |
| Pot Cap-1 Maneuver | 0 | 312 | 350 | - - - |
| Stage 1 | 0 | 414 | - | - - - |
| Stage 2 | 0 | - | - | - - - |
| Platoon blocked, % | | | | - - |
| Mov Cap-1 Maneuver | - | 0 | 350 | - - - |
| Mov Cap-2 Maneuver | - | 0 | - | - - - |
| Stage 1 | - | 0 | - | - - - |
| Stage 2 | - | 0 | - | - - - |

| Approach | WB | NB |
|----------------------|------|----|
| HCM Control Delay, s | 17.9 | |
| HCM LOS | C | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | WBLn1 |
|-----------------------|-----|-----|-----|-------|
| Capacity (veh/h) | - | - | - | 350 |
| HCM Lane V/C Ratio | - | - | - | 0.201 |
| HCM Control Delay (s) | - | - | - | 17.9 |
| HCM Lane LOS | - | - | - | C |
| HCM 95th %tile Q(veh) | - | - | - | 0.7 |

Year 2022 Build Traffic Volumes
10: NYS Route 22 & I-684 SB On/Off Ramp

Weekday Peak PM Hour
02/20/2019

| |  | | | | | | | | | | |
|----------------------------|--|------|-------|------|------|-------|-------|------|-------|------|-------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SBL2 | SBL | SBR | NWL | NWR |
| Lane Configurations | | ↑↑ | ↑ | | ↑↑ | ↑ | ↑ | | ↑ | | |
| Traffic Volume (vph) | 0 | 1404 | 304 | 0 | 908 | 128 | 65 | 0 | 268 | 0 | 0 |
| Future Volume (vph) | 0 | 1404 | 304 | 0 | 908 | 128 | 65 | 0 | 268 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 16 | 16 | 16 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | 0% | |
| Storage Length (ft) | 0 | | 275 | 0 | | 0 | | 200 | 0 | 0 | 0 |
| Storage Lanes | 0 | | 1 | 0 | | 1 | | 1 | 1 | 0 | 0 |
| Taper Length (ft) | 25 | | | 25 | | | | 25 | | 25 | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | |
| Flt Protected | | | | | | | 0.950 | | | | |
| Satd. Flow (prot) | 0 | 3610 | 1599 | 0 | 3574 | 1583 | 2046 | 0 | 1777 | 0 | 0 |
| Flt Permitted | | | | | | | 0.950 | | | | |
| Satd. Flow (perm) | 0 | 3610 | 1599 | 0 | 3574 | 1583 | 2046 | 0 | 1777 | 0 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | |
| Satd. Flow (RTOR) | | | 193 | | | 115 | | | 384 | | |
| Link Speed (mph) | | 55 | | | 55 | | | 30 | | 30 | |
| Link Distance (ft) | | 796 | | | 930 | | | 572 | | 532 | |
| Travel Time (s) | | 9.9 | | | 11.5 | | | 13.0 | | 12.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 1% | 0% | 1% | 2% | 0% | 2% | 3% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | 0% | |
| Adj. Flow (vph) | 0 | 1526 | 330 | 0 | 987 | 139 | 71 | 0 | 291 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1526 | 330 | 0 | 987 | 139 | 71 | 0 | 291 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | | | 0 | | | 16 | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.85 | 0.85 | 0.85 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | 15 | 9 | 15 | 9 |
| Number of Detectors | | 3 | 1 | | 3 | 1 | 1 | | 1 | | |
| Detector Template | | | | | | | Left | | | | |
| Leading Detector (ft) | | 199 | 0 | | 199 | 0 | 20 | | 0 | | |
| Trailing Detector (ft) | | -5 | 0 | | -5 | 0 | 0 | | 0 | | |
| Turn Type | | NA | Free | | NA | Free | Perm | | Free | | |
| Protected Phases | | 6 | | | 2 | | | | | | |
| Permitted Phases | | | Free | | | Free | 3 | | Free | | |
| Detector Phase | | 6 | | | 2 | | 3 | | | | |
| Switch Phase | | | | | | | | | | | |

Year 2022 Build Traffic Volumes
10: NYS Route 22 & I-684 SB On/Off Ramp

Weekday Peak PM Hour
02/20/2019



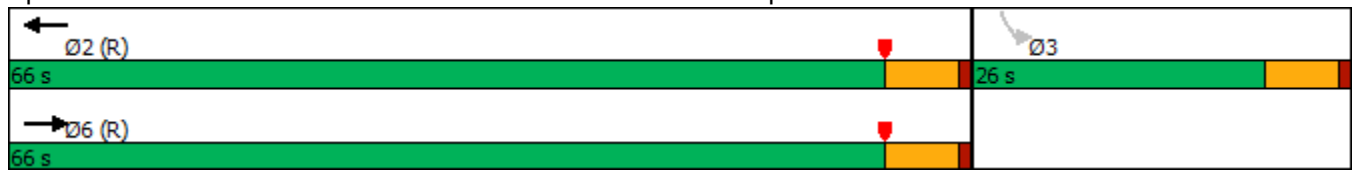
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SBL2 | SBL | SBR | NWL | NWR |
|-------------------------|-----|-------|------|-----|-------|------|-------|-----|------|-----|-----|
| Minimum Initial (s) | | 10.0 | | | 10.0 | | 3.0 | | | | |
| Minimum Split (s) | | 56.0 | | | 56.0 | | 21.0 | | | | |
| Total Split (s) | | 66.0 | | | 66.0 | | 26.0 | | | | |
| Total Split (%) | | 71.7% | | | 71.7% | | 28.3% | | | | |
| Maximum Green (s) | | 60.0 | | | 60.0 | | 20.0 | | | | |
| Yellow Time (s) | | 5.0 | | | 5.0 | | 5.0 | | | | |
| All-Red Time (s) | | 1.0 | | | 1.0 | | 1.0 | | | | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | | | | |
| Lead/Lag | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Vehicle Extension (s) | | 2.0 | | | 2.0 | | 2.0 | | | | |
| Minimum Gap (s) | | 0.2 | | | 0.2 | | 0.2 | | | | |
| Time Before Reduce (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Time To Reduce (s) | | 0.0 | | | 0.0 | | 0.0 | | | | |
| Recall Mode | | C-Min | | | C-Min | | None | | | | |
| Walk Time (s) | | | | | | | | | | | |
| Flash Dont Walk (s) | | | | | | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | |
| Act Effct Green (s) | | 75.7 | 92.0 | | 75.7 | 92.0 | 7.6 | | 92.0 | | |
| Actuated g/C Ratio | | 0.82 | 1.00 | | 0.82 | 1.00 | 0.08 | | 1.00 | | |
| v/c Ratio | | 0.51 | 0.21 | | 0.34 | 0.09 | 0.42 | | 0.16 | | |
| Control Delay | | 4.2 | 0.3 | | 3.1 | 0.1 | 47.0 | | 0.2 | | |
| Queue Delay | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | |
| Total Delay | | 4.2 | 0.3 | | 3.1 | 0.1 | 47.0 | | 0.2 | | |
| LOS | | A | A | | A | A | D | | A | | |
| Approach Delay | | 3.5 | | | 2.8 | | | 9.4 | | | |
| Approach LOS | | A | | | A | | | A | | | |
| Queue Length 50th (ft) | | 132 | 0 | | 67 | 0 | 40 | | 0 | | |
| Queue Length 95th (ft) | | 203 | 0 | | 106 | 0 | 80 | | 0 | | |
| Internal Link Dist (ft) | | 716 | | | 850 | | | 492 | | 452 | |
| Turn Bay Length (ft) | | | 275 | | | | 200 | | | | |
| Base Capacity (vph) | | 2971 | 1599 | | 2942 | 1583 | 444 | | 1777 | | |
| Starvation Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Spillback Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Storage Cap Reductn | | 0 | 0 | | 0 | 0 | 0 | | 0 | | |
| Reduced v/c Ratio | | 0.51 | 0.21 | | 0.34 | 0.09 | 0.16 | | 0.16 | | |

Intersection Summary

Area Type: Other
Cycle Length: 92
Actuated Cycle Length: 92
Offset: 60 (65%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 3.9
Intersection Capacity Utilization 50.7%
Analysis Period (min) 15

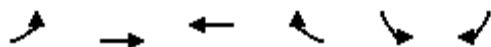
Intersection LOS: A
ICU Level of Service A

Splits and Phases: 10: NYS Route 22 & I-684 SB On/Off Ramp



Year 2022 Build Traffic Volumes
11: NYS Route 22 & I-684 NB On/Off Ramp

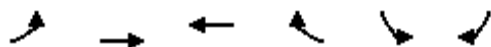
Weekday Peak PM Hour
02/20/2019



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|-------|------|------|-------|------|-------|
| Lane Configurations | ↖↖ | ↑↑ | ↑↑ | ↗ | | ↗ |
| Traffic Volume (vph) | 750 | 1151 | 646 | 252 | 0 | 389 |
| Future Volume (vph) | 750 | 1151 | 646 | 252 | 0 | 389 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 400 | | | 400 | 1 | 0 |
| Storage Lanes | 2 | | | 1 | 0 | 1 |
| Taper Length (ft) | 300 | | | | 25 | |
| Lane Util. Factor | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.865 |
| Flt Protected | 0.950 | | | | | |
| Satd. Flow (prot) | 3467 | 3574 | 3539 | 1615 | 0 | 1611 |
| Flt Permitted | 0.950 | | | | | |
| Satd. Flow (perm) | 3467 | 3574 | 3539 | 1615 | 0 | 1611 |
| Right Turn on Red | | | | No | | Yes |
| Satd. Flow (RTOR) | | | | | | 567 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 287 | 1186 | | 622 | |
| Travel Time (s) | | 3.6 | 14.7 | | 14.1 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 2% | 0% | 0% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 833 | 1279 | 718 | 280 | 0 | 432 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 833 | 1279 | 718 | 280 | 0 | 432 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 24 | 24 | | 0 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Number of Detectors | 2 | 2 | 2 | 2 | | 1 |
| Detector Template | | | | | | |
| Leading Detector (ft) | 83 | 83 | 83 | 83 | | 0 |
| Trailing Detector (ft) | -5 | -5 | -5 | -5 | | 0 |
| Turn Type | Prot | NA | NA | Perm | | Free |
| Protected Phases | 1 | 6 | 2 | | | |
| Permitted Phases | | | | 2 | | Free |
| Detector Phase | 1 | 6 | 2 | 2 | | |
| Switch Phase | | | | | | |

Year 2022 Build Traffic Volumes
11: NYS Route 22 & I-684 NB On/Off Ramp

Weekday Peak PM Hour
02/20/2019



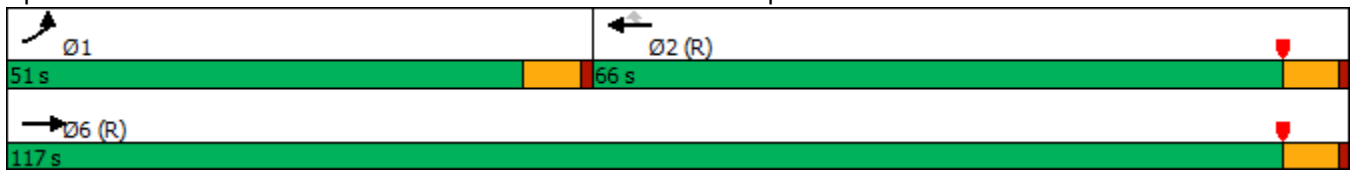
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|-------|--------|-------|-------|-----|-------|
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | | |
| Minimum Split (s) | 41.0 | 56.0 | 56.0 | 56.0 | | |
| Total Split (s) | 51.0 | 117.0 | 66.0 | 66.0 | | |
| Total Split (%) | 43.6% | 100.0% | 56.4% | 56.4% | | |
| Maximum Green (s) | 45.0 | 111.0 | 60.0 | 60.0 | | |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | | |
| Lead/Lag | Lead | | Lag | Lag | | |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | |
| Vehicle Extension (s) | 2.0 | 2.0 | 2.0 | 2.0 | | |
| Minimum Gap (s) | 0.2 | 0.2 | 0.2 | 0.2 | | |
| Time Before Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Time To Reduce (s) | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Recall Mode | None | C-Min | C-Min | C-Min | | |
| Walk Time (s) | | | | | | |
| Flash Dont Walk (s) | | | | | | |
| Pedestrian Calls (#/hr) | | | | | | |
| Act Effct Green (s) | 33.7 | 117.0 | 71.3 | 71.3 | | 117.0 |
| Actuated g/C Ratio | 0.29 | 1.00 | 0.61 | 0.61 | | 1.00 |
| v/c Ratio | 0.83 | 0.36 | 0.33 | 0.28 | | 0.27 |
| Control Delay | 46.8 | 0.3 | 12.4 | 12.7 | | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 46.8 | 0.3 | 12.4 | 12.7 | | 0.4 |
| LOS | D | A | B | B | | A |
| Approach Delay | | 18.6 | 12.5 | | 0.4 | |
| Approach LOS | | B | B | | A | |
| Queue Length 50th (ft) | 302 | 0 | 132 | 94 | | 0 |
| Queue Length 95th (ft) | 346 | 0 | 195 | 166 | | 0 |
| Internal Link Dist (ft) | | 207 | 1106 | | 542 | |
| Turn Bay Length (ft) | 400 | | | 400 | | |
| Base Capacity (vph) | 1333 | 3574 | 2156 | 984 | | 1611 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.62 | 0.36 | 0.33 | 0.28 | | 0.27 |

Intersection Summary

Area Type: Other
Cycle Length: 117
Actuated Cycle Length: 117
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 14.7
Intersection Capacity Utilization 49.3%
Analysis Period (min) 15










Intersection LOS: B
ICU Level of Service A

Splits and Phases: 11: NYS Route 22 & I-684 NB On/Off Ramp



Year 2022 Build Traffic Volumes
12: NORTH CASTLE DRIVE (IBM) & Proposed Site Driveway

Weekday Peak PM Hour
02/20/2019

| |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  | |  | | |  |
| Traffic Volume (vph) | 0 | 61 | 464 | 0 | 85 | 18 |
| Future Volume (vph) | 0 | 61 | 464 | 0 | 85 | 18 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | 0% | | | 0% |
| Storage Length (ft) | 0 | 0 | | 0 | 0 | |
| Storage Lanes | 1 | 0 | | 0 | 0 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.865 | | | | | |
| Flt Protected | | | | | | 0.961 |
| Satd. Flow (prot) | 1611 | 0 | 3539 | 0 | 0 | 1790 |
| Flt Permitted | | | | | | 0.961 |
| Satd. Flow (perm) | 1611 | 0 | 3539 | 0 | 0 | 1790 |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 235 | | 679 | | | 299 |
| Travel Time (s) | 5.3 | | 15.4 | | | 6.8 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | 0% | | | 0% |
| Adj. Flow (vph) | 0 | 66 | 504 | 0 | 92 | 20 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 66 | 0 | 504 | 0 | 0 | 112 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 0 | | | 0 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Sign Control | Stop | | Free | | | Free |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Control Type: | Unsignalized | | | | | |
| Intersection Capacity Utilization | 32.3% | | | ICU Level of Service A | | |
| Analysis Period (min) | 15 | | | | | |

Intersection

Int Delay, s/veh 2.2

Movement WBL WBR NBT NBR SBL SBT

Lane Configurations 

Traffic Vol, veh/h 0 61 464 0 85 18

Future Vol, veh/h 0 61 464 0 85 18

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage 0# - 0 - - 0

Grade, % 0 - 0 - - 0

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 66 504 0 92 20

Major/Minor Minor1 Major1 Major2

Conflicting Flow All 708 252 0 0 504 0

Stage 1 504 - - - - -

Stage 2 204 - - - - -

Critical Hdwy 6.63 6.93 - - 4.13 -

Critical Hdwy Stg 1 5.83 - - - - -

Critical Hdwy Stg 2 5.43 - - - - -

Follow-up Hdwy 3.519 3.319 - - 2.219 -

Pot Cap-1 Maneuver 885 748 - - 1059 -

Stage 1 573 - - - - -

Stage 2 830 - - - - -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver 851 748 - - 1059 -

Mov Cap-2 Maneuver 851 - - - - -

Stage 1 523 - - - - -

Stage 2 830 - - - - -

Approach WB NB SB

HCM Control Delay, s 10.3 0 7.2

HCM LOS B

Minor Lane/Major Mvmt NBT NBR WBLn1 SBL SBT

Capacity (veh/h) - - 748 1059 -

HCM Lane V/C Ratio - - 0.089 0.087 -

HCM Control Delay (s) - - 10.3 8.7 0

HCM Lane LOS - - B A A

HCM 95th %tile Q(veh) - - 0.3 0.3 -



EAGLE RIDGE

APPENDIX E

TRAFFIC COUNT DATA

| Station | FC | County | End Mile Point | Section Length | Road Name | Beginning Description | End Description | 2016 Estimate | | | | Previous Counts | | | |
|---------|----|--------|----------------|----------------|-----------------|------------------------------|------------------------------|---------------|----------|------|-------|-----------------|-------|------|-------|
| | | | | | | | | ADDT | % Trucks | YEAR | ADDT | YEAR | ADDT | YEAR | ADDT |
| 87_0098 | 14 | 02 | 0870 | 0381 | MILL RD | | MAMARONECK RD | 11406 | 4.7 | 2014 | 11519 | 2011 | 10147 | 2007 | 13442 |
| 87_0046 | 14 | 02 | 0943 | 0073 | MAMARONECK RD | | CITY OF WHITE PLAINS | 11899 | 4.7 | 2011 | 12199 | 2008 | 13320 | 2002 | 12743 |
| 87_0177 | 14 | 02 | 1066 | 0123 | NEW YORK POST R | | NY 125 MAMARONECK AVE | 8574 | 4.7 | 2014 | 8659 | 2011 | 8787 | 2008 | 9958 |
| 87_0178 | 14 | 02 | 1098 | 0032 | NEW YORK POST R | | ARMORY PL/WESTCHESTER AVE | 14696 | 3.6 | 2009 | 15220 | 2003 | 17740 | 2000 | 14188 |
| 87_0179 | 14 | 02 | 1113 | 0015 | WESTCHESTER AVE | | RT 119 MAIN ST | 44513 | 4.1 | 2014 | 44955 | 2011 | 29382 | 2003 | 29672 |
| 87_0180 | 14 | 02 | 1201 | 0088 | NO BROADWAY | | RT 2871 CROSS WEST EXP | 28013 | 4.7 | 2010 | 28865 | | | | |
| 87_0181 | 14 | 02 | 1261 | 0060 | NO BROADWAY | | WHITE PLAINS CL / NORTH CAST | 20341 | 4.7 | 2003 | 21731 | 2000 | 20535 | | |
| 87_0063 | 14 | 02 | 1277 | 0016 | | | CR 150 CENTRAL W PKWY | 10462 | 4.7 | 2015 | 10514 | 2008 | 12362 | 2002 | 13805 |
| 87_0182 | 14 | 02 | 1333 | 0056 | | | N BROADWAY | 22068 | 4.7 | 2011 | 22625 | 2003 | 21068 | 2000 | 21781 |
| 87_0183 | 14 | 02 | 1715 | 0382 | | | START 22/120 OLAP | 10697 | 2.7 | 2011 | 10967 | 2001 | 13327 | | |
| 87_0154 | 14 | 02 | 1740 | 0025 | | | END 22/120 OLAP | 15365 | 4.7 | 2008 | 15995 | 2002 | 16339 | | |
| 87_0184 | 14 | 02 | 1862 | 0122 | | | RT 128 | 15362 | 4.7 | 2015 | 15639 | 2013 | 16293 | 2011 | 15455 |
| 87_0190 | 14 | 02 | 1924 | 0062 | | | RT 684I | 17979 | 4.7 | 2011 | 18432 | 2008 | 20884 | 2004 | 24165 |
| 87_0185 | 14 | 02 | 1965 | 0041 | | | RT 433 | 15942 | 4.7 | 2008 | 16595 | 2005 | 16042 | 2002 | 17622 |
| 87_0126 | 14 | 02 | 2251 | 0286 | | | CHESTNUT RIDGE RD | 6276 | 4.4 | 2014 | 6338 | 2011 | 5872 | 2007 | 8220 |
| 87_0186 | 14 | 02 | 2544 | 0293 | | | START 22/172 OLAP | 3470 | 6.7 | 2015 | 3487 | 2013 | 3878 | 2009 | 3496 |
| 87_0148 | 14 | 02 | 2645 | 0101 | | | END 22/172 OLAP | 11819 | 3.2 | 2014 | 11936 | 2011 | 14062 | 2008 | 13807 |
| 87_0187 | 14 | 02 | 2684 | 0039 | | | RT 121 BEDFORD | 11395 | 4.7 | 2015 | 11451 | 2011 | 11188 | 2008 | 10708 |
| 87_0188 | 14 | 02 | 2989 | 0305 | | | CR 309 GIRDLE RIDGE RD | 4962 | 4.4 | 2015 | 4987 | 2009 | 4594 | 2006 | 5048 |
| 87_0189 | 14 | 02 | 3171 | 0182 | | | RT 35 | 6907 | 4.3 | 2015 | 6941 | 2013 | 7423 | 2009 | 7069 |
| 87_0163 | 14 | 02 | 3300 | 0129 | | | OFF-RAMP FROM RT 684I NB | 3282 | 4 | 2016 | 3282 | 2009 | 3468 | 2006 | 3945 |
| 87_0121 | 14 | 02 | 3385 | 0085 | | | RT 138 | 7418 | 2.4 | 2015 | 7455 | 2009 | 7738 | | |
| 87_0120 | 14 | 02 | 3636 | 0251 | | | START 22/116 OLAP | 3499 | 2.9 | 2014 | 3534 | 2008 | 4111 | 2005 | 5459 |
| 87_0193 | 14 | 02 | 3643 | 0007 | | | END 22/116 OLAP | 10217 | 2.8 | 2016 | 10217 | 2013 | 9856 | 2010 | 9405 |
| 87_0194 | 14 | 02 | 3762 | 0119 | | | CR 138 HARDCRABBLE RD | 8026 | 3.4 | 2015 | 8056 | 2013 | 7040 | 2012 | 7519 |
| 87_0080 | 14 | 02 | 3857 | 0095 | | | START 22/202 OLAP | 10829 | 4.7 | 2013 | 10991 | 2010 | 10692 | 2007 | 8046 |
| 87_0087 | 14 | 02 | 3882 | 0025 | | | West/Putnam Co Line | 7326 | 4.8 | 2015 | 7362 | 2013 | 7895 | 2009 | 7701 |
| | | | | | | | | Region 08 | | | | | | | |
| 84_0196 | 14 | 03 | 0402 | 0402 | | West/Putnam Co Line | END 22/202 OLAP START 6/22/2 | 7651 | 5.6 | 2009 | 7924 | 2006 | 7571 | 2003 | 8605 |
| 84_0197 | 14 | 03 | 0446 | 0044 | | END 22/202 OLAP START 6/22/2 | CR 50 | 15325 | 4.7 | 2012 | 15633 | 2006 | 16942 | 2003 | 16114 |
| 84_0009 | 14 | 03 | 0494 | 0048 | | CR 50 | END 6/22/202 OLAP | 16500 | 4 | 2011 | 16916 | 2008 | 17782 | 2005 | 16465 |
| | | | | | | | | Region 08 | | | | | | | |
| 84_0196 | 14 | 03 | 0402 | 0402 | | West/Putnam Co Line | END 22/202 OLAP START 6/22/2 | 7651 | 5.6 | 2009 | 7924 | 2006 | 7571 | 2003 | 8605 |
| 84_0197 | 14 | 03 | 0446 | 0044 | | END 22/202 OLAP START 6/22/2 | CR 50 | 15325 | 4.7 | 2012 | 15633 | 2006 | 16942 | 2003 | 16114 |
| 84_0009 | 14 | 03 | 0494 | 0048 | | CR 50 | END 6/22/202 OLAP | 16500 | 4 | 2011 | 16916 | 2008 | 17782 | 2005 | 16465 |

| Station | FC | Order | County | End Mile Point | Section Length | Road Name | Beginning Description | End Description | 2016 Estimate | | | | Previous Counts | | | | | | | |
|--------------------------------|----|-------|--------|----------------|----------------|------------------|-----------------------------|------------------------------|---------------|----------|------|-------|-----------------|-------|------|-------|------|------|------|-------|
| | | | | | | | | | AADT | % Trucks | YEAR | AADT | YEAR | AADT | YEAR | AADT | YEAR | AADT | YEAR | AADT |
| Route NY127 | | | | | | | | | | | | | | | | | | | | |
| County 119 Westchester | | | | | | Region 08 | | | | | | | | | | | | | | |
| 87_0081 | 16 | 01 | | 0126 | 0126 | | RT 1 MAMARONECK | HALSTEAD AVE HARRISON | 6846 | 3.8 | 2008 | 7223 | 2005 | 7231 | 2002 | 7027 | | | | |
| 87_0455 | 16 | 01 | | 0198 | 0072 | | HALSTEAD AVE HARRISON | CR 94 UNION AVE | 10491 | 2.6 | 2016 | 10491 | 2007 | 11172 | 2004 | 13687 | 2000 | | | 11840 |
| 87_0456 | 16 | 01 | | 0386 | 0188 | | CR 94 UNION AVE | WHITE PLAINS S CITY LN | 15482 | 2.9 | 2010 | 16114 | 2007 | 16097 | | | | | | |
| 87_0075 | 14 | 01 | | 0561 | 0175 | NORTH ST | WHITE PLAINS S CITY LN | BRYANT AVE | 11323 | 4.7 | 2011 | 11609 | 2008 | 11168 | 2005 | 12870 | 2004 | | | 13960 |
| 87_0457 | 14 | 01 | | 0638 | 0077 | NORTH ST | BRYANT AVE | WESTCHESTER AVE END NY 127 | 12553 | 4.7 | 2014 | 12678 | 2011 | 11109 | 2008 | 11049 | 2001 | | | 10489 |
| Route NY128 | | | | | | | | | | | | | | | | | | | | |
| County 119 Westchester | | | | | | Region 08 | | | | | | | | | | | | | | |
| 87_0461 | 16 | 01 | | 0119 | 0119 | | RT 22 ARMONK | LEISURE FARM RD | 7323 | 4.6 | 2013 | 7469 | 2009 | 7782 | 2006 | 8567 | 2003 | | | 8546 |
| 87_0459 | 16 | 01 | | 0552 | 0433 | | LEISURE FARM RD | RT 117 END RT 128 | 4153 | 3.8 | 2016 | 4153 | 2013 | 4149 | 2009 | 4382 | 2006 | | | 4587 |
| Route NY129 | | | | | | | | | | | | | | | | | | | | |
| County 119 Westchester | | | | | | Region 08 | | | | | | | | | | | | | | |
| 87_0135 | 16 | 01 | | 0135 | 0135 | | RT 9A SOUTH RIVERSIDE AVE | QUAKER BRIDGE RD | 6139 | 3.8 | 2014 | 6220 | 2008 | 7674 | 2005 | 6215 | 2002 | | | 5821 |
| 87_0136 | 16 | 01 | | 0551 | 0416 | | QUAKER BRIDGE RD | UNDERHILL RD | 7818 | 3.8 | 2015 | 7869 | 2012 | 7145 | 2008 | 6396 | 2005 | | | 6572 |
| 87_0640 | 16 | 01 | | 0773 | 0222 | | UNDERHILL RD | RT 118 END RT 129 | 4170 | 5.4 | 2015 | 4197 | 2012 | 3960 | 2007 | 3824 | 2004 | | | 4165 |
| Route NY130 | | | | | | | | | | | | | | | | | | | | |
| County 029 Erie | | | | | | Region 05 | | | | | | | | | | | | | | |
| 53_0355 | 14 | 01 | | 0077 | 0077 | | RT 62 BAILEY AVE | BUFFALO CL / CHEEKTOWAGA TL | 14640 | 6.9 | 2011 | 14123 | 2011 | 14123 | 2010 | 11124 | 2007 | | | 12850 |
| 53_0199 | 14 | 01 | | 0154 | 0077 | | BUFFALO CL / CHEEKTOWAGA TL | RT 240 HARLEM RD OVER | 15408 | 7 | 2016 | 15408 | 2011 | 13740 | 2008 | 15163 | 2005 | | | 17346 |
| 53_0356 | 14 | 01 | | 0308 | 0154 | | RT 240 HARLEM RD OVER | RT 277 UNION RD UNDER | 16355 | 7.6 | 2015 | 16413 | 2011 | 14576 | 2008 | 14438 | 2005 | | | 18923 |
| 53_0205 | 14 | 01 | | 0442 | 0134 | | RT 277 UNION RD UNDER | CR 317 DICK RD | 17569 | 7.2 | 2016 | 17569 | 2014 | 17161 | 2011 | 16399 | 2008 | | | 14721 |
| 53_0464 | 14 | 01 | | 0558 | 0116 | | CR 317 DICK RD | BORDEN RD | 22940 | 6.1 | 2014 | 23104 | 2011 | 22350 | 2008 | 21602 | 2005 | | | 21688 |
| 53_0465 | 14 | 01 | | 0608 | 0050 | | BORDEN RD | RTS 20 & 78 - SOUTH OF DEPEW | 16720 | 4.7 | 2016 | 16720 | 2014 | 18574 | 2011 | 16380 | 2008 | | | 15661 |
| Route NY131 | | | | | | | | | | | | | | | | | | | | |
| County 089 St. Lawrence | | | | | | Region 07 | | | | | | | | | | | | | | |
| 75_0351 | 7 | 01 | | 0628 | 0628 | | RT 37 W OF MASSENA | JCT RT 971J | 978 | 9.3 | 2016 | 978 | 2013 | 659 | 2010 | 713 | 2007 | | | 1020 |
| 75_0352 | 16 | 01 | | 1083 | 0455 | | JCT RT 971J | BARNHART ISLE | 1048 | 4.9 | 2016 | 1048 | 2013 | 1165 | 2007 | 1011 | 2004 | | | 980 |
| 75_0459 | 16 | 01 | | 1248 | 0165 | | BARNHART ISLE | RT 37 EB END RT 131 | 1290 | 10.4 | 2008 | 1348 | 2005 | 1247 | 2002 | 1547 | | | | |
| Route NY132 | | | | | | | | | | | | | | | | | | | | |
| County 119 Westchester | | | | | | Region 08 | | | | | | | | | | | | | | |
| 87_0463 | 16 | 01 | | 0247 | 0247 | | RTS 35 & 202 YORKTOWN | RT 987G UNDER TACONIC STATE | 6860 | 3.9 | 2014 | 6951 | 2011 | 6096 | 2008 | 5217 | 2005 | | | 8168 |
| 87_0464 | 16 | 01 | | 0278 | 0031 | | RT 987G UNDER TACONIC STATE | RT 6 END RT 132 | 5904 | 4.2 | 2014 | 5982 | 2011 | 6764 | 2007 | 6858 | 2004 | | | 8131 |

STATION: 870083

New York State Department of Transportation Roadway Traffic Count Hourly Report

| | | | | | |
|---------------|----------------|-----------------------|-----------------------------|-----------------------|-------------------------|
| ROUTE/ROAD: | NY172 | FROM: RT 117 MT KISCO | TO: RT 684 NB OVER | REGION-COUNTY: | 8-WESTCHESTER |
| FED DIR CODE: | 3, 7 | REF. MARKER: | FUNC. CLASS: | 16 - U Minor Arterial | MUNI: Bedford-Town-0057 |
| ST DIR CODE: | 7 | END MILEPOST: | FACTOR GROUP: | 30 | BIN: |
| DOT ID: | 100117 | LANES BY DIR: | 1 East 1 West | CC STN: | RR CROSSING: |
| BEGIN DATE: | 8/6/2014 | WEEK OF YEAR: | 32 | ADDL DATA: | HPMS SAMPLE: |
| NOTES 1: | WB TRAVEL LANE | PLACEMENT: | 537' EAST OF CHESTNUT RIDGE | JURISDICTION: | 01-NYSDOT |
| NOTES 2: | | | | | 1 WAY CODE: |
| TAKEN BY: | TST-KAJ | PROCESSED BY: | DOT-jh | BATCH ID: | DOT-R08CWW32B |
| | | | | | COUNT TYPE: |
| | | | | | Axle |
| | | | | | SPEED LIMIT: |
| | | | | | 40 |

| DATE | | 00-01 01-02 02-03 03-04 04-05 05-06 06-07 07-08 08-09 09-10 10-11 11-12 12-13 13-14 14-15 15-16 16-17 17-18 18-19 19-20 20-21 21-22 22-23 23-24 | | | | | | | | | | | | | | | | | | | | DAILY TOTAL | | HIGH COUNT | HIGH HOUR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------------|--|------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| 8/06, Wed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | </ |

| DAYS | HOURS | WEEKDAYS | WEEKDAY | AVERAGE WEEKDAY | | | | ESTIMATED | | |
|---------|---------|----------|---------|--------------------|--------------------|--------------------|---------|-----------|------|------|
| | | | | Roadway | East | West | AADT | East | West | |
| Counted | Counted | Counted | Hours | High Hour % of day | High Hour % of day | High Hour % of day | Roadway | East | West | |
| 7 | 169 | 4 | 103 | 1571 | 8.5 | 820 | 9.1 | 868 | 9 | |
| | | | | | | | | 16996 | 8215 | 8781 |

STATION: 870083

New York State Department of Transportation
EB Traffic Count Hourly Report

| | | | | | | | |
|---------------|----------------|---------------|----------------------------|---------------|-----------------------|----------------|-------------------|
| ROUTE/ROAD: | NY172 | FROM: | RT 117 MT KISCO | TO: | RT 684I NB OVER | REGION-COUNTY: | 8-WESTCHESTER |
| FED DIR CODE: | 3 | REF. MARKER: | | FUNC. CLASS: | 16 - U Minor Arterial | MUN: | Bedford-Town-0057 |
| ST DIR CODE: | 7 | END MILEPOST: | 2.16 | FACTOR GROUP: | 30 | BIN: | |
| DOT ID: | 100117 | LANES BY DIR: | 1 East | CC STN: | | RR CROSSING: | |
| BEGIN DATE: | 8/6/2014 | WEEK OF YEAR: | 32 | ADDL DATA: | | HPMS SAMPLE: | |
| NOTES 1: | WB TRAVEL LANE | PLACEMENT: | 537 EAST OF CHESTNUT RIDGE | JURISDICTION: | 01-NYSDOT | I WAY CODE: | |
| NOTES 2: | | | | | | COUNT TYPE: | Axle |
| TAKEN BY: | TST-KAJ | PROCESSED BY: | DOT-jh | BATCH ID: | DOT-R08CWW32B | SPEED LIMIT: | 40 |

| DATE | DAILY HIGH HIGH | | | | | | | | | | | | | | | | | | | | | | | TOTAL | COUNT | HOUR | |
|---|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|
| | 00-01 | 01-02 | 02-03 | 03-04 | 04-05 | 05-06 | 06-07 | 07-08 | 08-09 | 09-10 | 10-11 | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 | 18-19 | 19-20 | 20-21 | 21-22 | 22-23 | | | | 23-24 |
| 8/06, Wed | | | | | | | | | | | | | | | | | | | | | 451 | 337 | 224 | 178 | 84 | 1274 | |
| 8/07, Thu | 64 | 21 | 8 | 16 | 31 | 59 | 202 | 495 | 693 | 610 | 612 | 613 | 523 | 588 | 615 | 719 | 838 | 820 | 600 | 493 | 359 | 275 | 193 | 90 | 9537 | 838 | 16-17 |
| 8/08, Fri | 47 | 33 | 10 | 10 | 23 | 49 | 187 | 489 | 667 | 570 | 587 | 601 | 623 | 611 | 641 | 734 | 811 | 809 | 548 | 426 | 295 | 233 | 175 | 145 | 9324 | 811 | 16-17 |
| 8/09, Sat | 61 | 41 | 16 | 17 | 18 | 51 | 87 | 234 | 297 | 345 | 424 | 488 | 471 | 486 | 410 | 449 | 419 | 383 | 317 | 294 | 228 | 216 | 160 | 127 | 6039 | 488 | 11-12 |
| 8/10, Sun | 75 | 44 | 23 | 18 | 12 | 29 | 58 | 127 | 148 | 232 | 303 | 367 | 429 | 349 | 329 | 379 | 316 | 289 | 273 | 279 | 248 | 168 | 86 | 60 | 4641 | 429 | 12-13 |
| 8/11, Mon | 32 | 15 | 11 | 14 | 27 | 70 | 200 | 453 | 646 | 591 | 533 | 598 | 542 | 561 | 529 | 677 | 824 | 840 | 540 | 426 | 278 | 229 | 135 | 70 | 8841 | 840 | 17-18 |
| 8/12, Tue | 37 | 15 | 11 | 9 | 24 | 77 | 188 | 480 | 673 | 588 | 526 | 588 | 635 | 555 | 643 | 697 | 776 | 857 | 539 | 377 | 282 | 214 | 147 | 82 | 9020 | 857 | 17-18 |
| 8/13, Wed | 45 | 21 | 20 | 12 | 29 | 66 | 162 | 417 | 638 | 563 | 504 | 604 | 582 | 548 | 619 | 716 | 813 | 817 | 596 | 441 | | | | | 8213 | | |
| AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6 AM to Fri Noon) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 48 | 22 | 12 | 12 | 26 | 62 | 185 | 459 | 653 | 575 | 544 | 591 | 561 | 554 | 592 | 691 | 800 | 820 | 560 | 431 | 309 | 232 | 161 | 80 | 8979 | | |
| AWDT | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| DAYS | COUNTED | HOURS | COUNTED | WEEKDAYS | COUNTED | WEEKDAY | AVERAGE WEEKDAY | | | | | | ESTIMATED | |
|------|---------|-------|---------|----------|---------|---------|-----------------|------|------|--------------------|--------------------|--------------------|-----------|------|
| | | | | | | | Roadway | East | West | High Hour % of day | High Hour % of day | High Hour % of day | AADT | West |
| 7 | | 169 | | 4 | | 103 | 1571 | 8.5 | 820 | 9.1 | 868 | 9 | 16996 | 8215 |
| | | | | | | | | | | | | | | 8781 |

| | | | | | | | | | | | | | |
|--------|----------|------|------|------|------|------|------|------|------|--|--|--|--|
| FACTOR | | | | | | | | | | | | | |
| Month | Seasonal | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Axl | | | | |
| 8 | 1.09 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.98 | | | | |

STATION: 870083

New York State Department of Transportation

WB Traffic Count Hourly Report

| | | | | | |
|---------------|----------------|-----------------------|--------------------|-----------------------|-------------------------|
| ROUTE/ROAD: | NY172 | FROM: RT 117 MT KISCO | TO: RT 684 NB OVER | REGION-COUNTY: | 8-WESTCHESTER |
| FED DIR CODE: | 7 | REF. MARKER: | FUNC. CLASS: | 16 - U Minor Arterial | MUNI: Bedford-Town-0057 |
| ST DIR CODE: | 7 | END MILEPOST: | FACTOR GROUP: | 30 | BIN: |
| DOT ID: | 100117 | LANES BY DIR: | CC STN: | RR CROSSING: | |
| BEGIN DATE: | 8/6/2014 | WEEK OF YEAR: | ADDL DATA: | HPMS SAMPLE: | |
| NOTES 1: | WB TRAVEL LANE | PLACEMENT: | JURISDICTION: | 01-NYSDOT | 1 WAY CODE: |
| NOTES 2: | | | | | COUNT TYPE: |
| TAKEN BY: | TST-KAJ | PROCESSED BY: | DOT-jh | BATCH ID: | DOT-R08CWW32B |
| | | | | | SPEED LIMIT: |
| | | | | | 40 |
| | | | | | Axle |

| DATE | | 00-01 01-02 02-03 03-04 04-05 05-06 06-07 07-08 08-09 09-10 10-11 11-12 12-13 13-14 14-15 15-16 16-17 17-18 18-19 19-20 20-21 21-22 22-23 23-24 | | | | | | | | | | | | | | | | | | | | | | | | DAILY TOTAL | | HIGH | HIGH | | | | |
|-----------|----|---|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------------|-------|------|------|----|------|--|--|
| 8/06, Wed | | | | | | | | | | | | | | | | | | | | | | | | | | 370 | 256 | 189 | 148 | 59 | 1022 | | |
| 8/07, Thu | 53 | 27 | 25 | 38 | 35 | 74 | 343 | 710 | 878 | 823 | 757 | 584 | 675 | 605 | 669 | 692 | 715 | 810 | 652 | 445 | 282 | 222 | 157 | 98 | 10369 | 878 | 08-09 | | | | | | |
| 8/08, Fri | 59 | 35 | 17 | 15 | 15 | 88 | 354 | 689 | 852 | 717 | 624 | 593 | 663 | 593 | 664 | 747 | 724 | 705 | 578 | 400 | 267 | 212 | 147 | 111 | 9869 | 852 | 08-09 | | | | | | |
| 8/09, Sat | 68 | 40 | 20 | 19 | 21 | 40 | 153 | 245 | 375 | 425 | 477 | 452 | 510 | 456 | 434 | 421 | 430 | 371 | 373 | 295 | 269 | 204 | 194 | 126 | 6418 | 510 | 12-13 | | | | | | |
| 8/10, Sun | 81 | 57 | 32 | 24 | 18 | 33 | 91 | 133 | 188 | 268 | 312 | 382 | 386 | 363 | 365 | 387 | 369 | 328 | 387 | 299 | 226 | 201 | 125 | 96 | 5151 | 387 | 18-19 | | | | | | |
| 8/11, Mon | 49 | 21 | 9 | 11 | 24 | 94 | 352 | 662 | 870 | 803 | 663 | 576 | 624 | 619 | 600 | 659 | 676 | 759 | 572 | 384 | 240 | 162 | 124 | 42 | 9595 | 870 | 08-09 | | | | | | |
| 8/12, Tue | 46 | 12 | 14 | 11 | 25 | 87 | 389 | 685 | 902 | 792 | 656 | 564 | 639 | 589 | 632 | 674 | 684 | 768 | 546 | 305 | 203 | 165 | 108 | 52 | 9548 | 902 | 08-09 | | | | | | |
| 8/13, Wed | 48 | 33 | 6 | 18 | 26 | 66 | 345 | 676 | 908 | 760 | 660 | 643 | 629 | 593 | 626 | 645 | 672 | 716 | 530 | 367 | | | | | 8967 | | | | | | | | |
| | | 51 | 26 | 15 | 20 | 25 | 77 | 351 | 673 | 868 | 767 | 661 | 583 | 631 | 592 | 622 | 657 | 676 | 751 | 566 | 368 | 241 | 182 | 132 | 62 | 9597 | | | | | | | |
| | | AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6 AM to Fri Noon) | | | | | | | | | | | | | | | | | | | | | | | | AWDIT | | | | | | | |

| DAYS | HOURS | WEEKDAYS | WEEKDAY | AVERAGE WEEKDAY | | | | ESTIMATED | | |
|---------|---------|----------|---------|--------------------|--------------------|--------------------|---------|-----------|------|------|
| | | | | Roadway | East | West | AADT | East | West | |
| Counted | Counted | Counted | Hours | High Hour % of day | High Hour % of day | High Hour % of day | Roadway | East | West | |
| 7 | 169 | 4 | 103 | 1571 | 8.5 | 820 | 9.1 | 868 | 9 | |
| | | | | | | | | 16996 | 8215 | 8781 |

400 Columbus Avenue - Suite 180E

Customer Loyalty through Client Satisfaction

Site Code :

Start Date : 10/24/2018

Page No : 1

Groups Printed - Lights - Buses - Trucks - Pedestrians

| | | ARMONK BEDFORD RD | | | | | | OLD POST ROAD | | | | | | ARMONK BEDFORD RD | | | | | | OLD ROUTE 22 | | | | | |
|---------------|-------|-------------------|------|------|------------|-------|------|---------------|------|------------|-------|------|------|-------------------|------------|-------|------|------|------|--------------|------------|--|--|--|--|
| | | From North | | | | | | From East | | | | | | From South | | | | | | From West | | | | | |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | | | |
| 07:00 AM | 1 | 165 | 10 | 0 | 176 | 3 | 0 | 2 | 0 | 5 | 8 | 126 | 7 | 0 | 141 | 10 | 0 | 0 | 0 | 10 | 332 | | | | |
| 07:15 AM | 4 | 187 | 26 | 0 | 217 | 2 | 0 | 0 | 0 | 2 | 14 | 151 | 10 | 0 | 175 | 2 | 0 | 0 | 0 | 2 | 396 | | | | |
| 07:30 AM | 5 | 250 | 30 | 0 | 285 | 3 | 1 | 0 | 0 | 4 | 19 | 143 | 11 | 0 | 173 | 12 | 0 | 2 | 0 | 14 | 476 | | | | |
| 07:45 AM | 6 | 227 | 29 | 1 | 263 | 2 | 0 | 1 | 0 | 3 | 28 | 150 | 14 | 0 | 192 | 10 | 0 | 2 | 0 | 12 | 470 | | | | |
| Total | 16 | 829 | 95 | 1 | 941 | 10 | 1 | 3 | 0 | 14 | 69 | 570 | 42 | 0 | 681 | 34 | 0 | 4 | 0 | 38 | 1674 | | | | |
| 08:00 AM | 10 | 206 | 33 | 0 | 249 | 4 | 1 | 0 | 0 | 5 | 29 | 193 | 23 | 0 | 245 | 9 | 0 | 1 | 0 | 10 | 509 | | | | |
| 08:15 AM | 4 | 223 | 38 | 0 | 265 | 2 | 0 | 0 | 0 | 2 | 25 | 184 | 16 | 0 | 225 | 13 | 2 | 3 | 0 | 18 | 510 | | | | |
| 08:30 AM | 5 | 173 | 34 | 4 | 216 | 4 | 1 | 1 | 0 | 6 | 24 | 218 | 23 | 0 | 265 | 12 | 4 | 4 | 0 | 16 | 503 | | | | |
| 08:45 AM | 2 | 168 | 31 | 0 | 201 | 2 | 0 | 2 | 0 | 4 | 26 | 172 | 26 | 0 | 224 | 19 | 3 | 1 | 0 | 23 | 452 | | | | |
| Total | 21 | 770 | 136 | 4 | 931 | 12 | 2 | 3 | 0 | 17 | 104 | 767 | 88 | 0 | 959 | 53 | 5 | 9 | 0 | 67 | 1974 | | | | |
| 09:00 AM | 4 | 132 | 26 | 0 | 162 | 8 | 0 | 4 | 0 | 12 | 27 | 167 | 24 | 0 | 218 | 31 | 1 | 5 | 0 | 37 | 429 | | | | |
| 09:15 AM | 5 | 172 | 12 | 0 | 189 | 5 | 1 | 5 | 0 | 11 | 18 | 134 | 13 | 0 | 165 | 14 | 3 | 2 | 0 | 19 | 384 | | | | |
| 09:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| 09:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Total | 9 | 304 | 38 | 0 | 351 | 13 | 1 | 9 | 0 | 23 | 45 | 301 | 37 | 0 | 383 | 45 | 4 | 7 | 0 | 56 | 813 | | | | |
| Grand Total | 46 | 1903 | 269 | 5 | 2223 | 35 | 4 | 15 | 0 | 54 | 218 | 1638 | 167 | 0 | 2023 | 132 | 9 | 20 | 0 | 161 | 4461 | | | | |
| Approch % | 2.1 | 85.6 | 12.1 | 0.2 | | 64.8 | 7.4 | 27.8 | 0 | | 10.8 | 81 | 8.3 | 0 | | 82 | 5.6 | 12.4 | 0 | | | | | | |
| Total % | 1 | 42.7 | 6 | 0.1 | 49.8 | 0.8 | 0.1 | 0.3 | 0 | 1.2 | 4.9 | 36.7 | 3.7 | 0 | 45.3 | 3 | 0.2 | 0.4 | 0 | 3.6 | | | | | |
| Lights | 44 | 1828 | 266 | 0 | 2138 | 32 | 3 | 12 | 0 | 47 | 217 | 1554 | 160 | 0 | 1931 | 129 | 9 | 18 | 0 | 156 | 4272 | | | | |
| % Lights | 95.7 | 96.1 | 98.9 | 0 | 96.2 | 91.4 | 75 | 80 | 0 | 87 | 99.5 | 94.9 | 95.8 | 0 | 95.5 | 97.7 | 100 | 90 | 0 | 96.9 | 95.8 | | | | |
| Buses | 0 | 42 | 2 | 0 | 44 | 0 | 0 | 2 | 0 | 2 | 0 | 47 | 6 | 0 | 53 | 1 | 0 | 0 | 0 | 1 | 100 | | | | |
| % Buses | 0 | 2.2 | 0.7 | 0 | 2 | 0 | 0 | 0 | 0 | 3.7 | 0 | 2.9 | 3.6 | 0 | 2.6 | 0.8 | 0 | 0 | 0 | 0.6 | 2.2 | | | | |
| Trucks | 2 | 33 | 1 | 0 | 36 | 3 | 1 | 1 | 0 | 5 | 1 | 37 | 1 | 0 | 39 | 2 | 0 | 2 | 0 | 4 | 84 | | | | |
| % Trucks | 4.3 | 1.7 | 0.4 | 0 | 1.6 | 8.6 | 25 | 6.7 | 0 | 9.3 | 0.5 | 2.3 | 0.6 | 0 | 1.9 | 1.5 | 0 | 10 | 0 | 2.5 | 1.9 | | | | |
| Pedestrians | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | | | | |
| % Pedestrians | 0 | 0 | 0 | 100 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | | | | |

Maser Consulting

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 1.NYS_ROUTE_22_&_OLD_ROUTE_22_OLD_POST_ROAD_581978_10-24-2018

Site Code :

Start Date : 10/24/2018

Page No : 2

| ARMONK BEDFORD RD | | | | | | OLD POST ROAD | | | | | | ARMONK BEDFORD RD | | | | | | OLD ROUTE 22 | | | | | |
|--|-------|------|------|------|------------|---------------|------|------|------|------------|-------|-------------------|------|------|------------|-------|------|--------------|------|------------|------------|--|--|
| From North | | | | | | From East | | | | | | From South | | | | | | From West | | | | | |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | |
| Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 10 | 206 | 33 | 0 | 249 | 4 | 1 | 0 | 0 | 5 | 29 | 193 | 23 | 0 | 245 | 9 | 0 | 1 | 0 | 10 | 509 | | |
| 08:15 AM | 4 | 223 | 38 | 0 | 265 | 2 | 0 | 0 | 0 | 2 | 25 | 184 | 16 | 0 | 225 | 13 | 2 | 3 | 0 | 18 | 510 | | |
| 08:30 AM | 5 | 173 | 34 | 4 | 216 | 4 | 1 | 1 | 0 | 6 | 24 | 218 | 23 | 0 | 265 | 12 | 4 | 4 | 0 | 16 | 503 | | |
| 08:45 AM | 2 | 168 | 31 | 0 | 201 | 2 | 0 | 2 | 0 | 4 | 26 | 172 | 26 | 0 | 224 | 19 | 3 | 1 | 0 | 23 | 452 | | |
| Total Volume | 21 | 770 | 136 | 4 | 931 | 12 | 2 | 3 | 0 | 17 | 104 | 767 | 88 | 0 | 959 | 53 | 5 | 9 | 0 | 67 | 1974 | | |
| % App. Total | 2.3 | 82.7 | 14.6 | 0.4 | | 70.6 | 11.8 | 17.6 | 0 | | 10.8 | 80 | 9.2 | | | 79.1 | 7.5 | 13.4 | 0 | | | | |
| PHF | .525 | .863 | .895 | .250 | .878 | .750 | .500 | .375 | .000 | .708 | .897 | .880 | .846 | .000 | .905 | .697 | .417 | .563 | .000 | .728 | .968 | | |
| Lights | 20 | 733 | 133 | 0 | 886 | 10 | 1 | 2 | 0 | 13 | 103 | 725 | 86 | 0 | 914 | 51 | 5 | 8 | 0 | 64 | 1877 | | |
| % Lights | 95.2 | 95.2 | 97.8 | 0 | 95.2 | 83.3 | 50.0 | 66.7 | 0 | 76.5 | 99.0 | 94.5 | 97.7 | 0 | 95.3 | 96.2 | 100 | 88.9 | 0 | 95.5 | 95.1 | | |
| Buses | 0 | 19 | 2 | 0 | 21 | 0 | 0 | 1 | 0 | 1 | 0 | 22 | 2 | 0 | 24 | 1 | 0 | 0 | 0 | 1 | 47 | | |
| % Buses | 0 | 2.5 | 1.5 | 0 | 2.3 | 0 | 0 | 33.3 | 0 | 5.9 | 0 | 2.9 | 2.3 | 0 | 2.5 | 1.9 | 0 | 0 | 0 | 1.5 | 2.4 | | |
| Trucks | 1 | 18 | 1 | 0 | 20 | 2 | 1 | 0 | 0 | 3 | 1 | 20 | 0 | 0 | 21 | 1 | 0 | 1 | 0 | 2 | 46 | | |
| % Trucks | 4.8 | 2.3 | 0.7 | 0 | 2.1 | 16.7 | 50.0 | 0 | 0 | 17.6 | 1.0 | 2.6 | 0 | 0 | 2.2 | 1.9 | 0 | 11.1 | 0 | 3.0 | 2.3 | | |
| Pedestrians | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | | |
| % Pedestrians | 0 | 0 | 0 | 100 | 0.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | | |

Maser Consulting
 400 Columbus Avenue - Suite 180E
 Valhalla, NY 10595
Customer Loyalty through Client Satisfaction

File Name : 1.NYS_ROUTE_22_&_OLD_ROUTE_22_OLD_POST_ROAD_581978_10-24-2018
 Site Code :
 Start Date : 10/24/2018
 Page No : 1

| ARMONK BEDFORD RD | | | | | | | | | | | Groups Printed- Lights - Buses - Trucks - Pedestrians | | | | | | | | | | | ARMONK BEDFORD RD | | | | | | | | | | | OLD ROUTE 22 | | | | | | | | | | |
|-------------------|-------|------|------|------|------------|-------|------|------|------|------------|---|------|------|------|------------|-------|------|------|------|------------|-------|-------------------|------|------|------------|------------|--|--|--|--|--|--|--------------|--|--|--|--|--|--|--|--|--|--|
| From North | | | | | | | | | | | From East | | | | | | | | | | | From South | | | | | | | | | | | From West | | | | | | | | | | |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | | | | | | | | | | | | | | | | |
| 04:00 PM | 5 | 160 | 0 | 0 | 165 | 15 | 0 | 6 | 0 | 21 | 2 | 153 | 16 | 1 | 172 | 24 | 0 | 5 | 0 | 29 | 24 | 0 | 4 | 0 | 29 | 387 | | | | | | | | | | | | | | | | | |
| 04:15 PM | 3 | 162 | 2 | 0 | 167 | 12 | 0 | 14 | 0 | 26 | 3 | 144 | 10 | 0 | 157 | 10 | 0 | 4 | 0 | 14 | 10 | 0 | 4 | 0 | 14 | 364 | | | | | | | | | | | | | | | | | |
| 04:30 PM | 3 | 173 | 2 | 1 | 179 | 15 | 0 | 6 | 0 | 21 | 1 | 172 | 14 | 1 | 188 | 10 | 0 | 12 | 0 | 22 | 10 | 0 | 8 | 0 | 22 | 410 | | | | | | | | | | | | | | | | | |
| 04:45 PM | 17 | 194 | 3 | 0 | 214 | 17 | 0 | 15 | 0 | 32 | 1 | 141 | 19 | 0 | 161 | 13 | 0 | 8 | 0 | 21 | 13 | 0 | 8 | 0 | 21 | 428 | | | | | | | | | | | | | | | | | |
| Total | 28 | 689 | 7 | 1 | 725 | 59 | 0 | 41 | 0 | 100 | 7 | 610 | 59 | 2 | 678 | 57 | 0 | 29 | 0 | 86 | 57 | 0 | 29 | 0 | 86 | 1589 | | | | | | | | | | | | | | | | | |
| 05:00 PM | 11 | 228 | 6 | 0 | 245 | 27 | 4 | 9 | 0 | 40 | 0 | 154 | 28 | 0 | 182 | 58 | 1 | 27 | 0 | 86 | 58 | 1 | 27 | 0 | 86 | 553 | | | | | | | | | | | | | | | | | |
| 05:15 PM | 5 | 214 | 4 | 0 | 223 | 37 | 1 | 26 | 0 | 64 | 4 | 188 | 24 | 0 | 216 | 35 | 1 | 14 | 1 | 51 | 35 | 1 | 14 | 1 | 51 | 554 | | | | | | | | | | | | | | | | | |
| 05:30 PM | 2 | 244 | 1 | 0 | 247 | 31 | 1 | 16 | 0 | 48 | 3 | 195 | 12 | 0 | 210 | 20 | 0 | 3 | 0 | 23 | 20 | 0 | 3 | 0 | 23 | 528 | | | | | | | | | | | | | | | | | |
| 05:45 PM | 5 | 243 | 2 | 0 | 250 | 33 | 3 | 22 | 0 | 58 | 0 | 184 | 21 | 0 | 205 | 14 | 2 | 2 | 0 | 18 | 14 | 2 | 2 | 0 | 18 | 531 | | | | | | | | | | | | | | | | | |
| Total | 23 | 929 | 13 | 0 | 965 | 128 | 9 | 73 | 0 | 210 | 7 | 721 | 85 | 0 | 813 | 127 | 4 | 46 | 1 | 178 | 127 | 4 | 46 | 1 | 178 | 2166 | | | | | | | | | | | | | | | | | |
| 06:00 PM | 3 | 229 | 5 | 0 | 237 | 27 | 1 | 18 | 0 | 46 | 2 | 208 | 25 | 0 | 235 | 19 | 0 | 8 | 0 | 27 | 19 | 0 | 8 | 0 | 27 | 545 | | | | | | | | | | | | | | | | | |
| 06:15 PM | 3 | 177 | 2 | 0 | 182 | 24 | 1 | 7 | 0 | 32 | 2 | 224 | 18 | 0 | 244 | 22 | 1 | 5 | 0 | 28 | 22 | 1 | 5 | 0 | 28 | 486 | | | | | | | | | | | | | | | | | |
| Grand Total | 57 | 2024 | 27 | 1 | 2109 | 238 | 11 | 139 | 0 | 388 | 18 | 1763 | 187 | 2 | 1970 | 225 | 5 | 88 | 1 | 319 | 225 | 5 | 88 | 1 | 319 | 4786 | | | | | | | | | | | | | | | | | |
| Apprch % | 2.7 | 96 | 1.3 | 0 | 44.1 | 61.3 | 2.8 | 35.8 | 0 | 8.1 | 0.9 | 89.5 | 9.5 | 0.1 | 41.2 | 70.5 | 1.6 | 27.6 | 0.3 | 6.7 | 70.5 | 1.6 | 27.6 | 0.3 | 6.7 | | | | | | | | | | | | | | | | | | |
| Total % | 1.2 | 42.3 | 0.6 | 0 | 2075 | 5 | 0.2 | 2.9 | 0 | 386 | 0.4 | 36.8 | 3.9 | 0 | 41.2 | 4.7 | 0.1 | 1.8 | 0 | 317 | 4.7 | 0.1 | 1.8 | 0 | 317 | 4714 | | | | | | | | | | | | | | | | | |
| Lights | 56 | 1995 | 24 | 0 | 2075 | 236 | 11 | 139 | 0 | 386 | 17 | 1733 | 186 | 0 | 1936 | 224 | 5 | 88 | 0 | 317 | 224 | 5 | 88 | 0 | 317 | 4714 | | | | | | | | | | | | | | | | | |
| % Lights | 98.2 | 98.6 | 88.9 | 0 | 98.4 | 99.2 | 100 | 100 | 0 | 99.5 | 94.4 | 98.3 | 99.5 | 0 | 98.3 | 99.6 | 100 | 100 | 0 | 99.4 | 99.6 | 100 | 100 | 0 | 99.4 | 98.5 | | | | | | | | | | | | | | | | | |
| Buses | 0 | 12 | 2 | 0 | 14 | 2 | 0 | 0 | 0 | 2 | 1 | 18 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | | | | | | | | | | | | | | | | | |
| % Buses | 0 | 0.6 | 7.4 | 0 | 0.7 | 0.8 | 0 | 0 | 0 | 0.5 | 5.6 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | | | | | | | | | | | | | | | | | |
| Trucks | 1 | 17 | 1 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 1 | 0 | 13 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 33 | | | | | | | | | | | | | | | | | |
| % Trucks | 1.8 | 0.8 | 3.7 | 0 | 0.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0.5 | 0 | 0.7 | 0.4 | 0 | 0 | 0 | 0.3 | 0.4 | 0 | 0 | 0 | 0 | 0.7 | | | | | | | | | | | | | | | | | |
| Pedestrians | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 4 | | | | | | | | | | | | | | | | | | |
| % Pedestrians | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0.1 | 0 | 0 | 0 | 100 | 0.3 | 0 | 0 | 0 | 100 | 0.3 | 0.1 | | | | | | | | | | | | | | | | | |

Maser Consulting

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 1.NYS_ROUTE_22_&_OLD_ROUTE_22_OLD_POST_ROAD_581978_10-24-2018

Site Code :

Start Date : 10/24/2018

Page No : 2

| ARMONK BEDFORD RD | | | | | | | | | | OLD POST ROAD | | | | | | | | | | ARMONK BEDFORD RD | | | | | | | | | | OLD ROUTE 22 | | | | | | | | | |
|--|-------|------|------|------|------------|-------|------|------|------|---------------|-------|------|------|------|------------|-------|------|------|------|-------------------|-------|------|------|------|------------|------------|--|--|--|--------------|--|--|--|--|--|--|--|--|--|
| From North | | | | | | | | | | From East | | | | | | | | | | From South | | | | | | | | | | From West | | | | | | | | | |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | | | | | | | | | | | | |
| Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 11 | 228 | 6 | 0 | 245 | 27 | 4 | 9 | 0 | 40 | 0 | 154 | 28 | 0 | 182 | 58 | 1 | 27 | 0 | 86 | 553 | | | | | | | | | | | | | | | | | | |
| 05:15 PM | 5 | 214 | 4 | 0 | 223 | 37 | 1 | 26 | 0 | 64 | 4 | 188 | 24 | 0 | 216 | 35 | 1 | 14 | 1 | 51 | 554 | | | | | | | | | | | | | | | | | | |
| 05:30 PM | 2 | 244 | 1 | 0 | 247 | 31 | 1 | 16 | 0 | 48 | 3 | 195 | 12 | 0 | 210 | 20 | 0 | 3 | 0 | 23 | 528 | | | | | | | | | | | | | | | | | | |
| 05:45 PM | 5 | 243 | 2 | 0 | 250 | 33 | 3 | 22 | 0 | 58 | 0 | 184 | 21 | 0 | 205 | 14 | 2 | 2 | 0 | 18 | 531 | | | | | | | | | | | | | | | | | | |
| Total Volume | 23 | 929 | 13 | 0 | 965 | 128 | 9 | 73 | 0 | 210 | 7 | 721 | 85 | 0 | 813 | 127 | 4 | 46 | 1 | 178 | 2166 | | | | | | | | | | | | | | | | | | |
| % App. Total | 2.4 | 96.3 | 1.3 | 0 | 965 | 61 | 4.3 | 34.8 | 0 | 210 | 0.9 | 88.7 | 10.5 | 0 | 813 | 71.3 | 2.2 | 25.8 | 0.6 | 178 | 2166 | | | | | | | | | | | | | | | | | | |
| PHF | .523 | .952 | .542 | .000 | .965 | .865 | .563 | .702 | .000 | .820 | .438 | .924 | .759 | .000 | .941 | .547 | .500 | .426 | .250 | .517 | .977 | | | | | | | | | | | | | | | | | | |
| Lights | 23 | 917 | 11 | 0 | 951 | 126 | 9 | 73 | 0 | 208 | 6 | 711 | 85 | 0 | 802 | 126 | 4 | 46 | 0 | 176 | 2137 | | | | | | | | | | | | | | | | | | |
| % Buses | 100 | 98.7 | 84.6 | 0 | 98.5 | 98.4 | 100 | 100 | 0 | 99.0 | 85.7 | 98.6 | 100 | 0 | 98.6 | 99.2 | 100 | 100 | 0 | 98.9 | 98.7 | | | | | | | | | | | | | | | | | | |
| % Buses | 0 | 2 | 2 | 0 | 4 | 2 | 0 | 0 | 0 | 2 | 1 | 5 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 12 | | | | | | | | | | | | | | | | | | |
| Trucks | 0 | 0.2 | 15.4 | 0 | 0.4 | 1.6 | 0 | 0 | 0 | 1.0 | 14.3 | 0.7 | 0 | 0 | 0.7 | 0 | 0 | 0 | 0 | 0 | 0.6 | | | | | | | | | | | | | | | | | | |
| Trucks | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 1 | 0 | 0 | 0 | 1 | 16 | | | | | | | | | | | | | | | | | | |
| % Trucks | 0 | 1.1 | 0 | 0 | 1.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 | 0.6 | 0.8 | 0 | 0 | 0 | 0.6 | 0.7 | | | | | | | | | | | | | | | | | | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0.0 | | | | | | | | | | | | | | | | | | |

Maser Consulting
 400 Columbus Avenue - Suite 180E
 Valhalla, NY 10595
Customer Loyalty through Client Satisfaction

File Name : 2.NYS_ROUTE_22_&.NYS_ROUTE_128_NORTH_CASTLE_DRIVE_581983_10-24-2018
 Site Code :
 Start Date : 10/24/2018
 Page No : 1

| ARMONK BEDFORD RD | | | | | | | | | | | Groups Printed - Lights - Buses - Trucks - Pedestrians N CASTEL DR | | | | | | | | | | | ARMONK BEDFORD RD | | | | | | | | | | | MAIN ST | | | | | | | | | | |
|-------------------|-------|------|------|------|------------|-------|------|------|------|------------|---|------|------|------|------------|-------|------|------|------|------------|-------|-------------------|------|------|------------|------------|--|--|--|--|--|--|-----------|--|--|--|--|--|--|--|--|--|--|
| From North | | | | | | | | | | | From East | | | | | | | | | | | From South | | | | | | | | | | | From West | | | | | | | | | | |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | | | | | | | | | | | | | | | | |
| 07:00 AM | 7 | 131 | 33 | 0 | 171 | 1 | 1 | 2 | 0 | 4 | 14 | 91 | 22 | 0 | 127 | 37 | 3 | 24 | 0 | 64 | | | | | | 366 | | | | | | | | | | | | | | | | | |
| 07:15 AM | 26 | 160 | 47 | 0 | 233 | 1 | 0 | 0 | 0 | 1 | 18 | 107 | 25 | 0 | 150 | 44 | 1 | 31 | 0 | 76 | | | | | | 460 | | | | | | | | | | | | | | | | | |
| 07:30 AM | 30 | 220 | 61 | 0 | 311 | 1 | 1 | 4 | 0 | 6 | 13 | 107 | 21 | 0 | 141 | 62 | 1 | 33 | 0 | 96 | | | | | | 554 | | | | | | | | | | | | | | | | | |
| 07:45 AM | 18 | 209 | 54 | 0 | 281 | 3 | 0 | 1 | 1 | 5 | 26 | 96 | 35 | 0 | 157 | 52 | 5 | 20 | 0 | 77 | | | | | | 520 | | | | | | | | | | | | | | | | | |
| Total | 81 | 720 | 195 | 0 | 996 | 6 | 2 | 7 | 1 | 16 | 71 | 401 | 103 | 0 | 575 | 195 | 10 | 108 | 0 | 313 | | | | | | 1900 | | | | | | | | | | | | | | | | | |
| 08:00 AM | 38 | 192 | 85 | 0 | 315 | 1 | 1 | 3 | 0 | 5 | 28 | 126 | 49 | 0 | 203 | 48 | 4 | 24 | 0 | 76 | | | | | | 599 | | | | | | | | | | | | | | | | | |
| 08:15 AM | 25 | 206 | 97 | 0 | 328 | 3 | 0 | 6 | 0 | 9 | 33 | 123 | 39 | 0 | 195 | 56 | 6 | 28 | 0 | 90 | | | | | | 622 | | | | | | | | | | | | | | | | | |
| 08:30 AM | 47 | 166 | 95 | 0 | 308 | 2 | 2 | 1 | 0 | 5 | 42 | 123 | 44 | 0 | 209 | 44 | 5 | 26 | 0 | 75 | | | | | | 597 | | | | | | | | | | | | | | | | | |
| 08:45 AM | 57 | 164 | 95 | 0 | 316 | 3 | 0 | 2 | 0 | 5 | 29 | 107 | 44 | 0 | 180 | 41 | 8 | 37 | 0 | 86 | | | | | | 587 | | | | | | | | | | | | | | | | | |
| Total | 167 | 728 | 372 | 0 | 1267 | 9 | 3 | 12 | 0 | 24 | 132 | 479 | 176 | 0 | 787 | 189 | 23 | 115 | 0 | 327 | | | | | | 2405 | | | | | | | | | | | | | | | | | |
| 09:00 AM | 42 | 131 | 71 | 0 | 244 | 3 | 1 | 0 | 0 | 4 | 26 | 113 | 43 | 0 | 182 | 35 | 4 | 38 | 0 | 77 | | | | | | 507 | | | | | | | | | | | | | | | | | |
| 09:15 AM | 30 | 132 | 48 | 0 | 210 | 3 | 0 | 3 | 0 | 6 | 23 | 80 | 37 | 0 | 140 | 46 | 4 | 41 | 0 | 91 | | | | | | 447 | | | | | | | | | | | | | | | | | |
| 09:30 AM | 20 | 118 | 32 | 0 | 170 | 1 | 1 | 4 | 0 | 6 | 20 | 69 | 33 | 0 | 122 | 39 | 4 | 20 | 0 | 63 | | | | | | 361 | | | | | | | | | | | | | | | | | |
| 09:45 AM | 22 | 96 | 13 | 0 | 131 | 4 | 0 | 0 | 0 | 4 | 8 | 78 | 41 | 0 | 127 | 32 | 3 | 36 | 0 | 71 | | | | | | 333 | | | | | | | | | | | | | | | | | |
| Total | 114 | 477 | 164 | 0 | 755 | 11 | 2 | 7 | 0 | 20 | 77 | 340 | 154 | 0 | 571 | 152 | 15 | 135 | 0 | 302 | | | | | | 1648 | | | | | | | | | | | | | | | | | |
| Grand Total | 362 | 1925 | 731 | 0 | 3018 | 26 | 7 | 26 | 1 | 60 | 280 | 1220 | 433 | 0 | 1933 | 536 | 48 | 358 | 0 | 942 | | | | | | 5953 | | | | | | | | | | | | | | | | | |
| Apprch % | 12 | 63.8 | 24.2 | 0 | 50.7 | 43.3 | 11.7 | 43.3 | 1.7 | 1 | 14.5 | 63.1 | 22.4 | 0 | 32.5 | 56.9 | 5.1 | 38 | 0 | 15.8 | | | | | | | | | | | | | | | | | | | | | | | |
| Total % | 6.1 | 32.3 | 12.3 | 0 | 50.7 | 0.4 | 0.1 | 0.4 | 0 | 1 | 4.7 | 20.5 | 7.3 | 0 | 32.5 | 9 | 0.8 | 6 | 0 | 15.8 | | | | | | | | | | | | | | | | | | | | | | | |
| Lights | 343 | 1873 | 724 | 0 | 2940 | 22 | 6 | 20 | 0 | 48 | 268 | 1154 | 409 | 0 | 1831 | 508 | 47 | 344 | 0 | 899 | | | | | | 5718 | | | | | | | | | | | | | | | | | |
| % Lights | 94.8 | 97.3 | 99 | 0 | 97.4 | 84.6 | 85.7 | 76.9 | 0 | 80 | 95.7 | 94.6 | 94.5 | 0 | 94.7 | 94.8 | 97.9 | 96.1 | 0 | 95.4 | | | | | | 96.1 | | | | | | | | | | | | | | | | | |
| Buses | 5 | 24 | 3 | 0 | 32 | 2 | 0 | 4 | 0 | 6 | 8 | 32 | 9 | 0 | 49 | 13 | 0 | 6 | 0 | 19 | | | | | | 106 | | | | | | | | | | | | | | | | | |
| % Buses | 1.4 | 1.2 | 0.4 | 0 | 1.1 | 7.7 | 0 | 15.4 | 0 | 10 | 2.9 | 2.6 | 2.1 | 0 | 2.5 | 2.4 | 0 | 1.7 | 0 | 2 | | | | | | 1.8 | | | | | | | | | | | | | | | | | |
| Trucks | 14 | 28 | 4 | 0 | 46 | 2 | 1 | 2 | 0 | 5 | 4 | 34 | 15 | 0 | 53 | 15 | 1 | 8 | 0 | 24 | | | | | | 128 | | | | | | | | | | | | | | | | | |
| % Trucks | 3.9 | 1.5 | 0.5 | 0 | 1.5 | 7.7 | 14.3 | 7.7 | 0 | 8.3 | 1.4 | 2.8 | 3.5 | 0 | 2.7 | 2.8 | 2.1 | 2.2 | 0 | 2.5 | | | | | | 2.2 | | | | | | | | | | | | | | | | | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | 1 | | | | | | | | | | | | | | | | | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 1.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | 0 | | | | | | | | | | | | | | | | | |

Maser Consulting

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 2.NYS_ROUTE_22_&_NYS_ROUTE_128_NORTH_CASTLE_DRIVE_581983_10-24-2018

Site Code :

Start Date : 10/24/2018

Page No : 2

| ARMONK BEDFORD RD From North | | | | | | N CASTEL DR From East | | | | | | ARMONK BEDFORD RD From South | | | | | | MAIN ST From West | | | | | |
|--|-------|------|------|------|------------|--------------------------|------|------|------|------------|-------|---------------------------------|------|------|------------|-------|------|----------------------|------|------------|------------|--|--|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | |
| Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 38 | 192 | 85 | 0 | 315 | 1 | 1 | 3 | 0 | 5 | 28 | 126 | 49 | 0 | 203 | 48 | 4 | 24 | 0 | 76 | 599 | | |
| 08:15 AM | 25 | 206 | 97 | 0 | 328 | 3 | 0 | 6 | 0 | 9 | 33 | 123 | 39 | 0 | 195 | 56 | 6 | 28 | 0 | 90 | 622 | | |
| 08:30 AM | 47 | 166 | 95 | 0 | 308 | 2 | 2 | 1 | 0 | 5 | 42 | 123 | 44 | 0 | 209 | 44 | 5 | 26 | 0 | 75 | 597 | | |
| 08:45 AM | 57 | 164 | 95 | 0 | 316 | 3 | 0 | 2 | 0 | 5 | 29 | 107 | 44 | 0 | 180 | 41 | 8 | 37 | 0 | 86 | 587 | | |
| Total Volume | 167 | 728 | 372 | 0 | 1267 | 9 | 3 | 12 | 0 | 24 | 132 | 479 | 176 | 0 | 787 | 189 | 23 | 115 | 0 | 327 | 2405 | | |
| % App. Total | 13.2 | 57.5 | 29.4 | 0 | | 37.5 | 12.5 | 50 | 0 | | 16.8 | 60.9 | 22.4 | 0 | | 57.8 | 7 | 35.2 | 0 | | | | |
| PHF | .732 | .883 | .959 | .000 | .966 | .750 | .375 | .500 | .000 | .667 | .786 | .950 | .898 | .000 | .941 | .844 | .719 | .777 | .000 | .908 | .967 | | |
| Lights | 160 | 712 | 369 | 0 | 1241 | 8 | 2 | 8 | 0 | 18 | 127 | 449 | 167 | 0 | 743 | 174 | 22 | 111 | 0 | 307 | 2309 | | |
| % Lights | 95.8 | 97.8 | 99.2 | 0 | 97.9 | 88.9 | 66.7 | 66.7 | 0 | 75.0 | 96.2 | 93.7 | 94.9 | 0 | 94.4 | 92.1 | 95.7 | 96.5 | 0 | 93.9 | 96.0 | | |
| Buses | 2 | 10 | 2 | 0 | 14 | 0 | 0 | 2 | 0 | 2 | 4 | 15 | 3 | 0 | 22 | 6 | 0 | 3 | 0 | 9 | 47 | | |
| % Buses | 1.2 | 1.4 | 0.5 | 0 | 1.1 | 0 | 0 | 16.7 | 0 | 8.3 | 3.0 | 3.1 | 1.7 | 0 | 2.8 | 3.2 | 0 | 2.6 | 0 | 2.8 | 2.0 | | |
| Trucks | 5 | 6 | 1 | 0 | 12 | 1 | 1 | 2 | 0 | 4 | 1 | 15 | 6 | 0 | 22 | 9 | 1 | 1 | 0 | 11 | 49 | | |
| % Trucks | 3.0 | 0.8 | 0.3 | 0 | 0.9 | 11.1 | 33.3 | 16.7 | 0 | 16.7 | 0.8 | 3.1 | 3.4 | 0 | 2.8 | 4.8 | 4.3 | 0.9 | 0 | 3.4 | 2.0 | | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

400 Columbus Avenue - Suite 180E

Customer Loyalty through Client Satisfaction

Site Code :

Page No : 1

| | | ARMONK BEDFORD RD | | | | | Groups Printed- Lights - Buses - Trucks - Pedestrians | | | | | ARMONK BEDFORD RD | | | | | MAIN ST | | | | |
|---------------|-------|-------------------|------|------|------------|-------|---|------|------|------------|-------|-------------------|------|------|------------|-------|-----------|------|------|------------|------------|
| | | From North | | | | | N CASTLE DR From East | | | | | From South | | | | | From West | | | | |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 33 | 118 | 1 | 0 | 152 | 30 | 2 | 14 | 0 | 46 | 1 | 145 | 37 | 0 | 183 | 40 | 2 | 37 | 0 | 79 | 460 |
| 04:15 PM | 16 | 107 | 0 | 0 | 123 | 32 | 0 | 14 | 0 | 46 | 3 | 125 | 41 | 0 | 169 | 50 | 2 | 34 | 1 | 87 | 425 |
| 04:30 PM | 20 | 112 | 3 | 0 | 135 | 39 | 3 | 21 | 0 | 63 | 0 | 134 | 52 | 0 | 186 | 47 | 3 | 38 | 1 | 89 | 473 |
| 04:45 PM | 27 | 162 | 2 | 0 | 191 | 40 | 4 | 7 | 0 | 51 | 3 | 124 | 48 | 0 | 175 | 53 | 2 | 46 | 0 | 101 | 518 |
| Total | 96 | 499 | 6 | 0 | 601 | 141 | 9 | 56 | 0 | 206 | 7 | 528 | 178 | 0 | 713 | 190 | 9 | 155 | 2 | 356 | 1876 |
| 05:00 PM | 29 | 169 | 1 | 0 | 199 | 78 | 4 | 31 | 0 | 113 | 2 | 170 | 50 | 0 | 222 | 54 | 1 | 46 | 0 | 101 | 635 |
| 05:15 PM | 23 | 154 | 2 | 0 | 179 | 75 | 8 | 27 | 0 | 110 | 3 | 172 | 68 | 0 | 243 | 44 | 0 | 49 | 1 | 94 | 626 |
| 05:30 PM | 33 | 168 | 2 | 0 | 203 | 73 | 12 | 32 | 0 | 117 | 2 | 151 | 75 | 0 | 228 | 45 | 0 | 30 | 0 | 75 | 623 |
| 05:45 PM | 30 | 182 | 2 | 0 | 214 | 69 | 4 | 33 | 0 | 106 | 2 | 140 | 77 | 0 | 219 | 49 | 1 | 37 | 0 | 87 | 626 |
| Total | 115 | 673 | 7 | 0 | 795 | 295 | 28 | 123 | 0 | 446 | 9 | 633 | 270 | 0 | 912 | 192 | 2 | 162 | 1 | 357 | 2510 |
| 06:00 PM | 34 | 180 | 4 | 0 | 218 | 67 | 5 | 15 | 0 | 87 | 1 | 170 | 72 | 0 | 243 | 36 | 1 | 31 | 0 | 68 | 616 |
| 06:15 PM | 15 | 135 | 2 | 0 | 152 | 67 | 5 | 13 | 0 | 85 | 2 | 190 | 66 | 0 | 258 | 27 | 0 | 42 | 0 | 69 | 564 |
| 06:30 PM | 25 | 107 | 0 | 0 | 132 | 42 | 3 | 16 | 0 | 61 | 3 | 143 | 59 | 0 | 205 | 22 | 0 | 31 | 0 | 53 | 451 |
| 06:45 PM | 15 | 61 | 2 | 0 | 78 | 35 | 8 | 6 | 0 | 49 | 1 | 137 | 40 | 0 | 178 | 27 | 0 | 30 | 0 | 57 | 362 |
| Total | 89 | 483 | 8 | 0 | 580 | 211 | 21 | 50 | 0 | 282 | 7 | 640 | 237 | 0 | 884 | 112 | 1 | 134 | 0 | 247 | 1993 |
| Grand Total | 300 | 1655 | 21 | 0 | 1976 | 647 | 58 | 229 | 0 | 934 | 23 | 1801 | 685 | 0 | 2509 | 494 | 12 | 451 | 3 | 960 | 6379 |
| Approch % | 15.2 | 83.8 | 1.1 | 0 | | 69.3 | 6.2 | 24.5 | 0 | | 0.9 | 71.8 | 27.3 | 0 | | 51.5 | 1.2 | 47 | 0.3 | | |
| Total % | 4.7 | 25.9 | 0.3 | 0 | 31 | 10.1 | 0.9 | 3.6 | 0 | 14.6 | 0.4 | 28.2 | 10.7 | 0 | 39.3 | 7.7 | 0.2 | 7.1 | 0 | 15 | |
| Lights | 293 | 1627 | 20 | 0 | 1940 | 646 | 58 | 227 | 0 | 931 | 14 | 1779 | 675 | 0 | 2468 | 482 | 11 | 446 | 0 | 939 | 6278 |
| % Lights | 97.7 | 98.3 | 95.2 | 0 | 98.2 | 99.8 | 100 | 99.1 | 0 | 99.7 | 60.9 | 98.8 | 98.5 | 0 | 98.4 | 97.6 | 91.7 | 98.9 | 0 | 97.8 | 98.4 |
| Buses | 6 | 10 | 0 | 0 | 16 | 0 | 0 | 2 | 0 | 2 | 9 | 10 | 6 | 0 | 25 | 4 | 0 | 0 | 0 | 4 | 47 |
| % Buses | 2 | 0.6 | 0 | 0 | 0.8 | 0 | 0 | 0.9 | 0 | 0.2 | 39.1 | 0.6 | 0.9 | 0 | 1 | 0.8 | 0 | 0 | 0 | 0.4 | 0.7 |
| Trucks | 1 | 18 | 1 | 0 | 20 | 1 | 0 | 0 | 0 | 1 | 0 | 12 | 4 | 0 | 16 | 8 | 1 | 5 | 0 | 14 | 51 |
| % Trucks | 0.3 | 1.1 | 4.8 | 0 | 1 | 0.2 | 0 | 0 | 0 | 0.1 | 0 | 0.7 | 0.6 | 0 | 0.6 | 1.6 | 8.3 | 1.1 | 0 | 1.5 | 0.8 |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0 |

Maser Consulting

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Site Code :

Start Date : 10/24/2018

Page No : 2

| ARMONK BEDFORD RD | | | | | | | | | | N CASTEL DR | | | | | | | | | | ARMONK BEDFORD RD | | | | | | | | | | MAIN ST | | | | | | | | | |
|--|-------|------|------|------|------------|-------|------|------|------|-------------|-------|------|------|------|------------|-------|------|------|------|-------------------|-------|------|------|------|------------|------------|--|--|--|-----------|--|--|--|--|--|--|--|--|--|
| From North | | | | | | | | | | From East | | | | | | | | | | From South | | | | | | | | | | From West | | | | | | | | | |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | | | | | | | | | | | | |
| Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 29 | 169 | 1 | 0 | 199 | 78 | 4 | 31 | 0 | 113 | 2 | 170 | 50 | 0 | 222 | 54 | 1 | 46 | 0 | 101 | 635 | | | | | | | | | | | | | | | | | | |
| 05:15 PM | 23 | 154 | 2 | 0 | 179 | 75 | 8 | 27 | 0 | 110 | 3 | 172 | 68 | 0 | 243 | 44 | 0 | 49 | 1 | 94 | 626 | | | | | | | | | | | | | | | | | | |
| 05:30 PM | 33 | 168 | 2 | 0 | 203 | 73 | 12 | 32 | 0 | 117 | 2 | 151 | 75 | 0 | 228 | 45 | 0 | 30 | 0 | 75 | 623 | | | | | | | | | | | | | | | | | | |
| 05:45 PM | 30 | 182 | 2 | 0 | 214 | 69 | 4 | 33 | 0 | 106 | 2 | 140 | 77 | 0 | 219 | 49 | 1 | 37 | 0 | 87 | 626 | | | | | | | | | | | | | | | | | | |
| Total Volume | 115 | 673 | 7 | 0 | 795 | 295 | 28 | 123 | 0 | 446 | 9 | 633 | 270 | 0 | 912 | 192 | 2 | 162 | 1 | 357 | 2510 | | | | | | | | | | | | | | | | | | |
| % App. Total | 14.5 | 84.7 | 0.9 | 0 | | 66.1 | 6.3 | 27.6 | 0 | | 1 | 69.4 | 29.6 | 0 | | 53.8 | 0.6 | 45.4 | 0.3 | | | | | | | | | | | | | | | | | | | | |
| PHF | .871 | .924 | .875 | .000 | .929 | .946 | .583 | .932 | .000 | .953 | .750 | .920 | .877 | .000 | .938 | .889 | .500 | .827 | .250 | .884 | .988 | | | | | | | | | | | | | | | | | | |
| Lights | 114 | 661 | 7 | 0 | 782 | 295 | 28 | 121 | 0 | 444 | 7 | 625 | 266 | 0 | 898 | 191 | 2 | 159 | 0 | 352 | 2476 | | | | | | | | | | | | | | | | | | |
| % Buses | 99.1 | 98.2 | 100 | 0 | 98.4 | 100 | 100 | 98.4 | 0 | 99.6 | 77.8 | 98.7 | 98.5 | 0 | 98.5 | 99.5 | 100 | 98.1 | 0 | 98.6 | 98.6 | | | | | | | | | | | | | | | | | | |
| % Trucks | 1 | 2 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 2 | 2 | 4 | 2 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 13 | | | | | | | | | | | | | | | | | | |
| % Trucks | 0.9 | 0.3 | 0 | 0 | 0.4 | 0 | 0 | 1.6 | 0 | 0.4 | 22.2 | 0.6 | 0.7 | 0 | 0.9 | 0 | 0 | 0 | 0 | 0 | 0.5 | | | | | | | | | | | | | | | | | | |
| % Trucks | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 6 | 1 | 0 | 3 | 0 | 4 | 20 | | | | | | | | | | | | | | | | | | |
| % Trucks | 0 | 1.5 | 0 | 0 | 1.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0.7 | 0 | 0.7 | 0.5 | 0 | 1.9 | 0 | 1.1 | 0.8 | | | | | | | | | | | | | | | | | | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0.3 | 0.0 | | | | | | | | | | | | | | | | | | |

Maser Consulting

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 3.NYS_ROUTE_22_&_MAPLE_AVENUE_581985_10-24-2018

Site Code :

Start Date : 10/24/2018

Page No : 1

| ARMONK BEDFORD RD | | | | | | | | | | | BUSINESS PARK DR | | | | | | | | | | | Groups Printed- Lights - Buses - Trucks - Pedestrians | | | | | | | | | | | ARMONK BEDFORD RD | | | | | | | | | | | MAPLE AVE | | | | | | | | | | |
|-------------------|-------|------|------|------|------------|-------|------|------|------|------------|------------------|------|------|------|------------|-------|------|------|------|------------|-------|---|------|------|------------|------------|--|--|--|--|--|--|-------------------|--|--|--|--|--|--|--|--|--|--|-----------|--|--|--|--|--|--|--|--|--|--|
| From North | | | | | | | | | | | From East | | | | | | | | | | | From South | | | | | | | | | | | From West | | | | | | | | | | | | | | | | | | | | | |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07:00 AM | 61 | 171 | 28 | 0 | 260 | 8 | 4 | 6 | 0 | 18 | 15 | 78 | 18 | 0 | 111 | 3 | 10 | 55 | 0 | 68 | 457 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07:15 AM | 98 | 247 | 50 | 0 | 395 | 17 | 4 | 8 | 0 | 29 | 14 | 103 | 26 | 0 | 143 | 10 | 9 | 77 | 0 | 96 | 663 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 116 | 293 | 30 | 0 | 439 | 13 | 4 | 8 | 0 | 25 | 14 | 97 | 23 | 0 | 134 | 23 | 10 | 81 | 0 | 114 | 712 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07:45 AM | 92 | 276 | 62 | 0 | 430 | 13 | 4 | 10 | 0 | 27 | 22 | 90 | 11 | 1 | 124 | 9 | 17 | 60 | 0 | 86 | 667 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 367 | 987 | 170 | 0 | 1524 | 51 | 16 | 32 | 0 | 99 | 65 | 368 | 78 | 1 | 512 | 45 | 46 | 273 | 0 | 364 | 2499 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 99 | 272 | 39 | 0 | 410 | 13 | 5 | 12 | 0 | 30 | 36 | 102 | 11 | 0 | 149 | 15 | 11 | 16 | 0 | 42 | 631 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 08:15 AM | 86 | 291 | 40 | 0 | 417 | 15 | 14 | 15 | 0 | 44 | 27 | 110 | 20 | 2 | 159 | 16 | 15 | 67 | 0 | 98 | 718 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 08:30 AM | 81 | 283 | 35 | 0 | 399 | 19 | 14 | 13 | 0 | 46 | 33 | 120 | 9 | 1 | 163 | 9 | 18 | 70 | 0 | 97 | 705 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 08:45 AM | 86 | 271 | 54 | 0 | 411 | 15 | 10 | 15 | 0 | 40 | 39 | 106 | 3 | 0 | 148 | 11 | 15 | 56 | 0 | 82 | 681 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 352 | 1117 | 168 | 0 | 1637 | 62 | 43 | 55 | 0 | 160 | 135 | 438 | 43 | 3 | 619 | 51 | 59 | 209 | 0 | 319 | 2735 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 719 | 2104 | 338 | 0 | 3161 | 113 | 59 | 87 | 0 | 259 | 200 | 806 | 121 | 4 | 1131 | 96 | 105 | 482 | 0 | 683 | 5234 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Apprch % | 22.7 | 66.6 | 10.7 | 0 | 60.4 | 43.6 | 22.8 | 33.6 | 0 | 4.9 | 17.7 | 71.3 | 10.7 | 0.4 | 21.6 | 14.1 | 15.4 | 70.6 | 0 | 13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total % | 13.7 | 40.2 | 6.5 | 0 | 13.7 | 2.2 | 1.1 | 1.7 | 0 | 1.5 | 3.8 | 15.4 | 2.3 | 0.1 | 9.2 | 1.8 | 2 | 9.2 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lights | 668 | 2069 | 332 | 0 | 3069 | 109 | 59 | 84 | 0 | 252 | 197 | 754 | 108 | 0 | 1059 | 82 | 104 | 441 | 0 | 627 | 5007 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % Lights | 92.9 | 98.3 | 98.2 | 0 | 97.1 | 96.5 | 100 | 96.6 | 0 | 97.3 | 98.5 | 93.5 | 89.3 | 0 | 93.6 | 85.4 | 99 | 91.5 | 0 | 91.8 | 95.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Buses | 30 | 15 | 0 | 0 | 45 | 0 | 0 | 2 | 0 | 2 | 2 | 22 | 11 | 0 | 35 | 12 | 0 | 24 | 0 | 36 | 118 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % Buses | 4.2 | 0.7 | 0 | 0 | 1.4 | 0 | 0 | 2.3 | 0 | 0.8 | 1 | 2.7 | 9.1 | 0 | 3.1 | 12.5 | 0 | 5 | 0 | 5.3 | 2.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trucks | 21 | 20 | 6 | 0 | 47 | 4 | 0 | 1 | 0 | 5 | 1 | 30 | 2 | 0 | 33 | 2 | 1 | 17 | 0 | 20 | 105 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % Trucks | 2.9 | 1 | 1.8 | 0 | 1.5 | 3.5 | 0 | 1.1 | 0 | 1.9 | 0.5 | 3.7 | 1.7 | 0 | 2.9 | 2.1 | 1 | 3.5 | 0 | 2.9 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0 | 0.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Maser Consulting

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 3.NYS_ROUTE_22_&_MAPLE_AVENUE_581985_10-24-2018

Site Code :

Start Date : 10/24/2018

Page No : 2

| ARMONK BEDFORD RD | | | | | | BUSINESS PARK DR | | | | | | ARMONK BEDFORD RD | | | | | | MAPLE AVE | | | | | |
|--|-------|------|------|------|------------|------------------|------|------|------|------------|-------|-------------------|------|------|------------|-------|------|-----------|------|------------|------------|--|--|
| From North | | | | | | From East | | | | | | From South | | | | | | From West | | | | | |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | |
| Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 99 | 272 | 39 | 0 | 410 | 13 | 5 | 12 | 0 | 30 | 36 | 102 | 11 | 0 | 149 | 15 | 11 | 16 | 0 | 42 | 631 | | |
| 08:15 AM | 86 | 291 | 40 | 0 | 417 | 15 | 14 | 15 | 0 | 44 | 27 | 110 | 20 | 2 | 159 | 16 | 15 | 67 | 0 | 98 | 718 | | |
| 08:30 AM | 81 | 283 | 35 | 0 | 399 | 19 | 14 | 13 | 0 | 46 | 33 | 120 | 9 | 1 | 163 | 9 | 18 | 70 | 0 | 97 | 705 | | |
| 08:45 AM | 86 | 271 | 54 | 0 | 411 | 15 | 10 | 15 | 0 | 40 | 39 | 106 | 3 | 0 | 148 | 11 | 15 | 56 | 0 | 82 | 681 | | |
| Total Volume | 352 | 1117 | 168 | 0 | 1637 | 62 | 43 | 55 | 0 | 160 | 135 | 438 | 43 | 3 | 619 | 51 | 59 | 209 | 0 | 319 | 2735 | | |
| % App. Total | 21.5 | 68.2 | 10.3 | 0 | | 38.8 | 26.9 | 34.4 | 0 | | 21.8 | 70.8 | 6.9 | 0.5 | | 16 | 18.5 | 65.5 | 0 | | | | |
| PHF | .889 | .960 | .778 | .000 | .981 | .816 | .768 | .917 | .000 | .870 | .865 | .913 | .538 | .375 | .949 | .797 | .819 | .746 | .000 | .814 | .952 | | |
| Lights | 327 | 1100 | 166 | 0 | 1593 | 61 | 43 | 54 | 0 | 158 | 134 | 408 | 33 | 0 | 575 | 46 | 59 | 197 | 0 | 302 | 2628 | | |
| % Lights | 92.9 | 98.5 | 98.8 | 0 | 97.3 | 98.4 | 100 | 98.2 | 0 | 98.8 | 99.3 | 93.2 | 76.7 | 0 | 92.9 | 90.2 | 100 | 94.3 | 0 | 94.7 | 96.1 | | |
| Buses | 14 | 7 | 0 | 0 | 21 | 0 | 0 | 1 | 0 | 1 | 1 | 7 | 9 | 0 | 17 | 4 | 0 | 5 | 0 | 9 | 48 | | |
| % Buses | 4.0 | 0.6 | 0 | 0 | 1.3 | 0 | 0 | 1.8 | 0 | 0.6 | 0.7 | 1.6 | 20.9 | 0 | 2.7 | 7.8 | 0 | 2.4 | 0 | 2.8 | 1.8 | | |
| Trucks | 11 | 10 | 2 | 0 | 23 | 1 | 0 | 0 | 0 | 1 | 0 | 23 | 1 | 0 | 24 | 1 | 0 | 7 | 0 | 8 | 56 | | |
| % Trucks | 3.1 | 0.9 | 1.2 | 0 | 1.4 | 1.6 | 0 | 0 | 0 | 0.6 | 0 | 5.3 | 2.3 | 0 | 3.9 | 2.0 | 0 | 3.3 | 0 | 2.5 | 2.0 | | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0.1 | | |

Maser Consulting
 400 Columbus Avenue - Suite 180E
 Valhalla, NY 10595
Customer Loyalty through Client Satisfaction

File Name : 3.NYS_ROUTE_22_&_MAPLE_AVENUE_581985_10-24-2018
 Site Code :
 Start Date : 10/24/2018
 Page No : 1

| ARMONK BEDFORD RD | | | | | | | | | | | BUSINESS PARK DR | | | | | | | | | | | Groups Printed- Lights - Buses - Trucks - Pedestrians | | | | | | | | | | | ARMONK BEDFORD RD | | | | | | | | | | | MAPLE AVE | | | | | | | | | | |
|-------------------|------------|------|------|------|------------|-----------|------|------|------|------------|------------------|------|------|------|------------|-----------|------|------|------|------------|------------|---|--|--|--|--|--|--|--|--|--|--|-------------------|--|--|--|--|--|--|--|--|--|--|-----------|--|--|--|--|--|--|--|--|--|--|
| Start Time | From North | | | | | From East | | | | | From South | | | | | From West | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04:00 PM | 87 | 111 | 16 | 0 | 214 | 37 | 19 | 22 | 0 | 78 | 9 | 200 | 9 | 1 | 219 | 17 | 9 | 77 | 0 | 103 | 614 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04:15 PM | 71 | 101 | 28 | 0 | 200 | 27 | 6 | 4 | 0 | 37 | 7 | 170 | 4 | 0 | 181 | 16 | 10 | 100 | 0 | 126 | 544 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04:30 PM | 77 | 113 | 25 | 0 | 215 | 58 | 8 | 13 | 0 | 79 | 16 | 202 | 7 | 0 | 225 | 17 | 12 | 77 | 0 | 106 | 625 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04:45 PM | 62 | 137 | 36 | 0 | 235 | 48 | 11 | 26 | 0 | 85 | 24 | 168 | 7 | 0 | 199 | 20 | 12 | 87 | 0 | 119 | 638 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 297 | 462 | 105 | 0 | 864 | 170 | 44 | 65 | 0 | 279 | 56 | 740 | 27 | 1 | 824 | 70 | 43 | 341 | 0 | 454 | 2421 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 48 | 154 | 22 | 0 | 224 | 96 | 11 | 44 | 0 | 151 | 19 | 250 | 3 | 0 | 272 | 5 | 9 | 89 | 0 | 103 | 750 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05:15 PM | 80 | 133 | 36 | 0 | 249 | 56 | 20 | 41 | 0 | 117 | 21 | 281 | 5 | 1 | 308 | 15 | 10 | 80 | 0 | 105 | 779 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05:30 PM | 85 | 158 | 27 | 0 | 270 | 53 | 11 | 24 | 0 | 88 | 8 | 235 | 14 | 0 | 257 | 9 | 5 | 80 | 0 | 94 | 709 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05:45 PM | 102 | 187 | 37 | 0 | 326 | 41 | 17 | 31 | 0 | 89 | 16 | 225 | 8 | 0 | 249 | 15 | 14 | 64 | 0 | 93 | 757 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 315 | 632 | 122 | 0 | 1069 | 246 | 59 | 140 | 0 | 445 | 64 | 991 | 30 | 1 | 1086 | 44 | 38 | 313 | 0 | 395 | 2995 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 06:00 PM | 102 | 196 | 28 | 0 | 326 | 52 | 15 | 23 | 0 | 90 | 15 | 249 | 6 | 1 | 271 | 10 | 13 | 71 | 0 | 94 | 781 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 06:15 PM | 69 | 123 | 41 | 0 | 233 | 34 | 13 | 16 | 0 | 63 | 19 | 264 | 4 | 0 | 287 | 5 | 9 | 73 | 0 | 87 | 670 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 783 | 1413 | 296 | 0 | 2492 | 502 | 131 | 244 | 0 | 877 | 154 | 2244 | 67 | 3 | 2468 | 129 | 103 | 798 | 0 | 1030 | 6867 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Apprch % | 31.4 | 56.7 | 11.9 | 0 | | 57.2 | 14.9 | 27.8 | 0 | | 6.2 | 90.9 | 2.7 | 0.1 | | 12.5 | 10 | 77.5 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total % | 11.4 | 20.6 | 4.3 | 0 | 36.3 | 7.3 | 1.9 | 3.6 | 0 | 12.8 | 2.2 | 32.7 | 1 | 0 | 35.9 | 1.9 | 1.5 | 11.6 | 0 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lights | 768 | 1385 | 281 | 0 | 2434 | 499 | 127 | 241 | 0 | 867 | 154 | 2222 | 62 | 0 | 2438 | 127 | 101 | 787 | 0 | 1015 | 6754 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % Lights | 98.1 | 98 | 94.9 | 0 | 97.7 | 99.4 | 96.9 | 98.8 | 0 | 98.9 | 100 | 99 | 92.5 | 0 | 98.8 | 98.4 | 98.1 | 98.6 | 0 | 98.5 | 98.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Buses | 13 | 10 | 0 | 0 | 23 | 0 | 1 | 2 | 0 | 3 | 0 | 6 | 5 | 0 | 11 | 2 | 2 | 5 | 0 | 9 | 46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % Buses | 1.7 | 0.7 | 0 | 0 | 0.9 | 0 | 0.8 | 0.8 | 0 | 0.3 | 0 | 0.3 | 7.5 | 0 | 0.4 | 1.6 | 1.9 | 0.6 | 0 | 0.9 | 0.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trucks | 2 | 18 | 15 | 0 | 35 | 3 | 3 | 1 | 0 | 7 | 0 | 16 | 0 | 0 | 16 | 0 | 0 | 6 | 0 | 6 | 64 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % Trucks | 0.3 | 1.3 | 5.1 | 0 | 1.4 | 0.6 | 2.3 | 0.4 | 0 | 0.8 | 0 | 0.7 | 0 | 0 | 0.6 | 0 | 0 | 0.8 | 0 | 0.6 | 0.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0.1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Maser Consulting

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

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File Name : 3.NYS_ROUTE_22_&_MAPLE_AVENUE_581985_10-24-2018

Site Code :

Start Date : 10/24/2018

Page No : 2

| ARMONK BEDFORD RD | | | | | | | | | | BUSINESS PARK DR | | | | | | | | | | ARMONK BEDFORD RD | | | | | | | | | | MAPLE AVE | | | | | | | | | |
|--|-------|------|------|------|------------|-------|------|------|------|------------------|-------|------|------|------|------------|-------|------|------|------|-------------------|-------|------|------|------|------------|------------|--|--|--|-----------|--|--|--|--|--|--|--|--|--|
| From North | | | | | | | | | | From East | | | | | | | | | | From South | | | | | | | | | | From West | | | | | | | | | |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | | | | | | | | | | | | |
| Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 48 | 154 | 22 | 0 | 224 | 96 | 11 | 44 | 0 | 151 | 19 | 250 | 3 | 0 | 272 | 5 | 9 | 89 | 0 | 103 | 750 | | | | | | | | | | | | | | | | | | |
| 05:15 PM | 80 | 133 | 36 | 0 | 249 | 56 | 20 | 41 | 0 | 117 | 21 | 281 | 5 | 1 | 308 | 15 | 10 | 80 | 0 | 105 | 779 | | | | | | | | | | | | | | | | | | |
| 05:30 PM | 85 | 158 | 27 | 0 | 270 | 53 | 11 | 24 | 0 | 88 | 8 | 235 | 14 | 0 | 257 | 9 | 5 | 80 | 0 | 94 | 709 | | | | | | | | | | | | | | | | | | |
| 05:45 PM | 102 | 187 | 37 | 0 | 326 | 41 | 17 | 31 | 0 | 89 | 16 | 225 | 8 | 0 | 249 | 15 | 14 | 64 | 0 | 93 | 757 | | | | | | | | | | | | | | | | | | |
| Total Volume | 315 | 632 | 122 | 0 | 1069 | 246 | 59 | 140 | 0 | 445 | 64 | 991 | 30 | 1 | 1086 | 44 | 38 | 313 | 0 | 395 | 2995 | | | | | | | | | | | | | | | | | | |
| % App. Total | 29.5 | 59.1 | 11.4 | 0 | | 55.3 | 13.3 | 31.5 | 0 | | 5.9 | 91.3 | 2.8 | 0.1 | | 11.1 | 9.6 | 79.2 | 0 | | | | | | | | | | | | | | | | | | | | |
| PHF | .772 | .845 | .824 | .000 | .820 | .641 | .738 | .795 | .000 | .737 | .762 | .882 | .536 | .250 | .881 | .733 | .679 | .879 | .000 | .940 | .961 | | | | | | | | | | | | | | | | | | |
| Lights | 314 | 622 | 116 | 0 | 1052 | 246 | 57 | 139 | 0 | 442 | 64 | 985 | 29 | 0 | 1078 | 44 | 37 | 310 | 0 | 391 | 2963 | | | | | | | | | | | | | | | | | | |
| % Lights | 99.7 | 98.4 | 95.1 | 0 | 98.4 | 100 | 96.6 | 99.3 | 0 | 99.3 | 100 | 99.4 | 96.7 | 0 | 99.3 | 100 | 97.4 | 99.0 | 0 | 99.0 | 98.9 | | | | | | | | | | | | | | | | | | |
| Buses | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 1 | 0 | 4 | 0 | 1 | 2 | 0 | 3 | 10 | | | | | | | | | | | | | | | | | | |
| % Buses | 0 | 0.3 | 0 | 0 | 0.2 | 0 | 0 | 0.7 | 0 | 0.2 | 0 | 0.3 | 3.3 | 0 | 0.4 | 0 | 2.6 | 0.6 | 0 | 0.8 | 0.3 | | | | | | | | | | | | | | | | | | |
| Trucks | 1 | 8 | 6 | 0 | 15 | 0 | 2 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 1 | 21 | | | | | | | | | | | | | | | | | | |
| % Trucks | 0.3 | 1.3 | 4.9 | 0 | 1.4 | 0 | 3.4 | 0 | 0 | 0.4 | 0 | 0.3 | 0 | 0 | 0.3 | 0 | 0 | 0.3 | 0 | 0.3 | 0.7 | | | | | | | | | | | | | | | | | | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | | | | | | | | | | | | | | | | | | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.0 | | | | | | | | | | | | | | | | | | |

Maser Consulting
 400 Columbus Avenue - Suite 180E
 Valhalla, NY 10595
Customer Loyalty through Client Satisfaction

File Name : 4.BEDFORD_ROAD_&_MAPLE_AVENUE_581991_10-24-2018
 Site Code :
 Start Date : 10/24/2018
 Page No : 1

| | | MAPLE AV From North | | | | | BEDFORD ED From East | | | | | MAPLE AVE From South | | | | | BEDFORD RD From West | | | | |
|---------------|-------|------------------------|------|------|------------|-------|-------------------------|------|------|------------|-------|-------------------------|------|------|------------|-------|-------------------------|------|------|------------|------------|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:00 AM | 1 | 25 | 1 | 0 | 27 | 3 | 6 | 20 | 0 | 29 | 40 | 21 | 22 | 0 | 83 | 21 | 8 | 1 | 0 | 30 | 169 |
| 07:15 AM | 0 | 31 | 7 | 0 | 38 | 3 | 9 | 45 | 0 | 57 | 77 | 23 | 16 | 0 | 116 | 26 | 17 | 1 | 0 | 44 | 255 |
| 07:30 AM | 1 | 29 | 3 | 0 | 33 | 12 | 37 | 53 | 0 | 102 | 91 | 37 | 21 | 0 | 149 | 28 | 17 | 1 | 0 | 46 | 330 |
| 07:45 AM | 3 | 27 | 6 | 0 | 36 | 5 | 11 | 23 | 0 | 39 | 42 | 40 | 26 | 1 | 109 | 35 | 9 | 0 | 0 | 44 | 228 |
| Total | 5 | 112 | 17 | 0 | 134 | 23 | 63 | 141 | 0 | 227 | 250 | 121 | 85 | 1 | 457 | 110 | 51 | 3 | 0 | 164 | 982 |
| 08:00 AM | 0 | 25 | 6 | 0 | 31 | 6 | 8 | 30 | 0 | 44 | 51 | 35 | 33 | 1 | 120 | 26 | 17 | 0 | 0 | 43 | 238 |
| 08:15 AM | 0 | 28 | 8 | 0 | 36 | 15 | 23 | 38 | 0 | 76 | 34 | 52 | 22 | 0 | 108 | 30 | 18 | 0 | 0 | 48 | 268 |
| 08:30 AM | 2 | 55 | 2 | 0 | 59 | 0 | 3 | 11 | 0 | 14 | 27 | 49 | 34 | 0 | 110 | 30 | 2 | 1 | 0 | 33 | 216 |
| 08:45 AM | 1 | 34 | 2 | 0 | 37 | 2 | 4 | 14 | 0 | 20 | 27 | 39 | 33 | 0 | 99 | 32 | 5 | 2 | 0 | 39 | 195 |
| Total | 3 | 142 | 18 | 0 | 163 | 23 | 38 | 93 | 0 | 154 | 139 | 175 | 122 | 1 | 437 | 118 | 42 | 3 | 0 | 163 | 917 |
| 09:00 AM | 0 | 42 | 3 | 0 | 45 | 3 | 5 | 10 | 0 | 18 | 24 | 42 | 24 | 0 | 90 | 26 | 1 | 0 | 0 | 27 | 180 |
| 09:15 AM | 1 | 40 | 3 | 0 | 44 | 3 | 3 | 18 | 0 | 24 | 31 | 57 | 33 | 0 | 121 | 25 | 1 | 1 | 0 | 27 | 216 |
| Grand Total | 9 | 336 | 41 | 0 | 386 | 52 | 109 | 262 | 0 | 423 | 444 | 395 | 264 | 2 | 1105 | 279 | 95 | 7 | 0 | 381 | 2295 |
| Apprch % | 2.3 | 87 | 10.6 | 0 | 16.8 | 12.3 | 25.8 | 61.9 | 0 | 18.4 | 40.2 | 35.7 | 23.9 | 0.2 | 48.1 | 73.2 | 24.9 | 1.8 | 0 | 16.6 | |
| Total % | 0.4 | 14.6 | 1.8 | 0 | 2.3 | 2.3 | 4.7 | 11.4 | 0 | 18.4 | 19.3 | 17.2 | 11.5 | 0.1 | 48.1 | 12.2 | 4.1 | 0.3 | 0 | 16.6 | |
| Lights | 8 | 319 | 33 | 0 | 360 | 47 | 97 | 234 | 0 | 378 | 384 | 376 | 259 | 0 | 1019 | 261 | 84 | 6 | 0 | 351 | 2108 |
| % Lights | 88.9 | 94.9 | 80.5 | 0 | 93.3 | 90.4 | 89 | 89.3 | 0 | 89.4 | 86.5 | 95.2 | 98.1 | 0 | 92.2 | 93.5 | 88.4 | 85.7 | 0 | 92.1 | 91.9 |
| Buses | 0 | 4 | 8 | 0 | 12 | 5 | 11 | 26 | 0 | 42 | 57 | 0 | 1 | 0 | 58 | 6 | 11 | 0 | 0 | 17 | 129 |
| % Buses | 0 | 1.2 | 19.5 | 0 | 3.1 | 9.6 | 10.1 | 9.9 | 0 | 9.9 | 12.8 | 0 | 0.4 | 0 | 5.2 | 2.2 | 11.6 | 0 | 0 | 4.5 | 5.6 |
| Trucks | 1 | 13 | 0 | 0 | 14 | 0 | 1 | 2 | 0 | 3 | 3 | 19 | 4 | 0 | 26 | 12 | 0 | 1 | 0 | 13 | 56 |
| % Trucks | 11.1 | 3.9 | 0 | 0 | 3.6 | 0 | 0.9 | 0.8 | 0 | 0.7 | 0.7 | 4.8 | 1.5 | 0 | 2.4 | 4.3 | 0 | 14.3 | 0 | 3.4 | 2.4 |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0.1 |

Maser Consulting

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 4.BEDFORD_ROAD_&_MAPLE_AVENUE_581991_10-24-2018

Site Code :

Start Date : 10/24/2018

Page No : 2

| MAPLE AV From North | | | | | | BEDFORD ED From East | | | | | | MAPLE AVE From South | | | | | | BEDFORD RD From West | | | | | |
|--|-------|------|------|------|------------|-------------------------|------|------|------|------------|-------|-------------------------|------|------|------------|-------|------|-------------------------|------|------------|------------|--|--|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | |
| Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 0 | 25 | 6 | 0 | 31 | 6 | 8 | 30 | 0 | 44 | 51 | 35 | 33 | 1 | 120 | 26 | 17 | 0 | 0 | 43 | 238 | | |
| 08:15 AM | 0 | 28 | 8 | 0 | 36 | 15 | 23 | 38 | 0 | 76 | 34 | 52 | 22 | 0 | 108 | 30 | 18 | 0 | 0 | 48 | 268 | | |
| 08:30 AM | 2 | 55 | 2 | 0 | 59 | 0 | 3 | 11 | 0 | 14 | 27 | 49 | 34 | 0 | 110 | 30 | 2 | 1 | 0 | 33 | 216 | | |
| 08:45 AM | 1 | 34 | 2 | 0 | 37 | 2 | 4 | 14 | 0 | 20 | 27 | 39 | 33 | 0 | 99 | 32 | 5 | 2 | 0 | 39 | 195 | | |
| Total Volume | 3 | 142 | 18 | 0 | 163 | 23 | 38 | 93 | 0 | 154 | 139 | 175 | 122 | 1 | 437 | 118 | 42 | 3 | 0 | 163 | 917 | | |
| % App. Total | 1.8 | 87.1 | 11 | 0 | | 14.9 | 24.7 | 60.4 | 0 | | 31.8 | 40 | 27.9 | 0.2 | | 72.4 | 25.8 | 1.8 | 0 | | | | |
| PHF | .375 | .645 | .563 | .000 | .691 | .383 | .413 | .612 | .000 | .507 | .681 | .841 | .897 | .250 | .910 | .922 | .583 | .375 | .000 | .849 | .855 | | |
| Lights | 3 | 133 | 13 | 0 | 149 | 22 | 34 | 88 | 0 | 144 | 115 | 168 | 119 | 0 | 402 | 109 | 39 | 3 | 0 | 151 | 846 | | |
| % Buses | 100 | 93.7 | 72.2 | 0 | 91.4 | 95.7 | 89.5 | 94.6 | 0 | 93.5 | 82.7 | 96.0 | 97.5 | 0 | 92.0 | 92.4 | 92.9 | 100 | 0 | 92.6 | 92.3 | | |
| Buses | 0 | 4 | 5 | 0 | 9 | 1 | 3 | 4 | 0 | 8 | 22 | 0 | 0 | 0 | 22 | 2 | 3 | 0 | 0 | 5 | 44 | | |
| % Trucks | 0 | 2.8 | 27.8 | 0 | 5.5 | 4.3 | 7.9 | 4.3 | 0 | 5.2 | 15.8 | 0 | 0 | 0 | 5.0 | 1.7 | 7.1 | 0 | 0 | 3.1 | 4.8 | | |
| Trucks | 0 | 5 | 0 | 0 | 5 | 0 | 1 | 1 | 0 | 2 | 2 | 7 | 3 | 0 | 12 | 7 | 0 | 0 | 0 | 7 | 26 | | |
| % Trucks | 0 | 3.5 | 0 | 0 | 3.1 | 0 | 2.6 | 1.1 | 0 | 1.3 | 1.4 | 4.0 | 2.5 | 0 | 2.7 | 5.9 | 0 | 0 | 0 | 4.3 | 2.8 | | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0.1 | | |

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

File Name : 4.BEDFORD_ROAD_&_MAPLE_AVENUE_581991_10-24-2018

Site Code :

Start Date : 10/24/2018

Page No : 1

Groups Printed - Lights - Buses - Trucks - Pedestrians

| | | MAPLE AV | | | | | | BEDFORD RD | | | | | | MAPLE AVE | | | | | | BEDFORD RD | | | | | |
|---------------|-------|------------|------|------|------------|-----------|------|------------|------|------------|-------|------|------|-----------|------------|-------|------|------|------|------------|------------|--|--|--|--|
| | | From North | | | | From East | | | | From South | | | | From West | | | | | | | | | | | |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | | | |
| 04:00 PM | 2 | 39 | 3 | 0 | 44 | 3 | 7 | 26 | 0 | 36 | 22 | 45 | 42 | 0 | 109 | 43 | 7 | 1 | 0 | 51 | 240 | | | | |
| 04:15 PM | 1 | 50 | 5 | 0 | 56 | 4 | 11 | 34 | 0 | 49 | 13 | 34 | 36 | 2 | 85 | 34 | 4 | 2 | 0 | 40 | 230 | | | | |
| 04:30 PM | 3 | 53 | 6 | 0 | 62 | 3 | 11 | 33 | 2 | 49 | 11 | 40 | 41 | 0 | 92 | 36 | 4 | 2 | 0 | 42 | 245 | | | | |
| 04:45 PM | 0 | 47 | 3 | 1 | 51 | 6 | 13 | 26 | 0 | 45 | 5 | 46 | 23 | 2 | 76 | 32 | 6 | 1 | 0 | 39 | 211 | | | | |
| Total | 6 | 189 | 17 | 1 | 213 | 16 | 42 | 119 | 2 | 179 | 51 | 165 | 142 | 4 | 362 | 145 | 21 | 6 | 0 | 172 | 926 | | | | |
| 05:00 PM | 1 | 66 | 1 | 0 | 68 | 4 | 6 | 15 | 0 | 25 | 4 | 34 | 34 | 1 | 73 | 26 | 3 | 2 | 0 | 31 | 197 | | | | |
| 05:15 PM | 0 | 42 | 4 | 0 | 46 | 8 | 7 | 22 | 0 | 37 | 5 | 69 | 27 | 2 | 103 | 40 | 2 | 3 | 0 | 45 | 231 | | | | |
| 05:30 PM | 0 | 32 | 0 | 0 | 32 | 0 | 5 | 19 | 0 | 24 | 9 | 72 | 25 | 0 | 106 | 37 | 4 | 2 | 0 | 43 | 205 | | | | |
| 05:45 PM | 5 | 37 | 2 | 0 | 44 | 7 | 4 | 17 | 0 | 28 | 3 | 86 | 33 | 0 | 122 | 37 | 1 | 0 | 0 | 38 | 232 | | | | |
| Total | 6 | 177 | 7 | 0 | 190 | 19 | 22 | 73 | 0 | 114 | 21 | 261 | 119 | 3 | 404 | 140 | 10 | 7 | 0 | 157 | 865 | | | | |
| 06:00 PM | 0 | 44 | 1 | 0 | 45 | 4 | 1 | 13 | 0 | 18 | 5 | 86 | 39 | 0 | 130 | 51 | 4 | 1 | 0 | 56 | 249 | | | | |
| 06:15 PM | 3 | 40 | 1 | 0 | 44 | 0 | 1 | 8 | 0 | 9 | 6 | 55 | 27 | 1 | 89 | 36 | 3 | 3 | 0 | 42 | 184 | | | | |
| Grand Total | 15 | 450 | 26 | 1 | 492 | 39 | 66 | 213 | 2 | 320 | 83 | 567 | 327 | 8 | 985 | 372 | 38 | 17 | 0 | 427 | 2224 | | | | |
| Apprch % | 3 | 91.5 | 5.3 | 0.2 | | 12.2 | 20.6 | 66.6 | 0.6 | | 8.4 | 57.6 | 33.2 | 0.8 | | 87.1 | 8.9 | 4 | 0 | | | | | | |
| Total % | 0.7 | 20.2 | 1.2 | 0 | 22.1 | 1.8 | 3 | 9.6 | 0.1 | 14.4 | 3.7 | 25.5 | 14.7 | 0.4 | 44.3 | 16.7 | 1.7 | 0.8 | 0 | 19.2 | | | | | |
| Lights | 15 | 445 | 24 | 0 | 484 | 39 | 64 | 208 | 0 | 311 | 64 | 563 | 326 | 0 | 953 | 368 | 36 | 17 | 0 | 421 | 2169 | | | | |
| % Lights | 100 | 98.9 | 92.3 | 0 | 98.4 | 100 | 97 | 97.7 | 0 | 97.2 | 77.1 | 99.3 | 99.7 | 0 | 96.8 | 98.9 | 94.7 | 100 | 0 | 98.6 | 97.5 | | | | |
| Buses | 0 | 0 | 2 | 0 | 2 | 0 | 1 | 5 | 0 | 6 | 18 | 1 | 0 | 0 | 19 | 3 | 2 | 0 | 0 | 5 | 32 | | | | |
| % Buses | 0 | 0 | 7.7 | 0 | 0.4 | 0 | 1.5 | 2.3 | 0 | 1.9 | 21.7 | 0.2 | 0 | 0 | 1.9 | 0.8 | 5.3 | 0 | 0 | 1.2 | 1.4 | | | | |
| Trucks | 0 | 5 | 0 | 0 | 5 | 0 | 1 | 0 | 0 | 1 | 1 | 3 | 1 | 0 | 5 | 1 | 0 | 0 | 0 | 1 | 12 | | | | |
| % Trucks | 0 | 1.1 | 0 | 0 | 1 | 0 | 1.5 | 0 | 0 | 0.3 | 1.2 | 0.5 | 0.3 | 0 | 0.5 | 0.3 | 0 | 0 | 0 | 0.2 | 0.5 | | | | |
| Pedestrians | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 11 | | | | |
| % Pedestrians | 0 | 0 | 0 | 100 | 0.2 | 0 | 0 | 0 | 100 | 0.6 | 0 | 0 | 0 | 100 | 0.8 | 0 | 0 | 0 | 0 | 0 | 0.5 | | | | |

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Site Code :

Start Date : 10/24/2018

Page No : 2

| MAPLE AV From North | | | | | | | | | | BEDFORD RD From East | | | | | | | | | | MAPLE AVE From South | | | | | | | | | | BEDFORD RD From West | | | | | | | | | |
|--|-------|------|------|------|------------|-------|------|------|------|-------------------------|-------|------|------|------|------------|-------|------|------|------|-------------------------|-------|------|------|------|------------|------------|--|--|--|-------------------------|--|--|--|--|--|--|--|--|--|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | | | | | | | | | | | | |
| Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 1 | 66 | 1 | 0 | 68 | 4 | 6 | 15 | 0 | 25 | 4 | 34 | 34 | 1 | 73 | 26 | 3 | 2 | 0 | 31 | 197 | | | | | | | | | | | | | | | | | | |
| 05:15 PM | 0 | 42 | 4 | 0 | 46 | 8 | 7 | 22 | 0 | 37 | 5 | 69 | 27 | 2 | 103 | 40 | 2 | 3 | 0 | 45 | 231 | | | | | | | | | | | | | | | | | | |
| 05:30 PM | 0 | 32 | 0 | 0 | 32 | 0 | 5 | 19 | 0 | 24 | 9 | 72 | 25 | 0 | 106 | 37 | 4 | 2 | 0 | 43 | 205 | | | | | | | | | | | | | | | | | | |
| 05:45 PM | 5 | 37 | 2 | 0 | 44 | 7 | 4 | 17 | 0 | 28 | 3 | 86 | 33 | 0 | 122 | 37 | 1 | 0 | 0 | 38 | 232 | | | | | | | | | | | | | | | | | | |
| Total Volume | 6 | 177 | 7 | 0 | 190 | 19 | 22 | 73 | 0 | 114 | 21 | 261 | 119 | 3 | 404 | 140 | 10 | 7 | 0 | 157 | 865 | | | | | | | | | | | | | | | | | | |
| % App. Total | 3.2 | 93.2 | 3.7 | 0 | | 16.7 | 19.3 | 64 | 0 | | 5.2 | 64.6 | 29.5 | 0.7 | | 89.2 | 6.4 | 4.5 | 0 | | | | | | | | | | | | | | | | | | | | |
| PHF | .300 | .670 | .438 | .000 | .699 | .594 | .786 | .830 | .000 | .770 | .583 | .759 | .875 | .375 | .828 | .875 | .625 | .583 | .000 | .872 | .932 | | | | | | | | | | | | | | | | | | |
| Lights | 6 | 176 | 5 | 0 | 187 | 19 | 22 | 72 | 0 | 113 | 20 | 259 | 119 | 0 | 398 | 138 | 10 | 7 | 0 | 155 | 853 | | | | | | | | | | | | | | | | | | |
| % Lights | 100 | 99.4 | 71.4 | 0 | 98.4 | 100 | 100 | 98.6 | 0 | 99.1 | 95.2 | 99.2 | 100 | 0 | 98.5 | 98.6 | 100 | 100 | 0 | 98.7 | 98.6 | | | | | | | | | | | | | | | | | | |
| Buses | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 5 | | | | | | | | | | | | | | | | | | |
| % Buses | 0 | 0 | 28.6 | 0 | 1.1 | 0 | 0 | 1.4 | 0 | 0.9 | 4.8 | 0 | 0 | 0 | 0.2 | 0.7 | 0 | 0 | 0 | 0.6 | 0.6 | | | | | | | | | | | | | | | | | | |
| Trucks | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 4 | | | | | | | | | | | | | | | | | | |
| % Trucks | 0 | 0.6 | 0 | 0 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 | 0.5 | 0.7 | 0 | 0 | 0 | 0.6 | 0.5 | | | | | | | | | | | | | | | | | | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | | | | | | | | | | | | | | | | | | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0.7 | 0 | 0 | 0 | 0 | 0 | 0.3 | | | | | | | | | | | | | | | | | | |

400 Columbus Avenue - Suite 180E

Customer Loyalty through Client Satisfaction

Site Code :

Start Date : 10/24/2018

Page No : 1

Groups Printed - Lights - Buses - Trucks - Pedestrians

| | | MAIN ST From North | | | | | | BEDFORD RD From East | | | | | | MAIN ST From South | | | | | | KENT PL From West | | | | | |
|---------------|-------|-----------------------|------|------|------------|-------|------|-------------------------|------|------------|-------|------|------|-----------------------|------------|-------|------|------|------|----------------------|------------|--|--|--|--|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | | | |
| 07:00 AM | 2 | 42 | 15 | 3 | 62 | 12 | 0 | 7 | 0 | 19 | 8 | 26 | 2 | 0 | 36 | 1 | 1 | 0 | 0 | 2 | 119 | | | | |
| 07:15 AM | 3 | 51 | 18 | 1 | 73 | 10 | 0 | 4 | 0 | 14 | 18 | 22 | 6 | 0 | 46 | 0 | 1 | 0 | 0 | 1 | 134 | | | | |
| 07:30 AM | 6 | 74 | 21 | 2 | 103 | 17 | 6 | 24 | 0 | 47 | 10 | 44 | 1 | 0 | 55 | 3 | 1 | 2 | 0 | 6 | 211 | | | | |
| 07:45 AM | 2 | 71 | 20 | 6 | 99 | 14 | 0 | 7 | 0 | 21 | 12 | 32 | 2 | 0 | 46 | 1 | 1 | 2 | 0 | 4 | 170 | | | | |
| Total | 13 | 238 | 74 | 12 | 337 | 53 | 6 | 42 | 0 | 101 | 48 | 124 | 11 | 0 | 183 | 5 | 4 | 4 | 0 | 13 | 634 | | | | |
| 08:00 AM | 4 | 73 | 11 | 2 | 90 | 13 | 5 | 11 | 0 | 29 | 18 | 42 | 6 | 0 | 66 | 1 | 1 | 0 | 0 | 2 | 187 | | | | |
| 08:15 AM | 3 | 77 | 16 | 5 | 101 | 13 | 3 | 16 | 0 | 32 | 24 | 43 | 4 | 0 | 71 | 4 | 1 | 0 | 0 | 5 | 209 | | | | |
| 08:30 AM | 7 | 76 | 17 | 2 | 102 | 10 | 3 | 4 | 0 | 17 | 9 | 45 | 7 | 0 | 61 | 3 | 1 | 0 | 0 | 4 | 184 | | | | |
| 08:45 AM | 2 | 81 | 14 | 3 | 100 | 8 | 5 | 7 | 0 | 20 | 14 | 37 | 9 | 0 | 60 | 2 | 2 | 1 | 0 | 5 | 185 | | | | |
| Total | 16 | 307 | 58 | 12 | 393 | 44 | 16 | 38 | 0 | 98 | 65 | 167 | 26 | 0 | 258 | 10 | 5 | 1 | 0 | 16 | 765 | | | | |
| 09:00 AM | 6 | 63 | 14 | 1 | 84 | 8 | 2 | 6 | 1 | 17 | 7 | 55 | 4 | 0 | 66 | 1 | 4 | 1 | 0 | 6 | 173 | | | | |
| 09:15 AM | 5 | 67 | 11 | 0 | 83 | 11 | 6 | 4 | 0 | 21 | 8 | 49 | 5 | 0 | 62 | 1 | 1 | 0 | 0 | 2 | 168 | | | | |
| Grand Total | 40 | 675 | 157 | 25 | 897 | 116 | 30 | 90 | 1 | 237 | 128 | 395 | 46 | 0 | 569 | 17 | 14 | 6 | 0 | 37 | 1740 | | | | |
| Approach % | 4.5 | 75.3 | 17.5 | 2.8 | | 48.9 | 12.7 | 38 | 0.4 | | 22.5 | 62.4 | 8.1 | 0 | | 45.9 | 37.8 | 16.2 | 0 | | | | | | |
| Total % | 2.3 | 38.8 | 9 | 1.4 | 51.6 | 6.7 | 1.7 | 5.2 | 0.1 | 13.6 | 7.4 | 22.7 | 2.6 | 0 | 32.7 | 1 | 0.8 | 0.3 | 0 | 2.1 | | | | | |
| Lights | 35 | 646 | 153 | 0 | 834 | 104 | 28 | 76 | 0 | 208 | 108 | 371 | 42 | 0 | 521 | 17 | 12 | 5 | 0 | 34 | 1597 | | | | |
| % Lights | 87.5 | 95.7 | 97.5 | 0 | 93 | 89.7 | 93.3 | 84.4 | 0 | 87.8 | 84.4 | 93.9 | 91.3 | 0 | 91.6 | 100 | 85.7 | 83.3 | 0 | 91.9 | 91.8 | | | | |
| Buses | 1 | 10 | 1 | 0 | 12 | 1 | 0 | 11 | 0 | 12 | 16 | 6 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 46 | | | | |
| % Buses | 2.5 | 1.5 | 0.6 | 0 | 1.3 | 0.9 | 0 | 12.2 | 0 | 5.1 | 12.5 | 1.5 | 0 | 0 | 3.9 | 0 | 0 | 0 | 0 | 0 | 2.6 | | | | |
| Trucks | 4 | 19 | 3 | 0 | 26 | 11 | 2 | 3 | 0 | 16 | 4 | 18 | 4 | 0 | 26 | 0 | 2 | 1 | 0 | 3 | 71 | | | | |
| % Trucks | 10 | 2.8 | 1.9 | 0 | 2.9 | 9.5 | 6.7 | 3.3 | 0 | 6.8 | 3.1 | 4.6 | 8.7 | 0 | 4.6 | 0 | 14.3 | 16.7 | 0 | 8.1 | 4.1 | | | | |
| Pedestrians | 0 | 0 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | | | | |
| % Pedestrians | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | | | | |

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Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 5.NYS_ROUTE_128_&_BEDFORD_ROAD__KENT_PLACE_581995_10-24-2018

Site Code :

Start Date : 10/24/2018

Page No : 2

| MAIN ST From North | | | | | BEDFORD RD From East | | | | | MAIN ST From South | | | | | KENT PL From West | | | | | | | |
|--|-------|------|------|------|-------------------------|-------|------|------|------|-----------------------|-------|------|------|------|----------------------|-------|------|------|------|------------|------------|--|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | |
| Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 4 | 73 | 11 | 2 | 90 | 13 | 5 | 11 | 0 | 29 | 18 | 42 | 6 | 0 | 66 | 1 | 1 | 0 | 0 | 2 | 187 | |
| 08:15 AM | 3 | 77 | 16 | 5 | 101 | 13 | 3 | 16 | 0 | 32 | 24 | 43 | 4 | 0 | 71 | 4 | 1 | 0 | 0 | 5 | 209 | |
| 08:30 AM | 7 | 76 | 17 | 2 | 102 | 10 | 3 | 4 | 0 | 17 | 9 | 45 | 7 | 0 | 61 | 3 | 1 | 0 | 0 | 4 | 184 | |
| 08:45 AM | 2 | 81 | 14 | 3 | 100 | 8 | 5 | 7 | 0 | 20 | 14 | 37 | 9 | 0 | 60 | 2 | 2 | 1 | 0 | 5 | 185 | |
| Total Volume | 16 | 307 | 58 | 12 | 393 | 44 | 16 | 38 | 0 | 98 | 65 | 167 | 26 | 0 | 258 | 10 | 5 | 1 | 0 | 16 | 765 | |
| % App. Total | 4.1 | 78.1 | 14.8 | 3.1 | | 44.9 | 16.3 | 38.8 | 0 | | 25.2 | 64.7 | 10.1 | 0 | | 62.5 | 31.2 | 6.2 | 0 | | | |
| PHF | .571 | .948 | .853 | .600 | .963 | .846 | .800 | .594 | .000 | .766 | .677 | .928 | .722 | .000 | .908 | .625 | .625 | .250 | .000 | .800 | .915 | |
| Lights | 13 | 290 | 56 | 0 | 359 | 37 | 15 | 32 | 0 | 84 | 57 | 153 | 25 | 0 | 235 | 10 | 5 | 1 | 0 | 16 | 694 | |
| % Buses | 81.3 | 94.5 | 96.6 | 0 | 91.3 | 84.1 | 93.8 | 84.2 | 0 | 85.7 | 87.7 | 91.6 | 96.2 | 0 | 91.1 | 100 | 100 | 100 | 0 | 100 | 90.7 | |
| % Trucks | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 5 | 6 | 3 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 19 | |
| % Trucks | 0 | 1.6 | 0 | 0 | 1.3 | 0 | 0 | 13.2 | 0 | 5.1 | 9.2 | 1.8 | 0 | 0 | 3.5 | 0 | 0 | 0 | 0 | 0 | 2.5 | |
| % Trucks | 3 | 12 | 2 | 0 | 17 | 7 | 1 | 1 | 0 | 9 | 2 | 11 | 1 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 40 | |
| % Trucks | 18.8 | 3.9 | 3.4 | 0 | 4.3 | 15.9 | 6.3 | 2.6 | 0 | 9.2 | 3.1 | 6.6 | 3.8 | 0 | 5.4 | 0 | 0 | 0 | 0 | 0 | 5.2 | |
| % Pedestrians | 0 | 0 | 0 | 12 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | |
| % Pedestrians | 0 | 0 | 0 | 100 | 3.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.6 | |

Maser Consulting

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 5.NYS_ROUTE_128_&_BEDFORD_ROAD__KENT_PLACE_581995_10-24-2018

Site Code :

Start Date : 10/24/2018

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

| | | MAIN ST From North | | | | | BEDFORD RD From East | | | | | MAIN ST From South | | | | | KENT PL From West | | | | | |
|---------------|-------|-----------------------|------|------|------------|-------|-------------------------|------|------|------------|-------|-----------------------|------|------|------------|-------|----------------------|------|------|------------|------------|--|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | |
| 04:00 PM | 12 | 65 | 17 | 1 | 95 | 15 | 2 | 13 | 1 | 31 | 12 | 58 | 5 | 0 | 75 | 13 | 4 | 3 | 0 | 20 | 221 | |
| 04:15 PM | 8 | 63 | 11 | 9 | 91 | 15 | 6 | 18 | 0 | 39 | 9 | 58 | 7 | 0 | 74 | 4 | 4 | 0 | 0 | 8 | 212 | |
| 04:30 PM | 11 | 73 | 8 | 3 | 95 | 10 | 7 | 15 | 1 | 33 | 13 | 59 | 8 | 0 | 80 | 4 | 4 | 1 | 0 | 9 | 217 | |
| 04:45 PM | 7 | 82 | 13 | 2 | 104 | 13 | 6 | 9 | 2 | 30 | 10 | 60 | 7 | 0 | 77 | 5 | 5 | 1 | 0 | 11 | 222 | |
| Total | 38 | 283 | 49 | 15 | 385 | 53 | 21 | 55 | 4 | 133 | 44 | 235 | 27 | 0 | 306 | 26 | 17 | 5 | 0 | 48 | 872 | |
| 05:00 PM | 11 | 75 | 11 | 4 | 101 | 14 | 8 | 8 | 0 | 30 | 14 | 64 | 11 | 0 | 89 | 11 | 6 | 2 | 0 | 19 | 239 | |
| 05:15 PM | 7 | 67 | 11 | 8 | 93 | 9 | 5 | 10 | 0 | 24 | 13 | 83 | 15 | 0 | 111 | 5 | 2 | 2 | 0 | 9 | 237 | |
| 05:30 PM | 4 | 56 | 12 | 7 | 79 | 13 | 6 | 8 | 1 | 28 | 10 | 101 | 10 | 0 | 121 | 5 | 2 | 1 | 0 | 8 | 236 | |
| 05:45 PM | 9 | 75 | 7 | 1 | 92 | 12 | 12 | 12 | 0 | 36 | 13 | 74 | 15 | 0 | 102 | 6 | 5 | 2 | 0 | 13 | 243 | |
| Total | 31 | 273 | 41 | 20 | 365 | 48 | 31 | 38 | 1 | 118 | 50 | 322 | 51 | 0 | 423 | 27 | 15 | 7 | 0 | 49 | 955 | |
| 06:00 PM | 7 | 49 | 12 | 1 | 69 | 13 | 8 | 13 | 1 | 35 | 8 | 86 | 10 | 0 | 104 | 10 | 11 | 6 | 0 | 27 | 235 | |
| 06:15 PM | 3 | 38 | 9 | 2 | 52 | 12 | 2 | 6 | 1 | 21 | 13 | 61 | 9 | 0 | 83 | 5 | 2 | 3 | 0 | 10 | 166 | |
| Grand Total | 79 | 643 | 111 | 38 | 871 | 126 | 62 | 112 | 7 | 307 | 115 | 704 | 97 | 0 | 916 | 68 | 45 | 21 | 0 | 134 | 2228 | |
| Approch % | 9.1 | 73.8 | 12.7 | 4.4 | | 41 | 20.2 | 36.5 | 2.3 | | 12.6 | 76.9 | 10.6 | 0 | | 50.7 | 33.6 | 15.7 | 0 | | | |
| Total % | 3.5 | 28.9 | 5 | 1.7 | 39.1 | 5.7 | 2.8 | 5 | 0.3 | 13.8 | 5.2 | 31.6 | 4.4 | 0 | 41.1 | 3.1 | 2 | 0.9 | 0 | 6 | | |
| Lights | 78 | 633 | 108 | 0 | 819 | 126 | 62 | 109 | 0 | 297 | 111 | 694 | 96 | 0 | 901 | 68 | 45 | 21 | 0 | 134 | 2151 | |
| % Lights | 98.7 | 98.4 | 97.3 | 0 | 94 | 100 | 100 | 97.3 | 0 | 96.7 | 96.5 | 98.6 | 99 | 0 | 98.4 | 100 | 100 | 100 | 0 | 100 | 96.5 | |
| Buses | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 4 | 4 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 11 | |
| % Buses | 0 | 0.2 | 0.9 | 0 | 0.2 | 0 | 0 | 0.9 | 0 | 0.3 | 3.5 | 0.6 | 0 | 0 | 0.9 | 0 | 0 | 0 | 0 | 0 | 0.5 | |
| Trucks | 1 | 9 | 2 | 0 | 12 | 0 | 0 | 2 | 0 | 2 | 0 | 6 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 21 | |
| % Trucks | 1.3 | 1.4 | 1.8 | 0 | 1.4 | 0 | 0 | 1.8 | 0 | 0.7 | 0 | 0.9 | 1 | 0 | 0.8 | 0 | 0 | 0 | 0 | 0 | 0.9 | |
| Pedestrians | 0 | 0 | 0 | 38 | 38 | 0 | 0 | 0 | 7 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | |
| % Pedestrians | 0 | 0 | 0 | 100 | 4.4 | 0 | 0 | 0 | 100 | 2.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | |

Maser Consulting

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 5.NYS_ROUTE_128_&_BEDFORD_ROAD__KENT_PLACE_581995_10-24-2018

Site Code :

Start Date : 10/24/2018

Page No : 2

| MAIN ST From North | | | | | | BEDFORD RD From East | | | | | | MAIN ST From South | | | | | | KENT PL From West | | | | | |
|--|-------|------|------|------|------------|-------------------------|------|------|------|------------|-------|-----------------------|------|------|------------|-------|------|----------------------|------|------------|------------|--|--|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | |
| Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 1 | 75 | 11 | 4 | 101 | 14 | 8 | 8 | 0 | 30 | 14 | 64 | 11 | 0 | 89 | 11 | 6 | 2 | 0 | 19 | 239 | | |
| 05:15 PM | 7 | 67 | 11 | 8 | 93 | 9 | 5 | 10 | 0 | 24 | 13 | 83 | 15 | 0 | 111 | 5 | 2 | 2 | 0 | 9 | 237 | | |
| 05:30 PM | 4 | 56 | 12 | 7 | 79 | 13 | 6 | 8 | 1 | 28 | 10 | 101 | 10 | 0 | 121 | 5 | 2 | 1 | 0 | 8 | 236 | | |
| 05:45 PM | 9 | 75 | 7 | 1 | 92 | 12 | 12 | 12 | 0 | 36 | 13 | 74 | 15 | 0 | 102 | 6 | 5 | 2 | 0 | 13 | 243 | | |
| Total Volume | 31 | 273 | 41 | 20 | 365 | 48 | 31 | 38 | 1 | 118 | 50 | 322 | 51 | 0 | 423 | 27 | 15 | 7 | 0 | 49 | 955 | | |
| % App. Total | 8.5 | 74.8 | 11.2 | 5.5 | | 40.7 | 26.3 | 32.2 | 0.8 | | 11.8 | 76.1 | 12.1 | 0 | | 55.1 | 30.6 | 14.3 | 0 | | | | |
| PHF | .705 | .910 | .854 | .625 | .903 | .857 | .646 | .792 | .250 | .819 | .893 | .797 | .850 | .000 | .874 | .614 | .625 | .875 | .000 | .645 | .983 | | |
| Lights | 31 | 270 | 40 | 0 | 341 | 48 | 31 | 38 | 0 | 117 | 49 | 318 | 50 | 0 | 417 | 27 | 15 | 7 | 0 | 49 | 924 | | |
| % Lights | 100 | 98.9 | 97.6 | 0 | 93.4 | 100 | 100 | 100 | 0 | 99.2 | 98.0 | 98.8 | 98.0 | 0 | 98.6 | 100 | 100 | 100 | 0 | 100 | 96.8 | | |
| Buses | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | | |
| % Buses | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.0 | 0.6 | 0 | 0 | 0.7 | 0 | 0 | 0 | 0 | 0 | 0.3 | | |
| Trucks | 0 | 3 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0.7 | | |
| % Trucks | 0 | 1.1 | 2.4 | 0 | 1.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 2.0 | 0 | 0.7 | 0 | 0 | 0 | 0 | 0 | 0.7 | | |
| Pedestrians | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | | |
| % Pedestrians | 0 | 0 | 0 | 0 | 5.5 | 0 | 0 | 0 | 100 | 0.8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.2 | | |

Maser Consulting
 400 Columbus Avenue - Suite 180E
 Valhalla, NY 10595
Customer Loyalty through Client Satisfaction

File Name : 6.NYS_ROUTE_128_&_WHIPPOORWILL_ROAD_EAST_MAPLE_AVENUE_581997_10-24-2018
 Site Code :
 Start Date : 10/24/2018
 Page No : 1

| MAIN ST | | | | | | | | | | MAPLE AVE | | | | | | | | | | Groups Printed- Lights - Buses - Trucks - Pedestrians | | | | | | | | | | WHIPPOORWILL RD E | | | | | | | | | |
|---------------|------------|------|------|------|------------|-----------|------|------|------|------------|------------|------|------|------|------------|-----------|------|------|------|---|------------|--|--|--|--|--|--|--|--|-------------------|--|--|--|--|--|--|--|--|--|
| Start Time | From North | | | | | From East | | | | | From South | | | | | From West | | | | | Int. Total | | | | | | | | | | | | | | | | | | |
| | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | | | | | | | | | | | | | | | | | | | |
| 07:00 AM | 0 | 40 | 14 | 0 | 54 | 10 | 0 | 6 | 0 | 16 | 6 | 26 | 1 | 0 | 33 | 9 | 10 | 1 | 0 | 20 | 123 | | | | | | | | | | | | | | | | | | |
| 07:15 AM | 0 | 56 | 22 | 0 | 78 | 16 | 6 | 3 | 0 | 25 | 6 | 20 | 2 | 0 | 28 | 9 | 15 | 1 | 0 | 25 | 156 | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 1 | 72 | 14 | 1 | 88 | 26 | 10 | 5 | 0 | 41 | 9 | 27 | 7 | 0 | 43 | 17 | 12 | 3 | 0 | 32 | 204 | | | | | | | | | | | | | | | | | | |
| 07:45 AM | 1 | 64 | 20 | 0 | 85 | 25 | 9 | 8 | 0 | 42 | 7 | 36 | 1 | 0 | 44 | 13 | 7 | 1 | 0 | 21 | 192 | | | | | | | | | | | | | | | | | | |
| Total | 2 | 232 | 70 | 1 | 305 | 77 | 25 | 22 | 0 | 124 | 28 | 109 | 11 | 0 | 148 | 48 | 44 | 6 | 0 | 98 | 675 | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 1 | 69 | 23 | 0 | 93 | 17 | 13 | 7 | 2 | 39 | 8 | 38 | 5 | 0 | 51 | 12 | 14 | 5 | 0 | 31 | 214 | | | | | | | | | | | | | | | | | | |
| 08:15 AM | 2 | 68 | 27 | 0 | 97 | 40 | 10 | 12 | 0 | 62 | 6 | 34 | 3 | 0 | 43 | 14 | 13 | 1 | 0 | 28 | 230 | | | | | | | | | | | | | | | | | | |
| 08:30 AM | 0 | 68 | 32 | 0 | 100 | 26 | 6 | 13 | 1 | 46 | 12 | 33 | 5 | 1 | 51 | 12 | 15 | 4 | 0 | 31 | 228 | | | | | | | | | | | | | | | | | | |
| 08:45 AM | 1 | 74 | 21 | 0 | 96 | 22 | 5 | 9 | 0 | 36 | 6 | 27 | 6 | 0 | 39 | 11 | 15 | 4 | 0 | 30 | 201 | | | | | | | | | | | | | | | | | | |
| Total | 4 | 279 | 103 | 0 | 386 | 105 | 34 | 41 | 3 | 183 | 32 | 132 | 19 | 1 | 184 | 49 | 57 | 14 | 0 | 120 | 873 | | | | | | | | | | | | | | | | | | |
| 09:00 AM | 1 | 57 | 29 | 2 | 89 | 24 | 10 | 11 | 0 | 45 | 8 | 39 | 7 | 1 | 55 | 14 | 14 | 5 | 1 | 34 | 223 | | | | | | | | | | | | | | | | | | |
| 09:15 AM | 0 | 43 | 23 | 1 | 67 | 34 | 8 | 11 | 2 | 55 | 13 | 32 | 7 | 0 | 52 | 19 | 15 | 6 | 0 | 40 | 214 | | | | | | | | | | | | | | | | | | |
| Grand Total | 7 | 611 | 225 | 4 | 847 | 240 | 77 | 85 | 5 | 407 | 81 | 312 | 44 | 2 | 439 | 130 | 130 | 31 | 1 | 292 | 1985 | | | | | | | | | | | | | | | | | | |
| Apprch % | 0.8 | 72.1 | 26.6 | 0.5 | 42.7 | 59 | 18.9 | 20.9 | 1.2 | 20.5 | 18.5 | 71.1 | 10 | 0.5 | 22.1 | 44.5 | 44.5 | 10.6 | 0.3 | 14.7 | | | | | | | | | | | | | | | | | | | |
| Total % | 0.4 | 30.8 | 11.3 | 0.2 | 12.1 | 12.1 | 3.9 | 4.3 | 0.3 | 20.5 | 4.1 | 15.7 | 2.2 | 0.1 | 22.1 | 6.5 | 6.5 | 1.6 | 0.1 | 14.7 | | | | | | | | | | | | | | | | | | | |
| Lights | 5 | 581 | 215 | 0 | 801 | 231 | 73 | 84 | 0 | 388 | 76 | 285 | 41 | 0 | 402 | 125 | 120 | 28 | 0 | 273 | 1864 | | | | | | | | | | | | | | | | | | |
| % Lights | 71.4 | 95.1 | 95.6 | 0 | 94.6 | 96.2 | 94.8 | 98.8 | 0 | 95.3 | 93.8 | 91.3 | 93.2 | 0 | 91.6 | 96.2 | 92.3 | 90.3 | 0 | 93.5 | 93.9 | | | | | | | | | | | | | | | | | | |
| Buses | 0 | 10 | 6 | 0 | 16 | 4 | 1 | 1 | 0 | 6 | 0 | 7 | 0 | 0 | 7 | 2 | 6 | 1 | 0 | 9 | 38 | | | | | | | | | | | | | | | | | | |
| % Buses | 0 | 1.6 | 2.7 | 0 | 1.9 | 1.7 | 1.3 | 1.2 | 0 | 1.5 | 0 | 2.2 | 0 | 0 | 1.6 | 1.5 | 4.6 | 3.2 | 0 | 3.1 | 1.9 | | | | | | | | | | | | | | | | | | |
| Trucks | 2 | 20 | 4 | 0 | 26 | 5 | 3 | 0 | 0 | 8 | 5 | 20 | 3 | 0 | 28 | 3 | 4 | 2 | 0 | 9 | 71 | | | | | | | | | | | | | | | | | | |
| % Trucks | 28.6 | 3.3 | 1.8 | 0 | 3.1 | 2.1 | 3.9 | 0 | 0 | 2 | 6.2 | 6.4 | 6.8 | 0 | 6.4 | 2.3 | 3.1 | 6.5 | 0 | 3.1 | 3.6 | | | | | | | | | | | | | | | | | | |
| Pedestrians | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 1 | 1 | 12 | | | | | | | | | | | | | | | | | | |
| % Pedestrians | 0 | 0 | 0 | 100 | 0.5 | 0 | 0 | 0 | 100 | 1.2 | 0 | 0 | 0 | 100 | 0.5 | 0 | 0 | 0 | 100 | 0.3 | 0.6 | | | | | | | | | | | | | | | | | | |

Maser Consulting

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 6.NYS_ROUTE_128_&_WHIPPOORWILL_ROAD_EAST_MAPLE_AVENUE_581997_10-24-2018

Site Code :

Start Date : 10/24/2018

Page No : 2

| MAIN ST From North | | | | | MAPLE AVE From East | | | | | MAIN ST From South | | | | | WHIPPOORWILL RD E From West | | | | | | |
|--|-------|------|------|------|------------------------|-------|------|------|------|-----------------------|-------|------|------|------|--------------------------------|-------|------|------|------|------------|------------|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 1 | 69 | 23 | 0 | 93 | 17 | 13 | 7 | 2 | 39 | 8 | 38 | 5 | 0 | 51 | 12 | 14 | 5 | 0 | 31 | 214 |
| 08:15 AM | 2 | 68 | 27 | 0 | 97 | 40 | 10 | 12 | 0 | 62 | 6 | 34 | 3 | 0 | 43 | 14 | 13 | 1 | 0 | 28 | 230 |
| 08:30 AM | 0 | 68 | 32 | 0 | 100 | 26 | 6 | 13 | 1 | 46 | 12 | 33 | 5 | 1 | 51 | 12 | 15 | 4 | 0 | 31 | 228 |
| 08:45 AM | 1 | 74 | 21 | 0 | 96 | 22 | 5 | 9 | 0 | 36 | 6 | 27 | 6 | 0 | 39 | 11 | 15 | 4 | 0 | 30 | 201 |
| Total Volume | 4 | 279 | 103 | 0 | 386 | 105 | 34 | 41 | 3 | 183 | 32 | 132 | 19 | 1 | 184 | 49 | 57 | 14 | 0 | 120 | 873 |
| % App. Total | 1 | 72.3 | 26.7 | 0 | | 57.4 | 18.6 | 22.4 | 1.6 | | 17.4 | 71.7 | 10.3 | 0.5 | | 40.8 | 47.5 | 11.7 | 0 | | |
| PHF | .500 | .943 | .805 | .000 | .965 | .656 | .654 | .788 | .375 | .738 | .667 | .868 | .792 | .250 | .902 | .875 | .950 | .700 | .000 | .968 | .949 |
| Lights | 2 | 261 | 98 | 0 | 361 | 104 | 33 | 41 | 0 | 178 | 31 | 115 | 16 | 0 | 162 | 46 | 52 | 12 | 0 | 110 | 811 |
| % Buses | 50.0 | 93.5 | 95.1 | 0 | 93.5 | 99.0 | 97.1 | 100 | 0 | 97.3 | 96.9 | 87.1 | 84.2 | 0 | 88.0 | 93.9 | 91.2 | 85.7 | 0 | 91.7 | 92.9 |
| Trucks | 0 | 4 | 5 | 0 | 9 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 1 | 4 | 1 | 0 | 6 | 19 |
| % Trucks | 0 | 1.4 | 4.9 | 0 | 2.3 | 1.0 | 0 | 0 | 0 | 0.5 | 0 | 2.3 | 0 | 0 | 1.6 | 2.0 | 7.0 | 7.1 | 0 | 5.0 | 2.2 |
| % Pedestrians | 50.0 | 5.0 | 0 | 0 | 4.1 | 0 | 1 | 0 | 0 | 1 | 1 | 14 | 3 | 0 | 18 | 2 | 1 | 1 | 0 | 4 | 39 |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 10.6 | 15.8 | 0 | 9.8 | 4.1 | 1.8 | 7.1 | 0 | 3.3 | 4.5 |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 1.6 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0.5 |

400 Columbus Avenue - Suite 180E

Customer Loyalty through Client Satisfaction

Site Code :

Page No : 1

MAIN ST
From North

| | | MAIN ST From North | | | | | | MAPLE AVE From East | | | | | | MAIN ST From South | | | | | | WHIPPOORWILL RD E From West | | | | | |
|---------------|--------|-----------------------|------|------|------------|-------|------|------------------------|------|------------|-------|------|------|-----------------------|------------|-------|------|------|------|--------------------------------|------------|--|--|--|--|
| Start Time | Flight | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | | | |
| 04:00 PM | 5 | 59 | 25 | 2 | 91 | 32 | 9 | 16 | 4 | 61 | 17 | 44 | 2 | 5 | 68 | 18 | 21 | 7 | 2 | 48 | 268 | | | | |
| 04:15 PM | 3 | 56 | 33 | 6 | 98 | 30 | 12 | 18 | 4 | 64 | 12 | 46 | 8 | 1 | 67 | 14 | 17 | 6 | 1 | 38 | 267 | | | | |
| 04:30 PM | 3 | 71 | 23 | 0 | 97 | 36 | 11 | 15 | 2 | 64 | 15 | 52 | 5 | 0 | 72 | 12 | 18 | 11 | 1 | 42 | 275 | | | | |
| 04:45 PM | 4 | 62 | 23 | 2 | 91 | 34 | 4 | 14 | 2 | 54 | 19 | 41 | 8 | 1 | 69 | 13 | 20 | 6 | 0 | 39 | 253 | | | | |
| Total | 15 | 248 | 104 | 10 | 377 | 132 | 36 | 63 | 12 | 243 | 63 | 183 | 23 | 7 | 276 | 57 | 76 | 30 | 4 | 167 | 1063 | | | | |
| 05:00 PM | 2 | 61 | 23 | 3 | 89 | 27 | 18 | 19 | 3 | 67 | 11 | 58 | 5 | 1 | 75 | 18 | 22 | 14 | 2 | 56 | 287 | | | | |
| 05:15 PM | 1 | 53 | 19 | 0 | 73 | 56 | 12 | 18 | 1 | 87 | 11 | 77 | 4 | 1 | 93 | 7 | 13 | 9 | 0 | 29 | 287 | | | | |
| 05:30 PM | 2 | 48 | 17 | 0 | 67 | 46 | 22 | 10 | 3 | 81 | 15 | 91 | 10 | 0 | 116 | 4 | 13 | 13 | 1 | 31 | 295 | | | | |
| 05:45 PM | 1 | 52 | 15 | 0 | 68 | 49 | 24 | 22 | 0 | 95 | 12 | 69 | 10 | 0 | 91 | 22 | 24 | 4 | 1 | 51 | 305 | | | | |
| Total | 6 | 214 | 74 | 3 | 297 | 178 | 76 | 69 | 7 | 330 | 49 | 295 | 29 | 2 | 375 | 51 | 72 | 40 | 4 | 167 | 1169 | | | | |
| 06:00 PM | 1 | 38 | 18 | 0 | 57 | 55 | 21 | 19 | 0 | 95 | 13 | 62 | 13 | 0 | 88 | 15 | 15 | 7 | 0 | 37 | 277 | | | | |
| 06:15 PM | 3 | 39 | 14 | 0 | 56 | 50 | 9 | 11 | 0 | 70 | 14 | 58 | 7 | 1 | 80 | 9 | 10 | 1 | 1 | 21 | 227 | | | | |
| Grand Total | 25 | 539 | 210 | 13 | 787 | 415 | 142 | 162 | 19 | 738 | 139 | 598 | 72 | 10 | 819 | 132 | 173 | 78 | 9 | 392 | 2736 | | | | |
| Apprch % | 3.2 | 68.5 | 26.7 | 1.7 | 28.8 | 56.2 | 19.2 | 22 | 2.6 | 27 | 5.1 | 21.9 | 8.8 | 1.2 | 29.9 | 33.7 | 44.1 | 19.9 | 2.3 | 14.3 | | | | | |
| Total % | 0.9 | 19.7 | 7.7 | 0.5 | 7.59 | 15.2 | 5.2 | 5.9 | 0.7 | 7.14 | 5.1 | 2.6 | 0.4 | 0.4 | 29.9 | 4.8 | 6.3 | 2.9 | 0.3 | 14.3 | | | | | |
| Lights | 25 | 525 | 209 | 0 | 759 | 410 | 142 | 162 | 0 | 714 | 139 | 589 | 71 | 0 | 799 | 128 | 166 | 77 | 0 | 371 | 2643 | | | | |
| % Lights | 100 | 97.4 | 99.5 | 0 | 96.4 | 98.8 | 100 | 100 | 0 | 96.7 | 100 | 98.5 | 98.6 | 0 | 97.6 | 97 | 96 | 98.7 | 0 | 94.6 | 96.6 | | | | |
| Buses | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 4 | 1 | 2 | 0 | 0 | 3 | 9 | | | | |
| % Buses | 0 | 0.2 | 0 | 0 | 0.1 | 0.2 | 0 | 0 | 0 | 0.1 | 0 | 0.7 | 0 | 0 | 0.5 | 0.8 | 1.2 | 0 | 0 | 0.8 | 0.3 | | | | |
| Trucks | 0 | 13 | 1 | 0 | 14 | 4 | 0 | 0 | 0 | 4 | 0 | 5 | 1 | 0 | 6 | 3 | 5 | 1 | 0 | 9 | 33 | | | | |
| % Trucks | 0 | 2.4 | 0.5 | 0 | 1.8 | 1 | 0 | 0 | 0 | 0.5 | 0 | 0.8 | 1.4 | 0 | 0.7 | 2.3 | 2.9 | 1.3 | 0 | 2.3 | 1.2 | | | | |
| Pedestrians | 0 | 0 | 0 | 13 | 13 | 0 | 0 | 0 | 19 | 19 | 0 | 0 | 0 | 10 | 10 | 0 | 0 | 0 | 9 | 9 | 51 | | | | |
| % Pedestrians | 0 | 0 | 0 | 100 | 1.7 | 0 | 0 | 0 | 100 | 2.6 | 0 | 0 | 0 | 100 | 1.2 | 0 | 0 | 0 | 100 | 2.3 | 1.9 | | | | |

Maser Consulting

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 6.NYS_ROUTE_128_&_WHIPPOORWILL_ROAD_EAST_MAPLE_AVENUE_581997_10-24-2018

Site Code :

Start Date : 10/24/2018

Page No : 2

| MAIN ST From North | | | | | | MAPLE AVE From East | | | | | | MAIN ST From South | | | | | | WHIPPOORWILL RD E From West | | | | | | |
|--|-------|------|------|------|------------|------------------------|------|------|------|------------|-------|-----------------------|------|------|------------|-------|------|--------------------------------|------|------------|------------|--|--|--|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | | |
| Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 2 | 61 | 23 | 3 | 89 | 27 | 18 | 19 | 3 | 67 | 11 | 58 | 5 | 1 | 75 | 18 | 22 | 14 | 2 | 56 | 287 | | | |
| 05:15 PM | 1 | 53 | 19 | 0 | 73 | 56 | 12 | 18 | 1 | 87 | 11 | 77 | 4 | 1 | 93 | 7 | 13 | 9 | 0 | 29 | 282 | | | |
| 05:30 PM | 2 | 48 | 17 | 0 | 67 | 46 | 22 | 10 | 3 | 81 | 15 | 91 | 10 | 0 | 116 | 4 | 13 | 13 | 1 | 31 | 295 | | | |
| 05:45 PM | 1 | 52 | 15 | 0 | 68 | 49 | 24 | 22 | 0 | 95 | 12 | 69 | 10 | 0 | 91 | 22 | 24 | 4 | 1 | 51 | 305 | | | |
| Total Volume | 6 | 214 | 74 | 3 | 297 | 178 | 76 | 69 | 7 | 330 | 49 | 295 | 29 | 2 | 375 | 51 | 72 | 40 | 4 | 167 | 1169 | | | |
| % App. Total | 2 | 72.1 | 24.9 | 1 | | 53.9 | 23 | 20.9 | 2.1 | | 13.1 | 78.7 | 7.7 | 0.5 | | 30.5 | 43.1 | 24 | 2.4 | | | | | |
| PHF | .750 | .877 | .804 | .250 | | .795 | .792 | .784 | .583 | | .817 | .810 | .725 | .500 | | .580 | .750 | .714 | .500 | | .958 | | | |
| Lights | 6 | 208 | 74 | 0 | 288 | 176 | 76 | 69 | 0 | 321 | 49 | 291 | 29 | 0 | 369 | 51 | 69 | 39 | 0 | 159 | 1137 | | | |
| % Buses | 100 | 97.2 | 100 | 0 | 97.0 | 98.9 | 100 | 100 | 0 | 97.3 | 100 | 98.6 | 100 | 0 | 98.4 | 100 | 95.8 | 97.5 | 0 | 95.2 | 97.3 | | | |
| % Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 4 | | | |
| % Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 | 0.5 | 0 | 2.8 | 0 | 0 | 1.2 | 0.3 | | | |
| % Trucks | 0 | 6 | 0 | 0 | 6 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 12 | | | |
| % Trucks | 0 | 2.8 | 0 | 0 | 2.0 | 1.1 | 0 | 0 | 0 | 0.6 | 0 | 0.7 | 0 | 0 | 0.5 | 0 | 1.4 | 2.5 | 0 | 1.2 | 1.0 | | | |
| Pedestrians | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 7 | 7 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 4 | 4 | 16 | | | |
| % Pedestrians | 0 | 0 | 0 | 100 | 1.0 | 0 | 0 | 0 | 100 | 2.1 | 0 | 0 | 0 | 100 | 0.5 | 0 | 0 | 0 | 100 | 2.4 | 1.4 | | | |

Customer Loyalty through Client Satisfaction

File Name : 4-NYS ROUTE 22 AT NYS ROUTE 120 466745 11-02-2017

Site Code :

Start Date : 11/2/2017

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

| | NYS ROUTE 120 From North | | | | | NYS ROUTE 22 From East | | | | | From South | | | | | NYS ROUTE 22 From West | | | | | |
|---------------|-----------------------------|------|------|------|------------|---------------------------|------|------|------|------------|------------|------|------|------|------------|---------------------------|------|------|------|------------|------------|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 06:00 AM | 0 | 0 | 11 | 0 | 11 | 0 | 67 | 0 | 0 | 67 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 5 | 0 | 27 | 105 |
| 06:15 AM | 0 | 0 | 22 | 0 | 22 | 1 | 69 | 0 | 0 | 70 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 8 | 0 | 34 | 126 |
| 06:30 AM | 0 | 0 | 12 | 0 | 12 | 0 | 103 | 0 | 0 | 103 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 19 | 0 | 53 | 168 |
| 06:45 AM | 0 | 0 | 45 | 0 | 45 | 0 | 106 | 0 | 0 | 106 | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 25 | 0 | 77 | 228 |
| Total | 0 | 0 | 90 | 0 | 90 | 1 | 345 | 0 | 0 | 346 | 0 | 0 | 0 | 0 | 0 | 0 | 134 | 57 | 0 | 191 | 627 |
| 07:00 AM | 0 | 0 | 88 | 0 | 88 | 0 | 137 | 0 | 0 | 137 | 0 | 0 | 0 | 0 | 0 | 0 | 54 | 23 | 0 | 77 | 302 |
| 07:15 AM | 0 | 0 | 102 | 0 | 102 | 0 | 180 | 0 | 0 | 180 | 0 | 0 | 0 | 0 | 0 | 0 | 69 | 24 | 0 | 93 | 375 |
| 07:30 AM | 0 | 0 | 123 | 0 | 123 | 0 | 214 | 0 | 0 | 214 | 0 | 0 | 0 | 0 | 0 | 0 | 64 | 25 | 0 | 89 | 426 |
| 07:45 AM | 0 | 0 | 97 | 0 | 97 | 0 | 198 | 0 | 0 | 198 | 0 | 0 | 0 | 0 | 0 | 0 | 94 | 28 | 0 | 122 | 417 |
| Total | 0 | 0 | 410 | 0 | 410 | 0 | 729 | 0 | 0 | 729 | 0 | 0 | 0 | 0 | 0 | 0 | 281 | 100 | 0 | 381 | 1520 |
| 08:00 AM | 0 | 0 | 114 | 0 | 114 | 0 | 152 | 0 | 0 | 152 | 0 | 0 | 0 | 0 | 0 | 0 | 106 | 56 | 0 | 162 | 428 |
| 08:15 AM | 0 | 0 | 120 | 0 | 120 | 0 | 144 | 0 | 0 | 144 | 0 | 0 | 0 | 0 | 0 | 0 | 116 | 41 | 0 | 157 | 421 |
| 08:30 AM | 0 | 0 | 115 | 0 | 115 | 0 | 167 | 0 | 0 | 167 | 0 | 0 | 0 | 0 | 0 | 0 | 116 | 39 | 0 | 155 | 437 |
| 08:45 AM | 0 | 0 | 142 | 0 | 142 | 0 | 165 | 0 | 0 | 165 | 0 | 0 | 0 | 0 | 0 | 0 | 106 | 30 | 0 | 136 | 443 |
| Total | 0 | 0 | 491 | 0 | 491 | 0 | 628 | 0 | 0 | 628 | 0 | 0 | 0 | 0 | 0 | 0 | 444 | 166 | 0 | 610 | 1729 |
| 09:00 AM | 0 | 0 | 80 | 0 | 80 | 0 | 133 | 0 | 0 | 133 | 0 | 0 | 0 | 0 | 0 | 0 | 104 | 39 | 0 | 143 | 356 |
| 09:15 AM | 0 | 0 | 93 | 0 | 93 | 0 | 138 | 0 | 0 | 138 | 0 | 0 | 0 | 0 | 0 | 0 | 74 | 32 | 0 | 106 | 337 |
| 09:30 AM | 0 | 0 | 62 | 0 | 62 | 0 | 115 | 0 | 0 | 115 | 0 | 0 | 0 | 0 | 0 | 0 | 68 | 40 | 0 | 108 | 285 |
| 09:45 AM | 0 | 0 | 54 | 0 | 54 | 0 | 100 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 68 | 49 | 0 | 117 | 271 |
| Total | 0 | 0 | 289 | 0 | 289 | 0 | 486 | 0 | 0 | 486 | 0 | 0 | 0 | 0 | 0 | 0 | 314 | 160 | 0 | 474 | 1249 |
| Grand Total | 0 | 0 | 1280 | 0 | 1280 | 1 | 2188 | 0 | 0 | 2189 | 0 | 0 | 0 | 0 | 0 | 0 | 1173 | 483 | 0 | 1656 | 5125 |
| Approach % | 0 | 0 | 100 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 70.8 | 29.2 | 0 | | |
| Total % | 0 | 0 | 25 | 0 | 25 | 0 | 42.7 | 0 | 0 | 42.7 | 0 | 0 | 0 | 0 | 0 | 0 | 22.9 | 9.4 | 0 | 32.3 | |
| % Lights | 0 | 0 | 1217 | 0 | 1217 | 1 | 2149 | 0 | 0 | 2150 | 0 | 0 | 0 | 0 | 0 | 0 | 1120 | 432 | 0 | 1552 | 4919 |
| % Lights | 0 | 0 | 95.1 | 0 | 95.1 | 100 | 98.2 | 0 | 0 | 98.2 | 0 | 0 | 0 | 0 | 0 | 0 | 95.5 | 89.4 | 0 | 93.7 | 96 |
| % Buses | 0 | 0 | 30 | 0 | 30 | 0 | 19 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 15 | 0 | 35 | 84 |
| % Buses | 0 | 0 | 2.3 | 0 | 2.3 | 0 | 0.9 | 0 | 0 | 0.9 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 3.1 | 0 | 2.1 | 1.6 |
| Trucks | 0 | 0 | 33 | 0 | 33 | 0 | 20 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 36 | 0 | 69 | 122 |
| % Trucks | 0 | 0 | 2.6 | 0 | 2.6 | 0 | 0.9 | 0 | 0 | 0.9 | 0 | 0 | 0 | 0 | 0 | 0 | 2.8 | 7.5 | 0 | 4.2 | 2.4 |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Maser Consulting

400 Columbus Avenue - Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 4-NYS_ROUTE_22_AT_NYS_ROUTE_120_466745_11-02-2017

Site Code :

Start Date : 11/2/2017

Page No : 2

| Start Time | NYS ROUTE 120 | | | | | | NYS ROUTE 22 | | | | | | NYS ROUTE 22 | | | | | |
|--|---------------|------|------|------|------------|--|--------------|------|------|------|------------|--|--------------|------|------|------|------------|------------|
| | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 0 | 0 | 114 | 0 | 114 | | 0 | 152 | 0 | 0 | 152 | | 0 | 0 | 0 | 0 | 0 | 162 |
| 08:15 AM | 0 | 0 | 120 | 0 | 120 | | 0 | 144 | 0 | 0 | 144 | | 0 | 0 | 0 | 0 | 0 | 157 |
| 08:30 AM | 0 | 0 | 115 | 0 | 115 | | 0 | 167 | 0 | 0 | 167 | | 0 | 0 | 0 | 0 | 0 | 155 |
| 08:45 AM | 0 | 0 | 142 | 0 | 142 | | 0 | 165 | 0 | 0 | 165 | | 0 | 0 | 0 | 0 | 0 | 136 |
| Total Volume | 0 | 0 | 491 | 0 | 491 | | 0 | 628 | 0 | 0 | 628 | | 0 | 0 | 0 | 0 | 0 | 610 |
| % App. Total | 0 | 0 | 100 | 0 | 100 | | 0 | 100 | 0 | 0 | 100 | | 0 | 0 | 0 | 0 | 0 | 1729 |
| PHF | .000 | .000 | .864 | .000 | .864 | | .000 | .940 | .000 | .000 | .940 | | .000 | .957 | .741 | .000 | .941 | 976 |
| Lights | 0 | 0 | 466 | 0 | 466 | | 0 | 613 | 0 | 0 | 613 | | 0 | 420 | 142 | 0 | 562 | 1641 |
| % Lights | 0 | 0 | 94.9 | 0 | 94.9 | | 0 | 97.6 | 0 | 0 | 97.6 | | 0 | 94.6 | 85.5 | 0 | 92.1 | 94.9 |
| Buses | 0 | 0 | 12 | 0 | 12 | | 0 | 6 | 0 | 0 | 6 | | 0 | 13 | 10 | 0 | 23 | 41 |
| % Buses | 0 | 0 | 2.4 | 0 | 2.4 | | 0 | 1.0 | 0 | 0 | 1.0 | | 0 | 2.9 | 6.0 | 0 | 3.8 | 2.4 |
| Trucks | 0 | 0 | 13 | 0 | 13 | | 0 | 9 | 0 | 0 | 9 | | 0 | 11 | 14 | 0 | 25 | 47 |
| % Trucks | 0 | 0 | 2.6 | 0 | 2.6 | | 0 | 1.4 | 0 | 0 | 1.4 | | 0 | 2.5 | 8.4 | 0 | 4.1 | 2.7 |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |

400 Columbus Avenue - Suite 180E
Valhalla, NY 10595

Groups Printed- Lights - Buses - Trucks - Pedestrians

| | NYS ROUTE 120 From North | | | | | | NYS ROUTE 22 From East | | | | | | NYS ROUTE 22 From South | | | | | | NYS ROUTE 22 From West | | | | | | |
|---------------|-----------------------------|------|------|------|------------|--|---------------------------|------|------|------|------------|--|----------------------------|------|------|------|------------|---|---------------------------|------|------|------|------------|------------|------|
| Start Time | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | Int. Total | |
| 03:00 PM | 0 | 0 | 61 | 0 | 61 | | 0 | 82 | 0 | 0 | 82 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 86 | 68 | 0 | 154 | 297 |
| 03:15 PM | 0 | 0 | 57 | 0 | 57 | | 2 | 66 | 0 | 0 | 68 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 105 | 69 | 0 | 174 | 299 |
| 03:30 PM | 0 | 0 | 80 | 0 | 80 | | 0 | 104 | 0 | 0 | 104 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 107 | 91 | 0 | 198 | 382 |
| 03:45 PM | 0 | 0 | 70 | 0 | 70 | | 0 | 65 | 0 | 0 | 65 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 114 | 89 | 0 | 203 | 338 |
| Total | 0 | 0 | 268 | 0 | 268 | | 2 | 317 | 0 | 0 | 319 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 412 | 317 | 0 | 729 | 1316 |
| 04:00 PM | 0 | 0 | 60 | 0 | 60 | | 0 | 90 | 0 | 0 | 90 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 135 | 110 | 0 | 245 | 395 |
| 04:15 PM | 0 | 0 | 60 | 0 | 60 | | 0 | 119 | 0 | 0 | 119 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 132 | 145 | 0 | 277 | 456 |
| 04:30 PM | 0 | 0 | 49 | 0 | 49 | | 0 | 147 | 0 | 0 | 147 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 152 | 165 | 0 | 317 | 513 |
| 04:45 PM | 0 | 0 | 75 | 0 | 75 | | 0 | 123 | 0 | 0 | 123 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 175 | 173 | 0 | 348 | 546 |
| Total | 0 | 0 | 244 | 0 | 244 | | 0 | 479 | 0 | 0 | 479 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 594 | 593 | 0 | 1187 | 1910 |
| 05:00 PM | 0 | 0 | 58 | 0 | 58 | | 0 | 151 | 0 | 0 | 151 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 247 | 120 | 0 | 367 | 576 |
| 05:15 PM | 0 | 0 | 65 | 0 | 65 | | 0 | 133 | 0 | 0 | 133 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 205 | 157 | 0 | 362 | 560 |
| 05:30 PM | 0 | 0 | 68 | 0 | 68 | | 1 | 143 | 0 | 0 | 144 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 211 | 172 | 0 | 383 | 595 |
| 05:45 PM | 0 | 0 | 58 | 0 | 58 | | 0 | 122 | 0 | 0 | 122 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 163 | 162 | 0 | 325 | 505 |
| Total | 0 | 0 | 249 | 0 | 249 | | 1 | 549 | 0 | 0 | 550 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 826 | 611 | 0 | 1437 | 2236 |
| 06:00 PM | 0 | 0 | 36 | 0 | 36 | | 0 | 110 | 0 | 0 | 110 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 162 | 165 | 0 | 327 | 473 |
| 06:15 PM | 0 | 0 | 61 | 0 | 61 | | 1 | 73 | 0 | 0 | 74 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 180 | 138 | 0 | 318 | 453 |
| 06:30 PM | 0 | 0 | 48 | 0 | 48 | | 0 | 92 | 0 | 0 | 92 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 149 | 105 | 0 | 254 | 394 |
| 06:45 PM | 0 | 0 | 46 | 0 | 46 | | 0 | 74 | 0 | 0 | 74 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 97 | 85 | 0 | 182 | 302 |
| Total | 0 | 0 | 191 | 0 | 191 | | 1 | 349 | 0 | 0 | 350 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 588 | 493 | 0 | 1081 | 1622 |
| Grand Total | 0 | 0 | 952 | 0 | 952 | | 4 | 1694 | 0 | 0 | 1698 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 2420 | 2014 | 0 | 4434 | 7084 |
| Approach % | 0 | 0 | 100 | 0 | | | 0.2 | 99.8 | 0 | 0 | | | 0 | 45 | 0 | 0 | 0 | | | 0 | 54.6 | 45.4 | 0 | | |
| Total % | 0 | 0 | 13.4 | 0 | 13.4 | | 0.1 | 23.9 | 0 | 0 | 24 | | 0 | 0 | 0 | 0 | 0 | | | 0 | 34.2 | 28.4 | 0 | 62.6 | |
| % Lights | 0 | 0 | 913 | 0 | 913 | | 4 | 1662 | 0 | 0 | 1666 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 2384 | 1989 | 0 | 4373 | 6952 |
| % Lights | 0 | 0 | 95.9 | 0 | 95.9 | | 100 | 98.1 | 0 | 0 | 98.1 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 98.5 | 98.8 | 0 | 98.6 | 98.1 |
| % Buses | 0 | 0 | 18 | 0 | 18 | | 0 | 12 | 0 | 0 | 12 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 19 | 10 | 0 | 29 | 59 |
| % Buses | 0 | 0 | 1.9 | 0 | 1.9 | | 0 | 0.7 | 0 | 0 | 0.7 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0.8 | 0.5 | 0 | 0.7 | 0.8 |
| Trucks | 0 | 0 | 21 | 0 | 21 | | 0 | 20 | 0 | 0 | 20 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 17 | 15 | 0 | 32 | 73 |
| % Trucks | 0 | 0 | 2.2 | 0 | 2.2 | | 0 | 1.2 | 0 | 0 | 1.2 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0.7 | 0.7 | 0 | 0.7 | 1 |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |

Customer Loyalty through Client Satisfaction

File Name : 4-NYS ROUTE 22 AT NYS ROUTE 120 466745 11-02-2017

Site Code :

Start Date : 11/2/2017

Page No : 2

| | NYS ROUTE 120 From North | | | | | | NYS ROUTE 22 From East | | | | | | NYS ROUTE 22 From South | | | | | | NYS ROUTE 22 From West | | | | | | | | | | | | | |
|--|-----------------------------|------|------|------|------------|--|---------------------------|------|------|------|------------|------|----------------------------|------|------|------|------------|------|---------------------------|------|------|------|------------|------|-------|------|------|------|------------|------------|------|------|
| Start Time | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | Int. Total | | |
| Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 0 | 0 | 58 | 0 | 58 | | 0 | 151 | 0 | 0 | 0 | 151 | | 0 | 0 | 0 | 0 | 0 | | 0 | 247 | 120 | 0 | 0 | 367 | | 0 | 0 | 0 | 0 | 367 | 576 |
| 05:15 PM | 0 | 0 | 65 | 0 | 65 | | 0 | 133 | 0 | 0 | 0 | 133 | | 0 | 0 | 0 | 0 | 0 | | 0 | 205 | 157 | 0 | 0 | 362 | | 0 | 0 | 0 | 0 | 362 | 560 |
| 05:30 PM | 0 | 0 | 68 | 0 | 68 | | 1 | 143 | 0 | 0 | 0 | 144 | | 0 | 0 | 0 | 0 | 0 | | 0 | 211 | 172 | 0 | 0 | 383 | | 0 | 0 | 0 | 0 | 383 | 595 |
| 05:45 PM | 0 | 0 | 58 | 0 | 58 | | 0 | 122 | 0 | 0 | 0 | 122 | | 0 | 0 | 0 | 0 | 0 | | 0 | 163 | 162 | 0 | 0 | 325 | | 0 | 0 | 0 | 0 | 325 | 505 |
| Total Volume | 0 | 0 | 249 | 0 | 249 | | 1 | 549 | 0 | 0 | 0 | 550 | | 0 | 0 | 0 | 0 | 0 | | 0 | 826 | 611 | 0 | 0 | 1437 | | 0 | 0 | 0 | 0 | 1437 | 2236 |
| % App. Total | 0 | 0 | 100 | 0 | | | 0.2 | 99.8 | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | | | 0 | 57.5 | 42.5 | 0 | 0 | | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .915 | .000 | .915 | | .250 | .909 | .000 | .000 | .000 | .911 | | .000 | .000 | .000 | .000 | .000 | | .000 | .836 | .888 | .000 | .938 | | .000 | .836 | .888 | .000 | .938 | | .939 |
| Lights | 0 | 0 | 249 | 0 | 249 | | 1 | 543 | 0 | 0 | 0 | 544 | | 0 | 0 | 0 | 0 | 0 | | 0 | 818 | 609 | 0 | 0 | 1427 | | 0 | 0 | 0 | 0 | 1427 | 2220 |
| % Lights | 0 | 0 | 100 | 0 | 100 | | 100 | 98.9 | 0 | 0 | 0 | 98.9 | | 0 | 0 | 0 | 0 | 0 | | 0 | 99.0 | 99.7 | 0 | 0 | 99.3 | | 0 | 0 | 0 | 0 | 99.3 | 99.3 |
| Buses | 0 | 0 | 0 | 0 | 0 | | 0 | 3 | 0 | 0 | 0 | 3 | | 0 | 0 | 0 | 0 | 0 | | 0 | 4 | 1 | 0 | 5 | | 0 | 0 | 0 | 0 | 5 | 8 | |
| % Buses | 0 | 0 | 0 | 0 | 0 | | 0 | 0.5 | 0 | 0 | 0 | 0.5 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0.5 | 0.2 | 0 | 0.3 | | 0 | 0 | 0 | 0 | 0.3 | 0.4 | |
| Trucks | 0 | 0 | 0 | 0 | 0 | | 0 | 3 | 0 | 0 | 0 | 3 | | 0 | 0 | 0 | 0 | 0 | | 0 | 4 | 1 | 0 | 5 | | 0 | 0 | 0 | 0 | 5 | 8 | |
| % Trucks | 0 | 0 | 0 | 0 | 0 | | 0 | 0.5 | 0 | 0 | 0 | 0.5 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0.5 | 0.2 | 0 | 0.3 | | 0 | 0 | 0 | 0 | 0.3 | 0.4 | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | |

Maser Consulting

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 5-NYS_ROUTE_22(MT_KISCO_RD)_AT_NYS_ROUTE_120(KING_ST)_466746_11-02-2017

Site Code :

Start Date : 11/2/2017

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

| | NYS ROUTE 120 From North | | | | | | NYS ROUTE 22(MT KISCO RD) From East | | | | | | NYS ROUTE 120 From South | | | | | | From West | | | | | |
|---------------|-----------------------------|------|------|------|------------|--|--|------|------|------|------------|--|-----------------------------|------|------|------|------------|--|-----------|------|------|------|------------|------------|
| Start Time | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | Int. Total |
| 06:00 AM | 0 | 67 | 29 | 0 | 96 | | 0 | 0 | 1 | 0 | 1 | | 12 | 18 | 0 | 0 | 30 | | 0 | 0 | 0 | 0 | 0 | 127 |
| 06:15 AM | 0 | 53 | 36 | 0 | 89 | | 0 | 0 | 3 | 0 | 3 | | 7 | 26 | 0 | 0 | 33 | | 0 | 0 | 0 | 0 | 0 | 125 |
| 06:30 AM | 0 | 113 | 57 | 0 | 170 | | 0 | 0 | 2 | 0 | 2 | | 13 | 31 | 0 | 0 | 44 | | 0 | 0 | 0 | 0 | 0 | 216 |
| 06:45 AM | 0 | 95 | 55 | 0 | 150 | | 0 | 0 | 4 | 0 | 4 | | 14 | 50 | 0 | 0 | 64 | | 0 | 0 | 0 | 0 | 0 | 218 |
| Total | 0 | 328 | 177 | 0 | 505 | | 0 | 0 | 10 | 0 | 10 | | 46 | 125 | 0 | 0 | 171 | | 0 | 0 | 0 | 0 | 0 | 686 |
| 07:00 AM | 0 | 135 | 65 | 0 | 200 | | 0 | 0 | 5 | 0 | 5 | | 18 | 60 | 0 | 0 | 78 | | 0 | 0 | 0 | 0 | 0 | 283 |
| 07:15 AM | 0 | 186 | 100 | 0 | 286 | | 0 | 0 | 6 | 0 | 6 | | 21 | 64 | 0 | 0 | 85 | | 0 | 0 | 0 | 0 | 0 | 377 |
| 07:30 AM | 0 | 214 | 153 | 0 | 367 | | 0 | 0 | 11 | 0 | 11 | | 35 | 71 | 0 | 0 | 106 | | 0 | 0 | 0 | 0 | 0 | 484 |
| 07:45 AM | 0 | 187 | 184 | 0 | 371 | | 0 | 0 | 11 | 0 | 11 | | 28 | 89 | 0 | 0 | 117 | | 0 | 0 | 0 | 0 | 0 | 499 |
| Total | 0 | 722 | 502 | 0 | 1224 | | 0 | 0 | 33 | 0 | 33 | | 102 | 284 | 0 | 0 | 386 | | 0 | 0 | 0 | 0 | 0 | 1643 |
| 08:00 AM | 0 | 142 | 174 | 0 | 316 | | 0 | 0 | 15 | 0 | 15 | | 22 | 89 | 0 | 0 | 111 | | 0 | 0 | 0 | 0 | 0 | 442 |
| 08:15 AM | 0 | 144 | 139 | 0 | 283 | | 0 | 0 | 8 | 0 | 8 | | 38 | 119 | 0 | 0 | 157 | | 0 | 0 | 0 | 0 | 0 | 448 |
| 08:30 AM | 0 | 123 | 173 | 0 | 296 | | 0 | 0 | 8 | 0 | 8 | | 27 | 109 | 0 | 0 | 136 | | 0 | 0 | 0 | 0 | 0 | 440 |
| 08:45 AM | 0 | 128 | 197 | 0 | 325 | | 0 | 0 | 9 | 0 | 9 | | 49 | 94 | 0 | 0 | 143 | | 0 | 0 | 0 | 0 | 0 | 477 |
| Total | 0 | 537 | 683 | 0 | 1220 | | 0 | 0 | 40 | 0 | 40 | | 136 | 411 | 0 | 0 | 547 | | 0 | 0 | 0 | 0 | 0 | 1807 |
| 09:00 AM | 0 | 118 | 140 | 0 | 258 | | 0 | 0 | 13 | 0 | 13 | | 52 | 97 | 0 | 0 | 149 | | 0 | 0 | 0 | 0 | 0 | 420 |
| 09:15 AM | 0 | 95 | 124 | 0 | 219 | | 0 | 0 | 3 | 0 | 3 | | 24 | 72 | 0 | 0 | 96 | | 0 | 0 | 0 | 0 | 0 | 318 |
| 09:30 AM | 0 | 94 | 96 | 0 | 190 | | 0 | 0 | 4 | 0 | 4 | | 21 | 68 | 0 | 0 | 89 | | 0 | 0 | 0 | 0 | 0 | 283 |
| 09:45 AM | 0 | 88 | 72 | 0 | 160 | | 0 | 0 | 10 | 0 | 10 | | 18 | 69 | 0 | 0 | 87 | | 0 | 0 | 0 | 0 | 0 | 257 |
| Total | 0 | 395 | 432 | 0 | 827 | | 0 | 0 | 30 | 0 | 30 | | 115 | 306 | 0 | 0 | 421 | | 0 | 0 | 0 | 0 | 0 | 1278 |
| Grand Total | 0 | 1982 | 1794 | 0 | 3776 | | 0 | 0 | 113 | 0 | 113 | | 399 | 1126 | 0 | 0 | 1525 | | 0 | 0 | 0 | 0 | 0 | 5414 |
| Approach % | 0 | 52.5 | 47.5 | 0 | | | 0 | 0 | 100 | 0 | | | 26.2 | 73.8 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | |
| Total % | 0 | 36.6 | 33.1 | 0 | 69.7 | | 0 | 0 | 2.1 | 0 | 2.1 | | 7.4 | 20.8 | 0 | 0 | 28.2 | | 0 | 0 | 0 | 0 | 0 | |
| % Lights | 0 | 1947 | 1753 | 0 | 3700 | | 0 | 0 | 103 | 0 | 103 | | 390 | 1082 | 0 | 0 | 1472 | | 0 | 0 | 0 | 0 | 0 | 5275 |
| % Lights | 0 | 98.2 | 97.7 | 0 | 98 | | 0 | 0 | 91.2 | 0 | 91.2 | | 97.7 | 96.1 | 0 | 0 | 96.5 | | 0 | 0 | 0 | 0 | 0 | 97.4 |
| % Buses | 0 | 17 | 23 | 0 | 40 | | 0 | 0 | 8 | 0 | 8 | | 6 | 16 | 0 | 0 | 22 | | 0 | 0 | 0 | 0 | 0 | 70 |
| % Buses | 0 | 0.9 | 1.3 | 0 | 1.1 | | 0 | 0 | 7.1 | 0 | 7.1 | | 1.5 | 1.4 | 0 | 0 | 1.4 | | 0 | 0 | 0 | 0 | 0 | 1.3 |
| % Trucks | 0 | 18 | 18 | 0 | 36 | | 0 | 0 | 2 | 0 | 2 | | 3 | 28 | 0 | 0 | 31 | | 0 | 0 | 0 | 0 | 0 | 69 |
| % Trucks | 0 | 0.9 | 1 | 0 | 1 | | 0 | 0 | 1.8 | 0 | 1.8 | | 0.8 | 2.5 | 0 | 0 | 2 | | 0 | 0 | 0 | 0 | 0 | 1.3 |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |

File Name : 5-NYS_ROUTE_22(MT_KISCO_RD)_AT_NYS_ROUTE_120(KING_ST)_466746_11-02-2017

Site Code :

Start Date : 11/2/2017

Page No : 2

| | NYS ROUTE 120 From North | | | | | | NYS ROUTE 22(MT KISCO RD) From East | | | | | | NYS ROUTE 120 From South | | | | | | From West | | | | | |
|--|-----------------------------|------|------|------|------------|--|--|------|------|------|------------|--|-----------------------------|------|------|------|------------|--|-----------|------|------|------|------------|------------|
| Start Time | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 0 | 142 | 174 | 0 | 316 | | 0 | 0 | 15 | 0 | 15 | | 22 | 89 | 0 | 0 | 111 | | 0 | 0 | 0 | 0 | 0 | 442 |
| 08:15 AM | 0 | 144 | 139 | 0 | 283 | | 0 | 0 | 8 | 0 | 8 | | 38 | 119 | 0 | 0 | 157 | | 0 | 0 | 0 | 0 | 0 | 448 |
| 08:30 AM | 0 | 123 | 173 | 0 | 296 | | 0 | 0 | 8 | 0 | 8 | | 27 | 109 | 0 | 0 | 136 | | 0 | 0 | 0 | 0 | 0 | 440 |
| 08:45 AM | 0 | 128 | 197 | 0 | 325 | | 0 | 0 | 9 | 0 | 9 | | 49 | 94 | 0 | 0 | 143 | | 0 | 0 | 0 | 0 | 0 | 477 |
| Total Volume | 0 | 537 | 683 | 0 | 1220 | | 0 | 0 | 40 | 0 | 40 | | 136 | 411 | 0 | 0 | 547 | | 0 | 0 | 0 | 0 | 0 | 1807 |
| % App. Total | 0 | 44 | 56 | 0 | | | 0 | 0 | 100 | 0 | | | 24.9 | 75.1 | 0 | 0 | | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .932 | .867 | .000 | .938 | | .000 | .000 | .667 | .000 | .667 | | .694 | .863 | .000 | .000 | .871 | | .000 | .000 | .000 | .000 | .000 | .947 |
| Lights | 0 | 523 | 674 | 0 | 1197 | | 0 | 0 | 36 | 0 | 36 | | 132 | 397 | 0 | 0 | 529 | | 0 | 0 | 0 | 0 | 0 | 1762 |
| % Lights | 0 | 97.4 | 98.7 | 0 | 98.1 | | 0 | 0 | 90.0 | 0 | 90.0 | | 97.1 | 96.6 | 0 | 0 | 96.7 | | 0 | 0 | 0 | 0 | 0 | 97.5 |
| Buses | 0 | 5 | 7 | 0 | 12 | | 0 | 0 | 4 | 0 | 4 | | 3 | 10 | 0 | 0 | 13 | | 0 | 0 | 0 | 0 | 0 | 29 |
| % Buses | 0 | 0.9 | 1.0 | 0 | 1.0 | | 0 | 0 | 10.0 | 0 | 10.0 | | 2.2 | 2.4 | 0 | 0 | 2.4 | | 0 | 0 | 0 | 0 | 0 | 1.6 |
| Trucks | 0 | 9 | 2 | 0 | 11 | | 0 | 0 | 0 | 0 | 0 | | 1 | 4 | 0 | 0 | 5 | | 0 | 0 | 0 | 0 | 0 | 16 |
| % Trucks | 0 | 1.7 | 0.3 | 0 | 0.9 | | 0 | 0 | 0 | 0 | 0 | | 0.7 | 1.0 | 0 | 0 | 0.9 | | 0 | 0 | 0 | 0 | 0 | 0.9 |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |

Site Code

Page No : 1

| Groups Printed- Lights - Buses - Trucks - Pedestrians | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------|------|------|------|------|------------|-------|------|------|------|------|------------|-------|--|---|------|------|------------|-------|------|---|------|------|------------|------------|--|--|-----------------------------|--|--|--|--|--|--|--|--|--|
| NYS ROUTE 120 From North | | | | | | | | | | | | | | NYS ROUTE 22(MT KISCO RD) From East | | | | | | | | | | | | | | NYS ROUTE 120 From South | | | | | | | | | |
| Start Time | Right | Thru | | Left | Peds | App. Total | Right | Thru | | Left | Peds | App. Total | Right | Thru | | Left | Peds | App. Total | Right | Thru | | Left | Peds | App. Total | Int. Total | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 0 | 75 | 44 | 0 | 119 | 0 | 29 | 0 | 29 | 0 | 11 | 90 | 0 | 101 | 0 | 0 | 0 | 101 | 0 | 0 | 0 | 0 | 0 | 0 | 249 | | | | | | | | | | | | |
| 03:15 PM | 0 | 74 | 48 | 0 | 122 | 0 | 15 | 0 | 15 | 0 | 7 | 102 | 0 | 109 | 0 | 0 | 0 | 109 | 0 | 0 | 0 | 0 | 0 | 0 | 246 | | | | | | | | | | | | |
| 03:30 PM | 0 | 90 | 46 | 0 | 136 | 0 | 24 | 0 | 24 | 0 | 10 | 95 | 0 | 136 | 0 | 0 | 0 | 136 | 0 | 0 | 0 | 0 | 0 | 0 | 265 | | | | | | | | | | | | |
| 03:45 PM | 0 | 79 | 57 | 0 | 136 | 0 | 23 | 0 | 23 | 0 | 10 | 118 | 0 | 128 | 0 | 0 | 0 | 128 | 0 | 0 | 0 | 0 | 0 | 0 | 287 | | | | | | | | | | | | |
| Total | 0 | 318 | 195 | 0 | 513 | 0 | 91 | 0 | 91 | 0 | 38 | 405 | 0 | 443 | 0 | 0 | 0 | 443 | 0 | 0 | 0 | 0 | 0 | 0 | 1047 | | | | | | | | | | | | |
| 04:00 PM | 0 | 91 | 38 | 0 | 129 | 0 | 44 | 0 | 44 | 0 | 9 | 110 | 0 | 119 | 0 | 0 | 0 | 119 | 0 | 0 | 0 | 0 | 0 | 0 | 292 | | | | | | | | | | | | |
| 04:15 PM | 0 | 108 | 47 | 0 | 155 | 0 | 49 | 0 | 49 | 0 | 9 | 92 | 0 | 101 | 0 | 0 | 0 | 101 | 0 | 0 | 0 | 0 | 0 | 0 | 305 | | | | | | | | | | | | |
| 04:30 PM | 0 | 140 | 49 | 0 | 189 | 1 | 47 | 0 | 47 | 0 | 6 | 101 | 0 | 107 | 0 | 0 | 0 | 107 | 0 | 0 | 0 | 0 | 0 | 0 | 343 | | | | | | | | | | | | |
| 04:45 PM | 0 | 139 | 31 | 1 | 171 | 0 | 55 | 0 | 55 | 0 | 10 | 97 | 0 | 107 | 0 | 0 | 0 | 107 | 0 | 0 | 0 | 0 | 0 | 0 | 333 | | | | | | | | | | | | |
| Total | 0 | 478 | 165 | 1 | 644 | 1 | 194 | 0 | 195 | 0 | 34 | 400 | 0 | 434 | 0 | 0 | 0 | 434 | 0 | 0 | 0 | 0 | 0 | 0 | 1273 | | | | | | | | | | | | |
| 05:00 PM | 0 | 123 | 53 | 0 | 176 | 0 | 50 | 0 | 50 | 0 | 6 | 146 | 0 | 152 | 0 | 0 | 0 | 152 | 0 | 0 | 0 | 0 | 0 | 0 | 378 | | | | | | | | | | | | |
| 05:15 PM | 0 | 109 | 63 | 0 | 172 | 2 | 70 | 0 | 72 | 0 | 4 | 131 | 0 | 135 | 0 | 0 | 0 | 135 | 0 | 0 | 0 | 0 | 0 | 0 | 379 | | | | | | | | | | | | |
| 05:30 PM | 0 | 131 | 43 | 2 | 176 | 13 | 89 | 0 | 102 | 0 | 8 | 184 | 0 | 192 | 0 | 0 | 0 | 192 | 0 | 0 | 0 | 0 | 0 | 0 | 470 | | | | | | | | | | | | |
| 05:45 PM | 0 | 105 | 46 | 0 | 151 | 0 | 68 | 0 | 68 | 0 | 7 | 142 | 0 | 149 | 0 | 0 | 0 | 149 | 0 | 0 | 0 | 0 | 0 | 0 | 368 | | | | | | | | | | | | |
| Total | 0 | 468 | 205 | 2 | 675 | 15 | 277 | 0 | 292 | 0 | 25 | 603 | 0 | 628 | 0 | 0 | 0 | 628 | 0 | 0 | 0 | 0 | 0 | 0 | 1595 | | | | | | | | | | | | |
| 06:00 PM | 0 | 106 | 43 | 0 | 149 | 0 | 79 | 0 | 79 | 0 | 12 | 113 | 0 | 125 | 0 | 0 | 0 | 125 | 0 | 0 | 0 | 0 | 0 | 0 | 353 | | | | | | | | | | | | |
| 06:15 PM | 0 | 83 | 36 | 0 | 119 | 1 | 68 | 0 | 69 | 0 | 4 | 156 | 0 | 160 | 0 | 0 | 0 | 160 | 0 | 0 | 0 | 0 | 0 | 0 | 348 | | | | | | | | | | | | |
| 06:30 PM | 0 | 96 | 33 | 0 | 129 | 0 | 38 | 0 | 38 | 0 | 4 | 140 | 0 | 144 | 0 | 0 | 0 | 144 | 0 | 0 | 0 | 0 | 0 | 0 | 311 | | | | | | | | | | | | |
| 06:45 PM | 0 | 61 | 34 | 0 | 95 | 0 | 21 | 0 | 21 | 0 | 1 | 104 | 0 | 105 | 0 | 0 | 0 | 105 | 0 | 0 | 0 | 0 | 0 | 0 | 221 | | | | | | | | | | | | |
| Total | 0 | 346 | 146 | 0 | 492 | 1 | 206 | 0 | 207 | 0 | 21 | 513 | 0 | 534 | 0 | 0 | 0 | 534 | 0 | 0 | 0 | 0 | 0 | 0 | 1233 | | | | | | | | | | | | |
| Grand Total | 0 | 1610 | 711 | 3 | 2324 | 17 | 768 | 0 | 785 | 0 | 118 | 1921 | 0 | 2039 | 0 | 0 | 0 | 2039 | 0 | 0 | 0 | 0 | 0 | 0 | 5148 | | | | | | | | | | | | |
| Approach % | 0 | 69.3 | 30.6 | 0.1 | | 2.2 | 97.8 | 0 | | 0 | 5.8 | 94.2 | 0 | | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | |
| Total % | 0 | 31.3 | 13.8 | 0.1 | 45.1 | 0.3 | 14.9 | 0 | 15.2 | 0 | 2.3 | 37.3 | 0 | 39.6 | 0 | 0 | 0 | 39.6 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | |
| Lights | 0 | 1573 | 675 | 0 | 2248 | 17 | 761 | 0 | 778 | 0 | 114 | 1905 | 0 | 2019 | 0 | 0 | 0 | 2019 | 0 | 0 | 0 | 0 | 0 | 0 | 5045 | | | | | | | | | | | | |
| % Lights | 0 | 97.7 | 94.9 | 0 | 96.7 | 100 | 99.1 | 0 | 99.1 | 0 | 96.6 | 99.2 | 0 | 99 | 0 | 0 | 0 | 99 | 0 | 0 | 0 | 0 | 0 | 0 | 98 | | | | | | | | | | | | |
| Buses | 0 | 5 | 14 | 0 | 19 | 0 | 4 | 0 | 4 | 0 | 2 | 4 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | | | | | | | | | | | | |
| % Buses | 0 | 0.3 | 2 | 0 | 0.8 | 0 | 0.5 | 0 | 0.5 | 0 | 1.7 | 0.2 | 0 | 0.3 | 0 | 0 | 0 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | | | | | | | | | | | | |
| Trucks | 0 | 32 | 22 | 0 | 54 | 0 | 3 | 0 | 3 | 0 | 2 | 12 | 0 | 14 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 71 | | | | | | | | | | | | |
| % Trucks | 0 | 2 | 3.1 | 0 | 2.3 | 0 | 0.4 | 0 | 0.4 | 0 | 1.7 | 0.6 | 0 | 0.7 | 0 | 0 | 0 | 0.7 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | | | | | | | | | | | | |
| Pedestrians | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | | | | | | | | | | | | |
| % Pedestrians | 0 | 0 | 0 | 100 | 0.1 | | | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | | | | | | | | | | | | |

Maser Consulting

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 5-NYS_ROUTE_22(MT_KISCO_RD)_AT_NYS_ROUTE_120(KING_ST)_466746_11-02-2017

Site Code :

Start Date : 11/2/2017

Page No : 2

| Start Time | NYS ROUTE 120 | | | | | | NYS ROUTE 22(MT KISCO RD) | | | | | | NYS ROUTE 120 | | | | | | From West | | | | | |
|--|---------------|------|------|------|------------|--|---------------------------|------|------|------|------------|--|---------------|------|------|------|------------|--|-----------|------|------|------|------------|------------|
| | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 0 | 123 | 53 | 0 | 176 | | 0 | 0 | 50 | 0 | 50 | | 6 | 146 | 0 | 0 | 152 | | 0 | 0 | 0 | 0 | 0 | 378 |
| 05:15 PM | 0 | 109 | 63 | 0 | 172 | | 2 | 0 | 70 | 0 | 72 | | 4 | 131 | 0 | 0 | 135 | | 0 | 0 | 0 | 0 | 0 | 379 |
| 05:30 PM | 0 | 131 | 43 | 2 | 176 | | 13 | 0 | 89 | 0 | 102 | | 8 | 184 | 0 | 0 | 192 | | 0 | 0 | 0 | 0 | 0 | 470 |
| 05:45 PM | 0 | 105 | 46 | 0 | 151 | | 0 | 0 | 68 | 0 | 68 | | 7 | 142 | 0 | 0 | 149 | | 0 | 0 | 0 | 0 | 0 | 368 |
| Total Volume | 0 | 468 | 205 | 2 | 675 | | 15 | 0 | 277 | 0 | 292 | | 25 | 603 | 0 | 0 | 628 | | 0 | 0 | 0 | 0 | 0 | 1595 |
| % App. Total | 0 | 69.3 | 30.4 | 0.3 | | | 5.1 | 0 | 94.9 | 0 | | | 4 | 96 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | |
| PHF | .000 | .893 | .813 | .250 | .959 | | .288 | .000 | .778 | .000 | .716 | | .781 | .819 | .000 | .000 | .818 | | .000 | .000 | .000 | .000 | .000 | .848 |
| Lights | 0 | 462 | 201 | 0 | 663 | | 15 | 0 | 274 | 0 | 289 | | 24 | 601 | 0 | 0 | 625 | | 0 | 0 | 0 | 0 | 0 | 1577 |
| % Lights | 0 | 98.7 | 98.0 | 0 | 98.2 | | 100 | 0 | 98.9 | 0 | 99.0 | | 96.0 | 99.7 | 0 | 0 | 99.5 | | 0 | 0 | 0 | 0 | 0 | 98.9 |
| Buses | 0 | 2 | 1 | 0 | 3 | | 0 | 0 | 2 | 0 | 2 | | 1 | 0 | 0 | 0 | 1 | | 0 | 0 | 0 | 0 | 0 | 6 |
| % Buses | 0 | 0.4 | 0.5 | 0 | 0.4 | | 0 | 0 | 0.7 | 0 | 0.7 | | 4.0 | 0 | 0 | 0 | 0.2 | | 0 | 0 | 0 | 0 | 0 | 0.4 |
| Trucks | 0 | 4 | 3 | 0 | 7 | | 0 | 0 | 1 | 0 | 1 | | 0 | 2 | 0 | 0 | 2 | | 0 | 0 | 0 | 0 | 0 | 10 |
| % Trucks | 0 | 0.9 | 1.5 | 0 | 1.0 | | 0 | 0 | 0.4 | 0 | 0.3 | | 0 | 0.3 | 0 | 0 | 0.3 | | 0 | 0 | 0 | 0 | 0 | 0.6 |
| Pedestrians | 0 | 0 | 0 | 2 | 2 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 2 |
| % Pedestrians | 0 | 0 | 0 | 100 | 0.3 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0.1 |

400 Columbus Avenue - Suite 180E
Valhalla, NY 10595

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 6-NYS ROUTE 120 AT OLD POST RD 466747 11-02-2017

Site Code :

Start Date : 11/2/2017

Page No : 2

| | | ROUTE 120 From North | | | | | | OLD POST RD From East | | | | | | ROUTE 120 From South | | | | | | OLD POST RD From West | | | | | | |
|--|-------|-------------------------|------|------|------------|--|-------|--------------------------|------|------|------------|--|-------|-------------------------|------|------|------------|------|-------|--------------------------|------|------|------------|------|------------|------|
| Start Time | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Int. Total | |
| Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | | 1 | 9 | 0 | 0 | 10 | | 4 | 44 | 0 | 0 | 0 | 48 | | 0 | 0 | 0 | 0 | 0 | 0 | 58 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | | 3 | 6 | 0 | 0 | 9 | | 9 | 51 | 0 | 0 | 0 | 60 | | 0 | 0 | 0 | 0 | 0 | 0 | 69 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | | 1 | 4 | 0 | 0 | 5 | | 17 | 47 | 1 | 0 | 0 | 65 | | 0 | 0 | 0 | 0 | 0 | 0 | 70 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | | 1 | 5 | 0 | 0 | 6 | | 8 | 36 | 0 | 0 | 0 | 44 | | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | | 6 | 24 | 0 | 0 | 30 | | 38 | 178 | 1 | 0 | 0 | 217 | | 0 | 0 | 0 | 0 | 0 | 0 | 247 |
| % App. Total PHF | .000 | .000 | .000 | .000 | .000 | | .500 | .667 | .000 | .000 | .750 | | .559 | .873 | .250 | .000 | .000 | .835 | | .000 | .000 | .000 | .000 | .000 | .000 | .882 |
| Lights | 0 | 0 | 0 | 0 | 0 | | 6 | 23 | 0 | 0 | 29 | | 37 | 149 | 1 | 0 | 0 | 187 | | 0 | 0 | 0 | 0 | 0 | 0 | 216 |
| % Lights | 0 | 0 | 0 | 0 | 0 | | 100 | 95.8 | 0 | 0 | 96.7 | | 97.4 | 83.7 | 100 | 0 | 0 | 86.2 | | 0 | 0 | 0 | 0 | 0 | 0 | 87.4 |
| Buses | 0 | 0 | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 1 | | 0 | 11 | 0 | 0 | 0 | 11 | | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| % Buses | 0 | 0 | 0 | 0 | 0 | | 0 | 4.2 | 0 | 0 | 3.3 | | 0 | 6.2 | 0 | 0 | 0 | 5.1 | | 0 | 0 | 0 | 0 | 0 | 0 | 4.9 |
| Trucks | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 1 | 18 | 0 | 0 | 0 | 19 | | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| % Trucks | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 2.6 | 10.1 | 0 | 0 | 0 | 8.8 | | 0 | 0 | 0 | 0 | 0 | 0 | 7.7 |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | ROUTE 120 From North | | | | | | OLD POST RD From East | | | | | | ROUTE 120 From South | | | | | | OLD POST RD From West | | | | | |
|--|-------------------------|------|------|------|------------|--|--------------------------|------|------|------|------------|--|-------------------------|------|------|------|------------|--|--------------------------|------|------|------|------------|------|
| Start Time | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | |
| Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | | 2 | 7 | 0 | 0 | 9 | | 4 | 209 | 1 | 0 | 214 | | 0 | 0 | 0 | 0 | 0 | 223 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | | 3 | 15 | 0 | 0 | 18 | | 11 | 251 | 0 | 0 | 262 | | 0 | 0 | 0 | 0 | 0 | 280 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | | 1 | 17 | 0 | 0 | 18 | | 12 | 198 | 1 | 0 | 211 | | 0 | 0 | 0 | 0 | 0 | 229 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | | 1 | 9 | 0 | 0 | 10 | | 1 | 166 | 0 | 0 | 167 | | 0 | 0 | 0 | 0 | 0 | 177 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | | 7 | 48 | 0 | 0 | 55 | | 28 | 824 | 2 | 0 | 854 | | 0 | 0 | 0 | 0 | 0 | 909 |
| % App. Total PHF | .000 | .000 | .000 | .000 | .000 | | .583 | .706 | .000 | .000 | .764 | | .583 | .965 | .500 | .000 | .815 | | .000 | .000 | .000 | .000 | .000 | .812 |
| Lights | 0 | 0 | 0 | 0 | 0 | | 7 | 46 | 0 | 0 | 53 | | 27 | 814 | 2 | 0 | 843 | | 0 | 0 | 0 | 0 | 0 | 896 |
| % Lights | 0 | 0 | 0 | 0 | 0 | | 100 | 95.8 | 0 | 0 | 96.4 | | 96.4 | 98.8 | 100 | 0 | 98.7 | | 0 | 0 | 0 | 0 | 0 | 98.6 |
| Buses | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 1 | 5 | 0 | 0 | 6 | | 0 | 0 | 0 | 0 | 0 | 6 |
| % Buses | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 3.6 | 0.6 | 0 | 0 | 0.7 | | 0 | 0 | 0 | 0 | 0 | 0.7 |
| Trucks | 0 | 0 | 0 | 0 | 0 | | 0 | 2 | 0 | 0 | 2 | | 0 | 5 | 0 | 0 | 5 | | 0 | 0 | 0 | 0 | 0 | 7 |
| % Trucks | 0 | 0 | 0 | 0 | 0 | | 0 | 4.2 | 0 | 0 | 3.6 | | 0 | 0.6 | 0 | 0 | 0.6 | | 0 | 0 | 0 | 0 | 0 | 0.8 |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |

Maser Consulting

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 7-NYS_ROUTE_22_AT_I-684_SB_ON_OFF_RAMPS_466749_11-02-2017

Site Code :

Start Date : 11/2/2017

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Groups Printed- Lights - Buses - Trucks - Pedestrians

| | I-684 SB ON/OFF RAMPS From North | | | | | | NYS ROUTE 22 From East | | | | | | I-684 SB ON/OFF RAMPS From South | | | | | | NYS ROUTE 22 From West | | | | | |
|---------------|-------------------------------------|------|------|------|------------|-------|---------------------------|------|------|------------|-------|------|-------------------------------------|------|------------|-------|------|------|---------------------------|------------|------------|--|--|--|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | | |
| 06:00 AM | 44 | 0 | 8 | 0 | 52 | 31 | 49 | 0 | 0 | 80 | 0 | 0 | 0 | 0 | 0 | 16 | 23 | 0 | 0 | 39 | 171 | | | |
| 06:15 AM | 87 | 0 | 24 | 0 | 111 | 23 | 59 | 0 | 0 | 82 | 0 | 0 | 0 | 0 | 0 | 25 | 23 | 0 | 0 | 48 | 241 | | | |
| 06:30 AM | 97 | 0 | 37 | 0 | 134 | 43 | 84 | 0 | 0 | 127 | 0 | 0 | 0 | 0 | 0 | 18 | 34 | 0 | 0 | 52 | 313 | | | |
| 06:45 AM | 120 | 0 | 42 | 0 | 162 | 46 | 140 | 0 | 0 | 186 | 0 | 0 | 0 | 0 | 0 | 29 | 49 | 0 | 0 | 78 | 426 | | | |
| Total | 348 | 0 | 111 | 0 | 459 | 143 | 332 | 0 | 0 | 475 | 0 | 0 | 0 | 0 | 0 | 88 | 129 | 0 | 0 | 217 | 1151 | | | |
| 07:00 AM | 141 | 0 | 59 | 0 | 200 | 54 | 191 | 0 | 0 | 245 | 0 | 0 | 0 | 0 | 0 | 47 | 117 | 0 | 0 | 164 | 609 | | | |
| 07:15 AM | 171 | 0 | 62 | 0 | 233 | 67 | 204 | 0 | 0 | 271 | 0 | 0 | 0 | 0 | 0 | 49 | 173 | 0 | 0 | 222 | 726 | | | |
| 07:30 AM | 213 | 0 | 65 | 0 | 278 | 77 | 229 | 0 | 0 | 306 | 0 | 0 | 0 | 0 | 0 | 71 | 142 | 0 | 0 | 213 | 797 | | | |
| 07:45 AM | 216 | 0 | 74 | 0 | 290 | 72 | 185 | 0 | 0 | 257 | 0 | 0 | 0 | 0 | 0 | 46 | 88 | 0 | 0 | 134 | 681 | | | |
| Total | 741 | 0 | 260 | 0 | 1001 | 270 | 809 | 0 | 0 | 1079 | 0 | 0 | 0 | 0 | 0 | 213 | 520 | 0 | 0 | 733 | 2813 | | | |
| 08:00 AM | 193 | 0 | 77 | 0 | 270 | 71 | 211 | 0 | 0 | 282 | 0 | 0 | 0 | 0 | 0 | 61 | 112 | 0 | 0 | 173 | 725 | | | |
| 08:15 AM | 205 | 0 | 74 | 0 | 279 | 53 | 208 | 0 | 0 | 261 | 0 | 0 | 0 | 0 | 0 | 50 | 142 | 0 | 0 | 192 | 732 | | | |
| 08:30 AM | 220 | 0 | 76 | 0 | 296 | 72 | 199 | 0 | 0 | 271 | 0 | 0 | 0 | 0 | 0 | 65 | 119 | 0 | 0 | 184 | 751 | | | |
| 08:45 AM | 218 | 0 | 69 | 0 | 287 | 73 | 213 | 0 | 0 | 286 | 0 | 0 | 0 | 0 | 0 | 54 | 157 | 0 | 0 | 211 | 784 | | | |
| Total | 836 | 0 | 296 | 0 | 1132 | 269 | 831 | 0 | 0 | 1100 | 0 | 0 | 0 | 0 | 0 | 230 | 530 | 0 | 0 | 760 | 2992 | | | |
| 09:00 AM | 221 | 0 | 68 | 0 | 289 | 80 | 218 | 0 | 0 | 298 | 0 | 0 | 0 | 0 | 0 | 44 | 116 | 0 | 0 | 160 | 747 | | | |
| 09:15 AM | 153 | 0 | 57 | 0 | 210 | 53 | 176 | 0 | 0 | 229 | 0 | 0 | 0 | 0 | 0 | 57 | 119 | 0 | 0 | 176 | 615 | | | |
| 09:30 AM | 99 | 0 | 46 | 0 | 145 | 48 | 145 | 0 | 0 | 193 | 0 | 0 | 0 | 1 | 1 | 59 | 87 | 0 | 0 | 146 | 485 | | | |
| 09:45 AM | 86 | 0 | 34 | 0 | 120 | 41 | 159 | 0 | 0 | 200 | 0 | 0 | 0 | 0 | 0 | 58 | 103 | 0 | 0 | 161 | 481 | | | |
| Total | 559 | 0 | 205 | 0 | 764 | 222 | 698 | 0 | 0 | 920 | 0 | 0 | 0 | 1 | 1 | 218 | 425 | 0 | 0 | 643 | 2328 | | | |
| Grand Total | 2484 | 0 | 872 | 0 | 3356 | 904 | 2670 | 0 | 0 | 3574 | 0 | 0 | 0 | 1 | 1 | 749 | 1604 | 0 | 0 | 2353 | 9284 | | | |
| Approach % | 74 | 0 | 26 | 0 | | 25.3 | 74.7 | 0 | 0 | | 0 | 0 | 0 | 100 | | 31.8 | 68.2 | 0 | 0 | | | | | |
| Total % | 26.8 | 0 | 9.4 | 0 | 36.1 | 9.7 | 28.8 | 0 | 0 | 38.5 | 0 | 0 | 0 | 0 | 0 | 8.1 | 17.3 | 0 | 0 | 25.3 | | | | |
| % Lights | 2455 | 0 | 846 | 0 | 3301 | 875 | 2546 | 0 | 0 | 3421 | 0 | 0 | 0 | 0 | 0 | 702 | 1464 | 0 | 0 | 2166 | 8888 | | | |
| % Lights | 98.8 | 0 | 97 | 0 | 98.4 | 96.8 | 95.4 | 0 | 0 | 95.7 | 0 | 0 | 0 | 0 | 0 | 93.7 | 91.3 | 0 | 0 | 92.1 | 95.7 | | | |
| % Buses | 6 | 0 | 4 | 0 | 10 | 8 | 58 | 0 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 12 | 57 | 0 | 0 | 69 | 145 | | | |
| % Buses | 0.2 | 0 | 0.5 | 0 | 0.3 | 0.9 | 2.2 | 0 | 0 | 1.8 | 0 | 0 | 0 | 0 | 0 | 1.6 | 3.6 | 0 | 0 | 2.9 | 1.6 | | | |
| % Trucks | 23 | 0 | 22 | 0 | 45 | 21 | 66 | 0 | 0 | 87 | 0 | 0 | 0 | 0 | 0 | 35 | 83 | 0 | 0 | 118 | 250 | | | |
| % Trucks | 0.9 | 0 | 2.5 | 0 | 1.3 | 2.3 | 2.5 | 0 | 0 | 2.4 | 0 | 0 | 0 | 0 | 0 | 4.7 | 5.2 | 0 | 0 | 5 | 2.7 | | | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | | | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | | | |

Maser Consulting

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 7-NYS_ROUTE_22_AT_I-684_SB_ON_OFF_RAMPS_466749_11-02-2017

Site Code :

Start Date : 11/2/2017

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| Start Time | I-684 SB ON/OFF RAMPS | | | | | | NYS ROUTE 22 | | | | | | I-684 SB ON/OFF RAMPS | | | | | | NYS ROUTE 22 | | | | | |
|--|-----------------------|------|------|------|------------|------------|--------------|------|------|------|------------|-----------|-----------------------|------|------|------|------------|------------|--------------|------|------|------|------------|-----------|
| | Right | Thru | Left | Peds | App. Total | From North | Right | Thru | Left | Peds | App. Total | From East | Right | Thru | Left | Peds | App. Total | From South | Right | Thru | Left | Peds | App. Total | From West |
| Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 193 | 0 | 77 | 0 | 270 | | 71 | 211 | 0 | 0 | 282 | | 0 | 0 | 0 | 0 | 0 | | 61 | 112 | 0 | 0 | 0 | 173 |
| 08:15 AM | 205 | 0 | 74 | 0 | 279 | | 53 | 208 | 0 | 0 | 261 | | 0 | 0 | 0 | 0 | 0 | | 50 | 142 | 0 | 0 | 0 | 192 |
| 08:30 AM | 220 | 0 | 76 | 0 | 296 | | 72 | 199 | 0 | 0 | 271 | | 0 | 0 | 0 | 0 | 0 | | 65 | 119 | 0 | 0 | 0 | 184 |
| 08:45 AM | 218 | 0 | 69 | 0 | 287 | | 73 | 213 | 0 | 0 | 286 | | 0 | 0 | 0 | 0 | 0 | | 54 | 157 | 0 | 0 | 0 | 211 |
| Total Volume | 836 | 0 | 296 | 0 | 1132 | | 269 | 831 | 0 | 0 | 1100 | | 0 | 0 | 0 | 0 | 0 | | 230 | 530 | 0 | 0 | 0 | 760 |
| % App. Total | 73.9 | 0 | 26.1 | 0 | | | 24.5 | 75.5 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | | 30.3 | 69.7 | 0 | 0 | 0 | |
| PHF | 950 | .000 | 961 | .000 | 956 | | 921 | 975 | .000 | .000 | 962 | | .000 | .000 | .000 | .000 | .000 | | .885 | .844 | .000 | .000 | .900 | 954 |
| Lights | 826 | 0 | 286 | 0 | 1112 | | 259 | 799 | 0 | 0 | 1058 | | 0 | 0 | 0 | 0 | 0 | | 208 | 486 | 0 | 0 | 0 | 694 |
| % Lights | 98.8 | 0 | 96.6 | 0 | 98.2 | | 96.3 | 96.1 | 0 | 0 | 96.2 | | 0 | 0 | 0 | 0 | 0 | | 90.4 | 91.7 | 0 | 0 | 0 | 91.3 |
| Buses | 2 | 0 | 0 | 0 | 2 | | 2 | 16 | 0 | 0 | 18 | | 0 | 0 | 0 | 0 | 0 | | 7 | 17 | 0 | 0 | 24 | 44 |
| % Buses | 0.2 | 0 | 0 | 0 | 0.2 | | 0.7 | 1.9 | 0 | 0 | 1.6 | | 0 | 0 | 0 | 0 | 0 | | 3.0 | 3.2 | 0 | 0 | 3.2 | 1.5 |
| Trucks | 8 | 0 | 10 | 0 | 18 | | 8 | 16 | 0 | 0 | 24 | | 0 | 0 | 0 | 0 | 0 | | 15 | 27 | 0 | 0 | 42 | 84 |
| % Trucks | 1.0 | 0 | 3.4 | 0 | 1.6 | | 3.0 | 1.9 | 0 | 0 | 2.2 | | 0 | 0 | 0 | 0 | 0 | | 6.5 | 5.1 | 0 | 0 | 5.5 | 2.8 |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |

400 Columbus Avenue - Suite 180E
Valhalla, NY 10595

File Name : 7-NYS_ROUTE_22_AT_I-684_SB_ON_OFF_RAMPS_466749_11-02-2017
 Site Code :
 Start Date : 11/2/2017
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| Groups Printed- Lights - Buses - Trucks - Pedestrians | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------|------|------|------|------------|-------|------|------|------|------------|-----------------------|------|------|------|------------|-------|------|------|------|------------|------------|--------------|--|--|--|--|--|--|--|--|--|--|
| I-684 SB ON/OFF RAMPS | | | | | | | | | | | I-684 SB ON/OFF RAMPS | | | | | | | | | | | NYS ROUTE 22 | | | | | | | | | | |
| From North | | | | | | | | | | | From South | | | | | | | | | | | From West | | | | | | | | | | |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 39 | 0 | 16 | 0 | 55 | 47 | 150 | 0 | 0 | 197 | 0 | 0 | 0 | 0 | 0 | 52 | 220 | 0 | 0 | 272 | 524 | | | | | | | | | | | |
| 03:15 PM | 41 | 0 | 14 | 0 | 55 | 40 | 162 | 0 | 0 | 202 | 0 | 0 | 0 | 0 | 0 | 65 | 204 | 0 | 0 | 269 | 526 | | | | | | | | | | | |
| 03:30 PM | 56 | 0 | 13 | 0 | 69 | 45 | 162 | 0 | 0 | 207 | 0 | 0 | 0 | 0 | 0 | 52 | 209 | 0 | 0 | 261 | 537 | | | | | | | | | | | |
| 03:45 PM | 39 | 0 | 18 | 0 | 57 | 45 | 209 | 0 | 0 | 254 | 0 | 0 | 0 | 0 | 0 | 44 | 205 | 0 | 0 | 249 | 560 | | | | | | | | | | | |
| Total | 175 | 0 | 61 | 0 | 236 | 177 | 683 | 0 | 0 | 860 | 0 | 0 | 0 | 0 | 0 | 213 | 838 | 0 | 0 | 1051 | 2147 | | | | | | | | | | | |
| 04:00 PM | 47 | 0 | 19 | 0 | 66 | 46 | 331 | 0 | 0 | 377 | 0 | 0 | 0 | 0 | 0 | 73 | 277 | 0 | 0 | 350 | 793 | | | | | | | | | | | |
| 04:15 PM | 49 | 0 | 16 | 0 | 65 | 25 | 304 | 0 | 0 | 329 | 0 | 0 | 0 | 0 | 0 | 72 | 244 | 0 | 0 | 316 | 710 | | | | | | | | | | | |
| 04:30 PM | 46 | 2 | 16 | 0 | 64 | 36 | 290 | 0 | 0 | 326 | 0 | 0 | 0 | 0 | 0 | 68 | 243 | 0 | 0 | 311 | 701 | | | | | | | | | | | |
| 04:45 PM | 48 | 0 | 15 | 0 | 63 | 37 | 256 | 0 | 0 | 293 | 0 | 0 | 0 | 0 | 0 | 70 | 259 | 0 | 0 | 329 | 685 | | | | | | | | | | | |
| Total | 190 | 2 | 66 | 0 | 258 | 144 | 1181 | 0 | 0 | 1325 | 0 | 0 | 0 | 0 | 0 | 283 | 1023 | 0 | 0 | 1306 | 2889 | | | | | | | | | | | |
| 05:00 PM | 42 | 0 | 19 | 0 | 61 | 30 | 180 | 0 | 0 | 210 | 0 | 0 | 0 | 0 | 0 | 76 | 399 | 0 | 0 | 475 | 746 | | | | | | | | | | | |
| 05:15 PM | 58 | 0 | 11 | 0 | 69 | 25 | 214 | 0 | 0 | 239 | 0 | 0 | 0 | 0 | 0 | 72 | 405 | 0 | 0 | 477 | 785 | | | | | | | | | | | |
| 05:30 PM | 54 | 0 | 20 | 0 | 74 | 35 | 181 | 0 | 0 | 216 | 0 | 0 | 0 | 0 | 0 | 73 | 343 | 0 | 0 | 416 | 706 | | | | | | | | | | | |
| 05:45 PM | 51 | 0 | 9 | 0 | 60 | 28 | 180 | 0 | 0 | 208 | 0 | 0 | 0 | 0 | 0 | 69 | 302 | 0 | 0 | 371 | 639 | | | | | | | | | | | |
| Total | 205 | 0 | 59 | 0 | 264 | 118 | 755 | 0 | 0 | 873 | 0 | 0 | 0 | 0 | 0 | 290 | 1449 | 0 | 0 | 1739 | 2876 | | | | | | | | | | | |
| 06:00 PM | 41 | 0 | 15 | 0 | 56 | 37 | 176 | 0 | 0 | 213 | 0 | 0 | 0 | 0 | 0 | 88 | 283 | 0 | 0 | 371 | 640 | | | | | | | | | | | |
| 06:15 PM | 47 | 0 | 22 | 0 | 69 | 23 | 153 | 0 | 0 | 176 | 0 | 0 | 0 | 0 | 0 | 59 | 258 | 0 | 0 | 317 | 562 | | | | | | | | | | | |
| 06:30 PM | 39 | 0 | 9 | 0 | 48 | 21 | 133 | 0 | 0 | 154 | 0 | 0 | 0 | 0 | 0 | 52 | 268 | 0 | 0 | 320 | 522 | | | | | | | | | | | |
| 06:45 PM | 21 | 0 | 10 | 0 | 31 | 28 | 81 | 0 | 0 | 109 | 0 | 0 | 0 | 0 | 0 | 58 | 192 | 0 | 0 | 250 | 390 | | | | | | | | | | | |
| Total | 148 | 0 | 56 | 0 | 204 | 109 | 543 | 0 | 0 | 652 | 0 | 0 | 0 | 0 | 0 | 257 | 1001 | 0 | 0 | 1258 | 2114 | | | | | | | | | | | |
| Grand Total | 718 | 2 | 242 | 0 | 962 | 548 | 3162 | 0 | 0 | 3710 | 0 | 0 | 0 | 0 | 0 | 1043 | 4311 | 0 | 0 | 5354 | 10026 | | | | | | | | | | | |
| Approach % Total | 74.6 | 0.2 | 25.2 | 0 | | 14.8 | 85.2 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 19.5 | 80.5 | 0 | 0 | | | | | | | | | | | | | |
| | 7.2 | 0 | 2.4 | 0 | 9.6 | 5.5 | 31.5 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 10.4 | 43 | 0 | 0 | 53.4 | | | | | | | | | | | | |
| Lights | 699 | 2 | 236 | 0 | 937 | 529 | 3055 | 0 | 0 | 3584 | 0 | 0 | 0 | 0 | 0 | 1020 | 4247 | 0 | 0 | 5267 | 9788 | | | | | | | | | | | |
| % Lights | 97.4 | 100 | 97.5 | 0 | 97.4 | 96.5 | 96.6 | 0 | 0 | 96.6 | 0 | 0 | 0 | 0 | 0 | 97.8 | 98.5 | 0 | 0 | 98.4 | 97.6 | | | | | | | | | | | |
| Buses | 3 | 0 | 0 | 0 | 3 | 1 | 46 | 0 | 0 | 47 | 0 | 0 | 0 | 0 | 0 | 2 | 23 | 0 | 0 | 25 | 75 | | | | | | | | | | | |
| % Buses | 0.4 | 0 | 0 | 0 | 0.3 | 0.2 | 1.5 | 0 | 0 | 1.3 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0.5 | 0 | 0 | 0.5 | 0.7 | | | | | | | | | | | |
| Trucks | 16 | 0 | 6 | 0 | 22 | 18 | 61 | 0 | 0 | 79 | 0 | 0 | 0 | 0 | 0 | 21 | 41 | 0 | 0 | 62 | 163 | | | | | | | | | | | |
| % Trucks | 2.2 | 0 | 2.5 | 0 | 2.3 | 3.3 | 1.9 | 0 | 0 | 2.1 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 1.2 | 1.6 | | | | | | | | | | | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | |

Maser Consulting

400 Columbus Avenue - Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

File Name : 7-NYS_ROUTE_22_AT_I-684_SB_ON_OFF_RAMPS_466749_11-02-2017

Site Code :

Start Date : 11/2/2017

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| | I-684 SB ON/OFF RAMPS From North | | | | | | NYS ROUTE 22 From East | | | | | | I-684 SB ON/OFF RAMPS From South | | | | | | NYS ROUTE 22 From West | | | | | | | | |
|--|-------------------------------------|------|------|------|------------|-------|---------------------------|------|------|------------|-------|------|-------------------------------------|------|------------|-------|------|------|---------------------------|------------|-------|------|------|------|------------|------------|-----|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | |
| Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 42 | 0 | 19 | 0 | 61 | 30 | 180 | 0 | 0 | 210 | 0 | 0 | 0 | 0 | 0 | 0 | 76 | 399 | 0 | 0 | 475 | | | | | | 746 |
| 05:15 PM | 58 | 0 | 11 | 0 | 69 | 25 | 214 | 0 | 0 | 239 | 0 | 0 | 0 | 0 | 0 | 0 | 72 | 405 | 0 | 0 | 477 | | | | | | 785 |
| 05:30 PM | 54 | 0 | 20 | 0 | 74 | 35 | 181 | 0 | 0 | 216 | 0 | 0 | 0 | 0 | 0 | 73 | 343 | 0 | 0 | 416 | | | | | | 706 | |
| 05:45 PM | 51 | 0 | 9 | 0 | 60 | 28 | 180 | 0 | 0 | 208 | 0 | 0 | 0 | 0 | 0 | 69 | 302 | 0 | 0 | 371 | | | | | | 639 | |
| Total Volume | 205 | 0 | 59 | 0 | 264 | 118 | 755 | 0 | 0 | 873 | 0 | 0 | 0 | 0 | 0 | 290 | 1449 | 0 | 0 | 1739 | | | | | | 2876 | |
| % App. Total | 77.7 | 0 | 22.3 | 0 | | 13.5 | 86.5 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 16.7 | 83.3 | 0 | 0 | | | | | | | | |
| PHF | .884 | .000 | .738 | .000 | .892 | .843 | .882 | .000 | .000 | .913 | .000 | .000 | .000 | .000 | .000 | .954 | .894 | .000 | .000 | .911 | | | | | | .916 | |
| Lights | 198 | 0 | 58 | 0 | 256 | 115 | 747 | 0 | 0 | 862 | 0 | 0 | 0 | 0 | 0 | 286 | 1442 | 0 | 0 | 1728 | | | | | | 2846 | |
| % Lights | 96.6 | 0 | 98.3 | 0 | 97.0 | 97.5 | 98.9 | 0 | 0 | 98.7 | 0 | 0 | 0 | 0 | 0 | 98.6 | 99.5 | 0 | 0 | 99.4 | | | | | | 99.0 | |
| Buses | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | | | | | | 5 | |
| % Buses | 1.0 | 0 | 0 | 0 | 0.8 | 0 | 0.1 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0.1 | 0 | 0 | 0.1 | | | | | | 0.2 | |
| Trucks | 5 | 0 | 1 | 0 | 6 | 3 | 7 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 0 | 0 | 9 | | | | | | 25 | |
| % Trucks | 2.4 | 0 | 1.7 | 0 | 2.3 | 2.5 | 0.9 | 0 | 0 | 1.1 | 0 | 0 | 0 | 0 | 0 | 1.0 | 0.4 | 0 | 0 | 0.5 | | | | | | 0.9 | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | 0 | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | 0 | |

400 Columbus Avenue - Suite 180E
Valhalla, NY 10595

File Name : 8-NYS_ROUTE_22_AT_I-684_NB_ON_OFF_RAMPS_466750_11-02-2017
 Site Code :
 Start Date : 11/2/2017
 Page No : 1

| Groups Printed- Lights - Buses - Trucks - Pedestrians | | | | | | | | | | | | | | | | | | | | | |
|---|-------|------|------|------|------------|-------|------|------|------|------------|-----------------------|------|------|------|------------|-------|------|------|------|------------|------------|
| I-684 NB ON/OFF RAMPs | | | | | | | | | | | I-684 NB ON/OFF RAMPs | | | | | | | | | | |
| NYS ROUTE 22 | | | | | | | | | | | NYS ROUTE 22 | | | | | | | | | | |
| From East | | | | | | | | | | | From South | | | | | | | | | | |
| From North | | | | | | | | | | | From West | | | | | | | | | | |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 06:00 AM | 22 | 0 | 0 | 0 | 22 | 3 | 67 | 0 | 0 | 70 | 6 | 0 | 0 | 0 | 6 | 0 | 19 | 13 | 0 | 32 | 130 |
| 06:15 AM | 20 | 0 | 0 | 0 | 20 | 5 | 61 | 0 | 0 | 66 | 7 | 1 | 0 | 0 | 8 | 0 | 35 | 15 | 0 | 50 | 144 |
| 06:30 AM | 26 | 0 | 0 | 0 | 26 | 3 | 89 | 0 | 0 | 92 | 11 | 0 | 0 | 0 | 11 | 0 | 40 | 12 | 0 | 52 | 181 |
| 06:45 AM | 53 | 0 | 0 | 0 | 53 | 6 | 108 | 0 | 0 | 114 | 24 | 0 | 0 | 0 | 24 | 0 | 74 | 22 | 0 | 96 | 287 |
| Total | 121 | 0 | 0 | 0 | 121 | 17 | 325 | 0 | 0 | 342 | 48 | 1 | 0 | 0 | 49 | 0 | 168 | 62 | 0 | 230 | 742 |
| 07:00 AM | 54 | 0 | 0 | 0 | 54 | 11 | 189 | 0 | 0 | 200 | 24 | 0 | 0 | 0 | 24 | 0 | 129 | 15 | 0 | 144 | 422 |
| 07:15 AM | 41 | 0 | 0 | 0 | 41 | 9 | 212 | 0 | 0 | 221 | 34 | 0 | 0 | 0 | 34 | 0 | 211 | 23 | 0 | 234 | 530 |
| 07:30 AM | 62 | 0 | 0 | 0 | 62 | 23 | 253 | 0 | 0 | 276 | 32 | 0 | 0 | 0 | 32 | 0 | 186 | 25 | 0 | 211 | 581 |
| 07:45 AM | 71 | 0 | 0 | 0 | 71 | 16 | 196 | 0 | 0 | 212 | 53 | 1 | 0 | 0 | 54 | 0 | 147 | 31 | 0 | 178 | 515 |
| Total | 228 | 0 | 0 | 0 | 228 | 59 | 850 | 0 | 0 | 909 | 143 | 1 | 0 | 0 | 144 | 0 | 673 | 94 | 0 | 767 | 2048 |
| 08:00 AM | 68 | 0 | 0 | 0 | 68 | 11 | 191 | 0 | 0 | 202 | 39 | 0 | 0 | 0 | 39 | 0 | 158 | 28 | 0 | 186 | 495 |
| 08:15 AM | 83 | 0 | 0 | 0 | 83 | 21 | 189 | 0 | 0 | 210 | 59 | 0 | 0 | 0 | 59 | 0 | 156 | 39 | 0 | 195 | 547 |
| 08:30 AM | 89 | 0 | 0 | 0 | 89 | 18 | 185 | 0 | 0 | 203 | 46 | 0 | 0 | 0 | 46 | 0 | 160 | 31 | 0 | 191 | 529 |
| 08:45 AM | 95 | 0 | 0 | 0 | 95 | 23 | 180 | 0 | 0 | 203 | 34 | 1 | 0 | 0 | 35 | 0 | 170 | 37 | 0 | 207 | 540 |
| Total | 335 | 0 | 0 | 0 | 335 | 73 | 745 | 0 | 0 | 818 | 178 | 1 | 0 | 0 | 179 | 0 | 644 | 135 | 0 | 779 | 2111 |
| 09:00 AM | 72 | 0 | 0 | 0 | 72 | 13 | 226 | 0 | 0 | 239 | 57 | 0 | 0 | 0 | 57 | 0 | 183 | 47 | 0 | 230 | 598 |
| 09:15 AM | 62 | 0 | 0 | 0 | 62 | 23 | 188 | 0 | 0 | 211 | 31 | 0 | 0 | 0 | 31 | 0 | 146 | 26 | 0 | 172 | 476 |
| 09:30 AM | 58 | 0 | 0 | 0 | 58 | 14 | 134 | 0 | 0 | 148 | 39 | 0 | 0 | 0 | 39 | 0 | 102 | 42 | 0 | 144 | 389 |
| 09:45 AM | 59 | 0 | 0 | 0 | 59 | 20 | 151 | 0 | 0 | 171 | 36 | 1 | 0 | 0 | 37 | 0 | 97 | 27 | 0 | 124 | 391 |
| Total | 251 | 0 | 0 | 0 | 251 | 70 | 699 | 0 | 0 | 769 | 163 | 1 | 0 | 0 | 164 | 0 | 528 | 142 | 0 | 670 | 1854 |
| Grand Total | 935 | 0 | 0 | 0 | 935 | 219 | 2619 | 0 | 0 | 2838 | 532 | 4 | 0 | 0 | 536 | 0 | 2013 | 433 | 0 | 2446 | 6755 |
| Approach % Total | 100 | 0 | 0 | 0 | | 7.7 | 92.3 | 0 | 0 | | 99.3 | 0.7 | 0 | 0 | | 0 | 82.3 | 17.7 | 0 | | |
| % Lights | 873 | 0 | 0 | 0 | 873 | 198 | 2518 | 0 | 0 | 2716 | 491 | 4 | 0 | 0 | 495 | 0 | 1892 | 387 | 0 | 2279 | 6363 |
| % Buses | 93.4 | 0 | 0 | 0 | 93.4 | 90.4 | 96.1 | 0 | 0 | 95.7 | 92.3 | 100 | 0 | 0 | 92.4 | 0 | 94 | 89.4 | 0 | 93.2 | 94.2 |
| % Trucks | 8 | 0 | 0 | 0 | 8 | 6 | 57 | 0 | 0 | 63 | 4 | 0 | 0 | 0 | 4 | 0 | 56 | 13 | 0 | 69 | 144 |
| % Pedestrians | 0.9 | 0 | 0 | 0 | 0.9 | 2.7 | 2.2 | 0 | 0 | 2.2 | 0.8 | 0 | 0 | 0 | 0.7 | 0 | 2.8 | 3 | 0 | 2.8 | 2.1 |
| % Trucks | 54 | 0 | 0 | 0 | 54 | 15 | 44 | 0 | 0 | 59 | 37 | 0 | 0 | 0 | 37 | 0 | 65 | 33 | 0 | 98 | 248 |
| % Trucks | 5.8 | 0 | 0 | 0 | 5.8 | 6.8 | 1.7 | 0 | 0 | 2.1 | 7 | 0 | 0 | 0 | 6.9 | 0 | 3.2 | 7.6 | 0 | 4 | 3.7 |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

File Name : 8-NYS ROUTE 22 AT I-684 NB ON OFF RAMPS 466750 11-02-2017

Site Code :

Start Date : 11/2/2017

Page No : 2

| I-684 NB ON/OFF RAMP | | | | | | NYS ROUTE 22 From East | | | | | | I-684 NB ON/OFF RAMP | | | | | | NYS ROUTE 22 From West | | | | | |
|--|-------|------|------|------|------------|---------------------------|------|------|------|------------|-------|----------------------|------|------|------------|-------|------|---------------------------|------|------------|------------|--|--|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total | | |
| Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 68 | 0 | 0 | 0 | 68 | 11 | 191 | 0 | 0 | 0 | 39 | 0 | 0 | 0 | 39 | 0 | 158 | 28 | 0 | 186 | 495 | | |
| 08:15 AM | 83 | 0 | 0 | 0 | 83 | 21 | 189 | 0 | 0 | 0 | 59 | 0 | 0 | 0 | 59 | 0 | 156 | 39 | 0 | 195 | 547 | | |
| 08:30 AM | 89 | 0 | 0 | 0 | 89 | 18 | 185 | 0 | 0 | 0 | 46 | 0 | 0 | 0 | 46 | 0 | 160 | 31 | 0 | 191 | 529 | | |
| 08:45 AM | 95 | 0 | 0 | 0 | 95 | 23 | 180 | 0 | 0 | 0 | 34 | 1 | 0 | 0 | 35 | 0 | 170 | 37 | 0 | 207 | 540 | | |
| Total Volume | 335 | 0 | 0 | 0 | 335 | 73 | 745 | 0 | 0 | 0 | 178 | 1 | 0 | 0 | 179 | 0 | 644 | 135 | 0 | 779 | 2111 | | |
| % App. Total | 100 | 0 | 0 | 0 | | 8.9 | 91.1 | 0 | 0 | 0 | 99.4 | 0.6 | 0 | 0 | | 0 | 82.7 | 17.3 | 0 | | | | |
| PHF | .882 | .000 | .000 | .000 | .882 | .793 | .975 | .000 | .000 | .000 | .754 | .250 | .000 | .000 | .758 | .000 | .947 | .865 | .000 | .941 | .965 | | |
| Lights | 320 | 0 | 0 | 0 | 320 | 68 | 714 | 0 | 0 | 0 | 159 | 1 | 0 | 0 | 160 | 0 | 606 | 125 | 0 | 731 | 1993 | | |
| % Lights | 95.5 | 0 | 0 | 0 | 95.5 | 93.2 | 95.8 | 0 | 0 | 0 | 89.3 | 100 | 0 | 0 | 89.4 | 0 | 94.1 | 92.6 | 0 | 93.8 | 94.4 | | |
| Buses | 5 | 0 | 0 | 0 | 5 | 1 | 12 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 11 | 3 | 0 | 14 | 34 | | |
| % Buses | 1.5 | 0 | 0 | 0 | 1.5 | 1.4 | 1.6 | 0 | 0 | 0 | 1.1 | 0 | 0 | 0 | 1.1 | 0 | 1.7 | 2.2 | 0 | 1.8 | 1.6 | | |
| Trucks | 10 | 0 | 0 | 0 | 10 | 4 | 19 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 27 | 7 | 0 | 34 | 84 | | |
| % Trucks | 3.0 | 0 | 0 | 0 | 3.0 | 5.5 | 2.6 | 0 | 0 | 0 | 9.6 | 0 | 0 | 0 | 9.5 | 0 | 4.2 | 5.2 | 0 | 4.4 | 4.0 | | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

400 Columbus Avenue - Suite 180E
Valhalla, NY 10595

File Name : 8-NYS_ROUTE_22_AT_I-684_NB_ON_OFF_RAMPS_466750_11-02-2017
 Site Code :
 Start Date : 11/2/2017
 Page No : 1

| Groups Printed- Lights - Buses - Trucks - Pedestrians | | | | | | | | | | | | | | | | | | | | | |
|---|-------|------|------|------|------------|-------|------|------|------|------------|-----------------------|------|------|------|------------|-------|------|------|------|------------|------------|
| I-684 NB ON/OFF RAMPs | | | | | | | | | | | I-684 NB ON/OFF RAMPs | | | | | | | | | | |
| NYS ROUTE 22 | | | | | | | | | | | NYS ROUTE 22 | | | | | | | | | | |
| From North | | | | | | | | | | | From South | | | | | | | | | | |
| From East | | | | | | | | | | | From West | | | | | | | | | | |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 03:00 PM | 45 | 0 | 0 | 0 | 45 | 51 | 123 | 0 | 0 | 174 | 44 | 1 | 0 | 0 | 45 | 0 | 129 | 89 | 0 | 218 | 482 |
| 03:15 PM | 56 | 0 | 0 | 0 | 56 | 54 | 152 | 0 | 0 | 206 | 56 | 1 | 0 | 0 | 57 | 0 | 130 | 98 | 0 | 228 | 547 |
| 03:30 PM | 49 | 0 | 0 | 0 | 49 | 52 | 171 | 0 | 0 | 223 | 45 | 0 | 0 | 0 | 45 | 0 | 116 | 97 | 0 | 213 | 530 |
| 03:45 PM | 76 | 0 | 0 | 0 | 76 | 34 | 137 | 0 | 0 | 171 | 140 | 2 | 0 | 0 | 142 | 0 | 133 | 96 | 0 | 229 | 618 |
| Total | 226 | 0 | 0 | 0 | 226 | 191 | 583 | 0 | 0 | 774 | 285 | 4 | 0 | 0 | 289 | 0 | 508 | 380 | 0 | 888 | 2177 |
| 04:00 PM | 218 | 0 | 0 | 0 | 218 | 45 | 163 | 0 | 0 | 208 | 182 | 1 | 0 | 0 | 183 | 0 | 138 | 89 | 0 | 227 | 836 |
| 04:15 PM | 148 | 0 | 0 | 1 | 149 | 30 | 156 | 0 | 0 | 186 | 148 | 3 | 0 | 0 | 151 | 0 | 124 | 80 | 0 | 204 | 690 |
| 04:30 PM | 163 | 0 | 0 | 1 | 164 | 33 | 161 | 0 | 0 | 194 | 151 | 0 | 0 | 0 | 151 | 0 | 145 | 70 | 0 | 215 | 724 |
| 04:45 PM | 119 | 0 | 0 | 0 | 119 | 31 | 191 | 0 | 0 | 222 | 158 | 0 | 0 | 0 | 158 | 0 | 89 | 104 | 0 | 193 | 692 |
| Total | 648 | 0 | 0 | 2 | 650 | 139 | 671 | 0 | 0 | 810 | 639 | 4 | 0 | 0 | 643 | 0 | 496 | 343 | 0 | 839 | 2942 |
| 05:00 PM | 70 | 0 | 0 | 0 | 70 | 69 | 143 | 0 | 0 | 212 | 77 | 3 | 0 | 0 | 80 | 0 | 164 | 211 | 0 | 375 | 737 |
| 05:15 PM | 86 | 0 | 0 | 0 | 86 | 72 | 169 | 0 | 0 | 241 | 93 | 0 | 0 | 0 | 93 | 0 | 204 | 212 | 0 | 416 | 836 |
| 05:30 PM | 87 | 0 | 0 | 0 | 87 | 59 | 111 | 0 | 0 | 170 | 132 | 2 | 0 | 0 | 134 | 0 | 193 | 157 | 0 | 350 | 741 |
| 05:45 PM | 77 | 0 | 0 | 0 | 77 | 40 | 143 | 0 | 0 | 183 | 103 | 1 | 0 | 0 | 104 | 0 | 184 | 135 | 0 | 319 | 683 |
| Total | 320 | 0 | 0 | 0 | 320 | 240 | 566 | 0 | 0 | 806 | 405 | 6 | 0 | 0 | 411 | 0 | 745 | 715 | 0 | 1460 | 2997 |
| 06:00 PM | 51 | 0 | 0 | 0 | 51 | 46 | 152 | 0 | 0 | 198 | 60 | 3 | 0 | 0 | 63 | 0 | 151 | 136 | 0 | 287 | 599 |
| 06:15 PM | 71 | 0 | 0 | 0 | 71 | 51 | 109 | 0 | 0 | 160 | 54 | 0 | 0 | 0 | 54 | 0 | 171 | 150 | 0 | 321 | 606 |
| 06:30 PM | 38 | 0 | 0 | 0 | 38 | 49 | 112 | 0 | 0 | 161 | 55 | 0 | 0 | 0 | 55 | 0 | 138 | 114 | 0 | 252 | 506 |
| 06:45 PM | 42 | 0 | 0 | 0 | 42 | 36 | 86 | 0 | 0 | 122 | 57 | 0 | 0 | 0 | 57 | 0 | 137 | 99 | 0 | 236 | 457 |
| Total | 202 | 0 | 0 | 0 | 202 | 182 | 459 | 0 | 0 | 641 | 226 | 3 | 0 | 0 | 229 | 0 | 597 | 499 | 0 | 1096 | 2168 |
| Grand Total | 1396 | 0 | 0 | 2 | 1398 | 752 | 2279 | 0 | 0 | 3031 | 1555 | 17 | 0 | 0 | 1572 | 0 | 2346 | 1937 | 0 | 4283 | 10284 |
| Approach % Total | 99.9 | 0 | 0 | 0.1 | | 24.8 | 75.2 | 0 | 0 | 0 | 98.9 | 1.1 | 0 | 0 | | 0 | 54.8 | 45.2 | 0 | | |
| % Lights | 1355 | 0 | 0 | 0 | 1355 | 728 | 2187 | 0 | 0 | 2915 | 1521 | 16 | 0 | 0 | 1537 | 0 | 2305 | 1913 | 0 | 4218 | 10025 |
| % Buses | 97.1 | 0 | 0 | 0 | 96.9 | 96.8 | 96 | 0 | 0 | 96.2 | 97.8 | 94.1 | 0 | 0 | 97.8 | 0 | 98.3 | 98.8 | 0 | 98.5 | 97.5 |
| % Buses | 5 | 0 | 0 | 0 | 5 | 4 | 44 | 0 | 0 | 48 | 7 | 1 | 0 | 0 | 8 | 0 | 22 | 3 | 0 | 25 | 86 |
| % Buses | 0.4 | 0 | 0 | 0 | 0.4 | 0.5 | 1.9 | 0 | 0 | 1.6 | 0.5 | 5.9 | 0 | 0 | 0.5 | 0 | 0.9 | 0.2 | 0 | 0.6 | 0.8 |
| Trucks | 36 | 0 | 0 | 0 | 36 | 20 | 48 | 0 | 0 | 68 | 27 | 0 | 0 | 0 | 27 | 0 | 19 | 21 | 0 | 40 | 171 |
| % Trucks | 2.6 | 0 | 0 | 0 | 2.6 | 2.7 | 2.1 | 0 | 0 | 2.2 | 1.7 | 0 | 0 | 0 | 1.7 | 0 | 0.8 | 1.1 | 0 | 0.9 | 1.7 |
| Pedestrians | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| % Pedestrians | 0 | 0 | 0 | 100 | 0.1 | | | 0 | 0 | | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |

| | I-684 NB ON/OFF RAMP | | | | | | NYS ROUTE 22 From East | | | | | | I-684 NB ON/OFF RAMP | | | | | | NYS ROUTE 22 From West | | | | | |
|--|----------------------|------|------|------|------------|--|------------------------|------|------|------|------------|--|----------------------|------|------|------|------------|--|------------------------|------|------|------|------------|--|
| Start Time | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | | Right | Thru | Left | Peds | App. Total | |
| Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 70 | 0 | 0 | 0 | 70 | | 69 | 143 | 0 | 0 | 212 | | 77 | 3 | 0 | 0 | 80 | | 0 | 164 | 211 | 0 | 375 | |
| 05:15 PM | 86 | 0 | 0 | 0 | 86 | | 72 | 169 | 0 | 0 | 241 | | 93 | 0 | 0 | 0 | 93 | | 0 | 204 | 212 | 0 | 416 | |
| 05:30 PM | 87 | 0 | 0 | 0 | 87 | | 59 | 111 | 0 | 0 | 170 | | 132 | 2 | 0 | 0 | 134 | | 0 | 193 | 157 | 0 | 350 | |
| 05:45 PM | 77 | 0 | 0 | 0 | 77 | | 40 | 143 | 0 | 0 | 183 | | 103 | 1 | 0 | 0 | 104 | | 0 | 184 | 135 | 0 | 319 | |
| Total Volume | 320 | 0 | 0 | 0 | 320 | | 240 | 566 | 0 | 0 | 806 | | 405 | 6 | 0 | 0 | 411 | | 0 | 745 | 715 | 0 | 1460 | |
| % App. Total PHF | 920 | .000 | .000 | .000 | .920 | | 833 | 837 | .000 | .000 | .836 | | .767 | .500 | .000 | .000 | .767 | | .000 | .913 | .843 | .000 | .877 | |
| Lights | 314 | 0 | 0 | 0 | 314 | | 239 | 554 | 0 | 0 | 793 | | 403 | 6 | 0 | 0 | 409 | | 0 | 739 | 710 | 0 | 1449 | |
| % Lights | 98.1 | 0 | 0 | 0 | 98.1 | | 99.6 | 97.9 | 0 | 0 | 98.4 | | 99.5 | 100 | 0 | 0 | 99.5 | | 0 | 99.2 | 99.3 | 0 | 99.2 | |
| Buses | 0 | 0 | 0 | 0 | 0 | | 0 | 3 | 0 | 0 | 3 | | 0 | 0 | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 1 | |
| % Buses | 0 | 0 | 0 | 0 | 0 | | 0 | 0.5 | 0 | 0 | 0.4 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0.1 | 0 | 0 | 0.1 | |
| Trucks | 6 | 0 | 0 | 0 | 6 | | 1 | 9 | 0 | 0 | 10 | | 2 | 0 | 0 | 0 | 2 | | 0 | 5 | 5 | 0 | 10 | |
| % Trucks | 1.9 | 0 | 0 | 0 | 1.9 | | 0.4 | 1.6 | 0 | 0 | 1.2 | | 0.5 | 0 | 0 | 0 | 0.5 | | 0 | 0.7 | 0.7 | 0 | 0.7 | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| % Pedestrians | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |



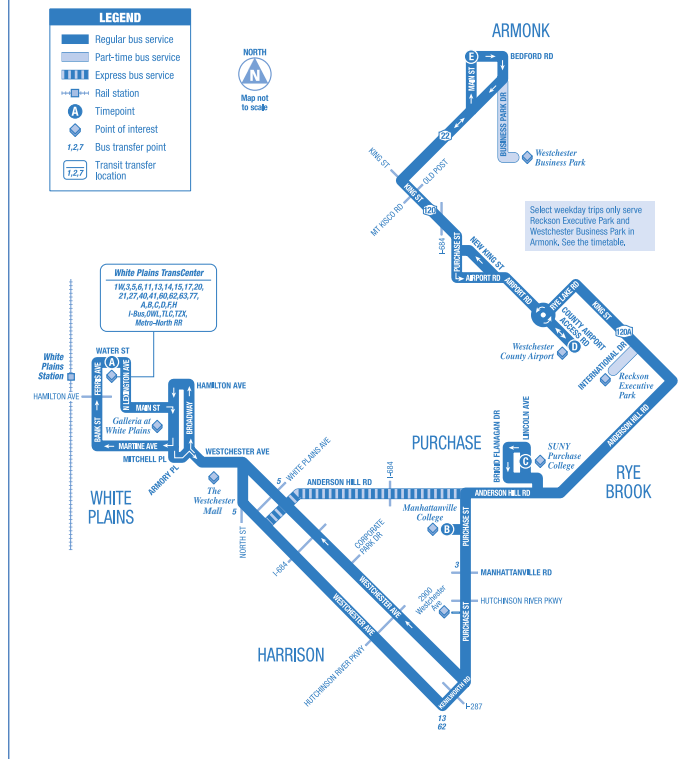
EAGLE RIDGE

APPENDIX F

WESTCHESTER BEE LINE BUS ROUTE 12 SCHEDULE AND ROUTE MAP

ROUTE 12: Local

Armonk • Purchase • White Plains



NORTHBOUND FROM WHITE PLAINS TO ARMONK / MONDAY-FRIDAY

| | A TransCenter (Lane B) | B Manhattanville College | C SUNY Purchase College | D Westchester County Airport | E Bedford Rd at Main St |
|----|------------------------------|--------------------------------|----------------------------------|---------------------------------------|----------------------------------|
| | WHITE PLAINS | PURCHASE | | | ARMONK |
| AM | 6:20 | 6:38 | — | 6:52 | — |
| ① | 7:15 | — | — | — | 7:56 |
| ② | 7:30 | 7:53 | 8:00 | 8:16 | 8:33 |
| ③ | 8:05 | 8:28 | 8:35 | 8:51 | 9:08 |
| ④ | 8:35 | 8:58 | 9:05 | 9:21 | 9:38 |
| ⑤ | 9:30 | 9:48 | 9:54 | 10:07 | 10:19 |
| | 11:30 | 11:48 | 11:54 | 12:07 | 12:19 |
| PM | 1:30 | 1:48 | 1:54 | 2:10 | 2:22 |
| | 2:30 | 2:48 | 2:54 | 3:10 | 3:22 |
| | 3:30 | 3:48 | 3:54 | 4:10 | 4:22 |
| | 4:30 | 4:48 | 4:55 | 5:11 | 5:25 |
| | 5:10 | 5:29 | 5:35 | 5:51 | 6:05 |
| | 6:10 | 6:28 | 6:34 | 6:46 | 6:58 |

- ① Trip operates via Anderson Hill Rd and serves Reckson Executive Park and Westchester Business Park only.
 ② Trip serves Morgan Stanley, Westchester Business Park and Reckson Executive Park.
 Train times are subject to change. Please check MetroNorth Railroad's website for the latest schedules : www.mta.info/mnr

SOUTHBOUND FROM ARMONK TO WHITE PLAINS / MONDAY-FRIDAY

| | E Bedford Rd at Main St | D Westchester County Airport | C SUNY Purchase College | B Manhattanville College | A TransCenter (Lane B) |
|----|----------------------------------|---------------------------------------|----------------------------------|--------------------------------|------------------------------|
| | ARMONK | PURCHASE | | | WHITE PLAINS |
| AM | 7:15 | 7:26 | 7:39 | 7:46 | 8:06 |
| | 8:28 | 8:39 | 8:52 | 8:59 | 9:19 |
| | 10:28 | 10:39 | 10:52 | 10:59 | 11:19 |
| PM | 12:28 | 12:39 | 12:52 | 12:59 | 1:19 |
| | 2:28 | 2:39 | 2:55 | 3:02 | 3:22 |
| ① | 3:33 | 3:51 | 4:07 | 4:15 | 4:39 |
| ② | 4:33 | 4:51 | 5:07 | 5:15 | 5:39 |
| ③ | 5:33 | 5:51 | 6:07 | 6:15 | 6:39 |
| | 6:28 | 6:49 | 7:05 | 7:12 | 7:32 |

- ② Trip serves Westchester Business Park, Reckson Executive Park and Morgan Stanley.
 Train times are subject to change. Please check MetroNorth Railroad's website for the latest schedules : www.mta.info/mnr

**For Bee-Line Bus/
Metro-North Connections**

Consider Combined Fare
Discounts using

Unitticket

the Monthly Bus-to-Train Pass

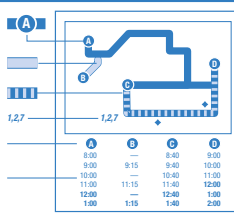
Unitticket is a reduced-rate ticket combining monthly round-trip local bus fare with train fare.

Unitticket is available through any Metro-North ticket office. It is accepted for a bus fare to & from a railroad station listed on the ticket.

For more information, call Metro-North Railroad at (212) 532-4900

INSTRUCTIONS

- The bus passes this location at listed times. Look for the column of times below the matching symbol in the schedule.
- Only certain trips operate along this portion of the route. See the schedule for trips that operate here.
- The bus operates express along the route. No stops are made unless indicated by the F symbol.
- Transfer point. Shows where this bus intersects with other bus routes.
- The bus stops at the times listed below the symbol. Light times are A.M.; bold times are P.M.
- The timetable shows when the bus is scheduled to depart. Actual departure times may vary and depend upon traffic and weather conditions. Arrive at the bus stop about 5 minutes early to avoid missing the bus.



BEE-LINE HOLIDAY SCHEDULE

| HOLIDAY | SCHEDULE IN EFFECT |
|----------------------------------|--------------------|
| New Years Day..... | Sunday |
| Martin Luther King, Jr. Day..... | Saturday |
| Presidents' Day..... | Saturday |
| Memorial Day..... | Sunday |
| Independence Day..... | Sunday |
| Labor Day..... | Sunday |
| Columbus Day..... | Weekday |
| Election Day..... | Weekday |
| Veterans Day..... | Weekday |
| Thanksgiving Day..... | No Service |
| Christmas Day..... | No Service |

| SOUTHBOUND FROM PURCHASE TO WHITE PLAINS / SUNDAY | | | | |
|---|---|------------------------------------|----------------------------------|--------------------------------|
| | (D) Westchester County Airport | (C) SUNY Purchase College | (B) Manhattanville College | (A) TransCenter (Lane B) |
| | PURCHASE | | | WHITE PLAINS |
| AM | 8:40 | 8:53 | 8:59 | 9:15 |
| | 10:00 | 10:13 | 10:19 | 10:35 |
| PM | 11:40 | 11:53 | 11:59 | 12:15 |
| | 1:40 | 1:53 | 1:59 | 2:15 |
| | 3:40 | 3:53 | 3:59 | 4:15 |
| | 5:40 | 5:53 | 5:59 | 6:15 |

the bee-line system

Effective September 4, 2018

LOCAL ROUTE

12

Armonk
Westchester Airport
White Plains

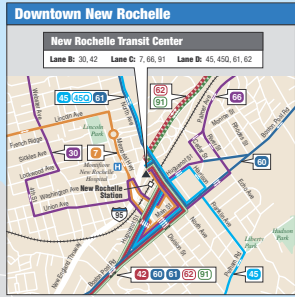
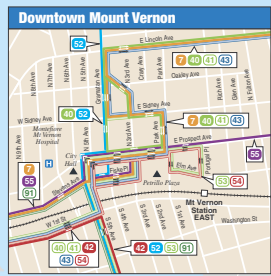
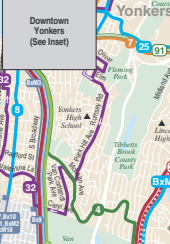
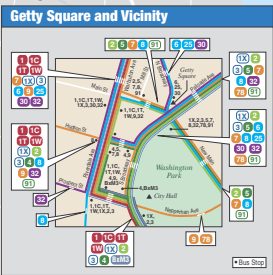
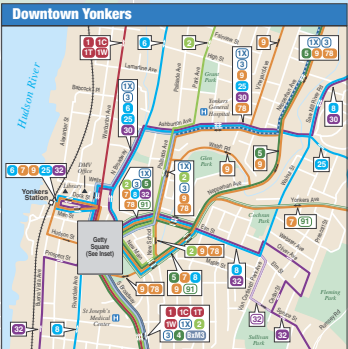
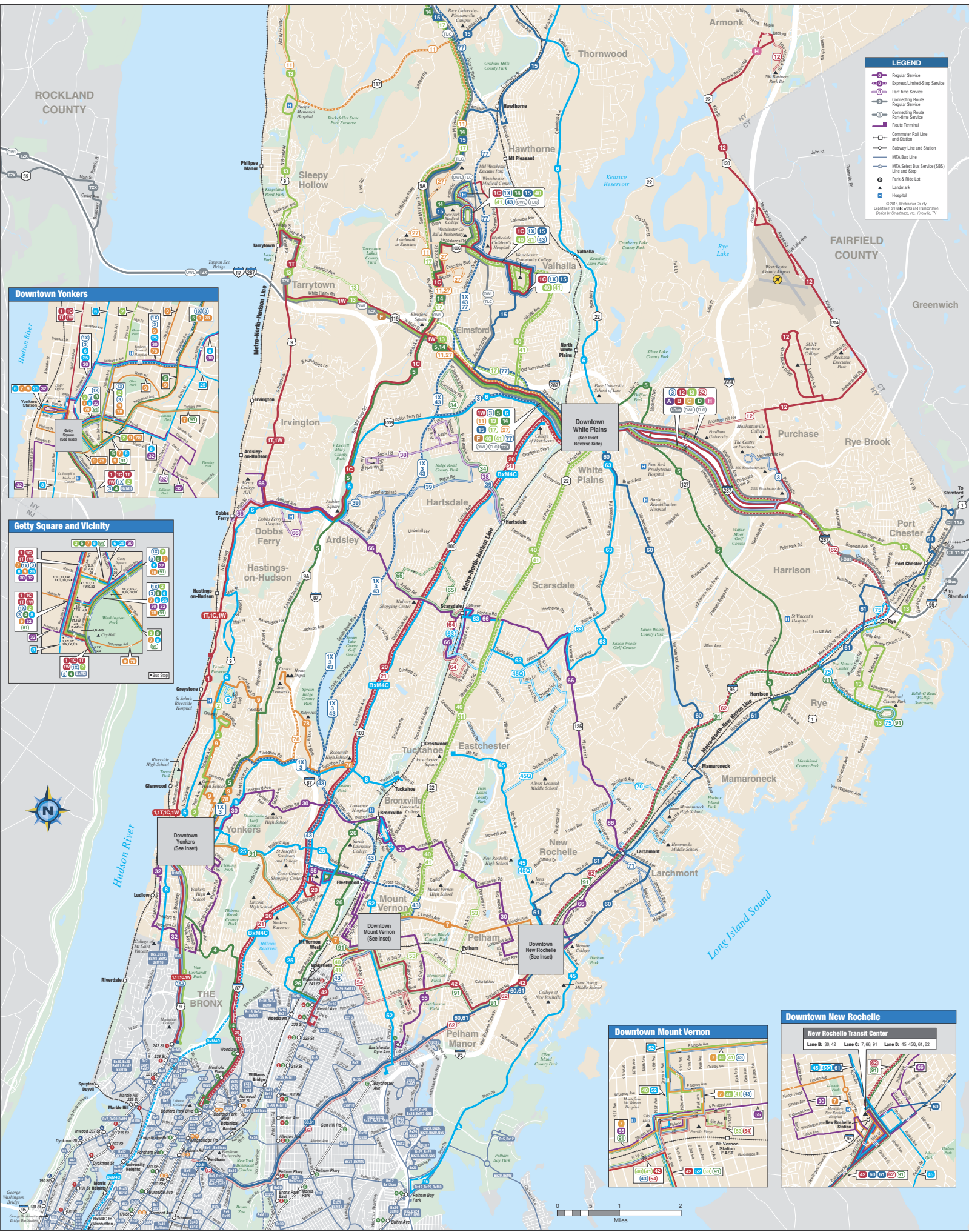
ALSO SERVING

- Westchester Business Park
- Packson Executive Park
- PepsiCo
- SUNY Purchase College
- Manhattanville College

Get Bee-Line Bus & I info through
GOOGLE MAPS

Westchester
GOV.COM

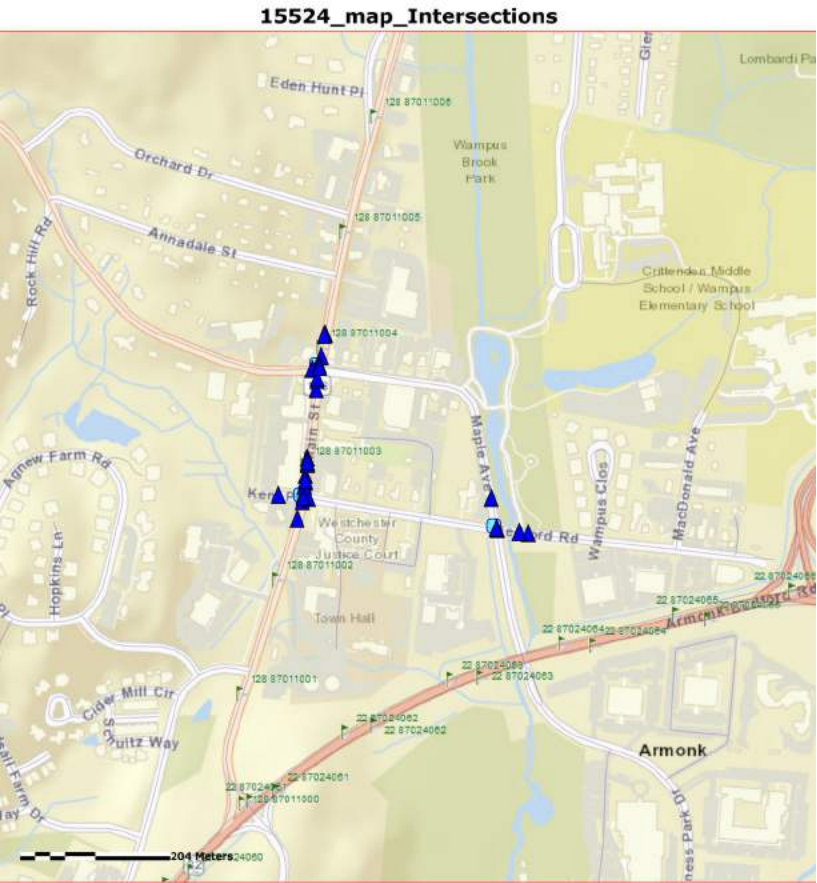
www.westchester.gov.com/bee-linesus



EAGLE RIDGE

APPENDIX G
ACCIDENT DATA

15524_map_Intersections



Legend

- +— Railroad
- ▲ Reference Marker

NYS DOT QRA ACCIDENT SEVERITY SUMMARY

Print Date 11/14/2018 Print Time 1:43:50PM

| Query Number/Name | Query Type | Query Sub Type | Accident Date Range |
|----------------------------------|------------|----------------|---|
| <u>41464</u> 15524 Intersections | SpotQuery | | 1/1/2015 12:00:00AM To 8/31/2018 12:00:00AM |

| Case Year | Injury | Fatality | Property Damage | Non-Reportables | Totals |
|---------------------|----------|----------|-----------------|-----------------|--------|
| 2015 | 1 | 0 | 10 | 3 | 14 |
| Case Year | Injury | Fatality | Property Damage | Non-Reportables | Totals |
| 2016 | 1 | 0 | 10 | 3 | 14 |
| Case Year | Injury | Fatality | Property Damage | Non-Reportables | Totals |
| 2017 | 0 | 0 | 11 | 1 | 12 |
| Case Year | Injury | Fatality | Property Damage | Non-Reportables | Totals |
| 2018 * | 0 | 0 | 8 | 0 | 8 |
| Grand Total: | 2 | 0 | 39 | 7 | |

* AVAILABLE THRU 8/31/2018

15524 VDR Intersections

Date in this report covers the period - 1/1/2015-8/31/2018

Complete Accident data from NYSDMV is only available thru 8/31/2018 12:00:00 AM

| | | | |
|--|---|---------------------------------------|----------------------------|
| County: Westchester | Muni: North Castle(T) | Ref. Marker: | Street: MAPLE AVE |
| AT INTERSECTION WITH Bedford Rd | | | |
| 1/28/2015 | | | |
| Wed 11:51 AM | | Persons Killed: 0 | Persons Injured: 0 |
| Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Extent of Injuries: | |
| Manner of Collision: REAR END | | Traffic Control: TRAFFIC SIGNAL | |
| Road Surface Condition: DRY | | Weather: CLEAR | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Road Char.: STRAIGHT AND LEVEL | Light Condition: DAYLIGHT |
| | | Action of Ped/Bicycle: NOT APPLICABLE | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 4883 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 45 | Sex: F |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | Citation Issued: N |
| | Pre-Accd Action: SLOWED OR STOPPING | | School Bus Involved: OTHER |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | |
| Veh :1 | TRUCK | Registered Weight: | State of Registration: CT |
| | Num of Occupants: 1 | Driver's Age: 42 | Sex: M |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | Citation Issued: N |
| | Pre-Accd Action: MAKING LEFT TURN | | School Bus Involved: OTHER |
| | Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: | Street: MAPLE AVE |
| AT INTERSECTION WITH Bedford Rd | | | |
| 2/11/2015 | | | |
| Wed 12:57 PM | | Persons Killed: 0 | Persons Injured: 0 |
| Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Extent of Injuries: | |
| Manner of Collision: REAR END | | Traffic Control: TRAFFIC SIGNAL | |
| Road Surface Condition: DRY | | Weather: CLEAR | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Road Char.: STRAIGHT AND LEVEL | Light Condition: DAYLIGHT |
| | | Action of Ped/Bicycle: NOT APPLICABLE | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3245 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 21 | Sex: F |
| | Direction of Travel: WEST | Public Property Damage: OTHER | Citation Issued: N |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | School Bus Involved: OTHER |
| | Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4387 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 33 | Sex: F |
| | | | Citation Issued: N |

School Bus Involved: OTHER

Public Property Damage: OTHER

Direction of Travel: WEST

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011003 Street: MAIN ST
53 Meters North of Kent Pl

2/18/2015

Wed 09:23 AM

Persons Killed: 0

Accident Class: PROPERTY DAMAGE

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Manner of Collision: REAR END

Road Surface Condition: DRY

Loc. of Ped/Bicycle: NOT APPLICABLE

Road Char.: STRAIGHT AND LEVEL

Persons Injured: 0

Police Agency: NORTH CASTLE TOWN PD

Extent of Injuries:

Case: 2015-35616988

Num of Veh: 2

Traffic Control: NONE

Weather: CLEAR

Light Condition: DAYLIGHT

Action of Ped/Bicycle: NOT APPLICABLE

Road Char.: STRAIGHT AND LEVEL

Action of Ped/Bicycle: NOT APPLICABLE

Veh :1

CAR/VAN/PICKUP

Registered Weight: 4151

State of Registration: NY

Num of Occupants: 1

Driver's Age: 52

Sex: M

Citation Issued: N

Direction of Travel: SOUTH

Public Property Damage: OTHER

School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION

Veh :2

CAR/VAN/PICKUP

Registered Weight: 3951

State of Registration: NY

Num of Occupants: 1

Driver's Age: 70

Sex: M

Citation Issued: N

Direction of Travel: SOUTH

Public Property Damage: OTHER

School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011003 Street: MAIN ST
20 Meters North of Kent Pl

2/28/2015

Sat 10:24 AM

Persons Killed: 0

Accident Class: PROPERTY DAMAGE

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Manner of Collision: RIGHT TURN (WITH OTHER CAR)

Road Surface Condition: DRY

Loc. of Ped/Bicycle: NOT APPLICABLE

Road Char.: STRAIGHT AND LEVEL

Persons Injured: 0

Police Agency: NORTH CASTLE TOWN PD

Extent of Injuries:

Case: 2015-35628071

Num of Veh: 2

Traffic Control: NONE

Weather: CLEAR

Light Condition: DAYLIGHT

Action of Ped/Bicycle: NOT APPLICABLE

Road Char.: STRAIGHT AND LEVEL

Action of Ped/Bicycle: NOT APPLICABLE

Veh :2

CAR/VAN/PICKUP

Registered Weight: 3439

State of Registration: NY

Num of Occupants: 2

Driver's Age:

Sex:

Citation Issued:

Public Property Damage: OTHER

School Bus Involved: OTHER

Pre-Accd Action: PARKED

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1

CAR/VAN/PICKUP

Registered Weight:

State of Registration: CT

Num of Occupants: 3

Driver's Age: 42

Sex: M

Citation Issued: N

Direction of Travel: NORTH

Public Property Damage: OTHER

School Bus Involved: OTHER

Pre-Accd Action: MAKING RIGHT TURN

Apparent Factors: TURNING IMPROPER, NOT APPLICABLE

| | | | | |
|--|---|---|---|--------------------------------------|
| County: Westchester AT INTERSECTION WITH Maple Ave 3/6/2015 | Muni: North Castle(T) Ref. Marker: Fri 17:12 PM Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: OVERTAKING Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | Street: BEDFORD RD Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Road Char.: STRAIGHT AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE | Extent of Injuries: Traffic Control: TRAFFIC SIGNAL Weather: CLEAR Light Condition: DAYLIGHT | Case: 2015-35635712 Num of Veh: 2 |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: WEST Pre-Accd Action: STARTING IN TRAFFIC Apparent Factors: PASSING OR LANE USAGE IMPROPERLY, NOT APPLICABLE | Registered Weight: 3735 Driver's Age: 56 Public Property Damage: OTHER | State of Registration: NY Sex: M Citation Issued: N School Bus Involved: OTHER | |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: WEST Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: NOT APPLICABLE, PASSING OR LANE USAGE IMPROPERLY | Registered Weight: Driver's Age: 24 Public Property Damage: OTHER | State of Registration: NJ Sex: F Citation Issued: N School Bus Involved: OTHER | |
| County: Westchester 47 Meters North of Kent Pl 5/7/2015 | Muni: North Castle(T) Ref. Marker: 128 87011003 Thu 11:00 AM Accident Class: NON-REPORTABLE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: OVERTAKING Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | Street: MAIN ST Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Road Char.: STRAIGHT AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE | Extent of Injuries: Traffic Control: NONE Weather: CLEAR Light Condition: DAYLIGHT | Case: 2015-35724234 Num of Veh: 2 |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: SOUTH Pre-Accd Action: ENTERING PARKED POSITION Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: Driver's Age: 55 Public Property Damage: OTHER | State of Registration: CT Sex: F Citation Issued: N School Bus Involved: OTHER | |
| Veh :2 | OTHER Num of Occupants: 1 Direction of Travel: SOUTH Pre-Accd Action: STARTING FROM PARKING Apparent Factors: NOT APPLICABLE, UNKNOWN | Registered Weight: Driver's Age: Public Property Damage: OTHER | State of Registration: Sex: U Citation Issued: N School Bus Involved: OTHER | |
| County: Westchester AT INTERSECTION WITH KENT PL 5/29/2015 | Muni: North Castle(T) Ref. Marker: 128 87011003 Fri 06:18 AM Persons Killed: 0 | Street: MAIN ST Persons Injured: 0 | Extent of Injuries: | Case: 2015-35739435 |

| | | | | | | |
|--|---|--|---|---|--|--------------------------------------|
| Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: OVERTAKING Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | | Police Agency: NORTH CASTLE TOWN PD Road Char.: STRAIGHT AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE | | Traffic Control: NONE Weather: CLOUDY Light Condition: DAYLIGHT | | Num of Veh: 2 |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: SOUTH Pre-Accd Action: STARTING FROM PARKING Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN | Registered Weight: 4450 Driver's Age: 19 Public Property Damage: OTHER | Sex: M State of Registration: NY Citation Issued: N School Bus Involved: OTHER | | | |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: SOUTH Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: 4045 Driver's Age: 45 Public Property Damage: OTHER | Sex: M State of Registration: NY Citation Issued: N School Bus Involved: OTHER | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011004 Street: MAIN ST 15 Meters North of Whipppoorwill Rd E 6/13/2015 Sat 12:48 PM Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Extent of Injuries: | | | | | | |
| Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: OVERTAKING Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | | Road Char.: STRAIGHT/ GRADE Action of Ped/Bicycle: NOT APPLICABLE | | Weather: CLEAR Light Condition: DAYLIGHT | | Case: 2015-35758710 Num of Veh: 2 |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 2 Direction of Travel: NORTH Pre-Accd Action: PARKED Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: Driver's Age: Public Property Damage: OTHER | Sex: State of Registration: CT Citation Issued: School Bus Involved: OTHER | | | |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH Pre-Accd Action: ENTERING PARKED POSITION Apparent Factors: UNKNOWN, DRIVER INATTENTION | Registered Weight: 3173 Driver's Age: 84 Public Property Damage: OTHER | Sex: F State of Registration: NY Citation Issued: N School Bus Involved: OTHER | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011003 Street: MAIN ST 30 Meters South of BEDFORD RD 6/17/2015 Wed 08:13 AM Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Extent of Injuries: | | | | | | |
| Accident Class: NON-REPORTABLE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Road Surface Condition: DRY | | Road Char.: STRAIGHT AND LEVEL | | Weather: CLEAR Light Condition: DAYLIGHT | | Case: 2015-35765667 Num of Veh: 2 |

| | | | | |
|--------|--|-------------------------------|--|---------------------------------------|
| Veh :1 | Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | |
| | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY | |
| | Num of Occupants: 2 | Driver's Age: 46 | Sex: F | Citation Issued: N |
| | Direction of Travel: NORTH-EAST | Public Property Damage: OTHER | School Bus Involved: OTHER | |
| | Pre-Accd Action: MAKING LEFT TURN | | | |
| | Apparent Factors: NOT APPLICABLE, TURNING IMPROPER | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY | |
| | Num of Occupants: 3 | Driver's Age: | Sex: | Citation Issued: |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | School Bus Involved: OTHER | |
| | Pre-Accd Action: PARKED | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |
| | County: Westchester | Muni: North Castle(T) | Ref. Marker: 128 87011004 | Street: MAIN ST |
| | 30 Meters South of MAPLE AVE | | | |
| | 8/14/2015 | Fri 12:16 PM | Persons Killed: 0 | Persons Injured: 0 |
| | Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Weather: CLEAR | |
| | Manner of Collision: REAR END | | Light Condition: DAYLIGHT | |
| | Road Surface Condition: DRY | | Action of Ped/Bicycle: NOT APPLICABLE | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | Road Char.: STRAIGHT AND LEVEL | Traffic Control: NONE |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3792 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 19 | Sex: M | Citation Issued: N |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | School Bus Involved: OTHER | |
| | Pre-Accd Action: ENTERING PARKED POSITION | | | |
| | Apparent Factors: NOT APPLICABLE, OTHER (VEHICLE) | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 4814 | State of Registration: NY | |
| | Num of Occupants: 2 | Driver's Age: | Sex: | Citation Issued: |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER | |
| | Pre-Accd Action: PARKED | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |
| | County: Westchester | Muni: North Castle(T) | Ref. Marker: Street: WHIPPOORWILL RD E | |
| | AT INTERSECTION WITH Main St | | | |
| | 8/28/2015 | Fri 16:13 PM | Persons Killed: 0 | Persons Injured: 1 |
| | Accident Class: PROPERTY DAMAGE AND INJURY | | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: A |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Traffic Control: NONE | |
| | Manner of Collision: SIDESWIPE | | Weather: CLEAR | |
| | Road Surface Condition: DRY | | Light Condition: DAYLIGHT | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | Road Char.: STRAIGHT/ GRADE | Action of Ped/Bicycle: NOT APPLICABLE |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 4457 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 49 | Sex: F | Citation Issued: N |

| | | | |
|--------------------------------|--|---|--|
| | Direction of Travel: EAST | Public Property Damage: OTHER | School Bus Involved: OTHER |
| | Pre-Accd Action: STARTING IN TRAFFIC | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4045 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 31 | Sex: F Citation Issued: Y |
| | Direction of Travel: WEST | Public Property Damage: OTHER | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | |
| | Apparent Factors: UNSAFE SPEED, PASSING OR LANE USAGE IMPROPERLY | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: Street: BEDFORD RD | |
| AT INTERSECTION WITH Maple Ave | | | |
| 10/7/2015 | Wed 19:00 PM | Persons Killed: 0 | Persons Injured: 0 |
| | Accident Class: PROPERTY DAMAGE | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: Case: 2015-35911830 Num of Veh: 2 |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Traffic Control: TRAFFIC SIGNAL |
| | Manner of Collision: OVERTAKING | | Weather: CLEAR |
| | Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | Light Condition: DAYLIGHT |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: CT |
| | Num of Occupants: 1 | Driver's Age: 58 | Sex: M Citation Issued: N |
| | Direction of Travel: WEST | Public Property Damage: OTHER | School Bus Involved: OTHER |
| | Pre-Accd Action: MAKING RIGHT TURN | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 2661 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 43 | Sex: M Citation Issued: N |
| | Direction of Travel: WEST | Public Property Damage: OTHER | School Bus Involved: OTHER |
| | Pre-Accd Action: OVERTAKING | | |
| | Apparent Factors: NOT APPLICABLE, PASSING OR LANE USAGE IMPROPERLY | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 128 87011004 Street: MAIN ST | |
| 46 Meters North of MAPLE AVE | | | |
| 11/25/2015 | Wed 10:55 AM | Persons Killed: 0 | Persons Injured: 0 |
| | Accident Class: NON-REPORTABLE | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: Case: 2015-35983259 Num of Veh: 2 |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Traffic Control: NONE |
| | Manner of Collision: OTHER | | Weather: CLEAR |
| | Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | Light Condition: DAYLIGHT |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 62 | Sex: M Citation Issued: N |
| | Direction of Travel: WEST | Public Property Damage: OTHER | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | |

| | | | |
|--|--|-------------------------------|--|
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 63 | Sex: M Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER |
| | Pre-Accd Action: BACKING | | |
| | Apparent Factors: BACKING UNSAFELY, NOT APPLICABLE | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011004 Street: MAIN ST | | | |
| 17 Meters South of Whippoorwill Rd E | | Persons Injured: 0 | Extent of Injuries: NORTH CASTLE TOWN PD |
| 12/12/2015 | Sat 16:04 PM | Persons Killed: 0 | Police Agency: NORTH CASTLE TOWN PD |
| Accident Class: PROPERTY DAMAGE | | | Case: 2015-36006930 |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Num of Veh: 2 |
| Manner of Collision: OVERTAKING | | | Traffic Control: NONE |
| Road Surface Condition: DRY | | | Weather: CLOUDY |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | Light Condition: DAYLIGHT |
| | | | Action of Ped/Bicycle: NOT APPLICABLE |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 2641 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 23 | Sex: F Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | |
| | Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 4266 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 50 | Sex: M Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER |
| | Pre-Accd Action: STARTING FROM PARKING | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011003 Street: BEDFORD RD | | | |
| AT INTERSECTION WITH MAIN ST | | Persons Injured: 0 | Extent of Injuries: NORTH CASTLE TOWN PD |
| 2/15/2016 | Mon 16:36 PM | Persons Killed: 0 | Police Agency: NORTH CASTLE TOWN PD |
| Accident Class: NON-REPORTABLE | | | Case: 2016-36104362 |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Num of Veh: 2 |
| Manner of Collision: REAR END | | | Traffic Control: TRAFFIC SIGNAL |
| Road Surface Condition: SNOW/ICE | | | Weather: SNOW |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | Light Condition: DAYLIGHT |
| | | | Action of Ped/Bicycle: NOT APPLICABLE |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 62 | Sex: F Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER |
| | Pre-Accd Action: SLOWED OR STOPPING | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 21 | Sex: M Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER |

| | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|
| Pre-Accd Action: SLOWED OR STOPPING | | | | | | | | | |
| Apparent Factors: NOT APPLICABLE, PAVEMENT SLIPPERY | | | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref: Marker: 128 87011003 Street: MAIN ST | | | | | | | | | |
| AT INTERSECTION WITH Kent Pl | | | | | | | | | |
| 2/26/2016 Fri 09:45 AM Persons Killed: 0 Persons Injured: 0 | | | | | | | | | |
| Accident Class: NON-REPORTABLE Police Agency: NORTH CASTLE TOWN PD | | | | | | | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | |
| Manner of Collision: LEFT TURN (AGAINST OTHER CAR) | | | | | | | | | |
| Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL | | | | | | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | |
| Veh :2 CAR/VAN/PICKUP Registered Weight: | | | | | | | | | |
| Num of Occupants: 1 Driver's Age: 38 | | | | | | | | | |
| Direction of Travel: SOUTH-WEST Public Property Damage: OTHER | | | | | | | | | |
| Pre-Accd Action: MAKING LEFT TURN | | | | | | | | | |
| Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, TURNING IMPROPER | | | | | | | | | |
| Veh :1 CAR/VAN/PICKUP Registered Weight: | | | | | | | | | |
| Num of Occupants: 1 Driver's Age: 67 | | | | | | | | | |
| Direction of Travel: SOUTH-EAST Public Property Damage: OTHER | | | | | | | | | |
| Pre-Accd Action: MAKING LEFT TURN | | | | | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref: Marker: 128 87011003 Street: MAIN ST | | | | | | | | | |
| AT INTERSECTION WITH Kent Pl | | | | | | | | | |
| 3/11/2016 Fri 23:07 PM Persons Killed: 0 Persons Injured: 0 | | | | | | | | | |
| Accident Class: PROPERTY DAMAGE Police Agency: NORTH CASTLE TOWN PD | | | | | | | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | |
| Manner of Collision: RIGHT ANGLE | | | | | | | | | |
| Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL | | | | | | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | |
| Veh :2 CAR/VAN/PICKUP Registered Weight: | | | | | | | | | |
| Num of Occupants: 2 Driver's Age: 52 | | | | | | | | | |
| Direction of Travel: EAST Public Property Damage: OTHER | | | | | | | | | |
| Pre-Accd Action: STARTING IN TRAFFIC | | | | | | | | | |
| Apparent Factors: NOT APPLICABLE, FAILURE TO YIELD RIGHT OF WAY | | | | | | | | | |
| Veh :1 CAR/VAN/PICKUP Registered Weight: 3151 | | | | | | | | | |
| Num of Occupants: 1 Driver's Age: 56 | | | | | | | | | |
| Direction of Travel: NORTH Public Property Damage: OTHER | | | | | | | | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | |

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| County: Westchester AT INTERSECTION WITH Kent Pl 3/28/2016 | Muni: North Castle(T) Ref. Marker: 128 87011003 Street: MAIN ST | Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: NORTH CASTLE TOWN PD | Case: 2016-36150873 Num of Veh: 2 |
| Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Road Surface Condition: WET Loc. of Ped/Bicycle: NOT APPLICABLE | | | | Traffic Control: STOP SIGN Weather: RAIN Light Condition: DAYLIGHT |
| Road Char.: STRAIGHT AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4146 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 43 | Sex: F | Citation Issued: N |
| | Direction of Travel: WEST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: MAKING LEFT TURN | | | |
| | Apparent Factors: NOT APPLICABLE, FAILURE TO YIELD RIGHT OF WAY | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3115 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 45 | Sex: M | Citation Issued: N |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: MAKING LEFT TURN | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |
| County: Westchester 23 Meters North of BEDFORD RD 5/4/2016 | Muni: North Castle(T) Ref. Marker: 128 87011003 Street: MAIN ST | Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: NORTH CASTLE TOWN PD | Case: 2016-36194045 Num of Veh: 2 |
| Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: OTHER Road Surface Condition: WET Loc. of Ped/Bicycle: NOT APPLICABLE | | | | Traffic Control: NONE Weather: RAIN Light Condition: DAYLIGHT |
| Road Char.: STRAIGHT AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 4227 | State of Registration: NY | |
| | Num of Occupants: 2 | Driver's Age: | Sex: | Citation Issued: |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: PARKED | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4439 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 49 | Sex: F | Citation Issued: N |
| | Direction of Travel: NORTH-WEST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: MAKING RIGHT TURN | | | |
| | Apparent Factors: TURNING IMPROPER, DRIVER INATTENTION | | | |
| County: Westchester AT INTERSECTION WITH Kent Pl 5/4/2016 | Muni: North Castle(T) Ref. Marker: 128 87011003 Street: MAIN ST | Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: NORTH CASTLE TOWN PD | Case: 2016-36208128 Num of Veh: 2 |
| Accident Class: PROPERTY DAMAGE | | | | |

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| Veh :2 | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | | Traffic Control: STOP SIGN | |
| | Manner of Collision: LEFT TURN (AGAINST OTHER CAR) | | | | | | | | | | Weather: RAIN | |
| | Road Surface Condition: WET | | | | | | | | | | Light Condition: DAYLIGHT | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | Action of Ped/Bicycle: NOT APPLICABLE | |
| | CAR/VAN/PICKUP | | | | | | | | | | State of Registration: NY | |
| Veh :1 | Registered Weight: 3886 | | | | | | | | | | Citation Issued: N | |
| | Num of Occupants: 1 | | | | | | | | | | Sex: M | |
| | Direction of Travel: SOUTH | | | | | | | | | | School Bus Involved: OTHER | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | | | | | | | | | | State of Registration: NY | |
| | Registered Weight: 3483 | | | | | | | | | | Citation Issued: N | |
| | Num of Occupants: 1 | | | | | | | | | | Sex: M | |
| | Direction of Travel: SOUTH-WEST | | | | | | | | | | School Bus Involved: OTHER | |
| | Pre-Accd Action: MAKING LEFT TURN | | | | | | | | | | | |
| County: Westchester AT INTERSECTION WITH Whippoorwill Rd E 5/24/2016 | Apparent Factors: TURNING IMPROPER, FAILURE TO YIELD RIGHT OF WAY | | | | | | | | | | Case: 2016-36224803 | |
| | Muni: North Castle(T) Ref. Marker: 128 87011004 Street: MAIN ST | | | | | | | | | | Num of Veh: 2 | |
| | Tue 15:53 PM | | | | | | | | | | Extent of Injuries: | |
| | Persons Killed: 0 | | | | | | | | | | Police Agency: NORTH CASTLE TOWN PD | |
| | Persons Injured: 0 | | | | | | | | | | Traffic Control: TRAFFIC SIGNAL | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | Accident Class: PROPERTY DAMAGE | | | | | | | | | | Weather: CLOUDY | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | | Light Condition: DAYLIGHT | |
| | Manner of Collision: LEFT TURN (AGAINST OTHER CAR) | | | | | | | | | | Action of Ped/Bicycle: NOT APPLICABLE | |
| | Road Surface Condition: DRY | | | | | | | | | | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | | |
| Veh :2 | CAR/VAN/PICKUP | | | | | | | | | | State of Registration: NY | |
| | Registered Weight: 3880 | | | | | | | | | | Citation Issued: | |
| | Num of Occupants: 2 | | | | | | | | | | Sex: | |
| | Direction of Travel: UNKNOWN | | | | | | | | | | School Bus Involved: OTHER | |
| | Pre-Accd Action: PARKED | | | | | | | | | | | |
| Veh :1 | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | | State of Registration: FL | |
| | BUS | | | | | | | | | | Sex: M | |
| | Registered Weight: | | | | | | | | | | Citation Issued: N | |
| | Num of Occupants: 1 | | | | | | | | | | School Bus Involved: OTHER | |
| | Direction of Travel: NORTH | | | | | | | | | | | |
| County: Westchester AT INTERSECTION WITH Kent Pl 6/4/2016 | Pre-Accd Action: MAKING LEFT TURN | | | | | | | | | | Case: 2016-36239034 | |
| | Apparent Factors: NOT APPLICABLE, TURNING IMPROPER | | | | | | | | | | Num of Veh: 2 | |
| | Muni: North Castle(T) Ref. Marker: 128 87011003 Street: MAIN ST | | | | | | | | | | Traffic Control: NONE | |
| | Sat 13:26 PM | | | | | | | | | | Weather: CLEAR | |
| | Persons Killed: 0 | | | | | | | | | | Light Condition: DAYLIGHT | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: RIGHT TURN (WITH OTHER CAR) Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | Accident Class: PROPERTY DAMAGE | | | | | | | | | | Action of Ped/Bicycle: NOT APPLICABLE | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | | | |
| | Manner of Collision: RIGHT TURN (WITH OTHER CAR) | | | | | | | | | | | |
| | Road Surface Condition: DRY | | | | | | | | | | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | | |
| Veh :1 | Road Char.: STRAIGHT AND LEVEL | | | | | | | | | | Traffic Control: NONE | |
| | Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | Weather: CLEAR | |
| | | | | | | | | | | | Light Condition: DAYLIGHT | |
| | | | | | | | | | | | Action of Ped/Bicycle: NOT APPLICABLE | |
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| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 3 Direction of Travel: NORTH Pre-Accd Action: PARKED Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: 4079 Driver's Age: Public Property Damage: OTHER | State of Registration: NY Sex: Citation Issued: School Bus Involved: OTHER |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 2 Direction of Travel: NORTH-WEST Pre-Accd Action: MAKING RIGHT TURN Apparent Factors: DRIVER INEXPERIENCE, NOT APPLICABLE | Registered Weight: 4529 Driver's Age: 17 Public Property Damage: OTHER | State of Registration: NY Sex: F Citation Issued: N School Bus Involved: OTHER |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011003 Street: KENT PL AT INTERSECTION WITH MAIN ST 7/21/2016 | Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Extent of Injuries: Accident Class: NON-REPORTABLE Type Of Accident: COLLISION WITH SIGN POST Manner of Collision: OTHER Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | Case: 2016-36308111 Traffic Control: STOP SIGN Weather: CLEAR Light Condition: DAYLIGHT Action of Ped/Bicycle: NOT APPLICABLE | Num of Veh: 1 |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 2 Direction of Travel: SOUTH-EAST Pre-Accd Action: MAKING RIGHT TURN Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | Registered Weight: Driver's Age: 66 Public Property Damage: OTHER | State of Registration: CT Sex: M Citation Issued: N School Bus Involved: OTHER |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011004 Street: MAIN ST 16 Meters South of Whippoorwill Rd E 9/30/2016 | Fri 14:41 PM Persons Killed: 0 Persons Injured: 1 Accident Class: PROPERTY DAMAGE AND INJURY Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: RIGHT ANGLE Road Surface Condition: WET Loc. of Ped/Bicycle: NOT APPLICABLE | Police Agency: NORTH CASTLE TOWN PD Extent of Injuries: A Traffic Control: NONE Weather: CLOUDY Light Condition: DAYLIGHT Action of Ped/Bicycle: NOT APPLICABLE | Case: 2016-36407925 Num of Veh: 2 |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: SOUTH Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: DRUGS (ILLEGAL), NOT APPLICABLE | Registered Weight: 3268 Driver's Age: 19 Public Property Damage: OTHER | State of Registration: NY Sex: F Citation Issued: Y School Bus Involved: OTHER |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 2 Direction of Travel: EAST | Registered Weight: 2740 Driver's Age: Public Property Damage: OTHER | State of Registration: NY Sex: Citation Issued: School Bus Involved: OTHER |

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| Pre-Accd Action: PARKED | | | | | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011004 Street: MAIN ST | | | | | | | | | |
| AT INTERSECTION WITH WHIPPOORWILL RD E | | | | | | | | | |
| 10/12/2016 Wed 09:05 AM Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD | | | | | | | | | |
| Accident Class: PROPERTY DAMAGE | | | | | | | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | |
| Manner of Collision: OVERTAKING | | | | | | | | | |
| Road Surface Condition: DRY | | | | | | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | |
| Road Char.: STRAIGHT AND LEVEL | | | | | | | | | |
| Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | |
| Weather: CLOUDY | | | | | | | | | |
| Light Condition: DAYLIGHT | | | | | | | | | |
| Traffic Control: NONE | | | | | | | | | |
| Case: 2016-36420233 Num of Veh: 2 | | | | | | | | | |
| Veh :2 | | | | | | | | | |
| CAR/VAN/PICKUP | | | | | | | | | |
| Registered Weight: 8600 | | | | | | | | | |
| Driver's Age: | | | | | | | | | |
| Public Property Damage: OTHER | | | | | | | | | |
| Sex: | | | | | | | | | |
| Citation Issued: | | | | | | | | | |
| School Bus Involved: OTHER | | | | | | | | | |
| State of Registration: NY | | | | | | | | | |
| Veh :1 | | | | | | | | | |
| CAR/VAN/PICKUP | | | | | | | | | |
| Registered Weight: | | | | | | | | | |
| Driver's Age: 57 | | | | | | | | | |
| Public Property Damage: OTHER | | | | | | | | | |
| Sex: M | | | | | | | | | |
| Citation Issued: N | | | | | | | | | |
| School Bus Involved: OTHER | | | | | | | | | |
| State of Registration: CT | | | | | | | | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | |
| Apparent Factors: VIEW OBSTRUCTED/LIMITED, NOT APPLICABLE | | | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011003 Street: MAIN ST | | | | | | | | | |
| AT INTERSECTION WITH Kent Pl | | | | | | | | | |
| 11/23/2016 Wed 19:00 PM Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD | | | | | | | | | |
| Accident Class: PROPERTY DAMAGE | | | | | | | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | |
| Manner of Collision: RIGHT ANGLE | | | | | | | | | |
| Road Surface Condition: DRY | | | | | | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | |
| Road Char.: STRAIGHT AND LEVEL | | | | | | | | | |
| Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | |
| Weather: CLOUDY | | | | | | | | | |
| Light Condition: DARK-ROAD LIGHTED | | | | | | | | | |
| Traffic Control: STOP SIGN | | | | | | | | | |
| Case: 2016-36491659 Num of Veh: 2 | | | | | | | | | |
| Veh :2 | | | | | | | | | |
| CAR/VAN/PICKUP | | | | | | | | | |
| Registered Weight: 4664 | | | | | | | | | |
| Driver's Age: 47 | | | | | | | | | |
| Public Property Damage: OTHER | | | | | | | | | |
| Sex: M | | | | | | | | | |
| Citation Issued: N | | | | | | | | | |
| School Bus Involved: OTHER | | | | | | | | | |
| State of Registration: NY | | | | | | | | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | |
| Veh :1 | | | | | | | | | |
| CAR/VAN/PICKUP | | | | | | | | | |
| Registered Weight: 3524 | | | | | | | | | |
| Driver's Age: 74 | | | | | | | | | |
| Public Property Damage: OTHER | | | | | | | | | |
| Sex: M | | | | | | | | | |
| Citation Issued: N | | | | | | | | | |
| School Bus Involved: OTHER | | | | | | | | | |
| State of Registration: NY | | | | | | | | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | |
| Apparent Factors: DRIVER INATTENTION, FAILURE TO YIELD RIGHT OF WAY | | | | | | | | | |

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|--|-----------------------------|-------------------------------------|---------------------------------------|
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 128 87011004 | Street: MAIN ST |
| AT INTERSECTION WITH Whipoorwill Rd E | | | |
| 12/8/2016 | | | |
| Thu 17:55 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: |
| Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | Case: 2016-36510442 |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Num of Veh: 2 |
| Manner of Collision: LEFT TURN (AGAINST OTHER CAR) | | Traffic Control: TRAFFIC SIGNAL | Weather: CLOUDY |
| Road Surface Condition: DRY | Road Char.: STRAIGHT/ GRADE | | Light Condition: DARK-ROAD LIGHTED |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | Action of Ped/Bicycle: NOT APPLICABLE |

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| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3257 | State of Registration: NY |
| | Num of Occupants: 2 | Driver's Age: 50 | Sex: M |
| | Direction of Travel: EAST | Public Property Damage: OTHER | Citation Issued: N |
| | | | School Bus Involved: OTHER |

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|---------|---------------------------|-------------------------------|----------------------------|
| Veh : 1 | CAR/VAN/PICKUP | Registered Weight: 3536 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 67 | Sex: F |
| | Direction of Travel: WEST | Public Property Damage: OTHER | Citation Issued: N |
| | | | School Bus Involved: OTHER |

Apparent Factors: DRIVER INATTENTION, FAILURE TO YIELD RIGHT OF WAY

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| County: Westchester | Muni: North Castle(T) | Ref. Marker: | Street: MAPLE AVE |
| 41 Meters North of Bedford Rd | | | |
| 12/28/2016 | Wed 14:08 PM | Persons Killed: 0 | Persons Injured: 0 |
| Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Extent of Injuries: | |
| Manner of Collision: RIGHT ANGLE | | Traffic Control: NONE | |
| Road Surface Condition: DRY | | Weather: CLEAR | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Light Condition: DAYLIGHT | |
| Road Char.: STRAIGHT AND LEVEL | | Action of Ped/Bicycle: NOT APPLICABLE | |
| | | Case: 2016-36546481 | |
| | | Num of Veh: 2 | |

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|--------|----------------------------|-------------------------------|----------------------------|
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3161 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 71 | Sex: M |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | Citation Issued: N |
| | | | School Bus Involved: OTHER |

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|---------|---------------------------|-------------------------------|----------------------------|
| Veh : 1 | CAR/VAN/PICKUP | Registered Weight: 2892 | State of Registration: NY |
| | Num of Occupants: 2 | Driver's Age: | Sex: |
| | Direction of Travel: EAST | Public Property Damage: OTHER | Citation Issued: |
| | | | School Bus Involved: OTHER |

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| County: Westchester | Muni: North Castle(T) | Ref. Marker: 128 87011003 | Street: MAIN ST |
| 30 Meters North of BEDFORD RD | | | |
| 2/19/2017 | Sun 10:05 AM | Persons Killed: 0 | Persons Injured: 0 |
| Accident Class: PROPERTY DAMAGE | | Extent of Injuries: | |
| | | Police Agency: NORTH CASTLE TOWN PD | |
| | | Case: 2017-36610673 | Num of Veh: 2 |

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| Veh :2 | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | | | | | | |
| | Manner of Collision: RIGHT TURN (AGAINST OTHER CAR) | | | | | Traffic Control: NO PASSING ZONE | | | | | | | | | |
| | Road Surface Condition: DRY | | | | | | | | | | | | | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | Light Condition: DAYLIGHT | | | | | | | | | |
| | Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | | | | | |
| | Road Char.: STRAIGHT AND LEVEL | | | | | Weather: CLOUDY | | | | | | | | | |
| | Registered Weight: 3790 | | | | | | | | | | | | | | |
| | Driver's Age: | | | | | State of Registration: NY | | | | | | | | | |
| | Public Property Damage: OTHER | | | | | | | | | | | | | | |
| | Sex: | | | | | Citation Issued: | | | | | | | | | |
| | School Bus Involved: OTHER | | | | | | | | | | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | | | | | | |
| Veh :1 | Registered Weight: 5773 | | | | | | | | | | | | | | |
| | Driver's Age: 36 | | | | | Sex: M | | | | | | | | | |
| | Public Property Damage: OTHER | | | | | | | | | | | | | | |
| | Sex: M | | | | | State of Registration: NY | | | | | | | | | |
| | Public Property Damage: OTHER | | | | | | | | | | | | | | |
| | Sex: M | | | | | Citation Issued: N | | | | | | | | | |
| | School Bus Involved: OTHER | | | | | | | | | | | | | | |
| | Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, DRIVER INATTENTION | | | | | | | | | | | | | | |
| County: Westchester | Muni: North Castle(T) Ref. Marker: Street: KENT PL | | | | | | | | | | | | | | |
| | 34 Meters West of Main St | | | | | | | | | | | | | | |
| 2/20/2017 | Mon 10:37 AM | | | | | | | | | | | | | | |
| | Persons Killed: 0 | | | | | Persons Injured: 0 | | | | | | | | | |
| | Police Agency: NORTH CASTLE TOWN PD | | | | | | | | | | | | | | |
| | Extent of Injuries: | | | | | Case: 2017-36616789 | | | | | | | | | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | | | | | | |
| | Manner of Collision: REAR END | | | | | Traffic Control: NONE | | | | | | | | | |
| | Road Surface Condition: DRY | | | | | | | | | | | | | | |
| | Weather: CLEAR | | | | | Light Condition: DAYLIGHT | | | | | | | | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | | | | | |
| | Action of Ped/Bicycle: NOT APPLICABLE | | | | | Num of Veh: 2 | | | | | | | | | |
| Veh :1 | Registered Weight: 4266 | | | | | | | | | | | | | | |
| | Driver's Age: 45 | | | | | Sex: M | | | | | | | | | |
| | Public Property Damage: OTHER | | | | | | | | | | | | | | |
| | Sex: M | | | | | State of Registration: NY | | | | | | | | | |
| | Public Property Damage: OTHER | | | | | | | | | | | | | | |
| | Sex: M | | | | | Citation Issued: N | | | | | | | | | |
| | School Bus Involved: OTHER | | | | | | | | | | | | | | |
| | Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION | | | | | | | | | | | | | | |
| Veh :2 | Registered Weight: 3493 | | | | | | | | | | | | | | |
| | Driver's Age: 34 | | | | | Sex: F | | | | | | | | | |
| | Public Property Damage: OTHER | | | | | | | | | | | | | | |
| | Sex: F | | | | | State of Registration: NY | | | | | | | | | |
| | Public Property Damage: OTHER | | | | | | | | | | | | | | |
| | Sex: F | | | | | Citation Issued: N | | | | | | | | | |
| | School Bus Involved: OTHER | | | | | | | | | | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | | | | | | |
| County: Westchester | Muni: North Castle(T) Ref. Marker: 128 87011003 Street: BEDFORD RD | | | | | | | | | | | | | | |
| | AT INTERSECTION WITH [Route] 128 | | | | | | | | | | | | | | |
| 3/17/2017 | Fri 13:55 PM | | | | | | | | | | | | | | |
| | Persons Killed: 0 | | | | | Persons Injured: 0 | | | | | | | | | |
| | Police Agency: NORTH CASTLE TOWN PD | | | | | | | | | | | | | | |
| | Extent of Injuries: | | | | | Case: 2017-36647679 | | | | | | | | | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | | | | | | |
| | Manner of Collision: OVERTAKING | | | | | Traffic Control: NONE | | | | | | | | | |
| | Road Surface Condition: DRY | | | | | | | | | | | | | | |
| | Weather: CLEAR | | | | | Light Condition: DAYLIGHT | | | | | | | | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | | | | | |
| | Action of Ped/Bicycle: NOT APPLICABLE | | | | | Num of Veh: 2 | | | | | | | | | |

| | | | |
|---|--|---|---|
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 2 Direction of Travel: WEST Pre-Accd Action: PARKED Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: 3805 Driver's Age: Public Property Damage: OTHER | State of Registration: NY Sex: Citation Issued: School Bus Involved: OTHER |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 2 Direction of Travel: WEST Pre-Accd Action: ENTERING PARKED POSITION Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | Registered Weight: 4237 Driver's Age: 67 Public Property Damage: OTHER | State of Registration: NY Sex: F Citation Issued: Y School Bus Involved: OTHER |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011003 Street: MAIN ST 17 Meters North of Kent Pl 6/7/2017 | | | |
| | Wed 08:52 AM Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: OVERTAKING Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Road Char.: STRAIGHT AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE | Case: 2017-36756294 Num of Veh: 2 Traffic Control: NONE Weather: CLEAR Light Condition: DAYLIGHT |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 2 Direction of Travel: NORTH Pre-Accd Action: PARKED Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | Registered Weight: 4790 Driver's Age: Public Property Damage: OTHER | State of Registration: NY Sex: Citation Issued: School Bus Involved: OTHER |
| Veh :1 | TRUCK Num of Occupants: 1 Direction of Travel: NORTH Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: Driver's Age: 42 Public Property Damage: OTHER | State of Registration: CT Sex: M Citation Issued: N School Bus Involved: OTHER |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011003 Street: MAIN ST AT INTERSECTION WITH Kent Pl 6/29/2017 | | | |
| | Thu 14:10 PM Accident Class: NON-REPORTABLE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: REAR END Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Road Char.: STRAIGHT AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE | Case: 2017-36788278 Num of Veh: 2 Traffic Control: STOP SIGN Weather: CLEAR Light Condition: DAYLIGHT |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH-WEST | Registered Weight: Driver's Age: 19 Public Property Damage: OTHER | State of Registration: NY Sex: F Citation Issued: N School Bus Involved: OTHER |

| | | | | | |
|---|----------------|---------------------------------------|--|----------------------------|--|
| Pre-Accd Action: MAKING RIGHT TURN | | Registered Weight: | | State of Registration: NY | |
| Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION | | Driver's Age: 51 | | Sex: F Citation Issued: N | |
| Veh :2 | CAR/VAN/PICKUP | Public Property Damage: OTHER | | School Bus Involved: OTHER | |
| Num of Occupants: 1 | | | | | |
| Direction of Travel: NORTH-WEST | | | | | |
| Pre-Accd Action: MAKING RIGHT TURN | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011003 Street: MAIN ST | | | | | |
| 15 Meters North of BEDFORD RD | | | | | |
| 7/5/2017 | | | | | |
| Wed 09:48 AM | | Persons Killed: 0 | | Persons Injured: 0 | |
| Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | | Extent of Injuries: | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | Case: 2017-36795261 | |
| Manner of Collision: UNKNOWN | | | | Traffic Control: NONE | |
| Road Surface Condition: DRY | | Road Char.: STRAIGHT AND LEVEL | | Weather: CLEAR | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | | Light Condition: DAYLIGHT | |
| Num of Veh: 2 | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4667 | | State of Registration: NY | |
| Num of Occupants: 1 | | Driver's Age: 49 | | Sex: F Citation Issued: N | |
| Direction of Travel: WEST | | Public Property Damage: OTHER | | School Bus Involved: OTHER | |
| Pre-Accd Action: ENTERING PARKED POSITION | | | | | |
| Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011004 Street: WHIPPOORWILL RD E | | | | | |
| AT INTERSECTION WITH MAIN ST | | | | | |
| 9/18/2017 | | | | | |
| Mon 08:12 AM | | Persons Killed: 0 | | Persons Injured: 0 | |
| Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | | Extent of Injuries: | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | Case: 2017-36903316 | |
| Manner of Collision: LEFT TURN (AGAINST OTHER CAR) | | | | Traffic Control: NONE | |
| Road Surface Condition: DRY | | Road Char.: STRAIGHT/GRADE | | Weather: CLOUDY | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | | Light Condition: DAYLIGHT | |
| Num of Veh: 2 | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 4079 | | State of Registration: NY | |
| Num of Occupants: 2 | | Driver's Age: 38 | | Sex: M Citation Issued: N | |
| Direction of Travel: EAST | | Public Property Damage: OTHER | | School Bus Involved: OTHER | |
| Pre-Accd Action: STOPPED IN TRAFFIC | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3452 | | State of Registration: NY | |

| | | | |
|---|---------------------------------------|-------------------------------------|----------------------------|
| Num of Occupants: 1 | Driver's Age: 46 | Sex: F | Citation Issued: N |
| Direction of Travel: WEST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| Pre-Accd Action: MAKING LEFT TURN | | | |
| Apparent Factors: UNSAFE SPEED, STEERING FAILURE | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011004 Street: MAIN ST | | | |
| 44 Meters North of Whippoorwill Rd E | | | |
| 11/22/2017 | Wed 14:23 PM | Persons Killed: 0 | Persons Injured: 0 |
| Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Case: 2017-36999748 |
| Manner of Collision: LEFT TURN (WITH OTHER CAR) | | | Num of Veh: 2 |
| Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | | Traffic Control: STOP SIGN |
| Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | | Weather: CLEAR |
| | | | Light Condition: DAYLIGHT |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3255 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 83 | Citation Issued: N |
| Direction of Travel: EAST | Public Property Damage: OTHER | Sex: F | School Bus Involved: OTHER |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: CT |
| | Num of Occupants: 1 | Driver's Age: 43 | Citation Issued: N |
| Direction of Travel: SOUTH-EAST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| Pre-Accd Action: MAKING LEFT TURN | | | |
| Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, VIEW OBSTRUCTED/LIMITED | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011003 Street: MAIN ST | | | |
| AT INTERSECTION WITH Kent Pl | | | |
| 11/21/2017 | Tue 07:56 AM | Persons Killed: 0 | Persons Injured: 0 |
| Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Case: 2017-37004209 |
| Manner of Collision: SIDESWIPE | | | Num of Veh: 2 |
| Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | | Traffic Control: STOP SIGN |
| Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | | Weather: CLEAR |
| | | | Light Condition: DAYLIGHT |
| Veh :1 | OTHER | Registered Weight: | State of Registration: NJ |
| | Num of Occupants: 1 | Driver's Age: 60 | Sex: M |
| Direction of Travel: WEST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| Pre-Accd Action: STOPPED IN TRAFFIC | | | |
| Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 4142 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 48 | Sex: F |
| Direction of Travel: NORTH | Public Property Damage: OTHER | | Citation Issued: N |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | School Bus Involved: OTHER |

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011004 Street: MAIN ST
 AT INTERSECTION WITH Whippoorwill Rd E
1/4/2018
 Thu 12:37 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries:
 Accident Class: PROPERTY DAMAGE Police Agency: NORTH CASTLE TOWN PD
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL Case: 2018-37068134 Num of Veh: 2
 Manner of Collision: RIGHT TURN (WITH OTHER CAR) Weather: SNOW
 Road Surface Condition: SNOW/ICE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2
 TRUCK Registered Weight: 16500 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 48 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1
 TRUCK Registered Weight: 42000 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING RIGHT TURN

Apparent Factors: TURNING IMPROPER, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011003 Street: MAIN ST
 46 Meters North of Kent Pl
12/26/2017
 Tue 09:24 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries:
 Accident Class: PROPERTY DAMAGE Police Agency: NORTH CASTLE TOWN PD
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: OVERTAKING Weather: CLEAR
 Road Surface Condition: DRY Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE Case: 2017-37068136 Num of Veh: 2

Veh :1
 CAR/VAN/PICKUP Registered Weight: 5182 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 51 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: ENTERING PARKED POSITION

Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :2
 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: PARKED

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011003 Street: MAIN ST
 AT INTERSECTION WITH Kent Pl

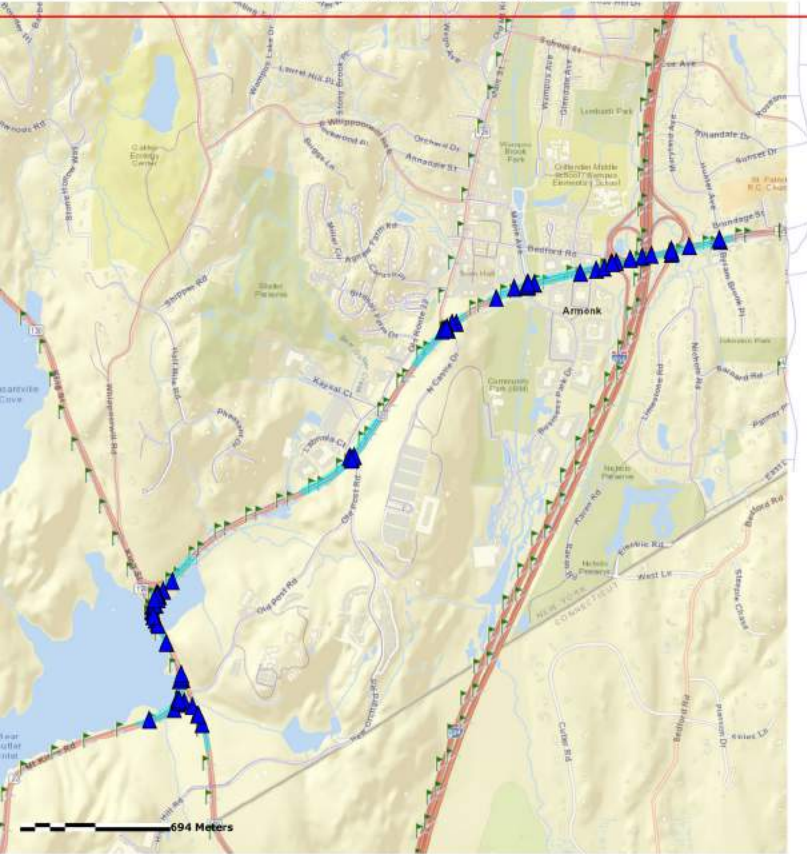
| | | | | | | |
|---|---|-------------------------------|-------------------------------------|----------------------------|---------------------------------------|---------------|
| 1/6/2018 | Sat 12:00 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2018-37070842 | Num of Veh: 2 |
| | Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | | Traffic Control: NONE | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | Weather: CLEAR | |
| | Manner of Collision: OVERTAKING | | | | Light Condition: DAYLIGHT | |
| | Road Surface Condition: DRY | | Road Char.: STRAIGHT AND LEVEL | | Action of Ped/Bicycle: NOT APPLICABLE | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4079 | State of Registration: NY | | | |
| | Num of Occupants: 2 | Driver's Age: 17 | Sex: F | Citation Issued: N | | |
| | Direction of Travel: NORTH-EAST | Public Property Damage: OTHER | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: MAKING RIGHT TURN | | | | | |
| | Apparent Factors: DRIVER INEXPERIENCE, NOT APPLICABLE | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: VT | | | |
| | Num of Occupants: 4 | Driver's Age: | Sex: | Citation Issued: | | |
| | Direction of Travel: NORTH-EAST | Public Property Damage: OTHER | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: PARKED | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011003 Street: MAIN ST | | | | | | |
| 11/19/2017 | Sun 12:45 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2017-37080871 | Num of Veh: 2 |
| | Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | | Traffic Control: STOP SIGN | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | Weather: CLOUDY | |
| | Manner of Collision: RIGHT ANGLE | | | | Light Condition: DAYLIGHT | |
| | Road Surface Condition: DRY | | Road Char.: STRAIGHT AND LEVEL | | Action of Ped/Bicycle: NOT APPLICABLE | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3959 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 37 | Sex: M | Citation Issued: N | | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3208 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 84 | Sex: M | Citation Issued: N | | |
| | Direction of Travel: WEST | Public Property Damage: OTHER | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| | Apparent Factors: NOT APPLICABLE, FAILURE TO YIELD RIGHT OF WAY | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011003 Street: MAIN ST | | | | | | |
| 9/30/2017 | Sat 10:21 AM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2017-37112698 | Num of Veh: 2 |
| | Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | | Traffic Control: NONE | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | |
| | Manner of Collision: OTHER | | | | Weather: CLOUDY | |

| | | | | | | | | | | | | | | | | | | | | | |
|--------|---|-------------------------------------|---------------------------------|---------------------------------------|----------------------------------|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Veh :1 | Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | | Action of Ped/Bicycle: NOT APPLICABLE | | Light Condition: DAYLIGHT | | | | | | | | | | | | | | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | | | | | | | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 4638 | State of Registration: NY | | Citation Issued: N | | | | | | | | | | | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 45 | Sex: M | School Bus Involved: OTHER | | | | | | | | | | | | | | | | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | | | | | | | | | | | | | | | | | |
| Veh :2 | Pre-Accd Action: ENTERING PARKED POSITION | | | | | | | | | | | | | | | | | | | | |
| | Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | | | | | | | | | | | | | | | | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 3777 | State of Registration: NY | | Citation Issued: | | | | | | | | | | | | | | | | |
| | Num of Occupants: 2 | Driver's Age: | Sex: | School Bus Involved: OTHER | | | | | | | | | | | | | | | | | |
| | Direction of Travel: UNKNOWN | Public Property Damage: OTHER | | | | | | | | | | | | | | | | | | | |
| Veh :1 | Pre-Accd Action: PARKED | | | | | | | | | | | | | | | | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | | | | | | | | | | | | |
| | County: Westchester | Muni: North Castle(T) | Ref. Marker: 128 87011003 | Street: MAIN ST | Case: 2018-37185829 | | | | | | | | | | | | | | | | |
| | 48 Meters North of Kent Pl | Persons Killed: 0 | | Persons Injured: 0 | Extent of Injuries: | | | | | | | | | | | | | | | | |
| | 3/13/2018 | Tue 13:08 PM | Accident Class: PROPERTY DAMAGE | Police Agency: NORTH CASTLE TOWN PD | Traffic Control: NO PASSING ZONE | | | | | | | | | | | | | | | | |
| Veh :2 | Type Of Accident: COLLISION WITH MOTOR VEHICLE | Road Surface Condition: SLUSH | | Road Char.: STRAIGHT AND LEVEL | | Light Condition: DAYLIGHT | | | | | | | | | | | | | | | |
| | Manner of Collision: SIDESWIPE | Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | | Weather: SNOW | | | | | | | | | | | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 3490 | State of Registration: NY | | Citation Issued: | | | | | | | | | | | | | | | | |
| | Num of Occupants: 2 | Driver's Age: | Sex: | School Bus Involved: OTHER | | | | | | | | | | | | | | | | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | | | | | | | | | | | | | | | | | |
| Veh :1 | Pre-Accd Action: PARKED | | | | | | | | | | | | | | | | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | | | | | | | | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 25999 | State of Registration: NY | | Citation Issued: N | | | | | | | | | | | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 32 | Sex: M | School Bus Involved: OTHER | | | | | | | | | | | | | | | | | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | | | | | | | | | | | | | | | | | | |
| Veh :1 | Pre-Accd Action: BACKING | | | | | | | | | | | | | | | | | | | | |
| | Apparent Factors: VIEW OBSTRUCTED/LIMITED, BACKING UNSAFELY | | | | | | | | | | | | | | | | | | | | |
| | County: Westchester | Muni: North Castle(T) | Ref. Marker: 128 87011004 | Street: MAIN ST | Case: 2018-37230849 | | | | | | | | | | | | | | | | |
| | AT INTERSECTION WITH Whippoorwill Rd E | Persons Killed: 0 | | Persons Injured: 0 | Extent of Injuries: | | | | | | | | | | | | | | | | |
| | 4/6/2018 | Fri 13:52 PM | Accident Class: PROPERTY DAMAGE | Police Agency: NORTH CASTLE TOWN PD | Traffic Control: TRAFFIC SIGNAL | | | | | | | | | | | | | | | | |
| Veh :1 | Type Of Accident: COLLISION WITH CURBING | Road Surface Condition: WET | | Road Char.: STRAIGHT/ GRADE | | Light Condition: DAYLIGHT | | | | | | | | | | | | | | | |
| | Manner of Collision: OTHER | Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | | Weather: RAIN | | | | | | | | | | | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 4504 | State of Registration: NY | | Citation Issued: | | | | | | | | | | | | | | | | |
| | Num of Occupants: 1 | Driver's Age: | Sex: | School Bus Involved: OTHER | | | | | | | | | | | | | | | | | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | | | | | | | | | | | | | | | | | | |

| | | | | | | | |
|---------------------|--|--|--------------------------------|---------------------------------|--|---------------------------------------|---------------|
| County: Westchester | Muni: North Castle(T) | Ref. Marker: Thu 22:00 PM | Street: BEDFORD RD | Persons Injured: 0 | Extent of Injuries: NORTH CASTLE TOWN PD | Case: 2018-37275082 | Num of Veh: 1 |
| 5/3/2018 | Accident Class: PROPERTY DAMAGE | Type Of Accident: COLLISION WITH FENCE | Manner of Collision: OTHER | Road Surface Condition: UNKNOWN | Weather: UNKNOWN | Traffic Control: NONE | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | Road Char.: STRAIGHT AND LEVEL | Light Condition: DARK-ROAD LIGHTED | Action of Ped/Bicycle: NOT APPLICABLE | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | | Driver's Age: 24 | Sex: M | State of Registration: NC | |
| | Num of Occupants: 2 | | | | | Citation Issued: Y | |
| | Direction of Travel: WEST | | | | | School Bus Involved: OTHER | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | |
| | Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION | | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: Wed 19:28 PM | Street: WHIPPOORWILL RD E | Persons Injured: 0 | Extent of Injuries: NORTH CASTLE TOWN PD | Case: 2018-37307749 | Num of Veh: 1 |
| 5/30/2018 | Accident Class: PROPERTY DAMAGE | Type Of Accident: COLLISION WITH CURBING | Manner of Collision: OTHER | Road Surface Condition: DRY | Weather: CLEAR | Traffic Control: TRAFFIC SIGNAL | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | Road Char.: STRAIGHT AND LEVEL | Light Condition: DAYLIGHT | Action of Ped/Bicycle: NOT APPLICABLE | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3400 | | Driver's Age: 18 | Sex: F | State of Registration: NY | |
| | Num of Occupants: 2 | | | | | Citation Issued: N | |
| | Direction of Travel: WEST | | | | | School Bus Involved: OTHER | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | |
| | Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: Tue 10:49 AM | Street: MAPLE AVE | Persons Injured: 0 | Extent of Injuries: NORTH CASTLE TOWN PD | Case: 2018-37368359 | Num of Veh: 2 |
| 6/19/2018 | Accident Class: PROPERTY DAMAGE | Type Of Accident: COLLISION WITH MOTOR VEHICLE | Manner of Collision: SIDESWIPE | Road Surface Condition: DRY | Weather: CLEAR | Traffic Control: TRAFFIC SIGNAL | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | Road Char.: STRAIGHT/ GRADE | Light Condition: DAYLIGHT | Action of Ped/Bicycle: NOT APPLICABLE | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 4416 | | Driver's Age: 46 | Sex: M | State of Registration: NY | |
| | Num of Occupants: 1 | | | | | Citation Issued: N | |
| | Direction of Travel: WEST | | | | | School Bus Involved: OTHER | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | |

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

| | | | |
|---------------------|--|---------------------------------------|----------------------------|
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 5192 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 73 | Sex: F Citation Issued: N |
| | Direction of Travel: EAST | Public Property Damage: OTHER | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | |
| | Apparent Factors: PASSING OR LANE USAGE IMPROPERLY, NOT APPLICABLE | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: Street: BEDFORD RD | Case: 2018-37380110 |
| 7/14/2018 | Sat 11:28 AM | Persons Killed: 0 | Num of Veh: 1 |
| | Accident Class: PROPERTY DAMAGE | Persons Injured: 0 | |
| | Type Of Accident: COLLISION WITH GUIDE RAIL | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: |
| | Manner of Collision: OTHER | | Weather: CLEAR |
| | Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | Traffic Control: NONE |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | Light Condition: DAYLIGHT |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4519 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 57 | Sex: F Citation Issued: N |
| | Direction of Travel: WEST | Public Property Damage: OTHER | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | |
| | Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | | |

**Legend**

- Railroad
- ▲ Reference Marker

NYS DOT QRA ACCIDENT SEVERITY SUMMARY

Print Date 11/14/2018 Print Time 1:18:08PM

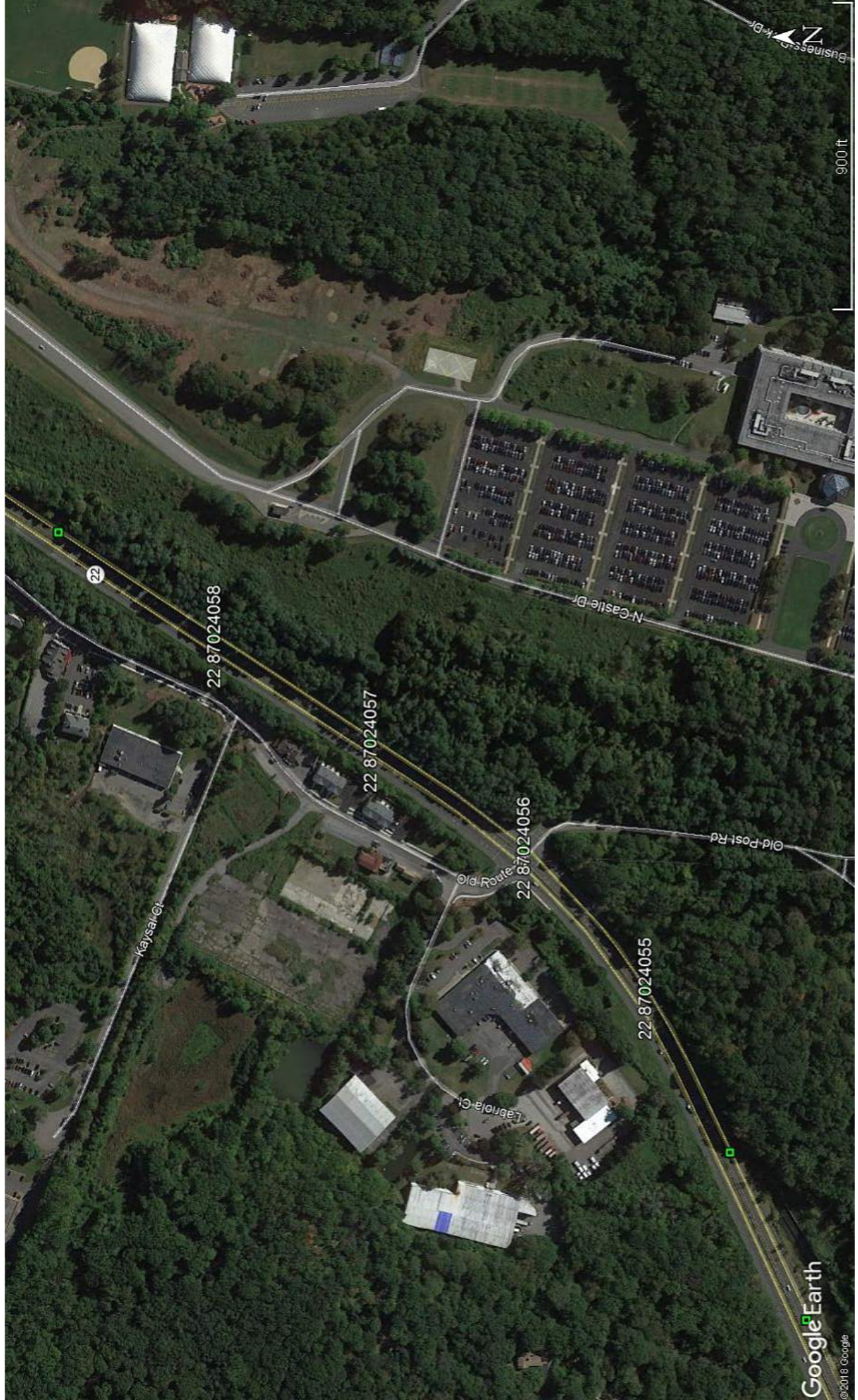
| Query Number/Name | Query Type | Query Sub Type | Accident Date Range |
|----------------------|----------------|----------------|---|
| 41462 15524 Segments | AttributeQuery | None | 1/1/2015 12:00:00AM To 8/31/2018 12:00:00AM |

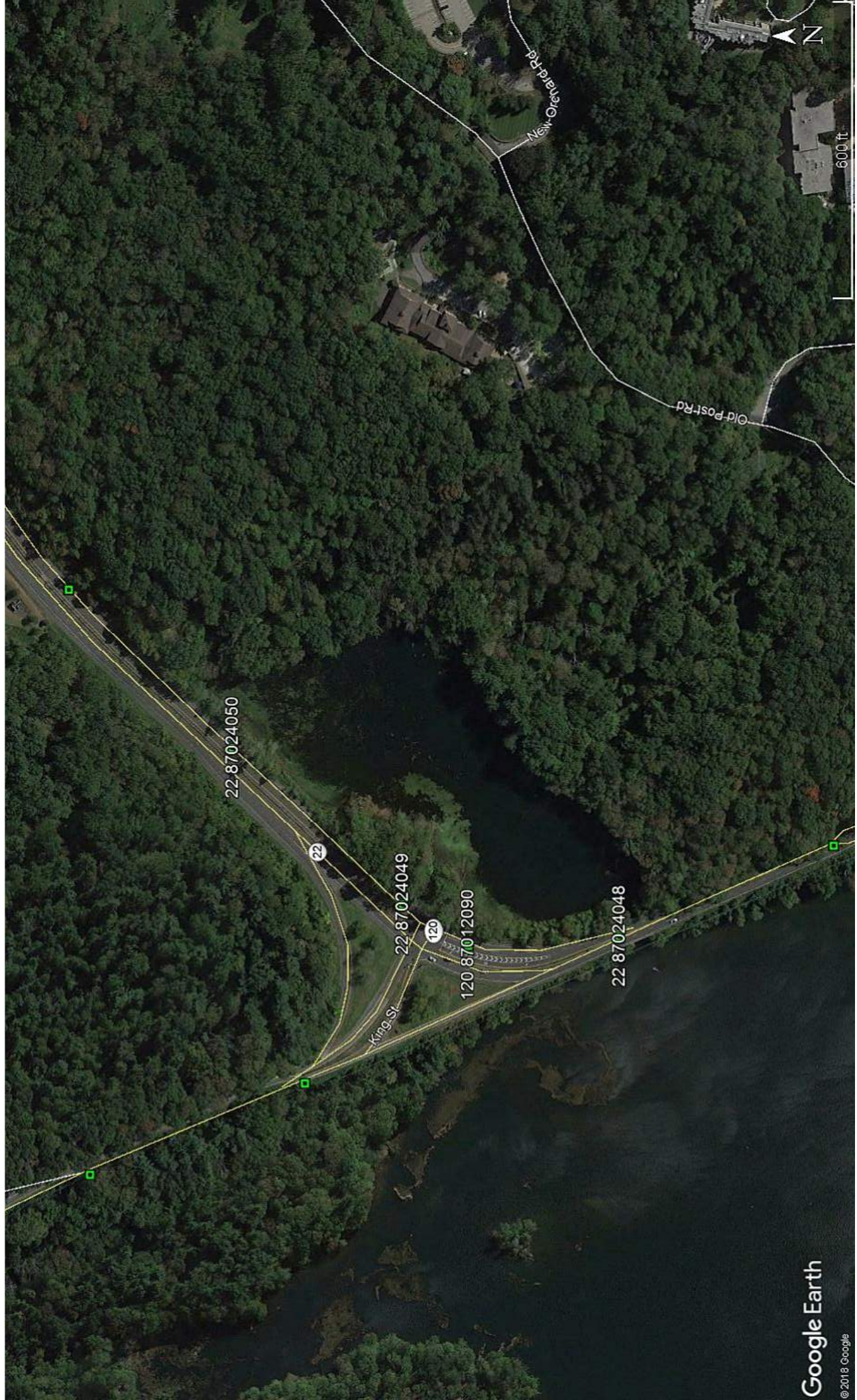
| Case Year | Injury | Fatality | Property Damage | Non-Reportables | Totals |
|---------------------|-----------|----------|-----------------|-----------------|--------|
| 2015 | 9 | 0 | 10 | 10 | 29 |
| Case Year | Injury | Fatality | Property Damage | Non-Reportables | Totals |
| 2016 | 12 | 0 | 23 | 6 | 41 |
| Case Year | Injury | Fatality | Property Damage | Non-Reportables | Totals |
| 2017 | 12 | 0 | 35 | 6 | 53 |
| Case Year | Injury | Fatality | Property Damage | Non-Reportables | Totals |
| 2018 * | 7 | 0 | 14 | 1 | 22 |
| Grand Total: | 40 | 0 | 82 | 23 | |

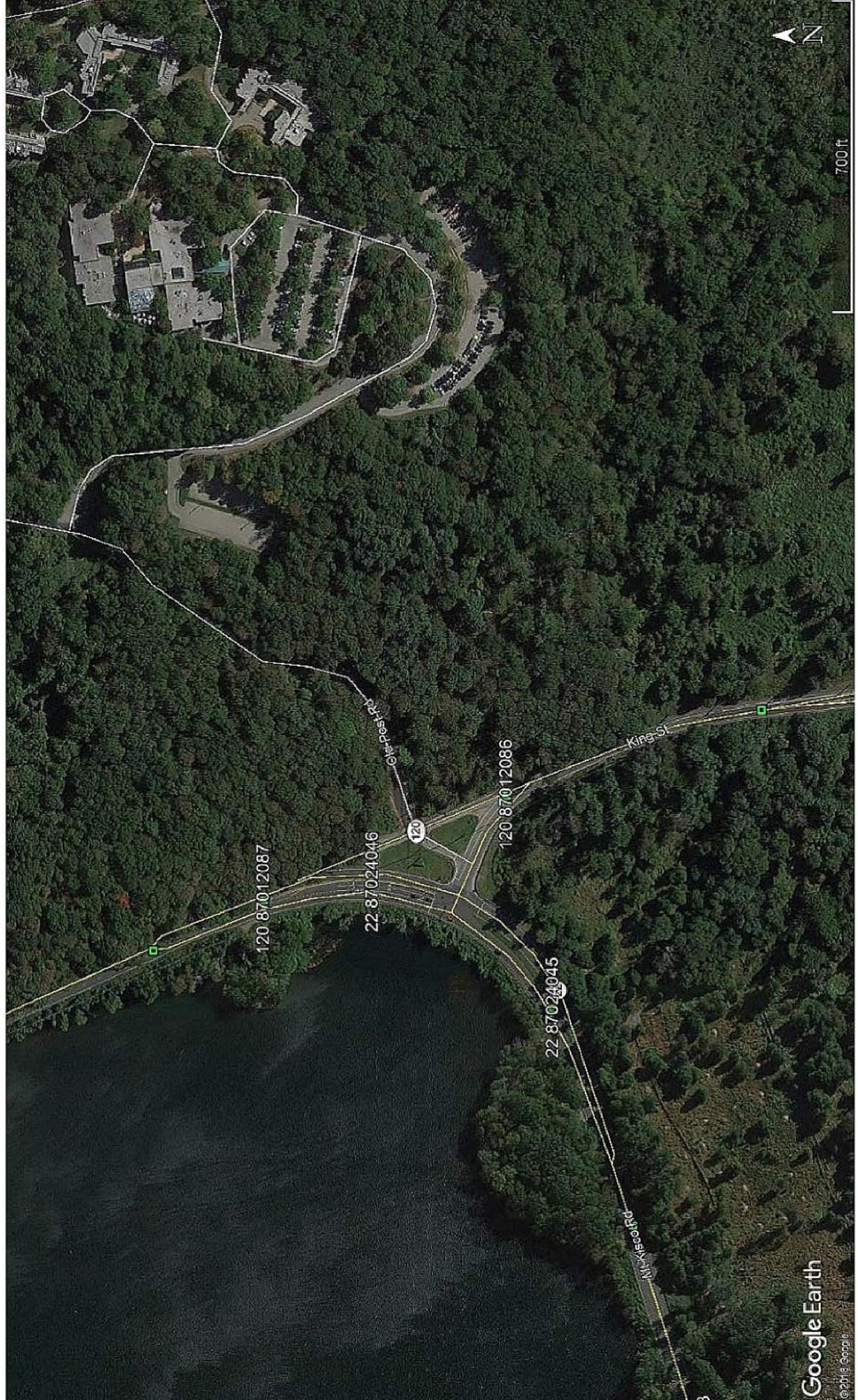
* AVAILABLE THRU 8/31/18













Date: 11/14/2018
1:12:50 PM

Accident Location Information System(ALIS)

Accident Verbal Description

15524_VDR_Segments

Date in this report covers the period - 1/1/2015-8/31/2018

Complete Accident data from NYSDMV is only available thru 8/31/2018 12:00:00 AM

| | | | | | | | | | |
|---|--|-------------------------------|------------------------|-------------------|--------------------|-------------------------------------|---|---------------------|---------------|
| County: Westchester 19 Meters South of King St 1/3/2015 | Muni: North Castle(T) Sat 14:18 PM Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: REAR END Road Surface Condition: SNOW/ICE Loc. of Ped/Bicycle: NOT APPLICABLE | Ref. Marker: 22 87024045 | Street: MOUNT KISCO RD | Persons Killed: 0 | Persons Injured: 0 | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: | Case: 2015-35537291 | Num of Veh: 2 |
| | | | | | | | Traffic Control: TRAFFIC SIGNAL Weather: SNOW Light Condition: DAYLIGHT | | |
| | | | | | | | Road Char.: CURVE AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4944 | | | | | State of Registration: NY | | |
| | Num of Occupants: 2 | Driver's Age: 39 | | | | | Sex: F | Citation Issued: N | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: SLOWED OR STOPPING | | | | | | | | |
| | Apparent Factors: PAVEMENT SLIPPERY, NOT APPLICABLE | | | | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 4857 | | | | | State of Registration: NY | | |
| | Num of Occupants: 1 | Driver's Age: 49 | | | | | Sex: M | Citation Issued: N | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | |
| County: Westchester AT INTERSECTION WITH [Route] 120 1/7/2015 | Muni: North Castle(T) Wed 09:40 AM Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: REAR END Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | Ref. Marker: 120 87012090 | Street: [Route] 22 | Persons Killed: 0 | Persons Injured: 0 | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: | Case: 2015-35543594 | Num of Veh: 2 |
| | | | | | | | Traffic Control: YIELD SIGN Weather: CLEAR Light Condition: DAYLIGHT | | |
| | | | | | | | Road Char.: STRAIGHT AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3413 | | | | | State of Registration: NY | | |
| | Num of Occupants: 1 | Driver's Age: 66 | | | | | Sex: F | Citation Issued: N | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | | | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: SLOWED OR STOPPING | | | | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4237 | | | | | State of Registration: NY | | |
| | Num of Occupants: 1 | Driver's Age: 48 | | | | | Sex: F | Citation Issued: N | |

| | | |
|--|--|---------------------------------------|
| Direction of Travel: SOUTH | Public Property Damage: OTHER | School Bus Involved: OTHER |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | |
| Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024063 Street: ARMONK-BEDFORD RD | | |
| AT INTERSECTION WITH Maple Ave | | |
| 1/16/2015 | | |
| Fri 14:51 PM | Persons Killed: 0 | Persons Injured: 0 |
| Accident Class: NON-REPORTABLE | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Case: 2015-35563792 |
| Manner of Collision: REAR END | | Num of Veh: 2 |
| Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | Traffic Control: TRAFFIC SIGNAL |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Weather: CLOUDY |
| | | Light Condition: DAYLIGHT |
| | | Action of Ped/Bicycle: NOT APPLICABLE |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: |
| | Num of Occupants: 1 | Driver's Age: 49 |
| | Direction of Travel: NORTH | State of Registration: NY |
| | Pre-Accd Action: STOPPED IN TRAFFIC | Sex: M |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Citation Issued: N |
| | | School Bus Involved: OTHER |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: |
| | Num of Occupants: 1 | Driver's Age: 72 |
| | Direction of Travel: NORTH | State of Registration: NY |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | Sex: F |
| | Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION | Citation Issued: N |
| | | School Bus Involved: OTHER |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024066 Street: [Route] 22 | | |
| 18 Meters East of Ramp | | |
| 2/4/2015 | | |
| Wed 18:47 PM | Persons Killed: 0 | Persons Injured: 1 |
| Accident Class: PROPERTY DAMAGE AND INJURY | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: C |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Case: 2015-35602262 |
| Manner of Collision: REAR END | | Num of Veh: 2 |
| Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | Traffic Control: TRAFFIC SIGNAL |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Weather: CLOUDY |
| | | Light Condition: DARK-ROAD LIGHTED |
| | | Action of Ped/Bicycle: NOT APPLICABLE |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: |
| | Num of Occupants: 2 | Driver's Age: 56 |
| | Direction of Travel: NORTH | State of Registration: CT |
| | Pre-Accd Action: STOPPED IN TRAFFIC | Sex: M |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Citation Issued: N |
| | | School Bus Involved: OTHER |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: |
| | Num of Occupants: 1 | Driver's Age: 65 |
| | Direction of Travel: NORTH | State of Registration: CT |
| | Pre-Accd Action: SLOWED OR STOPPING | Sex: M |
| | Apparent Factors: UNSAFE SPEED, NOT APPLICABLE | Citation Issued: N |
| | | School Bus Involved: OTHER |

| | | | | | |
|---|---|--|---------------------------|--|--------------------------------------|
| County: Westchester 2/18/2015 | Muni: North Castle(T) Wed 08:39 AM | Ref. Marker: 22 87024050 Persons Killed: 0 | Street: ARMONK-BEDFORD RD | Extent of Injuries: Police Agency: NORTH CASTLE TOWN PD | Case: 2015-35611817 Num of Veh: 2 |
| | Accident Class: NON-REPORTABLE | | | Traffic Control: TRAFFIC SIGNAL | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Weather: CLEAR | |
| | Manner of Collision: REAR END | | | Light Condition: DAYLIGHT | |
| | Road Surface Condition: DRY | | | Action of Ped/Bicycle: NOT APPLICABLE | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | | State of Registration: NY | |
| | Num of Occupants: 2 | Driver's Age: 46 | | Sex: M | Citation Issued: N |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 67 | | Sex: M | Citation Issued: N |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER |
| | Pre-Accd Action: MERGING | | | | |
| | Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | | | | |
| County: Westchester 3/19/2015 | Muni: North Castle(T) Thu 10:46 AM | Ref. Marker: Street: BUSINESS PARK DR Persons Killed: 0 | | Extent of Injuries: Police Agency: NORTH CASTLE TOWN PD | Case: 2015-35655881 Num of Veh: 2 |
| | Accident Class: NON-REPORTABLE | | | Traffic Control: TRAFFIC SIGNAL | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Weather: CLEAR | |
| | Manner of Collision: OVERTAKING | | | Light Condition: DAYLIGHT | |
| | Road Surface Condition: DRY | | | Action of Ped/Bicycle: NOT APPLICABLE | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 39 | | Sex: F | Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | | State of Registration: NY | |
| | Num of Occupants: 2 | Driver's Age: 60 | | Sex: F | Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER |
| | Pre-Accd Action: MAKING LEFT TURN | | | | |
| | Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, DRIVER INATTENTION | | | | |
| County: Westchester 4/2/2015 | Muni: North Castle(T) Thu 19:56 PM | Ref. Marker: 22 87024044 Persons Killed: 0 | Street: [Route] 22 | Extent of Injuries: C | Case: 2015-35674959 Num of Veh: 2 |
| | Accident Class: PROPERTY DAMAGE AND INJURY | | | Police Agency: NORTH CASTLE TOWN PD | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Traffic Control: NO PASSING ZONE | |
| | Manner of Collision: REAR END | | | Weather: CLOUDY | |

| | | | | | | |
|-----------|---|-------------------------------------|---------------------------------------|----------------------------|--------------------------------------|--------------------|
| Veh :2 | Road Surface Condition: DRY | | Road Char.: CURVE AND GRADE | | Light Condition: DARK-ROAD UNLIGHTED | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | | | |
| | OTHER | Registered Weight: | Driver's Age: | | State of Registration: -3 | |
| | Num of Occupants: 0 | Public Property Damage: OTHER | | Sex: | | Citation Issued: |
| | Direction of Travel: SOUTH | Pre-Accd Action: SLOWED OR STOPPING | | School Bus Involved: OTHER | | |
| | Apparent Factors: NOT APPLICABLE, UNKNOWN | | | | | |
| Veh :1 | CAR/VAN/PICKUP | | Registered Weight: 2546 | | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 40 | | Sex: F | | Citation Issued: N |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: SLOWED OR STOPPING | | | | | |
| | Apparent Factors: VIEW OBSTRUCTED/LIMITED, NOT APPLICABLE | | | | | |
| | County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024047 Street: KING ST | | | | | |
| 4/10/2015 | Fri 17:15 PM | | Persons Killed: 0 | | Persons Injured: 1 | |
| | Accident Class: PROPERTY DAMAGE AND INJURY | | Police Agency: NORTH CASTLE TOWN PD | | | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Traffic Control: YIELD SIGN | | | |
| | Manner of Collision: REAR END | | Weather: CLOUDY | | | |
| | Road Surface Condition: DRY | | Road Char.: STRAIGHT AND LEVEL | | Light Condition: DAYLIGHT | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | | | |
| | CAR/VAN/PICKUP | | Registered Weight: 2729 | | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 59 | | Sex: F | | Citation Issued: N |
| Veh :1 | Direction of Travel: NORTH | | Public Property Damage: OTHER | | School Bus Involved: OTHER | |
| | Pre-Accd Action: SLOWED OR STOPPING | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| | CAR/VAN/PICKUP | | Registered Weight: 4605 | | State of Registration: NY | |
| | Num of Occupants: 2 | Driver's Age: 31 | | Sex: M | | Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | |
| Veh :2 | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| | Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION | | | | | |
| | CAR/VAN/PICKUP | | Registered Weight: 4605 | | State of Registration: NY | |
| | Num of Occupants: 2 | Driver's Age: 31 | | Sex: M | | Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| 5/9/2015 | Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION | | | | | |
| | County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024061 Street: BEDFORD RD | | | | | |
| | AT INTERSECTION WITH Ramp | | | | | |
| | Sat 14:18 PM | | Persons Killed: 0 | | Persons Injured: 1 | |
| | Accident Class: PROPERTY DAMAGE AND INJURY | | Police Agency: NORTH CASTLE TOWN PD | | | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Traffic Control: STOP SIGN | | | |
| | Manner of Collision: LEFT TURN (WITH OTHER CAR) | | Weather: CLEAR | | | |
| | Road Surface Condition: DRY | | Road Char.: STRAIGHT AND LEVEL | | Light Condition: DAYLIGHT | |
| Veh :2 | Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | | | |
| | CAR/VAN/PICKUP | | Registered Weight: 4743 | | State of Registration: NY | |

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|----------------------------------|----------------------------|--|--|--|-------------------------------------|---------------------------------------|---------------------------|---------------------------------|----------------------------|
| Veh :1 | | | | | | | | | |
| Num of Occupants: 1 | Direction of Travel: SOUTH | Pre-Accd Action: MAKING LEFT TURN | Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION | Registered Weight: 4889 | Driver's Age: 46 | Public Property Damage: OTHER | Sex: F | State of Registration: NY | Citation Issued: N |
| CAR/VAN/PICKUP | Num of Occupants: 3 | Direction of Travel: WEST | Pre-Accd Action: STOPPED IN TRAFFIC | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Persons Injured: 0 | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: | Citation Issued: N | School Bus Involved: OTHER |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024062 | Street: ARMONK-BEDFORD RD | Accident Class: PROPERTY DAMAGE | Persons Killed: 0 | Police Agency: NORTH CASTLE TOWN PD | Case: 2015-35721958 | | Num of Veh: 2 |
| 234 Meters East of Ramp | Thu 17:45 PM | Type Of Accident: COLLISION WITH MOTOR VEHICLE | Manner of Collision: REAR END | Road Surface Condition: DRY | Loc. of Ped/Bicycle: NOT APPLICABLE | Road Char.: STRAIGHT/ GRADE | Weather: CLEAR | Traffic Control: TRAFFIC SIGNAL | |
| | | | | | | Action of Ped/Bicycle: NOT APPLICABLE | Light Condition: DAYLIGHT | | |
| Veh :1 | | | | | | | | | |
| CAR/VAN/PICKUP | Num of Occupants: 1 | Direction of Travel: EAST | Pre-Accd Action: STARTING IN TRAFFIC | Registered Weight: | Driver's Age: 57 | Public Property Damage: OTHER | Sex: M | State of Registration: PA | Citation Issued: N |
| Num of Occupants: 1 | Direction of Travel: EAST | Pre-Accd Action: STARTING IN TRAFFIC | Apparent Factors: DRIVER INATTENTION, NOT ENTERED | Public Property Damage: OTHER | | | | School Bus Involved: OTHER | |
| Veh :2 | | | | | | | | | |
| CAR/VAN/PICKUP | Num of Occupants: 1 | Direction of Travel: EAST | Pre-Accd Action: STOPPED IN TRAFFIC | Registered Weight: 3400 | Driver's Age: 51 | Public Property Damage: OTHER | Sex: F | State of Registration: NY | Citation Issued: N |
| Num of Occupants: 1 | Direction of Travel: EAST | Pre-Accd Action: STOPPED IN TRAFFIC | Apparent Factors: NOT ENTERED, NOT ENTERED | Public Property Damage: OTHER | | | | School Bus Involved: OTHER | |
| Veh :2 | | | | | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 120 87012090 | Street: [Route] 22 | Accident Class: PROPERTY DAMAGE | Persons Killed: 0 | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: | Case: 2015-35730086 | Num of Veh: 2 |
| AT INTERSECTION WITH [Route] 120 | Wed 07:48 AM | Type Of Accident: COLLISION WITH MOTOR VEHICLE | Manner of Collision: REAR END | Road Surface Condition: DRY | Loc. of Ped/Bicycle: NOT APPLICABLE | Road Char.: STRAIGHT AND LEVEL | Weather: CLOUDY | Traffic Control: YIELD SIGN | |
| | | | | | | Action of Ped/Bicycle: NOT APPLICABLE | Light Condition: DAYLIGHT | | |
| Veh :2 | | | | | | | | | |
| CAR/VAN/PICKUP | Num of Occupants: 1 | Direction of Travel: SOUTH | Pre-Accd Action: STOPPED IN TRAFFIC | Registered Weight: 4960 | Driver's Age: 36 | Public Property Damage: OTHER | Sex: F | State of Registration: NY | Citation Issued: N |
| Num of Occupants: 1 | Direction of Travel: SOUTH | Pre-Accd Action: STOPPED IN TRAFFIC | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Public Property Damage: OTHER | | | | School Bus Involved: OTHER | |

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3863 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 66 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: OTHER
 Pre-Accd Action: GOING STRAIGHT AHEAD School Bus Involved: OTHER
 Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: Street: RAMP
 15 Meters East of Bedford Rd
5/20/2015 Wed 10:56 AM Persons Killed: 0 Persons Injured: 0
 Accident Class: NON-REPORTABLE Police Agency: NYSP SOMERS Extent of Injuries: **Case: 2015-35754482** Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Road Char.: STRAIGHT AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 67 Sex: M Citation Issued: N
 Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION

Veh :2 OTHER Registered Weight: State of Registration: CT
 Num of Occupants: 1 Driver's Age: 45 Sex: M Citation Issued: N
 Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: Street: KING ST
 AT INTERSECTION WITH Ramp
6/26/2015 Fri 08:59 AM Persons Killed: 0 Persons Injured: 2
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: NORTH CASTLE TOWN PD Extent of Injuries: CC **Case: 2015-35774780** Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Road Char.: STRAIGHT AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4860 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 39 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: MERGING
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4605 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 47 Sex: M Citation Issued: N

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|---|---------------------------------------|-------------------------------------|
| Direction of Travel: SOUTH | Public Property Damage: OTHER | School Bus Involved: OTHER |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | |
| Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY | | |
| County: Westchester Muni: North Castle(T) Ref: Marker: 120 87012090 Street: KING ST | | |
| AT INTERSECTION WITH [Route] 22 | | |
| 7/6/2015 Mon 18:42 PM | Persons Killed: 0 | Persons Injured: 1 |
| Accident Class: PROPERTY DAMAGE AND INJURY | | Extent of Injuries: C |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Police Agency: NORTH CASTLE TOWN PD |
| Manner of Collision: REAR END | | Traffic Control: YIELD SIGN |
| Road Surface Condition: DRY | | Weather: CLOUDY |
| Loc. of Ped/Bicycle: NOT APPLICABLE | Road Char.: STRAIGHT AND LEVEL | Light Condition: DAYLIGHT |
| | Action of Ped/Bicycle: NOT APPLICABLE | |
| Veh :2 | CAR/VAN/PICKUP | State of Registration: GA |
| | Registered Weight: | Citation Issued: N |
| | Driver's Age: 23 | Sex: M |
| | Public Property Damage: OTHER | School Bus Involved: OTHER |
| Direction of Travel: NORTH | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | |
| Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY | | |
| Veh :1 | CAR/VAN/PICKUP | State of Registration: NY |
| | Registered Weight: 2965 | Citation Issued: N |
| | Driver's Age: 41 | Sex: F |
| Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER |
| Pre-Accd Action: MERGING | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | |
| County: Westchester Muni: North Castle(T) Ref: Marker: Street: RAMP | | |
| AT INTERSECTION WITH Bedford Rd | | |
| 7/17/2015 Fri 09:08 AM | Persons Killed: 0 | Persons Injured: 0 |
| Accident Class: NON-REPORTABLE | | Extent of Injuries: |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Police Agency: NYSP SOMERS |
| Manner of Collision: REAR END | | Traffic Control: STOP SIGN |
| Road Surface Condition: DRY | | Weather: CLEAR |
| Loc. of Ped/Bicycle: NOT APPLICABLE | Road Char.: STRAIGHT/ GRADE | Light Condition: DAYLIGHT |
| | Action of Ped/Bicycle: NOT APPLICABLE | |
| Veh :2 | CAR/VAN/PICKUP | State of Registration: NY |
| | Registered Weight: | Citation Issued: N |
| | Driver's Age: 26 | Sex: M |
| Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | |
| Apparent Factors: DRIVER INATTENTION, FOLLOWING TOO CLOSELY | | |
| Veh :1 | CAR/VAN/PICKUP | State of Registration: NJ |
| | Registered Weight: | Citation Issued: N |
| | Driver's Age: 49 | Sex: F |
| Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER |
| Pre-Accd Action: STOPPED IN TRAFFIC | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | |

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|--|---|--|--|--|---|
| County: Westchester 20 Meters South of Ramp 8/8/2015 | Muni: North Castle(T) Sat 04:56 AM Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH GUIDE RAIL Manner of Collision: OTHER Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | Ref. Marker: 120 87012090 Persons Killed: 0 Police Agency: NORTH CASTLE TOWN PD Road Char.: CURVE AND LEVEL Registered Weight: 3761 Driver's Age: 20 Public Property Damage: OTHER Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: UNSAFE SPEED, UNKNOWN | Street: KING ST Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Road Char.: CURVE AND LEVEL Registered Weight: 3761 Driver's Age: 20 Public Property Damage: OTHER Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: UNSAFE SPEED, UNKNOWN | Extent of Injuries: Weather: CLEAR Light Condition: DARK-ROAD LIGHTED Action of Ped/Bicycle: NOT APPLICABLE State of Registration: NY Sex: M Citation Issued: N School Bus Involved: OTHER | Case: 2015-35834418 Num of Veh: 1 |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: SOUTH Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: UNSAFE SPEED, UNKNOWN | Registered Weight: 3761 Driver's Age: 20 Public Property Damage: OTHER Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: UNSAFE SPEED, UNKNOWN | Registered Weight: 3761 Driver's Age: 20 Public Property Damage: OTHER Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: UNSAFE SPEED, UNKNOWN | State of Registration: NY Sex: M Citation Issued: N School Bus Involved: OTHER | Case: 2015-35834418 Num of Veh: 1 |
| County: Westchester 31 Meters South of Ramp 8/11/2015 | Muni: North Castle(T) Tue 09:41 AM Accident Class: INJURY Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: REAR END Road Surface Condition: WET Loc. of Ped/Bicycle: NOT APPLICABLE | Ref. Marker: 22 87024047 Persons Killed: 0 Police Agency: NORTH CASTLE TOWN PD Road Char.: STRAIGHT AND LEVEL Registered Weight: 3166 Driver's Age: 18 Public Property Damage: OTHER Pre-Accd Action: MERGING Apparent Factors: DRIVER INEXPERIENCE, FOLLOWING TOO CLOSELY | Street: KING ST Persons Injured: 1 Police Agency: NORTH CASTLE TOWN PD Road Char.: STRAIGHT AND LEVEL Registered Weight: 3166 Driver's Age: 18 Public Property Damage: OTHER Pre-Accd Action: MERGING Apparent Factors: DRIVER INEXPERIENCE, FOLLOWING TOO CLOSELY | Extent of Injuries: C Traffic Control: YIELD SIGN Weather: RAIN Light Condition: DAYLIGHT Action of Ped/Bicycle: NOT APPLICABLE State of Registration: NY Sex: M Citation Issued: N School Bus Involved: OTHER | Case: 2015-35841180 Num of Veh: 2 |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH-WEST Pre-Accd Action: MERGING Apparent Factors: DRIVER INEXPERIENCE, FOLLOWING TOO CLOSELY | Registered Weight: 3166 Driver's Age: 18 Public Property Damage: OTHER Pre-Accd Action: MERGING Apparent Factors: DRIVER INEXPERIENCE, FOLLOWING TOO CLOSELY | Registered Weight: 3166 Driver's Age: 18 Public Property Damage: OTHER Pre-Accd Action: MERGING Apparent Factors: DRIVER INEXPERIENCE, FOLLOWING TOO CLOSELY | State of Registration: NY Sex: M Citation Issued: N School Bus Involved: OTHER | Case: 2015-35841180 Num of Veh: 2 |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH-WEST Pre-Accd Action: SLOWED OR STOPPING Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: Driver's Age: 44 Public Property Damage: OTHER Pre-Accd Action: SLOWED OR STOPPING Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: Driver's Age: 44 Public Property Damage: OTHER Pre-Accd Action: SLOWED OR STOPPING Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | State of Registration: CT Sex: F Citation Issued: N School Bus Involved: OTHER | Case: 2015-35862204 Num of Veh: 2 |
| County: Westchester 8/27/2015 | Muni: North Castle(T) Thu 18:04 PM Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: OVERTAKING Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | Ref. Marker: 22 87024063 Persons Killed: 0 Police Agency: NORTH CASTLE TOWN PD Road Char.: STRAIGHT/ GRADE Registered Weight: 3373 Driver's Age: 46 Public Property Damage: OTHER | Street: ARMONK-BEDFORD RD Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Road Char.: STRAIGHT/ GRADE Registered Weight: 3373 Driver's Age: 46 Public Property Damage: OTHER | Extent of Injuries: Weather: CLEAR Light Condition: DAYLIGHT Action of Ped/Bicycle: NOT APPLICABLE State of Registration: NY Sex: M Citation Issued: N School Bus Involved: OTHER | Case: 2015-35862204 Num of Veh: 2 |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 3 Direction of Travel: SOUTH | Registered Weight: 3373 Driver's Age: 46 Public Property Damage: OTHER | Registered Weight: 3373 Driver's Age: 46 Public Property Damage: OTHER | State of Registration: NY Sex: M Citation Issued: N School Bus Involved: OTHER | Case: 2015-35862204 Num of Veh: 2 |

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| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3256 | State of Registration: NY | | | | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 18 | Sex: M | Citation Issued: N | | | | | | | | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | | | | | | | | | |
| | Pre-Accd Action: CHANGING LANES | | | | | | | | | | | |
| | Apparent Factors: VIEW OBSTRUCTED/LIMITED, NOT APPLICABLE | | | | | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024056 Street: [Route] 22 | | | | | | | | | | | | |
| AT INTERSECTION WITH OLD POST RD | | | | | | | | | | | | |
| 9/28/2015 | Mon 08:08 AM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | | | | | | | | |
| | Accident Class: NON-REPORTABLE | Police Agency: NORTH CASTLE TOWN PD | | | | | | | | | | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | Traffic Control: TRAFFIC SIGNAL | | | | | | | | | | |
| | Manner of Collision: REAR END | Weather: CLOUDY | | | | | | | | | | |
| | Road Surface Condition: DRY | Light Condition: DAYLIGHT | | | | | | | | | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY | | | | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 41 | Sex: F | Citation Issued: N | | | | | | | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | | | | | | | | |
| | Pre-Accd Action: SLOWED OR STOPPING | | | | | | | | | | | |
| | Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY | | | | | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024061 Street: ARMONK-BEDFORD RD | | | | | | | | | | | | |
| AT INTERSECTION WITH Main St | | | | | | | | | | | | |
| 9/26/2015 | Sat 10:55 AM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | | | | | | | | |
| | Accident Class: PROPERTY DAMAGE | Police Agency: NORTH CASTLE TOWN PD | | | | | | | | | | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | Traffic Control: TRAFFIC SIGNAL | | | | | | | | | | |
| | Manner of Collision: REAR END | Weather: CLEAR | | | | | | | | | | |
| | Road Surface Condition: DRY | Light Condition: DAYLIGHT | | | | | | | | | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NJ | | | | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 55 | Sex: F | Citation Issued: N | | | | | | | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | | | | | | | | |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | | | | | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024061 Street: ARMONK-BEDFORD RD | | | | | | | | | | | | |
| AT INTERSECTION WITH Main St | | | | | | | | | | | | |
| 9/26/2015 | Sat 10:55 AM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | | | | | | | | |
| | Accident Class: PROPERTY DAMAGE | Police Agency: NORTH CASTLE TOWN PD | | | | | | | | | | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | Traffic Control: TRAFFIC SIGNAL | | | | | | | | | | |
| | Manner of Collision: REAR END | Weather: CLEAR | | | | | | | | | | |
| | Road Surface Condition: DRY | Light Condition: DAYLIGHT | | | | | | | | | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3155 | State of Registration: NY | | | | | | | | | |

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| Num of Occupants: 1 | Driver's Age: 41 | Sex: M | Citation Issued: N |
| Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| Pre-Accd Action: STARTING IN TRAFFIC | | | |
| Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | | | |

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| County: Westchester | Muni: North Castle(T) | Ref. Marker: 120 87012090 | Street: [Route] 120 |
| 2 Meters West of Armonk-Bedford Rd | | | |
| 10/1/2015 | Thu 20:23 PM | Persons Killed: 0 | Persons Injured: 0 |
| Accident Class: NON-REPORTABLE | | Police Agency: NEW CASTLE TOWN PD | Extent of Injuries: |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Traffic Control: NO PASSING ZONE |
| Manner of Collision: REAR END | | | Weather: RAIN |
| Road Surface Condition: WET | | | Light Condition: DARK-ROAD LIGHTED |
| Loc. of Ped/Bicycle: NOT APPLICABLE | Road Char.: STRAIGHT AND LEVEL | | Action of Ped/Bicycle: NOT APPLICABLE |

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| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY |
| Num of Occupants: 3 | Driver's Age: | | Citation Issued: |
| Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| Pre-Accd Action: PARKED | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |

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| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY |
| Num of Occupants: 1 | Driver's Age: | | Citation Issued: N |
| Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| Pre-Accd Action: MAKING LEFT TURN | | | |
| Apparent Factors: TURNING IMPROPER, CELL PHONE (HAND HELD) | | | |

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| County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024063 | Street: ARMONK-BEDFORD RD |
| AT INTERSECTION WITH Maple Ave | | | |
| 11/3/2015 | Tue 14:56 PM | Persons Killed: 0 | Persons Injured: 0 |
| Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Traffic Control: TRAFFIC SIGNAL |
| Manner of Collision: REAR END | | | Weather: CLEAR |
| Road Surface Condition: DRY | | | Light Condition: DAYLIGHT |
| Loc. of Ped/Bicycle: NOT APPLICABLE | Road Char.: STRAIGHT AND LEVEL | | Action of Ped/Bicycle: NOT APPLICABLE |

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| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3862 | State of Registration: NY |
| Num of Occupants: 1 | Driver's Age: 56 | | Citation Issued: N |
| Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| Pre-Accd Action: STARTING IN TRAFFIC | | | |
| Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | | | |

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| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 2345 | State of Registration: NY |
| Num of Occupants: 1 | Driver's Age: 69 | | Citation Issued: N |
| Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| Pre-Accd Action: STOPPED IN TRAFFIC | | | |

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011000 Street: [Route] 22
 AT INTERSECTION WITH MAIN ST
10/29/2015 Thu 19:00 PM Persons Killed: 0 Persons Injured: 0
 Accident Class: PROPERTY DAMAGE
 Type Of Accident: COLLISION WITH MOTOR VEHICLE
 Manner of Collision: UNKNOWN
 Road Surface Condition: UNKNOWN
 Loc. of Ped/Bicycle: NOT APPLICABLE
 Extent of Injuries: Police Agency: Case: **2015-35967016**
 Traffic Control: UNKNOWN
 Weather: UNKNOWN
 Light Condition: UNKNOWN
 Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3035 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 23 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: OTHER
 Pre-Accd Action: UNKNOWN School Bus Involved: OTHER
 Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 OTHER Registered Weight: State of Registration: -3
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: UNKNOWN Public Property Damage: OTHER
 Pre-Accd Action: UNKNOWN School Bus Involved: OTHER
 Apparent Factors: NOT ENTERED, NOT ENTERED

County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: [Route] 120
 AT INTERSECTION WITH [Route] 22
11/18/2015 Wed 09:09 AM Persons Killed: 0 Persons Injured: 1
 Accident Class: PROPERTY DAMAGE AND INJURY
 Type Of Accident: COLLISION WITH MOTOR VEHICLE
 Manner of Collision: REAR END
 Road Surface Condition: DRY
 Loc. of Ped/Bicycle: NOT APPLICABLE
 Police Agency: NORTH CASTLE TOWN PD
 Traffic Control: YIELD SIGN
 Weather: CLOUDY
 Light Condition: DAYLIGHT
 Action of Ped/Bicycle: NOT APPLICABLE
 Case: **2015-35970613**
 Num of Veh: 2

Veh :1 CAR/VAN/PICKUP Registered Weight: 3208 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 44 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: OTHER
 Pre-Accd Action: MERGING School Bus Involved: OTHER
 Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
 Num of Occupants: 1 Driver's Age: 29 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: OTHER
 Pre-Accd Action: STOPPED IN TRAFFIC School Bus Involved: OTHER
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: Street: RAMP
 AT INTERSECTION WITH Bedford Rd

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|---|--|-------------------------|-------------------------------------|---------------------------------------|---------------------------------------|---------------|
| 10/27/2015 | Tue 07:27 AM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2015-35995566 | Num of Veh: 2 |
| Accident Class: NON-REPORTABLE | | | | Police Agency: NYSP SOMERS | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | Traffic Control: TRAFFIC SIGNAL | | |
| Manner of Collision: REAR END | | | | Weather: CLEAR | | |
| Road Surface Condition: DRY | | | | Road Char.: STRAIGHT AND LEVEL | Light Condition: DAYLIGHT | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | Action of Ped/Bicycle: NOT APPLICABLE | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | | State of Registration: NY | | |
| Num of Occupants: 1 | Driver's Age: 51 | | | Sex: M | Citation Issued: Y | |
| Direction of Travel: SOUTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER | | |
| Pre-Accd Action: SLOWED OR STOPPING | | | | | | |
| Apparent Factors: UNSAFE SPEED, FOLLOWING TOO CLOSELY | | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | | State of Registration: NY | | |
| Num of Occupants: 1 | Driver's Age: 40 | | | Sex: M | Citation Issued: N | |
| Direction of Travel: SOUTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER | | |
| Pre-Accd Action: STOPPED IN TRAFFIC | | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 120 | Street: STATE HWY 120 | | | |
| 11/30/2015 | AT INTERSECTION WITH Armonk-Bedford Rd | | | | | |
| Mon 21:09 PM | Persons Killed: 0 | Persons Injured: 0 | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: | Case: 2015-36004650 | Num of Veh: 1 |
| Accident Class: PROPERTY DAMAGE | | | | Traffic Control: YIELD SIGN | | |
| Type Of Accident: COLLISION WITH GUIDE RAIL | | | | Weather: CLOUDY | | |
| Manner of Collision: OTHER | | | | Light Condition: DARK-ROAD LIGHTED | | |
| Road Surface Condition: DRY | | | | Road Char.: CURVE AND LEVEL | Action of Ped/Bicycle: NOT APPLICABLE | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3759 | | State of Registration: NY | | |
| Num of Occupants: 1 | Driver's Age: 45 | | | Sex: F | Citation Issued: N | |
| Direction of Travel: SOUTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | |
| Apparent Factors: NOT APPLICABLE, REACTION TO OTHER UNINVOLVED VEHICL | | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 120 | Street: KING ST | | | |
| 12/9/2015 | Wed 08:58 AM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2015-36006131 | Num of Veh: 2 |
| Accident Class: NON-REPORTABLE | | | | Police Agency: NORTH CASTLE TOWN PD | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | Traffic Control: TRAFFIC SIGNAL | | |
| Manner of Collision: REAR END | | | | Weather: CLOUDY | | |
| Road Surface Condition: DRY | | | | Road Char.: STRAIGHT AND LEVEL | Light Condition: DAYLIGHT | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | Action of Ped/Bicycle: NOT APPLICABLE | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | | State of Registration: NY | | |
| Num of Occupants: 3 | Driver's Age: 37 | | | Sex: M | Citation Issued: N | |
| Direction of Travel: NORTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER | | |
| Pre-Accd Action: SLOWED OR STOPPING | | | | | | |
| Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION | | | | | | |

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|--|---|-------------------------------------|---------------------------------------|----------------------------|
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 35 | Sex: M | Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024063 Street: ARMONK-BEDFORD RD | | | | |
| AT INTERSECTION WITH Maple Ave | | | | |
| 12/17/2015 Thu 21:15 PM Persons Killed: 0 Persons Injured: 1 | | | | |
| | Accident Class: PROPERTY DAMAGE AND INJURY | | Extent of Injuries: C | Case: 2015-36031322 |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Police Agency: NORTH CASTLE TOWN PD | Num of Veh: 2 |
| | Manner of Collision: REAR END | | Traffic Control: TRAFFIC SIGNAL | |
| | Road Surface Condition: WET | | Weather: RAIN | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Road Char.: STRAIGHT AND LEVEL | Light Condition: DARK-ROAD LIGHTED | |
| | | | Action of Ped/Bicycle: NOT APPLICABLE | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3493 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 59 | Sex: F | Citation Issued: N |
| | Direction of Travel: EAST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3713 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 43 | Sex: M | Citation Issued: N |
| | Direction of Travel: EAST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: Street: | | | | |
| 1/23/2016 Sat 07:42 AM Persons Killed: 0 | | | | |
| | Accident Class: PROPERTY DAMAGE | Persons Injured: 0 | Extent of Injuries: | Case: 2016-36062049 |
| | Type Of Accident: COLLISION WITH GUIDERAIL - END | Police Agency: NORTH CASTLE TOWN PD | | Num of Veh: 1 |
| | Manner of Collision: OTHER | | Traffic Control: TRAFFIC SIGNAL | |
| | Road Surface Condition: SNOW/ICE | | Weather: SNOW | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Road Char.: CURVE AND LEVEL | Light Condition: DAWN | |
| | | | Action of Ped/Bicycle: NOT APPLICABLE | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: CT | |
| | Num of Occupants: 1 | Driver's Age: 55 | Sex: M | Citation Issued: N |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: PAVEMENT SLIPPERY, NOT APPLICABLE | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: [Route] 22 | | | | |
| AT INTERSECTION WITH [Route] 120 | | | | |
| 1/6/2016 Wed 15:45 PM Persons Killed: 0 | | | | |
| | Accident Class: PROPERTY DAMAGE AND INJURY | Persons Injured: 1 | Extent of Injuries: C | Case: 2016-36063156 |
| | | | Police Agency: | Num of Veh: 2 |

| | | | | | | | |
|--|--|-------------------------------|---------------------------|---------------------------------------|----------------------------|--|--|
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | Traffic Control: YIELD SIGN | | | |
| Manner of Collision: REAR END | | | | Weather: CLEAR | | | |
| Road Surface Condition: DRY | | | | Light Condition: DAYLIGHT | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | Action of Ped/Bicycle: NOT APPLICABLE | | | |
| | | | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 4438 | | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 29 | | Sex: F | Citation Issued: N | | |
| | Direction of Travel: SOUTH-WEST | Public Property Damage: OTHER | | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: STARTING IN TRAFFIC | | | | | | |
| | Apparent Factors: NOT ENTERED, NOT ENTERED | | | | | | |
| | | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3110 | | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 20 | | Sex: F | Citation Issued: N | | |
| | Direction of Travel: SOUTH-WEST | Public Property Damage: OTHER | | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | | | | |
| | Apparent Factors: NOT ENTERED, NOT ENTERED | | | | | | |
| | | | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024064 | Street: MAPLE AVE | | | | |
| AT INTERSECTION WITH [Route] 22 | | | | | | | |
| 1/10/2016 | Sun 14:11 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2016-36069624 | | |
| Accident Class: PROPERTY DAMAGE | | | | Police Agency: | Num of Veh: 2 | | |
| Type Of Accident: UNKNOWN | | | | Traffic Control: UNKNOWN | | | |
| Manner of Collision: UNKNOWN | | | | Weather: UNKNOWN | | | |
| Road Surface Condition: UNKNOWN | | | | Road Char.: UNKNOWN | Light Condition: UNKNOWN | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | Action of Ped/Bicycle: NOT APPLICABLE | | | |
| | | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4079 | | State of Registration: NY | | | |
| | Num of Occupants: 2 | Driver's Age: 50 | | Sex: F | Citation Issued: N | | |
| | Direction of Travel: UNKNOWN | Public Property Damage: OTHER | | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | | | | |
| | Apparent Factors: NOT ENTERED, NOT ENTERED | | | | | | |
| | | | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3427 | | State of Registration: NY | | | |
| | Num of Occupants: 2 | Driver's Age: 78 | | Sex: M | Citation Issued: N | | |
| | Direction of Travel: UNKNOWN | Public Property Damage: OTHER | | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: UNKNOWN | | | | | | |
| | Apparent Factors: NOT ENTERED, NOT ENTERED | | | | | | |
| | | | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024063 | Street: ARMONK-BEDFORD RD | | | | |
| AT INTERSECTION WITH Maple Ave | | | | | | | |
| 2/5/2016 | Fri 08:55 AM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2016-36082864 | | |
| Accident Class: PROPERTY DAMAGE | | | | Police Agency: NORTH CASTLE TOWN PD | Num of Veh: 2 | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | Traffic Control: TRAFFIC SIGNAL | | | |
| Manner of Collision: REAR END | | | | Weather: SNOW | | | |
| Road Surface Condition: SNOW/ICE | | | | Road Char.: STRAIGHT AND LEVEL | Light Condition: DAYLIGHT | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | Action of Ped/Bicycle: NOT APPLICABLE | | | |

| | | | |
|----------------------------------|--|---|---|
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH-EAST Pre-Accd Action: STOPPED IN TRAFFIC Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: Driver's Age: 41 Public Property Damage: OTHER | State of Registration: NY Sex: M Citation Issued: N School Bus Involved: OTHER |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH-EAST Pre-Accd Action: SLOWED OR STOPPING Apparent Factors: PAVEMENT SLIPPERY, UNKNOWN | Registered Weight: 2895 Driver's Age: 24 Public Property Damage: OTHER | State of Registration: NY Sex: F Citation Issued: N School Bus Involved: OTHER |
| County: Westchester 2/16/2016 | Muni: North Castle(T) Ref. Marker: 120 87012090 Street: [Route] 22 Tue 01:18 AM Persons Killed: 0 Accident Class: PROPERTY DAMAGE Type Of Accident: COLL. W/EARTH ELE./ROCK CUT/DITCH Manner of Collision: OTHER Road Surface Condition: SLUSH Loc. of Ped/Bicycle: NOT APPLICABLE | Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Weather: CLOUDY Light Condition: DARK-ROAD UNLIGHTED Action of Ped/Bicycle: NOT APPLICABLE | Case: 2016-36100837 Num of Veh: 1 Traffic Control: NONE |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: NOT ENTERED, PAVEMENT SLIPPERY | Registered Weight: 4357 Driver's Age: 24 Public Property Damage: OTHER | State of Registration: NY Sex: M Citation Issued: N School Bus Involved: OTHER |
| County: Westchester 2/15/2016 | Muni: North Castle(T) Ref. Marker: 120 87012090 Street: [Route] 22 Mon 16:01 PM Persons Killed: 0 Accident Class: NON-REPORTABLE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: REAR END Road Surface Condition: SNOW/ICE Loc. of Ped/Bicycle: NOT APPLICABLE | Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Road Char.: STRAIGHT AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE | Case: 2016-36105788 Num of Veh: 2 Traffic Control: TRAFFIC SIGNAL Weather: SNOW Light Condition: DAYLIGHT |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: SOUTH Pre-Accd Action: SLOWED OR STOPPING Apparent Factors: NOT APPLICABLE, PAVEMENT SLIPPERY | Registered Weight: Driver's Age: 18 Public Property Damage: OTHER | State of Registration: NY Sex: F Citation Issued: N School Bus Involved: OTHER |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: SOUTH | Registered Weight: Driver's Age: 60 Public Property Damage: OTHER | State of Registration: NY Sex: M Citation Issued: N School Bus Involved: OTHER |

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: KING ST
 AT INTERSECTION WITH [Route] 22
3/1/2016 Tue 16:25 PM Persons Killed: 0 Persons Injured: 0
 Accident Class: NON-REPORTABLE Police Agency: NORTH CASTLE TOWN PD
 Type Of Accident: COLLISION WITH MOTOR VEHICLE
 Manner of Collision: REAR END
 Road Surface Condition: DRY
 Loc. of Ped/Bicycle: NOT APPLICABLE
 Road Char.: CURVE AND LEVEL
 Action of Ped/Bicycle: NOT APPLICABLE
 Traffic Control: YIELD SIGN
 Weather: CLEAR
 Light Condition: DUSK
Case: 2016-36118913 Num of Veh: 2

Veh :2

CAR/VAN/PICKUP
 Registered Weight:
 Driver's Age: 29
 State of Registration: CT
 Sex: F
 Citation Issued: Y
 Public Property Damage: OTHER
 School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1

CAR/VAN/PICKUP
 Registered Weight:
 Driver's Age: 63
 State of Registration: NY
 Sex: F
 Citation Issued: N
 Public Property Damage: OTHER
 School Bus Involved: OTHER

Pre-Accd Action: MERGING

Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024066 Street: BEDFORD RD
 AT INTERSECTION WITH Ramp
2/28/2016 Sun 17:31 PM Persons Killed: 0 Persons Injured: 0
 Accident Class: PROPERTY DAMAGE Police Agency: NORTH CASTLE TOWN PD
 Type Of Accident: COLLISION WITH MOTOR VEHICLE
 Manner of Collision: RIGHT ANGLE
 Road Surface Condition: DRY
 Loc. of Ped/Bicycle: NOT APPLICABLE
 Road Char.: STRAIGHT AND LEVEL
 Action of Ped/Bicycle: NOT APPLICABLE
 Traffic Control: TRAFFIC SIGNAL
 Weather: CLEAR
 Light Condition: DAYLIGHT
Case: 2016-36122550 Num of Veh: 2

Veh :2

CAR/VAN/PICKUP
 Registered Weight:
 Driver's Age: 44
 State of Registration: CT
 Sex: M
 Citation Issued: N
 Public Property Damage: OTHER
 School Bus Involved: OTHER

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1

CAR/VAN/PICKUP
 Registered Weight: 4954
 Driver's Age: 43
 State of Registration: NY
 Sex: F
 Citation Issued: N
 Public Property Damage: OTHER
 School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

| | | | | |
|--|--|--|---|---|
| County: Westchester 12 Meters West of Main St 2/24/2016 | Muni: North Castle(T) Wed 08:31 AM Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: OVERTAKING Road Surface Condition: WET Loc. of Ped/Bicycle: NOT APPLICABLE | Ref. Marker: 22 87024061 Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD | Street: ARMONK-BEDFORD RD | Case: 2016-36129915 Num of Veh: 2 Traffic Control: NONE Weather: RAIN Light Condition: DAYLIGHT Action of Ped/Bicycle: NOT APPLICABLE |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: SOUTH Pre-Accd Action: MERGING Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE | Registered Weight: 3760 Driver's Age: 28 Public Property Damage: OTHER | State of Registration: NY Sex: F Citation Issued: N School Bus Involved: OTHER | |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 0 Direction of Travel: SOUTH Pre-Accd Action: UNKNOWN Apparent Factors: UNKNOWN, UNKNOWN | Registered Weight: Driver's Age: Public Property Damage: OTHER | State of Registration: -3 Sex: Citation Issued: School Bus Involved: OTHER | |
| County: Westchester 16 Meters West of Ramp 3/4/2016 | Muni: North Castle(T) Fri 10:48 AM Accident Class: PROPERTY DAMAGE AND INJURY Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: REAR END Road Surface Condition: WET Loc. of Ped/Bicycle: NOT APPLICABLE | Ref. Marker: 22 87024066 Persons Killed: 0 Persons Injured: 1 Police Agency: NORTH CASTLE TOWN PD | Street: ARMONK-BEDFORD RD | Case: 2016-36135831 Num of Veh: 2 Traffic Control: TRAFFIC SIGNAL Weather: CLEAR Light Condition: DAYLIGHT Action of Ped/Bicycle: NOT APPLICABLE |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: EAST Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: NOT APPLICABLE, FAILURE TO YIELD RIGHT OF WAY | Registered Weight: 4733 Driver's Age: 41 Public Property Damage: OTHER | State of Registration: NY Sex: F Citation Issued: N School Bus Involved: OTHER | |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: EAST Pre-Accd Action: STOPPED IN TRAFFIC Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: 2830 Driver's Age: 60 Public Property Damage: OTHER | State of Registration: NY Sex: F Citation Issued: N School Bus Involved: OTHER | |
| County: Westchester 44 Meters North of Ramp 3/15/2016 | Muni: North Castle(T) Tue 08:59 AM Accident Class: PROPERTY DAMAGE | Ref. Marker: 22 87024049 Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD | Street: STATE HWY 120 | Case: 2016-36137005 Num of Veh: 2 |

| | | | |
|--|---|---------------------------------------|-------------------------------------|
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Traffic Control: YIELD SIGN | |
| Manner of Collision: REAR END | | Weather: CLOUDY | |
| Road Surface Condition: WET | | Light Condition: DAYLIGHT | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | |
| | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4812 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 39 | Sex: M |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | Citation Issued: N |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | School Bus Involved: OTHER |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | |
| | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 4455 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 47 | Sex: F |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | Citation Issued: N |
| | Pre-Accd Action: SLOWED OR STOPPING | | School Bus Involved: OTHER |
| | Apparent Factors: NOT APPLICABLE, PAVEMENT SLIPPERY | | |
| | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 120 87012087 | Street: KING ST |
| AT INTERSECTION WITH Old Post Rd | | | |
| 3/24/2016 | Thu 16:56 PM | Persons Killed: 0 | Persons Injured: 0 |
| | Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Extent of Injuries: | |
| Manner of Collision: RIGHT ANGLE | | Police Agency: NORTH CASTLE TOWN PD | |
| Road Surface Condition: DRY | | Road Char.: STRAIGHT/ GRADE | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | |
| | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: CT |
| | Num of Occupants: 1 | Driver's Age: 29 | Sex: M |
| | Direction of Travel: WEST | Public Property Damage: OTHER | Citation Issued: N |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | School Bus Involved: OTHER |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | |
| | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3076 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 52 | Sex: F |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | Citation Issued: N |
| | Pre-Accd Action: STARTING IN TRAFFIC | | School Bus Involved: OTHER |
| | Apparent Factors: DRIVER INATTENTION, FAILURE TO YIELD RIGHT OF WAY | | |
| | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 128 87011000 | Street: MAIN ST |
| AT INTERSECTION WITH [Route] 22 | | | |
| 4/8/2016 | Fri 14:58 PM | Persons Killed: 0 | Persons Injured: 1 |
| | Accident Class: PROPERTY DAMAGE AND INJURY | | Police Agency: NORTH CASTLE TOWN PD |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Extent of Injuries: C | |
| Manner of Collision: RIGHT TURN (WITH OTHER CAR) | | Police Agency: NORTH CASTLE TOWN PD | |
| Road Surface Condition: DRY | | Road Char.: CURVE AND GRADE | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | |
| | | | |
| | | | Light Condition: DAYLIGHT |
| | | | Weather: CLOUDY |
| | | | Traffic Control: TRAFFIC SIGNAL |
| | | | Case: 2016-36163870 |
| | | | Num of Veh: 2 |

| | | | | | | |
|---|---|--------------------------------|-------------------------------------|---------------------------------------|---------------------|----------------------------|
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 4719 | State of Registration: NY | Sex: M | Citation Issued: N | |
| | Num of Occupants: 1 | Driver's Age: 81 | | | | School Bus Involved: OTHER |
| | Direction of Travel: NORTH-WEST | Public Property Damage: OTHER | | | | |
| | Pre-Accd Action: MAKING RIGHT TURN | | | | | |
| | Apparent Factors: TURNING IMPROPER, NOT APPLICABLE | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: CT | Sex: F | Citation Issued: N | |
| | Num of Occupants: 1 | Driver's Age: 56 | | | | School Bus Involved: OTHER |
| | Direction of Travel: SOUTH-EAST | Public Property Damage: OTHER | | | | |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024045 Street: MOUNT KISCO RD | | | | | | |
| 48 Meters South of King St | | | | | | |
| 4/9/2016 | Sat 04:22 AM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2016-36165342 | |
| | Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | | | Num of Veh: 1 |
| | Type Of Accident: COLLISION WITH GUIDE RAIL | | | Traffic Control: TRAFFIC SIGNAL | | |
| | Manner of Collision: OTHER | | | Weather: CLEAR | | |
| | Road Surface Condition: DRY | Road Char.: CURVE AND LEVEL | | Light Condition: DARK-ROAD UNLIGHTED | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | Action of Ped/Bicycle: NOT APPLICABLE | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 5762 | State of Registration: NY | Sex: F | Citation Issued: Y | |
| | Num of Occupants: 2 | Driver's Age: 24 | | | | School Bus Involved: OTHER |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| | Apparent Factors: ALCOHOL INVOLVEMENT, UNSAFE SPEED | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024068 Street: BEDFORD RD | | | | | | |
| AT INTERSECTION WITH Ramp | | | | | | |
| 4/15/2016 | Fri 01:19 AM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2016-36171956 | |
| | Accident Class: NON-REPORTABLE | | Police Agency: NORTH CASTLE TOWN PD | | | Num of Veh: 1 |
| | Type Of Accident: COLLISION WITH GUIDERAIL - END | | | | | |
| | Manner of Collision: OTHER | | | Weather: CLEAR | | Traffic Control: NONE |
| | Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | | Light Condition: DARK-ROAD LIGHTED | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | Action of Ped/Bicycle: NOT APPLICABLE | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY | Sex: F | Citation Issued: Y | |
| | Num of Occupants: 1 | Driver's Age: 26 | | | | School Bus Involved: OTHER |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| | Apparent Factors: DRIVER INEXPERIENCE, NOT APPLICABLE | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012087 Street: [Route] 22 | | | | | | |
| AT INTERSECTION WITH Mount Kisco Rd | | | | | | |
| 4/15/2016 | Fri 18:50 PM | Persons Killed: 0 | Persons Injured: 4 | Extent of Injuries: CCCC | Case: 2016-36171958 | |

Num of Veh: 3

Police Agency: NORTH CASTLE TOWN PD

Accident Class: PROPERTY DAMAGE AND INJURY

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Manner of Collision: OTHER

Road Surface Condition: DRY

Loc. of Ped/Bicycle: NOT APPLICABLE

Road Char.: CURVE AND LEVEL

Action of Ped/Bicycle: NOT APPLICABLE

Weather: CLEAR

Light Condition: DAYLIGHT

Veh :1

CAR/VAN/PICKUP

Num of Occupants: 3

Direction of Travel: WEST

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: UNSAFE SPEED, FOLLOWING TOO CLOSELY

Registered Weight:

Driver's Age: 20

Public Property Damage: OTHER

State of Registration: CT

Sex: M

Citation Issued: N

School Bus Involved: OTHER

Veh :3

CAR/VAN/PICKUP

Registered Weight: 3430

Driver's Age: 57

Public Property Damage: OTHER

State of Registration: NY

Sex: M

Citation Issued: N

School Bus Involved: OTHER

Veh :2

CAR/VAN/PICKUP

Registered Weight:

Driver's Age: 35

Public Property Damage: OTHER

State of Registration: NY

Sex: M

Citation Issued: N

School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024056 Street: ARMONK-BEDFORD RD

AT INTERSECTION WITH Old Route 22

Mon 20:21 PM

Persons Killed: 0

Persons Injured: 2

Extent of Injuries: BC

Police Agency: NORTH CASTLE TOWN PD

Case: 2016-36187550

Num of Veh: 2

Accident Class: PROPERTY DAMAGE AND INJURY

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Manner of Collision: LEFT TURN (WITH OTHER CAR)

Road Surface Condition: DRY

Loc. of Ped/Bicycle: NOT APPLICABLE

Road Char.: STRAIGHT AND LEVEL

Action of Ped/Bicycle: NOT APPLICABLE

Traffic Control: TRAFFIC SIGNAL

Weather: CLEAR

Veh :2

CAR/VAN/PICKUP

Registered Weight: 4365

Driver's Age: 28

Public Property Damage: OTHER

State of Registration: NY

Sex: M

Citation Issued: Y

School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: DRIVER INATTENTION, TRAFFIC CONTROL DEVICES DISREGARDED

Veh :1

CAR/VAN/PICKUP

Registered Weight: 3472

Driver's Age: 17

Public Property Damage: OTHER

State of Registration: NY

Sex: F

Citation Issued: N

School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

| | | | | |
|--|---|---|---|--|
| County: Westchester AT INTERSECTION WITH Maple Ave 4/30/2016 | Muni: North Castle(T) Sat 11:40 AM Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: REAR END Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | Ref. Marker: 22 87024063 Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Road Char.: STRAIGHT AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE | Street: ARMONK-BEDFORD RD | Extent of Injuries: Traffic Control: TRAFFIC SIGNAL Weather: CLEAR Light Condition: DAYLIGHT Case: 2016-36195300 Num of Veh: 2 |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 2 Direction of Travel: NORTH Pre-Accd Action: STOPPED IN TRAFFIC Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: 3538 Driver's Age: 70 Public Property Damage: OTHER | Sex: M State of Registration: NY Citation Issued: N School Bus Involved: OTHER | |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | Registered Weight: 3920 Driver's Age: 73 Public Property Damage: OTHER | Sex: F State of Registration: NY Citation Issued: N School Bus Involved: OTHER | |
| County: Westchester AT INTERSECTION WITH Mount Kisco Rd 5/19/2016 | Muni: North Castle(T) Thu 03:04 AM Accident Class: PROPERTY DAMAGE Type Of Accident: COLL. W/EARTH ELE./ROCK CUT/DITCH Manner of Collision: OTHER Road Surface Condition: WET Loc. of Ped/Bicycle: NOT APPLICABLE | Ref. Marker: 120 87012087 Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Road Char.: CURVE AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE | Street: [Route] 22 | Extent of Injuries: Weather: CLOUDY Light Condition: DARK-ROAD LIGHTED Traffic Control: NONE Case: 2016-36217572 Num of Veh: 1 |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: ANIMAL'S ACTION, PAVEMENT SLIPPERY | Registered Weight: 2980 Driver's Age: 22 Public Property Damage: OTHER | Sex: M State of Registration: NY Citation Issued: N School Bus Involved: OTHER | |
| County: Westchester AT INTERSECTION WITH Maple Ave 5/24/2016 | Muni: North Castle(T) Tue 10:45 AM Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: REAR END Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | Ref. Marker: 22 87024063 Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Road Char.: STRAIGHT AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE | Street: ARMONK-BEDFORD RD | Extent of Injuries: Traffic Control: TRAFFIC SIGNAL Weather: CLOUDY Light Condition: DAYLIGHT Case: 2016-36224805 Num of Veh: 2 |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH | Registered Weight: 3627 Driver's Age: 35 Public Property Damage: OTHER | Sex: F State of Registration: NY Citation Issued: N School Bus Involved: OTHER | |

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
 Num of Occupants: 1 Driver's Age: 38 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024069 Street: BEDFORD RD
 AT INTERSECTION WITH Hunter Ave
5/25/2016 Wed 18:06 PM Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD **Case: 2016-36226745** Num of Veh: 2
 Accident Class: PROPERTY DAMAGE Traffic Control: NONE
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Weather: CLEAR
 Manner of Collision: REAR END Light Condition: DAYLIGHT
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Action of Ped/Bicycle: NOT APPLICABLE
 Loc. of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3120 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 33 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: UNSAFE SPEED, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: 3542 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 62 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024063 Street: ARMONK-BEDFORD RD
 AT INTERSECTION WITH Maple Ave
6/10/2016 Fri 18:09 PM Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD **Case: 2016-36259694** Num of Veh: 2
 Accident Class: PROPERTY DAMAGE Traffic Control: TRAFFIC SIGNAL
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Weather: CLEAR
 Manner of Collision: OVERTAKING Light Condition: DAYLIGHT
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE
 Loc. of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
 Num of Occupants: 1 Driver's Age: 23 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3232 State of Registration: NY

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| County: Westchester | Muni: North Castle(T) | Ref. Marker: Sat 16:59 PM | Persons Killed: 0 | Persons Injured: 0 | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: Traffic Control: TRAFFIC SIGNAL Weather: CLEAR Light Condition: DAYLIGHT | Case: 2016-36261058 | Num of Veh: 2 |
| 6/18/2016 | Accident Class: PROPERTY DAMAGE | Type Of Accident: COLLISION WITH MOTOR VEHICLE | Manner of Collision: REAR END | Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | Action of Ped/Bicycle: NOT APPLICABLE | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 2727 | Driver's Age: 64 | | | | State of Registration: NY | |
| | Num of Occupants: 3 | | | | | | Citation Issued: N | |
| | Direction of Travel: NORTH | | | Public Property Damage: OTHER | | | School Bus Involved: OTHER | |
| | Pre-Accd Action: SLOWED OR STOPPING | | | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 6119 | Driver's Age: 30 | | | | State of Registration: NY | |
| | Num of Occupants: 1 | | | | | | Citation Issued: N | |
| | Direction of Travel: NORTH | | | Public Property Damage: OTHER | | | School Bus Involved: OTHER | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | |
| | Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE | | | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 120 87012090 | Street: ARMONK-BEDFORD RD | Persons Injured: 1 | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: C | Case: 2016-36263256 | Num of Veh: 2 |
| 6/20/2016 | AT INTERSECTION WITH Armonk-Bedford Rd | Mon 16:11 PM | Persons Killed: 0 | | | | | |
| | Accident Class: PROPERTY DAMAGE AND INJURY | Type Of Accident: COLLISION WITH MOTOR VEHICLE | Manner of Collision: REAR END | Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | Action of Ped/Bicycle: NOT APPLICABLE | Traffic Control: TRAFFIC SIGNAL Weather: CLEAR Light Condition: DAYLIGHT | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4993 | Driver's Age: 60 | | | | State of Registration: NY | |
| | Num of Occupants: 1 | | | | | | Citation Issued: N | |
| | Direction of Travel: NORTH | | | Public Property Damage: OTHER | | | School Bus Involved: OTHER | |
| | Pre-Accd Action: MAKING LEFT TURN | | | | | | | |
| | Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | | | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | Driver's Age: 46 | | | | State of Registration: NY | |
| | Num of Occupants: 1 | | | | | | Citation Issued: N | |
| | Direction of Travel: NORTH | | | Public Property Damage: OTHER | | | School Bus Involved: OTHER | |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | |

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| County: Westchester 6/21/2016 | Muni: North Castle(T) Tue 12:20 PM Accident Class: PROPERTY DAMAGE AND INJURY Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: REAR END Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | Ref. Marker: 22 87024067 Persons Killed: 0 Persons Injured: 1 Street: [Route] 22 | Extent of Injuries: C Police Agency: NORTH CASTLE TOWN PD Traffic Control: TRAFFIC SIGNAL Weather: CLEAR Light Condition: DAYLIGHT Action of Ped/Bicycle: NOT APPLICABLE | Case: 2016-36266925 Num of Veh: 2 |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: SOUTH Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | Registered Weight: 2373 Driver's Age: 56 Public Property Damage: OTHER | State of Registration: NY Sex: M Citation Issued: N School Bus Involved: OTHER | |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 2 Direction of Travel: SOUTH Pre-Accd Action: STOPPED IN TRAFFIC Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: 6500 Driver's Age: 36 Public Property Damage: OTHER | State of Registration: NY Sex: M Citation Issued: N School Bus Involved: OTHER | |
| County: Westchester AT INTERSECTION WITH Main St 6/28/2016 | Muni: North Castle(T) Tue 09:10 AM Accident Class: PROPERTY DAMAGE AND INJURY Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: REAR END Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | Ref. Marker: 22 87024061 Persons Killed: 0 Persons Injured: 1 Street: BEDFORD RD | Extent of Injuries: C Police Agency: NORTH CASTLE TOWN PD Traffic Control: TRAFFIC SIGNAL Weather: CLOUDY Light Condition: DAYLIGHT Action of Ped/Bicycle: NOT APPLICABLE | Case: 2016-36274685 Num of Veh: 2 |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH Pre-Accd Action: STOPPED IN TRAFFIC Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: 3772 Driver's Age: 46 Public Property Damage: OTHER | State of Registration: NY Sex: M Citation Issued: N School Bus Involved: OTHER | |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH Pre-Accd Action: STARTING IN TRAFFIC Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION | Registered Weight: 3616 Driver's Age: 58 Public Property Damage: OTHER | State of Registration: NY Sex: F Citation Issued: N School Bus Involved: OTHER | |
| County: Westchester 26 Meters East of Ramp 7/6/2016 | Muni: North Castle(T) Wed 16:53 PM Accident Class: PROPERTY DAMAGE | Ref. Marker: 22 87024066 Persons Killed: 0 Persons Injured: 0 Street: BEDFORD RD | Extent of Injuries: Police Agency: NORTH CASTLE TOWN PD | Case: 2016-36285776 Num of Veh: 2 |

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| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Traffic Control: NONE | | | |
| Manner of Collision: REAR END | | Weather: CLEAR | | | |
| Road Surface Condition: DRY | | Light Condition: DAYLIGHT | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | | | |
| | | | | | |
| Veh :2 | OTHER | Registered Weight: | State of Registration: -3 | | |
| Num of Occupants: 0 | | Driver's Age: | Sex: | | |
| Direction of Travel: EAST | | Public Property Damage: OTHER | Citation Issued: | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | School Bus Involved: OTHER | | | |
| Apparent Factors: NOT APPLICABLE, UNKNOWN | | | | | |
| | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4155 | State of Registration: NY | | |
| Num of Occupants: 1 | | Driver's Age: 35 | Sex: M | | |
| Direction of Travel: EAST | | Public Property Damage: OTHER | Citation Issued: N | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | School Bus Involved: OTHER | | | |
| Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE | | | | | |
| | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: [Route] 120 | | | | | |
| AT INTERSECTION WITH [Route] 22 | | | | | |
| 7/6/2016 | Wed 12:01 PM | Persons Killed: 0 | Persons Injured: 0 | | |
| Accident Class: NON-REPORTABLE | | Police Agency: NORTH CASTLE TOWN PD | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Extent of Injuries: | | | |
| Manner of Collision: REAR END | | Traffic Control: YIELD SIGN | | | |
| Road Surface Condition: DRY | | Weather: CLEAR | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Light Condition: DAYLIGHT | | | |
| Road Char.: STRAIGHT AND LEVEL | | Action of Ped/Bicycle: NOT APPLICABLE | | | |
| | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY | | |
| Num of Occupants: 2 | | Driver's Age: 21 | Sex: M | | |
| Direction of Travel: SOUTH | | Public Property Damage: OTHER | Citation Issued: N | | |
| Pre-Accd Action: STOPPED IN TRAFFIC | | School Bus Involved: OTHER | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY | | |
| Num of Occupants: 2 | | Driver's Age: 42 | Sex: F | | |
| Direction of Travel: SOUTH | | Public Property Damage: OTHER | Citation Issued: N | | |
| Pre-Accd Action: STARTING IN TRAFFIC | | School Bus Involved: OTHER | | | |
| Apparent Factors: DRIVER INATTENTION, UNKNOWN | | | | | |
| | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024064 Street: ARMONK-BEDFORD RD | | | | | |
| AT INTERSECTION WITH Maple Ave | | | | | |
| 8/21/2016 | Sun 11:52 AM | Persons Killed: 0 | Persons Injured: 1 | | |
| Accident Class: PROPERTY DAMAGE AND INJURY | | Police Agency: NORTH CASTLE TOWN PD | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Extent of Injuries: C | | | |
| Manner of Collision: LEFT TURN (AGAINST OTHER CAR) | | Traffic Control: TRAFFIC SIGNAL | | | |
| Road Surface Condition: DRY | | Weather: CLEAR | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Light Condition: DAYLIGHT | | | |
| Road Char.: STRAIGHT AND LEVEL | | Action of Ped/Bicycle: NOT APPLICABLE | | | |

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| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 4790 | State of Registration: NY |
| | Num of Occupants: 3 | Driver's Age: 73 | Sex: F Citation Issued: N |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3329 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 48 | Sex: F Citation Issued: N |
| | Direction of Travel: EAST | Public Property Damage: OTHER | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | |
| | Apparent Factors: DRIVER INATTENTION, TRAFFIC CONTROL DEVICES DISREGARDED | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024067 | Street: BEDFORD RD |
| 9/1/2016 | Thu 12:56 PM | Persons Killed: 0 | Persons Injured: 1 |
| | Accident Class: PROPERTY DAMAGE AND INIURY | | Extent of Injuries: C |
| | Type Of Accident: COLLISION WITH CRASH CUSHION | | Police Agency: NORTH CASTLE TOWN PD |
| | Manner of Collision: OTHER | | Traffic Control: TRAFFIC SIGNAL |
| | Road Surface Condition: WET | | Weather: RAIN |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Road Char.: STRAIGHT AND LEVEL | Light Condition: DAYLIGHT |
| | | Action of Ped/Bicycle: NOT APPLICABLE | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 62 | Sex: M Citation Issued: N |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | |
| | Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024047 | Street: KING ST |
| 88 Meters North of Mount Kisco Rd | Thu 08:47 AM | Persons Killed: 0 | Persons Injured: 1 |
| 9/8/2016 | Accident Class: PROPERTY DAMAGE AND INIURY | | Extent of Injuries: C |
| | Type Of Accident: COLLISION WITH OTHER BARRIER | | Police Agency: NORTH CASTLE TOWN PD |
| | Manner of Collision: OTHER | | Weather: CLEAR |
| | Road Surface Condition: DRY | Road Char.: CURVE AND LEVEL | Traffic Control: NONE |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | Light Condition: DAYLIGHT |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3564 | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 45 | Sex: M Citation Issued: N |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | |
| | Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, NOT APPLICABLE | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024048 | Street: KING ST |
| 9/15/2016 | Thu 19:44 PM | Persons Killed: 0 | Persons Injured: 0 |
| | Accident Class: PROPERTY DAMAGE | | Extent of Injuries: |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | Police Agency: NORTH CASTLE TOWN PD | Num of Veh: 2 |
| | | Traffic Control: NONE | |

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| Veh :2 | Manner of Collision: REAR END | Road Char.: CURVE AND GRADE | | Weather: CLEAR | | |
| | Road Surface Condition: DRY | Action of Ped/Bicycle: NOT APPLICABLE | | Light Condition: DAYLIGHT | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 4505 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 23 | Sex: F | Citation Issued: N | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER | | | |
| Veh :1 | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 3912 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 18 | Sex: M | Citation Issued: N | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: RAMP Street: RAMP AT INTERSECTION WITH Bedford Rd 10/10/2016 | Mon 15:46 PM | Persons Killed: 0 | Persons Injured: 3 | Extent of Injuries: CCC | Case: 2016-36418550 | |
| | Accident Class: PROPERTY DAMAGE AND INJURY | | | Police Agency: NORTH CASTLE TOWN PD | Num of Veh: 2 | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | |
| | Manner of Collision: REAR END | Road Char.: STRAIGHT/ GRADE | | Traffic Control: STOP SIGN | | |
| | Road Surface Condition: DRY | Action of Ped/Bicycle: NOT APPLICABLE | | Weather: CLEAR | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Light Condition: DAYLIGHT | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 4076 | State of Registration: NY | | | |
| | Num of Occupants: 2 | Driver's Age: 48 | Sex: F | Citation Issued: N | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER | | | |
| | Pre-Accd Action: SLOWED OR STOPPING | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 2959 | State of Registration: NY | | | |
| Veh :1 | Num of Occupants: 2 | Driver's Age: 24 | Sex: M | Citation Issued: N | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER | | | |
| | Pre-Accd Action: SLOWED OR STOPPING | | | | | |
| | Apparent Factors: UNSAFE SPEED, FOLLOWING TOO CLOSELY | | | | | |
| | County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012086 Street: KING ST AT INTERSECTION WITH Ramp 10/18/2016 | Tue 14:34 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2016-36428676 |
| | Accident Class: NON-REPORTABLE | | | Police Agency: NORTH CASTLE TOWN PD | Num of Veh: 2 | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | |
| Manner of Collision: OVERTAKING | Road Char.: CURVE AND GRADE | | Traffic Control: OTHER | | | |
| Road Surface Condition: DRY | Action of Ped/Bicycle: NOT APPLICABLE | | Weather: CLEAR | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | Light Condition: DAYLIGHT | | | | | |

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| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY | |
| | Num of Occupants: 2 | Driver's Age: 58 | Sex: M | Citation Issued: N |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: MERGING | | | |
| | Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, FAILURE TO YIELD RIGHT OF WAY | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 40 | Sex: M | Citation Issued: N |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024065 Street: ARMONK-BEDFORD RD 249 Meters East of Maple Ave 11/14/2016 Mon 17:16 PM Persons Killed: 0 Persons Injured: 0 Accident Class: PROPERTY DAMAGE Police Agency: NORTH CASTLE TOWN PD Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: OTHER Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 2654 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 23 | Sex: F | Citation Issued: N |
| | Direction of Travel: NORTH-EAST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE | | | |
| Veh :4 | CAR/VAN/PICKUP | Registered Weight: 3516 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 32 | Sex: F | Citation Issued: N |
| | Direction of Travel: NORTH-EAST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 2950 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 47 | Sex: F | Citation Issued: N |
| | Direction of Travel: NORTH-EAST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY | | | |
| Veh :3 | CAR/VAN/PICKUP | Registered Weight: 4181 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 47 | Sex: F | Citation Issued: N |
| | Direction of Travel: NORTH-EAST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |

Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024069 Street: BEDFORD RD
 AT INTERSECTION WITH Hunter Ave
11/18/2016 Fri 16:37 PM Persons Killed: 0 Persons Injured: 0
 Accident Class: PROPERTY DAMAGE Police Agency: NORTH CASTLE TOWN PD
 Type Of Accident: COLLISION WITH MOTOR VEHICLE
 Manner of Collision: RIGHT ANGLE
 Road Surface Condition: DRY
 Loc. of Ped/Bicycle: NOT APPLICABLE
 Road Char.: STRAIGHT/ GRADE
 Action of Ped/Bicycle: NOT APPLICABLE
 Traffic Control: STOP SIGN
 Weather: CLEAR
 Light Condition: DUSK
 Case: 2016-36479044
 Num of Veh: 2

Veh :2 CAR/VAN/PICKUP Registered Weight: 5985 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 28 Sex: F
 Direction of Travel: NORTH Public Property Damage: OTHER
 Pre-Accd Action: GOING STRAIGHT AHEAD
 School Bus Involved: OTHER

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2930 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 18 Sex: F
 Direction of Travel: EAST Public Property Damage: OTHER
 School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, DRIVER INEXPERIENCE

County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: STATE HWY 22
 15 Meters North of Ramp
11/18/2016 Fri 13:23 PM Persons Killed: 0 Persons Injured: 0
 Accident Class: NON-REPORTABLE Police Agency: NORTH CASTLE TOWN PD
 Type Of Accident: COLLISION WITH MOTOR VEHICLE
 Manner of Collision: OVERTAKING
 Road Surface Condition: DRY
 Loc. of Ped/Bicycle: NOT APPLICABLE
 Road Char.: STRAIGHT AND LEVEL
 Action of Ped/Bicycle: NOT APPLICABLE
 Traffic Control: YIELD SIGN
 Weather: CLOUDY
 Light Condition: DAYLIGHT
 Case: 2016-36499630
 Num of Veh: 2

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 2 Driver's Age: 66 Sex: M
 Direction of Travel: SOUTH Public Property Damage: OTHER
 School Bus Involved: OTHER

Pre-Accd Action: OTHER

Apparent Factors: UNKNOWN, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 65 Sex: F
 Direction of Travel: SOUTH Public Property Damage: OTHER
 School Bus Involved: OTHER

Pre-Accd Action: OTHER

Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024063 Street: ARMONK-BEDFORD RD
 AT INTERSECTION WITH Maple Ave

| | | | | | | |
|---|---|---------------------------------------|---------------------------|--|---------------------|---------------|
| 12/11/2016 | Sun 13:00 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: NORTH CASTLE TOWN PD | Case: 2016-36514227 | Num of Veh: 2 |
| Accident Class: PROPERTY DAMAGE | | | | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Traffic Control: TRAFFIC SIGNAL | | | | |
| Manner of Collision: LEFT TURN (AGAINST OTHER CAR) | | Weather: CLOUDY | | | | |
| Road Surface Condition: DRY | | Light Condition: DAYLIGHT | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3408 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 83 | Sex: M | Citation Issued: N | | |
| | Direction of Travel: NORTH-EAST | Public Property Damage: OTHER | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3373 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 71 | Sex: F | Citation Issued: N | | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: MAKING LEFT TURN | | | | | |
| | Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, TURNING IMPROPER | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: [Route] 120 | | | | | | |
| AT INTERSECTION WITH [Route] 22 | | | | | | |
| 12/13/2016 | Tue 15:02 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: NORTH CASTLE TOWN PD | Case: 2016-36517805 | Num of Veh: 2 |
| Accident Class: PROPERTY DAMAGE | | | | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Traffic Control: YIELD SIGN | | | | |
| Manner of Collision: REAR END | | Weather: CLOUDY | | | | |
| Road Surface Condition: DRY | | Light Condition: DAYLIGHT | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3034 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 20 | Sex: F | Citation Issued: N | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| | Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: CT | | | |
| | Num of Occupants: 1 | Driver's Age: 36 | Sex: M | Citation Issued: N | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024063 Street: BUSINESS PARK DR | | | | | | |
| AT INTERSECTION WITH [Route] 22 | | | | | | |
| 12/29/2016 | Thu 06:58 AM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: NORTH CASTLE TOWN PD | Case: 2016-36541771 | Num of Veh: 1 |
| Accident Class: PROPERTY DAMAGE | | | | | | |
| Type Of Accident: COLL. W/EARTH ELE./ROCK CUT/DITCH | | Traffic Control: NONE | | | | |
| Manner of Collision: OTHER | | Weather: CLOUDY | | | | |

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|--|---|---------------------------------------|----------------------------|----------------------------|---------------------|--|--|
| Veh :1 | Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | | Light Condition: DAWN | | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 4185 | State of Registration: NY | | | | |
| | Num of Occupants: 1 | Driver's Age: 28 | Sex: M | Citation Issued: N | | | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | School Bus Involved: OTHER | | | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | |
| Apparent Factors: NOT APPLICABLE, FELL ASLEEP | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024069 Street: [Route] 22 | | | | | | | |
| AT INTERSECTION WITH BYRAM BROOK PL | | | | | | | |
| 1/10/2017 | Tue 14:02 PM | Persons Killed: 0 | Persons Injured: 2 | Extent of Injuries: AC | Case: 2017-36568053 | | |
| Accident Class: PROPERTY DAMAGE AND INJURY | | Police Agency: NORTH CASTLE TOWN PD | | Traffic Control: STOP SIGN | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Weather: CLEAR | | | | | |
| Manner of Collision: RIGHT ANGLE | | Light Condition: DAYLIGHT | | | | | |
| Road Surface Condition: DRY | | Action of Ped/Bicycle: NOT APPLICABLE | | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: CT | | | | |
| | Num of Occupants: 1 | Driver's Age: 20 | Sex: M | Citation Issued: Y | | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER | | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: CT | | | | |
| | Num of Occupants: 1 | Driver's Age: 54 | Sex: F | Citation Issued: N | | | |
| | Direction of Travel: NORTH-WEST | Public Property Damage: OTHER | School Bus Involved: OTHER | | | | |
| | Pre-Accd Action: MAKING RIGHT TURN | | | | | | |
| | Apparent Factors: NOT APPLICABLE, FAILURE TO YIELD RIGHT OF WAY | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024050 Street: [Route] 22 | | | | | | | |
| 1/16/2017 | Mon 01:02 AM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2017-36572364 | | |
| Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | | Num of Veh: 1 | | | |
| Type Of Accident: COLLISION WITH MEDIAN/BARRIER | | Traffic Control: NONE | | | | | |
| Manner of Collision: OTHER | | Weather: CLEAR | | | | | |
| Road Surface Condition: WET | | Light Condition: DARK-ROAD LIGHTED | | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | | | | | |
| Road Char.: CURVE AND LEVEL | | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NM | | | | |
| | Num of Occupants: 1 | Driver's Age: 26 | Sex: M | Citation Issued: N | | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER | | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | |
| | Apparent Factors: UNSAFE SPEED, NOT APPLICABLE | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024044 Street: MOUNT KISCO RD | | | | | | | |
| AT INTERSECTION WITH King St | | | | | | | |

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|--|--|-------------------------------------|----------------------------|---------------------------------------|----------------------------|---------------|
| 1/23/2017 | Mon 20:38 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2017-36577328 | Num of Veh: 2 |
| Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | | Traffic Control: TRAFFIC SIGNAL | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | Weather: SLEET/HAIL/FREEZING RAIN | | |
| Manner of Collision: LEFT TURN (AGAINST OTHER CAR) | | | | Light Condition: DARK-ROAD UNLIGHTED | | |
| Road Surface Condition: WET | | Road Char.: CURVE AND LEVEL | | Action of Ped/Bicycle: NOT APPLICABLE | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4438 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 55 | Sex: F | Citation Issued: N | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3635 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 28 | Sex: F | Citation Issued: Y | | |
| | Direction of Travel: EAST | Public Property Damage: OTHER | School Bus Involved: OTHER | | | |
| | Pre-Accd Action: MAKING LEFT TURN | | | | | |
| | Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, PAVEMENT SLIPPERY | | | | | |
| County: Westchester Muni: North Castle(T) Ref: Marker: Street: HUNTER AVE | | | | | | |
| AT INTERSECTION WITH Bedford Rd | | | | | | |
| 2/5/2017 | Sun 14:53 PM | Persons Killed: 0 | Persons Injured: 1 | Extent of Injuries: C | Case: 2017-36594058 | Num of Veh: 1 |
| Accident Class: PROPERTY DAMAGE AND INJURY | | Police Agency: NORTH CASTLE TOWN PD | | Traffic Control: NONE | | |
| Type Of Accident: COLLISION WITH TREE | | | | Weather: CLOUDY | | |
| Manner of Collision: OTHER | | | | Light Condition: DAYLIGHT | | |
| Road Surface Condition: DRY | | Road Char.: STRAIGHT AND LEVEL | | Action of Ped/Bicycle: NOT APPLICABLE | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3472 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 17 | Sex: M | Citation Issued: N | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER | | | |
| | Pre-Accd Action: MAKING LEFT TURN | | | | | |
| | Apparent Factors: DRIVER INEXPERIENCE, TURNING IMPROPER | | | | | |
| County: Westchester Muni: North Castle(T) Ref: Marker: 22 87024063 Street: BEDFORD RD | | | | | | |
| AT INTERSECTION WITH Maple Ave | | | | | | |
| 2/10/2017 | Fri 17:50 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2017-36600834 | Num of Veh: 2 |
| Accident Class: NON-REPORTABLE | | Police Agency: NORTH CASTLE TOWN PD | | Traffic Control: TRAFFIC SIGNAL | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | Weather: CLOUDY | | |
| Manner of Collision: REAR END | | | | Light Condition: DARK-ROAD LIGHTED | | |
| Road Surface Condition: DRY | | Road Char.: STRAIGHT AND LEVEL | | Action of Ped/Bicycle: NOT APPLICABLE | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY | | | |
| | Num of Occupants: 3 | Driver's Age: 42 | Sex: F | Citation Issued: N | | |
| | Direction of Travel: EAST | Public Property Damage: OTHER | School Bus Involved: OTHER | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |

Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 28 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024063 Street: [Route] 22
 AT INTERSECTION WITH BUSINESS PARK DR
12/19/2016 Mon 21:30 PM Persons Killed: 0 Persons Injured: 0 **Case: 2016-36603681**
 Accident Class: PROPERTY DAMAGE Num of Veh: 1
 Type Of Accident: COLLISION WITH DEER
 Manner of Collision: OTHER
 Road Surface Condition: UNKNOWN
 Loc. of Ped/Bicycle: NOT APPLICABLE
 Road Char.: UNKNOWN
 Action of Ped/Bicycle: NOT APPLICABLE
 Weather: UNKNOWN
 Traffic Control: UNKNOWN
 Light Condition: UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 4374 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 65 Sex: F Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: UNKNOWN

Apparent Factors: NOT ENTERED, NOT ENTERED

County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024049 Street: KING ST
 42 Meters South of Armonk-Bedford Rd
1/27/2017 Fri 20:00 PM Persons Killed: 0 Persons Injured: 0 **Case: 2017-36614303**
 Accident Class: PROPERTY DAMAGE Num of Veh: 1
 Type Of Accident: RAN OFF ROAD ONLY
 Manner of Collision: OTHER
 Road Surface Condition: DRY
 Loc. of Ped/Bicycle: NOT APPLICABLE
 Road Char.: CURVE AND GRADE
 Action of Ped/Bicycle: NOT APPLICABLE
 Weather: CLEAR
 Light Condition: DARK-ROAD UNLIGHTED
 Traffic Control: NONE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3389 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 62 Sex: M Citation Issued: N
 Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: AVOIDING OBJECT IN ROADWAY

Apparent Factors: NOT ENTERED, NOT ENTERED

County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024063 Street: ARMONK-BEDFORD RD
 AT INTERSECTION WITH Maple Ave
2/14/2017 Tue 18:19 PM Persons Killed: 0 Persons Injured: 0 **Case: 2017-36617654**
 Accident Class: PROPERTY DAMAGE Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE
 Manner of Collision: REAR END
 Road Surface Condition: DRY
 Loc. of Ped/Bicycle: NOT APPLICABLE
 Road Char.: STRAIGHT AND LEVEL
 Action of Ped/Bicycle: NOT APPLICABLE
 Weather: CLOUDY
 Light Condition: DARK-ROAD LIGHTED
 Traffic Control: TRAFFIC SIGNAL

Veh :2 CAR/VAN/PICKUP Registered Weight: 6229 State of Registration: NY

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|-----------|--|--------------------------------|--------------------------|---------------------------------------|
| Veh :1 | Num of Occupants: 1 | Driver's Age: 64 | Sex: M | Citation Issued: N |
| | Direction of Travel: EAST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |
| | CAR/VAN/PICKUP | Registered Weight: 3695 | | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 18 | Sex: F | Citation Issued: N |
| | Direction of Travel: EAST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION | | | |
| | County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024049 | Street: STATE HWY 22 |
| 2/25/2017 | AT INTERSECTION WITH King St | | | |
| | Sat 18:35 PM | Persons Killed: 0 | Persons Injured: 1 | Extent of Injuries: A |
| | Accident Class: PROPERTY DAMAGE AND INJURY | | | Police Agency: NORTH CASTLE TOWN PD |
| | Type Of Accident: COLL. W/LIGHT SUPPORT/UTILITY POLE | | | Traffic Control: TRAFFIC SIGNAL |
| | Manner of Collision: OTHER | | | Weather: RAIN |
| | Road Surface Condition: WET | | | Light Condition: DARK-ROAD LIGHTED |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Road Char.: STRAIGHT AND LEVEL | | Action of Ped/Bicycle: NOT APPLICABLE |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 5178 | | State of Registration: NY |
| | Num of Occupants: 4 | Driver's Age: 35 | Sex: M | Citation Issued: N |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: MAKING RIGHT TURN | | | |
| | Apparent Factors: PAVEMENT SLIPPERY, NOT APPLICABLE | | | |
| 4/6/2015 | County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024061 | Street: ARMONK-BEDFORD RD |
| | AT INTERSECTION WITH Main St | | | |
| | Mon 14:11 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: |
| | Accident Class: NON-REPORTABLE | | | Police Agency: NORTH CASTLE TOWN PD |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Traffic Control: TRAFFIC SIGNAL |
| | Manner of Collision: REAR END | | | Weather: CLEAR |
| | Road Surface Condition: DRY | | | Light Condition: DAYLIGHT |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | | State of Registration: NY |
| | Num of Occupants: 2 | Driver's Age: 66 | Sex: F | Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |
| Veh :2 | OTHER | Registered Weight: | | State of Registration: NY |
| | Num of Occupants: 1 | Driver's Age: 47 | Sex: M | Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |

Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024063 Street: ARMONK-BEDFORD RD
 AT INTERSECTION WITH Maple Ave
3/17/2017 Fri 18:21 PM Persons Killed: 0 Persons Injured: 0
 Accident Class: PROPERTY DAMAGE Police Agency: NORTH CASTLE TOWN PD
 Type Of Accident: COLLISION WITH MOTOR VEHICLE
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR)
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE
 Case: 2017-36647124
 Extent of Injuries: Traffic Control: TRAFFIC SIGNAL Weather: CLEAR
 Num of Veh: 2

Veh :1

CAR/VAN/PICKUP Registered Weight:
 Num of Occupants: 1 Driver's Age: 64
 Direction of Travel: SOUTH Public Property Damage: OTHER
 Pre-Accd Action: MAKING LEFT TURN
 State of Registration: CT
 Sex: M Citation Issued: N
 School Bus Involved: OTHER

Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :2 CAR/VAN/PICKUP Registered Weight: 3270
 Num of Occupants: 1 Driver's Age: 32
 Direction of Travel: NORTH-EAST Public Property Damage: OTHER
 State of Registration: NY
 Sex: M Citation Issued: N
 School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024064 Street: ARMONK-BEDFORD RD
 AT INTERSECTION WITH Maple Ave
3/20/2017 Mon 12:04 PM Persons Killed: 0 Persons Injured: 3
 Accident Class: INJURY Police Agency: NORTH CASTLE TOWN PD
 Type Of Accident: COLLISION WITH MOTOR VEHICLE
 Manner of Collision: REAR END
 Road Surface Condition: DRY
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE
 Case: 2017-36652428
 Extent of Injuries: CCC Traffic Control: TRAFFIC SIGNAL Weather: CLEAR
 Num of Veh: 2

Veh :2

CAR/VAN/PICKUP Registered Weight: 4377
 Num of Occupants: 3 Driver's Age: 40
 Direction of Travel: SOUTH-WEST Public Property Damage: OTHER
 State of Registration: NY
 Sex: M Citation Issued: N
 School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 5389
 Num of Occupants: 1 Driver's Age: 47
 Direction of Travel: SOUTH-WEST Public Property Damage: OTHER
 State of Registration: NY
 Sex: M Citation Issued: N
 School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024049 Street: STATE HWY 22
 AT INTERSECTION WITH King St

| | | | | | | |
|---|--|----------------------------------|---------------------------------------|----------------------------|------------------------------------|---------------|
| 3/25/2017 | Sat 07:08 AM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2017-36657199 | Num of Veh: 1 |
| | Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | | Traffic Control: TRAFFIC SIGNAL | |
| | Type Of Accident: COLL. W/LIGHT SUPPORT/UTILITY POLE | | | | Weather: CLEAR | |
| | Manner of Collision: OTHER | | Road Char.: STRAIGHT AND LEVEL | | Light Condition: DAYLIGHT | |
| | Road Surface Condition: DRY | | Action of Ped/Bicycle: NOT APPLICABLE | | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3915 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 27 | Sex: M | Citation Issued: N | | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: SLOWED OR STOPPING | | | | | |
| | Apparent Factors: BRAKES DEFECTIVE, NOT APPLICABLE | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 128 87011000 | Street: [Route] 128 | | | |
| AT INTERSECTION WITH [Route] 22 | | | | | | |
| 3/12/2017 | Sun 10:00 AM | Persons Killed: 0 | Persons Injured: 2 | Extent of Injuries: CC | Case: 2017-36661936 | Num of Veh: 2 |
| | Accident Class: PROPERTY DAMAGE AND INJURY | | Police Agency: LEWISBORO TOWN PD | | Traffic Control: TRAFFIC SIGNAL | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | Weather: CLEAR | |
| | Manner of Collision: LEFT TURN (AGAINST OTHER CAR) | | Road Char.: STRAIGHT AND LEVEL | | Light Condition: DAYLIGHT | |
| | Road Surface Condition: DRY | | Action of Ped/Bicycle: NOT APPLICABLE | | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3025 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 61 | Sex: F | Citation Issued: N | | |
| | Direction of Travel: EAST | Public Property Damage: OTHER | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| | Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, NOT ENTERED | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3413 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 38 | Sex: F | Citation Issued: N | | |
| | Direction of Travel: NORTH-WEST | Public Property Damage: OTHER | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: MAKING LEFT TURN | | | | | |
| | Apparent Factors: NOT ENTERED, NOT ENTERED | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024064 | Street: [Route] 22 | | | |
| 30 Meters East of BUSINESS PARK DR | | | | | | |
| 4/3/2017 | Mon 21:00 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2017-36671600 | Num of Veh: 2 |
| | Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | | Traffic Control: TRAFFIC SIGNAL | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | Weather: CLOUDY | |
| | Manner of Collision: OVERTAKING | | Road Char.: STRAIGHT AND LEVEL | | Light Condition: DARK-ROAD LIGHTED | |
| | Road Surface Condition: DRY | | Action of Ped/Bicycle: NOT APPLICABLE | | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3310 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 78 | Sex: M | Citation Issued: N | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3400 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 27 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: OTHER
 Pre-Accd Action: MAKING LEFT TURN School Bus Involved: OTHER
 Apparent Factors: NOT APPLICABLE, PASSING OR LANE USAGE IMPROPERLY

County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012087 Street: [Route] 22
 AT INTERSECTION WITH Mount Kisco Rd
5/5/2017 Fri 13:46 PM Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD
 Accident Class: PROPERTY DAMAGE Extent of Injuries: **Case: 2017-36719110** Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN
 Manner of Collision: REAR END Weather: RAIN
 Road Surface Condition: WET Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Road Char.: CURVE AND GRADE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 5196 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 27 Sex: M Citation Issued: N
 Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: MERGING
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3457 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 43 Sex: F Citation Issued: N
 Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: MERGING
 Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: [Route] 120
 AT INTERSECTION WITH [Route] 22
5/8/2017 Mon 07:36 AM Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD
 Accident Class: NON-REPORTABLE Extent of Injuries: **Case: 2017-36720135** Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Road Char.: STRAIGHT AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 52 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 2 Driver's Age: 57 Sex: M Citation Issued: N

| | | | | | |
|---|-----------------------|--------------------------|-------------------------------|---------------------------------------|----------------------------|
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024067 | Street: [Route] 22 | Public Property Damage: OTHER | School Bus Involved: OTHER |
| 84 Meters West of Ramp | | | | | |
| 5/8/2017 | Mon 15:27 PM | Persons Killed: 0 | Persons Injured: 2 | Extent of Injuries: CC | Case: 2017-36721802 |
| Accident Class: PROPERTY DAMAGE AND INJURY | | | | Police Agency: NORTH CASTLE TOWN PD | Num of Veh: 1 |
| Type Of Accident: COLLISION WITH SIGN POST | | | | Traffic Control: NONE | |
| Manner of Collision: OTHER | | | | Weather: CLEAR | |
| Road Surface Condition: DRY | | | | Road Char.: STRAIGHT AND LEVEL | Light Condition: DAYLIGHT |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | Action of Ped/Bicycle: NOT APPLICABLE | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | | State of Registration: CT | |
| | Num of Occupants: 2 | Driver's Age: 25 | | Sex: M | Citation Issued: Y |
| Direction of Travel: NORTH | | | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| Apparent Factors: UNKNOWN, UNKNOWN | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024063 | Street: ARMONK-BEDFORD RD | | |
| AT INTERSECTION WITH Maple Ave | | | | | |
| 5/12/2017 | Fri 15:10 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2017-36726659 |
| Accident Class: PROPERTY DAMAGE | | | | Police Agency: NORTH CASTLE TOWN PD | Num of Veh: 2 |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | Traffic Control: TRAFFIC SIGNAL | |
| Manner of Collision: RIGHT TURN (WITH OTHER CAR) | | | | Weather: CLEAR | |
| Road Surface Condition: DRY | | | | Road Char.: STRAIGHT AND LEVEL | Light Condition: DAYLIGHT |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | Action of Ped/Bicycle: NOT APPLICABLE | |
| Veh :2 | TRUCK | Registered Weight: | | State of Registration: NC | |
| | Num of Occupants: 1 | Driver's Age: 30 | | Sex: M | Citation Issued: N |
| Direction of Travel: NORTH | | | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| Pre-Accd Action: MAKING RIGHT TURN | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3472 | | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 18 | | Sex: M | Citation Issued: N |
| Direction of Travel: NORTH | | | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| Pre-Accd Action: MAKING RIGHT TURN | | | | | |
| Apparent Factors: DRIVER INEXPERIENCE, DRIVER INATTENTION | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024056 | Street: ARMONK-BEDFORD RD | | |
| AT INTERSECTION WITH Old Route 22 | | | | | |
| 5/13/2017 | Sat 13:43 PM | Persons Killed: 0 | Persons Injured: 1 | Extent of Injuries: C | Case: 2017-36733399 |
| Accident Class: PROPERTY DAMAGE AND INJURY | | | | Police Agency: NORTH CASTLE TOWN PD | Num of Veh: 3 |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | Traffic Control: TRAFFIC SIGNAL | |
| Manner of Collision: OTHER | | | | Weather: RAIN | |
| Road Surface Condition: WET | | | | Road Char.: STRAIGHT/ GRADE | Light Condition: DAYLIGHT |

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|---|--|--|-------------------|---------------------------------------|---------------------------------------|---------------------|
| Veh :2 | Loc. of Ped/Bicycle: NOT APPLICABLE | | | Action of Ped/Bicycle: NOT APPLICABLE | | |
| | CAR/VAN/PICKUP | Registered Weight: 3388 | | State of Registration: NY | | |
| | Num of Occupants: 1 | Driver's Age: 73 | | Sex: F | Citation Issued: N | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER | |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| Veh :3 | CAR/VAN/PICKUP | Registered Weight: 4994 | | State of Registration: NY | | |
| | Num of Occupants: 4 | Driver's Age: 43 | | Sex: F | Citation Issued: N | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER | |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3483 | | State of Registration: NY | | |
| | Num of Occupants: 1 | Driver's Age: 22 | | Sex: F | Citation Issued: N | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| | Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | | | | | |
| | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024048 Street: KING ST | | | | | | |
| 5/22/2017 | | Mon 14:11 PM | Persons Killed: 0 | Persons Injured: 0 | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: |
| | | Accident Class: PROPERTY DAMAGE | | | Traffic Control: TRAFFIC SIGNAL | Weather: RAIN |
| | | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Light Condition: DAYLIGHT | |
| | | Manner of Collision: REAR END | | | Action of Ped/Bicycle: NOT APPLICABLE | |
| | | Road Surface Condition: WET | | | Road Char.: CURVE AND LEVEL | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3668 | | State of Registration: NY | | |
| | Num of Occupants: 2 | Driver's Age: 42 | | Sex: F | Citation Issued: N | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| | Apparent Factors: FOLLOWING TOO CLOSELY, PAVEMENT SLIPPERY | | | | | |
| | | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3436 | | State of Registration: NY | | |
| | Num of Occupants: 2 | Driver's Age: 81 | | Sex: M | Citation Issued: N | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER | |
| | Pre-Accd Action: SLOWED OR STOPPING | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012086 Street: KING ST | | | | | | |
| 42 Meters South of Ramp | | | | | | |
| 5/16/2017 | | Tue 08:31 AM | Persons Killed: 0 | Persons Injured: 0 | Police Agency: NORTH CASTLE TOWN PD | Extent of Injuries: |
| | | Accident Class: PROPERTY DAMAGE | | | Traffic Control: NONE | |
| | | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | |
| | | | | | Case: 2017-36735432 | Num of Veh: 2 |
| | | | | | Case: 2017-36736932 | Num of Veh: 2 |

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|--|--|---------------------------------------|----------------------------|---------------------------------------|-------------------------------------|--|
| Veh :2 | Manner of Collision: REAR END | Road Char.: STRAIGHT AND LEVEL | | Weather: CLEAR | | |
| | Road Surface Condition: DRY | Action of Ped/Bicycle: NOT APPLICABLE | | Light Condition: DAYLIGHT | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 3358 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 52 | Sex: F | Citation Issued: N | | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | School Bus Involved: OTHER | | | |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | | | |
| Veh :1 | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 7000 | State of Registration: NY | | | |
| | Num of Occupants: 4 | Driver's Age: 44 | Sex: M | Citation Issued: N | | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | School Bus Involved: OTHER | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| | Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN | | | | | |
| | County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024063 Street: [Route] 22 | | | | | |
| 5/23/2017 | AT INTERSECTION WITH BUSINESS PARK DR | Persons Killed: 0 | | Extent of Injuries: C | | |
| | Tue 13:50 PM | Persons Injured: 1 | | Police Agency: NORTH CASTLE TOWN PD | | |
| | Accident Class: PROPERTY DAMAGE AND INJURY | | | Traffic Control: TRAFFIC SIGNAL | | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Weather: CLEAR | | |
| | Manner of Collision: REAR END | | | Light Condition: DAYLIGHT | | |
| | Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | | Action of Ped/Bicycle: NOT APPLICABLE | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | | Num of Veh: 2 | | |
| Veh :2 | TRUCK | Registered Weight: 19500 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 37 | Sex: M | Citation Issued: N | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER | | | |
| | Pre-Accd Action: SLOWED OR STOPPING | | | | | |
| | Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 5178 | State of Registration: NY | | | |
| | Num of Occupants: 1 | Driver's Age: 45 | Sex: F | Citation Issued: N | | |
| Veh :1 | Direction of Travel: NORTH | Public Property Damage: OTHER | School Bus Involved: OTHER | | | |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| | County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024056 Street: [Route] 22 | | | | | |
| | 5/22/2017 | AT INTERSECTION WITH OLD ROUTE 22 | Persons Killed: 0 | | Extent of Injuries: | |
| | | Mon 17:56 PM | Persons Injured: 0 | | Police Agency: NORTH CASTLE TOWN PD | |
| | | Accident Class: PROPERTY DAMAGE | | | Traffic Control: TRAFFIC SIGNAL | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | Weather: RAIN | | |
| Manner of Collision: REAR END | | | | Light Condition: DAYLIGHT | | |
| Road Surface Condition: WET | | Road Char.: STRAIGHT AND LEVEL | | Action of Ped/Bicycle: NOT APPLICABLE | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | | Num of Veh: 2 | | |

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|---|---|--|---|
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 2 Direction of Travel: SOUTH Pre-Accd Action: SLOWED OR STOPPING Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: 4101 Driver's Age: 18 Public Property Damage: OTHER | State of Registration: NY Sex: F Citation Issued: N School Bus Involved: OTHER |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 2 Direction of Travel: SOUTH Pre-Accd Action: SLOWED OR STOPPING Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY | Registered Weight: 3034 Driver's Age: 52 Public Property Damage: OTHER | State of Registration: NY Sex: M Citation Issued: N School Bus Involved: OTHER |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024063 Street: ARMONK-BEDFORD RD AT INTERSECTION WITH Maple Ave 6/2/2017 Fri 08:14 AM Persons Killed: 0 Persons Injured: 0 Accident Class: PROPERTY DAMAGE Police Agency: NORTH CASTLE TOWN PD Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: REAR END Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | | | |
| Veh :1 | TRUCK Num of Occupants: 1 Direction of Travel: SOUTH Pre-Accd Action: STARTING IN TRAFFIC Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION | Registered Weight: Driver's Age: 23 Public Property Damage: OTHER | State of Registration: IN Sex: M Citation Issued: N School Bus Involved: OTHER |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: SOUTH Pre-Accd Action: STOPPED IN TRAFFIC Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: 3162 Driver's Age: 27 Public Property Damage: OTHER | State of Registration: NY Sex: F Citation Issued: N School Bus Involved: OTHER |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024063 Street: ARMONK-BEDFORD RD AT INTERSECTION WITH Maple Ave 6/10/2017 Sat 07:07 AM Persons Killed: 0 Persons Injured: 0 Accident Class: NON-REPORTABLE Police Agency: NORTH CASTLE TOWN PD Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: REAR END Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | | | |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH | Registered Weight: Driver's Age: 35 Public Property Damage: OTHER | State of Registration: NY Sex: M Citation Issued: N School Bus Involved: OTHER |

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|--|---|-------------------------------|---------------------------|--------------------|----------------------------|--|--|--|--|
| Pre-Accd Action: STOPPED IN TRAFFIC | | | | | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 19 | Sex: M | Citation Issued: N | School Bus Involved: OTHER | | | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | | | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | |
| | Apparent Factors: DRIVER INATTENTION, FATIGUED/DROWSY | | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024068 Street: BEDFORD RD | | | | | | | | | |
| AT INTERSECTION WITH Ramp | | | | | | | | | |
| 7/14/2017 Fri 15:20 PM Persons Killed: 0 Persons Injured: 0 | | | | | | | | | |
| Accident Class: PROPERTY DAMAGE | | | | | | | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | |
| Manner of Collision: UNKNOWN | | | | | | | | | |
| Road Surface Condition: WET | | | | | | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | |
| Road Char.: CURVE AND LEVEL | | | | | | | | | |
| Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3602 | State of Registration: NY | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 61 | Sex: M | Citation Issued: N | School Bus Involved: OTHER | | | | |
| | Direction of Travel: NORTH-WEST | Public Property Damage: OTHER | | | | | | | |
| | Pre-Accd Action: MAKING LEFT TURN | | | | | | | | |
| | Apparent Factors: NOT ENTERED, NOT ENTERED | | | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 2930 | State of Registration: NY | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 62 | Sex: M | Citation Issued: N | School Bus Involved: OTHER | | | | |
| | Direction of Travel: NORTH-WEST | Public Property Damage: OTHER | | | | | | | |
| | Pre-Accd Action: MAKING LEFT TURN | | | | | | | | |
| | Apparent Factors: NOT ENTERED, NOT ENTERED | | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024056 Street: ARMONK-BEDFORD RD | | | | | | | | | |
| AT INTERSECTION WITH Old Route 22 | | | | | | | | | |
| 8/1/2017 Tue 18:02 PM Persons Killed: 0 Persons Injured: 0 | | | | | | | | | |
| Accident Class: PROPERTY DAMAGE | | | | | | | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | |
| Manner of Collision: RIGHT ANGLE | | | | | | | | | |
| Road Surface Condition: DRY | | | | | | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | |
| Road Char.: STRAIGHT AND LEVEL | | | | | | | | | |
| Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: CT | | | | | | |
| | Num of Occupants: 3 | Driver's Age: 39 | Sex: M | Citation Issued: N | School Bus Involved: OTHER | | | | |
| | Direction of Travel: EAST | Public Property Damage: OTHER | | | | | | | |
| | Pre-Accd Action: MAKING LEFT TURN | | | | | | | | |
| | Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024056 Street: ARMONK-BEDFORD RD | | | | | | | | | |
| AT INTERSECTION WITH Old Route 22 | | | | | | | | | |
| 8/1/2017 Tue 18:02 PM Persons Killed: 0 Persons Injured: 0 | | | | | | | | | |
| Accident Class: PROPERTY DAMAGE | | | | | | | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | |
| Manner of Collision: RIGHT ANGLE | | | | | | | | | |
| Road Surface Condition: DRY | | | | | | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | |
| Road Char.: STRAIGHT AND LEVEL | | | | | | | | | |
| Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 5440 | State of Registration: NY | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 61 | Sex: M | Citation Issued: N | School Bus Involved: OTHER | | | | |
| | Direction of Travel: NORTH-WEST | Public Property Damage: OTHER | | | | | | | |
| | Pre-Accd Action: MAKING LEFT TURN | | | | | | | | |
| | Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024056 Street: ARMONK-BEDFORD RD | | | | | | | | | |
| AT INTERSECTION WITH Old Route 22 | | | | | | | | | |
| 8/1/2017 Tue 18:02 PM Persons Killed: 0 Persons Injured: 0 | | | | | | | | | |
| Accident Class: PROPERTY DAMAGE | | | | | | | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | |
| Manner of Collision: RIGHT ANGLE | | | | | | | | | |
| Road Surface Condition: DRY | | | | | | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | |
| Road Char.: STRAIGHT AND LEVEL | | | | | | | | | |
| Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | |

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|--|--|---------------------------------------|--|---------------------------|--|--------------------|--|
| Num of Occupants: 2 | | Driver's Age: 36 | | Sex: M | | Citation Issued: N | |
| Direction of Travel: SOUTH | | Public Property Damage: OTHER | | | | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024050 Street: ARMONK-BEDFORD RD | | | | | | | |
| 8/5/2017 | | Sat 01:56 AM | | Persons Killed: 0 | | Persons Injured: 1 | |
| Accident Class: PROPERTY DAMAGE AND INJURY | | Police Agency: NORTH CASTLE TOWN PD | | | | | |
| Type Of Accident: COLLISION WITH TREE | | Traffic Control: NONE | | | | | |
| Manner of Collision: OTHER | | Weather: CLOUDY | | | | | |
| Road Surface Condition: DRY | | Light Condition: DARK-ROAD UNLIGHTED | | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | | | | | |
| Veh :1 | | | | | | | |
| CAR/VAN/PICKUP | | Registered Weight: | | State of Registration: NJ | | | |
| Num of Occupants: 1 | | Driver's Age: 28 | | Sex: M | | Citation Issued: N | |
| Direction of Travel: NORTH | | Public Property Damage: OTHER | | | | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | |
| Apparent Factors: FELL ASLEEP, NOT APPLICABLE | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: [Route] 22 | | | | | | | |
| 8/10/2017 | | Thu 17:28 PM | | Persons Killed: 0 | | Persons Injured: 0 | |
| Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | | | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Extent of Injuries: | | | | | |
| Manner of Collision: REAR END | | Traffic Control: YIELD SIGN | | | | | |
| Road Surface Condition: DRY | | Weather: CLEAR | | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Light Condition: DAYLIGHT | | | | | |
| | | Action of Ped/Bicycle: NOT APPLICABLE | | | | | |
| Veh :2 | | | | | | | |
| CAR/VAN/PICKUP | | Registered Weight: 3351 | | State of Registration: NY | | | |
| Num of Occupants: 1 | | Driver's Age: 19 | | Sex: F | | Citation Issued: N | |
| Direction of Travel: NORTH-EAST | | Public Property Damage: OTHER | | | | | |
| Pre-Accd Action: MAKING RIGHT TURN | | | | | | | |
| Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, NOT APPLICABLE | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024061 Street: ARMONK-BEDFORD RD | | | | | | | |
| 8/10/2017 | | Thu 09:01 AM | | Persons Killed: 0 | | Persons Injured: 0 | |
| Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | | | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Extent of Injuries: | | | | | |
| Manner of Collision: REAR END | | Traffic Control: TRAFFIC SIGNAL | | | | | |
| Road Surface Condition: DRY | | Weather: CLEAR | | | | | |
| | | Light Condition: DAYLIGHT | | | | | |
| | | Road Char.: STRAIGHT AND LEVEL | | | | | |
| Veh :1 | | | | | | | |
| CAR/VAN/PICKUP | | Registered Weight: 4513 | | State of Registration: NY | | | |
| Num of Occupants: 1 | | Driver's Age: 41 | | Sex: F | | Citation Issued: N | |
| Direction of Travel: NORTH-EAST | | Public Property Damage: OTHER | | | | | |
| Pre-Accd Action: MAKING RIGHT TURN | | | | | | | |
| Apparent Factors: FOLLOWING TOO CLOSELY, REACTION TO OTHER UNINVOLVED VEHICL | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024061 Street: ARMONK-BEDFORD RD | | | | | | | |
| 8/10/2017 | | Thu 09:01 AM | | Persons Killed: 0 | | Persons Injured: 0 | |
| Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | | | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Extent of Injuries: | | | | | |
| Manner of Collision: REAR END | | Traffic Control: TRAFFIC SIGNAL | | | | | |
| Road Surface Condition: DRY | | Weather: CLEAR | | | | | |
| | | Light Condition: DAYLIGHT | | | | | |
| | | Road Char.: STRAIGHT AND LEVEL | | | | | |

| | | | | | |
|---|--|---------------------------------------|--|---------------------------------------|--|
| Veh :2 | | Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | |
| CAR/VAN/PICKUP | | Registered Weight: 3560 | | State of Registration: NY | |
| Num of Occupants: 1 | | Driver's Age: 45 | | Sex: F | |
| Direction of Travel: SOUTH | | Public Property Damage: OTHER | | Citation Issued: N | |
| Pre-Accd Action: STOPPED IN TRAFFIC | | | | School Bus Involved: OTHER | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| Veh :1 | | CAR/VAN/PICKUP | | State of Registration: NJ | |
| Num of Occupants: 3 | | Registered Weight: | | Citation Issued: Y | |
| Direction of Travel: SOUTH | | Driver's Age: 28 | | | |
| Pre-Accd Action: STARTING IN TRAFFIC | | Public Property Damage: OTHER | | School Bus Involved: OTHER | |
| Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION | | | | | |
| County: Westchester | | Muni: North Castle(T) | | Ref. Marker: 22 87024056 | |
| 15 Meters North of OLD POST RD | | Street: [Route] 22 | | | |
| 8/15/2017 | | Tue 07:18 AM | | Persons Killed: 0 | |
| Accident Class: PROPERTY DAMAGE | | Persons Injured: 0 | | Extent of Injuries: | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Police Agency: NORTH CASTLE TOWN PD | | Case: 2017-36850035 | |
| Manner of Collision: OVERTAKING | | | | Num of Veh: 2 | |
| Road Surface Condition: DRY | | | | Weather: CLOUDY | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Road Char.: STRAIGHT/ GRADE | | Light Condition: DAYLIGHT | |
| | | Action of Ped/Bicycle: NOT APPLICABLE | | Traffic Control: NONE | |
| Veh :2 | | CAR/VAN/PICKUP | | State of Registration: CT | |
| Num of Occupants: 1 | | Registered Weight: | | Citation Issued: N | |
| Direction of Travel: NORTH-EAST | | Driver's Age: 49 | | | |
| Pre-Accd Action: CHANGING LANES | | Public Property Damage: OTHER | | School Bus Involved: OTHER | |
| Apparent Factors: NOT APPLICABLE, UNSAFE LANE CHANGE | | | | | |
| Veh :1 | | CAR/VAN/PICKUP | | State of Registration: NY | |
| Num of Occupants: 2 | | Registered Weight: 4489 | | Citation Issued: N | |
| Direction of Travel: NORTH-EAST | | Driver's Age: 52 | | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | Public Property Damage: OTHER | | School Bus Involved: OTHER | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| County: Westchester | | Muni: North Castle(T) | | Ref. Marker: 22 87024061 | |
| AT INTERSECTION WITH Main St | | Street: ARMONK-BEDFORD RD | | | |
| 9/2/2017 | | Sat 19:46 PM | | Persons Killed: 0 | |
| Accident Class: PROPERTY DAMAGE | | Persons Injured: 0 | | Extent of Injuries: | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Police Agency: NORTH CASTLE TOWN PD | | Case: 2017-36873624 | |
| Manner of Collision: RIGHT ANGLE | | | | Num of Veh: 2 | |
| Road Surface Condition: WET | | | | Weather: RAIN | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Road Char.: STRAIGHT AND LEVEL | | Light Condition: DARK-ROAD LIGHTED | |
| | | Action of Ped/Bicycle: NOT APPLICABLE | | Traffic Control: TRAFFIC SIGNAL | |
| Veh :2 | | CAR/VAN/PICKUP | | State of Registration: NY | |
| Num of Occupants: 1 | | Registered Weight: 3756 | | Citation Issued: N | |
| | | Driver's Age: 59 | | | |

| | | | | | |
|--|---|---------------------------------------|-------------------------------------|---------------------------------|----------------------------|
| Direction of Travel: WEST | | Public Property Damage: OTHER | | School Bus Involved: OTHER | |
| Pre-Accd Action: MAKING LEFT TURN | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | |
| | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3076 | State of Registration: NY | Sex: M | Citation Issued: N |
| | Num of Occupants: 1 | Driver's Age: 56 | | | School Bus Involved: OTHER |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | |
| | Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION | | | | |
| | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: [Route] 22 | | | | | |
| AT INTERSECTION WITH Armonk-Bedford Rd | | | | | |
| 9/8/2017 | Fri 11:02 AM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2017-36880893 |
| | Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | | Num of Veh: 2 |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Traffic Control: TRAFFIC SIGNAL | |
| | Manner of Collision: OVERTAKING | | | Weather: CLEAR | |
| | Road Surface Condition: DRY | Road Char.: CURVE AND LEVEL | | Light Condition: DAYLIGHT | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | | | |
| | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: CT | | |
| | Num of Occupants: 1 | Driver's Age: 56 | Sex: F | Citation Issued: N | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER |
| | Pre-Accd Action: MERGING | | | | |
| | Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, PASSING OR LANE USAGE IMPROPERLY | | | | |
| | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 4613 | State of Registration: NY | | |
| | Num of Occupants: 1 | Driver's Age: 71 | Sex: F | Citation Issued: N | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | |
| | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: [Route] 22 | | | | | |
| AT INTERSECTION WITH [Route] 120 | | | | | |
| 9/8/2017 | Fri 17:54 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2017-36881682 |
| | Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | | Num of Veh: 2 |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Traffic Control: YIELD SIGN | |
| | Manner of Collision: REAR END | | | Weather: CLEAR | |
| | Road Surface Condition: DRY | Road Char.: CURVE AND LEVEL | | Light Condition: DAYLIGHT | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | | | |
| | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3298 | State of Registration: NY | | |
| | Num of Occupants: 1 | Driver's Age: 60 | Sex: M | Citation Issued: N | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | |

| | | | | | | |
|--|---|-------------------------------|---------------------------|---------------------------------------|----------------------------|---------------|
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3704 | State of Registration: NY | Sex: M | Citation Issued: N | |
| | Num of Occupants: 1 | Driver's Age: 23 | | | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | | School Bus Involved: OTHER | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| | Apparent Factors: DRIVER INATTENTION, FOLLOWING TOO CLOSELY | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024061 Street: ARMONK-BEDFORD RD | | | | | | |
| AT INTERSECTION WITH [Route] 128 | | | | | | |
| 8/28/2017 Mon 17:00 PM Persons Killed: 0 Persons Injured: 0 | | | | | | |
| | Accident Class: PROPERTY DAMAGE | | Extent of Injuries: | Police Agency: | Case: 2017-36888994 | Num of Veh: 2 |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Weather: UNKNOWN | Traffic Control: UNKNOWN | |
| | Manner of Collision: REAR END | | | Road Char.: UNKNOWN | Light Condition: UNKNOWN | |
| | Road Surface Condition: UNKNOWN | | | Action of Ped/Bicycle: NOT APPLICABLE | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | |
| Veh :2 | OTHER | Registered Weight: | State of Registration: -3 | Sex: F | Citation Issued: N | |
| | Num of Occupants: 1 | Driver's Age: | | | School Bus Involved: OTHER | |
| | Direction of Travel: UNKNOWN | Public Property Damage: OTHER | | | | |
| | Pre-Accd Action: MERGING | | | | | |
| | Apparent Factors: NOT ENTERED, NOT ENTERED | | | | | |
| Veh :1 | OTHER | Registered Weight: | State of Registration: VA | Sex: M | Citation Issued: N | |
| | Num of Occupants: 1 | Driver's Age: 19 | | | School Bus Involved: OTHER | |
| | Direction of Travel: UNKNOWN | Public Property Damage: OTHER | | | | |
| | Pre-Accd Action: MERGING | | | | | |
| | Apparent Factors: NOT ENTERED, NOT ENTERED | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012087 Street: KING ST | | | | | | |
| 41 Meters East of Old Post Rd | | | | | | |
| 9/15/2017 Fri 08:15 AM Persons Killed: 0 Persons Injured: 1 | | | | | | |
| | Accident Class: PROPERTY DAMAGE AND INJURY | | Extent of Injuries: C | Police Agency: NORTH CASTLE TOWN PD | Case: 2017-36890277 | Num of Veh: 2 |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Weather: CLEAR | Traffic Control: NONE | |
| | Manner of Collision: REAR END | | | Road Char.: CURVE AND GRADE | Light Condition: DAYLIGHT | |
| | Road Surface Condition: DRY | | | Action of Ped/Bicycle: NOT APPLICABLE | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 7200 | State of Registration: NY | Sex: M | Citation Issued: N | |
| | Num of Occupants: 1 | Driver's Age: 60 | | | School Bus Involved: OTHER | |
| | Direction of Travel: SOUTH-EAST | Public Property Damage: OTHER | | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | |
| | Apparent Factors: NOT APPLICABLE, ANIMAL'S ACTION | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4010 | State of Registration: NY | Sex: F | Citation Issued: N | |
| | Num of Occupants: 1 | Driver's Age: 48 | | | School Bus Involved: OTHER | |
| | Direction of Travel: SOUTH-EAST | Public Property Damage: OTHER | | | | |

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref: Marker: 120 87012087 Street: MOUNT KISCO RD
AT INTERSECTION WITH KING ST
8/27/2017 Sun 00:00 AM Persons Killed: 0 Persons Injured: 0

Accident Class: PROPERTY DAMAGE
Type Of Accident: COLLISION WITH DEER
Manner of Collision: OTHER
Road Surface Condition: DRY
Loc. of Ped/Bicycle: NOT APPLICABLE
Road Char.: STRAIGHT AND LEVEL
Action of Ped/Bicycle: NOT APPLICABLE
Weather: CLEAR
Light Condition: DARK-ROAD UNLIGHTED
Police Agency: Traffic Control: NONE
Case: 2017-36895142 Num of Veh: 1

Veh :1

CAR/VAN/PICKUP Registered Weight: 3316 State of Registration: NY
Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT ENTERED, NOT ENTERED

County: Westchester Muni: North Castle(T) Ref: Marker: 22 87024063 Street: ARMONK-BEDFORD RD
AT INTERSECTION WITH Maple Ave
9/16/2017 Sat 14:05 PM Persons Killed: 0 Persons Injured: 0

Accident Class: PROPERTY DAMAGE
Type Of Accident: COLLISION WITH MOTOR VEHICLE
Manner of Collision: REAR END
Road Surface Condition: DRY
Loc. of Ped/Bicycle: NOT APPLICABLE
Road Char.: STRAIGHT AND LEVEL
Action of Ped/Bicycle: NOT APPLICABLE
Weather: CLOUDY
Light Condition: DAYLIGHT
Police Agency: NORTH CASTLE TOWN PD Traffic Control: TRAFFIC SIGNAL
Case: 2017-36896146 Num of Veh: 2

Veh :1

CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 65 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STARTING IN TRAFFIC

Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION

Veh :2 CAR/VAN/PICKUP Registered Weight: 4901 State of Registration: NY
Num of Occupants: 1 Driver's Age: 47 Sex: F Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STARTING IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref: Marker: 22 87024047 Street: STATE HWY 120
21 Meters South of Ramp
9/29/2017 Fri 17:33 PM Persons Killed: 0 Persons Injured: 2

Accident Class: PROPERTY DAMAGE AND INJURY
Type Of Accident: COLLISION WITH MOTOR VEHICLE
Manner of Collision: OTHER
Road Surface Condition: DRY
Loc. of Ped/Bicycle: NOT APPLICABLE
Road Char.: STRAIGHT/ GRADE
Action of Ped/Bicycle: NOT APPLICABLE
Weather: CLEAR
Light Condition: DAYLIGHT
Police Agency: NORTH CASTLE TOWN PD Traffic Control: YIELD SIGN
Case: 2017-36908186 Num of Veh: 3

| | | | |
|--|---|--|---|
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH Pre-Accd Action: SLOWED OR STOPPING Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: 3330 Driver's Age: 77 Public Property Damage: OTHER | Sex: M State of Registration: NY Citation Issued: N School Bus Involved: OTHER |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY | Registered Weight: 3945 Driver's Age: 40 Public Property Damage: OTHER | Sex: F State of Registration: NY Citation Issued: N School Bus Involved: OTHER |
| Veh :3 | CAR/VAN/PICKUP Num of Occupants: 3 Direction of Travel: NORTH Pre-Accd Action: STOPPED IN TRAFFIC Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: 4960 Driver's Age: 28 Public Property Damage: OTHER | Sex: F State of Registration: NY Citation Issued: N School Bus Involved: OTHER |
| County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: STATE HWY 120 AT INTERSECTION WITH Ramp 10/4/2017 Wed 07:04 AM Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: REAR END Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | | | |
| | Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Extent of Injuries: NORTH CASTLE TOWN PD Case: 2017-36915989 Num of Veh: 2 | | Traffic Control: YIELD SIGN Weather: CLEAR Light Condition: DAYLIGHT Action of Ped/Bicycle: NOT APPLICABLE |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: SOUTH Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: DRIVER INATTENTION, FOLLOWING TOO CLOSELY | Registered Weight: 2544 Driver's Age: 30 Public Property Damage: OTHER | Sex: M State of Registration: NY Citation Issued: N School Bus Involved: OTHER |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 2 Direction of Travel: SOUTH Pre-Accd Action: SLOWED OR STOPPING Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: 3148 Driver's Age: 34 Public Property Damage: OTHER | Sex: M State of Registration: NY Citation Issued: N School Bus Involved: OTHER |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024061 Street: ARMONK-BEDFORD RD AT INTERSECTION WITH Main St 10/11/2017 Wed 09:06 AM Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: REAR END | | | |
| | Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Extent of Injuries: NORTH CASTLE TOWN PD Case: 2017-36925802 Num of Veh: 2 | | Traffic Control: TRAFFIC SIGNAL Weather: CLOUDY |

[illegible]

| | | | | | | | | | | | |
|--------|---|--|--|--|--|--|--|--|--|--|---------------------|
| Veh :2 | Accident Class: PROPERTY DAMAGE AND INJURY | | | | | | | | | | Num of Veh: 2 |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | | |
| | Manner of Collision: REAR END | | | | | | | | | | |
| | Road Surface Condition: DRY | | | | | | | | | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | |
| | Road Char.: STRAIGHT AND LEVEL | | | | | | | | | | |
| | Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | | | | | | | | | | Num of Veh: 1 |
| | Num of Occupants: 1 | | | | | | | | | | |
| | Direction of Travel: SOUTH | | | | | | | | | | |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | | | | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | | |
| | CAR/VAN/PICKUP | | | | | | | | | | |
| | Registered Weight: 3029 | | | | | | | | | | |
| Veh :1 | Num of Occupants: 1 | | | | | | | | | | Num of Veh: 1 |
| | Direction of Travel: SOUTH | | | | | | | | | | |
| | Pre-Accd Action: STARTING IN TRAFFIC | | | | | | | | | | |
| | Apparent Factors: DRIVER INEXPERIENCE, NOT APPLICABLE | | | | | | | | | | |
| | County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024069 Street: BEDFORD RD | | | | | | | | | | |
| | AT INTERSECTION WITH Hunter Ave | | | | | | | | | | |
| | 11/2/2017 Thu 13:24 PM Persons Killed: 0 Persons Injured: 0 | | | | | | | | | | |
| Veh :1 | Accident Class: PROPERTY DAMAGE | | | | | | | | | | Case: 2017-36968144 |
| | Type Of Accident: COLLISION WITH GUIDERAIL - END | | | | | | | | | | |
| | Manner of Collision: OTHER | | | | | | | | | | |
| | Road Surface Condition: DRY | | | | | | | | | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | |
| | Road Char.: STRAIGHT AND LEVEL | | | | | | | | | | |
| | Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | | | | | | | | | | Num of Veh: 2 |
| | Num of Occupants: 1 | | | | | | | | | | |
| | Direction of Travel: NORTH | | | | | | | | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | | |
| | Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, NOT APPLICABLE | | | | | | | | | | |
| | County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024045 Street: MOUNT KISCO RD | | | | | | | | | | |
| | 11 Meters South of King St | | | | | | | | | | |
| Veh :1 | Wed 08:37 AM Persons Killed: 0 Persons Injured: 0 | | | | | | | | | | Case: 2017-36970089 |
| | Accident Class: PROPERTY DAMAGE | | | | | | | | | | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | | |
| | Manner of Collision: REAR END | | | | | | | | | | |
| | Road Surface Condition: DRY | | | | | | | | | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | |
| | Road Char.: CURVE AND LEVEL | | | | | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | | | | | | | | | | Num of Veh: 2 |
| | Registered Weight: 3457 | | | | | | | | | | |
| | Num of Occupants: 1 | | | | | | | | | | |
| | Direction of Travel: NORTH | | | | | | | | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | | |
| | State of Registration: NY | | | | | | | | | | |
| Veh :1 | Sex: F | | | | | | | | | | Case: 2017-36970089 |
| | Citation Issued: N | | | | | | | | | | |
| | School Bus Involved: OTHER | | | | | | | | | | |
| | Traffic Control: TRAFFIC SIGNAL | | | | | | | | | | |
| | Weather: CLEAR | | | | | | | | | | |
| | Light Condition: DAYLIGHT | | | | | | | | | | |
| | Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | |

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|---------------------|--|--|-------------------------------------|----------------------------|
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3214 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 52 | Sex: M | Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: Street: KING ST | Extent of Injuries: | Case: 2017-36973571 |
| 11/8/2017 | Wed 17:53 PM | Persons Killed: 0 | Police Agency: NORTH CASTLE TOWN PD | Num of Veh: 2 |
| | Accident Class: PROPERTY DAMAGE | | | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Traffic Control: TRAFFIC SIGNAL | |
| | Manner of Collision: REAR END | | Weather: CLOUDY | |
| | Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | Light Condition: DARK-ROAD LIGHTED | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: CT | |
| | Num of Occupants: 1 | Driver's Age: 62 | Sex: M | Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 2690 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 21 | Sex: F | Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: SLOWED OR STOPPING | | | |
| | Apparent Factors: BRAKES DEFECTIVE, NOT APPLICABLE | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024049 Street: KING ST | Extent of Injuries: | Case: 2017-36974506 |
| 11/10/2017 | Fri 10:05 AM | Persons Killed: 0 | Police Agency: NORTH CASTLE TOWN PD | Num of Veh: 2 |
| | Accident Class: PROPERTY DAMAGE | | | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Traffic Control: TRAFFIC SIGNAL | |
| | Manner of Collision: REAR END | | Weather: CLEAR | |
| | Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | Light Condition: DAYLIGHT | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3086 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 64 | Sex: M | Citation Issued: N |
| | Direction of Travel: EAST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: SLOWED OR STOPPING | | | |
| | Apparent Factors: NOT APPLICABLE, UNKNOWN | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4104 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 57 | Sex: F | Citation Issued: N |
| | Direction of Travel: EAST | Public Property Damage: OTHER | | School Bus Involved: OTHER |

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| Pre-Accd Action: SLOWED OR STOPPING | | | | | | | | | |
| Apparent Factors: UNKNOWN, FOLLOWING TOO CLOSELY | | | | | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024061 | Street: ARMONK-BEDFORD RD | | | | | | |
| AT INTERSECTION WITH Main St | | | | | | | | | |
| 11/14/2017 | Tue 00:40 AM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: NORTH CASTLE TOWN PD | Case: 2017-36980110 | | | | Num of Veh: 1 |
| Accident Class: NON-REPORTABLE | Type Of Accident: COLLISION WITH DEER | Manner of Collision: OTHER | Road Surface Condition: DRY | Traffic Control: TRAFFIC SIGNAL | | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | Road Char.: STRAIGHT AND LEVEL | | | Weather: CLEAR | | | | | |
| | | | | Light Condition: DARK-ROAD LIGHTED | | | | | |
| | | | | Action of Ped/Bicycle: NOT APPLICABLE | | | | | |
| Veh :1 | TRUCK | Registered Weight: | State of Registration: MD | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 35 | Sex: M | Citation Issued: N | | | | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | | | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | |
| Apparent Factors: ANIMAL'S ACTION, NOT APPLICABLE | | | | | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 120 87012086 | Street: KING ST | | | | | | |
| AT INTERSECTION WITH Ramp | | | | | | | | | |
| 11/21/2017 | Tue 18:06 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: NORTH CASTLE TOWN PD | Case: 2017-36992223 | | | | Num of Veh: 2 |
| Accident Class: PROPERTY DAMAGE | Type Of Accident: COLLISION WITH MOTOR VEHICLE | Manner of Collision: OVERTAKING | Road Surface Condition: DRY | Police Agency: NORTH CASTLE TOWN PD | | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | Road Char.: STRAIGHT/ GRADE | | | Weather: CLEAR | | | | | |
| | | | | Light Condition: DARK-ROAD UNLIGHTED | | | | | |
| | | | | Action of Ped/Bicycle: NOT APPLICABLE | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3395 | State of Registration: NY | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 22 | Sex: F | Citation Issued: N | | | | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | | | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: | Street: | | | | | | |
| AT INTERSECTION WITH King St | | | | | | | | | |
| 12/1/2017 | Fri 17:36 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: NORTH CASTLE TOWN PD | Case: 2017-37010033 | | | | Num of Veh: 2 |
| Accident Class: PROPERTY DAMAGE | Type Of Accident: COLLISION WITH MOTOR VEHICLE | Manner of Collision: REAR END | Road Surface Condition: DRY | Police Agency: NORTH CASTLE TOWN PD | | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | Road Char.: STRAIGHT AND LEVEL | | | Weather: CLEAR | | | | | |
| | | | | Light Condition: DARK-ROAD LIGHTED | | | | | |
| | | | | Action of Ped/Bicycle: NOT APPLICABLE | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3223 | State of Registration: NY | | | | | | |
| | Num of Occupants: 3 | Driver's Age: 28 | Sex: F | Citation Issued: Y | | | | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | | | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | |
| Apparent Factors: NOT APPLICABLE, PASSING OR LANE USAGE IMPROPERLY | | | | | | | | | |

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|--|---|--|---|---------------------------|
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH-WEST Pre-Accd Action: STARTING IN TRAFFIC Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: 2813 Driver's Age: 25 Public Property Damage: OTHER | Sex: M Citation Issued: N School Bus Involved: OTHER | State of Registration: NY |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: NORTH-WEST Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE | Registered Weight: 3349 Driver's Age: 42 Public Property Damage: OTHER | Sex: F Citation Issued: N School Bus Involved: OTHER | State of Registration: NY |
| County: Westchester 11/19/2017 | Muni: North Castle(T) Sun 17:30 PM Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH DEER Manner of Collision: OTHER Road Surface Condition: DRY Loc. of Ped/Bicycle: NOT APPLICABLE | Ref. Marker: 120 87012090 Street: [Route] 120 Persons Killed: 0 Persons Injured: 0 Traffic Control: CLEAR Light Condition: DARK-ROAD UNLIGHTED Action of Ped/Bicycle: NOT APPLICABLE | Extent of Injuries: Police Agency: Case: 2017-37014684 Num of Veh: 1 | |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 2 Direction of Travel: SOUTH Pre-Accd Action: SLOWED OR STOPPING Apparent Factors: NOT ENTERED, NOT ENTERED | Registered Weight: 2877 Driver's Age: 16 Public Property Damage: OTHER | Sex: F Citation Issued: N School Bus Involved: OTHER | State of Registration: NY |
| County: Westchester AT INTERSECTION WITH Ramp 12/12/2017 | Muni: North Castle(T) Tue 07:14 AM Accident Class: PROPERTY DAMAGE Type Of Accident: COLLISION WITH MOTOR VEHICLE Manner of Collision: REAR END Road Surface Condition: WET Loc. of Ped/Bicycle: NOT APPLICABLE | Ref. Marker: 22 87024066 Street: BEDFORD RD Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Road Char.: STRAIGHT AND LEVEL Action of Ped/Bicycle: NOT APPLICABLE | Extent of Injuries: Police Agency: Case: 2017-37027845 Num of Veh: 2 | |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: SOUTH-WEST Pre-Accd Action: STOPPED IN TRAFFIC Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: Driver's Age: 40 Public Property Damage: OTHER | Sex: M Citation Issued: N School Bus Involved: OTHER | State of Registration: CT |
| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: SOUTH-WEST Pre-Accd Action: GOING STRAIGHT AHEAD | Registered Weight: Driver's Age: 52 Public Property Damage: OTHER | Sex: F Citation Issued: N School Bus Involved: OTHER | State of Registration: CT |

Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011000 Street: MAIN ST
 AT INTERSECTION WITH Armonk-Bedford Rd
12/12/2017 Tue 11:06 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries:
 Accident Class: NON-REPOR TABLE Police Agency: NORTH CASTLE TOWN PD Case: 2017-37029928 Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: RAIN
 Road Surface Condition: WET Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight:
 Num of Occupants: 2 Driver's Age: 52 State of Registration: NY
 Direction of Travel: SOUTH Sex: F Citation Issued: N
 Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight:
 Num of Occupants: 1 Driver's Age: 22 State of Registration: CT
 Direction of Travel: SOUTH Sex: F Citation Issued: N
 Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024061 Street: [Route] 22
 23 Meters West of MAIN ST
11/25/2017 Sat 05:45 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries:
 Accident Class: PROPERTY DAMAGE Police Agency: Case: 2017-37044692 Num of Veh: 1
 Type Of Accident: COLLISION WITH DEER Traffic Control: NONE
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Light Condition: DARK-ROAD UNLIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight:
 Num of Occupants: 1 Driver's Age: 66 State of Registration: NY
 Direction of Travel: SOUTH Sex: M Citation Issued: N
 Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT ENTERED, NOT ENTERED

County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: STATE HWY 22
 AT INTERSECTION WITH Ramp
1/10/2018 Wed 08:49 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries:
 Accident Class: PROPERTY DAMAGE Police Agency: NORTH CASTLE TOWN PD Case: 2018-37084976 Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN
 Manner of Collision: OVERTAKING Weather: CLOUDY
 Road Surface Condition: DRY Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 TRUCK Registered Weight: 37780 State of Registration: NY

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| Veh :1 | | | | | | | | | |
| Num of Occupants: 1 | | Driver's Age: 29 | | Sex: M | | Citation Issued: N | | School Bus Involved: OTHER | |
| Direction of Travel: SOUTH | | Public Property Damage: OTHER | | | | | | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | |
| CAR/VAN/PICKUP | | Registered Weight: 3150 | | State of Registration: NY | | | | | |
| Num of Occupants: 1 | | Driver's Age: 62 | | Sex: F | | Citation Issued: N | | | |
| Direction of Travel: SOUTH | | Public Property Damage: OTHER | | | | | | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | |
| Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE | | | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024044 Street: MOUNT KISCO RD | | | | | | | | | |
| AT INTERSECTION WITH King St | | | | | | | | | |
| 1/26/2018 Fri 09:02 AM Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Extent of Injuries: Case: 2018-37108944 Num of Veh: 2 | | | | | | | | | |
| Accident Class: PROPERTY DAMAGE | | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Manner of Collision: REAR END | | Road Surface Condition: DRY | | Loc. of Ped/Bicycle: NOT APPLICABLE | |
| | | Road Char.: STRAIGHT AND LEVEL | | Action of Ped/Bicycle: NOT APPLICABLE | | Weather: CLEAR | | Traffic Control: TRAFFIC SIGNAL | |
| | | | | | | Light Condition: DAYLIGHT | | | |
| Veh :1 | | | | | | | | | |
| CAR/VAN/PICKUP | | Registered Weight: 4358 | | State of Registration: NY | | | | | |
| Num of Occupants: 1 | | Driver's Age: 37 | | Sex: F | | Citation Issued: N | | | |
| Direction of Travel: SOUTH | | Public Property Damage: OTHER | | | | | | | |
| Pre-Accd Action: STARTING IN TRAFFIC | | | | | | | | | |
| Apparent Factors: DRIVER INATTENTION, EATING OR DRINKING | | | | | | | | | |
| Veh :2 | | | | | | | | | |
| CAR/VAN/PICKUP | | Registered Weight: 3771 | | State of Registration: NY | | | | | |
| Num of Occupants: 1 | | Driver's Age: 45 | | Sex: F | | Citation Issued: N | | | |
| Direction of Travel: SOUTH | | Public Property Damage: OTHER | | | | | | | |
| Pre-Accd Action: STARTING IN TRAFFIC | | | | | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 128 87011000 Street: [Route] 22 | | | | | | | | | |
| AT INTERSECTION WITH [Route] 128 | | | | | | | | | |
| 2/1/2018 Thu 18:33 PM Persons Killed: 0 Persons Injured: 1 Police Agency: NORTH CASTLE TOWN PD Extent of Injuries: A Case: 2018-37119640 Num of Veh: 3 | | | | | | | | | |
| Accident Class: PROPERTY DAMAGE AND INJURY | | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | Manner of Collision: OTHER | | Road Surface Condition: WET | | Loc. of Ped/Bicycle: NOT APPLICABLE | |
| | | Road Char.: STRAIGHT AND LEVEL | | Action of Ped/Bicycle: NOT APPLICABLE | | Weather: RAIN | | Traffic Control: TRAFFIC SIGNAL | |
| | | | | | | Light Condition: DARK-ROAD LIGHTED | | | |
| Veh :3 | | | | | | | | | |
| CAR/VAN/PICKUP | | Registered Weight: | | State of Registration: CT | | | | | |
| Num of Occupants: 1 | | Driver's Age: 27 | | Sex: M | | Citation Issued: N | | | |
| Direction of Travel: SOUTH | | Public Property Damage: OTHER | | | | | | | |
| Pre-Accd Action: STOPPED IN TRAFFIC | | | | | | | | | |

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

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| Veh :1 | <p>County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: STATE HWY 22</p> <p>AT INTERSECTION WITH Ramp</p> <p>1/31/2018 Wed 08:18 AM Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Case: 2018-37121327 Num of Veh: 2</p> <p>Accident Class: PROPERTY DAMAGE</p> <p>Type Of Accident: COLLISION WITH MOTOR VEHICLE</p> <p>Manner of Collision: OVERTAKING</p> <p>Road Surface Condition: DRY</p> <p>Loc. of Ped/Bicycle: NOT APPLICABLE</p> <p>Road Char.: CURVE AND LEVEL</p> <p>Action of Ped/Bicycle: NOT APPLICABLE</p> <p>Traffic Control: YIELD SIGN</p> <p>Weather: CLEAR</p> <p>Light Condition: DAYLIGHT</p> | | | | | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 4448 | State of Registration: NY | | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 37 | Sex: F | Citation Issued: N | | | | | | |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | | | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | |
| | Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, NOT APPLICABLE | | | | | | | | | |
| Veh :2 | <p>County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: STATE HWY 22</p> <p>AT INTERSECTION WITH Ramp</p> <p>1/31/2018 Wed 08:18 AM Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Case: 2018-37121327 Num of Veh: 2</p> <p>Accident Class: PROPERTY DAMAGE</p> <p>Type Of Accident: COLLISION WITH MOTOR VEHICLE</p> <p>Manner of Collision: OVERTAKING</p> <p>Road Surface Condition: DRY</p> <p>Loc. of Ped/Bicycle: NOT APPLICABLE</p> <p>Road Char.: CURVE AND LEVEL</p> <p>Action of Ped/Bicycle: NOT APPLICABLE</p> <p>Traffic Control: YIELD SIGN</p> <p>Weather: CLEAR</p> <p>Light Condition: DAYLIGHT</p> | | | | | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 4153 | State of Registration: NY | | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 37 | Sex: M | Citation Issued: N | | | | | | |
| | Direction of Travel: WEST | Public Property Damage: OTHER | | School Bus Involved: OTHER | | | | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | |
| Veh :1 | <p>County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: [Route] 22</p> <p>AT INTERSECTION WITH [Route] 120</p> <p>2/7/2018 Wed 09:47 AM Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Case: 2018-37133572 Num of Veh: 2</p> <p>Accident Class: PROPERTY DAMAGE</p> <p>Type Of Accident: COLLISION WITH MOTOR VEHICLE</p> <p>Manner of Collision: REAR END</p> <p>Road Surface Condition: SNOW/ICE</p> <p>Loc. of Ped/Bicycle: NOT APPLICABLE</p> <p>Road Char.: STRAIGHT AND LEVEL</p> <p>Action of Ped/Bicycle: NOT APPLICABLE</p> <p>Weather: SLEET/HAIL/FREEZING RAIN</p> <p>Traffic Control: TRAFFIC SIGNAL</p> <p>Light Condition: DAYLIGHT</p> | | | | | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 4201 | State of Registration: NY | | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 51 | Sex: F | Citation Issued: N | | | | | | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | | | | | |
| | Pre-Accd Action: MERGING | | | | | | | | | |
| | Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, FAILURE TO YIELD RIGHT OF WAY | | | | | | | | | |
| Veh :1 | <p>County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: [Route] 22</p> <p>AT INTERSECTION WITH [Route] 120</p> <p>2/7/2018 Wed 09:47 AM Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Case: 2018-37133572 Num of Veh: 2</p> <p>Accident Class: PROPERTY DAMAGE</p> <p>Type Of Accident: COLLISION WITH MOTOR VEHICLE</p> <p>Manner of Collision: REAR END</p> <p>Road Surface Condition: SNOW/ICE</p> <p>Loc. of Ped/Bicycle: NOT APPLICABLE</p> <p>Road Char.: STRAIGHT AND LEVEL</p> <p>Action of Ped/Bicycle: NOT APPLICABLE</p> <p>Weather: SLEET/HAIL/FREEZING RAIN</p> <p>Traffic Control: TRAFFIC SIGNAL</p> <p>Light Condition: DAYLIGHT</p> | | | | | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 3649 | State of Registration: NY | | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 65 | Sex: F | Citation Issued: N | | | | | | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | | | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | |
| Veh :1 | <p>County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: [Route] 22</p> <p>AT INTERSECTION WITH [Route] 120</p> <p>2/7/2018 Wed 09:47 AM Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Case: 2018-37133572 Num of Veh: 2</p> <p>Accident Class: PROPERTY DAMAGE</p> <p>Type Of Accident: COLLISION WITH MOTOR VEHICLE</p> <p>Manner of Collision: REAR END</p> <p>Road Surface Condition: SNOW/ICE</p> <p>Loc. of Ped/Bicycle: NOT APPLICABLE</p> <p>Road Char.: STRAIGHT AND LEVEL</p> <p>Action of Ped/Bicycle: NOT APPLICABLE</p> <p>Weather: SLEET/HAIL/FREEZING RAIN</p> <p>Traffic Control: TRAFFIC SIGNAL</p> <p>Light Condition: DAYLIGHT</p> | | | | | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 4201 | State of Registration: NY | | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 51 | Sex: F | Citation Issued: N | | | | | | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | | | | | |
| | Pre-Accd Action: MERGING | | | | | | | | | |
| | Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, FAILURE TO YIELD RIGHT OF WAY | | | | | | | | | |
| Veh :1 | <p>County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: [Route] 22</p> <p>AT INTERSECTION WITH [Route] 120</p> <p>2/7/2018 Wed 09:47 AM Persons Killed: 0 Persons Injured: 0 Police Agency: NORTH CASTLE TOWN PD Case: 2018-37133572 Num of Veh: 2</p> <p>Accident Class: PROPERTY DAMAGE</p> <p>Type Of Accident: COLLISION WITH MOTOR VEHICLE</p> <p>Manner of Collision: REAR END</p> <p>Road Surface Condition: SNOW/ICE</p> <p>Loc. of Ped/Bicycle: NOT APPLICABLE</p> <p>Road Char.: STRAIGHT AND LEVEL</p> <p>Action of Ped/Bicycle: NOT APPLICABLE</p> <p>Weather: SLEET/HAIL/FREEZING RAIN</p> <p>Traffic Control: TRAFFIC SIGNAL</p> <p>Light Condition: DAYLIGHT</p> | | | | | | | | | |
| | CAR/VAN/PICKUP | Registered Weight: 3495 | State of Registration: NY | | | | | | | |
| | Num of Occupants: 1 | Driver's Age: 20 | Sex: F | Citation Issued: N | | | | | | |

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|--|---|---------------------------------------|---------------------------------------|----------------------------|---------------|--|--|
| Direction of Travel: SOUTH | | Public Property Damage: OTHER | | School Bus Involved: OTHER | | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | |
| Apparent Factors: NOT APPLICABLE, PAVEMENT SLIPPERY | | | | | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 3532 | State of Registration: NY | Sex: F | | | |
| | Num of Occupants: 1 | Driver's Age: 63 | Citation Issued: N | | | | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | | |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024048 Street: KING ST | | | | | | | |
| 2/17/2018 Sat 21:04 PM | | Persons Injured: 0 | Extent of Injuries: | Case: 2018-37148152 | Num of Veh: 1 | | |
| Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | | | | | |
| Type Of Accident: COLLISION WITH GUIDE RAIL | | | Weather: SNOW | Traffic Control: NONE | | | |
| Manner of Collision: OTHER | | | Light Condition: DARK-ROAD LIGHTED | | | | |
| Road Surface Condition: SNOW/ICE | | Road Char.: STRAIGHT AND LEVEL | Action of Ped/Bicycle: NOT APPLICABLE | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3177 | State of Registration: NY | | | | |
| | Num of Occupants: 1 | Driver's Age: 27 | Sex: M | Citation Issued: N | | | |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | |
| | Apparent Factors: NOT APPLICABLE, PAVEMENT SLIPPERY | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: [Route] 120 | | | | | | | |
| 2/16/2018 Fri 17:45 PM | | Persons Injured: 0 | Extent of Injuries: | Case: 2018-37169089 | Num of Veh: 1 | | |
| Accident Class: PROPERTY DAMAGE | | | Police Agency: | | | | |
| Type Of Accident: COLLISION WITH DEER | | | Traffic Control: UNKNOWN | | | | |
| Manner of Collision: OTHER | | | Weather: CLEAR | Light Condition: DUSK | | | |
| Road Surface Condition: WET | | Road Char.: CURVE AND GRADE | Action of Ped/Bicycle: NOT APPLICABLE | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 3141 | State of Registration: NY | | | | |
| | Num of Occupants: 2 | Driver's Age: 38 | Sex: M | Citation Issued: N | | | |
| | Direction of Travel: NORTH-WEST | Public Property Damage: OTHER | | School Bus Involved: OTHER | | | |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | |
| | Apparent Factors: NOT ENTERED, NOT ENTERED | | | | | | |
| County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024064 Street: ARMONK-BEDFORD RD | | | | | | | |
| 3/3/2018 Sat 12:35 PM | | Persons Injured: 1 | Extent of Injuries: B | Case: 2018-37176293 | Num of Veh: 2 | | |
| Accident Class: PROPERTY DAMAGE AND INJURY | | Police Agency: NORTH CASTLE TOWN PD | | | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Traffic Control: TRAFFIC SIGNAL | | | | |
| Manner of Collision: RIGHT ANGLE | | | Weather: CLOUDY | | | | |
| Road Surface Condition: DRY | | Road Char.: STRAIGHT AND LEVEL | Light Condition: DAYLIGHT | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | | | | | |

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| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: EAST Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: TRAF CNTRL DEV IMPROPER/NON-WRKING, NOT APPLICABLE | Registered Weight: 2772 Driver's Age: 50 Public Property Damage: OTHER | Sex: M State of Registration: NY Citation Issued: N School Bus Involved: OTHER |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: SOUTH Pre-Accd Action: GOING STRAIGHT AHEAD Apparent Factors: TRAF CNTRL DEV IMPROPER/NON-WRKING, NOT APPLICABLE | Registered Weight: 3537 Driver's Age: 22 Public Property Damage: OTHER | Sex: F State of Registration: NY Citation Issued: N School Bus Involved: OTHER |

County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024044 Street: MOUNT KISCO RD
AT INTERSECTION WITH King St
3/6/2018 Tue 18:14 PM Persons Killed: 0 Persons Injured: 1
Accident Class: PROPERTY DAMAGE AND INJURY
Type Of Accident: COLLISION WITH MOTOR VEHICLE
Manner of Collision: OTHER
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL
Loc. of Ped/Bicycle: NOT APPLICABLE

Extent of Injuries: C
Police Agency: NORTH CASTLE TOWN PD
Traffic Control: TRAFFIC SIGNAL
Weather: CLOUDY
Light Condition: DARK-ROAD LIGHTED
Action of Ped/Bicycle: NOT APPLICABLE
Case: 2018-37177324
Num of Veh: 3

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| Veh :1 | CAR/VAN/PICKUP Num of Occupants: 2 Direction of Travel: SOUTH Pre-Accd Action: CHANGING LANES Apparent Factors: UNSAFE LANE CHANGE, NOT APPLICABLE | Registered Weight: 2921 Driver's Age: 68 Public Property Damage: OTHER | Sex: M State of Registration: NY Citation Issued: N School Bus Involved: OTHER |
| Veh :3 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: SOUTH Pre-Accd Action: STOPPED IN TRAFFIC Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | Registered Weight: 3185 Driver's Age: 48 Public Property Damage: OTHER | Sex: F State of Registration: NY Citation Issued: N School Bus Involved: OTHER |
| Veh :2 | CAR/VAN/PICKUP Num of Occupants: 1 Direction of Travel: SOUTH Pre-Accd Action: CHANGING LANES Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, NOT APPLICABLE | Registered Weight: 2889 Driver's Age: 31 Public Property Damage: OTHER | Sex: F State of Registration: NY Citation Issued: N School Bus Involved: OTHER |

County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012090 Street: STATE HWY 22
AT INTERSECTION WITH Ramp
3/2/2018 Fri 11:36 AM Persons Killed: 0 Persons Injured: 2
Accident Class: PROPERTY DAMAGE AND INJURY
Type Of Accident: COLLISION WITH MOTOR VEHICLE
Manner of Collision: OVERTAKING

Extent of Injuries: CC
Police Agency: NORTH CASTLE TOWN PD
Traffic Control: YIELD SIGN
Weather: SLEET/HAIL/FREEZING RAIN
Case: 2018-37178080
Num of Veh: 2

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| CAR/VAN/PICKUP | | | | | | | | | | Registered Weight: 3230 | | | | | | | | | | State of Registration: NY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Veh :2 | | | | | | | | | | Num of Occupants: 3 | | | | | | | | | | Sex: F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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| Direction of Travel: SOUTH | | | | | | | | | | Public Property Damage: OTHER | | | | | | | | | | Citation Issued: N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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| CAR/VAN/PICKUP | | | | | | | | | | Registered Weight: 5178 | | | | | | | | | | State of Registration: NY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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| Veh :1 | | | | | | | | | | Num of Occupants: 1 | | | | | | | | | | Sex: F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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| Direction of Travel: SOUTH | | | | | | | | | | Public Property Damage: OTHER | | | | | | | | | | Citation Issued: N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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| Pre-Accd Action: MERGING | | | | | | | | | | | | | | | | | | | | School Bus Involved: OTHER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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| County: Westchester | | | | | | | | | | Muni: North Castle(T) | | | | | | | | | | Ref. Marker: 120 87012090 | | | | | | | | | | Street: STATE HWY 22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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| AT INTERSECTION WITH Ramp | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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| 3/11/2018 | | | | | | | | | | Sun 18:03 PM | | | | | | | | | | Persons Killed: 0 | | | | | | | | | | Persons Injured: 0 | | | | | | | | | | Extent of Injuries: | | | | | | | | | | Police Agency: NORTH CASTLE TOWN PD | | | | | | | | | | Case: 2018-37180128 | | | | | | | | | | Num of Veh: 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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| Accident Class: PROPERTY DAMAGE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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|--|---|-------------------------------|-------------------------------------|--|
| Veh :1 | Num of Occupants: 1 | Driver's Age: 17 | Sex: M | Citation Issued: N |
| | Direction of Travel: WEST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |
| | CAR/VAN/PICKUP | Registered Weight: 2687 | State of Registration: NY | |
| | Num of Occupants: 2 | Driver's Age: 19 | Sex: M | Citation Issued: Y |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, NOT APPLICABLE | | | |
| | County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024067 | Street: BEDFORD RD |
| AT INTERSECTION WITH Ramp | | | | |
| 3/19/2018 | | | | |
| | Mon 17:24 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: NORTH CASTLE TOWN PD |
| | Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | Case: 2018-37193621 |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Num of Veh: 2 |
| | Manner of Collision: OVERTAKING | | | Traffic Control: STOP SIGN |
| | Road Surface Condition: DRY | | | Weather: CLEAR |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | Light Condition: DAYLIGHT |
| | | | | Action of Ped/Bicycle: NOT APPLICABLE |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 7784 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 58 | Sex: M | Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: MA | |
| | Num of Occupants: 2 | Driver's Age: 93 | Sex: M | Citation Issued: N |
| | Direction of Travel: NORTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: MERGING | | | |
| | Apparent Factors: DRIVER INATTENTION, GLARE | | | |
| County: Westchester | | | | |
| Muni: North Castle(T) | | | | |
| Ref. Marker: Street: MAPLE AVE | | | | |
| AT INTERSECTION WITH Armonk-Bedford Rd | | | | |
| 3/29/2018 | | | | |
| | Thu 14:57 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: NORTH CASTLE TOWN PD |
| | Accident Class: PROPERTY DAMAGE | | Police Agency: NORTH CASTLE TOWN PD | Case: 2018-37212600 |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | Num of Veh: 2 |
| | Manner of Collision: REAR END | | | Traffic Control: TRAFFIC SIGNAL |
| | Road Surface Condition: WET | | | Weather: CLOUDY |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | | | Light Condition: DAYLIGHT |
| | | | | Action of Ped/Bicycle: NOT APPLICABLE |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 5130 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 49 | Sex: F | Citation Issued: N |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: STOPPED IN TRAFFIC | | | |
| | | | | |

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1
 County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024056 Street: ARMONK-BEDFORD RD
 AT INTERSECTION WITH Old Post Rd
4/12/2018
 Mon 23:00 PM Persons Killed: 0 Registered Weight: 3303 State of Registration: NY
 Accident Class: PROPERTY DAMAGE AND INJURY Driver's Age: 30 Sex: F Citation Issued: N
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Public Property Damage: OTHER
 Manner of Collision: SIDESWIPE Pre-Accd Action: GOING STRAIGHT AHEAD
 Road Surface Condition: DRY Apparent Factors: DRIVER INATTENTION, FOLLOWING TOO CLOSELY
 Loc. of Ped/Bicycle: NOT APPLICABLE Road Char.: STRAIGHT AND LEVEL
 Police Agency: NORTH CASTLE TOWN PD Extent of Injuries: C Case: 2018-37220555 Num of Veh: 2
 Weather: CLEAR Traffic Control: NONE
 Light Condition: DARK-ROAD LIGHTED
 Action of Ped/Bicycle: NOT APPLICABLE

Veh :2
 County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024056 Street: ARMONK-BEDFORD RD
 AT INTERSECTION WITH Old Post Rd
4/12/2018
 Mon 23:00 PM Persons Killed: 0 Registered Weight: 3053 State of Registration: NY
 Accident Class: PROPERTY DAMAGE AND INJURY Driver's Age: 23 Sex: M Citation Issued: N
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Public Property Damage: OTHER
 Manner of Collision: SIDESWIPE Pre-Accd Action: GOING STRAIGHT AHEAD
 Road Surface Condition: DRY Apparent Factors: DRIVER INATTENTION, FOLLOWING TOO CLOSELY
 Loc. of Ped/Bicycle: NOT APPLICABLE Road Char.: STRAIGHT AND LEVEL
 Police Agency: NORTH CASTLE TOWN PD Extent of Injuries: C Case: 2018-37220555 Num of Veh: 2
 Weather: CLEAR Traffic Control: NONE
 Light Condition: DARK-ROAD LIGHTED
 Action of Ped/Bicycle: NOT APPLICABLE

Veh :1
 County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024064 Street: ARMONK-BEDFORD RD
 AT INTERSECTION WITH Maple Ave
5/12/2018
 Sat 21:20 PM Persons Killed: 0 Registered Weight: 3616 State of Registration: NY
 Accident Class: PROPERTY DAMAGE Driver's Age: 34 Sex: F Citation Issued: Y
 Type Of Accident: COLLISION WITH MEDIAN/BARRIER - END Public Property Damage: OTHER
 Manner of Collision: OTHER Pre-Accd Action: GOING STRAIGHT AHEAD
 Road Surface Condition: WET Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, PASSING OR LANE USAGE IMPROPERLY
 Loc. of Ped/Bicycle: NOT APPLICABLE Road Char.: STRAIGHT AND LEVEL
 Police Agency: NORTH CASTLE TOWN PD Extent of Injuries: C Case: 2018-37278487 Num of Veh: 1
 Weather: CLOUDY Traffic Control: TRAFFIC SIGNAL
 Light Condition: DARK-ROAD LIGHTED
 Action of Ped/Bicycle: NOT APPLICABLE

Veh :1
 County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012087 Street: [Route] 120
 AT INTERSECTION WITH [Route] 22
5/12/2018
 Sat 21:20 PM Persons Killed: 0 Registered Weight: 2834 State of Registration: NY
 Accident Class: PROPERTY DAMAGE Driver's Age: 26 Sex: M Citation Issued: N
 Type Of Accident: COLLISION WITH MEDIAN/BARRIER - END Public Property Damage: OTHER
 Manner of Collision: OTHER Pre-Accd Action: MAKING LEFT TURN
 Road Surface Condition: WET Apparent Factors: VIEW OBSTRUCTED/LIMITED, TURNING IMPROPER
 Loc. of Ped/Bicycle: NOT APPLICABLE Road Char.: STRAIGHT AND LEVEL
 Police Agency: NORTH CASTLE TOWN PD Extent of Injuries: C Case: 2018-37278487 Num of Veh: 1
 Weather: CLOUDY Traffic Control: TRAFFIC SIGNAL
 Light Condition: DARK-ROAD LIGHTED
 Action of Ped/Bicycle: NOT APPLICABLE

County: Westchester Muni: North Castle(T) Ref. Marker: 120 87012087 Street: [Route] 120
 AT INTERSECTION WITH [Route] 22

| | | | | | | |
|--|-----------------------|---------------------------|-------------------------------------|---------------------------|---------------------------------------|---------------|
| 5/24/2018 | Thu 18:38 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2018-37299168 | Num of Veh: 2 |
| Accident Class: PROPERTY DAMAGE | | | Police Agency: NORTH CASTLE TOWN PD | | Traffic Control: YIELD SIGN | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | Weather: CLEAR | |
| Manner of Collision: REAR END | | | Road Char.: STRAIGHT AND LEVEL | | Light Condition: DAYLIGHT | |
| Road Surface Condition: DRY | | | Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | |
| Veh :2 | CAR/VAN/PICKUP | | Registered Weight: 3432 | State of Registration: NY | | |
| Num of Occupants: 5 | | | Driver's Age: 17 | Sex: F | Citation Issued: N | |
| Direction of Travel: SOUTH | | | Public Property Damage: OTHER | | School Bus Involved: OTHER | |
| Pre-Accd Action: SLOWED OR STOPPING | | | | | | |
| Apparent Factors: DRIVER INEXPERIENCE, FOLLOWING TOO CLOSELY | | | | | | |
| Veh :1 | CAR/VAN/PICKUP | | Registered Weight: 2573 | State of Registration: NY | | |
| Num of Occupants: 2 | | | Driver's Age: 68 | Sex: F | Citation Issued: N | |
| Direction of Travel: SOUTH | | | Public Property Damage: OTHER | | School Bus Involved: OTHER | |
| Pre-Accd Action: STOPPED IN TRAFFIC | | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 22 87024050 | Street: ARMONK-BEDFORD RD | | | |
| 5/11/2018 | Fri 17:01 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2018-37307750 | Num of Veh: 2 |
| Accident Class: PROPERTY DAMAGE | | | Police Agency: NORTH CASTLE TOWN PD | | Traffic Control: TRAFFIC SIGNAL | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | Weather: CLEAR | |
| Manner of Collision: REAR END | | | Road Char.: STRAIGHT AND LEVEL | | Light Condition: DAYLIGHT | |
| Road Surface Condition: DRY | | | Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | |
| Veh :1 | CAR/VAN/PICKUP | | Registered Weight: 3944 | State of Registration: NY | | |
| Num of Occupants: 1 | | | Driver's Age: 56 | Sex: F | Citation Issued: N | |
| Direction of Travel: NORTH | | | Public Property Damage: OTHER | | School Bus Involved: OTHER | |
| Pre-Accd Action: STOPPED IN TRAFFIC | | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | |
| Veh :2 | CAR/VAN/PICKUP | | Registered Weight: 5232 | State of Registration: NY | | |
| Num of Occupants: 1 | | | Driver's Age: 53 | Sex: M | Citation Issued: N | |
| Direction of Travel: NORTH | | | Public Property Damage: OTHER | | School Bus Involved: OTHER | |
| Pre-Accd Action: STARTING IN TRAFFIC | | | | | | |
| Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION | | | | | | |
| County: Westchester | Muni: North Castle(T) | Ref. Marker: 120 87012090 | Street: [Route] 120 | | | |
| 5/31/2018 | Thu 18:04 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | Case: 2018-37309370 | Num of Veh: 2 |
| Accident Class: NON-REPORTABLE | | | Police Agency: NORTH CASTLE TOWN PD | | Traffic Control: NONE | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | Weather: RAIN | |
| Manner of Collision: REAR END | | | Road Char.: STRAIGHT/ GRADE | | Light Condition: DAYLIGHT | |
| Road Surface Condition: WET | | | | | | |

| | | | | |
|-----------|---|---------------------------------------|---------------------------------------|----------------------------|
| Veh :1 | Loc. of Ped/Bicycle: NOT APPLICABLE | | Action of Ped/Bicycle: NOT APPLICABLE | |
| | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 32 | Sex: F | Citation Issued: N |
| | Direction of Travel: NORTH-WEST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION | | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 54 | Sex: M | Citation Issued: N |
| | Direction of Travel: NORTH-WEST | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |
| | County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024064 Street: BEDFORD RD | | | |
| | AT INTERSECTION WITH Maple Ave | | | |
| 5/29/2018 | Tue 18:11 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: |
| | Accident Class: PROPERTY DAMAGE | Police Agency: NORTH CASTLE TOWN PD | | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | Traffic Control: TRAFFIC SIGNAL | | |
| | Manner of Collision: REAR END | Weather: CLEAR | | |
| | Road Surface Condition: DRY | Light Condition: DAYLIGHT | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | | |
| Veh :2 | CAR/VAN/PICKUP | Registered Weight: 5150 | State of Registration: NY | |
| | Num of Occupants: 1 | Driver's Age: 46 | Sex: M | Citation Issued: N |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: | State of Registration: CT | |
| | Num of Occupants: 1 | Driver's Age: 71 | Sex: M | Citation Issued: N |
| | Direction of Travel: SOUTH | Public Property Damage: OTHER | | School Bus Involved: OTHER |
| | Pre-Accd Action: GOING STRAIGHT AHEAD | | | |
| | Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE | | | |
| | County: Westchester Muni: North Castle(T) Ref. Marker: 22 87024049 Street: [Route] 22 | | | |
| | 23 Meters South of [Route] 120 | | | |
| 6/13/2018 | Wed 17:02 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: |
| | Accident Class: PROPERTY DAMAGE | Police Agency: NORTH CASTLE TOWN PD | | |
| | Type Of Accident: COLLISION WITH MOTOR VEHICLE | Traffic Control: TRAFFIC SIGNAL | | |
| | Manner of Collision: REAR END | Weather: CLEAR | | |
| | Road Surface Condition: WET | Light Condition: DAYLIGHT | | |
| | Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE | | |
| Veh :1 | CAR/VAN/PICKUP | Registered Weight: 4422 | State of Registration: NY | |
| | Num of Occupants: 3 | Driver's Age: 43 | Sex: F | Citation Issued: N |

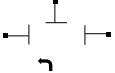
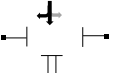
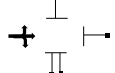
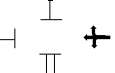
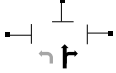
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|---|--|--|--|--|--|--|--|--|--|-------------------------------|--|--|--|--|--|--|--|--|--|----------------------------|--|--|--|--|--|--|--|--|--|------------------------|--|--|--|--|--|--|--|--|--|---------------------------------------|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|--|--|--|--|--|---------------|--|--|--|--|--|--|--|--|--|
| Direction of Travel: NORTH | | | | | | | | | | Public Property Damage: OTHER | | | | | | | | | | School Bus Involved: OTHER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pre-Accd Action: SLOWED OR STOPPING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Apparent Factors: NOT APPLICABLE, REACTION TO OTHER UNINVOLVED VEHICLE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CAR/VAN/PICKUP | | | | | | | | | | Registered Weight: 4238 | | | | | | | | | | State of Registration: NY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Num of Occupants: 2 | | | | | | | | | | Driver's Age: 25 | | | | | | | | | | Sex: M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Direction of Travel: NORTH | | | | | | | | | | Public Property Damage: OTHER | | | | | | | | | | Citation Issued: N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pre-Accd Action: SLOWED OR STOPPING | | | | | | | | | | | | | | | | | | | | School Bus Involved: OTHER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Apparent Factors: FOLLOWING TOO CLOSELY, PAVEMENT SLIPPERY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| County: Westchester | | | | | | | | | | Muni: North Castle(T) | | | | | | | | | | Ref. Marker: 22 87024045 | | | | | | | | | | Street: MOUNT KISCO RD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AT INTERSECTION WITH King St | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7/17/2018 | | | | | | | | | | Tue 17:08 PM | | | | | | | | | | Persons Killed: 0 | | | | | | | | | | Persons Injured: 1 | | | | | | | | | | Extent of Injuries: C | | | | | | | | | | Case: 2018-37384277 | | | | | | | | | | Num of Veh: 2 | | | | | | | | | |
| Accident Class: PROPERTY DAMAGE AND INJURY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Police Agency: NORTH CASTLE TOWN PD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Type Of Accident: COLLISION WITH MOTOR VEHICLE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Traffic Control: TRAFFIC SIGNAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Manner of Collision: RIGHT ANGLE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Weather: RAIN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Road Surface Condition: WET | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Light Condition: DAYLIGHT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Loc. of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Action of Ped/Bicycle: NOT APPLICABLE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CAR/VAN/PICKUP | | | | | | | | | | Registered Weight: 4528 | | | | | | | | | | State of Registration: NY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Num of Occupants: 1 | | | | | | | | | | Driver's Age: 20 | | | | | | | | | | Sex: F | | | | | | | | | | Citation Issued: N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Direction of Travel: WEST | | | | | | | | | | Public Property Damage: OTHER | | | | | | | | | | School Bus Involved: OTHER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pre-Accd Action: MAKING LEFT TURN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Apparent Factors: NOT APPLICABLE, NOT APPLICABLE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CAR/VAN/PICKUP | | | | | | | | | | Registered Weight: 2550 | | | | | | | | | | State of Registration: NY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Num of Occupants: 1 | | | | | | | | | | Driver's Age: 60 | | | | | | | | | | Sex: M | | | | | | | | | | Citation Issued: Y | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Direction of Travel: NORTH-EAST | | | | | | | | | | Public Property Damage: OTHER | | | | | | | | | | School Bus Involved: OTHER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pre-Accd Action: GOING STRAIGHT AHEAD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, DRIVER INATTENTION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



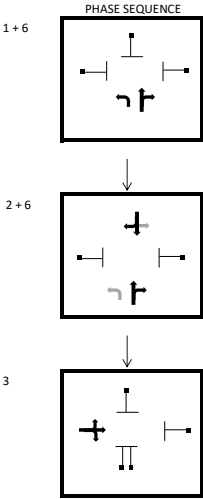
EAGLE RIDGE

APPENDIX H

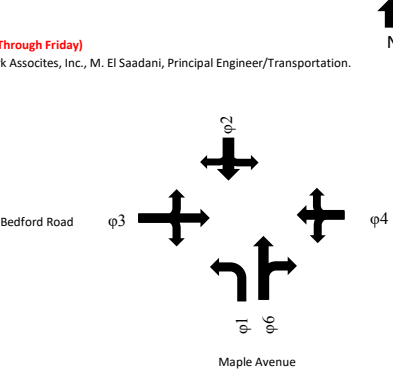
TRAFFIC SIGNAL TIMING PLANS

| | | MOVEMENT DIAGRAM | | | | | | | |
|-----------|--------------------|---|---|---|---|---------|---|---------|---------|
| | |  |  |  |  | |  | | |
| NTOR | | Phase 1 | Phase 2 | Phase 3 | Phase 4 | Phase 5 | Phase 6 | Phase 7 | Phase 8 |
| Intervals | Min Green | 3.0 | 12.0 | 3.0 | 10.0 | 0.0 | 12.0 | | |
| | Walk | -- | -- | -- | 7.0 | -- | -- | | |
| | Ped. Clearance | -- | -- | -- | 15.0 | -- | -- | | |
| | Vehicle Ext. | 2.0 | 3.0 | 1.5 | 2.0 | 0.0 | 3.0 | | |
| | Max Green 1 | 6.0 | 30.0 | 15.0 | 30.0 | 0.0 | 40.0 | | |
| | Max Green 2 | 6.0 | 30.0 | 10.0 | 35.0 | 40.0 | 40.0 | | |
| | Max Green 3 | -- | -- | -- | -- | -- | -- | | |
| | Yellow | 3.0 | 3.5 | 3.5 | 3.5 | 0.0 | 3.5 | | |
| | Red | 1.0 | 1.5 | 1.5 | 1.5 | 0.0 | 1.5 | | |
| | Add Init. | -- | -- | -- | -- | -- | -- | | |
| | Max Init. | -- | -- | -- | -- | -- | -- | | |
| | Time Before Reduce | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | Time To Reduce | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | Min Gap | 2.0 | 3.0 | 1.5 | 2.0 | 0.0 | 3.0 | | |
| Mode | | Max Recall | Min Recall | Non - Lock | Non - Lock | Off | Non - Lock | Off | Off |
| Int Start | | This Phase | | | | | This Phase | | |

| PROGRAM | | | COORDINATION TYPE - NONE | | | | | | | | | | | PERMIS. PERIOD | | SYSTEM LOC. |
|----------|------|------|--------------------------|--------|---|--------------|----|----|----|----|----|----|----|----------------|--|-------------|
| Function | Time | Days | Cycle | Offset | | Phase Splits | | | | | | | | | | |
| | | | | Sec | % | φ1 | φ2 | φ3 | φ4 | φ5 | φ6 | φ7 | φ8 | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |



Notes:
Max Green 1: All Day
Max Green 2:(2:30 to 3:45 PM Monday Through Friday)
Timing Plan Prepared By Frederick P. Clark Associates, Inc., M. El Saadani, Principal Engineer/Transportation.



W-124
Signal #

STATE OF NEW YORK – DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING SAFETY DIVISION
TRAFFIC CONTROL SPECIFICATIONS

County of WESTCHESTER

Study:
D/HWP: D262776
PIN: 8812.44
File: 55.38-128

INTERSECTION: RT 128 @ MAPLE AVE & WHIPPOORWILL RD

☐ CITY ☐ VILLAGE ☒ TOWN OF: NORTH CASTLE

Department Order filed 9-14-1971 as Section: 2055.38 Subdivision: (C)

Prior specification hereby superseded ☐ None ☒ Dated: 11-1-2002

Purpose: **TRAFFIC SIGNAL REPLACEMENT UNDER CONTRACT D262776. ADD PEDESTRIAN INDICATIONS.**

These specifications will be effective upon the ☐ Installation ☒ Modification / Reinstallation of the necessary traffic control device(s) required by and conforming to the Federal Manual on Uniform Traffic Control Devices.

This signal shall

A. Operate in accordance with the table of operations and / or change intervals as shown on the attached pages as a:

- ☐ Pretimed Signal
☐ Semi-traffic actuated
☒ Full-traffic actuated
☒ Pedestrian actuated

B. ☒ Display vehicular indications
☒ Display pedestrian indications
☒ Be equipped with vehicle detectors
☒ Be equipped with pedestrian buttons

☐ Other

as shown in the attached plans / drawings.

C. Be equipped with ☐ Pre-emption ☐ Interconnection and/or coordination which are described as follows:

Description:

cc: ☐ Region 8 Traffic Engineer
☒ Signal Shop
☐ Contract Maintainer
☐ Main Office

4-5-2016
Date

Installation Date

NICOLAS CHOUBAH R.T.E.
Signature Title
4-14-2016: add peds
Reinstallation/Modification

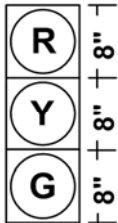
W-124
Signal #

STATE OF NEW YORK - DEPARTMENT OF TRANSPORTATION
TRAFFIC AND SAFETY DIVISION

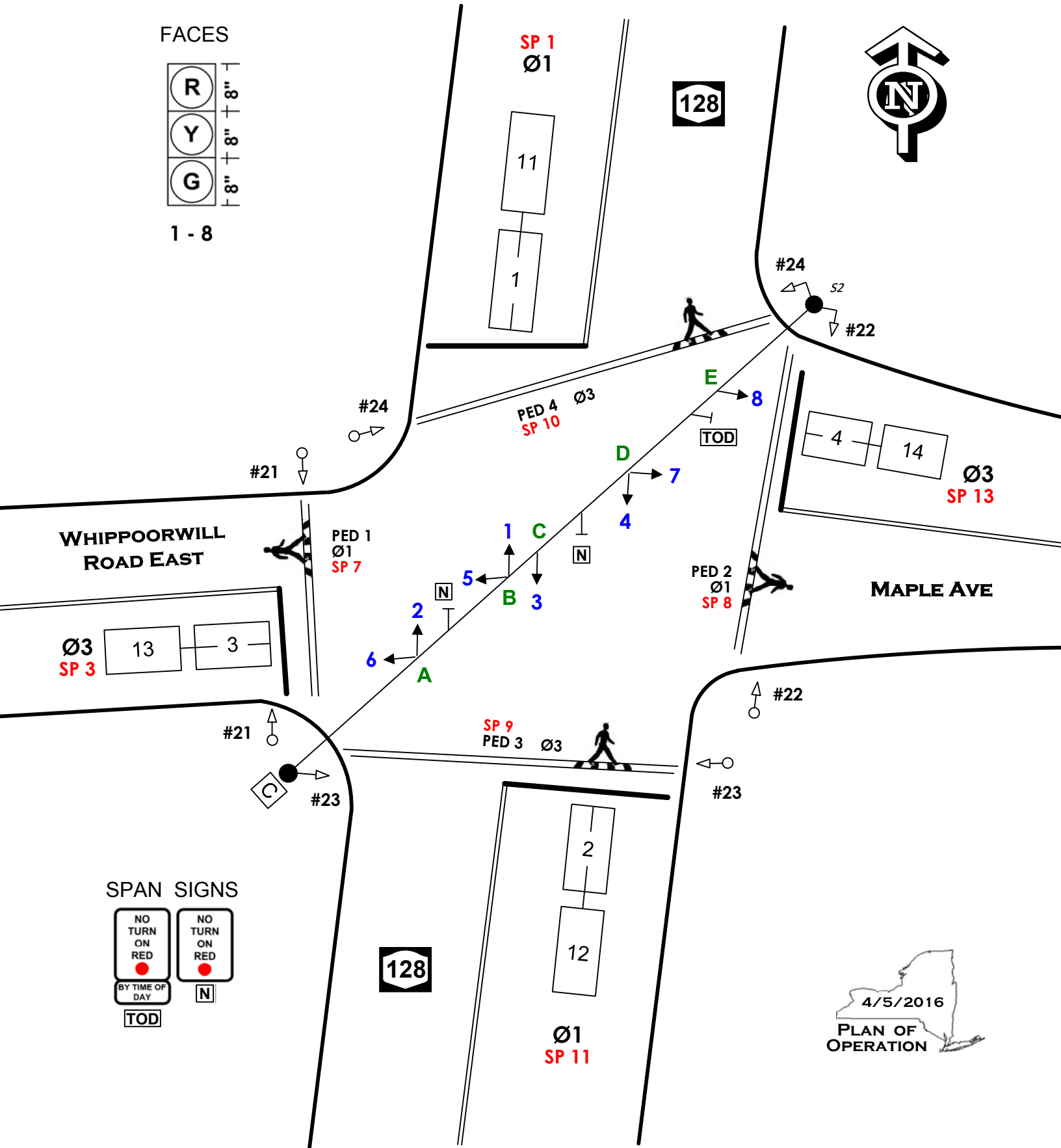
Town of NORTH CASTLE

Signal: **W-124**
D/HWP: D262776
PIN: 8812.44
File: 55.38-128

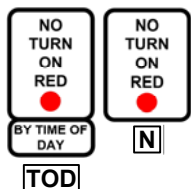
FACES



1 - 8



SPAN SIGNS



4/5/2016
PLAN OF
OPERATION

W-124

Signal #

**MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION**

Signal: **W-124**

D/HWP: D262776

PIN: 8812.44

File: 55.38-128

TABLE OF SWITCH PACKS

Date: 4/5/2016

| SWITCH PACK | FUNCTION | INDICATIONS | FACE | TERMINAL | WIRE COLOR CODE | FACE | TERMINAL | WIRE COLOR CODE |
|-------------|-------------|-------------|------|----------|----------------------|------|----------|----------------------|
| 1 | Ø1 | Red | 1 | SP 1 R | 14 / 10C - B - R | 2 | SP 1 R | 14 / 10C - A - R |
| | | Yellow | | SP 1 Y | - O | | SP 1 Y | - O |
| | | Green | | SP 1 G | - G | | SP 1 G | - G |
| | | Ground Wire | | Grnd Bus | - W | | Grnd Bus | - W |
| 2 | | Red | | SP 2 R | | | SP 2 R | |
| | | Yellow | | SP 2 Y | | | SP 2 Y | |
| | | Green | | SP 2 G | | | SP 2 G | |
| | | Ground Wire | | Grnd Bus | | | Grnd Bus | |
| 3 | Ø3 | Red | 5 | SP 3 R | 14 / 10C - B - R / B | 6 | SP 3 R | 14 / 10C - A - R / B |
| | | Yellow | | SP 3 Y | - O / B | | SP 3 Y | - O / B |
| | | Green | | SP 3 G | - G / B | | SP 3 G | - G / B |
| | | Ground Wire | | Grnd Bus | - W / B | | Grnd Bus | - W / B |
| 4 | | | | SP 4 R | | | SP 4 R | |
| | | | | SP 4 Y | | | SP 4 Y | |
| | | | | SP 4 G | | | SP 4 G | |
| | | Ground Wire | | Grnd Bus | | | Grnd Bus | |
| 5 | | | | SP 5 R | | | SP 5 R | |
| | | | | SP 5 Y | | | SP 5 Y | |
| | | | | SP 5 G | | | SP 5 G | |
| | | Ground Wire | | Grnd Bus | | | Grnd Bus | |
| 6 | | | | SP 6 R | | | SP 6 R | |
| | | | | SP 6 Y | | | SP 6 Y | |
| | | | | SP 6 G | | | SP 6 G | |
| | | Ground Wire | | Grnd Bus | | | Grnd Bus | |
| 7 | PED-1 Ø1 | HAND | 21 | SP 7 R | 14 / 05C - 1P - R | | SP 7 R | |
| | | ----- | | SP 7 Y | ----- | | SP 7 Y | |
| | | MAN | | SP 7 G | - G | | SP 7 G | |
| | | Ground Wire | | Grnd Bus | - W | | Grnd Bus | |
| 8 | PED-2 Ø1 | HAND | 22 | SP 8 R | 14 / 05C - 2P - R | | SP 8 R | |
| | | ----- | | SP 8 Y | ----- | | SP 8 Y | |
| | | MAN | | SP 8 G | - G | | SP 8 G | |
| | | Ground Wire | | Grnd Bus | - W | | Grnd Bus | |
| 9 | PED-3 Ø3 | HAND | 23 | SP 9 R | 14 / 05C - 3P - R | | SP 9 R | |
| | | ----- | | SP 9 Y | ----- | | SP 9 Y | |
| | | MAN | | SP 9 G | - G | | SP 9 G | |
| | | Ground Wire | | Grnd Bus | - W | | Grnd Bus | |
| 10 | PED-4 Ø3 | HAND | 24 | SP 10 R | 14 / 05C - 4P - R | | SP 10 R | |
| | | ----- | | SP 10 Y | ----- | | SP 10 Y | |
| | | MAN | | SP 10 G | - G | | SP 10 G | |
| | | Ground Wire | | Grnd Bus | - W | | Grnd Bus | |
| 11 | Ø1 | Red | 3 | SP 11 R | 14 / 05C - C - R | 4 | SP 11 R | 14 / 10C - D - R |
| | | Yellow | | SP 11 Y | - O | | SP 11 Y | - O |
| | | Green | | SP 11 G | - G | | SP 11 G | - G |
| | | Ground Wire | | Grnd Bus | - W | | Grnd Bus | - W |
| 12 | | | | SP 12 R | | | SP 12 R | |
| | | | | SP 12 Y | | | SP 12 Y | |
| | | | | SP 12 G | | | SP 12 G | |
| | | Ground Wire | | Grnd Bus | | | Grnd Bus | |
| 13 | Ø3 | Red | 7 | SP 13 R | 14 / 10C - D - R / B | 8 | SP 13 R | 14 / 05C - E - R |
| | | Yellow | | SP 13 Y | - O / B | | SP 13 Y | - O |
| | | Green | | SP 13 G | - G / B | | SP 13 G | - G |
| | | Ground Wire | | Grnd Bus | - W / B | | Grnd Bus | - W |
| 14 | | | | SP 14 R | | | SP 14 R | |
| | | | | SP 14 Y | | | SP 14 Y | |
| | | | | SP 14 G | | | SP 14 G | |
| | | Ground Wire | | Grnd Bus | | | Grnd Bus | |
| 15 | | | | SP 15 R | | | SP 15 R | |
| | | | | SP 15 Y | | | SP 15 Y | |
| | | | | SP 15 G | | | SP 15 G | |
| | | Ground Wire | | Grnd Bus | | | Grnd Bus | |
| 16 | | | | SP 16 R | | | SP 16 R | |
| | | | | SP 16 Y | | | SP 16 Y | |
| | | | | SP 16 G | | | SP 16 G | |
| | | Ground Wire | | Grnd Bus | | | Grnd Bus | |

W-124

Signal #

**MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION**

County of WESTCHESTERSignal: **W-124**D/HWP: D262776PIN: 8812.44File: 55.38-128Date: 4/5/2016**TRAFFIC SIGNAL MONITOR PROGRAMMING**

| CONFLICT MONITOR DIODES TO BE CUT (SWITCH PACKS TO RUN TOGETHER) | | | YELLOW DISABLE: WIRE JUMPERS TO BE INSTALLED FOR PEDS | | 210NYR MONITOR BOARD (SWITCH PACKS TO MONITOR) | |
|---|---------|--|--|---|---|--|
| 1 - 7 | 9 - 10 | | 1 | | | |
| 1 - 8 | 9 - 13 | | 2 | | | |
| 1 - 11 | | | 3 | | | |
| | 10 - 13 | | 4 | | | |
| 3 - 9 | | | 5 | | | |
| 3 - 10 | | | 6 | | | |
| 3 - 13 | | | 7 | X | | |
| | | | 8 | X | | |
| 7 - 8 | | | 9 | X | | |
| 7 - 11 | | | 10 | X | | |
| | | | 11 | | | |
| 8 - 11 | | | 12 | | | |
| | | | 13 | | | |
| | | | 14 | | | |
| | | | 15 | | | |
| | | | 16 | | | |

**CURRENT MONITOR BOARD
(IF USED)**

CURRENT MONITOR DIODES
TO BE CUT
(SWITCH PACKS TO *NOT* MONITOR)

2, 4-10, 12, 14-16

Notes:

TABLE OF INPUT WIRING

| TERM. NUMBER | FUNCTION | DET. NO. | DET. TYPE | DET. AN OVER | REMARKS |
|-----------------|--------------------|-------------|------------|-----------------|---------------|
| 1A, 1B | Ø 1 | 1 | QUADRAPOLE | | PRESENCE LOOP |
| 2A, 2B | Ø 1 | 2 | QUADRAPOLE | | PRESENCE LOOP |
| 3A, 3B | Ø 3 | 3 | QUADRAPOLE | | PRESENCE LOOP |
| 4A, 4B | Ø 3 | 4 | QUADRAPOLE | | PRESENCE LOOP |
| 5A, 5B | | | | | |
| 6A, 6B | | | | | |
| 7A, 7B | | | | | |
| 8A, 8B | | | | | |
| 9A, 9B | | | | | |
| 10A, 10B | | | | | |
| 11A, 11B | Ø 1 | 11 | NORMAL | | PRESENCE LOOP |
| 12A, 12B | Ø 1 | 12 | NORMAL | | PRESENCE LOOP |
| 13A, 13B | Ø 3 | 13 | NORMAL | | PRESENCE LOOP |
| 14A, 14B | Ø 3 | 14 | NORMAL | | PRESENCE LOOP |
| 15A, 15B | | | | | |
| 16A, 16B | | | | | |
| 17A, 17B | | | | | |
| 18A, 18B | | | | | |
| 19A, 19B | | | | | |
| 20A, 20B | | | | | |
| 21A, 21B | PED 1 - Ø 1 | 21 | BUTTON | | PEDESTRIAN |
| 22A, 22B | PED 2 - Ø 1 | 22 | BUTTON | | PEDESTRIAN |
| 23A, 23B | PED 3 - Ø 3 | 23 | BUTTON | | PEDESTRIAN |
| 24A, 24B | PED 4 - Ø 3 | 24 | BUTTON | | PEDESTRIAN |
| 25A, 25B | | | | | |
| 26A, 26B | | | | | |
| 27A, 27B | | | | | |
| 28A, 28B | | | | | |

Phase Times [1.1.1]

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|-----|---|-----|---|---|---|---|---|
| Min Green | 7 | | 5 | | | | | |
| Gap, Ext | 2 | | 2 | | | | | |
| Max 1 | 40 | | 30 | | | | | |
| Max 2 | | | | | | | | |
| Yel Clearance | 3.5 | | 3.5 | | | | | |
| Red Clearance | 2 | | 2 | | | | | |
| Walk | 7 | | 7 | | | | | |
| Ped Clearance | 12 | | 13 | | | | | |
| Red Revert | | | | | | | | |
| Add Initial | | | | | | | | |
| Max Initial | | | | | | | | |
| Time B4 Reduct | | | | | | | | |
| Cars B4 Reduct | | | | | | | | |
| Time To Reduce | | | | | | | | |
| Reduce By | | | | | | | | |
| Min Gap | | | | | | | | |
| DynMaxLim | | | | | | | | |
| Max Step | | | | | | | | |
| Options [1.1.2] | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Enable | X | | X | | | | | |
| Min Recall | X | | | | | | | |
| Max Recall | | | | | | | | |
| Ped Recall | | | | | | | | |
| Soft Recall | | | | | | | | |
| Lock Calls | | | | | | | | |
| Auto Flash Entry | | | | | | | | |
| Auto Flash Exit | | | | | | | | |
| Dual Entry | X | X | X | X | X | X | X | X |
| Enable Simul Gap | X | X | X | X | X | X | X | X |
| Gaurantee Passag | | | | | | | | |
| Rest In Walk | | | | | | | | |
| Conditon Service | | | | | | | | |
| Non-Actuated 1 | | | | | | | | |
| Non-Actuated 2 | | | | | | | | |
| Add Init Calc | | | | | | | | |
| Options+ [1.1.3] | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Reservice | | | | | | | | |
| PedCir Thru Yel | | | | | | | | |
| Skip Red No Call | | | | | | | | |
| Red Rest | | | | | | | | |
| Max II | | | | | | | | |
| Call Phase | | | | | | | | |
| Conflicting Phase | | | | | | | | |
| Omit Yellow | | | | | | | | |
| Ped Delay | | | | | | | | |
| Gru/Ped Delay | 6 | | 6 | | | | | |

ID: 7124 RTE 128 @ MAPLE AVE & WHIPPOORWILL RD

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

| Pat# | Cyc | Off | Split | Seq | Pat# | Cyc | Off | Split | Seq | Pat# | Cyc | Off | Split | Seq | Pat# | Cyc | Off | Split | Seq |
|---|-------|-----|-------|-----|------|-----|-----|-------|-------|-------|-----|-----|-------|-----|------|-----|-----|-------|-----|
| 1 | | | | | 13 | | | | | 25 | | | | | 37 | | | | |
| 2 | | | | | 14 | | | | | 26 | | | | | 38 | | | | |
| 3 | | | | | 15 | | | | | 27 | | | | | 39 | | | | |
| 4 | | | | | 16 | | | | | 28 | | | | | 40 | | | | |
| 5 | | | | | 17 | | | | | 29 | | | | | 41 | | | | |
| 6 | | | | | 18 | | | | | 30 | | | | | 42 | | | | |
| 7 | | | | | 19 | | | | | 31 | | | | | 43 | | | | |
| 8 | | | | | 20 | | | | | 32 | | | | | 44 | | | | |
| 9 | | | | | 21 | | | | | 33 | | | | | 45 | | | | |
| 10 | | | | | 22 | | | | | 34 | | | | | 46 | | | | |
| 11 | | | | | 23 | | | | | 35 | | | | | 47 | | | | |
| 12 | | | | | 24 | | | | | 36 | | | | | 48 | | | | |
| Split | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Split | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
| 1 | Coord | | | | | | | | 13 | Coord | | | | | | | | | |
| 2 | Coord | | | | | | | | 14 | Coord | | | | | | | | | |
| 3 | Coord | | | | | | | | 15 | Coord | | | | | | | | | |
| 4 | Coord | | | | | | | | 16 | Coord | | | | | | | | | |
| 5 | Coord | | | | | | | | 17 | Coord | | | | | | | | | |
| 6 | Coord | | | | | | | | 18 | Coord | | | | | | | | | |
| 7 | Coord | | | | | | | | 19 | Coord | | | | | | | | | |
| 8 | Coord | | | | | | | | 20 | Coord | | | | | | | | | |
| 9 | Coord | | | | | | | | 21 | Coord | | | | | | | | | |
| 10 | Coord | | | | | | | | 22 | Coord | | | | | | | | | |
| 11 | Coord | | | | | | | | 23 | Coord | | | | | | | | | |
| 12 | Coord | | | | | | | | 24 | Coord | | | | | | | | | |
| Page# | | | | | | | | | | | | | | | | | | | |
| 1 8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param | | | | | | | | | | | | | | | | | | | |
| 1A&1B 16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param | | | | | | | | | | | | | | | | | | | |
| 2 Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day) | | | | | | | | | | | | | | | | | | | |
| 3 Detection; Sample Time and Unit Parameters related to detection | | | | | | | | | | | | | | | | | | | |
| 4 Preemption and Alternate Phase Time and Phase Options | | | | | | | | | | | | | | | | | | | |
| 5 Annual Schedule | | | | | | | | | | | | | | | | | | | |
| 6 Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day) | | | | | | | | | | | | | | | | | | | |
| 7 Communications; Security; I/O Setup | | | | | | | | | | | | | | | | | | | |
| 8 Misc - Events/Alarms; Call/Inhibit/Redirect; P/IOLAP Auto Flash; CIC; Misc Unit Param | | | | | | | | | | | | | | | | | | | |

04/05/16 Page 1

STD8 W-124

| Ring/Startup [1.1.4] | | | |
|----------------------|------|-------|--------|
| Phs | Ring | Start | Enable |
| 1 | 1 | GREEN | On |
| 2 | 1 | RED | Off |
| 3 | 1 | RED | On |
| 4 | 1 | RED | Off |
| 5 | 2 | RED | Off |
| 6 | 2 | RED | Off |
| 7 | 2 | RED | Off |
| 8 | 2 | RED | Off |

| Coord Modes [2.1] | |
|-------------------|------------|
| Test OpMode | 0 |
| Correction | SHRT/LNG |
| Maximum | MAX 1 |
| Force-Off | FLOAT |
| Closed Loop | ON |
| Stop-in-Walk | OFF |
| Auto Reset | ON |
| Expand Split | OFF |
| Ped Recycle | NO_RECYCLE |
| Before | TIMED |
| After | TIMED |

| Auto Flash [1.4.1] | |
|---------------------|--------|
| Auto Flash | PHOVER |
| Flash Yel | 45 |
| Flash Red | 0 |
| Unit Params [1.2.1] | |
| Phase Mode | STD8 |
| IO Mode | USER |
| Loc Flsh Start | RED |
| Start Flash(s) | 0 |
| Start AllRed(s) | X 0 |
| Yellow < 3" | OFF |
| Display Time | 20 |
| Red Revert | 3 |
| MCE Timeout | 0 |
| Feature Profile | 0 |
| Free Ring Seq | 1 |
| Auxswitch | STOPTM |
| SDLC Retry | 0 |
| TS2 Det Faults | ON |
| Auto Ped Clear | OFF |
| SDLC Retry | 0 |

[illegible]

[illegible]

[illegible]

| Day Plans [4.4] | | | | | | | | | | Action Table [4.5] | | | | | | | | | | Coord Alternate Tables - Pat+ [2.6] | | | | | | | | | | Overlap Off | | | | | | | | Dia | | Max2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|-----|-----|------|-----|------------|------|-----|-----|------|--------------------|-----|------|-----|-----|------------|-----|-----|------|-----|-------------------------------------|------|-----|-----|------|------------|-----|------|-----|-----|-------------|-----|-----|------|-----|------------|------|-----|-----|------|------------|-----|------|-----|-----|-------------|-----|-----|------|-----|-------------|------|-----|-----|------|-------------|-----|------|-----|-----|-------------|-----|-----|------|-----|-------------|------|-----|-----|------|-------------|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|--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| Day Plan 1 | | | | | Day Plan 2 | | | | | Day Plan 3 | | | | | Day Plan 4 | | | | | Day Plan 5 | | | | | Day Plan 6 | | | | | Day Plan 7 | | | | | Day Plan 8 | | | | | Day Plan 9 | | | | | Day Plan 10 | | | | | Day Plan 11 | | | | | Day Plan 12 | | | | | Day Plan 13 | | | | | Day Plan 14 | | | | | Day Plan 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min | Act | Hour | Min 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ID: 7124 RTE 128 @ MAPLE AVE & WHIPPOORWILL RDE

| # | Event / Alarm | Ev Air | Call Phases [1.1.5] | Redirect Phases [1.1.5] | Inhibit Phases [1.1.5] |
|----|-----------------------------|--------|--|----------------------------------|--|
| 1 | Power Up Alarm. | On On | Ø Phases Called By Ø | From To From To From To | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 |
| 2 | Stop Timing | On On | 1 | 1 | 1 |
| 3 | TS1 Cabinet Door | On On | 2 | 2 | 2 |
| 4 | Coordination Failure | On On | 3 | 3 | 3 |
| 5 | External Alarm # 1 | On On | 4 | 4 | 4 |
| 6 | External Alarm # 2 | On On | 5 | 5 | 5 |
| 7 | External Alarm # 3 | | 6 | 6 | 6 |
| 8 | External Alarm # 4 | | 7 | 7 | 7 |
| 9 | Closed Loop Disabled | On | 8 | 8 | 8 |
| 10 | External Alarm # 5 | | 9 | 9 | 9 |
| 11 | External Alarm # 6 | | 10 | 10 | 10 |
| 12 | Manual Control Enable | On On | 11 | 11 | 11 |
| 13 | Coord Free Input | | 12 | 12 | 12 |
| 14 | Local Flash Input | On On | 13 | 13 | 13 |
| 15 | MMU Flash | | 14 | 14 | 14 |
| 16 | CMU Flash | | 15 | 15 | 15 |
| 17 | Cycle Fault | On | 16 | 16 | 16 |
| 18 | Cycle Failure | On | Alt Call & Redirect # 1 [1.1.6.3] | Alt Inhibit Phases # 1 [1.1.6.3] | |
| 19 | Coordination Fault | On | Col Ø Phases Called By Ø | From To From To From To | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 |
| 20 | Controller Fault | On On | 1 | 1 | 1 |
| 21 | Detector SDLC Failure | | 2 | 2 | 2 |
| 22 | MMU SDLC Failure | | 3 | 3 | 3 |
| 23 | Critical SDLC Failure | | 4 | 4 | 4 |
| 24 | Reserved | | 5 | 5 | 5 |
| 25 | EEPROM CRC Fault | On On | 6 | 6 | 6 |
| 26 | Detector Diagnostic Failure | | 7 | 7 | 7 |
| 27 | BIU Detector Failure | On On | 8 | 8 | 8 |
| 28 | Queue detector alarm | On | Alt Call & Redirect # 2 [1.1.6.3] | Alt Inhibit Phases # 2 [1.1.6.3] | |
| 29 | Ped Detector Fault | On | Col Ø Phases Called By Ø | From To From To From To | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 |
| 30 | Coord Diagnostic Fault | | 1 | 1 | 1 |
| 41 | TempAlert Probe Ch. A | | 2 | 2 | 2 |
| 42 | TempAlert Probe Ch. B | | 3 | 3 | 3 |
| 47 | Coord Active | | 4 | 4 | 4 |
| 48 | Preempt Active | On | 5 | 5 | 5 |
| 49 | Preempt 1 Input | On | 6 | 6 | 6 |
| 50 | Preempt 2 Input | On | 7 | 7 | 7 |
| 51 | Preempt 3 Input | On | 8 | 8 | 8 |
| 52 | Preempt 4 Input | On | Coord, CIC Plans [2.3] | Unit Parameters [1.2.1] | |
| 53 | Preempt 5 Input | On | CIC CoØ Grow 1 2 3 4 5 6 7 8 | Allow Skip Yellow | Max Cycle Time |
| 54 | Preempt 6 Input | On | 1 OFF | TOD Dim Enable | Cycle Fault Action ALARM |
| 55 | Preempt 7 Input | On | 2 OFF | Tone Disable | |
| 56 | Preempt 8 Input | On | 3 OFF | Diamond Mode | |
| 57 | Preempt 9 Input | On | 4 OFF | Backup Time (s) | 900 |
| 58 | Preempt 10 Input | On | Auto Flash Phase/Olap Settings [1.4.2] | Disable Init Ped | OFF |
| 61 | In Transition | On | Yel Ø | Cycle Fault Action | ALARM |
| 81 | FIO Status Alarm | | Yel (daps) | Enable Run Timer | ON |

W-124

ID: 7124 RTE 123 @ MAPLE AVE & WHIPPOOR 04/05/16 Page 8

Appendix E

Phase IA Cultural Resources Survey

HISTORICAL **PERSPECTIVES INC.**



**Phase IA Cultural Resources Survey
Eagle Ridge Development
1 North Castle Drive, Armonk, Town of North Castle
Westchester County, New York**

**Phase IA Cultural Resources Survey
Eagle Ridge Development
1 North Castle Drive, Armonk, Town of North Castle
Westchester County, New York**

Prepared For:

Frank Madonna

Prepared By:

Historical Perspectives, Inc.
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Authors:

Dawn L. Brown, M.A., R.P.A.

June 2018

MANAGEMENT SUMMARY

SHPO Project Review Number (if available):

Involved State and Federal Agencies:

Phase of Survey: **Phase IA Cultural Resources Survey**

Location Information

Location: **1 North Castle Drive**
Minor Civil Division: **11910, North Castle**
County: **Westchester**

Survey Area

Length:
Width:
Number of Acres Surveyed: **32.5**

USGS 7.5 Minute Quadrangle Map: **Glenville, CT**

Archaeological Survey Overview

Number & Interval of Shovel Tests:
Number & Size of Units: **N/A**
Width of Plowed Strips: **N/A**
Surface Survey Transect Interval: **N/A**

Results of Archaeological Survey

Number & name of precontact sites identified:
Number & name of historic sites identified:
Number & name of sites recommended for Phase II/Avoidance:

Results of Architectural Survey

Number of buildings/structures/cemeteries within project area:
Number of buildings/structures/cemeteries adjacent to project area:
Number of previously determined NRHP listed or eligible buildings/structures/cemeteries/districts:
Number of identified eligible buildings/structures/cemeteries/districts:

Report Authors(s): **Dawn L. Brown, M.A., R.P.A., Historical Perspectives, Inc.**

Date of Report: **June 2018**

EXECUTIVE SUMMARY

Eagle Ridge is a proposed Armonk development of a boutique hotel with residential housing, and supportive services and parking, and a separate 94-unit townhome complex. Rezoning, subdivision and construction of the 32.5-acre property at 1 North Castle Drive requires local permits and zoning approval prior to implementation. The development parcel, which contains steep slopes, is immediately west of a municipal sports park and north of an International Business Machines Corporation (IBM) corporate complex (Figure 1 and 2). Originally a part of the IBM complex, a small western portion of the project site was previously graded and developed by IBM into a helipad. The local Planning Board has requested the completion of a Phase I cultural resources evaluation of the project site acreage so that the Eagle Ridge site application can move forward.

From what is known of precontact period settlement patterns in Westchester County, most habitation and processing sites are found in sheltered, elevated locales close to wetland features, major waterways, and with nearby sources of fresh water. The project site is located near the Wampus River and contains well-drained soils uphill from the water. Research found that fourteen precontact sites have been identified within a one-mile radius of the project APE. One of these sites, an Early Archaic (LeCroy) site, was on the IBM property immediately south of the APE (Boesch 1995a, b, c). In addition, bedrock outcrops on the APE may contain possible rockshelters. These factors signify potential precontact sensitivity.

The 18th to 19th century Cornell-Birdsall farm, and later 20th century Wenga Farm, consisted of a large complex of buildings that existed on the northern portion of the APE; the APE was part of the larger agricultural history which consisted of orchards, livestock and farm buildings. IBM purchased this land from the Agnew family in 1955. The farm buildings were moved or demolished by the 1960s. Aerial photographs show that some of these buildings were originally located where Route 128 intersects with North Castle Drive; however, a number of buildings also existed on the northern portion of the present APE. These factors signify potential historic-period sensitivity.

Archaeological testing is recommended for only a portion of the project site (Figure 8). No field testing is recommended for the project APE with more than 12% slope. Also, no field testing is recommended for land areas with clear evidence of 20th century disturbance (e.g., road prep and installation, rock and tree removal, helipad construction, and installation of sewer line).

Some portions of the APE which fit the model for possible precontact occupation are clearly undisturbed (i.e., southeastern wooded portion) and standard Phase IB Archaeological Field Testing is recommended. However, on other portions of the APE (i.e., center field area, western, and northwestern edge) complete disturbance is unclear or intermittent; therefore, limited Phase IB field testing is recommended to confirm possible disturbance.

In addition, further archaeological investigations are recommended for the northern portion of the APE due to possible middens, privys, wells or cisterns related to the Cornell-Birdsall residence that may have remained intact. No foundation or structural remains could be seen upon visual inspection (5/26/2018); however, the area was heavily overgrown.

Testing is also recommended for several rock overhangs that are present within the bedrock outcrops.

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APPENDIX A: USDA SOILS SURVEY

FIGURES

1. Project Area of Potential Effect on *Glenville, CT, 7.5 Minute Topographical Map* (USGS 2015)
2. Existing Conditions and Photokey map.
3. Project Area of Potential Effect on 1868 Beers map
4. Project Area of Potential Effect on 1881 Bromley map
5. Project Area of Potential Effect on 1893 Bien map
6. Project Area of Potential Effect on 1908 Hyde map
7. Project Area of Potential Effect on 1930 Hopkins map
8. Archaeological Sensitivity Map

PHOTOGRAPHS

Photograph 1. Steep slope on eastern border of APE, view to the northeast.

Photograph 2. Rock outcrops, possible rockshelter, view to the northwest.

Photograph 3. Center field, view to the northeast.

Photograph 4. Wooded area along southeastern portion of APE, view to the southeast.

Photograph 5. Asphalt road that runs through APE, view to the north.

Photograph 6. Helipad on southern portion of APE, view to the northeast.

Photograph 7. Sewer line through southeastern portion of APE, view to the south.

Photograph 8. Disturbed soils in center field, view to the south.

Photograph 9. Disturbed soils along northwestern portion of APE, view to the southeast.

I. INTRODUCTION

Eagle Ridge is a proposed Armonk development of a boutique hotel with residential housing, and supportive services and parking, and a separate 94-unit townhome complex. Rezoning, subdivision and construction of the 32.5-acre property at 1 North Castle Drive requires local permits and zoning approval prior to implementation. The development parcel, which contains steep slopes, is immediately west of a municipal sports park and north of an International Business Machines Corporation (IBM) corporate complex (Figure 1 and 2). Originally a part of the IBM complex, a small western portion of the project site was previously graded and developed by IBM into a helipad. The local Planning Board has requested the completion of a Phase I cultural resources evaluation of the project site acreage so that the Eagle Ridge site application can move forward.

The Cultural Resource Standards (1994, 2000, and 2005) that guide both the state (OPRHP) and Armonk's review follow a logical set of sequential steps, or phases that must be adhered to during the compliance process. Projects that exhibit a potential to be rich in cultural resources may require more than one phase of field investigation and more in-depth study. HPI will undertake a series of tasks, starting with a non-invasive Phase IA, to establish the potential for on-site archaeological resources. In cases where a site has been extensively disturbed, the disturbance will be documented by the archaeological research team. No further archaeological tasks will be necessary in APE areas where there is evidence of 100% disturbance. However, if no such well-defined evidence of disturbance is available for the entire APE, the professional archaeologists will conduct more in-depth research on remaining areas of potential sensitivity in the APE.

Specific IA research tasks include:

- A. Collect available site disturbance data.
- B. Identify resources on or near the North Castle Drive site that are designated, inventoried, and/or are under consideration for designation by the Town/state/federal agencies as a significant archaeological and/or historical site.
- C. Identify potential resources as indicated by literature search.
- D. Conduct pedestrian survey to establish baseline conditions of the development site.

The goal of the research tasks is to tightly focus any subsequent field testing to only those land areas which will be developed and require subsurface verification of presence/absence of archaeological resources. Normally, the APE corresponds to a significantly less land mass than the total project parcel and the Phase IA defines this APE. The APE is also, in part, determined by design parameters, wetland concerns, and zoning regulations, which may also further reduce the total area of impact.

Future Eagle Ridge Phase IB fieldwork, the testing phase of a standard survey, would be designed to ascertain the presence/absence, type, and relative extent of archaeological resources within the APE. The fieldwork research design would be dictated by the results of the current IA documentary analysis. If indicated as unavoidable, a series of IB tasks would be undertaken to establish the potential for on-site archaeological resources within the APE. Specific field testing tasks would include inspections, shovel tests, and lab analysis.

II. PHASE IA METHODOLOGY

The present study entailed research of a variety of resources.

- Historic maps were reviewed to provide an overview of the topography and a chronology of land usage for the study site.
- Inquiries were made to the North Castle Historical Society and the North Castle Planning Department. Primary and secondary sources relating to the project site and its vicinity were reviewed.
- Selected 20th-century deeds and other property records were reviewed.
- A site file search was conducted using materials available at the OPRHP online resource, which includes data from the New York State Museum (NYSM).
- A site walkover was conducted on May 26, 2018 to assess any obvious or unrecorded subsurface disturbance and to document historic resources on and adjacent to the property.

III. PHASE IA BACKGROUND RESEARCH

A. CURRENT CONDITIONS

The overall project parcel, 32.5 acres, is triangular in shape and located immediately north of the IMB compound off of Route 22 in Armonk. The edges of the APE are marked by steep and/or rocky slopes and bedrock outcrops (Photographs 1 and 2). The center surface area of the APE is a relatively level open field with exposed bedrock in places (Photograph 3). The northwestern and northern portion of the property is heavily overgrown. The southeast portion is wooded and appears relatively undisturbed (Photograph 4). This southeast area also contained possible rockshelters within the bedrock outcrops (See Photograph 2).

An abandoned asphalt road hooks through the center of the APE (Photograph 5). The land immediately west of this road is unnaturally terraced. A helipad, sewer line and wetlands all exist in the southern portion of the APE. The remnants of farmers' fieldstone walls are present on the northern and eastern side of the APE. Two rows of trees on the southwestern portion mark the location of an early 20th century road. No structures or remains of such could be seen on the APE.

Portions of the APE appear disturbed from road prep and installation, rock and tree removal, construction of the helipad, installation of a sewer line, and recent percolation testing trenches (Photographs 6-9).

B. TOPOGRAPHY AND HYDROLOGY

The underlying rock is Fordham Gneiss which is characterized by metamorphic rock containing garnet, biotite, quartz, plagioclase gneiss and amphibolite. Overlying unconsolidated soils are tills and outwash sands and gravel (Langan 2016).

Early maps of the vicinity of the project site record the topography and environment of the area at the beginning of historic development. Topographic maps made in the late nineteenth and early 20th century indicate that in its natural condition the project site was level in the western and central portion of the APE and then sloped downhill from the west to the east toward the Wampus River. The examination of modern topographical maps (see Figure 1) indicates modifications in the landscape over time. The current highest elevation point of the project site is approximately 560 feet above sea level (ASL). At present, the river is approximately 500 feet east of the APE.

C. SOILS

The project site soils are mapped as Charlton-Chatfield complex (CrC) on the center portion of the site; Chatfield-Charlton complex (CsD) on the western, northern, eastern and southern side of the site; Charlton loam (ChD) on the eastern portion of the site; and Urban Land (UF) in the vicinity of the helipad (U.S.D.A. 2018). These soils are described in the table below and Appendix A illustrates the soils mapped for the project site.

| Name | Soil Horizon Depth in inches | Texture, Inclusions | Slope % | Drainage | Landform |
|---|------------------------------------|--|------------|----------|---------------|
| (CrC) Charlton-Chatfield complex, rolling, very rocky | 0-2 2-4 4-27 27-65 | Humus F Sa Lo Gr F Sa Lo Gr F Sa Lo | 3-15 | Well | Hills, ridges |
| (CsD) Chatfield-Charlton complex, hilly, very rocky | 0-1 1-2 2-30 30-40 | Humus F Sa Lo Gr F Sa Lo Bedrock | 15-35 | Well | Hills, ridges |
| (ChD) Charlton loam, 15 to 25% slope | 0-7 7-22 22-65 | F Sa Lo Gr F Sa Lo Gr F Sa Lo | 15-25 | Well | Hills, ridges |

| Name | Soil Horizon Depth in inches | Texture, Inclusions | Slope % | Drainage | Landform |
|--------------------|------------------------------------|---------------------|------------|----------|----------|
| (UF) Urban Land | | | | | |

Key: Soils: Lo-Loam, Sa-Sand, Si-Silt, F-Fine, Gr-Gravelly

D. PRECONTACT CONTEXT

For this report, the word precontact is used to describe the period prior to the use of formal written records. In the western hemisphere, the precontact period also refers to the time before European exploration and settlement of the New World. Archaeologists and historians gain their knowledge and understanding of precontact Native Americans in the New York City area from three sources: ethnographic reports, Native American artifact collections, and archaeological investigations.

Based on data from these sources, a precontact cultural chronology has been devised for the Westchester County area. Scholars generally divide the precontact era into three main periods, the Paleo-Indian (c. 14,000-9,500 years ago), the Archaic (c. 9,500-3,000 years ago), and the Woodland (c. 3,000-500 years ago). The Archaic and Woodland periods are further divided into Early, Middle, and Late substages. The Woodland was followed by the Contact Period (c. 500-300 years ago). Artifacts, settlement, subsistence, and cultural systems changed through time with each of these stages.

Scholars often characterize precontact sites by their close proximity to a water source, fresh game, and exploitable natural resources (i.e., plants, raw materials for stone tools, clay veins, etc.). These sites are often separated into three categories: primary (campsites or villages), secondary (tool manufacturing, food processing), and isolated finds (a single or very few artifacts either lost or discarded). Primary sites are often situated in locales that are easily defended against both nature (weather) and enemies. Secondary sites are often found in the location of exploitable resources (e.g., shell fish, lithic raw materials).

E. ARCHAEOLOGICAL SITES AND SURVEYS WITHIN A ONE-MILE RADIUS

Records from the OPRHP and the NYSM identified fourteen archaeological sites within a one-mile radius of the APE. Below is a list of these sites and their descriptions.

| NYSOPRHP Site #/Name | NYSM Site #/Name | Distance from APE | Time Period | Site Type |
|-----------------------------------|-----------------------|---|--------------------|-------------------------|
| | 5171 | Location is general, Ca. .2 mile east | Unknown precontact | Camp |
| | 8553 ACP West No # | Location is general, Ca. 0.25 mile east | Unknown precontact | Rockshelter |
| | 5178 | Location is general, Ca. .3 mile | Unknown precontact | Village |
| | 5176 ACP West 40 | Location is general, Ca. 0.75 mile northwest | Unknown precontact | Village, Burial Site |
| 11910.000016 Whippoorwill Site | | Ca. .3 mile northwest | Unknown precontact | Camp |
| 11910.000008 Camp Site II | | Ca. .3 mile southeast | Late Woodland | Camp |
| 11910.000009 Stockaded Site | | Ca. .4 mile southeast | Late Woodland | |

| NYSOPRHP Site #/Name | NYSM Site #/Name | Distance from APE | Time Period | Site Type |
|---|-------------------------|--------------------------|---|----------------------|
| 11910.000041 IBM Headquarters Office Building | 8874 | Ca. .5 mile south | Early Archaic | Camp |
| 11910.000012 Little Helicker's Rockshelter | | Ca. .5 mile northwest | Late Archaic | Rockshelter |
| 11910.000010 Camp Site III | | Ca. .75 mile north | Unknown precontact | Camp |
| 11910.000011 Helicker's Cave | | Ca. .8 mile northwest | Woodland | Rockshelter |
| 11910.000059 D. White Site | | Ca. 1 mile southwest | 18 th and 19 th century | Farm |
| 11910.000062 Townsend Prehistoric Site | | Ca. 1 mile northwest | Late Archaic Terminal Archaic | Camp |
| 11910.000063 Townsend Rockshelter | | Ca. 1 mile northwest | Unknown precontact | Rockshelter, Camp |

During the early 20th century, Arthur C. Parker investigated and/or reported many archaeological sites in the Hudson River Valley for the NYSM. He is cited as the reporter for two of the precontact sites in the project site vicinity. The precise boundaries and date range of many of Parker's sites are unknown.

Seven archaeological survey reports within a one-mile radius of the project site were also reviewed at the OPRHP. One was a study of the improvements in the Route 22/I-684 interchange (Wiegand 1987), where no archaeological resources were identified. The other studies were investigations of local subdivisions/developments including: the Kent Development, east of the Wampus River on the west side of Interstate 684 (Wiegand 1986a); the Whippoorwill Ridge Development, west of Old Route 22 (Wiegand 1986b), the Townsend Estates Subdivision, approximately 700 feet to the east of the site in the location of NYSM#5176 (Wiegand 1996a and 1997b), and the Shultz Farm & Cochran Property, located to the west of Old Route 22 (Hartgen 2003a and 2003b). Two previous surveys were completed on the IBM property for the construction of one of the headquarters buildings (Boesch 1995a, b, c) and for parking lot expansion (Hartgen 2018).

At the Kent Development site, limited evidence of precontact and historical habitation was recovered. The most intriguing find was a chert Levanna projectile point that was considered to be a possible stray find. Excavations at the Whippoorwill Ridge Development site did not reveal any significant cultural resources. In contrast, the Townsend Estates Subdivision identified the Townsend Prehistoric Site (A11910.000062) and the Townsend Rockshelter site (A11910.000063) which were both reported to the OPRHP. The work performed at the Shultz Farm & Cochran and the IBM North Castle Parking Expansion Project property did not identify any precontact or significant historical resources.

A Phase I Archaeological investigation was performed at the IBM Headquarters Office Building Site (Boesch 1995a, b). Further archaeological excavations were recommended for several portions of the 150-acre property due to the presence of water courses, rockshelters and historic homes. An Early Archaic (LeCroy) site was identified, and Phase II investigations were carried out (Boesch 1995c). Avoidance of the site was recommended, and the site was nominated for the National Register.

The closest historic resources to the project site include some of the residences on Old Mount Kisco Road, which have been recently added to the list of Historic Homes in North Castle. These architectural and historical sites have not been fully evaluated for eligibility to the State/National Register of Historic Places (S/NRHP). At present, these resources are located at various distances from the project APE, with reasonably heavy foliage separating most of the properties.

F. HISTORY OF THE PROJECT SITE AREA

It has been suggested that IBM headquarters' land was once a fort built by the Siwanoy Indians (Watson 2000). When the first settlers noted the fort, while looking north from the Long Island Sound, they found it to resemble a castle. This is how the town received its name, North Castle (Watson 2000).

The APE is located along the west bank of the Wampus River/Brook. Harnessing the energy of the Wampus River to run industry was, from the earliest colonial period, the impetus for the settlement in this part of North Castle. In fact, the earliest non-native settlement in what is now Armonk was along the Wampus River/Brook near Old Mount Kisco Road. This area falls within the West Patent of North Castle, which was "included in Col. Caleb Heathcote's great purchase of October 19, 1696" (Scharf 1886, Vol. 2:629). The Wampus River/Brook in this area is in a 600-acre section of the West Patent between the west and middle branches of the Byram River known as "The Mile Square." The deed of sale for this land, which included the portion of the Town of North Castle lying west of the Byram River and all of New Castle, was recorded between Heathcote and Wampus and included seven other Native American Sachems (Scharf 1886, Vol. 2:608). It is likely that Heathcote was attempting to amass enough land to establish a "manor" on a par with neighboring Philipsburgh Manor and Van Cortlandt Manor. Unfortunately, the issuance of land patents was often political and Heathcote was forced to take on partners in order to obtain an official grant from the crown (Scharf 1886, Vol. 2:610). None of the patentees lived in North Castle but were instead speculators who planned to resell their property. As a result, settlement was slow due to the fact that interested buyers had to obtain deeds from all the patentees. By 1760 the rights of the patentees of the West Patent were purchased by a committee that included Benjamin Smith, Joseph Sutton and Caleb Fowler (Scharf 1886, Vol. 2:634). This enabled potential buyers to purchase parcels of land with a clear title.

As early as 1737, the first grist mill was constructed in The Mile Square, on the west side of Cox Avenue north of the bend of modern Route 128. The establishment of a mill meant that farmers could process their grain and other products, which was a boon to settlement. John Hallock was among the first of the Quakers to come to North Castle from Long Island prior to 1730. During the American Revolution, a house close to this mill was used as the headquarters for the American Col. Jamison (Scharf 1886, Vol. 2:635). It was here that his captors detained the British spy, Major John Andre, for a short while after they stopped him on the road in Tarrytown and took him into custody.

By the mid-18th century, many homes had clustered along the streams and a vibrant milling industry had been formed. North Castle was growing rapidly through milling and later shoemaking industries and as well as a stop on the New York-Danbury Post Road. In the mid-1890s, events occurred that set in motion the greatest change for the neighborhood. The City of New York began work on a water conveyance system to bring water from Westchester County to the homes and businesses of New York City. One component of this project was the damming of the Wampus River near the Connecticut border in order to funnel water toward Kensico Reservoir. The dam was completed in 1894, and during that period surveys were made along the Wampus River corridor with the intention of ridding areas abutting the waterway of buildings and other "nuisances" that could contaminate the water supply. The mill complex, located directly along the Wampus, as well as numerous houses, barns, outbuildings, and the cemetery adjoining the Methodist church, all were within the zone slated for condemnation. However, due to financial shortfalls it was not until after the turn of the 20th century that these structures were razed.

Concurrent with the demolition of structures in the Wampus River valley was the construction of what is now known as New York State Route 128 or Mount Kisco Road, located just west of the Wampus River and east of the original Old Mount Kisco Road. The road was contracted in 1901 by the state, although likely was not completed until a number of years later.

G. HISTORY OF THE APE

Willett Cornell first established his farm and home in 1790 on what is now the northern portion of the IBM property, i.e., the APE (Watson 2000). In 1825 Cornell sold the property to the Birdsall family, who lived and farmed on it for two generations. Joseph Birdsall purchased the property with house and then passed it to his son Benjamin. Benjamin Birdsall is listed in the 1880 census as a 57-year-old farmer with a wife and two teenaged sons. The

property was later purchased by James E. Brundage and eventually sold to Cornelius R. Agnew.

Agnew was the vice president of a New York bank and a prominent citizen of Westchester (Watson 2000). He purchased neighboring farms until the estate contained 600 acres. Cornelius Agnew and his wife Blanche named their estate Wenga Farm. The Agnews built a large, stately house at the end of a long, winding driveway atop one of the rolling hills (presently the site of one of the IBM buildings). Wenga Farm was more than just an estate. It was a fully functioning farm with a large orchard containing hundreds of apple, peach and pear trees. There were also horses, cows, and sheep among other animals.

The former Cornell-Birdsall house with its complex of outbuildings was named the North Gate by the Agnews and was the home of the farm superintendent. This complex was the center of farming activity. Outbuildings included several large barns (for livestock and farm equipment), silo, woodworking and paint shop, stables and garages (Watson 2000).

Wenga Farm remained a working farm for decades. Cornelius Rea Agnew stayed at the helm until his passing on November 24, 1954. In 1955 it was announced that IBM would be purchasing Wenga Farm for a corporate world headquarters. On August 5, 1955, Cornelius Rae Agnew Jr., as executor of the Last Will and Testament of Cornelius Rae Agnew Sr., sold the property (no acreage mentioned) with buildings thereon to IBM (Westchester County Records, Liber 5495:466).

IBM spent nine years planning and constructing a 417,000 square foot compound. IBM relocated the Cornell-Birdsall farmhouse to Armonk village center in the mid-1960s. North Castle Drive was constructed through the former location of this homestead. All of the farm buildings as well as the Agnew mansion were razed. IBM added a new central headquarters building in 1997. IBM's headquarters dominate the former Agnew estate landscape (tax parcel 108.03-1-62.1).

H. CARTOGRAPHIC AND AERIAL PHOTOGRAPH REVIEW

The earliest map that provides detailed information on property ownership in the project area is the 1868 Beers Atlas which shows that the APE is the residence of B.A. Birdsall (Figure 3). Subsequent maps including the 1881 Bromley Atlas and the 1893 Bien Atlas (70 acres) also show the property owned by B.A. Birdsall (Figure 4 and 5). By the 1908 Hyde Atlas (262 acres) and 1930 Hopkins Atlas, the property is owned by C.R. Agnew and Wenga Farm has been established (Figure 6 and 7).

A review of aerial photographs shows the dramatic change of land use on the APE over 60 years (historicaerials.com). In 1949, Wenga Farm is visible. A cluster of buildings can be seen in the northern portion of the APE. This complex of farm buildings is the Cornell-Birdsall farmstead or North Gate. A tree lined road runs south from this complex and bisects the property with massive orchards on either side. This road travels to the Agnew mansion. An additional road runs along the eastern edge of the APE. The southeastern portion of the APE appears wooded at this time. Stone walls traverse the property. By 1953, it appears some of the farm buildings have been removed (APE). By 1964, all of the Wenga Farm buildings have been removed and the IBM complex and North Castle Drive have been constructed. There is a gradual thinning of orchard trees over the years but some are still present on the property in 1964. In 1971, a U-shaped access road (on the APE) which leads to a parking lot (off the APE) has been installed. The northern portion of the APE has reverted to woods. In 1991, the helipad is present. The southeastern portion of the APE appears consistently wooded from 1949 to the present.

USGS maps show some changes in topography (historicaerials.com). In 1892, contours appear natural with the high elevation point of the APE at 560 feet ASL. In 1947, a complex of buildings is present in the location of the Cornell-Birdsall farmstead. Stone walls and farm roads are also present on this map. Contours appear modified although the high elevation is still 560 feet ASL. By 1973, Route 128, North Castle Drive, and the U-shaped access road are present. Contours appear modified and the highest elevation is now 540 feet ASL.

IV. PHASE IA SENSITIVITY ASSESSMENT

A. PRECONTACT SENSITIVITY

From what is known of precontact period settlement patterns in Westchester County, most habitation and processing sites are found in sheltered, elevated locales close to wetland features, major waterways, and with nearby sources of fresh water. The project site is located near the Wampus River and contains well-drained soils uphill from the water. Research found that fourteen precontact sites have been identified within a one-mile radius of the project APE. One of these sites, an Early Archaic (LeCroy) site, was on the IBM property immediately south of the APE (Boesch 1995a, b, c). In addition, bedrock outcrops on the APE may contain possible rockshelters. These factors signify potential precontact sensitivity.

B. HISTORICAL PERIOD SENSITIVITY

The 18th to 19th century Cornell-Birdsall farm, and later 20th century Wenga Farm, consisted of a large complex of buildings that existed on the northern portion of the APE; the APE was part of the larger agricultural history which consisted of orchards, livestock and farm buildings. IBM purchased this land from the Agnew family in 1955. The farm buildings were moved or demolished by the 1960s. Aerial photographs show that some of these buildings were originally located where Route 128 intersects with North Castle Drive; however, a number of buildings also existed on the northern portion of the present APE. These factors signify potential historic-period sensitivity.

V. CONCLUSIONS AND RECOMMENDATIONS

Archaeological testing is recommended for only a portion of the project site (Figure 8). No field testing is recommended for the project APE with more than 12% slope, with the exception of the areas that have rock overhangs which have the potential for containing rockshelters. Also, no field testing is recommended for land areas with clear evidence of 20th century disturbance (e.g., road prep and installation, rock and tree removal, helipad construction, and installation of sewer line).

Some portions of the APE which fit the model for possible precontact occupation are clearly undisturbed (i.e., southeastern wooded portion) and standard Phase IB Archaeological Field Testing is recommended. However, on other portions of the APE (i.e., center field area, western edge) complete disturbance is unclear or intermittent; therefore, limited Phase IB field testing is recommended to confirm possible disturbance.

In addition, further archaeological investigations are recommended for the northern portion of the APE due to possible middens, privys, wells or cisterns related to the Cornell-Birdsall residence that may have remained intact. No foundation or structural remains could be seen upon visual inspection (5/26/2018); however, the area was heavily overgrown.

Testing is also recommended for several rock overhangs that are present within the bedrock outcrops.

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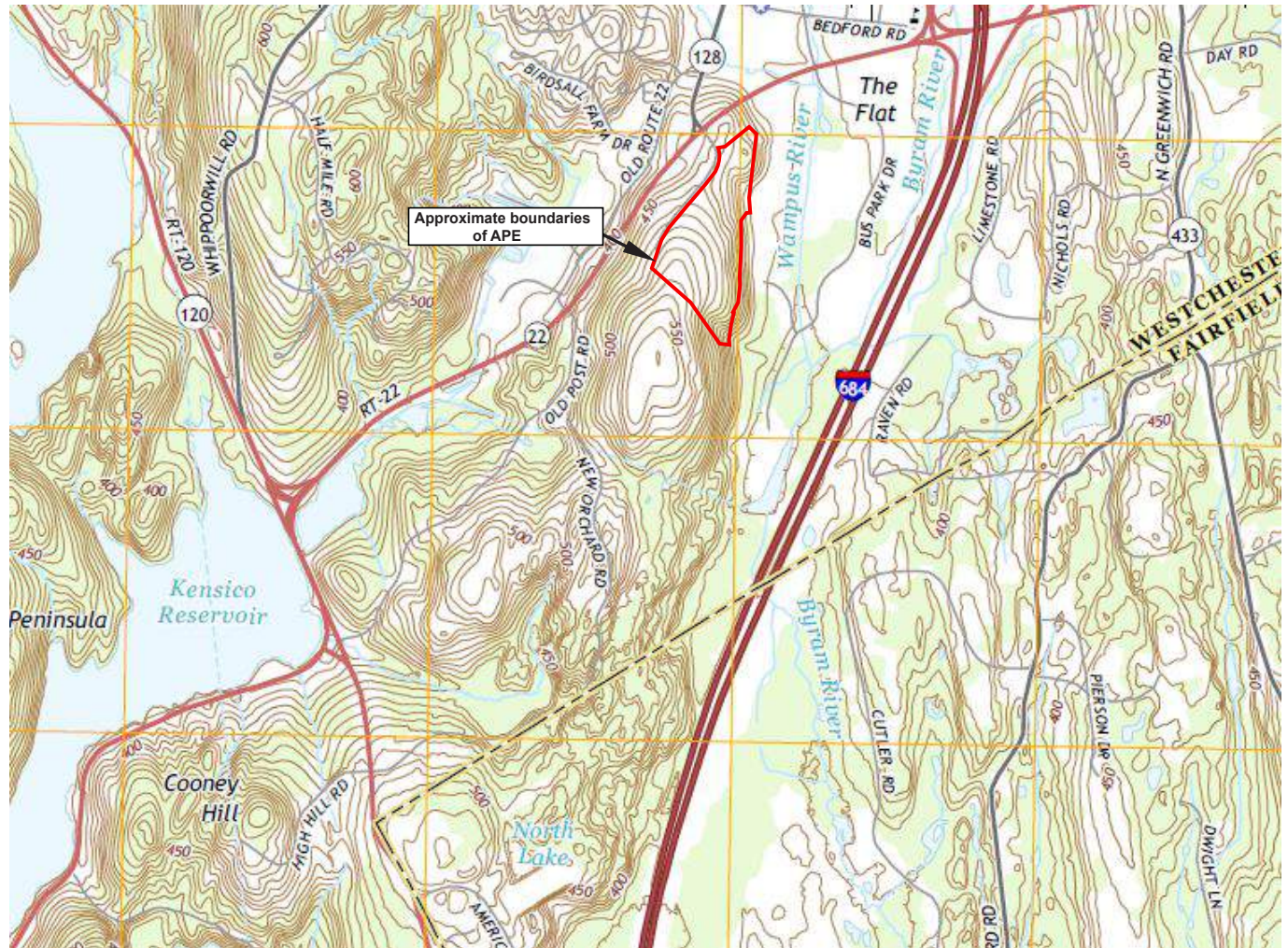
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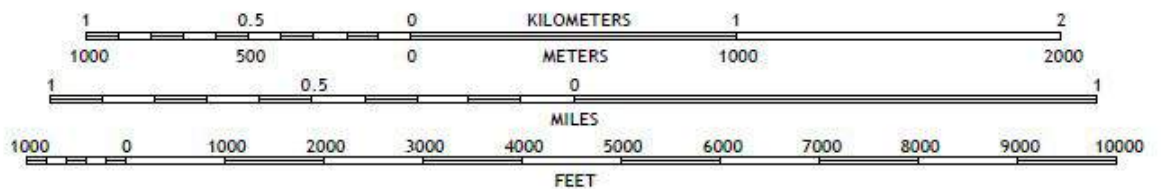
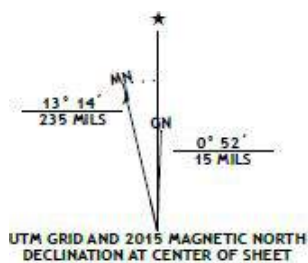
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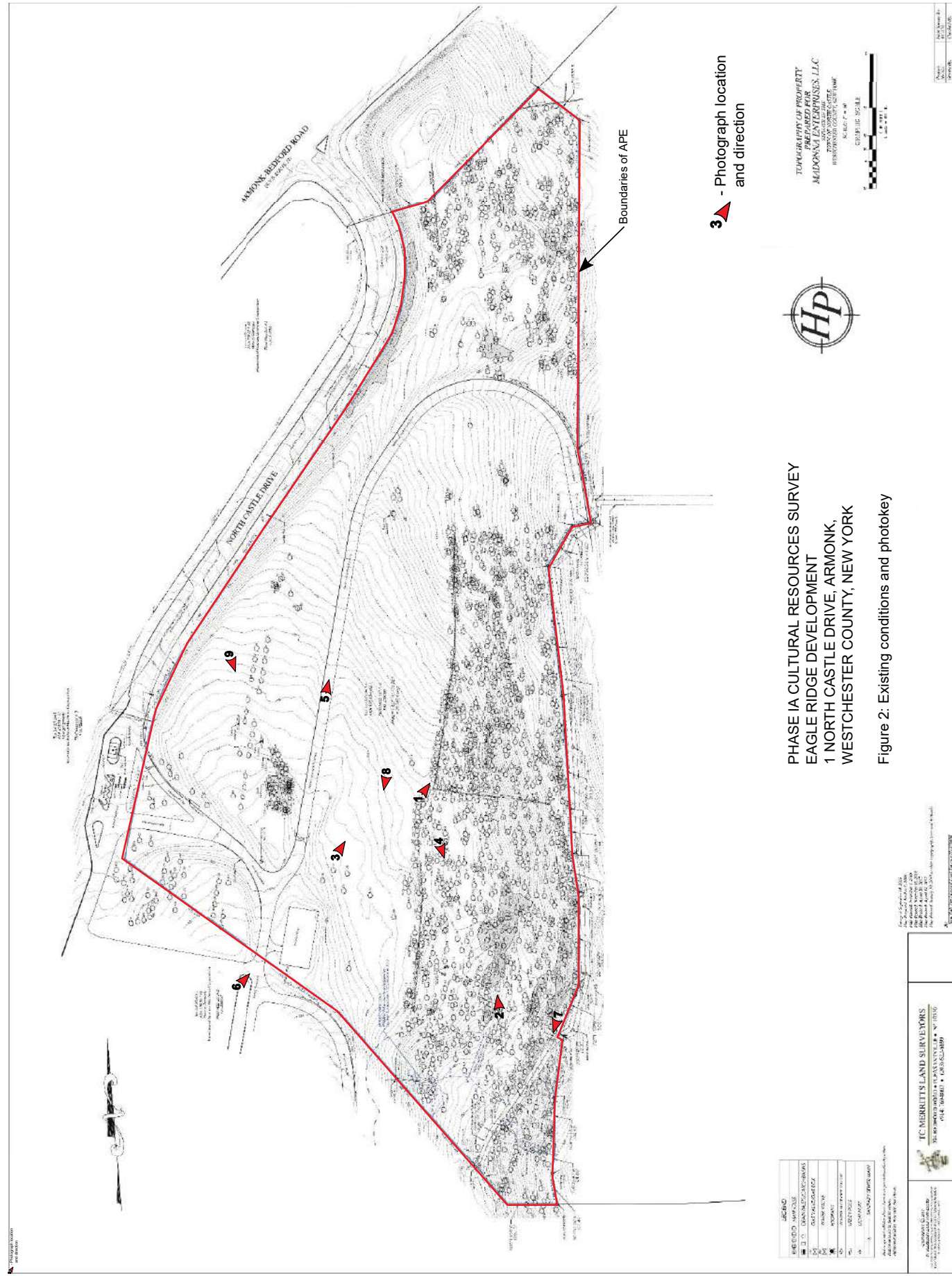
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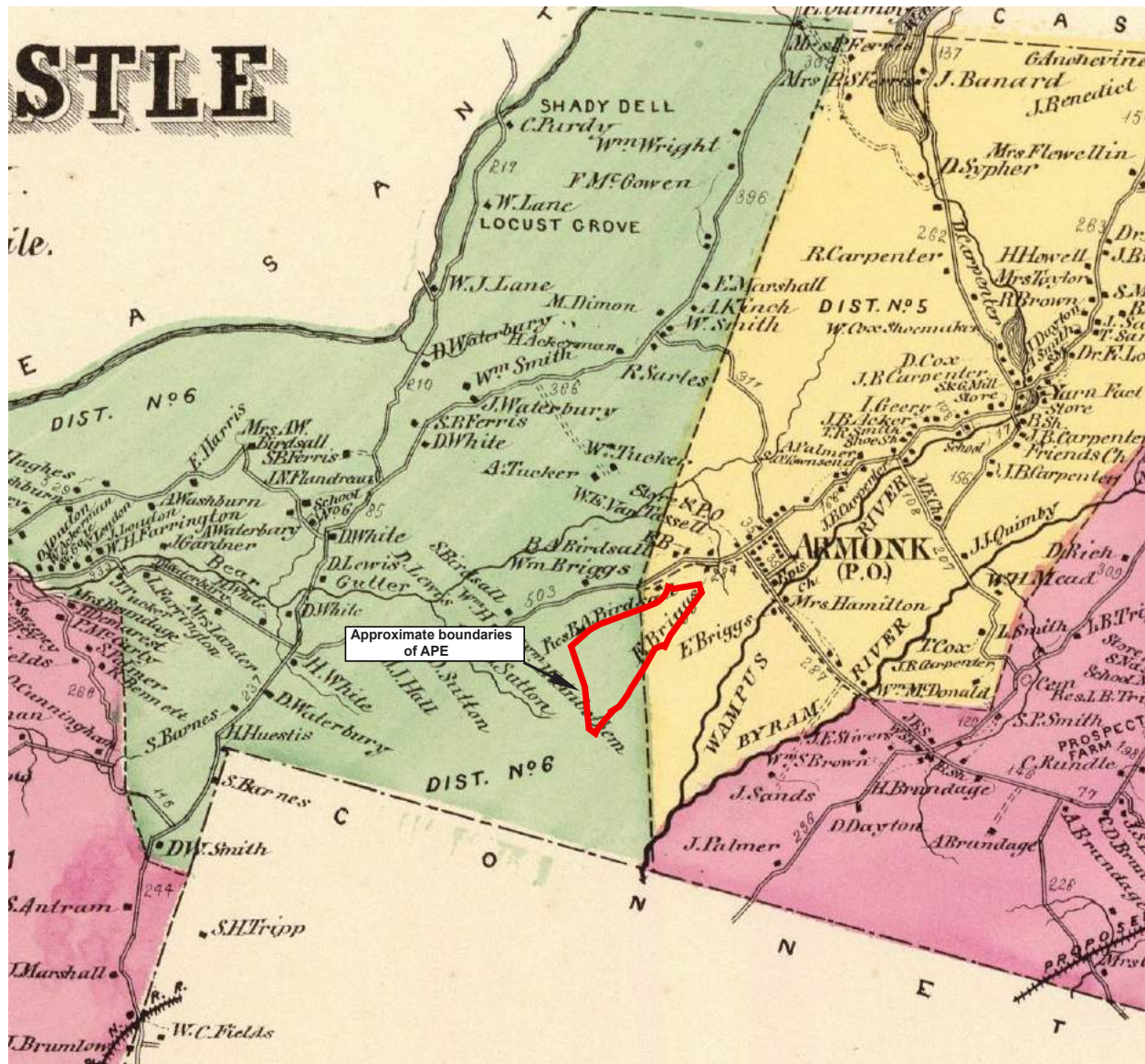


PHASE IA CULTURAL RESOURCES SURVEY
EAGLE RIDGE DEVELOPMENT
1 NORTH CASTLE DRIVE, ARMONK,
WESTCHESTER COUNTY, NEW YORK



Figure 1: Project area of potential effect on U.S.G.S.
Topographical map Glenville, CT quadrangle (2015)





No scale



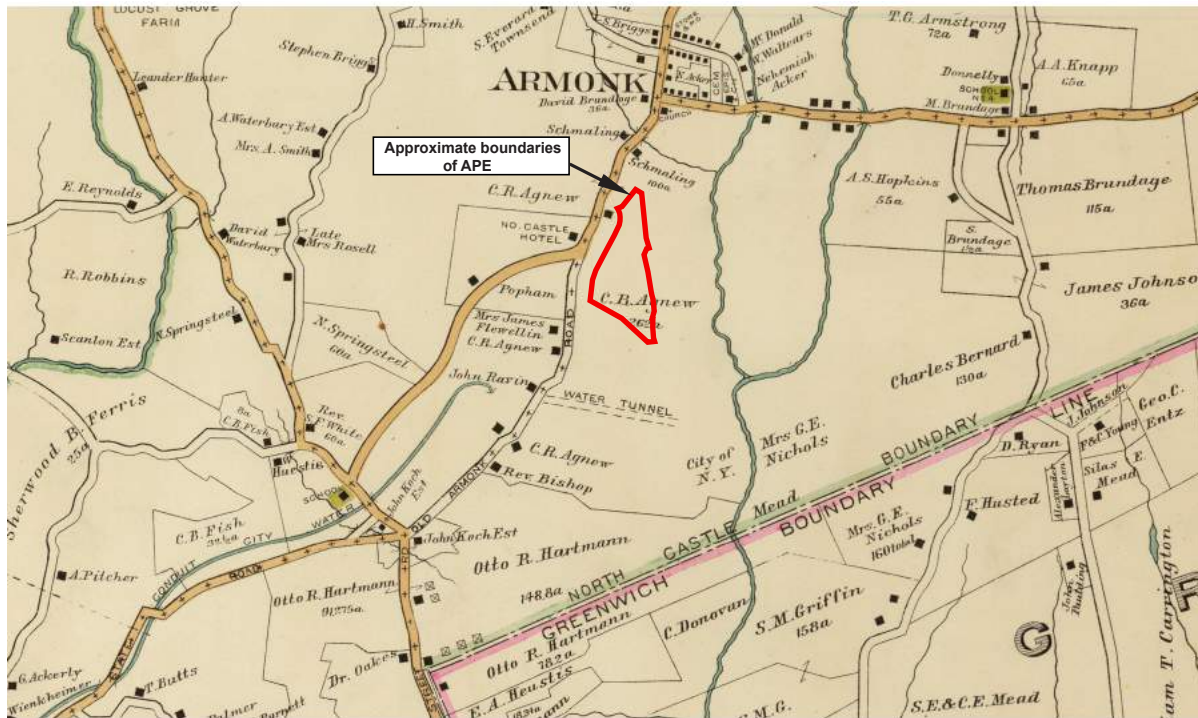
PHASE IA CULTURAL RESOURCES SURVEY
EAGLE RIDGE DEVELOPMENT
1 NORTH CASTLE DRIVE, ARMONK,
WESTCHESTER COUNTY, NEW YORK



Figure 3: Project area of potential effect
on 1868 Beers map



Figure 5: Project area of potential effect on 1893 Bien map



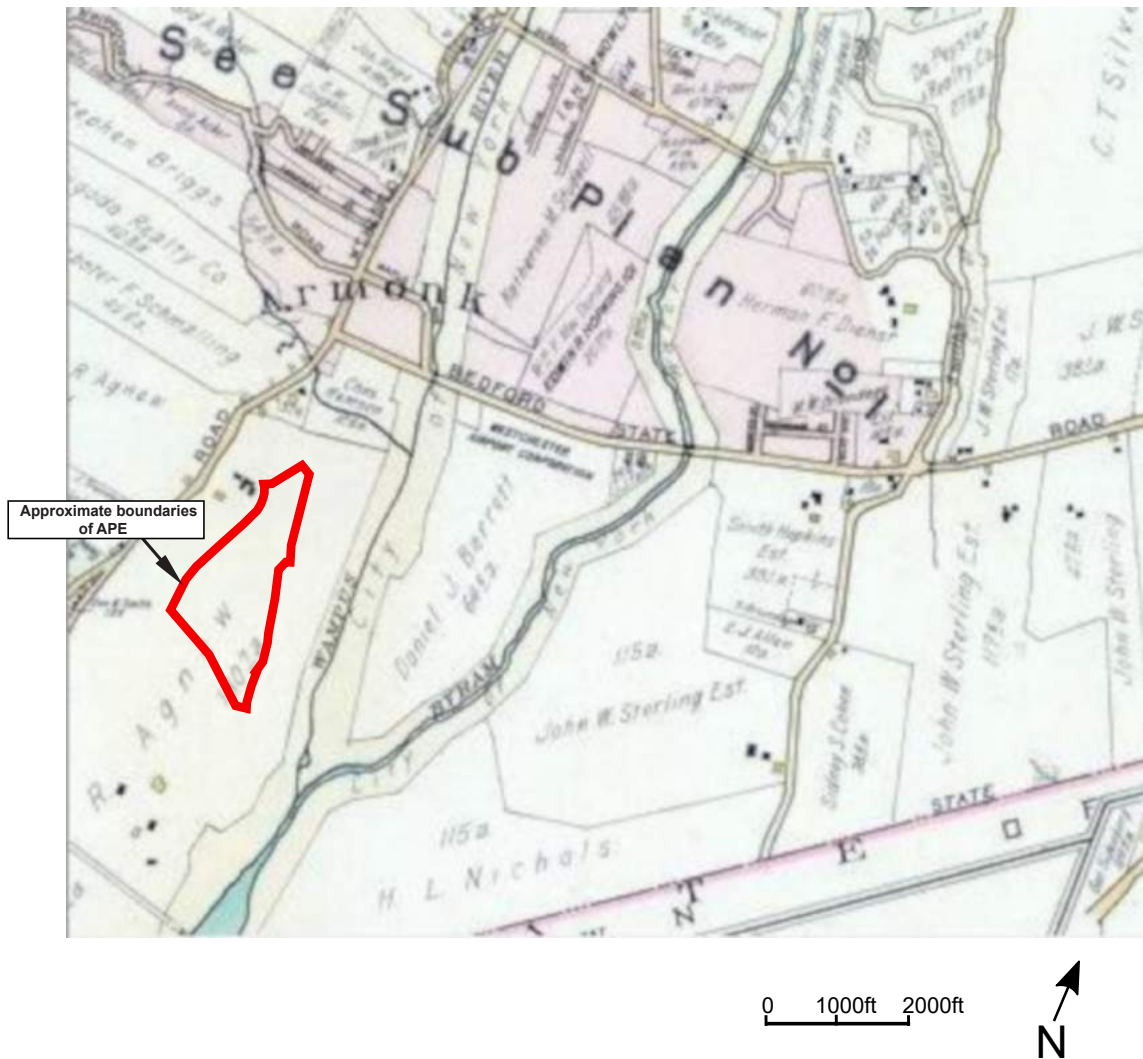
0 1000ft 2000ft



PHASE IA CULTURAL RESOURCES SURVEY
EAGLE RIDGE DEVELOPMENT
1 NORTH CASTLE DRIVE, ARMONK,
WESTCHESTER COUNTY, NEW YORK



Figure 6: Project area of potential effect
on 1908 Hyde map



PHASE IA CULTURAL RESOURCES SURVEY
 EAGLE RIDGE DEVELOPMENT
 1 NORTH CASTLE DRIVE, ARMONK,
 WESTCHESTER COUNTY, NEW YORK



Figure 7: Project area of potential effect
 on 1930 Hopkins map



- Area of Archaeological Sensitivity - Standard Phase 1B Field Testing
- Area of Archaeological Sensitivity - Limited Phase 1B Field Testing

| | |
|------------|--|
| DATE | 12/10/10 |
| PROJECT | PHASE I CULTURAL RESOURCES SURVEY |
| CLIENT | THE REDWOOD SOCIETY |
| LOCATION | 1 NORTH CASTLE DRIVE, ARMONK, NY 10501 |
| SCALE | 1" = 40' |
| DRAWN BY | HP |
| CHECKED BY | HP |



PHASE IA CULTURAL RESOURCES SURVEY
EAGLE RIDGE DEVELOPMENT
1 NORTH CASTLE DRIVE, ARMONK,
WESTCHESTER COUNTY, NEW YORK

TOOK PHOTOGRAPHY OF PROPERTY
FOR ARCHAELOGICAL SURVEY
MADONNA LANDSCAPE ARCHITECTS, LLC
100 WEST 10TH STREET
NEW YORK, NY 10011
TEL: 212-691-1000
WWW.MADONNALANDSCAPEARCHITECTS.COM



Figure 8: Archaeological Sensitivity Map



Photograph 1. Steep slope on eastern border of APE, view to the northeast.



Photograph 2. Rock outcrops, possible rockshelter, view to the northwest.



Photograph 3. Center field, view to the northeast.



Photograph 4. Wooded area along southeastern portion of APE, view to the southeast.



Photograph 5. Asphalt road that runs through APE, view to the north.



Photograph 6. Helipad on southern portion of APE, view to the northeast.



Photograph 7. Sewer line through southeastern portion of APE, view to the south.



Photograph 8. Disturbed soils in center field, view to the south.




















Photograph 9. Disturbed soils along northwestern portion of APE, view to the southeast.

APPENDIX A: SOIL SURVEY

Soil Map—State of Connecticut, and Westchester County, New York



MAP LEGEND

| | | | | |
|-------------------------------|---|------------------------|---|-----------------------|
| Area of Interest (AOI) |  | Area of Interest (AOI) |  | Spoil Area |
| Soils |  | Soil Map Unit Polygons |  | Story Spot |
| |  | Soil Map Unit Lines |  | Very Story Spot |
| |  | Soil Map Unit Points |  | Wet Spot |
| Special Point Features |  | Blowout |  | Other |
| |  | Borrow Pit |  | Special Line Features |
| |  | Clay Spot |  | Water Features |
| |  | Closed Depression |  | Streams and Canals |
| |  | Gravel Pit |  | Transportation |
| |  | Gravelly Spot |  | Rails |
| |  | Landfill |  | Interstate Highways |
| |  | Lava Flow |  | US Routes |
| |  | Marsh or swamp |  | Major Roads |
| |  | Mine or Quarry |  | Local Roads |
| |  | Miscellaneous Water |  | Background |
| |  | Perennial Water |  | Aerial Photography |
| |  | Rock Outcrop | | |
| |  | Saline Spot | | |
| |  | Sandy Spot | | |
| |  | Severely Eroded Spot | | |
| |  | Sinkhole | | |
| |  | Slide or Slip | | |
| |  | Sodic Spot | | |

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 16, Sep 15, 2017

Soil Survey Area: Westchester County, New York
Survey Area Data: Version 13, Oct 8, 2017

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 5, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---------------------------------------|--|--------------|----------------|
| 84B | Paxton and Montauk fine sandy loams, 3 to 8 percent slopes | 0.3 | 0.0% |
| 308 | Udorthents, smoothed | 0.3 | 0.0% |
| Subtotals for Soil Survey Area | | 0.5 | 0.1% |
| Totals for Area of Interest | | 554.1 | 100.0% |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|-----------------|---|--------------|----------------|
| ChB | Charlton fine sandy loam, 3 to 8 percent slopes | 3.1 | 0.6% |
| ChC | Charlton fine sandy loam, 8 to 15 percent slopes | 17.9 | 3.2% |
| ChD | Charlton fine sandy loam, 15 to 25 percent slopes | 3.3 | 0.6% |
| CrC | Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky | 115.4 | 20.8% |
| CsD | Chatfield-Charlton complex, 15 to 35 percent slopes, very rocky | 70.0 | 12.6% |
| CtC | Chatfield-Hollis-Rock outcrop complex, 0 to 15 percent slopes | 17.8 | 3.2% |
| CuD | Chatfield-Hollis-Rock outcrop complex, 15 to 35 percent slopes | 6.2 | 1.1% |
| Ff | Fluvaquents-Udifluvents complex, frequently flooded | 83.3 | 15.0% |
| HrF | Hollis-Rock outcrop complex, 35 to 60 percent slopes | 1.6 | 0.3% |
| LcB | Leicester loam, 3 to 8 percent slopes, stony | 5.8 | 1.0% |
| LeB | Leicester loam, 2 to 8 percent slopes, very stony | 0.9 | 0.2% |
| Pa | Natchaug muck, 0 to 2 percent slopes | 1.7 | 0.3% |
| PnB | Paxton fine sandy loam, 3 to 8 percent slopes | 15.3 | 2.8% |
| PnC | Paxton fine sandy loam, 8 to 15 percent slopes | 5.0 | 0.9% |
| Pw | Pompton silt loam, loamy substratum | 19.0 | 3.4% |
| Sh | Sun loam | 23.7 | 4.3% |
| Sm | Sun loam, extremely stony | 4.5 | 0.8% |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---------------------------------------|---|--------------|----------------|
| Ub | Udorthents, smoothed | 79.9 | 14.4% |
| Uc | Udorthents, wet substratum | 6.7 | 1.2% |
| Uf | Urban land | 56.5 | 10.2% |
| UvB | Urban land-Riverhead complex, 2 to 8 percent slopes | 12.5 | 2.3% |
| W | Water | 3.3 | 0.6% |
| Subtotals for Soil Survey Area | | 553.5 | 99.9% |
| Totals for Area of Interest | | 554.1 | 100.0% |

Appendix F

Stormwater Pollution Prevention Plan

ALFONZETTI ENGINEERING, P.C.
1100 Route 52, Carmel, N.Y. 10512

(845) 228-9800

Info@AlfonzettiEng.com

Preliminary Stormwater Pollution Prevention Plan

for

Eagle Ridge
Town of North Castle

February 14, 2019

ALFONZETTI ENGINEERING, P.C.
1100 Route 52, Carmel, N.Y. 10512

(845) 228-9800

Info@AlfonzettiEng.com

PROJECT: Eagle Ridge
Town of North Castle, NY

SCOPE: Preliminary Stormwater Pollution Prevention Plan

DATE: February 14, 2019

Introduction:

The subject site is located at 1 North Castle Drive, in the Town of North Castle, New York. The proposed development of this site, with more than one (1) acre of disturbance requires a Stormwater Pollution Prevention plan as per New York State Department of Environmental Conservation. This stormwater pollution prevention plan complies with New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity—GP-0-15-002.

Description:

The site is located on approximately 32 acres at 1 North Castle Drive in the Town of North Castle. The project site consists of one lot, with property tax map identification number; 108.03-1-62. The existing site consists of vacant land consisting of meadow areas, wooded areas, an abandoned asphalt road. On the southern end of the site there is a helicopter pad and internal roadways associated with the neighboring IBM property.

The applicant is proposing a mixed-use development consisting of 94 townhouses and a hotel building with 91 hotel rooms and 70 apartments; with associated improvements.

The proposed disturbance for the site is approximately 26.5 acres. This project results in the creation of approximately 10.4 acres of impervious area. The site generally slopes in an easterly direction.

Runoff from the site drains partially to an on-site wetland and to the adjacent property owned by the Town of North Castle. Eventually runoff from the site makes its way to the Wampus River, then to the Byram River, then to the Long Island Sound.

Owner/Operator/Applicant:
MADDD/Madonna Armonk LLC
7 Spruce Hill Court
Pleasantville, New York 10570

Contractors:
TBD

Individual Responsible for
Implementation of SWPPP:
TBD

Individual Responsible for
Periodic Inspections:
Alfonzetti Engineering, PC
1100 Route 52
Carmel, NY 10512

At the time of the preparation of this Stormwater Pollution Prevention Plan, there are no known violations on this site.

A Phase I Cultural Resources Survey has been conducted on the site. A portion of the report prepared by Historical Perspectives, Inc., dated June 2018, is included in the appendix of this report.

The approvals associated with this project are as follows:

| Agency | Approval | Status |
|---|--|---------|
| Town of North Castle | - Zoning Amendment - Site Plan Approval | Pending |
| Westchester County Department of Health (WCDH), | - Watermain Extension - Sewermain Extension | Pending |
| New York State Department of Environmental Conservation | - Stormwater | Pending |

Deep test holes and percolation tests were performed on site to determine the suitability of the soil for subsurface detention/infiltration. The results are shown in the appendix of this report. In addition, the soils according to the USDA (United States Department of Agriculture), NRCS (Natural Resources Conservation Service) are also shown in the appendix of this report.

Discussion:

Temporary Erosion Control Measures:

The following is an inventory and description of the temporary erosion control devices proposed on this site.

Anti-Tracking Pad – Anti-Tracking Pads shall be installed at all construction entrances. The purpose of the Anti-Tracking Pad shall be to dislodge mud, dirt, and debris from construction vehicles prior to these vehicles leaving the construction site. This will ensure the existing roadways are kept clear of sediment. Locations and details of the Anti-Tracking Pad are shown on the plans.

Silt Fence – Silt Fencing consists of a fabric barrier between supporting stakes or posts usually made of wood. The fabric is proposed to capture suspended sediments from construction runoff and also decreases the velocity of the runoff to protect off-site areas. The proposed location of the silt fence is shown on the plans along with details for installing the silt fence.

Haybales – Haybales are used in a variety of erosion control devices. At the top of an excavation, haybales are used to spread out concentrated flow to prevent erosion. Haybales are used in conjunction with silt fence to add additional protection to sensitive areas such as wetlands and water bodies. Haybales are also used in conjunction with Silt Fence to protect surrounding areas from soil stockpile erosion. The proposed location of the haybales is shown on the plans along with details.

Inlet protection – Inlet protection is used to filter runoff from non-stabilized construction sites prior to this runoff entering the drainage system.

Temporary Sediment Trap – Temporary Sediment Traps are small ponding basins constructed by excavation or embankment used to intercept sediment laden runoff. The sediment trap protects waterways, properties, and right-of-ways below the sediment trap.

Construction Sequence:

The proposed development is proposed to be constructed in 6 phases. The construction will be in a sequence that will minimize the potential for erosion. No phase will be more than 5 acres and no two adjacent phases will be disturbed at the same time. Construction is anticipated to begin in the summer of 2020, and last approximately 6 months for the public improvements and up to 36 months for the entire site to be built.

The general sequence of construction is as follows:

Some phases of construction may be combined with prior approval.

Phase 1: Site Entrance, Portion of Hotel Road and Hotel Parking Lot, Watermain and Sanitary Sewer Connections and Proposed Pond 2.

Overall Disturbance: 4.6 acres

- Phase 1: Pre-Construction Meeting, Stakeout, Erosion Control Measures, Clearing
 1. Pre-construction meeting with the Town Engineer, Applicant, Applicant's representative, and Contractors.
 2. Survey and stake for disturbance limits and erosion control installation.
 3. Place construction trailer and/or field office and a construction yard, if necessary.
 4. Mark and protect all trees to be preserved within the disturbance limits of Phase 1.
 5. Install anti-tracking pad and silt fence as shown on the erosion control plan and as per the respective erosion control details. Note: Silt fence should not be installed in areas where tree clearing operations will damage silt fence.
 6. Remove trees within Phase 1.
 7. Install silt fence in areas of tree clearing.
 8. Remove tree stumps, brush and other vegetation. Tree stump removal shall only include stumps within the immediate work area of Phase I. Note: Tree stump removal shall only begin

following the installation of the anti-tracking pads at all the construction entrances.

9. Install soil stockpiles within Phase 1 disturbance limits and sediment trap ST-1. Construct temporary sediment trap ST-1 in the location of the stormwater basin indicated on plan.
 10. Install diversion ditch(es) tributary to ST-1 within Phase 1 disturbance limits. Install temporary pipes to convey runoff in areas of vehicular/machinery traffic.
- Phase 1: Earthwork/ Roadway/ Proposed Pond/ Utilities/ Stabilization
 11. Erosion control devices must be installed before earthwork operations can commence. A water truck will be available during dry times to reduce airborne dust.
 12. Begin rough grading operations for the road and parking lot.
 13. Install utilities, backfill and compact trenches. Utilities include drainage structures, sanitary sewer, watermain and electric along with others. Connect to existing watermain and sanitary sewer system.
 14. Install inlet protection to ensure sediment does not enter the drainage system.
 15. Install the infiltration systems and protect from heavy machinery. Note: The infiltration systems shall not be put into service until Phase 1 and 2 are stabilized.
 16. Complete rough grading.
 17. Begin final grading, seeding, sodding, and soil stabilizing landscaping.
 18. Roadway nears finished form. Install roadway base.
 19. Complete final grading and stabilize Phase 1 with curbing, lawn, or landscaping treatments.
 20. Sediment trap ST1 shall remain in place until Phase 2 is completely stabilized.

Phase 2: Hotel/ Roadway/ Parking Lot/ Paving
Overall Disturbance: 3.14 acres

- Phase 2: Stakeout, Erosion Control Measures, Clearing
 1. Survey and stake for disturbance limits and erosion control installation.
 2. Mark and protect all trees to be preserved within the disturbance limits of Phase 2.
 3. Install erosion controls as shown on the erosion control plan and as per the respective erosion control details.
 4. Anti-tracking pad shall be relocated to an unpaved area within Phase 2 limits of disturbance for Phase 2 operations.
 5. The sediment trap ST1 shall remain in place.
 6. Note: Silt fence should not be installed in areas where tree clearing operations will damage silt fence.
 7. Remove trees within Phase 2.
 8. Install silt fence in areas of tree clearing.
 9. Remove tree stumps, brush and other vegetation. Tree stump removal shall only include stumps within the immediate work area of Phase 2.
 10. Install soil stockpiles within Phase 2 limits of disturbance. and inlet protection on for drainage structures installed in Phase 1.

- Phase 2: Earthwork/ Building/Drainage/Utilities/Stabilization
 11. All Erosion control must be installed before earthwork operations can commence. A water truck will be available during dry times to reduce airborne dust.
 12. Begin rough grading operations for the parking lot, road, and hotel.
 13. Begin excavation for footings and the foundations shall begin.
 14. Install appropriate proposed utility services to the proposed hotel. Utility services include leader drains, sanitary sewer service, water service and electric lines along with others.
 15. Backfill and compact trenches. Cure and backfill foundation.

16. Construct hotel's superstructure. Note: Foundations must be properly cured and backfilled prior to superstructure construction.
17. Roadway nears finished form. Install roadway base and binder materials.
18. Complete final grading, seeding, sodding, and soil stabilizing landscaping.
19. Stabilize Phase 2 with curbing, lawn, or landscaping treatments.
20. Clean and modify sediment trap ST1 into stormwater basin and plant with specified landscaping.
21. Remove and discard erosion control devices in an appropriate manner.
22. Put Infiltration system(s) into service.
23. Install top course when heavy equipment is no longer needed and prior to the final Certificate of Occupancy.

Phase 3: Loop Road/ Utilities/ Proposed Pond 1.

Overall Disturbance: 4.97 acres

- Phase 3: Stakeout, Erosion Control Measures, Clearing
 1. Survey and stake for disturbance limits and erosion control installation.
 2. Place construction trailer and/or field office and a construction yard, if necessary.
 3. Mark and protect all trees to be preserved within the disturbance limits of Phase 3.
 4. Install anti-tracking pad and silt fence as shown on the erosion control plan and as per the respective erosion control details. The anti-tracking pad shall remain in place until Phase 6 stabilization, or shall be moved as phases are stabilized and completed. Note: Silt fence should not be installed in areas where tree clearing operations will damage silt fence.
 5. Remove trees within Phase 3.
 6. Install silt fence in areas of tree clearing.
 7. Remove tree stumps, brush and other vegetation. Tree stump removal shall only include stumps within the immediate work area of Phase 3. Note: Tree stump removal shall only begin following

the installation of the anti-tracking pads at all the construction entrances.

8. Install soil stockpiles and sediment trap ST-2. Construct temporary sediment trap ST-2 in the location of the stormwater basin indicated on plan. Note: Sediment trap ST-2 shall remain in place until Phase 6 stabilization.
9. Install diversion ditch(es) tributary to ST-2 within Phase 3 disturbance limits.

- Phase 3: Earthwork/ Roadway/ Utilities/Proposed Pond

10. All Erosion control must be installed before earthwork operations can commence. A water truck will be available during dry times to reduce airborne dust.
11. Begin rough grading operations for the road.
12. Install utilities, backfill and compact trenches. Utilities include drainage structures, sanitary sewer, watermain and electric along with others. Connect to existing watermain and sanitary sewer system.
13. Install inlet protection to ensure sediment does not enter the drainage system.
14. Watermain and sewermain shall be approved by the Town of North Castle and Westchester County Department of Health and put into service.
15. Install the infiltration systems and protect from heavy machinery. Note: The infiltration systems shall not be put into service until Phase 3 is stabilized.
16. Complete rough grading.
17. Complete final grading, seeding, sodding, and soil stabilizing landscaping.
18. As roadway nears finished form, install roadway base and binder materials.

- Phase 3: Earthwork/ Building/ Drainage/ Utility Services/ Stabilization

24. Begin rough grading operations for the buildings within Phase 3.
25. Begin excavation for footings and the foundations.

26. Install appropriate proposed utility services to the proposed buildings. Utility services include leader drains, sanitary sewer service, water service and electric lines along with others.
27. Backfill and compact utility service trenches.
28. Cure and backfill foundation.
29. Construct buildings' superstructure. Note: Foundations must be properly cured and backfilled prior to superstructure construction.
30. Complete final grading, seeding, sodding, and soil stabilizing landscaping.
31. Complete Phase 3 with driveway pavement, curbing, lawn, or landscaping treatments.
32. Remove and discard erosion control devices in an appropriate manner. Put Infiltration system(s) within Phase 3 into service.
33. Complete building construction.

Phase 4: Buildings/ Driveways/ Utility Connections/ Drainage
Overall Disturbance Area: 4.02 Acres

- Phase 4: Stakeout, Erosion Control Measures, Clearing
 1. Survey and stake for disturbance limits and erosion control installation.
 2. Mark and protect all trees to be preserved within the disturbance limits of Phase 4.
 3. Install silt fence as shown on the erosion control plan and as per the respective erosion control details. Note: Silt fence should not be installed in areas where tree clearing operations will damage silt fence.
 4. Anti-tracking pad and ST2 shall remain in place until Phase 6 stabilization. Anti-tracking pad may be moved to a suitable location for the next phase of work.
 5. Remove trees within Phase 4.
 6. Install silt fence in areas of tree clearing.
 7. Remove tree stumps, brush and other vegetation. Tree stump removal shall only include stumps within the immediate work area of Phase 4. Note: Tree stump removal shall only begin following

the installation of the anti-tracking pads at all the construction entrances.

8. Install inlet protection for drainage structures installed in Phase 3.
9. Install soil stockpiles and sediment trap ST-3. Construct temporary sediment trap ST-3 in the location indicated on the plan.
10. Install diversion ditch(es) tributary to ST-3 within Phase 4 disturbance limits.

- Phase 4: Earthwork/ Building/Drainage/Utility Services/Stabilization

11. All Erosion control must be installed before earthwork operations can commence. A water truck will be available during dry times to reduce airborne dust.
12. Begin rough grading operations for the buildings and open space.
13. Begin excavation for footings and the foundations.
14. Install appropriate proposed utility services to the proposed buildings. Utility services include leader drains, sanitary sewer service, water service and electric lines along with others.
15. Backfill and compact utility service trenches.
16. Install the infiltration system(s) and protect from heavy machinery.
Note: The infiltration systems shall not be put into service until Phase 4 is stabilized. Ensure sediment does not enter the drainage system.
17. Cure and backfill foundation.
18. Construct building's superstructure. Note: Foundations must be properly cured and backfilled prior to superstructure construction.
19. Complete final grading, seeding, sodding, and soil stabilizing landscaping.
20. Stabilize Phase 4 with driveway pavement, curbing, lawn, or landscaping treatments.
21. Complete building construction.
22. Remove sediment trap ST-3 and discard erosion control devices in an appropriate manner.
23. Anti-tracking pad and inlet protection for drainage structures installed in Phase 3 shall remain until Phase 6 stabilization.
24. Put Infiltration system(s) within Phase 4 into service.

Phase 5: Buildings/ Driveways/ Utility Connections/ Drainage

Overall Disturbance Area: 4.92 Acres

- Phase 5: Stakeout, Erosion Control Measures, Clearing
 1. Survey and stake for disturbance limits and erosion control installation.
 2. Mark and protect all trees to be preserved within the disturbance limits of Phase 5.
 3. Anti-tracking pad and inlet protection for drainage structures installed in Phase 3 shall remain until Phase 6 stabilization. Anti-tracking pad may be moved to a suitable location for this phase of work.
 4. Sediment trap ST2 shall remain in place until Phase 6 stabilization.
 5. Install staked hay bales and silt fence as shown on the erosion control plan and as per the respective erosion control details.
Note: Silt fence should not be installed in areas where tree clearing operations will damage silt fence.
 6. Remove trees within Phase 5.
 7. Install silt fence in areas of tree clearing.
 8. Remove tree stumps, brush and other vegetation. Tree stump removal shall only include stumps within the immediate work area of Phase 5. Note: Tree stump removal shall only begin following the installation of the anti-tracking pads at all the construction entrances.
 9. Install soil stockpiles within Phase 5 disturbance limits and sediment traps ST-4 and ST-5. Construct temporary sediment traps ST-4 and ST-5 in the location indicated on the plan.
 10. Install diversion ditch(es) tributary to sediment traps ST-4 and ST-5 within Phase 5 disturbance limits.

- Phase 5: Earthwork/ Building/ Drainage/ Utility Services/ Stabilization
 11. All Erosion control must be installed before earthwork operations can commence. A water truck will be available during dry times to reduce airborne dust.
 12. Begin rough grading operations for the buildings and open space.
 13. Begin excavation for footings and the foundations.

14. Install appropriate proposed utility services to the proposed buildings. Backfill and compact trenches. Utility services include leader drains, sanitary sewer service, water service, and electric lines along with others.
15. Install the infiltration system(s) and protect from heavy machinery. Note: The infiltration systems shall not be put into service until Phase 5 is stabilized. Ensure sediment does not enter the drainage system.
16. Cure and backfill foundation.
17. Construct building's superstructure. Note: Foundations must be properly cured and backfilled prior to superstructure construction.
18. Complete final grading, seeding, sodding, and soil stabilizing landscaping.
19. Stabilize Phase 5 with driveway pavement, curbing, lawn, or landscaping treatments.
20. Complete building construction.
21. Remove sediment traps ST-4 and ST-5 and discard erosion control devices in an appropriate manner.
22. Anti-tracking pad and inlet protection on pavement for drainage structures installed in Phase 3 shall remain until Phase 6 stabilization. Anti-tracking pad may be moved to a suitable location for the next phase of work.
23. Put Infiltration system(s) into service.

Phase 6: Buildings/ Driveways/ Utility Connections/ Drainage
Overall disturbance: 4.96 Acres

- Phase 6: Stakeout, Erosion Control Measures, Clearing
 1. Survey and stake for disturbance limits and erosion control installation.
 2. Mark and protect all trees to be preserved within the disturbance limits of Phase 6.
 24. Anti-tracking pad and inlet protection on pavement for drainage structures installed in Phase 3 shall remain until Phase 6 stabilization. Anti-tracking pad may be moved to a suitable location for this phase of work.
 3. Sediment trap ST2 shall remain in place until Phase 6 stabilization.

4. Install silt fence as shown on the erosion control plan and as per the respective erosion control details. Note: Silt fence should not be installed in areas where tree clearing operations will damage silt fence.
 5. Remove trees with Phase 6.
 6. Install silt fence in areas of tree clearing.
 7. Remove tree stumps, brush and other vegetation. Tree stump removal shall only include stumps within the immediate work area of Phase 6. Note: Tree stump removal shall only begin following the installation of the anti-tracking pads at all the construction entrances.
 8. Install soil stockpiles within Phase 6 disturbance limits and sediment trap ST-6. Construct temporary sediment trap ST-6 in the location indicated on the plan.
 9. Install diversion ditch(es) tributary to sediment trap ST-6 within Phase 6 disturbance limits.
- Phase 6: Earthwork/ Building/ Drainage/ Utility Services/ Stabilization
 10. All Erosion control must be installed before earthwork operations can commence. A water truck will be available during dry times to reduce airborne dust.
 11. Begin rough grading operations for the buildings and open space.
 12. Begin excavation for footings and the foundations.
 13. Install appropriate proposed utility services to the proposed building. Utility services include leader drains, sanitary sewer service, water service and electric lines along with others.
 14. Backfill and compact utility service trenches.
 15. Cure and backfill foundation.
 16. Construct building's superstructure. Note: Foundations must be properly cured and backfilled prior to superstructure construction.
 17. Complete final grading, seeding, sodding, and soil stabilizing landscaping.
 18. Stabilize Phase 6 with driveway pavement, curbing, lawn, or landscaping treatments.
 19. Remove sediment basin(s) ST6 and discard all erosion control devices in an appropriate manner.

20. Clean and modify sediment trap ST2 into stormwater basin and plant with specified landscaping.
21. Complete building construction.
22. Install roadway top course when heavy equipment is no longer needed and prior to the final Certificate of Occupancy.

The general phases of construction are shown on the Phasing Plan shown in the appendix of this report. As the project is developed a more detailed construction sequence will be established.

Maintenance:

The maintenance chart below shows typical maintenance of temporary and permanent structures and erosion control devices during construction,

| Device | Weekly | Monthly | Bi-annually | Annually | Prior to Significant Rainfall | After Significant Rainfall |
|-------------------------------|----------------------------------|---------|-------------|----------|-------------------------------|----------------------------|
| Haybales | | Inspect | | Replace | Inspect | Inspect/clean |
| Silt fence | | Inspect | | Inspect | Inspect | Inspect/clean |
| Anti-tracking pad | Inspect | | Restore | | | Inspect |
| Inlet protection | | Inspect | Restore | | Inspect | Inspect/clean |
| Catch basins/ Drain inlets | Inspect (during construction) | | Clean | | | Inspect |

Temporary Sediment Traps shall be inspected prior to significant rainfall and inspected and cleaned if needed after significant rainfall. The sediment trap shall be cleaned and sediment removed when sediment reaches $\frac{1}{2}$ the design depth. Temporary sediment trap sizing is included in the appendix of this report.

Permanent stormwater management device maintenance schedule is as follows:

- Hydrodynamic separator devices shall be inspected biannually and cleaned out as per manufacturers' instructions (included in the appendix of this report).

- The green roof maintenance requirements are included in the appendix of this report. The maintenance is as per 'Carlisle' green roofs planted with Sedum. Access to the roof is from the interior of the building.
- All catch basins/drain inlets/drain manholes shall be inspected and cleaned biannually. These structures should also be inspected weekly during construction and after significant rainfall.
- The subsurface infiltration systems shall be inspected annually through observation ports.
- Stormwater Basins Detention ponds should be inspected after major storm events and semi-annually. During the inspections, the following should be checked:
 - Clogging of outlet structure.
 - Erosion on the embankment/berm.
 - Condition of the emergency spillway.
 - Accumulation of sediment around the outlet structure.
 - Erosion of the basin bed and banks.
 - Sources of erosion in the contributory drainage, which should be stabilized.
 - Sediment removal in the forebay shall occur every five to six years or after 50% of total forebay capacity has been lost.
 - If any trash has made its way to the pond, it shall be cleaned out and disposed of in a lawful manor.
 - Grass should be cut at a minimum twice a year.
 - Dead/Diseased plants shall be removed and disposed of in a lawful manor. Replacement plants shall be of the same type and size as initially planted.
 - No herbicides, pesticides, or fertilizers should be used in or near the ponds.
- Rain garden maintenance may include the occasional replacement of plants, mulching, weeding and thinning to maintain the desired appearance. Weeding and watering are essential the first year, and can be minimized with the use of a weed-free mulch layer. Once the rain garden has matured, the garden area should be free of bare areas except where stepping stones are located. Inspect for sediment accumulations or heavy organic matter where runoff enters the garden and remove as necessary.

The top few inches of planting soil should be removed and replaced when water ponds for more than 48 hours.

Potential pollutants during construction are sediment laden stormwater runoff, litter, and construction fluids/chemical spills. During construction, the sediment laden runoff will be trapped or filtered through the silt fence and other erosion control devices prior to being discharged. The construction litter will be cleaned on a daily basis and disposed of in a lawful manor. The storage of any construction fluids or chemicals will be within water tight containers suitable for storage and will not be exposed to the elements.

During the construction phase, the trained contractor shall be responsible for erosion and sediment control device maintenance and pollution prevention measures. The trained contractor shall also be responsible for maintenance of the permanent drainage structures during construction and to ensure protection of the subsurface infiltration system areas. The trained contractor shall inspect the erosion control devices daily to ensure they are in effective operating condition.

The qualified inspector shall conduct site inspections at least once every seven (7) calendar days while soil disturbance activities are on-going. If soil disturbance activities are suspended, inspections shall occur under the guidelines in the appendix of this report.

After construction, the maintenance of the stormwater mitigating devices shall be the responsibility of the managing entity for the townhouse development and the managing entity of the hotel site.

Permanent Stormwater Management Devices:

The proposed stormwater mitigation practices have been sized according to the New York State Department of Environmental Conservation Stormwater Design Manual (Stormwater Design Manual). The project is a mixed-use development that is proposed to disturb more than 1 acre, therefore the Stormwater Pollution Prevention Plan must incorporate Water Quality treatment features as well as Water Quantity control features.

After construction, in the post development stage, potential pollutants can be an increase in runoff rates as well as suspended sediment and elevated nutrient levels within the runoff. The increase in runoff rates is mitigated by the combined use of the stormwater practices located throughout the site, namely the subsurface infiltration systems, the stormwater ponds, and the green roof. The increase in suspended sediment and elevated nutrients are mitigated by the subsurface infiltration systems, the infiltration pond, the extended detention pond, the green roof, the hydrodynamic separators, and the sumps in all the drain inlets and catch basins. By meeting NYSDEC Water Quality criteria and Runoff Reduction Volume criteria the pollutants of concern will be mitigated.

There are no stormwater discharges due to industrial activities, apart from construction, associated with this site.

The Stormwater Design Manual criteria are as follows:

Water Quality Volume (WQv):

- capture and treat runoff from the 90th percentile rain event

Runoff Reduction Volume (RRv):

- Reduction of the total WQv by application of green infrastructure techniques and standard Stormwater Management Practices to replicate pre-development hydrology.

Channel Protection Volume (Cpv):

- Provide 24 hour extended detention of the 1-year storm event, remained from runoff reduction.

Overbank Flood Protection (Qp):

- Attenuate the post development 10-year, 24-hour peak discharge rate to pre-development rates.

Extreme Flood Protection (Qf):

- Attenuate the post development 100-year, 24-hour peak discharge rate to pre-development rates.

This project incorporates the five-step process involving site planning and stormwater management practice selection to provide a more holistic approach to stormwater management per Chapter 3 of the *New York State Stormwater Design Manual* as described below.

1. Site planning to preserve natural features and reduce impervious cover.
2. Calculation of the water quality volume for the site.
3. Incorporation of runoff reduction techniques and standard SMPs with Runoff Reduction Volume (RRv) capacity.
4. Use of standard SMPs, where applicable, to treat the portion of water quality volume not addressed by runoff reduction techniques and standard SMPs with RRv capacity.
5. Design of volume and peak rate control practices where required.

Steps 2-5 are addressed in subsequent sections of this report. Step 1 was achieved by locating the proposed development away from the wetlands and watercourses and using the minimum required driveway width, parking space dimensions and drive aisle widths as per the Town of North Castle design standards. In addition, the bulk of the proposed development is located outside the steep slope areas of the site, with these areas remaining undisturbed.

The Stormwater Pollution Prevention Plan analyzes 6 Design Points. In order to determine the existing and proposed runoff flows at each respective design point, the stormwater model uses data from the existing and proposed watersheds. The watersheds and descriptions are below.

The Design Points are described below.

- | | |
|----------------|--|
| Design Point 1 | DP1 is a linear design point located along the eastern property line. In the existing condition and proposed condition, this represents the runoff from Watershed 1. |
|----------------|--|

- Design Point 2. DP2 is a linear design point located along the eastern property line. In the existing condition and proposed condition, this represents the runoff from Watershed 2.
- Design Point 3 DP3 is another linear design point located along the eastern property line. In the existing condition and proposed condition, this represents the runoff from Watershed 3.
- Design Point 4 DP4 is another linear design point located along the eastern property line. In the existing condition, this represents the runoff from Watershed 4. In the proposed condition, this represents the sum of the runoff from Watersheds 4A, 4A1, 4A2, 4A3, 4B, 4B1, 4B2, 4B3, 4C, 4C1, and 4D after they have been routed through their respective stormwater mitigation device.
- Design Point 5 DP5 is a linear design point along the eastern property line within an on-site wetland. In the existing condition this represents the runoff from Watershed 5. In the proposed condition, this represents the sum of the runoff from Watershed 5A and Watershed 5B after it has been routed through its stormwater mitigation device.
- Design Point 6 DP6 is located within an existing drainage swale along North Castle Drive at the northern property line. In the existing condition and the proposed condition, this represents the runoff from Watershed 6.
- Design Point 7 DP7 is located at an existing drain inlet, at the south west property corner. In the existing condition and the proposed condition, this represents the runoff from Watershed 7.

The rainfall amounts required to satisfy the stormwater design criteria for the site are:

Design Storm Summary Table

| Criteria | Storm | Rainfall (Inches) |
|---------------------------------|----------|-------------------|
| Water Quality Volume (WQv) | 90% | 1.5 |
| Channel Protection Volume (Cpv) | 1 year | 2.8 |
| | 2 year | 3.43 |
| | 5 year | 4.31 |
| Overbank Flood Protection (Qp) | 10-year | 5.13 |
| | 25 year | 6.46 |
| | 50 year | 7.69 |
| Extreme Flood Protection (Qf) | 100-year | 9.17 |

The methods used to calculate the runoff flows for the selected storms is as follows:

- The existing and proposed watersheds are determined and curve numbers are calculated for both conditions. Travel times are also calculated for the existing conditions.
- The existing watershed areas, curve numbers, and travel times are input into 'HydroCad' stormwater modeling software to determine the existing condition peak runoff flows.
- The proposed watershed areas, curve numbers, travel times, and stormwater mitigating devices and routings are input into 'HydroCad' stormwater modeling software to determine the proposed peak runoff flows. The results of the existing and the proposed peak runoff flow calculations are shown in the summary tables included in this report. The data used to determine the existing and the proposed peak runoff flows is also shown in the summary tables.
- The topography and land use/cover for the site was taken from a site-specific survey. The topography for off-site is taken from GIS mapping. The curve numbers and the travel times for the off-site watersheds are estimated using available aerial photographs. The soil grouping for the site

was taken from the USDA (United States Department of Agriculture), NRCS (Natural Resources Conservation Service) soil survey

Water Quality:

The water quality volume is calculated using the following formula from the Stormwater Design Manual:

$$WQ_v = ((P)(R_v)(A))/12)$$

where $R_v = 0.05 + 0.009(I)$

I = Impervious Cover (percent)

P = 90th % Rainfall Event Number (Use 1.5")

A = Site Area in acres

Designing the stormwater mitigation practices in accordance with the requirements of the NYSDEC Stormwater Design Manual will maintain proposed pollutant loading at or below existing condition levels

The impervious cover was calculated for each of the watersheds tributary to a stormwater treatment practice and tabulated below.

| Watershed Name | Percent Impervious |
|--------------------------|--------------------|
| PRWS4A | 46.5 |
| PRWS4A1 (UNITS 82-86) | 100.00 |
| PRWS4A2 (UNITS 87-94) | 100.00 |
| PRWS4A3 (UNITS 46-57) | 100.00 |
| PRWS4B (ROOF) | 100.00 |
| PRWS4B1 | 49.13 |
| PRWS4B2 | 70.11 |
| PRWS4B3 | 71.82 |
| PRWS4C1 (UNITS 19-24) | 100.00 |
| PRWS5B (UNITS 22-27) | 100.00 |

Using the percent impervious and the formulas above, the resulting Water Quality Volumes are calculated in the table below for the developed watersheds.

| NYSDEC PROPOSED WATER QUALITY VOLUME (WQv) CALCULATIONS | | | | | | | | |
|--|------------------------|-------------------------|--------------------|-----------------------|------|-----------------------|---------------------|---------------------|
| Watershed Name | Watershed Area (Acres) | Impervious Area (Acres) | Percent Impervious | 90% Rainfall (Inches) | Rv | Required Wqv) (Ac-Ft) | Required Wqv (C.F.) | Provided Wqv (C.F.) |
| PRWS4A | 11.936 | 5.55 | 46.5 | 1.50 | 0.47 | 0.699 | 30447.39 | 31949 |
| PRWS4A1 (UNITS 82-86) | 0.2194 | 0.2194 | 100.00 | 1.50 | 0.95 | 0.0261 | 1134.78 | 1557 |
| PRWS4A2 (UNITS 87-94) | 0.3480 | 0.3480 | 100.00 | 1.50 | 0.95 | 0.0413 | 1800.25 | 3027 |
| PRWS4A3 (UNITS 46-57) | 0.5146 | 0.5146 | 100.00 | 1.50 | 0.95 | 0.0611 | 2661.90 | 4086 |
| PRWS4B (ROOF) | 1.5338 | 1.5338 | 100.00 | 1.50 | 0.95 | 0.1821 | 7933.93 | 8168 |
| PRWS4B1 | 0.948 | 0.466 | 49.13 | 1.50 | 0.49 | 0.0584 | 2541.85 | 4338 |
| PRWS4B2 | 0.699 | 0.490 | 70.11 | 1.50 | 0.68 | 0.0595 | 2591.51 | 3357 |
| PRWS4B3 | 0.927 | 0.666 | 71.82 | 1.50 | 0.70 | 0.0807 | 3516.20 | 3708 |
| PRWS4C1 (UNITS 19-24) | 0.219 | 0.219 | 100.00 | 1.50 | 0.95 | 0.0261 | 1134.78 | 1244 |
| PRWS5B (UNITS 22-27) | 0.2573 | 0.2573 | 100.00 | 1.50 | 0.95 | 0.0306 | 1330.95 | 1418 |

The Water Quality Volume for Watersheds 4A1, 4A2, 4A3, 4B1, 4B2, 4B3, 4C1, and 5B is proposed to be captured and treated in subsurface infiltration systems. The subsurface infiltration systems shall consist of 'Cultec' stormwater chambers, model 'Recharger 330xl', surrounded by crushed stone and filter fabric. The storage volume of the chambers and the surrounding stone for each system is outlined below.

| WATER QUALITY VOLUME IN SUBSURFACE INFILTRATION SYSTEMS | | |
|--|---------------------|---------------------|
| Watershed Name | Wqv Required (C.F.) | Wqv Provided (C.F.) |
| PRWS4A1 (UNITS 82-86) | 1134.78 | 1557.1 |
| PRWS4A2 (UNITS 87-94) | 1800.25 | 3027.8 |
| PRWS4A3 (UNITS 46-57) | 2661.90 | 4086.2 |
| PRWS4B1 | 2541.85 | 4338.7 |

| | | |
|-----------------------|---------|--------|
| PRWS4B2 | 2591.51 | 3357.2 |
| PRWS4B3 | 3516.20 | 3708.5 |
| PRWS4C1 (UNITS 19-24) | 1134.78 | 1244.9 |
| PRWS5B (UNITS 22-27) | 1330.95 | 1418.2 |

The Water Quality Volume for Watershed 4A is proposed to be captured below the low-level outlet of the infiltration basin, Pond 1.

Prior to entering the infiltration practices the stormwater runoff will pass through pre-treatment devices. The pre-treatment devices proposed are hydrodynamic separators. Water quality runoff rates and sizing information for the hydrodynamic separators is contained in the appendix of this report.

The proposed green roof will treat the Water Quality Volume for Watershed 4B, therefore, the Water Quality criteria for Watershed 4B has been met. See the appendix for the green roof calculations.

The proposed development is planning on using rain water harvesting tanks for landscaping irrigation. Preliminarily, we are proposing (3) 20,000-gallon tanks. Since this is preliminary, the credit for the rain water harvesting has not been accounted for or taken.

A summary of pollutants removed by standard practice:

| | |
|-------------------------|--|
| Infiltration Practice | Phosphorous Nitrogen Metals – Cadmium, Copper, Lead, and Zinc Pathogens – Coliform, Streptococci, E. Coli |
| Extended Detention Pond | Phosphorous Nitrogen Metals – Cadmium, Copper, Lead, and Zinc Pathogens – Coliform, Streptococci, E. Coli |

Runoff Reduction Volume (RRv):

The runoff reduction volume criteria requires the reduction of runoff volume by green infrastructure techniques, infiltrating, ground water recharge, reuse, recycle, or evaporation/ evapotranspiration of the entire Water Quality Volume.

The Water Quality Volume calculations are discussed in the section above. Since the entire Water Quality Volume for Watersheds 4A, 4A1, 4A2, 4A3, 4B1, 4B2,

4B3, 4C1, and 5B is being infiltrated, the Runoff Reduction Volume criteria has been met.

For Watershed 4B the Runoff Reduction Volume criteria is satisfied by the use of a green roof. The building on the project site is being designed with an extensive green roof. An extensive green roof has a thinner soil layer, is lighter, is less expensive, and requires less maintenance than an intensive green roof. The green roof is designed for the Water Quality Volume of the roof as if it were impervious. Calculations for the green roof are shown in the appendix of this report.

Channel Protection Volume (Cpv):

Since the infiltration systems all capture a minimum of the 1-year storm and the discharge from Pond 1 is zero for the 1-year storm, the Channel Protection Volume criteria has been met for these watersheds. In addition, the small watershed sizes result in using very small orifice sizes to accomplish the 24-hour detention. Since such small orifices tend to clog and the New York State Stormwater Design Manual recommends a minimum orifice size of 3", channel protection is met by maintaining or reducing the proposed peak runoff to the existing peak runoff for the 1 year storm event. All discharges are to a stone dissipater/trench to ensure no erosion and to promote sheet flow.

The table below summarizes the data used for the stormwater calculations:

| Watershed Designation | Area (Square Feet) | Curve Number | Travel Time (Minutes) |
|-----------------------|--------------------|--------------|-----------------------|
| EXWS1 | 80,671 | 55 | 20.0 |
| EXWS2 | 17,033 | 55 | 13.5 |
| EXWS3 | 255,227 | 61 | 33.2 |
| EXWS4 | 718,402 | 60 | 23.7 |
| EXWS5 | 431,278 | 62 | 16.5 |
| EXWS6 | 256,054 | 69 | 6.0 |
| EXWS7 | 97,844 | 64 | 4.7 |
| PRWS1 | 52,675 | 57 | 20.0 |
| PRWS2 | 8,936 | 58 | 3.5 |
| PRWS3 | 11,249 | 61 | 5.1 |
| PRWS4A | 522,860 | 78 | 15.2 |
| PRWS4A1 | 9,556 | 98 | 6.0 |
| PRWS4A2 | 15,160 | 98 | 6.0 |
| PRWS4A3 | 22,416 | 98 | 6.0 |

| | | | |
|---------|---------|----|------|
| PRWS4B | 66,812 | 98 | 6.0 |
| PRWS4B1 | 41,315 | 79 | 5.2 |
| PRWS4B2 | 30,450 | 87 | 9.7 |
| PRWS4B3 | 40,460 | 88 | 8.3 |
| PRWS4C | 262,387 | 57 | 14.0 |
| PRWS4C1 | 9,556 | 98 | 6.0 |
| PRWS4D | 65,915 | 61 | 8.4 |
| PRWS5A | 430,018 | 61 | 16.5 |
| PRWS5B | 11,208 | 98 | 6.0 |
| PRWS6 | 204,716 | 69 | 8.8 |
| PRWS7 | 38,740 | 58 | 10.9 |

The tables below show a comparison of the existing and proposed peak flows:

| DESIGN POINT 1 | | | |
|----------------|----------------------------|----------------------------|------------------|
| Storm Event | Existing Peak Runoff (cfs) | Proposed Peak Runoff (cfs) | Net Change (cfs) |
| 1 Year | 0.1 | 0.1 | 0 |
| 2 Year | 0.2 | 0.2 | 0 |
| 5 Year | 0.7 | 0.5 | -0.2 |
| 10 Year | 1.2 | 0.9 | -0.3 |
| 25 Year | 2.4 | 1.6 | -0.8 |
| 50 Year | 3.6 | 2.4 | -1.2 |
| 100 Year | 5.2 | 3.5 | -1.7 |

| DESIGN POINT 2 | | | |
|----------------|----------------------------|----------------------------|------------------|
| Storm Event | Existing Peak Runoff (cfs) | Proposed Peak Runoff (cfs) | Net Change (cfs) |
| 1 Year | 0 | 0 | 0 |
| 2 Year | 0.1 | 0 | -0.1 |
| 5 Year | 0.2 | 0.1 | -0.1 |
| 10 Year | 0.3 | 0.2 | -0.1 |
| 25 Year | 0.6 | 0.4 | -0.2 |
| 50 Year | 0.9 | 0.7 | -0.2 |
| 100 Year | 1.3 | 0.9 | -0.4 |

| DESIGN POINT 3 | | | |
|----------------|----------------------------|----------------------------|------------------|
| Storm Event | Existing Peak Runoff (cfs) | Proposed Peak Runoff (cfs) | Net Change (cfs) |
| 1 Year | 0.6 | 0 | -0.5 |
| 2 Year | 1.5 | 0.1 | -1.3 |
| 5 Year | 3.1 | 0.2 | -2.7 |
| 10 Year | 4.9 | 0.4 | -4.3 |
| 25 Year | 8.3 | 0.6 | -7.4 |
| 50 Year | 11.7 | 0.9 | -10.4 |
| 100 Year | 16 | 1.3 | -14.7 |

| DESIGN POINT 4 | | | |
|----------------|----------------------------|----------------------------|------------------|
| Storm Event | Existing Peak Runoff (cfs) | Proposed Peak Runoff (cfs) | Net Change (cfs) |
| 1 Year | 1.7 | 0.7 | -1 |
| 2 Year | 4.2 | 1.8 | -2.4 |
| 5 Year | 9.3 | 6.5 | -2.8 |
| 10 Year | 15 | 13.4 | -1.6 |
| 25 Year | 25.8 | 22.4 | -3.4 |
| 50 Year | 36.8 | 30.6 | -6.2 |
| 100 Year | 50.9 | 50.7 | -0.2 |

| DESIGN POINT 5 | | | |
|----------------|----------------------------|----------------------------|------------------|
| Storm Event | Existing Peak Runoff (cfs) | Proposed Peak Runoff (cfs) | Net Change (cfs) |
| 1 Year | 1.1 | 0.9 | -0.2 |
| 2 Year | 2.8 | 2.4 | -0.4 |
| 5 Year | 6.4 | 6.2 | -0.2 |
| 10 Year | 10.4 | 10.2 | -0.2 |
| 25 Year | 17.9 | 17.6 | -0.3 |
| 50 Year | 25.6 | 25.2 | -0.4 |
| 100 Year | 35.5 | 35 | -0.5 |

| DESIGN POINT 6 | | | |
|----------------|----------------------------|----------------------------|------------------|
| Storm Event | Existing Peak Runoff (cfs) | Proposed Peak Runoff (cfs) | Net Change (cfs) |
| 1 Year | 3.2 | 2.2 | -1 |
| 2 Year | 5.7 | 4 | -1.7 |
| 5 Year | 9.7 | 6.9 | -2.8 |
| 10 Year | 13.9 | 9.8 | -4.1 |
| 25 Year | 21.1 | 15 | -6.1 |
| 50 Year | 28.2 | 20 | -8.2 |
| 100 Year | 36.9 | 26.2 | -10.7 |

| DESIGN POINT 7 | | | |
|----------------|----------------------------|----------------------------|------------------|
| Storm Event | Existing Peak Runoff (cfs) | Proposed Peak Runoff (cfs) | Net Change (cfs) |
| 1 Year | 0.7 | 0.1 | -0.6 |
| 2 Year | 1.5 | 0.2 | -1.3 |
| 5 Year | 2.9 | 0.5 | -2.4 |
| 10 Year | 4.4 | 0.9 | -3.5 |
| 25 Year | 7 | 1.7 | -5.3 |
| 50 Year | 9.7 | 2.5 | -7.2 |
| 100 Year | 13.1 | 3.5 | -9.6 |

Overbank Flood Protection (Qp):

As seen on the peak flow comparison charts, the proposed peak runoff is maintained or reduced as compared to the existing peak runoff for the 10-year storm event.

Extreme Flood Protection (Qf):

As seen on the peak flow comparison charts, the proposed peak runoff is maintained or reduced as compared to the existing peak runoff for the 100-year storm event.

Conclusion:

Based on the analysis in the Stormwater Pollution Prevention Plan, the stormwater management practices proposed will adequately treat the runoff leaving the site in regard to water quality. In addition, the proposed stormwater practices will control runoff quantities to ensure no adverse affects due to stormwater as a result of the proposed development.

ALFONZETTI ENGINEERING, P.C.
Ralph Alfonzetti, P.E.

Archeological Information:

**Phase IA Cultural Resources Survey
Eagle Ridge Development
1 North Castle Drive, Armonk, Town of North Castle
Westchester County, New York**

Prepared For:

Frank Madonna

Prepared By:

Historical Perspectives, Inc.
P.O. Box 529
Westport, CT 06881

Authors:

Dawn L. Brown, M.A., R.P.A.

June 2018

MANAGEMENT SUMMARY

SHPO Project Review Number (if available):

Involved State and Federal Agencies:

Phase of Survey: **Phase IA Cultural Resources Survey**

Location Information

Location: **1 North Castle Drive**
Minor Civil Division: **11910, North Castle**
County: **Westchester**

Survey Area

Length:
Width:
Number of Acres Surveyed: **32.5**

USGS 7.5 Minute Quadrangle Map: **Glenville, CT**

Archaeological Survey Overview

Number & Interval of Shovel Tests:
Number & Size of Units: **N/A**
Width of Plowed Strips: **N/A**
Surface Survey Transect Interval: **N/A**

Results of Archaeological Survey

Number & name of precontact sites identified:
Number & name of historic sites identified:
Number & name of sites recommended for Phase II/Avoidance:

Results of Architectural Survey

Number of buildings/structures/cemeteries within project area:
Number of buildings/structures/cemeteries adjacent to project area:
Number of previously determined NRHP listed or eligible buildings/structures/cemeteries/districts:
Number of identified eligible buildings/structures/cemeteries/districts:

Report Authors(s): **Dawn L. Brown, M.A., R.P.A., Historical Perspectives, Inc.**

Date of Report: **June 2018**

EXECUTIVE SUMMARY

Eagle Ridge is a proposed Armonk development of a boutique hotel with residential housing, and supportive services and parking, and a separate 94-unit townhome complex. Rezoning, subdivision and construction of the 32.5-acre property at 1 North Castle Drive requires local permits and zoning approval prior to implementation. The development parcel, which contains steep slopes, is immediately west of a municipal sports park and north of an International Business Machines Corporation (IBM) corporate complex (Figure 1 and 2). Originally a part of the IBM complex, a small western portion of the project site was previously graded and developed by IBM into a helipad. The local Planning Board has requested the completion of a Phase I cultural resources evaluation of the project site acreage so that the Eagle Ridge site application can move forward.

From what is known of precontact period settlement patterns in Westchester County, most habitation and processing sites are found in sheltered, elevated locales close to wetland features, major waterways, and with nearby sources of fresh water. The project site is located near the Wampus River and contains well-drained soils uphill from the water. Research found that fourteen precontact sites have been identified within a one-mile radius of the project APE. One of these sites, an Early Archaic (LeCroy) site, was on the IBM property immediately south of the APE (Boesch 1995a, b, c). In addition, bedrock outcrops on the APE may contain possible rockshelters. These factors signify potential precontact sensitivity.

The 18th to 19th century Cornell-Birdsall farm, and later 20th century Wenga Farm, consisted of a large complex of buildings that existed on the northern portion of the APE; the APE was part of the larger agricultural history which consisted of orchards, livestock and farm buildings. IBM purchased this land from the Agnew family in 1955. The farm buildings were moved or demolished by the 1960s. Aerial photographs show that some of these buildings were originally located where Route 128 intersects with North Castle Drive; however, a number of buildings also existed on the northern portion of the present APE. These factors signify potential historic-period sensitivity.

Archaeological testing is recommended for only a portion of the project site (Figure 8). No field testing is recommended for the project APE with more than 12% slope. Also, no field testing is recommended for land areas with clear evidence of 20th century disturbance (e.g., road prep and installation, rock and tree removal, helipad construction, and installation of sewer line).

Some portions of the APE which fit the model for possible precontact occupation are clearly undisturbed (i.e., southeastern wooded portion) and standard Phase IB Archaeological Field Testing is recommended. However, on other portions of the APE (i.e., center field area, western, and northwestern edge) complete disturbance is unclear or intermittent; therefore, limited Phase IB field testing is recommended to confirm possible disturbance.

In addition, further archaeological investigations are recommended for the northern portion of the APE due to possible middens, privys, wells or cisterns related to the Cornell-Birdsall residence that may have remained intact. No foundation or structural remains could be seen upon visual inspection (5/26/2018); however, the area was heavily overgrown.

Testing is also recommended for several rock overhangs that are present within the bedrock outcrops.

Deep Test Hole Information:
(designations are shown on the plan in this appendix)

DEEP TEST 1 (DT1)

| | |
|--------|------------|
| 0"-6" | TOPSOIL |
| 6"-12" | SANDY LOAM |
| 12" | ROCK |

DEEP TEST 2 (DT2)

| | |
|--------|------------|
| 0"-6" | TOPSOIL |
| 6"-30" | SANDY LOAM |
| 30" | ROCK |

DEEP TEST 3 (DT3)

| | |
|---------|-------------------|
| 0"-10" | TOPSOIL |
| 10"-16" | GRAVEL |
| 16"-60" | SANDY, SILTY LOAM |
| 60" | ROCK |

DEEP TEST 4 (DT4)

| | |
|---------|------------|
| 0"-6" | TOPSOIL |
| 6"-108" | SANDY LOAM |
| 108" | WATER |

DEEP TEST 5 (DT5)

| | |
|---------|-------------------|
| 0"-6" | TOPSOIL |
| 6"-102" | SANDY, SILTY LOAM |
| 102" | WATER |

DEEP TEST 6A (DT6A)

| | |
|--------|-------------------|
| 0"-6" | TOPSOIL |
| 6"-92" | SANDY, SILTY LOAM |

DEEP TEST 6B (DT6B)

| | |
|--------|-------------------------|
| 0"-6" | TOPSOIL |
| 6"-84" | SANDY LOAM WITH COBBLES |

DEEP TEST 7 (DT7)

| | |
|---------|------------|
| 0"-6" | TOPSOIL |
| 6"-132" | SANDY LOAM |

DEEP TEST 8 (DT8)

| | |
|---------|------------|
| 0"-6" | TOPSOIL |
| 6"-132" | SANDY LOAM |

DEEP TEST 9A (DT9A)

| | |
|--------|------------|
| 0"-6" | TOPSOIL |
| 6"-86" | SANDY LOAM |

DEEP TEST 9B (DT9B)

| | |
|---------|------------|
| 0"-6" | TOPSOIL |
| 6"-100" | SANDY LOAM |

DEEP TEST 10 (DT10)

| | |
|--------|--------------------------|
| 0"-6" | TOPSOIL |
| 6"-78" | SANDY LOAM WITH BOULDERS |

DEEP TEST 11 (DT11)

| | |
|--------|-------------------|
| 0"-6" | TOPSOIL |
| 6"-96" | SANDY, SILTY LOAM |

DEEP TEST 12 (DT12)

| | |
|----------|-------------|
| 0"-6" | TOPSOIL |
| 6"-70" | SANDY LOAM |
| 70"-120" | MIXED SANDS |
| 120" | ROCK |

DEEP TEST 13 (DT13)

| | |
|---------|-------------------------|
| 0"-6" | TOPSOIL |
| 6"-66" | SANDY LOAM WITH COBBLES |
| 66"-97" | MIXED SANDS |

DEEP TEST 14 (DT14)

| | |
|---------|-------------|
| 0"-6" | TOPSOIL |
| 6"-66" | SANDY LOAM |
| 66"-78" | MIXED SANDS |

Deep Test Hole Information:
(designations are shown on the plan in this appendix)

DEEP TEST 15 (DT15)

| | |
|---------|-------------|
| 0"-12" | TOPSOIL |
| 12"-58" | SANDY LOAM |
| 58"-94" | MIXED SANDS |

DEEP TEST 16 (DT16)

| | |
|---------|-------------------|
| 0"-6" | TOPSOIL |
| 6"-108" | SANDY, SILTY LOAM |

DEEP TEST 17 (DT17)

| | |
|---------|--------------------------|
| 0"-6" | TOPSOIL |
| 6"-100" | SANDY LOAM WITH BOULDERS |

DEEP TEST 18 (DT18)

| | |
|--------|--------------------------------|
| 0"-6" | TOPSOIL |
| 6"-80" | SANDY, SILTY LOAM WITH COBBLES |

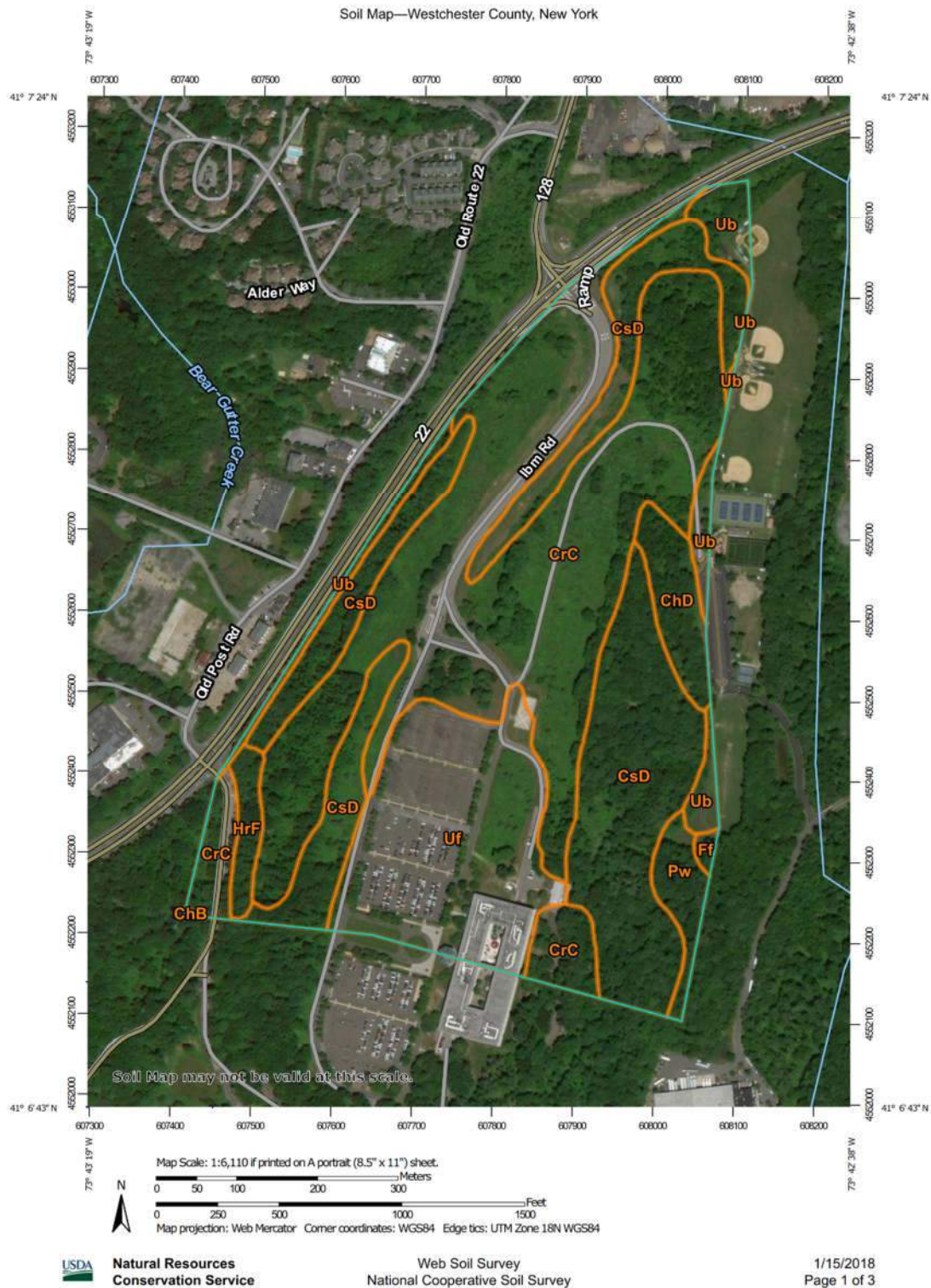
DEEP TEST 19 (DT19)

| | |
|---------|------------|
| 0"-6" | TOPSOIL |
| 6"-122" | SANDY LOAM |
| 122" | ROCK |

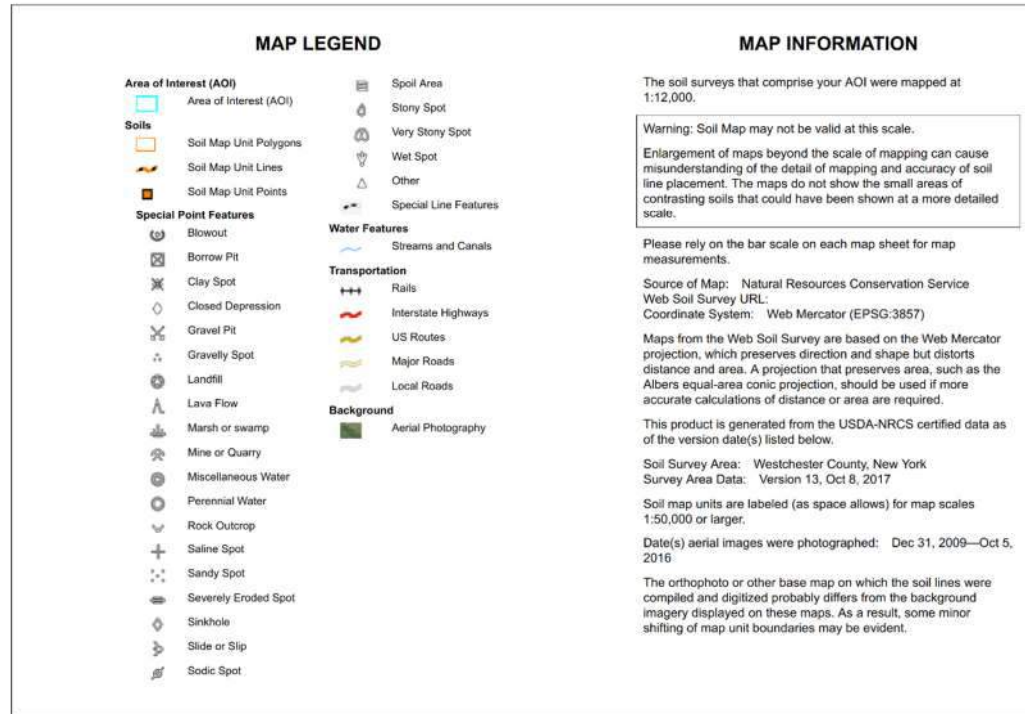
Percolation Test Results:

| PERCOLATION TEST | PERCOLATION RATE (MIN./IN.) |
|------------------|--------------------------------|
| P4 | 2 |
| P5 | 3 |
| P6 | 2 |
| P7 | 12 |
| P9 | 46 |
| P10 | 20 |
| P11 | 30 |
| P12 | 3 |
| P13 | 7 |
| P14 | 2 |
| P16 | 8 |
| P18 | 3 |
| P19 | 6 |

Soil Information as per USDA (United States Department of Agriculture), NRCS (Natural Resources Conservation Service):



Soil Map—Westchester County, New York



Soil Map—Westchester County, New York

Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|------------------------------------|---|--------------|----------------|
| ChB | Charlton fine sandy loam, 3 to 8 percent slopes | 0.0 | 0.0% |
| ChD | Charlton fine sandy loam, 15 to 25 percent slopes | 3.1 | 3.0% |
| CrC | Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky | 46.7 | 45.1% |
| CsD | Chatfield-Charlton complex, 15 to 35 percent slopes, very rocky | 28.2 | 27.2% |
| Ff | Fluvaquents-Udfluvents complex, frequently flooded | 0.3 | 0.3% |
| HrF | Hollis-Rock outcrop complex, 35 to 60 percent slopes | 1.6 | 1.5% |
| Pw | Pompton silt loam, loamy substratum | 2.1 | 2.0% |
| Ub | Udorthents, smoothed | 4.4 | 4.2% |
| Uf | Urban land | 17.1 | 16.5% |
| Totals for Area of Interest | | 103.5 | 100.0% |

Temporary Sediment Trap Sizing

| Required Temporary Sediment Trap Volumes | | | | |
|--|--------------------|----------------------|---------------------|--|
| Temporary Sediment Trap | Contributing Areas | Upstream Area (s.f.) | Upstream Area (ac.) | Volume Required (c.f.) (3600 c.f./ac.) |
| ST 1 | PHASE 1 STWS1A | 93,480 | 2.15 | 7,726 |
| ST 1 | PHASE 2 STWS1B | 136,650 | 3.14 | 11,293 |
| ST 2 | STWS2A-STWS2D | 178,194 | 4.09 | 14,727 |
| ST 3 | STWS3A, STWS3B | 75,820 | 1.74 | 6,266 |
| ST 4 | STWS4 | 40,900 | 0.94 | 3,380 |
| ST 5 | STWS5A, STWS5B | 44,254 | 1.02 | 3,657 |
| ST 6 | STWS6 | 67,269 | 1.54 | 5,559 |

| Temporary Sediment Trap 1 Volume Provided | | | |
|---|-------------|------------------------------------|--------------------------|
| Elevation* (ft.) | Area (s.f.) | Volume Per Contour Interval (c.f.) | Cumulative Volume (c.f.) |
| 0 | 2,540 | 0 | 0 |
| 2 | 4,963 | 7,503 | 7,503 |
| 3 | 5,872 | 5,418 | 12,921 |

* Elevations are conceptual and do not represent the proposed design.

| Temporary Sediment Trap 2 Volume Provided | | | |
|---|-------------|------------------------------------|--------------------------|
| Elevation* (ft.) | Area (s.f.) | Volume Per Contour Interval (c.f.) | Cumulative Volume (c.f.) |
| 0 | 2,414 | 0 | 0 |
| 2 | 5,801 | 8,215 | 8,215 |
| 4 | 7,228 | 13,029 | 21,244 |

* Elevations are conceptual and do not represent the proposed design.

| Temporary Sediment Trap 3 Volume Provided | | | |
|---|-------------|------------------------------------|--------------------------|
| Elevation* (ft.) | Area (s.f.) | Volume Per Contour Interval (c.f.) | Cumulative Volume (c.f.) |
| 0 | 1,119 | 0 | 0 |
| 2 | 1,693 | 2,812 | 2,812 |
| 4 | 2,367 | 4,060 | 6,872 |

* Elevations are conceptual and do not represent the proposed design.

| Temporary Sediment Trap 4 Volume Provided | | | |
|---|----------------|--|--------------------------------|
| Elevation* (ft.) | Area (s.f.) | Volume Per Contour Interval (c.f.) | Cumulative Volume (c.f.) |
| 0 | 591 | 0 | 0 |
| 2 | 894 | 1,485 | 1,485 |
| 4 | 1,250 | 2,144 | 3,629 |

* Elevations are conceptual and do not represent the proposed design.

| Temporary Sediment Trap 5 Volume Provided | | | |
|---|----------------|--|--------------------------------|
| Elevation* (ft.) | Area (s.f.) | Volume Per Contour Interval (c.f.) | Cumulative Volume (c.f.) |
| 0 | 662 | 0 | 0 |
| 2 | 978 | 1,640 | 1,640 |
| 4 | 1,340 | 2,318 | 3,958 |

* Elevations are conceptual and do not represent the proposed design.

| Temporary Sediment Trap 6 Volume Provided | | | |
|---|----------------|--|--------------------------------|
| Elevation* (ft.) | Area (s.f.) | Volume Per Contour Interval (c.f.) | Cumulative Volume (c.f.) |
| 0 | 772 | 0 | 0 |
| 2 | 1,431 | 2,203 | 2,203 |
| 4 | 2,215 | 3,646 | 5,849 |

* Elevations are conceptual and do not represent the proposed design.

Hydrodynamic Separator sizing

| Hydrodynamic Separator Sizing Summary Table 1 of 3* | | | | | |
|---|---------------------------|------------|-----------------------|----------------------------|---------|
| Hydrodynamic Separator | Contributing Watershed(s) | WQv (c.f.) | Watershed Area (s.f.) | Watershed Area (sq. miles) | Q (in.) |
| HDS1 | PRWS4A1 | 1134.78 | 9556 | 0.000343 | 1.425 |
| HDS2 | PRWS4A2 | 1800.25 | 15160 | 0.000544 | 1.425 |
| HDS3 | PRWS4A3 | 2661.90 | 22416 | 0.000804 | 1.425 |
| HDS4 | PRWS5B | 1330.95 | 11208 | 0.000402 | 1.425 |
| HDS5 | PRWS4C1 | 1134.78 | 9556 | 0.000343 | 1.425 |
| HDS6 | PRWS4B1 | 2541.85 | 41315 | 0.001482 | 0.738 |
| HDS7 | PRWS4B2 | 2591.51 | 30443 | 0.001092 | 1.022 |
| HDS8 | PRWS4B3 | 3516.20 | 40394 | 0.001449 | 1.045 |
| HDS9 | PRWS4A | 30447.39 | 519938 | 0.018650 | 0.703 |

*See example calculations below for HDS9.

| Hydrodynamic Separator Sizing Summary Table 2 of 3* | | | | | |
|---|-------|-------|------|-----------|-----------|
| Hydrodynamic Separator | CN | Ia | Ia/P | Tc (min.) | Tc (hrs.) |
| HDS1 | 99.36 | 0.041 | 0.03 | 6.0 | 0.10 |
| HDS2 | 99.36 | 0.041 | 0.03 | 6.0 | 0.10 |
| HDS3 | 99.36 | 0.041 | 0.03 | 6.0 | 0.10 |
| HDS4 | 99.36 | 0.041 | 0.03 | 6.0 | 0.10 |
| HDS5 | 99.36 | 0.041 | 0.03 | 6.0 | 0.10 |
| HDS6 | 90.97 | 0.198 | 0.13 | 5.2 | 0.09 |
| HDS7 | 95.11 | 0.105 | 0.07 | 9.7 | 0.16 |
| HDS8 | 95.40 | 0.083 | 0.06 | 8.3 | 0.14 |
| HDS9* | 90.35 | 0.222 | 0.15 | 15.2 | 0.25 |

*See example calculations below for HDS9.

| Hydrodynamic Separator Sizing Summary Table 3 of 3* | | | |
|---|-----|-----|------------------|
| Hydrodynamic Separator | qu | Qp | CDS Model Number |
| HDS1 | 700 | 0.3 | CDS2015-4 |
| HDS2 | 700 | 0.5 | CDS2015-4 |
| HDS3 | 700 | 0.8 | CDS2020-5 |
| HDS4 | 700 | 0.4 | CDS2015-4 |
| HDS5 | 700 | 0.3 | CDS2015-4 |
| HDS6 | 700 | 0.8 | CDS2020-5 |
| HDS7 | 625 | 0.7 | CDS2015-4 |
| HDS8 | 700 | 1.1 | CDS2020-5 |
| HDS9* | 500 | 6.6 | CDS4045-8 |

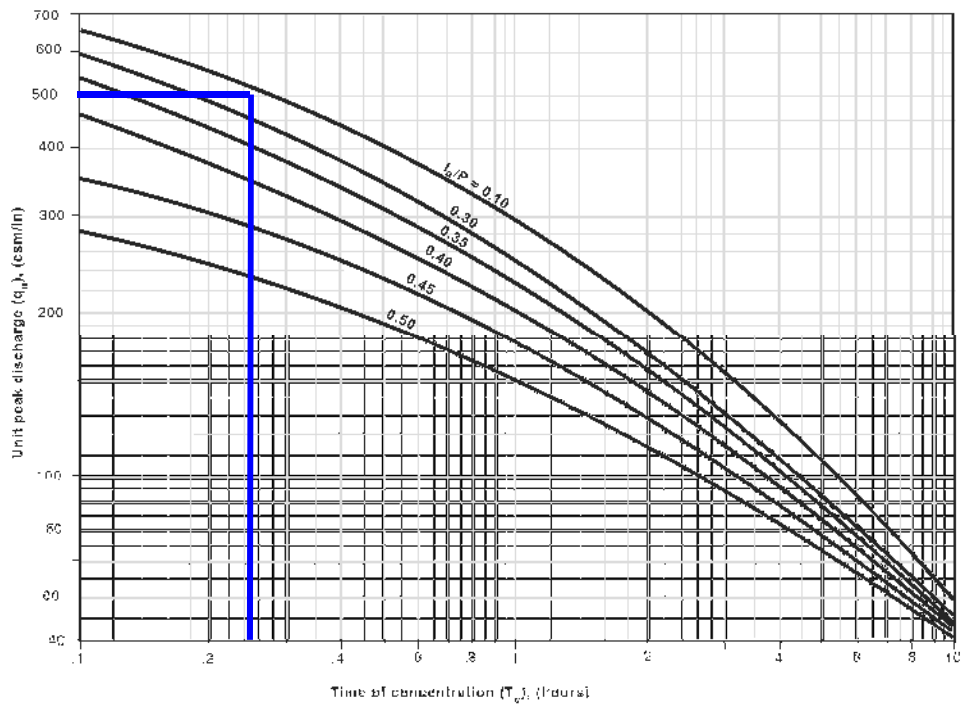
*See example calculations below for HDS9.

| Hydrodynamic Separator Sizing for HDS9 | | | |
|---|----------|-----------|--|
| Water Quality Peak Flow Calculations | | | |
| as per Appendix B (B.2) | | | |
| CN = $1000 / (10 + 5P + 10Q - 10(Q^2 + 1.25QP)^{.5})$ | | | |
| CN = curve number | | | |
| P = rainfall in inches (use 90% rainfall event from figure 4.1 for Water Quality storm) | | | |
| Q = runoff volume, in inches | | | |
| $Q_p = q_u * A * WQ_v$ | | | |
| Qp = peak discharge in cfs | | | |
| qu = unit peak discharge, in cfs/mi ² /inch | | | |
| A = drainage area in square miles | | | |
| WQv = water quality volume, in watershed inches | | | |
| | | | |
| Water Quality Volume Required, WQv: | 30447.39 | cf | |
| | | | |
| Watershed Area: | 11.936 | acres | |
| Watershed Area: | 519938 | sf | |
| Watershed Area: | 0.018650 | sq. miles | |
| | | | |
| P: | 1.5 | inches | |
| Q: | 0.703 | inches | |
| | | | |
| CN: | 90.35 | | |
| CN (rounded): | 90 | | |
| | | | |
| Time of Concentration, Tc | 15.2 | min. | |
| Time of Concentration, Tc | 0.25 | hours | |
| | | | |
| Initial Abstraction, Ia (from table 4.1): | 0.22 | | |
| | | | |
| Ia/P: | 0.15 | | |
| | | | |
| Unit Peak Discharge, qu (from Exhibit 4-III): | 500 | csm/in | |
| | | | |
| Peak Discharge, Qp: | 6.6 | cfs | |

Table 4-1 I_a values for runoff curve numbers

| Curve number | I_a (in) | Curve number | I_a (in) |
|--------------|---------------|--------------|---------------|
| 40 | 3.000 | 70 | 0.857 |
| 41 | 2.878 | 71 | 0.817 |
| 42 | 2.762 | 72 | 0.778 |
| 43 | 2.651 | 73 | 0.740 |
| 44 | 2.545 | 74 | 0.703 |
| 45 | 2.444 | 75 | 0.667 |
| 46 | 2.348 | 76 | 0.632 |
| 47 | 2.255 | 77 | 0.597 |
| 48 | 2.167 | 78 | 0.564 |
| 49 | 2.082 | 79 | 0.532 |
| 50 | 2.000 | 80 | 0.500 |
| 51 | 1.922 | 81 | 0.469 |
| 52 | 1.846 | 82 | 0.439 |
| 53 | 1.774 | 83 | 0.410 |
| 54 | 1.704 | 84 | 0.381 |
| 55 | 1.636 | 85 | 0.353 |
| 56 | 1.571 | 86 | 0.326 |
| 57 | 1.509 | 87 | 0.299 |
| 58 | 1.448 | 88 | 0.273 |
| 59 | 1.390 | 89 | 0.247 |
| 60 | 1.333 | 90 | 0.222 |
| 61 | 1.279 | 91 | 0.198 |
| 62 | 1.226 | 92 | 0.174 |
| 63 | 1.175 | 93 | 0.151 |
| 64 | 1.125 | 94 | 0.128 |
| 65 | 1.077 | 95 | 0.105 |
| 66 | 1.030 | 96 | 0.083 |
| 67 | 0.985 | 97 | 0.062 |
| 68 | 0.941 | 98 | 0.041 |
| 69 | 0.899 | | |

Exhibit 4-III Unit peak discharge (q_{up}) for NRCS (SCS) type III rainfall distribution



Hydrodynamic Separator Maintenance:

CDS Maintenance

The CDS system must be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size of the unit, e.g., unstable soils or heavy winter sanding will cause the grit chamber to fill more quickly but regular sweeping will slow accumulation.

Inspection

Inspection is the key to effective maintenance and is easily performed. Pollutant deposition and transport may vary from year to year and regular inspections will help insure that the system is cleaned out at the appropriate time. At a minimum, inspections must be performed twice per year (i.e. spring and fall) however more frequent inspections may be necessary in climates where winter sanding operations may lead to rapid pollutant accumulations, or in equipment washdown areas. Additionally, installations where excessive amounts of trash are expected should be inspected more frequently.

The visual inspection must ascertain that the system components are in working order and that there are no blockages or obstructions to the inlet and/or separation screen. The inspection must also identify accumulations of hydrocarbons, trash, and sediment in the system. Measuring pollutant accumulation can be done with a calibrated dipstick such as a stadia rod, tape measure or other measuring instrument. If sorbent material is used for enhanced removal of hydrocarbons then the level of discoloration of the sorbent material should also be identified during inspection. Sorbent material must be replaced when it is predominantly dark in color (similar to oil). It is useful and often required as part of a permit to keep a record of each inspection.

Access to the CDS unit is typically achieved through two manhole access covers. One opening allows for inspection and cleanout of the separation chamber (screen/cylinder) and isolated sump. The other allows for inspection and cleanout of sediment captured and retained behind the screen. For units possessing a sizable depth below grade (depth to pipe), a single access point allows for both sump cleanout and access behind the screen.

The CDS system must be cleaned when the level of sediment in the sump has reached a depth of 12 inches or more to avoid exceeding the maximum 24 inch sediment depth and/or when an appreciable level of hydrocarbons and trash has accumulated. If sorbent material is used, it must be replaced when significant discoloration has occurred. Performance will not be impacted until 100% of the sump capacity is exceeded however it is recommended that the system be cleaned prior to that for easier removal of sediment. The level of sediment is easily determined by measuring from finished grade down to the top of the sediment pile. To avoid underestimating the level of sediment in the chamber, the measuring device must be lowered to the top of the sediment pile carefully. Finer, silty particles at the top of the pile typically offer less resistance to the end of the rod than larger particles toward the bottom of the pile. Once this measurement is recorded, it should be compared to the as-built drawing for the unit to determine if the height of the sediment pile off the bottom of the sump floor exceeds 75% (18 inches) of the total height of isolated sump.

Cleaning

Cleaning of the CDS systems should be done during dry weather conditions when no flow is entering the system. Cleanout of the CDS with a vacuum truck is generally the most effective and convenient method of excavating pollutants from the system. Simply remove the manhole covers and insert the vacuum hose into the sump. The system should be completely drained down and the sump fully evacuated of sediment. The area outside the screen should also be pumped out if pollutant build-up exists in this area.

In installations where the risk of petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, an oil or gasoline spill should be cleaned out immediately. Motor oil and other hydrocarbons that accumulate on a more routine basis must be removed when an appreciable layer has been captured. To remove these pollutants, it may be preferable to use adsorbent pads since they are usually less expensive to dispose of than the oil/water emulsion that may be created by vacuuming the oily layer. Trash can be netted out if you wish to separate it from the other pollutants. The screen should be power washed to ensure it is free of trash and debris.

Manhole covers should be securely seated following cleaning activities to prevent leakage of runoff into the system from above and also to ensure proper safety precautions. Confined Space Entry procedures need to be followed.

Disposal of all material removed from the CDS system must be done in accordance with local regulations. In many locations, disposal of evacuated sediments may be handled in the same manner as disposal of sediments removed from catch basins or deep sump manholes. Check your local regulations for specific requirements on disposal.

| CDS Model | Diameter | | Distance from Water Surface to Top of Sediment Pile | | Sediment Storage Capacity | |
|-----------|----------|-----|---|-----|---------------------------|-----|
| | ft | m | ft | m | yd3 | m3 |
| CDS2015-4 | 4 | 1.2 | 3.0 | 0.9 | 0.9 | 0.7 |
| CDS2015 | 5 | 1.5 | 3.0 | 0.9 | 1.3 | 1.0 |
| CDS2020 | 5 | 1.5 | 3.5 | 1.1 | 1.3 | 1.0 |
| CDS2025 | 5 | 1.5 | 4.0 | 1.2 | 1.3 | 1.0 |
| CDS3020 | 6 | 1.8 | 4.0 | 1.2 | 2.1 | 1.6 |
| CDS3030 | 6 | 1.8 | 4.6 | 1.4 | 2.1 | 1.6 |
| CDS3035 | 6 | 1.8 | 5.0 | 1.5 | 2.1 | 1.6 |
| CDS4030 | 8 | 2.4 | 4.6 | 1.4 | 5.6 | 4.3 |
| CDS4040 | 8 | 2.4 | 5.7 | 1.7 | 5.6 | 4.3 |
| CDS4045 | 8 | 2.4 | 6.2 | 1.9 | 5.6 | 4.3 |
| CDS5640 | 10 | 3.0 | 6.3 | 1.9 | 8.7 | 6.7 |
| CDS5653 | 10 | 3.0 | 7.7 | 2.3 | 8.7 | 6.7 |
| CDS5668 | 10 | 3.0 | 9.3 | 2.8 | 8.7 | 6.7 |
| CDS5678 | 10 | 3.0 | 10.3 | 3.1 | 8.7 | 6.7 |

Table 1: CDS Maintenance Indicators and Sediment Storage Capacities

Green roof maintenance and care:

Immediately after planting

1. Fully saturate the entire roof garden system to the point of runoff by soaking with conventional overhead sprinklers that are supplied by a ¾" hose.
2. Inspect drains for any foreign debris that may hinder their performance and clear the drains of any such debris.

Ongoing

1. One month after planting, all weeds and non-specified plant material must be pulled from the growth media and removed from the rooftop before weeds flower and develop seed heads.

2. Irrigation should be performed early to mid-morning or late afternoon. Never irrigate during evening hours.
3. Carlisle does not allow the use of herbicides on its roof garden systems. Potential interactions between roofing membranes and herbicides, organic or nonorganic, have not been determined. The use of herbicides on a roof garden will void your warranty. Weed removal and prevention is to be accomplished through hand weeding only.
4. If the roof garden was planted with sedum cuttings, sedum plugs or custom plants a minimum of one weeding event should be performed every month after installation.
5. If the roof garden was planted with sedum mats or sedum tiles a minimum of one weeding event should be performed every two months after installation.
6. During weeding events roof drains must be inspected and cleared of any debris.
7. After the growing season and prior to the winter months, spent vegetation may be trimmed down. Cuttings and trimmings should not be removed from the roof as they will act as mulch and return nutrients to the system in preparation for the next growing season.
8. After the local trees have dropped their leaves, a final weeding event and general inspection must be performed. All debris must be removed from the roof garden and drains must be given a final inspection for the season.
9. If the roof garden is accessed during the winter months, de-icing products must not be used in the vicinity of the vegetation. Salts or de-icing chemicals will harm the vegetation.
10. Any snow removed from pavers or walkways should be distributed evenly across the roof garden to prevent excessive point loading on the building and potentially damaging the vegetation.
11. Should it be necessary to remove snow from the roof garden, care will need to be exercised to ensure that the vegetation layer is not damaged or inadvertently removed.

Green Roof Drainage Layer:

EXPERIENCE THE CARLISLE DIFFERENCE



ROOF GARDEN

MiraDRAIN G4



Scan code to view
installation video.



Overview

Carlisle's MiraDRAIN G4 Roof Garden Drainage Composite combines filter fabric, moisture retention mat, drainage mat and heavy-duty protection fabric into a single, easy-to-apply product specifically designed for vegetated roofs.

Features and Benefits

- » Greatly simplifies Roof Garden installation
- » Increased drainage rate and water-holding capacity
- » Holds 1.97 pounds of water per square foot (0.24 gallons or 0.38" of rain)
- » Moisture retention mat is 100% post-consumer recycled material
- » High compressive strength allows a multitude of overburden options to be used, e.g. pavers or traditional ballast, for alternative stormwater retention systems
- » 20-year warranty
- » Used in all Carlisle Roof Garden systems and warranted up to 20 years

Installation

1. Unroll and loose-lay MiraDRAIN G4 and orient the **GREEN SIDE UP**.
2. Butt adjacent rolls and overlap using the built-in 6" moisture retention mat, making sure to shingle the flap in the direction of the slope.
3. For end-to-end joints, peel back fabric and insert two rows of cups into the pre-existing piece.
Note: MiraDRAIN G4 should not be adhered to the membrane.

Review Carlisle specifications and details for complete installation information.

Roll Size

4' x 50' (200 square feet)

Typical Properties and Characteristics

| Test | Test Method | Units | Result |
|---------------------------|-------------|--|-----------------|
| Composite | | | |
| Thickness | ASTM D1777 | in (mm) | 1.1 (28) |
| Compressive Strength | ASTM D1621 | psf (kN/m ²) | 14,013 (671) |
| Flow Rate at 3:12 Slope | ASTM D4716 | gpm/ft ² (L/min/m ²) | 32 (1,302) |
| Flow Rate at 1/4:12 Slope | ASTM D4716 | gpm/ft ² (L/min/m ²) | 7.8 (318) |
| Water Holding Capacity | | gal/ft ² (L/m ²) | 0.24 (9.8) |
| Fabric | | | |
| Apparent Opening Size | ASTM D4751 | US std. sieve (mm) | 100 (0.132) |
| Flow Rate | ASTM D4491 | gpm/ft ² (L/min/m ²) | 132 (5,382) |
| Gran Tensile Strength | ASTM D4632 | lbs (kN) | 169 (0.95) |
| Elongation | ASTM D4632 | % | 101 |
| Puncture Resistance | ASTM D4833 | lbs (kN) | 97 (0.43) |

Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.

LEED® Information

| | |
|--------------------------------|-------------|
| Pre-consumer Recycled Content | 0% |
| Post-consumer Recycled Content | 24% |
| Manufacturing Location | Terrell, TX |

Green Roof Media Information:



Extensive Growth Media Typical Product Properties

New England Region

| | | |
|--------------------------------------|--------------------|--------------|
| Silting components < 0.05 mm | % | ≤ 15 |
| Bulk Density dry weight ¹ | lb/ft ³ | 55 -60 |
| Bulk Density dry weight ¹ | g/cm ³ | 0.88 - 0.96 |
| Bulk Density saturated ¹ | lb/ft ³ | 80 - 90 |
| Bulk Density saturated ¹ | g/cm ³ | 1.28 - 1.44 |
| Total Pore Volume | % | 50 - 65 |
| max. Water Holding Capacity | % | 45 - 55 |
| Air Filled Porosity FLL ² | % | ≥ 10 |
| Water Permeability | inch/min | 0.024 - 2.83 |
| Water Permeability | cm/sec | 0.001 - 0.12 |
| pH Value | | 6.0 - 8.5 |
| Salt Content | g(KCl)L | ≤ 3.5 |
| Organic Matter Content | g/L | 30 - 45 |
| Phosphorus ³ | mg/L | ≤ 200 |
| Potassium ³ | mg/L | ≤ 700 |
| Magnesium ³ | mg/L | ≤ 200 |
| Nitrate + Amonium ³ | mg/L | ≤ 80 |

Properties meet all requirements as outlined in the FLL Guidelines for the Planning Construction and Maintenance of Green-Roofing, Green Roofing Guideline, Forschungsgesellschaft Landschaftsentwicklung Landschaftsbau e.V. (FLL) Landscape Development and Landscaping Research Society, 2008

¹ Density values reflect typical ranges for orientation. Media components may differ and influence product density. If your project requires more specific information please contact Carlisle for more details and latest test results.

² If Air-filled Porosity is measured instead of determined according to the FLL Green Roofing Guidelines, related value may be below 10.

³ Newly blended products may temporarily exceed upper limits. Plant available nutrients will usually reach target values soon after installation.

The details contained in these specifications correspond with Carlisle Construction Materials technical knowledge at the time of publication. Carlisle Construction Materials reserves the right to update and adjust performance specifications from time to time in accordance with new insight and to modify the named properties of the product.

Green Roof Calculations:

| | | |
|---|------|----------------|
| Storage Volume= $V_{sm} + V_{dl} + (A_{gr} \cdot D_p)$ | | |
| $V_{sm} = A_{gr} \cdot D_{sm} \cdot N_{sm}$ | | |
| $V_{dl} = A_{gr} \cdot D_{dl} \cdot N_{dl}$ | | |
| Vsm=Volume of Soil Media (Cf) | | |
| Vdl=Volume of Drainage Layer (Cf) | | |
| Agr=Green Roof Surface Area(Sf) | | |
| Dsm=Depth of Soil Media (0.25 To 0.5 Ft For Extensive; 0.5 To 2.0 Ft For Intensive) | | |
| Ddl=Depth of Drainage Layer (Feet) | | |
| Dp=Depth of Ponding Above Surface (Feet) | | |
| Nsm=Porosity of The Soil Media (About 20%) | | |
| Ndl=Porosity of The Drainage Layer (About 25%) | | |
| WQv=Water Quality Volume (Cf) As Defined in Chapter 4 | | |
| | | |
| | | |
| Required Storage Volume (WQV): | c.f. | 7933.9 |
| | | |
| Green Roof Surface Area (Agr) * | s.f. | 32000 |
| | | |
| Depth of Soil Media (Dsm) | ft. | 0.50 |
| | | |
| Porosity of The Soil Media (Nsm) | | 0.45 |
| | | |
| Volume of Voids in Soil Media (Vsm): | c.f. | 7200 |
| | | |
| Depth of Drainage Layer (Ddl): | ft. | 0.09 |
| | | |
| Porosity of the Drainage Layer (Ndl): | | 0.33 |
| | | |
| Volume of Voids in Drainage Layer (Vdl): | c.f. | 968.00 |
| | | |
| Ponding Depth (Dp): | ft. | 0.000 |
| | | |
| Volume of Ponding: | c.f. | 0.00 |
| | | |
| Total Volume of Green Roof: | c.f. | 8168.00 |

New York State Department of Environmental Conservation Notice of Intent

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NOTICE OF INTENT



New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

NYR
(for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-15-002
All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-
RETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)

M A D D D M A D O N N A A R M O N K L L C

Owner/Operator Contact Person Last Name (NOT CONSULTANT)

M A D O N N A

Owner/Operator Contact Person First Name

F R A N K J .

Owner/Operator Mailing Address

5 0 1 M A R B L E A V E N U E

City

P L E A S A N T V I L L E

State

N Y

Zip

1 0 5 7 0 -

Phone (Owner/Operator)

9 1 4 - 5 5 7 - 4 6 9 5

Fax (Owner/Operator)

9 1 4 - 7 0 9 - 4 6 0 5

Email (Owner/Operator)

F J M A D O N N A @ A O L . C O M

FED TAX ID

8 2 - 2 5 5 1 0 9 7 (not required for individuals)

Page 2 of 14

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3. Select the predominant land use for both pre and post development conditions.

SELECT ONLY ONE CHOICE FOR EACH

**Pre-Development
Existing Land Use**

- ☐ FOREST
☒ PASTURE/OPEN LAND
☐ CULTIVATED LAND
☐ SINGLE FAMILY HOME
☐ SINGLE FAMILY SUBDIVISION
☐ TOWN HOME RESIDENTIAL
☐ MULTIFAMILY RESIDENTIAL
☐ INSTITUTIONAL/SCHOOL
☐ INDUSTRIAL
☐ COMMERCIAL
☐ ROAD/HIGHWAY
☐ RECREATIONAL/SPORTS FIELD
☐ BIKE PATH/TRAIL
☐ LINEAR UTILITY
☐ PARKING LOT
☐ OTHER

| | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

**Post-Development
Future Land Use**

- ☐ SINGLE FAMILY HOME
☐ SINGLE FAMILY SUBDIVISION
☒ TOWN HOME RESIDENTIAL
☐ MULTIFAMILY RESIDENTIAL
☐ INSTITUTIONAL/SCHOOL
☐ INDUSTRIAL
☐ COMMERCIAL
☐ MUNICIPAL
☐ ROAD/HIGHWAY
☐ RECREATIONAL/SPORTS FIELD
☐ BIKE PATH/TRAIL
☐ LINEAR UTILITY (water, sewer, gas, etc.)
☐ PARKING LOT
☐ CLEARING/GRADING ONLY
☐ DEMOLITION, NO REDEVELOPMENT
☐ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
☐ OTHER

Number of Lots

| | | |
|--|--|--|
| | | |
|--|--|--|

| | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

***Note:** for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

**Total Site
Area**

| | | | | | |
|--|--|---|---|---|---|
| | | 3 | 2 | . | 5 |
|--|--|---|---|---|---|

**Total Area To
Be Disturbed**

| | | | | | |
|--|--|---|---|---|---|
| | | 2 | 6 | . | 5 |
|--|--|---|---|---|---|

**Existing Impervious
Area To Be Disturbed**

| | | | | |
|--|--|---|---|---|
| | | 1 | . | 6 |
|--|--|---|---|---|

**Future Impervious
Area Within
Disturbed Area**

| | | | | | |
|--|--|---|---|---|---|
| | | 1 | 0 | . | 4 |
|--|--|---|---|---|---|

5. Do you plan to disturb more than 5 acres of soil at any one time? ☒ Yes ☐ No

6. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

A

| | | | |
|--|--|--|---|
| | | | % |
|--|--|--|---|

B

| | | | |
|---|---|---|---|
| 1 | 0 | 0 | % |
|---|---|---|---|

C

| | | | |
|--|--|--|---|
| | | | % |
|--|--|--|---|

D

| | | | |
|--|--|--|---|
| | | | % |
|--|--|--|---|

7. Is this a phased project? ☒ Yes ☐ No

8. Enter the planned start and end dates of the disturbance activities.

Start Date

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 6 | / | 2 | 0 | / | 2 | 0 | 2 | 0 |
|---|---|---|---|---|---|---|---|---|---|

End Date

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 6 | / | 2 | 0 | / | 2 | 0 | 2 | 3 |
|---|---|---|---|---|---|---|---|---|---|

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9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.

Name _____

[illegible]

9a. Type of waterbody identified in Question 9?

- ☐ Wetland / State Jurisdiction On Site (Answer 9b)
- ☐ Wetland / State Jurisdiction Off Site
- ☐ Wetland / Federal Jurisdiction On Site (Answer 9b)
- ☐ Wetland / Federal Jurisdiction Off Site
- ☐ Stream / Creek On Site
- ☐ Stream / Creek Off Site
- ☐ River On Site
- ☒ River Off Site 9b. F
- ☐ Lake On Site ☐ F
- ☐ Lake Off Site ☐ F
- ☐ Other Type On Site ☐ F
- ☐ Other Type Off Site ☐ F

9b. How was the wetland identified?

- ☐ Regulatory Map
- ☐ Delineated by Consultant
- ☐ Delineated by Army Corps of Engineers
- ☐ Other (identify) _____

10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-15-002? ☐ Yes ☒ No

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-15-002? ☐ Yes ☒ No

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? ☐ Yes ☒ No

If no, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? ☐ Yes ☒ No
If Yes, what is the acreage to be disturbed?

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
|--|--|--|--|--|--|

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area? ☐ Yes ☒ No

15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? ☒ Yes ☐ No ☐ Unknown

[illegible]

19. Is this property owned by a state authority, state agency, federal government or local government? ☐ Yes ☒ No

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)? ☒ Yes ☐ No

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? ☒ Yes ☐ No

25. Has a construction sequence schedule for the planned management practices been prepared? ☐ Yes ☐ No

Temporary Structural

- ## Biotechnical

- ### Vegetative Measures

- ## Permanent Structural

- Other

[illegible]

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Post-construction Stormwater Management Practice (SMP) Requirements

Important: Completion of Questions 27-39 is not required
if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ☒ Preservation of Undisturbed Areas
- ☒ Preservation of Buffers
- ☒ Reduction of Clearing and Grading
- ☒ Locating Development in Less Sensitive Areas
- ☐ Roadway Reduction
- ☐ Sidewalk Reduction
- ☐ Driveway Reduction
- ☐ Cul-de-sac Reduction
- ☐ Building Footprint Reduction
- ☐ Parking Reduction

- 27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- ☒ All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- ☐ Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

Total WQv Required

1 . 2 6 4 acre-feet

29. Identify the RR techniques (Area Reduction), RR techniques (Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

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Table 1 - Runoff Reduction (RR) Techniques
and Standard Stormwater Management
Practices (SMPs)

| RR Techniques (Area Reduction) | Total Contributing Area (acres) | Total Contributing Impervious Area (acres) |
|--|---|--|
| <input type="radio"/> Conservation of Natural Areas (RR-1) ... | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Sheetflow to Riparian Buffers/Filters Strips (RR-2) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Tree Planting/Tree Pit (RR-3) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Disconnection of Rooftop Runoff (RR-4) .. | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| RR Techniques (Volume Reduction) | | |
| <input type="radio"/> Vegetated Swale (RR-5) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Rain Garden (RR-6) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Stormwater Planter (RR-7) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Rain Barrel/Cistern (RR-8) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Porous Pavement (RR-9) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input checked="" type="radio"/> Green Roof (RR-10) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| Standard SMPs with RRv Capacity | | |
| <input type="radio"/> Infiltration Trench (I-1) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input checked="" type="radio"/> Infiltration Basin (I-2) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Dry Well (I-3) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input checked="" type="radio"/> Underground Infiltration System (I-4) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Bioretention (F-5) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Dry Swale (O-1) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| Standard SMPs | | |
| <input type="radio"/> Micropool Extended Detention (P-1) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Wet Pond (P-2) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Wet Extended Detention (P-3) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Multiple Pond System (P-4) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Pocket Pond (P-5) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Surface Sand Filter (F-1) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Underground Sand Filter (F-2) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Perimeter Sand Filter (F-3) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Organic Filter (F-4) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Shallow Wetland (W-1) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Extended Detention Wetland (W-2) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Pond/Wetland System (W-3) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Pocket Wetland (W-4) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |
| <input type="radio"/> Wet Swale (O-2) | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> |

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33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

Note: Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

- 33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

WQv Provided

. acre-feet

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a).

.

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ☐ Yes ☐ No

If Yes, go to question 36.

If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

CPv Required

. acre-feet

CPv Provided

. acre-feet

- 36a. The need to provide channel protection has been waived because:

- ☐ Site discharges directly to tidal waters or a fifth order or larger stream.
☒ Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

Total Overbank Flood Control Criteria (Qp)

Pre-Development

. CFS

Post-development

. CFS

Total Extreme Flood Control Criteria (Qf)

Pre-Development

. CFS

Post-development

. CFS

37a. The need to meet the Qp and Qf criteria has been waived because:

- ☒ Yes ☐ No

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required(#28). (See question 32a)
This space can also be used for other pertinent project information.

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Owner/Operator Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name

F R A N K

MI

J

Print Last Name

M A D O N N A

Owner/Operator Signature

Date

/ /

Construction Site Log Book

| |
|------------|
| APPENDIX H |
|------------|

**STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR CONSTRUCTION
ACTIVITIES
CONSTRUCTION SITE LOG BOOK**

Table of Contents

- I. Pre-Construction Meeting Documents
 - a. Preamble to Site Assessment and Inspections
 - b. Operator's Certification
 - c. Qualified Professional's Credentials & Certification
 - d. Pre-Construction Site Assessment Checklist
- II. Construction Duration Inspections
 - a. Directions
 - b. Modification to the SWPPP
- III. Monthly Summary Reports
- IV. Monitoring, Reporting, and Three-Month Status Reports
 - a. Operator's Compliance Response Form

| |
|---|
| Properly completing forms such as those contained in Appendix H meet the inspection requirement of NYS-DEC SPDES GP for Construction Activities. Completed forms shall be kept on site at all times and made available to authorities upon request. |
|---|

I. PRE-CONSTRUCTION MEETING DOCUMENTS

Project Name _____
Permit No. _____ Date of Authorization _____
Name of Operator _____
Prime Contractor _____

a. Preamble to Site Assessment and Inspections

The Following Information To Be Read By All Person's Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified professional¹ conduct an assessment of the site prior to the commencement of construction² and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements.

When construction starts, site inspections shall be conducted by the qualified professional at least every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater (Construction Duration Inspections). The Operator shall maintain a record of all inspection reports in this site logbook. The site logbook shall be maintained on site and be made available to the permitting authorities upon request. The Operator shall post at the site, in a publicly accessible location, a summary of the site inspection activities on a monthly basis (Monthly Summary Report).

The operator shall also prepare a written summary of compliance with this general permit at a minimum frequency of every three months (Operator's Compliance Response Form), while coverage exists. The summary should address the status of achieving each component of the SWPPP.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization³ using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

1 "Qualified Professional means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a Certified Professional in Erosion and Sediment Control (CPESC), soil scientist, licensed engineer or someone working under the direction and supervision of a licensed engineer (person must have experience in the principles and practices of erosion and sediment control).

2 "Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.

3 "Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

b. Operators Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Name (please print): _____

Title _____ **Date:** _____

Address: _____

Phone: _____ **Email:** _____

Signature: _____

c. Qualified Professional's Credentials & Certification

"I hereby certify that I meet the criteria set forth in the General Permit to conduct site inspections for this project and that the appropriate erosion and sediment controls described in the SWPPP and as described in the following Pre-construction Site Assessment Checklist have been adequately installed or implemented, ensuring the overall preparedness of this site for the commencement of construction."

Name (please print): _____

Title _____ **Date:** _____

Address: _____

Phone: _____ **Email:** _____

Signature: _____

d. Pre-construction Site Assessment Checklist

(NOTE: Provide comments below as necessary)

1. Notice of Intent, SWPPP, and Contractors Certification:

Yes No NA

- ☐ ☐ ☐ Has a Notice of Intent been filed with the NYS Department of Conservation?
- ☐ ☐ ☐ Is the SWPPP on-site? Where? _____
- ☐ ☐ ☐ Is the Plan current? What is the latest revision date? _____
- ☐ ☐ ☐ Is a copy of the NOI (with brief description) onsite? Where? _____
- ☐ ☐ ☐ Have all contractors involved with stormwater related activities signed a contractor's certification?

2. Resource Protection

Yes No NA

- ☐ ☐ ☐ Are construction limits clearly flagged or fenced?
- ☐ ☐ ☐ Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.
- ☐ ☐ ☐ Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

3. Surface Water Protection

Yes No NA

- ☐ ☐ ☐ Clean stormwater runoff has been diverted from areas to be disturbed.
- ☐ ☐ ☐ Bodies of water located either on site or in the vicinity of the site have been identified and protected.
- ☐ ☐ ☐ Appropriate practices to protect on-site or downstream surface water are installed.
- ☐ ☐ ☐ Are clearing and grading operations divided into areas <5 acres?

4. Stabilized Construction Entrance

Yes No NA

- ☐ ☐ ☐ A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.
- ☐ ☐ ☐ Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.
- ☐ ☐ ☐ Sediment tracked onto public streets is removed or cleaned on a regular basis.

5. Perimeter Sediment Controls

Yes No NA

- ☐ ☐ ☐ Silt fence material and installation comply with the standard drawing and specifications.
- ☐ ☐ ☐ Silt fences are installed at appropriate spacing intervals
- ☐ ☐ ☐ Sediment/detention basin was installed as first land disturbing activity.
- ☐ ☐ ☐ Sediment traps and barriers are installed.

6. Pollution Prevention for Waste and Hazardous Materials

Yes No NA

- ☐ ☐ ☐ The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.
- ☐ ☐ ☐ The plan is contained in the SWPPP on page _____
- ☐ ☐ ☐ Appropriate materials to control spills are onsite. Where? _____

II. CONSTRUCTION DURATION INSPECTIONS

a. Directions:

Inspection Forms will be filled out during the entire construction phase of the project.

Required Elements:

- (1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;
- (2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;
- (3) Indicate all disturbed site areas **that have not undergone active site work during the previous 14-day period;**
- (4) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);
- (5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and
- (6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

CONSTRUCTION DURATION INSPECTIONS Page 1 of _____

SITE PLAN/SKETCH

Inspector (print name)

Date of Inspection

Qualified Professional (print name)

Qualified Professional Signature

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.

CONSTRUCTION DURATION INSPECTIONS

Page 2 of _____

Maintaining Water Quality

Yes No NA

- ☐ ☐ ☐ Is there an increase in turbidity causing a substantial visible contrast to natural conditions?
- ☐ ☐ ☐ Is there residue from oil and floating substances, visible oil film, or globules or grease?
- ☐ ☐ ☐ All disturbance is within the limits of the approved plans.
- ☐ ☐ ☐ Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?

Housekeeping

1. General Site Conditions

Yes No NA

- ☐ ☐ ☐ Is construction site litter and debris appropriately managed?
- ☐ ☐ ☐ Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?
- ☐ ☐ ☐ Is construction impacting the adjacent property?
- ☐ ☐ ☐ Is dust adequately controlled?

2. Temporary Stream Crossing

Yes No NA

- ☐ ☐ ☐ Maximum diameter pipes necessary to span creek without dredging are installed.
- ☐ ☐ ☐ Installed non-woven geotextile fabric beneath approaches.
- ☐ ☐ ☐ Is fill composed of aggregate (no earth or soil)?
- ☐ ☐ ☐ Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.

Runoff Control Practices

1. Excavation Dewatering

Yes No NA

- ☐ ☐ ☐ Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.
- ☐ ☐ ☐ Clean water from upstream pool is being pumped to the downstream pool.
- ☐ ☐ ☐ Sediment laden water from work area is being discharged to a silt-trapping device.
- ☐ ☐ ☐ Constructed upstream berm with one-foot minimum freeboard.

2. Level Spreader

Yes No NA

- ☐ ☐ ☐ Installed per plan.
- ☐ ☐ ☐ Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow.
- ☐ ☐ ☐ Flow sheets out of level spreader without erosion on downstream edge.

3. Interceptor Dikes and Swales

Yes No NA

- ☐ ☐ ☐ Installed per plan with minimum side slopes 2H:1V or flatter.
- ☐ ☐ ☐ Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.
- ☐ ☐ ☐ Sediment-laden runoff directed to sediment trapping structure

CONSTRUCTION DURATION INSPECTIONS
Runoff Control Practices (continued)

Page 3 of _____

4. Stone Check Dam

Yes No NA

- ☐ ☐ ☐ Is channel stable? (flow is not eroding soil underneath or around the structure).
☐ ☐ ☐ Check is in good condition (rocks in place and no permanent pools behind the structure).
☐ ☐ ☐ Has accumulated sediment been removed?.

5. Rock Outlet Protection

Yes No NA

- ☐ ☐ ☐ Installed per plan.
☐ ☐ ☐ Installed concurrently with pipe installation.

Soil Stabilization

1. Topsoil and Spoil Stockpiles

Yes No NA

- ☐ ☐ ☐ Stockpiles are stabilized with vegetation and/or mulch.
☐ ☐ ☐ Sediment control is installed at the toe of the slope.

2. Revegetation

Yes No NA

- ☐ ☐ ☐ Temporary seedings and mulch have been applied to idle areas.
☐ ☐ ☐ 4 inches minimum of topsoil has been applied under permanent seedings

Sediment Control Practices

1. Stabilized Construction Entrance

Yes No NA

- ☐ ☐ ☐ Stone is clean enough to effectively remove mud from vehicles.
☐ ☐ ☐ Installed per standards and specifications?
☐ ☐ ☐ Does all traffic use the stabilized entrance to enter and leave site?
☐ ☐ ☐ Is adequate drainage provided to prevent ponding at entrance?

2. Silt Fence

Yes No NA

- ☐ ☐ ☐ Installed on Contour, 10 feet from toe of slope (not across conveyance channels).
☐ ☐ ☐ Joints constructed by wrapping the two ends together for continuous support.
☐ ☐ ☐ Fabric buried 6 inches minimum.
☐ ☐ ☐ Posts are stable, fabric is tight and without rips or frayed areas.
Sediment accumulation is ____% of design capacity.

CONSTRUCTION DURATION INSPECTIONS

Page 4 of _____

Sediment Control Practices (continued)

3. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated practices)

Yes No NA

- ☐ ☐ ☐ Installed concrete blocks lengthwise so open ends face outward, not upward.
 - ☐ ☐ ☐ Placed wire screen between No. 3 crushed stone and concrete blocks.
 - ☐ ☐ ☐ Drainage area is 1 acre or less.
 - ☐ ☐ ☐ Excavated area is 900 cubic feet.
 - ☐ ☐ ☐ Excavated side slopes should be 2:1.
 - ☐ ☐ ☐ 2" x 4" frame is constructed and structurally sound.
 - ☐ ☐ ☐ Posts 3-foot maximum spacing between posts.
 - ☐ ☐ ☐ Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
 - ☐ ☐ ☐ Posts are stable, fabric is tight and without rips or frayed areas.
- Sediment accumulation is ____% of design capacity.

4. Temporary Sediment Trap

Yes No NA

- ☐ ☐ ☐ Outlet structure is constructed per the approved plan or drawing.
 - ☐ ☐ ☐ Geotextile fabric has been placed beneath rock fill.
- Sediment accumulation is ____% of design capacity.

5. Temporary Sediment Basin

Yes No NA

- ☐ ☐ ☐ Basin and outlet structure constructed per the approved plan.
 - ☐ ☐ ☐ Basin side slopes are stabilized with seed/mulch.
 - ☐ ☐ ☐ Drainage structure flushed and basin surface restored upon removal of sediment basin facility.
- Sediment accumulation is ____% of design capacity.

Note: Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site specific design.
Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.

CONSTRUCTION DURATION INSPECTIONS

The Operator shall amend the SWPPP whenever:

2. The SWPPP proves to be ineffective in:
 - a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
 - b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

[illegible]

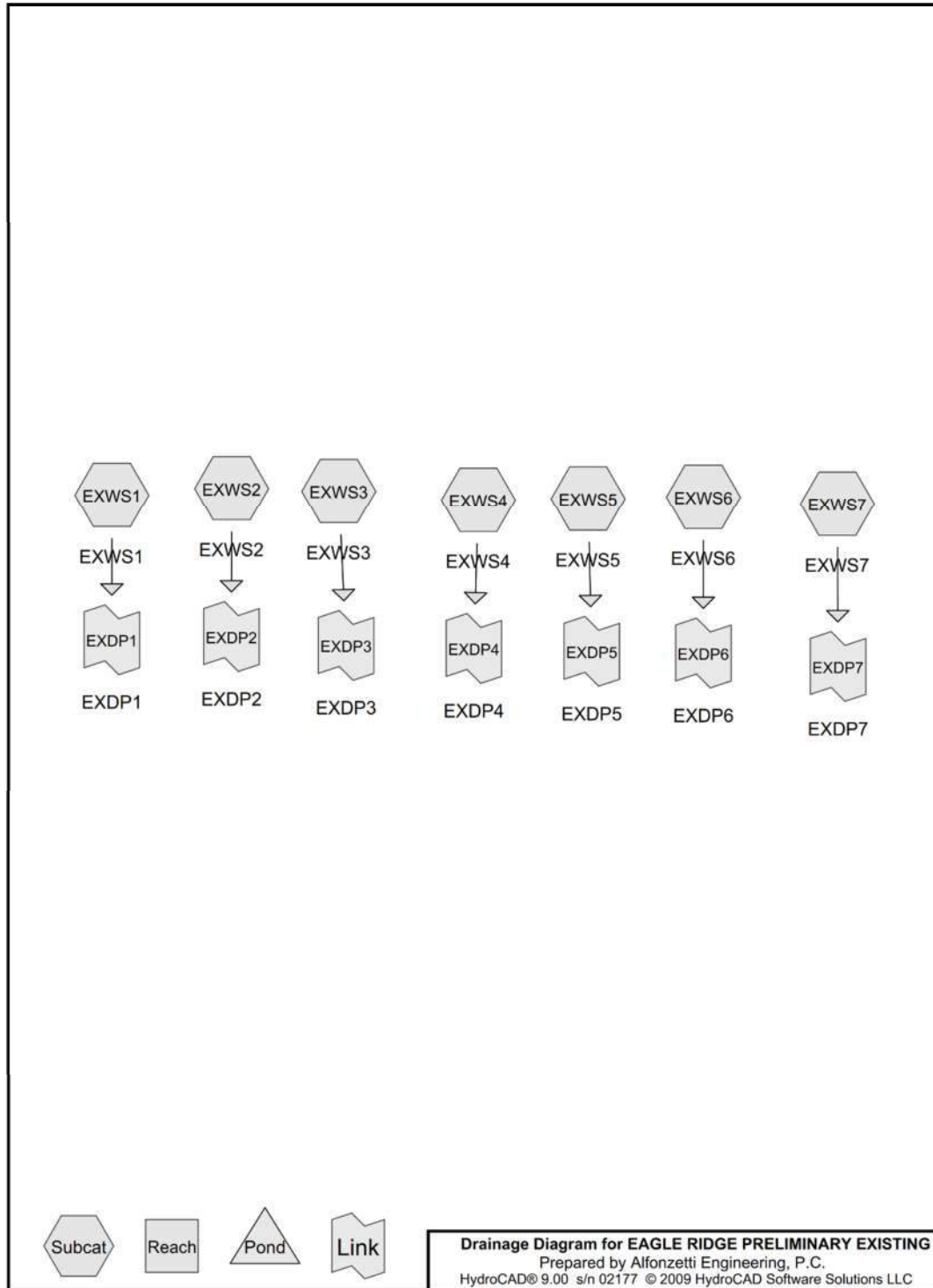
| | | |
|---|---------------------------------|-------------------------|
| Name of Permitted Facility: | Today's Date: | Reporting Month: |
| Location: | Permit Identification #: | |
| Name and Telephone Number of Site Inspector: | | |

[illegible]

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law."

| Name of Permittee or Duly Authorized Representative | Date |
|---|------|
|---|------|

Existing HydroCad Report:



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 1 YR Rainfall=2.80"

Prepared by Alfonzetti Engineering, P.C.

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Time span=5.00-84.00 hrs, dt=0.01 hrs, 7901 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|---------------------------|---|
| Subcatchment EXWS1: EXWS1 | Runoff Area=80,671 sf 0.00% Impervious Runoff Depth=0.14" Flow Length=332' Tc=20.0 min CN=55 Runoff=0.1 cfs 0.022 af |
| Subcatchment EXWS2: EXWS2 | Runoff Area=17,033 sf 0.00% Impervious Runoff Depth=0.14" Flow Length=194' Tc=13.5 min CN=55 Runoff=0.0 cfs 0.005 af |
| Subcatchment EXWS3: EXWS3 | Runoff Area=255,227 sf 4.07% Impervious Runoff Depth=0.29" Flow Length=1,472' Tc=33.2 min CN=61 Runoff=0.6 cfs 0.143 af |
| Subcatchment EXWS4: EXWS4 | Runoff Area=718,402 sf 5.52% Impervious Runoff Depth=0.26" Flow Length=759' Tc=23.7 min CN=60 Runoff=1.7 cfs 0.363 af |
| Subcatchment EXWS5: EXWS5 | Runoff Area=431,278 sf 11.64% Impervious Runoff Depth=0.26" Flow Length=1,049' Tc=16.6 min CN=60 Runoff=1.1 cfs 0.218 af |
| Subcatchment EXWS6: EXWS6 | Runoff Area=256,054 sf 22.42% Impervious Runoff Depth=0.57" Flow Length=1,821' Tc=6.0 min CN=69 Runoff=3.2 cfs 0.277 af |
| Subcatchment EXWS7: EXWS7 | Runoff Area=97,844 sf 14.41% Impervious Runoff Depth=0.38" Flow Length=706' Tc=4.7 min CN=64 Runoff=0.7 cfs 0.072 af |
| Link EXDP1: EXDP1 | Inflow=0.1 cfs 0.022 af Primary=0.1 cfs 0.022 af |
| Link EXDP2: EXDP2 | Inflow=0.0 cfs 0.005 af Primary=0.0 cfs 0.005 af |
| Link EXDP3: EXDP3 | Inflow=0.6 cfs 0.143 af Primary=0.6 cfs 0.143 af |
| Link EXDP4: EXDP4 | Inflow=1.7 cfs 0.363 af Primary=1.7 cfs 0.363 af |
| Link EXDP5: EXDP5 | Inflow=1.1 cfs 0.218 af Primary=1.1 cfs 0.218 af |
| Link EXDP6: EXDP6 | Inflow=3.2 cfs 0.277 af Primary=3.2 cfs 0.277 af |
| Link EXDP7: EXDP7 | Inflow=0.7 cfs 0.072 af Primary=0.7 cfs 0.072 af |

Total Runoff Area = 42.620 ac Runoff Volume = 1.100 af Average Runoff Depth = 0.31"
90.75% Pervious = 38.676 ac 9.25% Impervious = 3.943 ac

EAGLE RIDGE PRELIMINARY EXISTING

Prepared by Alfonzetti Engineering, P.C.

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Type III 24-hr 1 YR Rainfall=2.80"

Summary for Subcatchment EXWS1: EXWS1

Runoff = 0.1 cfs @ 12.64 hrs, Volume= 0.022 af, Depth= 0.14"

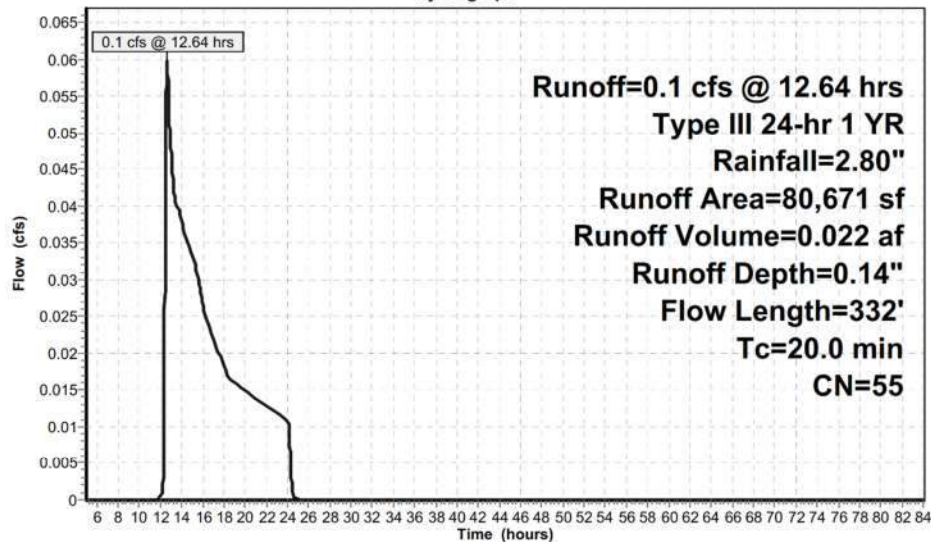
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 1,983 | 61 | >75% Grass cover, Good, HSG B |
| 17,152 | 55 | Woods, Good, HSG B |
| 61,536 | 55 | Woods, Good, HSG B |
| 80,671 | 55 | Weighted Average |
| 80,671 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 18.1 | 100 | 0.0280 | 0.09 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.4 | 50 | 0.1650 | 2.03 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 58 | 0.1030 | 1.60 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.9 | 124 | 0.2230 | 2.36 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 20.0 | 332 | Total | | | |

Subcatchment EXWS1: EXWS1

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 1 YR Rainfall=2.80"

Summary for Subcatchment EXWS2: EXWS2

Runoff = 0.0 cfs @ 12.53 hrs, Volume= 0.005 af, Depth= 0.14"

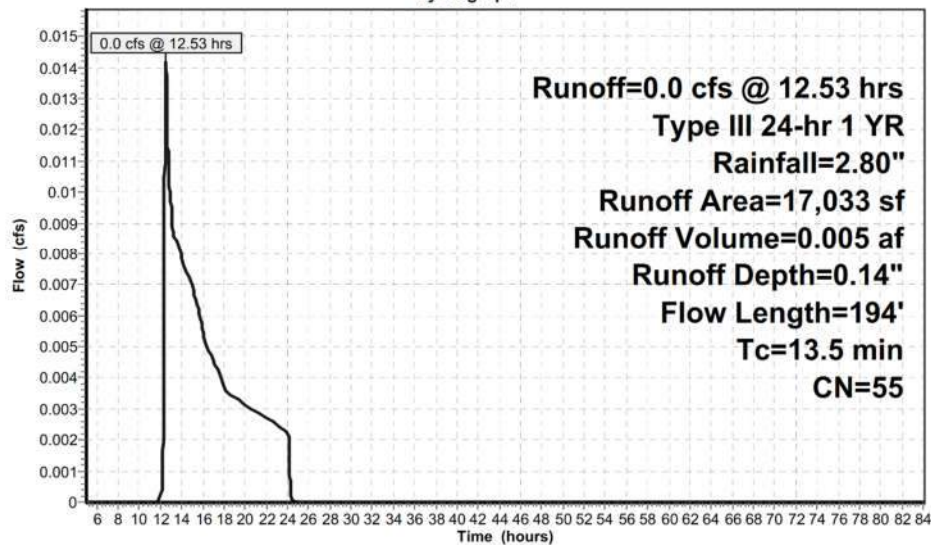
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-----------------------|
| 17,033 | 55 | Woods, Good, HSG B |
| 17,033 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.9 | 34 | 0.1470 | 0.14 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 9.3 | 116 | 0.1980 | 0.21 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.3 | 44 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 13.5 | 194 | Total | | | |

Subcatchment EXWS2: EXWS2

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 1 YR Rainfall=2.80"

Summary for Subcatchment EXWS3: EXWS3

Runoff = 0.6 cfs @ 12.66 hrs, Volume= 0.143 af, Depth= 0.29"

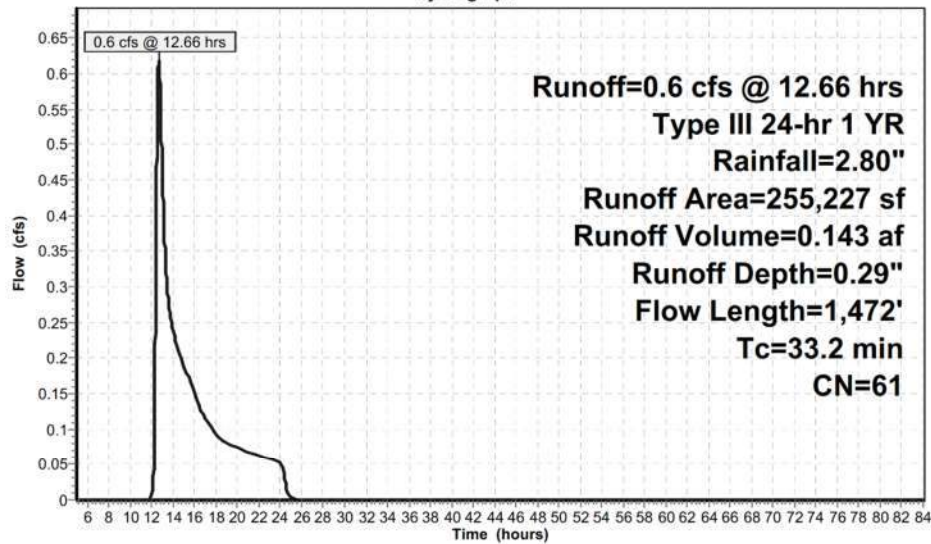
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 81,245 | 55 | Woods, Good, HSG B |
| 162,736 | 61 | >75% Grass cover, Good, HSG B |
| 10,397 | 98 | Paved parking, HSG B |
| 849 | 61 | >75% Grass cover, Good, HSG B |
| 255,227 | 61 | Weighted Average |
| 244,830 | | 95.93% Pervious Area |
| 10,397 | | 4.07% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 21.1 | 150 | 0.0430 | 0.12 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 6.2 | 529 | 0.0800 | 1.41 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 5.9 | 793 | 0.1030 | 2.25 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 33.2 | 1,472 | Total | | | |

Subcatchment EXWS3: EXWS3

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 1 YR Rainfall=2.80"

Summary for Subcatchment EXWS4: EXWS4

Runoff = 1.7 cfs @ 12.56 hrs, Volume= 0.363 af, Depth= 0.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 1,090 | 61 | >75% Grass cover, Good, HSG B |
| 31,029 | 98 | Paved parking, HSG B |
| 359,184 | 55 | Woods, Good, HSG B |
| 314,447 | 61 | >75% Grass cover, Good, HSG B |
| 8,523 | 98 | Paved parking, HSG B |
| 271 | 61 | >75% Grass cover, Good, HSG B |
| 118 | 98 | Paved parking, HSG B |
| 3,740 | 61 | >75% Grass cover, Good, HSG B |
| 718,402 | 60 | Weighted Average |
| 678,732 | | 94.48% Pervious Area |
| 39,670 | | 5.52% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 18.2 | 150 | 0.0620 | 0.14 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.5 | 48 | 0.1200 | 1.73 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.7 | 74 | 0.1350 | 1.84 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 1.3 | 109 | 0.0730 | 1.35 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 1.7 | 172 | 0.1160 | 1.70 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 56 | 0.2850 | 2.67 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.5 | 59 | 0.1530 | 1.96 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.5 | 91 | 0.3840 | 3.10 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 23.7 | 759 | Total | | | |

EAGLE RIDGE PRELIMINARY EXISTING

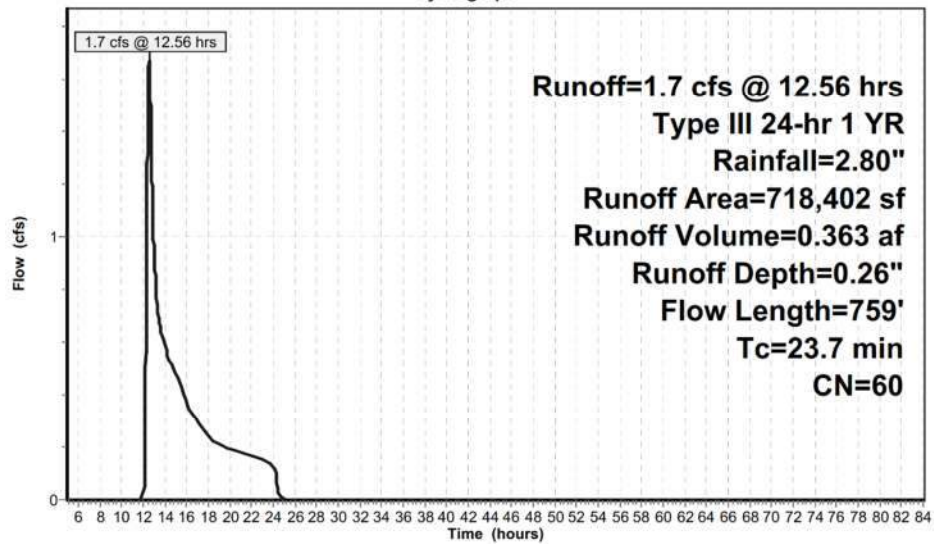
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Type III 24-hr 1 YR Rainfall=2.80"

Subcatchment EXWS4: EXWS4

Hydrograph



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Type III 24-hr 1 YR Rainfall=2.80"

Summary for Subcatchment EXWS5: EXWS5

Runoff = 1.1 cfs @ 12.45 hrs, Volume= 0.218 af, Depth= 0.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 87,490 | 55 | Woods, Good, HSG B |
| 50,967 | 55 | Woods, Good, HSG B |
| 22,785 | 55 | Woods, Good, HSG B |
| 87,991 | 55 | Woods, Good, HSG B |
| 50,189 | 98 | Paved parking, HSG B |
| 1,904 | 61 | >75% Grass cover, Good, HSG B |
| 7,163 | 61 | >75% Grass cover, Good, HSG B |
| 122,789 | 55 | Woods, Good, HSG B |
| 431,278 | 60 | Weighted Average |
| 381,089 | | 88.36% Pervious Area |
| 50,189 | | 11.64% Impervious Area |

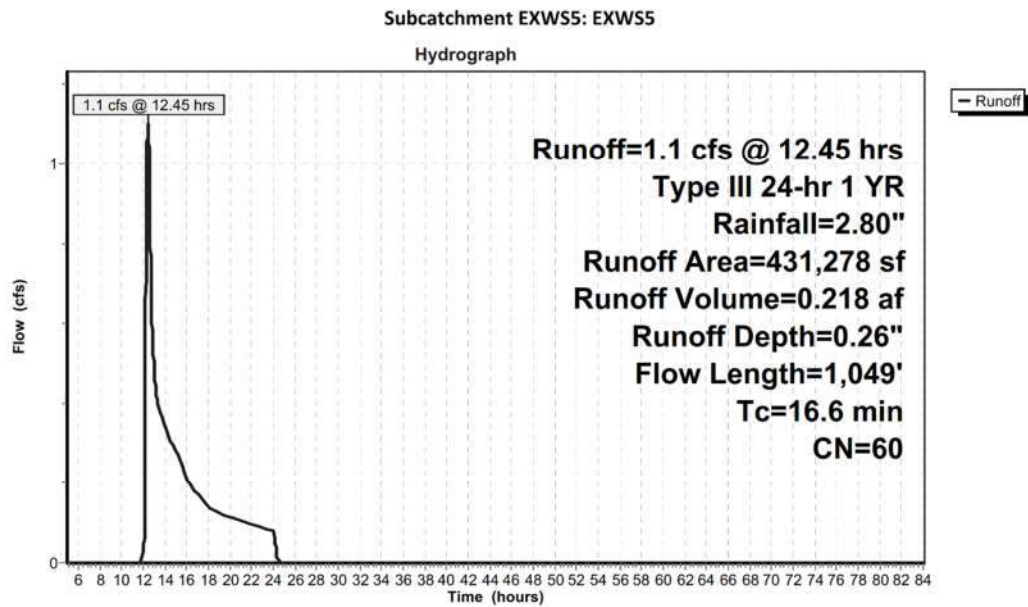
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 12.1 | 100 | 0.0275 | 0.14 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.8 | 60 | 0.0330 | 1.27 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 31 | 0.2420 | 3.44 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 345 | 0.0520 | 4.63 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.1 | 105 | 0.1840 | 17.23 | 9.40 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 90 | 0.3100 | 8.35 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.1 | 100 | 0.1000 | 1.58 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 83 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 135 | 0.3000 | 8.22 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 16.6 | 1,049 | Total | | | |

EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 1 YR Rainfall=2.80"



EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 1 YR Rainfall=2.80"

Summary for Subcatchment EXWS6: EXWS6

Runoff = 3.2 cfs @ 12.11 hrs, Volume= 0.277 af, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 30,242 | 61 | >75% Grass cover, Good, HSG B |
| 150,793 | 61 | >75% Grass cover, Good, HSG B |
| 4,924 | 61 | >75% Grass cover, Good, HSG B |
| 989 | 61 | >75% Grass cover, Good, HSG B |
| 295 | 61 | >75% Grass cover, Good, HSG B |
| 41,631 | 98 | Paved parking, HSG B |
| 2,635 | 61 | >75% Grass cover, Good, HSG B |
| 7,567 | 61 | >75% Grass cover, Good, HSG B |
| 15,787 | 98 | Paved parking, HSG B |
| 1,191 | 61 | >75% Grass cover, Good, HSG B |
| 256,054 | 69 | Weighted Average |
| 198,636 | | 77.58% Pervious Area |
| 57,418 | | 22.42% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 1.9 | 28 | 0.0890 | 0.25 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.6 | 72 | 0.0490 | 1.91 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 0.2 | 50 | 0.0490 | 4.49 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 1.9 | 450 | 0.0710 | 4.00 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 0.4 | 474 | 0.0790 | 20.24 | 63.58 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 200 | 0.0600 | 17.64 | 55.41 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 189 | 0.0700 | 19.05 | 59.85 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.6 | 358 | 0.0170 | 9.39 | 29.50 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 6.0 | 1,821 | Total | | | |

EAGLE RIDGE PRELIMINARY EXISTING

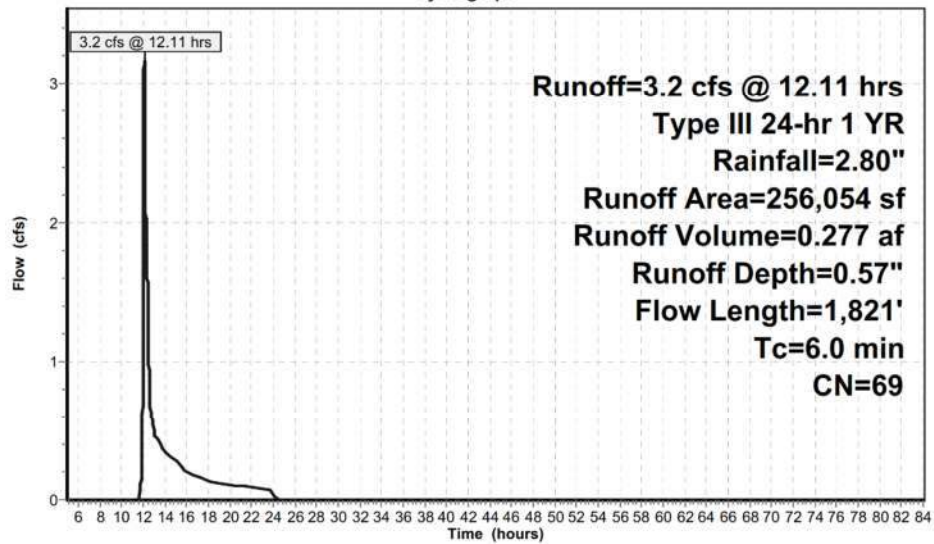
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Type III 24-hr 1 YR Rainfall=2.80"

Subcatchment EXWS6: EXWS6

Hydrograph



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Type III 24-hr 1 YR Rainfall=2.80"

Summary for Subcatchment EXWS7: EXWS7

Runoff = 0.7 cfs @ 12.10 hrs, Volume= 0.072 af, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 5,433 | 61 | >75% Grass cover, Good, HSG B |
| 14,290 | 55 | Woods, Good, HSG B |
| 14,905 | 61 | >75% Grass cover, Good, HSG B |
| 29,839 | 55 | Woods, Good, HSG B |
| 12,976 | 61 | >75% Grass cover, Good, HSG B |
| 4,785 | 98 | Paved parking, HSG B |
| 2,157 | 61 | >75% Grass cover, Good, HSG B |
| 913 | 61 | >75% Grass cover, Good, HSG B |
| 989 | 61 | >75% Grass cover, Good, HSG B |
| 2,242 | 61 | >75% Grass cover, Good, HSG B |
| 9,315 | 98 | Paved parking, HSG B |
| 97,844 | 64 | Weighted Average |
| 83,744 | | 85.59% Pervious Area |
| 14,100 | | 14.41% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 2.7 | 40 | 0.0740 | 0.25 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.5 | 60 | 0.0670 | 2.09 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 1.1 | 346 | 0.0685 | 5.31 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.4 | 260 | 0.0400 | 10.44 | 5.70 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.010 PVC, smooth interior |
| 4.7 | 706 | Total | | | |

EAGLE RIDGE PRELIMINARY EXISTING

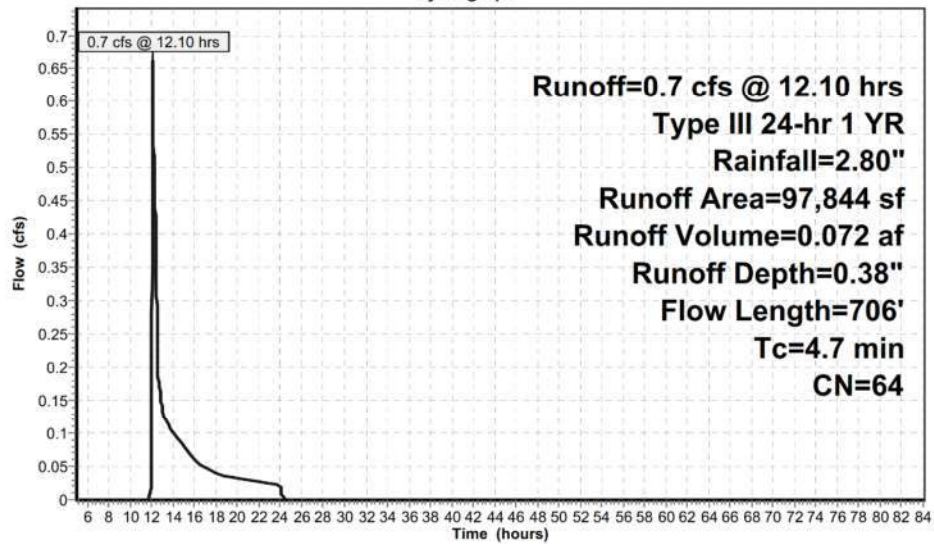
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Type III 24-hr 1 YR Rainfall=2.80"

Subcatchment EXWS7: EXWS7

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 1 YR Rainfall=2.80"

Summary for Link EXDP1: EXDP1

Inflow Area = 1.852 ac, 0.00% Impervious, Inflow Depth = 0.14" for 1 YR event

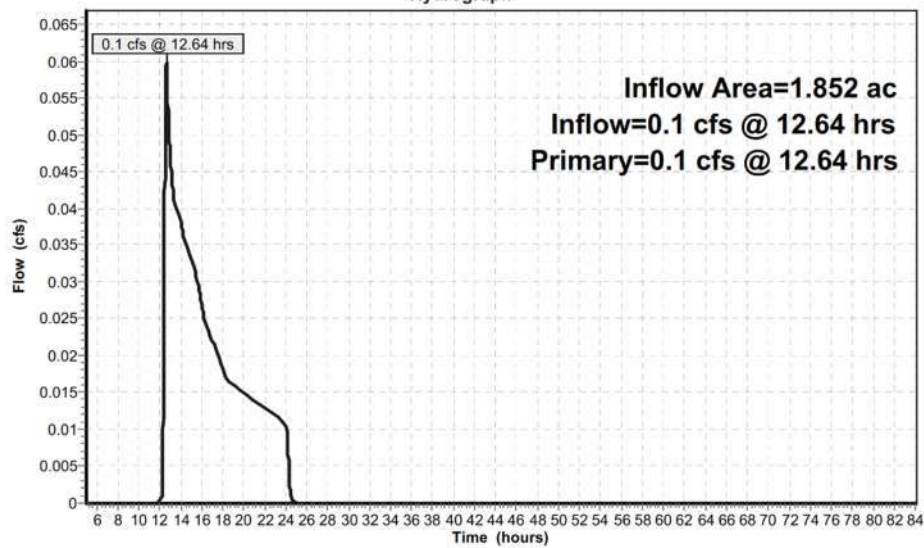
Inflow = 0.1 cfs @ 12.64 hrs, Volume= 0.022 af

Primary = 0.1 cfs @ 12.64 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP1: EXDP1

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Link EXDP2: EXDP2

Inflow Area = 0.391 ac, 0.00% Impervious, Inflow Depth = 0.14" for 1 YR event

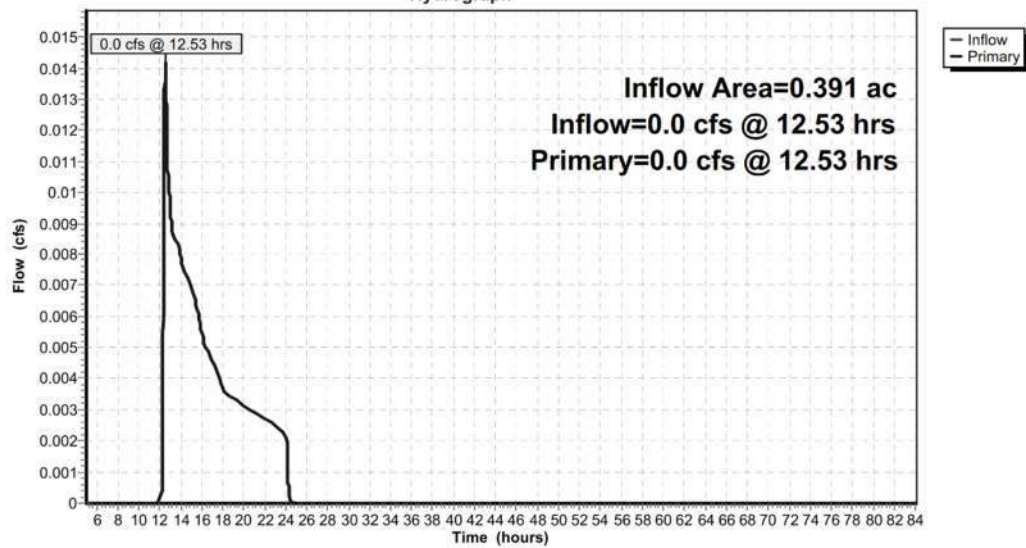
Inflow = 0.0 cfs @ 12.53 hrs, Volume= 0.005 af

Primary = 0.0 cfs @ 12.53 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP2: EXDP2

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Link EXDP3: EXDP3

Inflow Area = 5.859 ac, 4.07% Impervious, Inflow Depth = 0.29" for 1 YR event

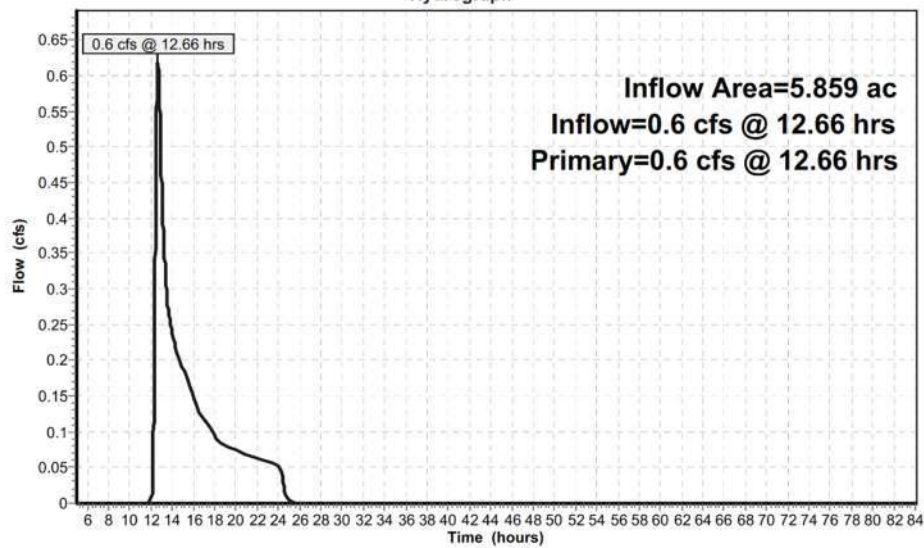
Inflow = 0.6 cfs @ 12.66 hrs, Volume= 0.143 af

Primary = 0.6 cfs @ 12.66 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP3: EXDP3

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 1 YR Rainfall=2.80"

Summary for Link EXDP4: EXDP4

Inflow Area = 16.492 ac, 5.52% Impervious, Inflow Depth = 0.26" for 1 YR event

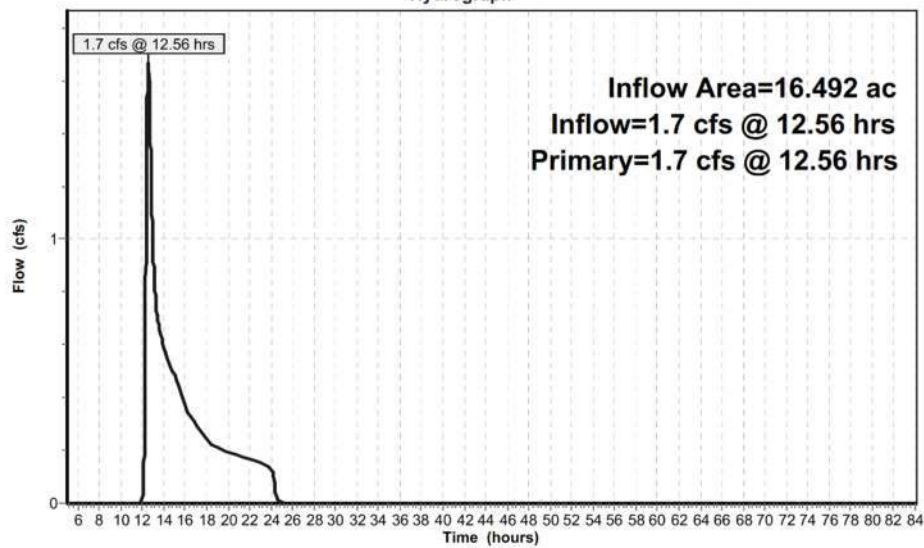
Inflow = 1.7 cfs @ 12.56 hrs, Volume= 0.363 af

Primary = 1.7 cfs @ 12.56 hrs, Volume= 0.363 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP4: EXDP4

Hydrograph



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Type III 24-hr 1 YR Rainfall=2.80"

Summary for Link EXDP5: EXDP5

Inflow Area = 9.901 ac, 11.64% Impervious, Inflow Depth = 0.26" for 1 YR event

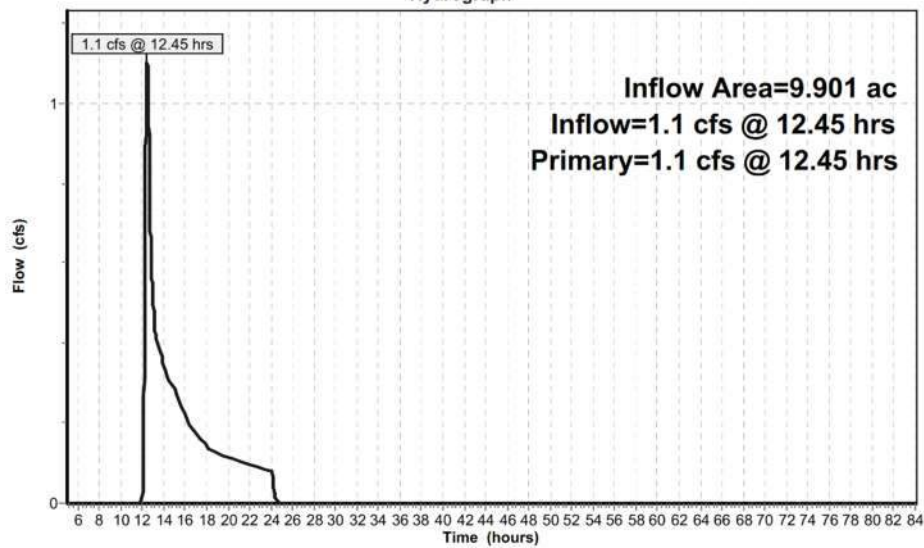
Inflow = 1.1 cfs @ 12.45 hrs, Volume= 0.218 af

Primary = 1.1 cfs @ 12.45 hrs, Volume= 0.218 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP5: EXDP5

Hydrograph



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Type III 24-hr 1 YR Rainfall=2.80"

Summary for Link EXDP6: EXDP6

Inflow Area = 5.878 ac, 22.42% Impervious, Inflow Depth = 0.57" for 1 YR event

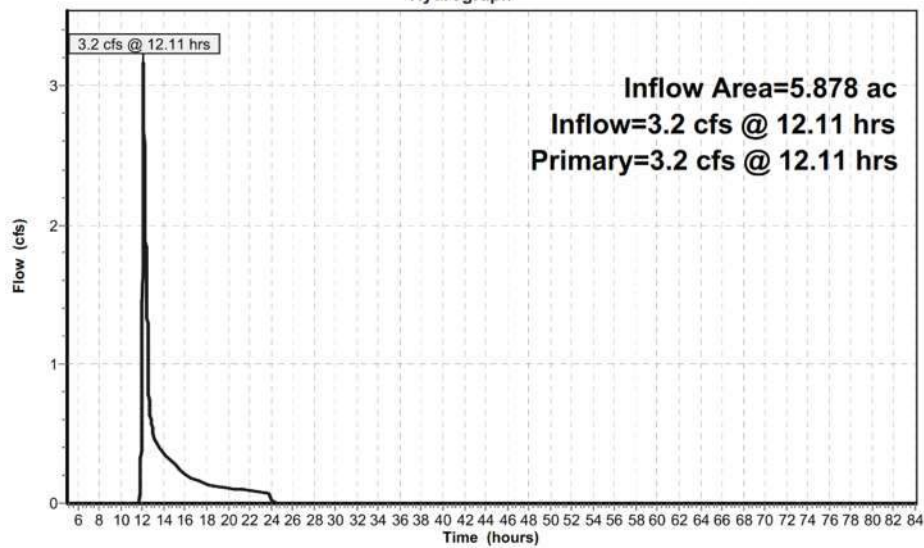
Inflow = 3.2 cfs @ 12.11 hrs, Volume= 0.277 af

Primary = 3.2 cfs @ 12.11 hrs, Volume= 0.277 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP6: EXDP6

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Link EXDP7: EXDP7

Inflow Area = 2.246 ac, 14.41% Impervious, Inflow Depth = 0.38" for 1 YR event

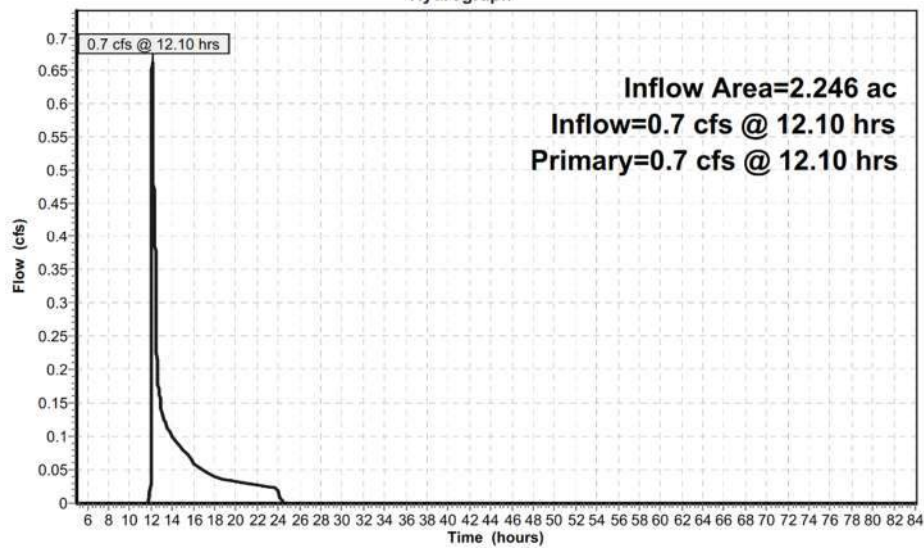
Inflow = 0.7 cfs @ 12.10 hrs, Volume= 0.072 af

Primary = 0.7 cfs @ 12.10 hrs, Volume= 0.072 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP7: EXDP7

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 2 YR Rainfall=3.43"

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Time span=5.00-84.00 hrs, dt=0.01 hrs, 7901 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|---------------------------|---|
| Subcatchment EXWS1: EXWS1 | Runoff Area=80,671 sf 0.00% Impervious Runoff Depth=0.32" Flow Length=332' Tc=20.0 min CN=55 Runoff=0.2 cfs 0.050 af |
| Subcatchment EXWS2: EXWS2 | Runoff Area=17,033 sf 0.00% Impervious Runoff Depth=0.32" Flow Length=194' Tc=13.5 min CN=55 Runoff=0.1 cfs 0.011 af |
| Subcatchment EXWS3: EXWS3 | Runoff Area=255,227 sf 4.07% Impervious Runoff Depth=0.54" Flow Length=1,472' Tc=33.2 min CN=61 Runoff=1.5 cfs 0.264 af |
| Subcatchment EXWS4: EXWS4 | Runoff Area=718,402 sf 5.52% Impervious Runoff Depth=0.50" Flow Length=759' Tc=23.7 min CN=60 Runoff=4.2 cfs 0.689 af |
| Subcatchment EXWS5: EXWS5 | Runoff Area=431,278 sf 11.64% Impervious Runoff Depth=0.50" Flow Length=1,049' Tc=16.6 min CN=60 Runoff=2.8 cfs 0.414 af |
| Subcatchment EXWS6: EXWS6 | Runoff Area=256,054 sf 22.42% Impervious Runoff Depth=0.91" Flow Length=1,821' Tc=6.0 min CN=69 Runoff=5.7 cfs 0.447 af |
| Subcatchment EXWS7: EXWS7 | Runoff Area=97,844 sf 14.41% Impervious Runoff Depth=0.67" Flow Length=706' Tc=4.7 min CN=64 Runoff=1.5 cfs 0.125 af |
| Link EXDP1: EXDP1 | Inflow=0.2 cfs 0.050 af Primary=0.2 cfs 0.050 af |
| Link EXDP2: EXDP2 | Inflow=0.1 cfs 0.011 af Primary=0.1 cfs 0.011 af |
| Link EXDP3: EXDP3 | Inflow=1.5 cfs 0.264 af Primary=1.5 cfs 0.264 af |
| Link EXDP4: EXDP4 | Inflow=4.2 cfs 0.689 af Primary=4.2 cfs 0.689 af |
| Link EXDP5: EXDP5 | Inflow=2.8 cfs 0.414 af Primary=2.8 cfs 0.414 af |
| Link EXDP6: EXDP6 | Inflow=5.7 cfs 0.447 af Primary=5.7 cfs 0.447 af |
| Link EXDP7: EXDP7 | Inflow=1.5 cfs 0.125 af Primary=1.5 cfs 0.125 af |

Total Runoff Area = 42.620 ac Runoff Volume = 2.000 af Average Runoff Depth = 0.56"
90.75% Pervious = 38.676 ac 9.25% Impervious = 3.943 ac

EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 2 YR Rainfall=3.43"

Summary for Subcatchment EXWS1: EXWS1

Runoff = 0.2 cfs @ 12.51 hrs, Volume= 0.050 af, Depth= 0.32"

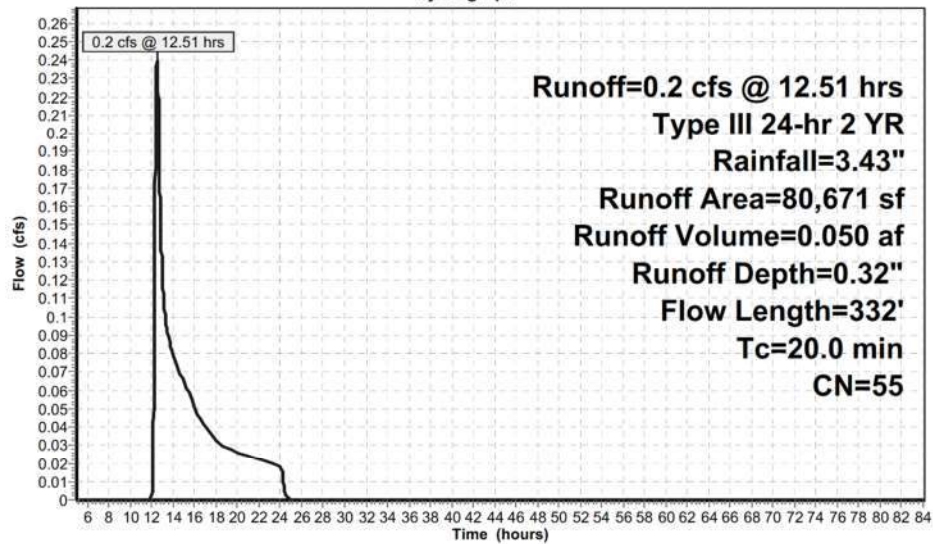
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 1,983 | 61 | >75% Grass cover, Good, HSG B |
| 17,152 | 55 | Woods, Good, HSG B |
| 61,536 | 55 | Woods, Good, HSG B |
| 80,671 | 55 | Weighted Average |
| 80,671 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 18.1 | 100 | 0.0280 | 0.09 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.4 | 50 | 0.1650 | 2.03 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 58 | 0.1030 | 1.60 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.9 | 124 | 0.2230 | 2.36 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 20.0 | 332 | Total | | | |

Subcatchment EXWS1: EXWS1

Hydrograph



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Type III 24-hr 2 YR Rainfall=3.43"

Summary for Subcatchment EXWS2: EXWS2

Runoff = 0.1 cfs @ 12.41 hrs, Volume= 0.011 af, Depth= 0.32"

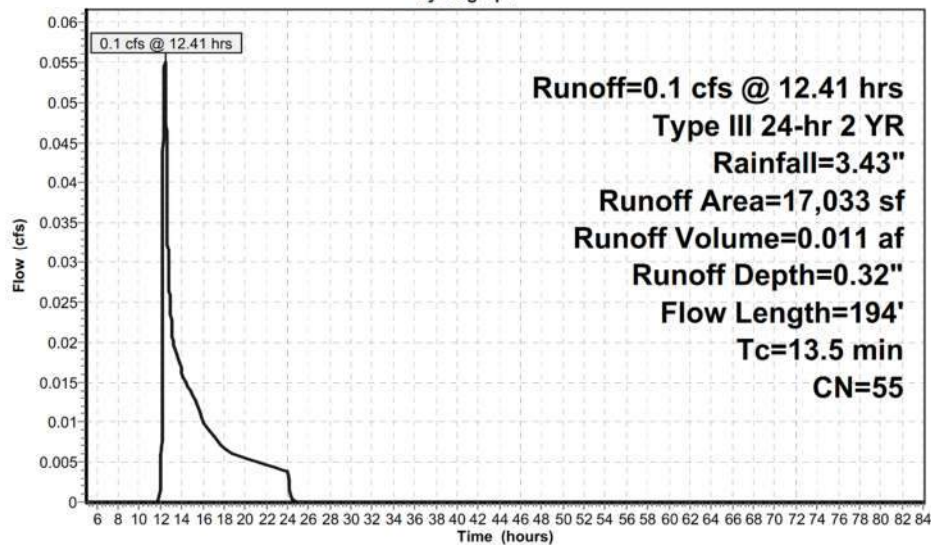
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-----------------------|
| 17,033 | 55 | Woods, Good, HSG B |
| 17,033 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.9 | 34 | 0.1470 | 0.14 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 9.3 | 116 | 0.1980 | 0.21 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.3 | 44 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 13.5 | 194 | Total | | | |

Subcatchment EXWS2: EXWS2

Hydrograph



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Type III 24-hr 2 YR Rainfall=3.43"

Summary for Subcatchment EXWS3: EXWS3

Runoff = 1.5 cfs @ 12.58 hrs, Volume= 0.264 af, Depth= 0.54"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

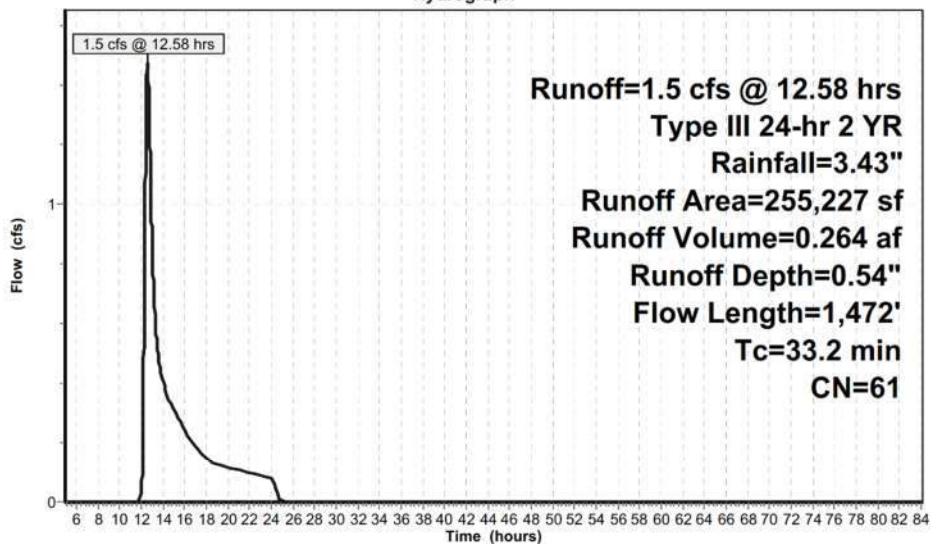
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 81,245 | 55 | Woods, Good, HSG B |
| 162,736 | 61 | >75% Grass cover, Good, HSG B |
| 10,397 | 98 | Paved parking, HSG B |
| 849 | 61 | >75% Grass cover, Good, HSG B |
| 255,227 | 61 | Weighted Average |
| 244,830 | | 95.93% Pervious Area |
| 10,397 | | 4.07% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 21.1 | 150 | 0.0430 | 0.12 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 6.2 | 529 | 0.0800 | 1.41 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 5.9 | 793 | 0.1030 | 2.25 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 33.2 | 1,472 | Total | | | |

Subcatchment EXWS3: EXWS3

Hydrograph



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Type III 24-hr 2 YR Rainfall=3.43"

Summary for Subcatchment EXWS4: EXWS4

Runoff = 4.2 cfs @ 12.45 hrs, Volume= 0.689 af, Depth= 0.50"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 1,090 | 61 | >75% Grass cover, Good, HSG B |
| 31,029 | 98 | Paved parking, HSG B |
| 359,184 | 55 | Woods, Good, HSG B |
| 314,447 | 61 | >75% Grass cover, Good, HSG B |
| 8,523 | 98 | Paved parking, HSG B |
| 271 | 61 | >75% Grass cover, Good, HSG B |
| 118 | 98 | Paved parking, HSG B |
| 3,740 | 61 | >75% Grass cover, Good, HSG B |
| 718,402 | 60 | Weighted Average |
| 678,732 | | 94.48% Pervious Area |
| 39,670 | | 5.52% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 18.2 | 150 | 0.0620 | 0.14 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.5 | 48 | 0.1200 | 1.73 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.7 | 74 | 0.1350 | 1.84 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 1.3 | 109 | 0.0730 | 1.35 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 1.7 | 172 | 0.1160 | 1.70 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 56 | 0.2850 | 2.67 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.5 | 59 | 0.1530 | 1.96 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.5 | 91 | 0.3840 | 3.10 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 23.7 | 759 | Total | | | |

EAGLE RIDGE PRELIMINARY EXISTING

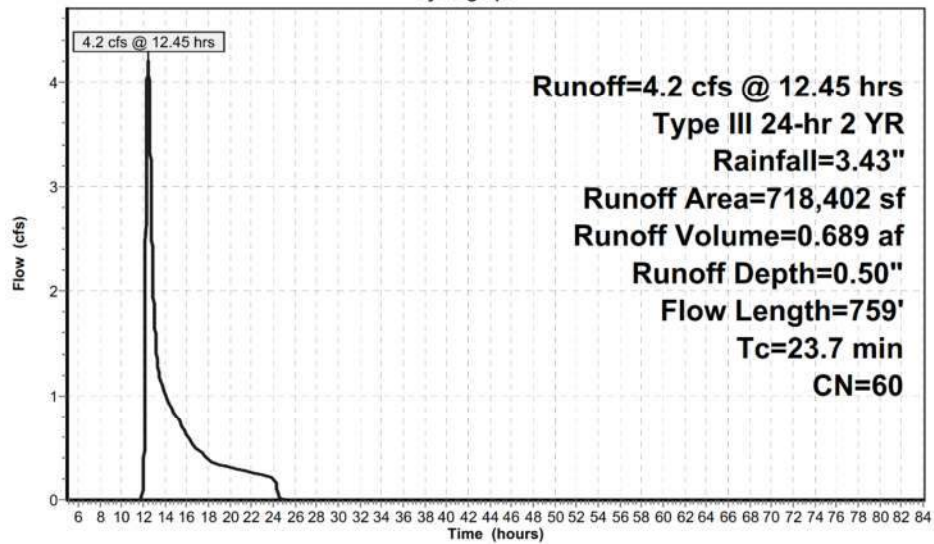
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Type III 24-hr 2 YR Rainfall=3.43"

Subcatchment EXWS4: EXWS4

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Type III 24-hr 2 YR Rainfall=3.43"

Summary for Subcatchment EXW55: EXW55

Runoff = 2.8 cfs @ 12.32 hrs, Volume= 0.414 af, Depth= 0.50"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 87,490 | 55 | Woods, Good, HSG B |
| 50,967 | 55 | Woods, Good, HSG B |
| 22,785 | 55 | Woods, Good, HSG B |
| 87,991 | 55 | Woods, Good, HSG B |
| 50,189 | 98 | Paved parking, HSG B |
| 1,904 | 61 | >75% Grass cover, Good, HSG B |
| 7,163 | 61 | >75% Grass cover, Good, HSG B |
| 122,789 | 55 | Woods, Good, HSG B |
| 431,278 | 60 | Weighted Average |
| 381,089 | | 88.36% Pervious Area |
| 50,189 | | 11.64% Impervious Area |

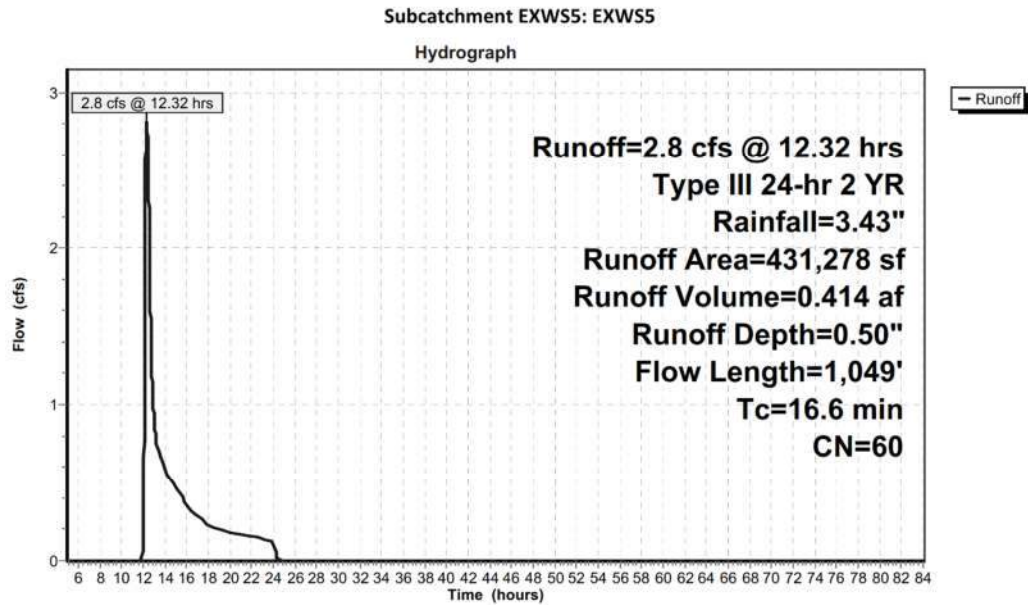
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 12.1 | 100 | 0.0275 | 0.14 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.8 | 60 | 0.0330 | 1.27 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 31 | 0.2420 | 3.44 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 345 | 0.0520 | 4.63 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.1 | 105 | 0.1840 | 17.23 | 9.40 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 90 | 0.3100 | 8.35 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.1 | 100 | 0.1000 | 1.58 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 83 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 135 | 0.3000 | 8.22 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 16.6 | 1,049 | Total | | | |

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Type III 24-hr 2 YR Rainfall=3.43"



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Type III 24-hr 2 YR Rainfall=3.43"

Summary for Subcatchment EXWS6: EXWS6

Runoff = 5.7 cfs @ 12.10 hrs, Volume= 0.447 af, Depth= 0.91"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 30,242 | 61 | >75% Grass cover, Good, HSG B |
| 150,793 | 61 | >75% Grass cover, Good, HSG B |
| 4,924 | 61 | >75% Grass cover, Good, HSG B |
| 989 | 61 | >75% Grass cover, Good, HSG B |
| 295 | 61 | >75% Grass cover, Good, HSG B |
| 41,631 | 98 | Paved parking, HSG B |
| 2,635 | 61 | >75% Grass cover, Good, HSG B |
| 7,567 | 61 | >75% Grass cover, Good, HSG B |
| 15,787 | 98 | Paved parking, HSG B |
| 1,191 | 61 | >75% Grass cover, Good, HSG B |
| 256,054 | 69 | Weighted Average |
| 198,636 | | 77.58% Pervious Area |
| 57,418 | | 22.42% Impervious Area |

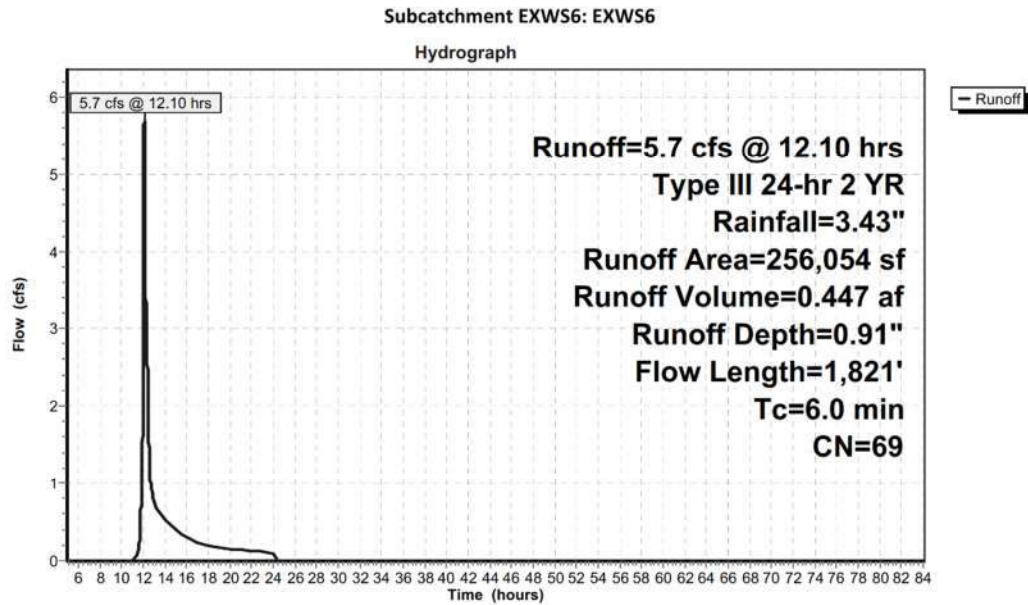
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 1.9 | 28 | 0.0890 | 0.25 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.6 | 72 | 0.0490 | 1.91 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 0.2 | 50 | 0.0490 | 4.49 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 1.9 | 450 | 0.0710 | 4.00 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 0.4 | 474 | 0.0790 | 20.24 | 63.58 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 200 | 0.0600 | 17.64 | 55.41 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 189 | 0.0700 | 19.05 | 59.85 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.6 | 358 | 0.0170 | 9.39 | 29.50 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 6.0 | 1,821 | Total | | | |

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Type III 24-hr 2 YR Rainfall=3.43"



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Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment EXWS7: EXWS7

Runoff = 1.5 cfs @ 12.09 hrs, Volume= 0.125 af, Depth= 0.67"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 5,433 | 61 | >75% Grass cover, Good, HSG B |
| 14,290 | 55 | Woods, Good, HSG B |
| 14,905 | 61 | >75% Grass cover, Good, HSG B |
| 29,839 | 55 | Woods, Good, HSG B |
| 12,976 | 61 | >75% Grass cover, Good, HSG B |
| 4,785 | 98 | Paved parking, HSG B |
| 2,157 | 61 | >75% Grass cover, Good, HSG B |
| 913 | 61 | >75% Grass cover, Good, HSG B |
| 989 | 61 | >75% Grass cover, Good, HSG B |
| 2,242 | 61 | >75% Grass cover, Good, HSG B |
| 9,315 | 98 | Paved parking, HSG B |
| 97,844 | 64 | Weighted Average |
| 83,744 | | 85.59% Pervious Area |
| 14,100 | | 14.41% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 2.7 | 40 | 0.0740 | 0.25 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.5 | 60 | 0.0670 | 2.09 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 1.1 | 346 | 0.0685 | 5.31 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.4 | 260 | 0.0400 | 10.44 | 5.70 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.010 PVC, smooth interior |
| 4.7 | 706 | Total | | | |

EAGLE RIDGE PRELIMINARY EXISTING

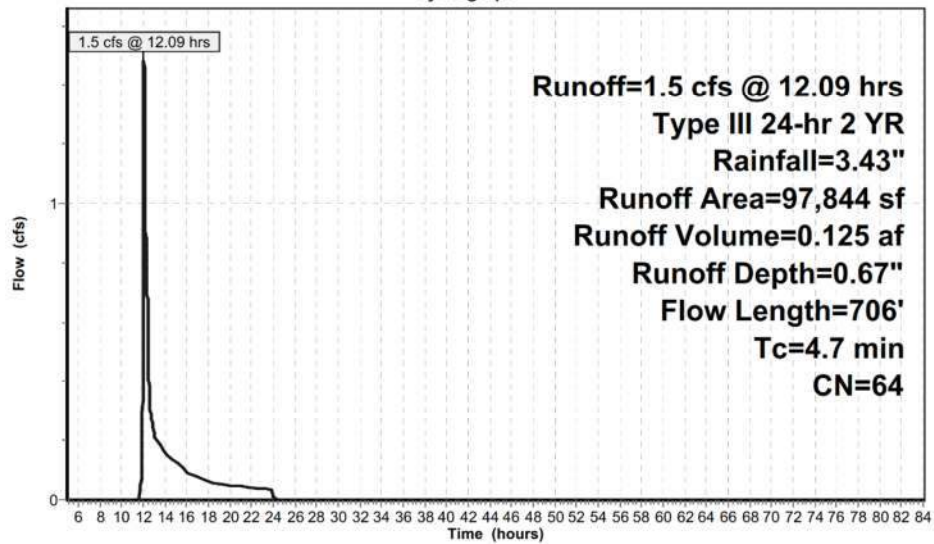
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Type III 24-hr 2 YR Rainfall=3.43"

Subcatchment EXWS7: EXWS7

Hydrograph



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Type III 24-hr 2 YR Rainfall=3.43"

Summary for Link EXDP1: EXDP1

Inflow Area = 1.852 ac, 0.00% Impervious, Inflow Depth = 0.32" for 2 YR event

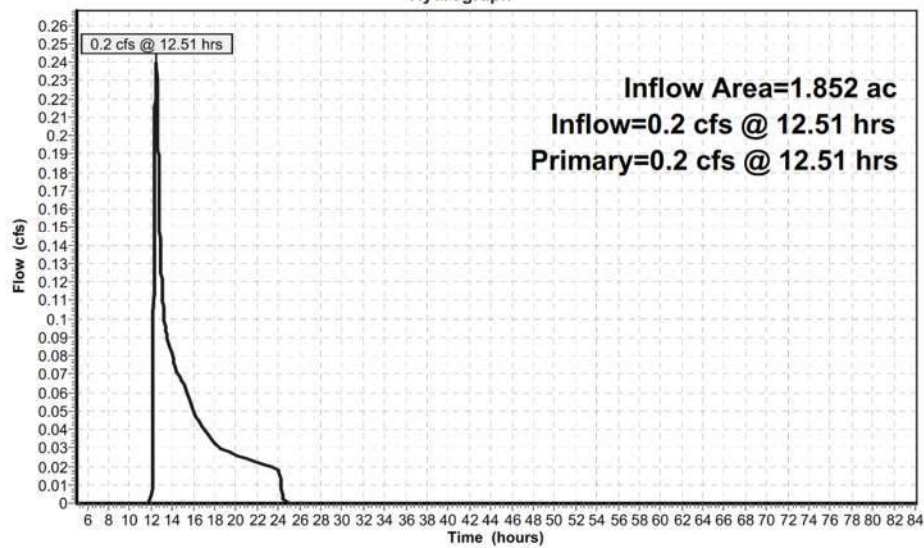
Inflow = 0.2 cfs @ 12.51 hrs, Volume= 0.050 af

Primary = 0.2 cfs @ 12.51 hrs, Volume= 0.050 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP1: EXDP1

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Link EXDP2: EXDP2

Inflow Area = 0.391 ac, 0.00% Impervious, Inflow Depth = 0.32" for 2 YR event

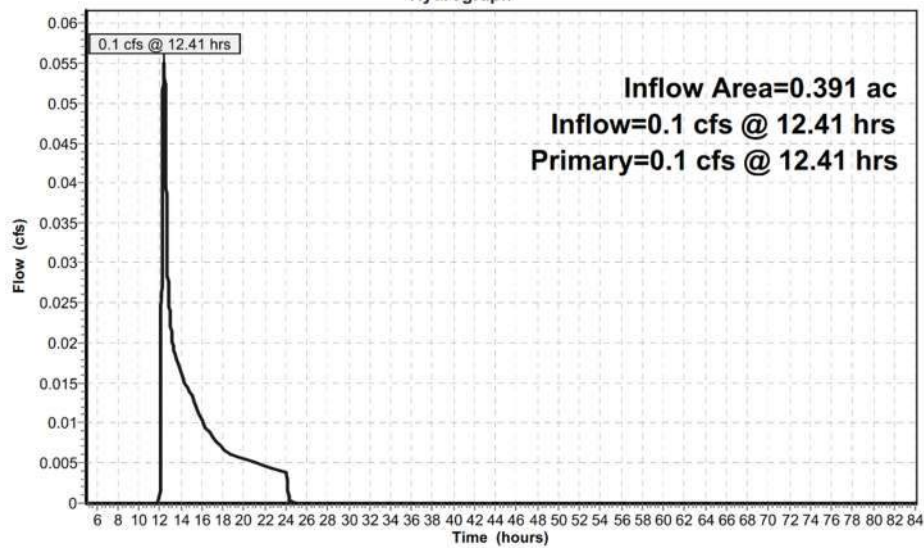
Inflow = 0.1 cfs @ 12.41 hrs, Volume= 0.011 af

Primary = 0.1 cfs @ 12.41 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP2: EXDP2

Hydrograph



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Type III 24-hr 2 YR Rainfall=3.43"

Summary for Link EXDP3: EXDP3

Inflow Area = 5.859 ac, 4.07% Impervious, Inflow Depth = 0.54" for 2 YR event

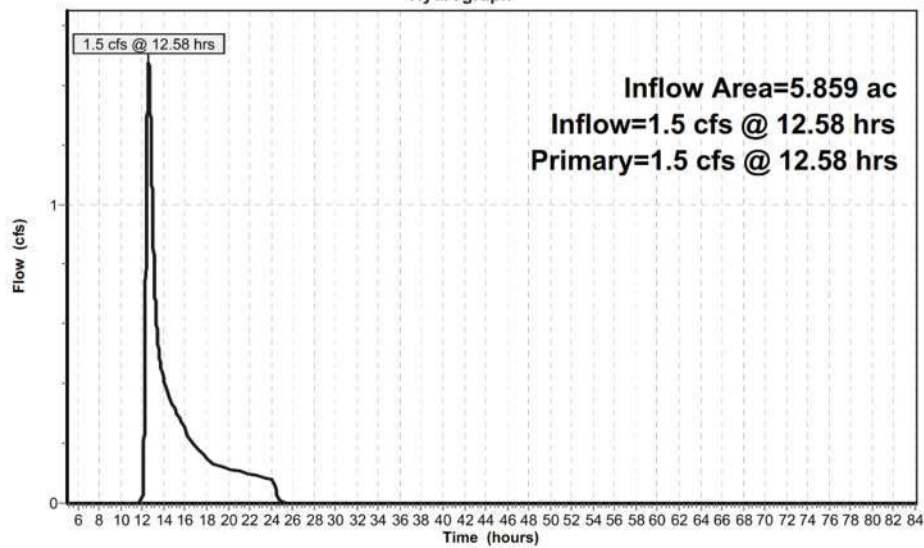
Inflow = 1.5 cfs @ 12.58 hrs, Volume= 0.264 af

Primary = 1.5 cfs @ 12.58 hrs, Volume= 0.264 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP3: EXDP3

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 2 YR Rainfall=3.43"

Summary for Link EXDP4: EXDP4

Inflow Area = 16.492 ac, 5.52% Impervious, Inflow Depth = 0.50" for 2 YR event

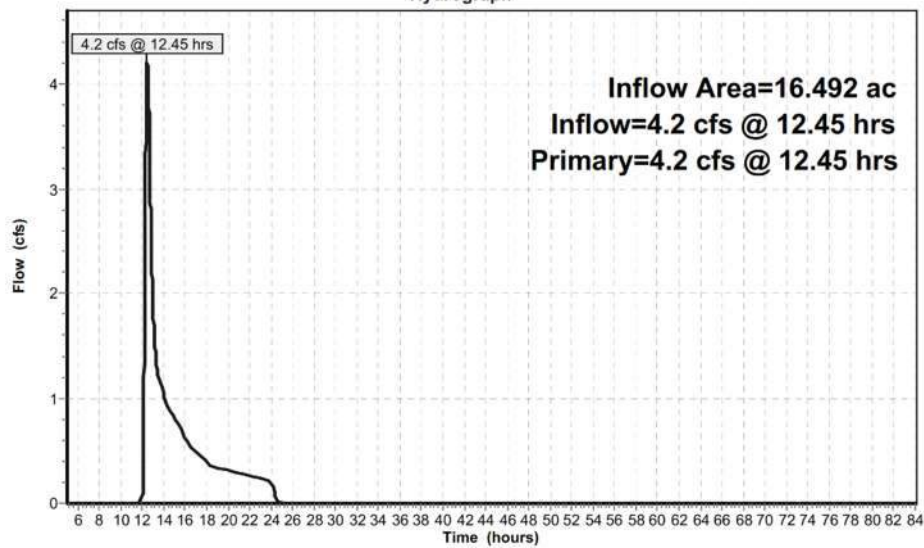
Inflow = 4.2 cfs @ 12.45 hrs, Volume= 0.689 af

Primary = 4.2 cfs @ 12.45 hrs, Volume= 0.689 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP4: EXDP4

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Link EXDP5: EXDP5

Inflow Area = 9.901 ac, 11.64% Impervious, Inflow Depth = 0.50" for 2 YR event

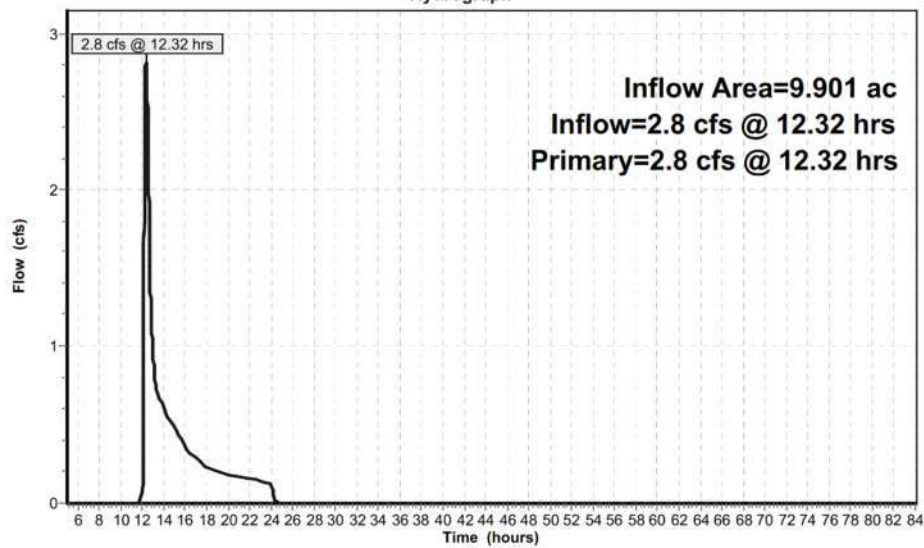
Inflow = 2.8 cfs @ 12.32 hrs, Volume= 0.414 af

Primary = 2.8 cfs @ 12.32 hrs, Volume= 0.414 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP5: EXDP5

Hydrograph



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Type III 24-hr 2 YR Rainfall=3.43"

Summary for Link EXDP6: EXDP6

Inflow Area = 5.878 ac, 22.42% Impervious, Inflow Depth = 0.91" for 2 YR event

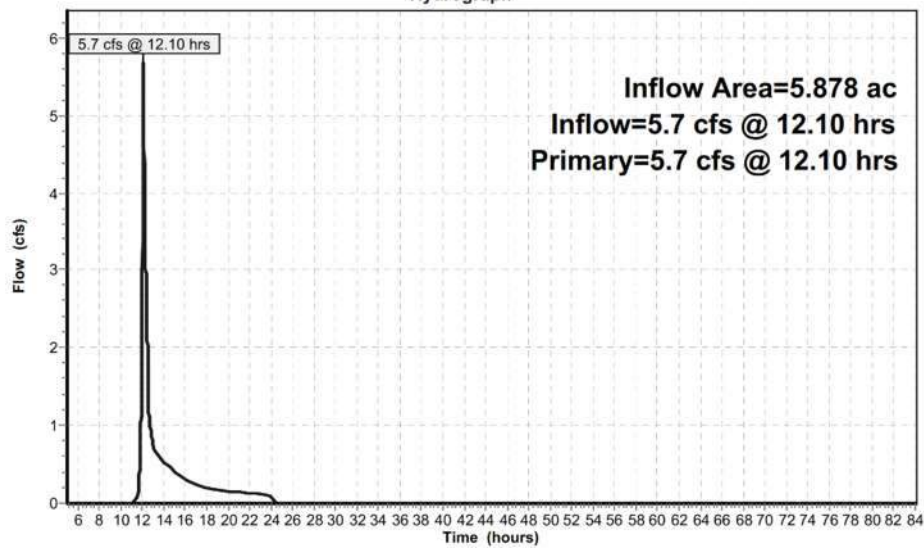
Inflow = 5.7 cfs @ 12.10 hrs, Volume= 0.447 af

Primary = 5.7 cfs @ 12.10 hrs, Volume= 0.447 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP6: EXDP6

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Link EXDP7: EXDP7

Inflow Area = 2.246 ac, 14.41% Impervious, Inflow Depth = 0.67" for 2 YR event

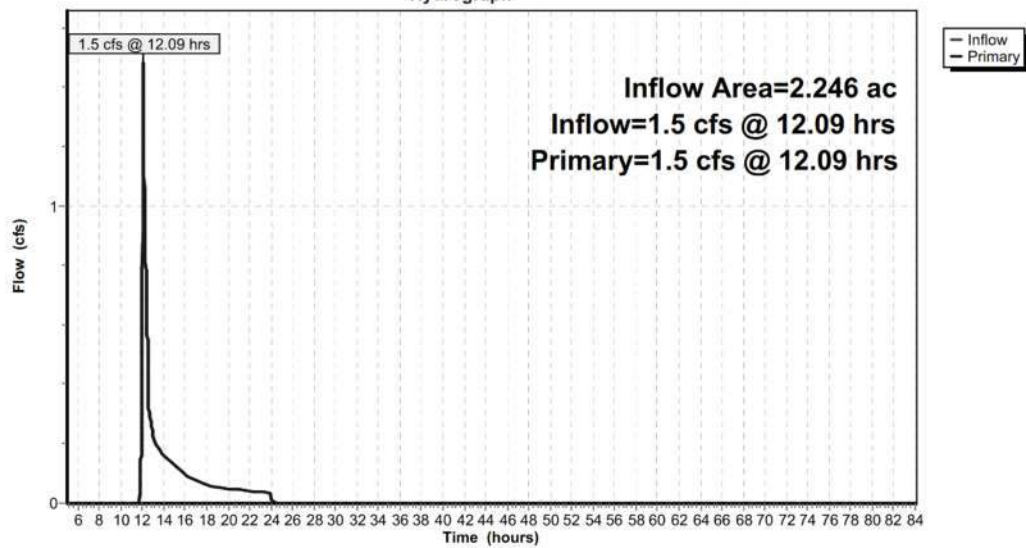
Inflow = 1.5 cfs @ 12.09 hrs, Volume= 0.125 af

Primary = 1.5 cfs @ 12.09 hrs, Volume= 0.125 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP7: EXDP7

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 5 YR Rainfall=4.31"

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Time span=5.00-84.00 hrs, dt=0.01 hrs, 7901 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|---------------------------|---|
| Subcatchment EXWS1: EXWS1 | Runoff Area=80,671 sf 0.00% Impervious Runoff Depth=0.66" Flow Length=332' Tc=20.0 min CN=55 Runoff=0.7 cfs 0.102 af |
| Subcatchment EXWS2: EXWS2 | Runoff Area=17,033 sf 0.00% Impervious Runoff Depth=0.66" Flow Length=194' Tc=13.5 min CN=55 Runoff=0.2 cfs 0.021 af |
| Subcatchment EXWS3: EXWS3 | Runoff Area=255,227 sf 4.07% Impervious Runoff Depth=0.97" Flow Length=1,472' Tc=33.2 min CN=61 Runoff=3.1 cfs 0.476 af |
| Subcatchment EXWS4: EXWS4 | Runoff Area=718,402 sf 5.52% Impervious Runoff Depth=0.92" Flow Length=759' Tc=23.7 min CN=60 Runoff=9.3 cfs 1.263 af |
| Subcatchment EXWS5: EXWS5 | Runoff Area=431,278 sf 11.64% Impervious Runoff Depth=0.92" Flow Length=1,049' Tc=16.6 min CN=60 Runoff=6.4 cfs 0.758 af |
| Subcatchment EXWS6: EXWS6 | Runoff Area=256,054 sf 22.42% Impervious Runoff Depth=1.47" Flow Length=1,821' Tc=6.0 min CN=69 Runoff=9.7 cfs 0.721 af |
| Subcatchment EXWS7: EXWS7 | Runoff Area=97,844 sf 14.41% Impervious Runoff Depth=1.15" Flow Length=706' Tc=4.7 min CN=64 Runoff=2.9 cfs 0.216 af |
| Link EXDP1: EXDP1 | Inflow=0.7 cfs 0.102 af Primary=0.7 cfs 0.102 af |
| Link EXDP2: EXDP2 | Inflow=0.2 cfs 0.021 af Primary=0.2 cfs 0.021 af |
| Link EXDP3: EXDP3 | Inflow=3.1 cfs 0.476 af Primary=3.1 cfs 0.476 af |
| Link EXDP4: EXDP4 | Inflow=9.3 cfs 1.263 af Primary=9.3 cfs 1.263 af |
| Link EXDP5: EXDP5 | Inflow=6.4 cfs 0.758 af Primary=6.4 cfs 0.758 af |
| Link EXDP6: EXDP6 | Inflow=9.7 cfs 0.721 af Primary=9.7 cfs 0.721 af |
| Link EXDP7: EXDP7 | Inflow=2.9 cfs 0.216 af Primary=2.9 cfs 0.216 af |

Total Runoff Area = 42.620 ac Runoff Volume = 3.557 af Average Runoff Depth = 1.00"
90.75% Pervious = 38.676 ac 9.25% Impervious = 3.943 ac

EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 5 YR Rainfall=4.31"

Summary for Subcatchment EXWS1: EXWS1

Runoff = 0.7 cfs @ 12.38 hrs, Volume= 0.102 af, Depth= 0.66"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

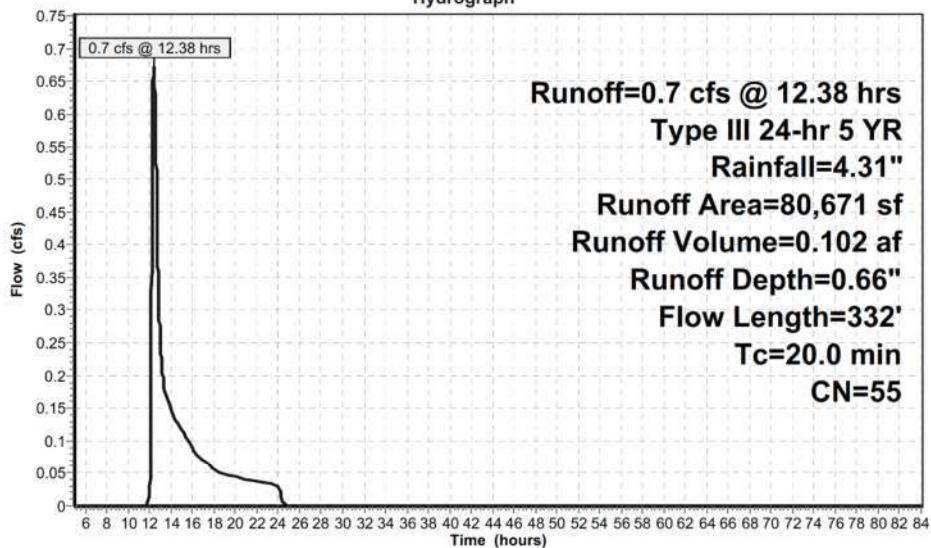
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 1,983 | 61 | >75% Grass cover, Good, HSG B |
| 17,152 | 55 | Woods, Good, HSG B |
| 61,536 | 55 | Woods, Good, HSG B |
| 80,671 | 55 | Weighted Average |
| 80,671 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 18.1 | 100 | 0.0280 | 0.09 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.4 | 50 | 0.1650 | 2.03 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 58 | 0.1030 | 1.60 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.9 | 124 | 0.2230 | 2.36 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 20.0 | 332 | Total | | | |

Subcatchment EXWS1: EXWS1

Hydrograph



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Type III 24-hr 5 YR Rainfall=4.31"

Summary for Subcatchment EXWS2: EXWS2

Runoff = 0.2 cfs @ 12.25 hrs, Volume= 0.021 af, Depth= 0.66"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

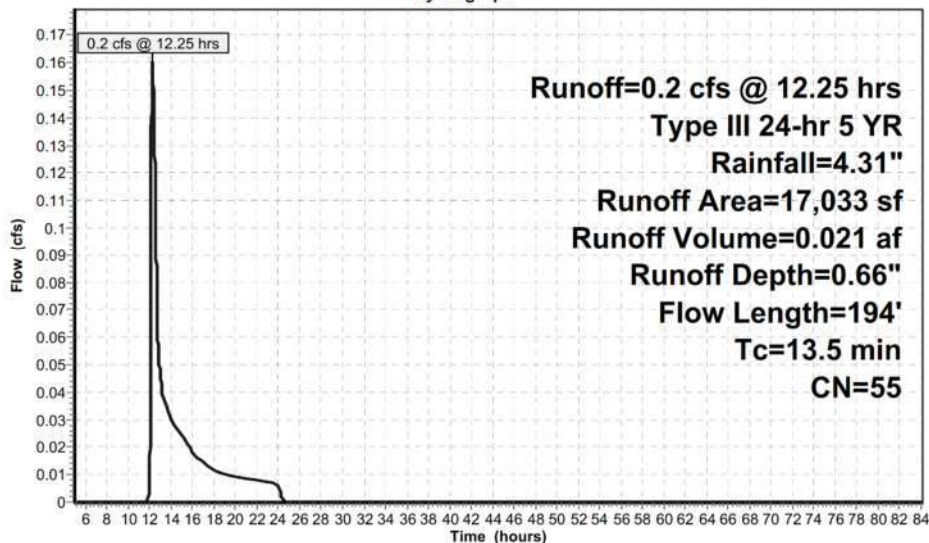
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-----------------------|
| 17,033 | 55 | Woods, Good, HSG B |
| 17,033 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 3.9 | 34 | 0.1470 | 0.14 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 9.3 | 116 | 0.1980 | 0.21 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.3 | 44 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 13.5 | 194 | Total | | | |

Subcatchment EXWS2: EXWS2

Hydrograph



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Type III 24-hr 5 YR Rainfall=4.31"

Summary for Subcatchment EXWS3: EXWS3

Runoff = 3.1 cfs @ 12.54 hrs, Volume= 0.476 af, Depth= 0.97"

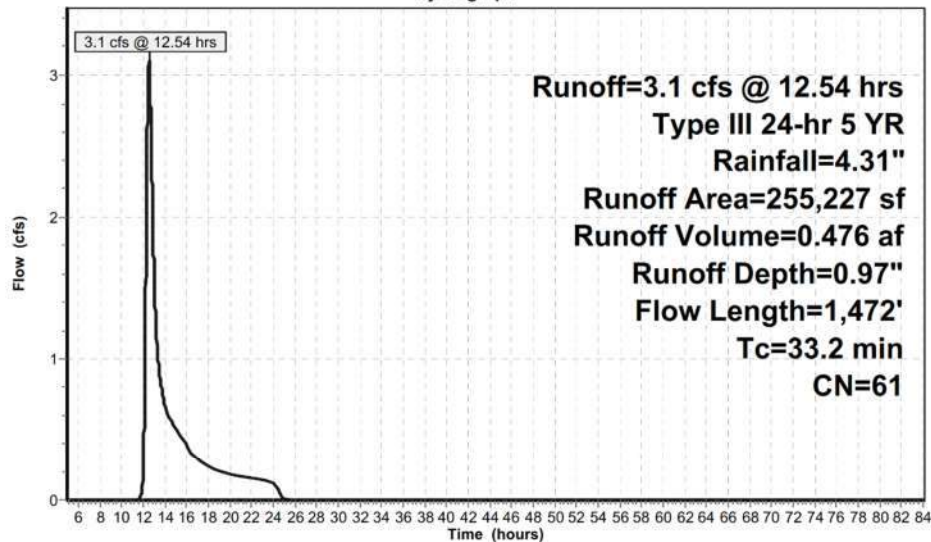
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 81,245 | 55 | Woods, Good, HSG B |
| 162,736 | 61 | >75% Grass cover, Good, HSG B |
| 10,397 | 98 | Paved parking, HSG B |
| 849 | 61 | >75% Grass cover, Good, HSG B |
| 255,227 | 61 | Weighted Average |
| 244,830 | | 95.93% Pervious Area |
| 10,397 | | 4.07% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 21.1 | 150 | 0.0430 | 0.12 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 6.2 | 529 | 0.0800 | 1.41 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 5.9 | 793 | 0.1030 | 2.25 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 33.2 | 1,472 | Total | | | |

Subcatchment EXWS3: EXWS3

Hydrograph



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Type III 24-hr 5 YR Rainfall=4.31"

Summary for Subcatchment EXWS4: EXWS4

Runoff = 9.3 cfs @ 12.40 hrs, Volume= 1.263 af, Depth= 0.92"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 1,090 | 61 | >75% Grass cover, Good, HSG B |
| 31,029 | 98 | Paved parking, HSG B |
| 359,184 | 55 | Woods, Good, HSG B |
| 314,447 | 61 | >75% Grass cover, Good, HSG B |
| 8,523 | 98 | Paved parking, HSG B |
| 271 | 61 | >75% Grass cover, Good, HSG B |
| 118 | 98 | Paved parking, HSG B |
| 3,740 | 61 | >75% Grass cover, Good, HSG B |
| 718,402 | 60 | Weighted Average |
| 678,732 | | 94.48% Pervious Area |
| 39,670 | | 5.52% Impervious Area |

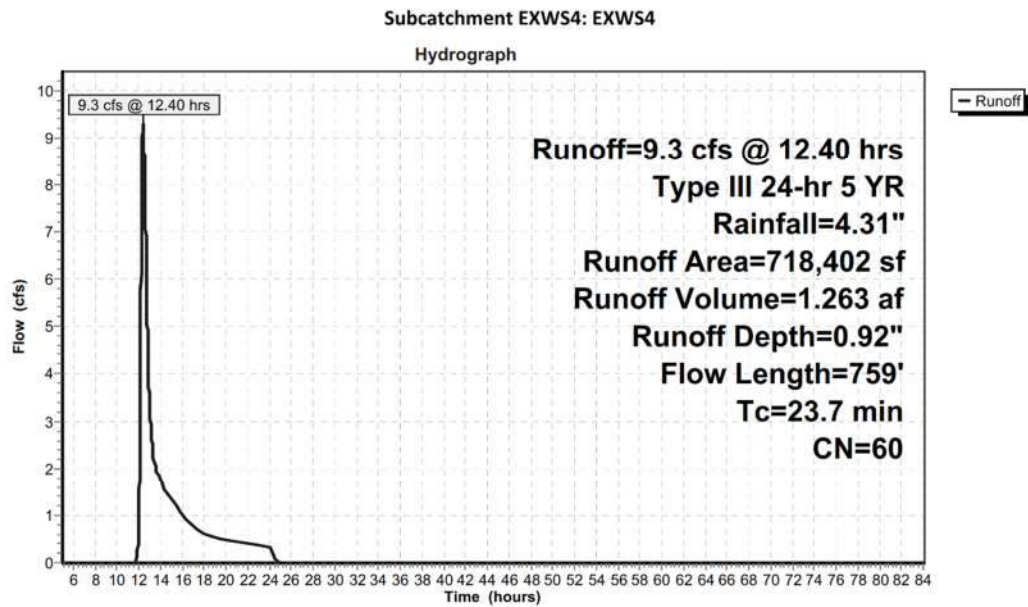
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 18.2 | 150 | 0.0620 | 0.14 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.5 | 48 | 0.1200 | 1.73 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.7 | 74 | 0.1350 | 1.84 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 1.3 | 109 | 0.0730 | 1.35 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 1.7 | 172 | 0.1160 | 1.70 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 56 | 0.2850 | 2.67 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.5 | 59 | 0.1530 | 1.96 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.5 | 91 | 0.3840 | 3.10 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 23.7 | 759 | Total | | | |

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Type III 24-hr 5 YR Rainfall=4.31"



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Type III 24-hr 5 YR Rainfall=4.31"

Summary for Subcatchment EXWS5: EXWS5

Runoff = 6.4 cfs @ 12.27 hrs, Volume= 0.758 af, Depth= 0.92"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 87,490 | 55 | Woods, Good, HSG B |
| 50,967 | 55 | Woods, Good, HSG B |
| 22,785 | 55 | Woods, Good, HSG B |
| 87,991 | 55 | Woods, Good, HSG B |
| 50,189 | 98 | Paved parking, HSG B |
| 1,904 | 61 | >75% Grass cover, Good, HSG B |
| 7,163 | 61 | >75% Grass cover, Good, HSG B |
| 122,789 | 55 | Woods, Good, HSG B |
| 431,278 | 60 | Weighted Average |
| 381,089 | | 88.36% Pervious Area |
| 50,189 | | 11.64% Impervious Area |

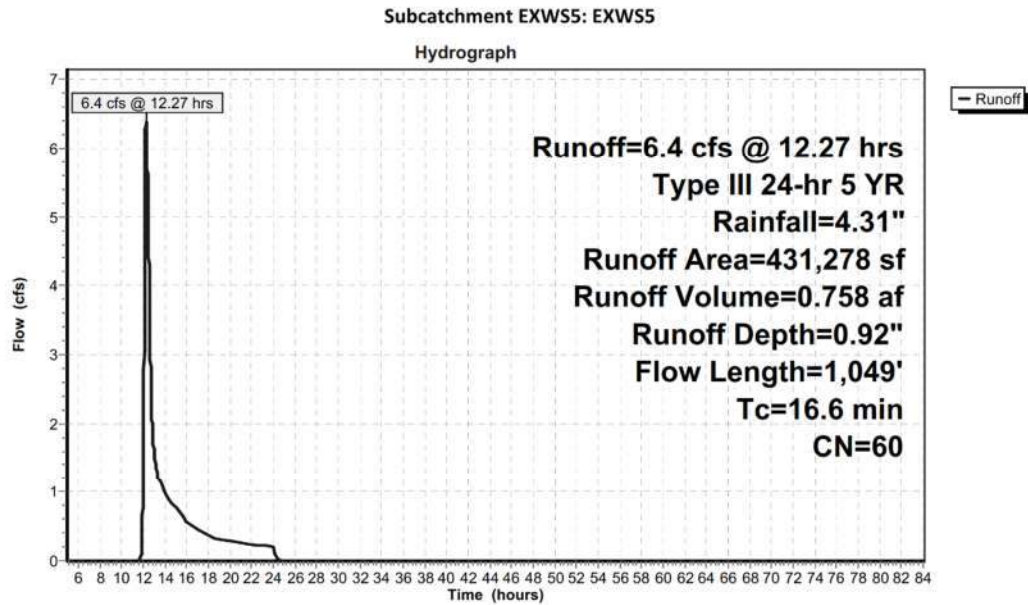
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 12.1 | 100 | 0.0275 | 0.14 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.8 | 60 | 0.0330 | 1.27 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 31 | 0.2420 | 3.44 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 345 | 0.0520 | 4.63 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.1 | 105 | 0.1840 | 17.23 | 9.40 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 90 | 0.3100 | 8.35 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.1 | 100 | 0.1000 | 1.58 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 83 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 135 | 0.3000 | 8.22 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 16.6 | 1,049 | Total | | | |

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Type III 24-hr 5 YR Rainfall=4.31"



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Type III 24-hr 5 YR Rainfall=4.31"

Summary for Subcatchment EXWS6: EXWS6

Runoff = 9.7 cfs @ 12.09 hrs, Volume= 0.721 af, Depth= 1.47"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 30,242 | 61 | >75% Grass cover, Good, HSG B |
| 150,793 | 61 | >75% Grass cover, Good, HSG B |
| 4,924 | 61 | >75% Grass cover, Good, HSG B |
| 989 | 61 | >75% Grass cover, Good, HSG B |
| 295 | 61 | >75% Grass cover, Good, HSG B |
| 41,631 | 98 | Paved parking, HSG B |
| 2,635 | 61 | >75% Grass cover, Good, HSG B |
| 7,567 | 61 | >75% Grass cover, Good, HSG B |
| 15,787 | 98 | Paved parking, HSG B |
| 1,191 | 61 | >75% Grass cover, Good, HSG B |
| 256,054 | 69 | Weighted Average |
| 198,636 | | 77.58% Pervious Area |
| 57,418 | | 22.42% Impervious Area |

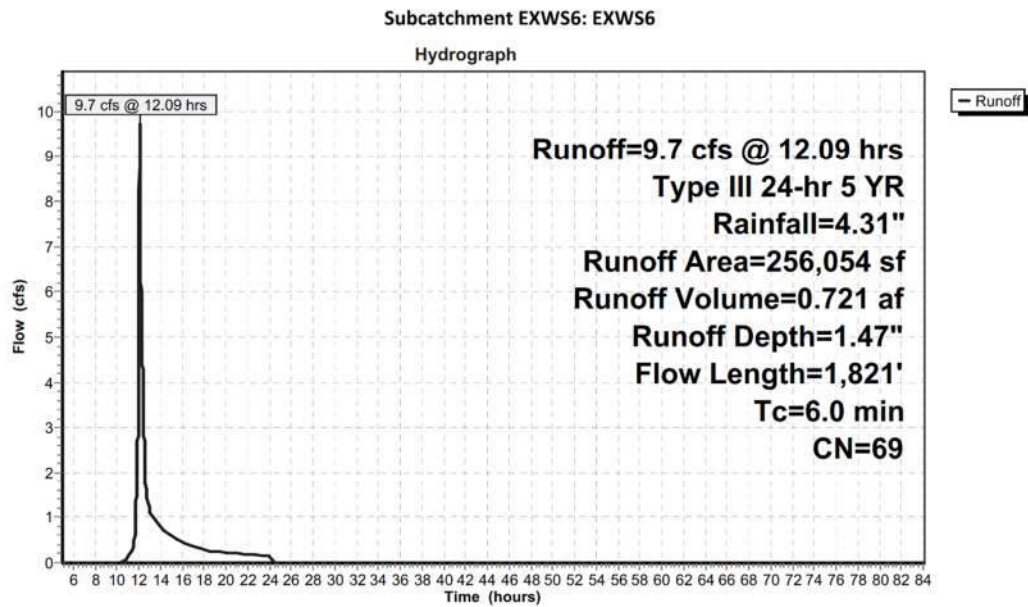
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 1.9 | 28 | 0.0890 | 0.25 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.6 | 72 | 0.0490 | 1.91 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 0.2 | 50 | 0.0490 | 4.49 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 1.9 | 450 | 0.0710 | 4.00 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 0.4 | 474 | 0.0790 | 20.24 | 63.58 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 200 | 0.0600 | 17.64 | 55.41 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 189 | 0.0700 | 19.05 | 59.85 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.6 | 358 | 0.0170 | 9.39 | 29.50 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 6.0 | 1,821 | Total | | | |

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Type III 24-hr 5 YR Rainfall=4.31"



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Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment EXWS7: EXWS7

Runoff = 2.9 cfs @ 12.08 hrs, Volume= 0.216 af, Depth= 1.15"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 5,433 | 61 | >75% Grass cover, Good, HSG B |
| 14,290 | 55 | Woods, Good, HSG B |
| 14,905 | 61 | >75% Grass cover, Good, HSG B |
| 29,839 | 55 | Woods, Good, HSG B |
| 12,976 | 61 | >75% Grass cover, Good, HSG B |
| 4,785 | 98 | Paved parking, HSG B |
| 2,157 | 61 | >75% Grass cover, Good, HSG B |
| 913 | 61 | >75% Grass cover, Good, HSG B |
| 989 | 61 | >75% Grass cover, Good, HSG B |
| 2,242 | 61 | >75% Grass cover, Good, HSG B |
| 9,315 | 98 | Paved parking, HSG B |
| 97,844 | 64 | Weighted Average |
| 83,744 | | 85.59% Pervious Area |
| 14,100 | | 14.41% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 2.7 | 40 | 0.0740 | 0.25 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.5 | 60 | 0.0670 | 2.09 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 1.1 | 346 | 0.0685 | 5.31 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.4 | 260 | 0.0400 | 10.44 | 5.70 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.010 PVC, smooth interior |
| 4.7 | 706 | Total | | | |

EAGLE RIDGE PRELIMINARY EXISTING

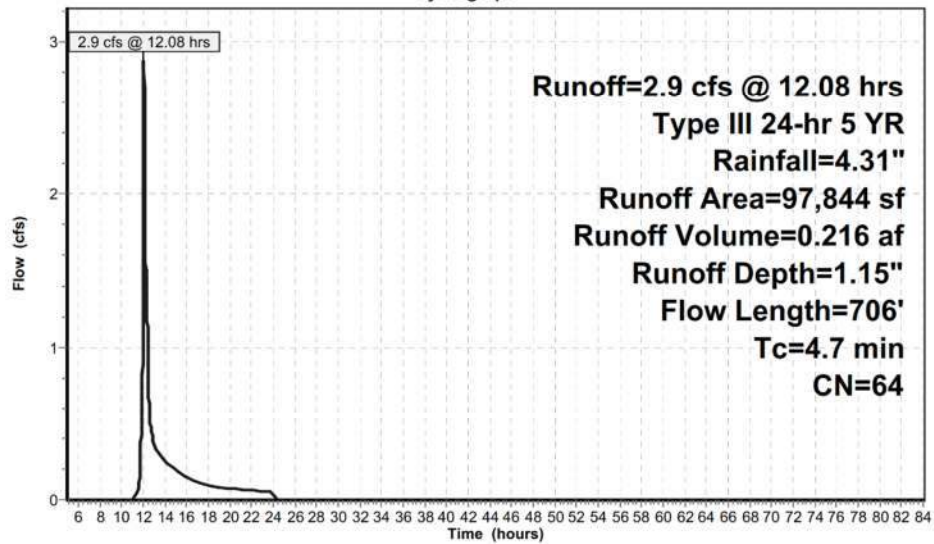
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Type III 24-hr 5 YR Rainfall=4.31"

Subcatchment EXWS7: EXWS7

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Link EXDP1: EXDP1

Inflow Area = 1.852 ac, 0.00% Impervious, Inflow Depth = 0.66" for 5 YR event

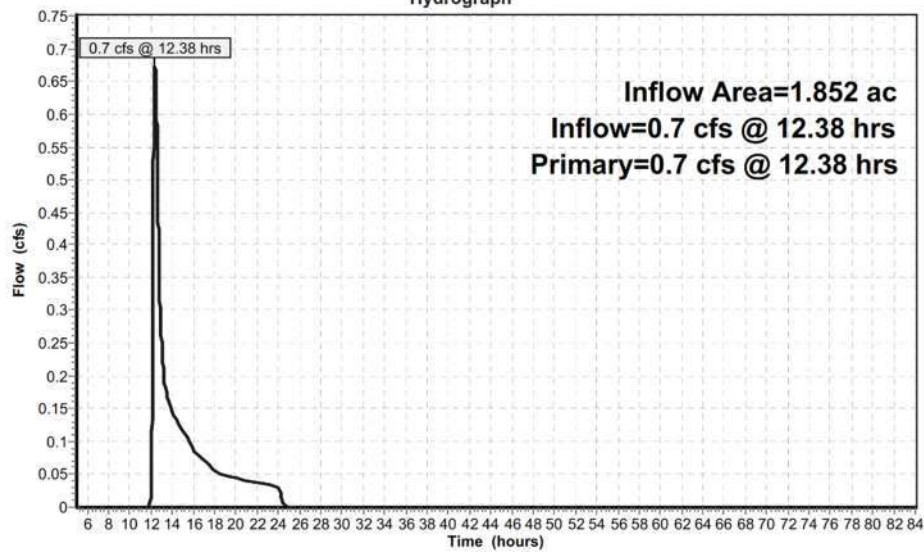
Inflow = 0.7 cfs @ 12.38 hrs, Volume= 0.102 af

Primary = 0.7 cfs @ 12.38 hrs, Volume= 0.102 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP1: EXDP1

Hydrograph



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Type III 24-hr 5 YR Rainfall=4.31"

Summary for Link EXDP2: EXDP2

Inflow Area = 0.391 ac, 0.00% Impervious, Inflow Depth = 0.66" for 5 YR event

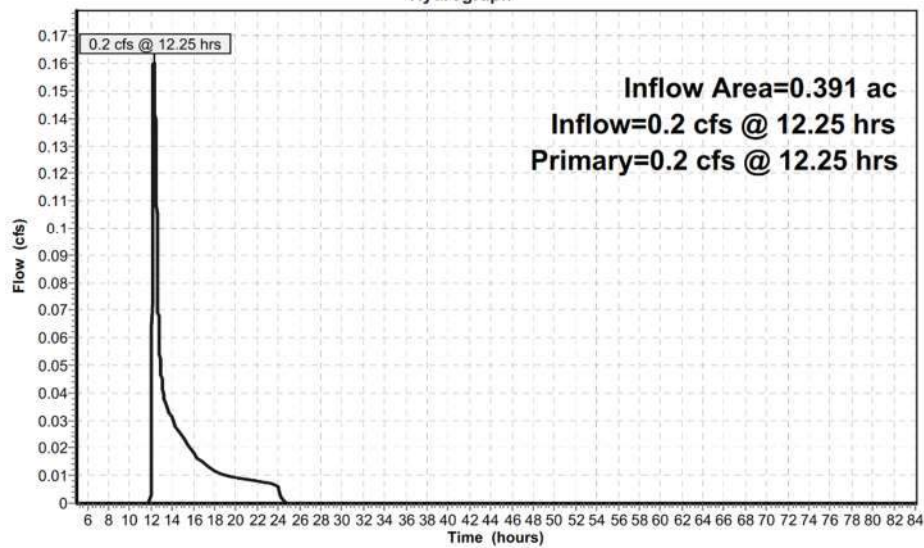
Inflow = 0.2 cfs @ 12.25 hrs, Volume= 0.021 af

Primary = 0.2 cfs @ 12.25 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP2: EXDP2

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 5 YR Rainfall=4.31"

Summary for Link EXDP3: EXDP3

Inflow Area = 5.859 ac, 4.07% Impervious, Inflow Depth = 0.97" for 5 YR event

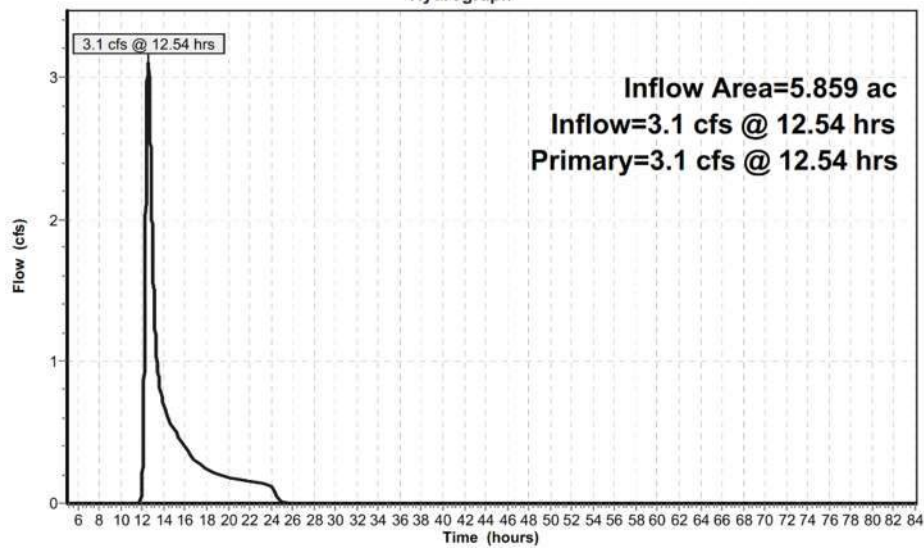
Inflow = 3.1 cfs @ 12.54 hrs, Volume= 0.476 af

Primary = 3.1 cfs @ 12.54 hrs, Volume= 0.476 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP3: EXDP3

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Link EXDP4: EXDP4

Inflow Area = 16.492 ac, 5.52% Impervious, Inflow Depth = 0.92" for 5 YR event

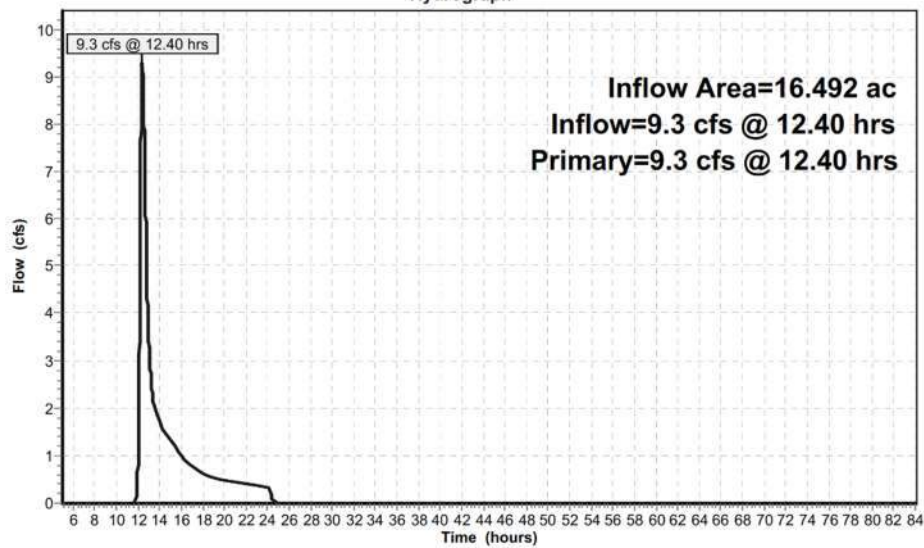
Inflow = 9.3 cfs @ 12.40 hrs, Volume= 1.263 af

Primary = 9.3 cfs @ 12.40 hrs, Volume= 1.263 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP4: EXDP4

Hydrograph



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Type III 24-hr 5 YR Rainfall=4.31"

Summary for Link EXDP5: EXDP5

Inflow Area = 9.901 ac, 11.64% Impervious, Inflow Depth = 0.92" for 5 YR event

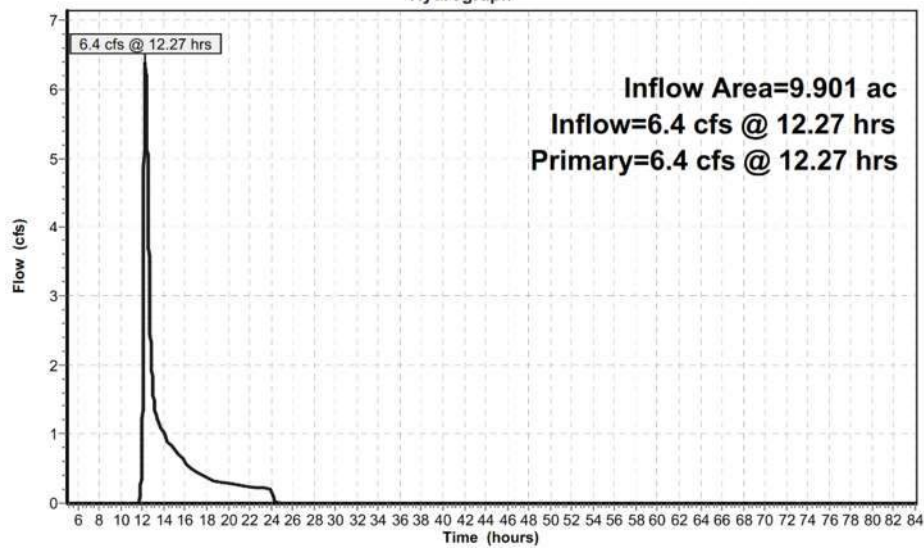
Inflow = 6.4 cfs @ 12.27 hrs, Volume= 0.758 af

Primary = 6.4 cfs @ 12.27 hrs, Volume= 0.758 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP5: EXDP5

Hydrograph



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Type III 24-hr 5 YR Rainfall=4.31"

Summary for Link EXDP6: EXDP6

Inflow Area = 5.878 ac, 22.42% Impervious, Inflow Depth = 1.47" for 5 YR event

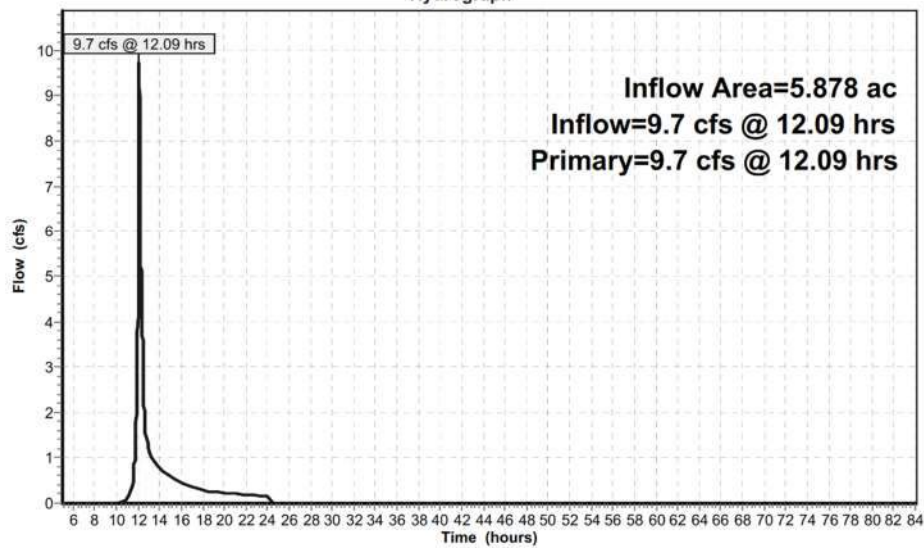
Inflow = 9.7 cfs @ 12.09 hrs, Volume= 0.721 af

Primary = 9.7 cfs @ 12.09 hrs, Volume= 0.721 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP6: EXDP6

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Link EXDP7: EXDP7

Inflow Area = 2.246 ac, 14.41% Impervious, Inflow Depth = 1.15" for 5 YR event

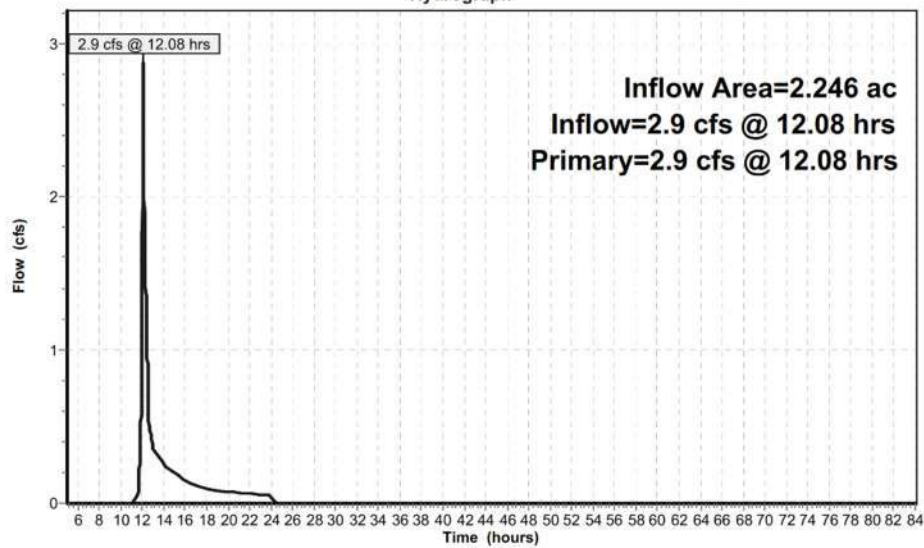
Inflow = 2.9 cfs @ 12.08 hrs, Volume= 0.216 af

Primary = 2.9 cfs @ 12.08 hrs, Volume= 0.216 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP7: EXDP7

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 10 YR Rainfall=5.13"

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Time span=5.00-84.00 hrs, dt=0.01 hrs, 7901 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|---------------------------|--|
| Subcatchment EXWS1: EXWS1 | Runoff Area=80,671 sf 0.00% Impervious Runoff Depth=1.05" Flow Length=332' Tc=20.0 min CN=55 Runoff=1.2 cfs 0.161 af |
| Subcatchment EXWS2: EXWS2 | Runoff Area=17,033 sf 0.00% Impervious Runoff Depth=1.05" Flow Length=194' Tc=13.5 min CN=55 Runoff=0.3 cfs 0.034 af |
| Subcatchment EXWS3: EXWS3 | Runoff Area=255,227 sf 4.07% Impervious Runoff Depth=1.45" Flow Length=1,472' Tc=33.2 min CN=61 Runoff=4.9 cfs 0.707 af |
| Subcatchment EXWS4: EXWS4 | Runoff Area=718,402 sf 5.52% Impervious Runoff Depth=1.38" Flow Length=759' Tc=23.7 min CN=60 Runoff=15.0 cfs 1.893 af |
| Subcatchment EXWS5: EXWS5 | Runoff Area=431,278 sf 11.64% Impervious Runoff Depth=1.38" Flow Length=1,049' Tc=16.6 min CN=60 Runoff=10.4 cfs 1.137 af |
| Subcatchment EXWS6: EXWS6 | Runoff Area=256,054 sf 22.42% Impervious Runoff Depth=2.05" Flow Length=1,821' Tc=6.0 min CN=69 Runoff=13.9 cfs 1.005 af |
| Subcatchment EXWS7: EXWS7 | Runoff Area=97,844 sf 14.41% Impervious Runoff Depth=1.67" Flow Length=706' Tc=4.7 min CN=64 Runoff=4.4 cfs 0.312 af |
| Link EXDP1: EXDP1 | Inflow=1.2 cfs 0.161 af Primary=1.2 cfs 0.161 af |
| Link EXDP2: EXDP2 | Inflow=0.3 cfs 0.034 af Primary=0.3 cfs 0.034 af |
| Link EXDP3: EXDP3 | Inflow=4.9 cfs 0.707 af Primary=4.9 cfs 0.707 af |
| Link EXDP4: EXDP4 | Inflow=15.0 cfs 1.893 af Primary=15.0 cfs 1.893 af |
| Link EXDP5: EXDP5 | Inflow=10.4 cfs 1.137 af Primary=10.4 cfs 1.137 af |
| Link EXDP6: EXDP6 | Inflow=13.9 cfs 1.005 af Primary=13.9 cfs 1.005 af |
| Link EXDP7: EXDP7 | Inflow=4.4 cfs 0.312 af Primary=4.4 cfs 0.312 af |

Total Runoff Area = 42.620 ac Runoff Volume = 5.249 af Average Runoff Depth = 1.48"
90.75% Pervious = 38.676 ac 9.25% Impervious = 3.943 ac

EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 10 YR Rainfall=5.13"

Summary for Subcatchment EXWS1: EXWS1

Runoff = 1.2 cfs @ 12.33 hrs, Volume= 0.161 af, Depth= 1.05"

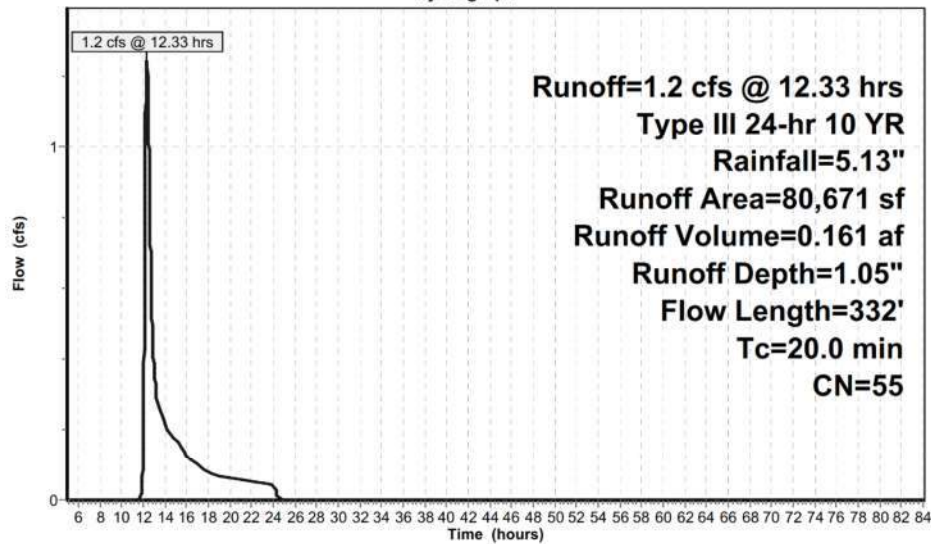
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 1,983 | 61 | >75% Grass cover, Good, HSG B |
| 17,152 | 55 | Woods, Good, HSG B |
| 61,536 | 55 | Woods, Good, HSG B |
| 80,671 | 55 | Weighted Average |
| 80,671 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 18.1 | 100 | 0.0280 | 0.09 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.4 | 50 | 0.1650 | 2.03 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 58 | 0.1030 | 1.60 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.9 | 124 | 0.2230 | 2.36 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 20.0 | 332 | Total | | | |

Subcatchment EXWS1: EXWS1

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Type III 24-hr 10 YR Rainfall=5.13"

Summary for Subcatchment EXWS2: EXWS2

Runoff = 0.3 cfs @ 12.22 hrs, Volume= 0.034 af, Depth= 1.05"

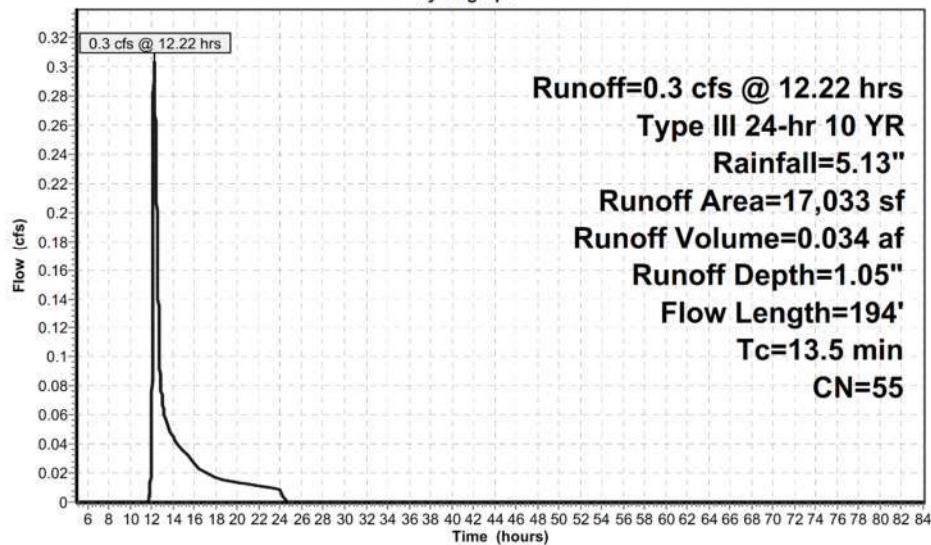
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-----------------------|
| 17,033 | 55 | Woods, Good, HSG B |
| 17,033 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 3.9 | 34 | 0.1470 | 0.14 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 9.3 | 116 | 0.1980 | 0.21 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.3 | 44 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 13.5 | 194 | Total | | | |

Subcatchment EXWS2: EXWS2

Hydrograph



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Type III 24-hr 10 YR Rainfall=5.13"

Summary for Subcatchment EXWS3: EXWS3

Runoff = 4.9 cfs @ 12.51 hrs, Volume= 0.707 af, Depth= 1.45"

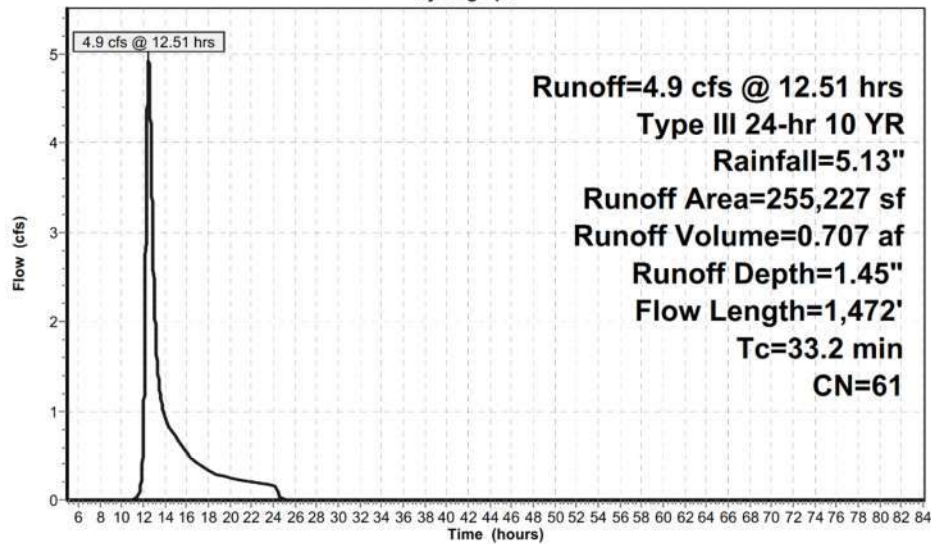
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 81,245 | 55 | Woods, Good, HSG B |
| 162,736 | 61 | >75% Grass cover, Good, HSG B |
| 10,397 | 98 | Paved parking, HSG B |
| 849 | 61 | >75% Grass cover, Good, HSG B |
| 255,227 | 61 | Weighted Average |
| 244,830 | | 95.93% Pervious Area |
| 10,397 | | 4.07% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 21.1 | 150 | 0.0430 | 0.12 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 6.2 | 529 | 0.0800 | 1.41 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 5.9 | 793 | 0.1030 | 2.25 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 33.2 | 1,472 | Total | | | |

Subcatchment EXWS3: EXWS3

Hydrograph



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Type III 24-hr 10 YR Rainfall=5.13"

Summary for Subcatchment EXWS4: EXWS4

Runoff = 15.0 cfs @ 12.37 hrs, Volume= 1.893 af, Depth= 1.38"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 1,090 | 61 | >75% Grass cover, Good, HSG B |
| 31,029 | 98 | Paved parking, HSG B |
| 359,184 | 55 | Woods, Good, HSG B |
| 314,447 | 61 | >75% Grass cover, Good, HSG B |
| 8,523 | 98 | Paved parking, HSG B |
| 271 | 61 | >75% Grass cover, Good, HSG B |
| 118 | 98 | Paved parking, HSG B |
| 3,740 | 61 | >75% Grass cover, Good, HSG B |
| 718,402 | 60 | Weighted Average |
| 678,732 | | 94.48% Pervious Area |
| 39,670 | | 5.52% Impervious Area |

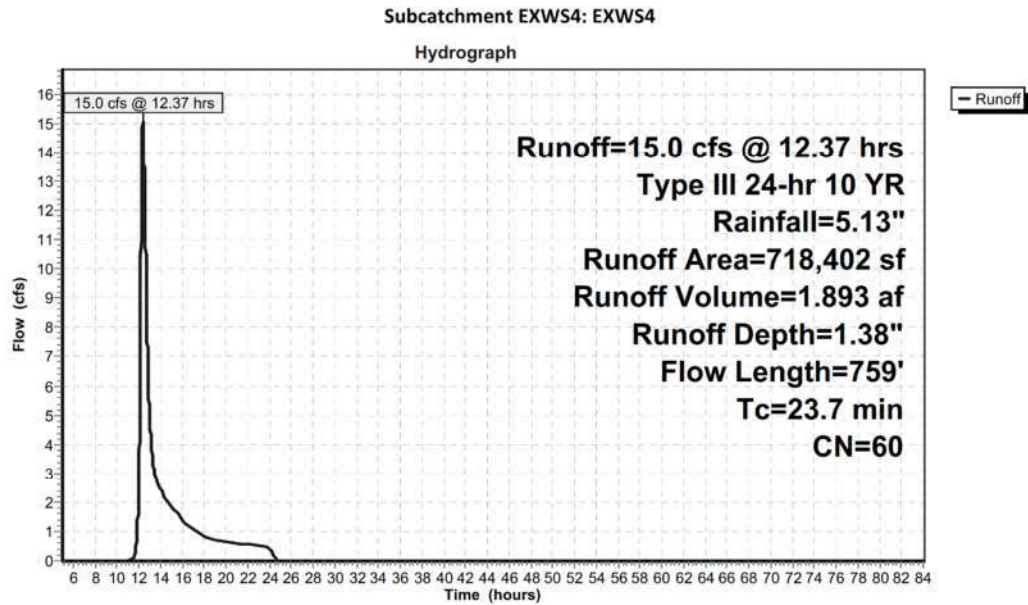
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 18.2 | 150 | 0.0620 | 0.14 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.5 | 48 | 0.1200 | 1.73 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.7 | 74 | 0.1350 | 1.84 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 1.3 | 109 | 0.0730 | 1.35 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 1.7 | 172 | 0.1160 | 1.70 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 56 | 0.2850 | 2.67 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.5 | 59 | 0.1530 | 1.96 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.5 | 91 | 0.3840 | 3.10 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 23.7 | 759 | Total | | | |

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Type III 24-hr 10 YR Rainfall=5.13"



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Type III 24-hr 10 YR Rainfall=5.13"

Summary for Subcatchment EXWS5: EXWS5

Runoff = 10.4 cfs @ 12.26 hrs, Volume= 1.137 af, Depth= 1.38"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 87,490 | 55 | Woods, Good, HSG B |
| 50,967 | 55 | Woods, Good, HSG B |
| 22,785 | 55 | Woods, Good, HSG B |
| 87,991 | 55 | Woods, Good, HSG B |
| 50,189 | 98 | Paved parking, HSG B |
| 1,904 | 61 | >75% Grass cover, Good, HSG B |
| 7,163 | 61 | >75% Grass cover, Good, HSG B |
| 122,789 | 55 | Woods, Good, HSG B |
| 431,278 | 60 | Weighted Average |
| 381,089 | | 88.36% Pervious Area |
| 50,189 | | 11.64% Impervious Area |

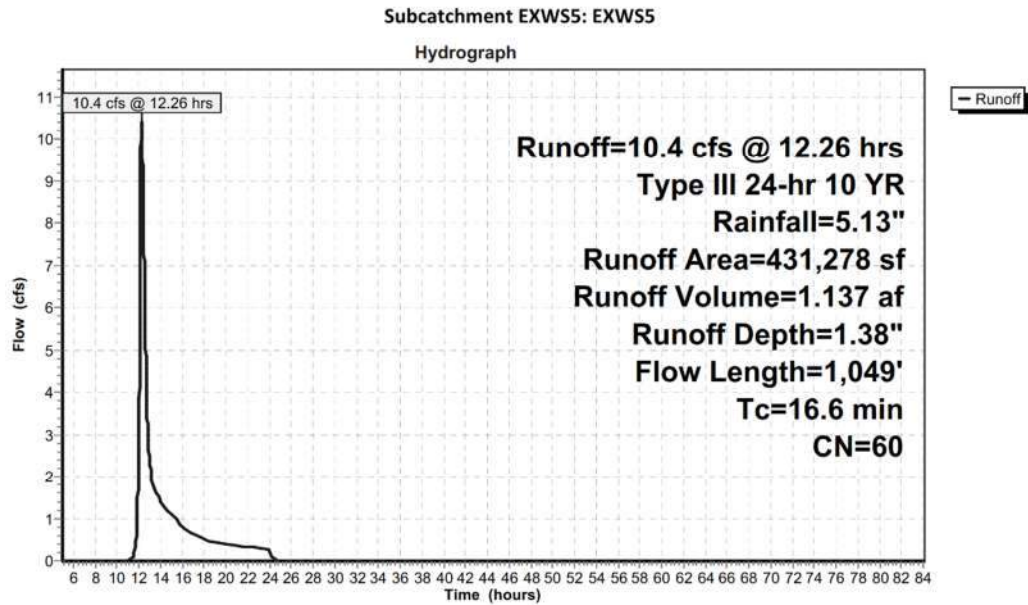
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 12.1 | 100 | 0.0275 | 0.14 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.8 | 60 | 0.0330 | 1.27 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 31 | 0.2420 | 3.44 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 345 | 0.0520 | 4.63 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.1 | 105 | 0.1840 | 17.23 | 9.40 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 90 | 0.3100 | 8.35 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.1 | 100 | 0.1000 | 1.58 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 83 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 135 | 0.3000 | 8.22 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 16.6 | 1,049 | Total | | | |

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Type III 24-hr 10 YR Rainfall=5.13"



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Type III 24-hr 10 YR Rainfall=5.13"

Summary for Subcatchment EXWS6: EXWS6

Runoff = 13.9 cfs @ 12.09 hrs, Volume= 1.005 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 30,242 | 61 | >75% Grass cover, Good, HSG B |
| 150,793 | 61 | >75% Grass cover, Good, HSG B |
| 4,924 | 61 | >75% Grass cover, Good, HSG B |
| 989 | 61 | >75% Grass cover, Good, HSG B |
| 295 | 61 | >75% Grass cover, Good, HSG B |
| 41,631 | 98 | Paved parking, HSG B |
| 2,635 | 61 | >75% Grass cover, Good, HSG B |
| 7,567 | 61 | >75% Grass cover, Good, HSG B |
| 15,787 | 98 | Paved parking, HSG B |
| 1,191 | 61 | >75% Grass cover, Good, HSG B |
| 256,054 | 69 | Weighted Average |
| 198,636 | | 77.58% Pervious Area |
| 57,418 | | 22.42% Impervious Area |

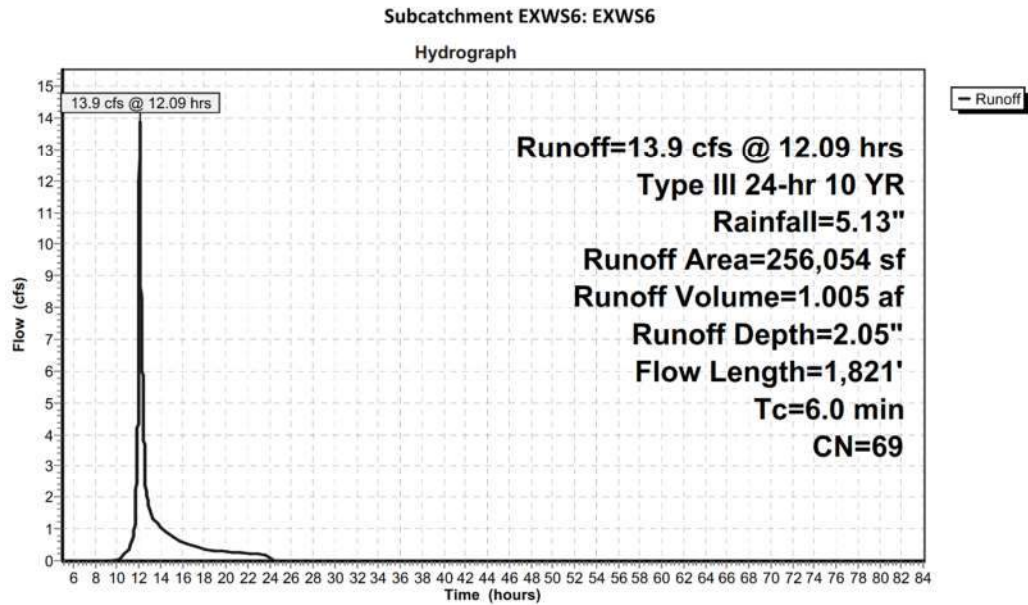
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 1.9 | 28 | 0.0890 | 0.25 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.6 | 72 | 0.0490 | 1.91 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 0.2 | 50 | 0.0490 | 4.49 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 1.9 | 450 | 0.0710 | 4.00 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 0.4 | 474 | 0.0790 | 20.24 | 63.58 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 200 | 0.0600 | 17.64 | 55.41 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 189 | 0.0700 | 19.05 | 59.85 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.6 | 358 | 0.0170 | 9.39 | 29.50 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 6.0 | 1,821 | Total | | | |

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Type III 24-hr 10 YR Rainfall=5.13"



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Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Subcatchment EXWS7: EXWS7

Runoff = 4.4 cfs @ 12.08 hrs, Volume= 0.312 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 5,433 | 61 | >75% Grass cover, Good, HSG B |
| 14,290 | 55 | Woods, Good, HSG B |
| 14,905 | 61 | >75% Grass cover, Good, HSG B |
| 29,839 | 55 | Woods, Good, HSG B |
| 12,976 | 61 | >75% Grass cover, Good, HSG B |
| 4,785 | 98 | Paved parking, HSG B |
| 2,157 | 61 | >75% Grass cover, Good, HSG B |
| 913 | 61 | >75% Grass cover, Good, HSG B |
| 989 | 61 | >75% Grass cover, Good, HSG B |
| 2,242 | 61 | >75% Grass cover, Good, HSG B |
| 9,315 | 98 | Paved parking, HSG B |
| 97,844 | 64 | Weighted Average |
| 83,744 | | 85.59% Pervious Area |
| 14,100 | | 14.41% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 2.7 | 40 | 0.0740 | 0.25 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.5 | 60 | 0.0670 | 2.09 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 1.1 | 346 | 0.0685 | 5.31 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.4 | 260 | 0.0400 | 10.44 | 5.70 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.010 PVC, smooth interior |
| 4.7 | 706 | Total | | | |

EAGLE RIDGE PRELIMINARY EXISTING

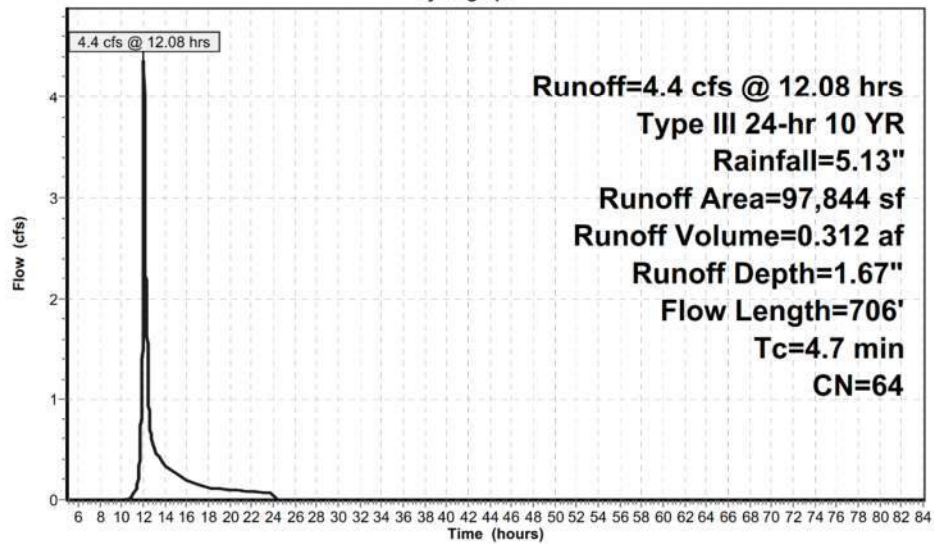
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Type III 24-hr 10 YR Rainfall=5.13"

Subcatchment EXWS7: EXWS7

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Link EXDP1: EXDP1

Inflow Area = 1.852 ac, 0.00% Impervious, Inflow Depth = 1.05" for 10 YR event

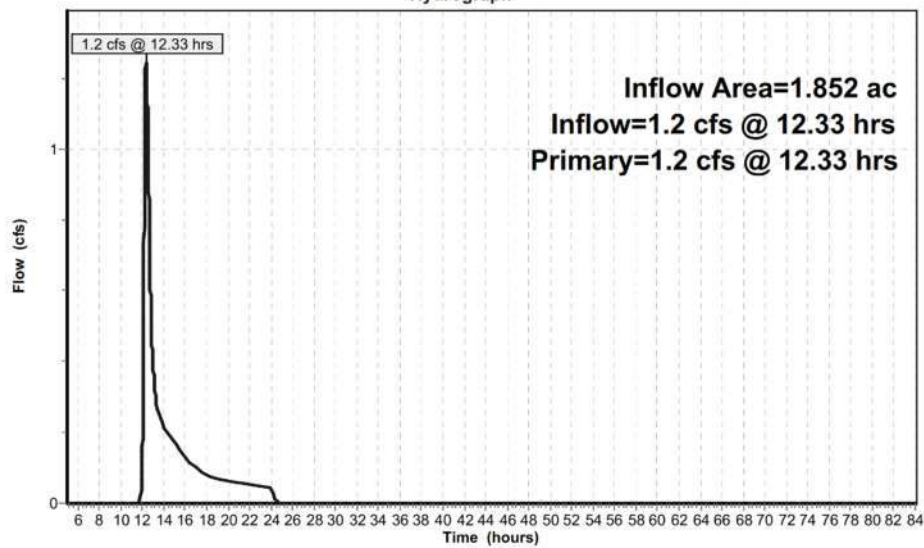
Inflow = 1.2 cfs @ 12.33 hrs, Volume= 0.161 af

Primary = 1.2 cfs @ 12.33 hrs, Volume= 0.161 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP1: EXDP1

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 10 YR Rainfall=5.13"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Link EXDP2: EXDP2

Inflow Area = 0.391 ac, 0.00% Impervious, Inflow Depth = 1.05" for 10 YR event

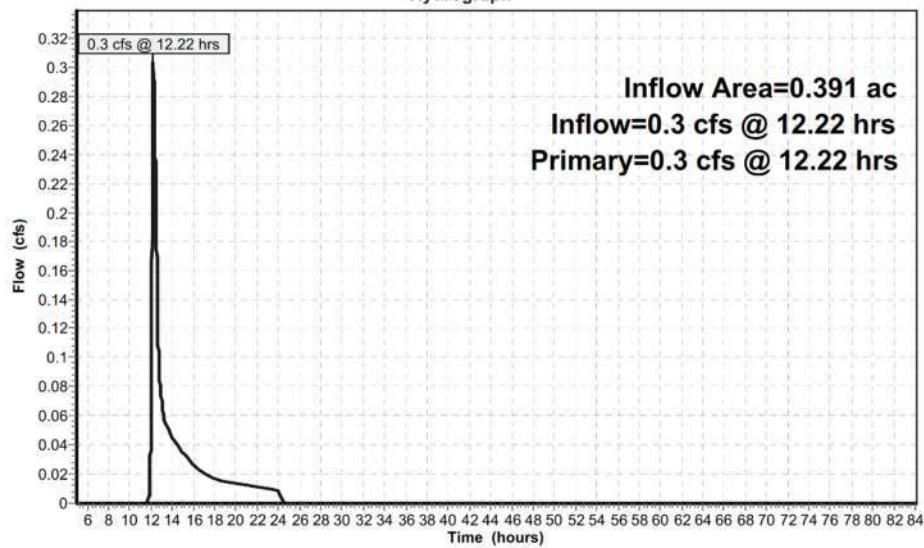
Inflow = 0.3 cfs @ 12.22 hrs, Volume= 0.034 af

Primary = 0.3 cfs @ 12.22 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP2: EXDP2

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Link EXDP3: EXDP3

Inflow Area = 5.859 ac, 4.07% Impervious, Inflow Depth = 1.45" for 10 YR event

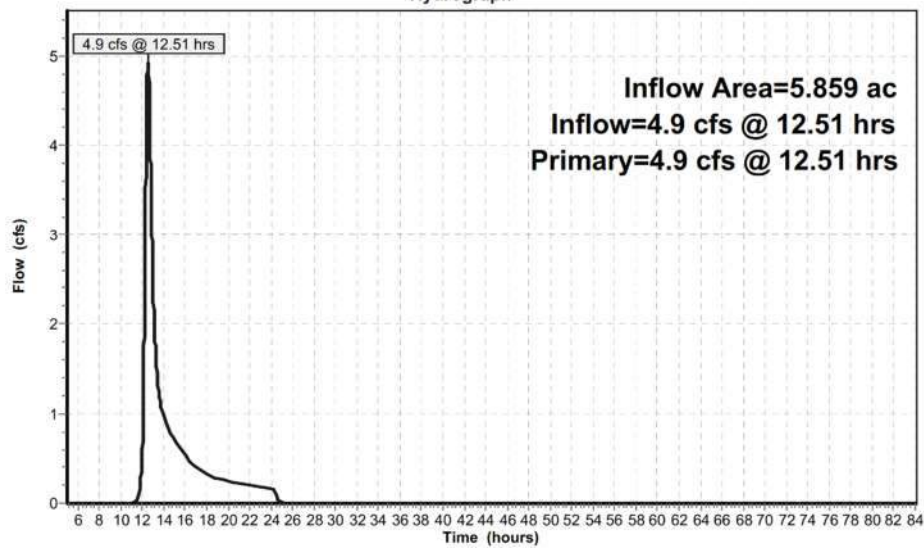
Inflow = 4.9 cfs @ 12.51 hrs, Volume= 0.707 af

Primary = 4.9 cfs @ 12.51 hrs, Volume= 0.707 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP3: EXDP3

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Link EXDP4: EXDP4

Inflow Area = 16.492 ac, 5.52% Impervious, Inflow Depth = 1.38" for 10 YR event

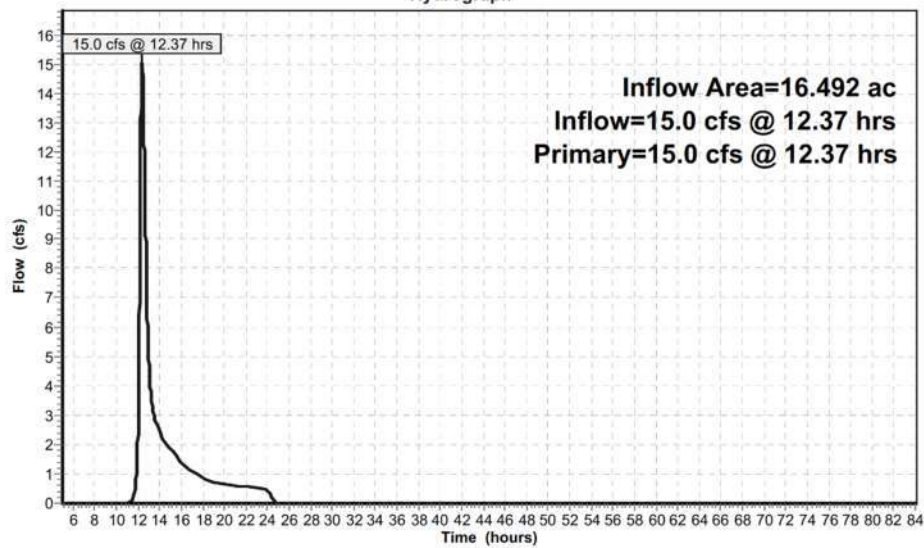
Inflow = 15.0 cfs @ 12.37 hrs, Volume= 1.893 af

Primary = 15.0 cfs @ 12.37 hrs, Volume= 1.893 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP4: EXDP4

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 10 YR Rainfall=5.13"

Summary for Link EXDP5: EXDP5

Inflow Area = 9.901 ac, 11.64% Impervious, Inflow Depth = 1.38" for 10 YR event

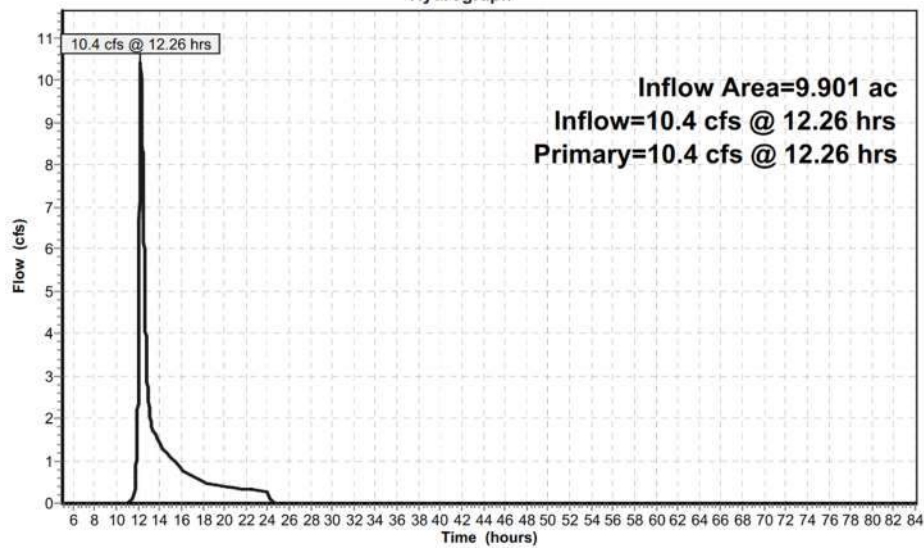
Inflow = 10.4 cfs @ 12.26 hrs, Volume= 1.137 af

Primary = 10.4 cfs @ 12.26 hrs, Volume= 1.137 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP5: EXDP5

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Link EXDP6: EXDP6

Inflow Area = 5.878 ac, 22.42% Impervious, Inflow Depth = 2.05" for 10 YR event

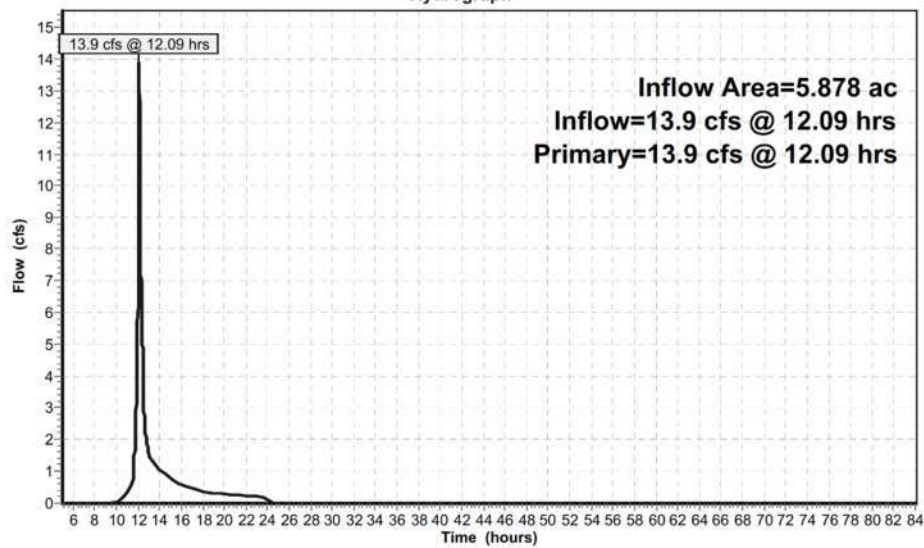
Inflow = 13.9 cfs @ 12.09 hrs, Volume= 1.005 af

Primary = 13.9 cfs @ 12.09 hrs, Volume= 1.005 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP6: EXDP6

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Link EXDP7: EXDP7

Inflow Area = 2.246 ac, 14.41% Impervious, Inflow Depth = 1.67" for 10 YR event

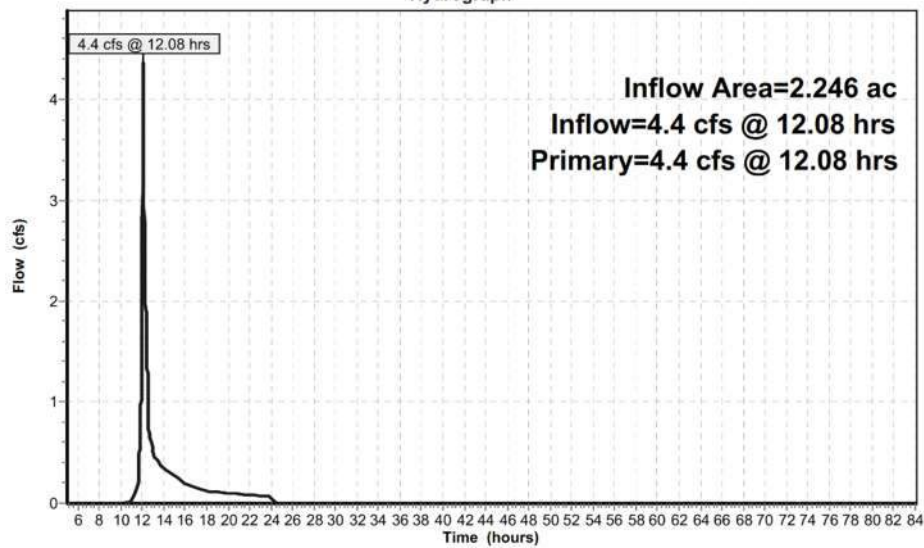
Inflow = 4.4 cfs @ 12.08 hrs, Volume= 0.312 af

Primary = 4.4 cfs @ 12.08 hrs, Volume= 0.312 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP7: EXDP7

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 25 YR Rainfall=6.46"

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Time span=5.00-84.00 hrs, dt=0.01 hrs, 7901 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|---------------------------|--|
| Subcatchment EXWS1: EXWS1 | Runoff Area=80,671 sf 0.00% Impervious Runoff Depth=1.79" Flow Length=332' Tc=20.0 min CN=55 Runoff=2.4 cfs 0.276 af |
| Subcatchment EXWS2: EXWS2 | Runoff Area=17,033 sf 0.00% Impervious Runoff Depth=1.79" Flow Length=194' Tc=13.5 min CN=55 Runoff=0.6 cfs 0.058 af |
| Subcatchment EXWS3: EXWS3 | Runoff Area=255,227 sf 4.07% Impervious Runoff Depth=2.32" Flow Length=1,472' Tc=33.2 min CN=61 Runoff=8.3 cfs 1.132 af |
| Subcatchment EXWS4: EXWS4 | Runoff Area=718,402 sf 5.52% Impervious Runoff Depth=2.23" Flow Length=759' Tc=23.7 min CN=60 Runoff=25.8 cfs 3.063 af |
| Subcatchment EXWS5: EXWS5 | Runoff Area=431,278 sf 11.64% Impervious Runoff Depth=2.23" Flow Length=1,049' Tc=16.6 min CN=60 Runoff=17.9 cfs 1.839 af |
| Subcatchment EXWS6: EXWS6 | Runoff Area=256,054 sf 22.42% Impervious Runoff Depth=3.08" Flow Length=1,821' Tc=6.0 min CN=69 Runoff=21.1 cfs 1.507 af |
| Subcatchment EXWS7: EXWS7 | Runoff Area=97,844 sf 14.41% Impervious Runoff Depth=2.60" Flow Length=706' Tc=4.7 min CN=64 Runoff=7.0 cfs 0.486 af |
| Link EXDP1: EXDP1 | Inflow=2.4 cfs 0.276 af Primary=2.4 cfs 0.276 af |
| Link EXDP2: EXDP2 | Inflow=0.6 cfs 0.058 af Primary=0.6 cfs 0.058 af |
| Link EXDP3: EXDP3 | Inflow=8.3 cfs 1.132 af Primary=8.3 cfs 1.132 af |
| Link EXDP4: EXDP4 | Inflow=25.8 cfs 3.063 af Primary=25.8 cfs 3.063 af |
| Link EXDP5: EXDP5 | Inflow=17.9 cfs 1.839 af Primary=17.9 cfs 1.839 af |
| Link EXDP6: EXDP6 | Inflow=21.1 cfs 1.507 af Primary=21.1 cfs 1.507 af |
| Link EXDP7: EXDP7 | Inflow=7.0 cfs 0.486 af Primary=7.0 cfs 0.486 af |

Total Runoff Area = 42.620 ac Runoff Volume = 8.362 af Average Runoff Depth = 2.35"
90.75% Pervious = 38.676 ac 9.25% Impervious = 3.943 ac

EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 25 YR Rainfall=6.46"

Summary for Subcatchment EXWS1: EXWS1

Runoff = 2.4 cfs @ 12.31 hrs, Volume= 0.276 af, Depth= 1.79"

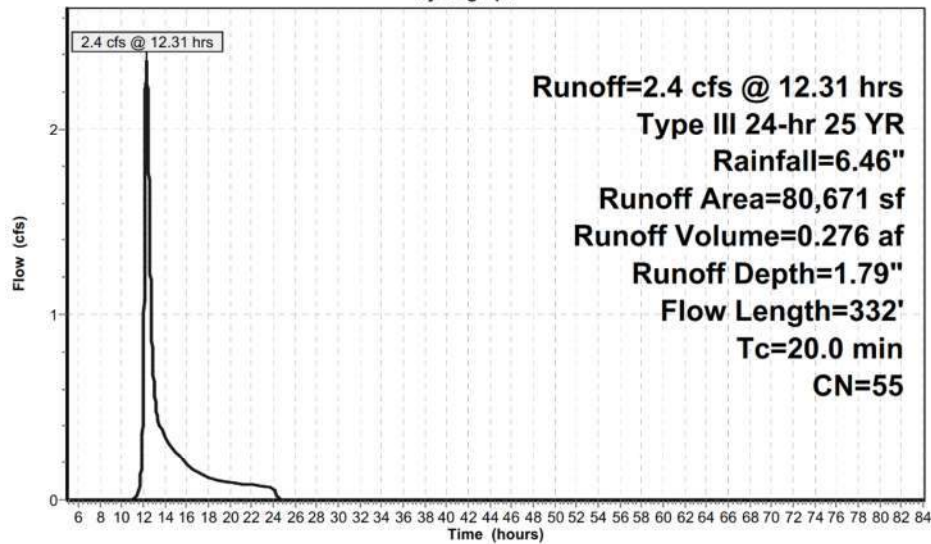
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 1,983 | 61 | >75% Grass cover, Good, HSG B |
| 17,152 | 55 | Woods, Good, HSG B |
| 61,536 | 55 | Woods, Good, HSG B |
| 80,671 | 55 | Weighted Average |
| 80,671 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 18.1 | 100 | 0.0280 | 0.09 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.4 | 50 | 0.1650 | 2.03 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 58 | 0.1030 | 1.60 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.9 | 124 | 0.2230 | 2.36 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 20.0 | 332 | Total | | | |

Subcatchment EXWS1: EXWS1

Hydrograph



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Type III 24-hr 25 YR Rainfall=6.46"

Summary for Subcatchment EXWS2: EXWS2

Runoff = 0.6 cfs @ 12.20 hrs, Volume= 0.058 af, Depth= 1.79"

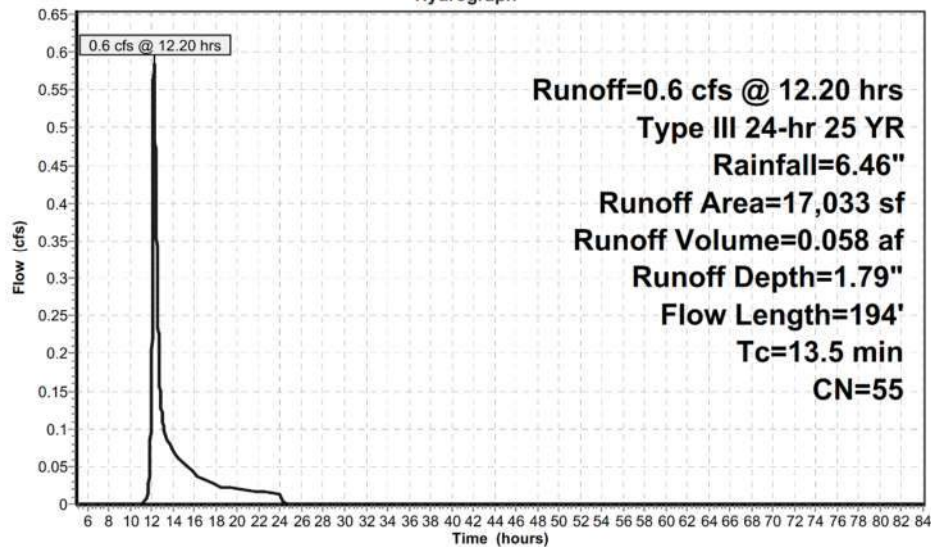
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-----------------------|
| 17,033 | 55 | Woods, Good, HSG B |
| 17,033 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 3.9 | 34 | 0.1470 | 0.14 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 9.3 | 116 | 0.1980 | 0.21 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.3 | 44 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 13.5 | 194 | Total | | | |

Subcatchment EXWS2: EXWS2

Hydrograph



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Type III 24-hr 25 YR Rainfall=6.46"

Summary for Subcatchment EXWS3: EXWS3

Runoff = 8.3 cfs @ 12.50 hrs, Volume= 1.132 af, Depth= 2.32"

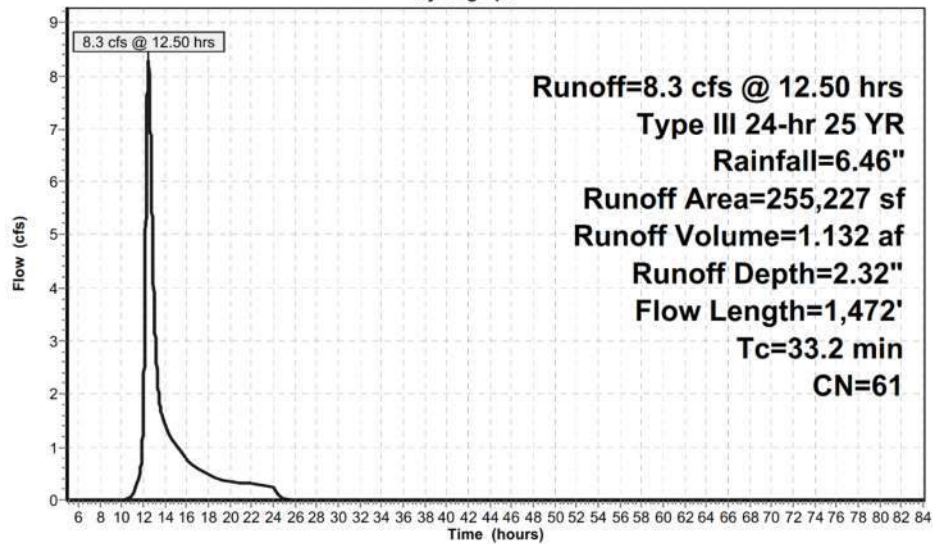
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 81,245 | 55 | Woods, Good, HSG B |
| 162,736 | 61 | >75% Grass cover, Good, HSG B |
| 10,397 | 98 | Paved parking, HSG B |
| 849 | 61 | >75% Grass cover, Good, HSG B |
| 255,227 | 61 | Weighted Average |
| 244,830 | | 95.93% Pervious Area |
| 10,397 | | 4.07% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 21.1 | 150 | 0.0430 | 0.12 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 6.2 | 529 | 0.0800 | 1.41 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 5.9 | 793 | 0.1030 | 2.25 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 33.2 | 1,472 | Total | | | |

Subcatchment EXWS3: EXWS3

Hydrograph



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Type III 24-hr 25 YR Rainfall=6.46"

Summary for Subcatchment EXWS4: EXWS4

Runoff = 25.8 cfs @ 12.35 hrs, Volume= 3.063 af, Depth= 2.23"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 1,090 | 61 | >75% Grass cover, Good, HSG B |
| 31,029 | 98 | Paved parking, HSG B |
| 359,184 | 55 | Woods, Good, HSG B |
| 314,447 | 61 | >75% Grass cover, Good, HSG B |
| 8,523 | 98 | Paved parking, HSG B |
| 271 | 61 | >75% Grass cover, Good, HSG B |
| 118 | 98 | Paved parking, HSG B |
| 3,740 | 61 | >75% Grass cover, Good, HSG B |
| 718,402 | 60 | Weighted Average |
| 678,732 | | 94.48% Pervious Area |
| 39,670 | | 5.52% Impervious Area |

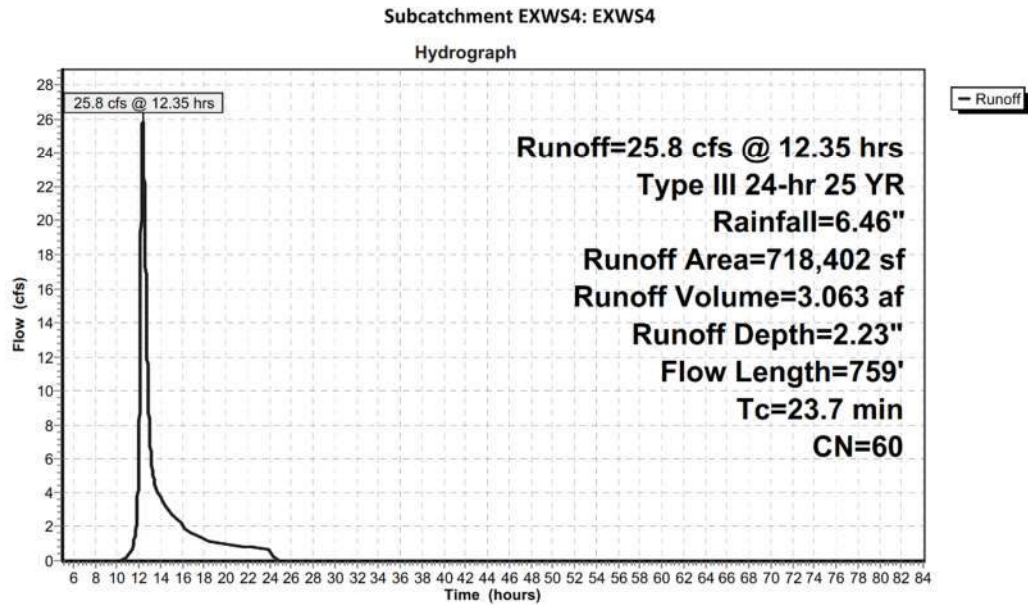
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 18.2 | 150 | 0.0620 | 0.14 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.5 | 48 | 0.1200 | 1.73 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.7 | 74 | 0.1350 | 1.84 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 1.3 | 109 | 0.0730 | 1.35 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 1.7 | 172 | 0.1160 | 1.70 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 56 | 0.2850 | 2.67 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.5 | 59 | 0.1530 | 1.96 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.5 | 91 | 0.3840 | 3.10 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 23.7 | 759 | Total | | | |

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Type III 24-hr 25 YR Rainfall=6.46"



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Type III 24-hr 25 YR Rainfall=6.46"

Summary for Subcatchment EXWS5: EXWS5

Runoff = 17.9 cfs @ 12.24 hrs, Volume= 1.839 af, Depth= 2.23"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 87,490 | 55 | Woods, Good, HSG B |
| 50,967 | 55 | Woods, Good, HSG B |
| 22,785 | 55 | Woods, Good, HSG B |
| 87,991 | 55 | Woods, Good, HSG B |
| 50,189 | 98 | Paved parking, HSG B |
| 1,904 | 61 | >75% Grass cover, Good, HSG B |
| 7,163 | 61 | >75% Grass cover, Good, HSG B |
| 122,789 | 55 | Woods, Good, HSG B |
| 431,278 | 60 | Weighted Average |
| 381,089 | | 88.36% Pervious Area |
| 50,189 | | 11.64% Impervious Area |

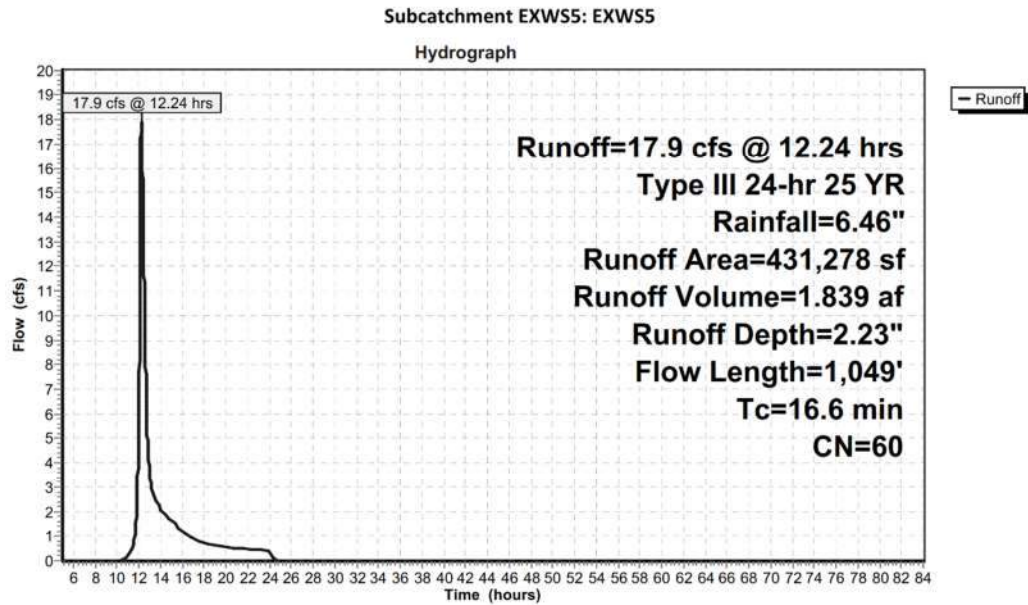
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 12.1 | 100 | 0.0275 | 0.14 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.8 | 60 | 0.0330 | 1.27 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 31 | 0.2420 | 3.44 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 345 | 0.0520 | 4.63 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.1 | 105 | 0.1840 | 17.23 | 9.40 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 90 | 0.3100 | 8.35 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.1 | 100 | 0.1000 | 1.58 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 83 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 135 | 0.3000 | 8.22 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 16.6 | 1,049 | Total | | | |

EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 25 YR Rainfall=6.46"



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Type III 24-hr 25 YR Rainfall=6.46"

Summary for Subcatchment EXWS6: EXWS6

Runoff = 21.1 cfs @ 12.09 hrs, Volume= 1.507 af, Depth= 3.08"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 30,242 | 61 | >75% Grass cover, Good, HSG B |
| 150,793 | 61 | >75% Grass cover, Good, HSG B |
| 4,924 | 61 | >75% Grass cover, Good, HSG B |
| 989 | 61 | >75% Grass cover, Good, HSG B |
| 295 | 61 | >75% Grass cover, Good, HSG B |
| 41,631 | 98 | Paved parking, HSG B |
| 2,635 | 61 | >75% Grass cover, Good, HSG B |
| 7,567 | 61 | >75% Grass cover, Good, HSG B |
| 15,787 | 98 | Paved parking, HSG B |
| 1,191 | 61 | >75% Grass cover, Good, HSG B |
| 256,054 | 69 | Weighted Average |
| 198,636 | | 77.58% Pervious Area |
| 57,418 | | 22.42% Impervious Area |

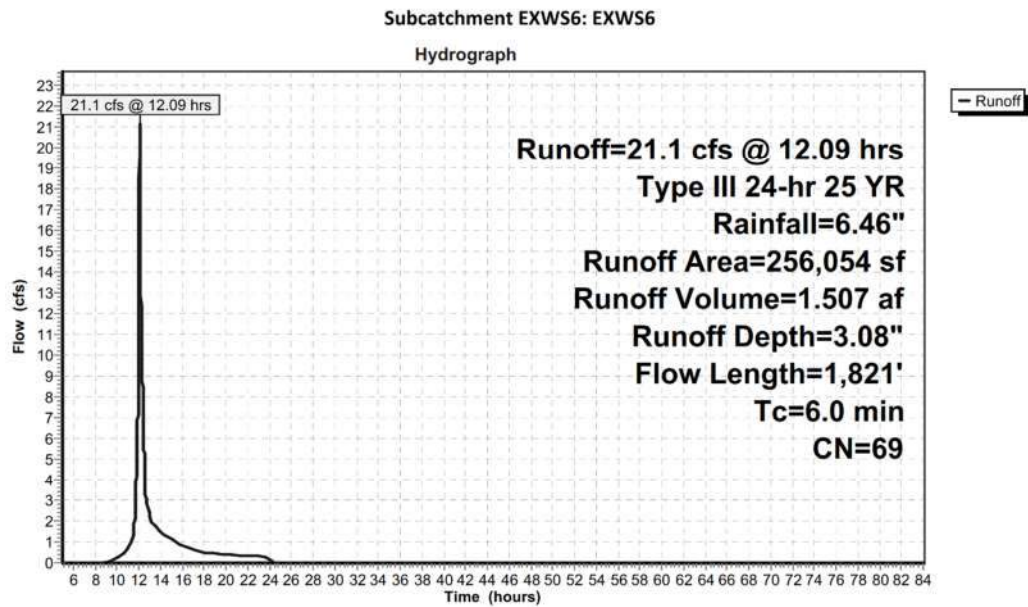
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 1.9 | 28 | 0.0890 | 0.25 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.6 | 72 | 0.0490 | 1.91 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 0.2 | 50 | 0.0490 | 4.49 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 1.9 | 450 | 0.0710 | 4.00 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 0.4 | 474 | 0.0790 | 20.24 | 63.58 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 200 | 0.0600 | 17.64 | 55.41 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 189 | 0.0700 | 19.05 | 59.85 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.6 | 358 | 0.0170 | 9.39 | 29.50 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 6.0 | 1,821 | Total | | | |

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Type III 24-hr 25 YR Rainfall=6.46"



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Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment EXWS7: EXWS7

Runoff = 7.0 cfs @ 12.07 hrs, Volume= 0.486 af, Depth= 2.60"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 5,433 | 61 | >75% Grass cover, Good, HSG B |
| 14,290 | 55 | Woods, Good, HSG B |
| 14,905 | 61 | >75% Grass cover, Good, HSG B |
| 29,839 | 55 | Woods, Good, HSG B |
| 12,976 | 61 | >75% Grass cover, Good, HSG B |
| 4,785 | 98 | Paved parking, HSG B |
| 2,157 | 61 | >75% Grass cover, Good, HSG B |
| 913 | 61 | >75% Grass cover, Good, HSG B |
| 989 | 61 | >75% Grass cover, Good, HSG B |
| 2,242 | 61 | >75% Grass cover, Good, HSG B |
| 9,315 | 98 | Paved parking, HSG B |
| 97,844 | 64 | Weighted Average |
| 83,744 | | 85.59% Pervious Area |
| 14,100 | | 14.41% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 2.7 | 40 | 0.0740 | 0.25 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.5 | 60 | 0.0670 | 2.09 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 1.1 | 346 | 0.0685 | 5.31 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.4 | 260 | 0.0400 | 10.44 | 5.70 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.010 PVC, smooth interior |
| 4.7 | 706 | Total | | | |

EAGLE RIDGE PRELIMINARY EXISTING

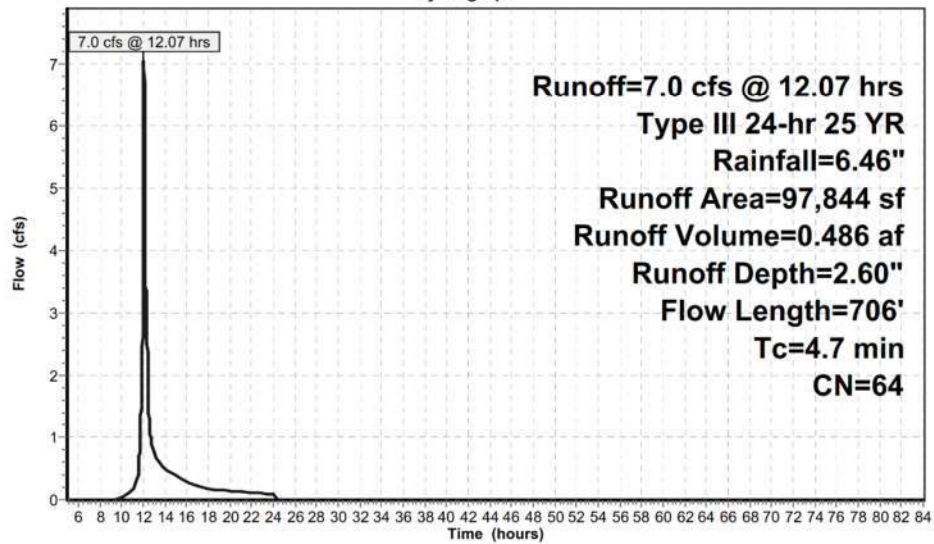
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Type III 24-hr 25 YR Rainfall=6.46"

Subcatchment EXWS7: EXWS7

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Link EXDP1: EXDP1

Inflow Area = 1.852 ac, 0.00% Impervious, Inflow Depth = 1.79" for 25 YR event

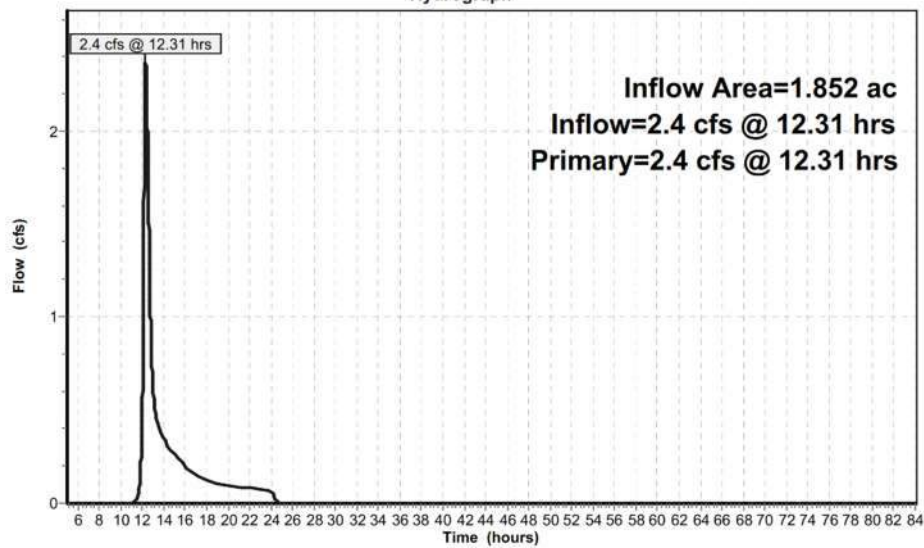
Inflow = 2.4 cfs @ 12.31 hrs, Volume= 0.276 af

Primary = 2.4 cfs @ 12.31 hrs, Volume= 0.276 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP1: EXDP1

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Link EXDP2: EXDP2

Inflow Area = 0.391 ac, 0.00% Impervious, Inflow Depth = 1.79" for 25 YR event

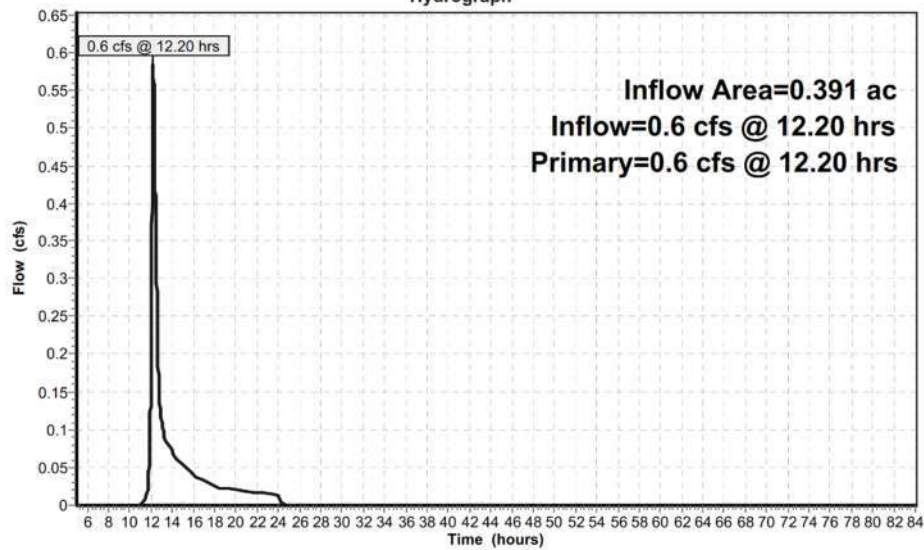
Inflow = 0.6 cfs @ 12.20 hrs, Volume= 0.058 af

Primary = 0.6 cfs @ 12.20 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP2: EXDP2

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Link EXDP3: EXDP3

Inflow Area = 5.859 ac, 4.07% Impervious, Inflow Depth = 2.32" for 25 YR event

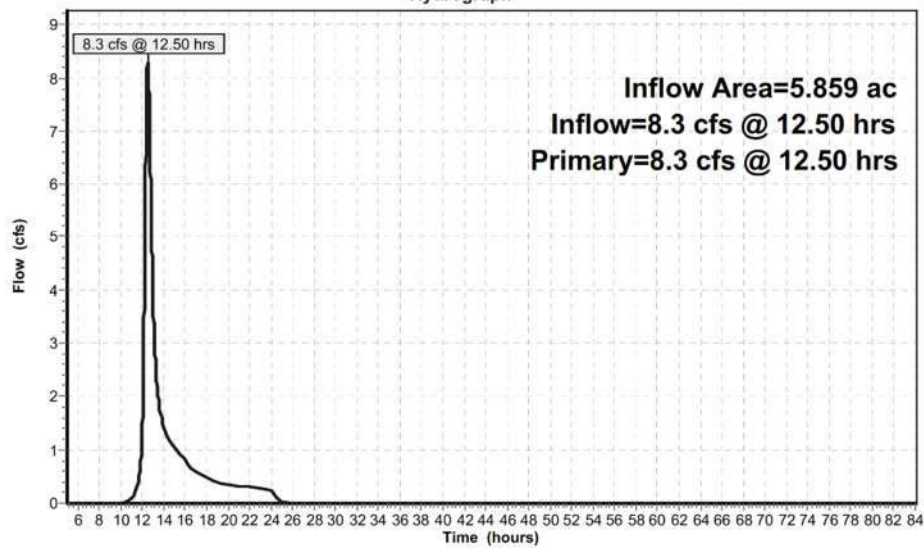
Inflow = 8.3 cfs @ 12.50 hrs, Volume= 1.132 af

Primary = 8.3 cfs @ 12.50 hrs, Volume= 1.132 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP3: EXDP3

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Link EXDP4: EXDP4

Inflow Area = 16.492 ac, 5.52% Impervious, Inflow Depth = 2.23" for 25 YR event

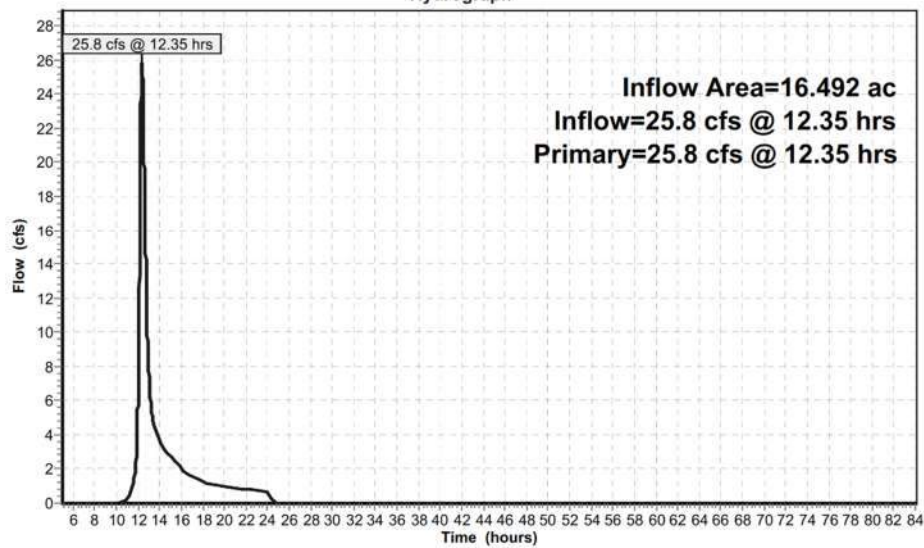
Inflow = 25.8 cfs @ 12.35 hrs, Volume= 3.063 af

Primary = 25.8 cfs @ 12.35 hrs, Volume= 3.063 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP4: EXDP4

Hydrograph



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Type III 24-hr 25 YR Rainfall=6.46"

Summary for Link EXDP5: EXDP5

Inflow Area = 9.901 ac, 11.64% Impervious, Inflow Depth = 2.23" for 25 YR event

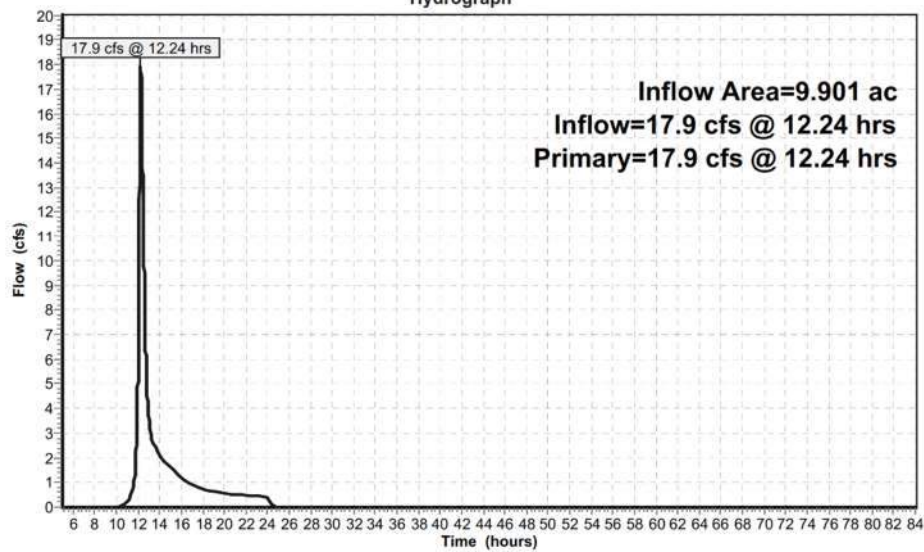
Inflow = 17.9 cfs @ 12.24 hrs, Volume= 1.839 af

Primary = 17.9 cfs @ 12.24 hrs, Volume= 1.839 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP5: EXDP5

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Link EXDP6: EXDP6

Inflow Area = 5.878 ac, 22.42% Impervious, Inflow Depth = 3.08" for 25 YR event

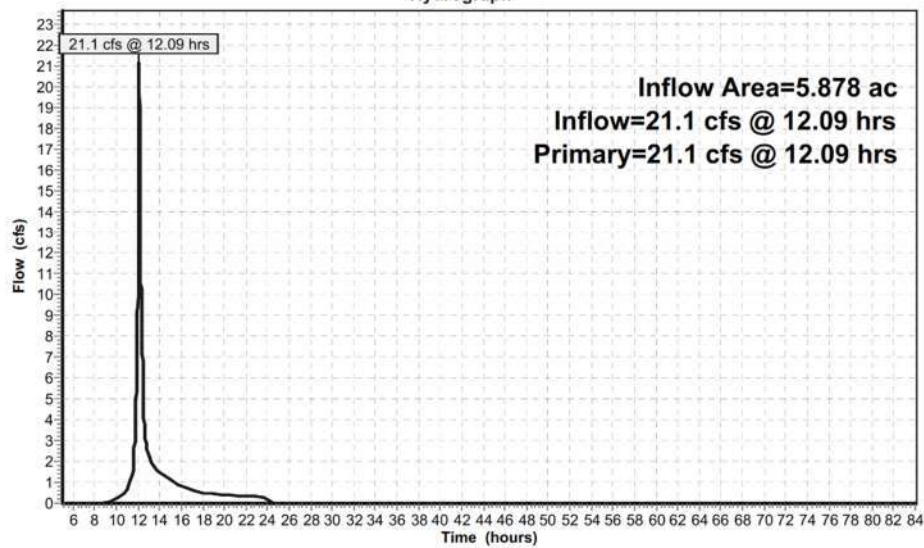
Inflow = 21.1 cfs @ 12.09 hrs, Volume= 1.507 af

Primary = 21.1 cfs @ 12.09 hrs, Volume= 1.507 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP6: EXDP6

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Link EXDP7: EXDP7

Inflow Area = 2.246 ac, 14.41% Impervious, Inflow Depth = 2.60" for 25 YR event

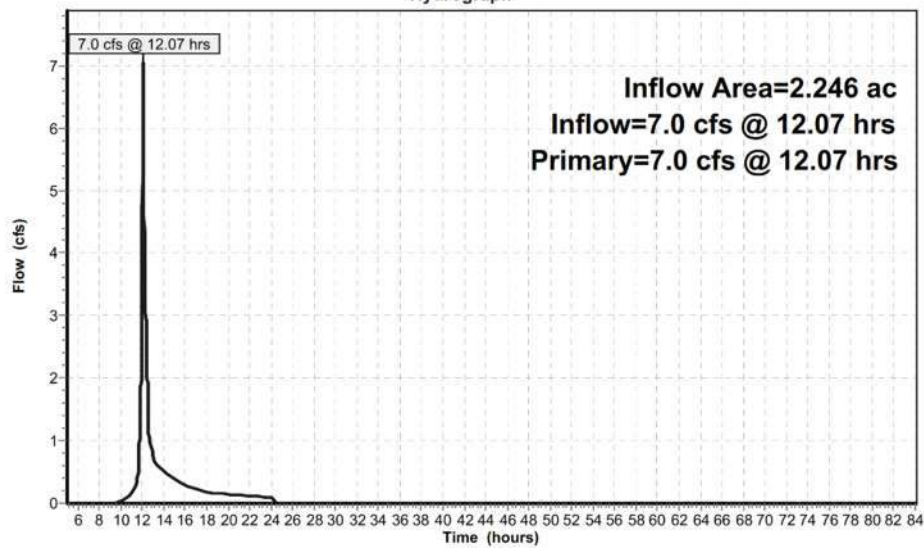
Inflow = 7.0 cfs @ 12.07 hrs, Volume= 0.486 af

Primary = 7.0 cfs @ 12.07 hrs, Volume= 0.486 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP7: EXDP7

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 50 YR Rainfall=7.69"

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Time span=5.00-84.00 hrs, dt=0.01 hrs, 7901 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|---------------------------|--|
| Subcatchment EXWS1: EXWS1 | Runoff Area=80,671 sf 0.00% Impervious Runoff Depth=2.57" Flow Length=332' Tc=20.0 min CN=55 Runoff=3.6 cfs 0.397 af |
| Subcatchment EXWS2: EXWS2 | Runoff Area=17,033 sf 0.00% Impervious Runoff Depth=2.57" Flow Length=194' Tc=13.5 min CN=55 Runoff=0.9 cfs 0.084 af |
| Subcatchment EXWS3: EXWS3 | Runoff Area=255,227 sf 4.07% Impervious Runoff Depth=3.21" Flow Length=1,472' Tc=33.2 min CN=61 Runoff=11.7 cfs 1.567 af |
| Subcatchment EXWS4: EXWS4 | Runoff Area=718,402 sf 5.52% Impervious Runoff Depth=3.10" Flow Length=759' Tc=23.7 min CN=60 Runoff=36.8 cfs 4.264 af |
| Subcatchment EXWS5: EXWS5 | Runoff Area=431,278 sf 11.64% Impervious Runoff Depth=3.10" Flow Length=1,049' Tc=16.6 min CN=60 Runoff=25.6 cfs 2.560 af |
| Subcatchment EXWS6: EXWS6 | Runoff Area=256,054 sf 22.42% Impervious Runoff Depth=4.09" Flow Length=1,821' Tc=6.0 min CN=69 Runoff=28.2 cfs 2.002 af |
| Subcatchment EXWS7: EXWS7 | Runoff Area=97,844 sf 14.41% Impervious Runoff Depth=3.54" Flow Length=706' Tc=4.7 min CN=64 Runoff=9.7 cfs 0.662 af |
| Link EXDP1: EXDP1 | Inflow=3.6 cfs 0.397 af Primary=3.6 cfs 0.397 af |
| Link EXDP2: EXDP2 | Inflow=0.9 cfs 0.084 af Primary=0.9 cfs 0.084 af |
| Link EXDP3: EXDP3 | Inflow=11.7 cfs 1.567 af Primary=11.7 cfs 1.567 af |
| Link EXDP4: EXDP4 | Inflow=36.8 cfs 4.264 af Primary=36.8 cfs 4.264 af |
| Link EXDP5: EXDP5 | Inflow=25.6 cfs 2.560 af Primary=25.6 cfs 2.560 af |
| Link EXDP6: EXDP6 | Inflow=28.2 cfs 2.002 af Primary=28.2 cfs 2.002 af |
| Link EXDP7: EXDP7 | Inflow=9.7 cfs 0.662 af Primary=9.7 cfs 0.662 af |

Total Runoff Area = 42.620 ac Runoff Volume = 11.537 af Average Runoff Depth = 3.25"
90.75% Pervious = 38.676 ac 9.25% Impervious = 3.943 ac

EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 50 YR Rainfall=7.69"

Summary for Subcatchment EXWS1: EXWS1

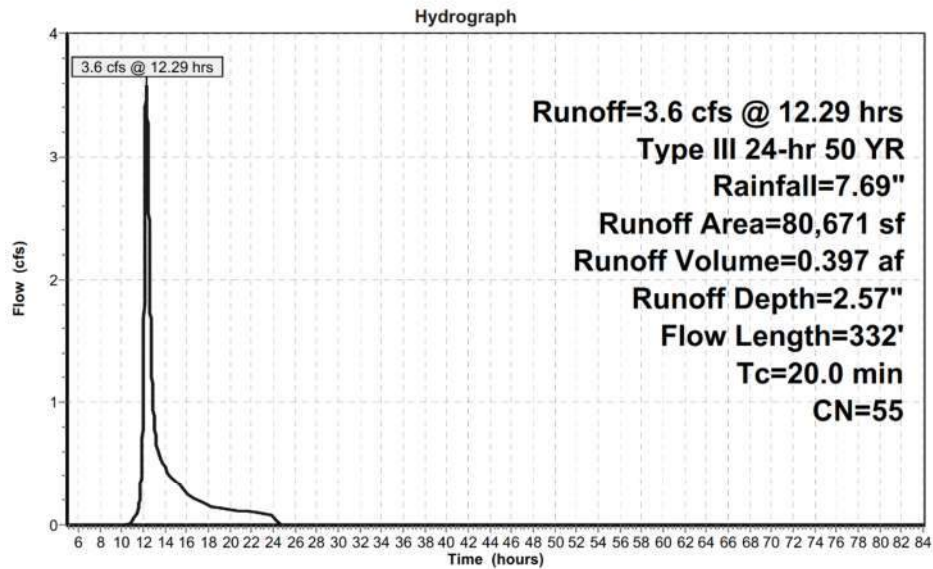
Runoff = 3.6 cfs @ 12.29 hrs, Volume= 0.397 af, Depth= 2.57"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 1,983 | 61 | >75% Grass cover, Good, HSG B |
| 17,152 | 55 | Woods, Good, HSG B |
| 61,536 | 55 | Woods, Good, HSG B |
| 80,671 | 55 | Weighted Average |
| 80,671 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 18.1 | 100 | 0.0280 | 0.09 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.4 | 50 | 0.1650 | 2.03 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 58 | 0.1030 | 1.60 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.9 | 124 | 0.2230 | 2.36 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 20.0 | 332 | Total | | | |

Subcatchment EXWS1: EXWS1



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Type III 24-hr 50 YR Rainfall=7.69"

Summary for Subcatchment EXWS2: EXWS2

Runoff = 0.9 cfs @ 12.20 hrs, Volume= 0.084 af, Depth= 2.57"

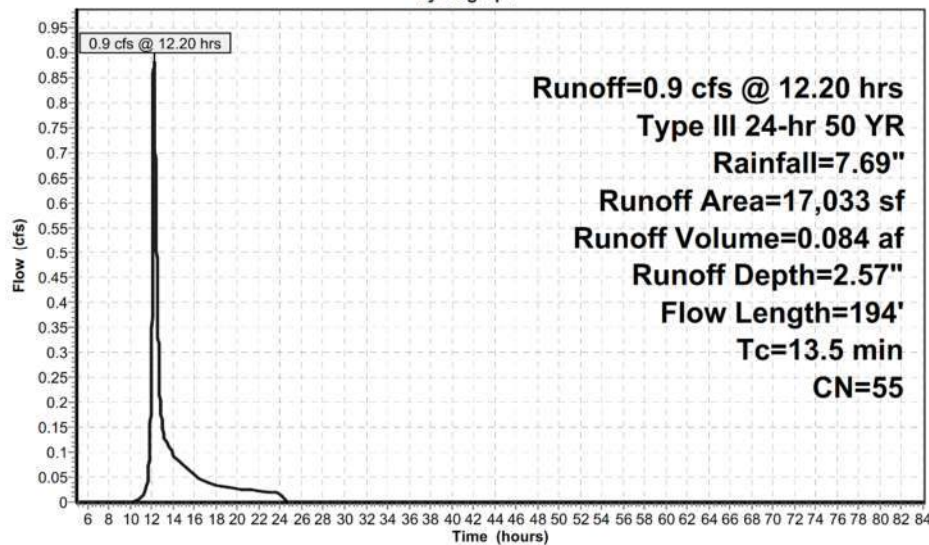
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-----------------------|
| 17,033 | 55 | Woods, Good, HSG B |
| 17,033 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.9 | 34 | 0.1470 | 0.14 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 9.3 | 116 | 0.1980 | 0.21 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.3 | 44 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 13.5 | 194 | Total | | | |

Subcatchment EXWS2: EXWS2

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 50 YR Rainfall=7.69"

Summary for Subcatchment EXWS3: EXWS3

Runoff = 11.7 cfs @ 12.50 hrs, Volume= 1.567 af, Depth= 3.21"

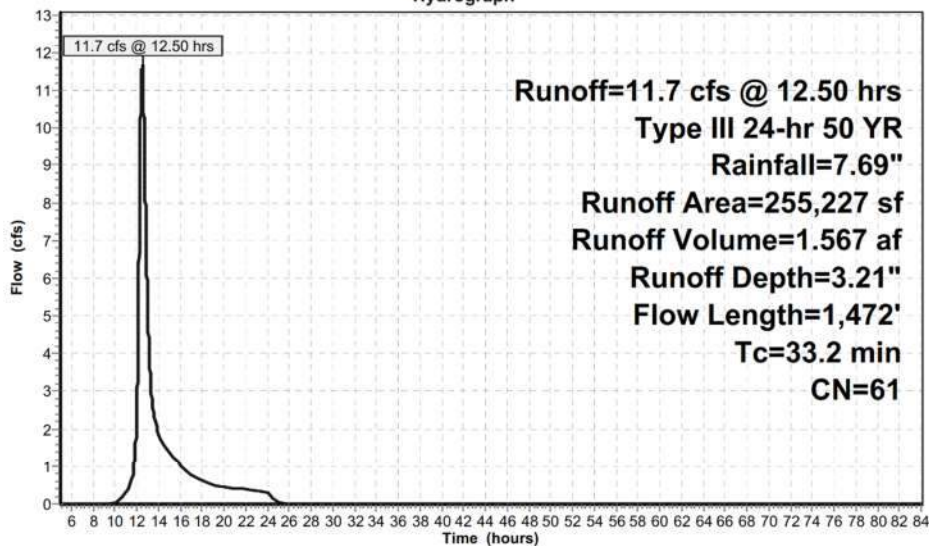
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 81,245 | 55 | Woods, Good, HSG B |
| 162,736 | 61 | >75% Grass cover, Good, HSG B |
| 10,397 | 98 | Paved parking, HSG B |
| 849 | 61 | >75% Grass cover, Good, HSG B |
| 255,227 | 61 | Weighted Average |
| 244,830 | | 95.93% Pervious Area |
| 10,397 | | 4.07% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 21.1 | 150 | 0.0430 | 0.12 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 6.2 | 529 | 0.0800 | 1.41 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 5.9 | 793 | 0.1030 | 2.25 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 33.2 | 1,472 | Total | | | |

Subcatchment EXWS3: EXWS3

Hydrograph



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Type III 24-hr 50 YR Rainfall=7.69"

Summary for Subcatchment EXWS4: EXWS4

Runoff = 36.8 cfs @ 12.35 hrs, Volume= 4.264 af, Depth= 3.10"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 1,090 | 61 | >75% Grass cover, Good, HSG B |
| 31,029 | 98 | Paved parking, HSG B |
| 359,184 | 55 | Woods, Good, HSG B |
| 314,447 | 61 | >75% Grass cover, Good, HSG B |
| 8,523 | 98 | Paved parking, HSG B |
| 271 | 61 | >75% Grass cover, Good, HSG B |
| 118 | 98 | Paved parking, HSG B |
| 3,740 | 61 | >75% Grass cover, Good, HSG B |
| 718,402 | 60 | Weighted Average |
| 678,732 | | 94.48% Pervious Area |
| 39,670 | | 5.52% Impervious Area |

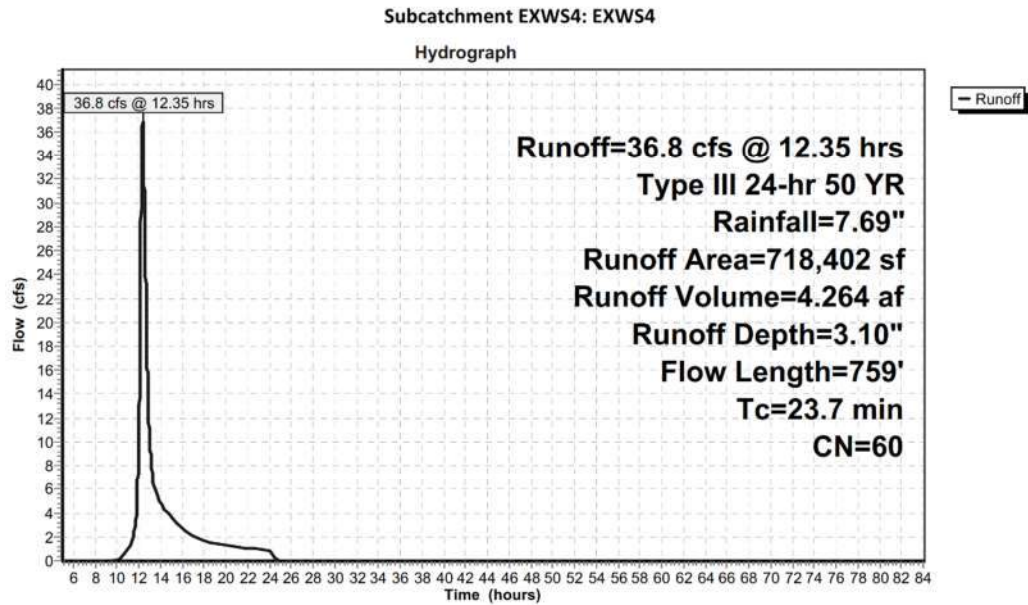
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 18.2 | 150 | 0.0620 | 0.14 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.5 | 48 | 0.1200 | 1.73 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.7 | 74 | 0.1350 | 1.84 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 1.3 | 109 | 0.0730 | 1.35 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 1.7 | 172 | 0.1160 | 1.70 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 56 | 0.2850 | 2.67 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.5 | 59 | 0.1530 | 1.96 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.5 | 91 | 0.3840 | 3.10 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 23.7 | 759 | Total | | | |

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Type III 24-hr 50 YR Rainfall=7.69"



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Type III 24-hr 50 YR Rainfall=7.69"

Summary for Subcatchment EXW55: EXW55

Runoff = 25.6 cfs @ 12.23 hrs, Volume= 2.560 af, Depth= 3.10"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 87,490 | 55 | Woods, Good, HSG B |
| 50,967 | 55 | Woods, Good, HSG B |
| 22,785 | 55 | Woods, Good, HSG B |
| 87,991 | 55 | Woods, Good, HSG B |
| 50,189 | 98 | Paved parking, HSG B |
| 1,904 | 61 | >75% Grass cover, Good, HSG B |
| 7,163 | 61 | >75% Grass cover, Good, HSG B |
| 122,789 | 55 | Woods, Good, HSG B |
| 431,278 | 60 | Weighted Average |
| 381,089 | | 88.36% Pervious Area |
| 50,189 | | 11.64% Impervious Area |

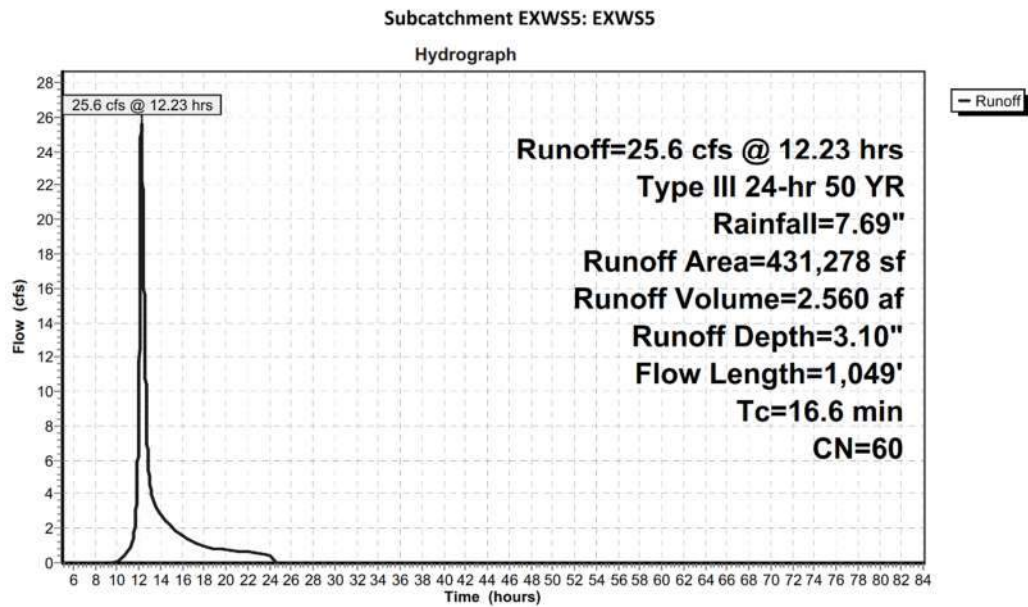
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 12.1 | 100 | 0.0275 | 0.14 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.8 | 60 | 0.0330 | 1.27 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 31 | 0.2420 | 3.44 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 345 | 0.0520 | 4.63 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.1 | 105 | 0.1840 | 17.23 | 9.40 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 90 | 0.3100 | 8.35 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.1 | 100 | 0.1000 | 1.58 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 83 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 135 | 0.3000 | 8.22 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 16.6 | 1,049 | Total | | | |

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Type III 24-hr 50 YR Rainfall=7.69"



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Type III 24-hr 50 YR Rainfall=7.69"

Summary for Subcatchment EXWS6: EXWS6

Runoff = 28.2 cfs @ 12.09 hrs, Volume= 2.002 af, Depth= 4.09"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 30,242 | 61 | >75% Grass cover, Good, HSG B |
| 150,793 | 61 | >75% Grass cover, Good, HSG B |
| 4,924 | 61 | >75% Grass cover, Good, HSG B |
| 989 | 61 | >75% Grass cover, Good, HSG B |
| 295 | 61 | >75% Grass cover, Good, HSG B |
| 41,631 | 98 | Paved parking, HSG B |
| 2,635 | 61 | >75% Grass cover, Good, HSG B |
| 7,567 | 61 | >75% Grass cover, Good, HSG B |
| 15,787 | 98 | Paved parking, HSG B |
| 1,191 | 61 | >75% Grass cover, Good, HSG B |
| 256,054 | 69 | Weighted Average |
| 198,636 | | 77.58% Pervious Area |
| 57,418 | | 22.42% Impervious Area |

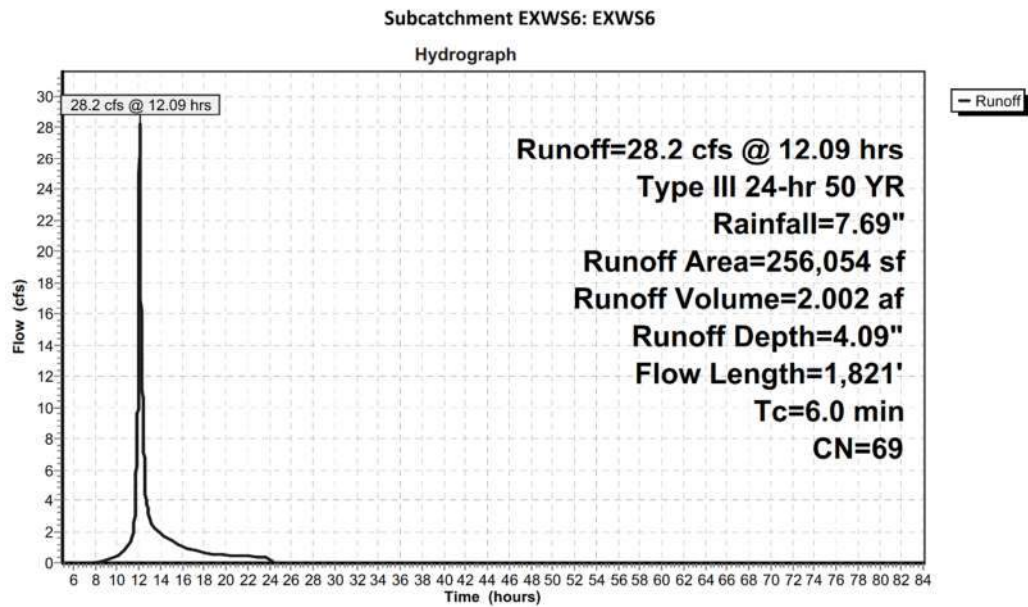
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 1.9 | 28 | 0.0890 | 0.25 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.6 | 72 | 0.0490 | 1.91 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 0.2 | 50 | 0.0490 | 4.49 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 1.9 | 450 | 0.0710 | 4.00 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 0.4 | 474 | 0.0790 | 20.24 | 63.58 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 200 | 0.0600 | 17.64 | 55.41 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 189 | 0.0700 | 19.05 | 59.85 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.6 | 358 | 0.0170 | 9.39 | 29.50 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 6.0 | 1,821 | Total | | | |

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Type III 24-hr 50 YR Rainfall=7.69"



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Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment EXWS7: EXWS7

Runoff = 9.7 cfs @ 12.07 hrs, Volume= 0.662 af, Depth= 3.54"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 5,433 | 61 | >75% Grass cover, Good, HSG B |
| 14,290 | 55 | Woods, Good, HSG B |
| 14,905 | 61 | >75% Grass cover, Good, HSG B |
| 29,839 | 55 | Woods, Good, HSG B |
| 12,976 | 61 | >75% Grass cover, Good, HSG B |
| 4,785 | 98 | Paved parking, HSG B |
| 2,157 | 61 | >75% Grass cover, Good, HSG B |
| 913 | 61 | >75% Grass cover, Good, HSG B |
| 989 | 61 | >75% Grass cover, Good, HSG B |
| 2,242 | 61 | >75% Grass cover, Good, HSG B |
| 9,315 | 98 | Paved parking, HSG B |
| 97,844 | 64 | Weighted Average |
| 83,744 | | 85.59% Pervious Area |
| 14,100 | | 14.41% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 2.7 | 40 | 0.0740 | 0.25 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.5 | 60 | 0.0670 | 2.09 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 1.1 | 346 | 0.0685 | 5.31 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.4 | 260 | 0.0400 | 10.44 | 5.70 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.010 PVC, smooth interior |
| 4.7 | 706 | Total | | | |

EAGLE RIDGE PRELIMINARY EXISTING

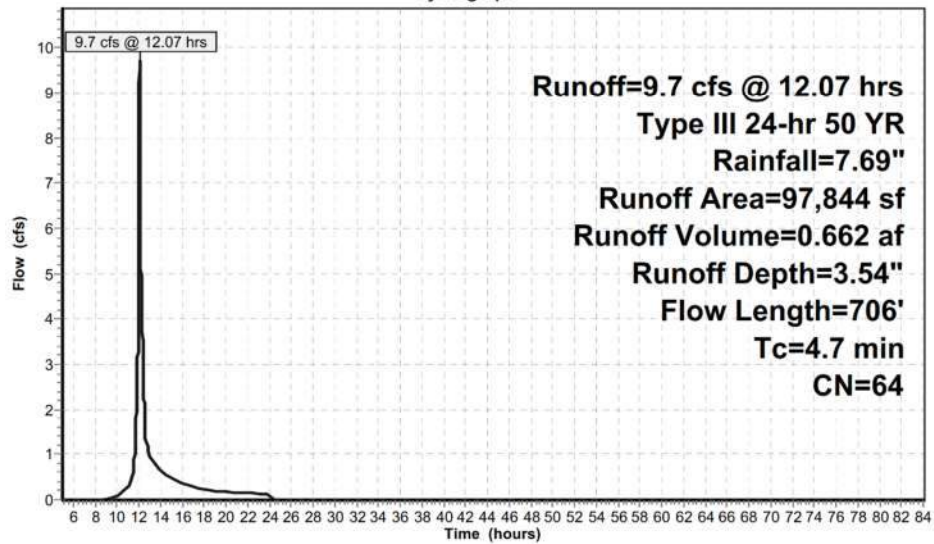
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Type III 24-hr 50 YR Rainfall=7.69"

Subcatchment EXWS7: EXWS7

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Link EXDP1: EXDP1

Inflow Area = 1.852 ac, 0.00% Impervious, Inflow Depth = 2.57" for 50 YR event

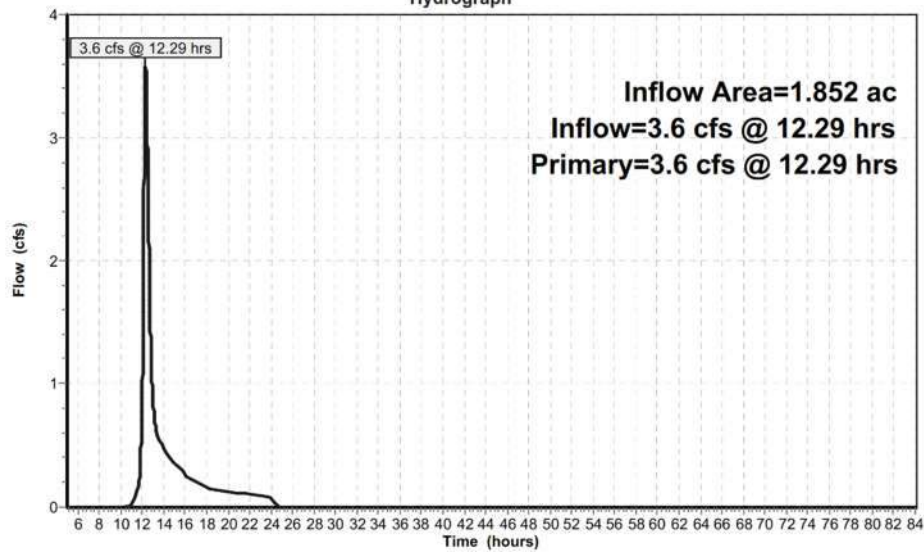
Inflow = 3.6 cfs @ 12.29 hrs, Volume= 0.397 af

Primary = 3.6 cfs @ 12.29 hrs, Volume= 0.397 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP1: EXDP1

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Link EXDP2: EXDP2

Inflow Area = 0.391 ac, 0.00% Impervious, Inflow Depth = 2.57" for 50 YR event

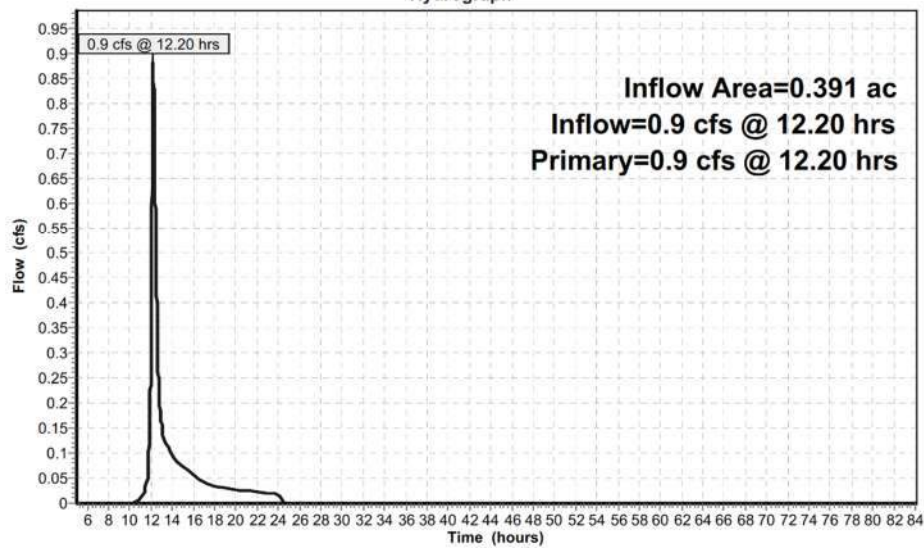
Inflow = 0.9 cfs @ 12.20 hrs, Volume= 0.084 af

Primary = 0.9 cfs @ 12.20 hrs, Volume= 0.084 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP2: EXDP2

Hydrograph



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Type III 24-hr 50 YR Rainfall=7.69"

Summary for Link EXDP3: EXDP3

Inflow Area = 5.859 ac, 4.07% Impervious, Inflow Depth = 3.21" for 50 YR event

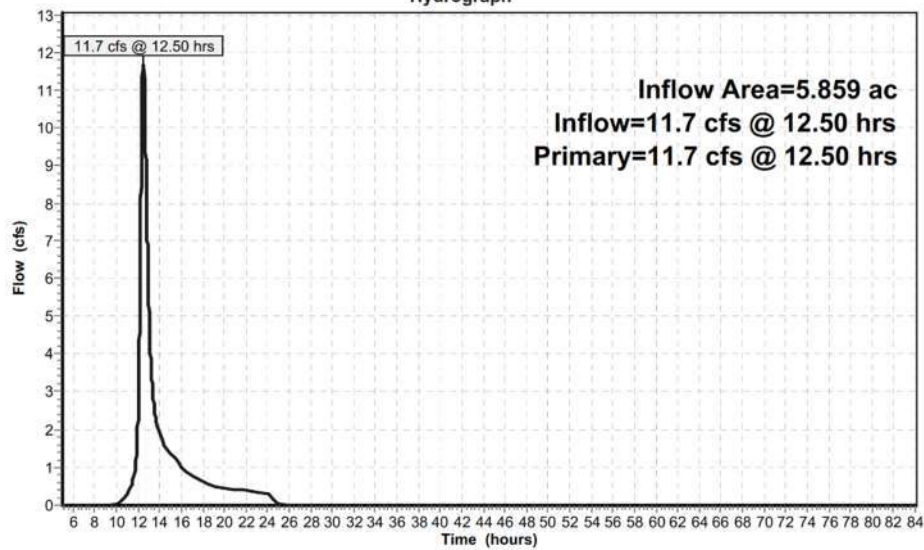
Inflow = 11.7 cfs @ 12.50 hrs, Volume= 1.567 af

Primary = 11.7 cfs @ 12.50 hrs, Volume= 1.567 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP3: EXDP3

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 50 YR Rainfall=7.69"

Summary for Link EXDP4: EXDP4

Inflow Area = 16.492 ac, 5.52% Impervious, Inflow Depth = 3.10" for 50 YR event

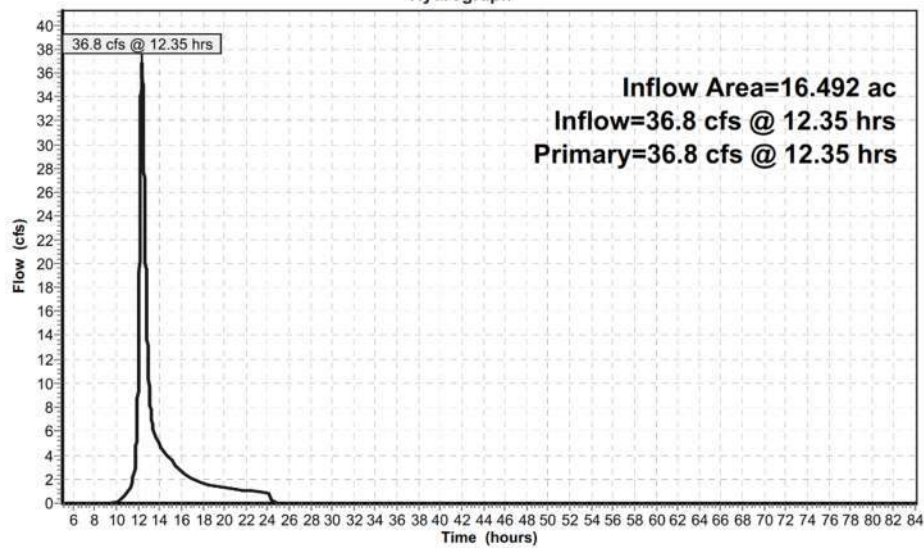
Inflow = 36.8 cfs @ 12.35 hrs, Volume= 4.264 af

Primary = 36.8 cfs @ 12.35 hrs, Volume= 4.264 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP4: EXDP4

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 50 YR Rainfall=7.69"

Summary for Link EXDP5: EXDP5

Inflow Area = 9.901 ac, 11.64% Impervious, Inflow Depth = 3.10" for 50 YR event

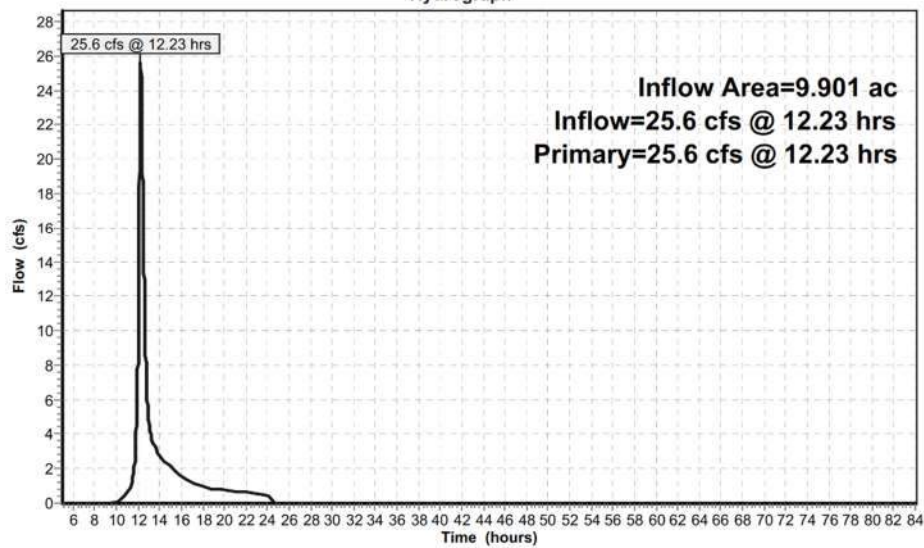
Inflow = 25.6 cfs @ 12.23 hrs, Volume= 2.560 af

Primary = 25.6 cfs @ 12.23 hrs, Volume= 2.560 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP5: EXDP5

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 50 YR Rainfall=7.69"

Summary for Link EXDP6: EXDP6

Inflow Area = 5.878 ac, 22.42% Impervious, Inflow Depth = 4.09" for 50 YR event

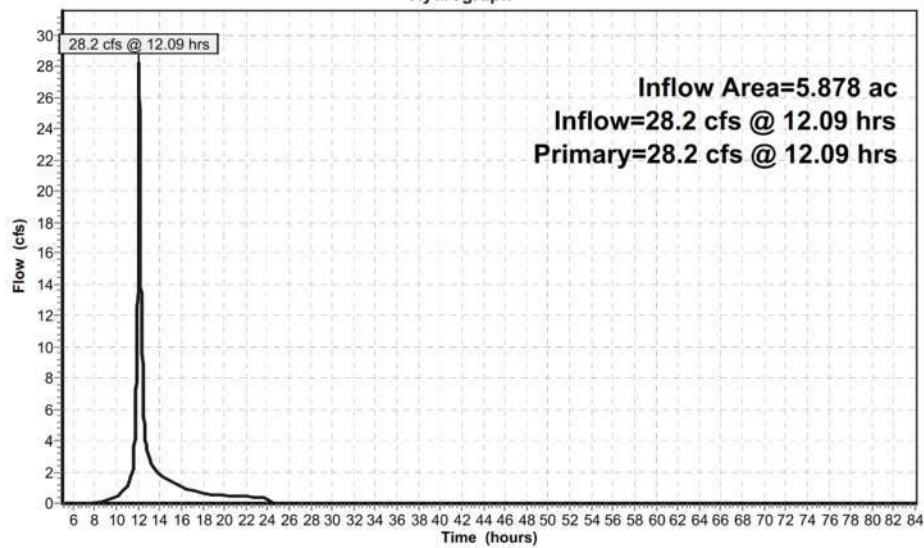
Inflow = 28.2 cfs @ 12.09 hrs, Volume= 2.002 af

Primary = 28.2 cfs @ 12.09 hrs, Volume= 2.002 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP6: EXDP6

Hydrograph



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Type III 24-hr 50 YR Rainfall=7.69"

Summary for Link EXDP7: EXDP7

Inflow Area = 2.246 ac, 14.41% Impervious, Inflow Depth = 3.54" for 50 YR event

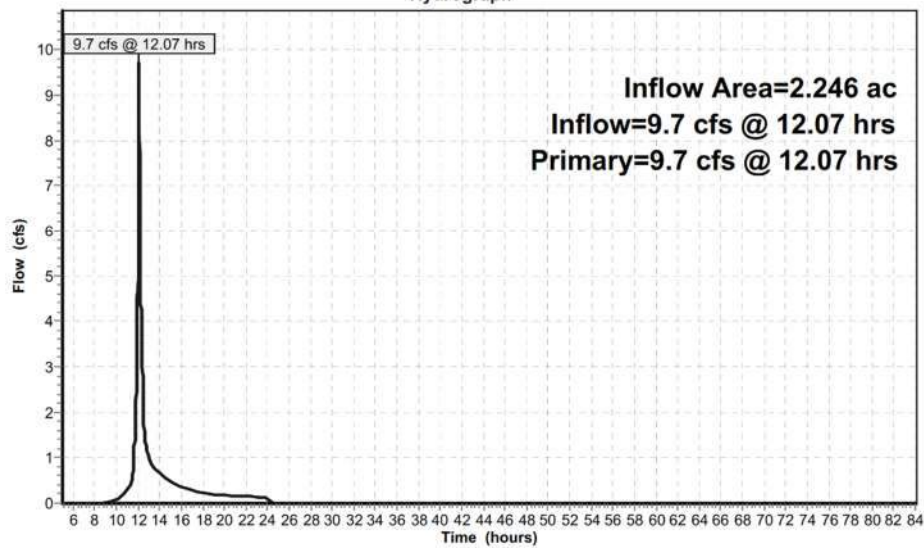
Inflow = 9.7 cfs @ 12.07 hrs, Volume= 0.662 af

Primary = 9.7 cfs @ 12.07 hrs, Volume= 0.662 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP7: EXDP7

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

Type III 24-hr 100 YR Rainfall=9.17"

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Time span=5.00-84.00 hrs, dt=0.01 hrs, 7901 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|---------------------------|--|
| Subcatchment EXWS1: EXWS1 | Runoff Area=80,671 sf 0.00% Impervious Runoff Depth=3.61" Flow Length=332' Tc=20.0 min CN=55 Runoff=5.2 cfs 0.557 af |
| Subcatchment EXWS2: EXWS2 | Runoff Area=17,033 sf 0.00% Impervious Runoff Depth=3.61" Flow Length=194' Tc=13.5 min CN=55 Runoff=1.3 cfs 0.118 af |
| Subcatchment EXWS3: EXWS3 | Runoff Area=255,227 sf 4.07% Impervious Runoff Depth=4.36" Flow Length=1,472' Tc=33.2 min CN=61 Runoff=16.0 cfs 2.129 af |
| Subcatchment EXWS4: EXWS4 | Runoff Area=718,402 sf 5.52% Impervious Runoff Depth=4.23" Flow Length=759' Tc=23.7 min CN=60 Runoff=50.9 cfs 5.820 af |
| Subcatchment EXWS5: EXWS5 | Runoff Area=431,278 sf 11.64% Impervious Runoff Depth=4.23" Flow Length=1,049' Tc=16.6 min CN=60 Runoff=35.5 cfs 3.494 af |
| Subcatchment EXWS6: EXWS6 | Runoff Area=256,054 sf 22.42% Impervious Runoff Depth=5.36" Flow Length=1,821' Tc=6.0 min CN=69 Runoff=36.9 cfs 2.626 af |
| Subcatchment EXWS7: EXWS7 | Runoff Area=97,844 sf 14.41% Impervious Runoff Depth=4.73" Flow Length=706' Tc=4.7 min CN=64 Runoff=13.1 cfs 0.886 af |
| Link EXDP1: EXDP1 | Inflow=5.2 cfs 0.557 af Primary=5.2 cfs 0.557 af |
| Link EXDP2: EXDP2 | Inflow=1.3 cfs 0.118 af Primary=1.3 cfs 0.118 af |
| Link EXDP3: EXDP3 | Inflow=16.0 cfs 2.129 af Primary=16.0 cfs 2.129 af |
| Link EXDP4: EXDP4 | Inflow=50.9 cfs 5.820 af Primary=50.9 cfs 5.820 af |
| Link EXDP5: EXDP5 | Inflow=35.5 cfs 3.494 af Primary=35.5 cfs 3.494 af |
| Link EXDP6: EXDP6 | Inflow=36.9 cfs 2.626 af Primary=36.9 cfs 2.626 af |
| Link EXDP7: EXDP7 | Inflow=13.1 cfs 0.886 af Primary=13.1 cfs 0.886 af |

Total Runoff Area = 42.620 ac Runoff Volume = 15.629 af Average Runoff Depth = 4.40"
90.75% Pervious = 38.676 ac 9.25% Impervious = 3.943 ac

EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 100 YR Rainfall=9.17"

Summary for Subcatchment EXWS1: EXWS1

Runoff = 5.2 cfs @ 12.29 hrs, Volume= 0.557 af, Depth= 3.61"

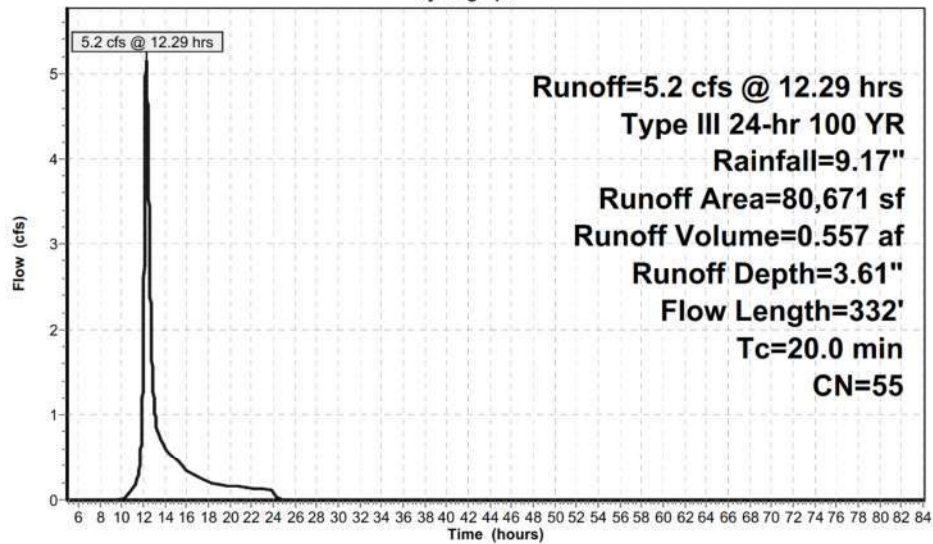
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 1,983 | 61 | >75% Grass cover, Good, HSG B |
| 17,152 | 55 | Woods, Good, HSG B |
| 61,536 | 55 | Woods, Good, HSG B |
| 80,671 | 55 | Weighted Average |
| 80,671 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 18.1 | 100 | 0.0280 | 0.09 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.4 | 50 | 0.1650 | 2.03 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 58 | 0.1030 | 1.60 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.9 | 124 | 0.2230 | 2.36 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 20.0 | 332 | Total | | | |

Subcatchment EXWS1: EXWS1

Hydrograph



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Type III 24-hr 100 YR Rainfall=9.17"

Summary for Subcatchment EXWS2: EXWS2

Runoff = 1.3 cfs @ 12.19 hrs, Volume= 0.118 af, Depth= 3.61"

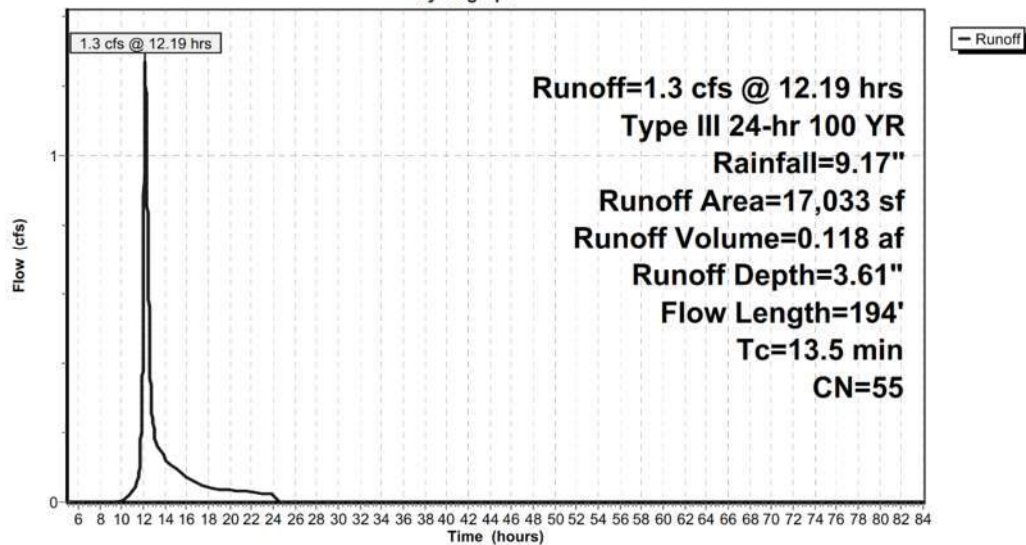
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-----------------------|
| 17,033 | 55 | Woods, Good, HSG B |
| 17,033 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.9 | 34 | 0.1470 | 0.14 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 9.3 | 116 | 0.1980 | 0.21 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.3 | 44 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 13.5 | 194 | Total | | | |

Subcatchment EXWS2: EXWS2

Hydrograph



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Type III 24-hr 100 YR Rainfall=9.17"

Summary for Subcatchment EXWS3: EXWS3

Runoff = 16.0 cfs @ 12.47 hrs, Volume= 2.129 af, Depth= 4.36"

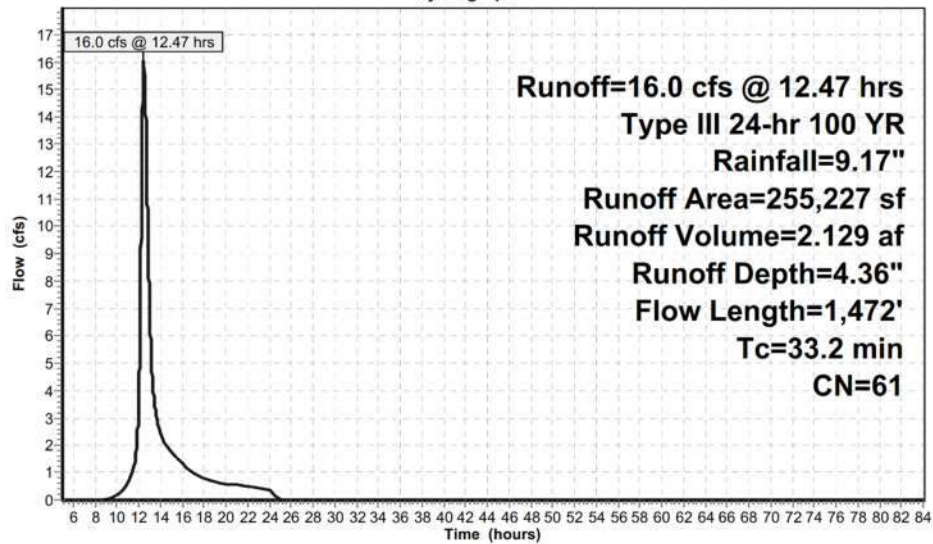
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 81,245 | 55 | Woods, Good, HSG B |
| 162,736 | 61 | >75% Grass cover, Good, HSG B |
| 10,397 | 98 | Paved parking, HSG B |
| 849 | 61 | >75% Grass cover, Good, HSG B |
| 255,227 | 61 | Weighted Average |
| 244,830 | | 95.93% Pervious Area |
| 10,397 | | 4.07% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 21.1 | 150 | 0.0430 | 0.12 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 6.2 | 529 | 0.0800 | 1.41 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 5.9 | 793 | 0.1030 | 2.25 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 33.2 | 1,472 | Total | | | |

Subcatchment EXWS3: EXWS3

Hydrograph



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Type III 24-hr 100 YR Rainfall=9.17"

Summary for Subcatchment EXWS4: EXWS4

Runoff = 50.9 cfs @ 12.35 hrs, Volume= 5.820 af, Depth= 4.23"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 1,090 | 61 | >75% Grass cover, Good, HSG B |
| 31,029 | 98 | Paved parking, HSG B |
| 359,184 | 55 | Woods, Good, HSG B |
| 314,447 | 61 | >75% Grass cover, Good, HSG B |
| 8,523 | 98 | Paved parking, HSG B |
| 271 | 61 | >75% Grass cover, Good, HSG B |
| 118 | 98 | Paved parking, HSG B |
| 3,740 | 61 | >75% Grass cover, Good, HSG B |
| 718,402 | 60 | Weighted Average |
| 678,732 | | 94.48% Pervious Area |
| 39,670 | | 5.52% Impervious Area |

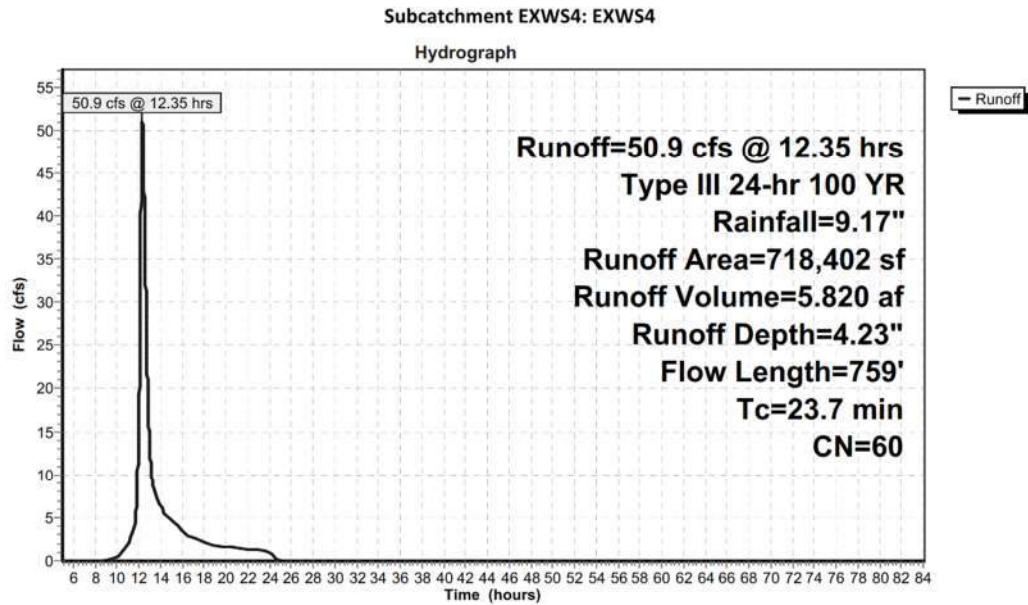
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 18.2 | 150 | 0.0620 | 0.14 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.5 | 48 | 0.1200 | 1.73 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.7 | 74 | 0.1350 | 1.84 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 1.3 | 109 | 0.0730 | 1.35 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 1.7 | 172 | 0.1160 | 1.70 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 56 | 0.2850 | 2.67 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.5 | 59 | 0.1530 | 1.96 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.5 | 91 | 0.3840 | 3.10 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 23.7 | 759 | Total | | | |

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Type III 24-hr 100 YR Rainfall=9.17"



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Type III 24-hr 100 YR Rainfall=9.17"

Summary for Subcatchment EXWS5: EXWS5

Runoff = 35.5 cfs @ 12.23 hrs, Volume= 3.494 af, Depth= 4.23"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 87,490 | 55 | Woods, Good, HSG B |
| 50,967 | 55 | Woods, Good, HSG B |
| 22,785 | 55 | Woods, Good, HSG B |
| 87,991 | 55 | Woods, Good, HSG B |
| 50,189 | 98 | Paved parking, HSG B |
| 1,904 | 61 | >75% Grass cover, Good, HSG B |
| 7,163 | 61 | >75% Grass cover, Good, HSG B |
| 122,789 | 55 | Woods, Good, HSG B |
| 431,278 | 60 | Weighted Average |
| 381,089 | | 88.36% Pervious Area |
| 50,189 | | 11.64% Impervious Area |

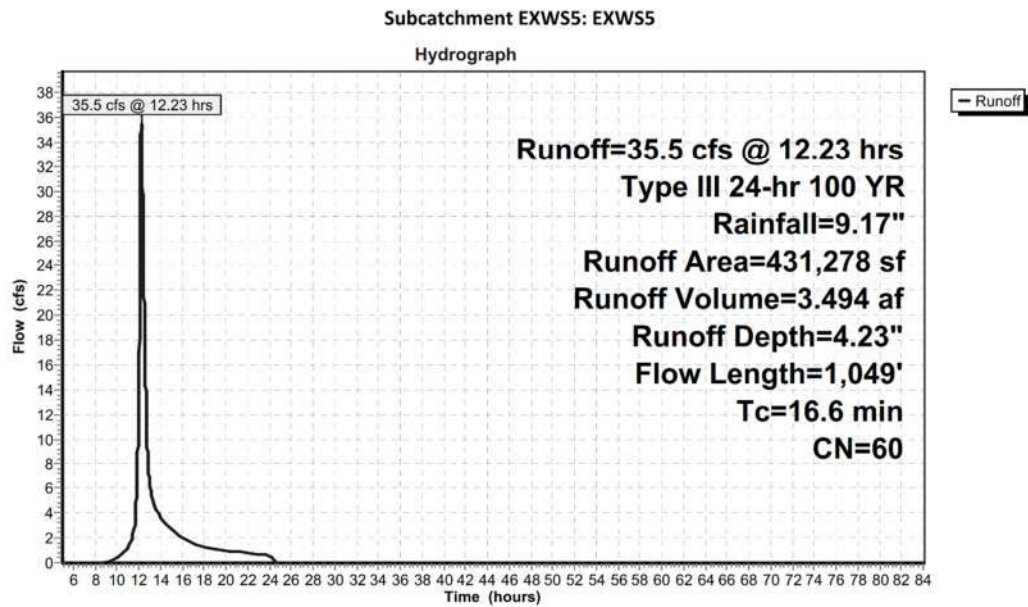
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 12.1 | 100 | 0.0275 | 0.14 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.8 | 60 | 0.0330 | 1.27 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 31 | 0.2420 | 3.44 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 345 | 0.0520 | 4.63 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.1 | 105 | 0.1840 | 17.23 | 9.40 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 90 | 0.3100 | 8.35 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.1 | 100 | 0.1000 | 1.58 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 83 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 135 | 0.3000 | 8.22 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 16.6 | 1,049 | Total | | | |

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Type III 24-hr 100 YR Rainfall=9.17"



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Type III 24-hr 100 YR Rainfall=9.17"

Summary for Subcatchment EXWS6: EXWS6

Runoff = 36.9 cfs @ 12.09 hrs, Volume= 2.626 af, Depth= 5.36"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 30,242 | 61 | >75% Grass cover, Good, HSG B |
| 150,793 | 61 | >75% Grass cover, Good, HSG B |
| 4,924 | 61 | >75% Grass cover, Good, HSG B |
| 989 | 61 | >75% Grass cover, Good, HSG B |
| 295 | 61 | >75% Grass cover, Good, HSG B |
| 41,631 | 98 | Paved parking, HSG B |
| 2,635 | 61 | >75% Grass cover, Good, HSG B |
| 7,567 | 61 | >75% Grass cover, Good, HSG B |
| 15,787 | 98 | Paved parking, HSG B |
| 1,191 | 61 | >75% Grass cover, Good, HSG B |
| 256,054 | 69 | Weighted Average |
| 198,636 | | 77.58% Pervious Area |
| 57,418 | | 22.42% Impervious Area |

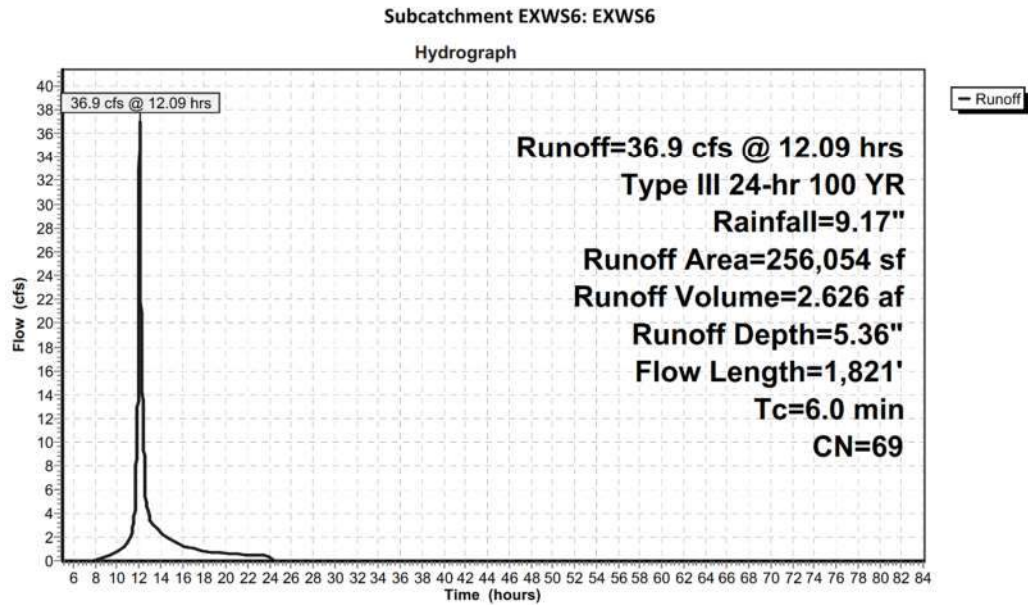
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 1.9 | 28 | 0.0890 | 0.25 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.6 | 72 | 0.0490 | 1.91 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 0.2 | 50 | 0.0490 | 4.49 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 1.9 | 450 | 0.0710 | 4.00 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 0.4 | 474 | 0.0790 | 20.24 | 63.58 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 200 | 0.0600 | 17.64 | 55.41 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 189 | 0.0700 | 19.05 | 59.85 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.6 | 358 | 0.0170 | 9.39 | 29.50 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 6.0 | 1,821 | Total | | | |

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Type III 24-hr 100 YR Rainfall=9.17"



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Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment EXWS7: EXWS7

Runoff = 13.1 cfs @ 12.07 hrs, Volume= 0.886 af, Depth= 4.73"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 5,433 | 61 | >75% Grass cover, Good, HSG B |
| 14,290 | 55 | Woods, Good, HSG B |
| 14,905 | 61 | >75% Grass cover, Good, HSG B |
| 29,839 | 55 | Woods, Good, HSG B |
| 12,976 | 61 | >75% Grass cover, Good, HSG B |
| 4,785 | 98 | Paved parking, HSG B |
| 2,157 | 61 | >75% Grass cover, Good, HSG B |
| 913 | 61 | >75% Grass cover, Good, HSG B |
| 989 | 61 | >75% Grass cover, Good, HSG B |
| 2,242 | 61 | >75% Grass cover, Good, HSG B |
| 9,315 | 98 | Paved parking, HSG B |
| 97,844 | 64 | Weighted Average |
| 83,744 | | 85.59% Pervious Area |
| 14,100 | | 14.41% Impervious Area |

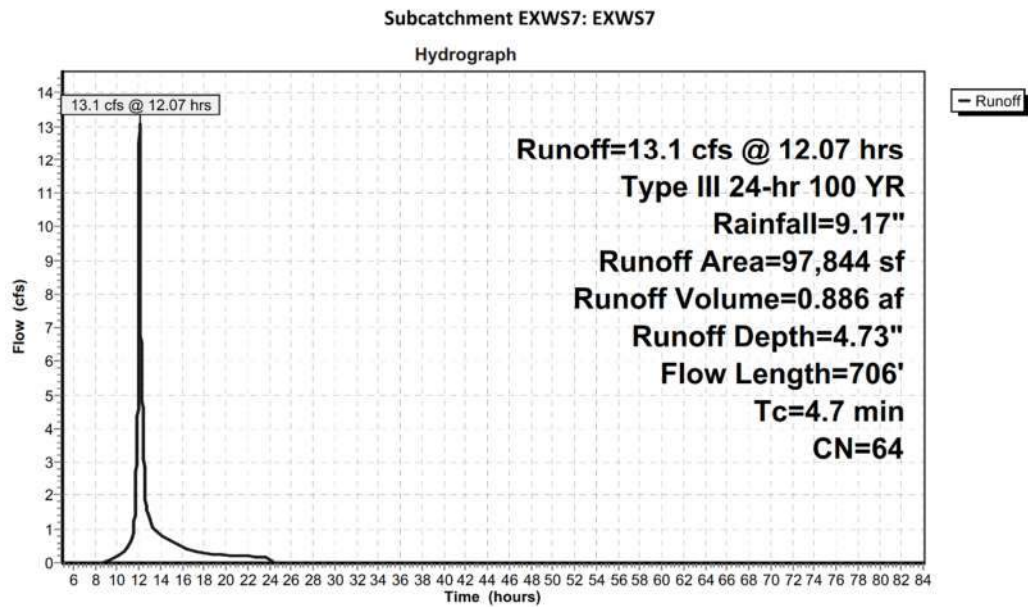
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 2.7 | 40 | 0.0740 | 0.25 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.5 | 60 | 0.0670 | 2.09 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 1.1 | 346 | 0.0685 | 5.31 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.4 | 260 | 0.0400 | 10.44 | 5.70 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.010 PVC, smooth interior |
| 4.7 | 706 | Total | | | |

EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 100 YR Rainfall=9.17"



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Type III 24-hr 100 YR Rainfall=9.17"

Summary for Link EXDP1: EXDP1

Inflow Area = 1.852 ac, 0.00% Impervious, Inflow Depth = 3.61" for 100 YR event

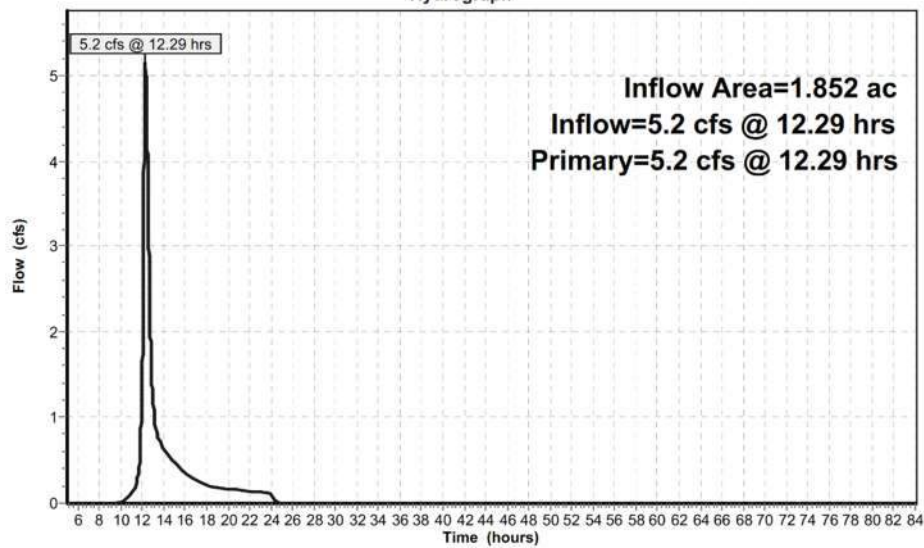
Inflow = 5.2 cfs @ 12.29 hrs, Volume= 0.557 af

Primary = 5.2 cfs @ 12.29 hrs, Volume= 0.557 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP1: EXDP1

Hydrograph



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Type III 24-hr 100 YR Rainfall=9.17"

Summary for Link EXDP2: EXDP2

Inflow Area = 0.391 ac, 0.00% Impervious, Inflow Depth = 3.61" for 100 YR event

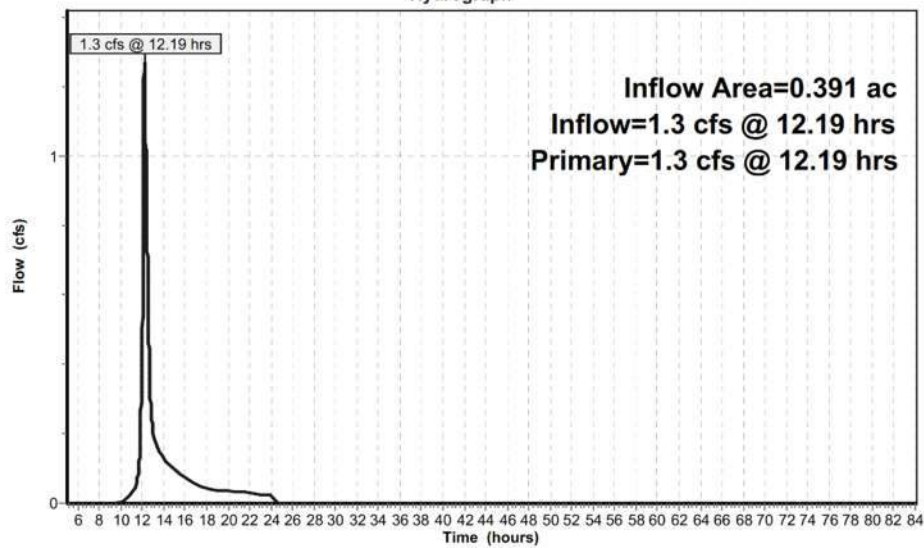
Inflow = 1.3 cfs @ 12.19 hrs, Volume= 0.118 af

Primary = 1.3 cfs @ 12.19 hrs, Volume= 0.118 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP2: EXDP2

Hydrograph



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Type III 24-hr 100 YR Rainfall=9.17"

Summary for Link EXDP3: EXDP3

Inflow Area = 5.859 ac, 4.07% Impervious, Inflow Depth = 4.36" for 100 YR event

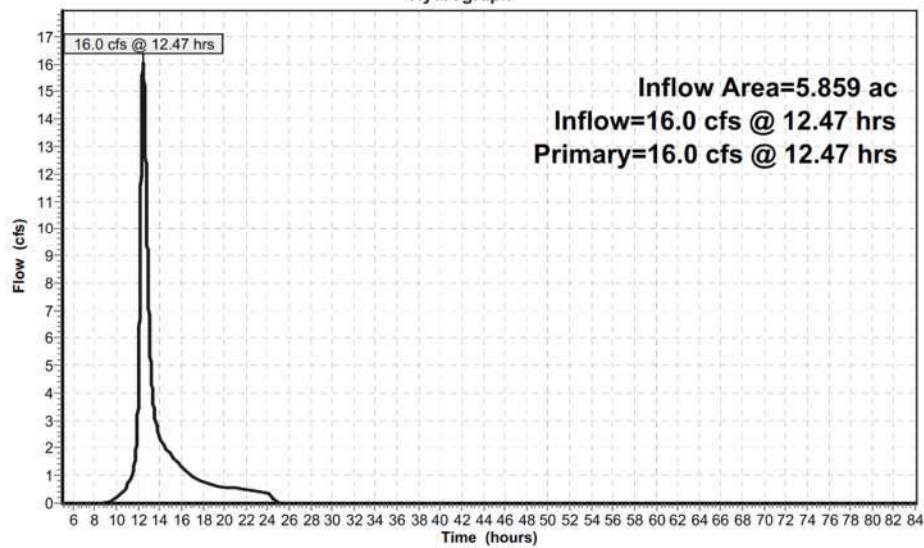
Inflow = 16.0 cfs @ 12.47 hrs, Volume= 2.129 af

Primary = 16.0 cfs @ 12.47 hrs, Volume= 2.129 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP3: EXDP3

Hydrograph



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Type III 24-hr 100 YR Rainfall=9.17"

Summary for Link EXDP4: EXDP4

Inflow Area = 16.492 ac, 5.52% Impervious, Inflow Depth = 4.23" for 100 YR event

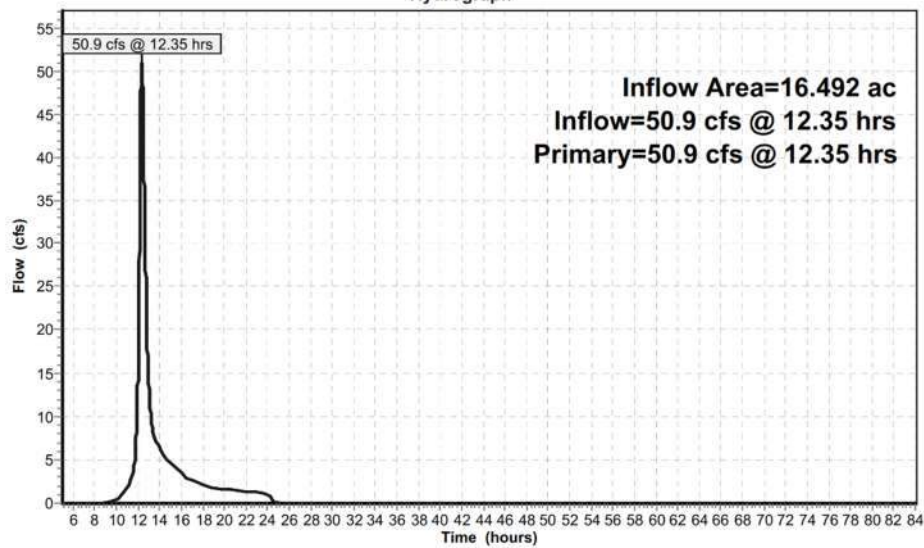
Inflow = 50.9 cfs @ 12.35 hrs, Volume= 5.820 af

Primary = 50.9 cfs @ 12.35 hrs, Volume= 5.820 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP4: EXDP4

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 100 YR Rainfall=9.17"

Summary for Link EXDP5: EXDP5

Inflow Area = 9.901 ac, 11.64% Impervious, Inflow Depth = 4.23" for 100 YR event

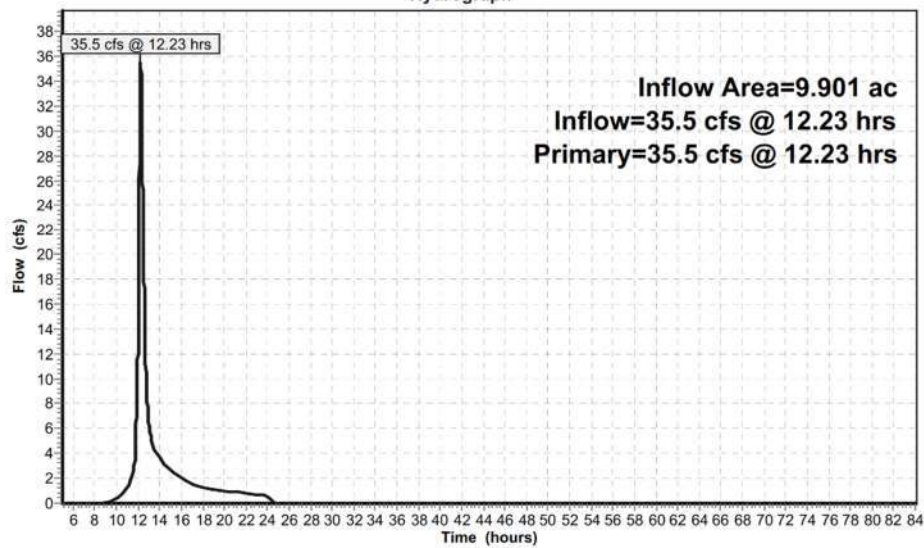
Inflow = 35.5 cfs @ 12.23 hrs, Volume= 3.494 af

Primary = 35.5 cfs @ 12.23 hrs, Volume= 3.494 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP5: EXDP5

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 100 YR Rainfall=9.17"

Summary for Link EXDP6: EXDP6

Inflow Area = 5.878 ac, 22.42% Impervious, Inflow Depth = 5.36" for 100 YR event

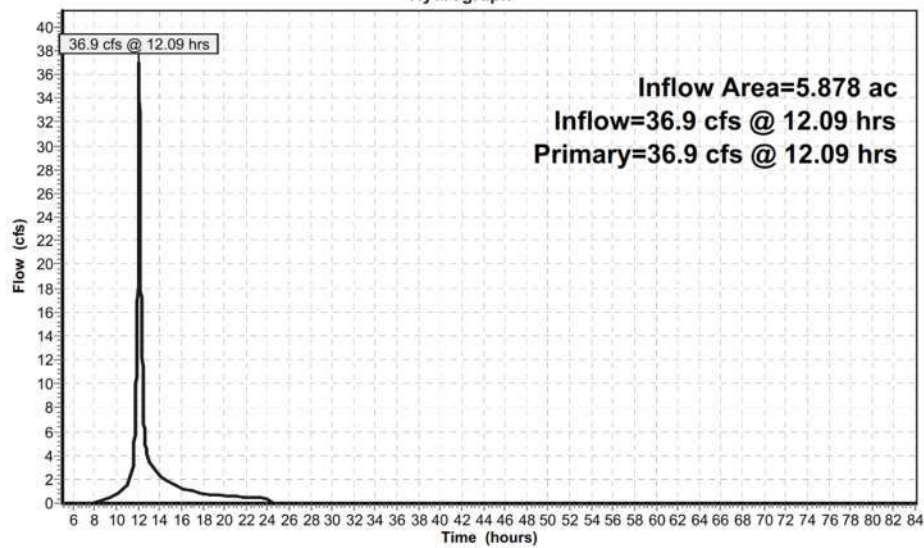
Inflow = 36.9 cfs @ 12.09 hrs, Volume= 2.626 af

Primary = 36.9 cfs @ 12.09 hrs, Volume= 2.626 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP6: EXDP6

Hydrograph



EAGLE RIDGE PRELIMINARY EXISTING

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Type III 24-hr 100 YR Rainfall=9.17"

Summary for Link EXDP7: EXDP7

Inflow Area = 2.246 ac, 14.41% Impervious, Inflow Depth = 4.73" for 100 YR event

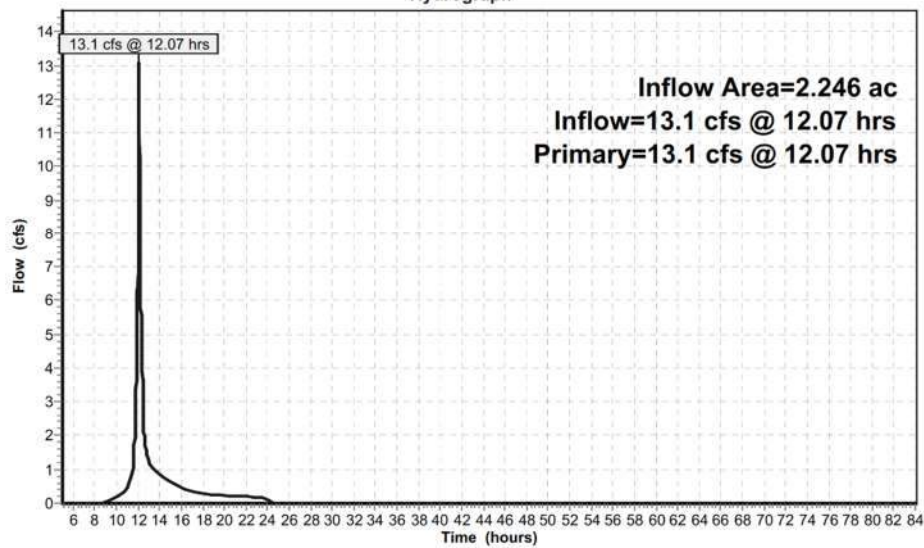
Inflow = 13.1 cfs @ 12.07 hrs, Volume= 0.886 af

Primary = 13.1 cfs @ 12.07 hrs, Volume= 0.886 af, Atten= 0%, Lag= 0.0 min

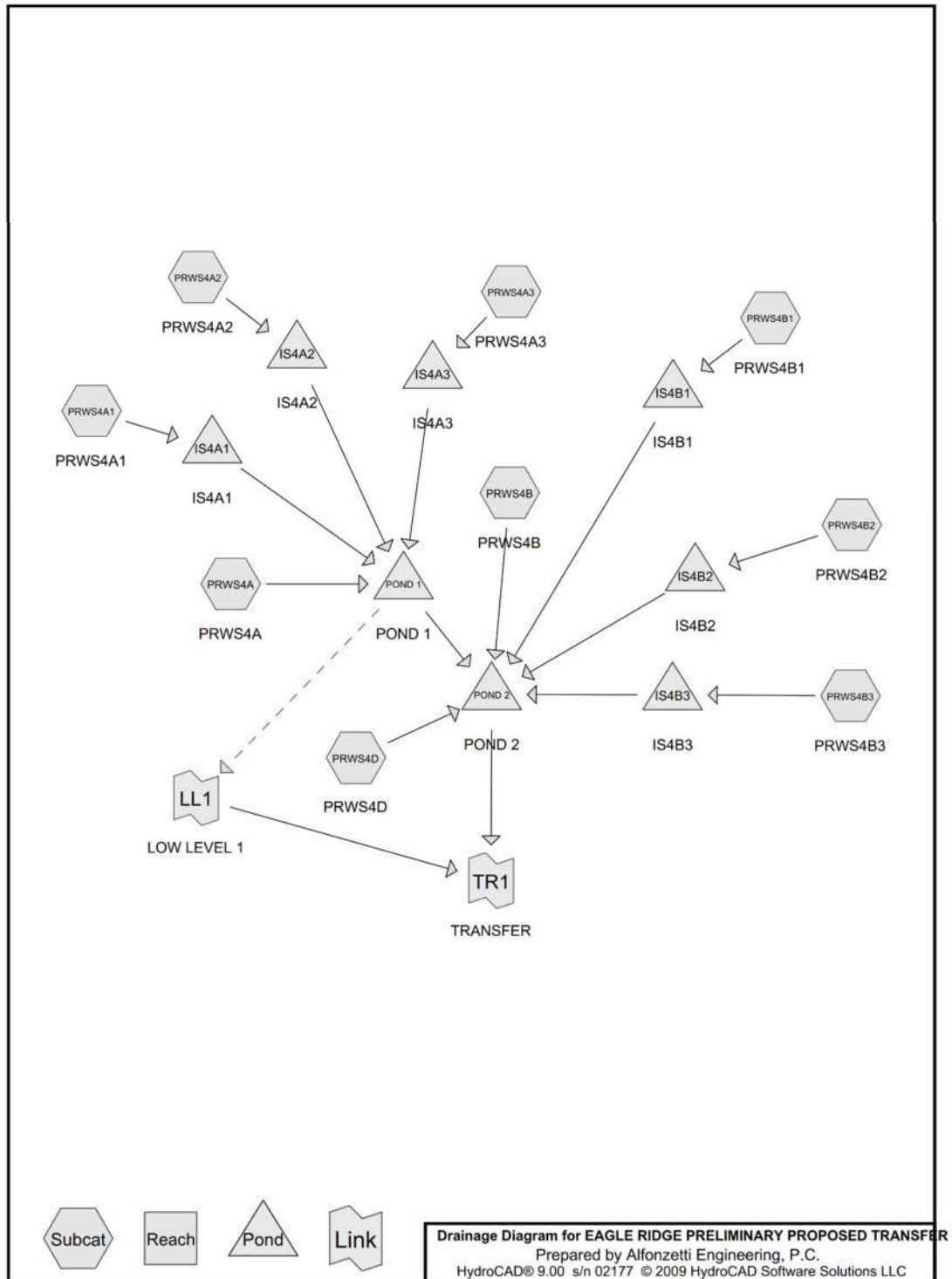
Primary outflow = Inflow, Time Span= 5.00-84.00 hrs, dt= 0.01 hrs

Link EXDP7: EXDP7

Hydrograph



Proposed HydroCad Report (Transfer Hydrograph For DP4):



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

Prepared by Alfonzetti Engineering, P.C.

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Time span=0.00-84.00 hrs, dt=0.010 hrs, 8401 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|--------------------------------------|--|
| Subcatchment PRWS4A: PRWS4A | Runoff Area=522,860 sf 46.54% Impervious Runoff Depth=0.99" Flow Length=700' Tc=15.2 min CN=78 Runoff=10.0 cfs 43,079 cf |
| Subcatchment PRWS4A1: PRWS4A1 | Runoff Area=9,556 sf 100.00% Impervious Runoff Depth=2.57" Tc=5.0 min CN=98 Runoff=0.6 cfs 2,046 cf |
| Subcatchment PRWS4A2: PRWS4A2 | Runoff Area=15,160 sf 100.00% Impervious Runoff Depth=2.57" Tc=5.0 min CN=98 Runoff=1.0 cfs 3,246 cf |
| Subcatchment PRWS4A3: PRWS4A3 | Runoff Area=22,416 sf 100.00% Impervious Runoff Depth=2.57" Tc=5.0 min CN=98 Runoff=1.4 cfs 4,799 cf |
| Subcatchment PRWS4B: PRWS4B | Runoff Area=66,812 sf 100.00% Impervious Runoff Depth=2.57" Tc=6.0 min CN=98 Runoff=4.2 cfs 14,304 cf |
| Subcatchment PRWS4B1: PRWS4B1 | Runoff Area=41,315 sf 49.21% Impervious Runoff Depth=1.04" Flow Length=372' Tc=5.2 min CN=79 Runoff=1.2 cfs 3,596 cf |
| Subcatchment PRWS4B2: PRWS4B2 | Runoff Area=30,450 sf 70.15% Impervious Runoff Depth=1.57" Flow Length=191' Tc=9.7 min CN=87 Runoff=1.1 cfs 3,973 cf |
| Subcatchment PRWS4B3: PRWS4B3 | Runoff Area=40,460 sf 71.89% Impervious Runoff Depth=1.64" Flow Length=445' Tc=8.3 min CN=88 Runoff=1.6 cfs 5,535 cf |
| Subcatchment PRWS4D: PRWS4D | Runoff Area=65,915 sf 0.00% Impervious Runoff Depth=0.29" Flow Length=446' Tc=8.4 min CN=61 Runoff=0.2 cfs 1,606 cf |
| Pond IS4A1: IS4A1 | Peak Elev=494.92' Storage=662 cf Inflow=0.6 cfs 2,046 cf Discarded=0.1 cfs 2,046 cf Primary=0.0 cfs 0 cf Outflow=0.1 cfs 2,046 cf |
| Pond IS4A2: IS4A2 | Peak Elev=454.62' Storage=969 cf Inflow=1.0 cfs 3,246 cf Discarded=0.1 cfs 3,246 cf Primary=0.0 cfs 0 cf Outflow=0.1 cfs 3,246 cf |
| Pond IS4A3: IS4A3 | Peak Elev=454.75' Storage=1,494 cf Inflow=1.4 cfs 4,799 cf Discarded=0.2 cfs 4,799 cf Primary=0.0 cfs 0 cf Outflow=0.2 cfs 4,799 cf |
| Pond IS4B1: IS4B1 | Peak Elev=433.91' Storage=1,044 cf Inflow=1.2 cfs 3,596 cf Discarded=0.2 cfs 3,596 cf Primary=0.0 cfs 0 cf Outflow=0.2 cfs 3,596 cf |
| Pond IS4B2: IS4B2 | Peak Elev=418.91' Storage=1,418 cf Inflow=1.1 cfs 3,973 cf Discarded=0.1 cfs 3,973 cf Primary=0.0 cfs 0 cf Outflow=0.1 cfs 3,973 cf |
| Pond IS4B3: IS4B3 | Peak Elev=409.38' Storage=2,183 cf Inflow=1.6 cfs 5,535 cf Discarded=0.2 cfs 5,535 cf Primary=0.0 cfs 0 cf Outflow=0.2 cfs 5,535 cf |
| Pond POND 1: POND 1 | Peak Elev=425.96' Storage=22,134 cf Inflow=10.0 cfs 43,079 cf Discarded=0.8 cfs 43,079 cf Primary=0.0 cfs 0 cf Secondary=0.0 cfs 0 cf Outflow=0.8 cfs 43,079 cf |
| Pond POND 2: POND 2 | Peak Elev=382.05' Storage=7,772 cf Inflow=4.2 cfs 15,910 cf Outflow=0.3 cfs 15,910 cf |
| Link LL1: LOW LEVEL 1 | Inflow=0.0 cfs 0 cf Primary=0.0 cfs 0 cf |
| Link TR1: TRANSFER | Inflow=0.3 cfs 15,910 cf Primary=0.3 cfs 15,910 cf |

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

Prepared by Alfonzetti Engineering, P.C.

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Total Runoff Area = 814,944 sf Runoff Volume = 82,184 cf Average Runoff Depth = 1.21"
47.48% Pervious = 386,895 sf 52.52% Impervious = 428,049 sf

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Subcatchment PRWS4A: PRWS4A

Runoff = 10.0 cfs @ 12.22 hrs, Volume= 43,079 cf, Depth= 0.99"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 39,111 | 61 | >75% Grass cover, Good, HSG B |
| 135,808 | 98 | Paved parking, HSG B |
| 159,040 | 61 | >75% Grass cover, Good, HSG B |
| 107,520 | 98 | Unconnected roofs, HSG B |
| 16,880 | 61 | >75% Grass cover, Good, HSG B |
| 41,385 | 61 | >75% Grass cover, Good, HSG B |
| 9,427 | 61 | >75% Grass cover, Good, HSG B |
| 1,552 | 61 | >75% Grass cover, Good, HSG B |
| 1,288 | 61 | >75% Grass cover, Good, HSG B |
| 374 | 61 | >75% Grass cover, Good, HSG B |
| 1,458 | 61 | >75% Grass cover, Good, HSG B |
| 1,458 | 61 | >75% Grass cover, Good, HSG B |
| 1,522 | 61 | >75% Grass cover, Good, HSG B |
| 1,460 | 61 | >75% Grass cover, Good, HSG B |
| 1,543 | 61 | >75% Grass cover, Good, HSG B |
| 1,540 | 61 | >75% Grass cover, Good, HSG B |
| 1,494 | 61 | >75% Grass cover, Good, HSG B |
| 522,860 | 78 | Weighted Average |
| 279,532 | | 53.46% Pervious Area |
| 243,328 | | 46.54% Impervious Area |
| 107,520 | | 44.19% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|-------------|------------------|------------------|----------------------|-------------------|--|
| 13.8 | 100 | 0.0200 | 0.12 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 1.1 | 100 | 0.0500 | 1.57 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 500 | 0.0700 | 24.77 | 77.809 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.010 PVC, smooth interior |
| 15.2 | 700 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

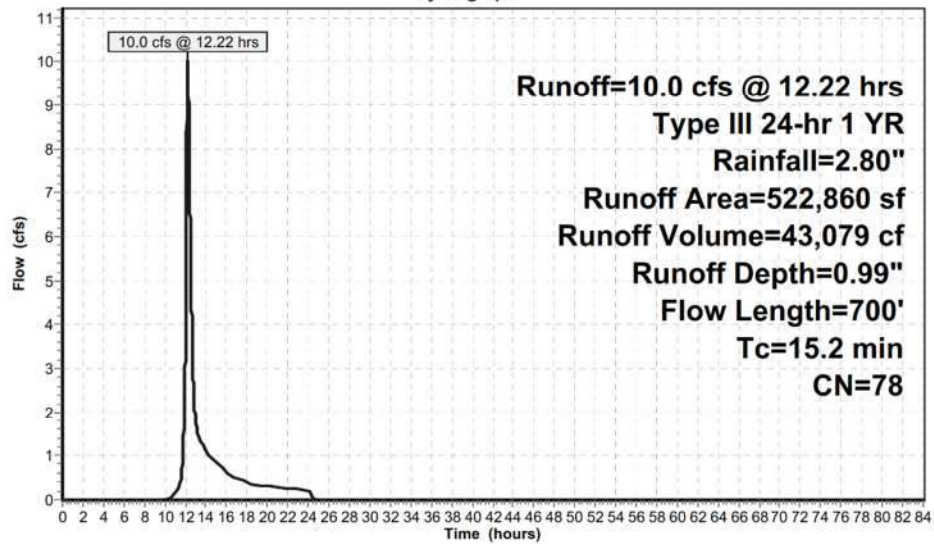
Prepared by Alfonzetti Engineering, P.C.

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Type III 24-hr 1 YR Rainfall=2.80"

Subcatchment PRWS4A: PRWS4A

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Subcatchment PRWS4A1: PRWS4A1

Runoff = 0.6 cfs @ 12.07 hrs, Volume= 2,046 cf, Depth= 2.57"

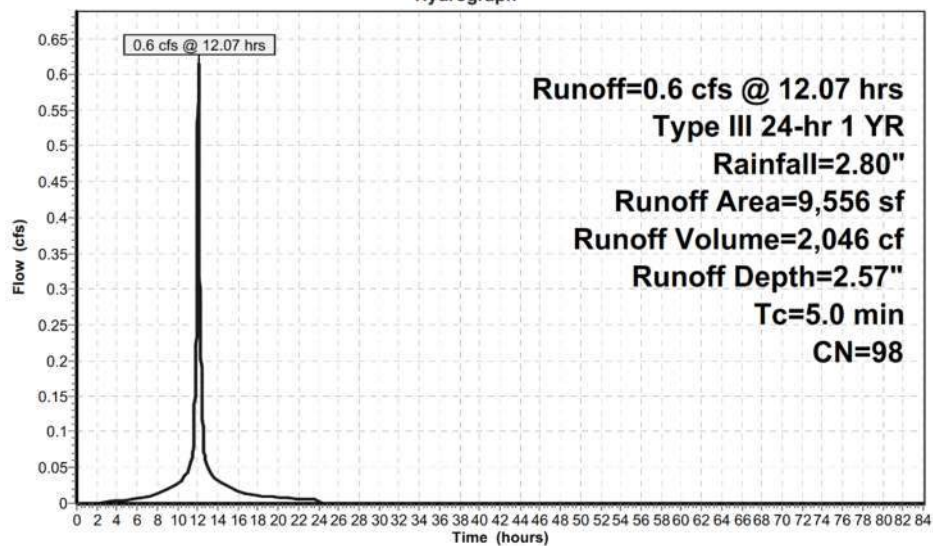
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 9,556 | 98 | Roofs, HSG B |
| 9,556 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A1: PRWS4A1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Subcatchment PRWS4A2: PRWS4A2

Runoff = 1.0 cfs @ 12.07 hrs, Volume= 3,246 cf, Depth= 2.57"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

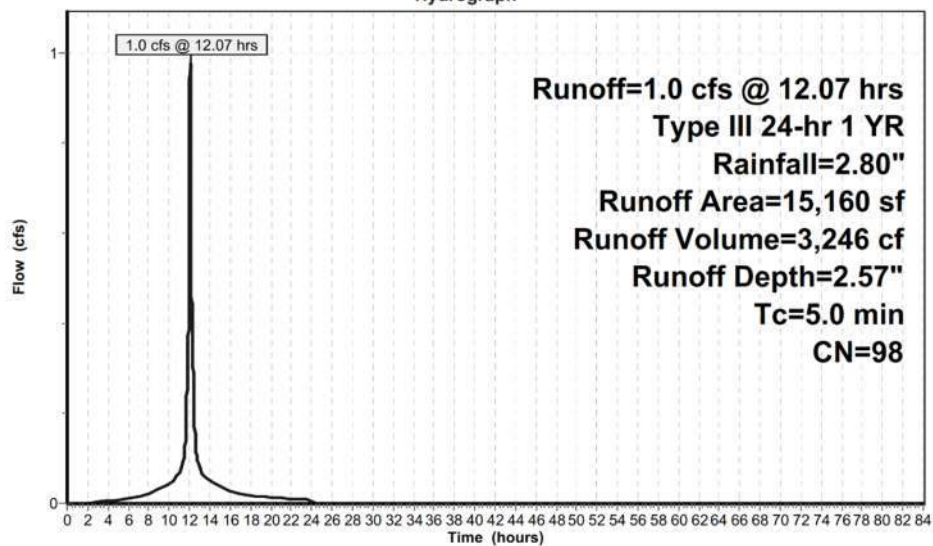
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 15,160 | 98 | Roofs, HSG B |
| 15,160 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A2: PRWS4A2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Subcatchment PRWS4A3: PRWS4A3

Runoff = 1.4 cfs @ 12.07 hrs, Volume= 4,799 cf, Depth= 2.57"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

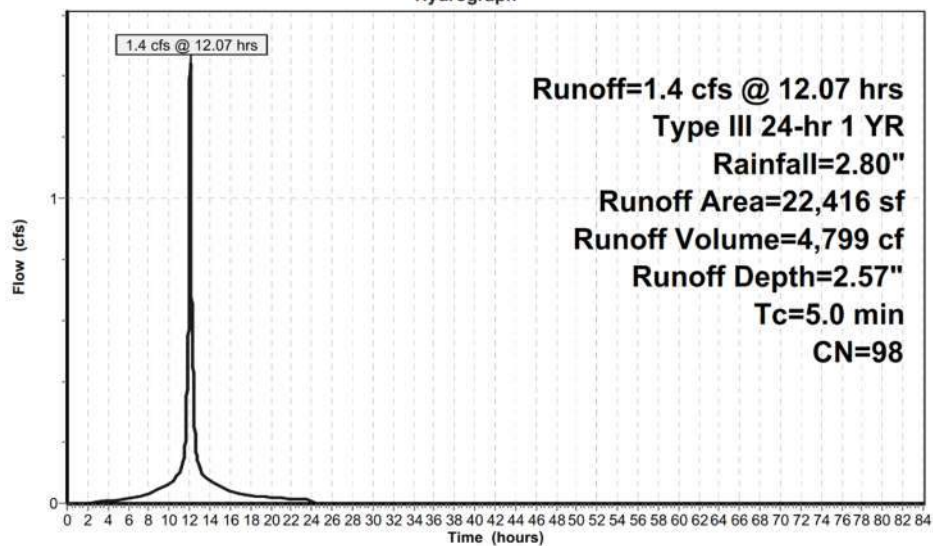
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 22,416 | 98 | Roofs, HSG B |
| 22,416 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A3: PRWS4A3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Subcatchment PRWS4B: PRWS4B

Runoff = 4.2 cfs @ 12.08 hrs, Volume= 14,304 cf, Depth= 2.57"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

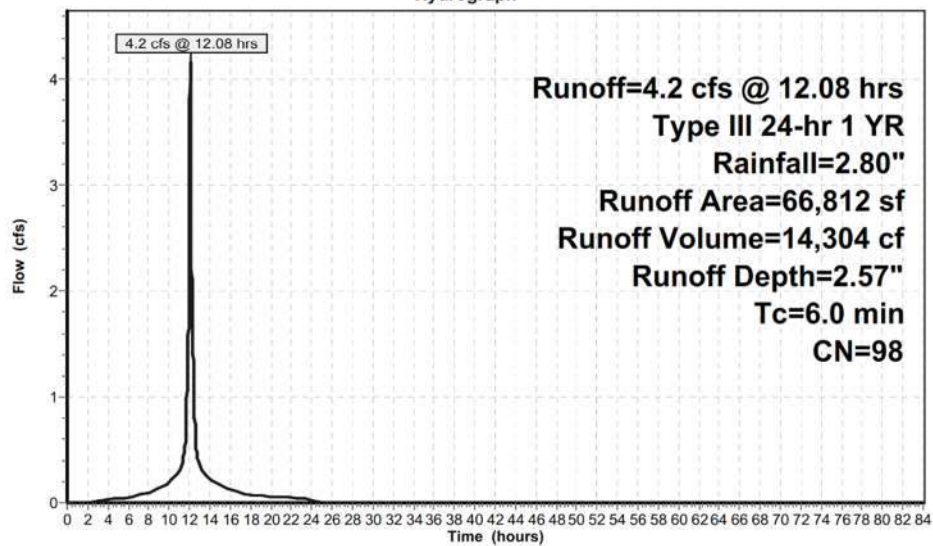
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|--------------------------|
| 66,812 | 98 | Unconnected roofs, HSG B |
| 66,812 | | 100.00% Impervious Area |
| 66,812 | | 100.00% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment PRWS4B: PRWS4B

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Subcatchment PRWS4B1: PRWS4B1

Runoff = 1.2 cfs @ 12.08 hrs, Volume= 3,596 cf, Depth= 1.04"

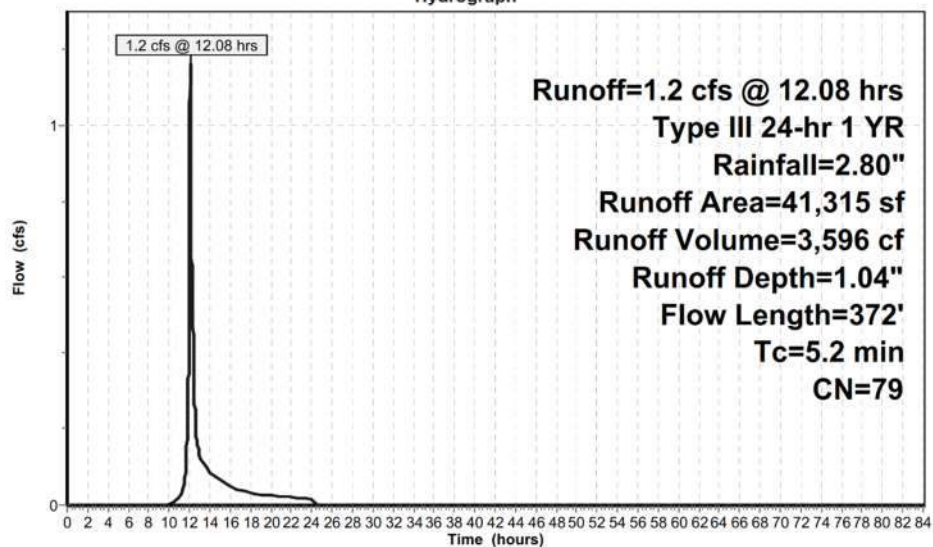
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 20,331 | 98 | Paved parking, HSG B |
| 2,189 | 61 | >75% Grass cover, Good, HSG B |
| 739 | 61 | >75% Grass cover, Good, HSG B |
| 3,763 | 61 | >75% Grass cover, Good, HSG B |
| 14,293 | 61 | >75% Grass cover, Good, HSG B |
| 41,315 | 79 | Weighted Average |
| 20,984 | | 50.79% Pervious Area |
| 20,331 | | 49.21% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.0 | 58 | 0.1200 | 0.32 | | Sheet Flow, SF1 Grass: Short n= 0.150 P2= 3.43" |
| 1.2 | 21 | 0.1400 | 0.28 | | Sheet Flow, SF2 Grass: Short n= 0.150 P2= 3.43" |
| 0.2 | 57 | 0.1200 | 5.20 | | Shallow Concentrated Flow, SCF1 Grassed Waterway Kv= 15.0 fps |
| 0.6 | 93 | 0.0150 | 2.49 | | Shallow Concentrated Flow, SCF2 Paved Kv= 20.3 fps |
| 0.2 | 143 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 5.2 | 372 | Total | | | |

Subcatchment PRWS4B1: PRWS4B1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Subcatchment PRWS4B2: PRWS4B2

Runoff = 1.1 cfs @ 12.14 hrs, Volume= 3,973 cf, Depth= 1.57"

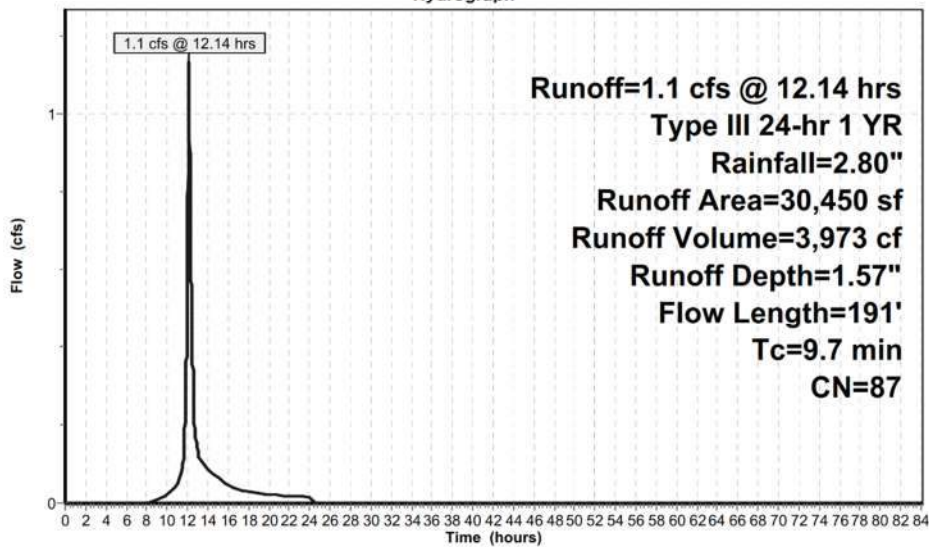
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 21,360 | 98 | Paved parking, HSG B |
| 7,840 | 61 | >75% Grass cover, Good, HSG B |
| 182 | 61 | >75% Grass cover, Good, HSG B |
| 154 | 61 | >75% Grass cover, Good, HSG B |
| 545 | 61 | >75% Grass cover, Good, HSG B |
| 369 | 61 | >75% Grass cover, Good, HSG B |
| 30,450 | 87 | Weighted Average |
| 9,090 | | 29.85% Pervious Area |
| 21,360 | | 70.15% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.8 | 66 | 0.0200 | 0.16 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.7 | 11 | 0.1800 | 0.27 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 1.7 | 23 | 0.0760 | 0.22 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.2 | 19 | 0.0760 | 1.93 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 72 | 0.0360 | 3.85 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 9.7 | 191 | Total | | | |

Subcatchment PRWS4B2: PRWS4B2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Subcatchment PRWS4B3: PRWS4B3

Runoff = 1.6 cfs @ 12.12 hrs, Volume= 5,535 cf, Depth= 1.64"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 29,086 | 98 | Paved parking, HSG B |
| 2,140 | 61 | >75% Grass cover, Good, HSG B |
| 3,232 | 61 | >75% Grass cover, Good, HSG B |
| 1,899 | 61 | >75% Grass cover, Good, HSG B |
| 214 | 61 | >75% Grass cover, Good, HSG B |
| 2,928 | 61 | >75% Grass cover, Good, HSG B |
| 961 | 61 | >75% Grass cover, Good, HSG B |
| 40,460 | 88 | Weighted Average |
| 11,374 | | 28.11% Pervious Area |
| 29,086 | | 71.89% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 7.2 | 71 | 0.0200 | 0.16 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.3 | 29 | 0.0500 | 1.60 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 0.5 | 147 | 0.0500 | 4.54 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.0 | 25 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 0.3 | 173 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 8.3 | 445 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

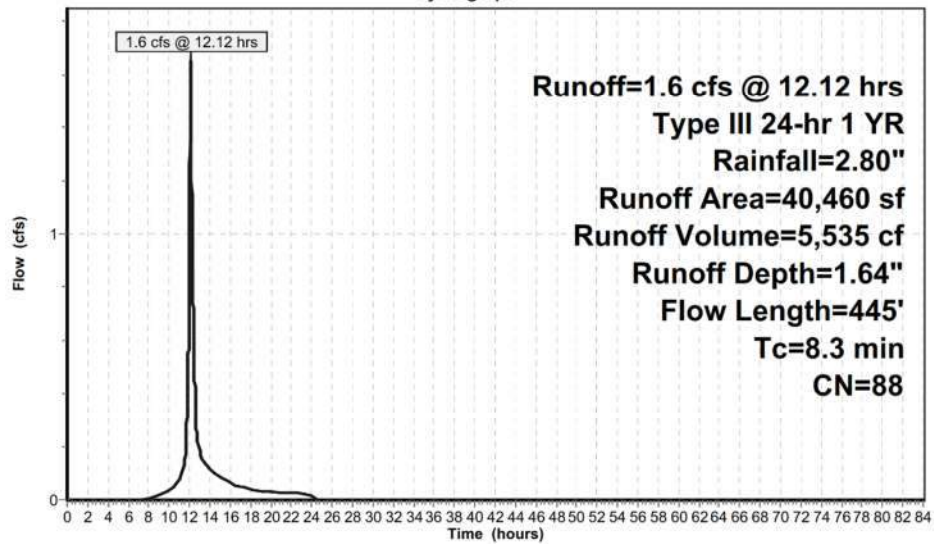
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Type III 24-hr 1 YR Rainfall=2.80"

Subcatchment PRWS4B3: PRWS4B3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Subcatchment PRWS4D: PRWS4D

Runoff = 0.2 cfs @ 12.29 hrs, Volume= 1,606 cf, Depth= 0.29"

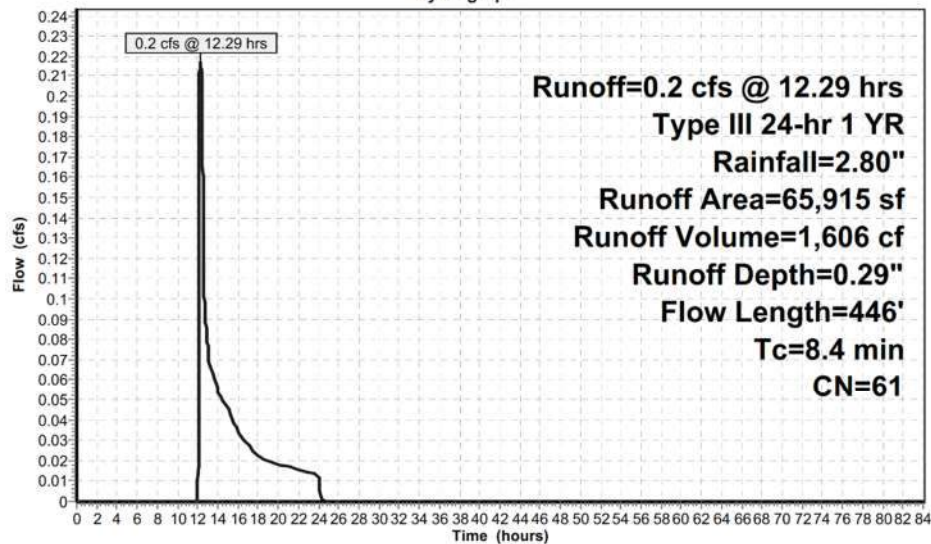
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 65,915 | 61 | >75% Grass cover, Good, HSG B |
| 65,915 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 5.7 | 100 | 0.0700 | 0.29 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.3 | 40 | 0.1000 | 2.21 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.1 | 16 | 0.5000 | 4.95 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.5 | 33 | 0.0300 | 1.21 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.4 | 127 | 0.5000 | 4.95 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 60 | 0.1100 | 4.97 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.2 | 70 | 0.0200 | 0.99 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 8.4 | 446 | Total | | | |

Subcatchment PRWS4D: PRWS4D

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Pond IS4A1: IS4A1

Inflow Area = 9,556 sf, 100.00% Impervious, Inflow Depth = 2.57" for 1 YR event
Inflow = 0.6 cfs @ 12.07 hrs, Volume= 2,046 cf
Outflow = 0.1 cfs @ 11.52 hrs, Volume= 2,046 cf, Atten= 89%, Lag= 0.0 min
Discarded = 0.1 cfs @ 11.52 hrs, Volume= 2,046 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 494.92' @ 12.72 hrs Surf.Area= 702 sf Storage= 662 cf

Plug-Flow detention time= 67.0 min calculated for 2,046 cf (100% of inflow)
Center-of-Mass det. time= 66.9 min (825.3 - 758.4)

| Volume | Invert | Avail.Storage | Storage Description |
|----------|---------|---------------|--|
| #1A | 493.50' | 618 cf | 30.50'W x 23.00'L x 3.54'H Field A 2,484 cf Overall - 939 cf Embedded = 1,546 cf x 40.0% Voids |
| #2A | 494.00' | 939 cf | Cultec R-330XL x 18 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| 1,557 cf | | | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 496.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 496.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 496.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 493.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 11.52 hrs HW=493.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=493.50' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

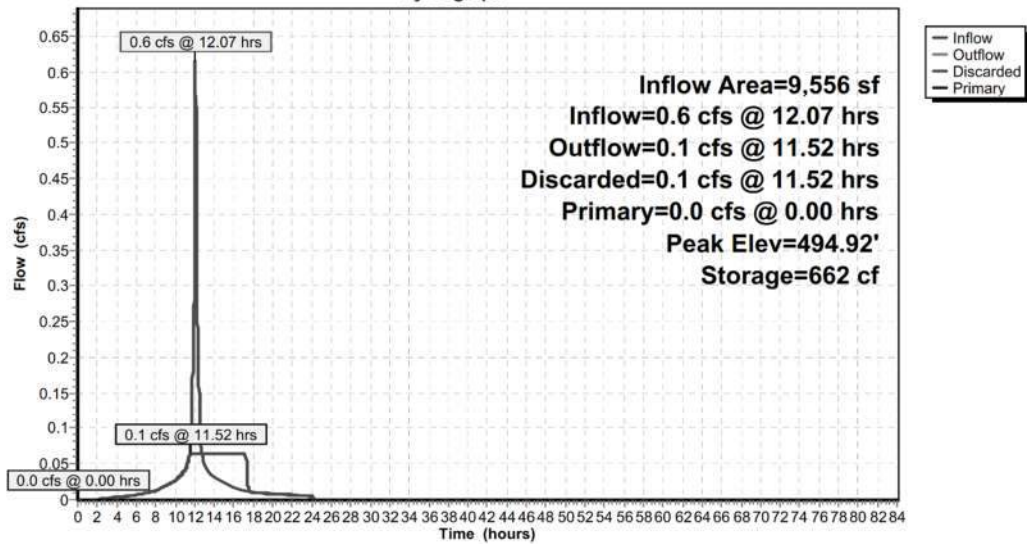
Type III 24-hr 1 YR Rainfall=2.80"

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Pond IS4A1: IS4A1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Pond IS4A2: IS4A2

Inflow Area = 15,160 sf, 100.00% Impervious, Inflow Depth = 2.57" for 1 YR event
Inflow = 1.0 cfs @ 12.07 hrs, Volume= 3,246 cf
Outflow = 0.1 cfs @ 11.62 hrs, Volume= 3,246 cf, Atten= 87%, Lag= 0.0 min
Discarded = 0.1 cfs @ 11.62 hrs, Volume= 3,246 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 454.62' @ 12.58 hrs Surf.Area= 1,342 sf Storage= 969 cf

Plug-Flow detention time= 47.8 min calculated for 3,245 cf (100% of inflow)
Center-of-Mass det. time= 47.8 min (806.2 - 758.4)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 453.50' | 1,150 cf | 30.50'W x 44.00'L x 3.54'H Field A 4,753 cf Overall - 1,878 cf Embedded = 2,875 cf x 40.0% Voids |
| #2A | 454.00' | 1,878 cf | Cultec R-330XL x 36 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 3,028 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 456.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 456.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 456.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 453.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 11.62 hrs HW=453.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=453.50' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

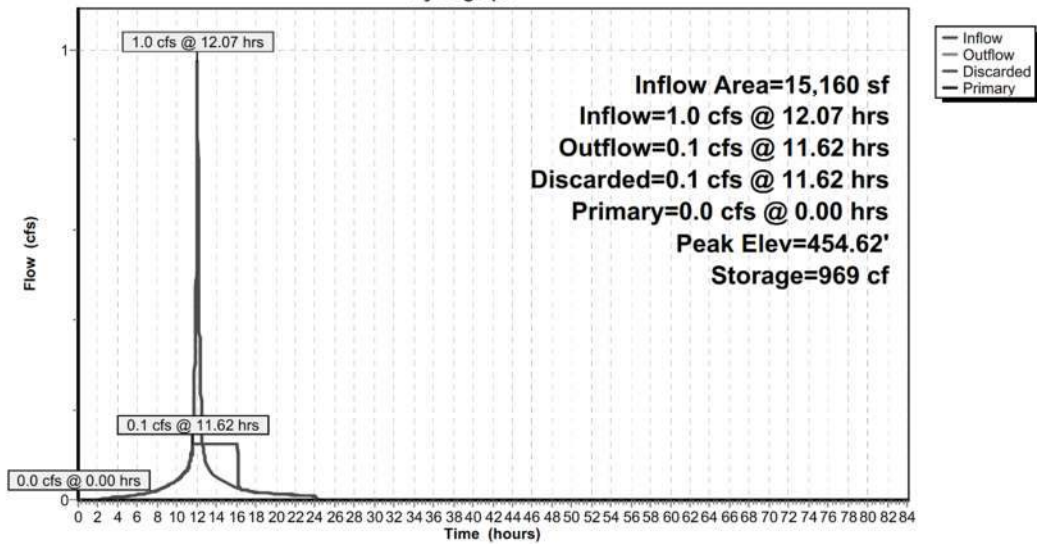
Type III 24-hr 1 YR Rainfall=2.80"

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Pond IS4A2: IS4A2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Pond IS4A3: IS4A3

Inflow Area = 22,416 sf, 100.00% Impervious, Inflow Depth = 2.57" for 1 YR event
Inflow = 1.4 cfs @ 12.07 hrs, Volume= 4,799 cf
Outflow = 0.2 cfs @ 11.59 hrs, Volume= 4,799 cf, Atten= 88%, Lag= 0.0 min
Discarded = 0.2 cfs @ 11.59 hrs, Volume= 4,799 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 454.75' @ 12.63 hrs Surf.Area= 1,802 sf Storage= 1,494 cf

Plug-Flow detention time= 56.9 min calculated for 4,799 cf (100% of inflow)
Center-of-Mass det. time= 56.9 min (815.3 - 758.4)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 453.50' | 1,531 cf | 35.33'W x 51.00'L x 3.54'H Field A 6,382 cf Overall - 2,556 cf Embedded = 3,826 cf x 40.0% Voids |
| #2A | 454.00' | 2,556 cf | Cultec R-330XL x 49 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | | 4,086 cf Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 455.50' | 15.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 455.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 456.50' | 4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 453.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 11.59 hrs HW=453.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=453.50' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

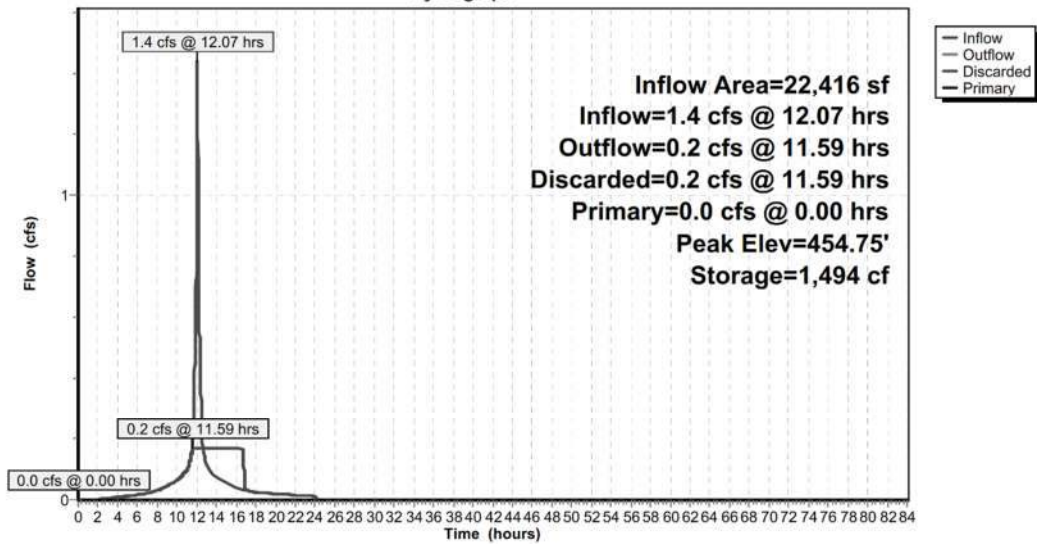
Type III 24-hr 1 YR Rainfall=2.80"

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Pond IS4A3: IS4A3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Pond IS4B1: IS4B1

Inflow Area = 41,315 sf, 49.21% Impervious, Inflow Depth = 1.04" for 1 YR event
Inflow = 1.2 cfs @ 12.08 hrs, Volume= 3,596 cf
Outflow = 0.2 cfs @ 11.80 hrs, Volume= 3,596 cf, Atten= 85%, Lag= 0.0 min
Discarded = 0.2 cfs @ 11.80 hrs, Volume= 3,596 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 433.91' @ 12.64 hrs Surf.Area= 1,936 sf Storage= 1,044 cf

Plug-Flow detention time= 42.5 min calculated for 3,595 cf (100% of inflow)
Center-of-Mass det. time= 42.5 min (895.1 - 852.6)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 433.00' | 1,679 cf | 16.00'W x 121.00'L x 3.54'H Field A 6,857 cf Overall - 2,660 cf Embedded = 4,197 cf x 40.0% Voids |
| #2A | 433.50' | 2,660 cf | Cultec R-330XL x 51 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | | 4,339 cf Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 435.00' | 24.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 435.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 436.00' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 433.00' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 11.80 hrs HW=433.04' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=433.00' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

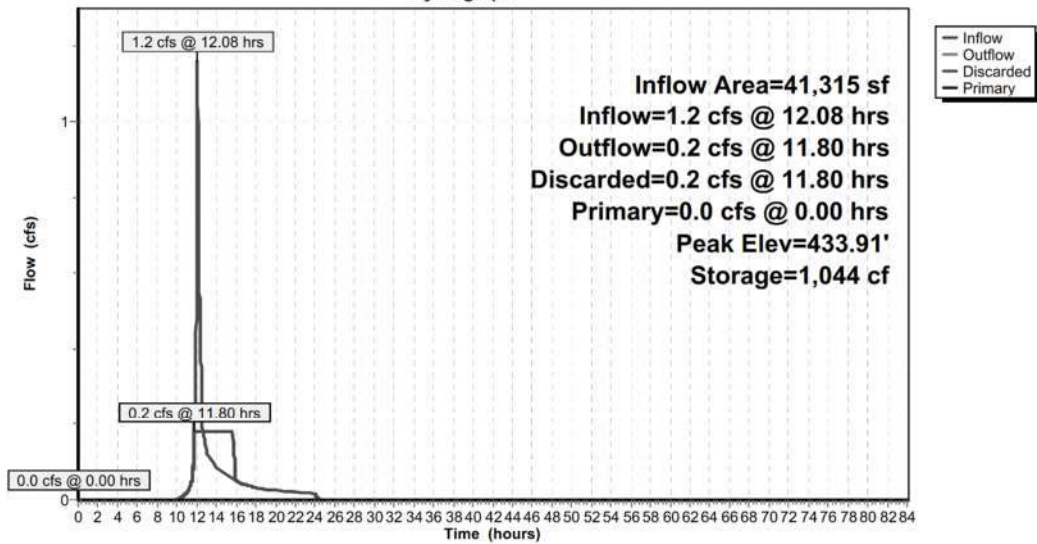
Type III 24-hr 1 YR Rainfall=2.80"

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Pond IS4B1: IS4B1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Pond IS4B2: IS4B2

Inflow Area = 30,450 sf, 70.15% Impervious, Inflow Depth = 1.57" for 1 YR event
Inflow = 1.1 cfs @ 12.14 hrs, Volume= 3,973 cf
Outflow = 0.1 cfs @ 11.71 hrs, Volume= 3,973 cf, Atten= 88%, Lag= 0.0 min
Discarded = 0.1 cfs @ 11.71 hrs, Volume= 3,973 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 418.91' @ 12.98 hrs Surf.Area= 1,486 sf Storage= 1,418 cf

Plug-Flow detention time= 82.7 min calculated for 3,973 cf (100% of inflow)
Center-of-Mass det. time= 82.6 min (910.7 - 828.1)

| Volume | Invert | Avail.Storage | Storage Description |
|----------|---------|---------------|--|
| #1A | 417.50' | 1,271 cf | 40.17'W x 37.00'L x 3.54'H Field A 5,264 cf Overall - 2,086 cf Embedded = 3,177 cf x 40.0% Voids |
| #2A | 418.00' | 2,086 cf | Cultec R-330XL x 40 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| 3,357 cf | | | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 419.50' | 18.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 419.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 420.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 417.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 11.71 hrs HW=417.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=417.50' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

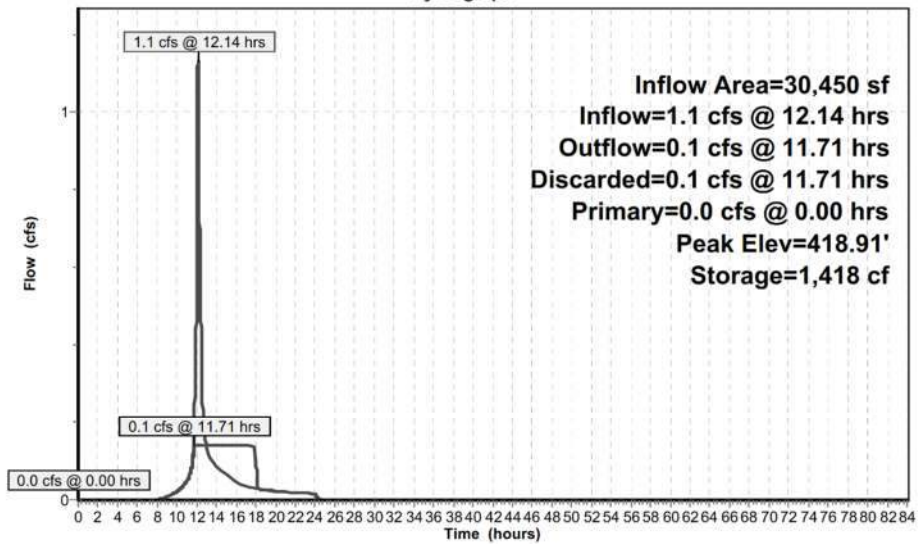
Type III 24-hr 1 YR Rainfall=2.80"

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Pond IS4B2: IS4B2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Pond IS4B3: IS4B3

Inflow Area = 40,460 sf, 71.89% Impervious, Inflow Depth = 1.64" for 1 YR event
Inflow = 1.6 cfs @ 12.12 hrs, Volume= 5,535 cf
Outflow = 0.2 cfs @ 11.63 hrs, Volume= 5,535 cf, Atten= 91%, Lag= 0.0 min
Discarded = 0.2 cfs @ 11.63 hrs, Volume= 5,535 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 409.38' @ 13.23 hrs Surf.Area= 1,646 sf Storage= 2,183 cf

Plug-Flow detention time= 123.7 min calculated for 5,534 cf (100% of inflow)
Center-of-Mass det. time= 123.7 min (946.5 - 822.8)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 407.50' | 1,414 cf | 20.83'W x 79.00'L x 3.54'H Field A 5,829 cf Overall - 2,295 cf Embedded = 3,534 cf x 40.0% Voids |
| #2A | 408.00' | 2,295 cf | Cultec R-330XL x 44 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 3,709 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 409.50' | 36.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 409.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 410.50' | 7.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 407.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 11.63 hrs HW=407.55' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=407.50' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

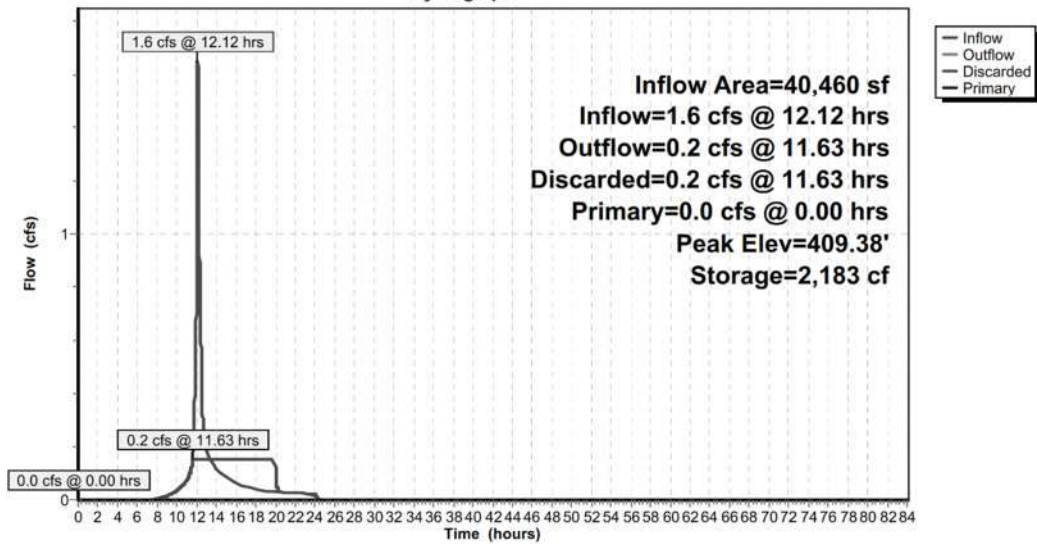
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Type III 24-hr 1 YR Rainfall=2.80"

Pond IS4B3: IS4B3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Pond POND 1: POND 1

Inflow Area = 569,992 sf, 50.96% Impervious, Inflow Depth = 0.91" for 1 YR event
Inflow = 10.0 cfs @ 12.22 hrs, Volume= 43,079 cf
Outflow = 0.8 cfs @ 15.34 hrs, Volume= 43,079 cf, Atten= 92%, Lag= 187.0 min
Discarded = 0.8 cfs @ 15.34 hrs, Volume= 43,079 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Secondary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 425.96' @ 15.34 hrs Surf.Area= 8,423 sf Storage= 22,134 cf

Plug-Flow detention time= 350.9 min calculated for 43,074 cf (100% of inflow)
Center-of-Mass det. time= 351.0 min (1,216.3 - 865.3)

| Volume | Invert | Avail.Storage | Storage Description |
|---------------------|----------------------|---------------------------|--|
| #1 | 422.00' | 115,278 cf | Custom Stage Data (Prismatic) Listed below (Recalc) |
| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
| 422.00 | 2,413 | 0 | 0 |
| 424.00 | 5,801 | 8,214 | 8,214 |
| 426.00 | 8,480 | 14,281 | 22,495 |
| 428.00 | 12,558 | 21,038 | 43,533 |
| 430.00 | 18,510 | 31,068 | 74,601 |
| 432.00 | 22,167 | 40,677 | 115,278 |

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|--|
| #1 | Discarded | 422.00' | 4,000 in/hr Exfiltration over Surface area |
| #2 | Primary | 423.00' | 24.0" Round Culvert L= 147.0' CPP, projecting, no headwall, Ke= 0.900 Outlet Invert= 384.00' S= 0.2653 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #3 | Secondary | 427.00' | 14.0" W x 14.0" H Vert. Orifice/Grate C= 0.600 |
| #4 | Device 2 | 430.30' | 5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Discarded OutFlow Max=0.8 cfs @ 15.34 hrs HW=425.96' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.8 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=422.00' (Free Discharge)
↑**2=Culvert** (Controls 0.0 cfs)
↑**4=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Secondary OutFlow Max=0.0 cfs @ 0.00 hrs HW=422.00' (Free Discharge)
↑**3=Orifice/Grate** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

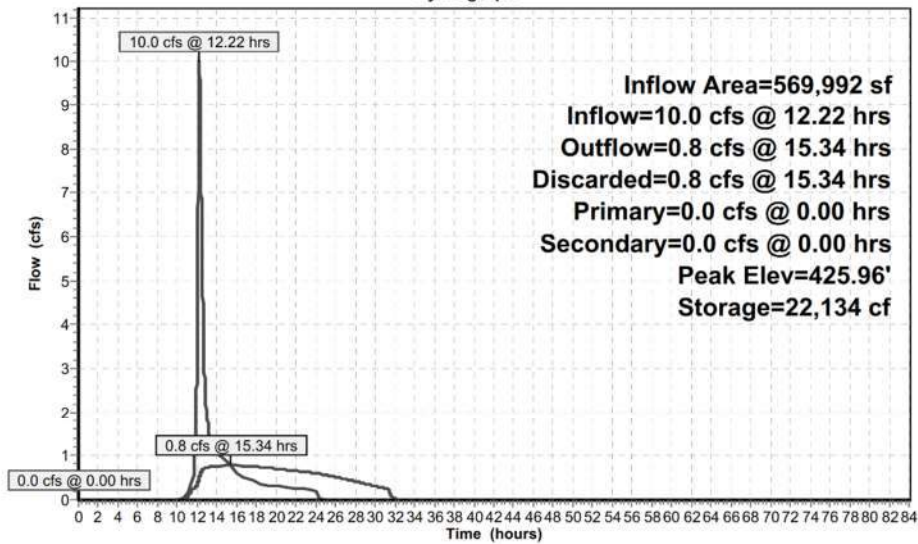
Type III 24-hr 1 YR Rainfall=2.80"

Prepared by Alfonzetti Engineering, P.C.

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Pond POND 1: POND 1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Pond POND 2: POND 2

Inflow Area = 814,944 sf, 52.52% Impervious, Inflow Depth = 0.23" for 1 YR event
Inflow = 4.2 cfs @ 12.09 hrs, Volume= 15,910 cf
Outflow = 0.3 cfs @ 13.55 hrs, Volume= 15,910 cf, Atten= 92%, Lag= 87.8 min
Primary = 0.3 cfs @ 13.55 hrs, Volume= 15,910 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 382.05' @ 13.55 hrs Surf.Area= 5,049 sf Storage= 7,772 cf

Plug-Flow detention time= 286.1 min calculated for 15,909 cf (100% of inflow)
Center-of-Mass det. time= 286.3 min (1,063.5 - 777.2)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1 | 380.00' | 69,429 cf | Custom Stage Data (Prismatic) Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---------------------|----------------------|---------------------------|---------------------------|
| 380.00 | 2,540 | 0 | 0 |
| 382.00 | 4,963 | 7,503 | 7,503 |
| 384.00 | 8,153 | 13,116 | 20,619 |
| 386.00 | 12,103 | 20,256 | 40,875 |
| 388.00 | 16,451 | 28,554 | 69,429 |

| Device | Routing | Invert | Outlet Devices |
|--------|----------|---------|---|
| #1 | Primary | 380.00' | 24.0" Round Culvert L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 380.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 380.00' | 3.0" Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 382.05' | 12.0" Vert. Orifice/Grate C= 0.600 |
| #4 | Device 1 | 385.25' | 2.5' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Primary OutFlow Max=0.3 cfs @ 13.55 hrs HW=382.05' (Free Discharge)

1=Culvert (Passes 0.3 cfs of 11.4 cfs potential flow)
2=Orifice/Grate (Orifice Controls 0.3 cfs @ 6.69 fps)
3=Orifice/Grate (Orifice Controls 0.0 cfs @ 0.21 fps)
4=Broad-Crested Rectangular Weir (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

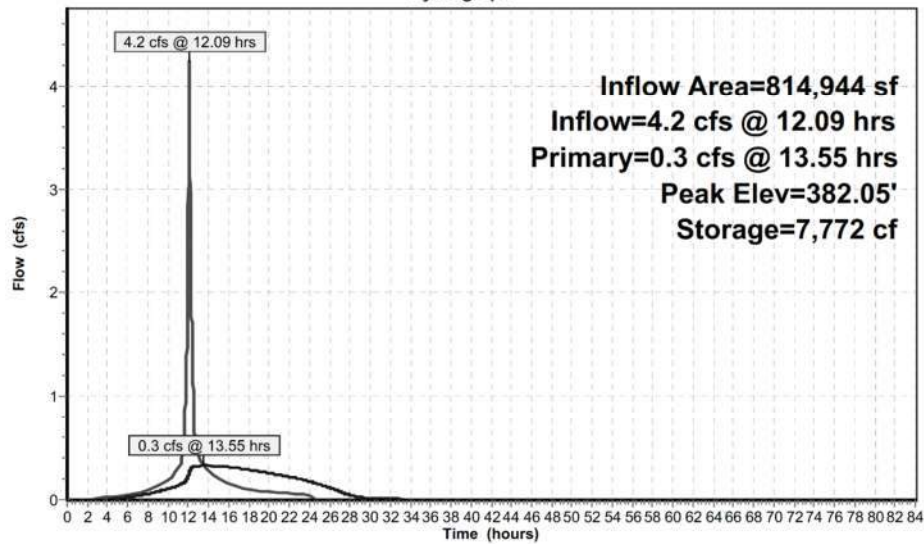
Type III 24-hr 1 YR Rainfall=2.80"

Prepared by Alfonzetti Engineering, P.C.

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Pond POND 2: POND 2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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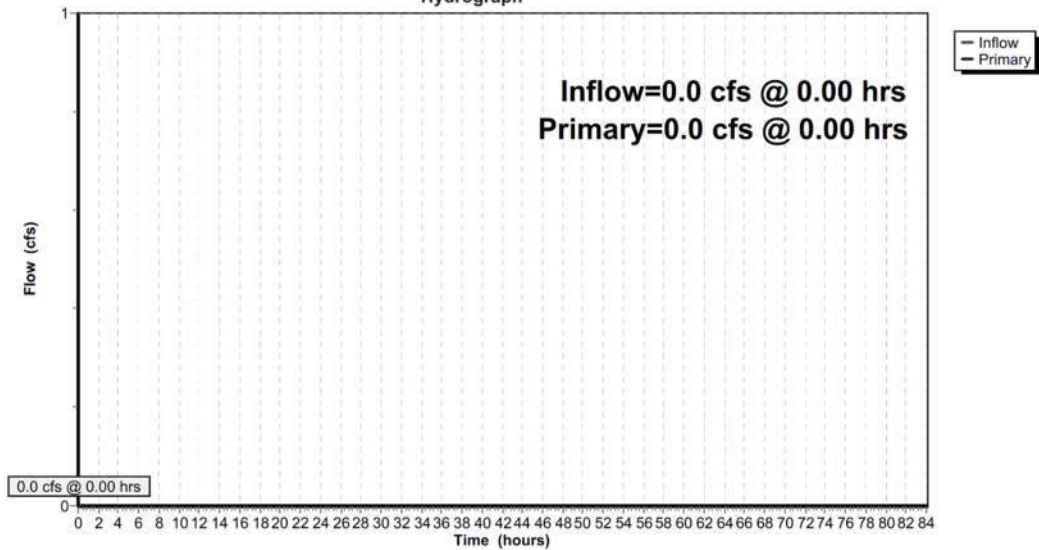
Summary for Link LL1: LOW LEVEL 1

Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Link LL1: LOW LEVEL 1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 1 YR Rainfall=2.80"

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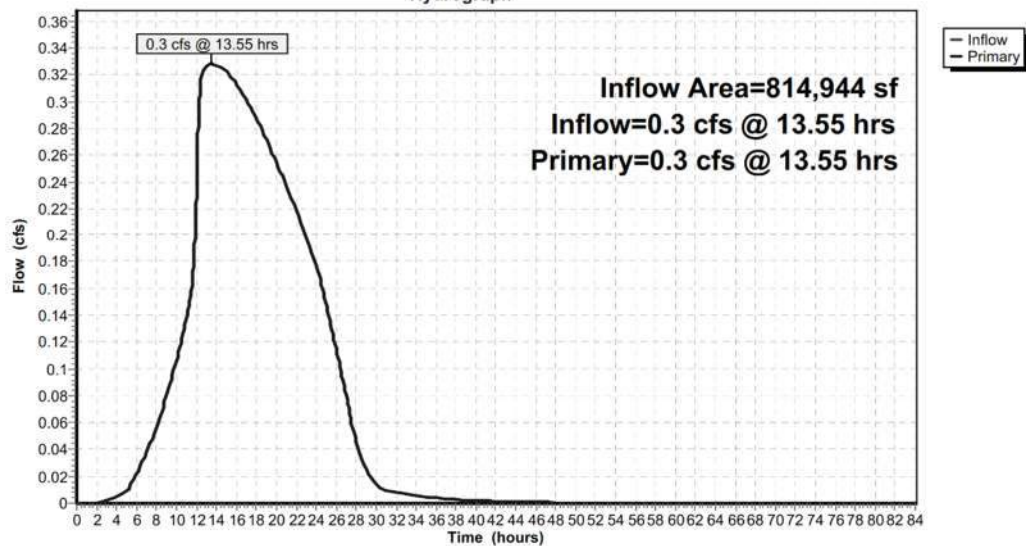
Summary for Link TR1: TRANSFER

Inflow Area = 814,944 sf, 52.52% Impervious, Inflow Depth = 0.23" for 1 YR event
Inflow = 0.3 cfs @ 13.55 hrs, Volume= 15,910 cf
Primary = 0.3 cfs @ 13.55 hrs, Volume= 15,910 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Link TR1: TRANSFER

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

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Time span=0.00-84.00 hrs, dt=0.010 hrs, 8401 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|--------------------------------------|--|
| Subcatchment PRWS4A: PRWS4A | Runoff Area=522,860 sf 46.54% Impervious Runoff Depth=1.44" Flow Length=700' Tc=15.2 min CN=78 Runoff=15.0 cfs 62,934 cf |
| Subcatchment PRWS4A1: PRWS4A1 | Runoff Area=9,556 sf 100.00% Impervious Runoff Depth=3.20" Tc=5.0 min CN=98 Runoff=0.8 cfs 2,546 cf |
| Subcatchment PRWS4A2: PRWS4A2 | Runoff Area=15,160 sf 100.00% Impervious Runoff Depth=3.20" Tc=5.0 min CN=98 Runoff=1.2 cfs 4,038 cf |
| Subcatchment PRWS4A3: PRWS4A3 | Runoff Area=22,416 sf 100.00% Impervious Runoff Depth=3.20" Tc=5.0 min CN=98 Runoff=1.8 cfs 5,971 cf |
| Subcatchment PRWS4B: PRWS4B | Runoff Area=66,812 sf 100.00% Impervious Runoff Depth=3.20" Tc=6.0 min CN=98 Runoff=5.1 cfs 17,798 cf |
| Subcatchment PRWS4B1: PRWS4B1 | Runoff Area=41,315 sf 49.21% Impervious Runoff Depth=1.51" Flow Length=372' Tc=5.2 min CN=79 Runoff=1.7 cfs 5,205 cf |
| Subcatchment PRWS4B2: PRWS4B2 | Runoff Area=30,450 sf 70.15% Impervious Runoff Depth=2.12" Flow Length=191' Tc=9.7 min CN=87 Runoff=1.5 cfs 5,379 cf |
| Subcatchment PRWS4B3: PRWS4B3 | Runoff Area=40,460 sf 71.89% Impervious Runoff Depth=2.20" Flow Length=445' Tc=8.3 min CN=88 Runoff=2.2 cfs 7,434 cf |
| Subcatchment PRWS4D: PRWS4D | Runoff Area=65,915 sf 0.00% Impervious Runoff Depth=0.54" Flow Length=446' Tc=8.4 min CN=61 Runoff=0.6 cfs 2,975 cf |
| Pond IS4A1: IS4A1 | Peak Elev=495.34' Storage=893 cf Inflow=0.8 cfs 2,546 cf Discarded=0.1 cfs 2,546 cf Primary=0.0 cfs 0 cf Outflow=0.1 cfs 2,546 cf |
| Pond IS4A2: IS4A2 | Peak Elev=454.93' Storage=1,306 cf Inflow=1.2 cfs 4,038 cf Discarded=0.1 cfs 4,038 cf Primary=0.0 cfs 0 cf Outflow=0.1 cfs 4,038 cf |
| Pond IS4A3: IS4A3 | Peak Elev=455.10' Storage=2,014 cf Inflow=1.8 cfs 5,971 cf Discarded=0.2 cfs 5,971 cf Primary=0.0 cfs 0 cf Outflow=0.2 cfs 5,971 cf |
| Pond IS4B1: IS4B1 | Peak Elev=434.42' Storage=1,856 cf Inflow=1.7 cfs 5,205 cf Discarded=0.2 cfs 5,205 cf Primary=0.0 cfs 0 cf Outflow=0.2 cfs 5,205 cf |
| Pond IS4B2: IS4B2 | Peak Elev=419.55' Storage=2,167 cf Inflow=1.5 cfs 5,379 cf Discarded=0.1 cfs 5,379 cf Primary=0.0 cfs 0 cf Outflow=0.1 cfs 5,379 cf |
| Pond IS4B3: IS4B3 | Peak Elev=410.41' Storage=3,289 cf Inflow=2.2 cfs 7,434 cf Discarded=0.2 cfs 7,434 cf Primary=0.0 cfs 0 cf Outflow=0.2 cfs 7,434 cf |
| Pond POND 1: POND 1 | Peak Elev=427.16' Storage=33,689 cf Inflow=15.0 cfs 62,934 cf Discarded=1.0 cfs 61,067 cf Primary=0.0 cfs 0 cf Secondary=0.2 cfs 1,867 cf Outflow=1.2 cfs 62,934 cf |
| Pond POND 2: POND 2 | Peak Elev=382.38' Storage=9,503 cf Inflow=5.6 cfs 20,773 cf Outflow=0.8 cfs 20,773 cf |
| Link LL1: LOW LEVEL 1 | Inflow=0.2 cfs 1,867 cf Primary=0.2 cfs 1,867 cf |
| Link TR1: TRANSFER | Inflow=0.8 cfs 22,640 cf Primary=0.8 cfs 22,640 cf |

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

Prepared by Alfonzetti Engineering, P.C.

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Total Runoff Area = 814,944 sf Runoff Volume = 114,281 cf Average Runoff Depth = 1.68"
47.48% Pervious = 386,895 sf 52.52% Impervious = 428,049 sf

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Subcatchment PRWS4A: PRWS4A

Runoff = 15.0 cfs @ 12.21 hrs, Volume= 62,934 cf, Depth= 1.44"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 39,111 | 61 | >75% Grass cover, Good, HSG B |
| 135,808 | 98 | Paved parking, HSG B |
| 159,040 | 61 | >75% Grass cover, Good, HSG B |
| 107,520 | 98 | Unconnected roofs, HSG B |
| 16,880 | 61 | >75% Grass cover, Good, HSG B |
| 41,385 | 61 | >75% Grass cover, Good, HSG B |
| 9,427 | 61 | >75% Grass cover, Good, HSG B |
| 1,552 | 61 | >75% Grass cover, Good, HSG B |
| 1,288 | 61 | >75% Grass cover, Good, HSG B |
| 374 | 61 | >75% Grass cover, Good, HSG B |
| 1,458 | 61 | >75% Grass cover, Good, HSG B |
| 1,458 | 61 | >75% Grass cover, Good, HSG B |
| 1,522 | 61 | >75% Grass cover, Good, HSG B |
| 1,460 | 61 | >75% Grass cover, Good, HSG B |
| 1,543 | 61 | >75% Grass cover, Good, HSG B |
| 1,540 | 61 | >75% Grass cover, Good, HSG B |
| 1,494 | 61 | >75% Grass cover, Good, HSG B |
| 522,860 | 78 | Weighted Average |
| 279,532 | | 53.46% Pervious Area |
| 243,328 | | 46.54% Impervious Area |
| 107,520 | | 44.19% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|-------------|------------------|------------------|----------------------|-------------------|--|
| 13.8 | 100 | 0.0200 | 0.12 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 1.1 | 100 | 0.0500 | 1.57 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 500 | 0.0700 | 24.77 | 77.809 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.010 PVC, smooth interior |
| 15.2 | 700 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

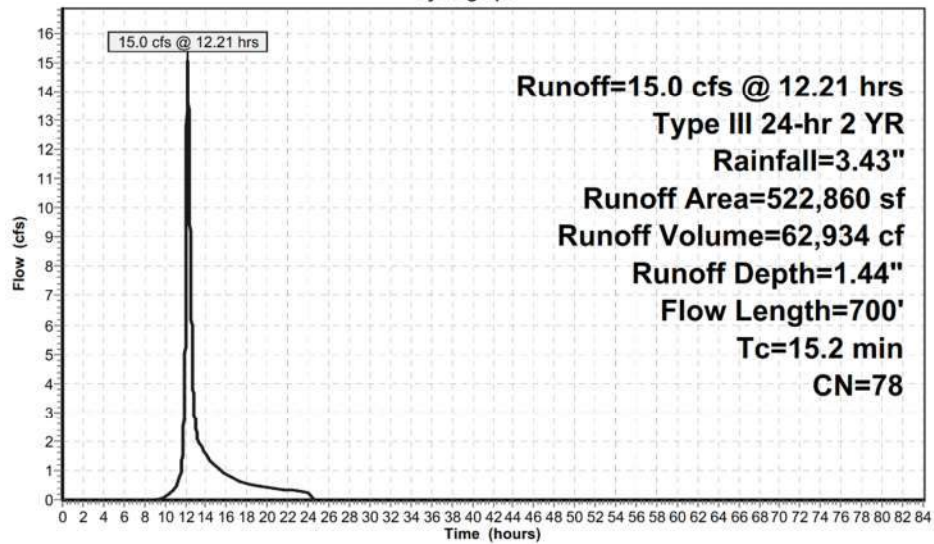
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Type III 24-hr 2 YR Rainfall=3.43"

Subcatchment PRWS4A: PRWS4A

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRWS4A1: PRWS4A1

Runoff = 0.8 cfs @ 12.07 hrs, Volume= 2,546 cf, Depth= 3.20"

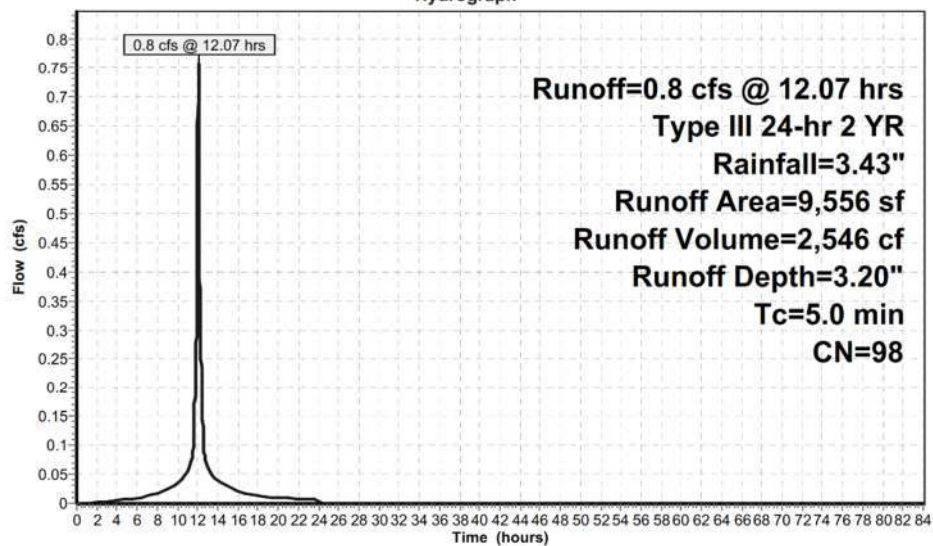
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 9,556 | 98 | Roofs, HSG B |
| 9,556 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A1: PRWS4A1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRWS4A2: PRWS4A2

Runoff = 1.2 cfs @ 12.07 hrs, Volume= 4,038 cf, Depth= 3.20"

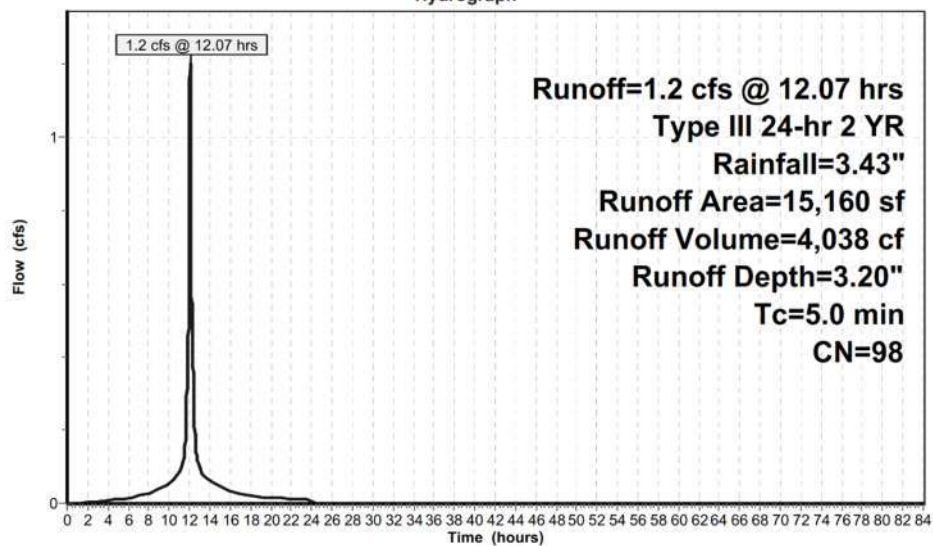
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 15,160 | 98 | Roofs, HSG B |
| 15,160 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A2: PRWS4A2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRWS4A3: PRWS4A3

Runoff = 1.8 cfs @ 12.07 hrs, Volume= 5,971 cf, Depth= 3.20"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

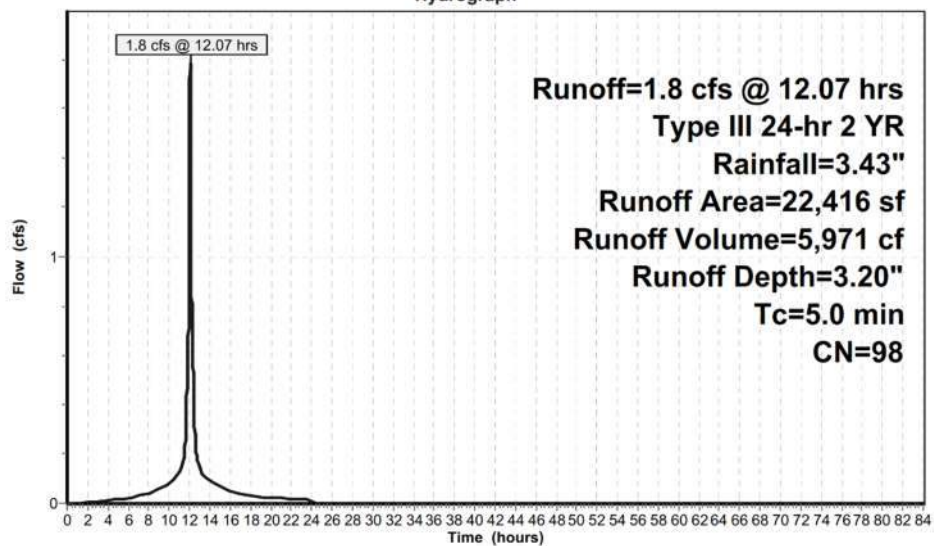
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 22,416 | 98 | Roofs, HSG B |
| 22,416 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A3: PRWS4A3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRWS4B: PRWS4B

Runoff = 5.1 cfs @ 12.08 hrs, Volume= 17,798 cf, Depth= 3.20"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

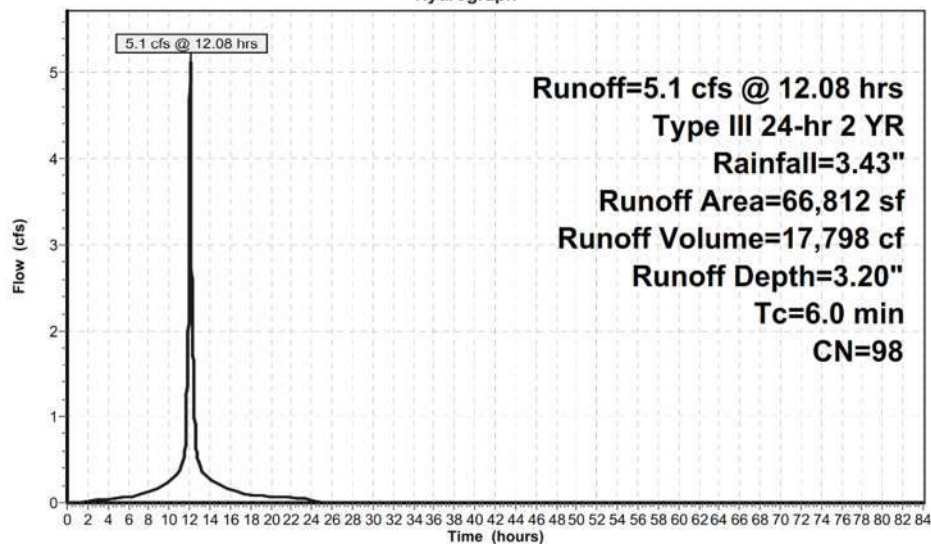
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|--------------------------|
| 66,812 | 98 | Unconnected roofs, HSG B |
| 66,812 | | 100.00% Impervious Area |
| 66,812 | | 100.00% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment PRWS4B: PRWS4B

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRWS4B1: PRWS4B1

Runoff = 1.7 cfs @ 12.08 hrs, Volume= 5,205 cf, Depth= 1.51"

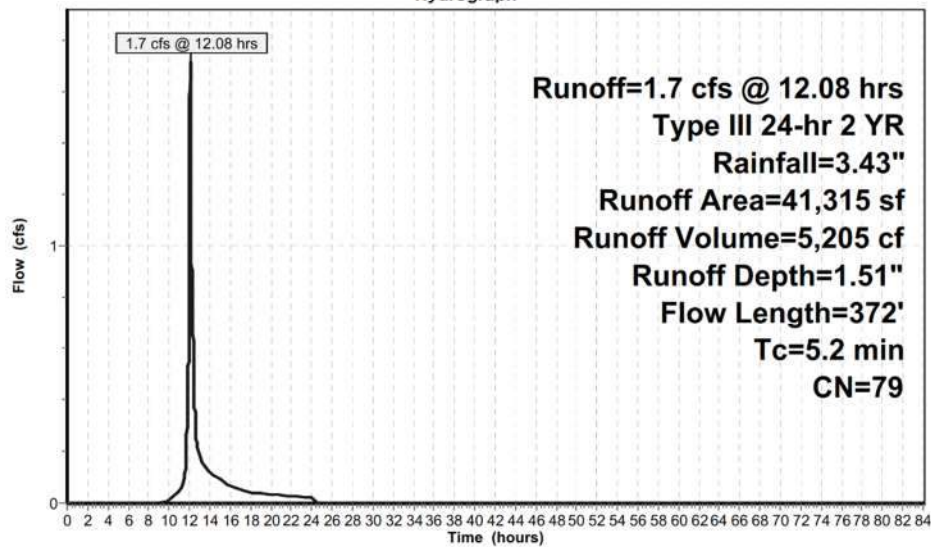
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 20,331 | 98 | Paved parking, HSG B |
| 2,189 | 61 | >75% Grass cover, Good, HSG B |
| 739 | 61 | >75% Grass cover, Good, HSG B |
| 3,763 | 61 | >75% Grass cover, Good, HSG B |
| 14,293 | 61 | >75% Grass cover, Good, HSG B |
| 41,315 | 79 | Weighted Average |
| 20,984 | | 50.79% Pervious Area |
| 20,331 | | 49.21% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.0 | 58 | 0.1200 | 0.32 | | Sheet Flow, SF1 Grass: Short n= 0.150 P2= 3.43" |
| 1.2 | 21 | 0.1400 | 0.28 | | Sheet Flow, SF2 Grass: Short n= 0.150 P2= 3.43" |
| 0.2 | 57 | 0.1200 | 5.20 | | Shallow Concentrated Flow, SCF1 Grassed Waterway Kv= 15.0 fps |
| 0.6 | 93 | 0.0150 | 2.49 | | Shallow Concentrated Flow, SCF2 Paved Kv= 20.3 fps |
| 0.2 | 143 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 5.2 | 372 | Total | | | |

Subcatchment PRWS4B1: PRWS4B1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRWS4B2: PRWS4B2

Runoff = 1.5 cfs @ 12.13 hrs, Volume= 5,379 cf, Depth= 2.12"

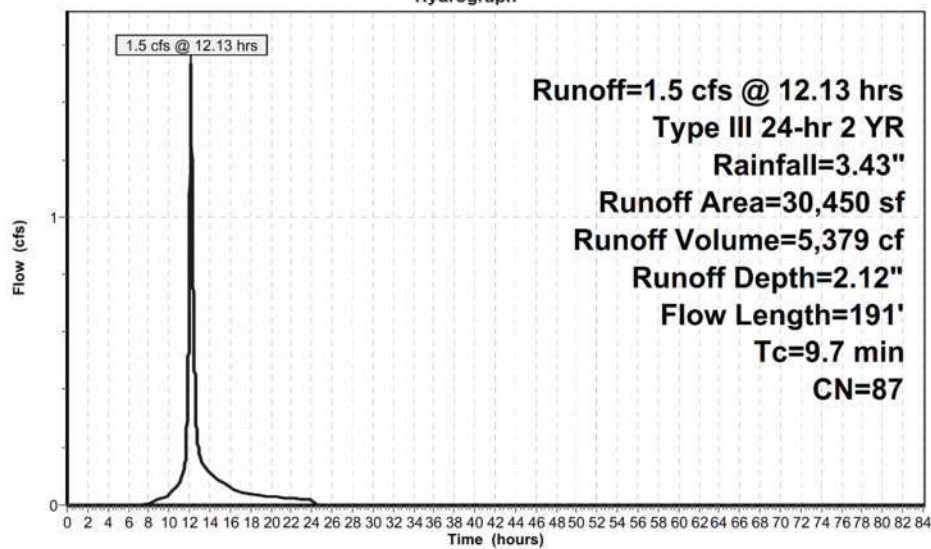
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 21,360 | 98 | Paved parking, HSG B |
| 7,840 | 61 | >75% Grass cover, Good, HSG B |
| 182 | 61 | >75% Grass cover, Good, HSG B |
| 154 | 61 | >75% Grass cover, Good, HSG B |
| 545 | 61 | >75% Grass cover, Good, HSG B |
| 369 | 61 | >75% Grass cover, Good, HSG B |
| 30,450 | 87 | Weighted Average |
| 9,090 | | 29.85% Pervious Area |
| 21,360 | | 70.15% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.8 | 66 | 0.0200 | 0.16 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.7 | 11 | 0.1800 | 0.27 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 1.7 | 23 | 0.0760 | 0.22 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.2 | 19 | 0.0760 | 1.93 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 72 | 0.0360 | 3.85 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 9.7 | 191 | Total | | | |

Subcatchment PRWS4B2: PRWS4B2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRWS4B3: PRWS4B3

Runoff = 2.2 cfs @ 12.12 hrs, Volume= 7,434 cf, Depth= 2.20"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 29,086 | 98 | Paved parking, HSG B |
| 2,140 | 61 | >75% Grass cover, Good, HSG B |
| 3,232 | 61 | >75% Grass cover, Good, HSG B |
| 1,899 | 61 | >75% Grass cover, Good, HSG B |
| 214 | 61 | >75% Grass cover, Good, HSG B |
| 2,928 | 61 | >75% Grass cover, Good, HSG B |
| 961 | 61 | >75% Grass cover, Good, HSG B |
| 40,460 | 88 | Weighted Average |
| 11,374 | | 28.11% Pervious Area |
| 29,086 | | 71.89% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 7.2 | 71 | 0.0200 | 0.16 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.3 | 29 | 0.0500 | 1.60 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 0.5 | 147 | 0.0500 | 4.54 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.0 | 25 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 0.3 | 173 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 8.3 | 445 | Total | | | |

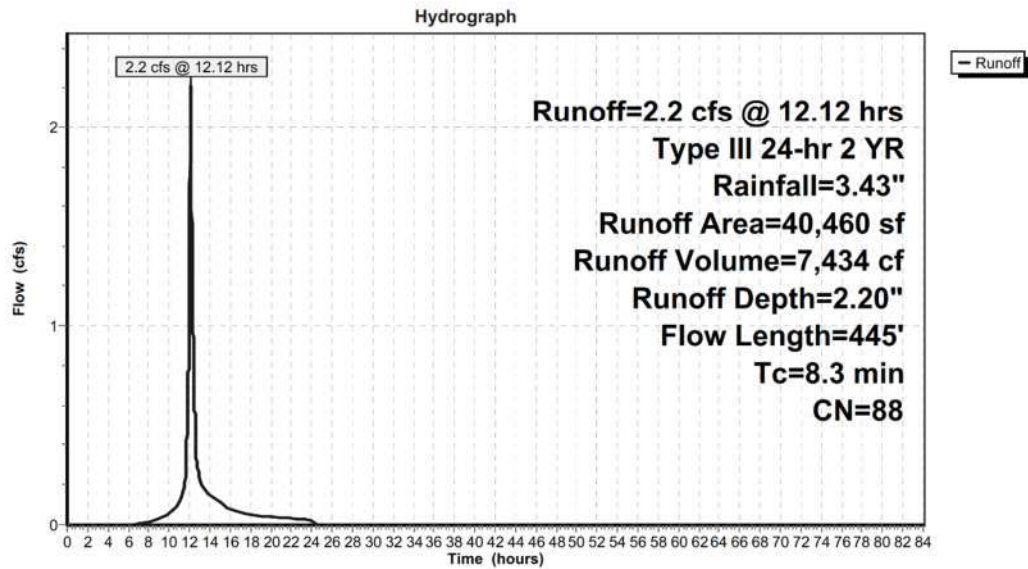
EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

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Type III 24-hr 2 YR Rainfall=3.43"

Subcatchment PRWS4B3: PRWS4B3



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Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRWS4D: PRWS4D

Runoff = 0.6 cfs @ 12.15 hrs, Volume= 2,975 cf, Depth= 0.54"

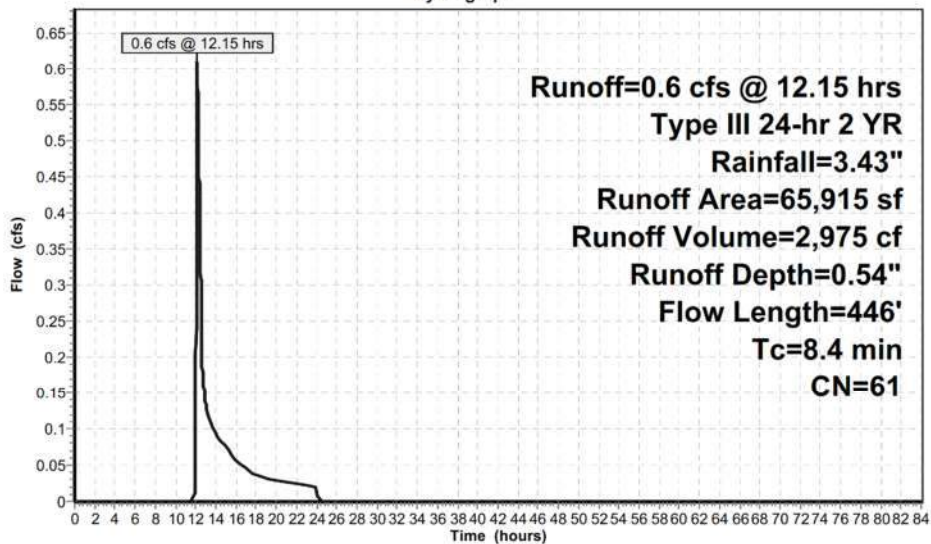
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 65,915 | 61 | >75% Grass cover, Good, HSG B |
| 65,915 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 5.7 | 100 | 0.0700 | 0.29 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.3 | 40 | 0.1000 | 2.21 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.1 | 16 | 0.5000 | 4.95 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.5 | 33 | 0.0300 | 1.21 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.4 | 127 | 0.5000 | 4.95 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 60 | 0.1100 | 4.97 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.2 | 70 | 0.0200 | 0.99 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 8.4 | 446 | Total | | | |

Subcatchment PRWS4D: PRWS4D

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Pond IS4A1: IS4A1

Inflow Area = 9,556 sf, 100.00% Impervious, Inflow Depth = 3.20" for 2 YR event
Inflow = 0.8 cfs @ 12.07 hrs, Volume= 2,546 cf
Outflow = 0.1 cfs @ 11.30 hrs, Volume= 2,546 cf, Atten= 91%, Lag= 0.0 min
Discarded = 0.1 cfs @ 11.30 hrs, Volume= 2,546 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 495.34' @ 12.93 hrs Surf.Area= 702 sf Storage= 893 cf

Plug-Flow detention time= 96.1 min calculated for 2,545 cf (100% of inflow)
Center-of-Mass det. time= 96.1 min (850.1 - 754.0)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 493.50' | 618 cf | 30.50'W x 23.00'L x 3.54'H Field A 2,484 cf Overall - 939 cf Embedded = 1,546 cf x 40.0% Voids |
| #2A | 494.00' | 939 cf | Cultec R-330XL x 18 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,557 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 496.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 496.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 496.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 493.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 11.30 hrs HW=493.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=493.50' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

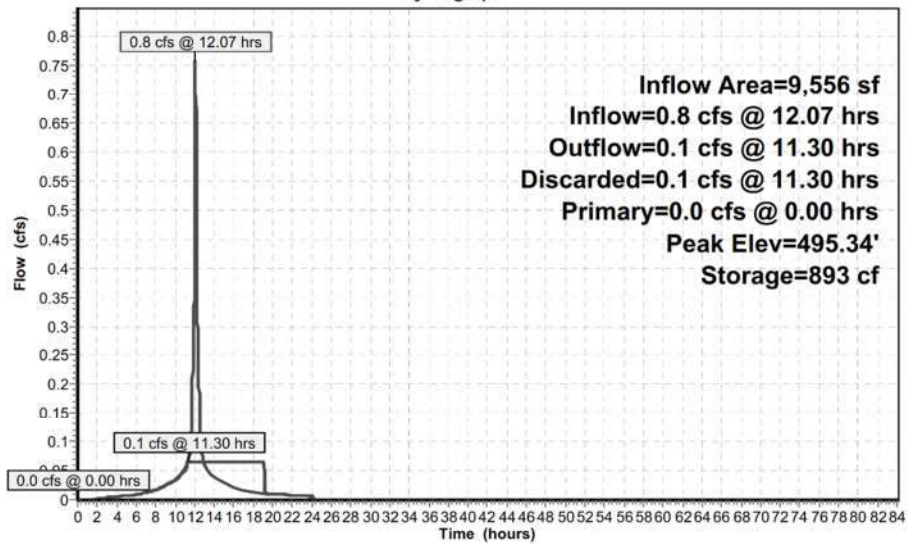
Type III 24-hr 2 YR Rainfall=3.43"

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Pond IS4A1: IS4A1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Pond IS4A2: IS4A2

Inflow Area = 15,160 sf, 100.00% Impervious, Inflow Depth = 3.20" for 2 YR event
Inflow = 1.2 cfs @ 12.07 hrs, Volume= 4,038 cf
Outflow = 0.1 cfs @ 11.49 hrs, Volume= 4,038 cf, Atten= 90%, Lag= 0.0 min
Discarded = 0.1 cfs @ 11.49 hrs, Volume= 4,038 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 454.93' @ 12.74 hrs Surf.Area= 1,342 sf Storage= 1,306 cf

Plug-Flow detention time= 68.9 min calculated for 4,038 cf (100% of inflow)
Center-of-Mass det. time= 68.9 min (822.9 - 754.0)

| Volume | Invert | Avail.Storage | Storage Description |
|----------|---------|---------------|--|
| #1A | 453.50' | 1,150 cf | 30.50'W x 44.00'L x 3.54'H Field A 4,753 cf Overall - 1,878 cf Embedded = 2,875 cf x 40.0% Voids |
| #2A | 454.00' | 1,878 cf | Cultec R-330XL x 36 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| 3,028 cf | | | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 456.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 456.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 456.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 453.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 11.49 hrs HW=453.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=453.50' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

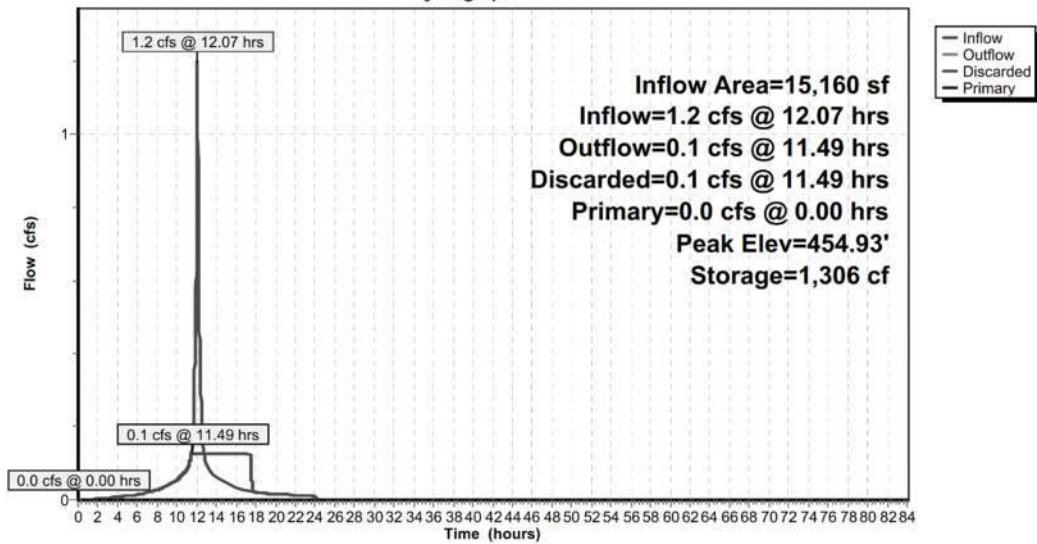
Type III 24-hr 2 YR Rainfall=3.43"

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Pond IS4A2: IS4A2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Pond IS4A3: IS4A3

Inflow Area = 22,416 sf, 100.00% Impervious, Inflow Depth = 3.20" for 2 YR event
Inflow = 1.8 cfs @ 12.07 hrs, Volume= 5,971 cf
Outflow = 0.2 cfs @ 11.39 hrs, Volume= 5,971 cf, Atten= 91%, Lag= 0.0 min
Discarded = 0.2 cfs @ 11.39 hrs, Volume= 5,971 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 455.10' @ 12.85 hrs Surf.Area= 1,802 sf Storage= 2,014 cf

Plug-Flow detention time= 81.8 min calculated for 5,971 cf (100% of inflow)
Center-of-Mass det. time= 81.8 min (835.8 - 754.0)

| Volume | Invert | Avail.Storage | Storage Description |
|----------|---------|---------------|--|
| #1A | 453.50' | 1,531 cf | 35.33'W x 51.00'L x 3.54'H Field A 6,382 cf Overall - 2,556 cf Embedded = 3,826 cf x 40.0% Voids |
| #2A | 454.00' | 2,556 cf | Cultec R-330XL x 49 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| 4,086 cf | | | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 455.50' | 15.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 455.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 456.50' | 4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 453.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 11.39 hrs HW=453.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=453.50' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

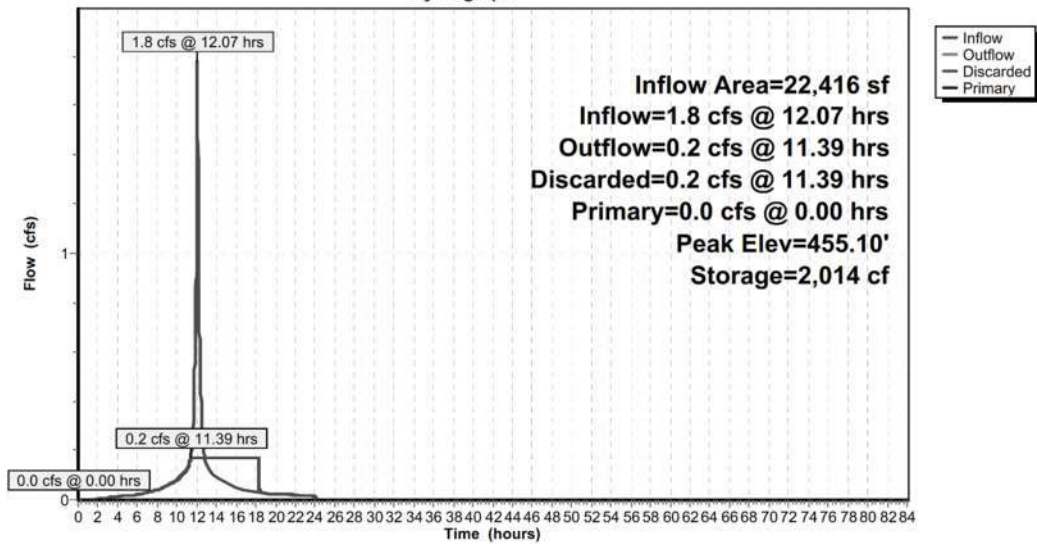
Type III 24-hr 2 YR Rainfall=3.43"

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Pond IS4A3: IS4A3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Pond IS4B1: IS4B1

Inflow Area = 41,315 sf, 49.21% Impervious, Inflow Depth = 1.51" for 2 YR event
Inflow = 1.7 cfs @ 12.08 hrs, Volume= 5,205 cf
Outflow = 0.2 cfs @ 11.69 hrs, Volume= 5,205 cf, Atten= 90%, Lag= 0.0 min
Discarded = 0.2 cfs @ 11.69 hrs, Volume= 5,205 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 434.42' @ 13.00 hrs Surf.Area= 1,936 sf Storage= 1,856 cf

Plug-Flow detention time= 88.0 min calculated for 5,204 cf (100% of inflow)
Center-of-Mass det. time= 88.0 min (929.6 - 841.6)

| Volume | Invert | Avail.Storage | Storage Description |
|----------|---------|---------------|--|
| #1A | 433.00' | 1,679 cf | 16.00'W x 121.00'L x 3.54'H Field A 6,857 cf Overall - 2,660 cf Embedded = 4,197 cf x 40.0% Voids |
| #2A | 433.50' | 2,660 cf | Cultec R-330XL x 51 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| 4,339 cf | | | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 435.00' | 24.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 435.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 436.00' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 433.00' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 11.69 hrs HW=433.04' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=433.00' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

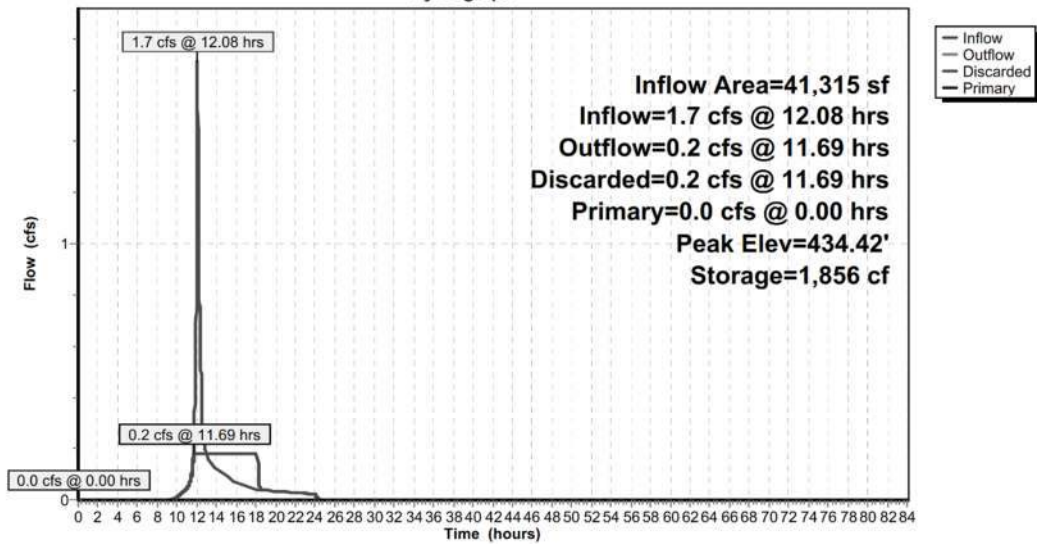
Type III 24-hr 2 YR Rainfall=3.43"

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Pond IS4B1: IS4B1

Hydrograph



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Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Pond IS4B2: IS4B2

Inflow Area = 30,450 sf, 70.15% Impervious, Inflow Depth = 2.12" for 2 YR event
Inflow = 1.5 cfs @ 12.13 hrs, Volume= 5,379 cf
Outflow = 0.1 cfs @ 11.57 hrs, Volume= 5,379 cf, Atten= 91%, Lag= 0.0 min
Discarded = 0.1 cfs @ 11.57 hrs, Volume= 5,379 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 419.55' @ 13.39 hrs Surf.Area= 1,486 sf Storage= 2,167 cf

Plug-Flow detention time= 136.4 min calculated for 5,378 cf (100% of inflow)
Center-of-Mass det. time= 136.4 min (955.8 - 819.4)

| Volume | Invert | Avail.Storage | Storage Description |
|----------|---------|---------------|--|
| #1A | 417.50' | 1,271 cf | 40.17'W x 37.00'L x 3.54'H Field A 5,264 cf Overall - 2,086 cf Embedded = 3,177 cf x 40.0% Voids |
| #2A | 418.00' | 2,086 cf | Cultec R-330XL x 40 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| 3,357 cf | | | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 419.50' | 18.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 419.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 420.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 417.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 11.57 hrs HW=417.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=417.50' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

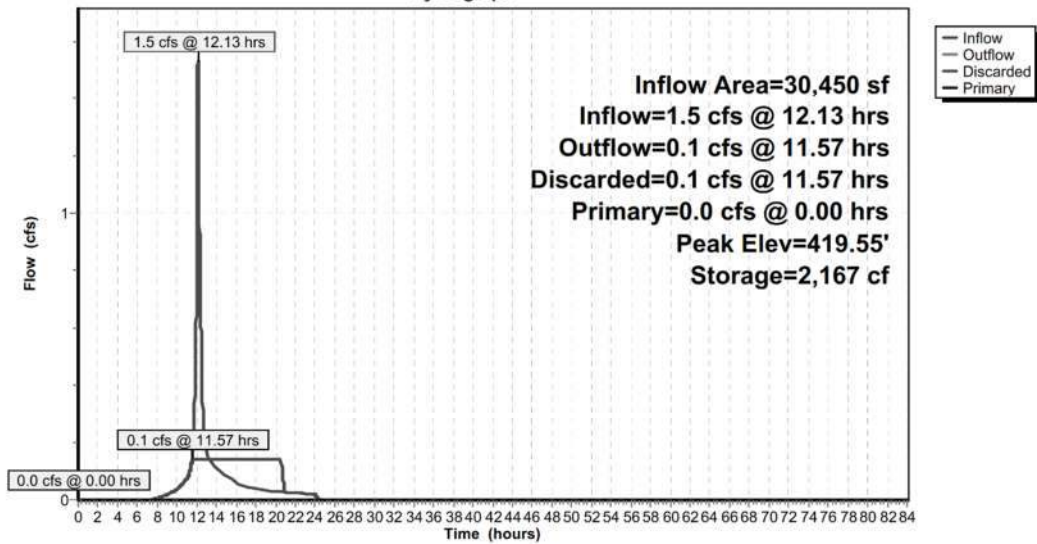
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Pond IS4B2: IS4B2

Hydrograph



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Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Pond IS4B3: IS4B3

Inflow Area = 40,460 sf, 71.89% Impervious, Inflow Depth = 2.20" for 2 YR event
Inflow = 2.2 cfs @ 12.12 hrs, Volume= 7,434 cf
Outflow = 0.2 cfs @ 11.36 hrs, Volume= 7,434 cf, Atten= 93%, Lag= 0.0 min
Discarded = 0.2 cfs @ 11.36 hrs, Volume= 7,434 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 410.41' @ 13.91 hrs Surf.Area= 1,646 sf Storage= 3,289 cf

Plug-Flow detention time= 196.8 min calculated for 7,434 cf (100% of inflow)
Center-of-Mass det. time= 196.8 min (1,011.1 - 814.4)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 407.50' | 1,414 cf | 20.83'W x 79.00'L x 3.54'H Field A 5,829 cf Overall - 2,295 cf Embedded = 3,534 cf x 40.0% Voids |
| #2A | 408.00' | 2,295 cf | Cultec R-330XL x 44 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 3,709 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 409.50' | 36.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 409.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 410.50' | 7.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 407.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 11.36 hrs HW=407.55' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=407.50' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

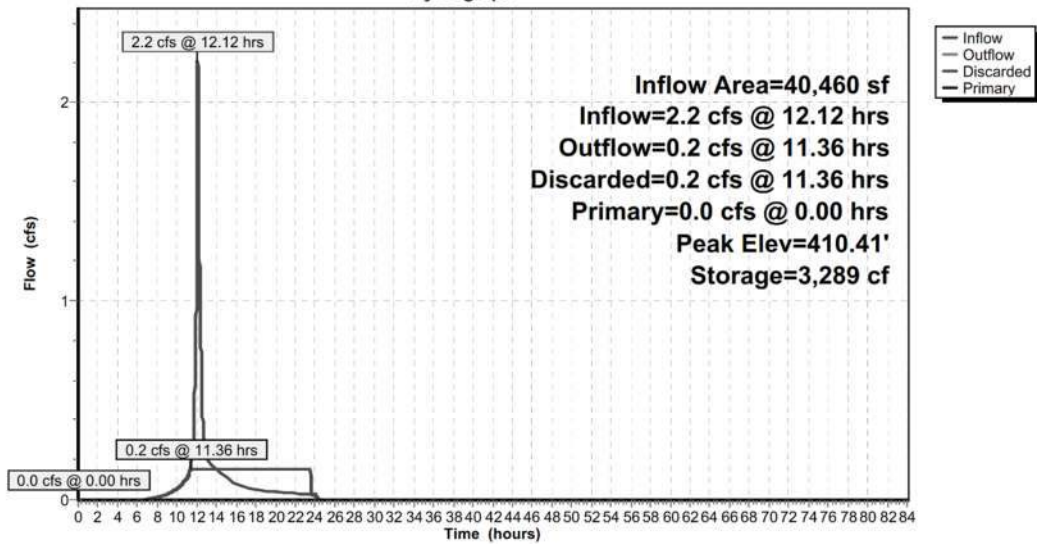
Type III 24-hr 2 YR Rainfall=3.43"

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Pond IS4B3: IS4B3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Pond POND 1: POND 1

Inflow Area = 569,992 sf, 50.96% Impervious, Inflow Depth = 1.32" for 2 YR event
Inflow = 15.0 cfs @ 12.21 hrs, Volume= 62,934 cf
Outflow = 1.2 cfs @ 14.74 hrs, Volume= 62,934 cf, Atten= 92%, Lag= 151.4 min
Discarded = 1.0 cfs @ 14.74 hrs, Volume= 61,067 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Secondary = 0.2 cfs @ 14.74 hrs, Volume= 1,867 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 427.16' @ 14.74 hrs Surf.Area= 10,843 sf Storage= 33,689 cf

Plug-Flow detention time= 415.0 min calculated for 62,927 cf (100% of inflow)
Center-of-Mass det. time= 415.0 min (1,269.0 - 854.0)

| Volume | Invert | Avail.Storage | Storage Description |
|---------------------|----------------------|---------------------------|--|
| #1 | 422.00' | 115,278 cf | Custom Stage Data (Prismatic) Listed below (Recalc) |
| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
| 422.00 | 2,413 | 0 | 0 |
| 424.00 | 5,801 | 8,214 | 8,214 |
| 426.00 | 8,480 | 14,281 | 22,495 |
| 428.00 | 12,558 | 21,038 | 43,533 |
| 430.00 | 18,510 | 31,068 | 74,601 |
| 432.00 | 22,167 | 40,677 | 115,278 |

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|--|
| #1 | Discarded | 422.00' | 4,000 in/hr Exfiltration over Surface area |
| #2 | Primary | 423.00' | 24.0" Round Culvert L= 147.0' CPP, projecting, no headwall, Ke= 0.900 Outlet Invert= 384.00' S= 0.2653 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #3 | Secondary | 427.00' | 14.0" W x 14.0" H Vert. Orifice/Grate C= 0.600 |
| #4 | Device 2 | 430.30' | 5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Discarded OutFlow Max=1.0 cfs @ 14.74 hrs HW=427.16' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.0 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=422.00' (Free Discharge)
↑**2=Culvert** (Controls 0.0 cfs)
↑**4=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Secondary OutFlow Max=0.2 cfs @ 14.74 hrs HW=427.16' (Free Discharge)
↑**3=Orifice/Grate** (Orifice Controls 0.2 cfs @ 1.28 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

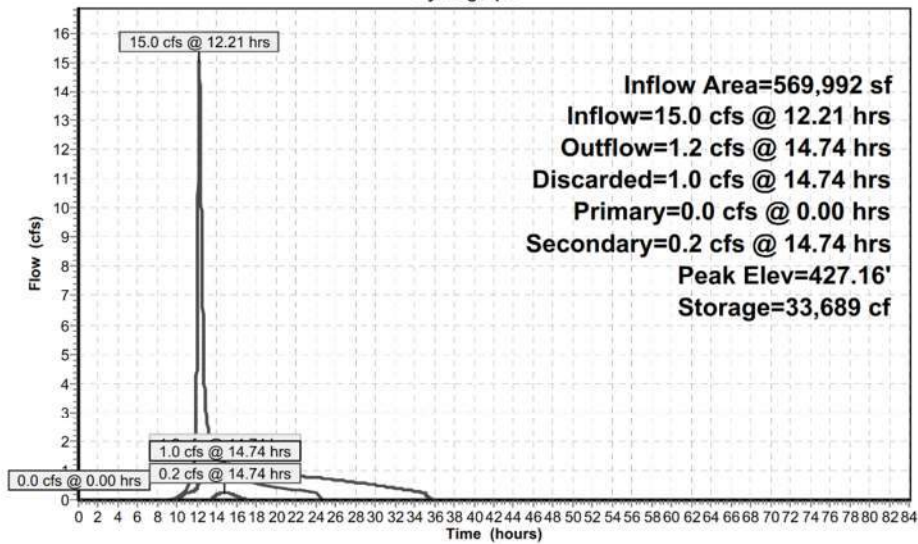
Type III 24-hr 2 YR Rainfall=3.43"

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Pond POND 1: POND 1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Pond POND 2: POND 2

Inflow Area = 814,944 sf, 52.52% Impervious, Inflow Depth = 0.31" for 2 YR event
Inflow = 5.6 cfs @ 12.09 hrs, Volume= 20,773 cf
Outflow = 0.8 cfs @ 12.65 hrs, Volume= 20,773 cf, Atten= 86%, Lag= 33.9 min
Primary = 0.8 cfs @ 12.65 hrs, Volume= 20,773 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 382.38' @ 12.65 hrs Surf.Area= 5,569 sf Storage= 9,503 cf

Plug-Flow detention time= 271.8 min calculated for 20,773 cf (100% of inflow)
Center-of-Mass det. time= 271.7 min (1,048.7 - 777.0)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1 | 380.00' | 69,429 cf | Custom Stage Data (Prismatic) Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---------------------|----------------------|---------------------------|---------------------------|
| 380.00 | 2,540 | 0 | 0 |
| 382.00 | 4,963 | 7,503 | 7,503 |
| 384.00 | 8,153 | 13,116 | 20,619 |
| 386.00 | 12,103 | 20,256 | 40,875 |
| 388.00 | 16,451 | 28,554 | 69,429 |

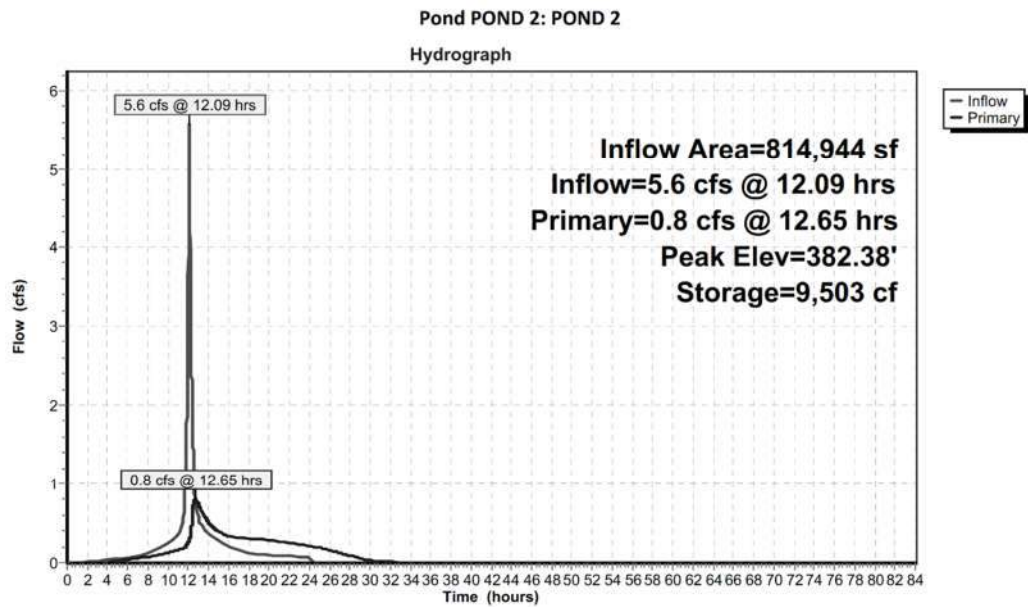
| Device | Routing | Invert | Outlet Devices |
|--------|----------|---------|---|
| #1 | Primary | 380.00' | 24.0" Round Culvert L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 380.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 380.00' | 3.0" Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 382.05' | 12.0" Vert. Orifice/Grate C= 0.600 |
| #4 | Device 1 | 385.25' | 2.5' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Primary OutFlow Max=0.8 cfs @ 12.65 hrs HW=382.38' (Free Discharge)

1=Culvert (Passes 0.8 cfs of 13.9 cfs potential flow)
2=Orifice/Grate (Orifice Controls 0.4 cfs @ 7.23 fps)
3=Orifice/Grate (Orifice Controls 0.4 cfs @ 1.96 fps)
4=Broad-Crested Rectangular Weir (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER
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Type III 24-hr 2 YR Rainfall=3.43"



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

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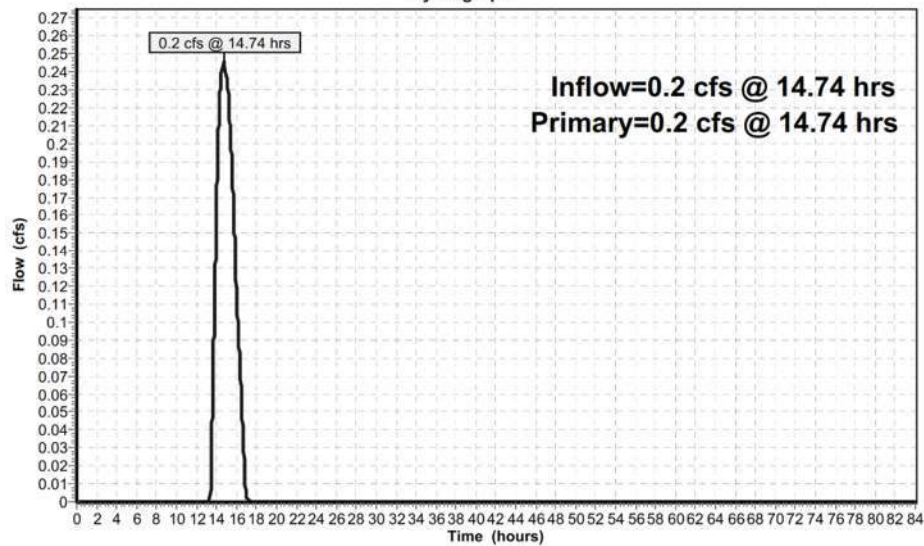
Summary for Link LL1: LOW LEVEL 1

Inflow = 0.2 cfs @ 14.74 hrs, Volume= 1,867 cf
Primary = 0.2 cfs @ 14.74 hrs, Volume= 1,867 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Link LL1: LOW LEVEL 1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 2 YR Rainfall=3.43"

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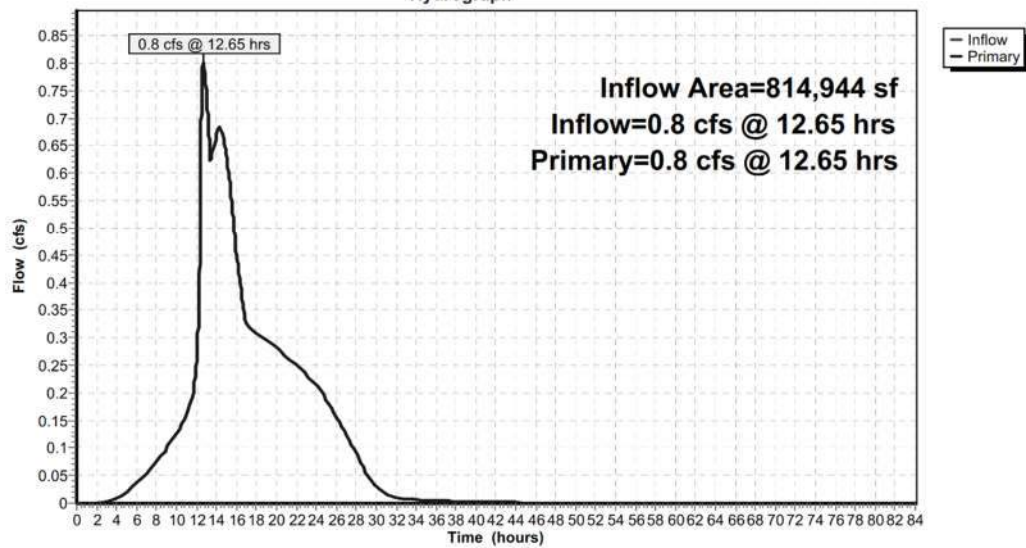
Summary for Link TR1: TRANSFER

Inflow Area = 814,944 sf, 52.52% Impervious, Inflow Depth = 0.33" for 2 YR event
Inflow = 0.8 cfs @ 12.65 hrs, Volume= 22,640 cf
Primary = 0.8 cfs @ 12.65 hrs, Volume= 22,640 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Link TR1: TRANSFER

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Time span=0.00-84.00 hrs, dt=0.010 hrs, 8401 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|--------------------------------------|---|
| Subcatchment PRWS4A: PRWS4A | Runoff Area=522,860 sf 46.54% Impervious Runoff Depth=2.14" Flow Length=700' Tc=15.2 min CN=78 Runoff=22.6 cfs 93,108 cf |
| Subcatchment PRWS4A1: PRWS4A1 | Runoff Area=9,556 sf 100.00% Impervious Runoff Depth=4.07" Tc=5.0 min CN=98 Runoff=1.0 cfs 3,245 cf |
| Subcatchment PRWS4A2: PRWS4A2 | Runoff Area=15,160 sf 100.00% Impervious Runoff Depth=4.07" Tc=5.0 min CN=98 Runoff=1.5 cfs 5,147 cf |
| Subcatchment PRWS4A3: PRWS4A3 | Runoff Area=22,416 sf 100.00% Impervious Runoff Depth=4.07" Tc=5.0 min CN=98 Runoff=2.2 cfs 7,611 cf |
| Subcatchment PRWS4B: PRWS4B | Runoff Area=66,812 sf 100.00% Impervious Runoff Depth=4.07" Tc=6.0 min CN=98 Runoff=6.5 cfs 22,685 cf |
| Subcatchment PRWS4B1: PRWS4B1 | Runoff Area=41,315 sf 49.21% Impervious Runoff Depth=2.22" Flow Length=372' Tc=5.2 min CN=79 Runoff=2.5 cfs 7,636 cf |
| Subcatchment PRWS4B2: PRWS4B2 | Runoff Area=30,450 sf 70.15% Impervious Runoff Depth=2.92" Flow Length=191' Tc=9.7 min CN=87 Runoff=2.1 cfs 7,416 cf |
| Subcatchment PRWS4B3: PRWS4B3 | Runoff Area=40,460 sf 71.89% Impervious Runoff Depth=3.02" Flow Length=445' Tc=8.3 min CN=88 Runoff=3.0 cfs 10,175 cf |
| Subcatchment PRWS4D: PRWS4D | Runoff Area=65,915 sf 0.00% Impervious Runoff Depth=0.97" Flow Length=446' Tc=8.4 min CN=61 Runoff=1.3 cfs 5,355 cf |
| Pond IS4A1: IS4A1 | Peak Elev=496.05' Storage=1,243 cf Inflow=1.0 cfs 3,245 cf Discarded=0.1 cfs 3,245 cf Primary=0.0 cfs 0 cf Outflow=0.1 cfs 3,245 cf |
| Pond IS4A2: IS4A2 | Peak Elev=455.42' Storage=1,825 cf Inflow=1.5 cfs 5,147 cf Discarded=0.1 cfs 5,147 cf Primary=0.0 cfs 0 cf Outflow=0.1 cfs 5,147 cf |
| Pond IS4A3: IS4A3 | Peak Elev=455.68' Storage=2,809 cf Inflow=2.2 cfs 7,611 cf Discarded=0.2 cfs 7,611 cf Primary=0.0 cfs 0 cf Outflow=0.2 cfs 7,611 cf |
| Pond IS4B1: IS4B1 | Peak Elev=435.37' Storage=3,237 cf Inflow=2.5 cfs 7,636 cf Discarded=0.2 cfs 7,636 cf Primary=0.0 cfs 0 cf Outflow=0.2 cfs 7,636 cf |
| Pond IS4B2: IS4B2 | Peak Elev=420.55' Storage=3,064 cf Inflow=2.1 cfs 7,416 cf Discarded=0.1 cfs 7,067 cf Primary=0.2 cfs 348 cf Outflow=0.3 cfs 7,416 cf |
| Pond IS4B3: IS4B3 | Peak Elev=410.66' Storage=3,455 cf Inflow=3.0 cfs 10,175 cf Discarded=0.2 cfs 8,466 cf Primary=1.2 cfs 1,709 cf Outflow=1.4 cfs 10,175 cf |
| Pond POND 1: POND 1 | Peak Elev=427.90' Storage=42,287 cf Inflow=22.6 cfs 93,108 cf Discarded=1.1 cfs 69,018 cf Primary=0.0 cfs 0 cf Secondary=3.2 cfs 24,090 cf Outflow=4.3 cfs 93,108 cf |
| Pond POND 2: POND 2 | Peak Elev=382.83' Storage=12,197 cf Inflow=7.6 cfs 30,098 cf Outflow=2.4 cfs 30,098 cf |
| Link LL1: LOW LEVEL 1 | Inflow=3.2 cfs 24,090 cf Primary=3.2 cfs 24,090 cf |
| Link TR1: TRANSFER | Inflow=5.2 cfs 54,188 cf Primary=5.2 cfs 54,188 cf |

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

Prepared by Alfonzetti Engineering, P.C.

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Total Runoff Area = 814,944 sf Runoff Volume = 162,379 cf Average Runoff Depth = 2.39"
47.48% Pervious = 386,895 sf 52.52% Impervious = 428,049 sf

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Subcatchment PRWS4A: PRWS4A

Runoff = 22.6 cfs @ 12.21 hrs, Volume= 93,108 cf, Depth= 2.14"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 39,111 | 61 | >75% Grass cover, Good, HSG B |
| 135,808 | 98 | Paved parking, HSG B |
| 159,040 | 61 | >75% Grass cover, Good, HSG B |
| 107,520 | 98 | Unconnected roofs, HSG B |
| 16,880 | 61 | >75% Grass cover, Good, HSG B |
| 41,385 | 61 | >75% Grass cover, Good, HSG B |
| 9,427 | 61 | >75% Grass cover, Good, HSG B |
| 1,552 | 61 | >75% Grass cover, Good, HSG B |
| 1,288 | 61 | >75% Grass cover, Good, HSG B |
| 374 | 61 | >75% Grass cover, Good, HSG B |
| 1,458 | 61 | >75% Grass cover, Good, HSG B |
| 1,458 | 61 | >75% Grass cover, Good, HSG B |
| 1,522 | 61 | >75% Grass cover, Good, HSG B |
| 1,460 | 61 | >75% Grass cover, Good, HSG B |
| 1,543 | 61 | >75% Grass cover, Good, HSG B |
| 1,540 | 61 | >75% Grass cover, Good, HSG B |
| 1,494 | 61 | >75% Grass cover, Good, HSG B |
| 522,860 | 78 | Weighted Average |
| 279,532 | | 53.46% Pervious Area |
| 243,328 | | 46.54% Impervious Area |
| 107,520 | | 44.19% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 13.8 | 100 | 0.0200 | 0.12 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 1.1 | 100 | 0.0500 | 1.57 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 500 | 0.0700 | 24.77 | 77.809 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.010 PVC, smooth interior |
| 15.2 | 700 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

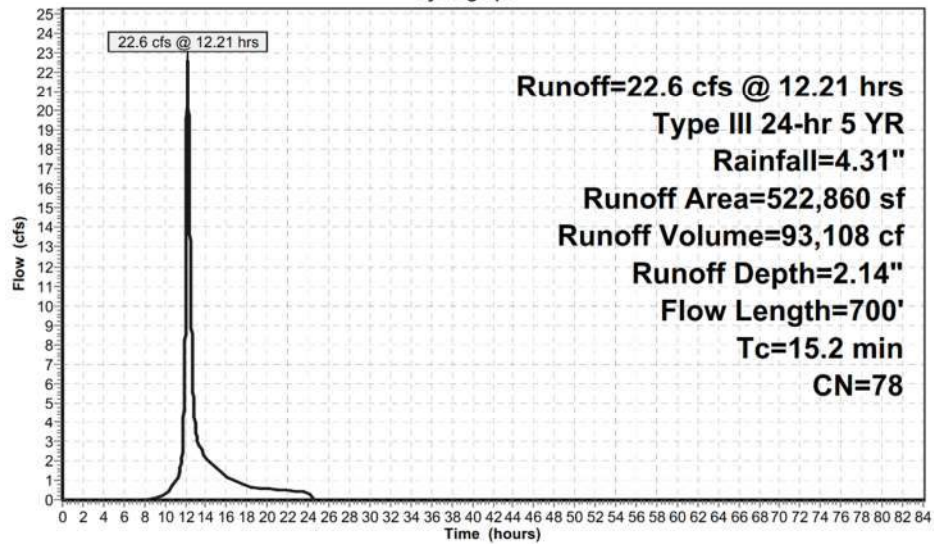
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Type III 24-hr 5 YR Rainfall=4.31"

Subcatchment PRWS4A: PRWS4A

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRWS4A1: PRWS4A1

Runoff = 1.0 cfs @ 12.07 hrs, Volume= 3,245 cf, Depth= 4.07"

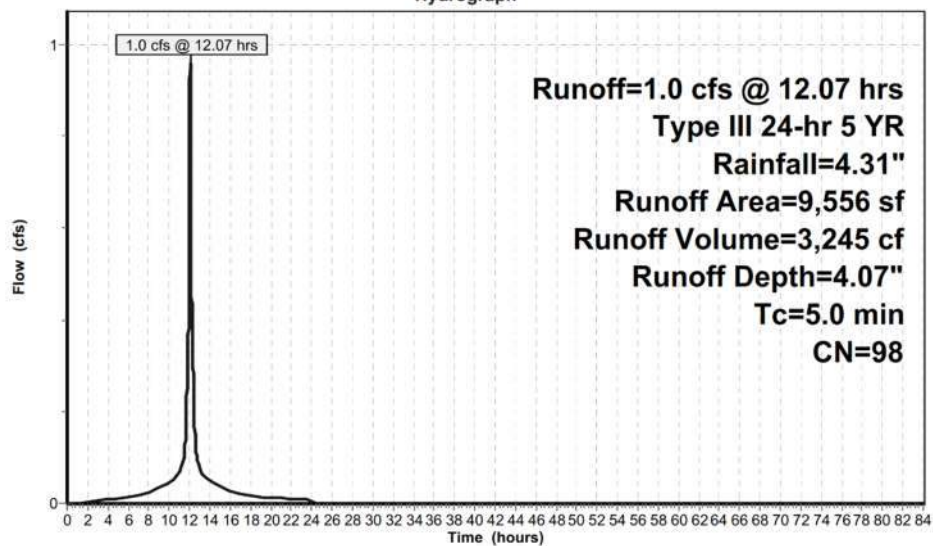
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 9,556 | 98 | Roofs, HSG B |
| 9,556 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A1: PRWS4A1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRWS4A2: PRWS4A2

Runoff = 1.5 cfs @ 12.07 hrs, Volume= 5,147 cf, Depth= 4.07"

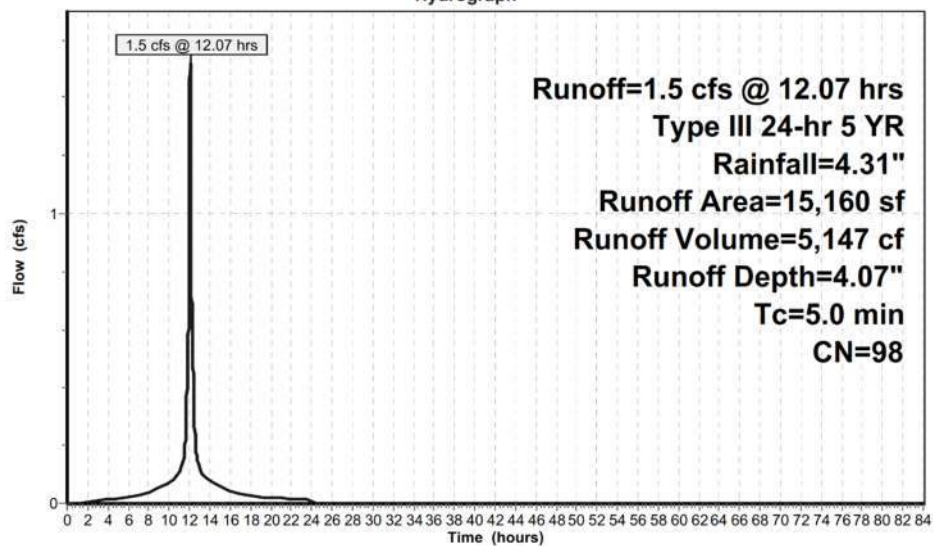
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 15,160 | 98 | Roofs, HSG B |
| 15,160 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A2: PRWS4A2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRWS4A3: PRWS4A3

Runoff = 2.2 cfs @ 12.07 hrs, Volume= 7,611 cf, Depth= 4.07"

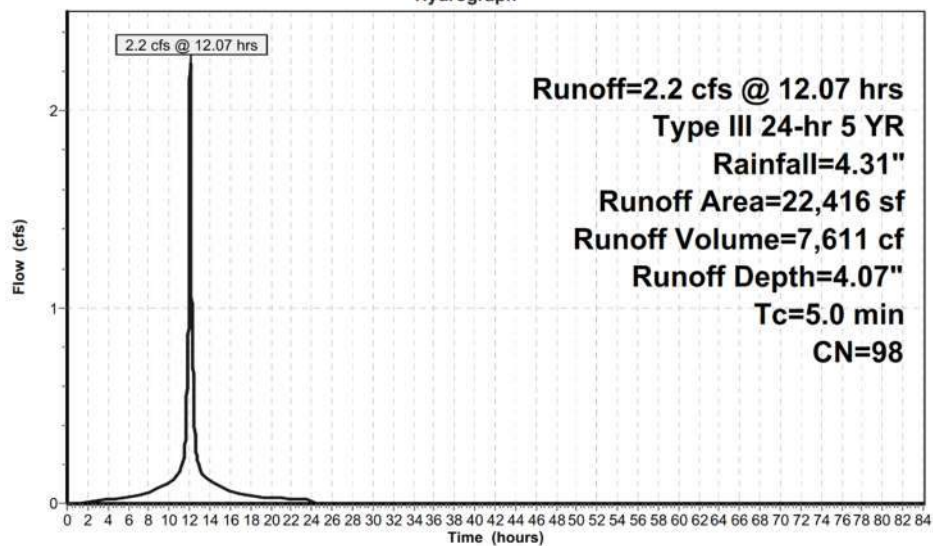
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 22,416 | 98 | Roofs, HSG B |
| 22,416 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A3: PRWS4A3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRWS4B: PRWS4B

Runoff = 6.5 cfs @ 12.08 hrs, Volume= 22,685 cf, Depth= 4.07"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

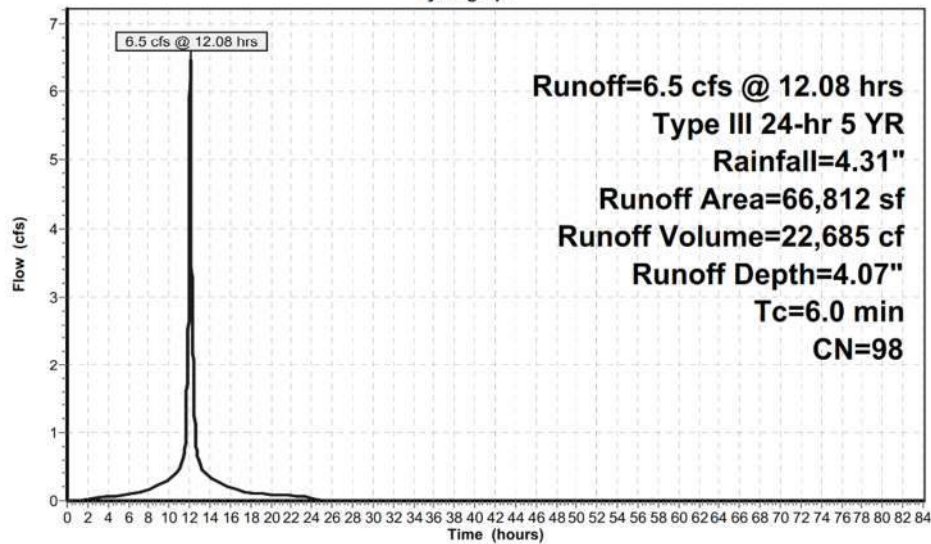
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|--------------------------|
| 66,812 | 98 | Unconnected roofs, HSG B |
| 66,812 | | 100.00% Impervious Area |
| 66,812 | | 100.00% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment PRWS4B: PRWS4B

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRWS4B1: PRWS4B1

Runoff = 2.5 cfs @ 12.08 hrs, Volume= 7,636 cf, Depth= 2.22"

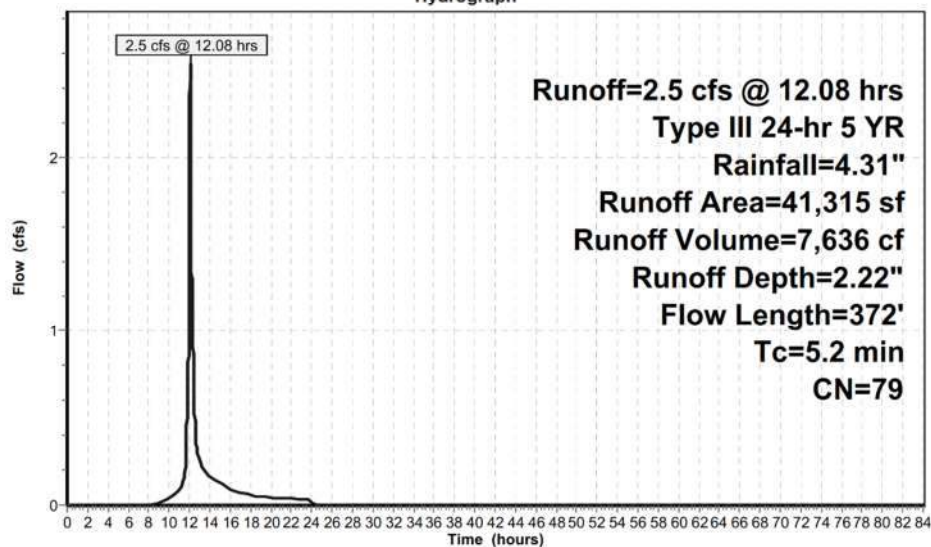
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 20,331 | 98 | Paved parking, HSG B |
| 2,189 | 61 | >75% Grass cover, Good, HSG B |
| 739 | 61 | >75% Grass cover, Good, HSG B |
| 3,763 | 61 | >75% Grass cover, Good, HSG B |
| 14,293 | 61 | >75% Grass cover, Good, HSG B |
| 41,315 | 79 | Weighted Average |
| 20,984 | | 50.79% Pervious Area |
| 20,331 | | 49.21% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.0 | 58 | 0.1200 | 0.32 | | Sheet Flow, SF1 Grass: Short n= 0.150 P2= 3.43" |
| 1.2 | 21 | 0.1400 | 0.28 | | Sheet Flow, SF2 Grass: Short n= 0.150 P2= 3.43" |
| 0.2 | 57 | 0.1200 | 5.20 | | Shallow Concentrated Flow, SCF1 Grassed Waterway Kv= 15.0 fps |
| 0.6 | 93 | 0.0150 | 2.49 | | Shallow Concentrated Flow, SCF2 Paved Kv= 20.3 fps |
| 0.2 | 143 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 5.2 | 372 | Total | | | |

Subcatchment PRWS4B1: PRWS4B1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRWS4B2: PRWS4B2

Runoff = 2.1 cfs @ 12.13 hrs, Volume= 7,416 cf, Depth= 2.92"

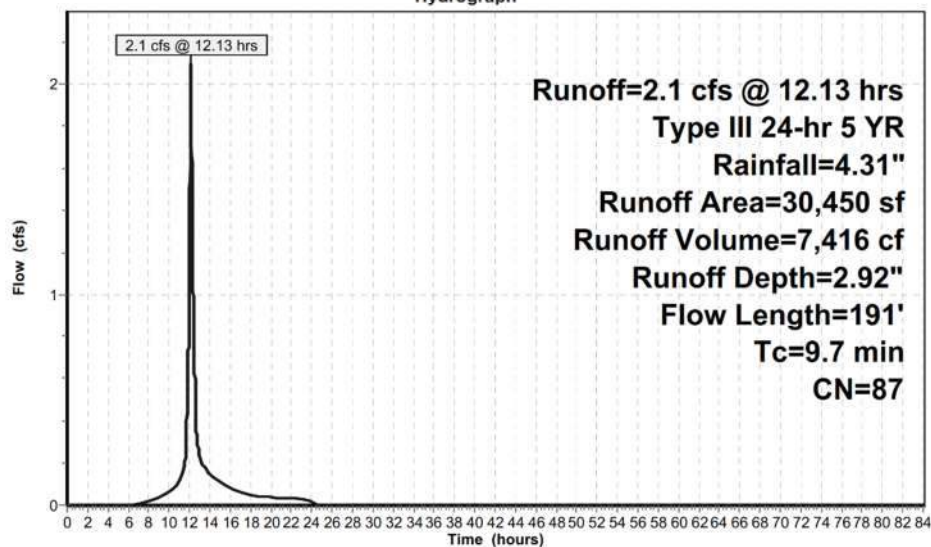
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 21,360 | 98 | Paved parking, HSG B |
| 7,840 | 61 | >75% Grass cover, Good, HSG B |
| 182 | 61 | >75% Grass cover, Good, HSG B |
| 154 | 61 | >75% Grass cover, Good, HSG B |
| 545 | 61 | >75% Grass cover, Good, HSG B |
| 369 | 61 | >75% Grass cover, Good, HSG B |
| 30,450 | 87 | Weighted Average |
| 9,090 | | 29.85% Pervious Area |
| 21,360 | | 70.15% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.8 | 66 | 0.0200 | 0.16 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.7 | 11 | 0.1800 | 0.27 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 1.7 | 23 | 0.0760 | 0.22 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.2 | 19 | 0.0760 | 1.93 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 72 | 0.0360 | 3.85 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 9.7 | 191 | Total | | | |

Subcatchment PRWS4B2: PRWS4B2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRWS4B3: PRWS4B3

Runoff = 3.0 cfs @ 12.11 hrs, Volume= 10,175 cf, Depth= 3.02"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 29,086 | 98 | Paved parking, HSG B |
| 2,140 | 61 | >75% Grass cover, Good, HSG B |
| 3,232 | 61 | >75% Grass cover, Good, HSG B |
| 1,899 | 61 | >75% Grass cover, Good, HSG B |
| 214 | 61 | >75% Grass cover, Good, HSG B |
| 2,928 | 61 | >75% Grass cover, Good, HSG B |
| 961 | 61 | >75% Grass cover, Good, HSG B |
| 40,460 | 88 | Weighted Average |
| 11,374 | | 28.11% Pervious Area |
| 29,086 | | 71.89% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 7.2 | 71 | 0.0200 | 0.16 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.3 | 29 | 0.0500 | 1.60 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 0.5 | 147 | 0.0500 | 4.54 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.0 | 25 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 0.3 | 173 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 8.3 | 445 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

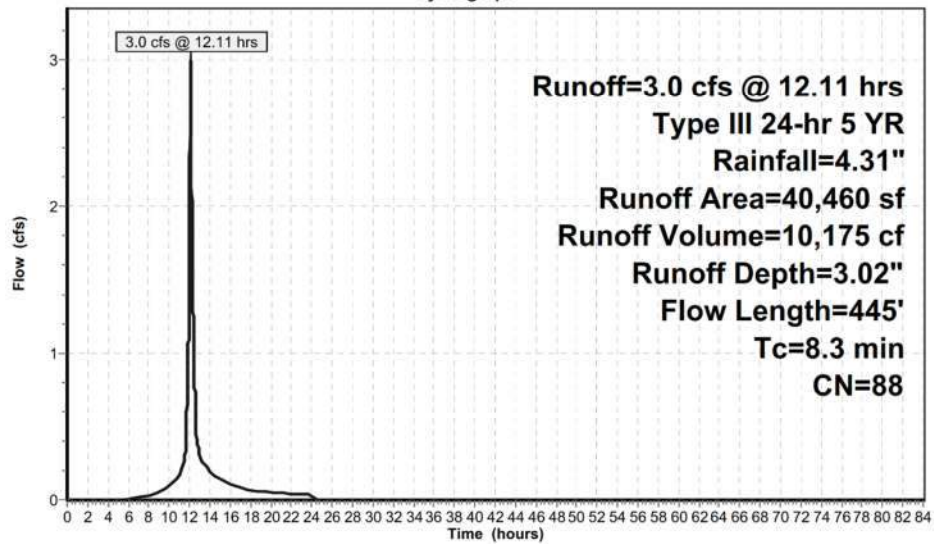
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Type III 24-hr 5 YR Rainfall=4.31"

Subcatchment PRWS4B3: PRWS4B3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRWS4D: PRWS4D

Runoff = 1.3 cfs @ 12.14 hrs, Volume= 5,355 cf, Depth= 0.97"

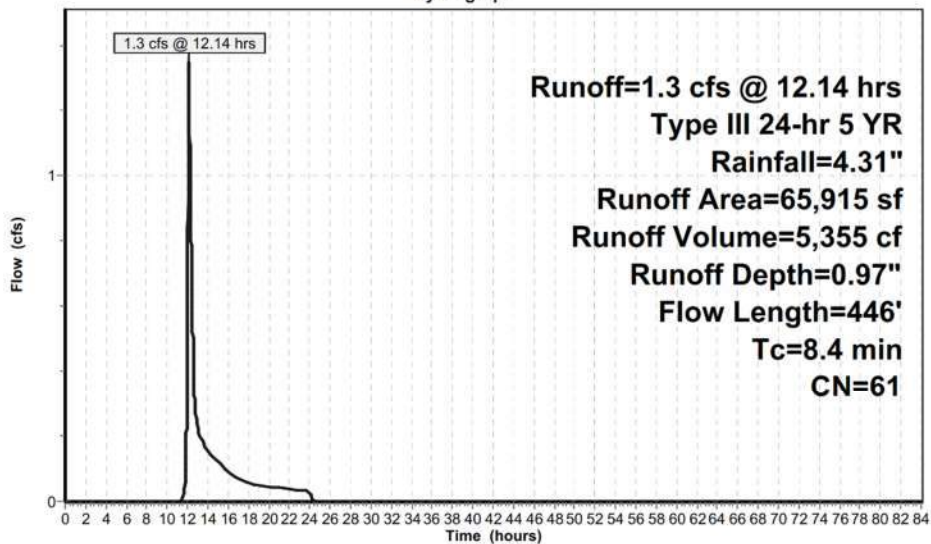
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 65,915 | 61 | >75% Grass cover, Good, HSG B |
| 65,915 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 5.7 | 100 | 0.0700 | 0.29 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.3 | 40 | 0.1000 | 2.21 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.1 | 16 | 0.5000 | 4.95 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.5 | 33 | 0.0300 | 1.21 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.4 | 127 | 0.5000 | 4.95 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 60 | 0.1100 | 4.97 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.2 | 70 | 0.0200 | 0.99 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 8.4 | 446 | Total | | | |

Subcatchment PRWS4D: PRWS4D

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Pond IS4A1: IS4A1

Inflow Area = 9,556 sf, 100.00% Impervious, Inflow Depth = 4.07" for 5 YR event
Inflow = 1.0 cfs @ 12.07 hrs, Volume= 3,245 cf
Outflow = 0.1 cfs @ 11.01 hrs, Volume= 3,245 cf, Atten= 93%, Lag= 0.0 min
Discarded = 0.1 cfs @ 11.01 hrs, Volume= 3,245 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Peak Elev= 496.05' @ 13.27 hrs Surf.Area= 702 sf Storage= 1,243 cf

Plug-Flow detention time= 142.8 min calculated for 3,244 cf (100% of inflow)

Center-of-Mass det. time= 142.8 min (892.4 - 749.7)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 493.50' | 618 cf | 30.50'W x 23.00'L x 3.54'H Field A 2,484 cf Overall - 939 cf Embedded = 1,546 cf x 40.0% Voids |
| #2A | 494.00' | 939 cf | Cultec R-330XL x 18 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | | 1,557 cf Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 496.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 496.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 496.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 493.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 11.01 hrs HW=493.54' (Free Discharge)

↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=493.50' (Free Discharge)

↑**1=Culvert** (Controls 0.0 cfs)

↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

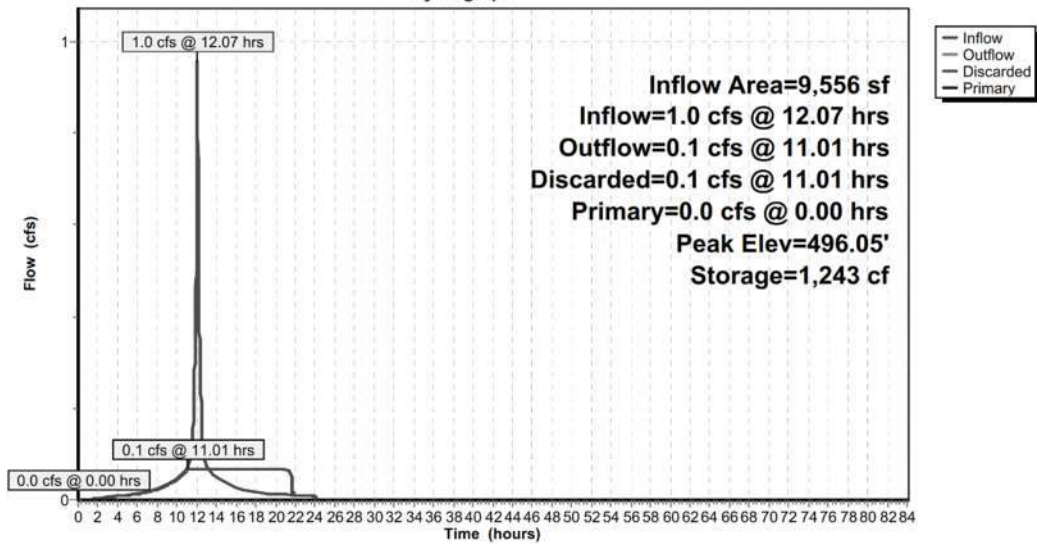
Type III 24-hr 5 YR Rainfall=4.31"

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Pond IS4A1: IS4A1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Pond IS4A2: IS4A2

Inflow Area = 15,160 sf, 100.00% Impervious, Inflow Depth = 4.07" for 5 YR event
Inflow = 1.5 cfs @ 12.07 hrs, Volume= 5,147 cf
Outflow = 0.1 cfs @ 11.25 hrs, Volume= 5,147 cf, Atten= 92%, Lag= 0.0 min
Discarded = 0.1 cfs @ 11.25 hrs, Volume= 5,147 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 455.42' @ 12.97 hrs Surf.Area= 1,342 sf Storage= 1,825 cf

Plug-Flow detention time= 103.1 min calculated for 5,147 cf (100% of inflow)
Center-of-Mass det. time= 103.1 min (852.8 - 749.7)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 453.50' | 1,150 cf | 30.50'W x 44.00'L x 3.54'H Field A 4,753 cf Overall - 1,878 cf Embedded = 2,875 cf x 40.0% Voids |
| #2A | 454.00' | 1,878 cf | Cultec R-330XL x 36 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | | 3,028 cf Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 456.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 456.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 456.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 453.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 11.25 hrs HW=453.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=453.50' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

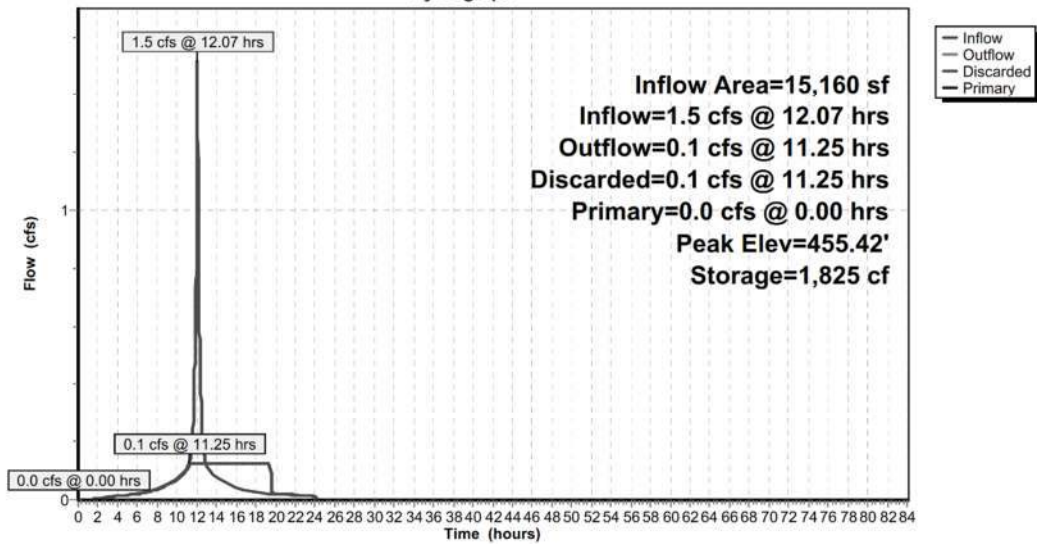
Type III 24-hr 5 YR Rainfall=4.31"

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Pond IS4A2: IS4A2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Pond IS4A3: IS4A3

Inflow Area = 22,416 sf, 100.00% Impervious, Inflow Depth = 4.07" for 5 YR event
Inflow = 2.2 cfs @ 12.07 hrs, Volume= 7,611 cf
Outflow = 0.2 cfs @ 11.16 hrs, Volume= 7,611 cf, Atten= 93%, Lag= 0.0 min
Discarded = 0.2 cfs @ 11.16 hrs, Volume= 7,611 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 455.68' @ 13.06 hrs Surf.Area= 1,802 sf Storage= 2,809 cf

Plug-Flow detention time= 122.0 min calculated for 7,610 cf (100% of inflow)
Center-of-Mass det. time= 122.0 min (871.7 - 749.7)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 453.50' | 1,531 cf | 35.33'W x 51.00'L x 3.54'H Field A 6,382 cf Overall - 2,556 cf Embedded = 3,826 cf x 40.0% Voids |
| #2A | 454.00' | 2,556 cf | Cultec R-330XL x 49 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | | 4,086 cf Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 455.50' | 15.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 455.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 456.50' | 4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 453.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 11.16 hrs HW=453.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=453.50' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

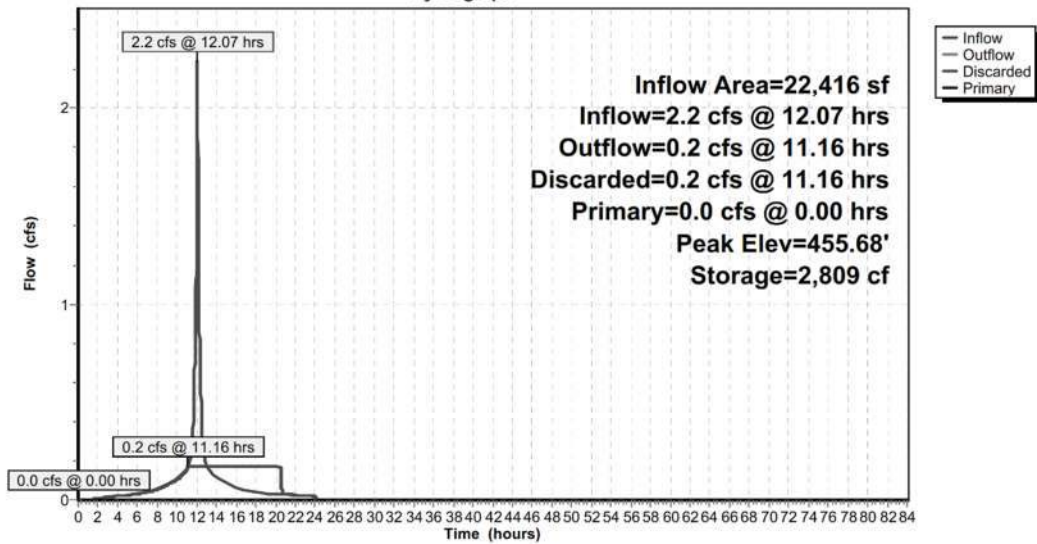
Type III 24-hr 5 YR Rainfall=4.31"

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Pond IS4A3: IS4A3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Pond IS4B1: IS4B1

Inflow Area = 41,315 sf, 49.21% Impervious, Inflow Depth = 2.22" for 5 YR event
Inflow = 2.5 cfs @ 12.08 hrs, Volume= 7,636 cf
Outflow = 0.2 cfs @ 11.57 hrs, Volume= 7,636 cf, Atten= 93%, Lag= 0.0 min
Discarded = 0.2 cfs @ 11.57 hrs, Volume= 7,636 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 435.37' @ 13.77 hrs Surf.Area= 1,936 sf Storage= 3,237 cf

Plug-Flow detention time= 168.8 min calculated for 7,636 cf (100% of inflow)
Center-of-Mass det. time= 168.8 min (999.2 - 830.5)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 433.00' | 1,679 cf | 16.00'W x 121.00'L x 3.54'H Field A 6,857 cf Overall - 2,660 cf Embedded = 4,197 cf x 40.0% Voids |
| #2A | 433.50' | 2,660 cf | Cultec R-330XL x 51 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | | 4,339 cf Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 435.00' | 24.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 435.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 436.00' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 433.00' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 11.57 hrs HW=433.04' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=433.00' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

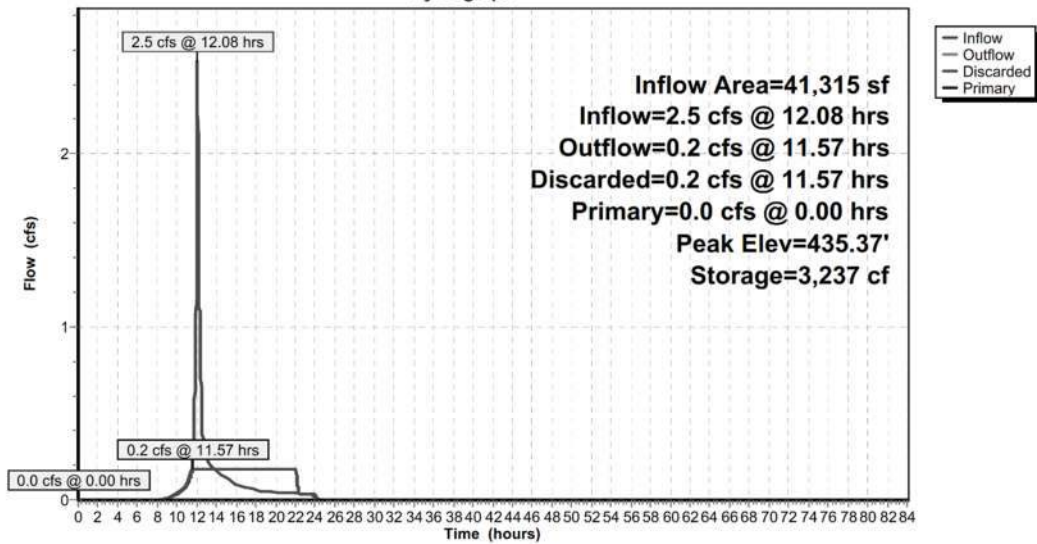
Type III 24-hr 5 YR Rainfall=4.31"

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Pond IS4B1: IS4B1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Pond IS4B2: IS4B2

Inflow Area = 30,450 sf, 70.15% Impervious, Inflow Depth = 2.92" for 5 YR event
Inflow = 2.1 cfs @ 12.13 hrs, Volume= 7,416 cf
Outflow = 0.3 cfs @ 12.72 hrs, Volume= 7,416 cf, Atten= 85%, Lag= 35.1 min
Discarded = 0.1 cfs @ 11.25 hrs, Volume= 7,067 cf
Primary = 0.2 cfs @ 12.72 hrs, Volume= 348 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 420.55' @ 12.72 hrs Surf.Area= 1,486 sf Storage= 3,064 cf

Plug-Flow detention time= 193.1 min calculated for 7,415 cf (100% of inflow)
Center-of-Mass det. time= 193.0 min (1,003.3 - 810.3)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 417.50' | 1,271 cf | 40.17'W x 37.00'L x 3.54'H Field A 5,264 cf Overall - 2,086 cf Embedded = 3,177 cf x 40.0% Voids |
| #2A | 418.00' | 2,086 cf | Cultec R-330XL x 40 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 3,357 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 419.50' | 18.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 419.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 420.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 417.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 11.25 hrs HW=417.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.2 cfs @ 12.72 hrs HW=420.55' (Free Discharge)
↑**1=Culvert** (Passes 0.2 cfs of 3.0 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 0.2 cfs @ 0.62 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

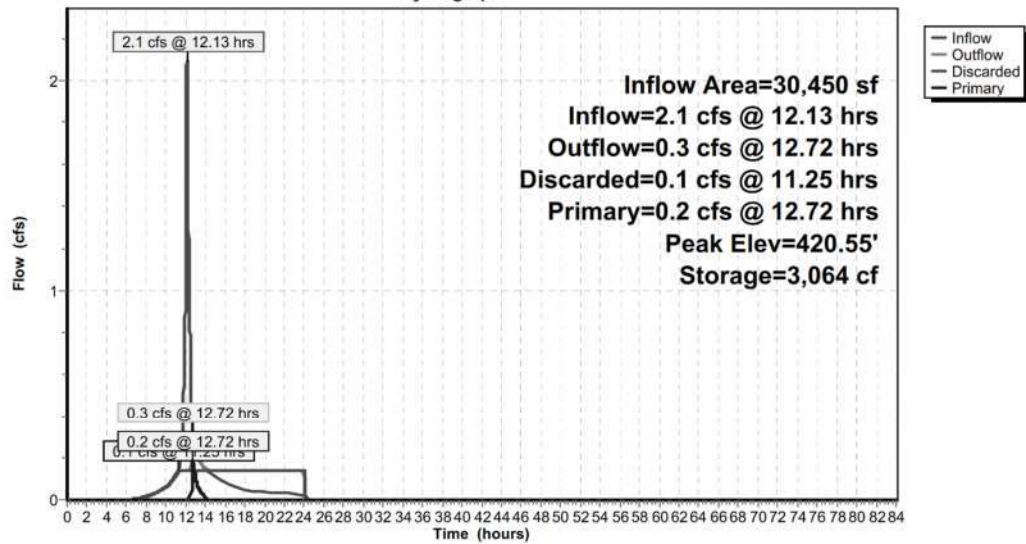
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Pond IS4B2: IS4B2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Pond IS4B3: IS4B3

Inflow Area = 40,460 sf, 71.89% Impervious, Inflow Depth = 3.02" for 5 YR event
Inflow = 3.0 cfs @ 12.11 hrs, Volume= 10,175 cf
Outflow = 1.4 cfs @ 12.34 hrs, Volume= 10,175 cf, Atten= 54%, Lag= 13.4 min
Discarded = 0.2 cfs @ 10.90 hrs, Volume= 8,466 cf
Primary = 1.2 cfs @ 12.34 hrs, Volume= 1,709 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 410.66' @ 12.34 hrs Surf.Area= 1,646 sf Storage= 3,455 cf

Plug-Flow detention time= 173.5 min calculated for 10,175 cf (100% of inflow)
Center-of-Mass det. time= 173.5 min (979.0 - 805.5)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 407.50' | 1,414 cf | 20.83'W x 79.00'L x 3.54'H Field A 5,829 cf Overall - 2,295 cf Embedded = 3,534 cf x 40.0% Voids |
| #2A | 408.00' | 2,295 cf | Cultec R-330XL x 44 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 3,709 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 409.50' | 36.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 409.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 410.50' | 7.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 407.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 10.90 hrs HW=407.55' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=1.2 cfs @ 12.34 hrs HW=410.66' (Free Discharge)
↑**1=Culvert** (Passes 1.2 cfs of 5.8 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 1.2 cfs @ 1.11 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

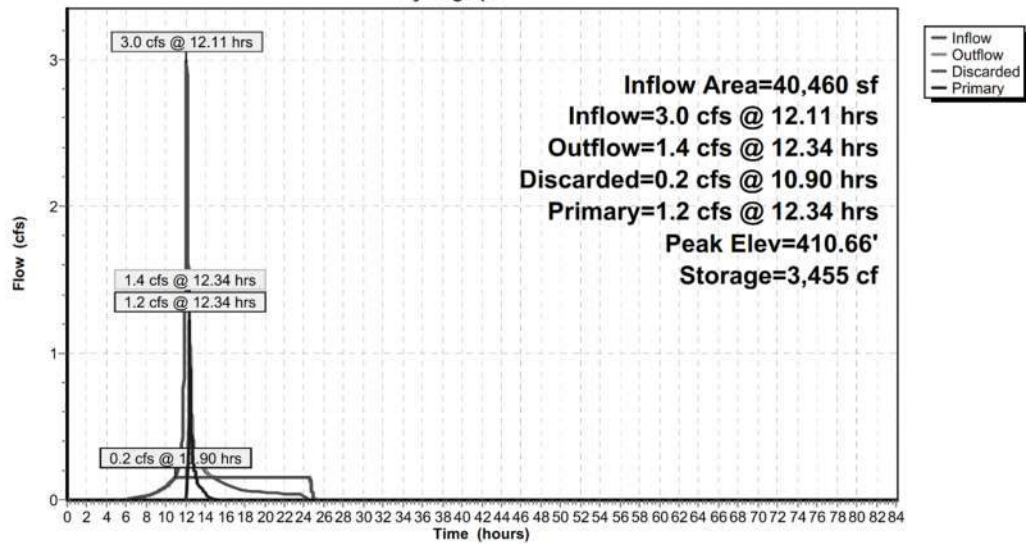
Type III 24-hr 5 YR Rainfall=4.31"

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Pond IS4B3: IS4B3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Pond POND 1: POND 1

Inflow Area = 569,992 sf, 50.96% Impervious, Inflow Depth = 1.96" for 5 YR event
Inflow = 22.6 cfs @ 12.21 hrs, Volume= 93,108 cf
Outflow = 4.3 cfs @ 12.87 hrs, Volume= 93,108 cf, Atten= 81%, Lag= 39.4 min
Discarded = 1.1 cfs @ 12.87 hrs, Volume= 69,018 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Secondary = 3.2 cfs @ 12.87 hrs, Volume= 24,090 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 427.90' @ 12.87 hrs Surf.Area= 12,354 sf Storage= 42,287 cf

Plug-Flow detention time= 331.9 min calculated for 93,097 cf (100% of inflow)
Center-of-Mass det. time= 332.0 min (1,174.5 - 842.5)

| Volume | Invert | Avail.Storage | Storage Description |
|---------------------|----------------------|---------------------------|--|
| #1 | 422.00' | 115,278 cf | Custom Stage Data (Prismatic) Listed below (Recalc) |
| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
| 422.00 | 2,413 | 0 | 0 |
| 424.00 | 5,801 | 8,214 | 8,214 |
| 426.00 | 8,480 | 14,281 | 22,495 |
| 428.00 | 12,558 | 21,038 | 43,533 |
| 430.00 | 18,510 | 31,068 | 74,601 |
| 432.00 | 22,167 | 40,677 | 115,278 |

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|--|
| #1 | Discarded | 422.00' | 4,000 in/hr Exfiltration over Surface area |
| #2 | Primary | 423.00' | 24.0" Round Culvert L= 147.0' CPP, projecting, no headwall, Ke= 0.900 Outlet Invert= 384.00' S= 0.2653 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #3 | Secondary | 427.00' | 14.0" W x 14.0" H Vert. Orifice/Grate C= 0.600 |
| #4 | Device 2 | 430.30' | 5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Discarded OutFlow Max=1.1 cfs @ 12.87 hrs HW=427.90' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.1 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=422.00' (Free Discharge)
↑**2=Culvert** (Controls 0.0 cfs)
↑**4=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Secondary OutFlow Max=3.2 cfs @ 12.87 hrs HW=427.90' (Free Discharge)
↑**3=Orifice/Grate** (Orifice Controls 3.2 cfs @ 3.05 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

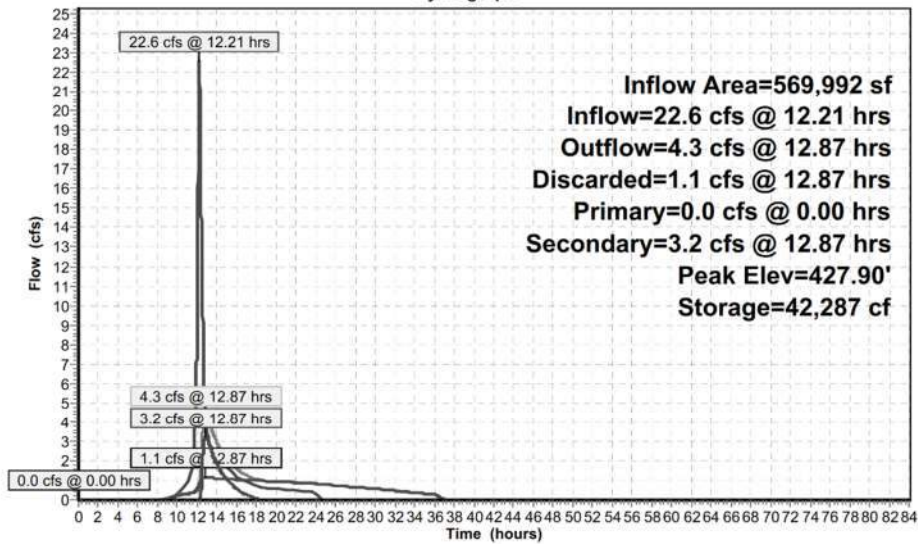
Type III 24-hr 5 YR Rainfall=4.31"

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Pond POND 1: POND 1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Pond POND 2: POND 2

Inflow Area = 814,944 sf, 52.52% Impervious, Inflow Depth = 0.44" for 5 YR event
Inflow = 7.6 cfs @ 12.09 hrs, Volume= 30,098 cf
Outflow = 2.4 cfs @ 12.52 hrs, Volume= 30,098 cf, Atten= 69%, Lag= 25.9 min
Primary = 2.4 cfs @ 12.52 hrs, Volume= 30,098 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 382.83' @ 12.52 hrs Surf.Area= 6,293 sf Storage= 12,197 cf

Plug-Flow detention time= 221.8 min calculated for 30,094 cf (100% of inflow)
Center-of-Mass det. time= 222.1 min (998.0 - 775.9)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1 | 380.00' | 69,429 cf | Custom Stage Data (Prismatic) Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---------------------|----------------------|---------------------------|---------------------------|
| 380.00 | 2,540 | 0 | 0 |
| 382.00 | 4,963 | 7,503 | 7,503 |
| 384.00 | 8,153 | 13,116 | 20,619 |
| 386.00 | 12,103 | 20,256 | 40,875 |
| 388.00 | 16,451 | 28,554 | 69,429 |

| Device | Routing | Invert | Outlet Devices |
|--------|----------|---------|---|
| #1 | Primary | 380.00' | 24.0" Round Culvert L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 380.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 380.00' | 3.0" Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 382.05' | 12.0" Vert. Orifice/Grate C= 0.600 |
| #4 | Device 1 | 385.25' | 2.5' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Primary OutFlow Max=2.4 cfs @ 12.52 hrs HW=382.83' (Free Discharge)

1=Culvert (Passes 2.4 cfs of 17.2 cfs potential flow)
2=Orifice/Grate (Orifice Controls 0.4 cfs @ 7.92 fps)
3=Orifice/Grate (Orifice Controls 2.0 cfs @ 3.01 fps)
4=Broad-Crested Rectangular Weir (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

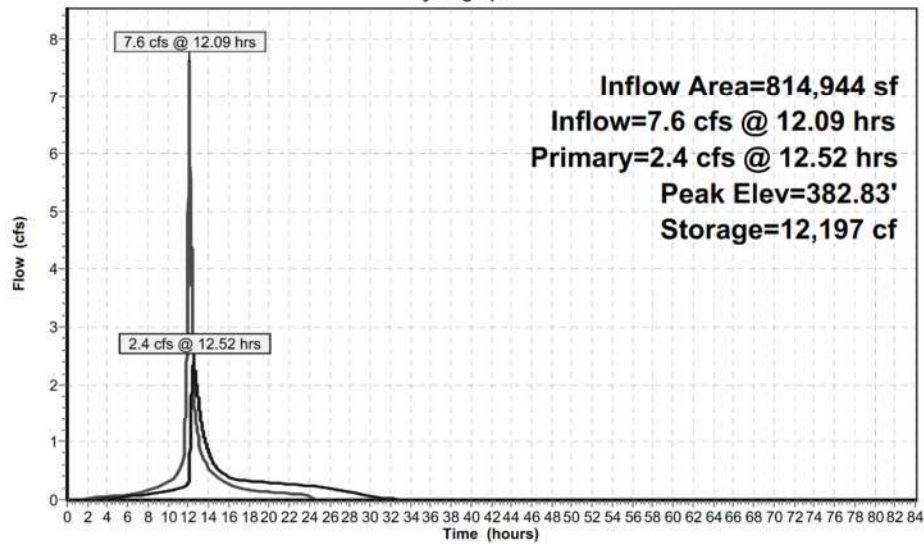
Type III 24-hr 5 YR Rainfall=4.31"

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Pond POND 2: POND 2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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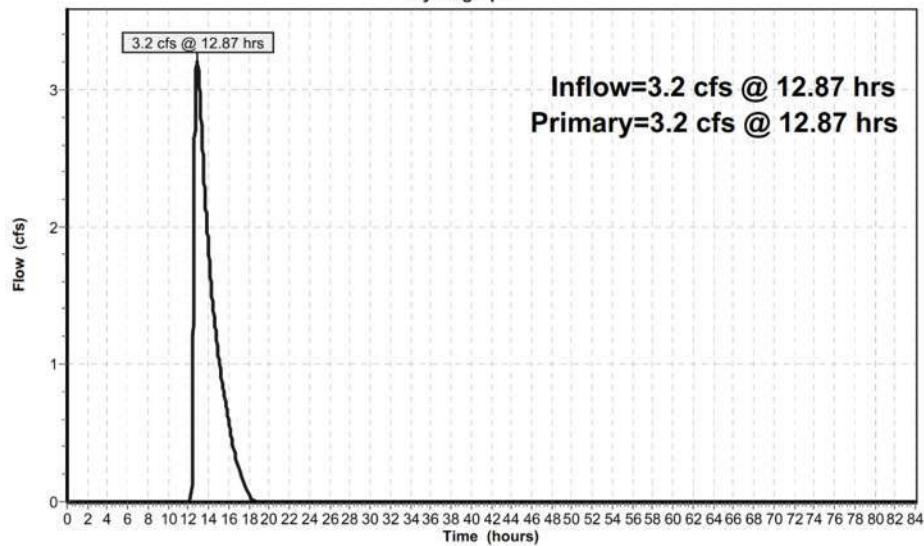
Summary for Link LL1: LOW LEVEL 1

Inflow = 3.2 cfs @ 12.87 hrs, Volume= 24,090 cf
Primary = 3.2 cfs @ 12.87 hrs, Volume= 24,090 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Link LL1: LOW LEVEL 1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 5 YR Rainfall=4.31"

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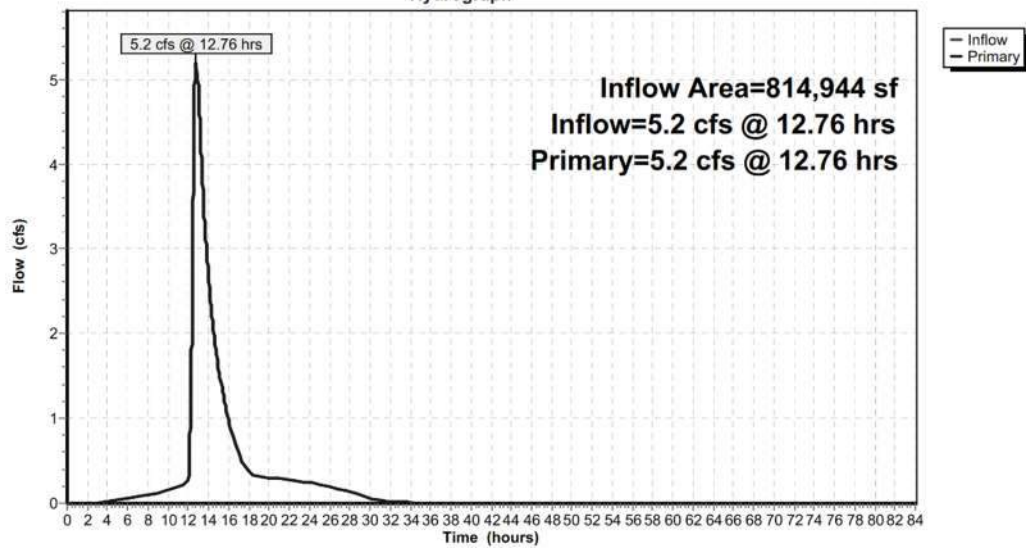
Summary for Link TR1: TRANSFER

Inflow Area = 814,944 sf, 52.52% Impervious, Inflow Depth = 0.80" for 5 YR event
Inflow = 5.2 cfs @ 12.76 hrs, Volume= 54,188 cf
Primary = 5.2 cfs @ 12.76 hrs, Volume= 54,188 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Link TR1: TRANSFER

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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Time span=0.00-84.00 hrs, dt=0.010 hrs, 8401 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|--------------------------------------|---|
| Subcatchment PRWS4A: PRWS4A | Runoff Area=522,860 sf 46.54% Impervious Runoff Depth=2.82" Flow Length=700' Tc=15.2 min CN=78 Runoff=29.9 cfs 122,977 cf |
| Subcatchment PRWS4A1: PRWS4A1 | Runoff Area=9,556 sf 100.00% Impervious Runoff Depth=4.89" Tc=5.0 min CN=98 Runoff=1.1 cfs 3,896 cf |
| Subcatchment PRWS4A2: PRWS4A2 | Runoff Area=15,160 sf 100.00% Impervious Runoff Depth=4.89" Tc=5.0 min CN=98 Runoff=1.8 cfs 6,181 cf |
| Subcatchment PRWS4A3: PRWS4A3 | Runoff Area=22,416 sf 100.00% Impervious Runoff Depth=4.89" Tc=5.0 min CN=98 Runoff=2.7 cfs 9,140 cf |
| Subcatchment PRWS4B: PRWS4B | Runoff Area=66,812 sf 100.00% Impervious Runoff Depth=4.89" Tc=6.0 min CN=98 Runoff=7.7 cfs 27,242 cf |
| Subcatchment PRWS4B1: PRWS4B1 | Runoff Area=41,315 sf 49.21% Impervious Runoff Depth=2.91" Flow Length=372' Tc=5.2 min CN=79 Runoff=3.3 cfs 10,032 cf |
| Subcatchment PRWS4B2: PRWS4B2 | Runoff Area=30,450 sf 70.15% Impervious Runoff Depth=3.69" Flow Length=191' Tc=9.7 min CN=87 Runoff=2.6 cfs 9,363 cf |
| Subcatchment PRWS4B3: PRWS4B3 | Runoff Area=40,460 sf 71.89% Impervious Runoff Depth=3.79" Flow Length=445' Tc=8.3 min CN=88 Runoff=3.7 cfs 12,787 cf |
| Subcatchment PRWS4D: PRWS4D | Runoff Area=65,915 sf 0.00% Impervious Runoff Depth=1.45" Flow Length=446' Tc=8.4 min CN=61 Runoff=2.2 cfs 7,953 cf |
| Pond IS4A1: IS4A1 | Peak Elev=496.55' Storage=1,420 cf Inflow=1.1 cfs 3,896 cf Discarded=0.1 cfs 3,694 cf Primary=0.2 cfs 203 cf Outflow=0.3 cfs 3,896 cf |
| Pond IS4A2: IS4A2 | Peak Elev=455.96' Storage=2,344 cf Inflow=1.8 cfs 6,181 cf Discarded=0.1 cfs 6,181 cf Primary=0.0 cfs 0 cf Outflow=0.1 cfs 6,181 cf |
| Pond IS4A3: IS4A3 | Peak Elev=456.40' Storage=3,617 cf Inflow=2.7 cfs 9,140 cf Discarded=0.2 cfs 9,140 cf Primary=0.0 cfs 0 cf Outflow=0.2 cfs 9,140 cf |
| Pond IS4B1: IS4B1 | Peak Elev=436.09' Storage=3,991 cf Inflow=3.3 cfs 10,032 cf Discarded=0.2 cfs 9,192 cf Primary=0.5 cfs 841 cf Outflow=0.7 cfs 10,032 cf |
| Pond IS4B2: IS4B2 | Peak Elev=420.67' Storage=3,135 cf Inflow=2.6 cfs 9,363 cf Discarded=0.1 cfs 7,739 cf Primary=1.2 cfs 1,624 cf Outflow=1.3 cfs 9,363 cf |
| Pond IS4B3: IS4B3 | Peak Elev=410.77' Storage=3,527 cf Inflow=3.7 cfs 12,787 cf Discarded=0.2 cfs 9,224 cf Primary=2.7 cfs 3,563 cf Outflow=2.9 cfs 12,787 cf |
| Pond POND 1: POND 1 | Peak Elev=428.66' Storage=52,463 cf Inflow=29.9 cfs 123,179 cf Discarded=1.3 cfs 74,914 cf Primary=0.0 cfs 0 cf Secondary=6.7 cfs 48,265 cf Outflow=8.1 cfs 123,179 cf |
| Pond POND 2: POND 2 | Peak Elev=383.37' Storage=15,821 cf Inflow=9.6 cfs 41,223 cf Outflow=3.9 cfs 41,223 cf |
| Link LL1: LOW LEVEL 1 | Inflow=6.7 cfs 48,265 cf Primary=6.7 cfs 48,265 cf |
| Link TR1: TRANSFER | Inflow=10.4 cfs 89,489 cf Primary=10.4 cfs 89,489 cf |

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

Prepared by Alfonzetti Engineering, P.C.

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Total Runoff Area = 814,944 sf Runoff Volume = 209,572 cf Average Runoff Depth = 3.09"
47.48% Pervious = 386,895 sf 52.52% Impervious = 428,049 sf

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Subcatchment PRWS4A: PRWS4A

Runoff = 29.9 cfs @ 12.21 hrs, Volume= 122,977 cf, Depth= 2.82"

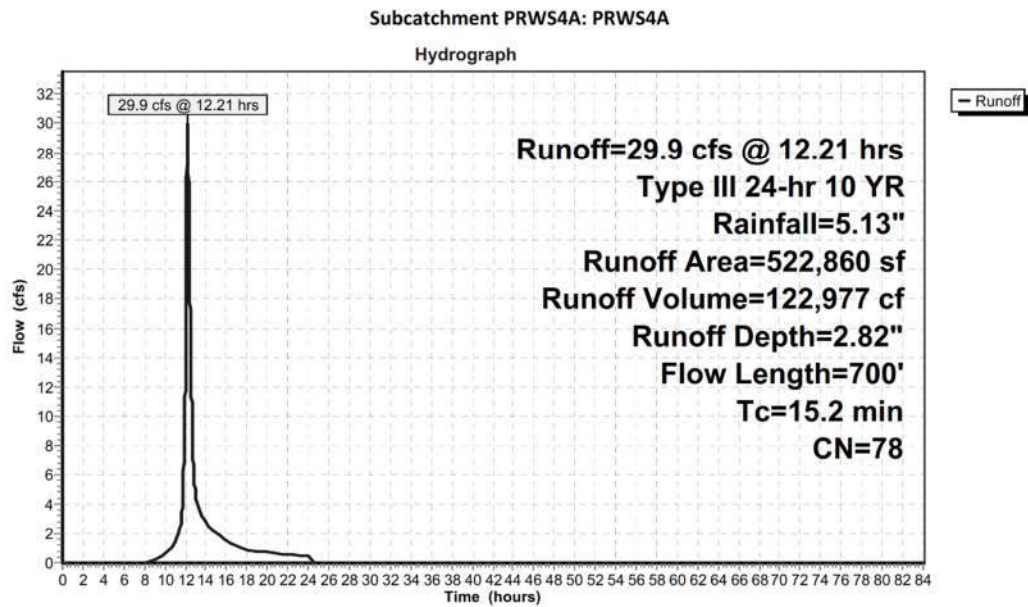
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 39,111 | 61 | >75% Grass cover, Good, HSG B |
| 135,808 | 98 | Paved parking, HSG B |
| 159,040 | 61 | >75% Grass cover, Good, HSG B |
| 107,520 | 98 | Unconnected roofs, HSG B |
| 16,880 | 61 | >75% Grass cover, Good, HSG B |
| 41,385 | 61 | >75% Grass cover, Good, HSG B |
| 9,427 | 61 | >75% Grass cover, Good, HSG B |
| 1,552 | 61 | >75% Grass cover, Good, HSG B |
| 1,288 | 61 | >75% Grass cover, Good, HSG B |
| 374 | 61 | >75% Grass cover, Good, HSG B |
| 1,458 | 61 | >75% Grass cover, Good, HSG B |
| 1,458 | 61 | >75% Grass cover, Good, HSG B |
| 1,522 | 61 | >75% Grass cover, Good, HSG B |
| 1,460 | 61 | >75% Grass cover, Good, HSG B |
| 1,543 | 61 | >75% Grass cover, Good, HSG B |
| 1,540 | 61 | >75% Grass cover, Good, HSG B |
| 1,494 | 61 | >75% Grass cover, Good, HSG B |
| 522,860 | 78 | Weighted Average |
| 279,532 | | 53.46% Pervious Area |
| 243,328 | | 46.54% Impervious Area |
| 107,520 | | 44.19% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|-------------|------------------|------------------|----------------------|-------------------|--|
| 13.8 | 100 | 0.0200 | 0.12 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 1.1 | 100 | 0.0500 | 1.57 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 500 | 0.0700 | 24.77 | 77.809 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.010 PVC, smooth interior |
| 15.2 | 700 | Total | | | |

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Type III 24-hr 10 YR Rainfall=5.13"



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Subcatchment PRWS4A1: PRWS4A1

Runoff = 1.1 cfs @ 12.07 hrs, Volume= 3,896 cf, Depth= 4.89"

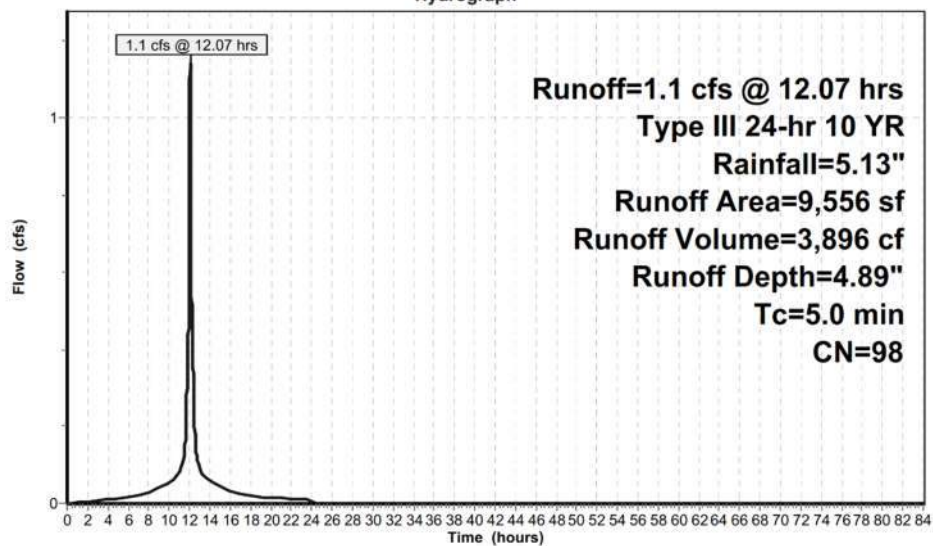
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 9,556 | 98 | Roofs, HSG B |
| 9,556 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|-------------|------------------|------------------|----------------------|-------------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A1: PRWS4A1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Subcatchment PRWS4A2: PRWS4A2

Runoff = 1.8 cfs @ 12.07 hrs, Volume= 6,181 cf, Depth= 4.89"

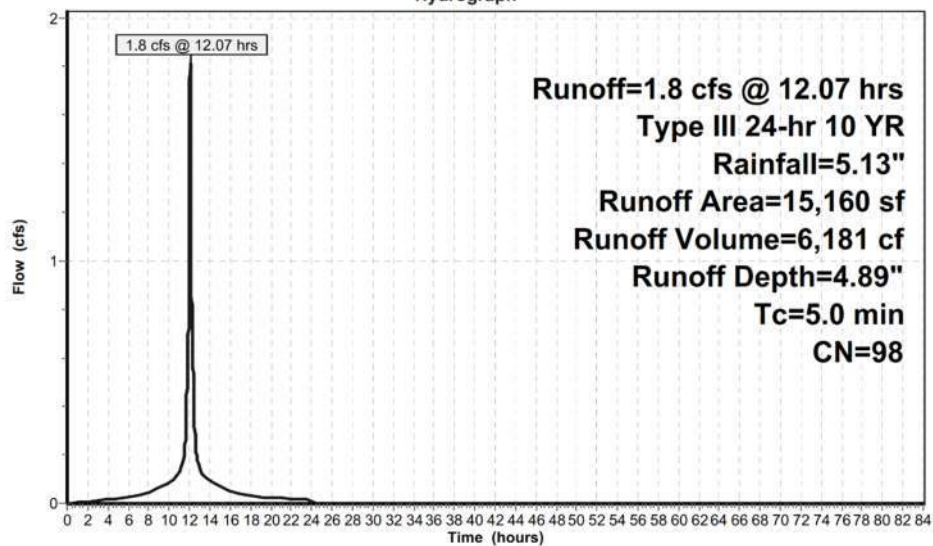
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 15,160 | 98 | Roofs, HSG B |
| 15,160 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A2: PRWS4A2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Subcatchment PRWS4A3: PRWS4A3

Runoff = 2.7 cfs @ 12.07 hrs, Volume= 9,140 cf, Depth= 4.89"

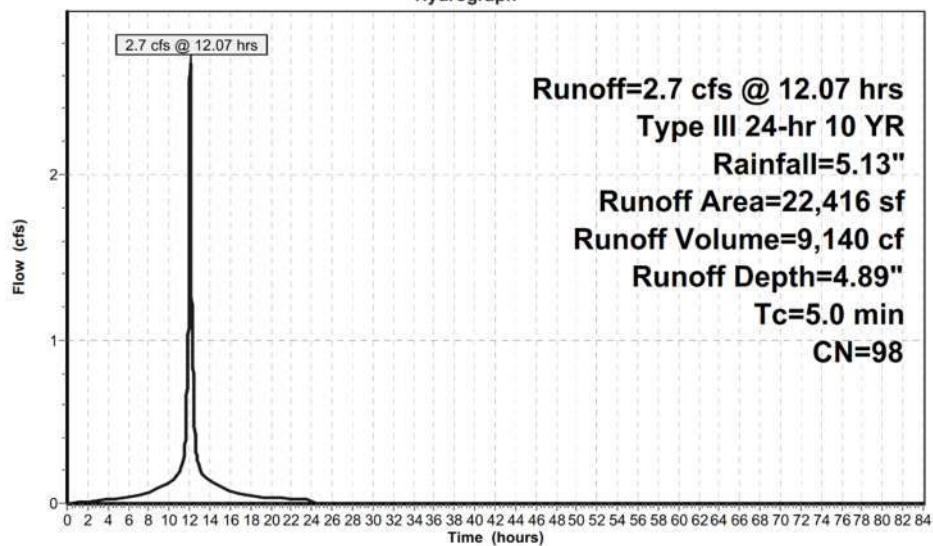
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 22,416 | 98 | Roofs, HSG B |
| 22,416 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|-------------|------------------|------------------|----------------------|-------------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A3: PRWS4A3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Subcatchment PRWS4B: PRWS4B

Runoff = 7.7 cfs @ 12.08 hrs, Volume= 27,242 cf, Depth= 4.89"

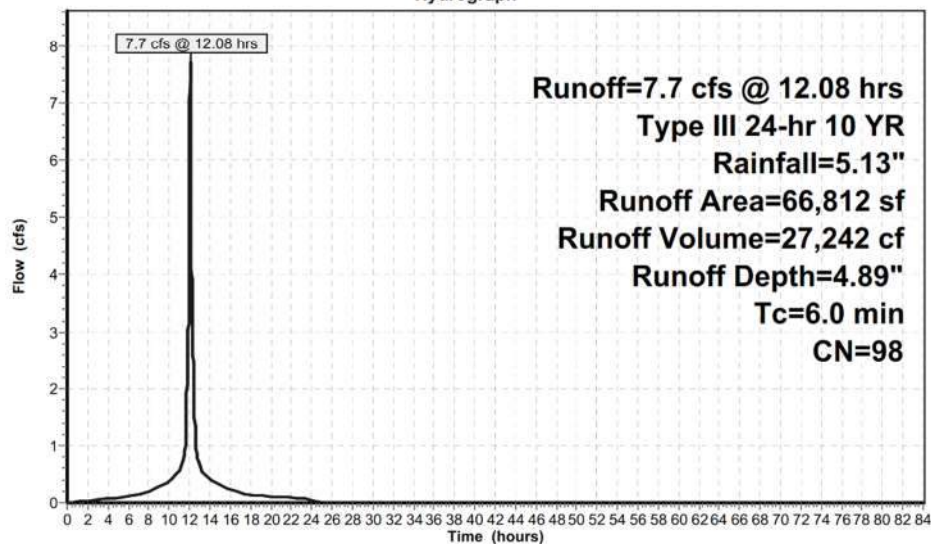
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|--------------------------|
| 66,812 | 98 | Unconnected roofs, HSG B |
| 66,812 | | 100.00% Impervious Area |
| 66,812 | | 100.00% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment PRWS4B: PRWS4B

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Subcatchment PRWS4B1: PRWS4B1

Runoff = 3.3 cfs @ 12.08 hrs, Volume= 10,032 cf, Depth= 2.91"

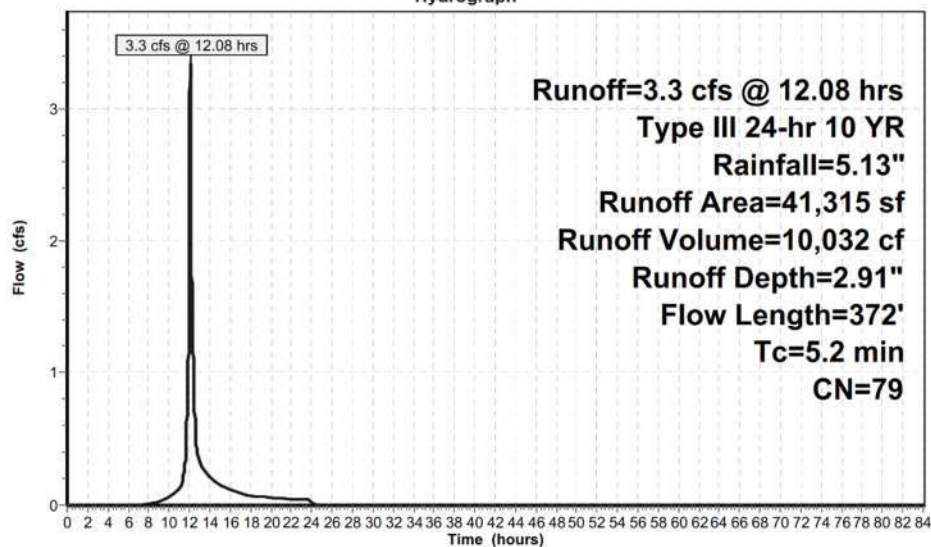
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 20,331 | 98 | Paved parking, HSG B |
| 2,189 | 61 | >75% Grass cover, Good, HSG B |
| 739 | 61 | >75% Grass cover, Good, HSG B |
| 3,763 | 61 | >75% Grass cover, Good, HSG B |
| 14,293 | 61 | >75% Grass cover, Good, HSG B |
| 41,315 | 79 | Weighted Average |
| 20,984 | | 50.79% Pervious Area |
| 20,331 | | 49.21% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.0 | 58 | 0.1200 | 0.32 | | Sheet Flow, SF1 Grass: Short n= 0.150 P2= 3.43" |
| 1.2 | 21 | 0.1400 | 0.28 | | Sheet Flow, SF2 Grass: Short n= 0.150 P2= 3.43" |
| 0.2 | 57 | 0.1200 | 5.20 | | Shallow Concentrated Flow, SCF1 Grassed Waterway Kv= 15.0 fps |
| 0.6 | 93 | 0.0150 | 2.49 | | Shallow Concentrated Flow, SCF2 Paved Kv= 20.3 fps |
| 0.2 | 143 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 5.2 | 372 | Total | | | |

Subcatchment PRWS4B1: PRWS4B1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Subcatchment PRWS4B2: PRWS4B2

Runoff = 2.6 cfs @ 12.13 hrs, Volume= 9,363 cf, Depth= 3.69"

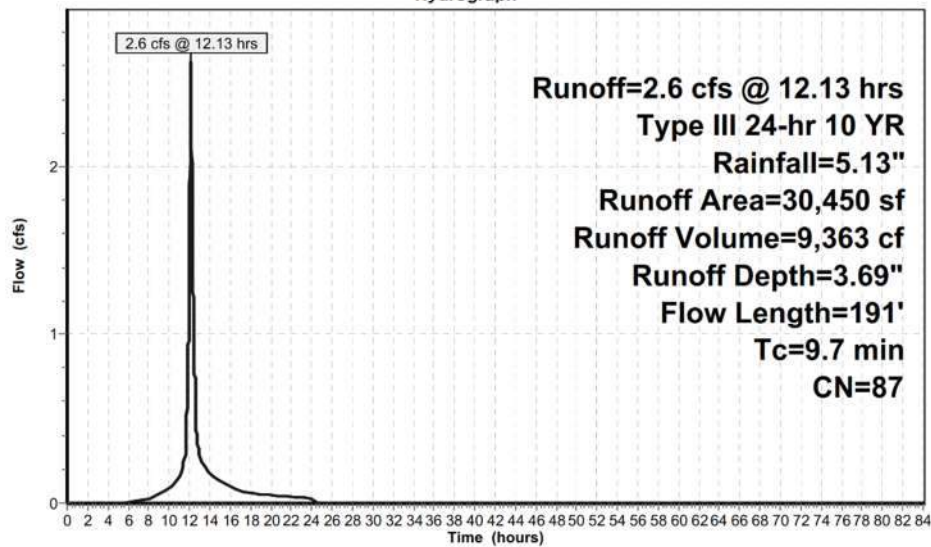
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 21,360 | 98 | Paved parking, HSG B |
| 7,840 | 61 | >75% Grass cover, Good, HSG B |
| 182 | 61 | >75% Grass cover, Good, HSG B |
| 154 | 61 | >75% Grass cover, Good, HSG B |
| 545 | 61 | >75% Grass cover, Good, HSG B |
| 369 | 61 | >75% Grass cover, Good, HSG B |
| 30,450 | 87 | Weighted Average |
| 9,090 | | 29.85% Pervious Area |
| 21,360 | | 70.15% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.8 | 66 | 0.0200 | 0.16 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.7 | 11 | 0.1800 | 0.27 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 1.7 | 23 | 0.0760 | 0.22 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.2 | 19 | 0.0760 | 1.93 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 72 | 0.0360 | 3.85 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 9.7 | 191 | Total | | | |

Subcatchment PRWS4B2: PRWS4B2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Subcatchment PRWS4B3: PRWS4B3

Runoff = 3.7 cfs @ 12.11 hrs, Volume= 12,787 cf, Depth= 3.79"

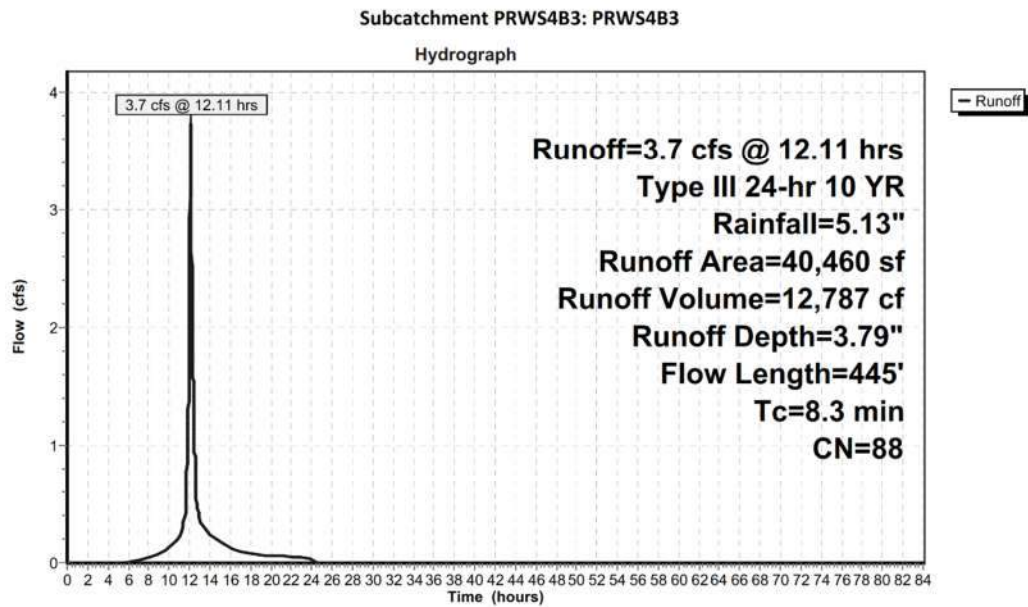
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 29,086 | 98 | Paved parking, HSG B |
| 2,140 | 61 | >75% Grass cover, Good, HSG B |
| 3,232 | 61 | >75% Grass cover, Good, HSG B |
| 1,899 | 61 | >75% Grass cover, Good, HSG B |
| 214 | 61 | >75% Grass cover, Good, HSG B |
| 2,928 | 61 | >75% Grass cover, Good, HSG B |
| 961 | 61 | >75% Grass cover, Good, HSG B |
| 40,460 | 88 | Weighted Average |
| 11,374 | | 28.11% Pervious Area |
| 29,086 | | 71.89% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 7.2 | 71 | 0.0200 | 0.16 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.3 | 29 | 0.0500 | 1.60 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 0.5 | 147 | 0.0500 | 4.54 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.0 | 25 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 0.3 | 173 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 8.3 | 445 | Total | | | |

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Type III 24-hr 10 YR Rainfall=5.13"



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Subcatchment PRWS4D: PRWS4D

Runoff = 2.2 cfs @ 12.13 hrs, Volume= 7,953 cf, Depth= 1.45"

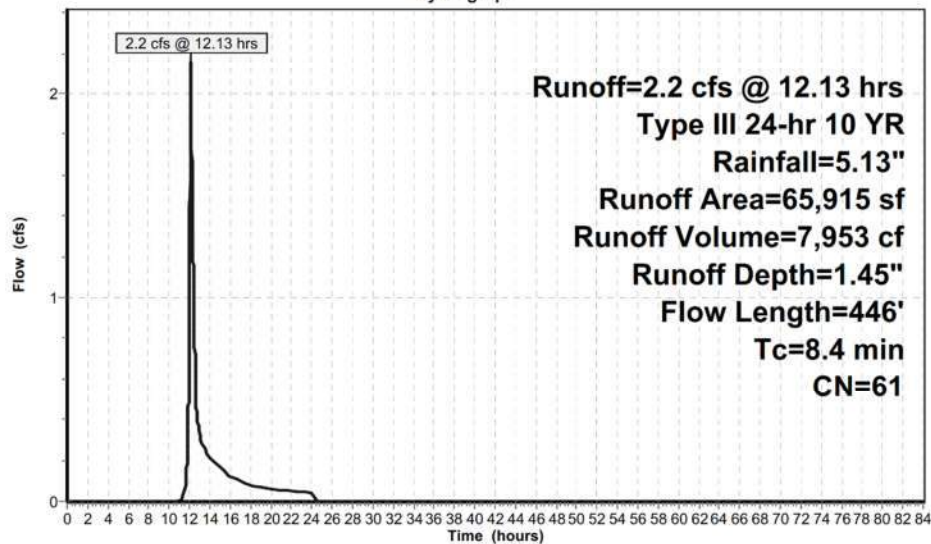
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 65,915 | 61 | >75% Grass cover, Good, HSG B |
| 65,915 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 5.7 | 100 | 0.0700 | 0.29 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.3 | 40 | 0.1000 | 2.21 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.1 | 16 | 0.5000 | 4.95 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.5 | 33 | 0.0300 | 1.21 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.4 | 127 | 0.5000 | 4.95 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 60 | 0.1100 | 4.97 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.2 | 70 | 0.0200 | 0.99 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 8.4 | 446 | Total | | | |

Subcatchment PRWS4D: PRWS4D

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Pond IS4A1: IS4A1

Inflow Area = 9,556 sf, 100.00% Impervious, Inflow Depth = 4.89" for 10 YR event
Inflow = 1.1 cfs @ 12.07 hrs, Volume= 3,896 cf
Outflow = 0.3 cfs @ 12.45 hrs, Volume= 3,896 cf, Atten= 77%, Lag= 22.6 min
Discarded = 0.1 cfs @ 10.53 hrs, Volume= 3,694 cf
Primary = 0.2 cfs @ 12.45 hrs, Volume= 203 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 496.55' @ 12.45 hrs Surf.Area= 702 sf Storage= 1,420 cf

Plug-Flow detention time= 158.8 min calculated for 3,896 cf (100% of inflow)
Center-of-Mass det. time= 158.8 min (905.5 - 746.7)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 493.50' | 618 cf | 30.50'W x 23.00'L x 3.54'H Field A 2,484 cf Overall - 939 cf Embedded = 1,546 cf x 40.0% Voids |
| #2A | 494.00' | 939 cf | Cultec R-330XL x 18 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,557 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 496.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 496.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 496.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 493.50' | 4,000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 10.53 hrs HW=493.54' (Free Discharge)
↑ **3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.2 cfs @ 12.45 hrs HW=496.55' (Free Discharge)
↑ **1=Culvert** (Passes 0.2 cfs of 0.7 cfs potential flow)
↑ **2=Broad-Crested Rectangular Weir** (Weir Controls 0.2 cfs @ 0.63 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

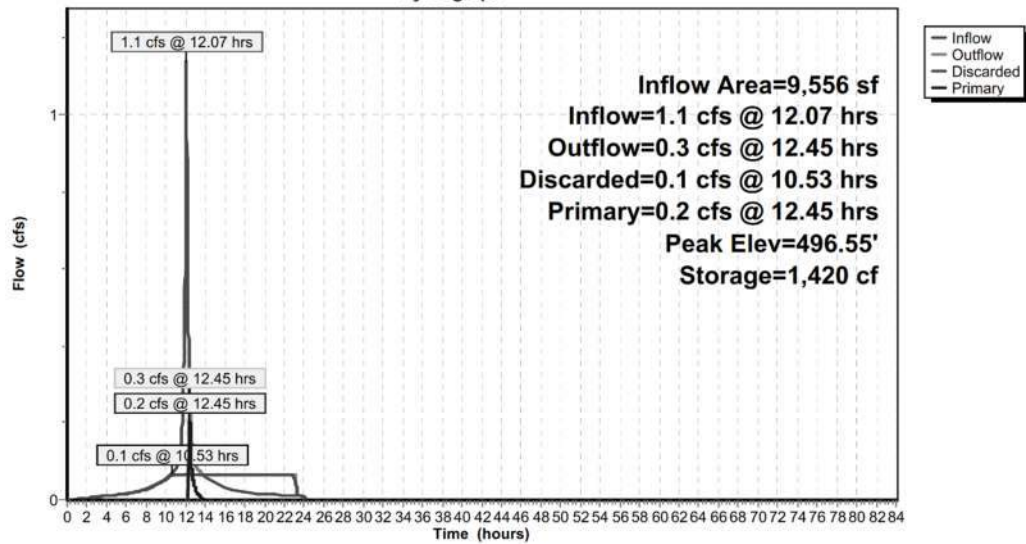
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Pond IS4A1: IS4A1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Pond IS4A2: IS4A2

Inflow Area = 15,160 sf, 100.00% Impervious, Inflow Depth = 4.89" for 10 YR event
Inflow = 1.8 cfs @ 12.07 hrs, Volume= 6,181 cf
Outflow = 0.1 cfs @ 11.02 hrs, Volume= 6,181 cf, Atten= 93%, Lag= 0.0 min
Discarded = 0.1 cfs @ 11.02 hrs, Volume= 6,181 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 455.96' @ 13.24 hrs Surf.Area= 1,342 sf Storage= 2,344 cf

Plug-Flow detention time= 139.3 min calculated for 6,181 cf (100% of inflow)
Center-of-Mass det. time= 139.3 min (885.9 - 746.7)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 453.50' | 1,150 cf | 30.50'W x 44.00'L x 3.54'H Field A 4,753 cf Overall - 1,878 cf Embedded = 2,875 cf x 40.0% Voids |
| #2A | 454.00' | 1,878 cf | Cultec R-330XL x 36 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 3,028 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 456.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 456.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 456.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 453.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 11.02 hrs HW=453.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=453.50' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

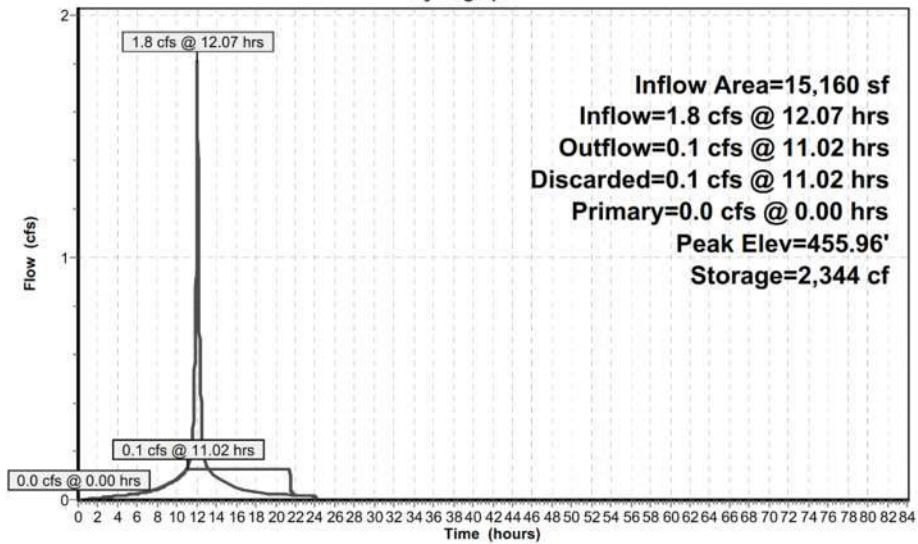
Type III 24-hr 10 YR Rainfall=5.13"

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Pond IS4A2: IS4A2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Pond IS4A3: IS4A3

Inflow Area = 22,416 sf, 100.00% Impervious, Inflow Depth = 4.89" for 10 YR event
Inflow = 2.7 cfs @ 12.07 hrs, Volume= 9,140 cf
Outflow = 0.2 cfs @ 10.76 hrs, Volume= 9,140 cf, Atten= 94%, Lag= 0.0 min
Discarded = 0.2 cfs @ 10.76 hrs, Volume= 9,140 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 456.40' @ 13.50 hrs Surf.Area= 1,802 sf Storage= 3,617 cf

Plug-Flow detention time= 164.8 min calculated for 9,139 cf (100% of inflow)
Center-of-Mass det. time= 164.8 min (911.5 - 746.7)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 453.50' | 1,531 cf | 35.33'W x 51.00'L x 3.54'H Field A 6,382 cf Overall - 2,556 cf Embedded = 3,826 cf x 40.0% Voids |
| #2A | 454.00' | 2,556 cf | Cultec R-330XL x 49 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 4,086 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 455.50' | 15.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 455.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 456.50' | 4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 453.50' | 4,000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 10.76 hrs HW=453.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=453.50' (Free Discharge)
↑**1=Culvert** (Controls 0.0 cfs)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

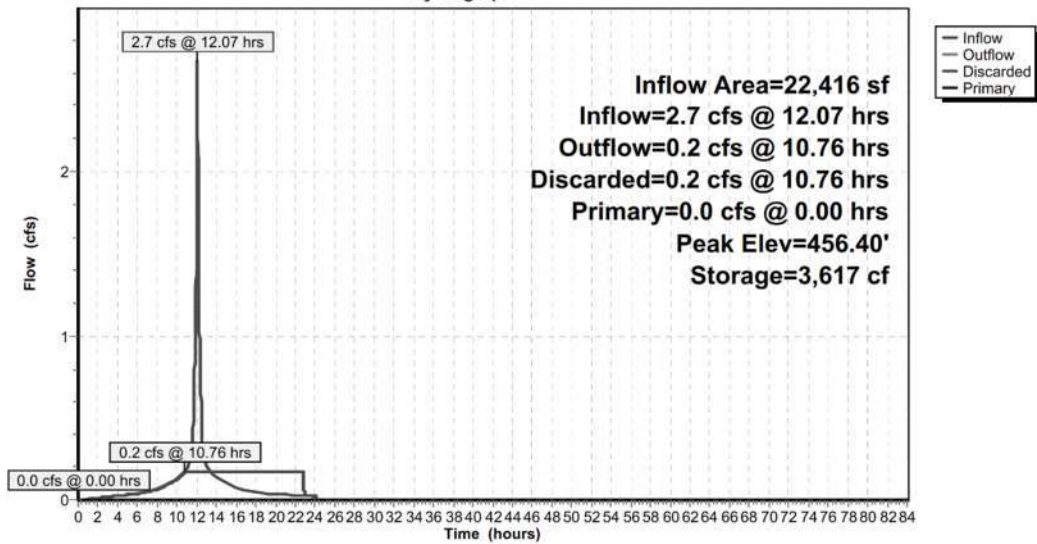
Type III 24-hr 10 YR Rainfall=5.13"

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Pond IS4A3: IS4A3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Pond IS4B1: IS4B1

Inflow Area = 41,315 sf, 49.21% Impervious, Inflow Depth = 2.91" for 10 YR event
Inflow = 3.3 cfs @ 12.08 hrs, Volume= 10,032 cf
Outflow = 0.7 cfs @ 12.52 hrs, Volume= 10,032 cf, Atten= 80%, Lag= 26.5 min
Discarded = 0.2 cfs @ 11.29 hrs, Volume= 9,192 cf
Primary = 0.5 cfs @ 12.52 hrs, Volume= 841 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 436.09' @ 12.52 hrs Surf.Area= 1,936 sf Storage= 3,991 cf

Plug-Flow detention time= 196.6 min calculated for 10,031 cf (100% of inflow)
Center-of-Mass det. time= 196.6 min (1,019.2 - 822.6)

| Volume | Invert | Avail.Storage | Storage Description |
|----------|---------|---------------|--|
| #1A | 433.00' | 1,679 cf | 16.00'W x 121.00'L x 3.54'H Field A 6,857 cf Overall - 2,660 cf Embedded = 4,197 cf x 40.0% Voids |
| #2A | 433.50' | 2,660 cf | Cultec R-330XL x 51 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| 4,339 cf | | | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 435.00' | 24.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 435.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 436.00' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 433.00' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 11.29 hrs HW=433.04' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=0.5 cfs @ 12.52 hrs HW=436.09' (Free Discharge)
↑**1=Culvert** (Passes 0.5 cfs of 4.0 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 0.5 cfs @ 0.86 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

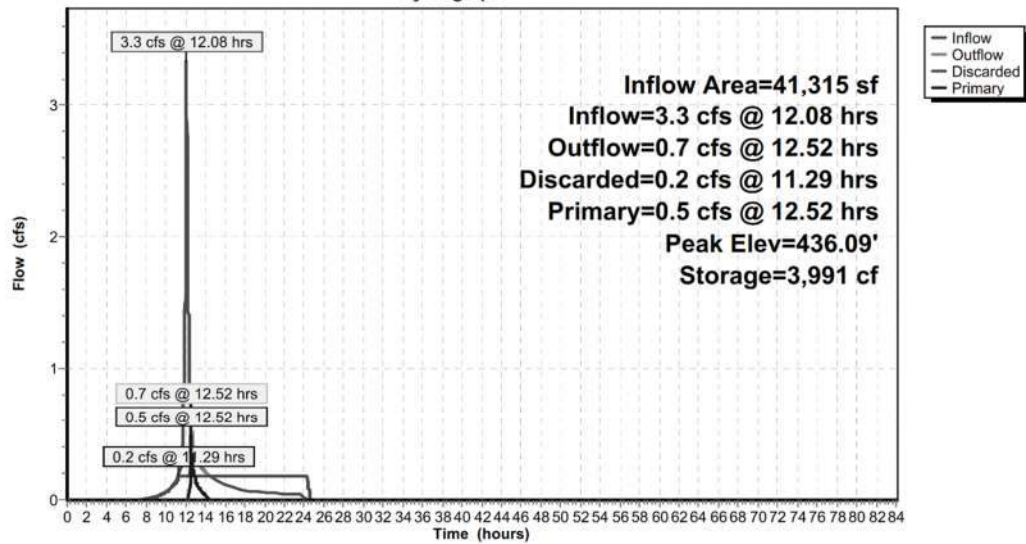
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Pond IS4B1: IS4B1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Pond IS4B2: IS4B2

Inflow Area = 30,450 sf, 70.15% Impervious, Inflow Depth = 3.69" for 10 YR event
Inflow = 2.6 cfs @ 12.13 hrs, Volume= 9,363 cf
Outflow = 1.3 cfs @ 12.35 hrs, Volume= 9,363 cf, Atten= 51%, Lag= 13.0 min
Discarded = 0.1 cfs @ 10.82 hrs, Volume= 7,739 cf
Primary = 1.2 cfs @ 12.35 hrs, Volume= 1,624 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 420.67' @ 12.35 hrs Surf.Area= 1,486 sf Storage= 3,135 cf

Plug-Flow detention time= 171.3 min calculated for 9,363 cf (100% of inflow)
Center-of-Mass det. time= 171.3 min (975.0 - 803.7)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 417.50' | 1,271 cf | 40.17'W x 37.00'L x 3.54'H Field A 5,264 cf Overall - 2,086 cf Embedded = 3,177 cf x 40.0% Voids |
| #2A | 418.00' | 2,086 cf | Cultec R-330XL x 40 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 3,357 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 419.50' | 18.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 419.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 420.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 417.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 10.82 hrs HW=417.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=1.2 cfs @ 12.35 hrs HW=420.67' (Free Discharge)
↑**1=Culvert** (Passes 1.2 cfs of 3.7 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 1.2 cfs @ 1.15 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

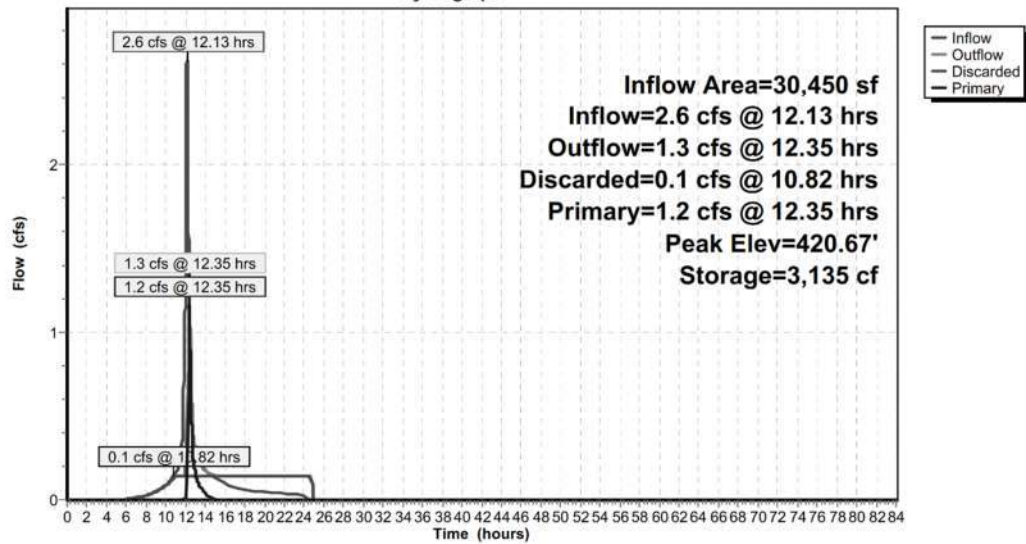
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Pond IS4B2: IS4B2

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Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Pond IS4B3: IS4B3

Inflow Area = 40,460 sf, 71.89% Impervious, Inflow Depth = 3.79" for 10 YR event
Inflow = 3.7 cfs @ 12.11 hrs, Volume= 12,787 cf
Outflow = 2.9 cfs @ 12.19 hrs, Volume= 12,787 cf, Atten= 23%, Lag= 4.8 min
Discarded = 0.2 cfs @ 10.41 hrs, Volume= 9,224 cf
Primary = 2.7 cfs @ 12.19 hrs, Volume= 3,563 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 410.77' @ 12.19 hrs Surf.Area= 1,646 sf Storage= 3,527 cf

Plug-Flow detention time= 153.1 min calculated for 12,786 cf (100% of inflow)
Center-of-Mass det. time= 153.1 min (952.2 - 799.1)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 407.50' | 1,414 cf | 20.83'W x 79.00'L x 3.54'H Field A 5,829 cf Overall - 2,295 cf Embedded = 3,534 cf x 40.0% Voids |
| #2A | 408.00' | 2,295 cf | Cultec R-330XL x 44 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 3,709 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 409.50' | 36.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 409.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 410.50' | 7.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 407.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 10.41 hrs HW=407.55' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=2.7 cfs @ 12.19 hrs HW=410.76' (Free Discharge)
↑**1=Culvert** (Passes 2.7 cfs of 6.9 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 2.7 cfs @ 1.46 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

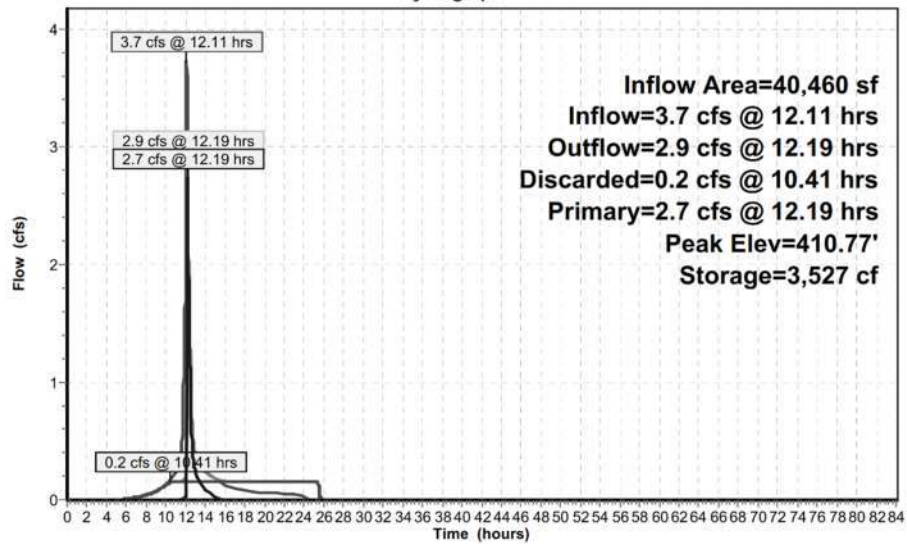
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Type III 24-hr 10 YR Rainfall=5.13"

Pond IS4B3: IS4B3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Pond POND 1: POND 1

Inflow Area = 569,992 sf, 50.96% Impervious, Inflow Depth = 2.59" for 10 YR event
Inflow = 29.9 cfs @ 12.21 hrs, Volume= 123,179 cf
Outflow = 8.1 cfs @ 12.70 hrs, Volume= 123,179 cf, Atten= 73%, Lag= 29.6 min
Discarded = 1.3 cfs @ 12.70 hrs, Volume= 74,914 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Secondary = 6.7 cfs @ 12.70 hrs, Volume= 48,265 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 428.66' @ 12.70 hrs Surf.Area= 14,521 sf Storage= 52,463 cf

Plug-Flow detention time= 279.4 min calculated for 123,179 cf (100% of inflow)
Center-of-Mass det. time= 279.4 min (1,113.8 - 834.4)

| Volume | Invert | Avail.Storage | Storage Description |
|---------------------|----------------------|---------------------------|--|
| #1 | 422.00' | 115,278 cf | Custom Stage Data (Prismatic) Listed below (Recalc) |
| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
| 422.00 | 2,413 | 0 | 0 |
| 424.00 | 5,801 | 8,214 | 8,214 |
| 426.00 | 8,480 | 14,281 | 22,495 |
| 428.00 | 12,558 | 21,038 | 43,533 |
| 430.00 | 18,510 | 31,068 | 74,601 |
| 432.00 | 22,167 | 40,677 | 115,278 |

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|--|
| #1 | Discarded | 422.00' | 4,000 in/hr Exfiltration over Surface area |
| #2 | Primary | 423.00' | 24.0" Round Culvert L= 147.0' CPP, projecting, no headwall, Ke= 0.900 Outlet Invert= 384.00' S= 0.2653 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #3 | Secondary | 427.00' | 14.0" W x 14.0" H Vert. Orifice/Grate C= 0.600 |
| #4 | Device 2 | 430.30' | 5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Discarded OutFlow Max=1.3 cfs @ 12.70 hrs HW=428.66' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.3 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=422.00' (Free Discharge)
↑**2=Culvert** (Controls 0.0 cfs)
↑**4=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Secondary OutFlow Max=6.7 cfs @ 12.70 hrs HW=428.66' (Free Discharge)
↑**3=Orifice/Grate** (Orifice Controls 6.7 cfs @ 4.93 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

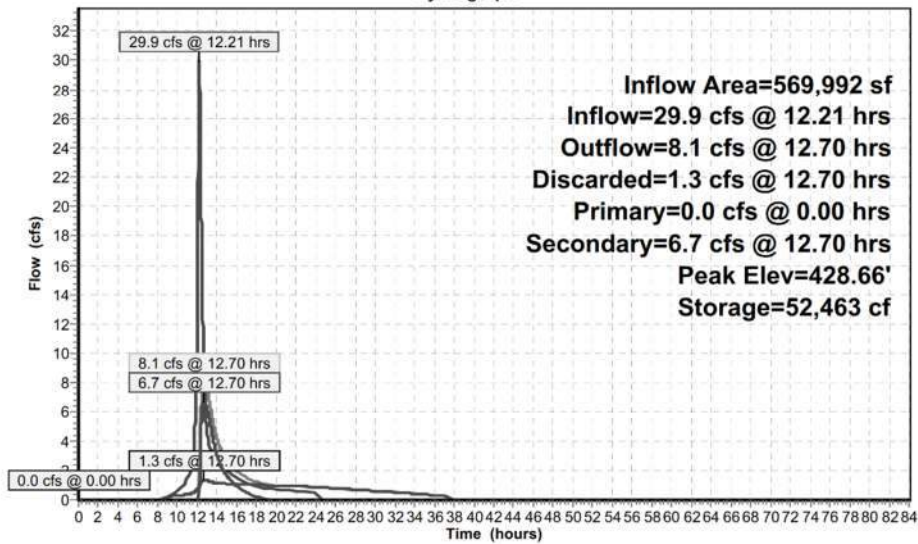
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Pond POND 1: POND 1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Pond POND 2: POND 2

Inflow Area = 814,944 sf, 52.52% Impervious, Inflow Depth = 0.61" for 10 YR event
Inflow = 9.6 cfs @ 12.09 hrs, Volume= 41,223 cf
Outflow = 3.9 cfs @ 12.54 hrs, Volume= 41,223 cf, Atten= 60%, Lag= 27.0 min
Primary = 3.9 cfs @ 12.54 hrs, Volume= 41,223 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 383.37' @ 12.54 hrs Surf.Area= 7,153 sf Storage= 15,821 cf

Plug-Flow detention time= 185.5 min calculated for 41,223 cf (100% of inflow)
Center-of-Mass det. time= 185.5 min (959.6 - 774.2)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1 | 380.00' | 69,429 cf | Custom Stage Data (Prismatic) Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---------------------|----------------------|---------------------------|---------------------------|
| 380.00 | 2,540 | 0 | 0 |
| 382.00 | 4,963 | 7,503 | 7,503 |
| 384.00 | 8,153 | 13,116 | 20,619 |
| 386.00 | 12,103 | 20,256 | 40,875 |
| 388.00 | 16,451 | 28,554 | 69,429 |

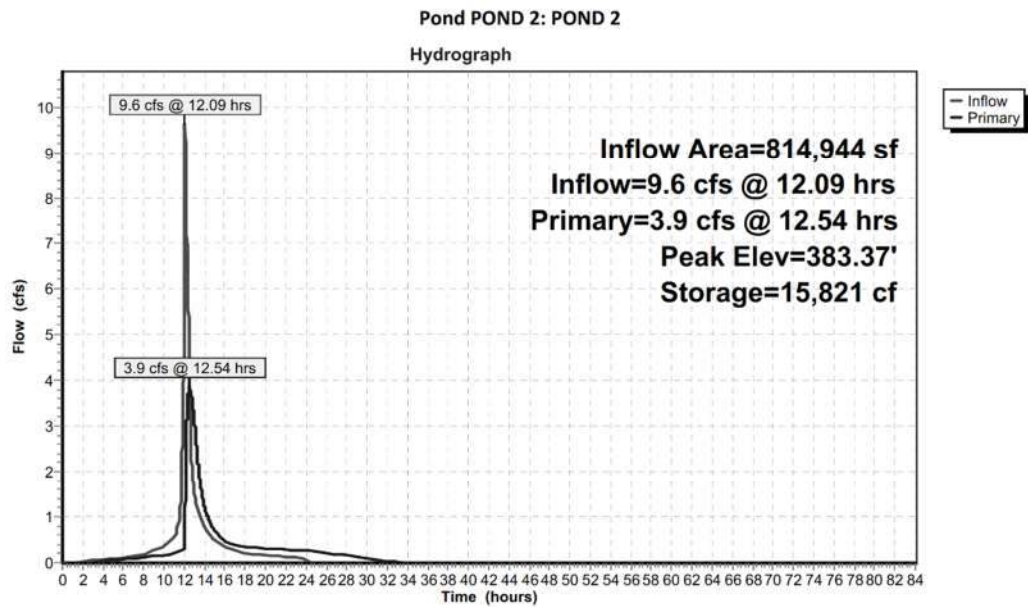
| Device | Routing | Invert | Outlet Devices |
|--------|----------|---------|---|
| #1 | Primary | 380.00' | 24.0" Round Culvert L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 380.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 380.00' | 3.0" Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 382.05' | 12.0" Vert. Orifice/Grate C= 0.600 |
| #4 | Device 1 | 385.25' | 2.5' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Primary OutFlow Max=3.9 cfs @ 12.54 hrs HW=383.37' (Free Discharge)

- 1=Culvert (Passes 3.9 cfs of 22.0 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.4 cfs @ 8.68 fps)
- 3=Orifice/Grate (Orifice Controls 3.4 cfs @ 4.37 fps)
- 4=Broad-Crested Rectangular Weir (Controls 0.0 cfs)

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Type III 24-hr 10 YR Rainfall=5.13"



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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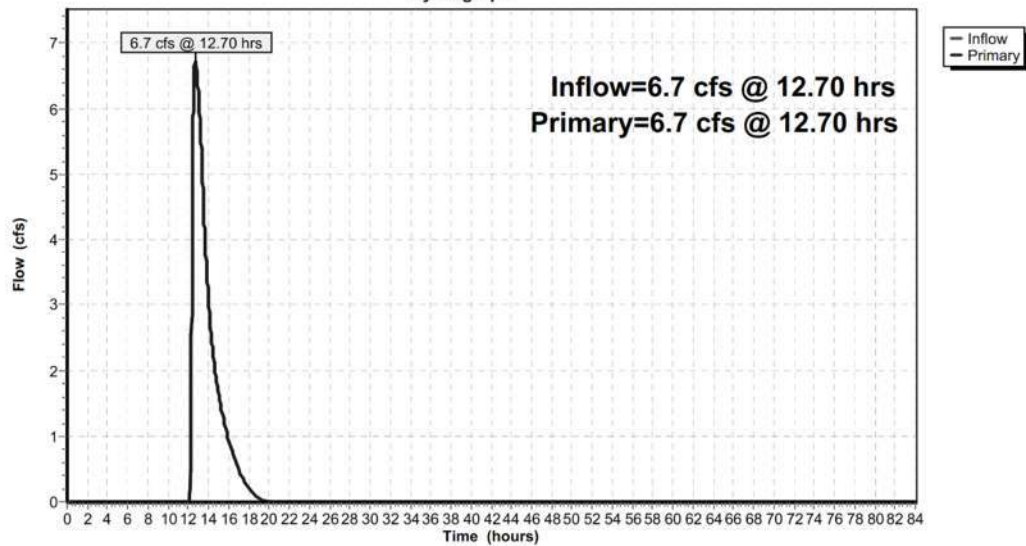
Summary for Link LL1: LOW LEVEL 1

Inflow = 6.7 cfs @ 12.70 hrs, Volume= 48,265 cf
Primary = 6.7 cfs @ 12.70 hrs, Volume= 48,265 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Link LL1: LOW LEVEL 1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 10 YR Rainfall=5.13"

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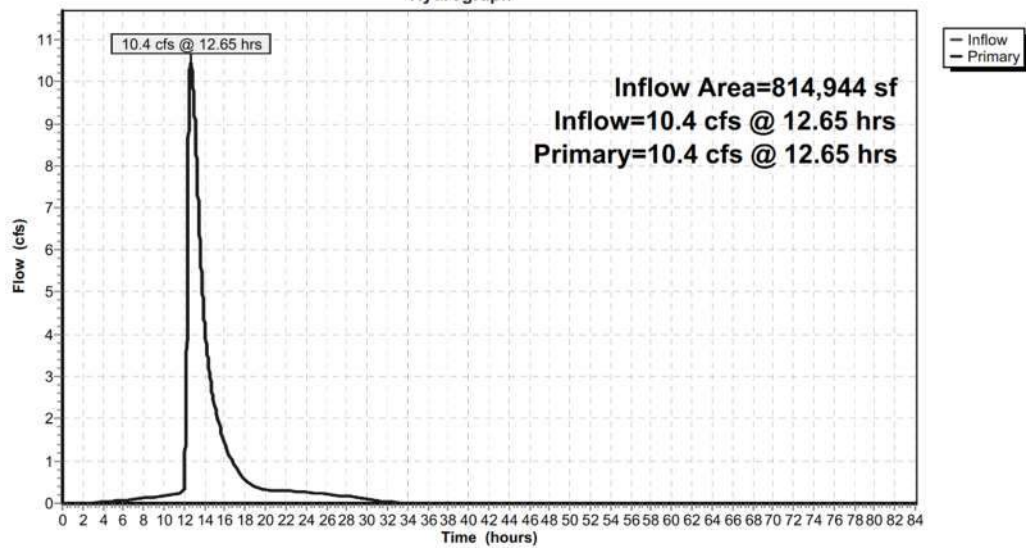
Summary for Link TR1: TRANSFER

Inflow Area = 814,944 sf, 52.52% Impervious, Inflow Depth = 1.32" for 10 YR event
Inflow = 10.4 cfs @ 12.65 hrs, Volume= 89,489 cf
Primary = 10.4 cfs @ 12.65 hrs, Volume= 89,489 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Link TR1: TRANSFER

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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Time span=0.00-84.00 hrs, dt=0.010 hrs, 8401 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|--------------------------------------|---|
| Subcatchment PRWS4A: PRWS4A | Runoff Area=522,860 sf 46.54% Impervious Runoff Depth=3.99" Flow Length=700' Tc=15.2 min CN=78 Runoff=42.3 cfs 173,767 cf |
| Subcatchment PRWS4A1: PRWS4A1 | Runoff Area=9,556 sf 100.00% Impervious Runoff Depth=6.22" Tc=5.0 min CN=98 Runoff=1.4 cfs 4,954 cf |
| Subcatchment PRWS4A2: PRWS4A2 | Runoff Area=15,160 sf 100.00% Impervious Runoff Depth=6.22" Tc=5.0 min CN=98 Runoff=2.3 cfs 7,860 cf |
| Subcatchment PRWS4A3: PRWS4A3 | Runoff Area=22,416 sf 100.00% Impervious Runoff Depth=6.22" Tc=5.0 min CN=98 Runoff=3.4 cfs 11,622 cf |
| Subcatchment PRWS4B: PRWS4B | Runoff Area=66,812 sf 100.00% Impervious Runoff Depth=6.22" Tc=6.0 min CN=98 Runoff=9.7 cfs 34,639 cf |
| Subcatchment PRWS4B1: PRWS4B1 | Runoff Area=41,315 sf 49.21% Impervious Runoff Depth=4.09" Flow Length=372' Tc=5.2 min CN=79 Runoff=4.7 cfs 14,092 cf |
| Subcatchment PRWS4B2: PRWS4B2 | Runoff Area=30,450 sf 70.15% Impervious Runoff Depth=4.96" Flow Length=191' Tc=9.7 min CN=87 Runoff=3.5 cfs 12,582 cf |
| Subcatchment PRWS4B3: PRWS4B3 | Runoff Area=40,460 sf 71.89% Impervious Runoff Depth=5.07" Flow Length=445' Tc=8.3 min CN=88 Runoff=4.9 cfs 17,094 cf |
| Subcatchment PRWS4D: PRWS4D | Runoff Area=65,915 sf 0.00% Impervious Runoff Depth=2.32" Flow Length=446' Tc=8.4 min CN=61 Runoff=3.6 cfs 12,740 cf |
| Pond IS4A1: IS4A1 | Peak Elev=496.63' Storage=1,441 cf Inflow=1.4 cfs 4,954 cf Discarded=0.1 cfs 4,099 cf Primary=0.8 cfs 855 cf Outflow=0.8 cfs 4,954 cf |
| Pond IS4A2: IS4A2 | Peak Elev=456.59' Storage=2,788 cf Inflow=2.3 cfs 7,860 cf Discarded=0.1 cfs 7,306 cf Primary=0.5 cfs 553 cf Outflow=0.6 cfs 7,860 cf |
| Pond IS4A3: IS4A3 | Peak Elev=456.70' Storage=3,842 cf Inflow=3.4 cfs 11,622 cf Discarded=0.2 cfs 10,233 cf Primary=1.0 cfs 1,389 cf Outflow=1.2 cfs 11,622 cf |
| Pond IS4B1: IS4B1 | Peak Elev=436.27' Storage=4,130 cf Inflow=4.7 cfs 14,092 cf Discarded=0.2 cfs 10,398 cf Primary=2.4 cfs 3,694 cf Outflow=2.6 cfs 14,092 cf |
| Pond IS4B2: IS4B2 | Peak Elev=420.81' Storage=3,218 cf Inflow=3.5 cfs 12,582 cf Discarded=0.1 cfs 8,649 cf Primary=2.9 cfs 3,933 cf Outflow=3.1 cfs 12,582 cf |
| Pond IS4B3: IS4B3 | Peak Elev=410.88' Storage=3,601 cf Inflow=4.9 cfs 17,094 cf Discarded=0.2 cfs 10,275 cf Primary=4.7 cfs 6,819 cf Outflow=4.9 cfs 17,094 cf |
| Pond POND 1: POND 1 | Peak Elev=430.02' Storage=74,895 cf Inflow=42.9 cfs 176,564 cf Discarded=1.7 cfs 83,970 cf Primary=0.0 cfs 0 cf Secondary=10.2 cfs 92,594 cf Outflow=11.9 cfs 176,564 cf |
| Pond POND 2: POND 2 | Peak Elev=384.49' Storage=24,830 cf Inflow=18.9 cfs 61,825 cf Outflow=5.8 cfs 61,825 cf |
| Link LL1: LOW LEVEL 1 | Inflow=10.2 cfs 92,594 cf Primary=10.2 cfs 92,594 cf |
| Link TR1: TRANSFER | Inflow=15.9 cfs 154,418 cf Primary=15.9 cfs 154,418 cf |

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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Total Runoff Area = 814,944 sf Runoff Volume = 289,349 cf Average Runoff Depth = 4.26"
47.48% Pervious = 386,895 sf 52.52% Impervious = 428,049 sf

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Subcatchment PRWS4A: PRWS4A

Runoff = 42.3 cfs @ 12.21 hrs, Volume= 173,767 cf, Depth= 3.99"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 39,111 | 61 | >75% Grass cover, Good, HSG B |
| 135,808 | 98 | Paved parking, HSG B |
| 159,040 | 61 | >75% Grass cover, Good, HSG B |
| 107,520 | 98 | Unconnected roofs, HSG B |
| 16,880 | 61 | >75% Grass cover, Good, HSG B |
| 41,385 | 61 | >75% Grass cover, Good, HSG B |
| 9,427 | 61 | >75% Grass cover, Good, HSG B |
| 1,552 | 61 | >75% Grass cover, Good, HSG B |
| 1,288 | 61 | >75% Grass cover, Good, HSG B |
| 374 | 61 | >75% Grass cover, Good, HSG B |
| 1,458 | 61 | >75% Grass cover, Good, HSG B |
| 1,458 | 61 | >75% Grass cover, Good, HSG B |
| 1,522 | 61 | >75% Grass cover, Good, HSG B |
| 1,460 | 61 | >75% Grass cover, Good, HSG B |
| 1,543 | 61 | >75% Grass cover, Good, HSG B |
| 1,540 | 61 | >75% Grass cover, Good, HSG B |
| 1,494 | 61 | >75% Grass cover, Good, HSG B |
| 522,860 | 78 | Weighted Average |
| 279,532 | | 53.46% Pervious Area |
| 243,328 | | 46.54% Impervious Area |
| 107,520 | | 44.19% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|-------------|------------------|------------------|----------------------|-------------------|--|
| 13.8 | 100 | 0.0200 | 0.12 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 1.1 | 100 | 0.0500 | 1.57 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 500 | 0.0700 | 24.77 | 77.809 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.010 PVC, smooth interior |
| 15.2 | 700 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

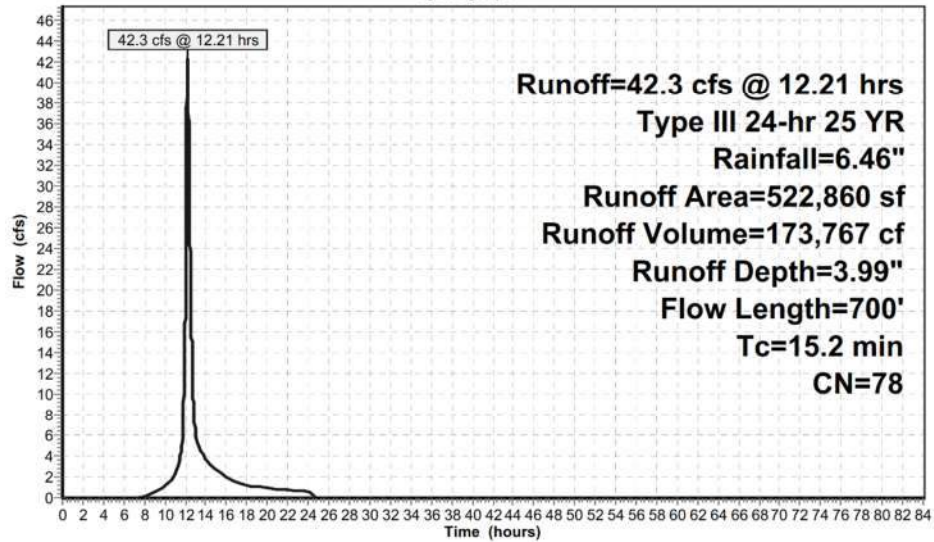
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Type III 24-hr 25 YR Rainfall=6.46"

Subcatchment PRWS4A: PRWS4A

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRWS4A1: PRWS4A1

Runoff = 1.4 cfs @ 12.07 hrs, Volume= 4,954 cf, Depth= 6.22"

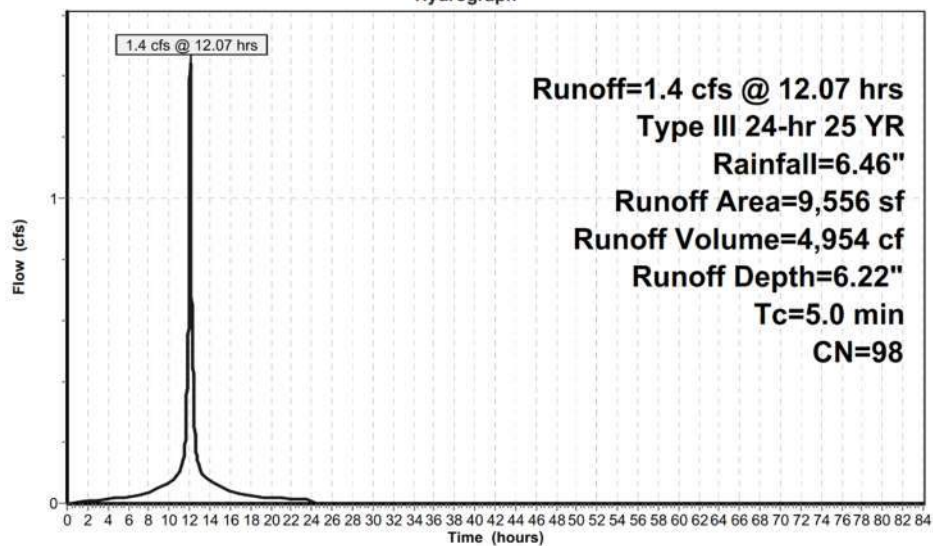
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 9,556 | 98 | Roofs, HSG B |
| 9,556 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A1: PRWS4A1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRWS4A2: PRWS4A2

Runoff = 2.3 cfs @ 12.07 hrs, Volume= 7,860 cf, Depth= 6.22"

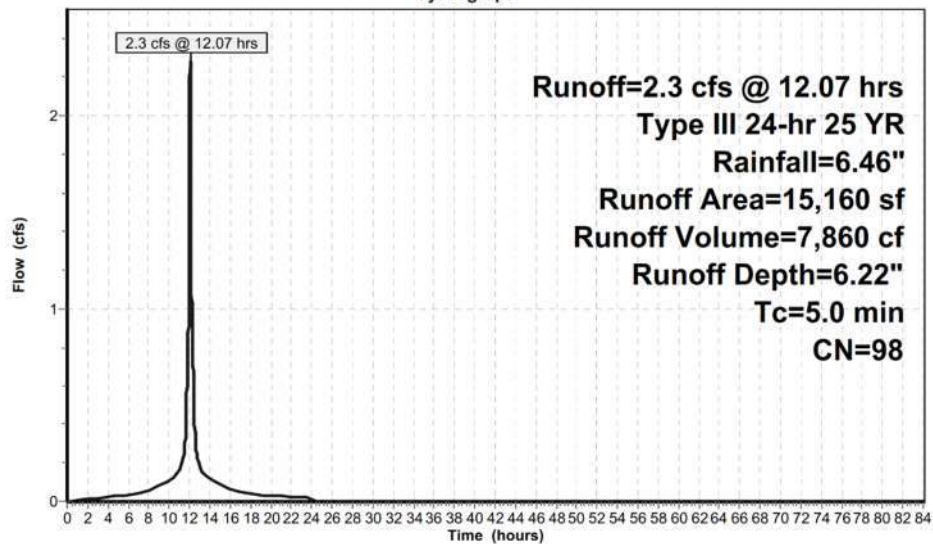
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 15,160 | 98 | Roofs, HSG B |
| 15,160 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A2: PRWS4A2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRWS4A3: PRWS4A3

Runoff = 3.4 cfs @ 12.07 hrs, Volume= 11,622 cf, Depth= 6.22"

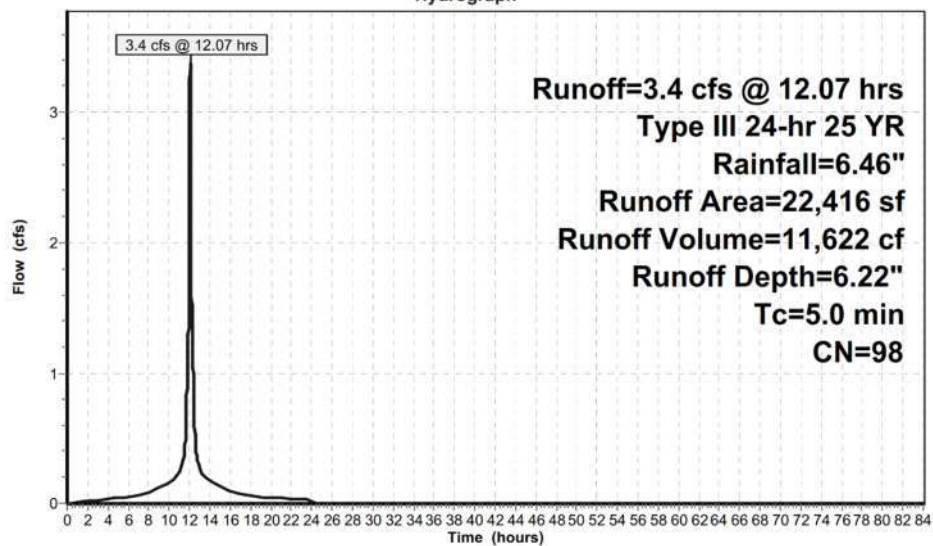
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 22,416 | 98 | Roofs, HSG B |
| 22,416 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|-------------|------------------|------------------|----------------------|-------------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A3: PRWS4A3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRWS4B: PRWS4B

Runoff = 9.7 cfs @ 12.08 hrs, Volume= 34,639 cf, Depth= 6.22"

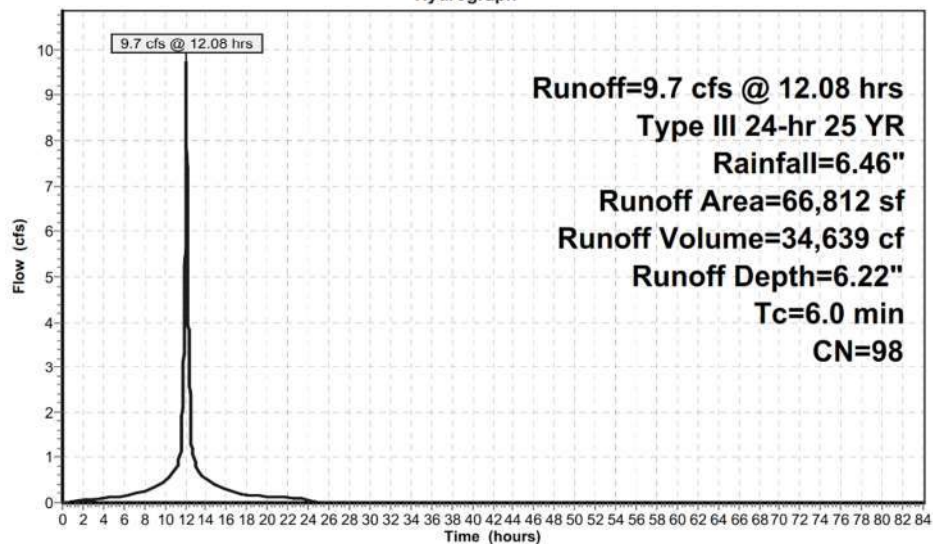
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|--------------------------|
| 66,812 | 98 | Unconnected roofs, HSG B |
| 66,812 | | 100.00% Impervious Area |
| 66,812 | | 100.00% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment PRWS4B: PRWS4B

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRWS4B1: PRWS4B1

Runoff = 4.7 cfs @ 12.08 hrs, Volume= 14,092 cf, Depth= 4.09"

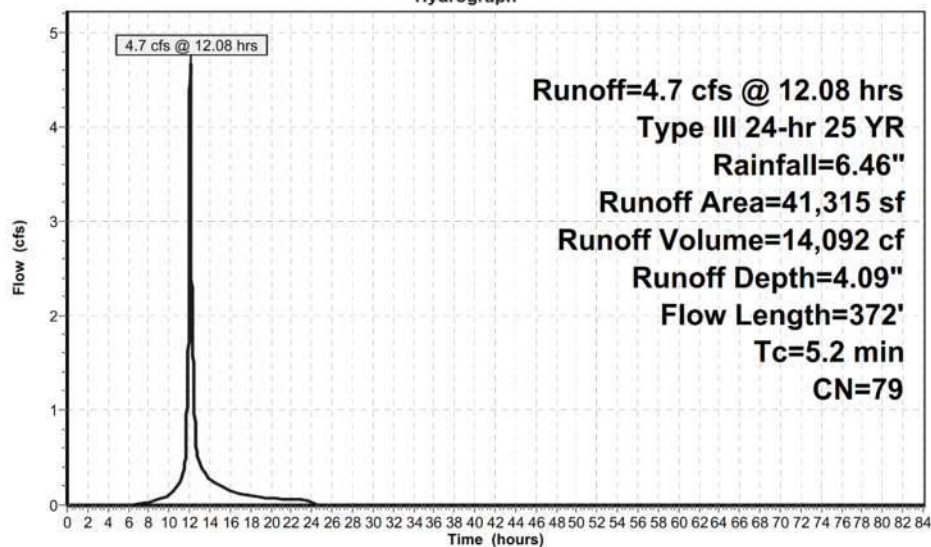
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 20,331 | 98 | Paved parking, HSG B |
| 2,189 | 61 | >75% Grass cover, Good, HSG B |
| 739 | 61 | >75% Grass cover, Good, HSG B |
| 3,763 | 61 | >75% Grass cover, Good, HSG B |
| 14,293 | 61 | >75% Grass cover, Good, HSG B |
| 41,315 | 79 | Weighted Average |
| 20,984 | | 50.79% Pervious Area |
| 20,331 | | 49.21% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.0 | 58 | 0.1200 | 0.32 | | Sheet Flow, SF1 Grass: Short n= 0.150 P2= 3.43" |
| 1.2 | 21 | 0.1400 | 0.28 | | Sheet Flow, SF2 Grass: Short n= 0.150 P2= 3.43" |
| 0.2 | 57 | 0.1200 | 5.20 | | Shallow Concentrated Flow, SCF1 Grassed Waterway Kv= 15.0 fps |
| 0.6 | 93 | 0.0150 | 2.49 | | Shallow Concentrated Flow, SCF2 Paved Kv= 20.3 fps |
| 0.2 | 143 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 5.2 | 372 | Total | | | |

Subcatchment PRWS4B1: PRWS4B1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRWS4B2: PRWS4B2

Runoff = 3.5 cfs @ 12.13 hrs, Volume= 12,582 cf, Depth= 4.96"

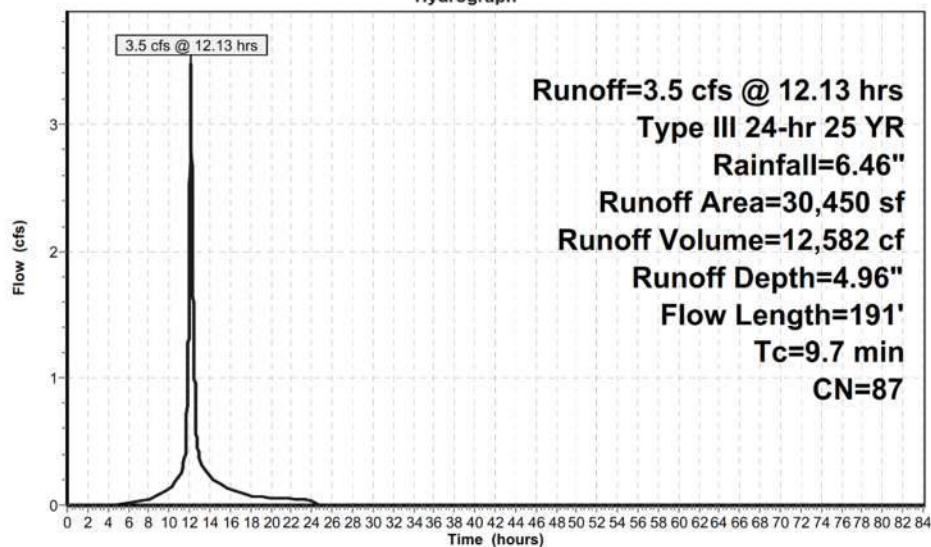
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 21,360 | 98 | Paved parking, HSG B |
| 7,840 | 61 | >75% Grass cover, Good, HSG B |
| 182 | 61 | >75% Grass cover, Good, HSG B |
| 154 | 61 | >75% Grass cover, Good, HSG B |
| 545 | 61 | >75% Grass cover, Good, HSG B |
| 369 | 61 | >75% Grass cover, Good, HSG B |
| 30,450 | 87 | Weighted Average |
| 9,090 | | 29.85% Pervious Area |
| 21,360 | | 70.15% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.8 | 66 | 0.0200 | 0.16 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.7 | 11 | 0.1800 | 0.27 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 1.7 | 23 | 0.0760 | 0.22 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.2 | 19 | 0.0760 | 1.93 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 72 | 0.0360 | 3.85 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 9.7 | 191 | Total | | | |

Subcatchment PRWS4B2: PRWS4B2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRWS4B3: PRWS4B3

Runoff = 4.9 cfs @ 12.11 hrs, Volume= 17,094 cf, Depth= 5.07"

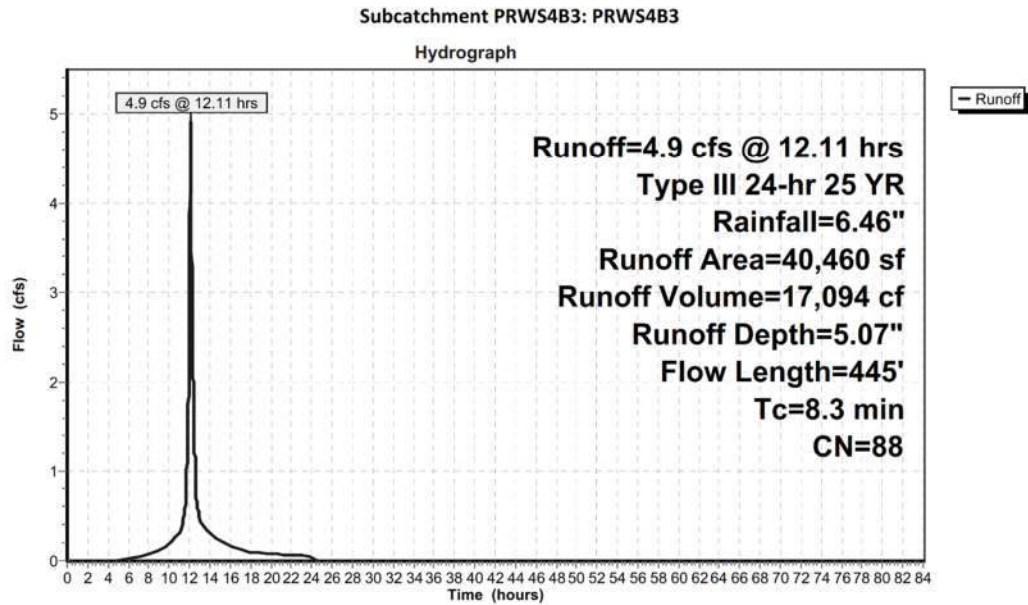
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 29,086 | 98 | Paved parking, HSG B |
| 2,140 | 61 | >75% Grass cover, Good, HSG B |
| 3,232 | 61 | >75% Grass cover, Good, HSG B |
| 1,899 | 61 | >75% Grass cover, Good, HSG B |
| 214 | 61 | >75% Grass cover, Good, HSG B |
| 2,928 | 61 | >75% Grass cover, Good, HSG B |
| 961 | 61 | >75% Grass cover, Good, HSG B |
| 40,460 | 88 | Weighted Average |
| 11,374 | | 28.11% Pervious Area |
| 29,086 | | 71.89% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 7.2 | 71 | 0.0200 | 0.16 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.3 | 29 | 0.0500 | 1.60 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 0.5 | 147 | 0.0500 | 4.54 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.0 | 25 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 0.3 | 173 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 8.3 | 445 | Total | | | |

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Type III 24-hr 25 YR Rainfall=6.46"



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Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRWS4D: PRWS4D

Runoff = 3.6 cfs @ 12.13 hrs, Volume= 12,740 cf, Depth= 2.32"

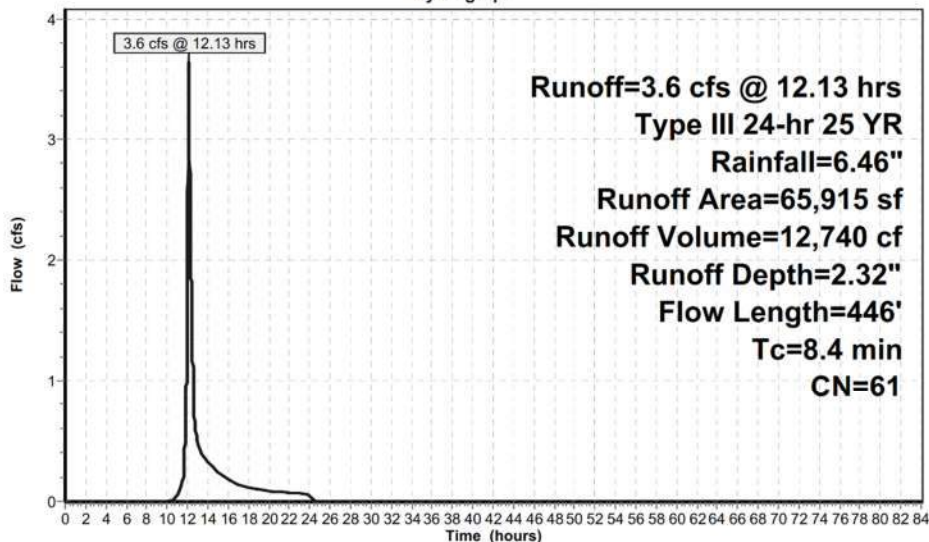
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 65,915 | 61 | >75% Grass cover, Good, HSG B |
| 65,915 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 5.7 | 100 | 0.0700 | 0.29 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.3 | 40 | 0.1000 | 2.21 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.1 | 16 | 0.5000 | 4.95 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.5 | 33 | 0.0300 | 1.21 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.4 | 127 | 0.5000 | 4.95 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 60 | 0.1100 | 4.97 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.2 | 70 | 0.0200 | 0.99 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 8.4 | 446 | Total | | | |

Subcatchment PRWS4D: PRWS4D

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Pond IS4A1: IS4A1

Inflow Area = 9,556 sf, 100.00% Impervious, Inflow Depth = 6.22" for 25 YR event
Inflow = 1.4 cfs @ 12.07 hrs, Volume= 4,954 cf
Outflow = 0.8 cfs @ 12.17 hrs, Volume= 4,954 cf, Atten= 42%, Lag= 6.1 min
Discarded = 0.1 cfs @ 9.91 hrs, Volume= 4,099 cf
Primary = 0.8 cfs @ 12.17 hrs, Volume= 855 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 496.63' @ 12.17 hrs Surf.Area= 702 sf Storage= 1,441 cf

Plug-Flow detention time= 143.1 min calculated for 4,954 cf (100% of inflow)
Center-of-Mass det. time= 143.0 min (886.2 - 743.1)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 493.50' | 618 cf | 30.50'W x 23.00'L x 3.54'H Field A 2,484 cf Overall - 939 cf Embedded = 1,546 cf x 40.0% Voids |
| #2A | 494.00' | 939 cf | Cultec R-330XL x 18 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,557 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 496.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 496.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 496.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 493.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 9.91 hrs HW=493.54' (Free Discharge)
↑ **3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.8 cfs @ 12.17 hrs HW=496.63' (Free Discharge)
↑ **1=Culvert** (Passes 0.8 cfs of 0.9 cfs potential flow)
↑ **2=Broad-Crested Rectangular Weir** (Weir Controls 0.8 cfs @ 1.01 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

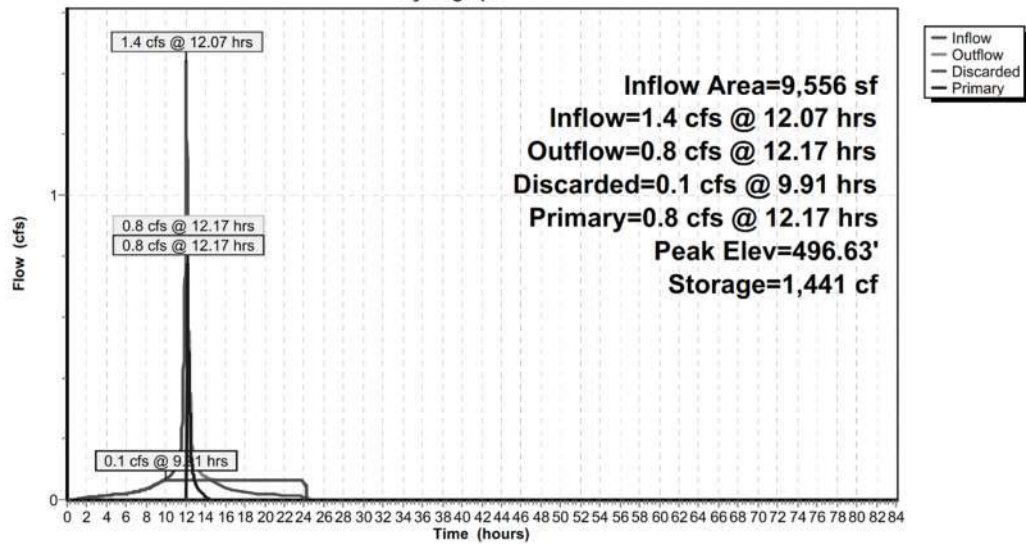
Type III 24-hr 25 YR Rainfall=6.46"

Prepared by Alfonzetti Engineering, P.C.

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Pond IS4A1: IS4A1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Pond IS4A2: IS4A2

Inflow Area = 15,160 sf, 100.00% Impervious, Inflow Depth = 6.22" for 25 YR event
Inflow = 2.3 cfs @ 12.07 hrs, Volume= 7,860 cf
Outflow = 0.6 cfs @ 12.40 hrs, Volume= 7,860 cf, Atten= 73%, Lag= 20.0 min
Discarded = 0.1 cfs @ 10.41 hrs, Volume= 7,306 cf
Primary = 0.5 cfs @ 12.40 hrs, Volume= 553 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 456.59' @ 12.40 hrs Surf.Area= 1,342 sf Storage= 2,788 cf

Plug-Flow detention time= 158.9 min calculated for 7,859 cf (100% of inflow)
Center-of-Mass det. time= 158.9 min (902.1 - 743.1)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 453.50' | 1,150 cf | 30.50'W x 44.00'L x 3.54'H Field A 4,753 cf Overall - 1,878 cf Embedded = 2,875 cf x 40.0% Voids |
| #2A | 454.00' | 1,878 cf | Cultec R-330XL x 36 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | | 3,028 cf Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 456.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 456.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 456.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 453.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 10.41 hrs HW=453.54' (Free Discharge)
↑ **3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.5 cfs @ 12.40 hrs HW=456.59' (Free Discharge)
↑ **1=Culvert** (Passes 0.5 cfs of 0.8 cfs potential flow)
↑ **2=Broad-Crested Rectangular Weir** (Weir Controls 0.5 cfs @ 0.86 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

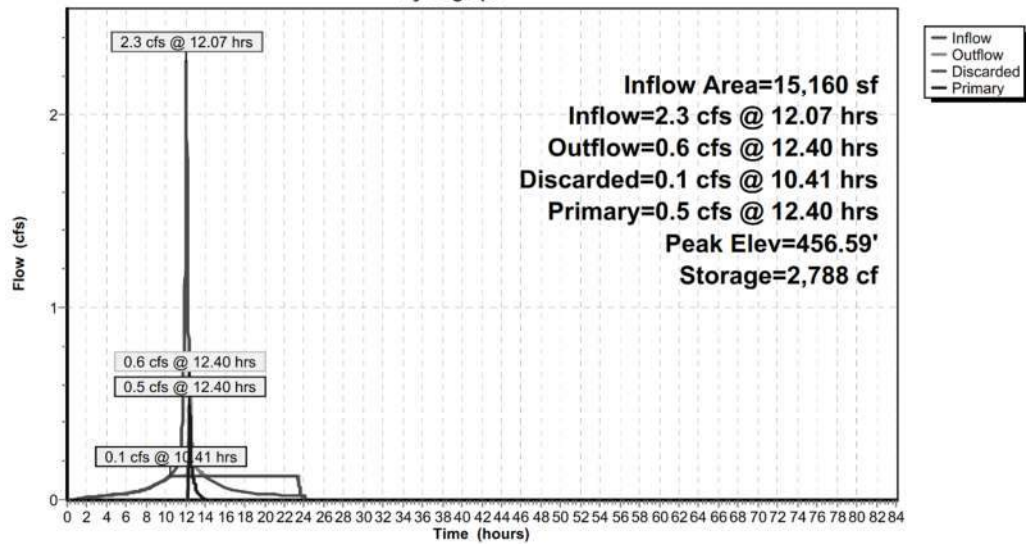
Type III 24-hr 25 YR Rainfall=6.46"

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Pond IS4A2: IS4A2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Pond IS4A3: IS4A3

Inflow Area = 22,416 sf, 100.00% Impervious, Inflow Depth = 6.22" for 25 YR event
Inflow = 3.4 cfs @ 12.07 hrs, Volume= 11,622 cf
Outflow = 1.2 cfs @ 12.31 hrs, Volume= 11,622 cf, Atten= 65%, Lag= 14.3 min
Discarded = 0.2 cfs @ 10.20 hrs, Volume= 10,233 cf
Primary = 1.0 cfs @ 12.31 hrs, Volume= 1,389 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 456.70' @ 12.31 hrs Surf.Area= 1,802 sf Storage= 3,842 cf

Plug-Flow detention time= 154.2 min calculated for 11,620 cf (100% of inflow)
Center-of-Mass det. time= 154.2 min (897.3 - 743.1)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 453.50' | 1,531 cf | 35.33'W x 51.00'L x 3.54'H Field A 6,382 cf Overall - 2,556 cf Embedded = 3,826 cf x 40.0% Voids |
| #2A | 454.00' | 2,556 cf | Cultec R-330XL x 49 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | | 4,086 cf Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 455.50' | 15.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 455.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 456.50' | 4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 453.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 10.20 hrs HW=453.54' (Free Discharge)
↑ **3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=1.0 cfs @ 12.31 hrs HW=456.70' (Free Discharge)
↑ **1=Culvert** (Passes 1.0 cfs of 3.3 cfs potential flow)
↑ **2=Broad-Crested Rectangular Weir** (Weir Controls 1.0 cfs @ 1.26 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

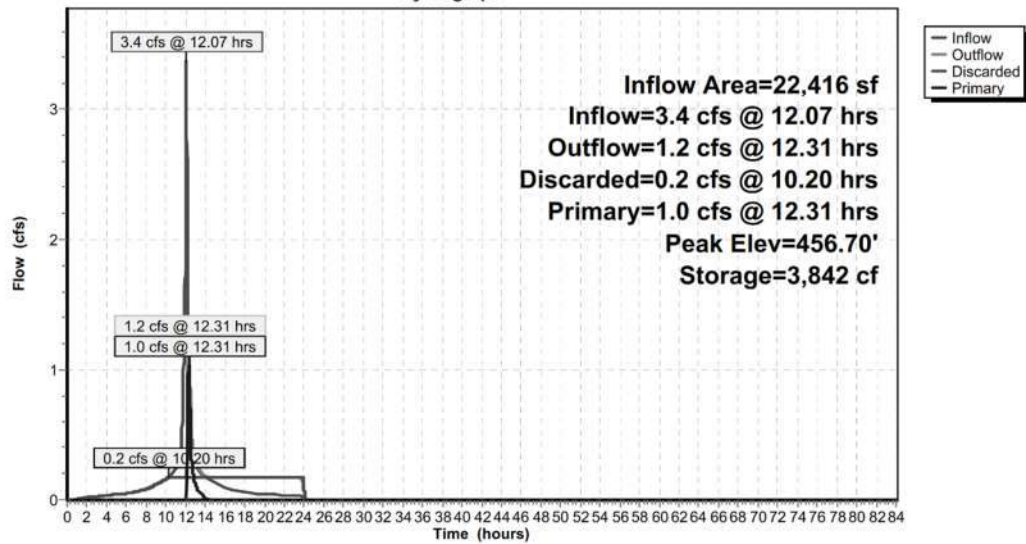
Type III 24-hr 25 YR Rainfall=6.46"

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Pond IS4A3: IS4A3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Pond IS4B1: IS4B1

Inflow Area = 41,315 sf, 49.21% Impervious, Inflow Depth = 4.09" for 25 YR event
Inflow = 4.7 cfs @ 12.08 hrs, Volume= 14,092 cf
Outflow = 2.6 cfs @ 12.19 hrs, Volume= 14,092 cf, Atten= 44%, Lag= 6.8 min
Discarded = 0.2 cfs @ 10.78 hrs, Volume= 10,398 cf
Primary = 2.4 cfs @ 12.19 hrs, Volume= 3,694 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 436.27' @ 12.19 hrs Surf.Area= 1,936 sf Storage= 4,130 cf

Plug-Flow detention time= 162.9 min calculated for 14,090 cf (100% of inflow)
Center-of-Mass det. time= 162.9 min (975.7 - 812.9)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 433.00' | 1,679 cf | 16.00'W x 121.00'L x 3.54'H Field A 6,857 cf Overall - 2,660 cf Embedded = 4,197 cf x 40.0% Voids |
| #2A | 433.50' | 2,660 cf | Cultec R-330XL x 51 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 4,339 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 435.00' | 24.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 435.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 436.00' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 433.00' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 10.78 hrs HW=433.04' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=2.4 cfs @ 12.19 hrs HW=436.27' (Free Discharge)
↑**1=Culvert** (Passes 2.4 cfs of 5.3 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 2.4 cfs @ 1.48 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

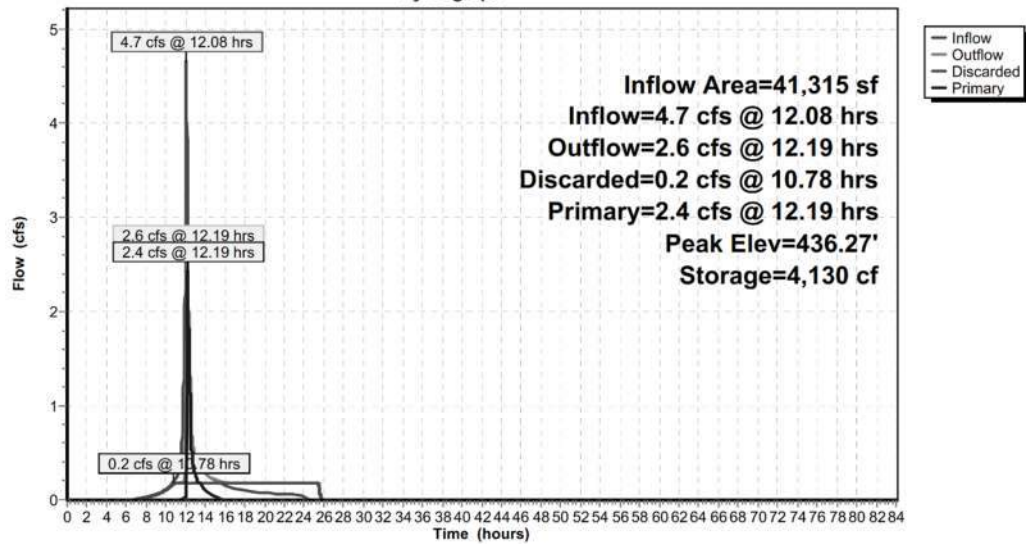
Type III 24-hr 25 YR Rainfall=6.46"

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Pond IS4B1: IS4B1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Pond IS4B2: IS4B2

Inflow Area = 30,450 sf, 70.15% Impervious, Inflow Depth = 4.96" for 25 YR event
Inflow = 3.5 cfs @ 12.13 hrs, Volume= 12,582 cf
Outflow = 3.1 cfs @ 12.19 hrs, Volume= 12,582 cf, Atten= 11%, Lag= 3.3 min
Discarded = 0.1 cfs @ 10.18 hrs, Volume= 8,649 cf
Primary = 2.9 cfs @ 12.19 hrs, Volume= 3,933 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 420.81' @ 12.19 hrs Surf.Area= 1,486 sf Storage= 3,218 cf

Plug-Flow detention time= 145.9 min calculated for 12,581 cf (100% of inflow)
Center-of-Mass det. time= 145.9 min (941.4 - 795.5)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 417.50' | 1,271 cf | 40.17'W x 37.00'L x 3.54'H Field A 5,264 cf Overall - 2,086 cf Embedded = 3,177 cf x 40.0% Voids |
| #2A | 418.00' | 2,086 cf | Cultec R-330XL x 40 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 3,357 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 419.50' | 18.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 419.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 420.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 417.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 10.18 hrs HW=417.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=2.9 cfs @ 12.19 hrs HW=420.81' (Free Discharge)
↑**1=Culvert** (Passes 2.9 cfs of 4.5 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 2.9 cfs @ 1.59 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

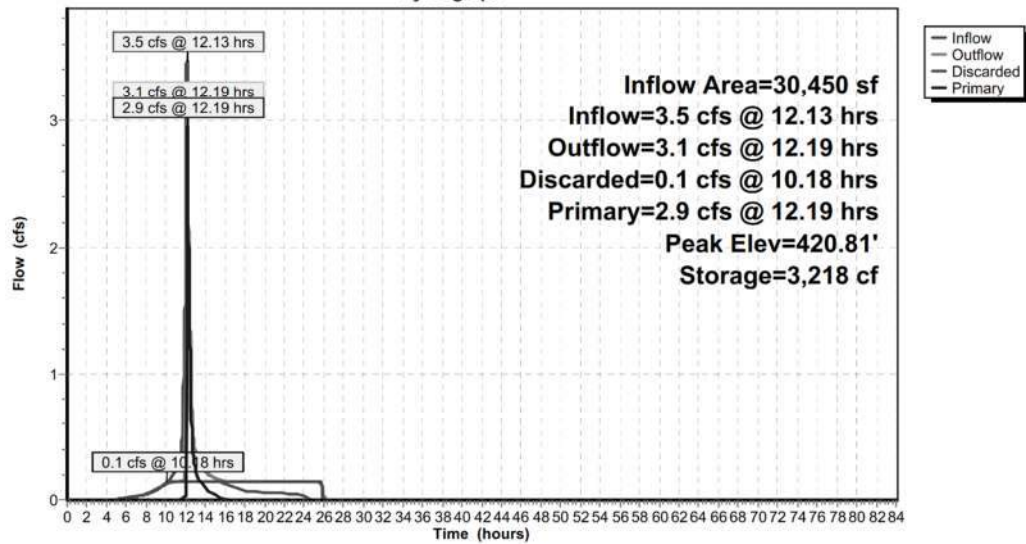
Type III 24-hr 25 YR Rainfall=6.46"

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Pond IS4B2: IS4B2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Pond IS4B3: IS4B3

Inflow Area = 40,460 sf, 71.89% Impervious, Inflow Depth = 5.07" for 25 YR event
Inflow = 4.9 cfs @ 12.11 hrs, Volume= 17,094 cf
Outflow = 4.9 cfs @ 12.12 hrs, Volume= 17,094 cf, Atten= 1%, Lag= 0.6 min
Discarded = 0.2 cfs @ 9.62 hrs, Volume= 10,275 cf
Primary = 4.7 cfs @ 12.12 hrs, Volume= 6,819 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 410.88' @ 12.12 hrs Surf.Area= 1,646 sf Storage= 3,601 cf

Plug-Flow detention time= 131.4 min calculated for 17,092 cf (100% of inflow)
Center-of-Mass det. time= 131.4 min (922.5 - 791.1)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 407.50' | 1,414 cf | 20.83'W x 79.00'L x 3.54'H Field A 5,829 cf Overall - 2,295 cf Embedded = 3,534 cf x 40.0% Voids |
| #2A | 408.00' | 2,295 cf | Cultec R-330XL x 44 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 3,709 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 409.50' | 36.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 409.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 410.50' | 7.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 407.50' | 4,000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 9.62 hrs HW=407.55' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=4.7 cfs @ 12.12 hrs HW=410.88' (Free Discharge)
↑**1=Culvert** (Passes 4.7 cfs of 8.1 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 4.7 cfs @ 1.78 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

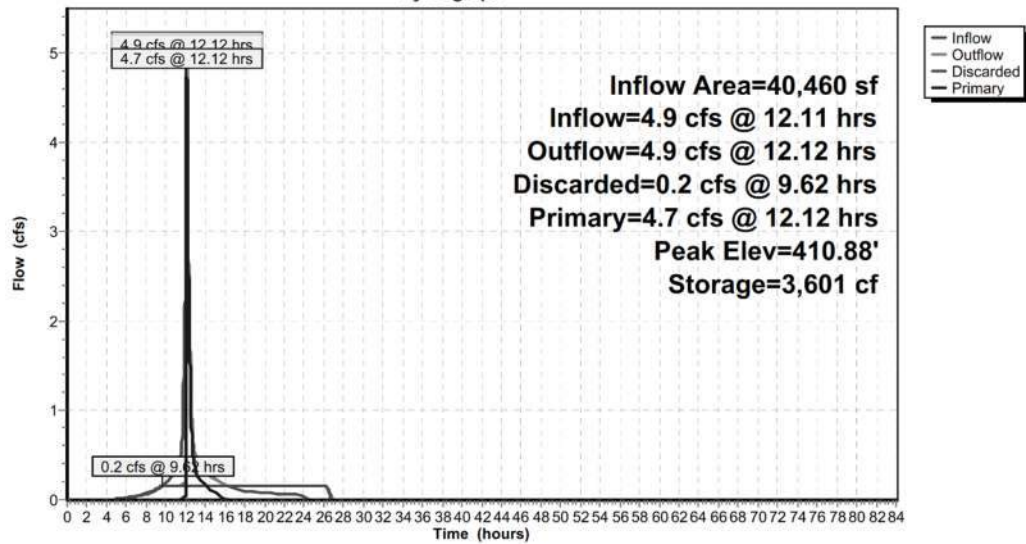
Type III 24-hr 25 YR Rainfall=6.46"

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Pond IS4B3: IS4B3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Pond POND 1: POND 1

Inflow Area = 569,992 sf, 50.96% Impervious, Inflow Depth = 3.72" for 25 YR event
Inflow = 42.9 cfs @ 12.21 hrs, Volume= 176,564 cf
Outflow = 11.9 cfs @ 12.69 hrs, Volume= 176,564 cf, Atten= 72%, Lag= 28.8 min
Discarded = 1.7 cfs @ 12.69 hrs, Volume= 83,970 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Secondary = 10.2 cfs @ 12.69 hrs, Volume= 92,594 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 430.02' @ 12.69 hrs Surf.Area= 18,539 sf Storage= 74,895 cf

Plug-Flow detention time= 228.5 min calculated for 176,564 cf (100% of inflow)
Center-of-Mass det. time= 228.5 min (1,052.0 - 823.5)

| Volume | Invert | Avail.Storage | Storage Description |
|---------------------|----------------------|---------------------------|--|
| #1 | 422.00' | 115,278 cf | Custom Stage Data (Prismatic) Listed below (Recalc) |
| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
| 422.00 | 2,413 | 0 | 0 |
| 424.00 | 5,801 | 8,214 | 8,214 |
| 426.00 | 8,480 | 14,281 | 22,495 |
| 428.00 | 12,558 | 21,038 | 43,533 |
| 430.00 | 18,510 | 31,068 | 74,601 |
| 432.00 | 22,167 | 40,677 | 115,278 |

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|--|
| #1 | Discarded | 422.00' | 4,000 in/hr Exfiltration over Surface area |
| #2 | Primary | 423.00' | 24.0" Round Culvert L= 147.0' CPP, projecting, no headwall, Ke= 0.900 Outlet Invert= 384.00' S= 0.2653 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #3 | Secondary | 427.00' | 14.0" W x 14.0" H Vert. Orifice/Grate C= 0.600 |
| #4 | Device 2 | 430.30' | 5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Discarded OutFlow Max=1.7 cfs @ 12.69 hrs HW=430.02' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.7 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=422.00' (Free Discharge)
↑**2=Culvert** (Controls 0.0 cfs)
↑**4=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

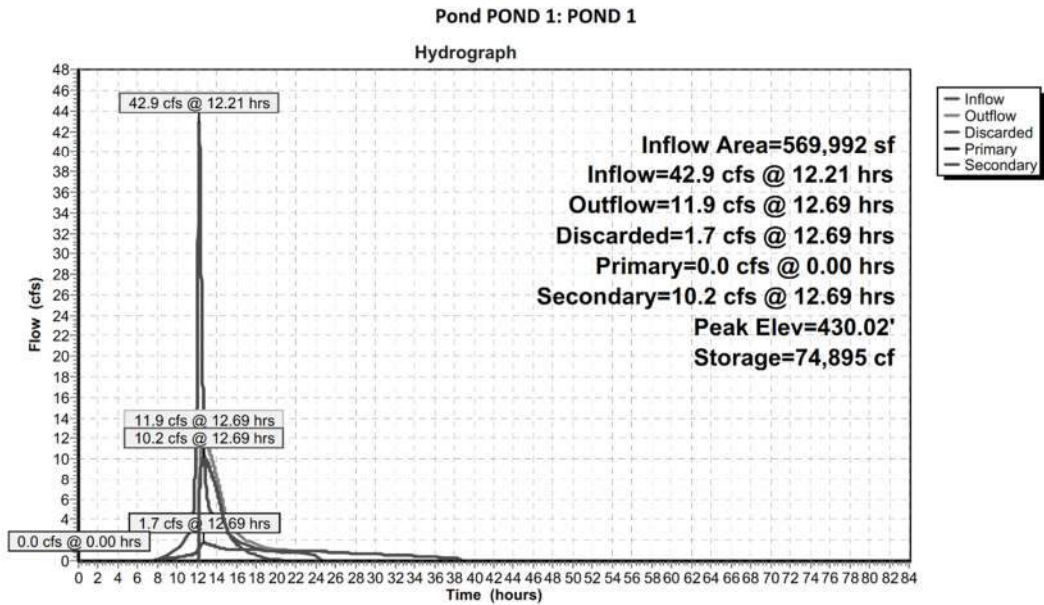
Secondary OutFlow Max=10.2 cfs @ 12.69 hrs HW=430.02' (Free Discharge)
↑**3=Orifice/Grate** (Orifice Controls 10.2 cfs @ 7.49 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Pond POND 2: POND 2

Inflow Area = 814,944 sf, 52.52% Impervious, Inflow Depth = 0.91" for 25 YR event
Inflow = 18.9 cfs @ 12.17 hrs, Volume= 61,825 cf
Outflow = 5.8 cfs @ 12.52 hrs, Volume= 61,825 cf, Atten= 69%, Lag= 21.2 min
Primary = 5.8 cfs @ 12.52 hrs, Volume= 61,825 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 384.49' @ 12.52 hrs Surf.Area= 9,116 sf Storage= 24,830 cf

Plug-Flow detention time= 152.8 min calculated for 61,825 cf (100% of inflow)
Center-of-Mass det. time= 152.8 min (924.2 - 771.4)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1 | 380.00' | 69,429 cf | Custom Stage Data (Prismatic) Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---------------------|----------------------|---------------------------|---------------------------|
| 380.00 | 2,540 | 0 | 0 |
| 382.00 | 4,963 | 7,503 | 7,503 |
| 384.00 | 8,153 | 13,116 | 20,619 |
| 386.00 | 12,103 | 20,256 | 40,875 |
| 388.00 | 16,451 | 28,554 | 69,429 |

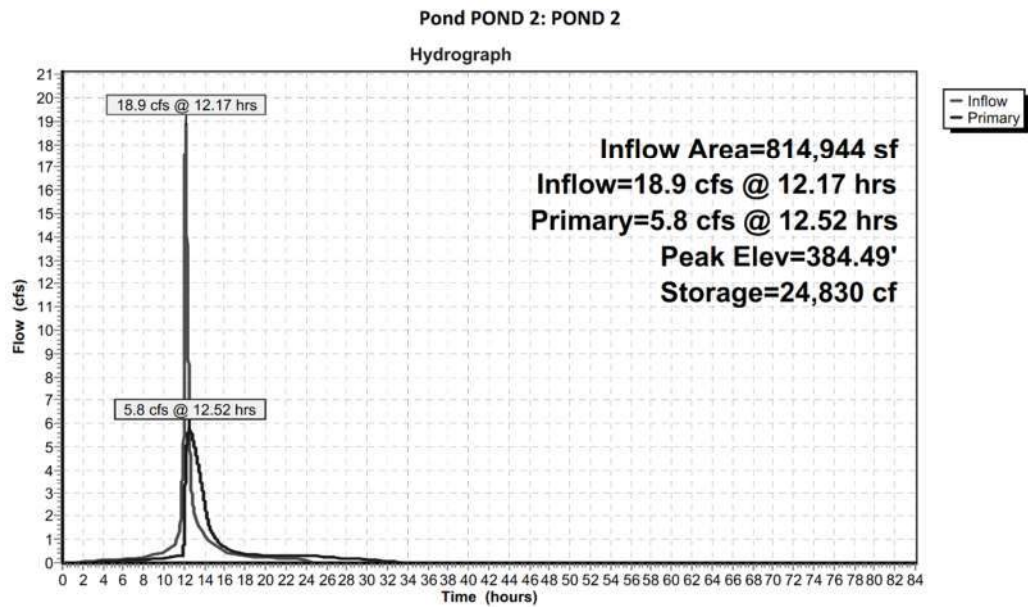
| Device | Routing | Invert | Outlet Devices |
|--------|----------|---------|---|
| #1 | Primary | 380.00' | 24.0" Round Culvert L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 380.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 380.00' | 3.0" Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 382.05' | 12.0" Vert. Orifice/Grate C= 0.600 |
| #4 | Device 1 | 385.25' | 2.5' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Primary OutFlow Max=5.8 cfs @ 12.52 hrs HW=384.49' (Free Discharge)

1=Culvert (Passes 5.8 cfs of 28.2 cfs potential flow)
2=Orifice/Grate (Orifice Controls 0.5 cfs @ 10.06 fps)
3=Orifice/Grate (Orifice Controls 5.3 cfs @ 6.70 fps)
4=Broad-Crested Rectangular Weir (Controls 0.0 cfs)

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Type III 24-hr 25 YR Rainfall=6.46"



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Type III 24-hr 25 YR Rainfall=6.46"

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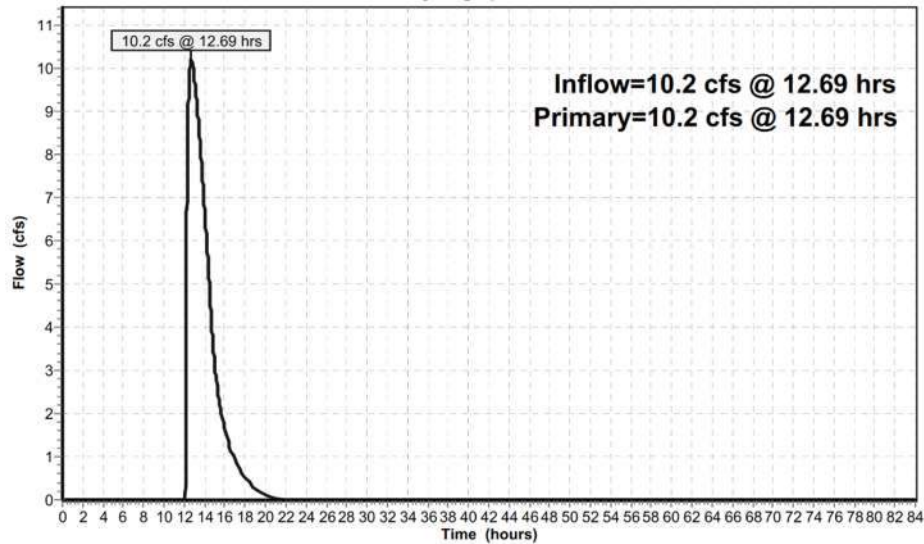
Summary for Link LL1: LOW LEVEL 1

Inflow = 10.2 cfs @ 12.69 hrs, Volume= 92,594 cf
Primary = 10.2 cfs @ 12.69 hrs, Volume= 92,594 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Link LL1: LOW LEVEL 1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 25 YR Rainfall=6.46"

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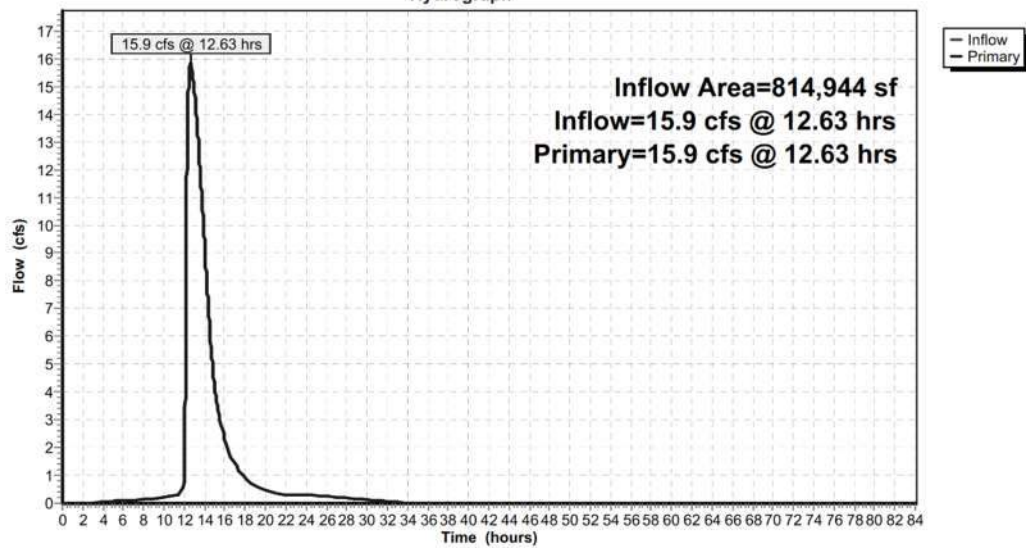
Summary for Link TR1: TRANSFER

Inflow Area = 814,944 sf, 52.52% Impervious, Inflow Depth = 2.27" for 25 YR event
Inflow = 15.9 cfs @ 12.63 hrs, Volume= 154,418 cf
Primary = 15.9 cfs @ 12.63 hrs, Volume= 154,418 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Link TR1: TRANSFER

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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Time span=0.00-84.00 hrs, dt=0.010 hrs, 8401 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|--------------------------------------|---|
| Subcatchment PRWS4A: PRWS4A | Runoff Area=522,860 sf 46.54% Impervious Runoff Depth=5.11" Flow Length=700' Tc=15.2 min CN=78 Runoff=53.8 cfs 222,442 cf |
| Subcatchment PRWS4A1: PRWS4A1 | Runoff Area=9,556 sf 100.00% Impervious Runoff Depth=7.45" Tc=5.0 min CN=98 Runoff=1.7 cfs 5,933 cf |
| Subcatchment PRWS4A2: PRWS4A2 | Runoff Area=15,160 sf 100.00% Impervious Runoff Depth=7.45" Tc=5.0 min CN=98 Runoff=2.7 cfs 9,412 cf |
| Subcatchment PRWS4A3: PRWS4A3 | Runoff Area=22,416 sf 100.00% Impervious Runoff Depth=7.45" Tc=5.0 min CN=98 Runoff=4.0 cfs 13,917 cf |
| Subcatchment PRWS4B: PRWS4B | Runoff Area=66,812 sf 100.00% Impervious Runoff Depth=7.45" Tc=6.0 min CN=98 Runoff=11.6 cfs 41,481 cf |
| Subcatchment PRWS4B1: PRWS4B1 | Runoff Area=41,315 sf 49.21% Impervious Runoff Depth=5.22" Flow Length=372' Tc=5.2 min CN=79 Runoff=5.9 cfs 17,972 cf |
| Subcatchment PRWS4B2: PRWS4B2 | Runoff Area=30,450 sf 70.15% Impervious Runoff Depth=6.15" Flow Length=191' Tc=9.7 min CN=87 Runoff=4.3 cfs 15,601 cf |
| Subcatchment PRWS4B3: PRWS4B3 | Runoff Area=40,460 sf 71.89% Impervious Runoff Depth=6.27" Flow Length=445' Tc=8.3 min CN=88 Runoff=6.0 cfs 21,125 cf |
| Subcatchment PRWS4D: PRWS4D | Runoff Area=65,915 sf 0.00% Impervious Runoff Depth=3.21" Flow Length=446' Tc=8.4 min CN=61 Runoff=5.2 cfs 17,633 cf |
| Pond IS4A1: IS4A1 | Peak Elev=496.81' Storage=1,491 cf Inflow=1.7 cfs 5,933 cf Discarded=0.1 cfs 4,413 cf Primary=1.4 cfs 1,520 cf Outflow=1.5 cfs 5,933 cf |
| Pond IS4A2: IS4A2 | Peak Elev=456.70' Storage=2,847 cf Inflow=2.7 cfs 9,412 cf Discarded=0.1 cfs 7,896 cf Primary=1.1 cfs 1,516 cf Outflow=1.2 cfs 9,412 cf |
| Pond IS4A3: IS4A3 | Peak Elev=456.85' Storage=3,946 cf Inflow=4.0 cfs 13,917 cf Discarded=0.2 cfs 11,037 cf Primary=2.4 cfs 2,881 cf Outflow=2.5 cfs 13,917 cf |
| Pond IS4B1: IS4B1 | Peak Elev=436.45' Storage=4,265 cf Inflow=5.9 cfs 17,972 cf Discarded=0.2 cfs 11,349 cf Primary=5.3 cfs 6,623 cf Outflow=5.5 cfs 17,972 cf |
| Pond IS4B2: IS4B2 | Peak Elev=420.88' Storage=3,261 cf Inflow=4.3 cfs 15,601 cf Discarded=0.1 cfs 9,368 cf Primary=4.1 cfs 6,233 cf Outflow=4.2 cfs 15,601 cf |
| Pond IS4B3: IS4B3 | Peak Elev=410.93' Storage=3,635 cf Inflow=6.0 cfs 21,125 cf Discarded=0.2 cfs 11,084 cf Primary=5.8 cfs 10,041 cf Outflow=6.0 cfs 21,125 cf |
| Pond POND 1: POND 1 | Peak Elev=430.96' Storage=93,112 cf Inflow=57.7 cfs 228,359 cf Discarded=1.9 cfs 90,382 cf Primary=8.4 cfs 12,494 cf Secondary=12.0 cfs 125,482 cf Outflow=22.3 cfs 228,359 cf |
| Pond POND 2: POND 2 | Peak Elev=385.81' Storage=38,626 cf Inflow=31.0 cfs 94,506 cf Outflow=10.6 cfs 94,505 cf |
| Link LL1: LOW LEVEL 1 | Inflow=12.0 cfs 125,482 cf Primary=12.0 cfs 125,482 cf |
| Link TR1: TRANSFER | Inflow=22.5 cfs 219,988 cf Primary=22.5 cfs 219,988 cf |

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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Total Runoff Area = 814,944 sf Runoff Volume = 365,517 cf Average Runoff Depth = 5.38"
47.48% Pervious = 386,895 sf 52.52% Impervious = 428,049 sf

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Subcatchment PRWS4A: PRWS4A

Runoff = 53.8 cfs @ 12.21 hrs, Volume= 222,442 cf, Depth= 5.11"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 39,111 | 61 | >75% Grass cover, Good, HSG B |
| 135,808 | 98 | Paved parking, HSG B |
| 159,040 | 61 | >75% Grass cover, Good, HSG B |
| 107,520 | 98 | Unconnected roofs, HSG B |
| 16,880 | 61 | >75% Grass cover, Good, HSG B |
| 41,385 | 61 | >75% Grass cover, Good, HSG B |
| 9,427 | 61 | >75% Grass cover, Good, HSG B |
| 1,552 | 61 | >75% Grass cover, Good, HSG B |
| 1,288 | 61 | >75% Grass cover, Good, HSG B |
| 374 | 61 | >75% Grass cover, Good, HSG B |
| 1,458 | 61 | >75% Grass cover, Good, HSG B |
| 1,458 | 61 | >75% Grass cover, Good, HSG B |
| 1,522 | 61 | >75% Grass cover, Good, HSG B |
| 1,460 | 61 | >75% Grass cover, Good, HSG B |
| 1,543 | 61 | >75% Grass cover, Good, HSG B |
| 1,540 | 61 | >75% Grass cover, Good, HSG B |
| 1,494 | 61 | >75% Grass cover, Good, HSG B |
| 522,860 | 78 | Weighted Average |
| 279,532 | | 53.46% Pervious Area |
| 243,328 | | 46.54% Impervious Area |
| 107,520 | | 44.19% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 13.8 | 100 | 0.0200 | 0.12 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 1.1 | 100 | 0.0500 | 1.57 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 500 | 0.0700 | 24.77 | 77.809 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.010 PVC, smooth interior |
| 15.2 | 700 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

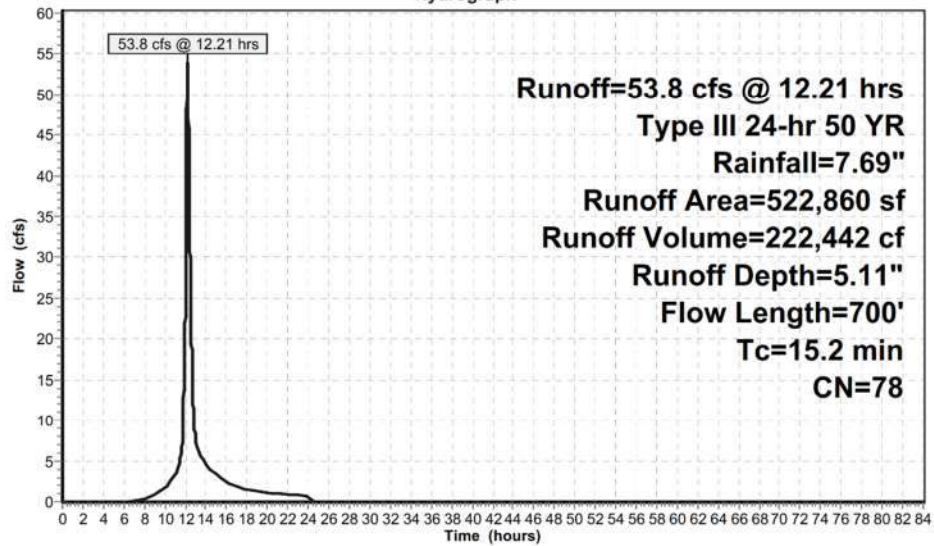
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Type III 24-hr 50 YR Rainfall=7.69"

Subcatchment PRWS4A: PRWS4A

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment PRWS4A1: PRWS4A1

Runoff = 1.7 cfs @ 12.07 hrs, Volume= 5,933 cf, Depth= 7.45"

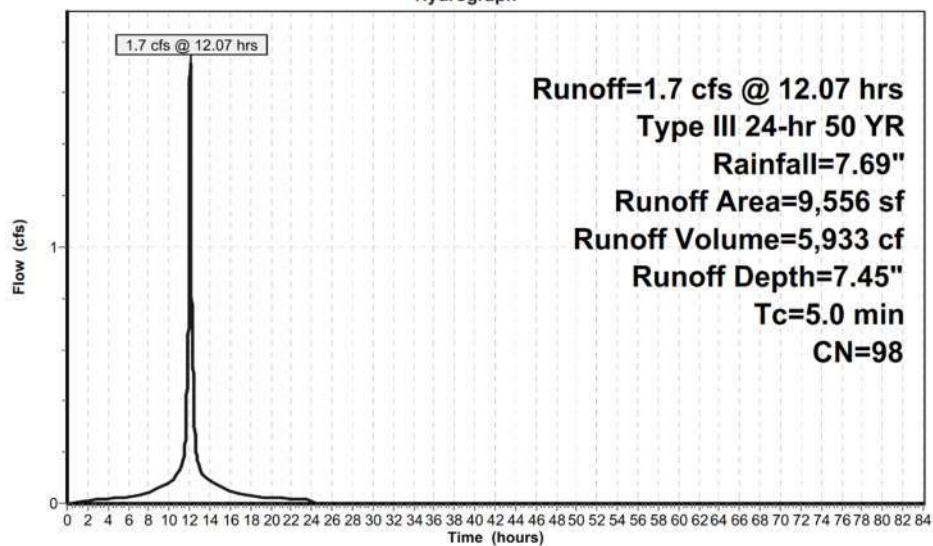
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 9,556 | 98 | Roofs, HSG B |
| 9,556 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A1: PRWS4A1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment PRWS4A2: PRWS4A2

Runoff = 2.7 cfs @ 12.07 hrs, Volume= 9,412 cf, Depth= 7.45"

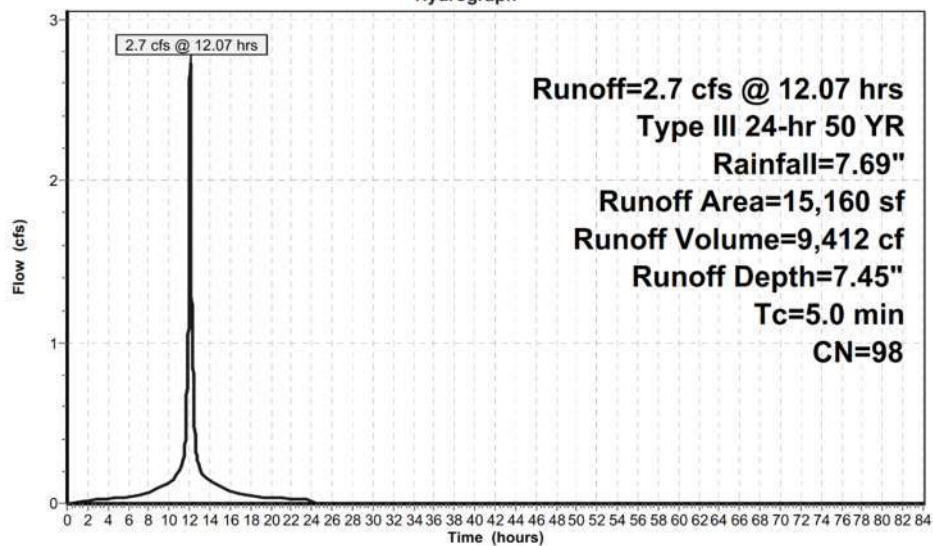
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 15,160 | 98 | Roofs, HSG B |
| 15,160 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A2: PRWS4A2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment PRWS4A3: PRWS4A3

Runoff = 4.0 cfs @ 12.07 hrs, Volume= 13,917 cf, Depth= 7.45"

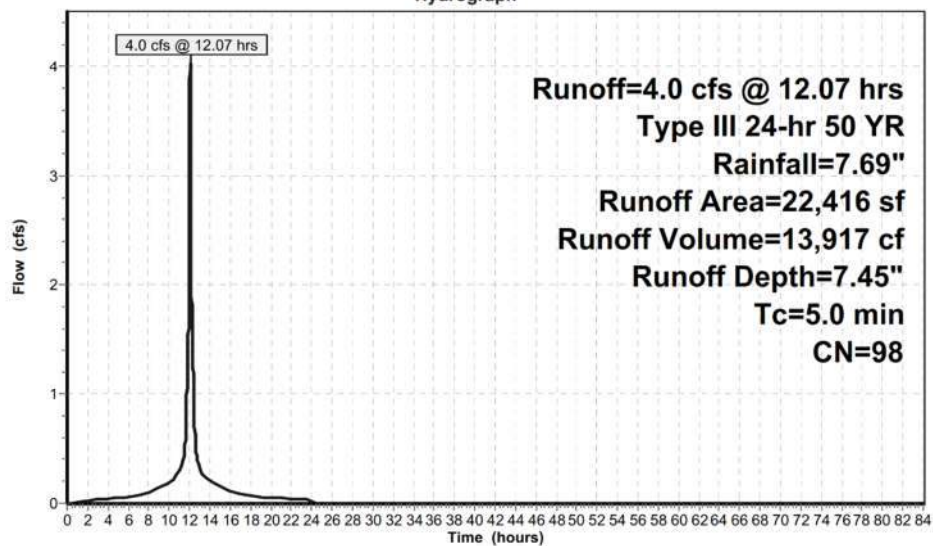
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 22,416 | 98 | Roofs, HSG B |
| 22,416 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A3: PRWS4A3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment PRWS4B: PRWS4B

Runoff = 11.6 cfs @ 12.08 hrs, Volume= 41,481 cf, Depth= 7.45"

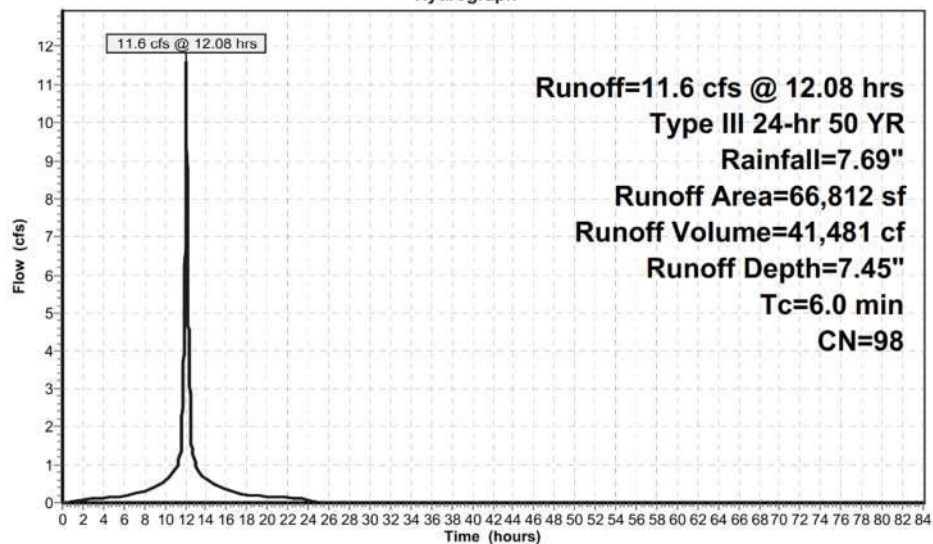
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|--------------------------|
| 66,812 | 98 | Unconnected roofs, HSG B |
| 66,812 | | 100.00% Impervious Area |
| 66,812 | | 100.00% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment PRWS4B: PRWS4B

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment PRWS4B1: PRWS4B1

Runoff = 5.9 cfs @ 12.08 hrs, Volume= 17,972 cf, Depth= 5.22"

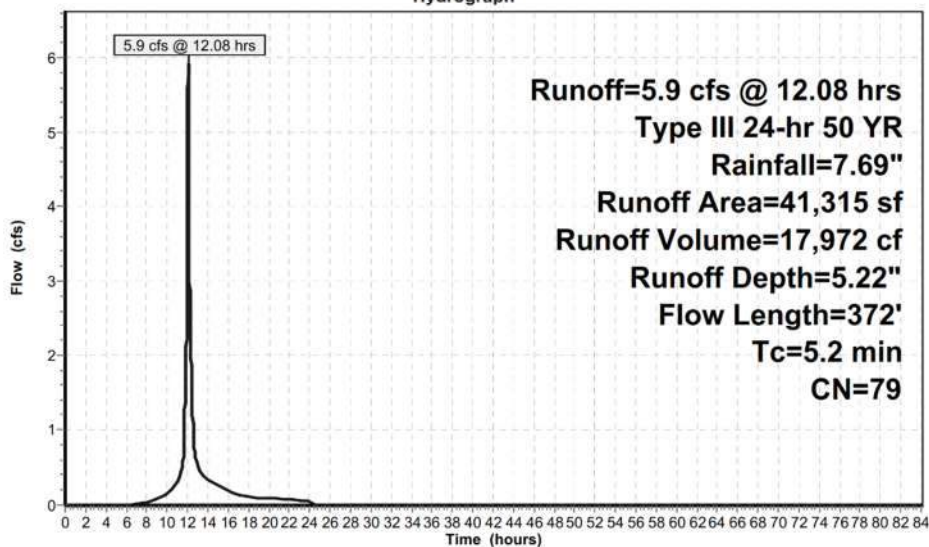
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 20,331 | 98 | Paved parking, HSG B |
| 2,189 | 61 | >75% Grass cover, Good, HSG B |
| 739 | 61 | >75% Grass cover, Good, HSG B |
| 3,763 | 61 | >75% Grass cover, Good, HSG B |
| 14,293 | 61 | >75% Grass cover, Good, HSG B |
| 41,315 | 79 | Weighted Average |
| 20,984 | | 50.79% Pervious Area |
| 20,331 | | 49.21% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.0 | 58 | 0.1200 | 0.32 | | Sheet Flow, SF1 Grass: Short n= 0.150 P2= 3.43" |
| 1.2 | 21 | 0.1400 | 0.28 | | Sheet Flow, SF2 Grass: Short n= 0.150 P2= 3.43" |
| 0.2 | 57 | 0.1200 | 5.20 | | Shallow Concentrated Flow, SCF1 Grassed Waterway Kv= 15.0 fps |
| 0.6 | 93 | 0.0150 | 2.49 | | Shallow Concentrated Flow, SCF2 Paved Kv= 20.3 fps |
| 0.2 | 143 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 5.2 | 372 | Total | | | |

Subcatchment PRWS4B1: PRWS4B1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment PRWS4B2: PRWS4B2

Runoff = 4.3 cfs @ 12.13 hrs, Volume= 15,601 cf, Depth= 6.15"

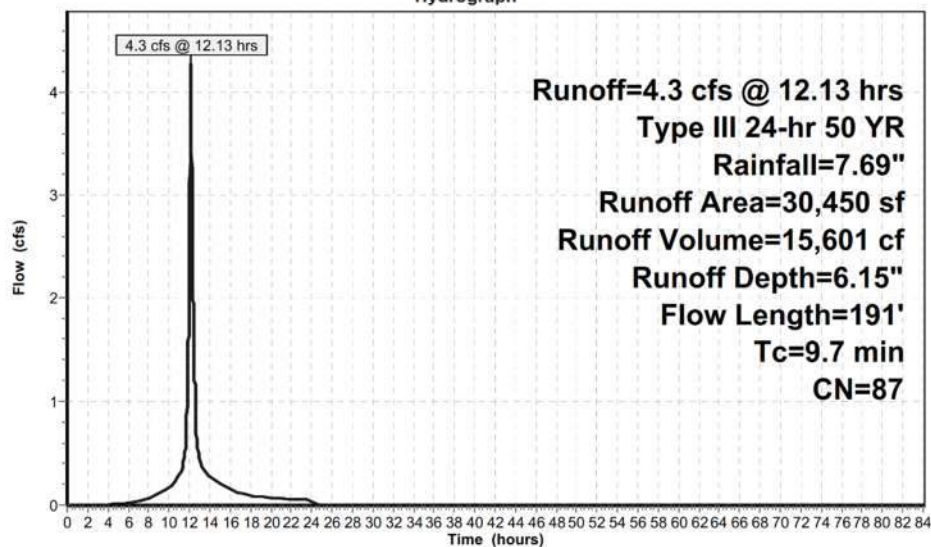
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 21,360 | 98 | Paved parking, HSG B |
| 7,840 | 61 | >75% Grass cover, Good, HSG B |
| 182 | 61 | >75% Grass cover, Good, HSG B |
| 154 | 61 | >75% Grass cover, Good, HSG B |
| 545 | 61 | >75% Grass cover, Good, HSG B |
| 369 | 61 | >75% Grass cover, Good, HSG B |
| 30,450 | 87 | Weighted Average |
| 9,090 | | 29.85% Pervious Area |
| 21,360 | | 70.15% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.8 | 66 | 0.0200 | 0.16 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.7 | 11 | 0.1800 | 0.27 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 1.7 | 23 | 0.0760 | 0.22 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.2 | 19 | 0.0760 | 1.93 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 72 | 0.0360 | 3.85 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 9.7 | 191 | Total | | | |

Subcatchment PRWS4B2: PRWS4B2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment PRWS4B3: PRWS4B3

Runoff = 6.0 cfs @ 12.11 hrs, Volume= 21,125 cf, Depth= 6.27"

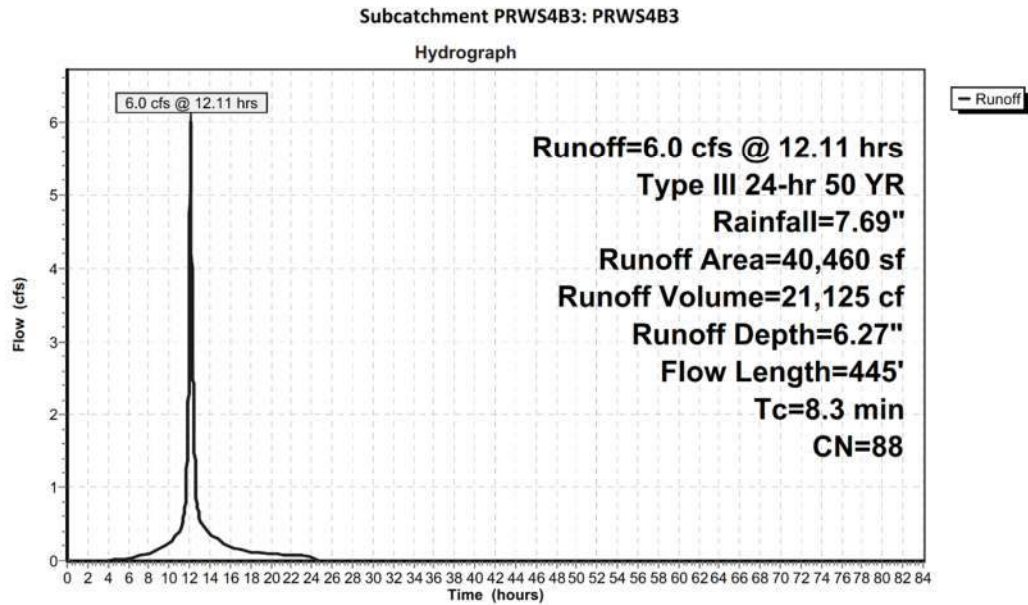
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 29,086 | 98 | Paved parking, HSG B |
| 2,140 | 61 | >75% Grass cover, Good, HSG B |
| 3,232 | 61 | >75% Grass cover, Good, HSG B |
| 1,899 | 61 | >75% Grass cover, Good, HSG B |
| 214 | 61 | >75% Grass cover, Good, HSG B |
| 2,928 | 61 | >75% Grass cover, Good, HSG B |
| 961 | 61 | >75% Grass cover, Good, HSG B |
| 40,460 | 88 | Weighted Average |
| 11,374 | | 28.11% Pervious Area |
| 29,086 | | 71.89% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 7.2 | 71 | 0.0200 | 0.16 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.3 | 29 | 0.0500 | 1.60 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 0.5 | 147 | 0.0500 | 4.54 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.0 | 25 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 0.3 | 173 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 8.3 | 445 | Total | | | |

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Type III 24-hr 50 YR Rainfall=7.69"



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Type III 24-hr 50 YR Rainfall=7.69"

Summary for Subcatchment PRWS4D: PRWS4D

Runoff = 5.2 cfs @ 12.12 hrs, Volume= 17,633 cf, Depth= 3.21"

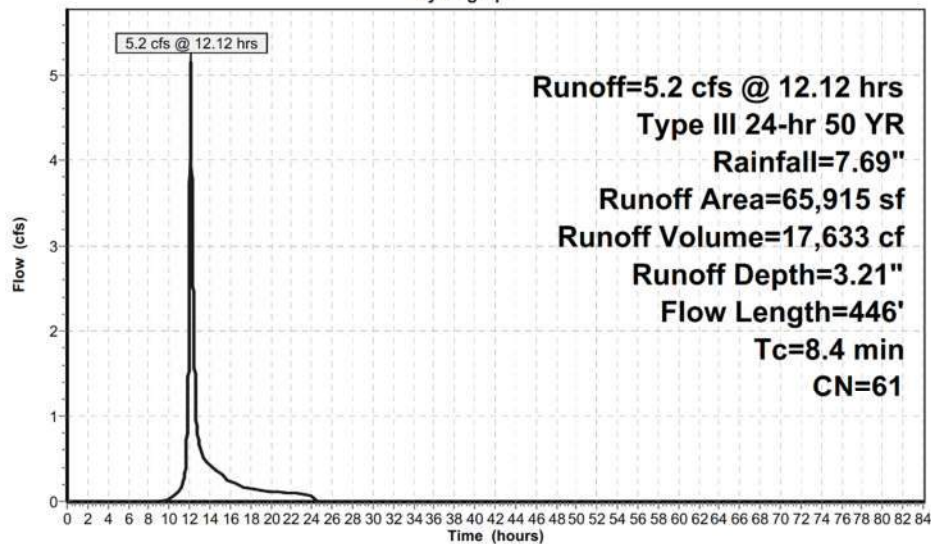
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 65,915 | 61 | >75% Grass cover, Good, HSG B |
| 65,915 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 5.7 | 100 | 0.0700 | 0.29 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.3 | 40 | 0.1000 | 2.21 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.1 | 16 | 0.5000 | 4.95 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.5 | 33 | 0.0300 | 1.21 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.4 | 127 | 0.5000 | 4.95 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 60 | 0.1100 | 4.97 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.2 | 70 | 0.0200 | 0.99 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 8.4 | 446 | Total | | | |

Subcatchment PRWS4D: PRWS4D

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Pond IS4A1: IS4A1

Inflow Area = 9,556 sf, 100.00% Impervious, Inflow Depth = 7.45" for 50 YR event
Inflow = 1.7 cfs @ 12.07 hrs, Volume= 5,933 cf
Outflow = 1.5 cfs @ 12.12 hrs, Volume= 5,933 cf, Atten= 15%, Lag= 2.8 min
Discarded = 0.1 cfs @ 9.26 hrs, Volume= 4,413 cf
Primary = 1.4 cfs @ 12.12 hrs, Volume= 1,520 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 496.81' @ 12.12 hrs Surf.Area= 702 sf Storage= 1,491 cf

Plug-Flow detention time= 132.0 min calculated for 5,933 cf (100% of inflow)
Center-of-Mass det. time= 132.0 min (872.8 - 740.8)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 493.50' | 618 cf | 30.50'W x 23.00'L x 3.54'H Field A 2,484 cf Overall - 939 cf Embedded = 1,546 cf x 40.0% Voids |
| #2A | 494.00' | 939 cf | Cultec R-330XL x 18 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,557 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 496.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 496.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 496.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 493.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 9.26 hrs HW=493.54' (Free Discharge)
↑ **3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=1.4 cfs @ 12.12 hrs HW=496.80' (Free Discharge)
↑ **1=Culvert** (Barrel Controls 1.4 cfs @ 2.79 fps)
↑ **2=Broad-Crested Rectangular Weir** (Passes 1.4 cfs of 2.9 cfs potential flow)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

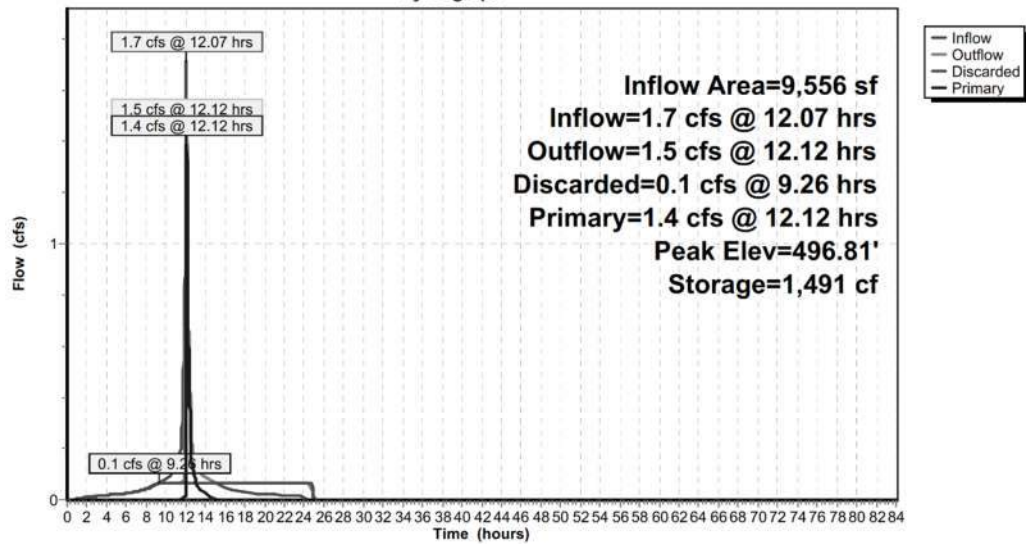
Type III 24-hr 50 YR Rainfall=7.69"

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Pond IS4A1: IS4A1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Pond IS4A2: IS4A2

Inflow Area = 15,160 sf, 100.00% Impervious, Inflow Depth = 7.45" for 50 YR event
Inflow = 2.7 cfs @ 12.07 hrs, Volume= 9,412 cf
Outflow = 1.2 cfs @ 12.22 hrs, Volume= 9,412 cf, Atten= 55%, Lag= 9.2 min
Discarded = 0.1 cfs @ 9.94 hrs, Volume= 7,896 cf
Primary = 1.1 cfs @ 12.22 hrs, Volume= 1,516 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 456.70' @ 12.22 hrs Surf.Area= 1,342 sf Storage= 2,847 cf

Plug-Flow detention time= 147.0 min calculated for 9,411 cf (100% of inflow)
Center-of-Mass det. time= 147.0 min (887.8 - 740.8)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 453.50' | 1,150 cf | 30.50'W x 44.00'L x 3.54'H Field A 4,753 cf Overall - 1,878 cf Embedded = 2,875 cf x 40.0% Voids |
| #2A | 454.00' | 1,878 cf | Cultec R-330XL x 36 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 3,028 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 456.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 456.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 456.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 453.50' | 4,000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 9.94 hrs HW=453.54' (Free Discharge)

↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=1.1 cfs @ 12.22 hrs HW=456.70' (Free Discharge)

↑**1=Culvert** (Barrel Controls 1.1 cfs @ 2.60 fps)

↑**2=Broad-Crested Rectangular Weir** (Passes 1.1 cfs of 1.5 cfs potential flow)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

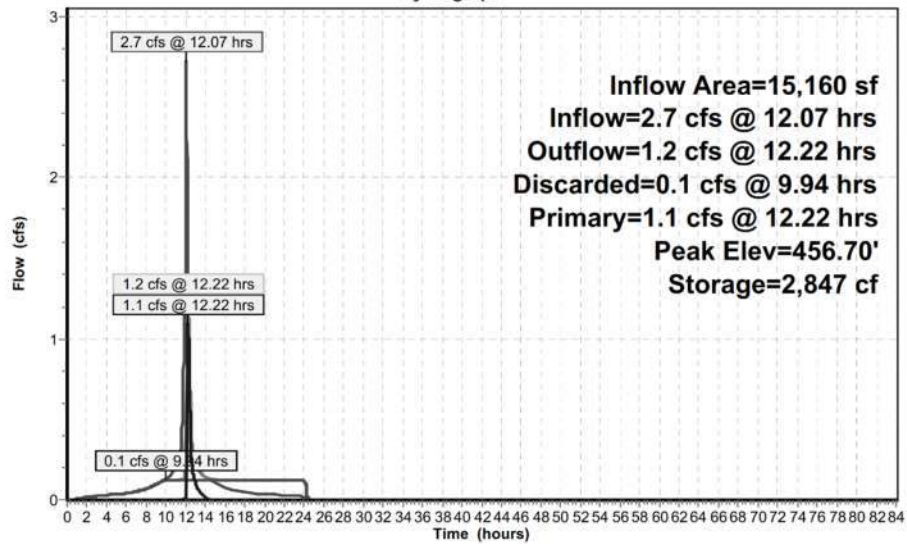
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Type III 24-hr 50 YR Rainfall=7.69"

Pond IS4A2: IS4A2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Pond IS4A3: IS4A3

Inflow Area = 22,416 sf, 100.00% Impervious, Inflow Depth = 7.45" for 50 YR event
Inflow = 4.0 cfs @ 12.07 hrs, Volume= 13,917 cf
Outflow = 2.5 cfs @ 12.16 hrs, Volume= 13,917 cf, Atten= 37%, Lag= 5.3 min
Discarded = 0.2 cfs @ 9.58 hrs, Volume= 11,037 cf
Primary = 2.4 cfs @ 12.16 hrs, Volume= 2,881 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 456.85' @ 12.16 hrs Surf.Area= 1,802 sf Storage= 3,946 cf

Plug-Flow detention time= 142.4 min calculated for 13,917 cf (100% of inflow)
Center-of-Mass det. time= 142.4 min (883.1 - 740.8)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 453.50' | 1,531 cf | 35.33'W x 51.00'L x 3.54'H Field A 6,382 cf Overall - 2,556 cf Embedded = 3,826 cf x 40.0% Voids |
| #2A | 454.00' | 2,556 cf | Cultec R-330XL x 49 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | | 4,086 cf Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 455.50' | 15.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 455.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 456.50' | 4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 453.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 9.58 hrs HW=453.54' (Free Discharge)
↑ **3=Exfiltration** (Exfiltration Controls 0.2 cfs)

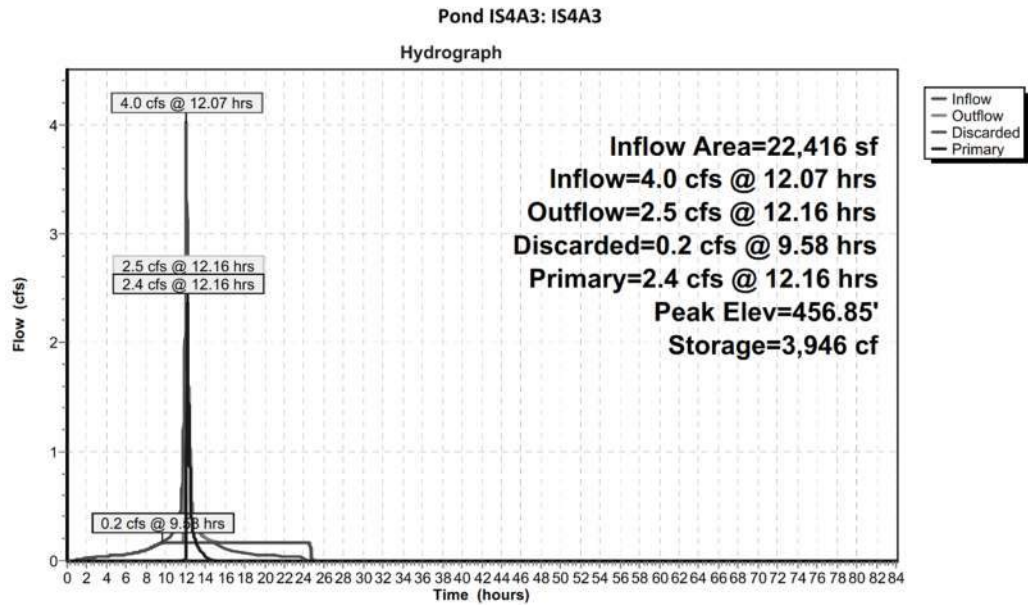
Primary OutFlow Max=2.4 cfs @ 12.16 hrs HW=456.85' (Free Discharge)
↑ **1=Culvert** (Passes 2.4 cfs of 3.9 cfs potential flow)
↑ **2=Broad-Crested Rectangular Weir** (Weir Controls 2.4 cfs @ 1.70 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Pond IS4B1: IS4B1

Inflow Area = 41,315 sf, 49.21% Impervious, Inflow Depth = 5.22" for 50 YR event
Inflow = 5.9 cfs @ 12.08 hrs, Volume= 17,972 cf
Outflow = 5.5 cfs @ 12.11 hrs, Volume= 17,972 cf, Atten= 7%, Lag= 2.0 min
Discarded = 0.2 cfs @ 10.27 hrs, Volume= 11,349 cf
Primary = 5.3 cfs @ 12.11 hrs, Volume= 6,623 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 436.45' @ 12.11 hrs Surf.Area= 1,936 sf Storage= 4,265 cf

Plug-Flow detention time= 142.3 min calculated for 17,970 cf (100% of inflow)
Center-of-Mass det. time= 142.3 min (948.3 - 806.0)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 433.00' | 1,679 cf | 16.00'W x 121.00'L x 3.54'H Field A 6,857 cf Overall - 2,660 cf Embedded = 4,197 cf x 40.0% Voids |
| #2A | 433.50' | 2,660 cf | Cultec R-330XL x 51 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 4,339 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 435.00' | 24.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 435.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 436.00' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 433.00' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 10.27 hrs HW=433.04' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=5.3 cfs @ 12.11 hrs HW=436.45' (Free Discharge)
↑**1=Culvert** (Passes 5.3 cfs of 6.7 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 5.3 cfs @ 1.97 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

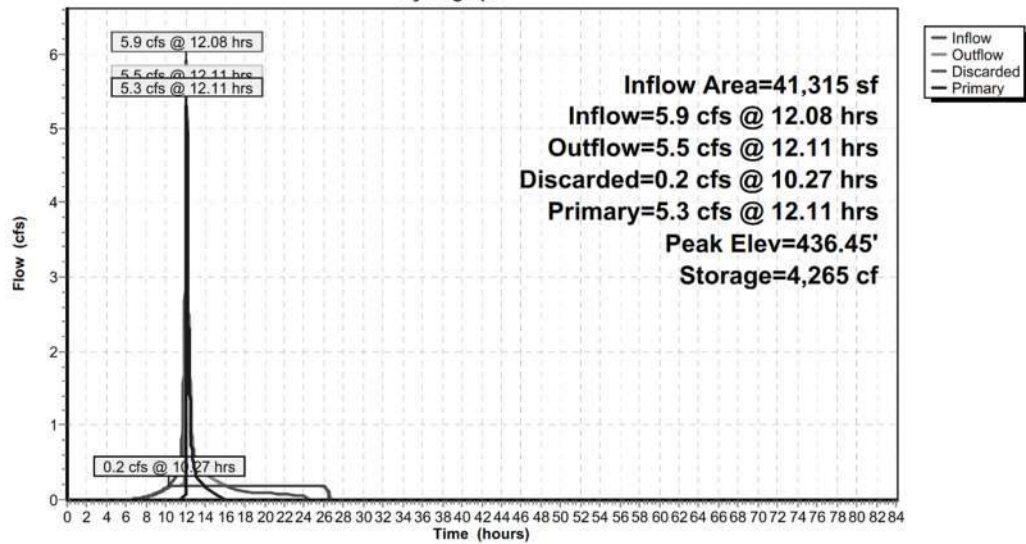
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Pond IS4B1: IS4B1

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EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Pond IS4B2: IS4B2

Inflow Area = 30,450 sf, 70.15% Impervious, Inflow Depth = 6.15" for 50 YR event
Inflow = 4.3 cfs @ 12.13 hrs, Volume= 15,601 cf
Outflow = 4.2 cfs @ 12.14 hrs, Volume= 15,601 cf, Atten= 1%, Lag= 0.7 min
Discarded = 0.1 cfs @ 9.52 hrs, Volume= 9,368 cf
Primary = 4.1 cfs @ 12.14 hrs, Volume= 6,233 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 420.88' @ 12.14 hrs Surf.Area= 1,486 sf Storage= 3,261 cf

Plug-Flow detention time= 130.6 min calculated for 15,599 cf (100% of inflow)
Center-of-Mass det. time= 130.6 min (920.3 - 789.7)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 417.50' | 1,271 cf | 40.17'W x 37.00'L x 3.54'H Field A 5,264 cf Overall - 2,086 cf Embedded = 3,177 cf x 40.0% Voids |
| #2A | 418.00' | 2,086 cf | Cultec R-330XL x 40 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 3,357 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 419.50' | 18.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 419.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 420.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 417.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 9.52 hrs HW=417.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=4.1 cfs @ 12.14 hrs HW=420.88' (Free Discharge)
↑**1=Culvert** (Passes 4.1 cfs of 4.9 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 4.1 cfs @ 1.79 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

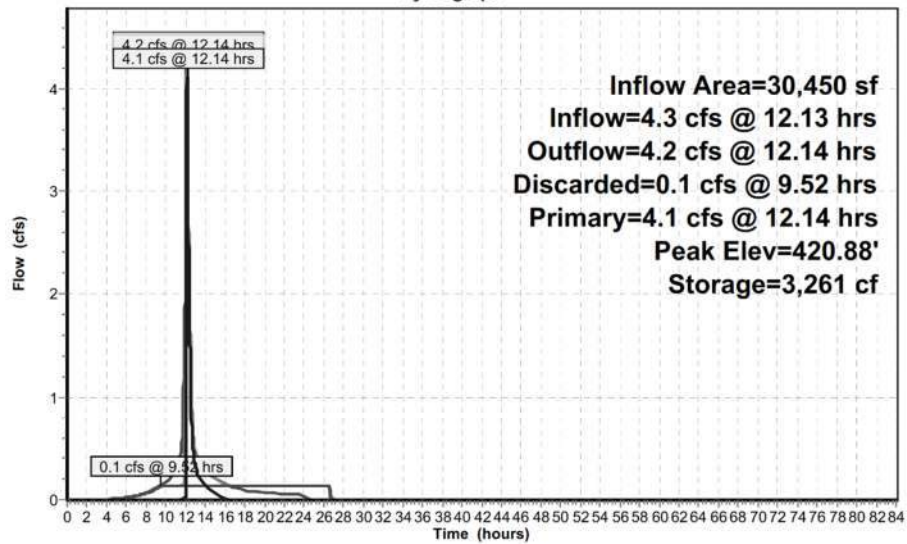
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Pond IS4B2: IS4B2

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EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Pond IS4B3: IS4B3

Inflow Area = 40,460 sf, 71.89% Impervious, Inflow Depth = 6.27" for 50 YR event
Inflow = 6.0 cfs @ 12.11 hrs, Volume= 21,125 cf
Outflow = 6.0 cfs @ 12.12 hrs, Volume= 21,125 cf, Atten= 0%, Lag= 0.5 min
Discarded = 0.2 cfs @ 9.00 hrs, Volume= 11,084 cf
Primary = 5.8 cfs @ 12.12 hrs, Volume= 10,041 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 410.93' @ 12.12 hrs Surf.Area= 1,646 sf Storage= 3,635 cf

Plug-Flow detention time= 118.3 min calculated for 21,125 cf (100% of inflow)
Center-of-Mass det. time= 118.3 min (903.7 - 785.5)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 407.50' | 1,414 cf | 20.83'W x 79.00'L x 3.54'H Field A 5,829 cf Overall - 2,295 cf Embedded = 3,534 cf x 40.0% Voids |
| #2A | 408.00' | 2,295 cf | Cultec R-330XL x 44 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 3,709 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 409.50' | 36.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 409.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 410.50' | 7.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 407.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 9.00 hrs HW=407.55' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=5.8 cfs @ 12.12 hrs HW=410.93' (Free Discharge)
↑**1=Culvert** (Passes 5.8 cfs of 8.7 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 5.8 cfs @ 1.93 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

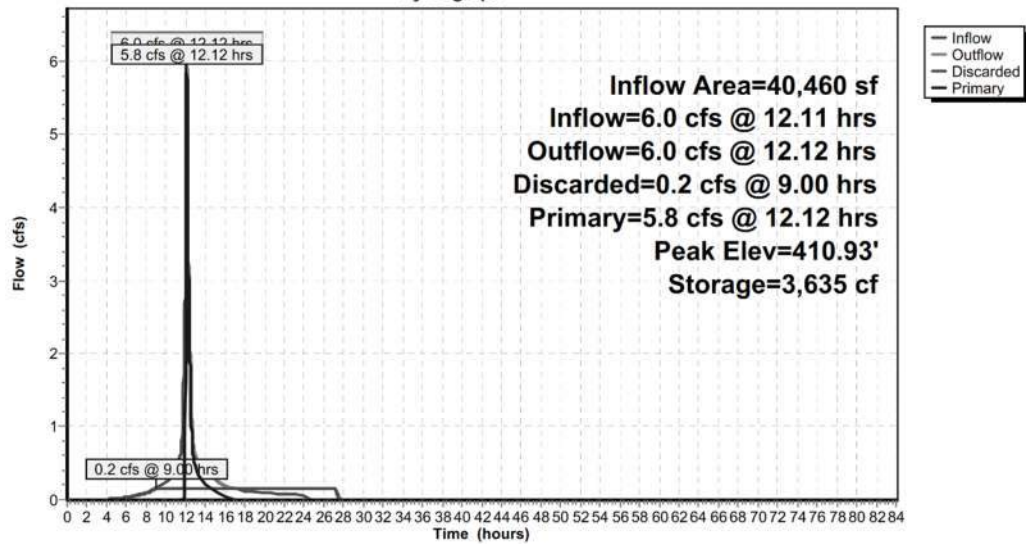
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Pond IS4B3: IS4B3

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EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Pond POND 1: POND 1

Inflow Area = 569,992 sf, 50.96% Impervious, Inflow Depth = 4.81" for 50 YR event
Inflow = 57.7 cfs @ 12.20 hrs, Volume= 228,359 cf
Outflow = 22.3 cfs @ 12.57 hrs, Volume= 228,359 cf, Atten= 61%, Lag= 22.3 min
Discarded = 1.9 cfs @ 12.57 hrs, Volume= 90,382 cf
Primary = 8.4 cfs @ 12.57 hrs, Volume= 12,494 cf
Secondary = 12.0 cfs @ 12.57 hrs, Volume= 125,482 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 430.96' @ 12.57 hrs Surf.Area= 20,256 sf Storage= 93,112 cf

Plug-Flow detention time= 197.3 min calculated for 228,332 cf (100% of inflow)
Center-of-Mass det. time= 197.4 min (1,013.2 - 815.8)

| Volume | Invert | Avail.Storage | Storage Description |
|---------------------|----------------------|---------------------------|--|
| #1 | 422.00' | 115,278 cf | Custom Stage Data (Prismatic) Listed below (Recalc) |
| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
| 422.00 | 2,413 | 0 | 0 |
| 424.00 | 5,801 | 8,214 | 8,214 |
| 426.00 | 8,480 | 14,281 | 22,495 |
| 428.00 | 12,558 | 21,038 | 43,533 |
| 430.00 | 18,510 | 31,068 | 74,601 |
| 432.00 | 22,167 | 40,677 | 115,278 |

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|--|
| #1 | Discarded | 422.00' | 4,000 in/hr Exfiltration over Surface area |
| #2 | Primary | 423.00' | 24.0" Round Culvert L= 147.0' CPP, projecting, no headwall, Ke= 0.900 Outlet Invert= 384.00' S= 0.2653 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #3 | Secondary | 427.00' | 14.0" W x 14.0" H Vert. Orifice/Grate C= 0.600 |
| #4 | Device 2 | 430.30' | 5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Discarded OutFlow Max=1.9 cfs @ 12.57 hrs HW=430.95' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.9 cfs)

Primary OutFlow Max=8.3 cfs @ 12.57 hrs HW=430.95' (Free Discharge)
↑**2=Culvert** (Passes 8.3 cfs of 31.5 cfs potential flow)
↑**4=Broad-Crested Rectangular Weir** (Weir Controls 8.3 cfs @ 2.54 fps)

Secondary OutFlow Max=12.0 cfs @ 12.57 hrs HW=430.95' (Free Discharge)
↑**3=Orifice/Grate** (Orifice Controls 12.0 cfs @ 8.83 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

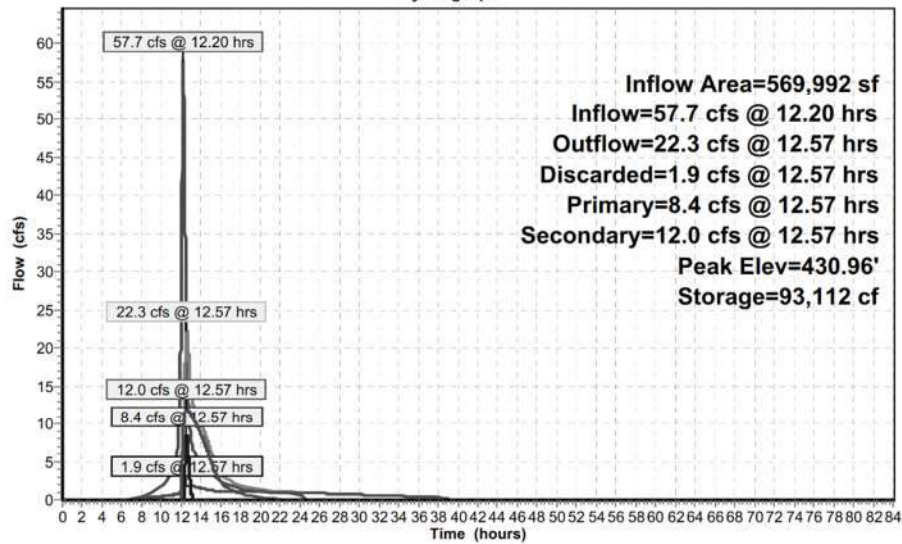
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Pond POND 1: POND 1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Pond POND 2: POND 2

Inflow Area = 814,944 sf, 52.52% Impervious, Inflow Depth = 1.39" for 50 YR event
Inflow = 31.0 cfs @ 12.11 hrs, Volume= 94,506 cf
Outflow = 10.6 cfs @ 12.70 hrs, Volume= 94,505 cf, Atten= 66%, Lag= 35.4 min
Primary = 10.6 cfs @ 12.70 hrs, Volume= 94,505 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 385.81' @ 12.70 hrs Surf.Area= 11,730 sf Storage= 38,626 cf

Plug-Flow detention time= 126.9 min calculated for 94,505 cf (100% of inflow)
Center-of-Mass det. time= 126.8 min (895.1 - 768.3)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1 | 380.00' | 69,429 cf | Custom Stage Data (Prismatic) Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---------------------|----------------------|---------------------------|---------------------------|
| 380.00 | 2,540 | 0 | 0 |
| 382.00 | 4,963 | 7,503 | 7,503 |
| 384.00 | 8,153 | 13,116 | 20,619 |
| 386.00 | 12,103 | 20,256 | 40,875 |
| 388.00 | 16,451 | 28,554 | 69,429 |

| Device | Routing | Invert | Outlet Devices |
|--------|----------|---------|---|
| #1 | Primary | 380.00' | 24.0" Round Culvert L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 380.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 380.00' | 3.0" Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 382.05' | 12.0" Vert. Orifice/Grate C= 0.600 |
| #4 | Device 1 | 385.25' | 2.5' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Primary OutFlow Max=10.6 cfs @ 12.70 hrs HW=385.81' (Free Discharge)

- 1=Culvert (Passes 10.6 cfs of 33.2 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.6 cfs @ 11.48 fps)
- 3=Orifice/Grate (Orifice Controls 6.8 cfs @ 8.70 fps)
- 4=Broad-Crested Rectangular Weir (Weir Controls 3.2 cfs @ 2.28 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

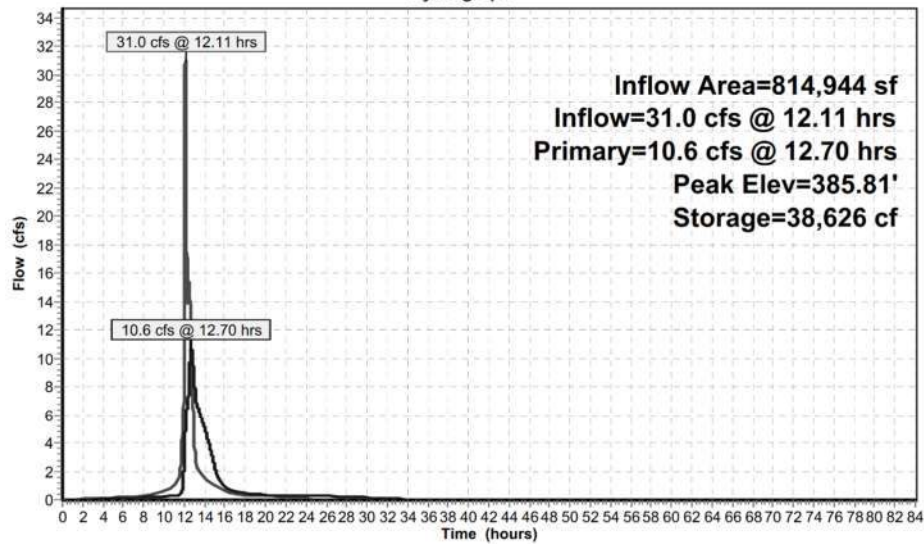
Type III 24-hr 50 YR Rainfall=7.69"

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Pond POND 2: POND 2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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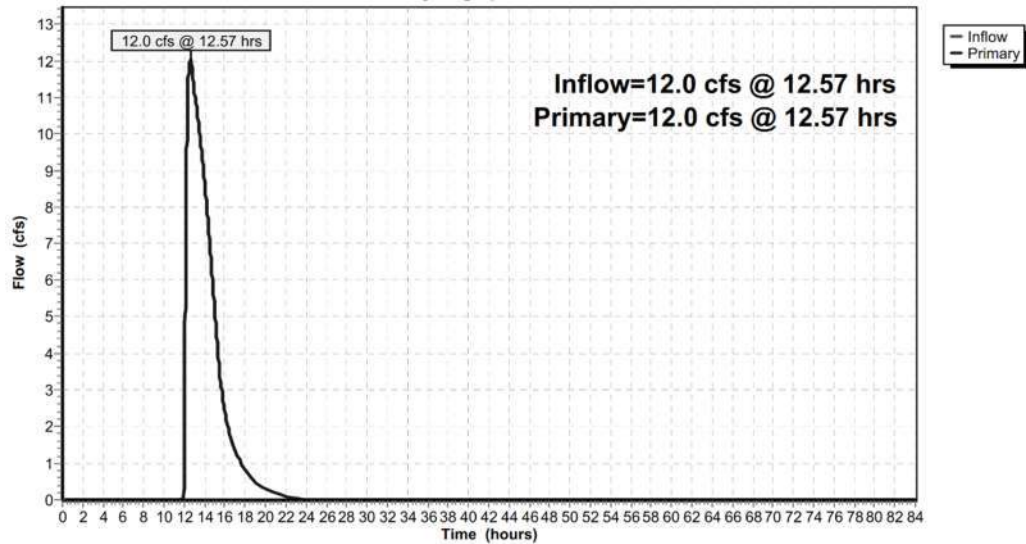
Summary for Link LL1: LOW LEVEL 1

Inflow = 12.0 cfs @ 12.57 hrs, Volume= 125,482 cf
Primary = 12.0 cfs @ 12.57 hrs, Volume= 125,482 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Link LL1: LOW LEVEL 1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 50 YR Rainfall=7.69"

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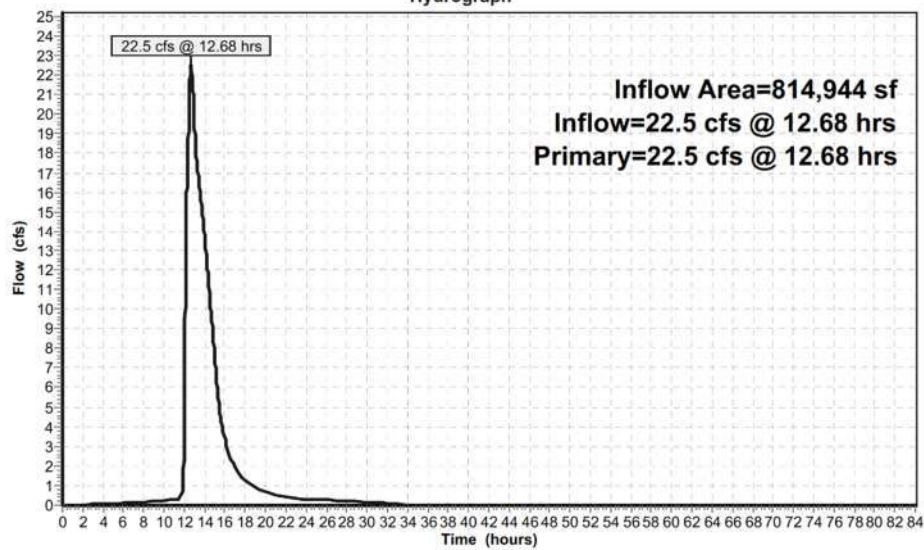
Summary for Link TR1: TRANSFER

Inflow Area = 814,944 sf, 52.52% Impervious, Inflow Depth = 3.24" for 50 YR event
Inflow = 22.5 cfs @ 12.68 hrs, Volume= 219,988 cf
Primary = 22.5 cfs @ 12.68 hrs, Volume= 219,988 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Link TR1: TRANSFER

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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Time span=0.00-84.00 hrs, dt=0.010 hrs, 8401 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|--------------------------------------|---|
| Subcatchment PRWS4A: PRWS4A | Runoff Area=522,860 sf 46.54% Impervious Runoff Depth=6.48" Flow Length=700' Tc=15.2 min CN=78 Runoff=67.9 cfs 282,414 cf |
| Subcatchment PRWS4A1: PRWS4A1 | Runoff Area=9,556 sf 100.00% Impervious Runoff Depth=8.93" Tc=5.0 min CN=98 Runoff=2.0 cfs 7,111 cf |
| Subcatchment PRWS4A2: PRWS4A2 | Runoff Area=15,160 sf 100.00% Impervious Runoff Depth=8.93" Tc=5.0 min CN=98 Runoff=3.2 cfs 11,281 cf |
| Subcatchment PRWS4A3: PRWS4A3 | Runoff Area=22,416 sf 100.00% Impervious Runoff Depth=8.93" Tc=5.0 min CN=98 Runoff=4.8 cfs 16,680 cf |
| Subcatchment PRWS4B: PRWS4B | Runoff Area=66,812 sf 100.00% Impervious Runoff Depth=8.93" Tc=6.0 min CN=98 Runoff=13.8 cfs 49,717 cf |
| Subcatchment PRWS4B1: PRWS4B1 | Runoff Area=41,315 sf 49.21% Impervious Runoff Depth=6.61" Flow Length=372' Tc=5.2 min CN=79 Runoff=7.4 cfs 22,743 cf |
| Subcatchment PRWS4B2: PRWS4B2 | Runoff Area=30,450 sf 70.15% Impervious Runoff Depth=7.59" Flow Length=191' Tc=9.7 min CN=87 Runoff=5.2 cfs 19,265 cf |
| Subcatchment PRWS4B3: PRWS4B3 | Runoff Area=40,460 sf 71.89% Impervious Runoff Depth=7.71" Flow Length=445' Tc=8.3 min CN=88 Runoff=7.3 cfs 26,012 cf |
| Subcatchment PRWS4D: PRWS4D | Runoff Area=65,915 sf 0.00% Impervious Runoff Depth=4.36" Flow Length=446' Tc=8.4 min CN=61 Runoff=7.1 cfs 23,946 cf |
| Pond IS4A1: IS4A1 | Peak Elev=496.97' Storage=1,536 cf Inflow=2.0 cfs 7,111 cf Discarded=0.1 cfs 4,737 cf Primary=1.9 cfs 2,374 cf Outflow=1.9 cfs 7,111 cf |
| Pond IS4A2: IS4A2 | Peak Elev=457.04' Storage=3,026 cf Inflow=3.2 cfs 11,281 cf Discarded=0.1 cfs 8,502 cf Primary=2.1 cfs 2,779 cf Outflow=2.2 cfs 11,281 cf |
| Pond IS4A3: IS4A3 | Peak Elev=457.00' Storage=4,059 cf Inflow=4.8 cfs 16,680 cf Discarded=0.2 cfs 11,857 cf Primary=4.3 cfs 4,824 cf Outflow=4.5 cfs 16,680 cf |
| Pond IS4B1: IS4B1 | Peak Elev=436.54' Storage=4,335 cf Inflow=7.4 cfs 22,743 cf Discarded=0.2 cfs 12,338 cf Primary=7.2 cfs 10,404 cf Outflow=7.3 cfs 22,743 cf |
| Pond IS4B2: IS4B2 | Peak Elev=420.93' Storage=3,293 cf Inflow=5.2 cfs 19,265 cf Discarded=0.1 cfs 10,104 cf Primary=5.0 cfs 9,161 cf Outflow=5.2 cfs 19,265 cf |
| Pond IS4B3: IS4B3 | Peak Elev=410.99' Storage=3,673 cf Inflow=7.3 cfs 26,012 cf Discarded=0.2 cfs 11,910 cf Primary=7.1 cfs 14,101 cf Outflow=7.3 cfs 26,012 cf |
| Pond POND 1: POND 1 | Peak Elev=431.59' Storage=106,250 cf Inflow=73.1 cfs 292,391 cf Discarded=2.0 cfs 95,666 cf Primary=24.2 cfs 44,417 cf Secondary=13.1 cfs 152,308 cf Outflow=39.3 cfs 292,391 cf |
| Pond POND 2: POND 2 | Peak Elev=387.01' Storage=54,141 cf Inflow=39.0 cfs 151,747 cf Outflow=27.9 cfs 151,746 cf |
| Link LL1: LOW LEVEL 1 | Inflow=13.1 cfs 152,308 cf Primary=13.1 cfs 152,308 cf |
| Link TR1: TRANSFER | Inflow=40.8 cfs 304,054 cf Primary=40.8 cfs 304,054 cf |

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

Prepared by Alfonzetti Engineering, P.C.

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Total Runoff Area = 814,944 sf Runoff Volume = 459,169 cf Average Runoff Depth = 6.76"
47.48% Pervious = 386,895 sf 52.52% Impervious = 428,049 sf

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Subcatchment PRWS4A: PRWS4A

Runoff = 67.9 cfs @ 12.21 hrs, Volume= 282,414 cf, Depth= 6.48"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 39,111 | 61 | >75% Grass cover, Good, HSG B |
| 135,808 | 98 | Paved parking, HSG B |
| 159,040 | 61 | >75% Grass cover, Good, HSG B |
| 107,520 | 98 | Unconnected roofs, HSG B |
| 16,880 | 61 | >75% Grass cover, Good, HSG B |
| 41,385 | 61 | >75% Grass cover, Good, HSG B |
| 9,427 | 61 | >75% Grass cover, Good, HSG B |
| 1,552 | 61 | >75% Grass cover, Good, HSG B |
| 1,288 | 61 | >75% Grass cover, Good, HSG B |
| 374 | 61 | >75% Grass cover, Good, HSG B |
| 1,458 | 61 | >75% Grass cover, Good, HSG B |
| 1,458 | 61 | >75% Grass cover, Good, HSG B |
| 1,522 | 61 | >75% Grass cover, Good, HSG B |
| 1,460 | 61 | >75% Grass cover, Good, HSG B |
| 1,543 | 61 | >75% Grass cover, Good, HSG B |
| 1,540 | 61 | >75% Grass cover, Good, HSG B |
| 1,494 | 61 | >75% Grass cover, Good, HSG B |
| 522,860 | 78 | Weighted Average |
| 279,532 | | 53.46% Pervious Area |
| 243,328 | | 46.54% Impervious Area |
| 107,520 | | 44.19% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|-------------|------------------|------------------|----------------------|-------------------|--|
| 13.8 | 100 | 0.0200 | 0.12 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 1.1 | 100 | 0.0500 | 1.57 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 500 | 0.0700 | 24.77 | 77.809 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.010 PVC, smooth interior |
| 15.2 | 700 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

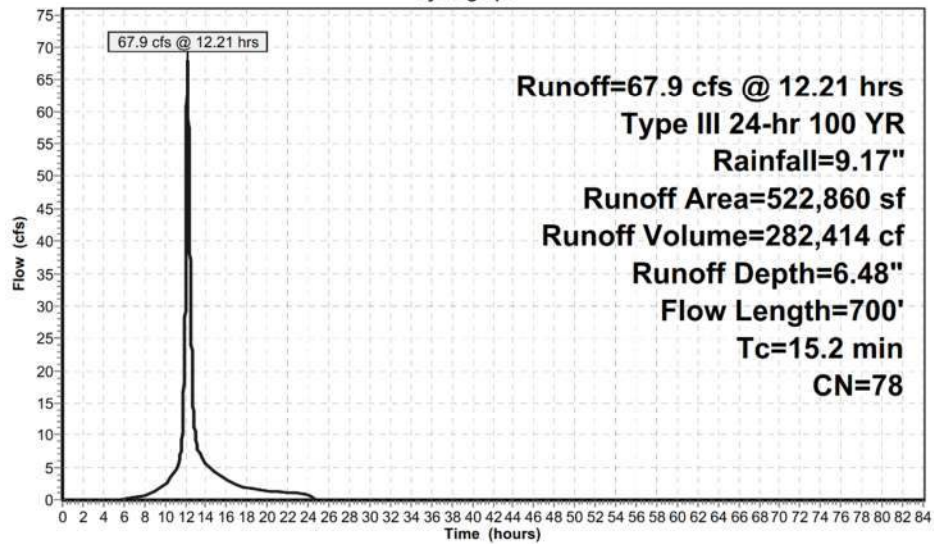
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Type III 24-hr 100 YR Rainfall=9.17"

Subcatchment PRWS4A: PRWS4A

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRWS4A1: PRWS4A1

Runoff = 2.0 cfs @ 12.07 hrs, Volume= 7,111 cf, Depth= 8.93"

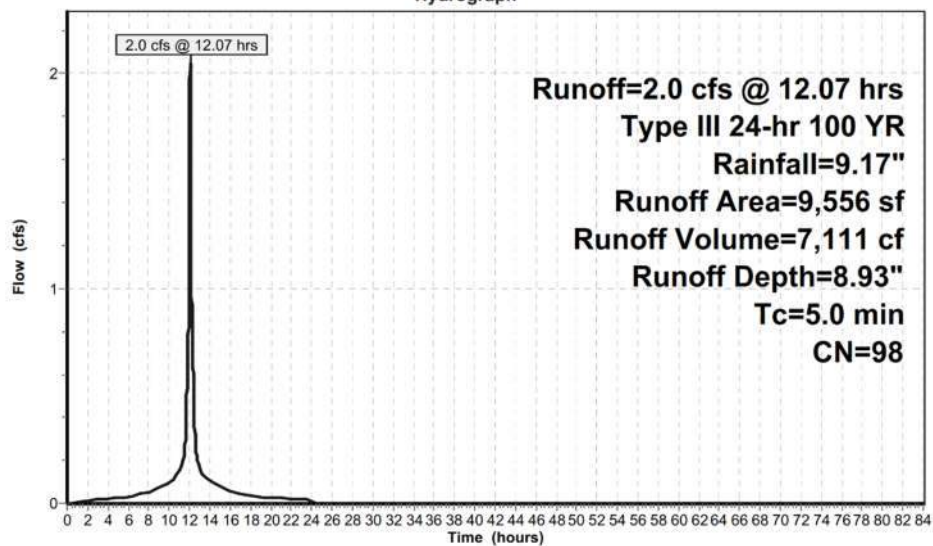
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 9,556 | 98 | Roofs, HSG B |
| 9,556 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A1: PRWS4A1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRWS4A2: PRWS4A2

Runoff = 3.2 cfs @ 12.07 hrs, Volume= 11,281 cf, Depth= 8.93"

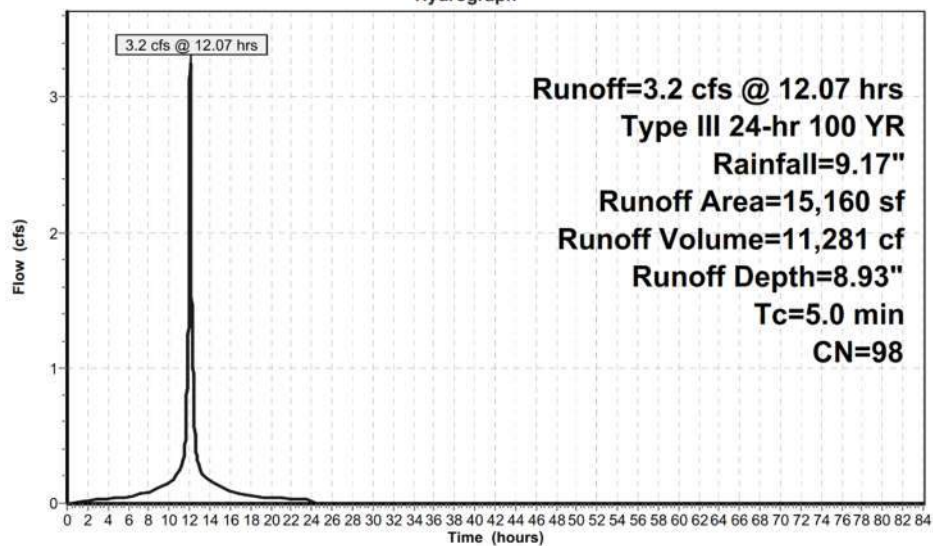
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 15,160 | 98 | Roofs, HSG B |
| 15,160 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A2: PRWS4A2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRWS4A3: PRWS4A3

Runoff = 4.8 cfs @ 12.07 hrs, Volume= 16,680 cf, Depth= 8.93"

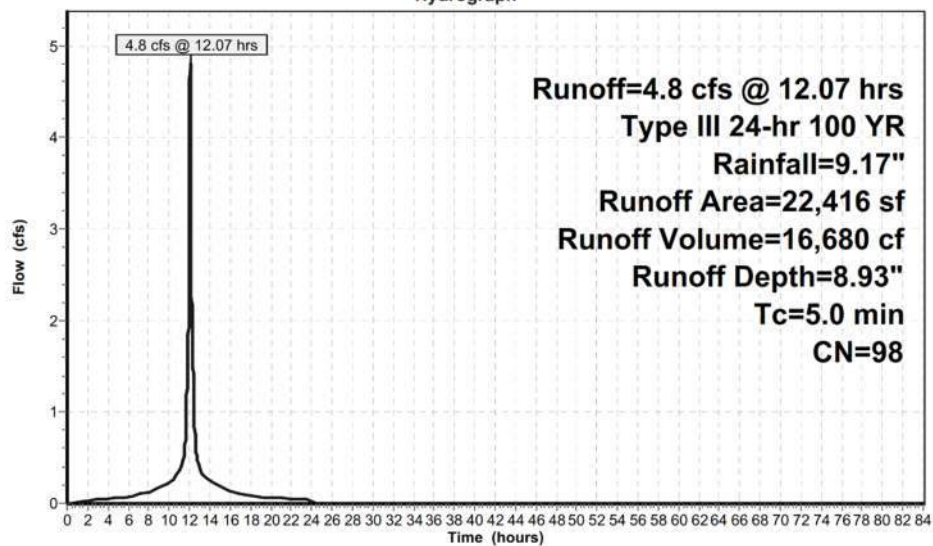
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 22,416 | 98 | Roofs, HSG B |
| 22,416 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4A3: PRWS4A3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRWS4B: PRWS4B

Runoff = 13.8 cfs @ 12.08 hrs, Volume= 49,717 cf, Depth= 8.93"

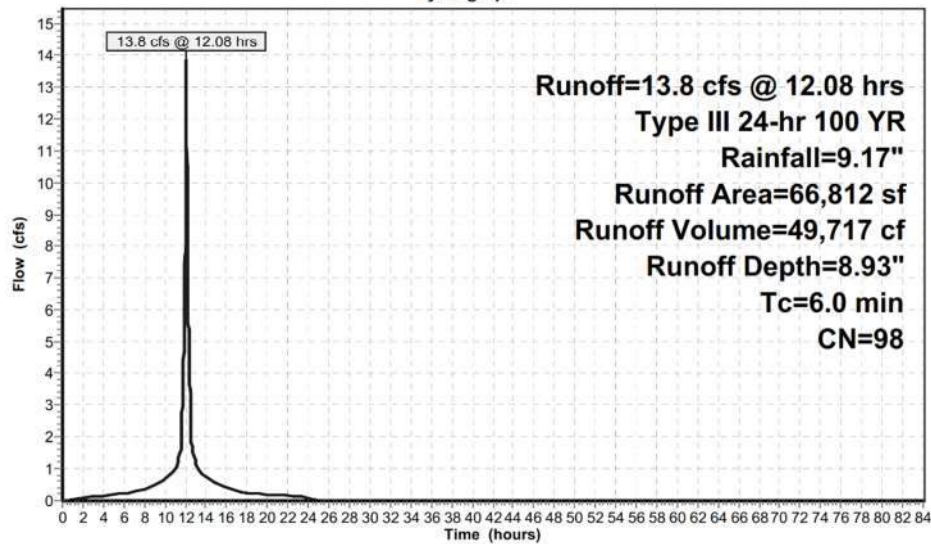
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|--------------------------|
| 66,812 | 98 | Unconnected roofs, HSG B |
| 66,812 | | 100.00% Impervious Area |
| 66,812 | | 100.00% Unconnected |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment PRWS4B: PRWS4B

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRWS4B1: PRWS4B1

Runoff = 7.4 cfs @ 12.07 hrs, Volume= 22,743 cf, Depth= 6.61"

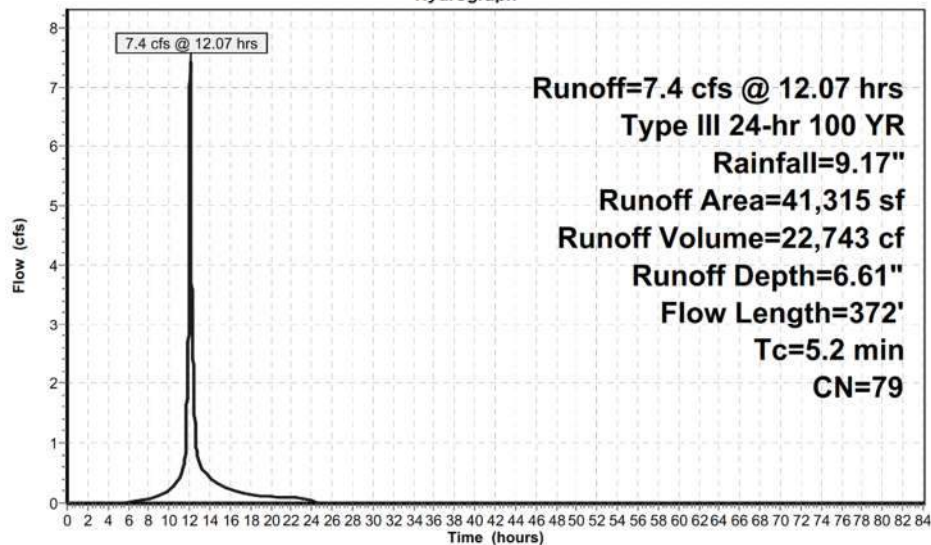
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 20,331 | 98 | Paved parking, HSG B |
| 2,189 | 61 | >75% Grass cover, Good, HSG B |
| 739 | 61 | >75% Grass cover, Good, HSG B |
| 3,763 | 61 | >75% Grass cover, Good, HSG B |
| 14,293 | 61 | >75% Grass cover, Good, HSG B |
| 41,315 | 79 | Weighted Average |
| 20,984 | | 50.79% Pervious Area |
| 20,331 | | 49.21% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.0 | 58 | 0.1200 | 0.32 | | Sheet Flow, SF1 Grass: Short n= 0.150 P2= 3.43" |
| 1.2 | 21 | 0.1400 | 0.28 | | Sheet Flow, SF2 Grass: Short n= 0.150 P2= 3.43" |
| 0.2 | 57 | 0.1200 | 5.20 | | Shallow Concentrated Flow, SCF1 Grassed Waterway Kv= 15.0 fps |
| 0.6 | 93 | 0.0150 | 2.49 | | Shallow Concentrated Flow, SCF2 Paved Kv= 20.3 fps |
| 0.2 | 143 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 5.2 | 372 | Total | | | |

Subcatchment PRWS4B1: PRWS4B1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRWS4B2: PRWS4B2

Runoff = 5.2 cfs @ 12.13 hrs, Volume= 19,265 cf, Depth= 7.59"

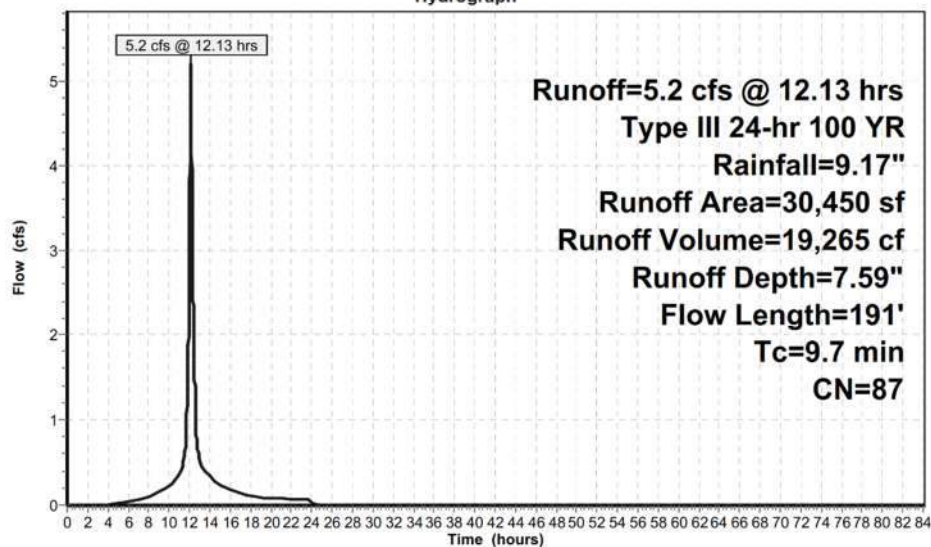
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 21,360 | 98 | Paved parking, HSG B |
| 7,840 | 61 | >75% Grass cover, Good, HSG B |
| 182 | 61 | >75% Grass cover, Good, HSG B |
| 154 | 61 | >75% Grass cover, Good, HSG B |
| 545 | 61 | >75% Grass cover, Good, HSG B |
| 369 | 61 | >75% Grass cover, Good, HSG B |
| 30,450 | 87 | Weighted Average |
| 9,090 | | 29.85% Pervious Area |
| 21,360 | | 70.15% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.8 | 66 | 0.0200 | 0.16 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.7 | 11 | 0.1800 | 0.27 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 1.7 | 23 | 0.0760 | 0.22 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.2 | 19 | 0.0760 | 1.93 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 72 | 0.0360 | 3.85 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 9.7 | 191 | Total | | | |

Subcatchment PRWS4B2: PRWS4B2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRWS4B3: PRWS4B3

Runoff = 7.3 cfs @ 12.11 hrs, Volume= 26,012 cf, Depth= 7.71"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 29,086 | 98 | Paved parking, HSG B |
| 2,140 | 61 | >75% Grass cover, Good, HSG B |
| 3,232 | 61 | >75% Grass cover, Good, HSG B |
| 1,899 | 61 | >75% Grass cover, Good, HSG B |
| 214 | 61 | >75% Grass cover, Good, HSG B |
| 2,928 | 61 | >75% Grass cover, Good, HSG B |
| 961 | 61 | >75% Grass cover, Good, HSG B |
| 40,460 | 88 | Weighted Average |
| 11,374 | | 28.11% Pervious Area |
| 29,086 | | 71.89% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 7.2 | 71 | 0.0200 | 0.16 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.3 | 29 | 0.0500 | 1.60 | | Sheet Flow, Smooth surfaces n= 0.011 P2= 3.43" |
| 0.5 | 147 | 0.0500 | 4.54 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.0 | 25 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 0.3 | 173 | 0.0200 | 9.68 | 11.876 | Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010 PVC, smooth interior |
| 8.3 | 445 | Total | | | |

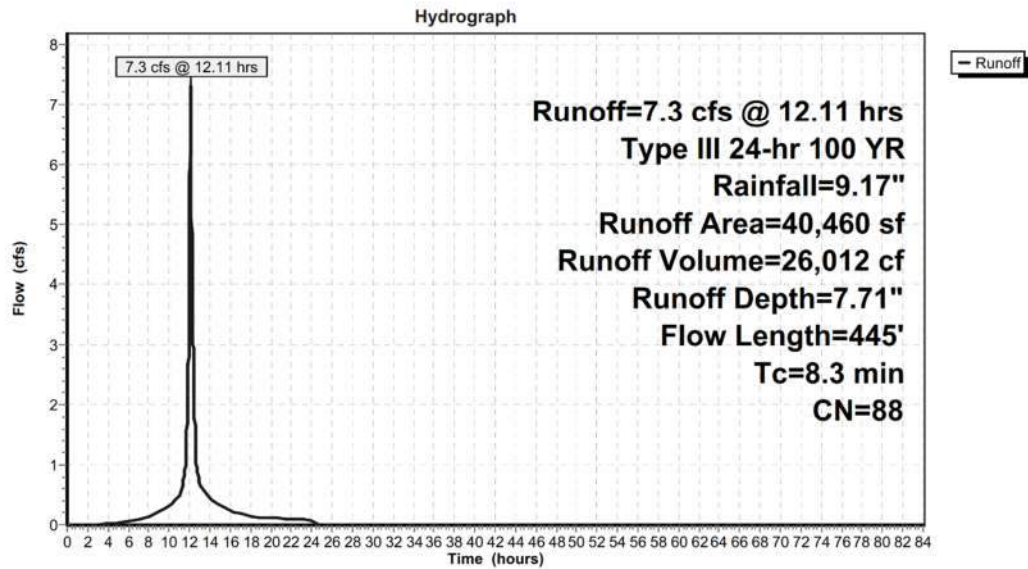
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Type III 24-hr 100 YR Rainfall=9.17"

Subcatchment PRWS4B3: PRWS4B3



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRWS4D: PRWS4D

Runoff = 7.1 cfs @ 12.12 hrs, Volume= 23,946 cf, Depth= 4.36"

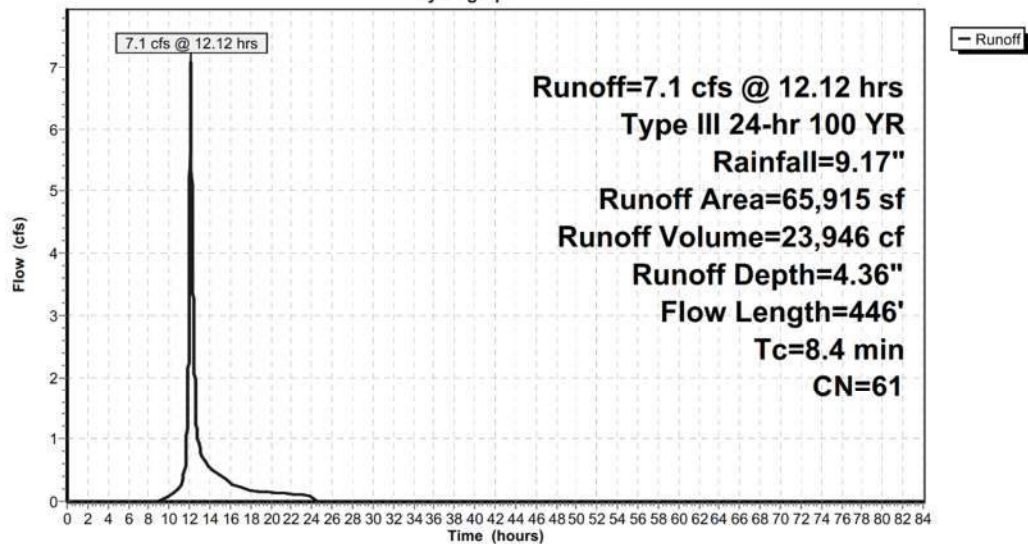
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 65,915 | 61 | >75% Grass cover, Good, HSG B |
| 65,915 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 5.7 | 100 | 0.0700 | 0.29 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 0.3 | 40 | 0.1000 | 2.21 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.1 | 16 | 0.5000 | 4.95 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.5 | 33 | 0.0300 | 1.21 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.4 | 127 | 0.5000 | 4.95 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 60 | 0.1100 | 4.97 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.2 | 70 | 0.0200 | 0.99 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 8.4 | 446 | Total | | | |

Subcatchment PRWS4D: PRWS4D

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Pond IS4A1: IS4A1

Inflow Area = 9,556 sf, 100.00% Impervious, Inflow Depth = 8.93" for 100 YR event
Inflow = 2.0 cfs @ 12.07 hrs, Volume= 7,111 cf
Outflow = 1.9 cfs @ 12.09 hrs, Volume= 7,111 cf, Atten= 5%, Lag= 1.5 min
Discarded = 0.1 cfs @ 8.71 hrs, Volume= 4,737 cf
Primary = 1.9 cfs @ 12.09 hrs, Volume= 2,374 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Peak Elev= 496.97' @ 12.09 hrs Surf.Area= 702 sf Storage= 1,536 cf

Plug-Flow detention time= 122.0 min calculated for 7,110 cf (100% of inflow)

Center-of-Mass det. time= 121.9 min (860.6 - 738.7)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 493.50' | 618 cf | 30.50'W x 23.00'L x 3.54'H Field A 2,484 cf Overall - 939 cf Embedded = 1,546 cf x 40.0% Voids |
| #2A | 494.00' | 939 cf | Cultec R-330XL x 18 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,557 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 496.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 496.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 496.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 493.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 8.71 hrs HW=493.54' (Free Discharge)

↑ **3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=1.9 cfs @ 12.09 hrs HW=496.97' (Free Discharge)

↑ **1=Culvert** (Barrel Controls 1.9 cfs @ 3.07 fps)

↑ **2=Broad-Crested Rectangular Weir** (Passes 1.9 cfs of 5.7 cfs potential flow)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

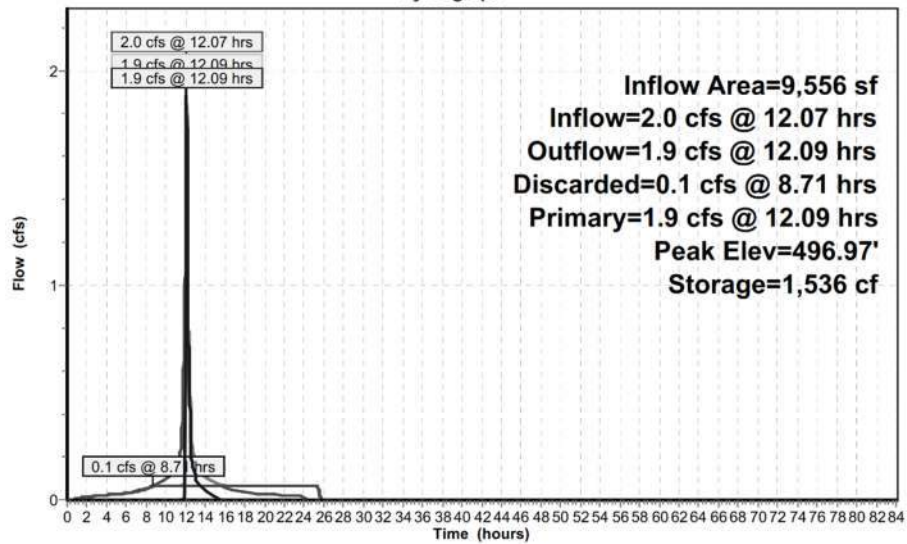
Type III 24-hr 100 YR Rainfall=9.17"

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Pond IS4A1: IS4A1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Pond IS4A2: IS4A2

Inflow Area = 15,160 sf, 100.00% Impervious, Inflow Depth = 8.93" for 100 YR event
Inflow = 3.2 cfs @ 12.07 hrs, Volume= 11,281 cf
Outflow = 2.2 cfs @ 12.15 hrs, Volume= 11,281 cf, Atten= 32%, Lag= 4.6 min
Discarded = 0.1 cfs @ 9.28 hrs, Volume= 8,502 cf
Primary = 2.1 cfs @ 12.15 hrs, Volume= 2,779 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 457.04' @ 12.15 hrs Surf.Area= 1,342 sf Storage= 3,026 cf

Plug-Flow detention time= 135.6 min calculated for 11,281 cf (100% of inflow)
Center-of-Mass det. time= 135.6 min (874.3 - 738.7)

| Volume | Invert | Avail.Storage | Storage Description |
|----------|---------|---------------|--|
| #1A | 453.50' | 1,150 cf | 30.50'W x 44.00'L x 3.54'H Field A 4,753 cf Overall - 1,878 cf Embedded = 2,875 cf x 40.0% Voids |
| #2A | 454.00' | 1,878 cf | Cultec R-330XL x 36 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| 3,028 cf | | | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 456.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 456.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 456.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 453.50' | 4,000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 9.28 hrs HW=453.54' (Free Discharge)

↑ **3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=2.1 cfs @ 12.15 hrs HW=457.04' (Free Discharge)

↑ **1=Culvert** (Barrel Controls 2.1 cfs @ 3.19 fps)

↑ **2=Broad-Crested Rectangular Weir** (Passes 2.1 cfs of 7.2 cfs potential flow)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

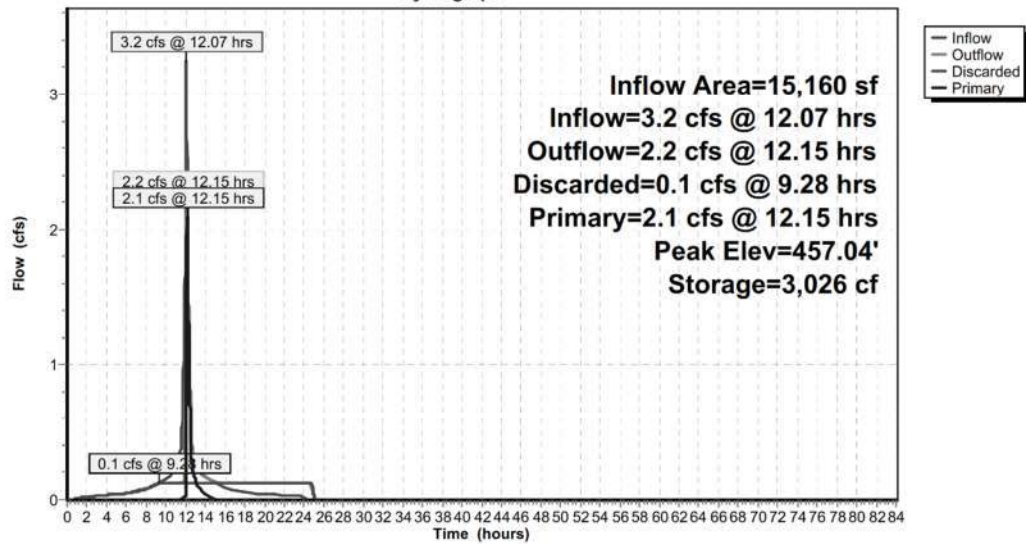
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Type III 24-hr 100 YR Rainfall=9.17"

Pond IS4A2: IS4A2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Pond IS4A3: IS4A3

Inflow Area = 22,416 sf, 100.00% Impervious, Inflow Depth = 8.93" for 100 YR event
Inflow = 4.8 cfs @ 12.07 hrs, Volume= 16,680 cf
Outflow = 4.5 cfs @ 12.10 hrs, Volume= 16,680 cf, Atten= 7%, Lag= 1.9 min
Discarded = 0.2 cfs @ 8.97 hrs, Volume= 11,857 cf
Primary = 4.3 cfs @ 12.10 hrs, Volume= 4,824 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 457.00' @ 12.10 hrs Surf.Area= 1,802 sf Storage= 4,059 cf

Plug-Flow detention time= 131.3 min calculated for 16,680 cf (100% of inflow)
Center-of-Mass det. time= 131.3 min (869.9 - 738.7)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 453.50' | 1,531 cf | 35.33'W x 51.00'L x 3.54'H Field A 6,382 cf Overall - 2,556 cf Embedded = 3,826 cf x 40.0% Voids |
| #2A | 454.00' | 2,556 cf | Cultec R-330XL x 49 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 4,086 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 455.50' | 15.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 455.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 456.50' | 4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 453.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 8.97 hrs HW=453.54' (Free Discharge)
↑ **3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=4.3 cfs @ 12.10 hrs HW=457.00' (Free Discharge)
↑ **1=Culvert** (Passes 4.3 cfs of 4.5 cfs potential flow)
↑ **2=Broad-Crested Rectangular Weir** (Weir Controls 4.3 cfs @ 2.13 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

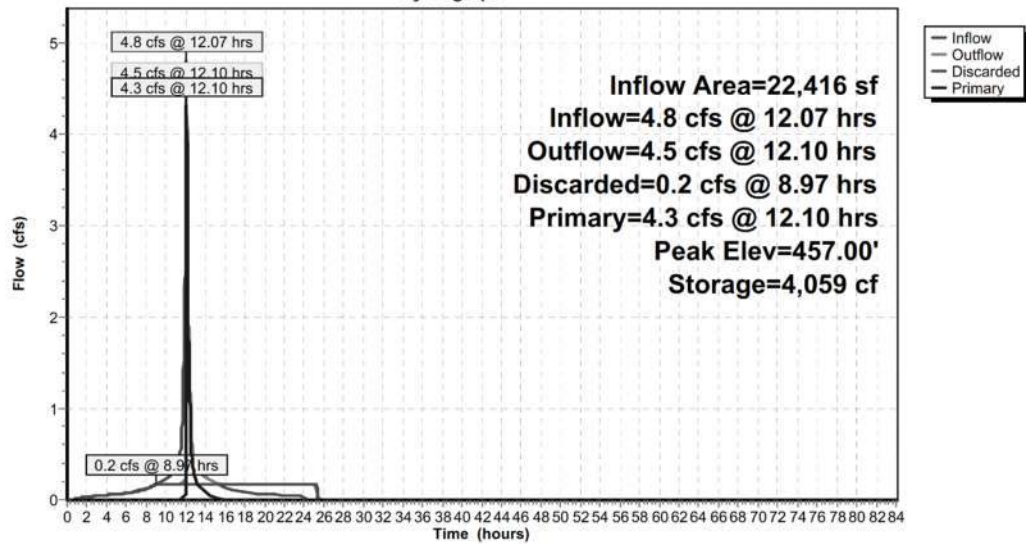
Type III 24-hr 100 YR Rainfall=9.17"

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Pond IS4A3: IS4A3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Pond IS4B1: IS4B1

Inflow Area = 41,315 sf, 49.21% Impervious, Inflow Depth = 6.61" for 100 YR event
Inflow = 7.4 cfs @ 12.07 hrs, Volume= 22,743 cf
Outflow = 7.3 cfs @ 12.09 hrs, Volume= 22,743 cf, Atten= 1%, Lag= 0.6 min
Discarded = 0.2 cfs @ 9.65 hrs, Volume= 12,338 cf
Primary = 7.2 cfs @ 12.09 hrs, Volume= 10,404 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 436.54' @ 12.09 hrs Surf.Area= 1,936 sf Storage= 4,335 cf

Plug-Flow detention time= 125.4 min calculated for 22,740 cf (100% of inflow)
Center-of-Mass det. time= 125.4 min (924.8 - 799.4)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 433.00' | 1,679 cf | 16.00'W x 121.00'L x 3.54'H Field A 6,857 cf Overall - 2,660 cf Embedded = 4,197 cf x 40.0% Voids |
| #2A | 433.50' | 2,660 cf | Cultec R-330XL x 51 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 4,339 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 435.00' | 24.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 435.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 436.00' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 433.00' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 9.65 hrs HW=433.04' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=7.1 cfs @ 12.09 hrs HW=436.54' (Free Discharge)
↑**1=Culvert** (Passes 7.1 cfs of 7.5 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 7.1 cfs @ 2.22 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

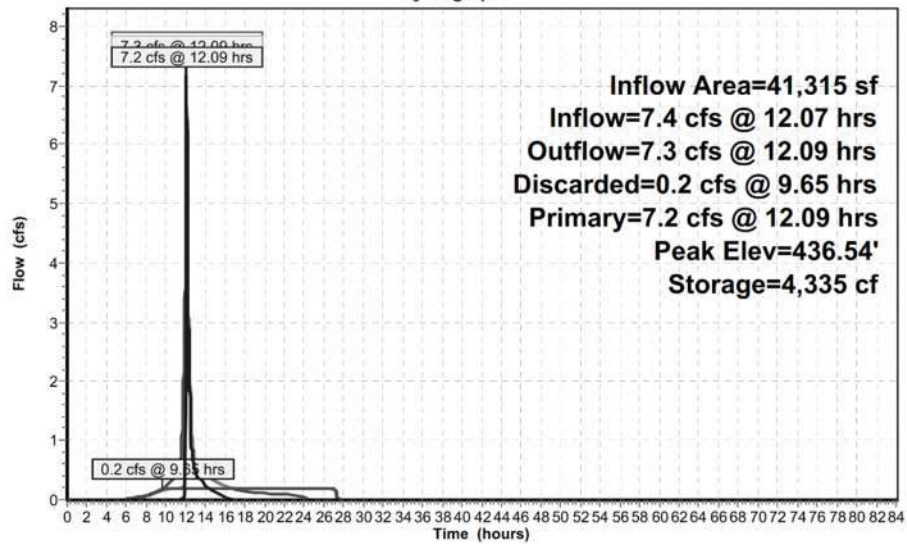
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Type III 24-hr 100 YR Rainfall=9.17"

Pond IS4B1: IS4B1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Pond IS4B2: IS4B2

Inflow Area = 30,450 sf, 70.15% Impervious, Inflow Depth = 7.59" for 100 YR event
Inflow = 5.2 cfs @ 12.13 hrs, Volume= 19,265 cf
Outflow = 5.2 cfs @ 12.14 hrs, Volume= 19,265 cf, Atten= 0%, Lag= 0.6 min
Discarded = 0.1 cfs @ 8.90 hrs, Volume= 10,104 cf
Primary = 5.0 cfs @ 12.14 hrs, Volume= 9,161 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 420.93' @ 12.14 hrs Surf.Area= 1,486 sf Storage= 3,293 cf

Plug-Flow detention time= 117.7 min calculated for 19,265 cf (100% of inflow)
Center-of-Mass det. time= 117.7 min (901.9 - 784.1)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 417.50' | 1,271 cf | 40.17'W x 37.00'L x 3.54'H Field A 5,264 cf Overall - 2,086 cf Embedded = 3,177 cf x 40.0% Voids |
| #2A | 418.00' | 2,086 cf | Cultec R-330XL x 40 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 3,357 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 419.50' | 18.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 419.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 420.50' | 6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 417.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 8.90 hrs HW=417.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=5.0 cfs @ 12.14 hrs HW=420.93' (Free Discharge)
↑**1=Culvert** (Passes 5.0 cfs of 5.2 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 5.0 cfs @ 1.94 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

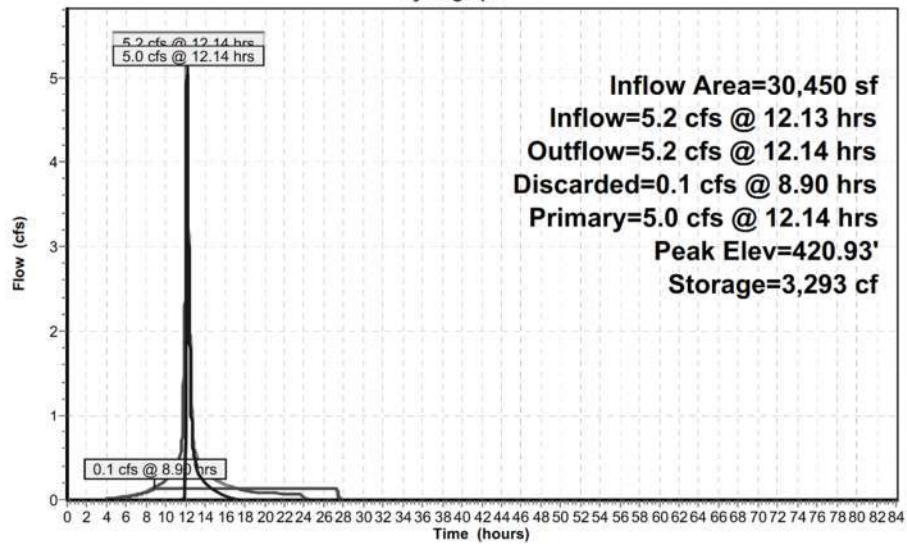
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Pond IS4B2: IS4B2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Pond IS4B3: IS4B3

Inflow Area = 40,460 sf, 71.89% Impervious, Inflow Depth = 7.71" for 100 YR event
Inflow = 7.3 cfs @ 12.11 hrs, Volume= 26,012 cf
Outflow = 7.3 cfs @ 12.12 hrs, Volume= 26,012 cf, Atten= 0%, Lag= 0.5 min
Discarded = 0.2 cfs @ 8.44 hrs, Volume= 11,910 cf
Primary = 7.1 cfs @ 12.12 hrs, Volume= 14,101 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 410.99' @ 12.12 hrs Surf.Area= 1,646 sf Storage= 3,673 cf

Plug-Flow detention time= 106.8 min calculated for 26,012 cf (100% of inflow)
Center-of-Mass det. time= 106.8 min (886.8 - 780.0)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 407.50' | 1,414 cf | 20.83'W x 79.00'L x 3.54'H Field A 5,829 cf Overall - 2,295 cf Embedded = 3,534 cf x 40.0% Voids |
| #2A | 408.00' | 2,295 cf | Cultec R-330XL x 44 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 3,709 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 409.50' | 36.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 409.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 410.50' | 7.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 407.50' | 4,000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.2 cfs @ 8.44 hrs HW=407.55' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.2 cfs)

Primary OutFlow Max=7.1 cfs @ 12.12 hrs HW=410.99' (Free Discharge)
↑**1=Culvert** (Passes 7.1 cfs of 9.4 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 7.1 cfs @ 2.09 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

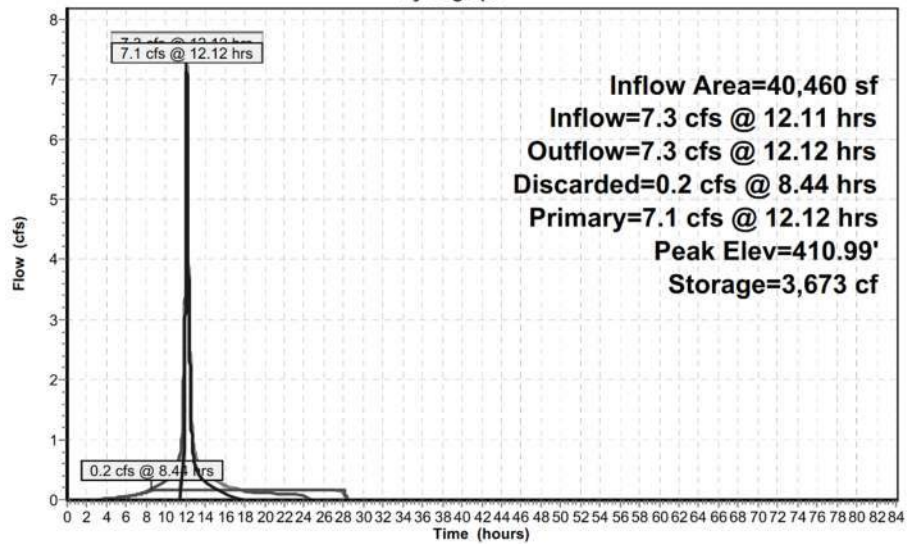
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Type III 24-hr 100 YR Rainfall=9.17"

Pond IS4B3: IS4B3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Pond POND 1: POND 1

Inflow Area = 569,992 sf, 50.96% Impervious, Inflow Depth = 6.16" for 100 YR event
Inflow = 73.1 cfs @ 12.20 hrs, Volume= 292,391 cf
Outflow = 39.3 cfs @ 12.46 hrs, Volume= 292,391 cf, Atten= 46%, Lag= 15.8 min
Discarded = 2.0 cfs @ 12.46 hrs, Volume= 95,666 cf
Primary = 24.2 cfs @ 12.46 hrs, Volume= 44,417 cf
Secondary = 13.1 cfs @ 12.46 hrs, Volume= 152,308 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 431.59' @ 12.46 hrs Surf.Area= 21,409 sf Storage= 106,250 cf

Plug-Flow detention time= 167.3 min calculated for 292,356 cf (100% of inflow)
Center-of-Mass det. time= 167.4 min (976.2 - 808.7)

| Volume | Invert | Avail.Storage | Storage Description |
|---------------------|----------------------|---------------------------|--|
| #1 | 422.00' | 115,278 cf | Custom Stage Data (Prismatic) Listed below (Recalc) |
| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
| 422.00 | 2,413 | 0 | 0 |
| 424.00 | 5,801 | 8,214 | 8,214 |
| 426.00 | 8,480 | 14,281 | 22,495 |
| 428.00 | 12,558 | 21,038 | 43,533 |
| 430.00 | 18,510 | 31,068 | 74,601 |
| 432.00 | 22,167 | 40,677 | 115,278 |

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|--|
| #1 | Discarded | 422.00' | 4,000 in/hr Exfiltration over Surface area |
| #2 | Primary | 423.00' | 24.0" Round Culvert L= 147.0' CPP, projecting, no headwall, Ke= 0.900 Outlet Invert= 384.00' S= 0.2653 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #3 | Secondary | 427.00' | 14.0" W x 14.0" H Vert. Orifice/Grate C= 0.600 |
| #4 | Device 2 | 430.30' | 5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Discarded OutFlow Max=2.0 cfs @ 12.46 hrs HW=431.59' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 2.0 cfs)

Primary OutFlow Max=24.2 cfs @ 12.46 hrs HW=431.59' (Free Discharge)
↑**2=Culvert** (Passes 24.2 cfs of 32.9 cfs potential flow)
↑**4=Broad-Crested Rectangular Weir** (Weir Controls 24.2 cfs @ 3.76 fps)

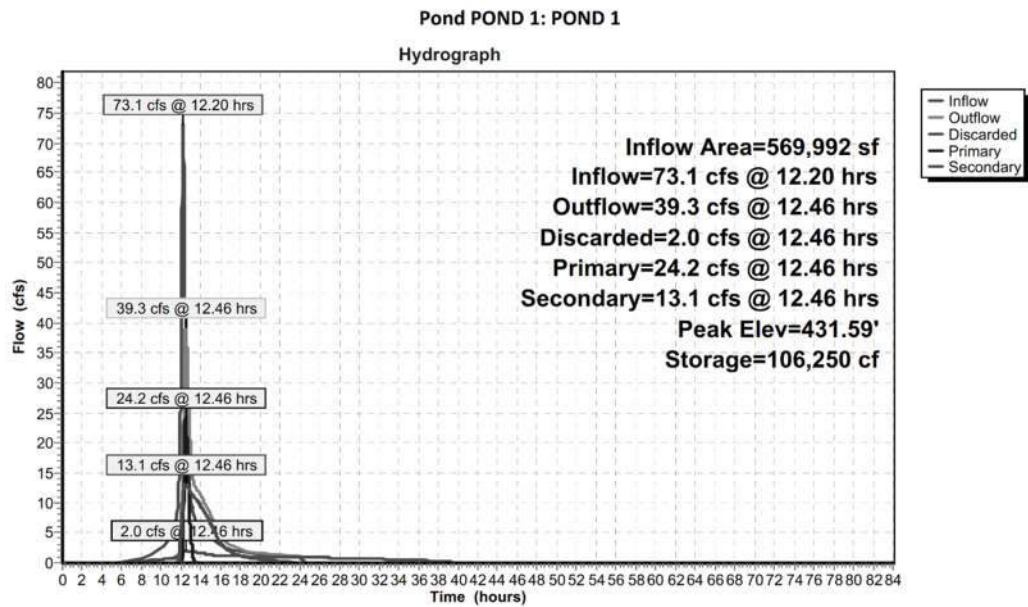
Secondary OutFlow Max=13.1 cfs @ 12.46 hrs HW=431.59' (Free Discharge)
↑**3=Orifice/Grate** (Orifice Controls 13.1 cfs @ 9.62 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Pond POND 2: POND 2

Inflow Area = 814,944 sf, 52.52% Impervious, Inflow Depth = 2.23" for 100 YR event
Inflow = 39.0 cfs @ 12.10 hrs, Volume= 151,747 cf
Outflow = 27.9 cfs @ 12.58 hrs, Volume= 151,746 cf, Atten= 29%, Lag= 28.9 min
Primary = 27.9 cfs @ 12.58 hrs, Volume= 151,746 cf

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs
Peak Elev= 387.01' @ 12.58 hrs Surf.Area= 14,289 sf Storage= 54,141 cf

Plug-Flow detention time= 93.7 min calculated for 151,746 cf (100% of inflow)
Center-of-Mass det. time= 93.6 min (857.9 - 764.3)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1 | 380.00' | 69,429 cf | Custom Stage Data (Prismatic) Listed below (Recalc) |

| Elevation (feet) | Surf.Area (sq-ft) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) |
|---------------------|----------------------|---------------------------|---------------------------|
| 380.00 | 2,540 | 0 | 0 |
| 382.00 | 4,963 | 7,503 | 7,503 |
| 384.00 | 8,153 | 13,116 | 20,619 |
| 386.00 | 12,103 | 20,256 | 40,875 |
| 388.00 | 16,451 | 28,554 | 69,429 |

| Device | Routing | Invert | Outlet Devices |
|--------|----------|---------|---|
| #1 | Primary | 380.00' | 24.0" Round Culvert L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 380.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 380.00' | 3.0" Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 382.05' | 12.0" Vert. Orifice/Grate C= 0.600 |
| #4 | Device 1 | 385.25' | 2.5' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Primary OutFlow Max=27.9 cfs @ 12.58 hrs HW=387.01' (Free Discharge)

- 1=Culvert (Passes 27.9 cfs of 37.1 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.6 cfs @ 12.63 fps)
- 3=Orifice/Grate (Orifice Controls 8.0 cfs @ 10.16 fps)
- 4=Broad-Crested Rectangular Weir (Weir Controls 19.3 cfs @ 4.40 fps)

EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

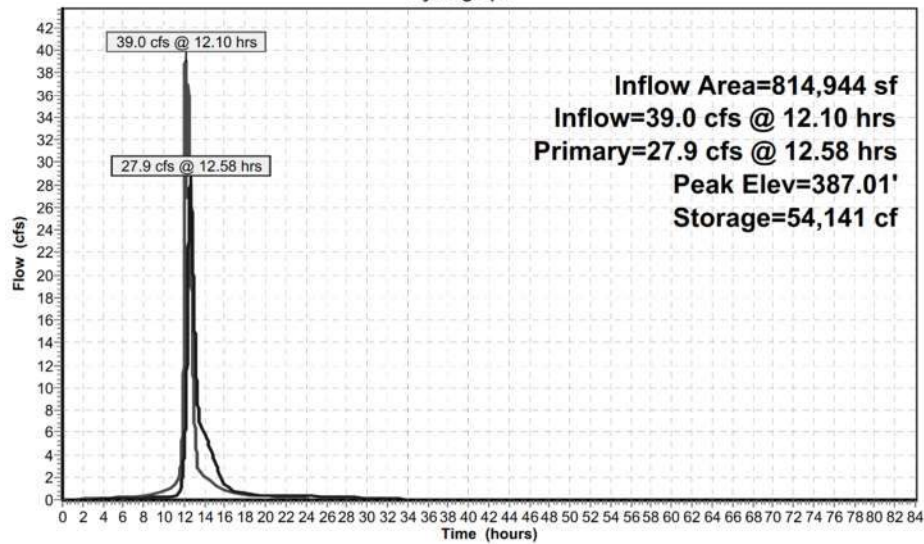
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Type III 24-hr 100 YR Rainfall=9.17"

Pond POND 2: POND 2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

Prepared by Alfonzetti Engineering, P.C.

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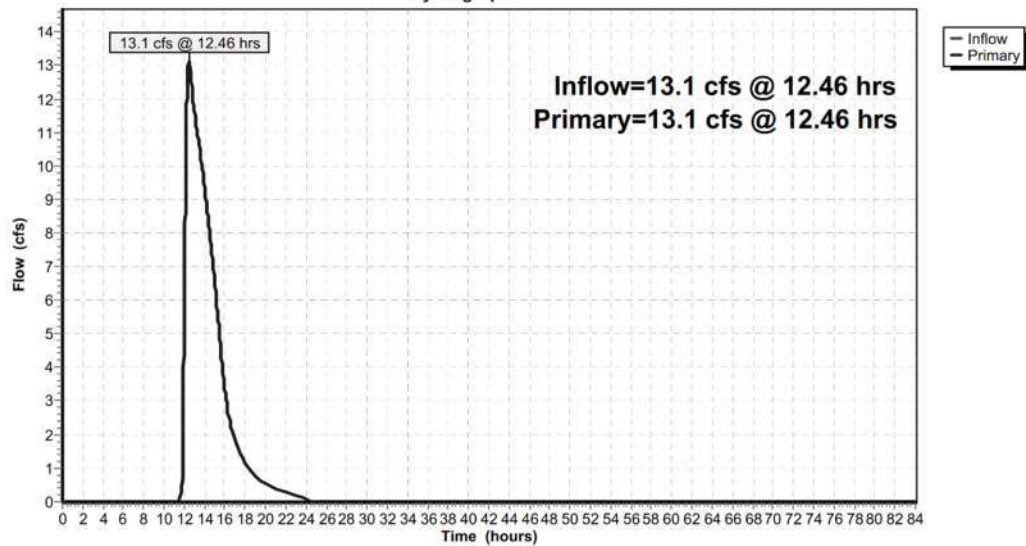
Summary for Link LL1: LOW LEVEL 1

Inflow = 13.1 cfs @ 12.46 hrs, Volume= 152,308 cf
Primary = 13.1 cfs @ 12.46 hrs, Volume= 152,308 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Link LL1: LOW LEVEL 1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER

Type III 24-hr 100 YR Rainfall=9.17"

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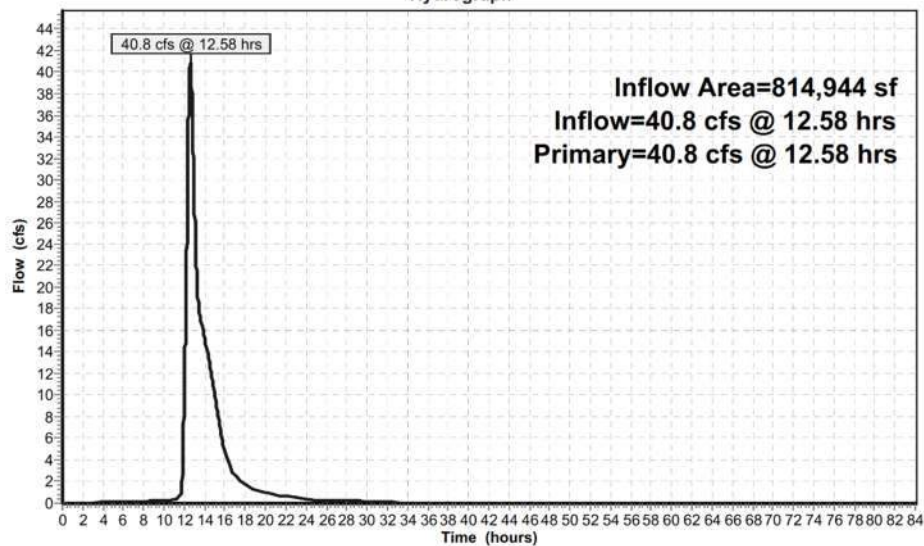
Summary for Link TR1: TRANSFER

Inflow Area = 814,944 sf, 52.52% Impervious, Inflow Depth = 4.48" for 100 YR event
Inflow = 40.8 cfs @ 12.58 hrs, Volume= 304,054 cf
Primary = 40.8 cfs @ 12.58 hrs, Volume= 304,054 cf, Atten= 0%, Lag= 0.0 min

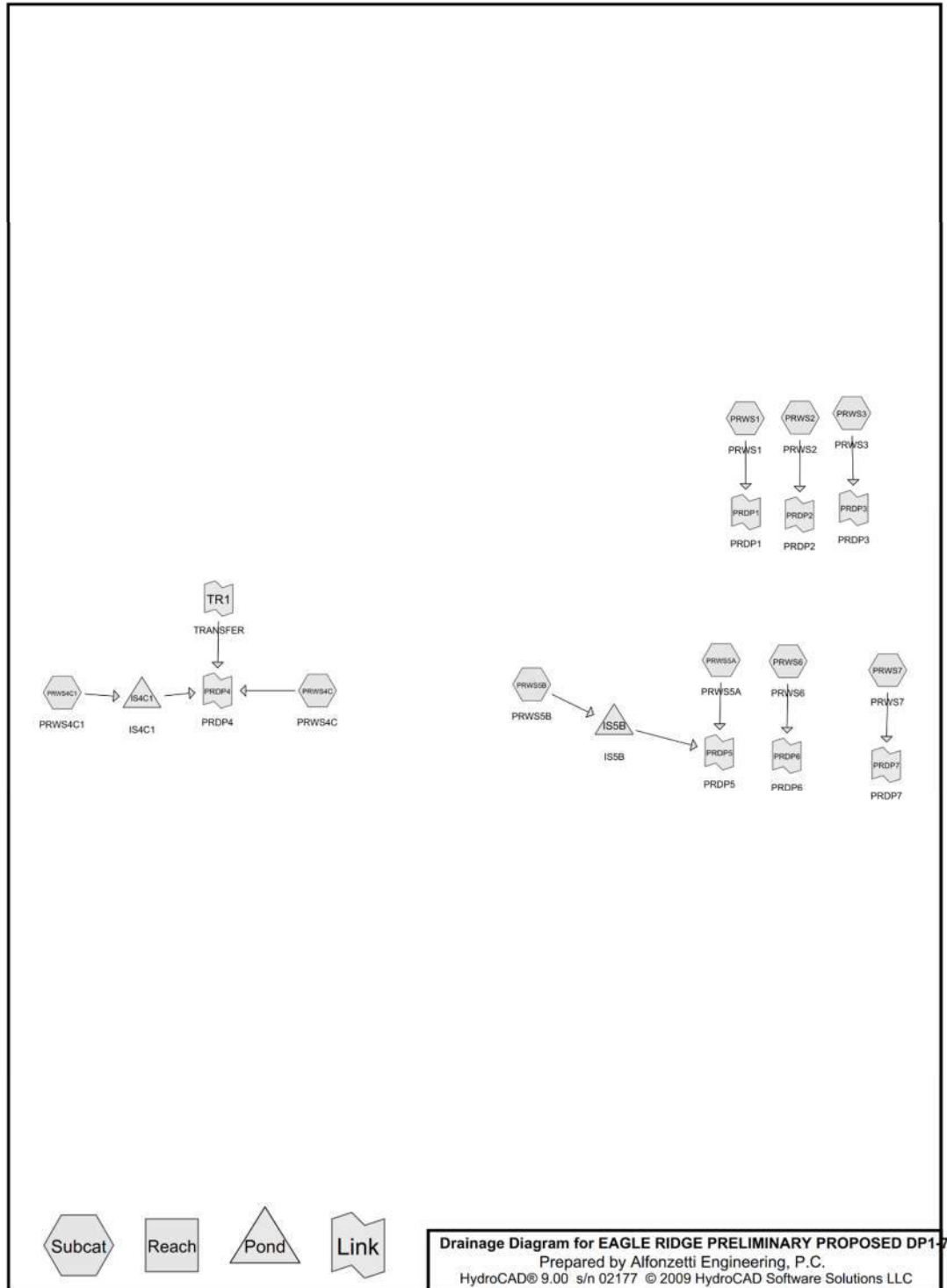
Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.010 hrs

Link TR1: TRANSFER

Hydrograph



Proposed HydroCad Report (DP1-DP7):



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

Prepared by Alfonzetti Engineering, P.C.

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Time span=0.00-84.00 hrs, dt=0.05 hrs, 1681 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|-------------------------------|--|
| Subcatchment PRWS1: PRWS1 | Runoff Area=52,675 sf 0.00% Impervious Runoff Depth=0.17" Flow Length=332' Tc=20.0 min CN=56 Runoff=0.1 cfs 0.017 af |
| Subcatchment PRWS2: PRWS2 | Runoff Area=8,936 sf 0.00% Impervious Runoff Depth=0.17" Flow Length=62' Slope=0.2420 '/ Tc=3.5 min CN=56 Runoff=0.0 cfs 0.003 af |
| Subcatchment PRWS3: PRWS3 | Runoff Area=11,249 sf 0.00% Impervious Runoff Depth=0.26" Flow Length=107' Tc=5.1 min CN=60 Runoff=0.0 cfs 0.006 af |
| Subcatchment PRWS4C: PRWS4C | Runoff Area=262,387 sf 0.00% Impervious Runoff Depth=0.19" Flow Length=354' Tc=14.0 min CN=57 Runoff=0.4 cfs 0.095 af |
| Subcatchment PRWS4C1: PRWS4C1 | Runoff Area=9,556 sf 100.00% Impervious Runoff Depth=2.57" Tc=5.0 min CN=98 Runoff=0.6 cfs 0.047 af |
| Subcatchment PRWS5A: PRWS5A | Runoff Area=430,018 sf 11.67% Impervious Runoff Depth=0.24" Flow Length=1,049' Tc=16.6 min CN=59 Runoff=0.9 cfs 0.196 af |
| Subcatchment PRWS5B: PRWS5B | Runoff Area=11,208 sf 100.00% Impervious Runoff Depth=2.57" Tc=5.0 min CN=98 Runoff=0.7 cfs 0.055 af |
| Subcatchment PRWS6: PRWS6 | Runoff Area=204,080 sf 22.25% Impervious Runoff Depth=0.57" Flow Length=1,681' Tc=8.8 min CN=69 Runoff=2.2 cfs 0.221 af |
| Subcatchment PRWS7: PRWS7 | Runoff Area=38,740 sf 0.00% Impervious Runoff Depth=0.21" Flow Length=315' Tc=10.9 min CN=58 Runoff=0.1 cfs 0.016 af |
| Pond IS4C1: IS4C1 | Peak Elev=479.37' Storage=724 cf Inflow=0.6 cfs 0.047 af Discarded=0.1 cfs 0.047 af Primary=0.0 cfs 0.000 af Outflow=0.1 cfs 0.047 af |
| Pond IS5B: IS5B | Peak Elev=2.66' Storage=1,171 cf Inflow=0.7 cfs 0.055 af Discarded=0.0 cfs 0.055 af Primary=0.0 cfs 0.000 af Outflow=0.0 cfs 0.055 af |
| Link PRDP1: PRDP1 | Inflow=0.1 cfs 0.017 af Primary=0.1 cfs 0.017 af |
| Link PRDP2: PRDP2 | Inflow=0.0 cfs 0.003 af Primary=0.0 cfs 0.003 af |
| Link PRDP3: PRDP3 | Inflow=0.0 cfs 0.006 af Primary=0.0 cfs 0.006 af |
| Link PRDP4: PRDP4 | Inflow=0.7 cfs 0.460 af Primary=0.7 cfs 0.460 af |
| Link PRDP5: PRDP5 | Inflow=0.9 cfs 0.196 af Primary=0.9 cfs 0.196 af |
| Link PRDP6: PRDP6 | Inflow=2.2 cfs 0.221 af Primary=2.2 cfs 0.221 af |
| Link PRDP7: PRDP7 | Inflow=0.1 cfs 0.016 af Primary=0.1 cfs 0.016 af |
| Link TR1: TRANSFER | 1 YR Primary Outflow Imported from EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER~Link TR1.hce Inflow=0.3 cfs 0.365 af Area= 18.709 ac 52.52% Imperv. Primary=0.3 cfs 0.365 af |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

Prepared by Alfonzetti Engineering, P.C.

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Total Runoff Area = 23.619 ac Runoff Volume = 0.654 af Average Runoff Depth = 0.33"
88.69% Pervious = 20.948 ac 11.31% Impervious = 2.671 ac

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Subcatchment PRWS1: PRWS1

Runoff = 0.1 cfs @ 12.60 hrs, Volume= 0.017 af, Depth= 0.17"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

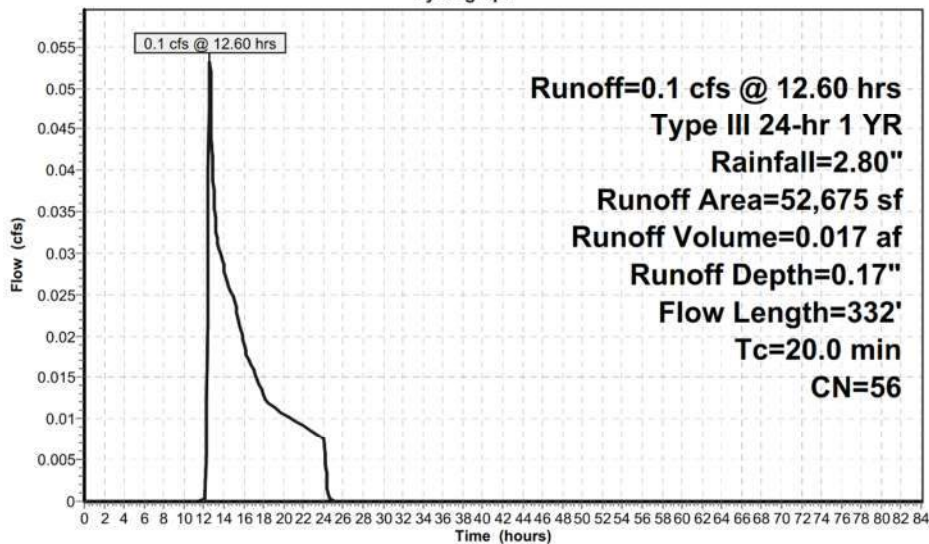
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 24,522 | 55 | Woods, Good, HSG B |
| 9,019 | 61 | >75% Grass cover, Good, HSG B |
| 17,151 | 55 | Woods, Good, HSG B |
| 1,983 | 61 | >75% Grass cover, Good, HSG B |
| 52,675 | 56 | Weighted Average |
| 52,675 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 18.1 | 100 | 0.0280 | 0.09 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.4 | 50 | 0.1650 | 2.03 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 58 | 0.1030 | 1.60 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.9 | 124 | 0.2230 | 2.36 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 20.0 | 332 | Total | | | |

Subcatchment PRWS1: PRWS1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Subcatchment PRWS2: PRWS2

Runoff = 0.0 cfs @ 12.35 hrs, Volume= 0.003 af, Depth= 0.17"

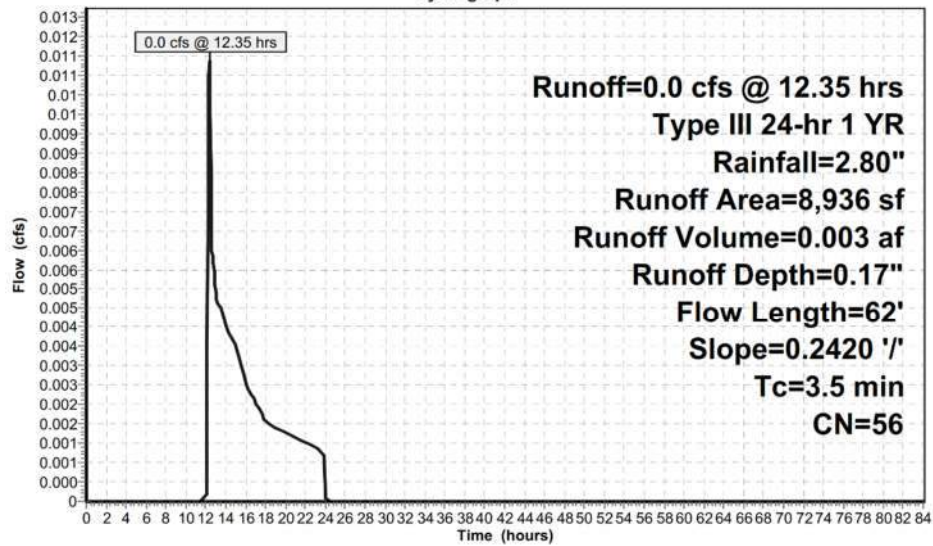
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 7,465 | 55 | Woods, Good, HSG B |
| 1,471 | 61 | >75% Grass cover, Good, HSG B |
| 8,936 | 56 | Weighted Average |
| 8,936 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.5 | 62 | 0.2420 | 0.30 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |

Subcatchment PRWS2: PRWS2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Subcatchment PRWS3: PRWS3

Runoff = 0.0 cfs @ 12.27 hrs, Volume= 0.006 af, Depth= 0.26"

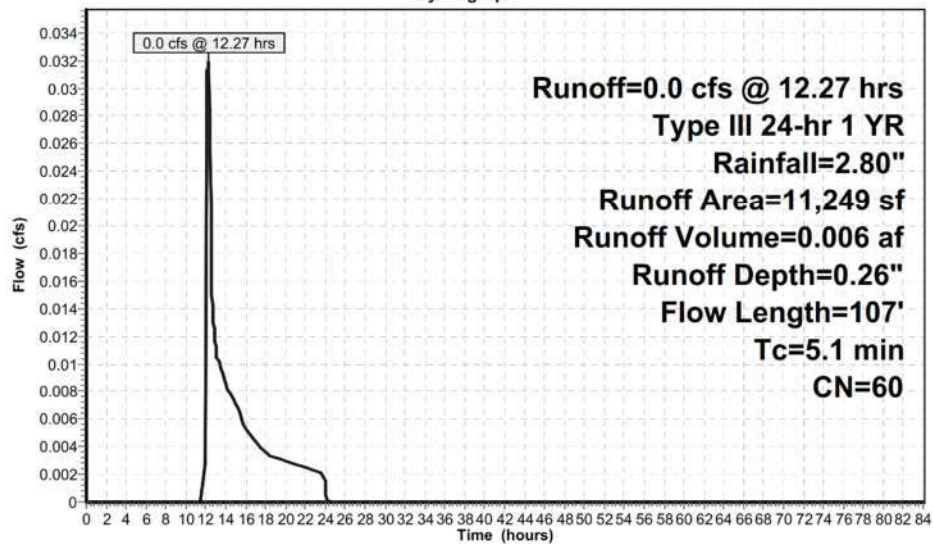
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 9,406 | 61 | >75% Grass cover, Good, HSG B |
| 1,843 | 55 | Woods, Good, HSG B |
| 11,249 | 60 | Weighted Average |
| 11,249 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 1.9 | 40 | 0.1700 | 0.35 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 3.2 | 60 | 0.2700 | 0.31 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.0 | 7 | 0.1400 | 2.62 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 5.1 | 107 | Total | | | |

Subcatchment PRWS3: PRWS3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Subcatchment PRWS4C: PRWS4C

Runoff = 0.4 cfs @ 12.49 hrs, Volume= 0.095 af, Depth= 0.19"

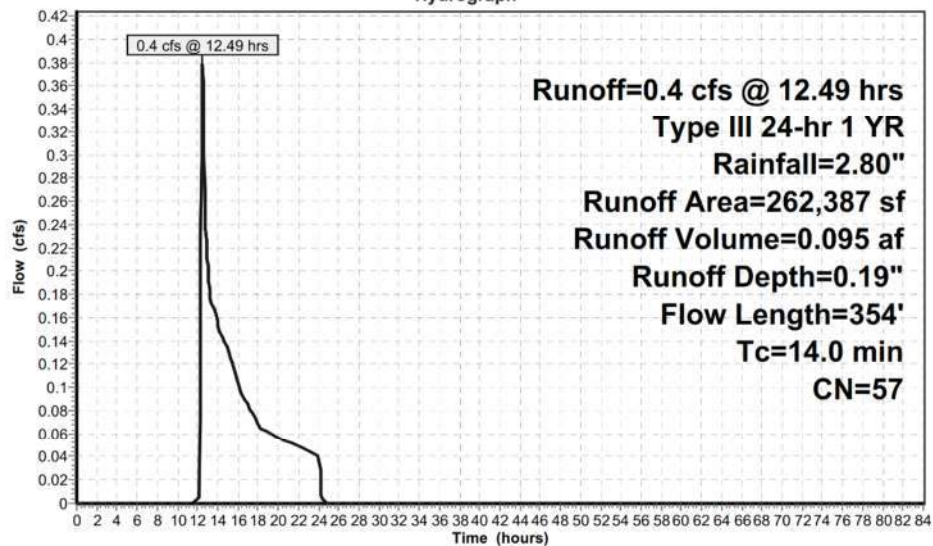
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 92,922 | 61 | >75% Grass cover, Good, HSG B |
| 169,465 | 55 | Woods, Good, HSG B |
| 262,387 | 57 | Weighted Average |
| 262,387 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 7.1 | 44 | 0.0200 | 0.10 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 2.4 | 29 | 0.1380 | 0.20 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 2.9 | 27 | 0.0740 | 0.16 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.4 | 46 | 0.0860 | 2.05 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 208 | 0.3317 | 2.88 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 14.0 | 354 | Total | | | |

Subcatchment PRWS4C: PRWS4C

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Subcatchment PRWS4C1: PRWS4C1

Runoff = 0.6 cfs @ 12.07 hrs, Volume= 0.047 af, Depth= 2.57"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

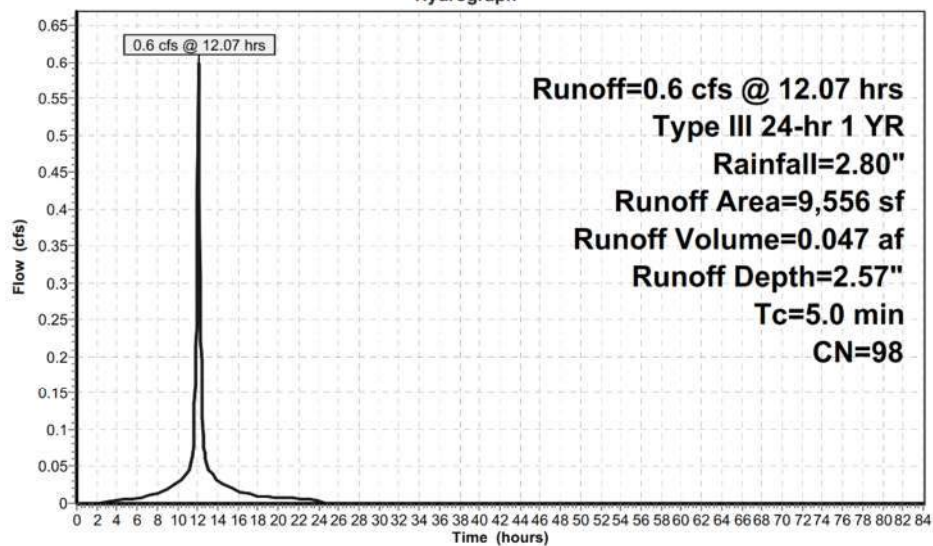
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 9,556 | 98 | Roofs, HSG B |
| 9,556 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4C1: PRWS4C1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Subcatchment PRW55A: PRW55A

Runoff = 0.9 cfs @ 12.48 hrs, Volume= 0.196 af, Depth= 0.24"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 72,273 | 55 | Woods, Good, HSG B |
| 42,776 | 48 | Brush, Good, HSG B |
| 10,560 | 61 | >75% Grass cover, Good, HSG B |
| 12,330 | 61 | >75% Grass cover, Good, HSG B |
| 22,043 | 48 | Brush, Good, HSG B |
| 87,991 | 55 | Woods, Good, HSG B |
| 50,189 | 98 | Paved parking, HSG B |
| 1,904 | 61 | >75% Grass cover, Good, HSG B |
| 7,163 | 61 | >75% Grass cover, Good, HSG B |
| 122,789 | 55 | Woods, Good, HSG B |
| 430,018 | 59 | Weighted Average |
| 379,829 | | 88.33% Pervious Area |
| 50,189 | | 11.67% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 12.1 | 100 | 0.0275 | 0.14 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.8 | 60 | 0.0330 | 1.27 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 31 | 0.2420 | 3.44 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 345 | 0.0520 | 4.63 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.1 | 105 | 0.1840 | 17.23 | 9.40 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 90 | 0.3100 | 8.35 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.1 | 100 | 0.1000 | 1.58 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 83 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 135 | 0.3000 | 8.22 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 16.6 | 1,049 | Total | | | |

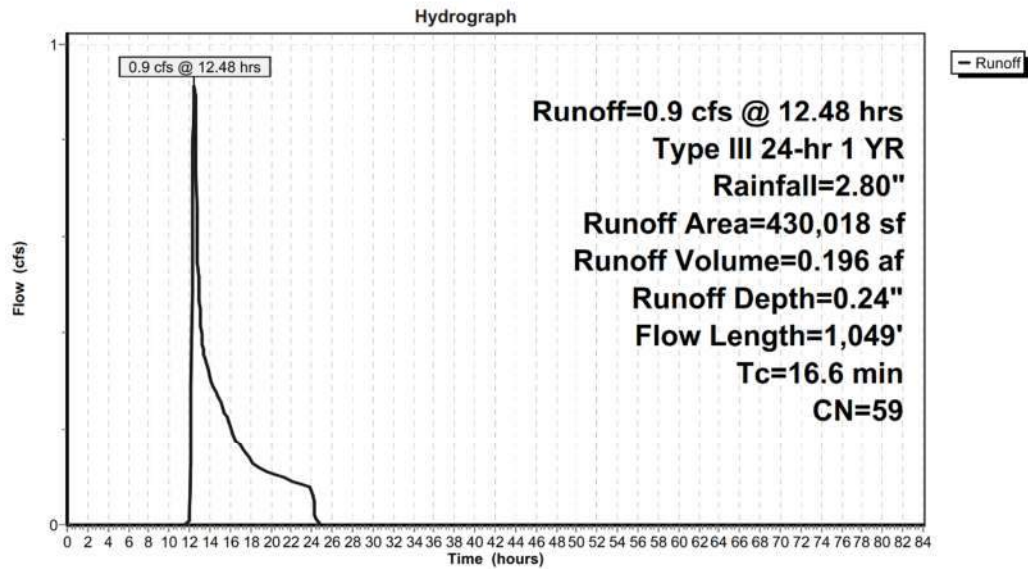
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Type III 24-hr 1 YR Rainfall=2.80"

Subcatchment PRW55A: PRW55A



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Subcatchment PRW55B: PRW55B

Runoff = 0.7 cfs @ 12.07 hrs, Volume= 0.055 af, Depth= 2.57"

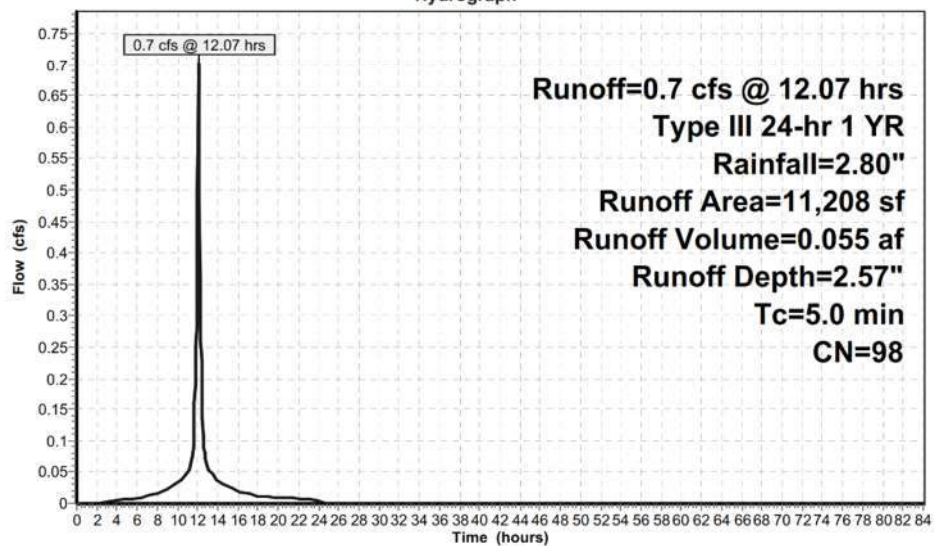
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 11,208 | 98 | Roofs, HSG B |
| 11,208 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRW55B: PRW55B

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Subcatchment PRWS6: PRWS6

Runoff = 2.2 cfs @ 12.15 hrs, Volume= 0.221 af, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,761 | 61 | >75% Grass cover, Good, HSG B |
| 31,024 | 61 | >75% Grass cover, Good, HSG B |
| 722 | 61 | >75% Grass cover, Good, HSG B |
| 295 | 55 | Woods, Good, HSG B |
| 41,486 | 98 | Paved parking, HSG B |
| 3,920 | 98 | Paved parking, HSG B |
| 4,431 | 61 | >75% Grass cover, Good, HSG B |
| 9,594 | 61 | >75% Grass cover, Good, HSG B |
| 42,897 | 61 | >75% Grass cover, Good, HSG B |
| 1,912 | 61 | >75% Grass cover, Good, HSG B |
| 16,205 | 61 | >75% Grass cover, Good, HSG B |
| 39,833 | 61 | >75% Grass cover, Good, HSG B |
| 204,080 | 69 | Weighted Average |
| 158,674 | | 77.75% Pervious Area |
| 45,406 | | 22.25% Impervious Area |

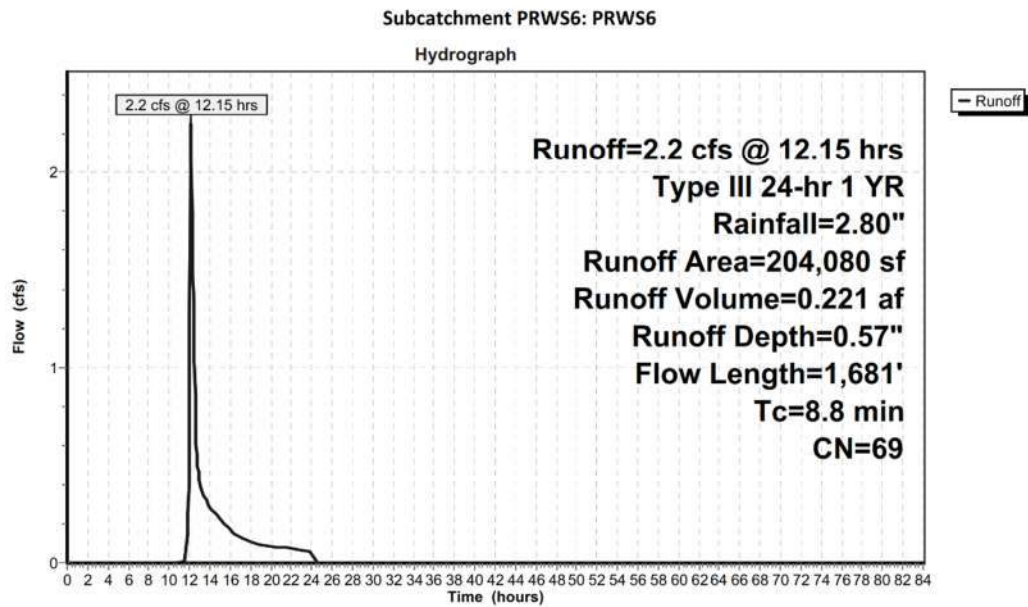
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 6.1 | 100 | 0.0600 | 0.27 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 1.3 | 360 | 0.0930 | 4.57 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 0.4 | 474 | 0.0790 | 20.24 | 63.58 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 200 | 0.0600 | 17.64 | 55.41 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 189 | 0.0700 | 19.05 | 59.85 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.6 | 358 | 0.0170 | 9.39 | 29.50 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 8.8 | 1,681 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

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Type III 24-hr 1 YR Rainfall=2.80"



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Subcatchment PRWS7: PRWS7

Runoff = 0.1 cfs @ 12.42 hrs, Volume= 0.016 af, Depth= 0.21"

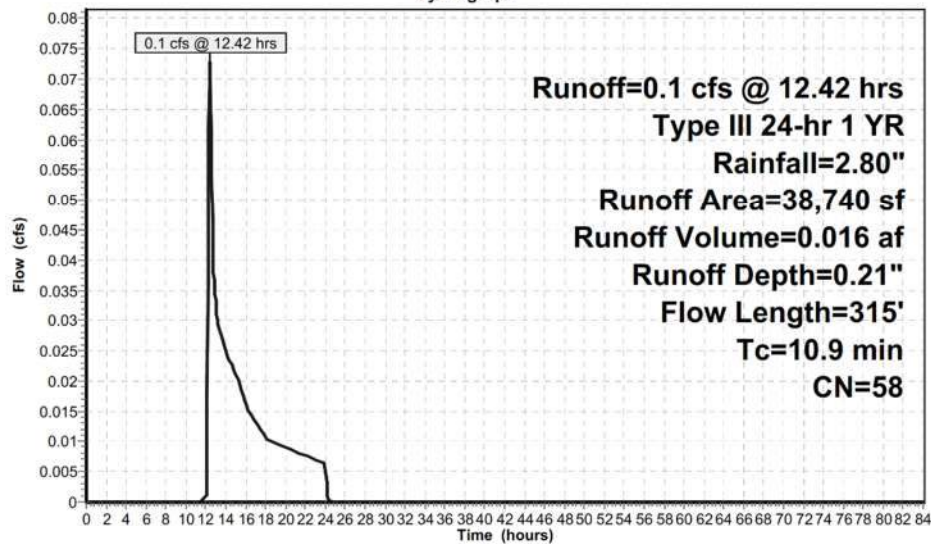
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YR Rainfall=2.80"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,456 | 61 | >75% Grass cover, Good, HSG B |
| 13,598 | 55 | Woods, Good, HSG B |
| 5,422 | 61 | >75% Grass cover, Good, HSG B |
| 8,264 | 55 | Woods, Good, HSG B |
| 38,740 | 58 | Weighted Average |
| 38,740 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.0 | 100 | 0.0620 | 0.28 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 4.9 | 215 | 0.0110 | 0.73 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 10.9 | 315 | Total | | | |

Subcatchment PRWS7: PRWS7

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Pond IS4C1: IS4C1

Inflow Area = 0.219 ac, 100.00% Impervious, Inflow Depth = 2.57" for 1 YR event
Inflow = 0.6 cfs @ 12.07 hrs, Volume= 0.047 af
Outflow = 0.1 cfs @ 11.35 hrs, Volume= 0.047 af, Atten= 91%, Lag= 0.0 min
Discarded = 0.1 cfs @ 11.35 hrs, Volume= 0.047 af
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 479.37' @ 12.94 hrs Surf.Area= 570 sf Storage= 724 cf

Plug-Flow detention time= 96.9 min calculated for 0.047 af (100% of inflow)

Center-of-Mass det. time= 97.1 min (855.4 - 758.4)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 477.50' | 515 cf | 11.17'W x 51.00'L x 3.54'H Field A 2,017 cf Overall - 730 cf Embedded = 1,287 cf x 40.0% Voids |
| #2A | 478.00' | 730 cf | Cultec R-330XL x 14 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,245 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 479.50' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 479.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 480.50' | 5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 477.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 11.35 hrs HW=477.54' (Free Discharge)

↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=477.50' (Free Discharge)

↑**1=Culvert** (Controls 0.0 cfs)

↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

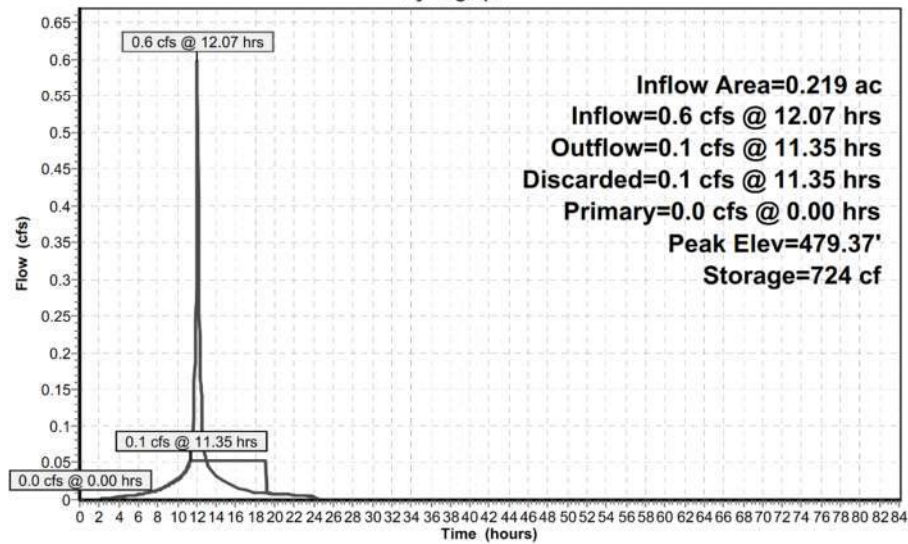
Type III 24-hr 1 YR Rainfall=2.80"

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Pond IS4C1: IS4C1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Pond ISSB: ISSB

Inflow Area = 0.257 ac, 100.00% Impervious, Inflow Depth = 2.57" for 1 YR event
Inflow = 0.7 cfs @ 12.07 hrs, Volume= 0.055 af
Outflow = 0.0 cfs @ 9.90 hrs, Volume= 0.055 af, Atten= 96%, Lag= 0.0 min
Discarded = 0.0 cfs @ 9.90 hrs, Volume= 0.055 af
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Peak Elev= 2.66' @ 14.73 hrs Surf.Area= 648 sf Storage= 1,171 cf

Plug-Flow detention time= 333.0 min calculated for 0.055 af (100% of inflow)

Center-of-Mass det. time= 333.0 min (1,091.4 - 758.4)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|--------|---------------|--|
| #1A | 0.00' | 584 cf | 11.17'W x 58.00'L x 3.54'H Field A 2,294 cf Overall - 835 cf Embedded = 1,459 cf x 40.0% Voids |
| #2A | 0.50' | 835 cf | Cultec R-330XL x 16 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,418 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|--------|---|
| #1 | Discarded | 0.00' | 2.000 in/hr Exfiltration over Surface area |
| #2 | Primary | 2.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 2.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #3 | Device 2 | 3.20' | 4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Discarded OutFlow Max=0.0 cfs @ 9.90 hrs HW=0.04' (Free Discharge)

1=Exfiltration (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=0.00' (Free Discharge)

2=Culvert (Controls 0.0 cfs)

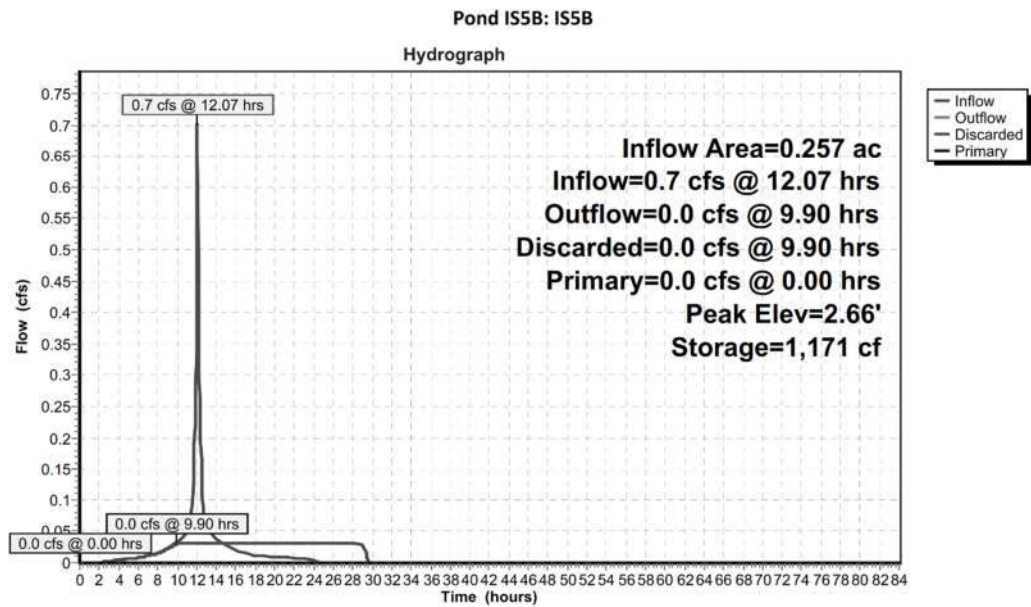
3=Broad-Crested Rectangular Weir (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

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Type III 24-hr 1 YR Rainfall=2.80"



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Link PRDP1: PRDP1

Inflow Area = 1.209 ac, 0.00% Impervious, Inflow Depth = 0.17" for 1 YR event

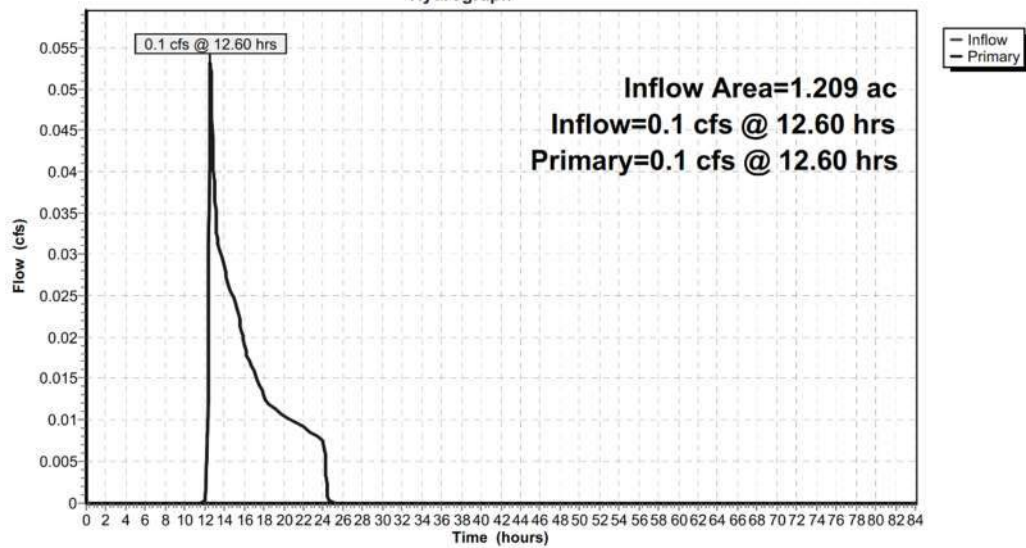
Inflow = 0.1 cfs @ 12.60 hrs, Volume= 0.017 af

Primary = 0.1 cfs @ 12.60 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP1: PRDP1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Link PRDP2: PRDP2

Inflow Area = 0.205 ac, 0.00% Impervious, Inflow Depth = 0.17" for 1 YR event

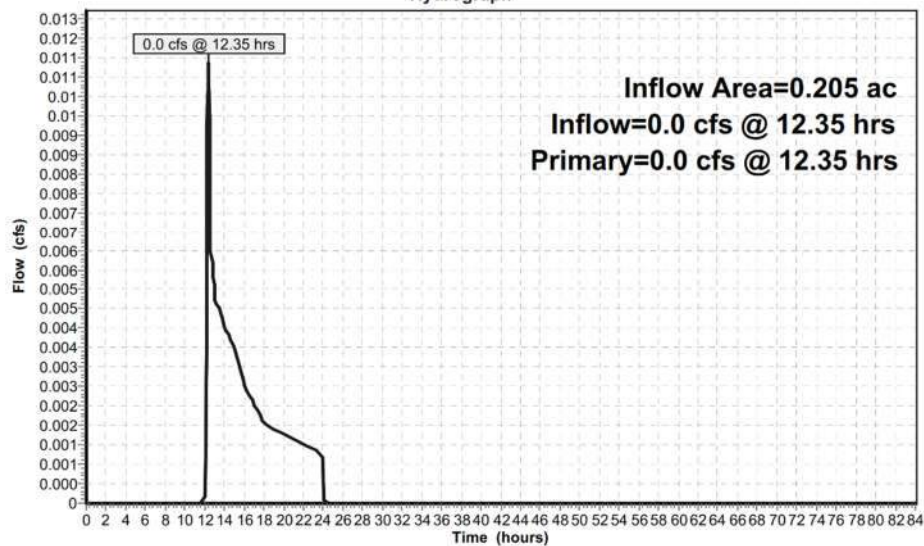
Inflow = 0.0 cfs @ 12.35 hrs, Volume= 0.003 af

Primary = 0.0 cfs @ 12.35 hrs, Volume= 0.003 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP2: PRDP2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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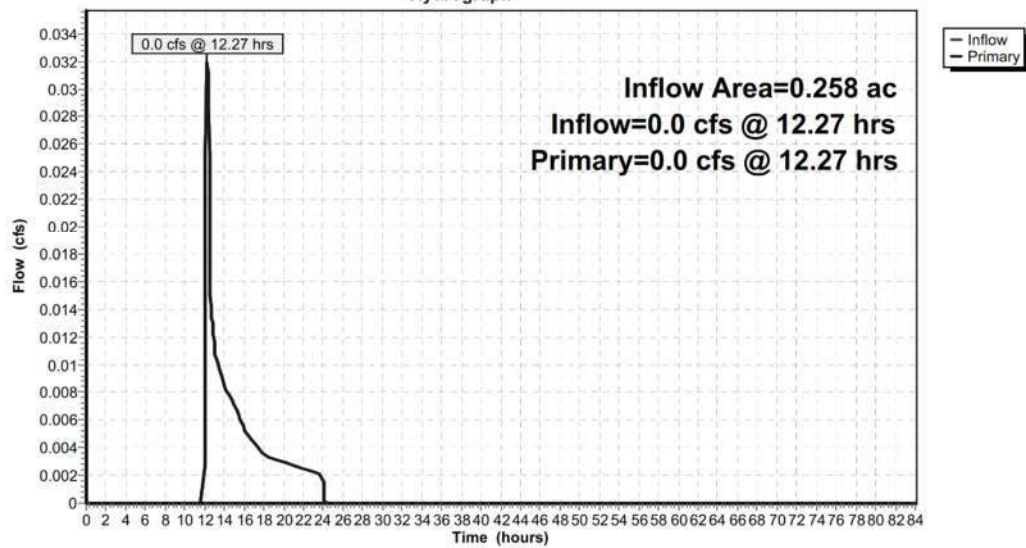
Summary for Link PRDP3: PRDP3

Inflow Area = 0.258 ac, 0.00% Impervious, Inflow Depth = 0.26" for 1 YR event
Inflow = 0.0 cfs @ 12.27 hrs, Volume= 0.006 af
Primary = 0.0 cfs @ 12.27 hrs, Volume= 0.006 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP3: PRDP3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Link PRDP4: PRDP4

Inflow Area = 24.951 ac, 40.26% Impervious, Inflow Depth = 0.22" for 1 YR event

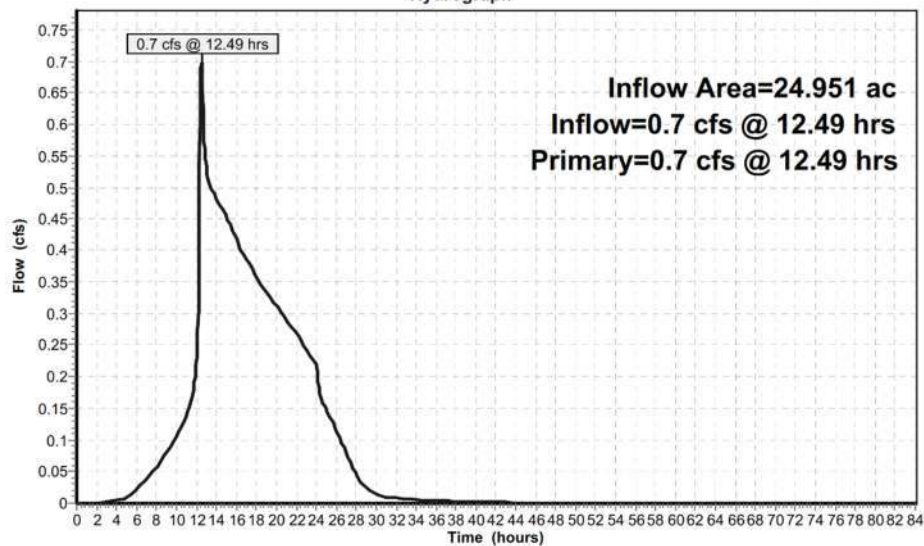
Inflow = 0.7 cfs @ 12.49 hrs, Volume= 0.460 af

Primary = 0.7 cfs @ 12.49 hrs, Volume= 0.460 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP4: PRDP4

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Link PRDP5: PRDP5

Inflow Area = 10.129 ac, 13.92% Impervious, Inflow Depth = 0.23" for 1 YR event

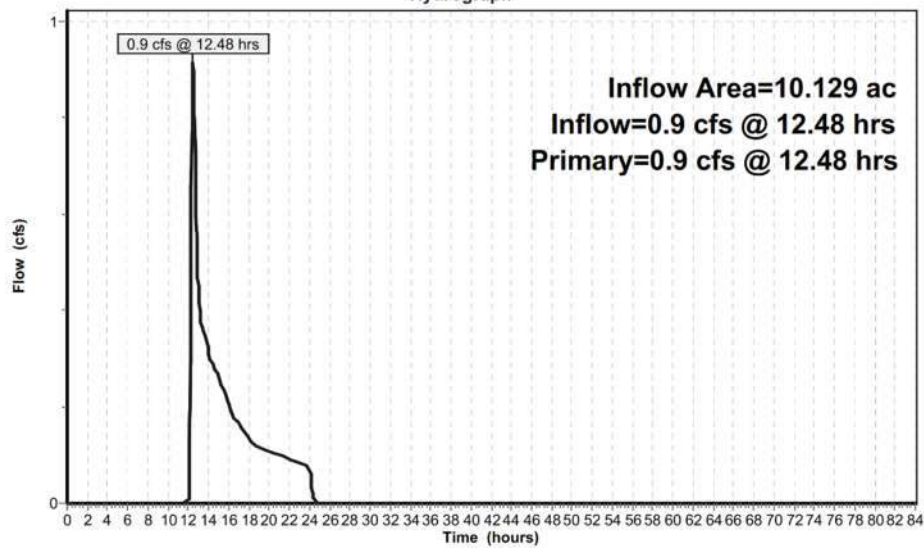
Inflow = 0.9 cfs @ 12.48 hrs, Volume= 0.196 af

Primary = 0.9 cfs @ 12.48 hrs, Volume= 0.196 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP5: PRDP5

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Link PRDP6: PRDP6

Inflow Area = 4.685 ac, 22.25% Impervious, Inflow Depth = 0.57" for 1 YR event

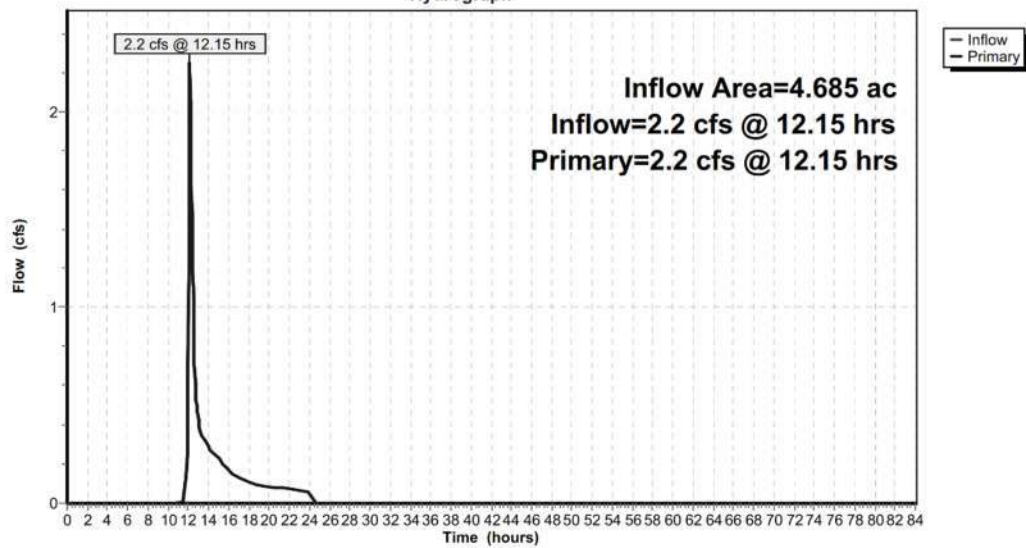
Inflow = 2.2 cfs @ 12.15 hrs, Volume= 0.221 af

Primary = 2.2 cfs @ 12.15 hrs, Volume= 0.221 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP6: PRDP6

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Link PRDP7: PRDP7

Inflow Area = 0.889 ac, 0.00% Impervious, Inflow Depth = 0.21" for 1 YR event

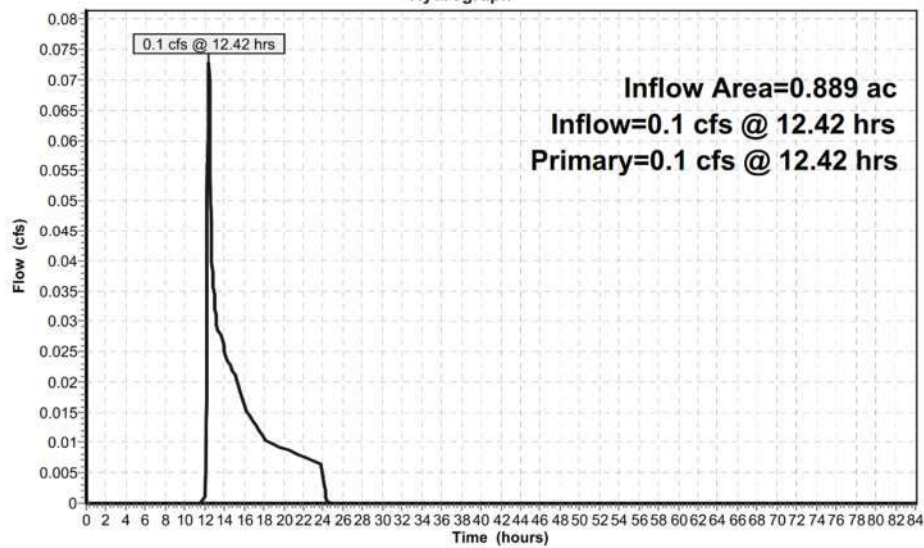
Inflow = 0.1 cfs @ 12.42 hrs, Volume= 0.016 af

Primary = 0.1 cfs @ 12.42 hrs, Volume= 0.016 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP7: PRDP7

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 1 YR Rainfall=2.80"

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Summary for Link TR1: TRANSFER

Inflow Area = 18.709 ac, 52.52% Impervious, Inflow Depth = 0.23" for 1 YR event

Inflow = 0.3 cfs @ 13.55 hrs, Volume= 0.365 af

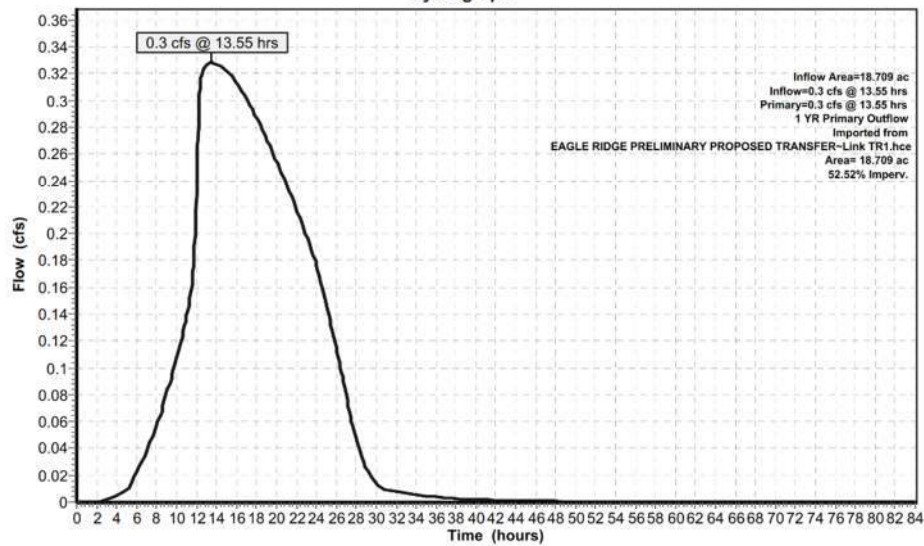
Primary = 0.3 cfs @ 13.55 hrs, Volume= 0.365 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

1 YR Primary Outflow Imported from EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER~Link TR1.hce

Link TR1: TRANSFER

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Time span=0.00-84.00 hrs, dt=0.05 hrs, 1681 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|-------------------------------|--|
| Subcatchment PRWS1: PRWS1 | Runoff Area=52,675 sf 0.00% Impervious Runoff Depth=0.36" Flow Length=332' Tc=20.0 min CN=56 Runoff=0.2 cfs 0.036 af |
| Subcatchment PRWS2: PRWS2 | Runoff Area=8,936 sf 0.00% Impervious Runoff Depth=0.36" Flow Length=62' Slope=0.2420 '/ Tc=3.5 min CN=56 Runoff=0.0 cfs 0.006 af |
| Subcatchment PRWS3: PRWS3 | Runoff Area=11,249 sf 0.00% Impervious Runoff Depth=0.50" Flow Length=107' Tc=5.1 min CN=60 Runoff=0.1 cfs 0.011 af |
| Subcatchment PRWS4C: PRWS4C | Runoff Area=262,387 sf 0.00% Impervious Runoff Depth=0.39" Flow Length=354' Tc=14.0 min CN=57 Runoff=1.2 cfs 0.196 af |
| Subcatchment PRWS4C1: PRWS4C1 | Runoff Area=9,556 sf 100.00% Impervious Runoff Depth=3.20" Tc=5.0 min CN=98 Runoff=0.7 cfs 0.058 af |
| Subcatchment PRWS5A: PRWS5A | Runoff Area=430,018 sf 11.67% Impervious Runoff Depth=0.46" Flow Length=1,049' Tc=16.6 min CN=59 Runoff=2.4 cfs 0.381 af |
| Subcatchment PRWS5B: PRWS5B | Runoff Area=11,208 sf 100.00% Impervious Runoff Depth=3.20" Tc=5.0 min CN=98 Runoff=0.9 cfs 0.069 af |
| Subcatchment PRWS6: PRWS6 | Runoff Area=204,080 sf 22.25% Impervious Runoff Depth=0.91" Flow Length=1,681' Tc=8.8 min CN=69 Runoff=4.0 cfs 0.356 af |
| Subcatchment PRWS7: PRWS7 | Runoff Area=38,740 sf 0.00% Impervious Runoff Depth=0.43" Flow Length=315' Tc=10.9 min CN=58 Runoff=0.2 cfs 0.032 af |
| Pond IS4C1: IS4C1 | Peak Elev=480.00' Storage=974 cf Inflow=0.7 cfs 0.058 af Discarded=0.1 cfs 0.058 af Primary=0.0 cfs 0.000 af Outflow=0.1 cfs 0.058 af |
| Pond IS5B: IS5B | Peak Elev=3.25' Storage=1,342 cf Inflow=0.9 cfs 0.069 af Discarded=0.0 cfs 0.063 af Primary=0.1 cfs 0.006 af Outflow=0.2 cfs 0.069 af |
| Link PRDP1: PRDP1 | Inflow=0.2 cfs 0.036 af Primary=0.2 cfs 0.036 af |
| Link PRDP2: PRDP2 | Inflow=0.0 cfs 0.006 af Primary=0.0 cfs 0.006 af |
| Link PRDP3: PRDP3 | Inflow=0.1 cfs 0.011 af Primary=0.1 cfs 0.011 af |
| Link PRDP4: PRDP4 | Inflow=1.8 cfs 0.716 af Primary=1.8 cfs 0.716 af |
| Link PRDP5: PRDP5 | Inflow=2.4 cfs 0.387 af Primary=2.4 cfs 0.387 af |
| Link PRDP6: PRDP6 | Inflow=4.0 cfs 0.356 af Primary=4.0 cfs 0.356 af |
| Link PRDP7: PRDP7 | Inflow=0.2 cfs 0.032 af Primary=0.2 cfs 0.032 af |
| Link TR1: TRANSFER | 2 YR Primary Outflow Imported from EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER~Link TR1.hce Inflow=0.8 cfs 0.520 af Area= 18.709 ac 52.52% Imperv. Primary=0.8 cfs 0.520 af |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Total Runoff Area = 23.619 ac Runoff Volume = 1.144 af Average Runoff Depth = 0.58"
88.69% Pervious = 20.948 ac 11.31% Impervious = 2.671 ac

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRWS1: PRWS1

Runoff = 0.2 cfs @ 12.48 hrs, Volume= 0.036 af, Depth= 0.36"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

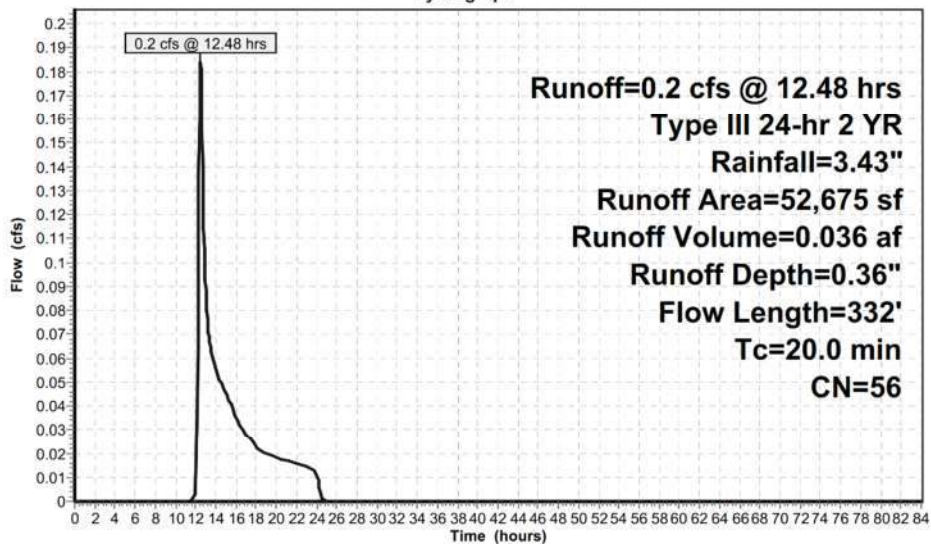
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 24,522 | 55 | Woods, Good, HSG B |
| 9,019 | 61 | >75% Grass cover, Good, HSG B |
| 17,151 | 55 | Woods, Good, HSG B |
| 1,983 | 61 | >75% Grass cover, Good, HSG B |
| 52,675 | 56 | Weighted Average |
| 52,675 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 18.1 | 100 | 0.0280 | 0.09 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.4 | 50 | 0.1650 | 2.03 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 58 | 0.1030 | 1.60 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.9 | 124 | 0.2230 | 2.36 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 20.0 | 332 | Total | | | |

Subcatchment PRWS1: PRWS1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRWS2: PRWS2

Runoff = 0.0 cfs @ 12.12 hrs, Volume= 0.006 af, Depth= 0.36"

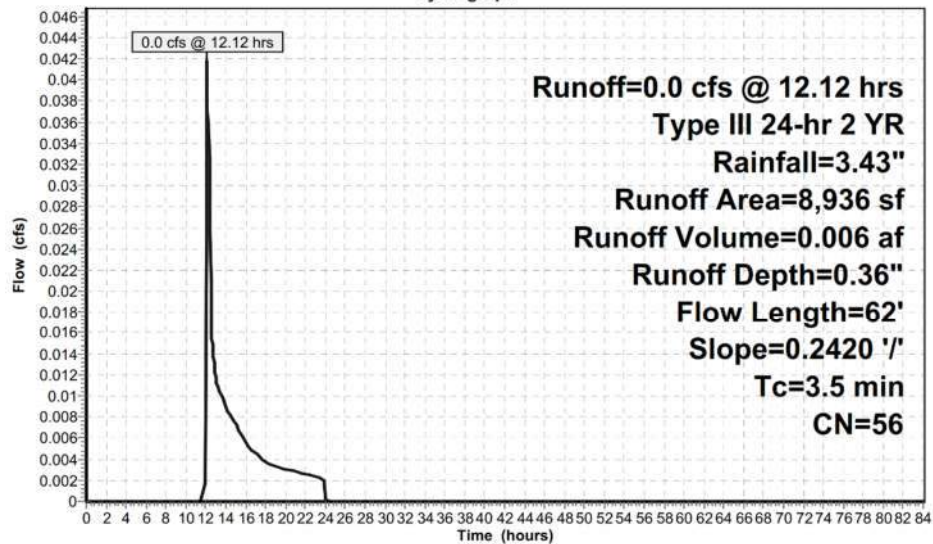
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 7,465 | 55 | Woods, Good, HSG B |
| 1,471 | 61 | >75% Grass cover, Good, HSG B |
| 8,936 | 56 | Weighted Average |
| 8,936 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.5 | 62 | 0.2420 | 0.30 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |

Subcatchment PRWS2: PRWS2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRWS3: PRWS3

Runoff = 0.1 cfs @ 12.11 hrs, Volume= 0.011 af, Depth= 0.50"

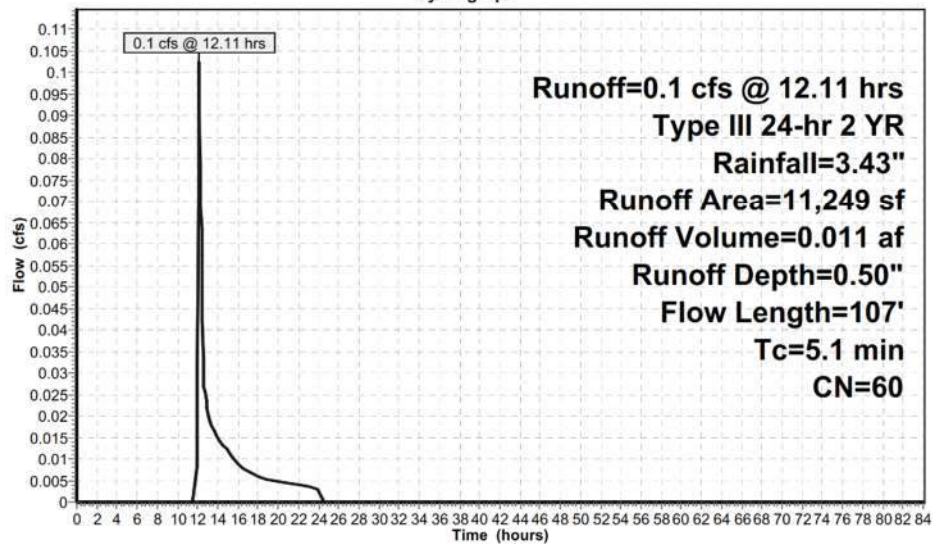
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 9,406 | 61 | >75% Grass cover, Good, HSG B |
| 1,843 | 55 | Woods, Good, HSG B |
| 11,249 | 60 | Weighted Average |
| 11,249 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 1.9 | 40 | 0.1700 | 0.35 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 3.2 | 60 | 0.2700 | 0.31 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.0 | 7 | 0.1400 | 2.62 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 5.1 | 107 | Total | | | |

Subcatchment PRWS3: PRWS3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRWS4C: PRWS4C

Runoff = 1.2 cfs @ 12.36 hrs, Volume= 0.196 af, Depth= 0.39"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

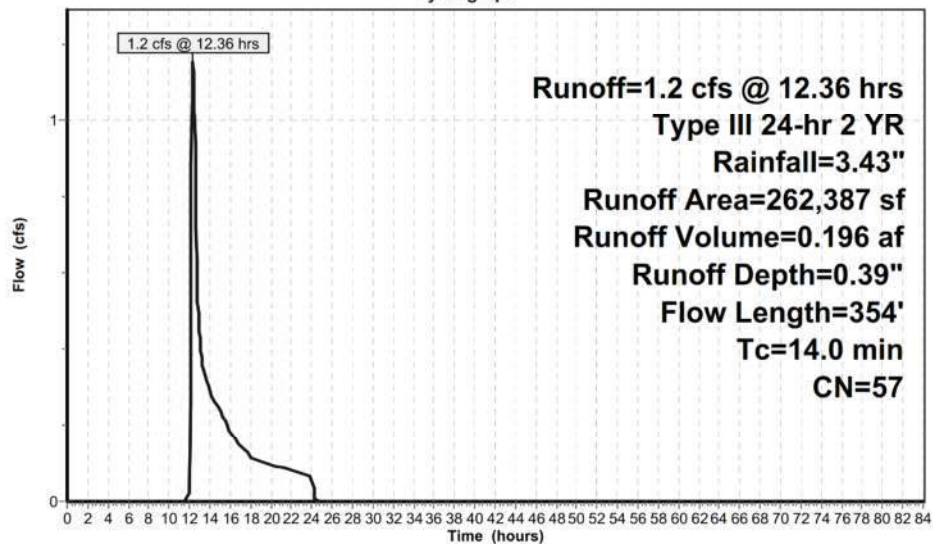
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 92,922 | 61 | >75% Grass cover, Good, HSG B |
| 169,465 | 55 | Woods, Good, HSG B |
| 262,387 | 57 | Weighted Average |
| 262,387 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 7.1 | 44 | 0.0200 | 0.10 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 2.4 | 29 | 0.1380 | 0.20 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 2.9 | 27 | 0.0740 | 0.16 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.4 | 46 | 0.0860 | 2.05 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 208 | 0.3317 | 2.88 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 14.0 | 354 | Total | | | |

Subcatchment PRWS4C: PRWS4C

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRWS4C1: PRWS4C1

Runoff = 0.7 cfs @ 12.07 hrs, Volume= 0.058 af, Depth= 3.20"

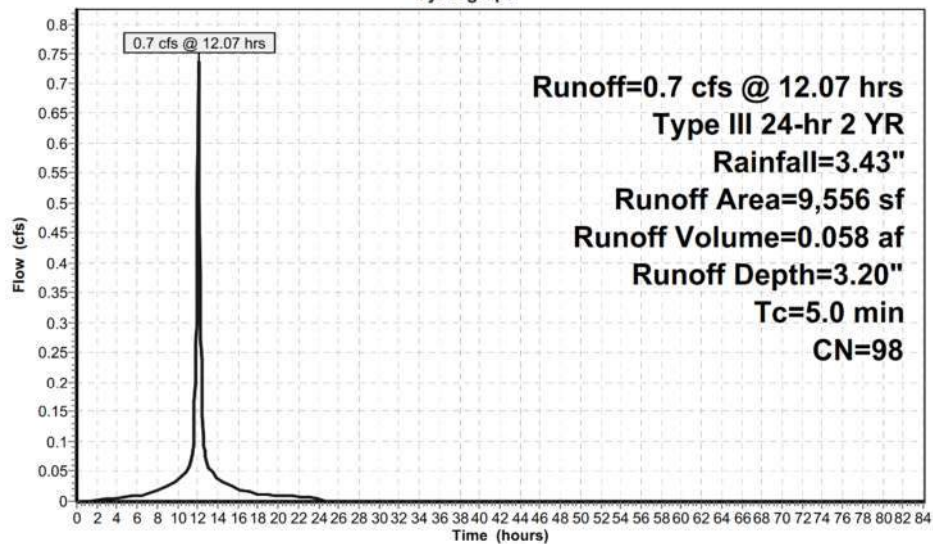
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 9,556 | 98 | Roofs, HSG B |
| 9,556 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4C1: PRWS4C1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRW55A: PRW55A

Runoff = 2.4 cfs @ 12.35 hrs, Volume= 0.381 af, Depth= 0.46"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 72,273 | 55 | Woods, Good, HSG B |
| 42,776 | 48 | Brush, Good, HSG B |
| 10,560 | 61 | >75% Grass cover, Good, HSG B |
| 12,330 | 61 | >75% Grass cover, Good, HSG B |
| 22,043 | 48 | Brush, Good, HSG B |
| 87,991 | 55 | Woods, Good, HSG B |
| 50,189 | 98 | Paved parking, HSG B |
| 1,904 | 61 | >75% Grass cover, Good, HSG B |
| 7,163 | 61 | >75% Grass cover, Good, HSG B |
| 122,789 | 55 | Woods, Good, HSG B |
| 430,018 | 59 | Weighted Average |
| 379,829 | | 88.33% Pervious Area |
| 50,189 | | 11.67% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 12.1 | 100 | 0.0275 | 0.14 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.8 | 60 | 0.0330 | 1.27 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 31 | 0.2420 | 3.44 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 345 | 0.0520 | 4.63 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.1 | 105 | 0.1840 | 17.23 | 9.40 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 90 | 0.3100 | 8.35 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.1 | 100 | 0.1000 | 1.58 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 83 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 135 | 0.3000 | 8.22 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 16.6 | 1,049 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

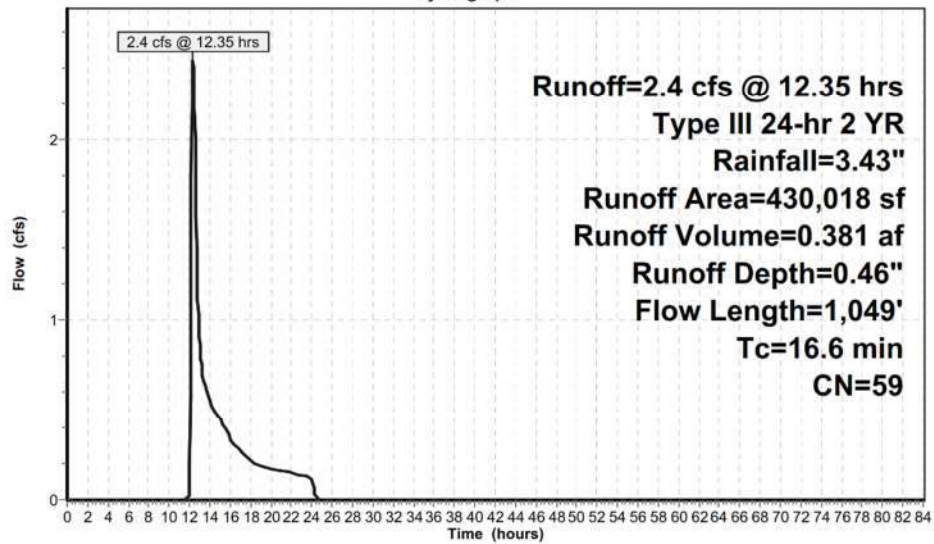
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Type III 24-hr 2 YR Rainfall=3.43"

Subcatchment PRWS5A: PRWS5A

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRW55B: PRW55B

Runoff = 0.9 cfs @ 12.07 hrs, Volume= 0.069 af, Depth= 3.20"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

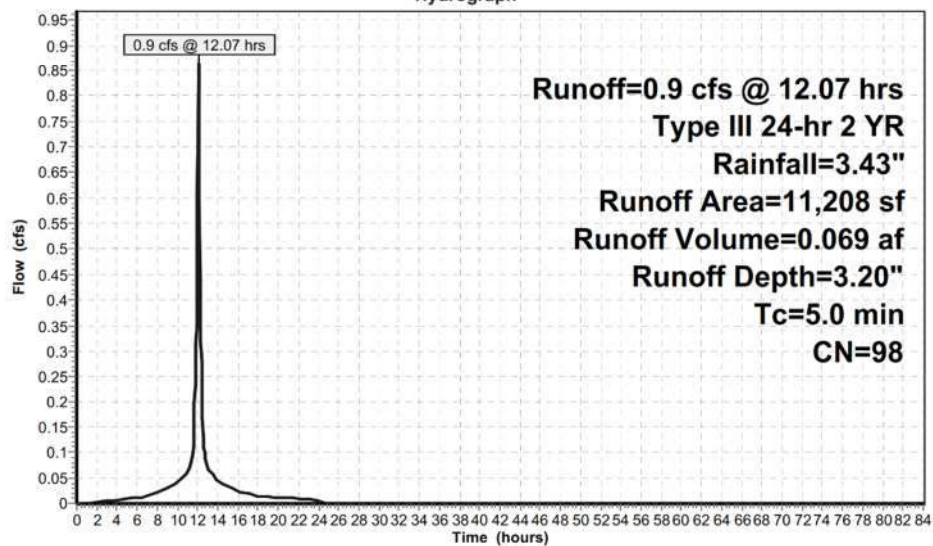
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 11,208 | 98 | Roofs, HSG B |
| 11,208 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRW55B: PRW55B

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRWS6: PRWS6

Runoff = 4.0 cfs @ 12.14 hrs, Volume= 0.356 af, Depth= 0.91"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,761 | 61 | >75% Grass cover, Good, HSG B |
| 31,024 | 61 | >75% Grass cover, Good, HSG B |
| 722 | 61 | >75% Grass cover, Good, HSG B |
| 295 | 55 | Woods, Good, HSG B |
| 41,486 | 98 | Paved parking, HSG B |
| 3,920 | 98 | Paved parking, HSG B |
| 4,431 | 61 | >75% Grass cover, Good, HSG B |
| 9,594 | 61 | >75% Grass cover, Good, HSG B |
| 42,897 | 61 | >75% Grass cover, Good, HSG B |
| 1,912 | 61 | >75% Grass cover, Good, HSG B |
| 16,205 | 61 | >75% Grass cover, Good, HSG B |
| 39,833 | 61 | >75% Grass cover, Good, HSG B |
| 204,080 | 69 | Weighted Average |
| 158,674 | | 77.75% Pervious Area |
| 45,406 | | 22.25% Impervious Area |

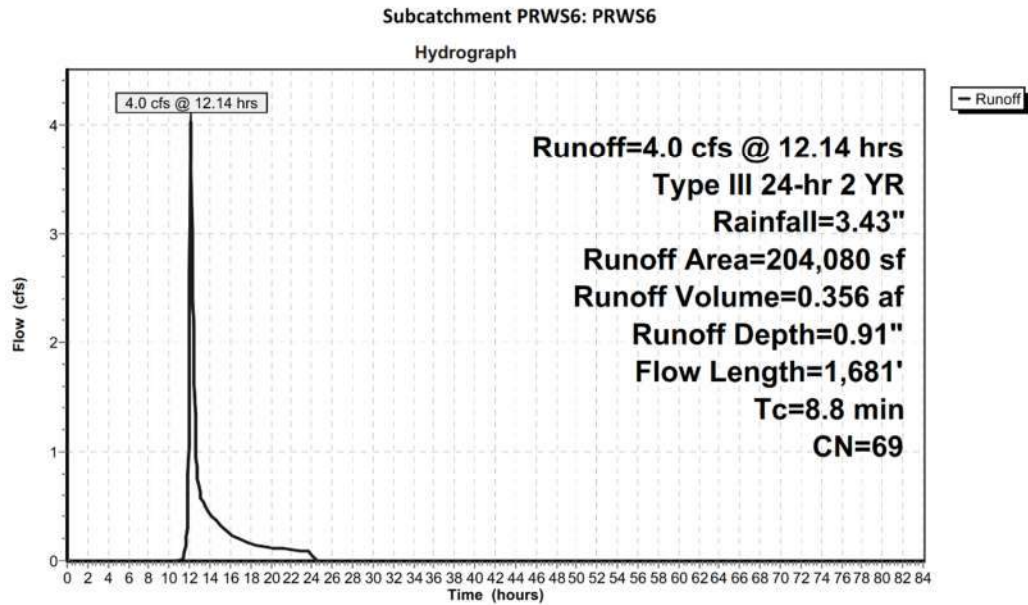
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 6.1 | 100 | 0.0600 | 0.27 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 1.3 | 360 | 0.0930 | 4.57 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 0.4 | 474 | 0.0790 | 20.24 | 63.58 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 200 | 0.0600 | 17.64 | 55.41 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 189 | 0.0700 | 19.05 | 59.85 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.6 | 358 | 0.0170 | 9.39 | 29.50 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 8.8 | 1,681 | Total | | | |

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Type III 24-hr 2 YR Rainfall=3.43"



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Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Subcatchment PRWS7: PRWS7

Runoff = 0.2 cfs @ 12.25 hrs, Volume= 0.032 af, Depth= 0.43"

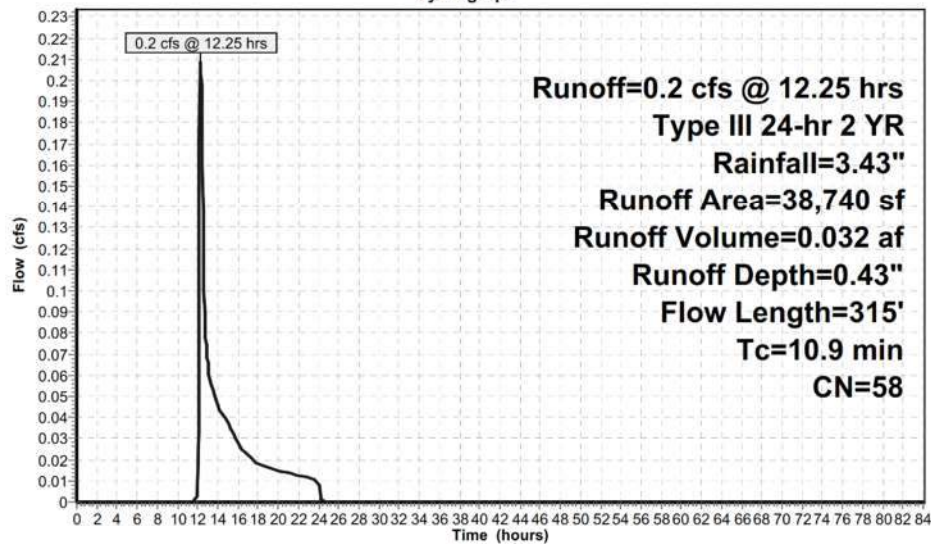
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YR Rainfall=3.43"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,456 | 61 | >75% Grass cover, Good, HSG B |
| 13,598 | 55 | Woods, Good, HSG B |
| 5,422 | 61 | >75% Grass cover, Good, HSG B |
| 8,264 | 55 | Woods, Good, HSG B |
| 38,740 | 58 | Weighted Average |
| 38,740 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.0 | 100 | 0.0620 | 0.28 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 4.9 | 215 | 0.0110 | 0.73 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 10.9 | 315 | | | | Total |

Subcatchment PRWS7: PRWS7

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Pond IS4C1: IS4C1

Inflow Area = 0.219 ac, 100.00% Impervious, Inflow Depth = 3.20" for 2 YR event
Inflow = 0.7 cfs @ 12.07 hrs, Volume= 0.058 af
Outflow = 0.1 cfs @ 11.10 hrs, Volume= 0.058 af, Atten= 93%, Lag= 0.0 min
Discarded = 0.1 cfs @ 11.10 hrs, Volume= 0.058 af
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 480.00' @ 13.21 hrs Surf.Area= 570 sf Storage= 974 cf

Plug-Flow detention time= 138.2 min calculated for 0.058 af (100% of inflow)

Center-of-Mass det. time= 138.2 min (892.3 - 754.0)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 477.50' | 515 cf | 11.17'W x 51.00'L x 3.54'H Field A 2,017 cf Overall - 730 cf Embedded = 1,287 cf x 40.0% Voids |
| #2A | 478.00' | 730 cf | Cultec R-330XL x 14 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,245 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 479.50' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 479.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 480.50' | 5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 477.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 11.10 hrs HW=477.54' (Free Discharge)

↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=477.50' (Free Discharge)

↑**1=Culvert** (Controls 0.0 cfs)

↑**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

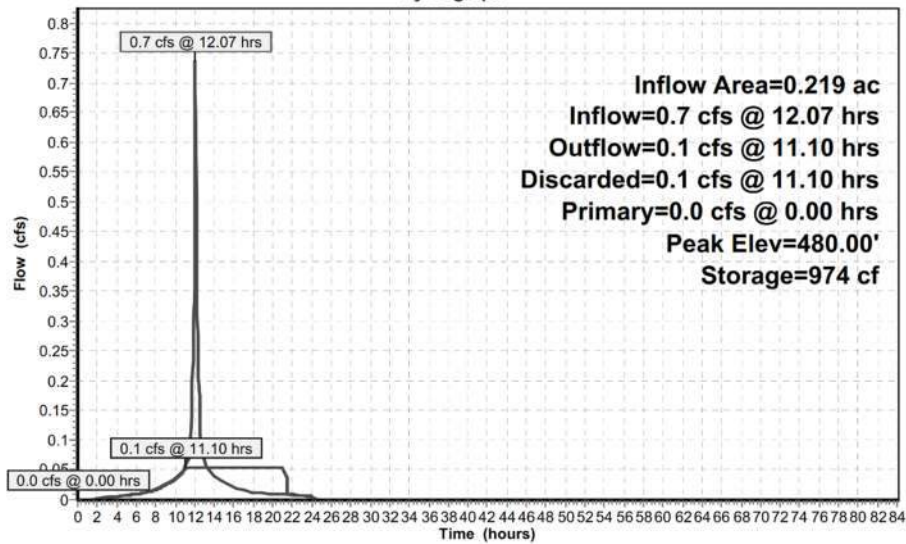
Type III 24-hr 2 YR Rainfall=3.43"

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Pond IS4C1: IS4C1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Pond ISSB: ISSB

Inflow Area = 0.257 ac, 100.00% Impervious, Inflow Depth = 3.20" for 2 YR event
Inflow = 0.9 cfs @ 12.07 hrs, Volume= 0.069 af
Outflow = 0.2 cfs @ 12.56 hrs, Volume= 0.069 af, Atten= 82%, Lag= 29.4 min
Discarded = 0.0 cfs @ 9.15 hrs, Volume= 0.063 af
Primary = 0.1 cfs @ 12.56 hrs, Volume= 0.006 af

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Peak Elev= 3.25' @ 12.56 hrs Surf.Area= 648 sf Storage= 1,342 cf

Plug-Flow detention time= 353.0 min calculated for 0.069 af (100% of inflow)
Center-of-Mass det. time= 353.1 min (1,107.1 - 754.0)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|--------|---------------|--|
| #1A | 0.00' | 584 cf | 11.17'W x 58.00'L x 3.54'H Field A 2,294 cf Overall - 835 cf Embedded = 1,459 cf x 40.0% Voids |
| #2A | 0.50' | 835 cf | Cultec R-330XL x 16 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,418 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|--------|---|
| #1 | Discarded | 0.00' | 2.000 in/hr Exfiltration over Surface area |
| #2 | Primary | 2.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 2.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #3 | Device 2 | 3.20' | 4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Discarded OutFlow Max=0.0 cfs @ 9.15 hrs HW=0.04' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.0 cfs)

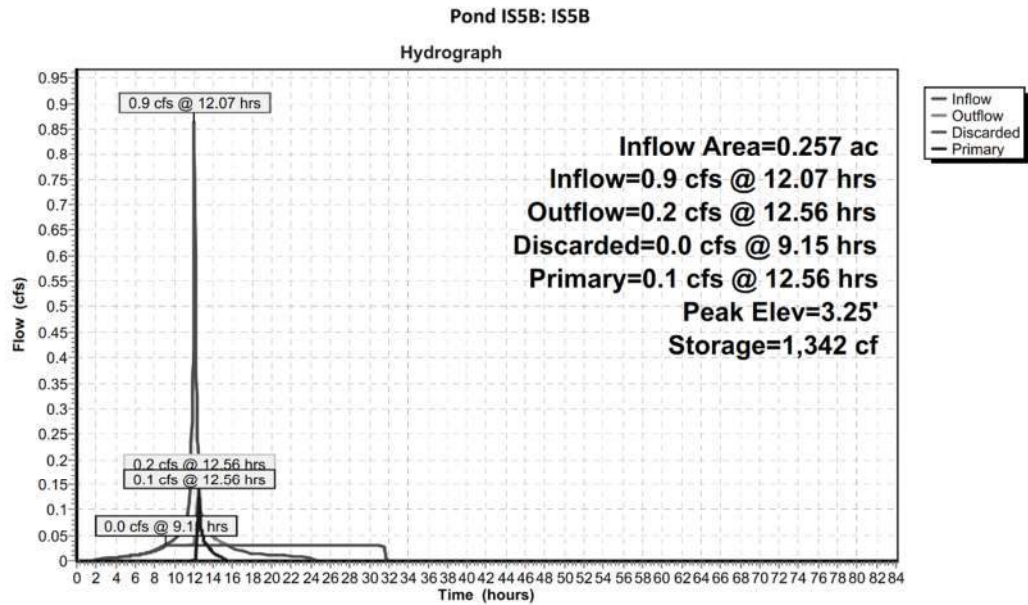
Primary OutFlow Max=0.1 cfs @ 12.56 hrs HW=3.25' (Free Discharge)
↑**2=Culvert** (Passes 0.1 cfs of 2.7 cfs potential flow)
↑**3=Broad-Crested Rectangular Weir** (Weir Controls 0.1 cfs @ 0.59 fps)

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Link PRDP1: PRDP1

Inflow Area = 1.209 ac, 0.00% Impervious, Inflow Depth = 0.36" for 2 YR event

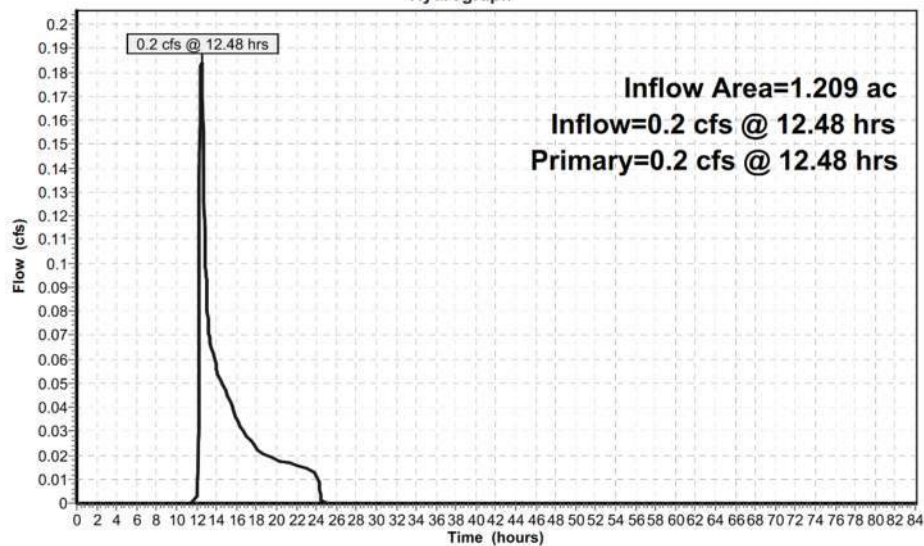
Inflow = 0.2 cfs @ 12.48 hrs, Volume= 0.036 af

Primary = 0.2 cfs @ 12.48 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP1: PRDP1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Link PRDP2: PRDP2

Inflow Area = 0.205 ac, 0.00% Impervious, Inflow Depth = 0.36" for 2 YR event

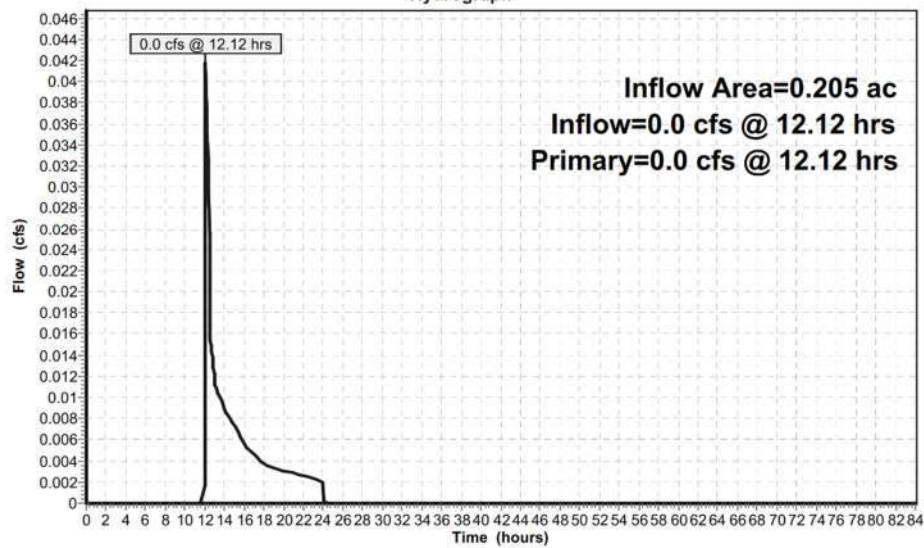
Inflow = 0.0 cfs @ 12.12 hrs, Volume= 0.006 af

Primary = 0.0 cfs @ 12.12 hrs, Volume= 0.006 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP2: PRDP2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Link PRDP3: PRDP3

Inflow Area = 0.258 ac, 0.00% Impervious, Inflow Depth = 0.50" for 2 YR event

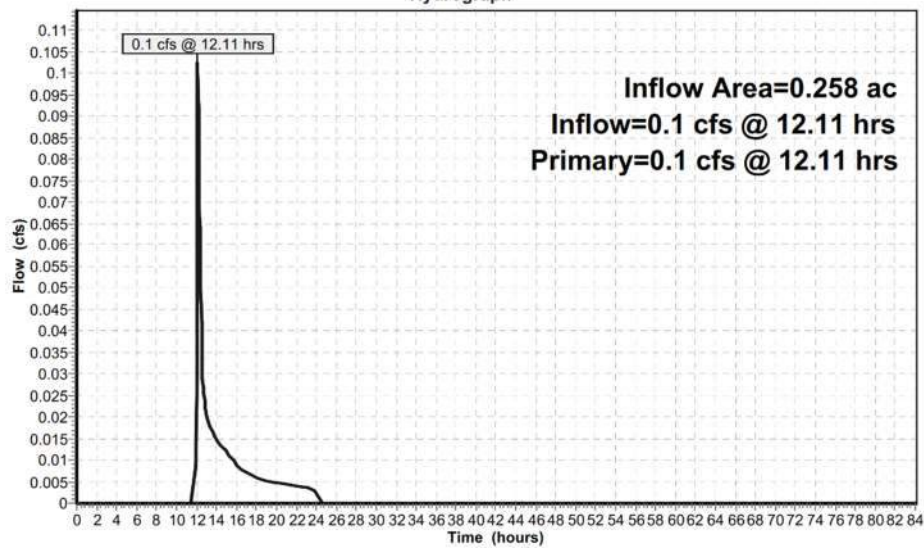
Inflow = 0.1 cfs @ 12.11 hrs, Volume= 0.011 af

Primary = 0.1 cfs @ 12.11 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP3: PRDP3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Link PRDP4: PRDP4

Inflow Area = 24.951 ac, 40.26% Impervious, Inflow Depth = 0.34" for 2 YR event

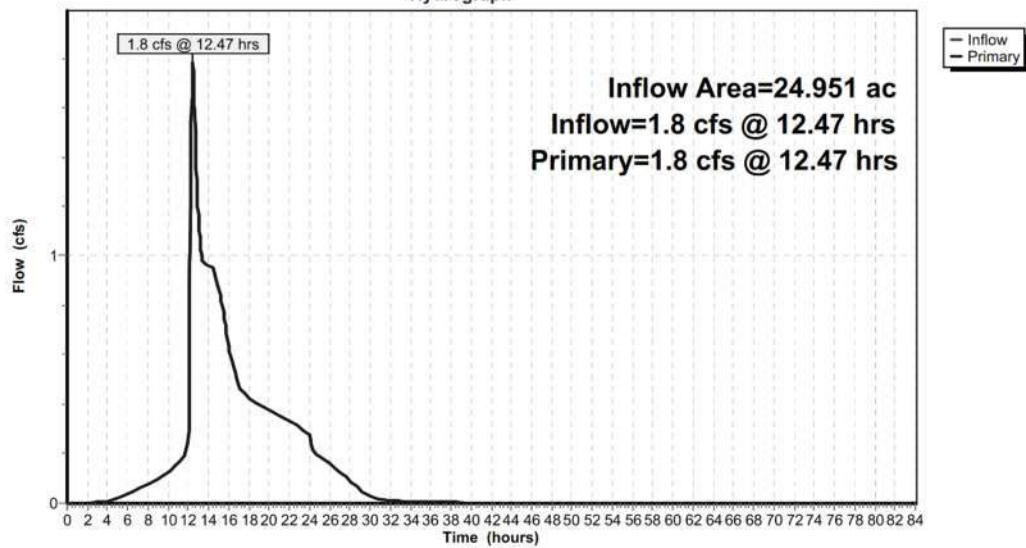
Inflow = 1.8 cfs @ 12.47 hrs, Volume= 0.716 af

Primary = 1.8 cfs @ 12.47 hrs, Volume= 0.716 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP4: PRDP4

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Link PRDP5: PRDP5

Inflow Area = 10.129 ac, 13.92% Impervious, Inflow Depth = 0.46" for 2 YR event

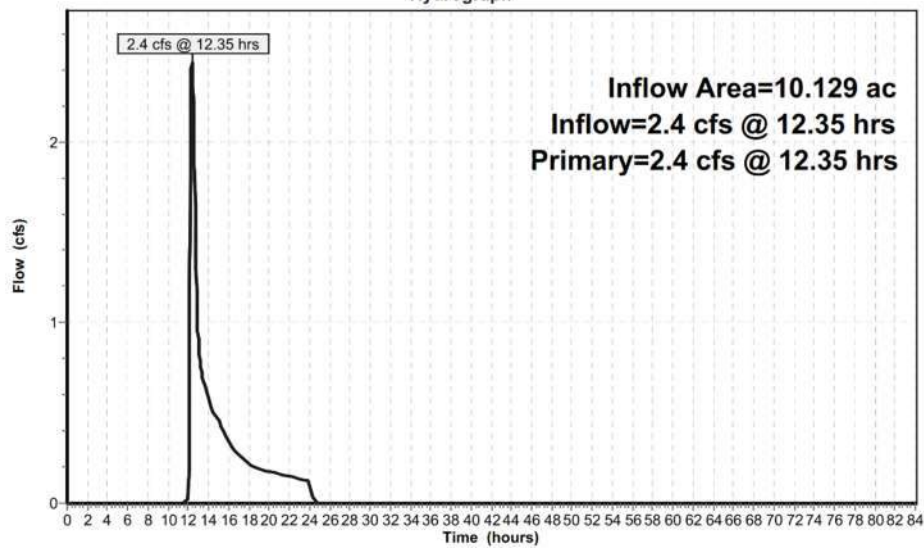
Inflow = 2.4 cfs @ 12.35 hrs, Volume= 0.387 af

Primary = 2.4 cfs @ 12.35 hrs, Volume= 0.387 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP5: PRDP5

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Link PRDP6: PRDP6

Inflow Area = 4.685 ac, 22.25% Impervious, Inflow Depth = 0.91" for 2 YR event

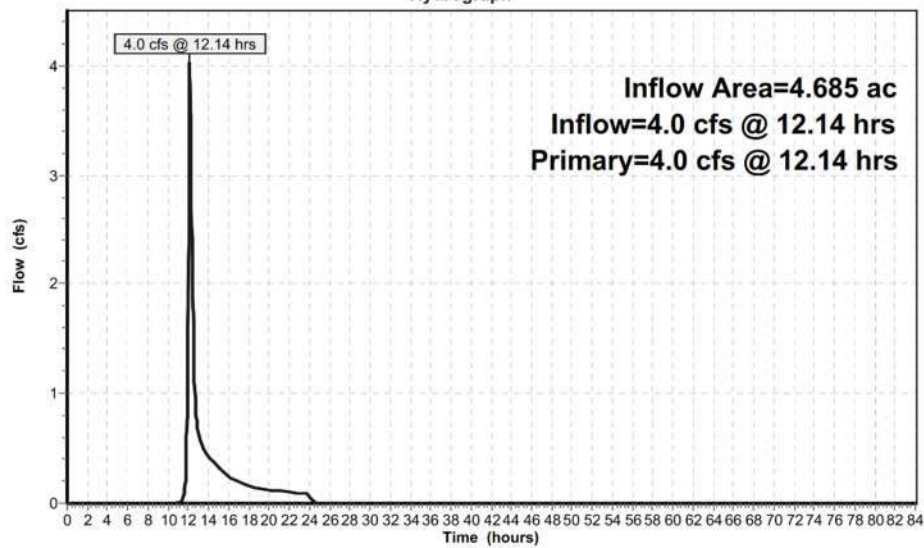
Inflow = 4.0 cfs @ 12.14 hrs, Volume= 0.356 af

Primary = 4.0 cfs @ 12.14 hrs, Volume= 0.356 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP6: PRDP6

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Link PRDP7: PRDP7

Inflow Area = 0.889 ac, 0.00% Impervious, Inflow Depth = 0.43" for 2 YR event

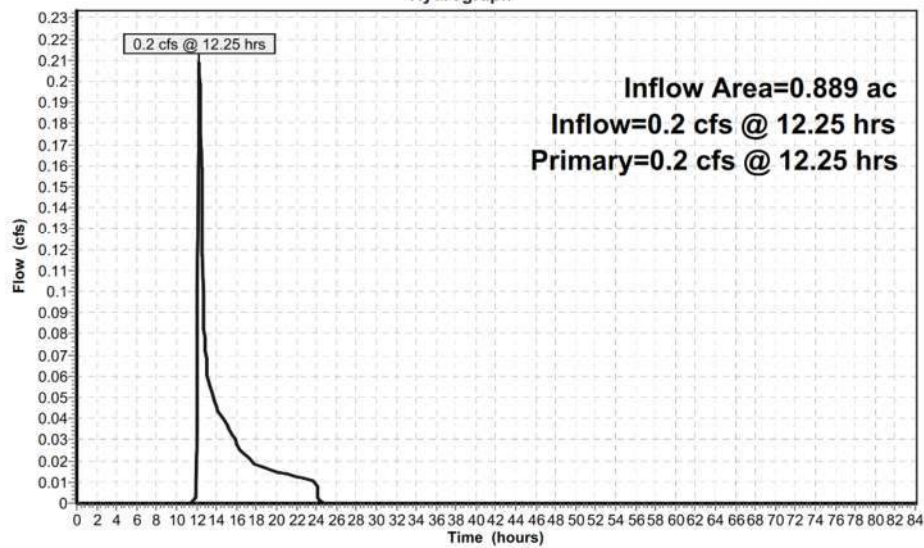
Inflow = 0.2 cfs @ 12.25 hrs, Volume= 0.032 af

Primary = 0.2 cfs @ 12.25 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP7: PRDP7

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 2 YR Rainfall=3.43"

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Summary for Link TR1: TRANSFER

Inflow Area = 18.709 ac, 52.52% Impervious, Inflow Depth = 0.33" for 2 YR event

Inflow = 0.8 cfs @ 12.66 hrs, Volume= 0.520 af

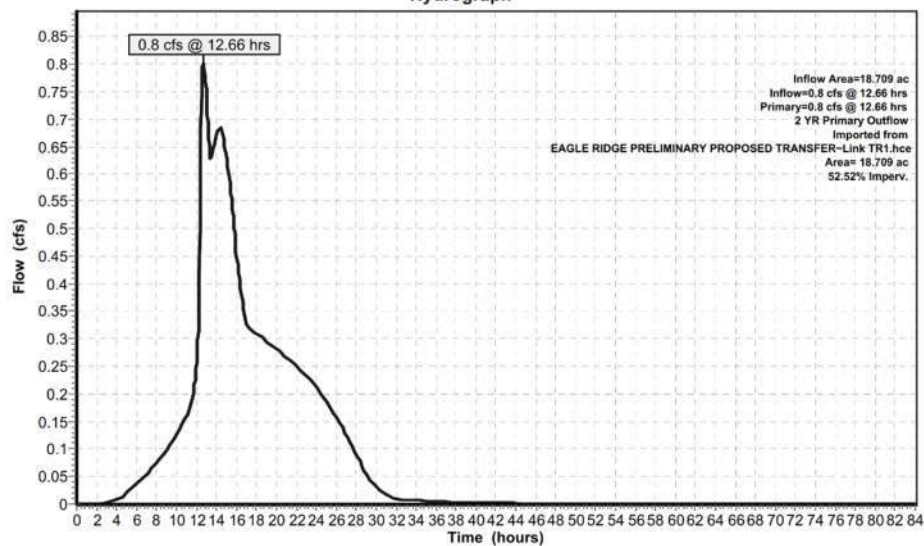
Primary = 0.8 cfs @ 12.66 hrs, Volume= 0.520 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

2 YR Primary Outflow Imported from EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER~Link TR1.hce

Link TR1: TRANSFER

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

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Time span=0.00-84.00 hrs, dt=0.05 hrs, 1681 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|-------------------------------|--|
| Subcatchment PRWS1: PRWS1 | Runoff Area=52,675 sf 0.00% Impervious Runoff Depth=0.71" Flow Length=332' Tc=20.0 min CN=56 Runoff=0.5 cfs 0.071 af |
| Subcatchment PRWS2: PRWS2 | Runoff Area=8,936 sf 0.00% Impervious Runoff Depth=0.71" Flow Length=62' Slope=0.2420 '/ Tc=3.5 min CN=56 Runoff=0.1 cfs 0.012 af |
| Subcatchment PRWS3: PRWS3 | Runoff Area=11,249 sf 0.00% Impervious Runoff Depth=0.92" Flow Length=107' Tc=5.1 min CN=60 Runoff=0.2 cfs 0.020 af |
| Subcatchment PRWS4C: PRWS4C | Runoff Area=262,387 sf 0.00% Impervious Runoff Depth=0.76" Flow Length=354' Tc=14.0 min CN=57 Runoff=3.1 cfs 0.381 af |
| Subcatchment PRWS4C1: PRWS4C1 | Runoff Area=9,556 sf 100.00% Impervious Runoff Depth=4.07" Tc=5.0 min CN=98 Runoff=0.9 cfs 0.074 af |
| Subcatchment PRWS5A: PRWS5A | Runoff Area=430,018 sf 11.67% Impervious Runoff Depth=0.86" Flow Length=1,049' Tc=16.6 min CN=59 Runoff=5.8 cfs 0.711 af |
| Subcatchment PRWS5B: PRWS5B | Runoff Area=11,208 sf 100.00% Impervious Runoff Depth=4.07" Tc=5.0 min CN=98 Runoff=1.1 cfs 0.087 af |
| Subcatchment PRWS6: PRWS6 | Runoff Area=204,080 sf 22.25% Impervious Runoff Depth=1.47" Flow Length=1,681' Tc=8.8 min CN=69 Runoff=6.9 cfs 0.575 af |
| Subcatchment PRWS7: PRWS7 | Runoff Area=38,740 sf 0.00% Impervious Runoff Depth=0.81" Flow Length=315' Tc=10.9 min CN=58 Runoff=0.5 cfs 0.060 af |
| Pond IS4C1: IS4C1 | Peak Elev=480.56' Storage=1,136 cf Inflow=0.9 cfs 0.074 af Discarded=0.1 cfs 0.069 af Primary=0.2 cfs 0.006 af Outflow=0.3 cfs 0.075 af |
| Pond IS5B: IS5B | Peak Elev=3.37' Storage=1,374 cf Inflow=1.1 cfs 0.087 af Discarded=0.0 cfs 0.067 af Primary=0.8 cfs 0.020 af Outflow=0.8 cfs 0.087 af |
| Link PRDP1: PRDP1 | Inflow=0.5 cfs 0.071 af Primary=0.5 cfs 0.071 af |
| Link PRDP2: PRDP2 | Inflow=0.1 cfs 0.012 af Primary=0.1 cfs 0.012 af |
| Link PRDP3: PRDP3 | Inflow=0.2 cfs 0.020 af Primary=0.2 cfs 0.020 af |
| Link PRDP4: PRDP4 | Inflow=6.5 cfs 1.631 af Primary=6.5 cfs 1.631 af |
| Link PRDP5: PRDP5 | Inflow=6.2 cfs 0.731 af Primary=6.2 cfs 0.731 af |
| Link PRDP6: PRDP6 | Inflow=6.9 cfs 0.575 af Primary=6.9 cfs 0.575 af |
| Link PRDP7: PRDP7 | Inflow=0.5 cfs 0.060 af Primary=0.5 cfs 0.060 af |
| Link TR1: TRANSFER | 5 YR Primary Outflow Imported from EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER~Link TR1.hce Inflow=5.2 cfs 1.244 af Area= 18.709 ac 52.52% Imperv. Primary=5.2 cfs 1.244 af |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

Prepared by Alfonzetti Engineering, P.C.

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Total Runoff Area = 23.619 ac Runoff Volume = 1.992 af Average Runoff Depth = 1.01"
88.69% Pervious = 20.948 ac 11.31% Impervious = 2.671 ac

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRWS1: PRWS1

Runoff = 0.5 cfs @ 12.37 hrs, Volume= 0.071 af, Depth= 0.71"

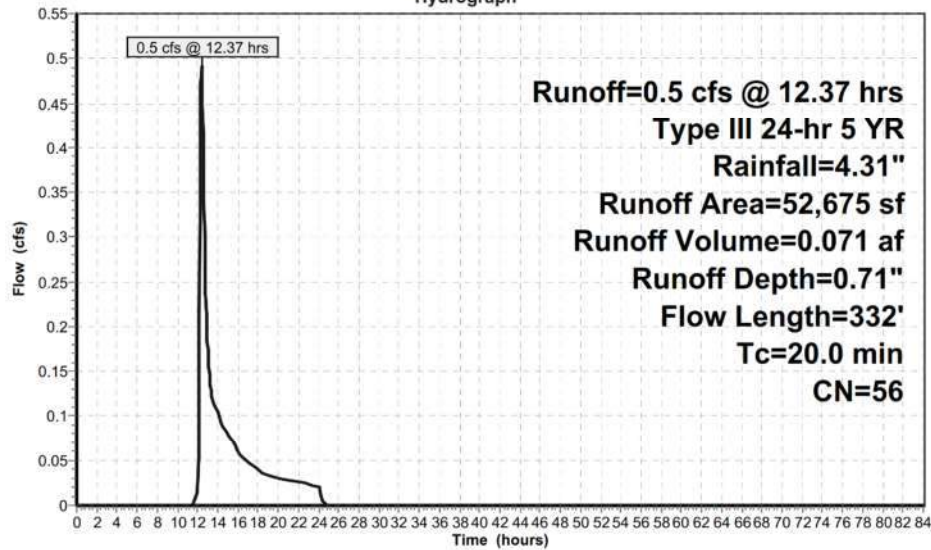
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 24,522 | 55 | Woods, Good, HSG B |
| 9,019 | 61 | >75% Grass cover, Good, HSG B |
| 17,151 | 55 | Woods, Good, HSG B |
| 1,983 | 61 | >75% Grass cover, Good, HSG B |
| 52,675 | 56 | Weighted Average |
| 52,675 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 18.1 | 100 | 0.0280 | 0.09 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.4 | 50 | 0.1650 | 2.03 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 58 | 0.1030 | 1.60 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.9 | 124 | 0.2230 | 2.36 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 20.0 | 332 | Total | | | |

Subcatchment PRWS1: PRWS1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRWS2: PRWS2

Runoff = 0.1 cfs @ 12.08 hrs, Volume= 0.012 af, Depth= 0.71"

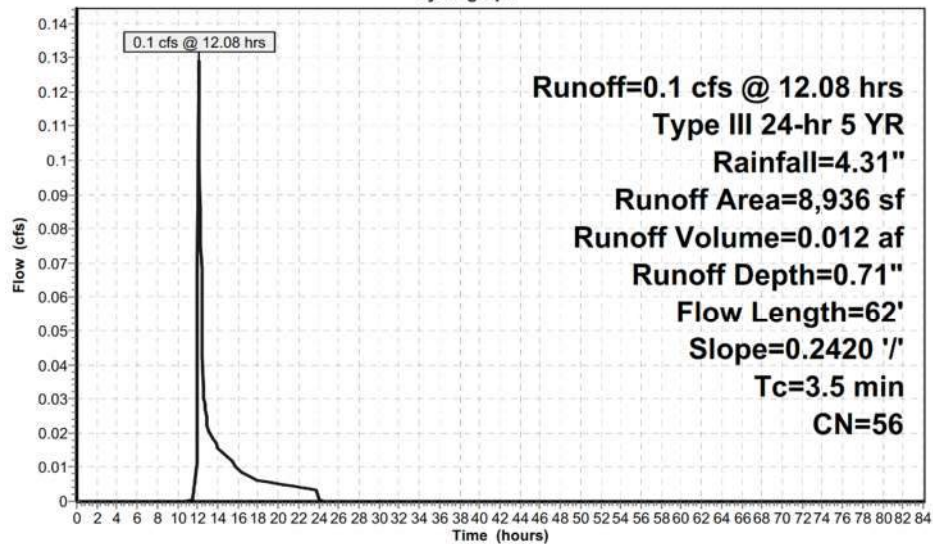
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 7,465 | 55 | Woods, Good, HSG B |
| 1,471 | 61 | >75% Grass cover, Good, HSG B |
| 8,936 | 56 | Weighted Average |
| 8,936 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.5 | 62 | 0.2420 | 0.30 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |

Subcatchment PRWS2: PRWS2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRWS3: PRWS3

Runoff = 0.2 cfs @ 12.10 hrs, Volume= 0.020 af, Depth= 0.92"

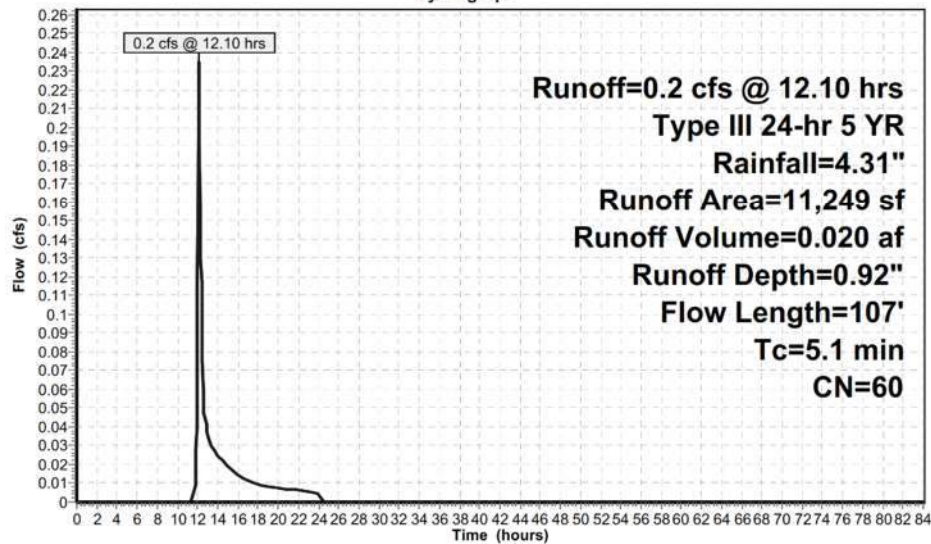
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 9,406 | 61 | >75% Grass cover, Good, HSG B |
| 1,843 | 55 | Woods, Good, HSG B |
| 11,249 | 60 | Weighted Average |
| 11,249 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 1.9 | 40 | 0.1700 | 0.35 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 3.2 | 60 | 0.2700 | 0.31 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.0 | 7 | 0.1400 | 2.62 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 5.1 | 107 | Total | | | |

Subcatchment PRWS3: PRWS3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRWS4C: PRWS4C

Runoff = 3.1 cfs @ 12.25 hrs, Volume= 0.381 af, Depth= 0.76"

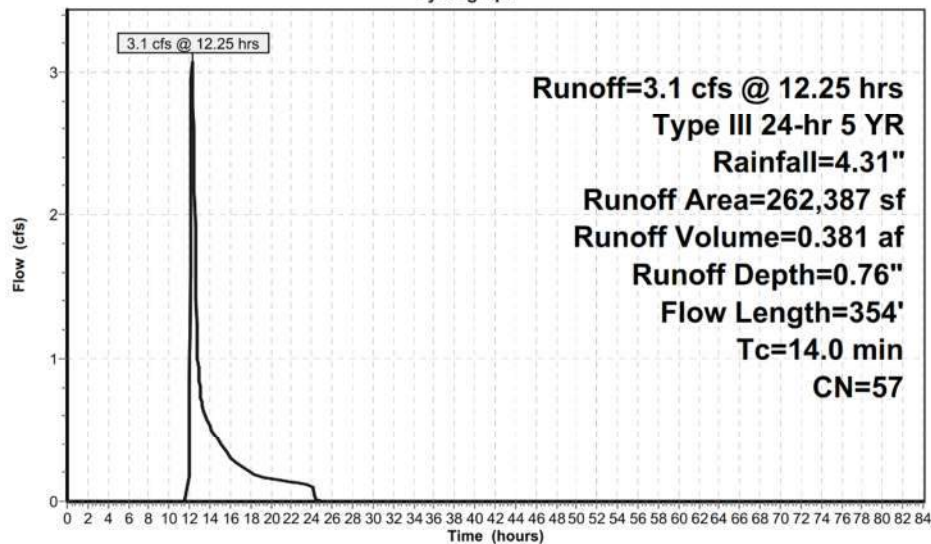
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 92,922 | 61 | >75% Grass cover, Good, HSG B |
| 169,465 | 55 | Woods, Good, HSG B |
| 262,387 | 57 | Weighted Average |
| 262,387 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 7.1 | 44 | 0.0200 | 0.10 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 2.4 | 29 | 0.1380 | 0.20 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 2.9 | 27 | 0.0740 | 0.16 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.4 | 46 | 0.0860 | 2.05 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 208 | 0.3317 | 2.88 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 14.0 | 354 | Total | | | |

Subcatchment PRWS4C: PRWS4C

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRWS4C1: PRWS4C1

Runoff = 0.9 cfs @ 12.07 hrs, Volume= 0.074 af, Depth= 4.07"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

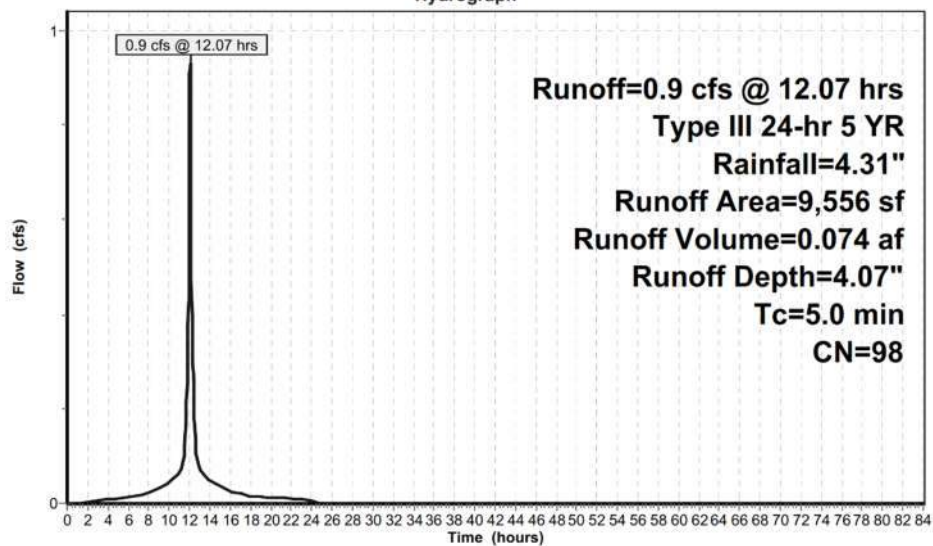
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 9,556 | 98 | Roofs, HSG B |
| 9,556 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4C1: PRWS4C1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRW55A: PRW55A

Runoff = 5.8 cfs @ 12.28 hrs, Volume= 0.711 af, Depth= 0.86"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 72,273 | 55 | Woods, Good, HSG B |
| 42,776 | 48 | Brush, Good, HSG B |
| 10,560 | 61 | >75% Grass cover, Good, HSG B |
| 12,330 | 61 | >75% Grass cover, Good, HSG B |
| 22,043 | 48 | Brush, Good, HSG B |
| 87,991 | 55 | Woods, Good, HSG B |
| 50,189 | 98 | Paved parking, HSG B |
| 1,904 | 61 | >75% Grass cover, Good, HSG B |
| 7,163 | 61 | >75% Grass cover, Good, HSG B |
| 122,789 | 55 | Woods, Good, HSG B |
| 430,018 | 59 | Weighted Average |
| 379,829 | | 88.33% Pervious Area |
| 50,189 | | 11.67% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 12.1 | 100 | 0.0275 | 0.14 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.8 | 60 | 0.0330 | 1.27 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 31 | 0.2420 | 3.44 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 345 | 0.0520 | 4.63 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.1 | 105 | 0.1840 | 17.23 | 9.40 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 90 | 0.3100 | 8.35 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.1 | 100 | 0.1000 | 1.58 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 83 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 135 | 0.3000 | 8.22 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 16.6 | 1,049 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

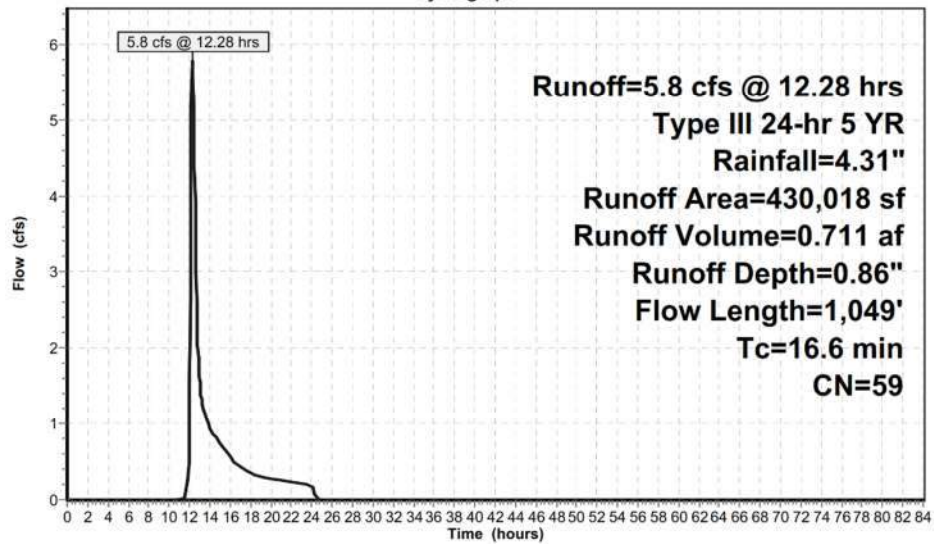
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Type III 24-hr 5 YR Rainfall=4.31"

Subcatchment PRWS5A: PRWS5A

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRW55B: PRW55B

Runoff = 1.1 cfs @ 12.07 hrs, Volume= 0.087 af, Depth= 4.07"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

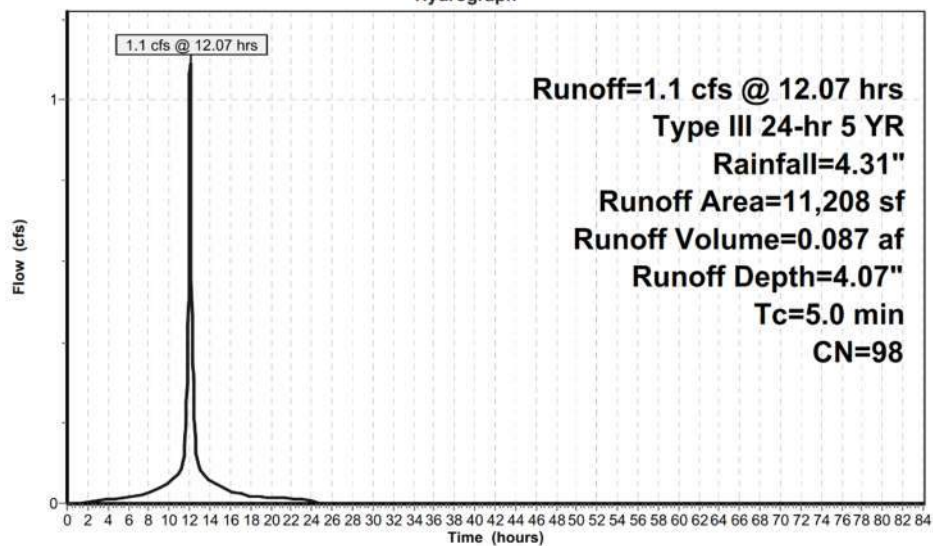
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 11,208 | 98 | Roofs, HSG B |
| 11,208 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRW55B: PRW55B

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRWS6: PRWS6

Runoff = 6.9 cfs @ 12.14 hrs, Volume= 0.575 af, Depth= 1.47"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,761 | 61 | >75% Grass cover, Good, HSG B |
| 31,024 | 61 | >75% Grass cover, Good, HSG B |
| 722 | 61 | >75% Grass cover, Good, HSG B |
| 295 | 55 | Woods, Good, HSG B |
| 41,486 | 98 | Paved parking, HSG B |
| 3,920 | 98 | Paved parking, HSG B |
| 4,431 | 61 | >75% Grass cover, Good, HSG B |
| 9,594 | 61 | >75% Grass cover, Good, HSG B |
| 42,897 | 61 | >75% Grass cover, Good, HSG B |
| 1,912 | 61 | >75% Grass cover, Good, HSG B |
| 16,205 | 61 | >75% Grass cover, Good, HSG B |
| 39,833 | 61 | >75% Grass cover, Good, HSG B |
| 204,080 | 69 | Weighted Average |
| 158,674 | | 77.75% Pervious Area |
| 45,406 | | 22.25% Impervious Area |

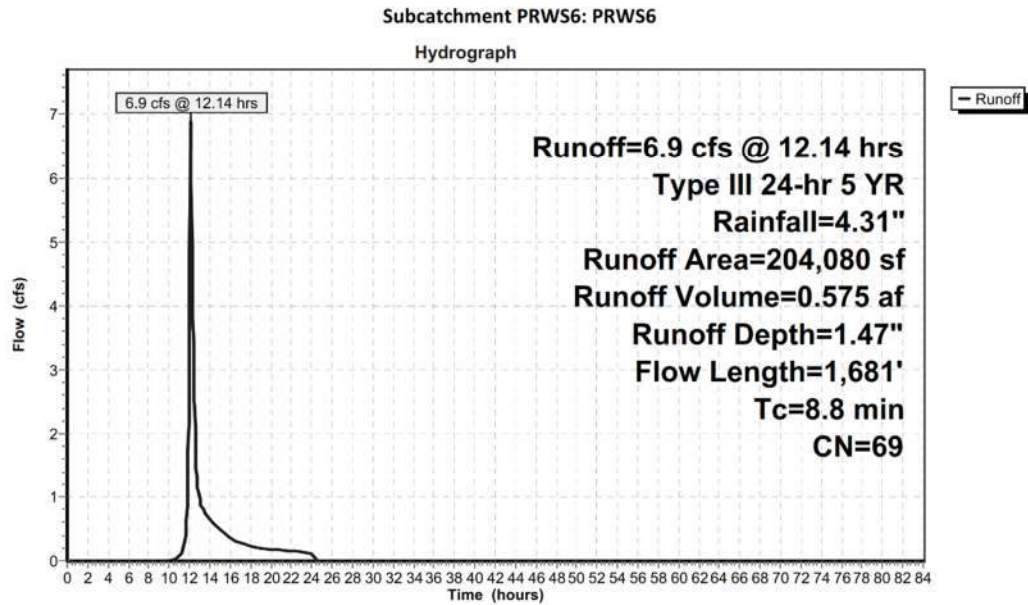
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 6.1 | 100 | 0.0600 | 0.27 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 1.3 | 360 | 0.0930 | 4.57 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 0.4 | 474 | 0.0790 | 20.24 | 63.58 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 200 | 0.0600 | 17.64 | 55.41 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 189 | 0.0700 | 19.05 | 59.85 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.6 | 358 | 0.0170 | 9.39 | 29.50 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 8.8 | 1,681 | Total | | | |

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Type III 24-hr 5 YR Rainfall=4.31"



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Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Subcatchment PRWS7: PRWS7

Runoff = 0.5 cfs @ 12.19 hrs, Volume= 0.060 af, Depth= 0.81"

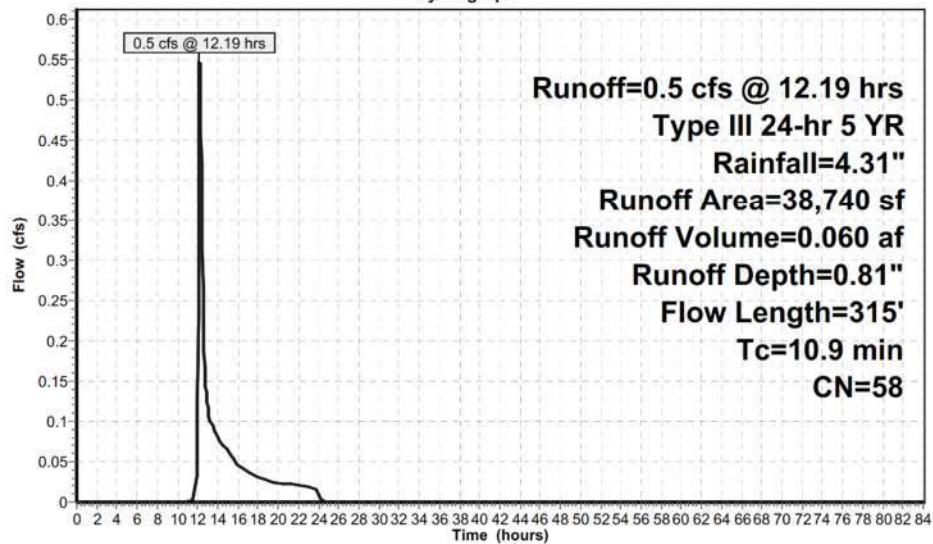
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 5 YR Rainfall=4.31"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,456 | 61 | >75% Grass cover, Good, HSG B |
| 13,598 | 55 | Woods, Good, HSG B |
| 5,422 | 61 | >75% Grass cover, Good, HSG B |
| 8,264 | 55 | Woods, Good, HSG B |
| 38,740 | 58 | Weighted Average |
| 38,740 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.0 | 100 | 0.0620 | 0.28 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 4.9 | 215 | 0.0110 | 0.73 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 10.9 | 315 | | | | Total |

Subcatchment PRWS7: PRWS7

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Pond IS4C1: IS4C1

Inflow Area = 0.219 ac, 100.00% Impervious, Inflow Depth = 4.07" for 5 YR event
Inflow = 0.9 cfs @ 12.07 hrs, Volume= 0.074 af
Outflow = 0.3 cfs @ 12.37 hrs, Volume= 0.075 af, Atten= 68%, Lag= 18.3 min
Discarded = 0.1 cfs @ 10.50 hrs, Volume= 0.069 af
Primary = 0.2 cfs @ 12.37 hrs, Volume= 0.006 af

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 480.56' @ 12.35 hrs Surf.Area= 570 sf Storage= 1,136 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 153.6 min (903.3 - 749.7)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 477.50' | 515 cf | 11.17'W x 51.00'L x 3.54'H Field A 2,017 cf Overall - 730 cf Embedded = 1,287 cf x 40.0% Voids |
| #2A | 478.00' | 730 cf | Cultec R-330XL x 14 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,245 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 479.50' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 479.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 480.50' | 5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 477.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 10.50 hrs HW=477.54' (Free Discharge)

↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.2 cfs @ 12.37 hrs HW=480.56' (Free Discharge)

↑**1=Culvert** (Passes 0.2 cfs of 2.2 cfs potential flow)

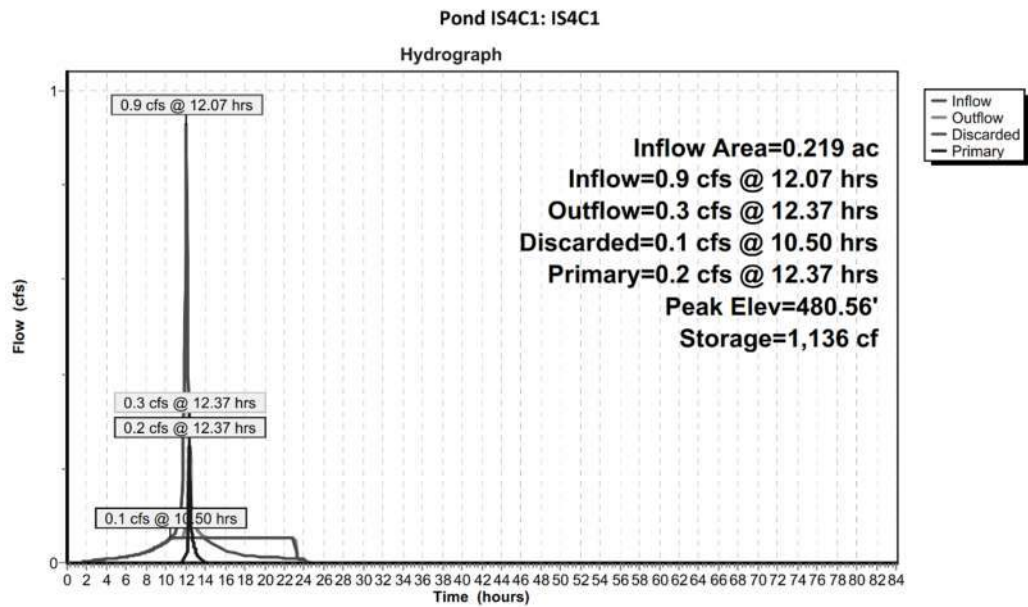
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 0.2 cfs @ 0.69 fps)

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

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EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Pond ISSB: ISSB

Inflow Area = 0.257 ac, 100.00% Impervious, Inflow Depth = 4.07" for 5 YR event
Inflow = 1.1 cfs @ 12.07 hrs, Volume= 0.087 af
Outflow = 0.8 cfs @ 12.21 hrs, Volume= 0.087 af, Atten= 25%, Lag= 8.3 min
Discarded = 0.0 cfs @ 8.50 hrs, Volume= 0.067 af
Primary = 0.8 cfs @ 12.21 hrs, Volume= 0.020 af

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Peak Elev= 3.37' @ 12.21 hrs Surf.Area= 648 sf Storage= 1,374 cf

Plug-Flow detention time= 303.7 min calculated for 0.087 af (100% of inflow)

Center-of-Mass det. time= 303.8 min (1,053.4 - 749.7)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|--------|---------------|--|
| #1A | 0.00' | 584 cf | 11.17'W x 58.00'L x 3.54'H Field A 2,294 cf Overall - 835 cf Embedded = 1,459 cf x 40.0% Voids |
| #2A | 0.50' | 835 cf | Cultec R-330XL x 16 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,418 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|--------|---|
| #1 | Discarded | 0.00' | 2.000 in/hr Exfiltration over Surface area |
| #2 | Primary | 2.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 2.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #3 | Device 2 | 3.20' | 4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Discarded OutFlow Max=0.0 cfs @ 8.50 hrs HW=0.04' (Free Discharge)

1=Exfiltration (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.7 cfs @ 12.21 hrs HW=3.36' (Free Discharge)

2=Culvert (Passes 0.7 cfs of 2.9 cfs potential flow)

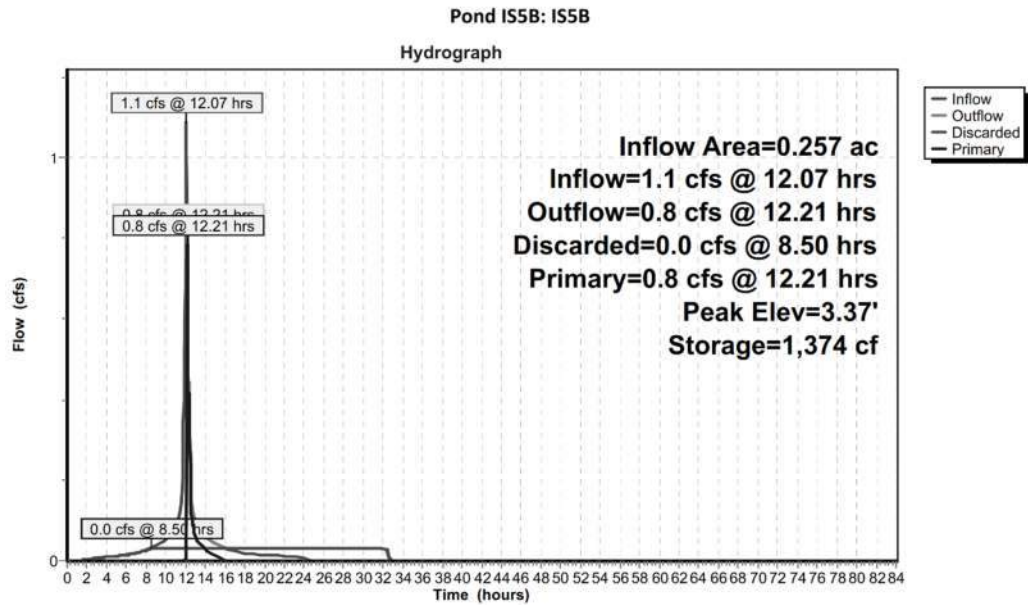
3=Broad-Crested Rectangular Weir (Weir Controls 0.7 cfs @ 1.11 fps)

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

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EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Link PRDP1: PRDP1

Inflow Area = 1.209 ac, 0.00% Impervious, Inflow Depth = 0.71" for 5 YR event

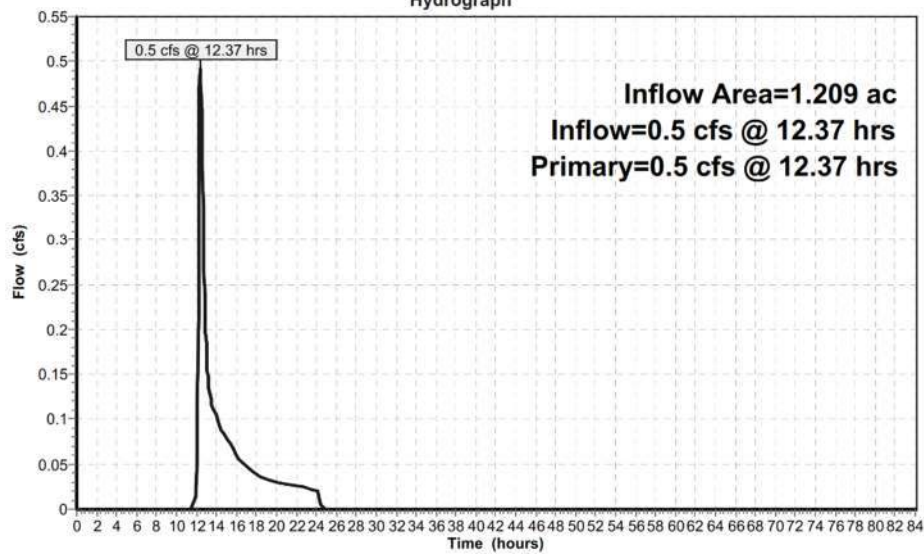
Inflow = 0.5 cfs @ 12.37 hrs, Volume= 0.071 af

Primary = 0.5 cfs @ 12.37 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP1: PRDP1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Link PRDP2: PRDP2

Inflow Area = 0.205 ac, 0.00% Impervious, Inflow Depth = 0.71" for 5 YR event

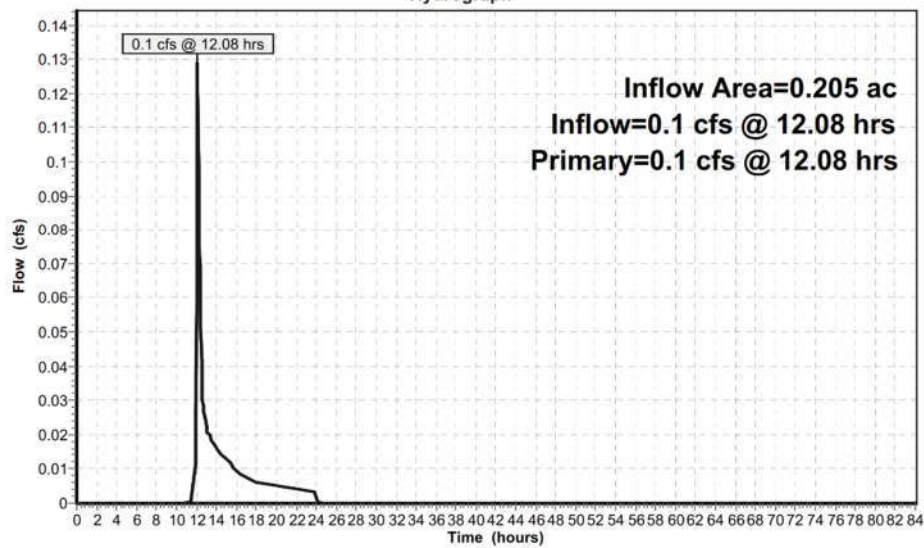
Inflow = 0.1 cfs @ 12.08 hrs, Volume= 0.012 af

Primary = 0.1 cfs @ 12.08 hrs, Volume= 0.012 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP2: PRDP2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Link PRDP3: PRDP3

Inflow Area = 0.258 ac, 0.00% Impervious, Inflow Depth = 0.92" for 5 YR event

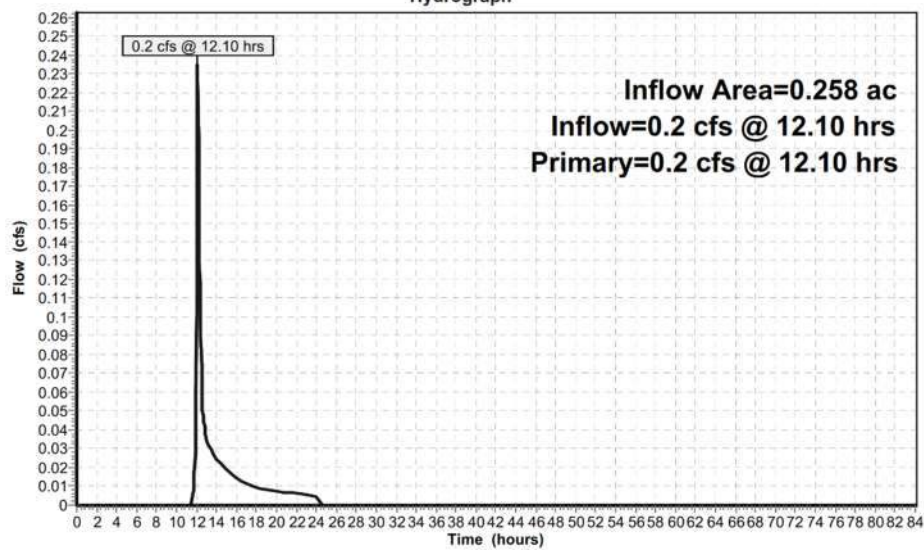
Inflow = 0.2 cfs @ 12.10 hrs, Volume= 0.020 af

Primary = 0.2 cfs @ 12.10 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP3: PRDP3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Link PRDP4: PRDP4

Inflow Area = 24.951 ac, 40.26% Impervious, Inflow Depth = 0.78" for 5 YR event

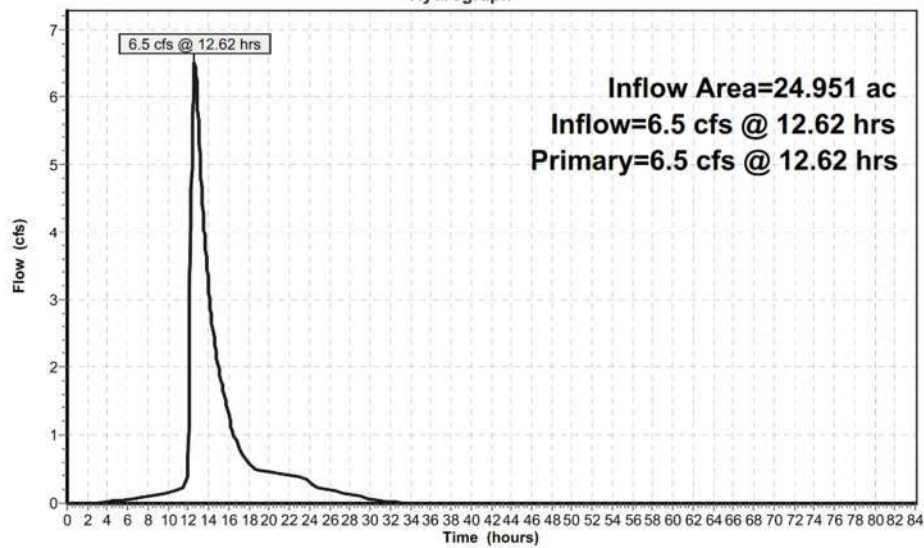
Inflow = 6.5 cfs @ 12.62 hrs, Volume= 1.631 af

Primary = 6.5 cfs @ 12.62 hrs, Volume= 1.631 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP4: PRDP4

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Link PRDP5: PRDP5

Inflow Area = 10.129 ac, 13.92% Impervious, Inflow Depth = 0.87" for 5 YR event

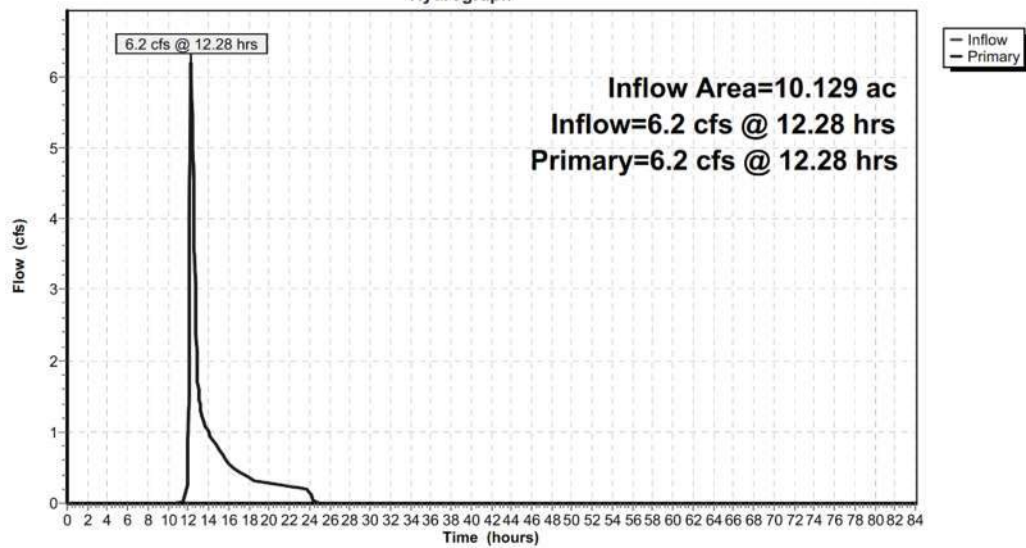
Inflow = 6.2 cfs @ 12.28 hrs, Volume= 0.731 af

Primary = 6.2 cfs @ 12.28 hrs, Volume= 0.731 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP5: PRDP5

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Link PRDP6: PRDP6

Inflow Area = 4.685 ac, 22.25% Impervious, Inflow Depth = 1.47" for 5 YR event

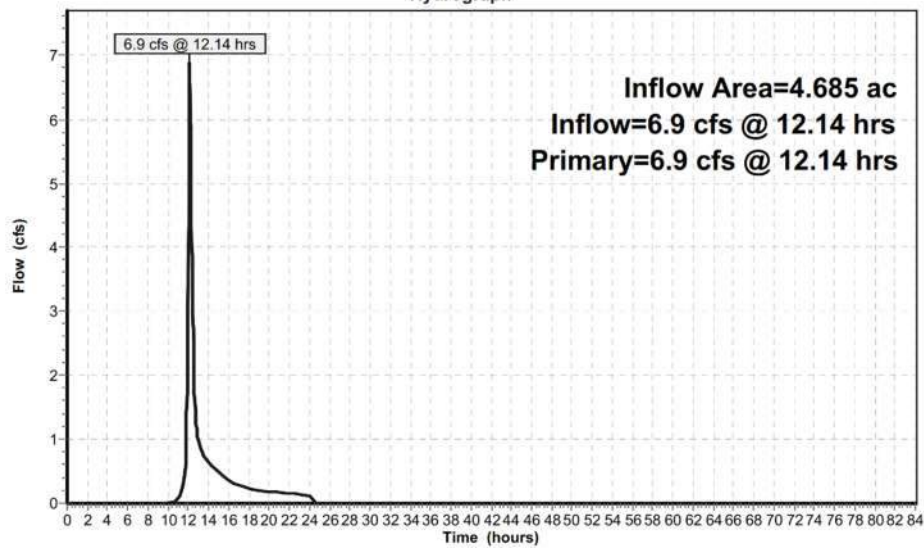
Inflow = 6.9 cfs @ 12.14 hrs, Volume= 0.575 af

Primary = 6.9 cfs @ 12.14 hrs, Volume= 0.575 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP6: PRDP6

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

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Summary for Link PRDP7: PRDP7

Inflow Area = 0.889 ac, 0.00% Impervious, Inflow Depth = 0.81" for 5 YR event

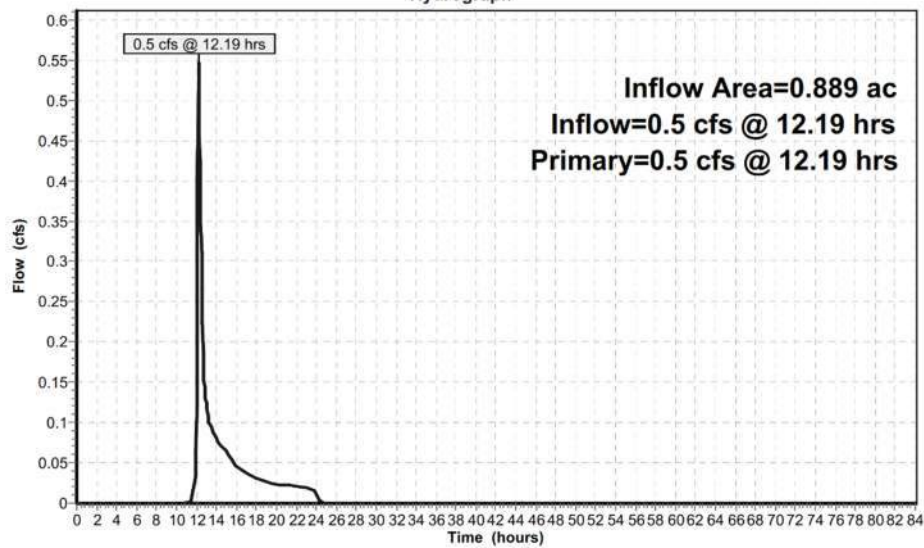
Inflow = 0.5 cfs @ 12.19 hrs, Volume= 0.060 af

Primary = 0.5 cfs @ 12.19 hrs, Volume= 0.060 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP7: PRDP7

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 5 YR Rainfall=4.31"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Link TR1: TRANSFER

Inflow Area = 18.709 ac, 52.52% Impervious, Inflow Depth = 0.80" for 5 YR event

Inflow = 5.2 cfs @ 12.77 hrs, Volume= 1.244 af

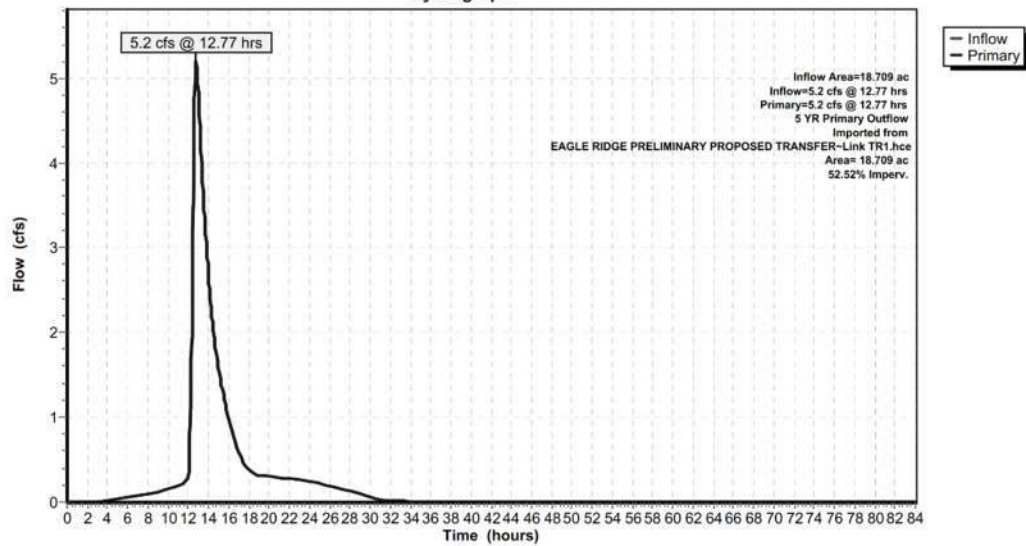
Primary = 5.2 cfs @ 12.77 hrs, Volume= 1.244 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

5 YR Primary Outflow Imported from EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER~Link TR1.hce

Link TR1: TRANSFER

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

Prepared by Alfonzetti Engineering, P.C.

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Time span=0.00-84.00 hrs, dt=0.05 hrs, 1681 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|-------------------------------|---|
| Subcatchment PRWS1: PRWS1 | Runoff Area=52,675 sf 0.00% Impervious Runoff Depth=1.11" Flow Length=332' Tc=20.0 min CN=56 Runoff=0.9 cfs 0.112 af |
| Subcatchment PRWS2: PRWS2 | Runoff Area=8,936 sf 0.00% Impervious Runoff Depth=1.11" Flow Length=62' Slope=0.2420 '/ Tc=3.5 min CN=56 Runoff=0.2 cfs 0.019 af |
| Subcatchment PRWS3: PRWS3 | Runoff Area=11,249 sf 0.00% Impervious Runoff Depth=1.38" Flow Length=107' Tc=5.1 min CN=60 Runoff=0.4 cfs 0.030 af |
| Subcatchment PRWS4C: PRWS4C | Runoff Area=262,387 sf 0.00% Impervious Runoff Depth=1.17" Flow Length=354' Tc=14.0 min CN=57 Runoff=5.4 cfs 0.590 af |
| Subcatchment PRWS4C1: PRWS4C1 | Runoff Area=9,556 sf 100.00% Impervious Runoff Depth=4.89" Tc=5.0 min CN=98 Runoff=1.1 cfs 0.089 af |
| Subcatchment PRWS5A: PRWS5A | Runoff Area=430,018 sf 11.67% Impervious Runoff Depth=1.31" Flow Length=1,049' Tc=16.6 min CN=59 Runoff=9.7 cfs 1.077 af |
| Subcatchment PRWS5B: PRWS5B | Runoff Area=11,208 sf 100.00% Impervious Runoff Depth=4.89" Tc=5.0 min CN=98 Runoff=1.3 cfs 0.105 af |
| Subcatchment PRWS6: PRWS6 | Runoff Area=204,080 sf 22.25% Impervious Runoff Depth=2.05" Flow Length=1,681' Tc=8.8 min CN=69 Runoff=9.8 cfs 0.801 af |
| Subcatchment PRWS7: PRWS7 | Runoff Area=38,740 sf 0.00% Impervious Runoff Depth=1.24" Flow Length=315' Tc=10.9 min CN=58 Runoff=0.9 cfs 0.092 af |
| Pond IS4C1: IS4C1 | Peak Elev=480.61' Storage=1,147 cf Inflow=1.1 cfs 0.089 af Discarded=0.1 cfs 0.075 af Primary=0.6 cfs 0.014 af Outflow=0.6 cfs 0.089 af |
| Pond IS5B: IS5B | Peak Elev=3.47' Storage=1,399 cf Inflow=1.3 cfs 0.105 af Discarded=0.0 cfs 0.071 af Primary=1.3 cfs 0.034 af Outflow=1.3 cfs 0.105 af |
| Link PRDP1: PRDP1 | Inflow=0.9 cfs 0.112 af Primary=0.9 cfs 0.112 af |
| Link PRDP2: PRDP2 | Inflow=0.2 cfs 0.019 af Primary=0.2 cfs 0.019 af |
| Link PRDP3: PRDP3 | Inflow=0.4 cfs 0.030 af Primary=0.4 cfs 0.030 af |
| Link PRDP4: PRDP4 | Inflow=13.4 cfs 2.658 af Primary=13.4 cfs 2.658 af |
| Link PRDP5: PRDP5 | Inflow=10.2 cfs 1.111 af Primary=10.2 cfs 1.111 af |
| Link PRDP6: PRDP6 | Inflow=9.8 cfs 0.801 af Primary=9.8 cfs 0.801 af |
| Link PRDP7: PRDP7 | Inflow=0.9 cfs 0.092 af Primary=0.9 cfs 0.092 af |
| Link TR1: TRANSFER | 10 YR Primary Outflow Imported from EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER~Link TR1.hce Inflow=10.4 cfs 2.054 af Area= 18.709 ac 52.52% Imperv. Primary=10.4 cfs 2.054 af |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Total Runoff Area = 23.619 ac Runoff Volume = 2.914 af Average Runoff Depth = 1.48"
88.69% Pervious = 20.948 ac 11.31% Impervious = 2.671 ac

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Subcatchment PRWS1: PRWS1

Runoff = 0.9 cfs @ 12.33 hrs, Volume= 0.112 af, Depth= 1.11"

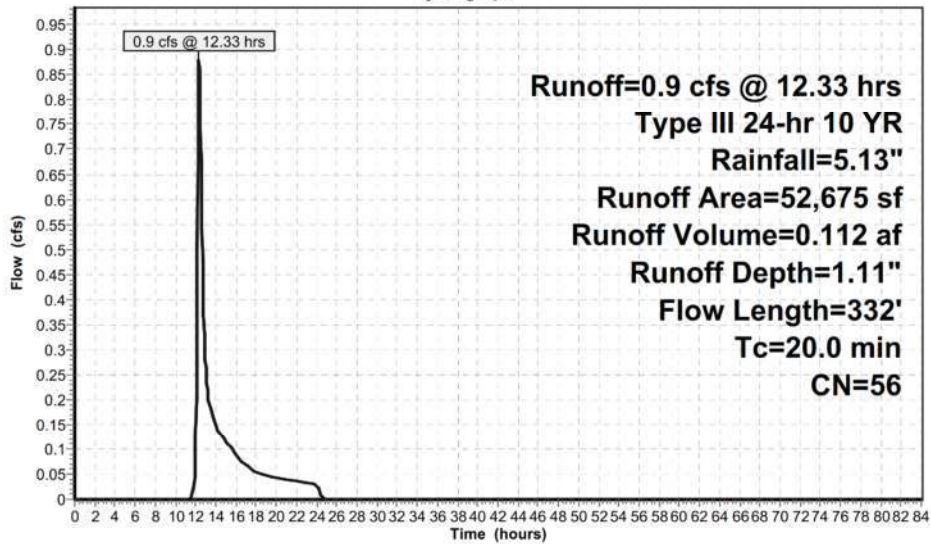
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 24,522 | 55 | Woods, Good, HSG B |
| 9,019 | 61 | >75% Grass cover, Good, HSG B |
| 17,151 | 55 | Woods, Good, HSG B |
| 1,983 | 61 | >75% Grass cover, Good, HSG B |
| 52,675 | 56 | Weighted Average |
| 52,675 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 18.1 | 100 | 0.0280 | 0.09 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.4 | 50 | 0.1650 | 2.03 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 58 | 0.1030 | 1.60 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.9 | 124 | 0.2230 | 2.36 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 20.0 | 332 | Total | | | |

Subcatchment PRWS1: PRWS1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Subcatchment PRWS2: PRWS2

Runoff = 0.2 cfs @ 12.07 hrs, Volume= 0.019 af, Depth= 1.11"

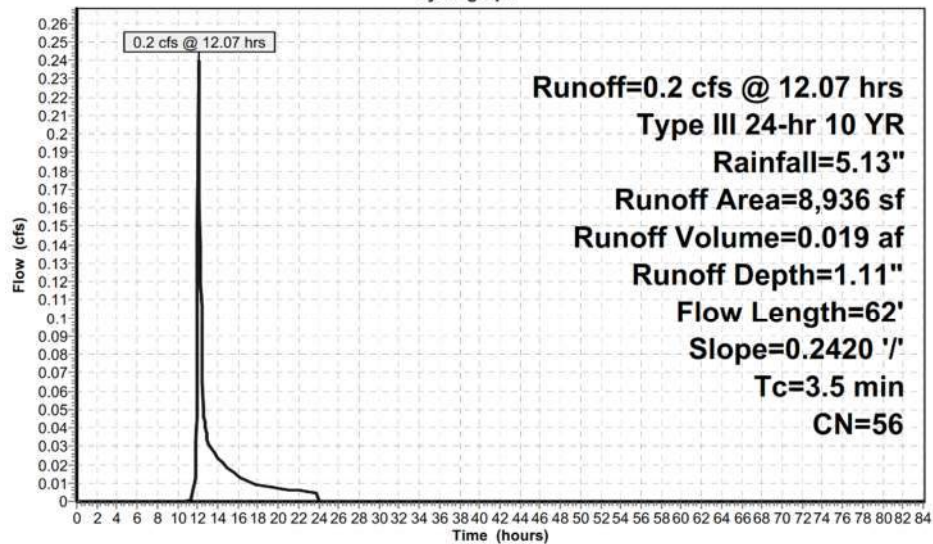
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 7,465 | 55 | Woods, Good, HSG B |
| 1,471 | 61 | >75% Grass cover, Good, HSG B |
| 8,936 | 56 | Weighted Average |
| 8,936 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.5 | 62 | 0.2420 | 0.30 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |

Subcatchment PRWS2: PRWS2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Subcatchment PRWS3: PRWS3

Runoff = 0.4 cfs @ 12.09 hrs, Volume= 0.030 af, Depth= 1.38"

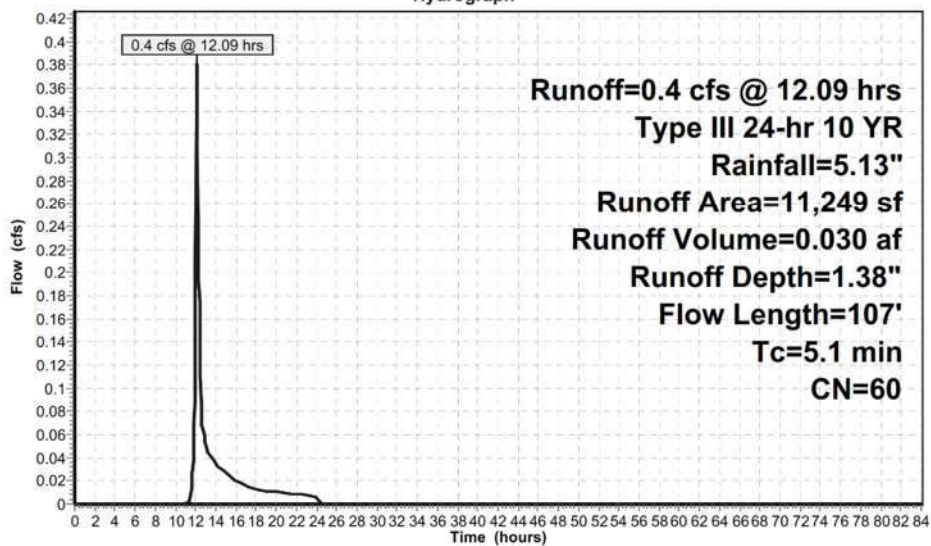
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 9,406 | 61 | >75% Grass cover, Good, HSG B |
| 1,843 | 55 | Woods, Good, HSG B |
| 11,249 | 60 | Weighted Average |
| 11,249 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 1.9 | 40 | 0.1700 | 0.35 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 3.2 | 60 | 0.2700 | 0.31 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.0 | 7 | 0.1400 | 2.62 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 5.1 | 107 | Total | | | |

Subcatchment PRWS3: PRWS3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Subcatchment PRWS4C: PRWS4C

Runoff = 5.4 cfs @ 12.22 hrs, Volume= 0.590 af, Depth= 1.17"

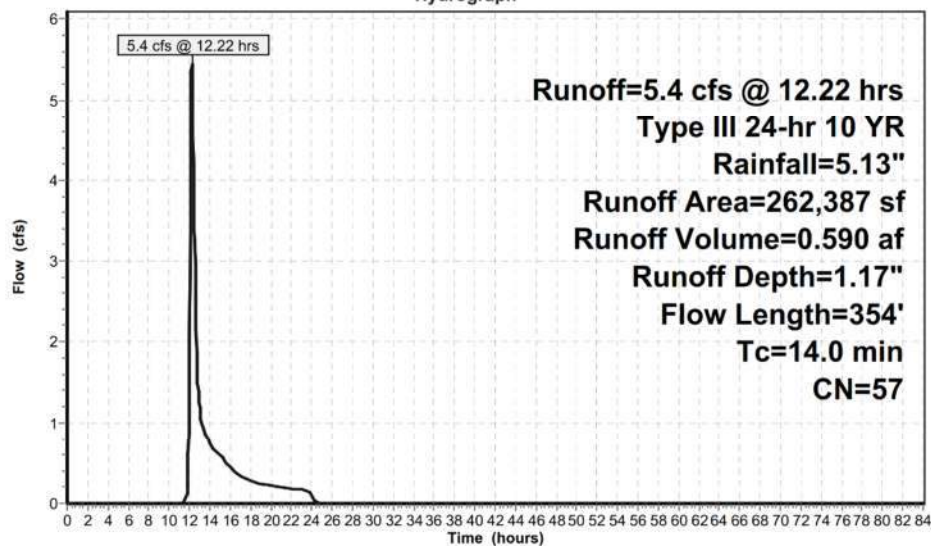
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 92,922 | 61 | >75% Grass cover, Good, HSG B |
| 169,465 | 55 | Woods, Good, HSG B |
| 262,387 | 57 | Weighted Average |
| 262,387 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 7.1 | 44 | 0.0200 | 0.10 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 2.4 | 29 | 0.1380 | 0.20 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 2.9 | 27 | 0.0740 | 0.16 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.4 | 46 | 0.0860 | 2.05 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 208 | 0.3317 | 2.88 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 14.0 | 354 | Total | | | |

Subcatchment PRWS4C: PRWS4C

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Subcatchment PRWS4C1: PRWS4C1

Runoff = 1.1 cfs @ 12.07 hrs, Volume= 0.089 af, Depth= 4.89"

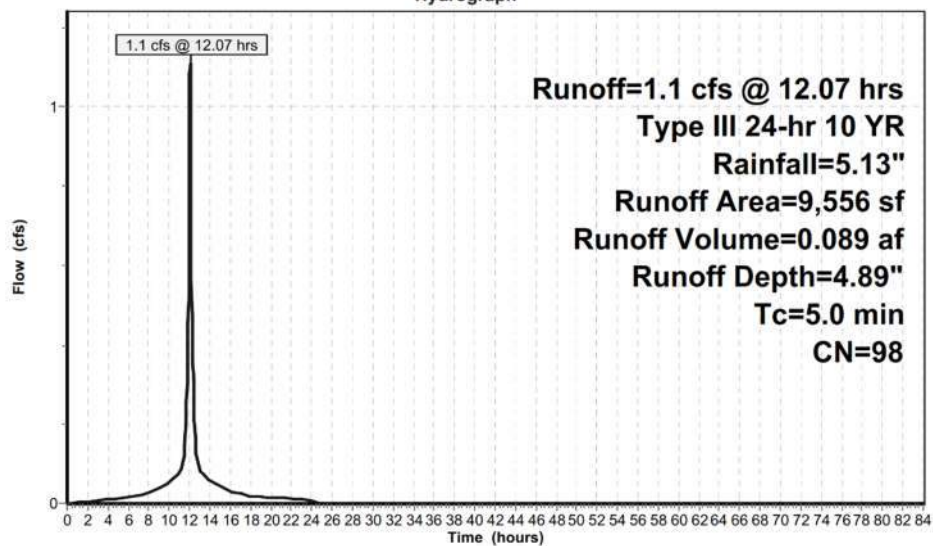
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 9,556 | 98 | Roofs, HSG B |
| 9,556 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4C1: PRWS4C1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Subcatchment PRW55A: PRW55A

Runoff = 9.7 cfs @ 12.26 hrs, Volume= 1.077 af, Depth= 1.31"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 72,273 | 55 | Woods, Good, HSG B |
| 42,776 | 48 | Brush, Good, HSG B |
| 10,560 | 61 | >75% Grass cover, Good, HSG B |
| 12,330 | 61 | >75% Grass cover, Good, HSG B |
| 22,043 | 48 | Brush, Good, HSG B |
| 87,991 | 55 | Woods, Good, HSG B |
| 50,189 | 98 | Paved parking, HSG B |
| 1,904 | 61 | >75% Grass cover, Good, HSG B |
| 7,163 | 61 | >75% Grass cover, Good, HSG B |
| 122,789 | 55 | Woods, Good, HSG B |
| 430,018 | 59 | Weighted Average |
| 379,829 | | 88.33% Pervious Area |
| 50,189 | | 11.67% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 12.1 | 100 | 0.0275 | 0.14 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.8 | 60 | 0.0330 | 1.27 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 31 | 0.2420 | 3.44 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 345 | 0.0520 | 4.63 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.1 | 105 | 0.1840 | 17.23 | 9.40 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 90 | 0.3100 | 8.35 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.1 | 100 | 0.1000 | 1.58 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 83 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 135 | 0.3000 | 8.22 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 16.6 | 1,049 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

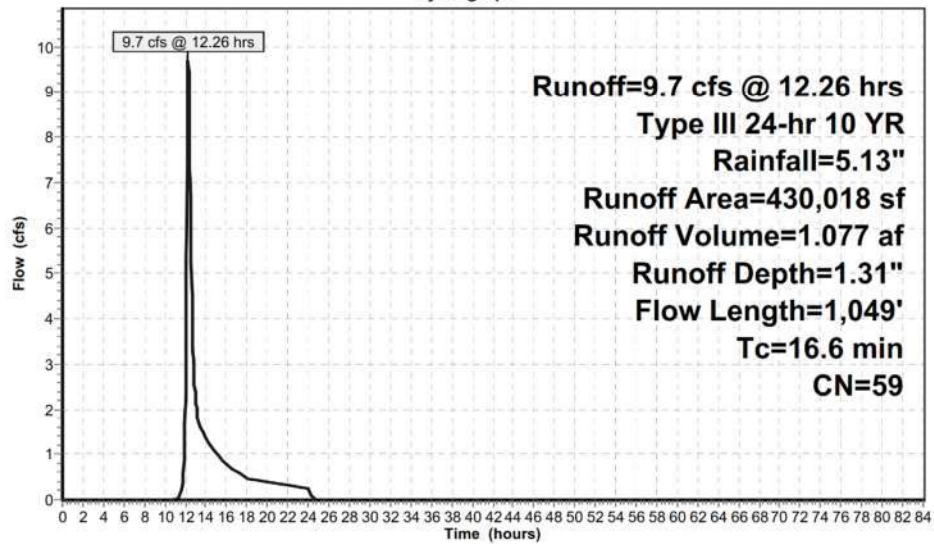
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Type III 24-hr 10 YR Rainfall=5.13"

Subcatchment PRW55A: PRW55A

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Subcatchment PRW55B: PRW55B

Runoff = 1.3 cfs @ 12.07 hrs, Volume= 0.105 af, Depth= 4.89"

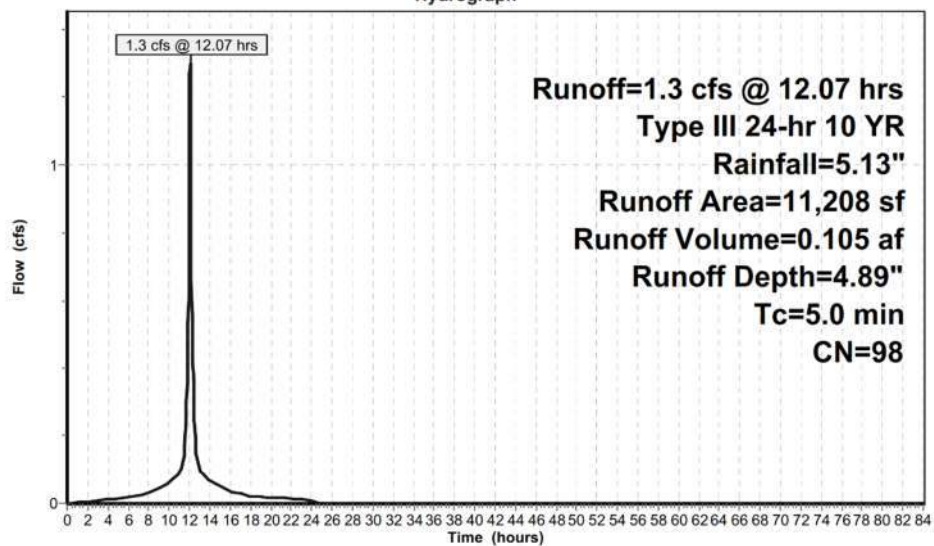
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 11,208 | 98 | Roofs, HSG B |
| 11,208 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRW55B: PRW55B

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Subcatchment PRWS6: PRWS6

Runoff = 9.8 cfs @ 12.13 hrs, Volume= 0.801 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,761 | 61 | >75% Grass cover, Good, HSG B |
| 31,024 | 61 | >75% Grass cover, Good, HSG B |
| 722 | 61 | >75% Grass cover, Good, HSG B |
| 295 | 55 | Woods, Good, HSG B |
| 41,486 | 98 | Paved parking, HSG B |
| 3,920 | 98 | Paved parking, HSG B |
| 4,431 | 61 | >75% Grass cover, Good, HSG B |
| 9,594 | 61 | >75% Grass cover, Good, HSG B |
| 42,897 | 61 | >75% Grass cover, Good, HSG B |
| 1,912 | 61 | >75% Grass cover, Good, HSG B |
| 16,205 | 61 | >75% Grass cover, Good, HSG B |
| 39,833 | 61 | >75% Grass cover, Good, HSG B |
| 204,080 | 69 | Weighted Average |
| 158,674 | | 77.75% Pervious Area |
| 45,406 | | 22.25% Impervious Area |

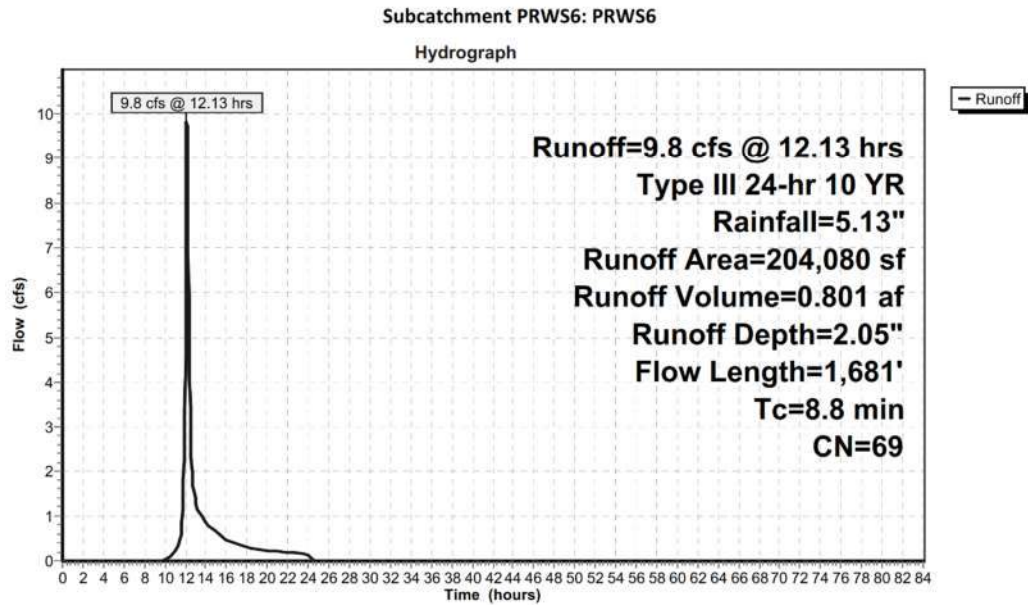
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 6.1 | 100 | 0.0600 | 0.27 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 1.3 | 360 | 0.0930 | 4.57 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 0.4 | 474 | 0.0790 | 20.24 | 63.58 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 200 | 0.0600 | 17.64 | 55.41 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 189 | 0.0700 | 19.05 | 59.85 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.6 | 358 | 0.0170 | 9.39 | 29.50 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 8.8 | 1,681 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

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Type III 24-hr 10 YR Rainfall=5.13"



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Subcatchment PRWS7: PRWS7

Runoff = 0.9 cfs @ 12.17 hrs, Volume= 0.092 af, Depth= 1.24"

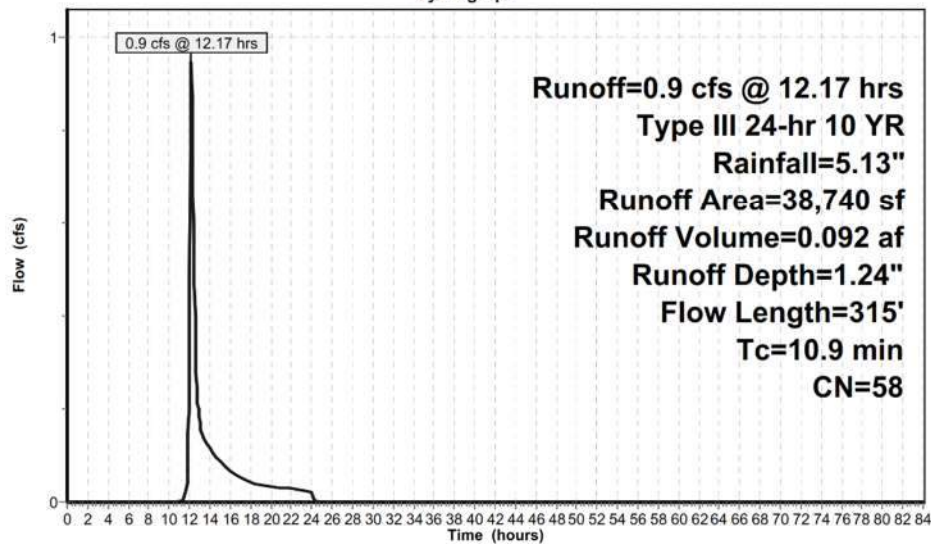
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YR Rainfall=5.13"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,456 | 61 | >75% Grass cover, Good, HSG B |
| 13,598 | 55 | Woods, Good, HSG B |
| 5,422 | 61 | >75% Grass cover, Good, HSG B |
| 8,264 | 55 | Woods, Good, HSG B |
| 38,740 | 58 | Weighted Average |
| 38,740 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.0 | 100 | 0.0620 | 0.28 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 4.9 | 215 | 0.0110 | 0.73 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 10.9 | 315 | | | | Total |

Subcatchment PRWS7: PRWS7

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Pond IS4C1: IS4C1

Inflow Area = 0.219 ac, 100.00% Impervious, Inflow Depth = 4.89" for 10 YR event
Inflow = 1.1 cfs @ 12.07 hrs, Volume= 0.089 af
Outflow = 0.6 cfs @ 12.22 hrs, Volume= 0.089 af, Atten= 43%, Lag= 8.8 min
Discarded = 0.1 cfs @ 10.05 hrs, Volume= 0.075 af
Primary = 0.6 cfs @ 12.22 hrs, Volume= 0.014 af

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 480.61' @ 12.20 hrs Surf.Area= 570 sf Storage= 1,147 cf

Plug-Flow detention time= 149.4 min calculated for 0.089 af (99% of inflow)

Center-of-Mass det. time= 143.5 min (890.1 - 746.7)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 477.50' | 515 cf | 11.17'W x 51.00'L x 3.54'H Field A 2,017 cf Overall - 730 cf Embedded = 1,287 cf x 40.0% Voids |
| #2A | 478.00' | 730 cf | Cultec R-330XL x 14 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,245 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 479.50' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 479.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 480.50' | 5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 477.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 10.05 hrs HW=477.54' (Free Discharge)

↑ **3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.5 cfs @ 12.22 hrs HW=480.61' (Free Discharge)

↑ **1=Culvert** (Passes 0.5 cfs of 2.3 cfs potential flow)

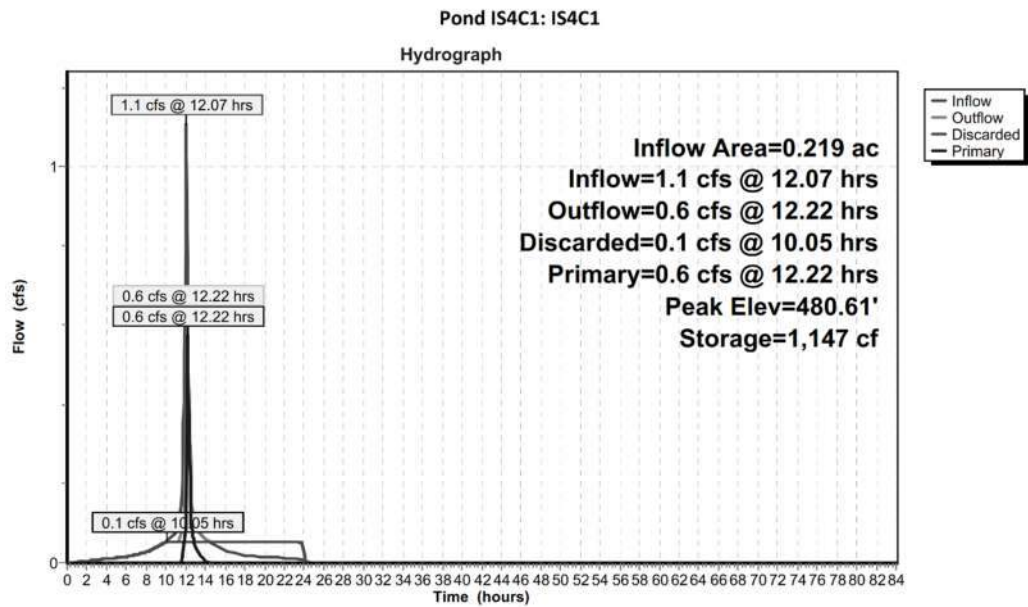
↑ **2=Broad-Crested Rectangular Weir** (Weir Controls 0.5 cfs @ 0.92 fps)

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Pond ISSB: ISSB

Inflow Area = 0.257 ac, 100.00% Impervious, Inflow Depth = 4.89" for 10 YR event
Inflow = 1.3 cfs @ 12.07 hrs, Volume= 0.105 af
Outflow = 1.3 cfs @ 12.12 hrs, Volume= 0.105 af, Atten= 0%, Lag= 2.8 min
Discarded = 0.0 cfs @ 7.90 hrs, Volume= 0.071 af
Primary = 1.3 cfs @ 12.12 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Peak Elev= 3.47' @ 12.12 hrs Surf.Area= 648 sf Storage= 1,399 cf

Plug-Flow detention time= 271.4 min calculated for 0.105 af (100% of inflow)
Center-of-Mass det. time= 271.6 min (1,018.3 - 746.7)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|--------|---------------|--|
| #1A | 0.00' | 584 cf | 11.17'W x 58.00'L x 3.54'H Field A 2,294 cf Overall - 835 cf Embedded = 1,459 cf x 40.0% Voids |
| #2A | 0.50' | 835 cf | Cultec R-330XL x 16 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,418 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|--------|---|
| #1 | Discarded | 0.00' | 2.000 in/hr Exfiltration over Surface area |
| #2 | Primary | 2.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 2.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #3 | Device 2 | 3.20' | 4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Discarded OutFlow Max=0.0 cfs @ 7.90 hrs HW=0.04' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.0 cfs)

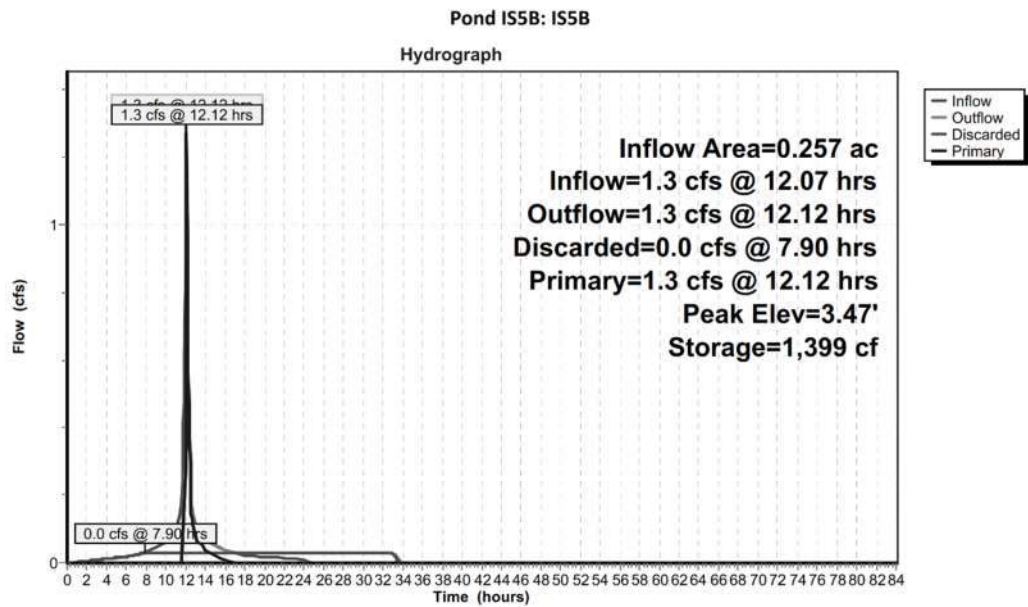
Primary OutFlow Max=1.1 cfs @ 12.12 hrs HW=3.41' (Free Discharge)
↑**2=Culvert** (Passes 1.1 cfs of 3.1 cfs potential flow)
↑**3=Broad-Crested Rectangular Weir** (Weir Controls 1.1 cfs @ 1.30 fps)

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Link PRDP1: PRDP1

Inflow Area = 1.209 ac, 0.00% Impervious, Inflow Depth = 1.11" for 10 YR event

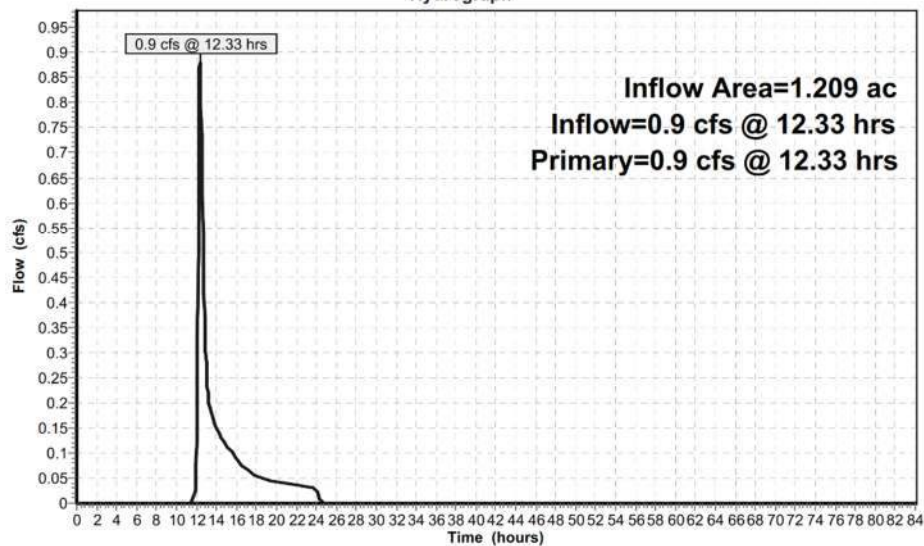
Inflow = 0.9 cfs @ 12.33 hrs, Volume= 0.112 af

Primary = 0.9 cfs @ 12.33 hrs, Volume= 0.112 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP1: PRDP1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Link PRDP2: PRDP2

Inflow Area = 0.205 ac, 0.00% Impervious, Inflow Depth = 1.11" for 10 YR event

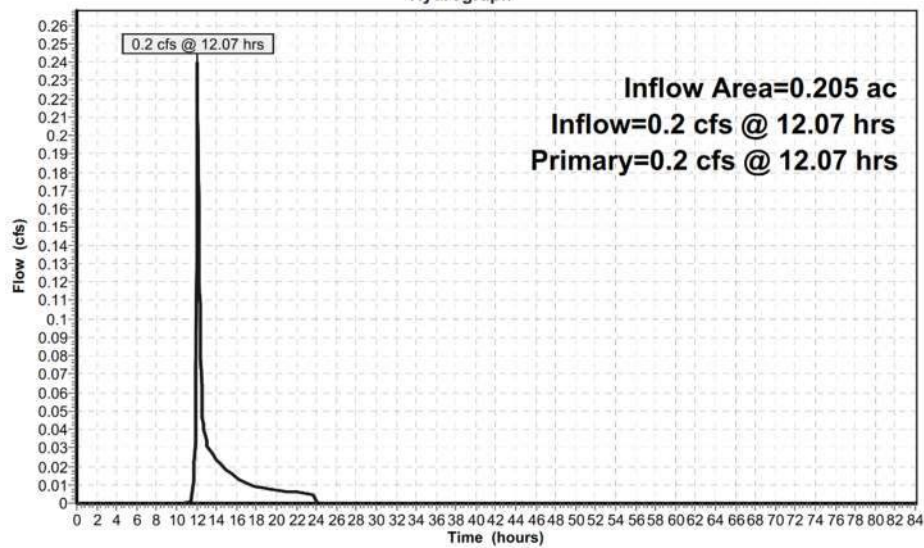
Inflow = 0.2 cfs @ 12.07 hrs, Volume= 0.019 af

Primary = 0.2 cfs @ 12.07 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP2: PRDP2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Link PRDP3: PRDP3

Inflow Area = 0.258 ac, 0.00% Impervious, Inflow Depth = 1.38" for 10 YR event

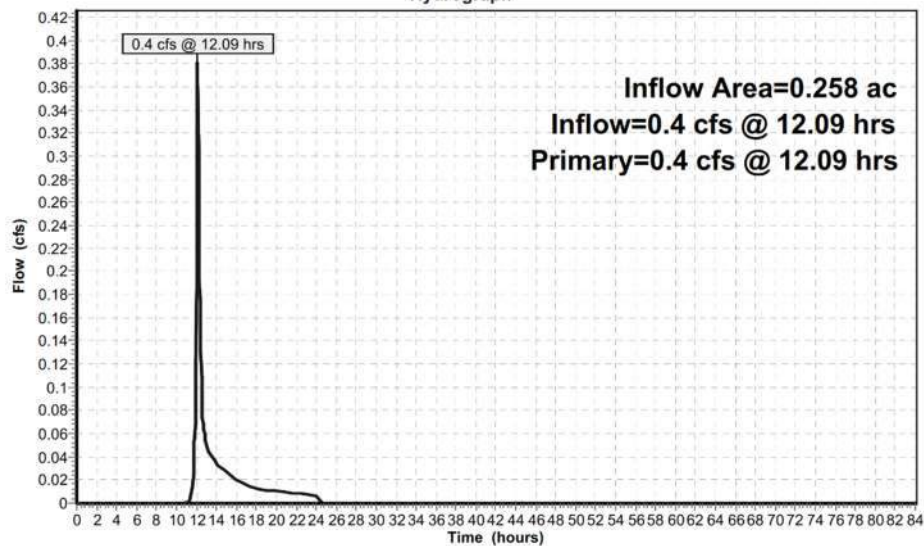
Inflow = 0.4 cfs @ 12.09 hrs, Volume= 0.030 af

Primary = 0.4 cfs @ 12.09 hrs, Volume= 0.030 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP3: PRDP3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Link PRDP4: PRDP4

Inflow Area = 24.951 ac, 40.26% Impervious, Inflow Depth = 1.28" for 10 YR event

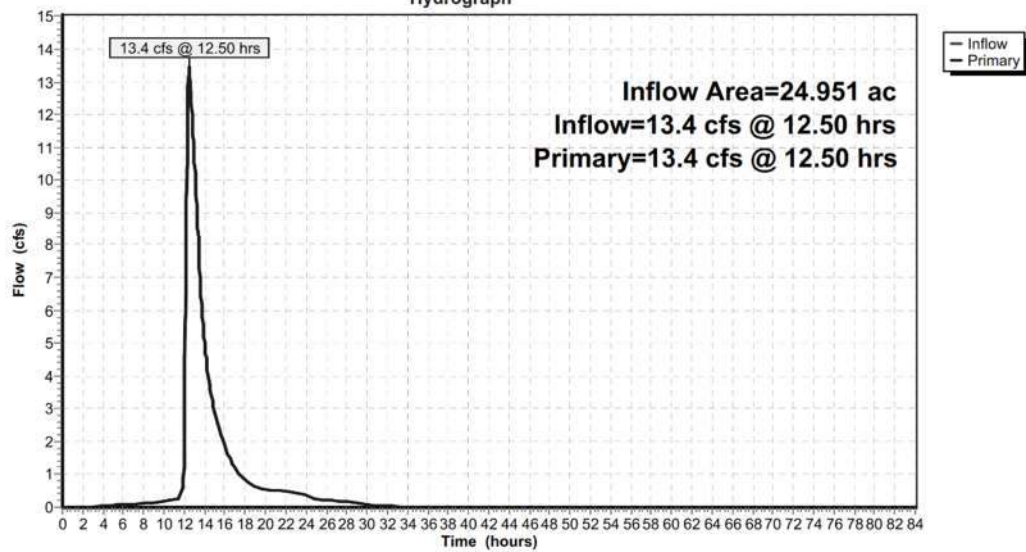
Inflow = 13.4 cfs @ 12.50 hrs, Volume= 2.658 af

Primary = 13.4 cfs @ 12.50 hrs, Volume= 2.658 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP4: PRDP4

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Link PRDP5: PRDP5

Inflow Area = 10.129 ac, 13.92% Impervious, Inflow Depth = 1.32" for 10 YR event

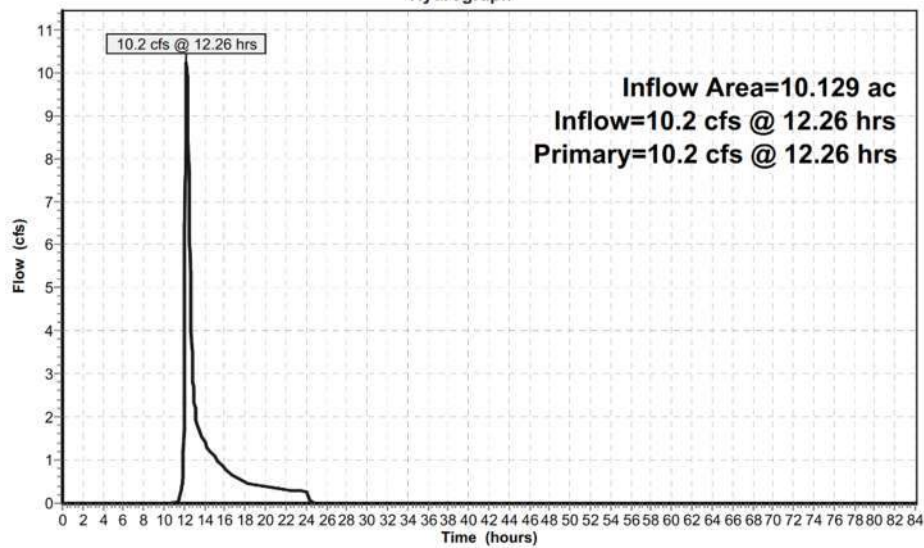
Inflow = 10.2 cfs @ 12.26 hrs, Volume= 1.111 af

Primary = 10.2 cfs @ 12.26 hrs, Volume= 1.111 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP5: PRDP5

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Link PRDP6: PRDP6

Inflow Area = 4.685 ac, 22.25% Impervious, Inflow Depth = 2.05" for 10 YR event

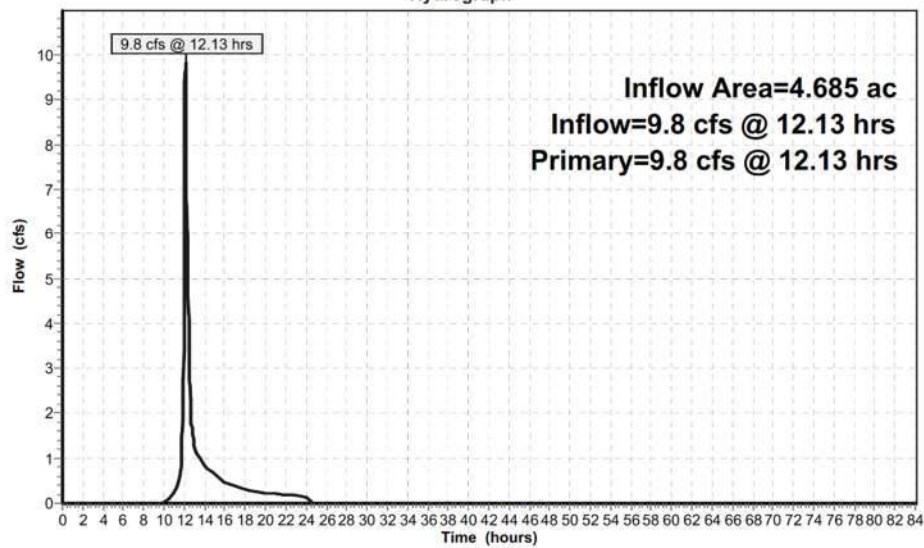
Inflow = 9.8 cfs @ 12.13 hrs, Volume= 0.801 af

Primary = 9.8 cfs @ 12.13 hrs, Volume= 0.801 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP6: PRDP6

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Link PRDP7: PRDP7

Inflow Area = 0.889 ac, 0.00% Impervious, Inflow Depth = 1.24" for 10 YR event

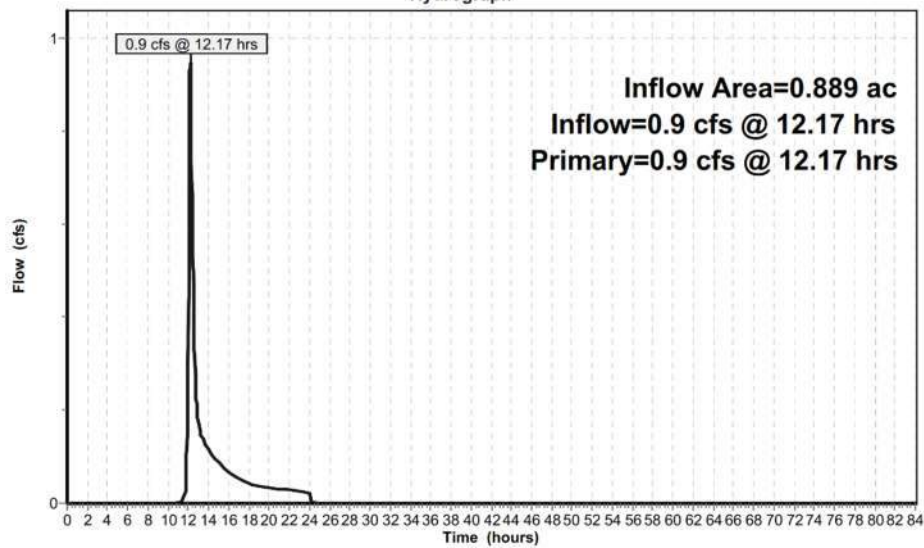
Inflow = 0.9 cfs @ 12.17 hrs, Volume= 0.092 af

Primary = 0.9 cfs @ 12.17 hrs, Volume= 0.092 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP7: PRDP7

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 10 YR Rainfall=5.13"

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Summary for Link TR1: TRANSFER

Inflow Area = 18.709 ac, 52.52% Impervious, Inflow Depth = 1.32" for 10 YR event

Inflow = 10.4 cfs @ 12.65 hrs, Volume= 2.054 af

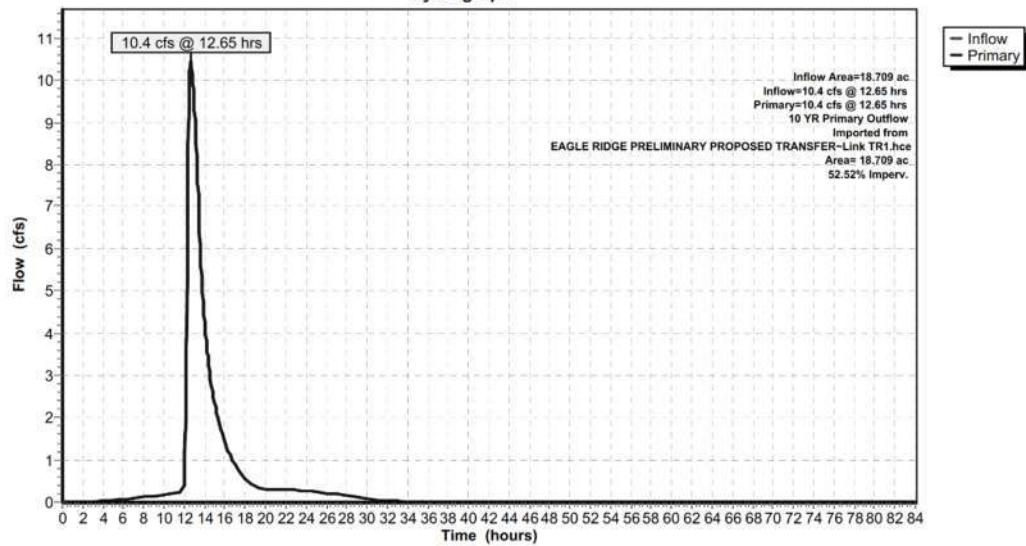
Primary = 10.4 cfs @ 12.65 hrs, Volume= 2.054 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

10 YR Primary Outflow Imported from EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER~Link TR1.hce

Link TR1: TRANSFER

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Time span=0.00-84.00 hrs, dt=0.05 hrs, 1681 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|-------------------------------|---|
| Subcatchment PRWS1: PRWS1 | Runoff Area=52,675 sf 0.00% Impervious Runoff Depth=1.87" Flow Length=332' Tc=20.0 min CN=56 Runoff=1.6 cfs 0.189 af |
| Subcatchment PRWS2: PRWS2 | Runoff Area=8,936 sf 0.00% Impervious Runoff Depth=1.87" Flow Length=62' Slope=0.2420 '/ Tc=3.5 min CN=56 Runoff=0.4 cfs 0.032 af |
| Subcatchment PRWS3: PRWS3 | Runoff Area=11,249 sf 0.00% Impervious Runoff Depth=2.23" Flow Length=107' Tc=5.1 min CN=60 Runoff=0.6 cfs 0.048 af |
| Subcatchment PRWS4C: PRWS4C | Runoff Area=262,387 sf 0.00% Impervious Runoff Depth=1.96" Flow Length=354' Tc=14.0 min CN=57 Runoff=9.9 cfs 0.985 af |
| Subcatchment PRWS4C1: PRWS4C1 | Runoff Area=9,556 sf 100.00% Impervious Runoff Depth=6.22" Tc=5.0 min CN=98 Runoff=1.4 cfs 0.114 af |
| Subcatchment PRWS5A: PRWS5A | Runoff Area=430,018 sf 11.67% Impervious Runoff Depth=2.14" Flow Length=1,049' Tc=16.6 min CN=59 Runoff=16.9 cfs 1.759 af |
| Subcatchment PRWS5B: PRWS5B | Runoff Area=11,208 sf 100.00% Impervious Runoff Depth=6.22" Tc=5.0 min CN=98 Runoff=1.6 cfs 0.133 af |
| Subcatchment PRWS6: PRWS6 | Runoff Area=204,080 sf 22.25% Impervious Runoff Depth=3.08" Flow Length=1,681' Tc=8.8 min CN=69 Runoff=15.0 cfs 1.201 af |
| Subcatchment PRWS7: PRWS7 | Runoff Area=38,740 sf 0.00% Impervious Runoff Depth=2.05" Flow Length=315' Tc=10.9 min CN=58 Runoff=1.7 cfs 0.152 af |
| Pond IS4C1: IS4C1 | Peak Elev=480.71' Storage=1,170 cf Inflow=1.4 cfs 0.114 af Discarded=0.1 cfs 0.082 af Primary=1.3 cfs 0.030 af Outflow=1.4 cfs 0.112 af |
| Pond IS5B: IS5B | Peak Elev=3.47' Storage=1,401 cf Inflow=1.6 cfs 0.133 af Discarded=0.0 cfs 0.076 af Primary=1.6 cfs 0.057 af Outflow=1.7 cfs 0.133 af |
| Link PRDP1: PRDP1 | Inflow=1.6 cfs 0.189 af Primary=1.6 cfs 0.189 af |
| Link PRDP2: PRDP2 | Inflow=0.4 cfs 0.032 af Primary=0.4 cfs 0.032 af |
| Link PRDP3: PRDP3 | Inflow=0.6 cfs 0.048 af Primary=0.6 cfs 0.048 af |
| Link PRDP4: PRDP4 | Inflow=22.4 cfs 4.559 af Primary=22.4 cfs 4.559 af |
| Link PRDP5: PRDP5 | Inflow=17.6 cfs 1.817 af Primary=17.6 cfs 1.817 af |
| Link PRDP6: PRDP6 | Inflow=15.0 cfs 1.201 af Primary=15.0 cfs 1.201 af |
| Link PRDP7: PRDP7 | Inflow=1.7 cfs 0.152 af Primary=1.7 cfs 0.152 af |
| Link TR1: TRANSFER | 25 YR Primary Outflow Imported from EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER~Link TR1.hce Inflow=15.9 cfs 3.545 af Area= 18.709 ac 52.52% Imperv. Primary=15.9 cfs 3.545 af |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Total Runoff Area = 23.619 ac Runoff Volume = 4.613 af Average Runoff Depth = 2.34"
88.69% Pervious = 20.948 ac 11.31% Impervious = 2.671 ac

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRWS1: PRWS1

Runoff = 1.6 cfs @ 12.31 hrs, Volume= 0.189 af, Depth= 1.87"

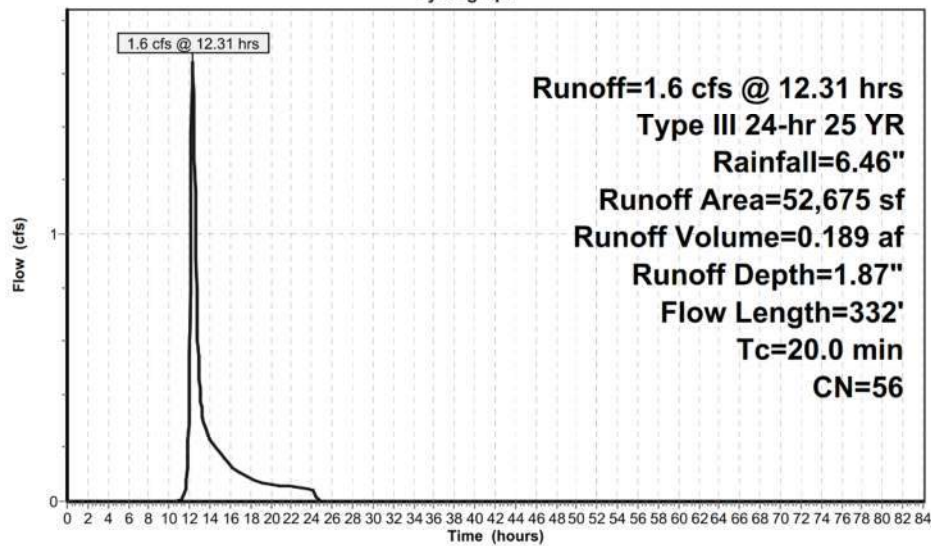
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 24,522 | 55 | Woods, Good, HSG B |
| 9,019 | 61 | >75% Grass cover, Good, HSG B |
| 17,151 | 55 | Woods, Good, HSG B |
| 1,983 | 61 | >75% Grass cover, Good, HSG B |
| 52,675 | 56 | Weighted Average |
| 52,675 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 18.1 | 100 | 0.0280 | 0.09 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.4 | 50 | 0.1650 | 2.03 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 58 | 0.1030 | 1.60 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.9 | 124 | 0.2230 | 2.36 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 20.0 | 332 | Total | | | |

Subcatchment PRWS1: PRWS1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRWS2: PRWS2

Runoff = 0.4 cfs @ 12.06 hrs, Volume= 0.032 af, Depth= 1.87"

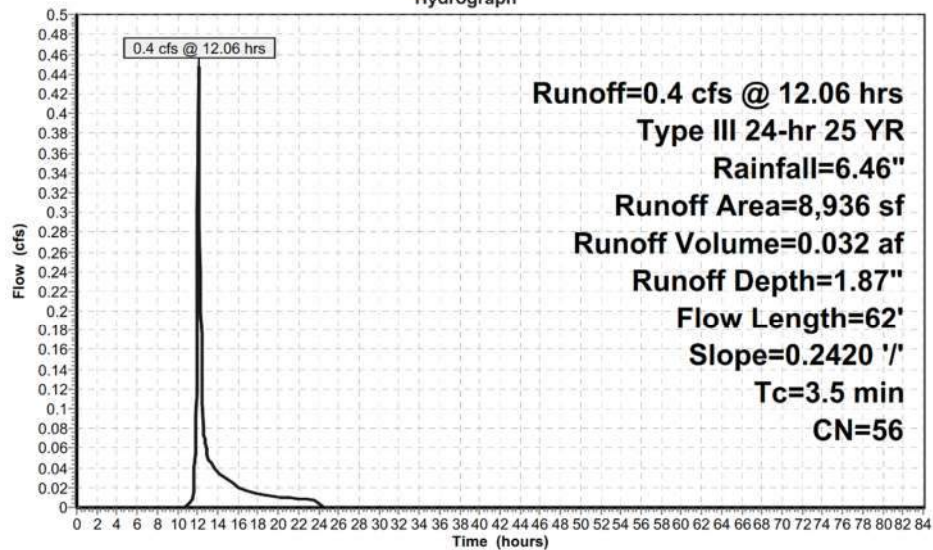
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 7,465 | 55 | Woods, Good, HSG B |
| 1,471 | 61 | >75% Grass cover, Good, HSG B |
| 8,936 | 56 | Weighted Average |
| 8,936 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.5 | 62 | 0.2420 | 0.30 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |

Subcatchment PRWS2: PRWS2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRWS3: PRWS3

Runoff = 0.6 cfs @ 12.09 hrs, Volume= 0.048 af, Depth= 2.23"

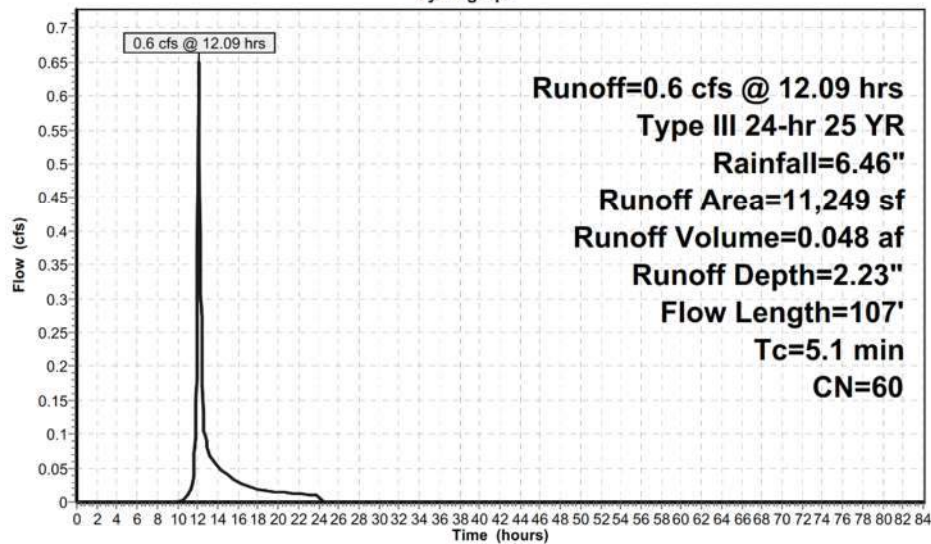
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 9,406 | 61 | >75% Grass cover, Good, HSG B |
| 1,843 | 55 | Woods, Good, HSG B |
| 11,249 | 60 | Weighted Average |
| 11,249 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 1.9 | 40 | 0.1700 | 0.35 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 3.2 | 60 | 0.2700 | 0.31 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.0 | 7 | 0.1400 | 2.62 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 5.1 | 107 | Total | | | |

Subcatchment PRWS3: PRWS3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRWS4C: PRWS4C

Runoff = 9.9 cfs @ 12.21 hrs, Volume= 0.985 af, Depth= 1.96"

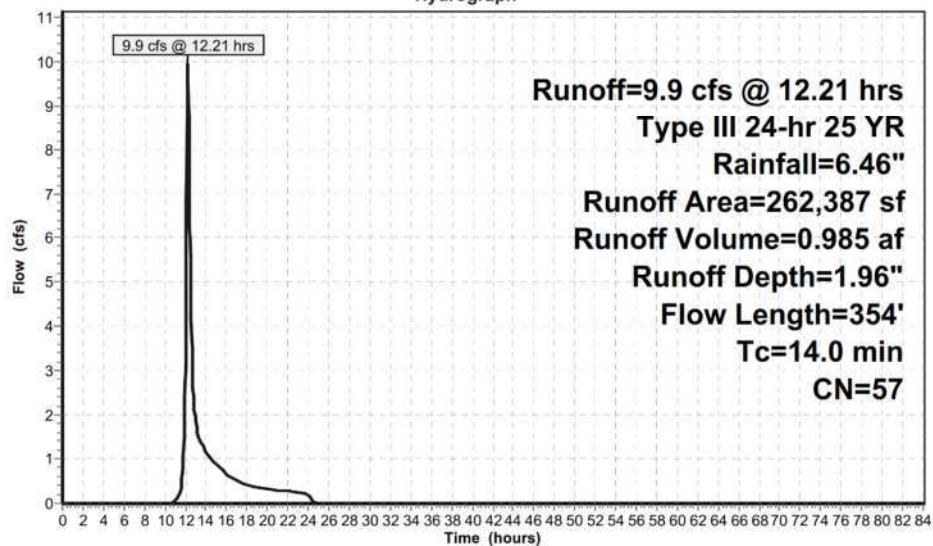
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 92,922 | 61 | >75% Grass cover, Good, HSG B |
| 169,465 | 55 | Woods, Good, HSG B |
| 262,387 | 57 | Weighted Average |
| 262,387 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 7.1 | 44 | 0.0200 | 0.10 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 2.4 | 29 | 0.1380 | 0.20 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 2.9 | 27 | 0.0740 | 0.16 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.4 | 46 | 0.0860 | 2.05 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 208 | 0.3317 | 2.88 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 14.0 | 354 | Total | | | |

Subcatchment PRWS4C: PRWS4C

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRWS4C1: PRWS4C1

Runoff = 1.4 cfs @ 12.07 hrs, Volume= 0.114 af, Depth= 6.22"

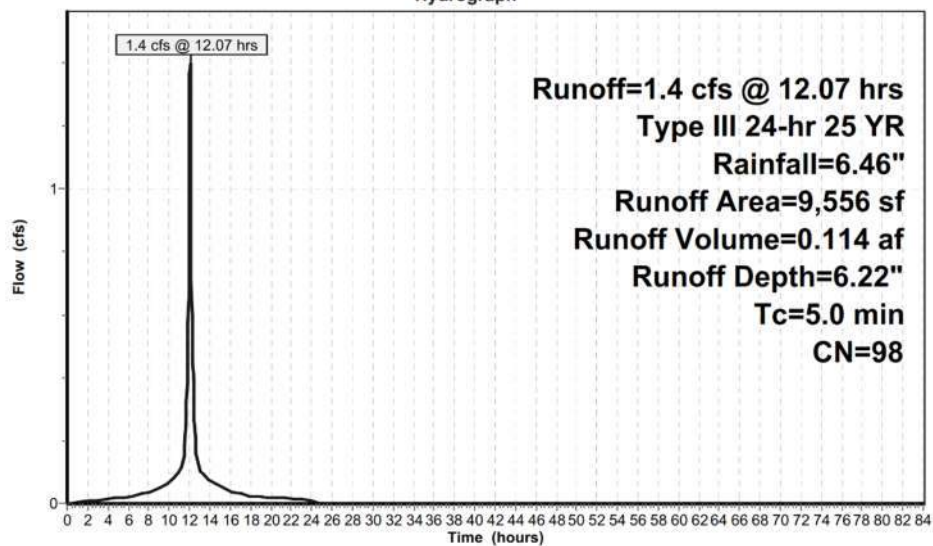
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 9,556 | 98 | Roofs, HSG B |
| 9,556 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4C1: PRWS4C1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRW55A: PRW55A

Runoff = 16.9 cfs @ 12.25 hrs, Volume= 1.759 af, Depth= 2.14"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 72,273 | 55 | Woods, Good, HSG B |
| 42,776 | 48 | Brush, Good, HSG B |
| 10,560 | 61 | >75% Grass cover, Good, HSG B |
| 12,330 | 61 | >75% Grass cover, Good, HSG B |
| 22,043 | 48 | Brush, Good, HSG B |
| 87,991 | 55 | Woods, Good, HSG B |
| 50,189 | 98 | Paved parking, HSG B |
| 1,904 | 61 | >75% Grass cover, Good, HSG B |
| 7,163 | 61 | >75% Grass cover, Good, HSG B |
| 122,789 | 55 | Woods, Good, HSG B |
| 430,018 | 59 | Weighted Average |
| 379,829 | | 88.33% Pervious Area |
| 50,189 | | 11.67% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 12.1 | 100 | 0.0275 | 0.14 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.8 | 60 | 0.0330 | 1.27 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 31 | 0.2420 | 3.44 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 345 | 0.0520 | 4.63 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.1 | 105 | 0.1840 | 17.23 | 9.40 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 90 | 0.3100 | 8.35 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.1 | 100 | 0.1000 | 1.58 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 83 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 135 | 0.3000 | 8.22 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 16.6 | 1,049 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

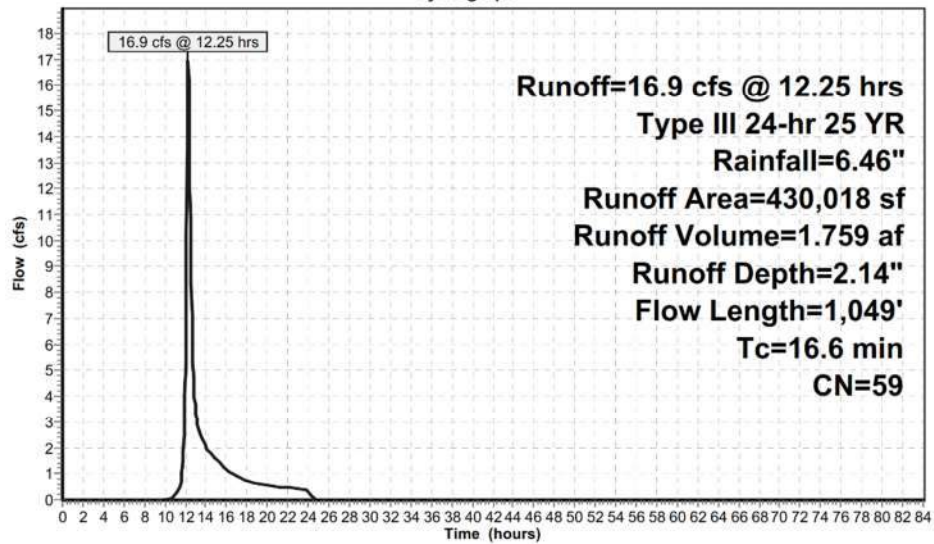
Type III 24-hr 25 YR Rainfall=6.46"

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Subcatchment PRWS5A: PRWS5A

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRW55B: PRW55B

Runoff = 1.6 cfs @ 12.07 hrs, Volume= 0.133 af, Depth= 6.22"

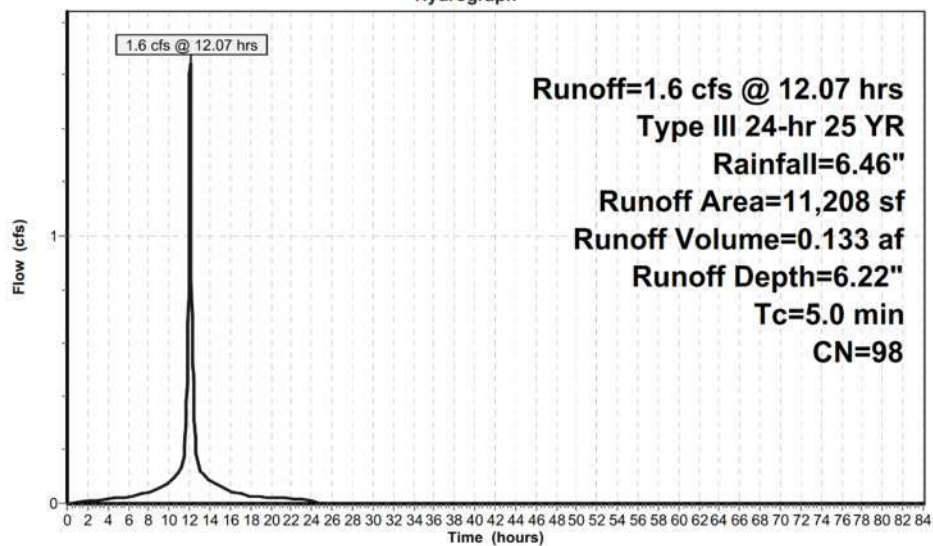
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 11,208 | 98 | Roofs, HSG B |
| 11,208 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRW55B: PRW55B

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRWS6: PRWS6

Runoff = 15.0 cfs @ 12.13 hrs, Volume= 1.201 af, Depth= 3.08"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,761 | 61 | >75% Grass cover, Good, HSG B |
| 31,024 | 61 | >75% Grass cover, Good, HSG B |
| 722 | 61 | >75% Grass cover, Good, HSG B |
| 295 | 55 | Woods, Good, HSG B |
| 41,486 | 98 | Paved parking, HSG B |
| 3,920 | 98 | Paved parking, HSG B |
| 4,431 | 61 | >75% Grass cover, Good, HSG B |
| 9,594 | 61 | >75% Grass cover, Good, HSG B |
| 42,897 | 61 | >75% Grass cover, Good, HSG B |
| 1,912 | 61 | >75% Grass cover, Good, HSG B |
| 16,205 | 61 | >75% Grass cover, Good, HSG B |
| 39,833 | 61 | >75% Grass cover, Good, HSG B |
| 204,080 | 69 | Weighted Average |
| 158,674 | | 77.75% Pervious Area |
| 45,406 | | 22.25% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 6.1 | 100 | 0.0600 | 0.27 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 1.3 | 360 | 0.0930 | 4.57 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 0.4 | 474 | 0.0790 | 20.24 | 63.58 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 200 | 0.0600 | 17.64 | 55.41 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 189 | 0.0700 | 19.05 | 59.85 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.6 | 358 | 0.0170 | 9.39 | 29.50 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 8.8 | 1,681 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

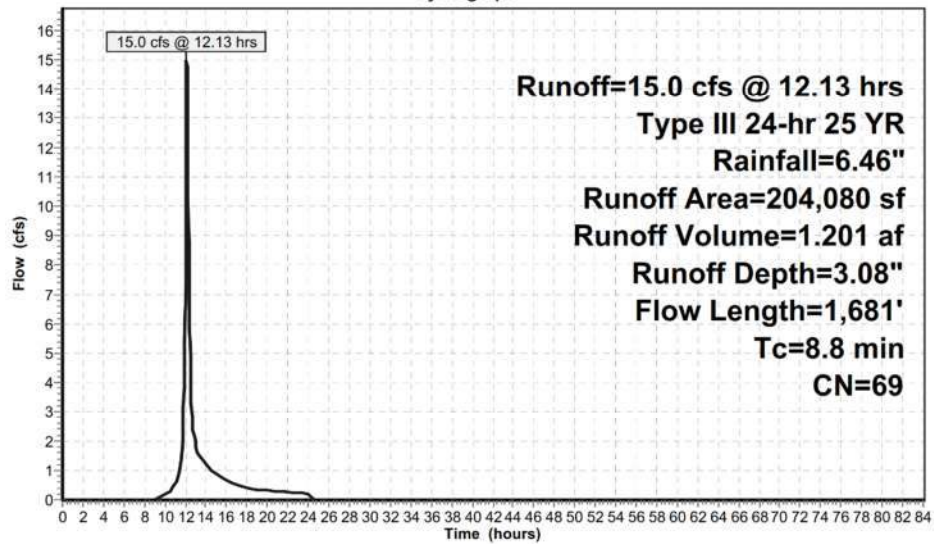
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Type III 24-hr 25 YR Rainfall=6.46"

Subcatchment PRWS6: PRWS6

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Subcatchment PRWS7: PRWS7

Runoff = 1.7 cfs @ 12.17 hrs, Volume= 0.152 af, Depth= 2.05"

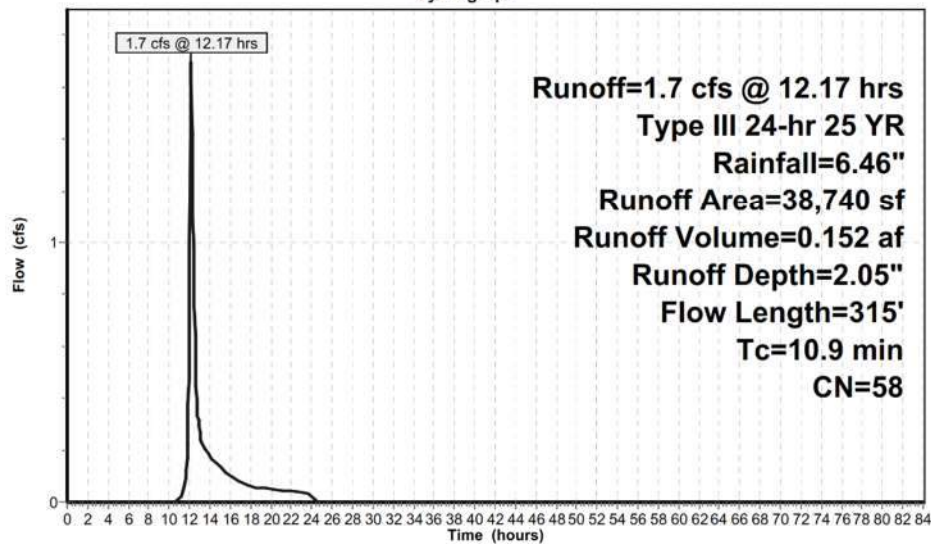
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.46"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,456 | 61 | >75% Grass cover, Good, HSG B |
| 13,598 | 55 | Woods, Good, HSG B |
| 5,422 | 61 | >75% Grass cover, Good, HSG B |
| 8,264 | 55 | Woods, Good, HSG B |
| 38,740 | 58 | Weighted Average |
| 38,740 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.0 | 100 | 0.0620 | 0.28 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 4.9 | 215 | 0.0110 | 0.73 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 10.9 | 315 | | | | Total |

Subcatchment PRWS7: PRWS7

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Pond IS4C1: IS4C1

Inflow Area = 0.219 ac, 100.00% Impervious, Inflow Depth = 6.22" for 25 YR event
Inflow = 1.4 cfs @ 12.07 hrs, Volume= 0.114 af
Outflow = 1.4 cfs @ 12.12 hrs, Volume= 0.112 af, Atten= 3%, Lag= 2.7 min
Discarded = 0.1 cfs @ 9.20 hrs, Volume= 0.082 af
Primary = 1.3 cfs @ 12.12 hrs, Volume= 0.030 af

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 480.71' @ 12.12 hrs Surf.Area= 570 sf Storage= 1,170 cf

Plug-Flow detention time= 140.3 min calculated for 0.112 af (98% of inflow)
Center-of-Mass det. time= 130.0 min (873.2 - 743.1)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 477.50' | 515 cf | 11.17'W x 51.00'L x 3.54'H Field A 2,017 cf Overall - 730 cf Embedded = 1,287 cf x 40.0% Voids |
| #2A | 478.00' | 730 cf | Cultec R-330XL x 14 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,245 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 479.50' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 479.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 480.50' | 5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 477.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 9.20 hrs HW=477.54' (Free Discharge)
↑**3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=1.1 cfs @ 12.12 hrs HW=480.69' (Free Discharge)
↑**1=Culvert** (Passes 1.1 cfs of 2.5 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 1.1 cfs @ 1.21 fps)

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

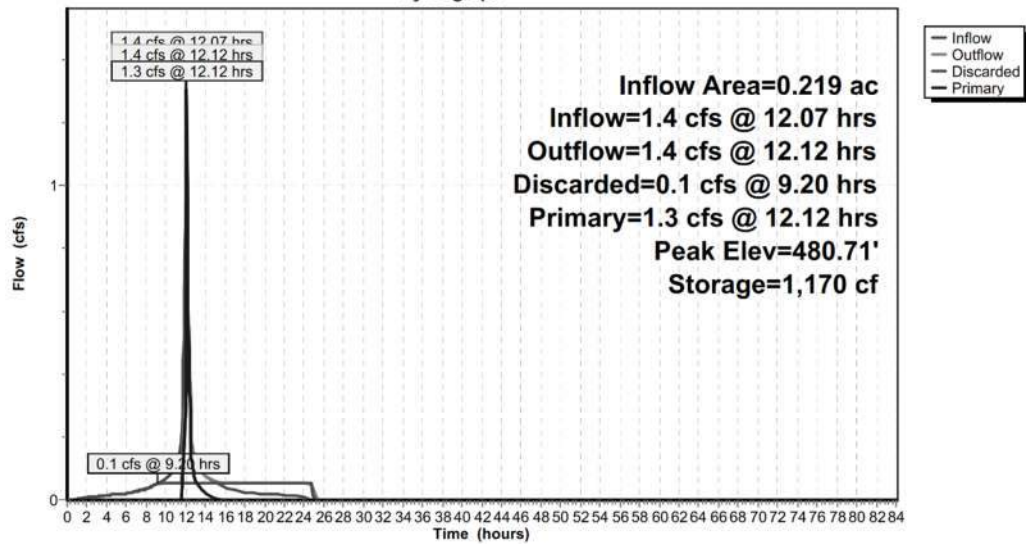
Type III 24-hr 25 YR Rainfall=6.46"

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Pond IS4C1: IS4C1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Pond ISSB: ISSB

Inflow Area = 0.257 ac, 100.00% Impervious, Inflow Depth = 6.22" for 25 YR event
Inflow = 1.6 cfs @ 12.07 hrs, Volume= 0.133 af
Outflow = 1.7 cfs @ 12.09 hrs, Volume= 0.133 af, Atten= 0%, Lag= 1.3 min
Discarded = 0.0 cfs @ 6.90 hrs, Volume= 0.076 af
Primary = 1.6 cfs @ 12.09 hrs, Volume= 0.057 af

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Peak Elev= 3.47' @ 12.09 hrs Surf.Area= 648 sf Storage= 1,401 cf

Plug-Flow detention time= 234.9 min calculated for 0.133 af (100% of inflow)
Center-of-Mass det. time= 234.9 min (978.0 - 743.1)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|--------|---------------|--|
| #1A | 0.00' | 584 cf | 11.17'W x 58.00'L x 3.54'H Field A 2,294 cf Overall - 835 cf Embedded = 1,459 cf x 40.0% Voids |
| #2A | 0.50' | 835 cf | Cultec R-330XL x 16 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,418 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|--------|---|
| #1 | Discarded | 0.00' | 2.000 in/hr Exfiltration over Surface area |
| #2 | Primary | 2.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 2.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #3 | Device 2 | 3.20' | 4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Discarded OutFlow Max=0.0 cfs @ 6.90 hrs HW=0.04' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.0 cfs)

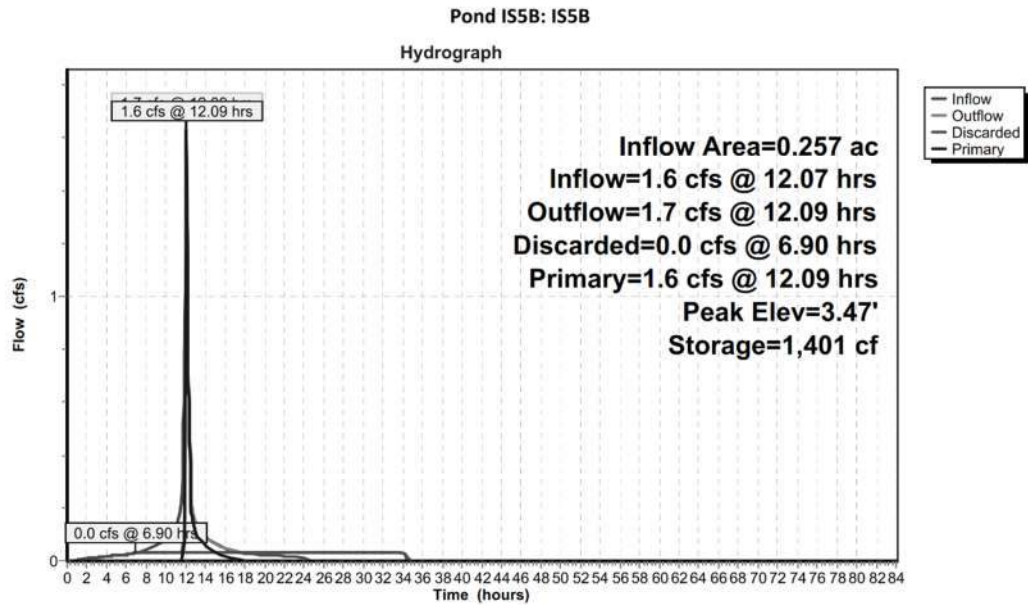
Primary OutFlow Max=1.6 cfs @ 12.09 hrs HW=3.47' (Free Discharge)
↑**2=Culvert** (Passes 1.6 cfs of 3.3 cfs potential flow)
↑**3=Broad-Crested Rectangular Weir** (Weir Controls 1.6 cfs @ 1.47 fps)

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Link PRDP1: PRDP1

Inflow Area = 1.209 ac, 0.00% Impervious, Inflow Depth = 1.87" for 25 YR event

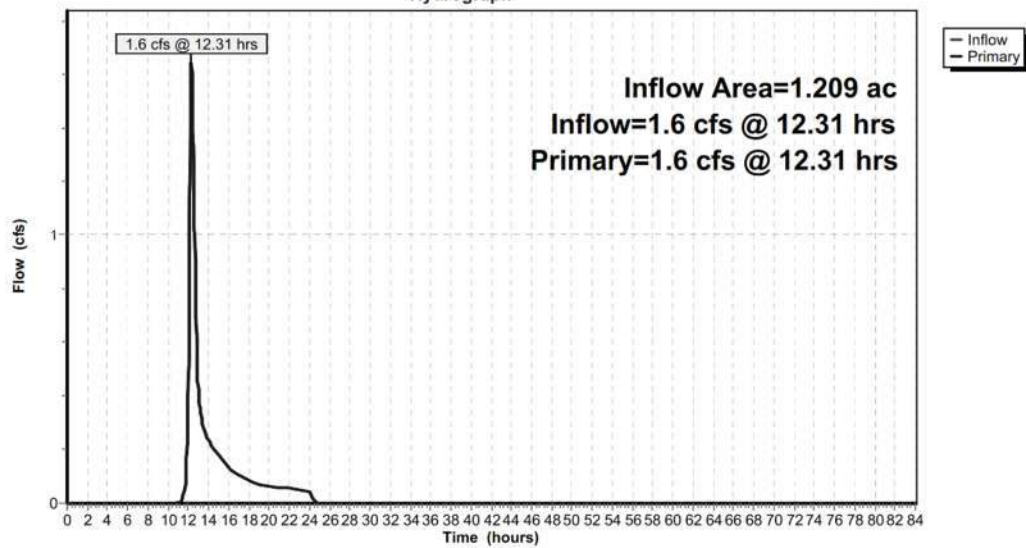
Inflow = 1.6 cfs @ 12.31 hrs, Volume= 0.189 af

Primary = 1.6 cfs @ 12.31 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP1: PRDP1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Link PRDP2: PRDP2

Inflow Area = 0.205 ac, 0.00% Impervious, Inflow Depth = 1.87" for 25 YR event

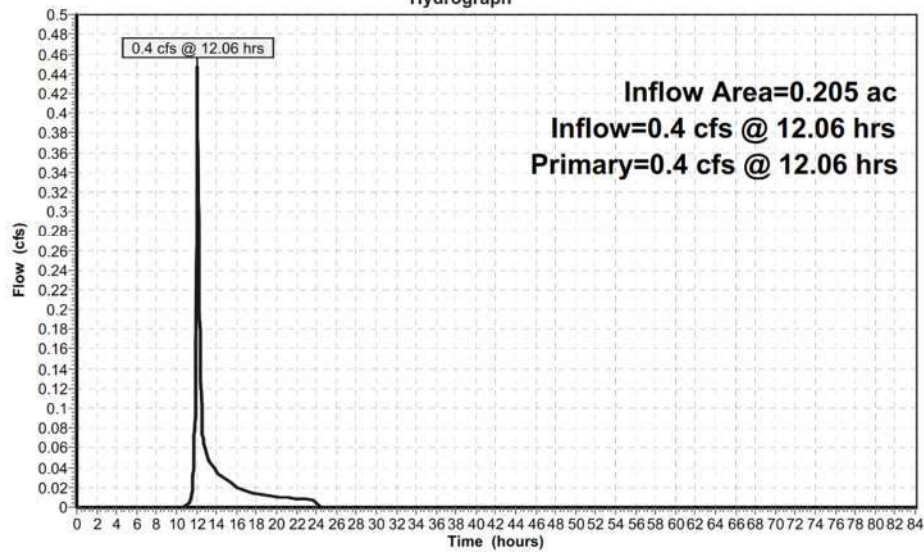
Inflow = 0.4 cfs @ 12.06 hrs, Volume= 0.032 af

Primary = 0.4 cfs @ 12.06 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP2: PRDP2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Link PRDP3: PRDP3

Inflow Area = 0.258 ac, 0.00% Impervious, Inflow Depth = 2.23" for 25 YR event

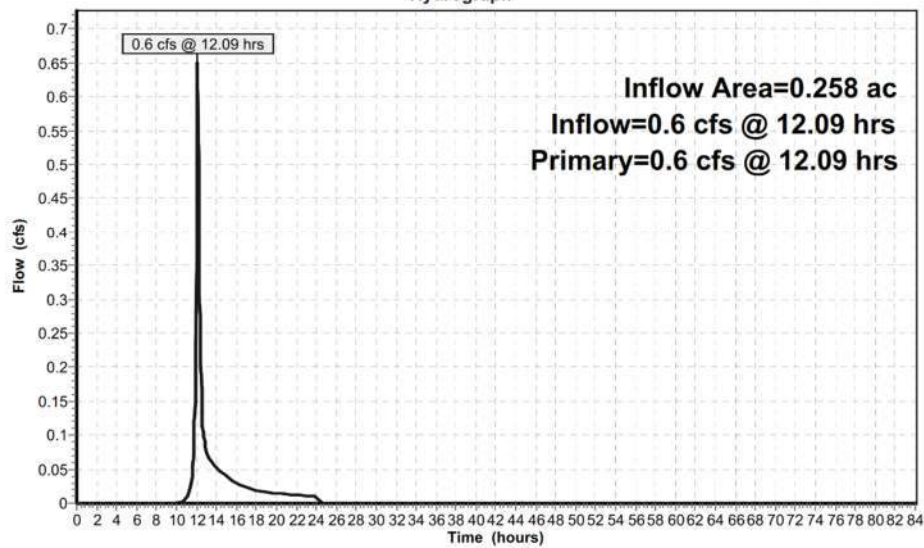
Inflow = 0.6 cfs @ 12.09 hrs, Volume= 0.048 af

Primary = 0.6 cfs @ 12.09 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP3: PRDP3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Link PRDP4: PRDP4

Inflow Area = 24.951 ac, 40.26% Impervious, Inflow Depth = 2.19" for 25 YR event

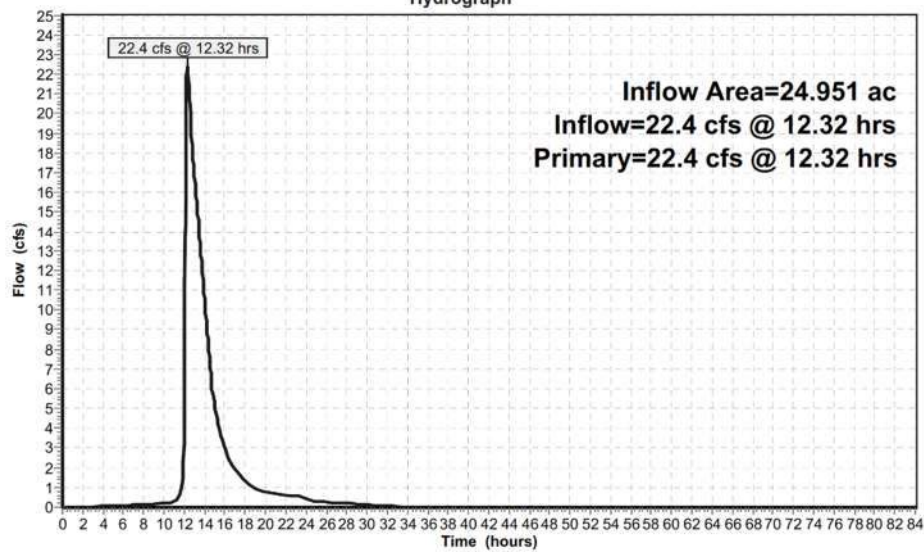
Inflow = 22.4 cfs @ 12.32 hrs, Volume= 4.559 af

Primary = 22.4 cfs @ 12.32 hrs, Volume= 4.559 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP4: PRDP4

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Link PRDP5: PRDP5

Inflow Area = 10.129 ac, 13.92% Impervious, Inflow Depth = 2.15" for 25 YR event

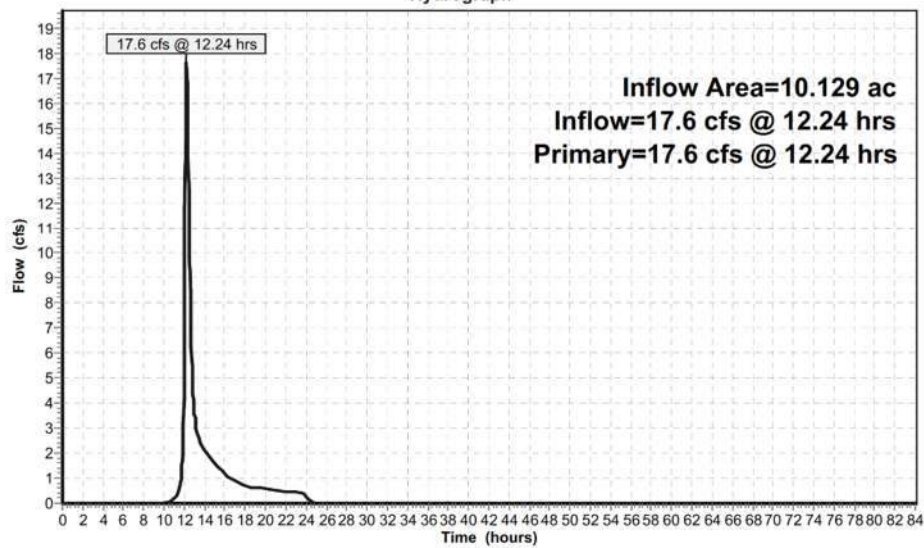
Inflow = 17.6 cfs @ 12.24 hrs, Volume= 1.817 af

Primary = 17.6 cfs @ 12.24 hrs, Volume= 1.817 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP5: PRDP5

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

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Summary for Link PRDP6: PRDP6

Inflow Area = 4.685 ac, 22.25% Impervious, Inflow Depth = 3.08" for 25 YR event

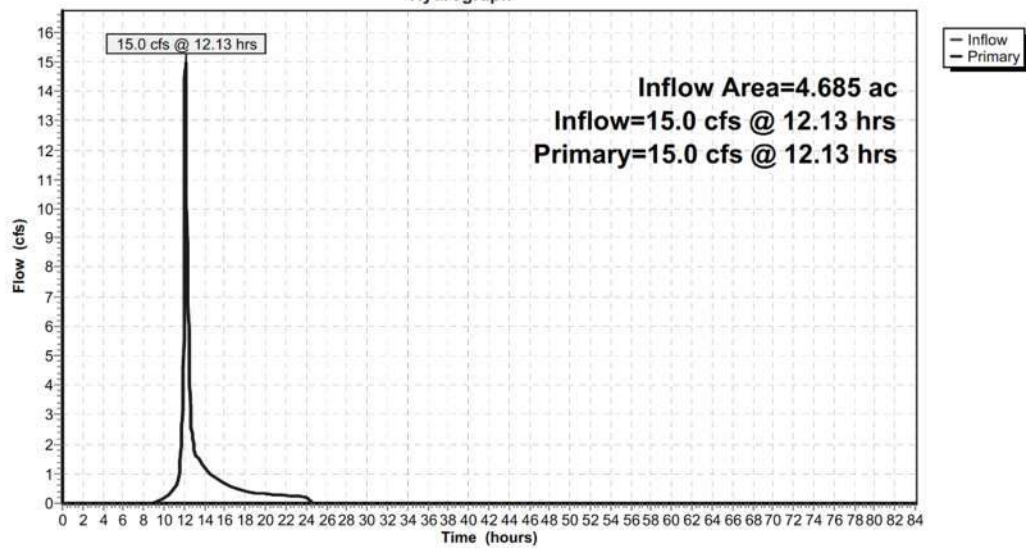
Inflow = 15.0 cfs @ 12.13 hrs, Volume= 1.201 af

Primary = 15.0 cfs @ 12.13 hrs, Volume= 1.201 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP6: PRDP6

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Link PRDP7: PRDP7

Inflow Area = 0.889 ac, 0.00% Impervious, Inflow Depth = 2.05" for 25 YR event

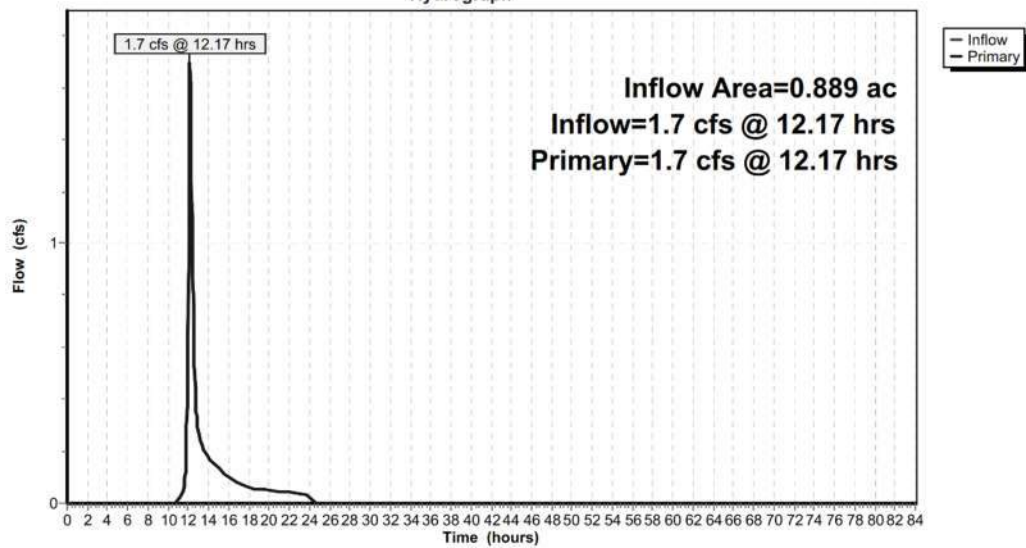
Inflow = 1.7 cfs @ 12.17 hrs, Volume= 0.152 af

Primary = 1.7 cfs @ 12.17 hrs, Volume= 0.152 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP7: PRDP7

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 25 YR Rainfall=6.46"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Link TR1: TRANSFER

Inflow Area = 18.709 ac, 52.52% Impervious, Inflow Depth = 2.27" for 25 YR event

Inflow = 15.9 cfs @ 12.63 hrs, Volume= 3.545 af

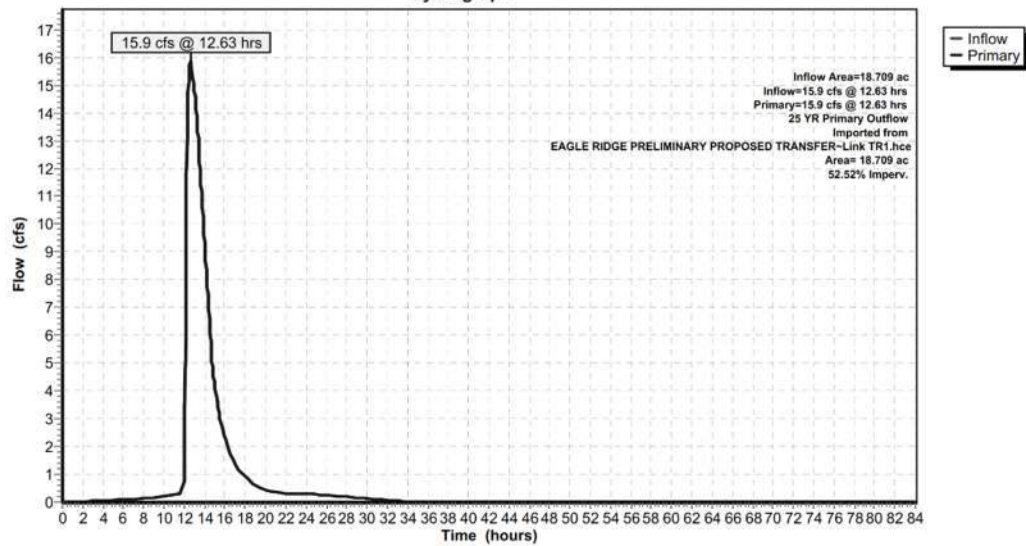
Primary = 15.9 cfs @ 12.63 hrs, Volume= 3.545 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

25 YR Primary Outflow Imported from EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER~Link TR1.hce

Link TR1: TRANSFER

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

Prepared by Alfonzetti Engineering, P.C.

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Time span=0.00-84.00 hrs, dt=0.05 hrs, 1681 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|-------------------------------|---|
| Subcatchment PRWS1: PRWS1 | Runoff Area=52,675 sf 0.00% Impervious Runoff Depth=2.68" Flow Length=332' Tc=20.0 min CN=56 Runoff=2.4 cfs 0.270 af |
| Subcatchment PRWS2: PRWS2 | Runoff Area=8,936 sf 0.00% Impervious Runoff Depth=2.68" Flow Length=62' Slope=0.2420 '/ Tc=3.5 min CN=56 Runoff=0.7 cfs 0.046 af |
| Subcatchment PRWS3: PRWS3 | Runoff Area=11,249 sf 0.00% Impervious Runoff Depth=3.10" Flow Length=107' Tc=5.1 min CN=60 Runoff=0.9 cfs 0.067 af |
| Subcatchment PRWS4C: PRWS4C | Runoff Area=262,387 sf 0.00% Impervious Runoff Depth=2.78" Flow Length=354' Tc=14.0 min CN=57 Runoff=14.6 cfs 1.397 af |
| Subcatchment PRWS4C1: PRWS4C1 | Runoff Area=9,556 sf 100.00% Impervious Runoff Depth=7.45" Tc=5.0 min CN=98 Runoff=1.7 cfs 0.136 af |
| Subcatchment PRWS5A: PRWS5A | Runoff Area=430,018 sf 11.67% Impervious Runoff Depth=3.00" Flow Length=1,049' Tc=16.6 min CN=59 Runoff=24.4 cfs 2.464 af |
| Subcatchment PRWS5B: PRWS5B | Runoff Area=11,208 sf 100.00% Impervious Runoff Depth=7.45" Tc=5.0 min CN=98 Runoff=2.0 cfs 0.160 af |
| Subcatchment PRWS6: PRWS6 | Runoff Area=204,080 sf 22.25% Impervious Runoff Depth=4.09" Flow Length=1,681' Tc=8.8 min CN=69 Runoff=20.0 cfs 1.596 af |
| Subcatchment PRWS7: PRWS7 | Runoff Area=38,740 sf 0.00% Impervious Runoff Depth=2.89" Flow Length=315' Tc=10.9 min CN=58 Runoff=2.5 cfs 0.214 af |
| Pond IS4C1: IS4C1 | Peak Elev=480.73' Storage=1,174 cf Inflow=1.7 cfs 0.136 af Discarded=0.1 cfs 0.088 af Primary=1.6 cfs 0.049 af Outflow=1.6 cfs 0.137 af |
| Pond IS5B: IS5B | Peak Elev=3.50' Storage=1,408 cf Inflow=2.0 cfs 0.160 af Discarded=0.0 cfs 0.080 af Primary=1.9 cfs 0.080 af Outflow=1.9 cfs 0.160 af |
| Link PRDP1: PRDP1 | Inflow=2.4 cfs 0.270 af Primary=2.4 cfs 0.270 af |
| Link PRDP2: PRDP2 | Inflow=0.7 cfs 0.046 af Primary=0.7 cfs 0.046 af |
| Link PRDP3: PRDP3 | Inflow=0.9 cfs 0.067 af Primary=0.9 cfs 0.067 af |
| Link PRDP4: PRDP4 | Inflow=30.6 cfs 6.497 af Primary=30.6 cfs 6.497 af |
| Link PRDP5: PRDP5 | Inflow=25.2 cfs 2.545 af Primary=25.2 cfs 2.545 af |
| Link PRDP6: PRDP6 | Inflow=20.0 cfs 1.596 af Primary=20.0 cfs 1.596 af |
| Link PRDP7: PRDP7 | Inflow=2.5 cfs 0.214 af Primary=2.5 cfs 0.214 af |
| Link TR1: TRANSFER | 50 YR Primary Outflow Imported from EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER~Link TR1.hce Inflow=22.5 cfs 5.050 af Area= 18.709 ac 52.52% Imperv. Primary=22.5 cfs 5.050 af |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Total Runoff Area = 23.619 ac Runoff Volume = 6.350 af Average Runoff Depth = 3.23"
88.69% Pervious = 20.948 ac 11.31% Impervious = 2.671 ac

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment PRWS1: PRWS1

Runoff = 2.4 cfs @ 12.30 hrs, Volume= 0.270 af, Depth= 2.68"

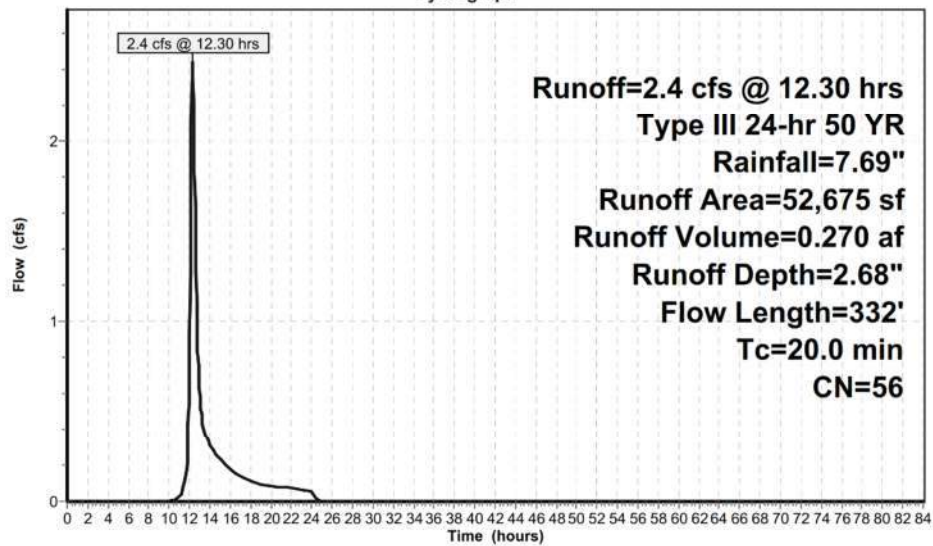
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 24,522 | 55 | Woods, Good, HSG B |
| 9,019 | 61 | >75% Grass cover, Good, HSG B |
| 17,151 | 55 | Woods, Good, HSG B |
| 1,983 | 61 | >75% Grass cover, Good, HSG B |
| 52,675 | 56 | Weighted Average |
| 52,675 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 18.1 | 100 | 0.0280 | 0.09 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.4 | 50 | 0.1650 | 2.03 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 58 | 0.1030 | 1.60 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.9 | 124 | 0.2230 | 2.36 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 20.0 | 332 | Total | | | |

Subcatchment PRWS1: PRWS1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment PRWS2: PRWS2

Runoff = 0.7 cfs @ 12.06 hrs, Volume= 0.046 af, Depth= 2.68"

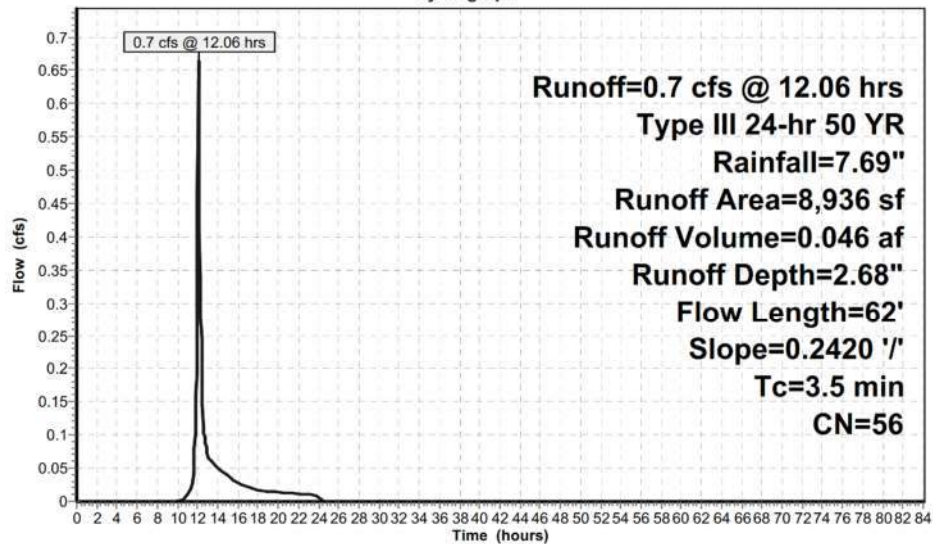
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 7,465 | 55 | Woods, Good, HSG B |
| 1,471 | 61 | >75% Grass cover, Good, HSG B |
| 8,936 | 56 | Weighted Average |
| 8,936 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.5 | 62 | 0.2420 | 0.30 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |

Subcatchment PRWS2: PRWS2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment PRWS3: PRWS3

Runoff = 0.9 cfs @ 12.08 hrs, Volume= 0.067 af, Depth= 3.10"

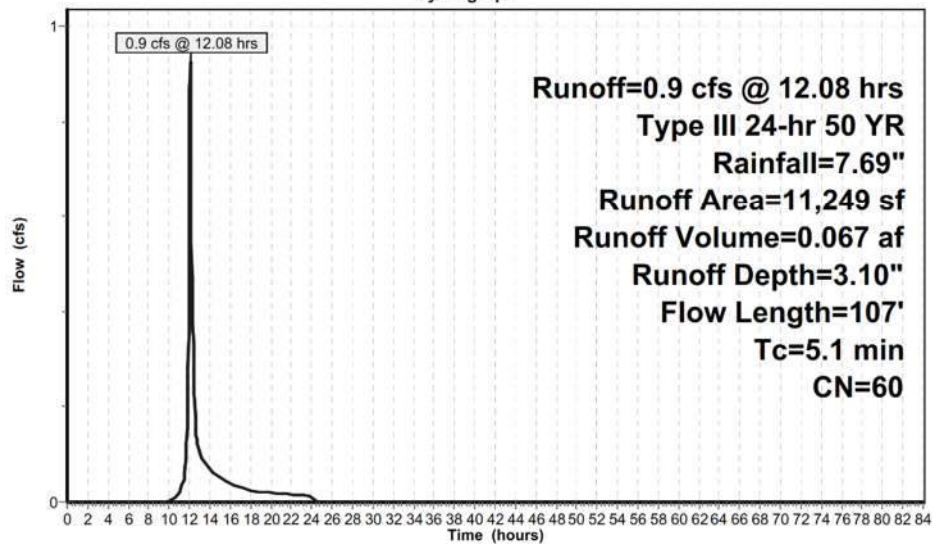
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 9,406 | 61 | >75% Grass cover, Good, HSG B |
| 1,843 | 55 | Woods, Good, HSG B |
| 11,249 | 60 | Weighted Average |
| 11,249 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 1.9 | 40 | 0.1700 | 0.35 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 3.2 | 60 | 0.2700 | 0.31 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.0 | 7 | 0.1400 | 2.62 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 5.1 | 107 | Total | | | |

Subcatchment PRWS3: PRWS3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment PRWS4C: PRWS4C

Runoff = 14.6 cfs @ 12.21 hrs, Volume= 1.397 af, Depth= 2.78"

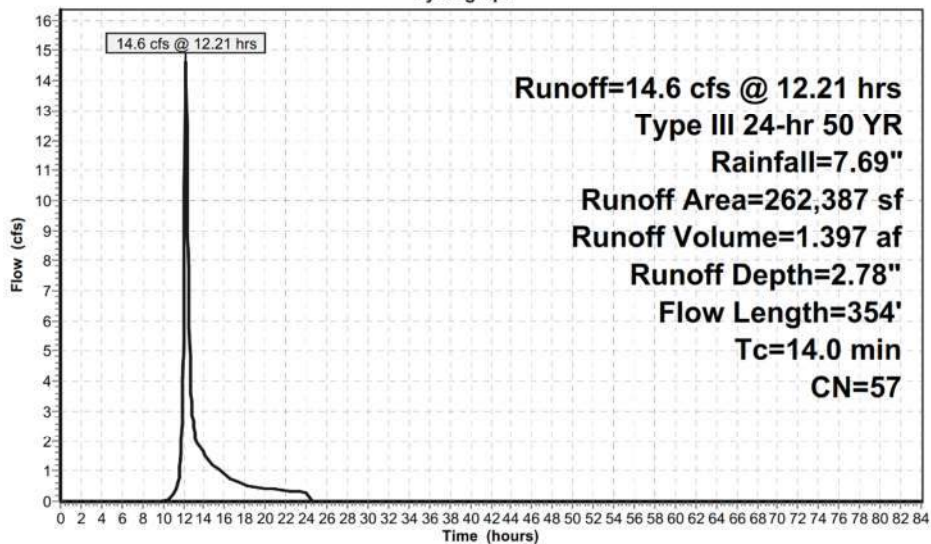
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 92,922 | 61 | >75% Grass cover, Good, HSG B |
| 169,465 | 55 | Woods, Good, HSG B |
| 262,387 | 57 | Weighted Average |
| 262,387 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 7.1 | 44 | 0.0200 | 0.10 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 2.4 | 29 | 0.1380 | 0.20 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 2.9 | 27 | 0.0740 | 0.16 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.4 | 46 | 0.0860 | 2.05 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 208 | 0.3317 | 2.88 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 14.0 | 354 | Total | | | |

Subcatchment PRWS4C: PRWS4C

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment PRWS4C1: PRWS4C1

Runoff = 1.7 cfs @ 12.07 hrs, Volume= 0.136 af, Depth= 7.45"

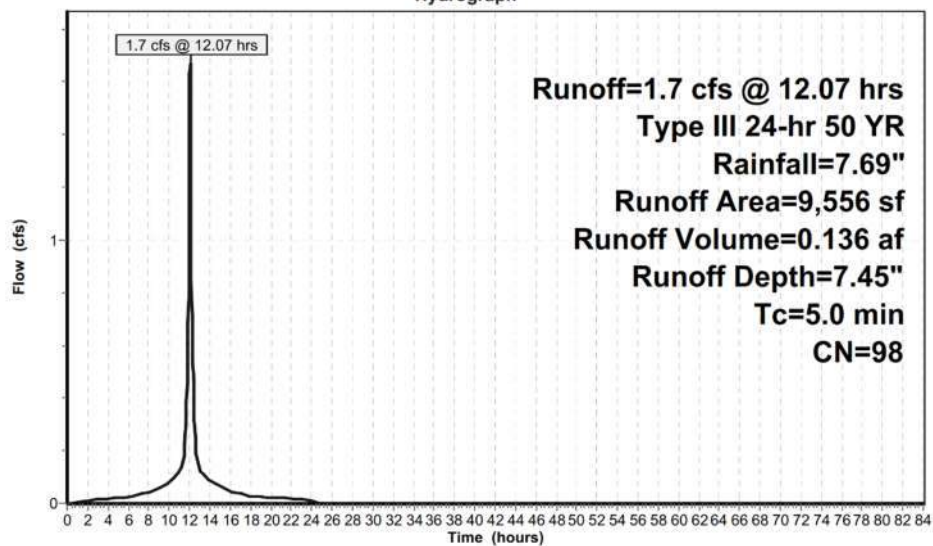
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 9,556 | 98 | Roofs, HSG B |
| 9,556 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4C1: PRWS4C1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment PRW55A: PRW55A

Runoff = 24.4 cfs @ 12.24 hrs, Volume= 2.464 af, Depth= 3.00"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 72,273 | 55 | Woods, Good, HSG B |
| 42,776 | 48 | Brush, Good, HSG B |
| 10,560 | 61 | >75% Grass cover, Good, HSG B |
| 12,330 | 61 | >75% Grass cover, Good, HSG B |
| 22,043 | 48 | Brush, Good, HSG B |
| 87,991 | 55 | Woods, Good, HSG B |
| 50,189 | 98 | Paved parking, HSG B |
| 1,904 | 61 | >75% Grass cover, Good, HSG B |
| 7,163 | 61 | >75% Grass cover, Good, HSG B |
| 122,789 | 55 | Woods, Good, HSG B |
| 430,018 | 59 | Weighted Average |
| 379,829 | | 88.33% Pervious Area |
| 50,189 | | 11.67% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 12.1 | 100 | 0.0275 | 0.14 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.8 | 60 | 0.0330 | 1.27 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 31 | 0.2420 | 3.44 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 345 | 0.0520 | 4.63 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.1 | 105 | 0.1840 | 17.23 | 9.40 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 90 | 0.3100 | 8.35 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.1 | 100 | 0.1000 | 1.58 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 83 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 135 | 0.3000 | 8.22 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 16.6 | 1,049 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

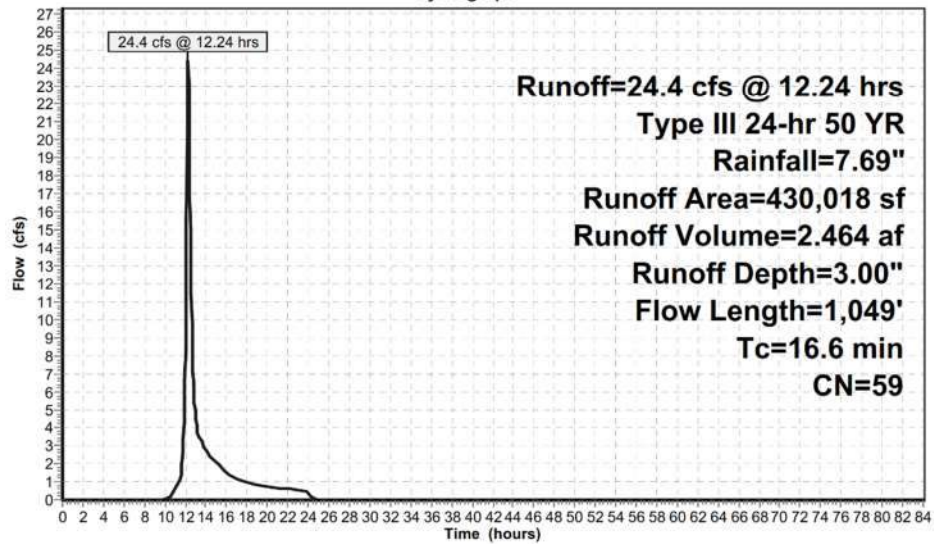
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Type III 24-hr 50 YR Rainfall=7.69"

Subcatchment PRW55A: PRW55A

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment PRW55B: PRW55B

Runoff = 2.0 cfs @ 12.07 hrs, Volume= 0.160 af, Depth= 7.45"

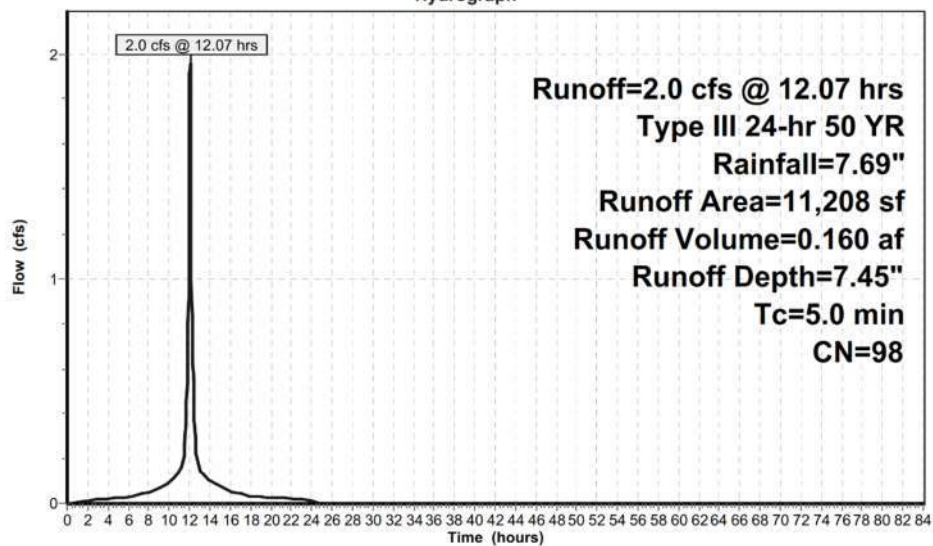
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 11,208 | 98 | Roofs, HSG B |
| 11,208 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRW55B: PRW55B

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment PRWS6: PRWS6

Runoff = 20.0 cfs @ 12.13 hrs, Volume= 1.596 af, Depth= 4.09"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,761 | 61 | >75% Grass cover, Good, HSG B |
| 31,024 | 61 | >75% Grass cover, Good, HSG B |
| 722 | 61 | >75% Grass cover, Good, HSG B |
| 295 | 55 | Woods, Good, HSG B |
| 41,486 | 98 | Paved parking, HSG B |
| 3,920 | 98 | Paved parking, HSG B |
| 4,431 | 61 | >75% Grass cover, Good, HSG B |
| 9,594 | 61 | >75% Grass cover, Good, HSG B |
| 42,897 | 61 | >75% Grass cover, Good, HSG B |
| 1,912 | 61 | >75% Grass cover, Good, HSG B |
| 16,205 | 61 | >75% Grass cover, Good, HSG B |
| 39,833 | 61 | >75% Grass cover, Good, HSG B |
| 204,080 | 69 | Weighted Average |
| 158,674 | | 77.75% Pervious Area |
| 45,406 | | 22.25% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 6.1 | 100 | 0.0600 | 0.27 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 1.3 | 360 | 0.0930 | 4.57 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 0.4 | 474 | 0.0790 | 20.24 | 63.58 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 200 | 0.0600 | 17.64 | 55.41 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 189 | 0.0700 | 19.05 | 59.85 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.6 | 358 | 0.0170 | 9.39 | 29.50 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 8.8 | 1,681 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

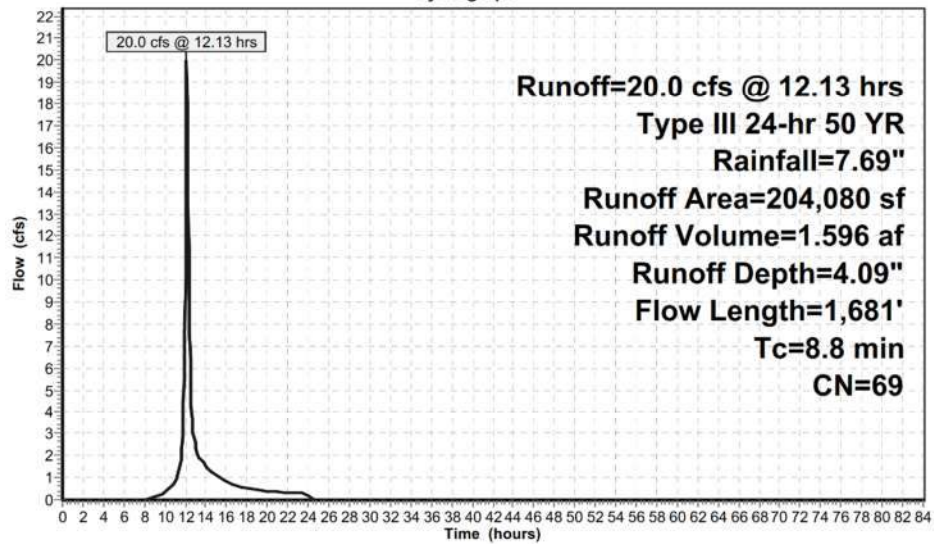
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Type III 24-hr 50 YR Rainfall=7.69"

Subcatchment PRWS6: PRWS6

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Subcatchment PRWS7: PRWS7

Runoff = 2.5 cfs @ 12.16 hrs, Volume= 0.214 af, Depth= 2.89"

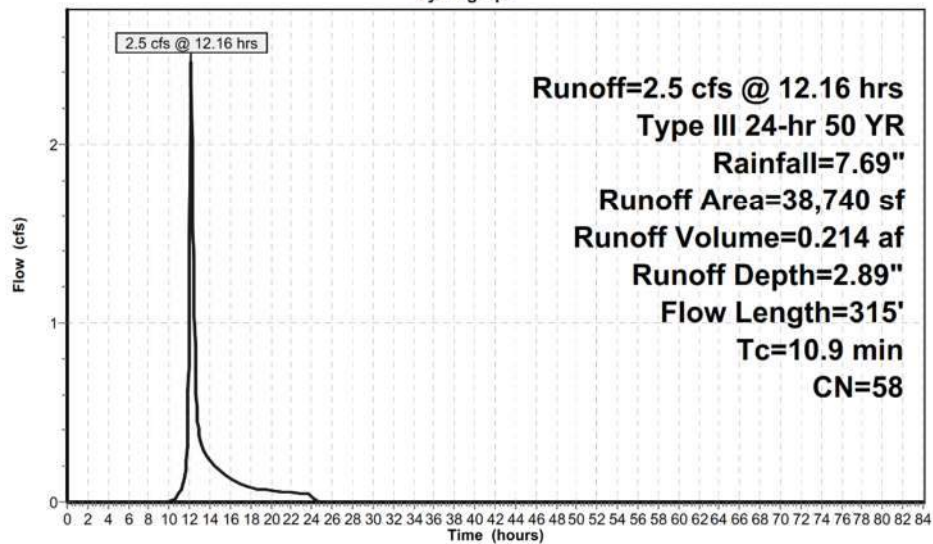
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 YR Rainfall=7.69"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,456 | 61 | >75% Grass cover, Good, HSG B |
| 13,598 | 55 | Woods, Good, HSG B |
| 5,422 | 61 | >75% Grass cover, Good, HSG B |
| 8,264 | 55 | Woods, Good, HSG B |
| 38,740 | 58 | Weighted Average |
| 38,740 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.0 | 100 | 0.0620 | 0.28 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 4.9 | 215 | 0.0110 | 0.73 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 10.9 | 315 | | | | Total |

Subcatchment PRWS7: PRWS7

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

Prepared by Alfonzetti Engineering, P.C.

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Summary for Pond IS4C1: IS4C1

Inflow Area = 0.219 ac, 100.00% Impervious, Inflow Depth = 7.45" for 50 YR event
Inflow = 1.7 cfs @ 12.07 hrs, Volume= 0.136 af
Outflow = 1.6 cfs @ 12.08 hrs, Volume= 0.137 af, Atten= 3%, Lag= 0.3 min
Discarded = 0.1 cfs @ 8.65 hrs, Volume= 0.088 af
Primary = 1.6 cfs @ 12.08 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 480.73' @ 12.08 hrs Surf.Area= 570 sf Storage= 1,174 cf

Plug-Flow detention time= 112.1 min calculated for 0.136 af (100% of inflow)

Center-of-Mass det. time= 117.1 min (857.8 - 740.8)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 477.50' | 515 cf | 11.17'W x 51.00'L x 3.54'H Field A 2,017 cf Overall - 730 cf Embedded = 1,287 cf x 40.0% Voids |
| #2A | 478.00' | 730 cf | Cultec R-330XL x 14 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,245 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 479.50' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 479.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 480.50' | 5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 477.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 8.65 hrs HW=477.54' (Free Discharge)

↑ **3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=1.5 cfs @ 12.08 hrs HW=480.73' (Free Discharge)

↑ **1=Culvert** (Passes 1.5 cfs of 2.6 cfs potential flow)

↑ **2=Broad-Crested Rectangular Weir** (Weir Controls 1.5 cfs @ 1.34 fps)

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

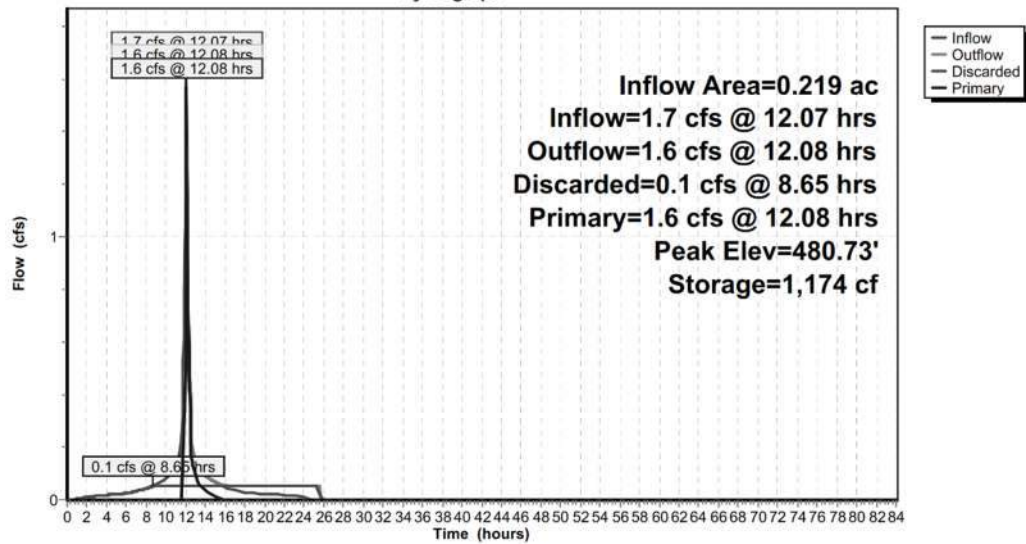
Type III 24-hr 50 YR Rainfall=7.69"

Prepared by Alfonzetti Engineering, P.C.

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Pond IS4C1: IS4C1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Pond ISSB: ISSB

Inflow Area = 0.257 ac, 100.00% Impervious, Inflow Depth = 7.45" for 50 YR event
Inflow = 2.0 cfs @ 12.07 hrs, Volume= 0.160 af
Outflow = 1.9 cfs @ 12.08 hrs, Volume= 0.160 af, Atten= 1%, Lag= 0.7 min
Discarded = 0.0 cfs @ 6.25 hrs, Volume= 0.080 af
Primary = 1.9 cfs @ 12.08 hrs, Volume= 0.080 af

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Peak Elev= 3.50' @ 12.08 hrs Surf.Area= 648 sf Storage= 1,408 cf

Plug-Flow detention time= 210.9 min calculated for 0.160 af (100% of inflow)
Center-of-Mass det. time= 211.2 min (952.0 - 740.8)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|--------|---------------|--|
| #1A | 0.00' | 584 cf | 11.17'W x 58.00'L x 3.54'H Field A 2,294 cf Overall - 835 cf Embedded = 1,459 cf x 40.0% Voids |
| #2A | 0.50' | 835 cf | Cultec R-330XL x 16 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,418 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|--------|---|
| #1 | Discarded | 0.00' | 2.000 in/hr Exfiltration over Surface area |
| #2 | Primary | 2.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 2.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #3 | Device 2 | 3.20' | 4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Discarded OutFlow Max=0.0 cfs @ 6.25 hrs HW=0.04' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.0 cfs)

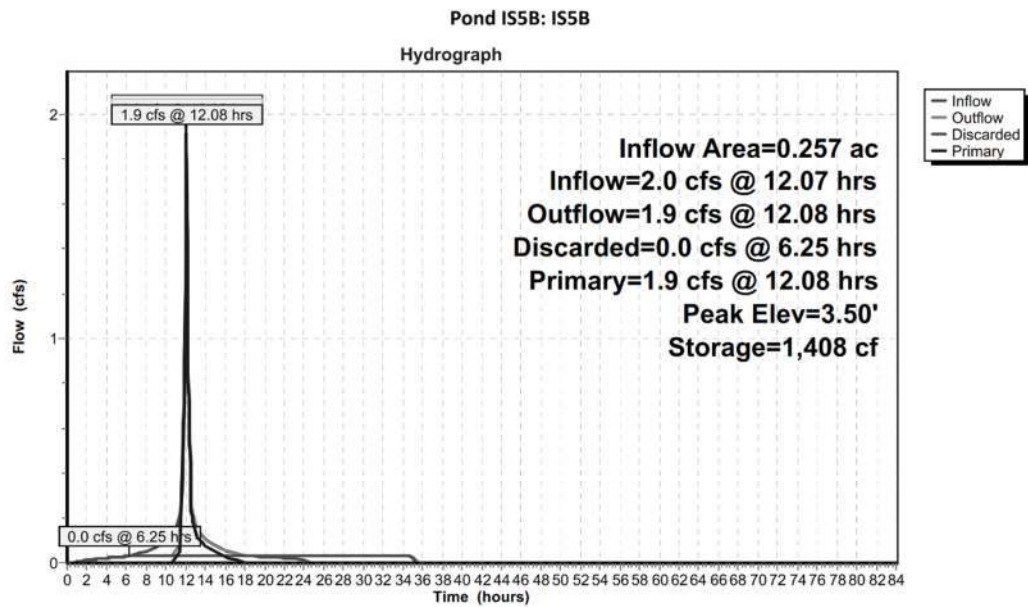
Primary OutFlow Max=1.8 cfs @ 12.08 hrs HW=3.50' (Free Discharge)
2=Culvert (Passes 1.8 cfs of 3.4 cfs potential flow)
3=Broad-Crested Rectangular Weir (Weir Controls 1.8 cfs @ 1.56 fps)

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Type III 24-hr 50 YR Rainfall=7.69"



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Link PRDP1: PRDP1

Inflow Area = 1.209 ac, 0.00% Impervious, Inflow Depth = 2.68" for 50 YR event

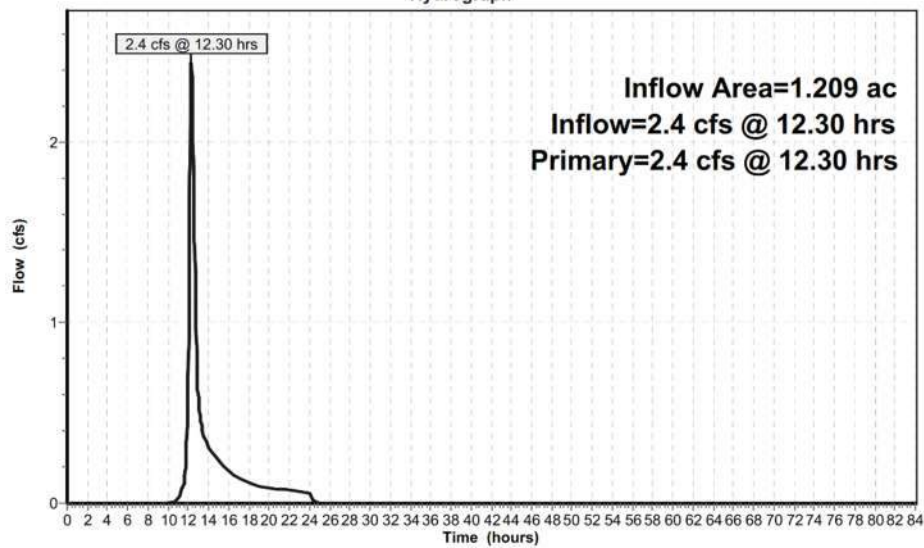
Inflow = 2.4 cfs @ 12.30 hrs, Volume= 0.270 af

Primary = 2.4 cfs @ 12.30 hrs, Volume= 0.270 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP1: PRDP1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Link PRDP2: PRDP2

Inflow Area = 0.205 ac, 0.00% Impervious, Inflow Depth = 2.68" for 50 YR event

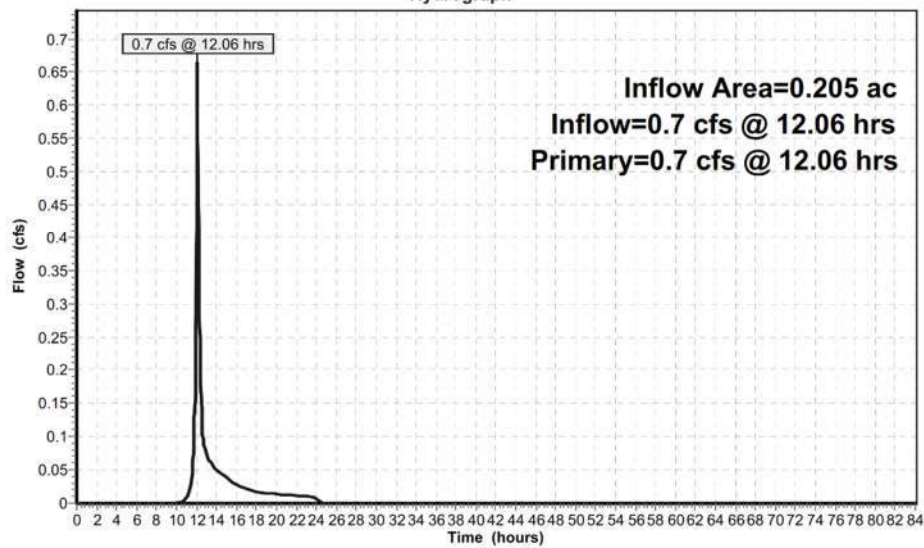
Inflow = 0.7 cfs @ 12.06 hrs, Volume= 0.046 af

Primary = 0.7 cfs @ 12.06 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP2: PRDP2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Link PRDP3: PRDP3

Inflow Area = 0.258 ac, 0.00% Impervious, Inflow Depth = 3.10" for 50 YR event

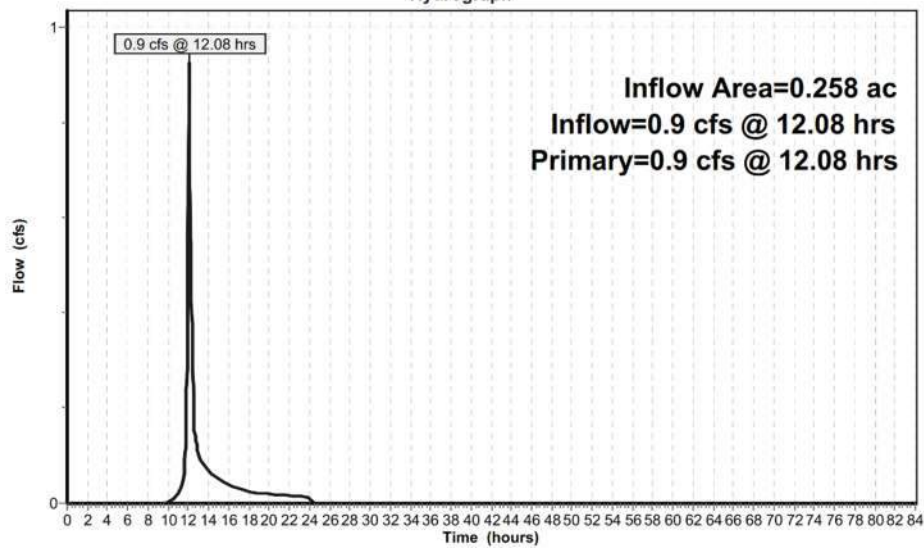
Inflow = 0.9 cfs @ 12.08 hrs, Volume= 0.067 af

Primary = 0.9 cfs @ 12.08 hrs, Volume= 0.067 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP3: PRDP3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Link PRDP4: PRDP4

Inflow Area = 24.951 ac, 40.26% Impervious, Inflow Depth = 3.12" for 50 YR event

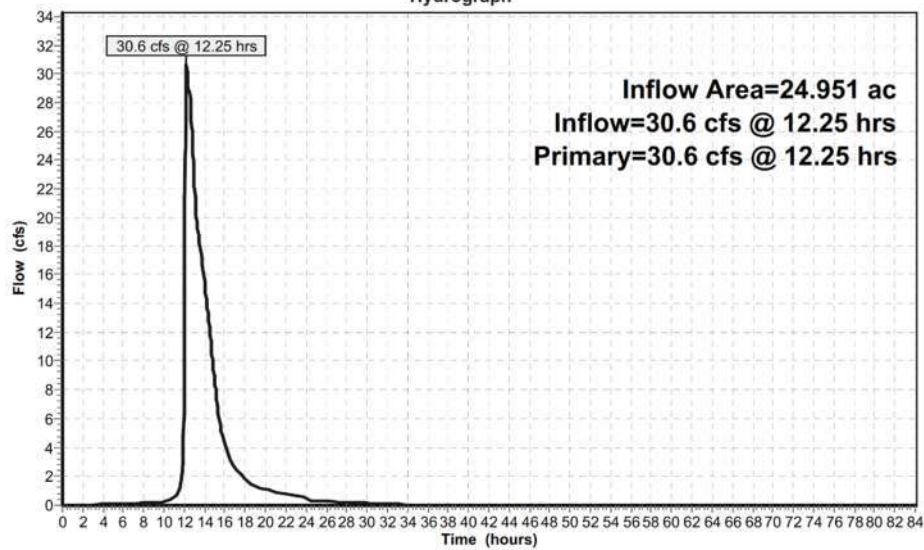
Inflow = 30.6 cfs @ 12.25 hrs, Volume= 6.497 af

Primary = 30.6 cfs @ 12.25 hrs, Volume= 6.497 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP4: PRDP4

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Link PRDP5: PRDP5

Inflow Area = 10.129 ac, 13.92% Impervious, Inflow Depth = 3.01" for 50 YR event

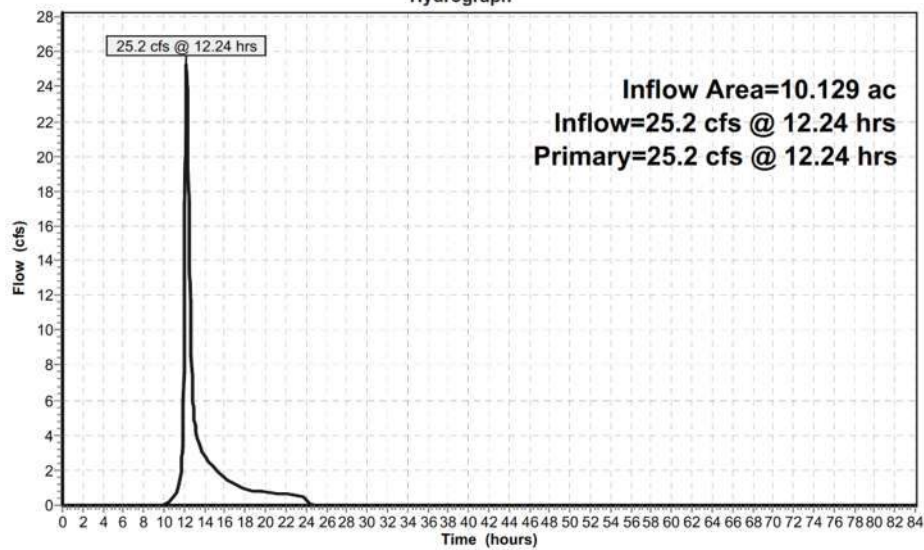
Inflow = 25.2 cfs @ 12.24 hrs, Volume= 2.545 af

Primary = 25.2 cfs @ 12.24 hrs, Volume= 2.545 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP5: PRDP5

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Link PRDP6: PRDP6

Inflow Area = 4.685 ac, 22.25% Impervious, Inflow Depth = 4.09" for 50 YR event

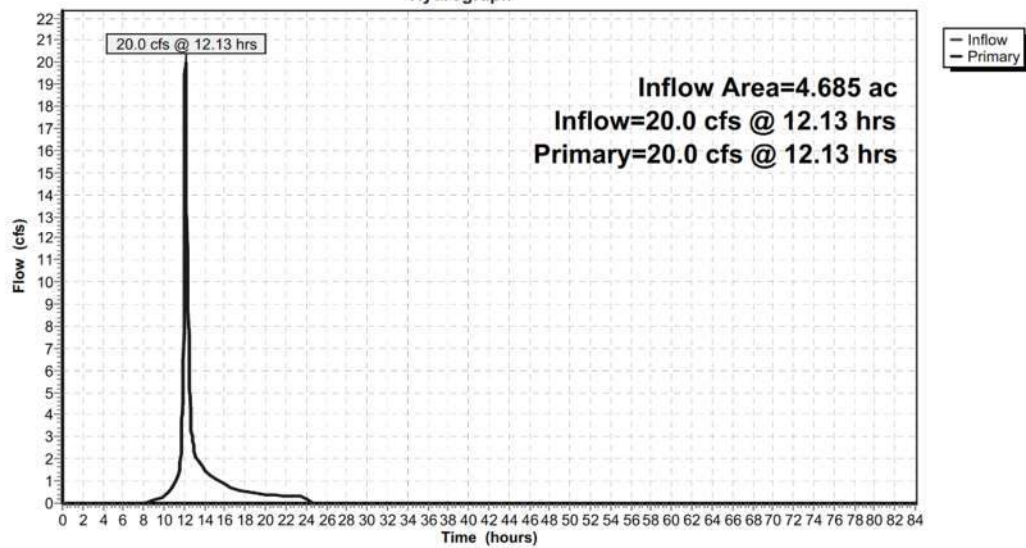
Inflow = 20.0 cfs @ 12.13 hrs, Volume= 1.596 af

Primary = 20.0 cfs @ 12.13 hrs, Volume= 1.596 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP6: PRDP6

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Link PRDP7: PRDP7

Inflow Area = 0.889 ac, 0.00% Impervious, Inflow Depth = 2.89" for 50 YR event

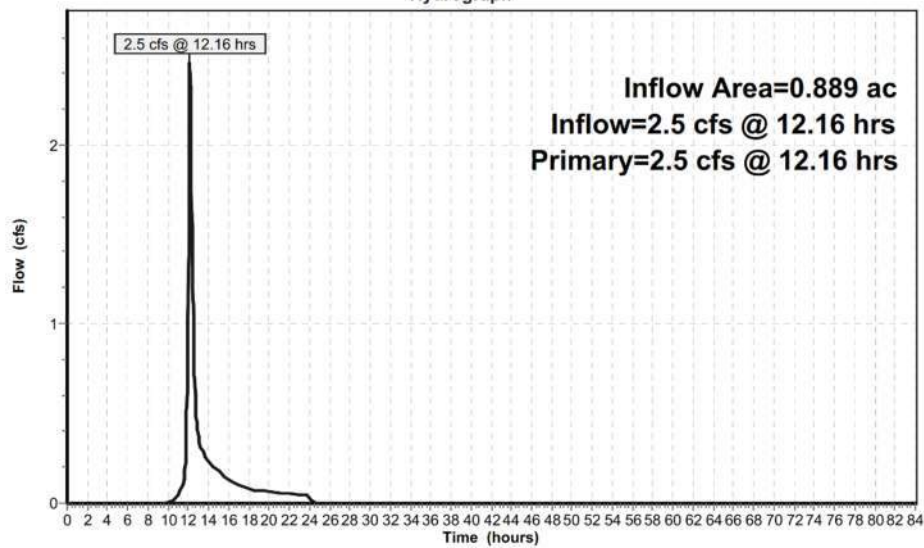
Inflow = 2.5 cfs @ 12.16 hrs, Volume= 0.214 af

Primary = 2.5 cfs @ 12.16 hrs, Volume= 0.214 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP7: PRDP7

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 50 YR Rainfall=7.69"

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Summary for Link TR1: TRANSFER

Inflow Area = 18.709 ac, 52.52% Impervious, Inflow Depth = 3.24" for 50 YR event

Inflow = 22.5 cfs @ 12.68 hrs, Volume= 5.050 af

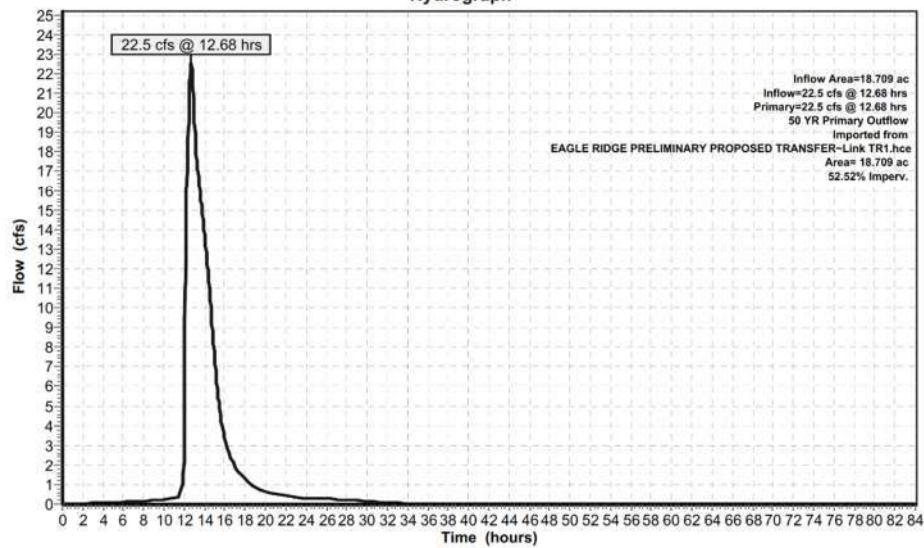
Primary = 22.5 cfs @ 12.68 hrs, Volume= 5.050 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

50 YR Primary Outflow Imported from EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER~Link TR1.hce

Link TR1: TRANSFER

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Time span=0.00-84.00 hrs, dt=0.05 hrs, 1681 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

| | |
|--------------------------------------|--|
| Subcatchment PRWS1: PRWS1 | Runoff Area=52,675 sf 0.00% Impervious Runoff Depth=3.74" Flow Length=332' Tc=20.0 min CN=56 Runoff=3.5 cfs 0.376 af |
| Subcatchment PRWS2: PRWS2 | Runoff Area=8,936 sf 0.00% Impervious Runoff Depth=3.74" Flow Length=62' Slope=0.2420 '/ Tc=3.5 min CN=56 Runoff=0.9 cfs 0.064 af |
| Subcatchment PRWS3: PRWS3 | Runoff Area=11,249 sf 0.00% Impervious Runoff Depth=4.23" Flow Length=107' Tc=5.1 min CN=60 Runoff=1.3 cfs 0.091 af |
| Subcatchment PRWS4C: PRWS4C | Runoff Area=262,387 sf 0.00% Impervious Runoff Depth=3.86" Flow Length=354' Tc=14.0 min CN=57 Runoff=20.7 cfs 1.938 af |
| Subcatchment PRWS4C1: PRWS4C1 | Runoff Area=9,556 sf 100.00% Impervious Runoff Depth=8.93" Tc=5.0 min CN=98 Runoff=2.0 cfs 0.163 af |
| Subcatchment PRWS5A: PRWS5A | Runoff Area=430,018 sf 11.67% Impervious Runoff Depth=4.11" Flow Length=1,049' Tc=16.6 min CN=59 Runoff=34.0 cfs 3.381 af |
| Subcatchment PRWS5B: PRWS5B | Runoff Area=11,208 sf 100.00% Impervious Runoff Depth=8.93" Tc=5.0 min CN=98 Runoff=2.3 cfs 0.191 af |
| Subcatchment PRWS6: PRWS6 | Runoff Area=204,080 sf 22.25% Impervious Runoff Depth=5.36" Flow Length=1,681' Tc=8.8 min CN=69 Runoff=26.2 cfs 2.093 af |
| Subcatchment PRWS7: PRWS7 | Runoff Area=38,740 sf 0.00% Impervious Runoff Depth=3.98" Flow Length=315' Tc=10.9 min CN=58 Runoff=3.5 cfs 0.295 af |
| Pond IS4C1: IS4C1 | Peak Elev=480.76' Storage=1,181 cf Inflow=2.0 cfs 0.163 af Discarded=0.1 cfs 0.095 af Primary=1.9 cfs 0.068 af Outflow=1.9 cfs 0.163 af |
| Pond IS5B: IS5B | Peak Elev=3.54' Storage=1,418 cf Inflow=2.3 cfs 0.191 af Discarded=0.0 cfs 0.083 af Primary=2.3 cfs 0.108 af Outflow=2.3 cfs 0.191 af |
| Link PRDP1: PRDP1 | Inflow=3.5 cfs 0.376 af Primary=3.5 cfs 0.376 af |
| Link PRDP2: PRDP2 | Inflow=0.9 cfs 0.064 af Primary=0.9 cfs 0.064 af |
| Link PRDP3: PRDP3 | Inflow=1.3 cfs 0.091 af Primary=1.3 cfs 0.091 af |
| Link PRDP4: PRDP4 | Inflow=50.7 cfs 8.986 af Primary=50.7 cfs 8.986 af |
| Link PRDP5: PRDP5 | Inflow=35.0 cfs 3.489 af Primary=35.0 cfs 3.489 af |
| Link PRDP6: PRDP6 | Inflow=26.2 cfs 2.093 af Primary=26.2 cfs 2.093 af |
| Link PRDP7: PRDP7 | Inflow=3.5 cfs 0.295 af Primary=3.5 cfs 0.295 af |
| Link TR1: TRANSFER | 100 YR Primary Outflow Imported from EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER~Link TR1.hce Inflow=40.8 cfs 6.980 af Area= 18.709 ac 52.52% Imperv. Primary=40.8 cfs 6.980 af |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Total Runoff Area = 23.619 ac Runoff Volume = 8.593 af Average Runoff Depth = 4.37"
88.69% Pervious = 20.948 ac 11.31% Impervious = 2.671 ac

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRWS1: PRWS1

Runoff = 3.5 cfs @ 12.29 hrs, Volume= 0.376 af, Depth= 3.74"

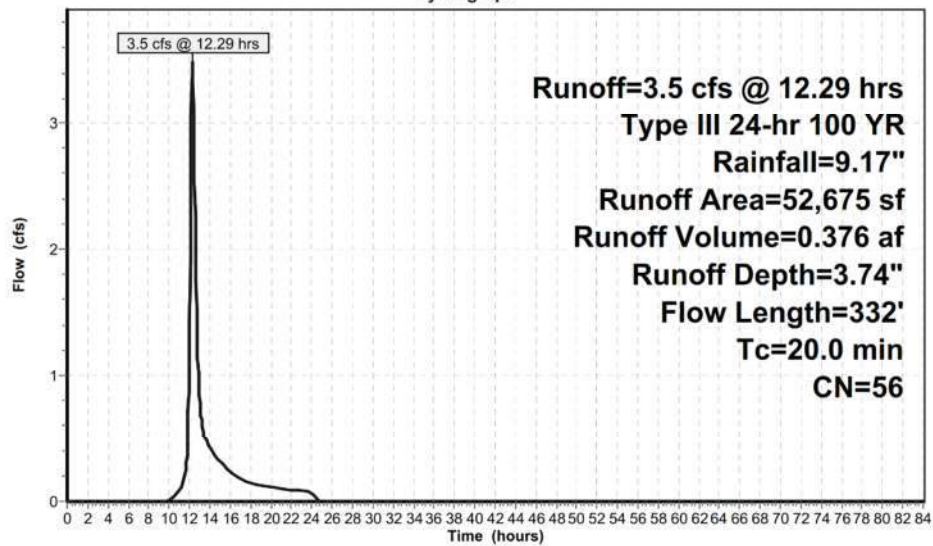
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 24,522 | 55 | Woods, Good, HSG B |
| 9,019 | 61 | >75% Grass cover, Good, HSG B |
| 17,151 | 55 | Woods, Good, HSG B |
| 1,983 | 61 | >75% Grass cover, Good, HSG B |
| 52,675 | 56 | Weighted Average |
| 52,675 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 18.1 | 100 | 0.0280 | 0.09 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.43" |
| 0.4 | 50 | 0.1650 | 2.03 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 58 | 0.1030 | 1.60 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.9 | 124 | 0.2230 | 2.36 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 20.0 | 332 | Total | | | |

Subcatchment PRWS1: PRWS1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRWS2: PRWS2

Runoff = 0.9 cfs @ 12.06 hrs, Volume= 0.064 af, Depth= 3.74"

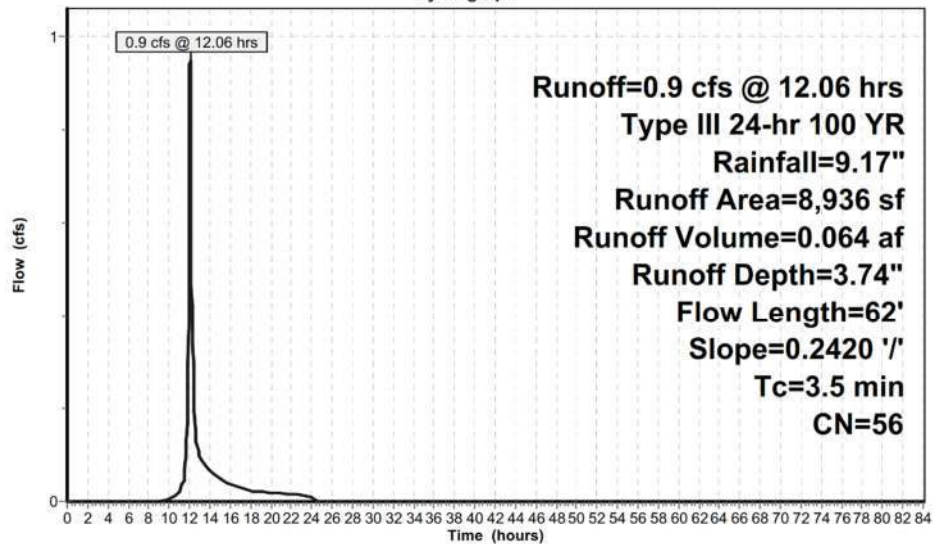
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 7,465 | 55 | Woods, Good, HSG B |
| 1,471 | 61 | >75% Grass cover, Good, HSG B |
| 8,936 | 56 | Weighted Average |
| 8,936 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 3.5 | 62 | 0.2420 | 0.30 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |

Subcatchment PRWS2: PRWS2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRWS3: PRWS3

Runoff = 1.3 cfs @ 12.08 hrs, Volume= 0.091 af, Depth= 4.23"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

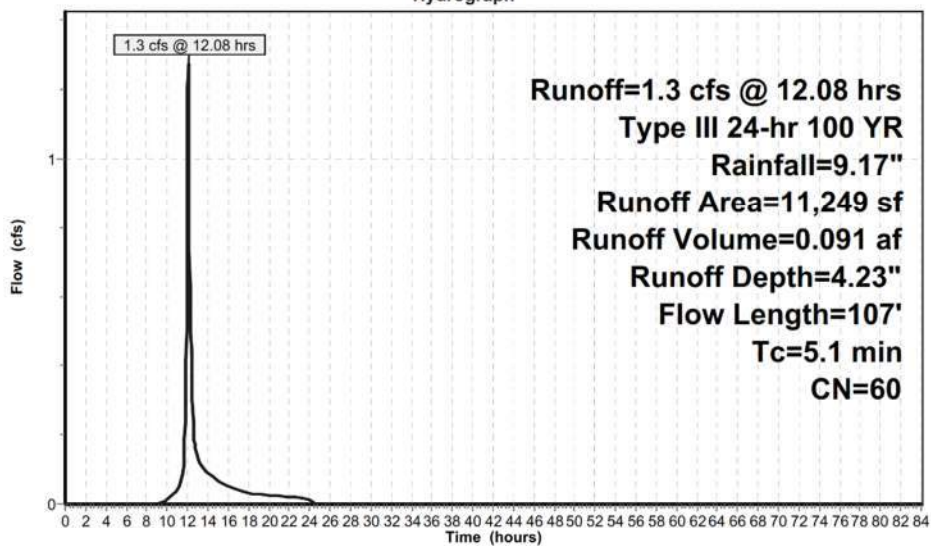
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 9,406 | 61 | >75% Grass cover, Good, HSG B |
| 1,843 | 55 | Woods, Good, HSG B |
| 11,249 | 60 | Weighted Average |
| 11,249 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 1.9 | 40 | 0.1700 | 0.35 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 3.2 | 60 | 0.2700 | 0.31 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.0 | 7 | 0.1400 | 2.62 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 5.1 | 107 | Total | | | |

Subcatchment PRWS3: PRWS3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRWS4C: PRWS4C

Runoff = 20.7 cfs @ 12.20 hrs, Volume= 1.938 af, Depth= 3.86"

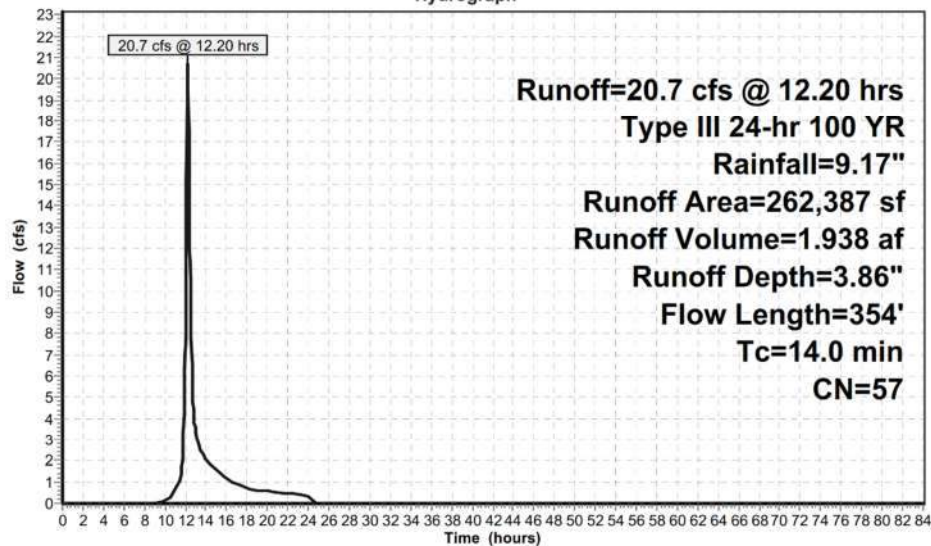
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 92,922 | 61 | >75% Grass cover, Good, HSG B |
| 169,465 | 55 | Woods, Good, HSG B |
| 262,387 | 57 | Weighted Average |
| 262,387 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 7.1 | 44 | 0.0200 | 0.10 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 2.4 | 29 | 0.1380 | 0.20 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 2.9 | 27 | 0.0740 | 0.16 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.4 | 46 | 0.0860 | 2.05 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 208 | 0.3317 | 2.88 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 14.0 | 354 | Total | | | |

Subcatchment PRWS4C: PRWS4C

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRWS4C1: PRWS4C1

Runoff = 2.0 cfs @ 12.07 hrs, Volume= 0.163 af, Depth= 8.93"

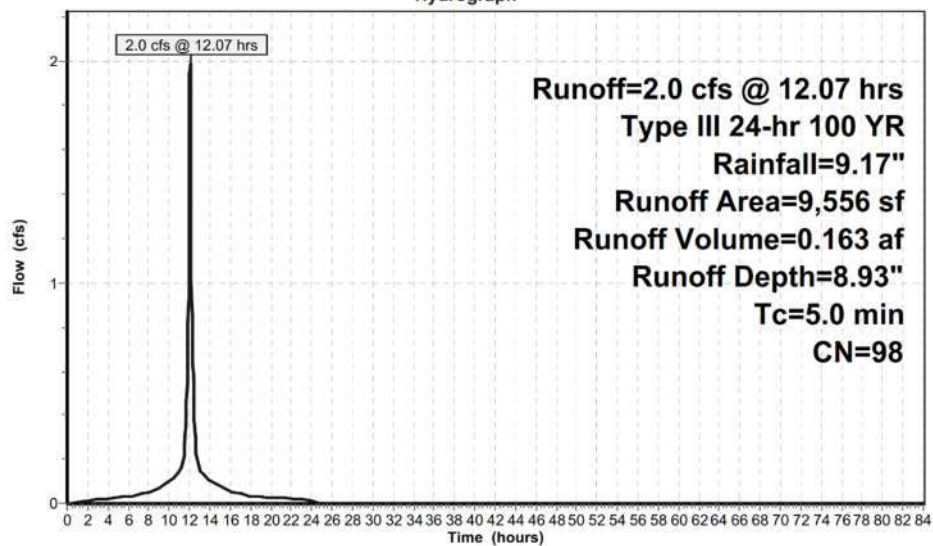
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 9,556 | 98 | Roofs, HSG B |
| 9,556 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS4C1: PRWS4C1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRW55A: PRW55A

Runoff = 34.0 cfs @ 12.24 hrs, Volume= 3.381 af, Depth= 4.11"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 72,273 | 55 | Woods, Good, HSG B |
| 42,776 | 48 | Brush, Good, HSG B |
| 10,560 | 61 | >75% Grass cover, Good, HSG B |
| 12,330 | 61 | >75% Grass cover, Good, HSG B |
| 22,043 | 48 | Brush, Good, HSG B |
| 87,991 | 55 | Woods, Good, HSG B |
| 50,189 | 98 | Paved parking, HSG B |
| 1,904 | 61 | >75% Grass cover, Good, HSG B |
| 7,163 | 61 | >75% Grass cover, Good, HSG B |
| 122,789 | 55 | Woods, Good, HSG B |
| 430,018 | 59 | Weighted Average |
| 379,829 | | 88.33% Pervious Area |
| 50,189 | | 11.67% Impervious Area |

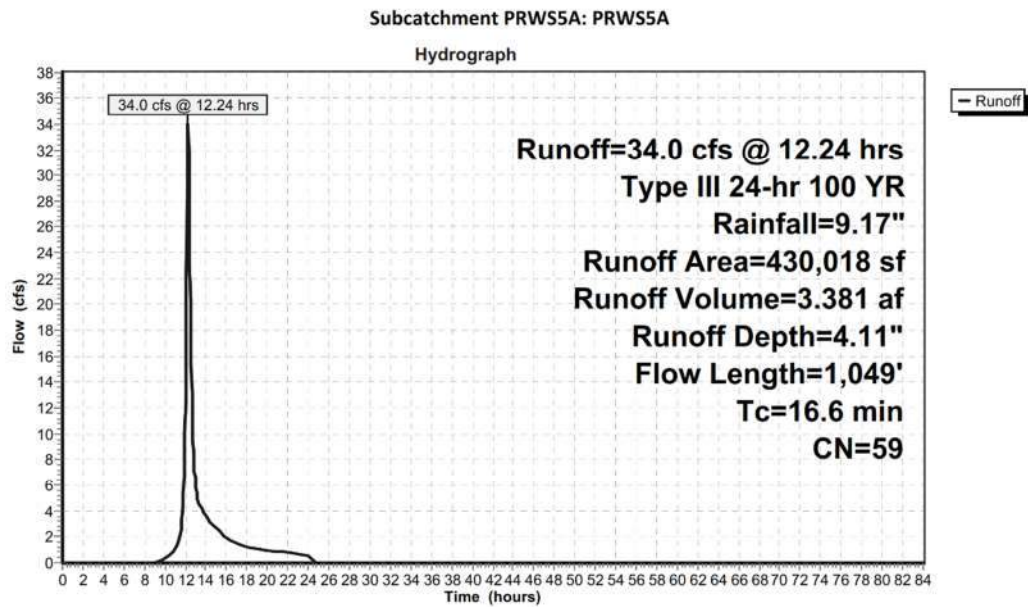
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 12.1 | 100 | 0.0275 | 0.14 | | Sheet Flow, Grass: Dense n= 0.240 P2= 3.43" |
| 0.8 | 60 | 0.0330 | 1.27 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 31 | 0.2420 | 3.44 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 345 | 0.0520 | 4.63 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 0.1 | 105 | 0.1840 | 17.23 | 9.40 | Pipe Channel, 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 90 | 0.3100 | 8.35 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 1.1 | 100 | 0.1000 | 1.58 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.6 | 83 | 0.1920 | 2.19 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.3 | 135 | 0.3000 | 8.22 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 16.6 | 1,049 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRWS5B: PRWS5B

Runoff = 2.3 cfs @ 12.07 hrs, Volume= 0.191 af, Depth= 8.93"

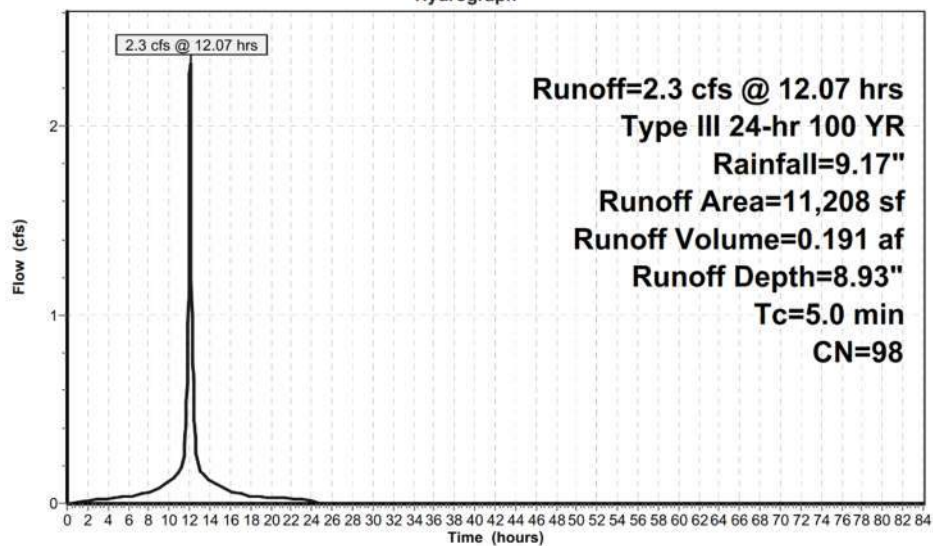
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------|
| 11,208 | 98 | Roofs, HSG B |
| 11,208 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment PRWS5B: PRWS5B

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRWS6: PRWS6

Runoff = 26.2 cfs @ 12.13 hrs, Volume= 2.093 af, Depth= 5.36"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,761 | 61 | >75% Grass cover, Good, HSG B |
| 31,024 | 61 | >75% Grass cover, Good, HSG B |
| 722 | 61 | >75% Grass cover, Good, HSG B |
| 295 | 55 | Woods, Good, HSG B |
| 41,486 | 98 | Paved parking, HSG B |
| 3,920 | 98 | Paved parking, HSG B |
| 4,431 | 61 | >75% Grass cover, Good, HSG B |
| 9,594 | 61 | >75% Grass cover, Good, HSG B |
| 42,897 | 61 | >75% Grass cover, Good, HSG B |
| 1,912 | 61 | >75% Grass cover, Good, HSG B |
| 16,205 | 61 | >75% Grass cover, Good, HSG B |
| 39,833 | 61 | >75% Grass cover, Good, HSG B |
| 204,080 | 69 | Weighted Average |
| 158,674 | | 77.75% Pervious Area |
| 45,406 | | 22.25% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|--|
| 6.1 | 100 | 0.0600 | 0.27 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 1.3 | 360 | 0.0930 | 4.57 | | Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps |
| 0.4 | 474 | 0.0790 | 20.24 | 63.58 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 200 | 0.0600 | 17.64 | 55.41 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.2 | 189 | 0.0700 | 19.05 | 59.85 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 0.6 | 358 | 0.0170 | 9.39 | 29.50 | Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Concrete pipe, bends & connections |
| 8.8 | 1,681 | Total | | | |

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

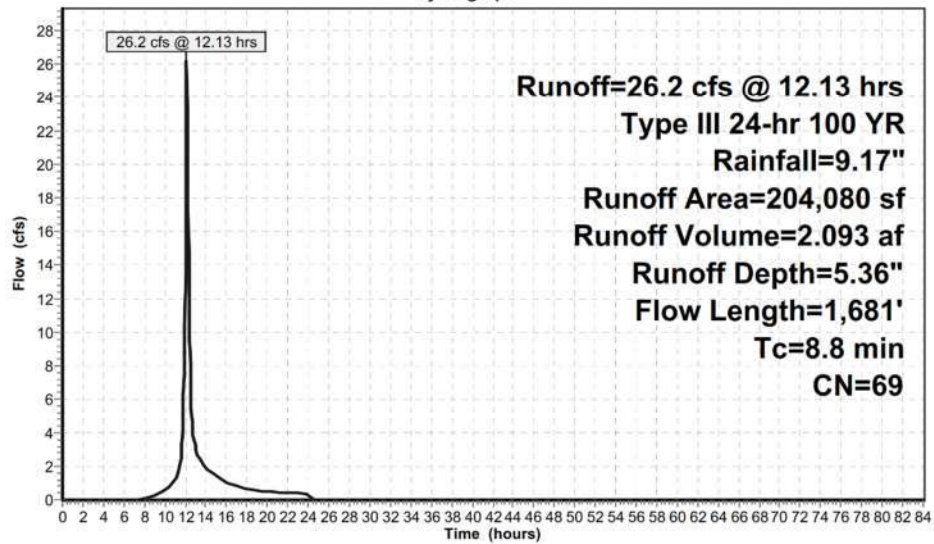
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Type III 24-hr 100 YR Rainfall=9.17"

Subcatchment PRWS6: PRWS6

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Subcatchment PRWS7: PRWS7

Runoff = 3.5 cfs @ 12.16 hrs, Volume= 0.295 af, Depth= 3.98"

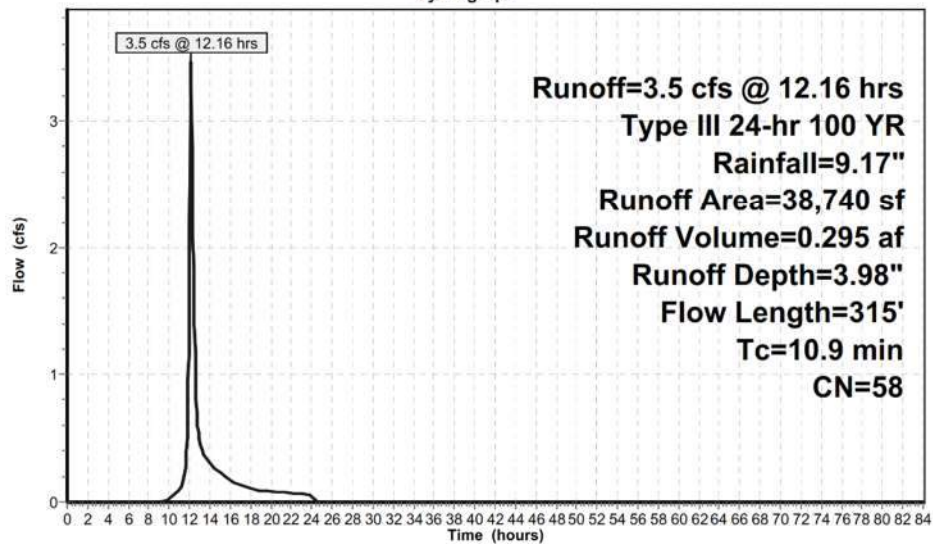
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=9.17"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,456 | 61 | >75% Grass cover, Good, HSG B |
| 13,598 | 55 | Woods, Good, HSG B |
| 5,422 | 61 | >75% Grass cover, Good, HSG B |
| 8,264 | 55 | Woods, Good, HSG B |
| 38,740 | 58 | Weighted Average |
| 38,740 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.0 | 100 | 0.0620 | 0.28 | | Sheet Flow, Grass: Short n= 0.150 P2= 3.43" |
| 4.9 | 215 | 0.0110 | 0.73 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 10.9 | 315 | | | | Total |

Subcatchment PRWS7: PRWS7

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Pond IS4C1: IS4C1

Inflow Area = 0.219 ac, 100.00% Impervious, Inflow Depth = 8.93" for 100 YR event
Inflow = 2.0 cfs @ 12.07 hrs, Volume= 0.163 af
Outflow = 1.9 cfs @ 12.07 hrs, Volume= 0.163 af, Atten= 2%, Lag= 0.3 min
Discarded = 0.1 cfs @ 8.20 hrs, Volume= 0.095 af
Primary = 1.9 cfs @ 12.07 hrs, Volume= 0.068 af

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 480.76' @ 12.07 hrs Surf.Area= 570 sf Storage= 1,181 cf

Plug-Flow detention time= 109.7 min calculated for 0.163 af (100% of inflow)

Center-of-Mass det. time= 109.7 min (848.3 - 738.7)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|--|
| #1A | 477.50' | 515 cf | 11.17'W x 51.00'L x 3.54'H Field A 2,017 cf Overall - 730 cf Embedded = 1,287 cf x 40.0% Voids |
| #2A | 478.00' | 730 cf | Cultec R-330XL x 14 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,245 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 479.50' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 479.50' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #2 | Device 1 | 480.50' | 5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |
| #3 | Discarded | 477.50' | 4.000 in/hr Exfiltration over Surface area |

Discarded OutFlow Max=0.1 cfs @ 8.20 hrs HW=477.54' (Free Discharge)

↑ **3=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=1.8 cfs @ 12.07 hrs HW=480.76' (Free Discharge)

↑ **1=Culvert** (Passes 1.8 cfs of 2.7 cfs potential flow)

↑ **2=Broad-Crested Rectangular Weir** (Weir Controls 1.8 cfs @ 1.43 fps)

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

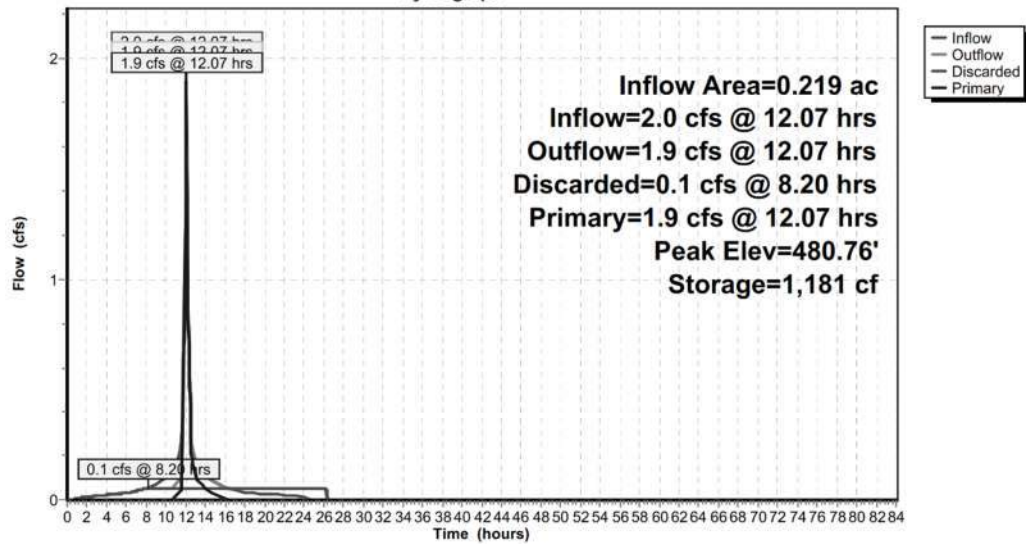
Type III 24-hr 100 YR Rainfall=9.17"

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Pond IS4C1: IS4C1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Pond ISSB: ISSB

Inflow Area = 0.257 ac, 100.00% Impervious, Inflow Depth = 8.93" for 100 YR event
Inflow = 2.3 cfs @ 12.07 hrs, Volume= 0.191 af
Outflow = 2.3 cfs @ 12.08 hrs, Volume= 0.191 af, Atten= 1%, Lag= 0.7 min
Discarded = 0.0 cfs @ 4.85 hrs, Volume= 0.083 af
Primary = 2.3 cfs @ 12.08 hrs, Volume= 0.108 af

Routing by Stor-Ind method, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs
Peak Elev= 3.54' @ 12.08 hrs Surf.Area= 648 sf Storage= 1,418 cf

Plug-Flow detention time= 188.3 min calculated for 0.191 af (100% of inflow)
Center-of-Mass det. time= 188.6 min (927.2 - 738.7)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|--------|---------------|--|
| #1A | 0.00' | 584 cf | 11.17'W x 58.00'L x 3.54'H Field A 2,294 cf Overall - 835 cf Embedded = 1,459 cf x 40.0% Voids |
| #2A | 0.50' | 835 cf | Cultec R-330XL x 16 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap |
| | | 1,418 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|--------|---|
| #1 | Discarded | 0.00' | 2.000 in/hr Exfiltration over Surface area |
| #2 | Primary | 2.00' | 12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 2.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior |
| #3 | Device 2 | 3.20' | 4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32 |

Discarded OutFlow Max=0.0 cfs @ 4.85 hrs HW=0.04' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.0 cfs)

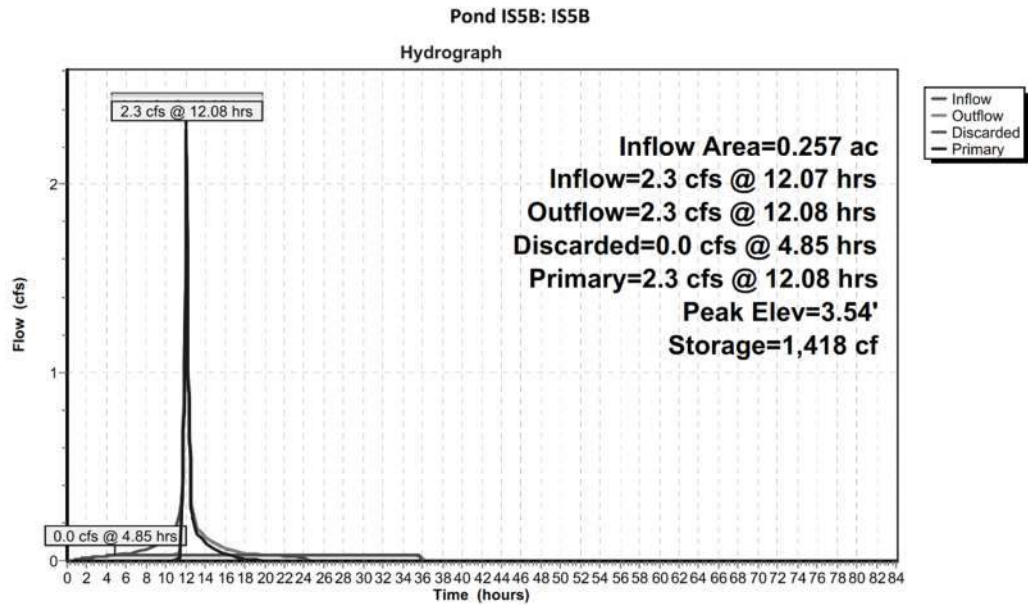
Primary OutFlow Max=2.2 cfs @ 12.08 hrs HW=3.53' (Free Discharge)
↑**2=Culvert** (Passes 2.2 cfs of 3.5 cfs potential flow)
↑**3=Broad-Crested Rectangular Weir** (Weir Controls 2.2 cfs @ 1.66 fps)

EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

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Type III 24-hr 100 YR Rainfall=9.17"



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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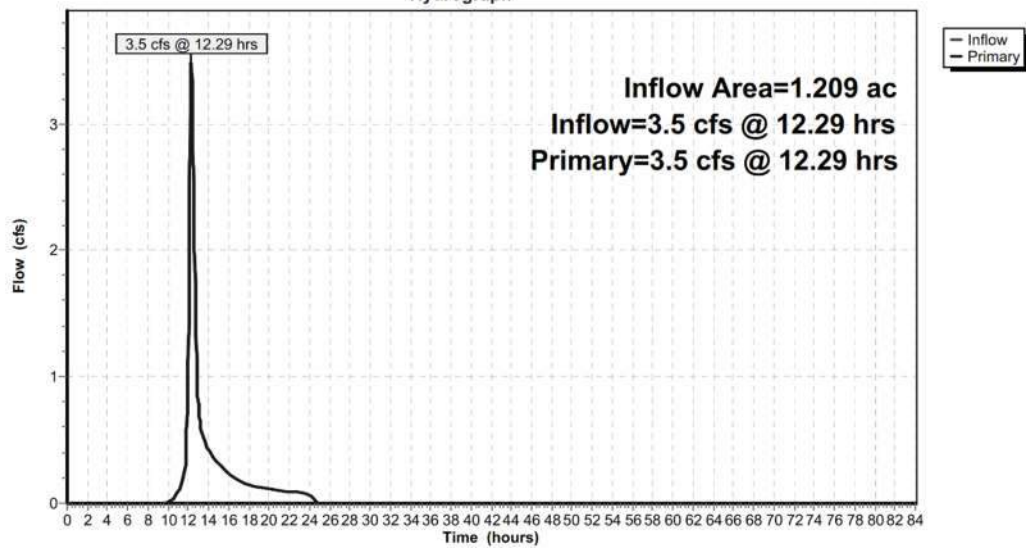
Summary for Link PRDP1: PRDP1

Inflow Area = 1.209 ac, 0.00% Impervious, Inflow Depth = 3.74" for 100 YR event
Inflow = 3.5 cfs @ 12.29 hrs, Volume= 0.376 af
Primary = 3.5 cfs @ 12.29 hrs, Volume= 0.376 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP1: PRDP1

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Link PRDP2: PRDP2

Inflow Area = 0.205 ac, 0.00% Impervious, Inflow Depth = 3.74" for 100 YR event

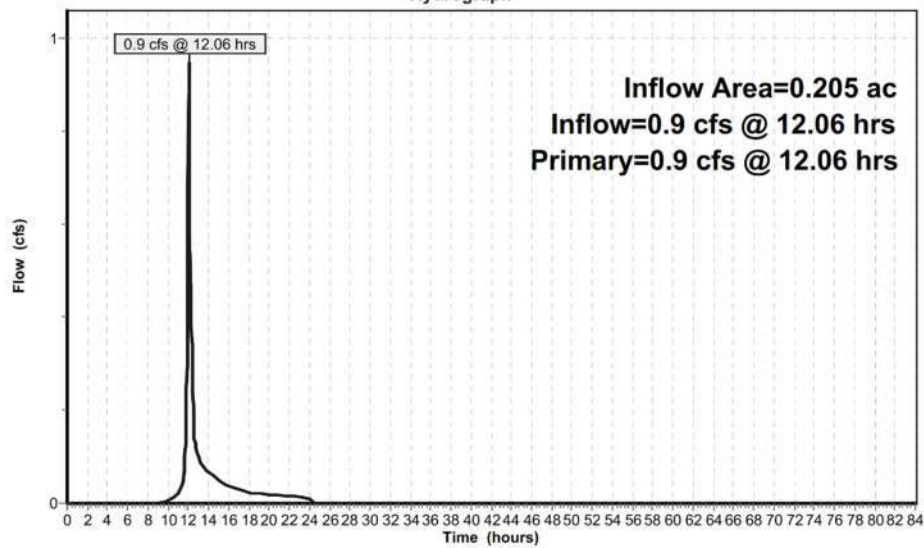
Inflow = 0.9 cfs @ 12.06 hrs, Volume= 0.064 af

Primary = 0.9 cfs @ 12.06 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP2: PRDP2

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Link PRDP3: PRDP3

Inflow Area = 0.258 ac, 0.00% Impervious, Inflow Depth = 4.23" for 100 YR event

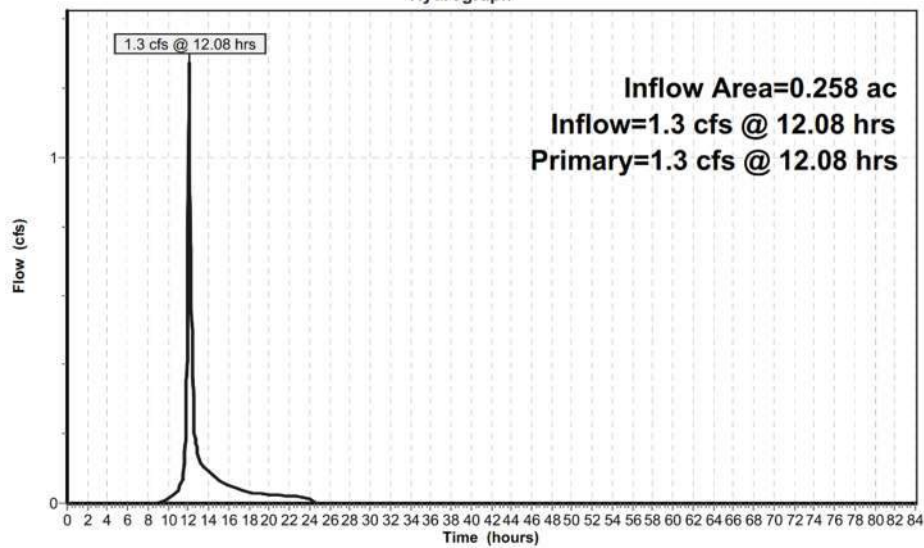
Inflow = 1.3 cfs @ 12.08 hrs, Volume= 0.091 af

Primary = 1.3 cfs @ 12.08 hrs, Volume= 0.091 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP3: PRDP3

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Link PRDP4: PRDP4

Inflow Area = 24.951 ac, 40.26% Impervious, Inflow Depth = 4.32" for 100 YR event

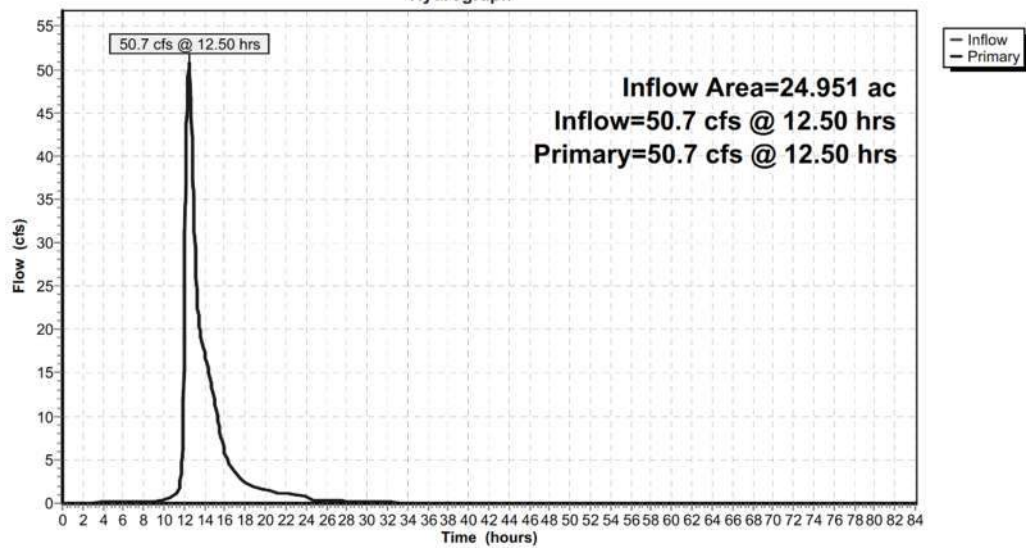
Inflow = 50.7 cfs @ 12.50 hrs, Volume= 8.986 af

Primary = 50.7 cfs @ 12.50 hrs, Volume= 8.986 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP4: PRDP4

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Link PRDP5: PRDP5

Inflow Area = 10.129 ac, 13.92% Impervious, Inflow Depth = 4.13" for 100 YR event

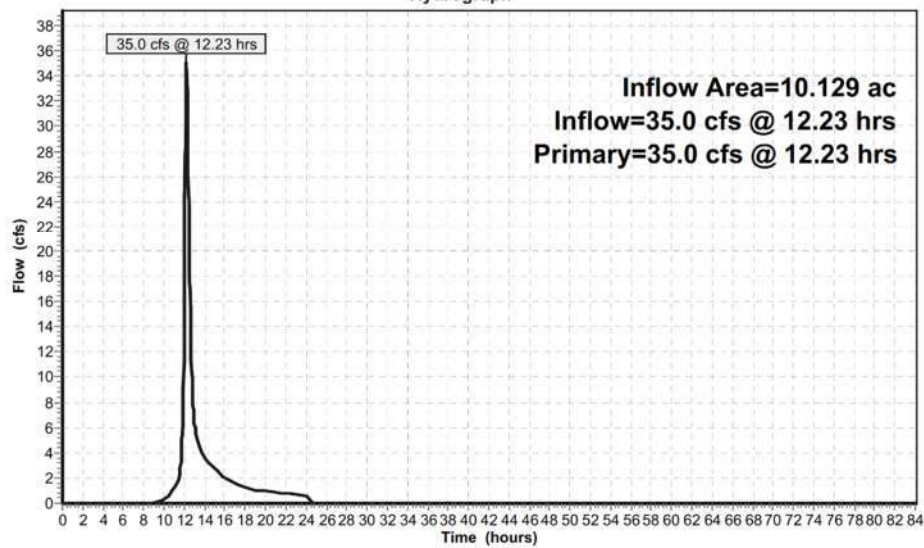
Inflow = 35.0 cfs @ 12.23 hrs, Volume= 3.489 af

Primary = 35.0 cfs @ 12.23 hrs, Volume= 3.489 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP5: PRDP5

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Link PRDP6: PRDP6

Inflow Area = 4.685 ac, 22.25% Impervious, Inflow Depth = 5.36" for 100 YR event

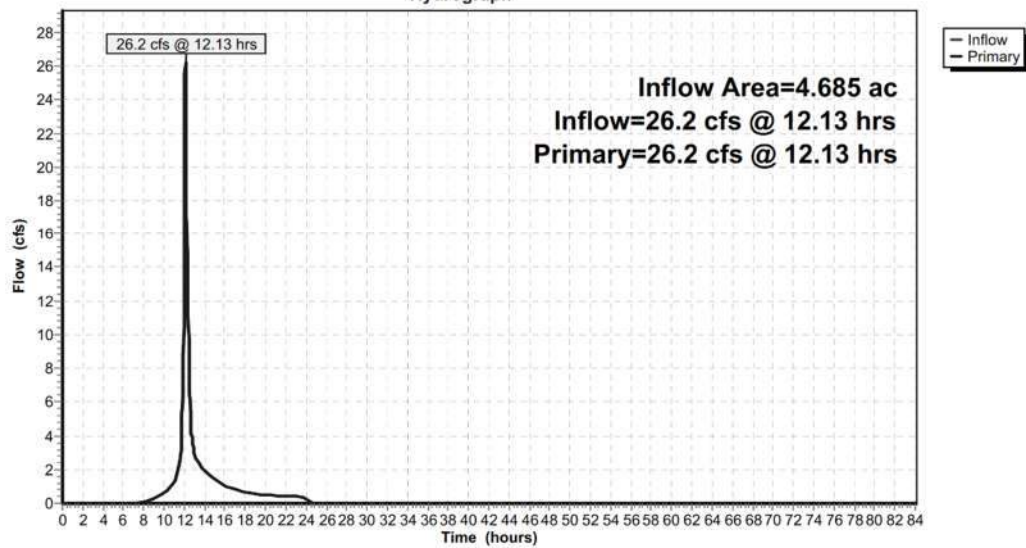
Inflow = 26.2 cfs @ 12.13 hrs, Volume= 2.093 af

Primary = 26.2 cfs @ 12.13 hrs, Volume= 2.093 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP6: PRDP6

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Link PRDP7: PRDP7

Inflow Area = 0.889 ac, 0.00% Impervious, Inflow Depth = 3.98" for 100 YR event

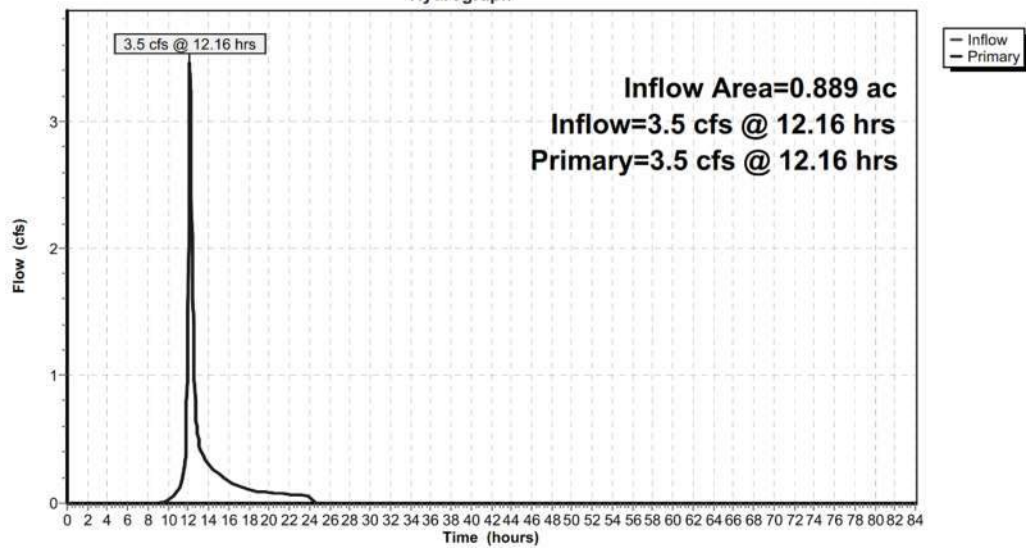
Inflow = 3.5 cfs @ 12.16 hrs, Volume= 0.295 af

Primary = 3.5 cfs @ 12.16 hrs, Volume= 0.295 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

Link PRDP7: PRDP7

Hydrograph



EAGLE RIDGE PRELIMINARY PROPOSED DP1-7

Type III 24-hr 100 YR Rainfall=9.17"

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Summary for Link TR1: TRANSFER

Inflow Area = 18.709 ac, 52.52% Impervious, Inflow Depth = 4.48" for 100 YR event

Inflow = 40.8 cfs @ 12.58 hrs, Volume= 6.980 af

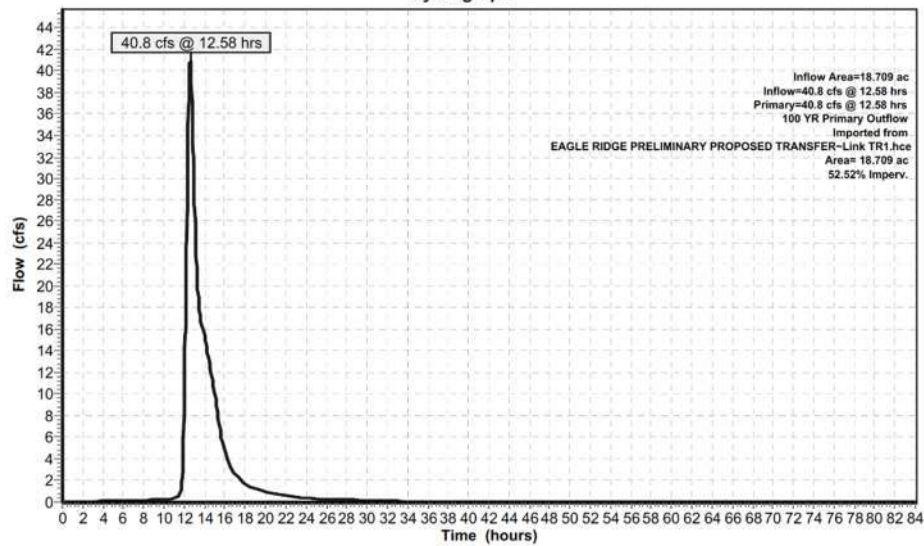
Primary = 40.8 cfs @ 12.58 hrs, Volume= 6.980 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-84.00 hrs, dt= 0.05 hrs

100 YR Primary Outflow Imported from EAGLE RIDGE PRELIMINARY PROPOSED TRANSFER~Link TR1.hce

Link TR1: TRANSFER

Hydrograph



Appendix G

Wastewater Report

ALFONZETTI ENGINEERING, P.C.
1100 Route 52, Carmel, N.Y. 10512

(845) 228-9800

Info@AlfonzettiEng.com

PROJECT: Eagle Ridge
3 North Castle Drive
Town of North Castle, NY

SCOPE: Eagle Ridge
Wastewater Report

DATE: November 15, 2018

Existing Facilities and Capacity:

The subject site is part of Sewer District Number 2. Sewer District Number 2 (SD2) is located in downtown Armonk and extends into the Route 128 corridor. The district includes five (5) sewer pump stations along with collection lines and manholes. All flow is tributary to the wastewater treatment plant located on Business Park Drive. The plant was originally built in 1983 to treat approximately 380,000 gallons per day (gpd). The plant was upgraded to treat 450,000 gpd then subsequently upgraded again to treat 500,000 gpd. Another upgrade to the treatment plant is being designed at this time to increase the capacity to 700,000 gpd.

Based on a 1998 Sewer Agreement between International Business Machines (IBM) and the Town of North Castle; IBM has a reserve wastewater treatment capacity of 135,000 gpd. Upon selling the subject site to the applicant IBM transferred 35,000 gpd of their reserve to the applicant to use for the development of the subject property.

Anticipated Flows:

The proposed development will consist of the following:

- 94 Three Bedroom Townhouses
- 91 Hotel Rooms with
 - Restaurant/Café
 - Lounge/Bar
 - Banquet Hall/Meeting Rooms
 - Spa/Spin Studio
 - Swimming Pool
- 70 Apartments
 - 44 One Bedroom Apartments
 - 16 Two Bedroom Apartments
 - 10 Three Bedroom Apartments

The anticipated wastewater flow for the development is as follows:

| Use | Units | gpd/unit* (gpd) | Total (gpd) |
|--------------------------|-------|--------------------|----------------|
| Townhouses (3 bedroom) | 94 | 330 | 31,020 |
| Total Townhouses | 94 | | 31,020 |
| Apartments | | | |
| 1 bedroom | 44 | 110 | 4,840 |
| 2 bedroom | 16 | 220 | 3,520 |
| 3 bedroom | 10 | 330 | 3,300 |
| Total Apartments | 70 | | 11,660 |
| Hotel | | | |
| 91 Guest rooms | 91 | 110 | 10,010 |
| Amenities | | | |
| Restaurant/Café | 278 | 35 | 9,730 |
| Lounge/Bar | 194 | 20 | 3,880 |
| Bar | 123 | 20 | 2,460 |
| Ballroom/Banquet Hall | 282 | 10 | 2,820 |
| Junior Ballroom | 149 | 10 | 1,490 |
| Boardroom/Meeting room | 52 | 10 | 520 |
| Spa/Spin Studio | - | - | 3,000 |
| Swimming Pool | 200 | 10 | 2,000 |
| Sub-Total Amenities | | | 25,900 |
| 20% Water Saving Devices | | | 5,180 |
| Total Amenities | | | 20,720 |
| Total Hotel: | | | |
| | | | 30,730 |
| Grand Total: | | | |
| | | | 73,410 |

*Flow Rates taken from *New York State Design Standards For Intermediate Sized Wastewater Treatment Systems, March 5, 2014*, by New York State Department of Environmental Conservation.

Disposal and Capacity

The wastewater from the proposed development is proposed to be collected through sanitary sewer pipes and manholes and will be conveyed to an existing sanitary sewer located in an easement along the eastern property line

The existing sanitary sewer runs along the eastern property line through the Town Park under the Wampus River and terminates at the Wastewater Treatment Plant on Business Park Drive.

Sewer District #2 Capacity and Improvements

The treatment plant has been upgraded to treat 500,000 gpd and is currently being designed for another upgrade to bring the capacity to 700,000 gpd.

As shown above, the estimated wastewater generated from the development will be 73,410 gpd. As described above the capacity transferred to this development from IBM's reserve is 35,000 gpd. Therefore, the development needs 38,410 gpd. The treatment plant will need to be upgraded and in operation before the full buildout of the proposed development.

Cumulative Impacts

Cumulative impacts from the following developments are being considered herein:

| | |
|-----------------|--|
| Senior Housing | 16-unit age restricted residential building (age 55 and older) * |
| Wampus Mills | 6-lot residential, single family subdivision* |
| Mariani Gardens | five 4-bedroom units, sixteen 3-bedroom units, six 2-bedroom units, sixteen 1-bedroom units, (96 bedrooms) |
| Airport Campus | 100,000 sf office space, 125-room hotel, 151-unit multi-family building, 22 townhouses |
| 470 Main Street | six 1-bedroom units, ten 2-bedroom units, (26 bedrooms) |
| Lumber Yard | 36 units |

* An additional 16 single family homes (8 homes per project) are proposed to be connected with the development of these 2 projects.

Anticipated Flow from developments considered:

| Project/Development | Units | gpd/unit* (gpd) | Total (gpd) |
|--|---------|--------------------|----------------|
| Senior Housing | | | |
| Proposed 16 units | 16 | 125 | 2,000 |
| Existing single family | 8 | 300 | 2,400 |
| Total Senior Housing | | | 4,400 |
| Wampus Mills | | | |
| Proposed single family | 6 | 300 | 1,800 |
| Existing single family | 8 | 300 | 2,400 |
| Total Wampus Mills | | | 4,200 |
| Mariani Gardens (45 Bedford Road) | | | |
| Proposed 4-bedroom | 5 | 440 | 2,200 |
| Proposed 3-bedroom | 16 | 330 | 5,280 |
| Proposed 2-bedroom | 6 | 220 | 1,320 |
| Proposed 1-bedroom | 16 | 110 | 1,760 |
| Total Mariani Gardens | | | 10,560 |
| Airport Campus | | | |
| Proposed office space | 100,000 | 0.1 | 10,000 |
| Proposed hotel rooms | 125 | 110 | 13,750 |
| Proposed hotel amenities (assumed) | - | - | 28,400 |
| Proposed apartment building (assume 2-bedroom) | 151 | 220 | 33,220 |
| Proposed townhouses (assume 4-bedroom) | 22 | 440 | 9,680 |
| Total Airport Campus | | | 95,050 |
| 470 Main Street | | | |
| Proposed 2-bedroom | 10 | 220 | 2,200 |
| Proposed 1-bedroom | 6 | 110 | 660 |
| Total 470 Main Street | | | 2,860 |
| Lumber yard | | | |
| Proposed 36 units (assume 2 bedroom) | 36 | 220 | 7,920 |
| Total Lumber Yard | | | 7,920 |

*Flow Rates taken from *New York State Design Standards For Intermediate Sized Wastewater Treatment Systems, March 5, 2014*, by New York State Department of Environmental Conservation.

The Senior Housing project and the Wampus Mills subdivision are both currently under construction. The estimated wastewater flow from these two projects is anticipated to be 8,600 gpd. This includes the existing 16 single family houses along Old Mount Kisco Road. These two projects have already been accounted for in the existing treatment plant capacity.

According to the Full Environmental Assessment Form (FEAF) submitted for Mariani Gardens, the estimated increase of wastewater flow will be 7,000 gpd above the amount currently approved. Therefore, the additional flow to the treatment plant is 7,000 gpd for the Mariani Gardens proposed project.

The Airport Campus project will generate an estimated 95,050 gpd of wastewater. This project is not tributary to SD#2 Wastewater Treatment Plant and therefore, will not increase the wastewater flow to the treatment plant.

470 Main Street and the Lumber Yard projects will generate an estimated 10,780 gpd of wastewater. Although these projects are not under construction, they have been approved and their respective wastewater flows have been included in the existing capacity of the treatment plant.

The pending upgrade to the wastewater treatment plant will be sufficient to treat the anticipated increase in wastewater flow from the Mariani Gardens development and the additional capacity for the Eagle Ridge Development.

Mitigation

As indicated in the anticipated flows above, the estimated wastewater generated in the hotel including amenities is 30,730 gpd. As a mitigation for the temporary deficit in wastewater capacity, the proposed development will be phased. The hotel will be built first and the townhouses constructed second. The 35,000 gpd capacity transferred to the subject site from IBM covers the 30,730 gpd from the Hotel. Certificates of Occupancy can be held for the apartments and townhouses until the treatment plant is upgraded and operating at the higher capacity.

Appendix H

Water Supply Report

ALFONZETTI ENGINEERING, P.C.

1100 Route 52, Carmel, N.Y. 10512

(845) 228-9800

Info@AlfonzettiEng.com

PROJECT: Eagle Ridge
3 North Castle Drive
Town of North Castle, NY

SCOPE: Eagle Ridge
Water Supply Report

DATE: February 15, 2019

Existing Facilities and Capacity:

The subject site is part of Water District Number 4. Water District Number 4 serves downtown Armonk, Business Park, and IBM. Water District 4 (WD4) also supplies water to Water District 5 (WD5) and Water District 7 (WD7). Water is currently supplied to the district by two (2) operating wellfields. An additional wellfield exists but is currently not in operation. The district also includes one (1) one-million-gallon storage tank.

The two (2) wellfields supplying water to the district are the IBM well fields and the School Street wellfields.

The IBM wellfields consist of two (2) gravel packed wells; Well No. 1 (South Well) and Well No. 2 (North Well). The wells were initially installed in 1960 and 1963 respectively. The wells are located approximately 75 feet apart within Town owned property in Wampus Brook Park. The park and the wells were previously owned by IBM. Well No. 1 can be pumped at a yield of 350 gallons per minute (gpm). Well No. 2 can be pumped at 360 gpm. Well No. 1 and Well No. 2 cannot be pumped simultaneously.

The School Street Wellfield located on Town owned property consists of two (2) wells, approximately 20 feet apart, installed in 1988 by the USEPA in response to contamination identified in wells located in downtown Armonk. Well WD4-1 is a bedrock well with a sustained yield of 100 gpm. Well WD4-2 is a sand and gravel

well with a yield of approximately 135 gpm. The capacity of the treatment system limits the production to 100 gpm.

The wellfield not in service is the Whippoorwill Ridge Wells. This wellfield consists of two (2) bedrock wells; WD4-4 and WD4-5, with original yields of 37 gpm and 65 gpm respectively. This wellfield is out of service due to concerns related to iron and manganese in the water.

Water District Number 4 also contains a one-million-gallon storage tank located in the Whippoorwill Hills residential subdivision. The tank is 81 feet in diameter, 28 feet tall and was constructed in 1998.

As per Recommended Standards For Water Works 2012 Edition;

“The total developed groundwater source capacity, unless otherwise specified by the reviewing authority, shall equal or exceed the design maximum day demand with the largest producing well out of service.”

Therefore, based on the current conditions, the capacity of the water system is 450 gpm, or 648,000 gallons per day (gpd).

Current Demand:

According to *Water System Capacity Study, Water District No. 4, Town of North Castle, NY*, dated November 2016, prepared by GHD Consulting Engineers Inc., Water district No. 4 the following is a summary of the current demand:

| Average Daily Demand (gpd) | Estimated Maximum Day Demand (gpd) | Estimated Maximum Day Demand (gph) | Estimated Peak Hour Demand * (gph) |
|----------------------------|------------------------------------|------------------------------------|------------------------------------|
| 381,111 | 960,000 | 40,000 | 80,000 |

* Peaking factor of 2 was used.

As noted, the capacity of the existing water system is 648,000 gpd, and the maximum day demand for the district is 960,000 gallons, therefore the system is operating with a capacity deficit of approximately 312,000 gpd.

Anticipated Flows:

The proposed development will consist of the following:

- 94 Three Bedroom Townhouses
- 91 Hotel Rooms with
 - Restaurant/Café
 - Lounge/Bar
 - Banquet Hall/Meeting Rooms
 - Spa/Spin Studio
 - Swimming Pool
- 70 Apartments
 - 44 One Bedroom Apartments
 - 16 Two Bedroom Apartments
 - 10 Three Bedroom Apartments

The anticipated water demand for the development is as follows:

| Use | Units | gpd/unit* (gpd) | Total (gpd) |
|--------------------------|-----------|--------------------|----------------|
| Townhouses (3 bedroom) | 94 | 330 | 31,020 |
| Total Townhouses | 94 | | 31,020 |
| Apartments | | | |
| 1 bedroom | 44 | 110 | 4,840 |
| 2 bedroom | 16 | 220 | 3,520 |
| 3 bedroom | 10 | 330 | 3,300 |
| Total Apartments | 70 | | 11,660 |
| Hotel | | | |
| 91 Guest rooms | 91 | 110 | 10,010 |
| Amenities | | | |
| Restaurant/Café | 278 | 35 | 9,730 |
| Lounge/Bar | 194 | 20 | 3,880 |
| Bar | 123 | 20 | 2,460 |
| Ballroom/Banquet Hall | 282 | 10 | 2,820 |
| Junior Ballroom | 149 | 10 | 1,490 |
| Boardroom/Meeting room | 52 | 10 | 520 |
| Spa/Spin Studio | - | - | 3,000 |
| Swimming Pool | 200 | 10 | 2,000 |
| Sub-Total Amenities | | | 25,900 |
| 20% Water Saving Devices | | | 5,180 |
| Total Amenities | | | 20,720 |
| Total Hotel: | | | 30,730 |
| Grand Total: | | | 73,410 |

*Flow Rates taken from *New York State Design Standards For Intermediate Sized Wastewater Treatment Systems, March 5, 2014*, by New York State Department of Environmental Conservation.

Landscaping irrigation for the Eagle Ridge Project will be accomplished by the use of rain water harvesting tanks. During dry periods the tanks will be supplemented by on-site wells.

Fire Flows

Fire flow demands are based on ISO recommendations for typical residential fire protection and considers a 2-hour event with 1,500 gpm fire flow plus 1 hour at peak hour demand plus 1 hour at maximum day demand.

Required Storage for Fire Flow Demand:

| | gpd |
|--|---------|
| Fire Flow (1,500 gpm for 2 hours) | 180,000 |
| Current Peak Hour Water Demand (1 hour)* | 80,000 |
| Current Maximum Day Water Demand (1 hour)* | 40,000 |
| Increase Peak Hour Water Demand (1 hour)** | 7,766 |
| Increase Maximum Day Water Demand (1 hour)** | 3,883 |
| Sum of Demand for 2-Hour Fire Scenario | 311,649 |
| Pumping Supply for 2-hours*** | 54,000 |
| Required Storage | 257,649 |

* Current conditions

** Increased Demand from Eagle Ridge and Contemplated Projects

*** With the largest well out of service

The existing water storage tank has a capacity of approximately 38,500 gallons per vertical foot. Therefore, the required storage of 257,649 gallons used during the 2-hour fire scenario described above is accomplished by a drawdown of approximately 6.7 feet. If at the beginning of the fire event the tank is at the pump-on set point of 23.0 feet, the water level in the tank is anticipated to drop to 16.3 feet.

According to *Water System Capacity Study, Water District No. 4, Town of North Castle, NY*, dated November 2016, prepared by GHD Consulting Engineers Inc., while the water level in the tank was at elevation 24.1 feet, the system pressure was observed to be 36 psi at a hydrant on Raven Court. The hydrant on Raven Court represents the static pressure for customers at the highest elevations in the distribution system that are not served by booster pumping. Based on this information, at a water level of 16.3 feet, the static pressure is anticipated to be above 32 psi. Since this is above the minimum acceptable pressure of 20 psi, it is

judged that the existing storage volume is adequate for the residential 1,500 gpm fire flow scenario described above.

According to *Water System Capacity Study, Water District No. 4, Town of North Castle, NY*, dated November 2016, prepared by GHD Consulting Engineers Inc., using a similar approach, the maximum available fire flow can be estimated. If a fire event occurs, and the water level in the tank falls to 0 feet, the static pressure will remain above 20 psi for customers at the highest elevations in the distribution system. If the storage volume available is 0 feet to 23 feet at the beginning of a 3-hour fire event, the approximate fire flow available would be 4,400 gpm. At the end of the 3-hour event there would be no stored water available, therefore, if instantaneous demand exceeds production there may be issues.

Water Pressure:

To further analyze the impact of this development a partial water distribution network model was developed using EPANET, water distribution modeling software, from the United States Environmental Protection Agency (EPA).

The model was developed using Town supplied hydrant flow test data, included in the appendix of this report.

Junctions H1 through H10 represent the hydrants, Junctions BD1 through BD31 represent the townhouse buildings. For simplicity it is assumed there is one connection to the watermain for each building (instead of one connection for each unit). The hotel building is represented by junction BDHOTEL. Maps representing the model are included in the appendix of this report.

Three scenarios were contemplated; one with average daily demand, one with peak demand, and one with fire flow at a hydrant. A peaking factor of 4 was used to calculate the peak demand.

The model was set up with a connection to the watermain in the town park and another connection to the watermain at the intersection of Business Park Drive and Route 22. The proposed watermain extension from the town park connection to the highest point in our development is proposed to be 12" DIP. The remainder of the proposed watermain extension is proposed to be 8" DIP.

During the average daily flow simulation, water pressure ranged from 30.3 psi to 97 psi. During the peak flow demand, pressures ranged from 30 psi to 96.7 psi. Summary tables are included in the appendix of this report.

During a fire flow event, with a residual pressure of 20 psi, the hydrant flows ranged from 1200 gpm to 2790 gpm. A table representing all hydrant flows is included in the appendix of this report.

The approximate elevation of the hydrant in Raven Court is 510 feet. This hydrant on Raven Court represents the highest elevation in the distribution system that is not served by booster pumping. As a comparison, the elevation at the highest building in the Eagle ridge Development is 520 feet and the elevation of the top floor of the hotel building is 486 feet. As shown in the appendix of this report there is adequate flow and pressure at the buildings.

Cumulative Impacts

Cumulative impacts from the following developments are being considered herein:

| | |
|-----------------|--|
| Senior Housing | 16-unit age restricted residential building (age 55 and older) |
| Wampus Mills | 6-lot residential, single family subdivision |
| Mariani Gardens | five 4-bedroom units, sixteen 3-bedroom units, six 2-bedroom units, sixteen 1-bedroom units, (96 bedrooms) |
| Airport Campus | 100,000 sf office space, 125-room hotel, 151-unit multi-family building, 22 townhouses |
| 470 Main Street | six 1-bedroom units, ten 2-bedroom units, (26 bedrooms) |
| Lumber Yard | 36 units |

Anticipated water demand from developments considered:

| Project/Development | Units | gpd/unit * (gpd) | Total (gpd) |
|---|---------|---------------------|----------------|
| Senior Housing | | | |
| Proposed 16 units | 16 | 125 | 2,000 |
| Total Senior Housing | | | 2,000 |
| Wampus Mills | | | |
| Proposed single family homes | 8 | 300 | 1,800 |
| Total Wampus Mills | | | 1,800 |
| Mariani Gardens (45 Bedford Road) | | | |
| Proposed 4-bedroom | 5 | 440 | 2,200 |
| Proposed 3-bedroom | 16 | 330 | 5,280 |
| Proposed 2-bedroom | 6 | 220 | 1,320 |
| Proposed 1-bedroom | 16 | 110 | 1,760 |
| Total Mariani Gardens | | | 10,560 |
| Airport Campus | | | |
| Proposed office space | 100,000 | 0.1 | 10,000 |
| Proposed hotel rooms | 125 | 110 | 13,750 |
| Proposed hotel amenities (assumed) | - | - | 28,400 |
| Proposed apartment building (assume 2-bedroom) | 151 | 220 | 33,220 |
| Proposed townhouses (assume 4- bedroom) | 22 | 440 | 9,680 |
| Total Airport Campus | | | 95,050 |
| 470 Main Street | | | |
| Proposed 2-bedroom | 10 | 220 | 2,200 |
| Proposed 1-bedroom | 6 | 110 | 660 |
| Total 470 Main Street | | | 2,860 |
| Lumber yard | | | |
| Proposed 36 units (assume 2 bedroom) | 36 | 220 | 7,920 |
| Total Lumber Yard | | | 7,920 |

*Flow Rates taken from *New York State Design Standards For Intermediate Sized Wastewater Treatment Systems*, March 5, 2014, by New York State Department of Environmental Conservation.

The Senior Housing project is currently under construction. The estimated water demand is anticipated to be 2,000 gpd from Water District #4 (WD#4).

The Wampus Mills subdivision is currently under construction. The estimated water demand from WD#4 is zero as the 6 single-family houses will utilize individual wells for their respective water supplies.

According to the Full Environmental Assessment Form (FEAF) submitted for Mariani Gardens, the estimated increase in water demand will be 7,000 gpd above the amount currently approved. Therefore, the additional demand from WD#4 is 7,000 gpd for the Mariani Gardens proposed project.

The Airport Campus project will utilize wells for their water needs therefore, the water demand from WD#4 is zero.

470 Main Street and the Lumber Yard projects will have a combined estimated water demand of 10,780 gpd from WD#4.

The total water demand from other projects is 19,780 gpd from WD#4. The total water demand from the Eagle Ridge project is 73,410 gpd. The combined water demand for all contemplated projects is 93,190 gpd.

Mitigation

The Town has been investigating several different water supply wells to alleviate the deficit that the Town is currently operating under. One location that the Town has investigated is the Town owned land where the sewage treatment plant is located.

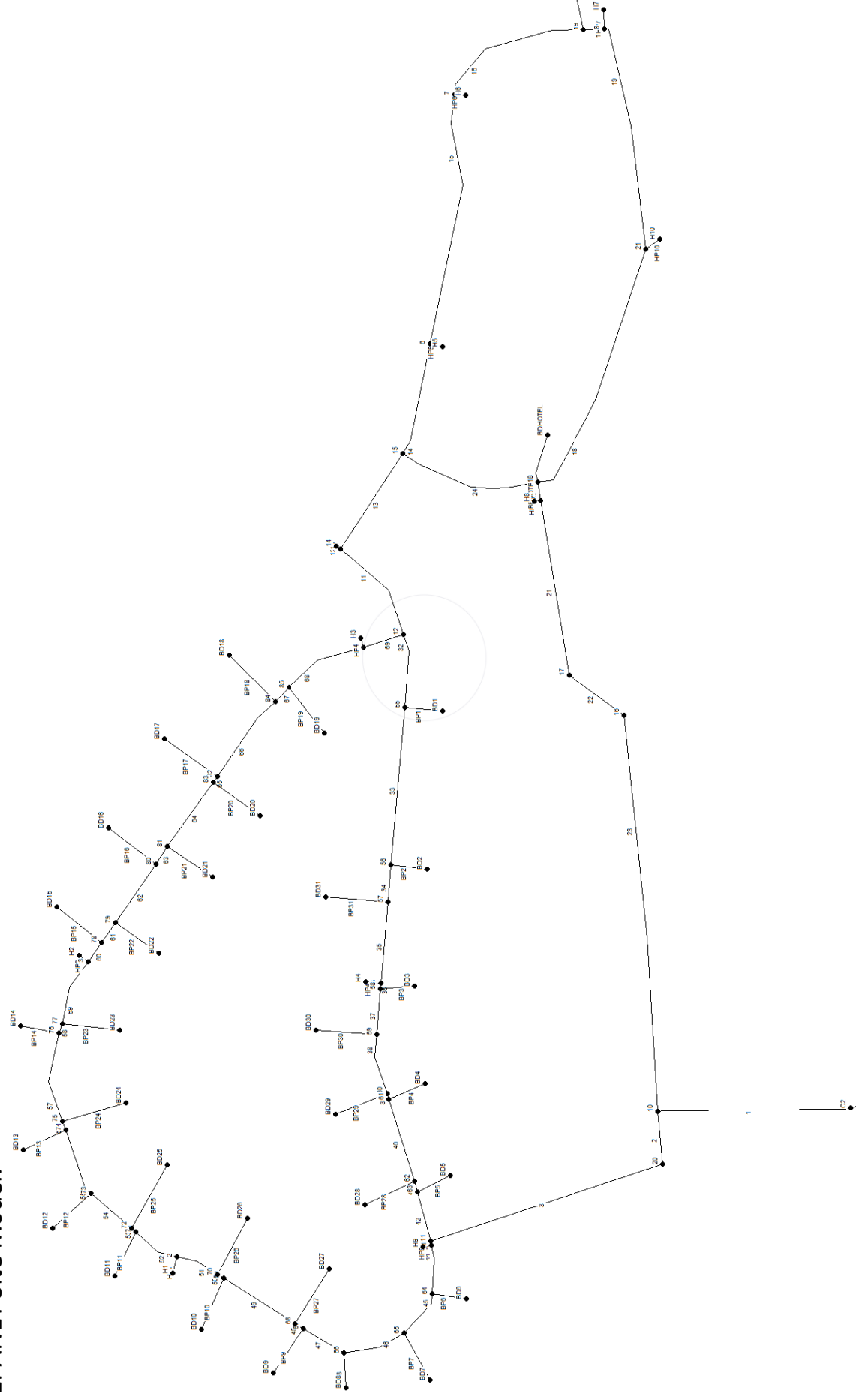
This location has been investigated by the Town's consultant and is anticipated to yield good results. The consultant has secured permits from the Westchester County Department of Health to do exploratory drilling. Drilling was started but was suspended due to subsurface conditions that requires specific drilling equipment. The applicant is willing to make a financial contribution covering the cost of the exploratory drilling and installing/construction of the new production wells.

| | | | |
|--------|--|-------|----|
| City | North Castle TS WD#4 and #7 - May 18, 2011 | | |
| County | Westchester | State | NY |

[illegible]

Project Average Daily Demand: 51 gpm
Project Peak Demand: 204 gpm

EPANET Site Model:



Junction Report Average Daily Demand:

EAGLE RIDGE DAILY DEMAND JUNCTION TABLE

Network Table - Nodes

| Node ID | Elevation ft | Demand GPM | Head ft | Pressure psi |
|--------------|-----------------|---------------|------------|-----------------|
| Junc C2 | 372 | 0.00 | 594.01 | 96.19 |
| Junc 1 | 492.6 | 0.00 | 594.00 | 43.94 |
| Junc 2 | 521.10 | 0.00 | 594.00 | 31.59 |
| Junc 3 | 507.46 | 0.00 | 594.00 | 37.50 |
| Junc 4 | 455.71 | 0.00 | 594.00 | 59.92 |
| Junc 5 | 487.18 | 0.00 | 594.00 | 46.29 |
| Junc 6 | 439.91 | 0.00 | 594.00 | 66.77 |
| Junc 7 | 435.04 | 0.00 | 594.00 | 68.88 |
| Junc 8 | 425.31 | 0.00 | 594.00 | 73.09 |
| Junc 9 | 430.15 | 0.00 | 594.00 | 71.00 |
| Junc BDHOTEL | 440 | 29.40 | 593.99 | 66.73 |
| Junc 10 | 404.00 | 0.00 | 594.00 | 82.33 |
| Junc 11 | 492.47 | 0.00 | 594.00 | 43.99 |
| Junc 12 | 450.52 | 0.00 | 594.00 | 62.17 |
| Junc 13 | 447.60 | 0.00 | 594.00 | 63.44 |
| Junc 14 | 447.24 | 0.00 | 594.00 | 63.59 |
| Junc 15 | 442.69 | 0.00 | 594.00 | 65.56 |
| Junc 16 | 389.30 | 0.00 | 594.00 | 88.70 |
| Junc 17 | 414.85 | 0.00 | 594.00 | 77.63 |
| Junc 18 | 431.18 | 0.00 | 594.00 | 70.55 |
| Junc 19 | 427.03 | 0.00 | 594.00 | 72.35 |
| Junc 20 | 408.66 | 0.00 | 594.00 | 80.31 |
| Junc 21 | 415.11 | 0.00 | 594.00 | 77.51 |
| Junc H1 | 520.66 | 0.00 | 594.00 | 31.78 |
| Junc H2 | 507.80 | 0.00 | 594.00 | 37.35 |

EAGLE RIDGE DAILY DEMAND JUNCTION TABLE

| Node ID | Elevation ft | Demand GPM | Head ft | Pressure psi |
|-----------|-----------------|---------------|------------|-----------------|
| Junc H3 | 456.09 | 0.00 | 594.00 | 59.76 |
| Junc H4 | 484.37 | 0.00 | 594.00 | 47.50 |
| Junc H5 | 440.00 | 0.00 | 594.00 | 66.73 |
| Junc H6 | 435.35 | 0.00 | 594.00 | 68.74 |
| Junc H7 | 426 | 0.00 | 594.00 | 72.80 |
| Junc H8 | 430.82 | 0.00 | 594.00 | 70.71 |
| Junc H9 | 492.79 | 0.00 | 594.00 | 43.86 |
| Junc BD1 | 463 | 1.15 | 593.92 | 56.73 |
| Junc BD2 | 480 | 1.15 | 593.92 | 49.36 |
| Junc BD3 | 488 | 0.69 | 593.97 | 45.92 |
| Junc BD4 | 492 | 0.69 | 593.97 | 44.18 |
| Junc BD5 | 494 | 0.46 | 593.99 | 43.33 |
| Junc BD6 | 496 | 0.69 | 593.97 | 42.45 |
| Junc BD7 | 502 | 0.69 | 593.96 | 39.85 |
| Junc BD8 | 510 | 0.69 | 593.97 | 36.39 |
| Junc BD9 | 518 | 0.69 | 593.96 | 32.91 |
| Junc BD10 | 524 | 0.69 | 593.96 | 30.31 |
| Junc BD11 | 522 | 0.69 | 593.96 | 31.18 |
| Junc BD12 | 517 | 0.69 | 593.96 | 33.35 |
| Junc BD13 | 514.5 | 0.69 | 593.96 | 34.43 |
| Junc BD14 | 513 | 0.69 | 593.97 | 35.08 |
| Junc BD15 | 508 | 0.69 | 593.96 | 37.24 |
| Junc BD16 | 496 | 0.69 | 593.95 | 42.44 |
| Junc BD17 | 485 | 0.69 | 593.95 | 47.21 |
| Junc BD18 | 473 | 0.69 | 593.95 | 52.41 |
| Junc BD19 | 473 | 0.69 | 593.95 | 52.41 |

EAGLE RIDGE DAILY DEMAND JUNCTION TABLE

| Node ID | Elevation ft | Demand GPM | Head ft | Pressure psi |
|-----------|-----------------|---------------|------------|-----------------|
| Junc BD20 | 487 | 0.69 | 593.95 | 46.34 |
| Junc BD21 | 505 | 0.46 | 593.98 | 38.56 |
| Junc BD22 | 515 | 0.69 | 593.96 | 34.21 |
| Junc BD23 | 521 | 0.46 | 593.98 | 31.62 |
| Junc BD24 | 524 | 0.46 | 593.98 | 30.32 |
| Junc BD25 | 523 | 0.69 | 593.94 | 30.74 |
| Junc BD26 | 523 | 0.69 | 593.95 | 30.74 |
| Junc BD27 | 514 | 0.69 | 593.95 | 34.64 |
| Junc BD28 | 502 | 0.69 | 593.96 | 39.85 |
| Junc BD29 | 500 | 0.69 | 593.96 | 40.71 |
| Junc BD30 | 497 | 0.46 | 593.98 | 42.02 |
| Junc BD31 | 505 | 1.15 | 593.87 | 38.51 |
| Junc 55 | 456.90 | 0.00 | 594.00 | 59.41 |
| Junc 56 | 473.30 | 0.00 | 594.00 | 52.30 |
| Junc 57 | 477.18 | 0.00 | 594.00 | 50.62 |
| Junc 58 | 485.03 | 0.00 | 594.00 | 47.22 |
| Junc 59 | 486.37 | 0.00 | 594.00 | 46.64 |
| Junc 60 | 488.41 | 0.00 | 594.00 | 45.75 |
| Junc 61 | 489.18 | 0.00 | 594.00 | 45.42 |
| Junc 62 | 490.66 | 0.00 | 594.00 | 44.78 |
| Junc 63 | 491.28 | 0.00 | 594.00 | 44.51 |
| Junc 64 | 493.05 | 0.00 | 594.00 | 43.74 |
| Junc 65 | 497.77 | 0.00 | 594.00 | 41.70 |
| Junc 66 | 505.74 | 0.00 | 594.00 | 38.24 |
| Junc 67 | 510.28 | 0.00 | 594.00 | 36.28 |
| Junc 68 | 513.93 | 0.00 | 594.00 | 34.70 |

EAGLE RIDGE DAILY DEMAND JUNCTION TABLE

| Node ID | Elevation ft | Demand GPM | Head ft | Pressure psi |
|-----------|-----------------|---------------|------------|-----------------|
| Junc 69 | 520.11 | 0.00 | 594.00 | 32.02 |
| Junc 70 | 520.66 | 0.00 | 594.00 | 31.78 |
| Junc 71 | 519.68 | 0.00 | 594.00 | 32.20 |
| Junc 72 | 518.25 | 0.00 | 594.00 | 32.82 |
| Junc 73 | 514.28 | 0.00 | 594.00 | 34.54 |
| Junc 74 | 513.16 | 0.00 | 594.00 | 35.03 |
| Junc 75 | 512.32 | 0.00 | 594.00 | 35.39 |
| Junc 76 | 510.53 | 0.00 | 594.00 | 36.17 |
| Junc 77 | 510.10 | 0.00 | 594.00 | 36.35 |
| Junc 78 | 505.20 | 0.00 | 594.00 | 38.48 |
| Junc 79 | 501.94 | 0.00 | 594.00 | 39.89 |
| Junc 80 | 492.68 | 0.00 | 594.00 | 43.90 |
| Junc 81 | 490.58 | 0.00 | 594.00 | 44.81 |
| Junc 82 | 478.62 | 0.00 | 594.00 | 50.00 |
| Junc 83 | 482.89 | 0.00 | 594.00 | 48.14 |
| Junc 84 | 469.71 | 0.00 | 594.00 | 53.86 |
| Junc 85 | 466.10 | 0.00 | 594.00 | 55.42 |
| Junc C1 | 380 | 0.00 | 594.02 | 92.73 |
| Junc EX6 | 370 | 0.00 | 594.02 | 97.07 |
| Junc EX5 | 371 | 0.00 | 594.02 | 96.63 |
| Junc EX4 | 371 | 0.00 | 594.02 | 96.63 |
| Junc EX3 | 372 | 0.00 | 594.02 | 96.20 |
| Junc EX2 | 373 | 0.00 | 594.02 | 95.77 |
| Junc EX1 | 372 | 0.00 | 594.02 | 96.20 |
| Junc EXP7 | 370 | 0.00 | 594.02 | 97.07 |
| Junc H10 | 415 | 0.00 | 594.00 | 77.56 |

| Node ID | Elevation ft | Demand GPM | Head ft | Pressure psi |
|----------|-----------------|---------------|------------|-----------------|
| Resvr R1 | 370 | -51.02 | 370.00 | 0.00 |

Junction Report Peak Demand:

EAGLE RIDGE PEAK DEMAND JUNCTION TABLE

Network Table - Nodes at 0:00 Hrs

| Node ID | Elevation ft | Demand GPM | Head ft | Pressure psi |
|--------------|-----------------|---------------|------------|-----------------|
| Junc C2 | 372 | 0.00 | 593.23 | 95.86 |
| Junc 1 | 492.6 | 0.00 | 593.20 | 43.59 |
| Junc 2 | 521.10 | 0.00 | 593.19 | 31.24 |
| Junc 3 | 507.46 | 0.00 | 593.19 | 37.15 |
| Junc 4 | 455.71 | 0.00 | 593.19 | 59.57 |
| Junc 5 | 487.18 | 0.00 | 593.19 | 45.93 |
| Junc 6 | 439.91 | 0.00 | 593.19 | 66.42 |
| Junc 7 | 435.04 | 0.00 | 593.20 | 68.53 |
| Junc 8 | 425.31 | 0.00 | 593.20 | 72.75 |
| Junc 9 | 430.15 | 0.00 | 593.18 | 70.64 |
| Junc BDHOTEL | 440 | 117.60 | 593.09 | 66.33 |
| Junc 10 | 404.00 | 0.00 | 593.21 | 81.99 |
| Junc 11 | 492.47 | 0.00 | 593.20 | 43.65 |
| Junc 12 | 450.52 | 0.00 | 593.19 | 61.82 |
| Junc 13 | 447.60 | 0.00 | 593.19 | 63.08 |
| Junc 14 | 447.24 | 0.00 | 593.19 | 63.24 |
| Junc 15 | 442.69 | 0.00 | 593.19 | 65.21 |
| Junc 16 | 389.30 | 0.00 | 593.19 | 88.35 |
| Junc 17 | 414.85 | 0.00 | 593.19 | 77.27 |
| Junc 18 | 431.18 | 0.00 | 593.18 | 70.19 |
| Junc 19 | 427.03 | 0.00 | 593.20 | 72.00 |
| Junc 20 | 408.66 | 0.00 | 593.21 | 79.97 |
| Junc 21 | 415.11 | 0.00 | 593.19 | 77.16 |
| Junc H1 | 520.66 | 0.00 | 593.19 | 31.43 |
| Junc H2 | 507.80 | 0.00 | 593.19 | 37.00 |

EAGLE RIDGE PEAK DEMAND JUNCTION TABLE

| Node ID | Elevation ft | Demand GPM | Head ft | Pressure psi |
|-----------|-----------------|---------------|------------|-----------------|
| Junc H3 | 456.09 | 0.00 | 593.19 | 59.40 |
| Junc H4 | 484.37 | 0.00 | 593.19 | 47.15 |
| Junc H5 | 440.00 | 0.00 | 593.19 | 66.38 |
| Junc H6 | 435.35 | 0.00 | 593.20 | 68.40 |
| Junc H7 | 426 | 0.00 | 593.20 | 72.45 |
| Junc H8 | 430.82 | 0.00 | 593.18 | 70.35 |
| Junc H9 | 492.79 | 0.00 | 593.20 | 43.51 |
| Junc BD1 | 463 | 4.60 | 592.12 | 55.95 |
| Junc BD2 | 480 | 4.60 | 592.16 | 48.60 |
| Junc BD3 | 488 | 2.76 | 592.81 | 45.42 |
| Junc BD4 | 492 | 2.76 | 592.76 | 43.66 |
| Junc BD5 | 494 | 1.84 | 593.01 | 42.90 |
| Junc BD6 | 496 | 2.76 | 592.81 | 41.95 |
| Junc BD7 | 502 | 2.76 | 592.62 | 39.27 |
| Junc BD8 | 510 | 2.76 | 592.82 | 35.88 |
| Junc BD9 | 518 | 2.76 | 592.62 | 32.33 |
| Junc BD10 | 524 | 2.76 | 592.59 | 29.72 |
| Junc BD11 | 522 | 2.76 | 592.67 | 30.62 |
| Junc BD12 | 517 | 2.76 | 592.63 | 32.77 |
| Junc BD13 | 514.5 | 2.76 | 592.68 | 33.87 |
| Junc BD14 | 513 | 2.76 | 592.77 | 34.56 |
| Junc BD15 | 508 | 2.76 | 592.57 | 36.65 |
| Junc BD16 | 496 | 2.76 | 592.54 | 41.83 |
| Junc BD17 | 485 | 2.76 | 592.49 | 46.57 |
| Junc BD18 | 473 | 2.76 | 592.48 | 51.77 |
| Junc BD19 | 473 | 2.76 | 592.56 | 51.81 |

EAGLE RIDGE PEAK DEMAND JUNCTION TABLE

| Node ID | Elevation ft | Demand GPM | Head ft | Pressure psi |
|-----------|-----------------|---------------|------------|-----------------|
| Junc BD20 | 487 | 2.76 | 592.56 | 45.74 |
| Junc BD21 | 505 | 1.84 | 592.91 | 38.09 |
| Junc BD22 | 515 | 2.76 | 592.62 | 33.63 |
| Junc BD23 | 521 | 1.84 | 592.89 | 31.15 |
| Junc BD24 | 524 | 1.84 | 592.85 | 29.83 |
| Junc BD25 | 523 | 2.76 | 592.41 | 30.08 |
| Junc BD26 | 523 | 2.76 | 592.51 | 30.12 |
| Junc BD27 | 514 | 2.76 | 592.50 | 34.01 |
| Junc BD28 | 502 | 2.76 | 592.60 | 39.26 |
| Junc BD29 | 500 | 2.76 | 592.59 | 40.12 |
| Junc BD30 | 497 | 1.84 | 592.88 | 41.54 |
| Junc BD31 | 505 | 4.60 | 591.43 | 37.45 |
| Junc 55 | 456.90 | 0.00 | 593.19 | 59.05 |
| Junc 56 | 473.30 | 0.00 | 593.19 | 51.95 |
| Junc 57 | 477.18 | 0.00 | 593.19 | 50.27 |
| Junc 58 | 485.03 | 0.00 | 593.19 | 46.87 |
| Junc 59 | 486.37 | 0.00 | 593.19 | 46.29 |
| Junc 60 | 488.41 | 0.00 | 593.19 | 45.40 |
| Junc 61 | 489.18 | 0.00 | 593.19 | 45.07 |
| Junc 62 | 490.66 | 0.00 | 593.20 | 44.43 |
| Junc 63 | 491.28 | 0.00 | 593.20 | 44.16 |
| Junc 64 | 493.05 | 0.00 | 593.20 | 43.39 |
| Junc 65 | 497.77 | 0.00 | 593.20 | 41.35 |
| Junc 66 | 505.74 | 0.00 | 593.20 | 37.89 |
| Junc 67 | 510.28 | 0.00 | 593.20 | 35.93 |
| Junc 68 | 513.93 | 0.00 | 593.20 | 34.35 |

EAGLE RIDGE PEAK DEMAND JUNCTION TABLE

| Node ID | Elevation ft | Demand GPM | Head ft | Pressure psi |
|-----------|-----------------|---------------|------------|-----------------|
| Junc 69 | 520.11 | 0.00 | 593.19 | 31.67 |
| Junc 70 | 520.66 | 0.00 | 593.19 | 31.43 |
| Junc 71 | 519.68 | 0.00 | 593.19 | 31.85 |
| Junc 72 | 518.25 | 0.00 | 593.19 | 32.47 |
| Junc 73 | 514.28 | 0.00 | 593.19 | 34.19 |
| Junc 74 | 513.16 | 0.00 | 593.19 | 34.68 |
| Junc 75 | 512.32 | 0.00 | 593.19 | 35.04 |
| Junc 76 | 510.53 | 0.00 | 593.19 | 35.82 |
| Junc 77 | 510.10 | 0.00 | 593.19 | 36.00 |
| Junc 78 | 505.20 | 0.00 | 593.19 | 38.13 |
| Junc 79 | 501.94 | 0.00 | 593.19 | 39.54 |
| Junc 80 | 492.68 | 0.00 | 593.19 | 43.55 |
| Junc 81 | 490.58 | 0.00 | 593.19 | 44.46 |
| Junc 82 | 478.62 | 0.00 | 593.19 | 49.64 |
| Junc 83 | 482.89 | 0.00 | 593.19 | 47.79 |
| Junc 84 | 469.71 | 0.00 | 593.19 | 53.50 |
| Junc 85 | 466.10 | 0.00 | 593.19 | 55.07 |
| Junc C1 | 380 | 0.00 | 593.36 | 92.45 |
| Junc EX6 | 370 | 0.00 | 593.40 | 96.80 |
| Junc EX5 | 371 | 0.00 | 593.39 | 96.36 |
| Junc EX4 | 371 | 0.00 | 593.39 | 96.36 |
| Junc EX3 | 372 | 0.00 | 593.38 | 95.92 |
| Junc EX2 | 373 | 0.00 | 593.37 | 95.49 |
| Junc EX1 | 372 | 0.00 | 593.36 | 95.92 |
| Junc EXP7 | 370 | 0.00 | 593.37 | 96.78 |
| Junc H10 | 415 | 0.00 | 593.19 | 77.21 |

| Node ID | Elevation ft | Demand GPM | Head ft | Pressure psi |
|----------|-----------------|---------------|------------|-----------------|
| Resvr R1 | 370 | -204.08 | 370.00 | 0.00 |

Hydrant Pressure Report:

| Node ID | Elevation (ft) | Demand (gpm) | Pressure (psi) |
|----------|-------------------|-----------------|-------------------|
| Junc H1 | 520.7 | 1200 | 20 |
| Junc H2 | 507.8 | 1485 | 20 |
| Junc H3 | 456.1 | 2310 | 20 |
| Junc H4 | 484.4 | 1840 | 20 |
| Junc H5 | 440.0 | 2475 | 20 |
| Junc H6 | 435.4 | 2575 | 20 |
| Junc H7 | 426.0 | 2650 | 20 |
| Junc H8 | 430.8 | 2690 | 20 |
| Junc H9 | 492.8 | 1825 | 20 |
| Junc H10 | 415.0 | 2790 | 20 |

Appendix I

Soil Test Results

ALFONZETTI ENGINEERING, P.C.
1100 Route 52, Carmel, N.Y. 10512

(845) 228-9800

Info@AlfonzettiEng.com

EAGLE RIDGE SOIL TESTING

DEEP TEST HOLE

| | |
|-------------------|-------------------|
| DEEP TEST 1 (DT1) | |
| 0"-6" | TOPSOIL |
| 6"-12" | SANDY LOAM |
| 12" | ROCK |
| | |
| DEEP TEST 2 (DT2) | |
| 0"-6" | TOPSOIL |
| 6"-30" | SANDY LOAM |
| 30" | ROCK |
| | |
| DEEP TEST 3 (DT3) | |
| 0"-10" | TOPSOIL |
| 10"-16" | GRAVEL |
| 16"-60" | SANDY, SILTY LOAM |
| 60" | ROCK |
| | |
| DEEP TEST 4 (DT4) | |
| 0"-6" | TOPSOIL |
| 6"-108" | SANDY LOAM |
| 108" | WATER |
| | |
| DEEP TEST 5 (DT5) | |
| 0"-6" | TOPSOIL |
| 6"-102" | SANDY, SILTY LOAM |
| 102" | WATER |

| | |
|---------------------|-------------------------|
| DEEP TEST 6A (DT6A) | |
| 0"-6" | TOPSOIL |
| 6"-92" | SANDY, SILTY LOAM |
| | |
| DEEP TEST 6B (DT6B) | |
| 0"-6" | TOPSOIL |
| 6"-84" | SANDY LOAM WITH COBBLES |
| | |
| DEEP TEST 7 (DT7) | |
| 0"-6" | TOPSOIL |
| 6"-132" | SANDY LOAM |
| | |
| DEEP TEST 8 (DT8) | |
| 0"-6" | TOPSOIL |
| 6"-132" | SANDY LOAM |
| | |
| DEEP TEST 9A (DT9A) | |
| 0"-6" | TOPSOIL |
| 6"-86" | SANDY LOAM |
| | |
| DEEP TEST 9B (DT9B) | |
| 0"-6" | TOPSOIL |
| 6"-100" | SANDY LOAM |

| | |
|---------------------|--------------------------|
| DEEP TEST 10 (DT10) | |
| 0"-6" | TOPSOIL |
| 6"-78" | SANDY LOAM WITH BOULDERS |
| | |
| DEEP TEST 11 (DT11) | |
| 0"-6" | TOPSOIL |
| 6"-96" | SANDY, SILTY LOAM |
| | |
| DEEP TEST 12 (DT12) | |
| 0"-6" | TOPSOIL |
| 6"-70" | SANDY LOAM |
| 70"-120" | MIXED SANDS |
| 120" | ROCK |
| | |
| DEEP TEST 13 (DT13) | |
| 0"-6" | TOPSOIL |
| 6"-66" | SANDY LOAM WITH COBBLES |
| 66"-97" | MIXED SANDS |
| | |
| DEEP TEST 14 (DT14) | |
| 0"-6" | TOPSOIL |
| 6"-66" | SANDY LOAM |
| 66"-78" | MIXED SANDS |

| | |
|---------------------|--------------------------------|
| DEEP TEST 15 (DT15) | |
| 0"-12" | TOPSOIL |
| 12"-58" | SANDY LOAM |
| 58"-94" | MIXED SANDS |
| | |
| DEEP TEST 16 (DT16) | |
| 0"-6" | TOPSOIL |
| 6"-108" | SANDY, SILTY LOAM |
| | |
| DEEP TEST 17 (DT17) | |
| 0"-6" | TOPSOIL |
| 6"-100" | SANDY LOAM WITH BOULDERS |
| | |
| DEEP TEST 18 (DT18) | |
| 0"-6" | TOPSOIL |
| 6"-80" | SANDY, SILTY LOAM WITH COBBLES |
| | |
| DEEP TEST 19 (DT19) | |
| 0"-6" | TOPSOIL |
| 6"-122" | SANDY LOAM |
| 122" | ROCK |

PERCOLATION TEST

| PERCOLATION TEST | PERCOLATION RATE (MIN./IN.) |
|------------------|--------------------------------|
| P4 | 2 |
| P5 | 3 |
| P6 | 2 |
| P7 | 12 |
| P9 | 46 |
| P10 | 20 |
| P11 | 30 |
| P12 | 3 |
| P13 | 7 |
| P14 | 2 |
| P16 | 8 |
| P18 | 3 |
| P19 | 6 |

Appendix J

Wetland Report

JAY FAIN & ASSOCIATES, LLC

Environmental Consulting Services

Jay Fain
Principal

Victoria Landau
Principal, ASLA

Jason Lepro
Associate, CAD

134 Round Hill Road
Fairfield, CT 06824
203-254-3156
1-800-JAY FAIN

Fax: 203-254-3167
e-mail: jfassociates@optonline.net

SOILS MAPPING & WETLAND/WATERCOURSE DELINEATION FOR NORTH CASTLE DRIVE, NY

Page 1

PROPERTY LOCATION AND DESCRIPTION:

LAND USE: **Vacant** ACRES: **30.0±**

DELINEATION
ADDRESS: **North Castle Drive
North Castle, NY**

REPORT COMPLETED FOR:

NAME: **Madd Madonna Armonk LLC
c/o Kory Salomone**

MAILING
ADDRESS: **Law Offices of Kory Salomone
501 Marble Avenue
Pleasantville, NY 10504**

MAPPING AND DELINEATION METHODOLOGY

Soils analysis, as described in this report, is intended as an inventory and evaluation of the existing soil characteristics on the subject property. A first order soil survey in accordance with the principles and practices noted in the USDA publication Soil Survey Manual (1993) was completed at the site. Soil units mapped in the field correspond with those in the USDA publication *Soil Survey of Putnam and Westchester Counties, New York* (1994).

Wetland identification was based on the presence of poorly and very poorly drained soils and/or a prevalence of hydrophytic vegetation. Soil types were identified by observation of soil morphology (soil texture, color, structure, etc.). To observe the morphology of the property's soils, numerous two-foot deep test pits and/or hand borings were completed throughout the site. Prevalence of hydrophytic vegetation was confirmed by visually determining the dominant plant species in each vegetation community in accordance with the Onsite Routine Determination method as described in the 1989 manual titled Corps of Engineers Wetland Delineation Manual (Manual) by the Environmental Laboratory. Transects were located perpendicular to and at representative points along the perceived boundaries of the wetland areas identified on the property. Soil morphologies and vegetation were observed at sampling points along the transects. Sampling began well outside the bounds of the wetland and continued towards it until hydric soils and/or a prevalence of hydrophytic vegetation were observed. This point on each transect was marked (flagged) with an orange surveyor's tape labeled "Wetland Boundary". The complete boundary of every wetland area is located along the lines that connect these sequentially numbered boundary points.

The wetland and watercourse boundaries are subject to change until adopted by the Town.

DATE AND CONDITIONS AT TIME OF INSPECTION

DATE: **December 12, 2017**

INSPECTED BY: **Jay Fain**

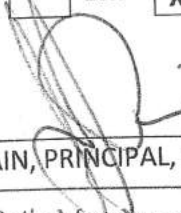
WEATHER: **Cool & Sunny**

SOIL MOISTURE CONDITIONS: ☐ DRY ☒ MOIST ☐ WET

FROST DEPTH: **N/A**

SNOW DEPTH: **N/A**

CERTIFICATION


JAY FAIN, PRINCIPAL, SOIL SCIENTIST

Wetland Delineation • Soils Mapping • Site Planning • Biological Inventories • Environmental Impact Statements

**SOILS MAPPING & WETLAND/WATERCOURSE
DELINEATION FOR
NORTH CASTLE DRIVE, NY**

Page 2

WETLAND/WATERCOURSE IDENTIFIED

| FLAG NUMBERS | WETLAND TYPE | SOIL TYPE | COMMENTS |
|--------------|----------------|------------------------------|---------------------------------------|
| 1 - 26 | Disturbed/Seep | RdA – Ridgebury loam/Aquents | Drainage, Side Hill Seep, Watercourse |

SOIL MAP UNITS

Each soil map unit that was identified on the property represents a specific area on the landscape and consists of one or more soils for which the unit is named. Other soils (inclusions that are generally too small to be delineated separately) may account for 10 to 15 percent of the map unit. The mapped units are identified in the following table by name and symbol and typical characteristics (parent material, drainage class, high water table, depth to bedrock, and slope) of each unit are provided. These are generally the primary characteristics to be considered in land use planning and management. A narrative that defines each characteristic and describes their land use implications follows the table. Complete descriptions of each soil map unit can be found in the *Soil Survey of Putnam and Westchester Counties, New York* (1993).

UPLAND SOILS

| SOIL | | PARENT MATERIAL | SLOPE % | DRAINAGE CLASS | HIGH WATER TABLE | | | DEPTH TO BEDROCK (in) |
|------|--|--------------------|---------|---|------------------|------|------|-----------------------|
| SYM. | NAME | | | | DEPTH (ft) | KIND | MOS. | |
| CrC | Charleton-Chatfield complex, rolling, very rocky | Loose Glacial Till | 2-15 | Well Drained | >6.0 | -- | -- | >60 |
| | | Loose Glacial Till | 2-15 | Well Drained & Somewhat Excessively Drained | >6.0 | -- | -- | 20-40 |
| CsD | Chatfield-Charlton complex, hilly, very rocky | Loose Glacial Till | 15-35 | Well Drained & Somewhat Excessively Drained | >6.0 | -- | -- | 20-40 |
| | | Loose Glacial Till | 15-35 | Somewhat Excessively Drained | >6.0 | -- | -- | >60 |

WETLAND SOILS

| SOIL | | PARENT MATERIAL | SLOPE % | DRAINAGE CLASS | HIGH WATER TABLE | | | DEPTH TO BEDROCK (in) |
|------|----------------|----------------------|------------|---|------------------|---------|----------|-----------------------|
| SYM. | NAME | | | | DEPTH (ft) | KIND | MOS. | |
| RdA | Ridgebury Loam | Compact Glacial Till | 0-3 3-8 | Poorly Drained, Somewhat Poorly Drained | 0.0-1.05 | Perched | Nov.-May | >60 |

**SOILS MAPPING & WETLAND/WATERCOURSE
DELINEATION FOR
NORTH CASTLE DRIVE, NY**

Page 3

SOIL CHARACTERISTICS: DEFINITIONS AND LAND USE IMPLICATIONS

PARENT MATERIAL: Parent material is the unconsolidated organic and mineral material in which soil forms. Soil inherits characteristics, such as mineralogy and texture, from its parent material. Glacial till is unsorted, nonstratified glacial drift consisting of clay, silt, sand and boulders transported and deposited by glacial ice. Glacial outwash consists of gravel, sand and silt, which is commonly stratified, deposited by glacial melt water. Alluvium is material such as sand, silt or clay deposited on land by streams. Organic deposits consist of decomposed plant and animal parts.

A soil's texture affects the ease of digging, filling and compacting and the permeability of a soil. Generally sand and gravel soils, such as outwash soils, have higher permeability rates than most glacial till soils. Soil permeability effects the cost to design and construct subsurface sanitary disposal facilities and, if too slow or too fast, may preclude their use. Outwash soils are generally excellent sources of natural aggregates (sand and gravel) suitable for commercial use, such as construction subbase material. Organic layers in soils can cause movement of structural footings. Compacted glacial till layers make excavating more difficult and may preclude the use of subsurface sanitary disposal systems or increase their design and construction costs if fill material is required.

DRAINAGE CLASS: Drainage class refers to the frequency and duration of periods of soil saturation or partial saturation during soil formation. Seven classes of natural drainage classes exist. They range from excessively drained, where water is removed from the soil very rapidly, to very poorly drained, where water is removed so slowly that free water remains at or near the soil surface during most of the growing season. Soil drainage affects the type and growth of plants found in an area. When landscaping or gardening, drainage class information can be used to assure that proposed plants are adapted to existing drainage conditions or that necessary alterations to drainage conditions (irrigation or drainage systems) are provided to assure plant survival.

HIGH WATER TABLE: High water table is the highest level of a saturated zone in the soil in most years. The water table can effect when shallow excavations can be made; the ease of the excavations, construction, and grading; and the supporting capacity of the soil. Shallow water tables may preclude the use of subsurface sanitary disposal systems or increase design and construction costs if fill material is required.

DEPTH TO BEDROCK: The depth to bedrock refers to the depth to fixed rock. Bedrock depth affects the ease and cost of construction, such as digging, filling, compacting and planting. Shallow depth bedrock may preclude the use of subsurface sanitary disposal systems or increase design and construction costs if fill material is required.

SLOPE: Generally soils with steeper slopes increase construction costs, increase the potential for erosion and sedimentation impacts, and reduce the feasibility of locating subsurface sanitary disposal facilities.

Soil Map—Westchester County, New York (North Castle Drive)



Soil Map may not be valid at this scale.



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

12/21/2017
Page 1 of 3

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.



Soil Survey Area: Westchester County, New York
Survey Area Data: Version 13, Oct 8, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 5, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

MAP LEGEND

| | |
|--|---|
|  Area of Interest (AOI) |  Spoil Area |
|  Soils |  Stony Spot |
|  Soil Map Unit Polygons |  Very Stony Spot |
|  Soil Map Unit Lines |  Wet Spot |
|  Soil Map Unit Points |  Other |
|  Special Point Features |  Special Line Features |
|  Blowout |  Water Features |
|  Borrow Pit |  Streams and Canals |
|  Clay Spot |  Transportation |
|  Closed Depression |  Rails |
|  Gravel Pit |  Interstate Highways |
|  Gravelly Spot |  US Routes |
|  Landfill |  Major Roads |
|  Lava Flow |  Local Roads |
|  Marsh or swamp |  Background |
|  Mine or Quarry |  Aerial Photography |
|  Miscellaneous Water | |
|  Perennial Water | |
|  Rock Outcrop | |
|  Saline Spot | |
|  Sandy Spot | |
|  Severely Eroded Spot | |
|  Sinkhole | |
|  Slide or Slip | |
|  Sodic Spot | |

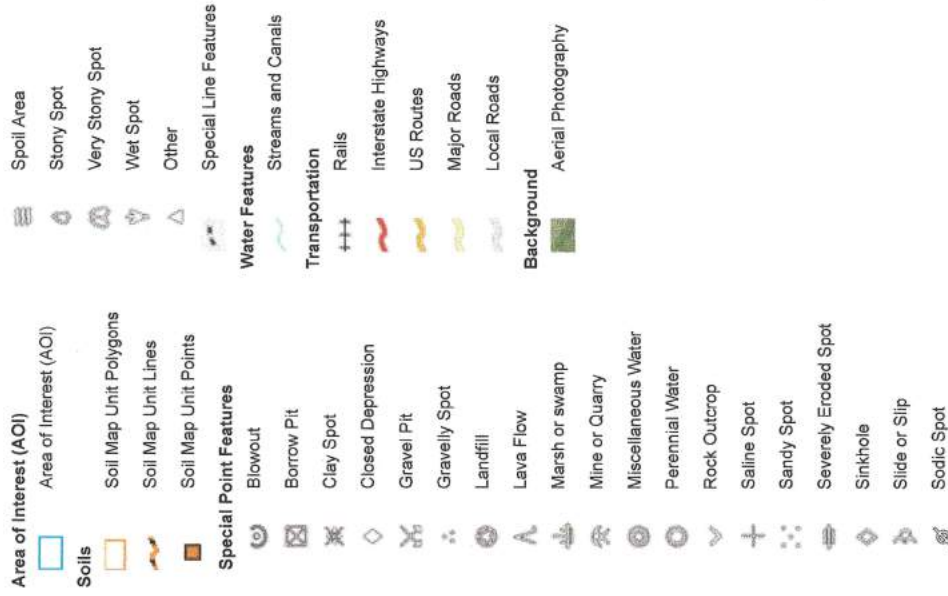
Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|------------------------------------|---|--------------|----------------|
| ChD | Charlton fine sandy loam, 15 to 25 percent slopes | 3.3 | 2.2% |
| CrC | Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky | 52.2 | 34.0% |
| CsD | Chatfield-Charlton complex, 15 to 35 percent slopes, very rocky | 18.0 | 11.7% |
| Ff | Fluvaquents-Udifulvents complex, frequently flooded | 34.9 | 22.7% |
| Pw | Pompton silt loam, loamy substratum | 0.5 | 0.4% |
| Sh | Sun loam | 0.1 | 0.0% |
| Ub | Udorthents, smoothed | 24.4 | 15.9% |
| Uc | Udorthents, wet substratum | 4.3 | 2.8% |
| Uf | Urban land | 9.4 | 6.1% |
| UvB | Urban land-Riverhead complex, 2 to 8 percent slopes | 6.4 | 4.2% |
| Totals for Area of Interest | | 153.6 | 100.0% |

Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|------------------------------------|---|--------------|----------------|
| ChD | Charlton fine sandy loam, 15 to 25 percent slopes | 3.3 | 1.0% |
| CrC | Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky | 76.9 | 23.3% |
| CsD | Chatfield-Charlton complex, 15 to 35 percent slopes, very rocky | 43.2 | 13.1% |
| CuD | Chatfield-Hollis-Rock outcrop complex, 15 to 35 percent slopes | 0.0 | 0.0% |
| Ff | Fluvaquents-Udfluvents complex, frequently flooded | 69.5 | 21.0% |
| HrF | Hollis-Rock outcrop complex, 35 to 60 percent slopes | 0.0 | 0.0% |
| LcB | Leicester loam, 3 to 8 percent slopes, stony | 0.2 | 0.1% |
| PnB | Paxton fine sandy loam, 3 to 8 percent slopes | 2.3 | 0.7% |
| Pw | Pompton silt loam, loamy substratum | 6.9 | 2.1% |
| Sh | Sun loam | 4.6 | 1.4% |
| Ub | Udorthents, smoothed | 48.8 | 14.8% |
| Uc | Udorthents, wet substratum | 5.1 | 1.5% |
| Uf | Urban land | 42.1 | 12.7% |
| UvB | Urban land-Riverhead complex, 2 to 8 percent slopes | 27.5 | 8.3% |
| Totals for Area of Interest | | 330.6 | 100.0% |

MAP LEGEND



MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.sc.egov.usda.gov>
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Westchester County, New York
 Survey Area Data: Version 13, Oct 8, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 5, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Text 2/16/41A

WETLANDS



Appendix K

Rare, Threatened & Endangered Species Documentation

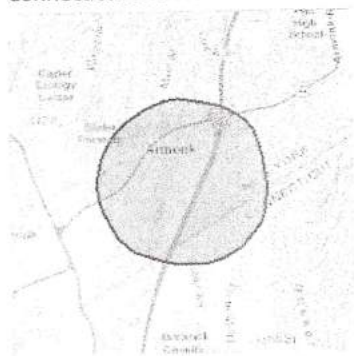
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Connecticut and New York



Local offices

Long Island Ecological Services Field Office

☎ (631) 286-0485

📠 (631) 286-4003

340 Smith Road

Shirley, NY 11967-2258

New England Ecological Services Field Office

☎ (603) 223-2541

📠 (603) 223-0104

70 Commercial Street, Suite 300

Concord, NH 03301-5094

<http://www.fws.gov/newengland>

New York Ecological Services Field Office

☎ (607) 753-9334

📠 (607) 753-9699

3817 Luker Road

Cortland, NY 13045-9385

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water

flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act requires Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

| NAME | STATUS |
|---|------------|
| Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5949 | Endangered |
| Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045 | Threatened |

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the [FAQ below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the **PROBABILITY OF PRESENCE SUMMARY** at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Bald Eagle *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
<https://ecos.fws.gov/ecp/species/1626>

Breeds Oct 15 to Aug 31

Black-billed Cuckoo *Coccyzus erythrophthalmus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/9399>

Breeds May 15 to Oct 10

Bobolink *Dolichonyx oryzivorus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 20 to Jul 31

Clapper Rail *Rallus crepitans*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Breeds Apr 10 to Oct 31

Kentucky Warbler *Oporornis formosus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Apr 20 to Aug 20

Prairie Warbler *Dendroica discolor*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 1 to Jul 31

Red-throated Loon *Gavia stellata*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

Rusty Blackbird *Euphagus carolinus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

Wood Thrush *Hylocichla mustelina*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the [FAQ "Proper Interpretation and Use of Your Migratory Bird Report"](#) before using or attempting to interpret this report.

Probability of Presence ()

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

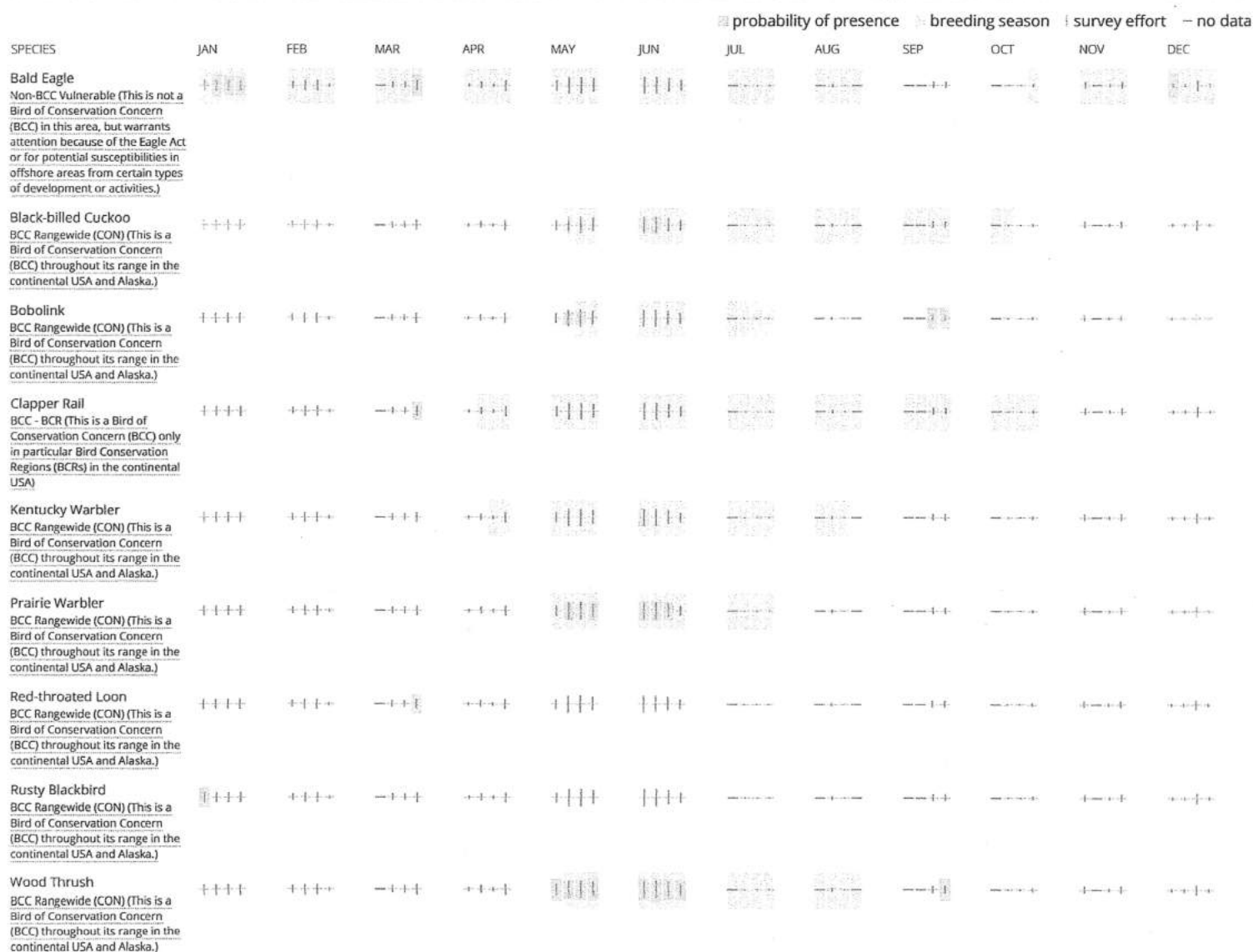
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[PEM1/SS1E](#)

[PEM1E](#)

FRESHWATER FORESTED/SHRUB WETLAND

[PFO1E](#)

[PFO1/SS1C](#)

[PSS1/EM1E](#)

[PFO1C](#)

[PSS1C](#)

[PSS1E](#)

FRESHWATER POND

[PUBHx](#)

[PUBHh](#)

[PABHx](#)

RIVERINE

[R3UBH](#)

[R4SBC](#)

[R5UBH](#)

[R3UBHx](#)

[R2UBH](#)

[R2UBHx](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the [Probability of Presence Summary](#). [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [E-bird Explore Data Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the [Probability of Presence Summary](#) and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern \(BCC\)](#) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Westchester County Endangered Species List

Revision 3/23/2005

Prairie Warbler
Worm-eating Warbler
Canada Warbler

Dendroica discolor
Helmitheros vermivorus
Wilsonia canadensis

Mammals

Special Concern

River Otter
Bobcat

Lutra canadensis
Lynx rufus

Plants

Endangered

Bog Clubmos
Netted Chain Fern
Yellow Harlequin
Spring Avens
Winter Grape
Tall Thistle
Purple Everlasting
Stiff-leaf Goldenrod
Bicknell's Sedge
Soft Fox Sedge
Cat-tail Sedge
Long-beaked Bald Rush
Large Twayblade

Lycopodiella inundata
Woodwardia areolata
Corydalis flavula
Geum vernum
Vitis vulpina
Cirsium altissimum
Gnaphalium purpureum
Solidago rigida
Carex bicknellii
Carex conjuncta
Carex typhina
Rhynchospora scirpoides
Liparis lilifolia

Threatened

Purple Milkweed
Swamp Cottonwood
Rattlebox
Swamp Agrimony
Featherfoil
Slender Pinweed
Shrubby St. Johnswort
Mudwort
Winged Monkeyflower
Slender Saltmarsh Aster
Spongy Arrowhead
Strap-leaf Arrowhead
Spotted Pondweed
Angled Spikerush
Lesser Bladderwort
Yellow Lady Slipper

Asclepias purpurascens
Populus heterophylla
Crotalaria sagittalis
Agrimonia parviflora
Hottonia inflata
Lechea tenuifolia
Hypericum prolificum
Limosella australis
Mimulus alatus
Aster tenuifolius
Sagittaria montevidensis spongiosa
Sagittaria subulata
Potamogeton pulcher
Eleocharis quadrangulata
Utricularia minor
Cypripedium parviflorum

Special Concern

Walking Fern
Purple Cliffbrake
Eastern Prickly Pear

Asplenium rhizophyllum
Pellaea atropurpurea
Opuntia humifusa

Westchester County Endangered Species List
Revision 3/23/2005

Trailing Arbutus
Grass-of-Parnassus
Pitcher Plant
Four-leaf Milkweed
River Birch
Striped Maple
American Holly
Prickly Hornwort
Dittany
Stiff Yellow Flax
Wild Pink
Blunt Mountain Mint
Small Floating Bladderwort
Large Yellow-eyed Grass
Showy Orchis

Epigaea repens
Parnassia glauca
Sarracenia purpurea
Asclepias quadrifolia
Betula nigra
Acer pensylvanicum
Ilex opaca
Ceratophyllum echinatum
Cunilla origanoides
Linum striatum
Silene caroliniana
Pycnanthemum muticum
Utricularia radiata
Xyris smalliana
Galearis spectabilis



Midwest Endangered
Species Home

What We Do

Featured Species

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Species Lists

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Contact Us



The Midwest Region includes Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio and Wisconsin. [Find a location near you](#)

Endangered Species Program

Conserving and restoring threatened and endangered species and their ecosystems



Northern Long-Eared Bat *Myotis septentrionalis*

[PDF Version](#)

The northern long-eared bat is federally listed as a *threatened species* under the Endangered Species Act. **Endangered** species are animals and plants that are in danger of becoming extinct. **Threatened** species are animals and plants that are likely to become endangered in the foreseeable future. Identifying, protecting, and restoring endangered and threatened species is the primary objective of the U.S. Fish and Wildlife Service's endangered species program.

What is the northern long-eared bat?

Appearance: The northern long-eared bat is a medium-sized bat with a body length of 3 to 3.7 inches but a wingspan of 9 to 10 inches. Their fur color can be medium to dark brown on the back and tawny to pale-brown on the underside. As its name suggests, this bat is distinguished by its long ears, particularly as compared to other bats in its genus, *Myotis*.

Winter Habitat: Northern long-eared bats spend winter hibernating in caves and mines, called hibernacula. They use areas in various sized caves or mines with constant temperatures, high humidity, and no air currents. Within hibernacula, surveyors find them hibernating most often in small crevices or cracks, often with only the nose and ears visible.

Summer Habitat: During the summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities or in crevices of both live trees and snags (dead trees). Males and non-reproductive females may also roost in cooler places, like caves and mines. Northern long-eared bats seem to be flexible in selecting roosts, choosing roost trees based on suitability to retain bark or provide cavities or crevices. This bat has also been found rarely roosting in structures, like barns and sheds.

Reproduction: Breeding begins in late summer or early fall when males begin to swarm near hibernacula. After copulation, females store sperm during hibernation until spring. In spring, they emerge from their hibernacula, ovulate and the stored sperm fertilizes an egg. This strategy is called delayed fertilization.

After fertilization, pregnant females migrate to summer areas where they roost in small colonies and give birth to a single pup. Maternity colonies of females and young generally have 30 to 60 bats at the beginning of the summer, although larger maternity colonies have also been seen. Numbers of individuals in roosts, typically decreases from pregnancy to post-lactation. Most bats within a maternity colony give birth around the same time, which may occur from late May or early June to late

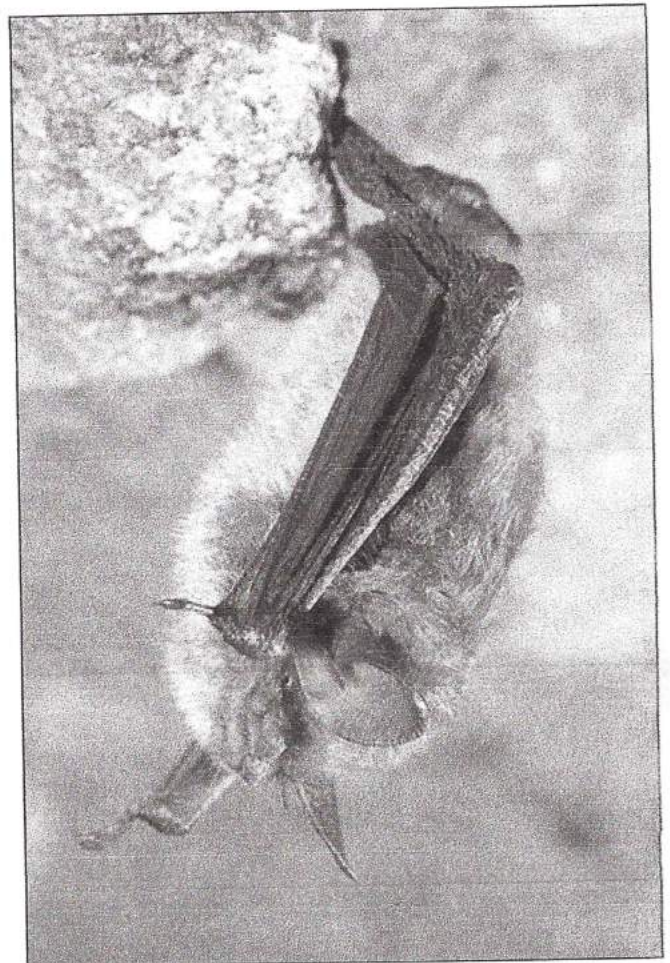


Photo by New York Department of Environmental Conservation; Al Hicks

July, depending where the colony is located within the species' range. Young bats start flying by 18 to 21 days after birth. Maximum lifespan for the northern long-eared bat is estimated to be up to 18.5 years.

Feeding Habits: Like most bats, northern long-eared bats emerge at dusk to feed. They primarily fly through the understory of forested areas feeding on moths, flies, leafhoppers, caddisflies, and beetles, which they catch while in flight using echolocation or by gleaning motionless insects from vegetation.

Range: The northern long-eared bat's range includes much of the eastern and north central United States, and all Canadian provinces from the Atlantic Ocean west to the southern Yukon Territory and eastern British Columbia. The species' range includes the following 37 States and the District of Columbia: Alabama, Arkansas, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Vermont, Virginia, West Virginia, Wisconsin, and Wyoming.

Why is the northern long-eared bat in trouble?

White-nose Syndrome: No other threat is as severe and immediate as the disease, white-nose syndrome. If this disease had not emerged, it is unlikely the northern long-eared bat would be experiencing such a dramatic population decline. Since symptoms were first observed in New York in 2006, white-nose syndrome has spread rapidly from the Northeast to the Midwest and Southeast; an area that includes the core of the northern long-eared bat's range where it was most common before this disease. Numbers of northern long-eared bats (from hibernacula counts) have declined by up to 99 percent in the Northeast. Although there is uncertainty about the rate that white-nose syndrome will spread throughout the species' range, it is expected to spread throughout the United States in the foreseeable future.

Other Sources of Mortality: Although no significant population declines have been observed due to the sources of mortality listed below, they may now be important factors affecting this bat's viability until we find ways to address white-nose syndrome.

Impacts to Hibernacula: Gates or other structures intended to exclude people from caves and mines not only restrict bat flight and movement, but also change airflow and internal cave and mine microclimates. A change of even a few degrees can make a cave unsuitable for hibernating bats. Also, cave-dwelling bats are vulnerable to human disturbance while hibernating. Arousal during hibernation causes bats to use up their already reduced energy stores, which may lead to individuals not surviving the winter.

Loss or Degradation of Summer Habitat: Highway construction, commercial development, surface mining, and wind facility construction permanently remove habitat and are activities prevalent in many areas of this bat's range. Forest management benefits northern long-eared bats by keeping areas forested rather than converted to other uses. But, depending on type and timing, forest management activities can cause mortality and temporarily remove or degrade roosting and foraging habitat.

Wind Farm Operation: Wind turbines kill bats, and, depending on the species, in very large numbers. Mortality has been documented for northern long-eared bats, although a small number have been found to date. However, there are many wind projects within a large portion of the bat's range and many more are planned.

What Is Being Done to Help the Northern Long-Eared Bat?

Disease Management: Actions have been taken to try to reduce or slow the spread of white-nose syndrome through human transmission of the fungus into caves (e.g. cave and mine closures and advisories; national decontamination protocols). A national plan was prepared by the Service and other state and federal agencies that details actions needed to investigate and manage white-nose syndrome. Many state and federal agencies, universities and non-governmental organizations are researching this disease to try to control its spread and address its affect. See www.whitenosesyndrome.org/ for more.

Addressing Wind Turbine Mortality: The Service and others are working to minimize bat mortality from wind turbines on several fronts. We fund and conduct research to determine why bats are susceptible to turbines, how to operate turbines to minimize mortality and [where important bird and bat migration routes are located](#). The Service, State natural resource agencies, and wind energy industry are developing a [Midwest Wind Energy Habitat Conservation Plan](#) that will provide wind farms

a mechanism to continue operating legally while minimizing and mitigating listed bat mortality.

Listing: The northern long-eared bat is listed as a threatened species under the federal Endangered Species Act. Listing a species affords it the protections of the Act and also increases the priority of the species for funds, grants, and recovery opportunities.

Hibernacula Protection: Many federal and state natural resource agencies and conservation organizations have protected caves and mines that are important hibernacula for cave-dwelling bats.

What Can I Do to Help the Northern Long-Eared Bat?

Do Not Disturb Hibernating Bats: To protect bats and their habitats, comply with all cave and mine closures, advisories, and regulations. In areas without a cave and mine closure policy, follow approved decontamination protocols (see <http://whitenosesyndrome.org/topics/decontamination>) - under no circumstances should clothing, footwear, or equipment that was used in a White-nose Syndrome affected state or region be used in unaffected states or regions.

Leave Dead and Dying Trees Standing: Like most eastern bats, the northern long-eared bat roosts in trees during summer. Where possible and not a safety hazard, leave dead or dying trees on your property. Northern long-eared bats and many other animals use these trees.

Install a Bat Box: Dead and dying trees are usually not left standing, so trees suitable for roosting may be in short supply and [bat boxes](#) may provide additional roost sites. Bat boxes are especially needed from April to August when females look for safe and quiet places to give birth and raise their pups.

Support Sustainability: Support efforts in your community, county and state to ensure that sustainability is a development goal. Only through sustainable living will we provide rare and declining species, like the northern long-eared bat, the habitat and resources they need to survive along with us.

Spread the Word: Understanding the important ecological role that bats play is a key to conserving the northern long-eared and other bats. Helping people learn more about the northern long bat and other endangered species can lead to more effective recovery efforts. Visit www.whitenosesyndrome.org for more information about white-nose syndrome.

Join and Volunteer: Join a conservation group; many have local chapters. Volunteer at a local nature center, zoo, or national wildlife refuge. Many state natural resource agencies benefit greatly from citizen involvement in monitoring wildlife. Check your state agency websites and get involved in citizen science efforts in your area.

Updated April 2015

[Northern Long-Eared Bat Home](#)
[Midwest Endangered Species Home](#)

Last updated: March 12, 2018

USFWS Ecological Services Field Offices in the Upper Midwest

[Illinois](#) | [Chicago](#) | [Indiana](#) | [Iowa](#) | [Michigan](#) | [Minnesota](#) | [Missouri](#) | [Ohio](#) | [Wisconsin](#)

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[Wind Energy](#) | [Ecological Services Field Offices](#)

USFWS National Sites

[Coastal Conservation](#) | [Endangered Species](#) | [Environmental Contaminants](#) | [Fisheries and Habitat Conservation](#)

Appendix L

Market Study

Eagle Ridge Development Model

JF Capital Advisors

December 5, 2018

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Eagle Ridge Development Model

Boutique Hotel/Apartments

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CAPITAL ADVISORS

Executive Summary - Boutique + Apartments**(\$ in thousands except per key amounts)**

- JF Capital is reviewing the development opportunity of an independent, boutique hotel with apartments in Westchester County, NY.
 - This includes 90,420 square feet for the hotel and 73,980 square feet for the apartments
- The hotel will have 91 rooms including 4 junior suites and 1 presidential suite in addition to 40,146 SF of F&B and event space for a total building size of 164,400 square feet
 - This includes 8,892 square feet of F&B outlet space, 8,177 SF of meeting space and 23,077 SF of outdoor space including pool deck
 - Not included in this amount is two levels of below grade structured parking
- The residential component will have 40 (767 square foot) one-bedroom apartments, 14 (1,210 square foot) two-bedroom apartments and 9 (1,423 square foot) two-plus bedroom apartments with rent priced at market rates. The residential component will also have affordable housing units comprised of 4 one-bedroom apartments (767 square foot), 2 two-bedroom apartments (1,210 square feet), and 1 two-plus bedroom apartments (1,423 square feet).
 - This is a total of 70 apartments in the upper floors of the building.
 - A total of 60,417 square feet for the market rate apartments and 6,910 square feet for the affordable rate apartments
- The development will also include 307 parking spaces including 66 surface spaces and 241 spaces underground
- A \$47,681 development loan at 6.0% is assumed to be obtained
- Represents an LTC of 69.4% (based on the full deal capitalization)

Eagle Ridge Development Model**Executive Summary - Boutique + Apartments****(\$ in thousands except per key amounts)**

-
- Model includes JF Capital illustrative pro forma statistics for Year 1 - Year 5 for the combined Hotel and Apartments financials.
 - Rental assumptions are \$3,200 per month for the 1-Bedroom apartments, \$4,250 per month for the 2-Bedroom apartments, and \$5,150 per month for the 2+ Bedroom apartments; each growing at 3.0% per annum.
 - Year 1 - Year 5 Revenue CAGR (Compound Annual Growth Rate) of 7.4% increasing from \$18,015 in Year 1 to \$23,965 in Year 5
 - Year 1 - Year 5 NOI CAGR (Compound Annual Growth Rate) of 14.8% increasing from \$3,485 in Year 1 to \$6,052 in Year 5
 - EBITDA margins increasing from 21.2% in Year 1 to 29.1% in Year 5
 - NOI margins increasing from 19.3% in Year 1 to 25.3% in Year 5
 - The following base assumptions were made:
 - Land purchase price of \$0 or \$0 per key
 - Development cost of \$38,627 for the Hotel, or \$424,468 per key and development cost of \$30,098 for the Apartments, or \$429,974 per unit. This represents an all-in cost of \$68,725.
 - The blended exit cap rate is calculated by adding the gross sale price of the Hotel of \$46,108 with the gross sale price of the Apartments of \$35,545 to achieve a total gross sale price of \$81,653. Then we divided the Combined Year 5 NOI of \$6,052 by the total gross sale price to achieve a blended cap rate of 7.41%
 - 2 year development period, and 5 year hold period with a 7.41% blended exit cap rate (8.5% for the Hotel and 6.0% for the Apartment) and fees on sale of 3.0% for net proceeds of \$79,203 or \$506,678 per key and \$507,787 per apartment unit.
 - The deal produces an illustrative leveraged IRR of 13.2%, an NPV of \$1,261, a total profit of \$21,535 and a return on capital of 2.0x to the equity
 - The deal produces an illustrative unleveraged IRR of 8.6%, an NPV of \$1,885, a total profit of \$35,647 and a return on capital of 1.5x to the equity
-

Eagle Ridge Development Model

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Financial Summary (5 Year Hold) - Boutique + Apartments

(\$ in thousands, except per key amounts)

| Illustrative Sources & Uses | | | | Exit Assumptions | | | | Returns | | | |
|---------------------------------|-----------|----------|----------------------------|----------------------|-----------------------------|----------|-------------|---------|--|--|--|
| Total Land Cost | \$0 | 0.0% | Year 5 NOI - Hotel | \$3,919 | Equity IRR | 13.2% | | | | | |
| Development Cost ⁽¹⁾ | 68,725 | 100.0% | Hotel Exit Cap Rate | 8.50% ⁽³⁾ | Equity NPV | 12.0% | \$1,261 | | | | |
| Total Uses | \$68,725 | 100.0% | Year 5 NOI - Apartments | \$2,133 | Equity Multiple | 2.0x | \$21,535 | | | | |
| Debt | 47,681 | 69.4% | Interest Rate | 6.0% | Total Profit | | | | | | |
| Mezzanine Debt | 0 | 0.0% | Apartment Exit Cap Rate | 6.00% ⁽⁴⁾ | | | | | | | |
| Pref Equity | 0 | 0.0% | Year 5 NOI - Combined | \$6,052 | Unleveraged IRR | | | | | | |
| Equity | 21,044 | 30.6% | Blended Exit Cap Rate | 7.41% | Unleveraged NPV | 8.0% | \$1,885 | | | | |
| Total Sources | \$68,725 | 100.0% | Gross Sale Price | \$81,653 | Unleveraged Equity Multiple | | 1.5x | | | | |
| | | | Less: 3.0% Fee | 3.0% | Total Profit | | \$35,647 | | | | |
| | | | Net Sale Price | \$79,203 | | | | | | | |
| | | | Hotel Exit Price/ Key | \$506,678 | | | | | | | |
| | | | Apartment Exit Price/ Unit | \$07,787 | | | | | | | |
| Valuation Metrics: | | | | | | | | | | | |
| All-In Price / (Key + Apt) | \$426,862 | | | | | | | | | | |
| Hotel Debt / Hotel Key | 275,904 | | | | | | | | | | |
| Apartment Debt / Apartment | 322,480 | | | | | | | | | | |
| Hotel Rooms | 91 | | | | | | | | | | |
| Apartments | 70 | | | | | | | | | | |
| Construction | | | | Operation | | | | | | | |
| | Time 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | 4 Year CAGR | | | | |
| Hotel Keys | | 91 | 91 | 91 | 91 | 91 | 0.0% | | | | |
| Apartments | | 70 | 70 | 70 | 70 | 70 | | | | | |
| Days | | 365 | 365 | 365 | 365 | 365 | | | | | |
| Occupancy (Hotel) | | 62.0% | 68.0% | 72.5% | 76.0% | 76.0% | 5.2% | | | | |
| Occupancy (Apartment) | | 90.0% | 93.0% | 95.0% | 95.0% | 95.0% | 1.4% | | | | |
| Occupancy (Hotel and Apartment) | | 76.0% | 80.5% | 83.8% | 85.5% | 85.5% | 3.0% | | | | |
| ADR (Hotel Only) | | \$238.00 | \$252.28 | \$264.89 | \$275.49 | \$286.51 | 4.7% | | | | |
| RevPAR (Hotel Only) | | 180.88 | 203.09 | 221.85 | 235.54 | 244.97 | 7.9% | | | | |
| % Growth | | | 12.3% | 9.2% | 6.2% | 4.0% | | | | | |
| Hotel Rooms Revenue | | \$4,901 | \$5,698 | \$6,379 | \$6,954 | \$7,232 | | | | | |
| Apartments Rooms Revenue | | 2,640 | 2,810 | 2,956 | 3,045 | 3,136 | | | | | |
| Total Rooms Revenues | | \$7,541 | \$8,508 | \$9,335 | \$9,999 | \$10,369 | 8.3% | | | | |
| F&B Revenues | | 8,583 | 9,553 | 10,453 | 10,810 | 11,134 | 6.7% | | | | |
| Parking Revenues | | 495 | 563 | 613 | 656 | 676 | | | | | |
| Other Revenues | | 1,396 | 1,535 | 1,657 | 1,731 | 1,786 | 0.0% | | | | |
| Total Revenues | | \$18,015 | \$20,159 | \$22,058 | \$23,196 | \$23,965 | 7.4% | | | | |
| Revenue Growth | | | 11.9% | 9.4% | 5.2% | 3.3% | | | | | |
| GOP | | \$5,740 | \$7,184 | \$8,491 | \$9,118 | \$9,493 | 13.4% | | | | |
| % Margin | | 31.9% | 35.6% | 38.5% | 39.3% | 39.6% | | | | | |
| EBITDA | | \$3,812 | \$5,048 | \$6,140 | \$6,674 | \$6,971 | 16.3% | | | | |
| % Margin | | 21.2% | 25.0% | 27.8% | 28.8% | 29.1% | | | | | |
| FF&E | | 327 | 552 | 808 | 871 | 919 | 29.5% | | | | |
| NOI | | \$3,485 | \$4,496 | \$5,332 | \$5,803 | \$6,052 | 14.8% | | | | |
| % Margin | | 19.3% | 22.3% | 24.2% | 25.0% | 25.3% | | | | | |
| NOI Per Key | | 49,785 | 64,234 | 76,172 | 82,903 | 86,455 | | | | | |

Source: JF Capital Projections

(1) Assumes per key development cost (excluding land) of \$755,217 which is spent equally over 2 years of construction

(2) Blended cost of capital assumes pref equity coupon is all paid current

(3) CBRE HI 2018 Cap Rate Survey: New York City Suburban Cap Rate for Full-Service Hotels, less 0.75%

(4) CBRE HI 2018 Cap Rate Survey: New York/Stamford Suburban Cap Rate for Multi-Family Residential, less 0.75%

Eagle Ridge Development Model

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Financial Summary - Boutique + Apartments

(\$ in thousands)

| | Construction | | | Operation | | | | |
|---|--------------|-------------------|-----------------|--------------|----------------|----------------|----------------|-----------------|
| | Time 0 | Year 1 | Year 2 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Valuation Metrics | | | | | | | | |
| Implied All-In Cap Rate | | | | 5.1% | 6.5% | 7.8% | 8.4% | 8.8% |
| Implied EBITDA Multiple | | | | 18.0x | 13.6x | 11.2x | 10.3x | 9.9x |
| Cash on Cash Return ⁽³⁾ | | | | 1.6% | 6.4% | 10.4% | 12.6% | 13.8% |
| Returns Analysis | | | | | | | | |
| Property Cash Flow | \$0 | \$0 | \$0 | \$3,485 | \$4,496 | \$5,332 | \$5,803 | \$6,052 |
| Acquisition Cost / Sale Proceeds ⁽³⁾ | (0) | | | | | | | 79,203 |
| Key Money / Security Deposit Return | | | | 0 | | | | |
| Land Subsidy | | | | 0 | | | | |
| Development Costs | | (34,362) | (34,362) | | | | | |
| Debt Issuance/Repayment | | 13,319 | 34,362 | | | | | (46,026) |
| Mezzanine Issuance/Repayment | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pref Equity Issuance/Repayment | | 0 | | 0 | 0 | 0 | 0 | 0 |
| Interest Expense ⁽¹⁾ | | | | (2,864) | (2,845) | (2,824) | (2,802) | (2,778) |
| Debt Amortization ⁽¹⁾ | | | | (291) | (310) | (330) | (351) | (374) |
| Mezzanine Interest Expense ⁽²⁾ | | | | 0 | 0 | 0 | 0 | 0 |
| Mezzanine Amortization ⁽²⁾ | | | | 0 | 0 | 0 | 0 | 0 |
| Pref Equity Coupon (at 14.0% rate) | | | | 0 | 0 | 0 | 0 | 0 |
| Accrued Pref Equity PIK Payment | | | | 0 | 0 | 0 | 0 | 0 |
| Refinancing Proceeds | | | | 0 | 0 | 0 | 0 | 0 |
| Equity Cash Flow | (\$0) | (\$21,044) | (\$0) | \$330 | \$1,342 | \$2,179 | \$2,650 | \$36,077 |
| Cumulative Equity Cash Flow | (0) | (21,044) | (21,044) | (20,714) | (19,371) | (17,193) | (14,543) | 21,335 |
| Unlevered Cash Flow | (0) | (34,362) | (34,362) | 3,485 | 4,496 | 5,332 | 5,803 | 85,255 |

Source: JF Capital Projections

(1) Fixed-rate debt at 6.0% interest with a 30 year amortization schedule

(2) Fixed-rate debt at 12.0% interest with a 0 year amortization schedule

(3) Cash on Cash Return does not include sale proceeds or debt repayment

Debt Schedule - Boutique + Apartments

(\$ in thousands)

| | Construction | | | Operation | | | | |
|--|-----------------------|--------|-----------|-----------|-----------|-----------|-----------|----------|
| | Time 0 | Year 1 | Year 2 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Mortgage Debt Schedule | | | | | | | | |
| Beginning Balance | | | | \$47,681 | \$47,390 | \$47,081 | \$46,751 | \$46,400 |
| Debt Refinancing ⁽¹⁾ | | | | 0 | 0 | 0 | 0 | 0 |
| Amortization | 30 yrs ⁽²⁾ | | | (291) | (310) | (330) | (351) | (374) |
| Ending Balance | | | \$47,681 | \$47,390 | \$47,081 | \$46,751 | \$46,400 | \$46,026 |
| Interest Rate | 6.0% | | | 6.0% | 6.0% | 6.0% | 6.0% | 6.0% |
| Interest Expense | | | | 2,864 | 2,845 | 2,824 | 2,802 | 2,778 |
| Debt Service | | | | 3,155 | 3,154 | 3,153 | 3,153 | 3,152 |
| Credit Stats | | | | | | | | |
| DSCR | | | | 1.1x | 1.4x | 1.7x | 1.8x | 1.9x |
| Debt / EBITDA | | | | 12.4x | 9.3x | 7.6x | 7.0x | 6.6x |
| Debt Yield | | | | 7.4% | 9.6% | 11.4% | 12.5% | 13.1% |
| Loan to Cost | | | | 69.0% | 68.5% | 68.0% | 67.5% | 67.0% |
| Loan to Value (assumes a 8.5% cap rate) | | | | 115.6% | 89.0% | 74.5% | 68.0% | 64.6% |
| Debt Per Key | | | \$520,772 | \$517,370 | \$513,747 | \$509,889 | \$505,779 | |
| Mezzanine Debt Schedule | | | | | | | | |
| Beginning Balance | | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Debt Refinancing ⁽¹⁾ | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Amortization | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Ending Balance | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Interest Rate | 12.0% | | | 12.00% | 12.00% | 12.00% | 12.00% | 12.00% |
| Interest Expense | | | | 0 | 0 | 0 | 0 | 0 |
| Debt Service | | | | 0 | 0 | 0 | 0 | 0 |
| Cumulative Credit Stats - Through Mezzanine | | | | | | | | |
| DSCR | | | | 1.1x | 1.4x | 1.7x | 1.8x | 1.9x |
| Debt / EBITDA | | | | 12.4x | 9.3x | 7.6x | 7.0x | 6.6x |
| Debt Yield | | | | 7.4% | 9.6% | 11.4% | 12.5% | 13.1% |
| Loan to Cost | | | | 69.0% | 68.5% | 68.0% | 67.5% | 67.0% |
| Loan to Value (assumes a 8.5% cap rate) | | | | 115.6% | 89.0% | 74.5% | 68.0% | 64.6% |
| Debt Per Key | | | \$520,772 | \$517,370 | \$513,747 | \$509,889 | \$505,779 | |
| Preferred Equity Cash Flow | | | | | | | | |
| Beginning Preferred Balance | | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Preferred Return | | | | 0 | 0 | 0 | 0 | 0 |
| Paid | | | | 0 | 0 | 0 | 0 | 0 |
| PIK | | | | 0 | 0 | 0 | 0 | 0 |
| Refinancing ⁽¹⁾ | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Ending Balance | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Cumulative Credit Stats - Through Pref Equity | | | | | | | | |
| DSCR (assuming cash pay only) | | | | 1.1x | 1.4x | 1.7x | 1.8x | 1.9x |
| DSCR (assuming full coupon) | | | | 1.1x | 1.4x | 1.7x | 1.8x | 1.9x |
| Debt + Preferred / EBITDA | | | | 12.4x | 9.3x | 7.6x | 7.0x | 6.6x |
| Debt + Preferred Yield | | | | 7.4% | 9.6% | 11.4% | 12.5% | 13.1% |
| Debt + Preferred Equity Per Key | | | \$520,772 | \$517,370 | \$513,747 | \$509,889 | \$505,779 | |

Source: JF Capital Projections

(1) Ability to refinance debt at 9.0% debt yield and 6.0% interest rate

(2) 30 year amortization schedule applies only to the Hotel portion

Eagle Ridge Development Model

Financial Summary (5 Year Hold) - Boutique

(\$ in thousands, except per key amounts)

| Illustrative Sources & Uses | | | | Exit Assumptions | | | | Returns | | | |
|---------------------------------|----------|-----------|-----------------------|----------------------|-----------------------------|-----------|----------|----------|----------|-------------|--|
| Total Land Cost | \$0 | 0.0% | Year 5 NOI - Hotel | \$3,919 | Equity IRR | | | 12.9% | | | |
| Development Cost ⁽¹⁾ | 38,627 | 100.0% | Hotel Exit Cap Rate | 8.50% ⁽³⁾ | Equity NPV | | | \$597 | | | |
| Total Uses | \$38,627 | 100.0% | Gross Sale Price | \$46,108 | Equity Multiple | | 12.0% | 2.0x | | | |
| Debt | 25,107 | 65.0% | Less: 3.0% Fee | 3.0% | Total Profit | | | \$13,618 | | | |
| Mezzanine Debt | 0 | 0.0% | Net Sale Price | \$44,724 | Unleveraged IRR | | | 9.2% | | | |
| Pref Equity | 0 | 0.0% | Hotel Exit Price/ Key | \$506,678 | Unleveraged NPV | | 8.0% | \$1,998 | | | |
| Equity | 13,519 | 35.0% | | | Unleveraged Equity Multiple | | | 1.6x | | | |
| Total Sources | \$38,627 | 100.0% | | | Total Profit | | | \$21,522 | | | |
| Valuation Metrics: | | | | | | | | | | | |
| All-In Price / Key | | \$424,468 | | | | | | | | | |
| Debt / Hotel Key | | 275,904 | | | | | | | | | |
| Hotel Rooms | | 91 | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | Construction | | Operation | | | | | |
| | | | | Time 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | 4 Year CAGR | |
| Hotel Keys | | | | 91 | | 91 | 91 | 91 | 91 | 0.0% | |
| Days | | | | 365 | | 365 | 365 | 365 | 365 | | |
| Occupancy | | | | 62.0% | | 68.0% | 72.5% | 76.0% | 76.0% | 5.2% | |
| ADR | | | | \$238.00 | | \$252.28 | \$264.89 | \$275.49 | \$286.51 | 4.7% | |
| RevPAR | | | | 147.56 | | 171.55 | 192.05 | 209.37 | 217.75 | 10.2% | |
| % Growth | | | | | | 16.3% | 11.9% | 9.0% | 4.0% | | |
| | | | | | | | | | | | |
| Hotel Rooms Revenue | | | | \$4,901 | | \$5,698 | \$6,379 | \$6,954 | \$7,232 | 6.7% | |
| F&B Revenues | | | | 8,583 | | 9,553 | 10,453 | 10,810 | 11,134 | 8.1% | |
| Parking Revenues | | | | 495 | | 563 | 613 | 656 | 676 | 8.0% | |
| Other Revenues | | | | 736 | | 832 | 918 | 969 | 1,002 | 8.0% | |
| Total Revenues | | | | \$14,714 | | \$16,646 | \$18,363 | \$19,389 | \$20,044 | 8.0% | |
| Revenue Growth | | | | | | 13.1% | 10.3% | 5.6% | 3.4% | | |
| | | | | | | | | | | | |
| GOP | | | | \$3,205 | | \$4,423 | \$5,558 | \$6,068 | \$6,321 | 18.5% | |
| % Margin | | | | 21.8% | | 26.6% | 30.3% | 31.3% | 31.5% | | |
| | | | | | | | | | | | |
| EBITDA | | | | \$2,086 | | \$3,128 | \$4,077 | \$4,519 | \$4,721 | 22.7% | |
| % Margin | | | | 14.2% | | 18.8% | 22.2% | 23.3% | 23.6% | | |
| | | | | | | | | | | | |
| FF&E | | | | 294 | | 499 | 735 | 776 | 802 | 28.5% | |
| | | | | | | | | | | | |
| NOI | | | | \$1,791 | | \$2,628 | \$3,342 | \$3,743 | \$3,919 | 21.6% | |
| % Margin | | | | 12.2% | | 15.8% | 18.2% | 19.3% | 19.6% | | |
| NOI Per Key | | | | 19,686 | | 28,881 | 36,728 | 41,135 | 43,068 | | |

Source: JF Capital Projections

- (1) Assumes per key development cost (excluding land) of \$424,468 which is spent equally over 2 years of construction
(2) Blended cost of capital assumes pref equity coupon is all paid current
(3) CBRE HI 2018 Cap Rate Survey; New York City Suburban Cap Rate for Full-Service Hotels, less 0.75%

Eagle Ridge Development Model

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Financial Summary - Boutique

(\$ in thousands)

| | Construction | | | Operation | | | | |
|---|--------------|------------|----------|-----------|----------|----------|---------|----------|
| | Time 0 | Year 1 | Year 2 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Valuation Metrics | | | | | | | | |
| Implied All-In Cap Rate | | | | 4.6% | 6.8% | 8.7% | 9.7% | 10.1% |
| Implied EBITDA Multiple | | | | 18.5x | 12.4x | 9.5x | 8.5x | 8.2x |
| Cash on Cash Return | | | | -0.9% | 5.3% | 10.6% | 13.6% | 14.9% |
| Returns Analysis | | | | | | | | |
| Property Cash Flow | \$0 | \$0 | \$0 | \$1,791 | \$2,628 | \$3,342 | \$3,743 | \$3,919 |
| Acquisition Cost / Sale Proceeds ⁽³⁾ | (0) | | | | | | | 44,724 |
| Key Money / Security Deposit Return | | | | 0 | | | | |
| Land Subsidy | | | | 0 | | | | |
| Development Costs | | (19,313) | (19,313) | | | | | |
| Debt Issuance/Repayment | | 5,794 | 19,313 | | | | | (23,452) |
| Mezzanine Issuance/Repayment | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pref Equity Issuance/Repayment | | 0 | | 0 | 0 | 0 | 0 | 0 |
| Interest Expense ⁽¹⁾ | | | | (1,623) | (1,603) | (1,582) | (1,560) | (1,537) |
| Debt Amortization ⁽¹⁾ | | | | (291) | (310) | (330) | (351) | (374) |
| Mezzanine Interest Expense ⁽²⁾ | | | | 0 | 0 | 0 | 0 | 0 |
| Mezzanine Amortization ⁽²⁾ | | | | 0 | 0 | 0 | 0 | 0 |
| Pref Equity Coupon (at 14.0% rate) | | | | 0 | 0 | 0 | 0 | 0 |
| Accrued Pref Equity PIK Payment | | | | 0 | 0 | 0 | 0 | 0 |
| Refinancing Proceeds | | | | 0 | 0 | 0 | 0 | 0 |
| Equity Cash Flow | (\$0) | (\$13,519) | \$0 | (\$122) | \$716 | \$1,430 | \$1,832 | \$23,281 |
| Cumulative Equity Cash Flow | (0) | (13,519) | (13,519) | (13,641) | (12,926) | (11,495) | (9,663) | 13,618 |
| Unlevered Cash Flow | (0) | (19,313) | (19,313) | 1,791 | 2,628 | 3,342 | 3,743 | 48,644 |

Source: JF Capital Projections

(1) Fixed-rate debt at 6.5% interest with a 30 year amortization schedule

(2) Fixed-rate debt at 12.0% interest with a 0 year amortization schedule

(3) Cash on Cash Return does not include sale proceeds or debt repayment

Eagle Ridge Development Model

Debt Schedule - Boutique

(\$ in thousands)

| | Construction | | | Operation | | | | |
|--|--------------|--------|----------|-----------|-----------|-----------|-----------|-----------|
| | Time 0 | Year 1 | Year 2 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Mortgage Debt Schedule | | | | | | | | |
| Beginning Balance | | | | \$25,107 | \$24,817 | \$24,507 | \$24,177 | \$23,826 |
| Debt Refinancing ⁽¹⁾ | | | | 0 | 0 | 0 | 0 | 0 |
| Amortization | 30 yrs | | | (291) | (310) | (330) | (351) | (374) |
| Ending Balance | | | \$25,107 | \$24,817 | \$24,507 | \$24,177 | \$23,826 | \$23,452 |
| Interest Rate | 6.5% | | | 6.5% | 6.5% | 6.5% | 6.5% | 6.5% |
| Interest Expense | | | | 1,623 | 1,603 | 1,582 | 1,560 | 1,537 |
| Debt Service | | | | 1,913 | 1,913 | 1,912 | 1,911 | 1,910 |
| Credit Stats | | | | | | | | |
| DSCR | | | | 0.9x | 1.4x | 1.7x | 2.0x | 2.1x |
| Debt / EBITDA | | | | 11.9x | 7.8x | 5.9x | 5.3x | 5.0x |
| Debt Yield | | | | 7.2% | 10.7% | 13.8% | 15.7% | 16.7% |
| Loan to Cost | | | | 64.2% | 63.4% | 62.6% | 61.7% | 60.7% |
| Loan to Value (assumes a 8.5% cap rate) | | | | 117.8% | 79.3% | 61.5% | 54.1% | 50.9% |
| Debt Per Key | | | | \$272,710 | \$269,308 | \$265,685 | \$261,827 | \$257,717 |
| Mezzanine Debt Schedule | | | | | | | | |
| Beginning Balance | | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Debt Refinancing ⁽¹⁾ | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Amortization | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Ending Balance | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Interest Rate | 12.0% | | | 12.00% | 12.00% | 12.00% | 12.00% | 12.00% |
| Interest Expense | | | | 0 | 0 | 0 | 0 | 0 |
| Debt Service | | | | 0 | 0 | 0 | 0 | 0 |
| Cumulative Credit Stats - Through Mezzanine | | | | | | | | |
| DSCR | | | | 0.9x | 1.4x | 1.7x | 2.0x | 2.1x |
| Debt / EBITDA | | | | 11.9x | 7.8x | 5.9x | 5.3x | 5.0x |
| Debt Yield | | | | 7.2% | 10.7% | 13.8% | 15.7% | 16.7% |
| Loan to Cost | | | | 64.2% | 63.4% | 62.6% | 61.7% | 60.7% |
| Loan to Value (assumes a 8.5% cap rate) | | | | 117.8% | 79.3% | 61.5% | 54.1% | 50.9% |
| Debt Per Key | | | | \$272,710 | \$269,308 | \$265,685 | \$261,827 | \$257,717 |
| Preferred Equity Cash Flow | | | | | | | | |
| Beginning Preferred Balance | | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Preferred Return | | | | 0 | 0 | 0 | 0 | 0 |
| Paid | | | | 0 | 0 | 0 | 0 | 0 |
| PIK | | | | 0 | 0 | 0 | 0 | 0 |
| Refinancing ⁽¹⁾ | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Ending Balance | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Cumulative Credit Stats - Through Pref Equity | | | | | | | | |
| DSCR (assuming cash pay only) | | | | 0.9x | 1.4x | 1.7x | 2.0x | 2.1x |
| DSCR (assuming full coupon) | | | | 0.9x | 1.4x | 1.7x | 2.0x | 2.1x |
| Debt + Preferred / EBITDA | | | | 11.9x | 7.8x | 5.9x | 5.3x | 5.0x |
| Debt + Preferred Yield | | | | 7.2% | 10.7% | 13.8% | 15.7% | 16.7% |
| Debt + Preferred Equity Per Key | | | | \$272,710 | \$269,308 | \$265,685 | \$261,827 | \$257,717 |

Source: JF Capital Projections

(1) Ability to refinance debt at 9.5% debt yield and 6.0% interest rate

Eagle Ridge Development Model

CONFIDENTIAL

Financial Summary (5 Year Hold) - Apartments

(\$ in thousands, except per key amounts)

| Illustrative Sources & Uses | | | Exit Assumptions | | | Returns | | |
|---------------------------------|--|--|------------------|--------|--------------|---------|-----------|--|
| Total Land Cost | | | \$0 | 0.0% | | | | |
| Development Cost ⁽¹⁾ | | | 30,098 | 100.0% | | | | |
| Total Uses | | | \$30,098 | 100.0% | | | | |
| Debt | | | 22,574 | 75.0% | | | | |
| Mezzanine Debt | | | 0 | 0.0% | | | | |
| Pref Equity | | | 0 | 0.0% | | | | |
| Equity | | | 7,525 | 25.0% | | | | |
| Total Sources | | | \$30,098 | 100.0% | | | | |
| Valuation Metrics: | | | | | | | | |
| All-In Price / Apartment | | | \$429,974 | | | | | |
| Debt / Apartment | | | 322,480 | | | | | |
| Apartments | | | 70 | | | | | |
| Total Apartments | | | Time 0 | | Construction | | Operation | |
| Days | | | Year 1 | | Year 2 | | Year 3 | |
| Average Occupancy | | | Year 1 | | Year 2 | | Year 4 | |
| Total Monthly Rent | | | Year 1 | | Year 2 | | Year 5 | |
| Total Apartments Revenues | | | Year 1 | | Year 2 | | Year 5 | |
| Other Revenues | | | 660 | | 702 | | 761 | |
| Total Revenues | | | \$3,300 | | \$3,512 | | \$3,806 | |
| Revenue Growth | | | 6.4% | | 5.2% | | 3.0% | |
| GOP | | | \$2,535 | | \$2,760 | | \$3,050 | |
| % Margin | | | 76.8% | | 78.6% | | 80.1% | |
| EBITDA | | | \$1,727 | | \$1,921 | | \$2,155 | |
| % Margin | | | 52.3% | | 54.7% | | 56.6% | |
| FF&E | | | 33 | | 53 | | 95 | |
| NOI | | | \$1,694 | | \$1,868 | | \$2,060 | |
| % Margin | | | 51.3% | | 53.2% | | 54.4% | |
| NOI Per Key | | | 24,193 | | 26,689 | | 28,425 | |
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Source: JF Capital Projections

(1) Assumes per key development cost (excluding land) of \$429,974 which is spent equally over 2 years of construction

(2) Blended cost of capital assumes pref equity coupon is all paid current

(3) CBRE HI 2018 Cap Rate Survey: New York/Stamford Suburban Cap Rate for Multi-Family Residential, less 0.75%

Eagle Ridge Development Model

CONFIDENTIAL

Financial Summary - Apartments

(\$ in thousands)

| | Construction | | | Operation | | | | |
|---|--------------|------------------|-----------------|--------------|--------------|--------------|--------------|-----------------|
| | Time 0 | Year 1 | Year 2 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Valuation Metrics | | | | | | | | |
| Implied All-In Cap Rate | | | | 5.6% | 6.2% | 6.6% | 6.8% | 7.1% |
| Implied EBITDA Multiple | | | | 17.4x | 15.7x | 14.6x | 14.0x | 13.4x |
| Cash on Cash Return ⁽³⁾ | | | | 6.0% | 8.3% | 9.9% | 10.9% | 11.8% |
| Returns Analysis | | | | | | | | |
| Property Cash Flow | \$0 | \$0 | \$0 | \$1,694 | \$1,868 | \$1,990 | \$2,060 | \$2,133 |
| Acquisition Cost / Sale Proceeds ⁽³⁾ | (0) | | | | | | | 34,479 |
| Key Money/ Security Deposit Return | | | | 0 | | | | |
| Land Subsidy | | | | 0 | | | | |
| Development Costs | | (15,049) | (15,049) | | | | | |
| Debt Issuance/Repayment | | 7,525 | 15,049 | | | | | (22,574) |
| Mezzanine Issuance/Repayment | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pref Equity Issuance/Repayment | | 0 | | 0 | 0 | 0 | 0 | 0 |
| Interest Expense ⁽¹⁾ | | | | (1,242) | (1,242) | (1,242) | (1,242) | (1,242) |
| Debt Amortization ⁽¹⁾ | | | | 0 | 0 | 0 | 0 | 0 |
| Mezzanine Interest Expense ⁽²⁾ | | | | 0 | 0 | 0 | 0 | 0 |
| Mezzanine Amortization ⁽²⁾ | | | | 0 | 0 | 0 | 0 | 0 |
| Pref Equity Coupon (at 14.0% rate) | | | | 0 | 0 | 0 | 0 | 0 |
| Accrued Pref Equity PIK Payment | | | | 0 | 0 | 0 | 0 | 0 |
| Refinancing Proceeds | | | | 0 | 0 | 0 | 0 | 0 |
| Equity Cash Flow | (\$0) | (\$7,525) | \$0 | \$452 | \$627 | \$748 | \$818 | \$12,796 |
| Cumulative Equity Cash Flow | (0) | (7,525) | (7,525) | (7,073) | (6,446) | (5,698) | (4,879) | 7,917 |
| Unlevered Cash Flow | (0) | (15,049) | (15,049) | 1,694 | 1,868 | 1,990 | 2,060 | 36,611 |

Source: JF Capital Projections

(1) Fixed-rate debt at 5.5% interest with a 0 year amortization schedule

(2) Fixed-rate debt at 12.0% interest with a 0 year amortization schedule

(3) Cash on Cash Return does not include sale proceeds or debt repayment

Eagle Ridge Development Model

Debt Schedule - Apartments

(\$ in thousands)

| | Construction | | | Operation | | | | |
|--|--------------|--------|----------|-----------|-----------|-----------|-----------|-----------|
| | Time 0 | Year 1 | Year 2 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Mortgage Debt Schedule | | | | | | | | |
| Beginning Balance | | | | \$22,574 | \$22,574 | \$22,574 | \$22,574 | \$22,574 |
| Debt Refinancing ⁽¹⁾ | | | | 0 | 0 | 0 | 0 | 0 |
| Amortization | | | | 0 | 0 | 0 | 0 | 0 |
| Ending Balance | | | \$22,574 | \$22,574 | \$22,574 | \$22,574 | \$22,574 | \$22,574 |
| Interest Rate | | | | 5.5% | 5.5% | 5.5% | 5.5% | 5.5% |
| Interest Expense | | | | 1,242 | 1,242 | 1,242 | 1,242 | 1,242 |
| Debt Service | | | | 1,242 | 1,242 | 1,242 | 1,242 | 1,242 |
| Credit Stats | | | | | | | | |
| DSCR | | | | 1.4x | 1.5x | 1.6x | 1.7x | 1.7x |
| Debt / EBITDA | | | | 13.1x | 11.8x | 10.9x | 10.5x | 10.0x |
| Debt Yield | | | | 7.5% | 8.3% | 8.8% | 9.1% | 9.4% |
| Loan to Cost | | | | 75.0% | 75.0% | 75.0% | 75.0% | 75.0% |
| Loan to Value (assumes a 6.0% cap rate) | | | | 80.0% | 72.5% | 68.1% | 65.8% | 63.5% |
| Debt Per Key | | | | \$322,480 | \$322,480 | \$322,480 | \$322,480 | \$322,480 |
| Mezzanine Debt Schedule | | | | | | | | |
| Beginning Balance | | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Debt Refinancing ⁽¹⁾ | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Amortization | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Ending Balance | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Interest Rate | | | | 12.0% | 12.00% | 12.00% | 12.00% | 12.00% |
| Interest Expense | | | | 0 | 0 | 0 | 0 | 0 |
| Debt Service | | | | 0 | 0 | 0 | 0 | 0 |
| Cumulative Credit Stats - Through Mezzanine | | | | | | | | |
| DSCR | | | | 1.4x | 1.5x | 1.6x | 1.7x | 1.7x |
| Debt / EBITDA | | | | 13.1x | 11.8x | 10.9x | 10.5x | 10.0x |
| Debt Yield | | | | 7.5% | 8.3% | 8.8% | 9.1% | 9.4% |
| Loan to Cost | | | | 75.0% | 75.0% | 75.0% | 75.0% | 75.0% |
| Loan to Value (assumes a 6.0% cap rate) | | | | 80.0% | 72.5% | 68.1% | 65.8% | 63.5% |
| Debt Per Key | | | | \$322,480 | \$322,480 | \$322,480 | \$322,480 | \$322,480 |
| Preferred Equity Cash Flow | | | | | | | | |
| Beginning Preferred Balance | | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Preferred Return | | | | 0 | 0 | 0 | 0 | 0 |
| Paid | | | | 0 | 0 | 0 | 0 | 0 |
| PIK | | | | 0 | 0 | 0 | 0 | 0 |
| Refinancing ⁽¹⁾ | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Ending Balance | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Cumulative Credit Stats - Through Pref Equity | | | | | | | | |
| DSCR (assuming cash pay only) | | | | 1.4x | 1.5x | 1.6x | 1.7x | 1.7x |
| DSCR (assuming full coupon) | | | | 1.4x | 1.5x | 1.6x | 1.7x | 1.7x |
| Debt + Preferred / EBITDA | | | | 13.1x | 11.8x | 10.9x | 10.5x | 10.0x |
| Debt + Preferred Yield | | | | 7.5% | 8.3% | 8.8% | 9.1% | 9.4% |
| Debt + Preferred Equity Per Key | | | | \$322,480 | \$322,480 | \$322,480 | \$322,480 | \$322,480 |

Source: JF Capital Projections

(1) Ability to refinance debt at 8.0% debt yield and 5.0% interest rate

Construction Cost Build-Up - Hotel - Boutique + Apartments

Eagle Ridge Development Model

(\$ in thousands, except per key and per SF amounts)

The following is a construction cost build up of the Hotel component and the Apartments component.

| | | | | | Total Hotel SF | | | | Total Apartment SF | | | |
|--|----------|-----------|-------|--------|----------------|-----------|--------|------------|--------------------|--------|-------|--|
| | | | | | 90,420 | | 73,980 | | | | | |
| | | | | | Hotel | Per Key | Per SF | Apartments | Per Unit | Per SF | | |
| Hotel Keys | 91 | | | | | | | | | | | |
| Apartments | 70 | | | | | | | | | | | |
| Total SF | 164,400 | | | | | | | | | | | |
| Land Costs | | | | | | | | | | | | |
| Allocation of Land Cost | | \$0 | \$0 | \$0 | 0.0% | \$0 | \$0 | \$0 | \$0.00 | \$0 | \$0 | |
| Other | 0 | 0 | 0 | 0.0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total Land Costs | | | | | | | | | | | | |
| | \$0 | \$0 | \$0 | 0.0% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Hard Costs | | | | | | | | | | | | |
| Construction Cost | \$41,100 | \$255,280 | \$250 | 59.8% | \$21,578 | \$237,115 | \$239 | \$19,523 | \$278,893 | \$264 | \$264 | |
| Parking Floors - Below Grade | 5,000 | 31,056 | 30 | 7.3% | 1,500 | 16,484 | 17 | 3,500 | 50,000 | 47 | 47 | |
| Contingency | 1,153 | 7,158 | 7 | 1.7% | 519 | 5,699 | 6 | 634 | 9,055 | 9 | 9 | |
| Total Hard Costs | | | | | | | | | | | | |
| | \$47,253 | \$293,494 | \$287 | 68.8% | \$23,596 | \$259,298 | \$261 | \$23,656 | \$337,948 | \$320 | \$320 | |
| Soft Costs and Other | | | | | | | | | | | | |
| Designer | 650 | 4,037 | 4 | 0.9% | 436 | 4,786 | 5 | 215 | 3,064 | 3 | 3 | |
| A&E Fees, Design Consultants | 1,500 | 9,317 | 9 | 2.2% | 855 | 9,396 | 9 | 645 | 9,214 | 9 | 9 | |
| Consultants | 100 | 621 | 1 | 0.1% | 67 | 736 | 1 | 33 | 471 | 0 | 0 | |
| Insurance | 650 | 4,037 | 4 | 0.9% | 358 | 3,929 | 4 | 293 | 4,179 | 4 | 4 | |
| Real Estate Taxes | 250 | 1,553 | 2 | 0.4% | 138 | 1,511 | 2 | 113 | 1,607 | 2 | 2 | |
| Legal | 250 | 1,553 | 2 | 0.4% | 125 | 1,374 | 1 | 125 | 1,786 | 2 | 2 | |
| Borrower Legal | 250 | 1,553 | 2 | 0.4% | 125 | 1,374 | 1 | 125 | 1,786 | 2 | 2 | |
| Owner's Rep | 120 | 745 | 1 | 0.2% | 84 | 884 | 1 | 40 | 566 | 1 | 1 | |
| Operating Expenses | 120 | 745 | 1 | 0.2% | 80 | 884 | 1 | 40 | 566 | 1 | 1 | |
| Miscellaneous | 125 | 776 | 1 | 0.2% | 84 | 920 | 1 | 41 | 589 | 1 | 1 | |
| Pre-Opening | 1,200 | 7,453 | 7 | 1.7% | 690 | 7,582 | 8 | 510 | 7,286 | 7 | 7 | |
| Pool/Fitness Club FF&E | 450 | 2,795 | 3 | 0.7% | 350 | 3,846 | 4 | 100 | 1,429 | 1 | 1 | |
| Pool/Fitness Club OS&E | 250 | 1,553 | 2 | 0.4% | 150 | 1,648 | 2 | 100 | 1,429 | 1 | 1 | |
| Hotel FF&E Public Spaces | 3,000 | 18,634 | 18 | 4.4% | 3,000 | 32,967 | 33 | 0 | 0 | 0 | 0 | |
| Hotel FF&E | 2,500 | 15,528 | 15 | 3.6% | 2,500 | 27,473 | 28 | 0 | 0 | 0 | 0 | |
| Hotel OS&E | 1,400 | 8,696 | 9 | 2.0% | 1,400 | 15,385 | 15 | 0 | 0 | 0 | 0 | |
| Apartment FF&E Public Spaces | 300 | 1,863 | 2 | 0.4% | 0 | 0 | 0 | 300 | 4,286 | 4 | 4 | |
| Apartment FF&E | 200 | 1,242 | 1 | 0.3% | 0 | 0 | 0 | 200 | 2,857 | 3 | 3 | |
| Apartment OS&E | 300 | 1,863 | 2 | 0.4% | 0 | 0 | 0 | 300 | 4,286 | 4 | 4 | |
| Development Fee | 1,418 | 8,805 | 9 | 2.1% | 780 | 8,568 | 9 | 638 | 9,113 | 9 | 9 | |
| Mortgage Recording Tax ⁽¹⁾ | 620 | 3,850 | 4 | 0.9% | 434 | 4,768 | 5 | 186 | 2,657 | 3 | 3 | |
| Interest Reserve ⁽²⁾ | 2,874 | 17,848 | 17 | 4.2% | 1,632 | 17,934 | 18 | 1,242 | 17,736 | 17 | 17 | |
| Origination Fee ⁽³⁾ | 477 | 2,962 | 3 | 0.7% | 238 | 2,620 | 3 | 238 | 3,406 | 3 | 3 | |
| Financing / Brokerage Fee ⁽⁴⁾ | 477 | 2,962 | 3 | 0.7% | 238 | 2,620 | 3 | 238 | 3,406 | 3 | 3 | |
| Working Capital | 194 | 1,205 | 1 | 0.3% | 97 | 1,066 | 1 | 97 | 1,386 | 1 | 1 | |
| Title Insurance ⁽⁵⁾ | 175 | 1,087 | 1 | 0.3% | 88 | 962 | 1 | 88 | 1,250 | 1 | 1 | |
| Third Party Reports | 150 | 932 | 1 | 0.2% | 75 | 824 | 1 | 75 | 1,071 | 1 | 1 | |
| Other Financing Costs | 100 | 621 | 1 | 0.1% | 70 | 769 | 1 | 30 | 429 | 0 | 0 | |
| Operator Technical Services Fee | 200 | 1,242 | 1 | 0.3% | 200 | 2,198 | 2 | 0 | 0 | 0 | 0 | |
| Brand Creation Fee | 200 | 1,242 | 1 | 0.3% | 150 | 1,648 | 2 | 50 | 714 | 1 | 1 | |
| Advisory/Consulting Fee ⁽⁶⁾ | 450 | 2,795 | 3 | 0.7% | 225 | 2,473 | 2 | 225 | 3,214 | 3 | 3 | |
| Contingency | 524 | 3,253 | 3 | 0.8% | 367 | 4,029 | 4 | 157 | 2,244 | 2 | 2 | |
| Total Soft Costs and Other | | | | | | | | | | | | |
| | \$21,472 | \$133,368 | \$131 | 31.2% | \$15,030 | \$165,170 | \$166 | \$6,442 | \$92,026 | \$87 | \$87 | |
| Total Project Cost | | | | | | | | | | | | |
| | \$68,725 | \$426,862 | \$418 | 100.0% | \$38,627 | \$424,468 | \$427 | \$30,098 | \$429,974 | \$407 | \$407 | |

Source: JF Capital illustrative internal projections

(1) Mortgage Recording Tax calculated as 1.30% of total loan balance, (2) Interest Reserve calculated as 100% of one year of interest on full loan amount, (3) Origination Fee calculated as 1.0% of loan,

(4) Financing / Brokerage Fee calculated as 100bps of loan, (5) Estimated using the Stewart Title Insurance Calculator, (6) Advisory Fee calculated as \$150K retainer + \$300K in success fees

Eagle Ridge Development Model

Pro Forma - Combined Boutique Hotel + Apartments

(\$ in thousands)

The following includes the combined pro forma operating results for the boutique hotel and the apartments

| | Forecast | | | | | 4 Year | |
|-------------------------------|----------|----------|----------|----------|----------|--------|-------|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | CAGR | |
| Hotel Rooms | 91 | 91 | 91 | 91 | 91 | | |
| Apartments | 70 | 70 | 70 | 70 | 70 | | |
| Occupancy (Hotel and Apis) | 76.0% | 80.5% | 83.8% | 85.5% | 85.5% | | 3.0% |
| Growth (% p/a) | | 4.5% | 3.3% | 1.8% | 0.0% | | |
| ADR (Hotel only) | \$238.00 | \$252.28 | \$264.89 | \$275.49 | \$286.51 | | 4.7% |
| Growth | | 6.0% | 5.0% | 4.0% | 4.0% | | |
| RevPAR (Hotel only) | \$147.56 | \$171.55 | \$192.05 | \$209.37 | \$217.75 | | 10.2% |
| Growth | | 16.3% | 11.9% | 9.0% | 4.0% | | |
| Days Open | 365 | 365 | 365 | 365 | 365 | | |
| Rooms Available | 33,215 | 33,215 | 33,215 | 33,215 | 33,215 | | |
| Rooms Occupied | 25,243 | 26,738 | 27,818 | 28,399 | 28,399 | | |
| Revenues | \$ | \$ | \$ | \$ | \$ | | |
| Rooms+Apartments | 7,541 | 8,508 | 9,335 | 9,999 | 10,369 | | 8.3% |
| Food & Beverage | 8,583 | 9,553 | 10,453 | 10,810 | 11,134 | | 6.7% |
| Parking | 495 | 563 | 613 | 656 | 676 | | 8.1% |
| Other | 1,396 | 1,535 | 1,657 | 1,731 | 1,786 | | 6.4% |
| Total Revenue | \$18,015 | \$20,159 | \$22,058 | \$23,196 | \$23,965 | | 7.4% |
| Distributed Expenses | | | | | | | |
| Rooms+Apartments | 1,608 | 1,601 | 1,693 | 1,793 | 1,815 | | 3.1% |
| Food & Beverage | 6,238 | 6,677 | 6,884 | 7,108 | 7,310 | | 4.0% |
| Parking | 196 | 211 | 217 | 225 | 232 | | 4.4% |
| Other | 573 | 623 | 676 | 685 | 708 | | 5.4% |
| Total Distributed Exp. | \$8,615 | \$9,113 | \$9,469 | \$9,812 | \$10,065 | | 4.0% |
| Distributed Profit | | | | | | | |
| Rooms+Apartments | 5,933 | 6,906 | 7,643 | 8,207 | 8,554 | | 9.6% |
| Food & Beverage | 2,344 | 2,876 | 3,569 | 3,701 | 3,824 | | 13.0% |
| Parking | 299 | 352 | 396 | 430 | 443 | | 10.3% |
| Other Operated Departments | 822 | 912 | 981 | 1,045 | 1,078 | | 7.0% |
| Operating Income | \$9,399 | \$11,046 | \$12,589 | \$13,384 | \$13,900 | | 10.3% |
| Undistributed Expenses | | | | | | | |
| A&G | 1,162 | 1,223 | 1,250 | 1,316 | 1,359 | | 4.0% |
| Telecommunications | 147 | 166 | 184 | 194 | 200 | | 8.0% |
| Sales and Marketing | 1,121 | 1,139 | 1,250 | 1,316 | 1,359 | | 4.9% |
| Repairs | 721 | 765 | 791 | 782 | 808 | | 2.9% |
| Energy | 507 | 570 | 625 | 658 | 680 | | 7.6% |
| Total Undistributed Exp. | \$3,659 | \$3,863 | \$4,098 | \$4,265 | \$4,407 | | 4.8% |
| GOP | \$5,740 | \$7,184 | \$8,491 | \$9,118 | \$9,493 | | 13.4% |
| Management Fee | 573 | 723 | 882 | 928 | 959 | | 13.7% |
| Fixed Expenses | | | | | | | |
| Rent | 0 | 0 | 0 | 0 | 0 | | N/A |
| Property Taxes ⁽¹⁾ | 1,158 | 1,193 | 1,229 | 1,266 | 1,304 | | 3.0% |
| Insurance | 197 | 219 | 239 | 251 | 259 | | 7.2% |
| Other | 0 | 0 | 0 | 0 | 0 | | 0.0% |
| Total Fixed Expenses | \$1,355 | \$1,412 | \$1,468 | \$1,517 | \$1,563 | | 3.6% |
| EBITDA | \$3,812 | \$5,048 | \$6,140 | \$6,674 | \$6,971 | | 16.3% |
| FF&E Reserve | 327 | 552 | 808 | 871 | 919 | | 29.5% |
| NOI | \$3,485 | \$4,496 | \$5,332 | \$5,803 | \$6,052 | | 14.8% |

Source: JF Capital Projections

(1) Total property taxes paid are calculated as 2.25% of the appraised value of the hotel which is assumed to be 100% of the Total Hard cost of \$23,596,125 for the Hotel. The apartment taxes based on input from Frank Madonna are calculated as 2.25% of the appraised value for the market rate apartments and 2.3% for the affordable apartments on a Total Value of \$27,878,627. Total Property taxes are growing at 3% per year in Years 2-5.

Eagle Ridge Development Model

Pro Forma - Boutique Hotel

(\$ in thousands)

The following includes the pro forma operating results for the boutique hotel

| | Forecast | | | | | 4 Year CAGR |
|---|----------|----------|----------|----------|----------|----------------|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | |
| Number of Rooms | 91 | 91 | 91 | 91 | 91 | |
| Occupancy | 62.0% | 68.0% | 72.5% | 76.0% | 76.0% | 5.2% |
| Growth (% p/yr) | | 6.0% | 4.5% | 3.5% | 0.0% | |
| ADR | \$238.00 | \$252.28 | \$264.89 | \$275.49 | \$286.51 | 4.7% |
| Growth | | 6.0% | 5.0% | 4.0% | 4.0% | |
| Rev/PAR | \$147.56 | \$171.55 | \$192.05 | \$209.37 | \$217.75 | 10.2% |
| Growth | | 16.3% | 11.9% | 9.0% | 4.0% | |
| Days Open | 365 | 365 | 365 | 365 | 365 | |
| Rooms Available | 33,215 | 33,215 | 33,215 | 33,215 | 33,215 | |
| Rooms Occupied | 20,593 | 22,586 | 24,081 | 25,243 | 25,243 | |
| Revenues | | | | | | |
| Rooms | \$ 4,901 | \$ 5,698 | \$ 6,379 | \$ 6,954 | \$ 7,232 | 10.2% |
| Food & Beverage | 8,583 | 9,553 | 10,453 | 10,810 | 11,134 | 6.7% |
| Parking | 495 | 563 | 613 | 656 | 676 | 8.1% |
| Other | 736 | 832 | 918 | 969 | 1,002 | 8.0% |
| Total Revenue | \$14,714 | \$16,646 | \$18,363 | \$19,389 | \$20,044 | 8.0% |
| Distributed Expenses | | | | | | |
| Rooms | 1,470 | 1,481 | 1,595 | 1,721 | 1,772 | 4.8% |
| Food & Beverage | 6,238 | 6,677 | 6,884 | 7,108 | 7,310 | 4.0% |
| Parking | 196 | 211 | 217 | 225 | 232 | 4.4% |
| Other | 441 | 483 | 528 | 533 | 551 | 5.7% |
| Total Distributed Exp. | \$8,346 | \$8,852 | \$9,224 | \$9,588 | \$9,865 | 4.3% |
| Distributed Profit | | | | | | |
| Rooms | 3,431 | 4,217 | 4,784 | 5,233 | 5,461 | 12.3% |
| Food & Beverage | 2,344 | 2,876 | 3,569 | 3,701 | 3,824 | 13.0% |
| Parking | 299 | 352 | 396 | 430 | 443 | 10.3% |
| Other Operated Departments | 294 | 350 | 390 | 436 | 451 | 11.3% |
| Operating Income | \$6,369 | \$7,794 | \$9,139 | \$9,801 | \$10,179 | 12.4% |
| Undistributed Expenses | | | | | | |
| A&G | 1,030 | 1,082 | 1,102 | 1,163 | 1,203 | 3.9% |
| Telecommunications | 147 | 166 | 184 | 194 | 200 | 8.0% |
| Sales and Marketing | 956 | 999 | 1,102 | 1,163 | 1,203 | 5.9% |
| Repairs | 589 | 624 | 643 | 650 | 651 | 2.6% |
| Energy | 441 | 499 | 551 | 582 | 601 | 8.0% |
| Total Undistributed Exp. | \$3,164 | \$3,371 | \$3,581 | \$3,732 | \$3,858 | 5.1% |
| GOP | \$3,205 | \$4,423 | \$5,558 | \$6,068 | \$6,321 | 18.5% |
| Management Fee | 441 | 583 | 735 | 776 | 802 | 16.1% |
| Franchise Fee | 0 | 0 | 0 | 0 | 0 | 0.0% |
| Fixed Expenses | | | | | | |
| Services Amenities Payment ⁽²⁾ | 0 | 0 | 0 | 0 | 0 | N/A |
| Property Taxes ⁽¹⁾ | 531 | 547 | 563 | 580 | 598 | 3.0% |
| Insurance | 147 | 166 | 184 | 194 | 200 | 8.0% |
| Other | 0 | 0 | 0 | 0 | 0 | 0.0% |
| Total Fixed Expenses | \$678 | \$713 | \$747 | \$774 | \$798 | 4.2% |
| EBITDA | \$2,086 | \$3,128 | \$4,077 | \$4,519 | \$4,721 | 22.7% |
| FF&E Reserve | 294 | 499 | 735 | 776 | 802 | 28.5% |
| NOI | \$1,791 | \$2,628 | \$3,342 | \$3,743 | \$3,919 | 21.6% |

Source: JF Capital Projections

(1) Property Taxes are calculated as 2.25% of the appraised value which is assumed to be 100% of the Total Hard cost of \$23,596 for the Hotel; Total Property taxes are growing by 3% per year in Years 2-5

(2) Annual services amenities fee of \$2,500 per apartment per year paid by apartment tenant to hotel, growing by inflation; pays for access to gym, pool and other shared building amenities

Pro Forma - Apartments

(\$ in thousands)

The following includes the pro forma operating results for the apartments

| | Forecast | | | | | 4 Year CAGR |
|---------------------------------------|----------|----------|----------|----------|----------|----------------|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | |
| Total Apartments | 70 | 70 | 70 | 70 | 70 | |
| Average Occupancy | 90.0% | 93.0% | 95.0% | 95.0% | 95.0% | |
| Monthly RevP AR (1-bed) | \$2,880 | \$3,065 | \$3,225 | \$3,322 | \$3,422 | 4.4% |
| Monthly RevP AR (2-bed) | 3,825 | 4,071 | 4,283 | 4,412 | 4,544 | 4.4% |
| Monthly RevP AR (2+-bed) | 4,635 | 4,933 | 5,190 | 5,346 | 5,507 | 4.4% |
| Days Open | 365 | 365 | 365 | 365 | 365 | |
| Rooms Available | 14,600 | 14,600 | 14,600 | 14,600 | 14,600 | |
| Rooms Occupied | 13,140 | 13,578 | 13,870 | 13,870 | 13,870 | |
| Revenues | | | | | | |
| Apartment Rent Subtotal | \$ 2,640 | \$ 2,810 | \$ 2,956 | \$ 3,045 | \$ 3,136 | 4.4% |
| Other Revenues ⁽¹⁾ | 660 | 702 | 739 | 761 | 784 | 4.4% |
| Total Revenue | \$3,300 | \$3,512 | \$3,696 | \$3,806 | \$3,921 | 4.4% |
| Distributed Expenses | | | | | | |
| Apartment Expense Subtotal | 138 | 120 | 98 | 71 | 43 | -25.3% |
| Other Revenues | 132 | 140 | 148 | 152 | 157 | 4.4% |
| Total Distributed Exp. | \$270 | \$260 | \$246 | \$224 | \$200 | -7.2% |
| Distributed Profit | | | | | | |
| Apartment Only Dept. Profit | 2,502 | 2,690 | 2,859 | 2,974 | 3,094 | 5.4% |
| Other Operated Dept. Profit | 528 | 562 | 591 | 609 | 627 | 4.4% |
| Total Departmental Profit | \$3,030 | \$3,252 | \$3,450 | \$3,583 | \$3,721 | 5.3% |
| Undistributed Expenses | | | | | | |
| A&G | 132 | 140 | 148 | 152 | 157 | 4.4% |
| Telecommunications | 0 | 0 | 0 | 0 | 0 | N/A |
| Sales and Marketing | 165 | 140 | 148 | 152 | 157 | -1.3% |
| Repairs | 132 | 140 | 148 | 152 | 157 | 4.4% |
| Energy | 66 | 70 | 74 | 76 | 78 | 4.4% |
| Total Undistributed Exp. | \$495 | \$492 | \$517 | \$533 | \$549 | 2.6% |
| GOP | \$2,535 | \$2,760 | \$2,932 | \$3,050 | \$3,172 | 5.8% |
| Management Fee | 132 | 140 | 148 | 152 | 157 | 4.4% |
| Franchise Fee | 0 | 0 | 0 | 0 | 0 | N/A |
| Fixed Expenses | | | | | | |
| Services Amenities Fee ⁽²⁾ | 0 | 0 | 0 | 0 | 0 | N/A |
| Property Taxes ⁽¹⁾ | 627 | 646 | 665 | 685 | 706 | 3.0% |
| Insurance | 50 | 53 | 55 | 57 | 59 | 4.4% |
| Other | 0 | 0 | 0 | 0 | 0 | N/A |
| Total Fixed Expenses | \$677 | \$699 | \$721 | \$743 | \$765 | 3.1% |
| EBITDA | \$1,727 | \$1,921 | \$2,064 | \$2,155 | \$2,250 | 6.8% |
| FF&E Reserve | 33 | 53 | 74 | 95 | 118 | 37.4% |
| NOI | \$1,694 | \$1,868 | \$1,990 | \$2,060 | \$2,133 | 5.9% |

Source: JF Capital Projections

Note: Monthly Rent for all apartments is growing at 3.0% per year.

- (1) Total property taxes paid are calculated as 2.25% of the appraised value for the market rate apartments and 2.3% for the affordable apartments on a Total Value of \$27,878,627. Total Property taxes are growing at 3% per year
- (2) Annual services amenities fee of \$2,500 per apartment per year paid by apartment tenant to hotel, growing by inflation, at no cost to apartment owner
- (3) Includes tenant programming fees paid to Landlord
- Eagle Ridge Hotel Model 2018-12-05, Pro Forma - Apartments

Eagle Ridge Development Model

Potential F&B Revenues - Boutique + Apartments

(\$ in actuals)

- The following analysis shows both the size of F&B offerings, as well as potential F&B revenues as the hotel generates higher occupancy:

| | Square Footage | | # Seats | SF / Seat | Max Total Occ. By Code | Notes |
|--------------------------------|----------------|--|---------|-----------|---------------------------|--------------------------------|
| | | | | | | |
| Restaurant (First Floor) | 4,156 | | 160 | 26 | 278 | |
| Coffee Bar / Bar (First Floor) | 1,842 | | 80 | 23 | 123 | |
| Terrace over 1st Floor | 10,824 | | 150 | 72 | 722 | |
| Ground Floor Lounge | 2,894 | | 75 | 39 | 194 | |
| Ballroom | 4,220 | | 165 | 26 | 282 | |
| Junior Ballroom | 2,225 | | 85 | 26 | 149 | |
| Pool/Outdoor Area | 12,253 | | 165 | 74 | 433 | |
| Boardroom | 1,732 | | 45 | 38 | 52 | |
| | | | | | | Only ~6,300 sf are serviceable |
| TOTAL | 40,146 | | 925 | 43 | 2,233 | |

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|--------------------|--------|--------|--------|--------|--------|
| Total Guest Rooms | 91 | 91 | 91 | 91 | 91 |
| Occupancy | 62.0% | 68.0% | 72.5% | 76.0% | 76.0% |
| Occupied Rooms/Day | 56 | 62 | 66 | 69 | 69 |
| Guests/Room | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Hotel Guests/Day | 85 | 93 | 99 | 104 | 104 |

| | | | | | |
|----------------------------|-------------|-------------|--------------|--------------|--------------|
| Total F&B Revenue | \$8,582,846 | \$9,553,393 | \$10,452,607 | \$10,809,535 | \$11,133,821 |
| Growth | | 11.3% | 9.4% | 3.4% | 3.0% |
| Total F&B Revenue per SF | \$214 | \$238 | \$260 | \$269 | \$277 |
| Total F&B Revenue per Seat | 9,279 | 10,328 | 11,300 | 11,686 | 12,037 |
| Total F&B EBITDA | \$2,344,478 | \$2,876,201 | \$3,568,655 | \$3,701,108 | \$3,824,299 |
| Growth | | 22.7% | 24.1% | 3.7% | 3.3% |
| Margin | 27.3% | 30.1% | 34.1% | 34.2% | 34.3% |
| Total F&B EBITDA per SF | \$58 | \$72 | \$89 | \$92 | \$95 |
| Total F&B EBITDA per Seat | 2,535 | 3,109 | 3,838 | 4,001 | 4,134 |

Source: Illustrative Projections; subject to build out costs, final program, and operator chosen

Eagle Ridge Development Model

Potential F&B Revenues - Boutique + Apartments

(\$ in actuals)

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|--|-------------|-------------|-------------|-------------|-------------|
| Restaurant (First Floor) - (4,156 SF and 160 Seats) | | | | | |
| Breakfast Capture (% of Guests) | 25.0% | 25.0% | 25.0% | 25.0% | 25.0% |
| Breakfast Covers per Day (Guests) | 21 | 23 | 25 | 26 | 26 |
| Breakfast Covers per Day (Non-Guests) | 65 | 65 | 65 | 65 | 65 |
| Breakfast Revenue per Cover | 3.0% | | | | |
| | \$16 | \$16 | \$17 | \$17 | \$18 |
| Breakfast Revenue Subtotal | \$503,160 | \$530,571 | \$556,002 | \$580,304 | \$597,713 |
| Breakfast Revenue per Seat | 3,145 | 3,316 | 3,475 | 3,627 | 3,736 |
| Breakfast Revenue per SF | 121 | 128 | 134 | 140 | 144 |
| Lunch Capture (% of Guests) | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% |
| Lunch Covers per Day (Guests) | 4 | 5 | 5 | 5 | 5 |
| Lunch Covers per Day (Non-Guests) | 45 | 47 | 50 | 50 | 50 |
| Lunch Revenue per Cover | 3.0% | | | | |
| | \$22 | \$23 | \$23 | \$24 | \$25 |
| Lunch Revenue Subtotal | \$395,329 | \$427,118 | \$468,105 | \$484,244 | \$498,771 |
| Lunch Revenue per Seat | 2,471 | 2,669 | 2,926 | 3,027 | 3,117 |
| Lunch Revenue per SF | 95 | 103 | 113 | 117 | 120 |
| Dinner Capture (% of Guests) | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% |
| Dinner Covers per Day (Guests) | 8 | 9 | 10 | 10 | 10 |
| Dinner Covers per Day (Non-Guests) | 110 | 130 | 130 | 130 | 130 |
| Dinner Revenue per Cover | 3.0% | | | | |
| | \$28 | \$29 | \$30 | \$31 | \$32 |
| Dinner Revenue Subtotal | \$1,210,692 | \$1,466,166 | \$1,516,811 | \$1,567,651 | \$1,614,680 |
| Dinner Revenue per Seat | 7,567 | 9,164 | 9,480 | 9,798 | 10,092 |
| Dinner Revenue per SF | 291 | 353 | 365 | 377 | 389 |
| Total Restaurant Revenue | \$2,109,181 | \$2,423,854 | \$2,540,917 | \$2,632,198 | \$2,711,164 |
| EBITDA Margin | 21% | 23% | 26% | 26% | 26% |
| Total Restaurant EBITDA | \$442,928 | \$557,486 | \$660,639 | \$684,372 | \$704,903 |

Eagle Ridge Development Model

Potential F&B Revenues - Boutique + Apartments

(\$ in actuals)

| Coffee Bar / Bar (First Floor) - (1,842 SF & 80 Seats) | | | | | |
|--|-----------|-------------|-------------|-------------|-------------|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Breakfast Capture (% of Guests) | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% |
| Breakfast Covers per Day (Guests) | 8 | 9 | 10 | 10 | 10 |
| Breakfast Covers per Day (Non-Guests) | 40 | 40 | 40 | 40 | 40 |
| Breakfast Revenue per Cover | \$8 | \$8 | \$8 | \$9 | \$9 |
| Breakfast Revenue Subtotal | \$141,512 | \$148,221 | \$154,570 | \$160,731 | \$165,553 |
| Breakfast Revenue per Seat | 884 | 926 | 966 | 1,005 | 1,035 |
| Breakfast Revenue per SF | 34 | 36 | 37 | 39 | 40 |
| Lunch Capture (% of Guests) | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% |
| Lunch Covers per Day (Guests) | 4 | 5 | 5 | 5 | 5 |
| Lunch Covers per Day (Non-Guests) | 20 | 23 | 25 | 25 | 25 |
| Lunch Revenue per Cover | \$15 | \$15 | \$16 | \$16 | \$17 |
| Lunch Revenue Subtotal | \$132,667 | \$155,875 | \$173,952 | \$180,599 | \$186,017 |
| Lunch Revenue per Seat | 829 | 974 | 1,087 | 1,129 | 1,163 |
| Lunch Revenue per SF | 32 | 38 | 42 | 43 | 45 |
| Dinner Capture (% of Guests) | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% |
| Dinner Covers per Day (Guests) | 4 | 5 | 5 | 5 | 5 |
| Dinner Covers per Day (Non-Guests) | 80 | 90 | 100 | 100 | 100 |
| Dinner Revenue per Cover | \$20 | \$21 | \$21 | \$22 | \$23 |
| Dinner Revenue Subtotal | \$614,890 | \$711,606 | \$812,778 | \$839,067 | \$864,239 |
| Dinner Revenue per Seat | 3,843 | 4,448 | 5,080 | 5,244 | 5,401 |
| Dinner Revenue per SF | 148 | 171 | 196 | 202 | 208 |
| Total Coffee Bar / Bar Revenue | \$889,069 | \$1,015,701 | \$1,141,300 | \$1,180,398 | \$1,215,810 |
| EBITDA Margin | 22% | 26% | 28% | 29% | 30% |
| Total Restaurant EBITDA | \$195,595 | \$264,082 | \$319,564 | \$342,315 | \$364,743 |

Eagle Ridge Development Model

Potential F&B Revenues - Boutique + Apartments

(\$ in actuals)

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|-------------|-------------|-------------|-------------|-------------|
| Terrace over 1st Floor - (10,824 SF & 150 Seats) | | | | | |
| Capture (% of Guests) | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Covers per Day (Guests) | 0 | 0 | 0 | 0 | 0 |
| Covers per Day (Non-Guests) | 35 | 40 | 45 | 45 | 45 |
| Revenue per Cover | 3.0% | \$31 | \$32 | \$33 | \$34 |
| Total Revenue | \$383,250 | \$451,140 | \$522,758 | \$538,441 | \$554,594 |
| Revenue per Seat | 2,555 | 3,008 | 3,485 | 3,590 | 3,697 |
| Revenue per SF | 35 | 42 | 48 | 50 | 51 |
| EBITDA Margin | 28% | 30% | 34% | 34% | 34% |
| Total EBITDA | \$107,310 | \$135,342 | \$177,738 | \$183,070 | \$188,562 |
| Ground Floor Lounge - (2,894 SF & 75 Seats) | | | | | |
| Lunch Capture (% of Guests) | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% |
| Lunch Covers per Day (Guests) | 8 | 9 | 10 | 10 | 10 |
| Lunch Covers per Day (Non-Guests) | 25 | 25 | 25 | 25 | 25 |
| Lunch Revenue per Cover | 3.0% | \$25 | \$27 | \$27 | \$28 |
| Lunch Revenue Subtotal | \$305,350 | \$322,208 | \$337,821 | \$352,719 | \$363,300 |
| Lunch Revenue per Seat | 1,908 | 2,014 | 2,111 | 2,204 | 2,271 |
| Lunch Revenue per SF | 73 | 78 | 81 | 85 | 87 |
| Dinner Capture (% of Guests) | 10.0% | 10.0% | 10.0% | 10.0% | 10.0% |
| Dinner Covers per Day (Guests) | 8 | 9 | 10 | 10 | 10 |
| Dinner Covers per Day (Non-Guests) | 65 | 65 | 65 | 65 | 65 |
| Dinner Revenue per Cover | 3.0% | \$40 | \$42 | \$44 | \$45 |
| Dinner Revenue Subtotal | \$1,072,560 | \$1,117,053 | \$1,160,079 | \$1,202,503 | \$1,238,578 |
| Dinner Revenue per Seat | 6,703 | 6,982 | 7,250 | 7,516 | 7,741 |
| Dinner Revenue per SF | 258 | 269 | 279 | 289 | 298 |
| Late Night Capture (% of Guests) | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% |
| Late Night Covers per Day (Guests) | 4 | 5 | 5 | 5 | 5 |
| Late Night Covers per Day (Non-Guests) | 25 | 25 | 25 | 25 | 25 |
| Late Night Revenue per Cover | 3.0% | \$25 | \$27 | \$27 | \$28 |
| Late Night Revenue Subtotal | \$266,737 | \$278,588 | \$289,919 | \$300,999 | \$310,029 |
| Late Night Revenue per Seat | 1,667 | 1,741 | 1,812 | 1,881 | 1,938 |
| Late Night Revenue per SF | 64 | 67 | 70 | 72 | 75 |
| Total Ground Floor Lounge Revenue | \$1,644,647 | \$1,717,849 | \$1,787,818 | \$1,856,220 | \$1,911,907 |
| EBITDA Margin | 28% | 30% | 34% | 34% | 34% |
| Total EBITDA | \$460,501 | \$515,355 | \$607,858 | \$631,115 | \$650,048 |

Eagle Ridge Development Model

| Potential F&B Revenues - Boutique + Apartments | | | | | | (\$ in actuals) | | | | | |
|--|----------------------|-----------|-------------|-----------|-------------|-----------------|-------------|-----------|-------------|-------------|--|
| Ballroom - (4,220 SF & 165 Seats) | Year 1 | | Year 2 | | Year 3 | | Year 4 | | Year 5 | | |
| | Events Per Week | | 3.0 | | 3.5 | | 4.0 | | 4.0 | | |
| | Number of Attendees | | 95 | | 95 | | 95 | | 95 | | |
| | Revenue per Attendee | | 3.0% | | \$98 | | \$101 | | \$104 | | |
| | Total Revenue | | \$1,407,900 | | \$1,691,827 | | \$1,991,521 | | \$2,051,267 | | |
| Revenue per Seat | | 8,533 | | 10,253 | | 12,070 | | 12,432 | | \$2,112,805 | |
| Revenue per SF | | 334 | | 401 | | 472 | | 486 | | 501 | |
| EBITDA Margin | | 32% | | 36% | | 42% | | 42% | | 42% | |
| Total EBITDA | | \$450,528 | | \$609,058 | | \$836,439 | | \$861,532 | | \$887,378 | |
| Junior Ballroom - (2,225 SF & 85 Seats) | Year 1 | | Year 2 | | Year 3 | | Year 4 | | Year 5 | | |
| | Events Per Week | | 2.5 | | 2.5 | | 3.0 | | 3.0 | | |
| | Number of Attendees | | 50 | | 50 | | 50 | | 50 | | |
| | Revenue per Attendee | | 3.0% | | \$82 | | \$85 | | \$87 | | |
| | Total Revenue | | \$520,000 | | \$535,600 | | \$662,002 | | \$681,862 | | |
| Revenue per Seat | | 6,118 | | 6,301 | | 7,788 | | 8,022 | | \$702,317 | |
| Revenue per SF | | 234 | | 241 | | 298 | | 306 | | 316 | |
| EBITDA Margin | | 32% | | 36% | | 42% | | 42% | | 42% | |
| Total EBITDA | | \$166,400 | | \$192,816 | | \$278,041 | | \$286,382 | | \$294,973 | |

Eagle Ridge Development Model

Potential F&B Revenues - Boutique + Apartments

(\$ in actuals)

| Pool/Outdoor Area - (12,253 SF & 165 Seats) | | | | | | | | | |
|---|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-------------|
| Lunch Capture (% of Guests) | 7.0% | | 7.0% | | 7.0% | | 7.0% | | 7.0% |
| Lunch Covers per Day (Guests) | 6 | | 6 | | 6 | | 7 | | 7 |
| Lunch Covers per Day (Non-Guests) | 40 | | 40 | | 40 | | 40 | | 40 |
| Lunch Revenue per Cover | \$17 | | \$18 | | \$18 | | \$19 | | \$19 |
| Lunch Revenue Subtotal | \$284,959 | | \$297,172 | | \$308,917 | | \$320,453 | | \$330,066 |
| Lunch Revenue per Seat | 1,781 | | 1,857 | | 1,931 | | 2,003 | | 2,063 |
| Lunch Revenue per SF | 69 | | 72 | | 74 | | 77 | | 79 |
| Dinner Capture (% of Guests) | 7.0% | | 7.0% | | 7.0% | | 7.0% | | 7.0% |
| Dinner Covers per Day (Guests) | 6 | | 6 | | 7 | | 7 | | 7 |
| Dinner Covers per Day (Non-Guests) | 65 | | 65 | | 65 | | 65 | | 65 |
| Dinner Revenue per Cover | \$22 | | \$23 | | \$23 | | \$24 | | \$25 |
| Dinner Revenue Subtotal | \$569,521 | | \$591,348 | | \$612,751 | | \$634,068 | | \$653,090 |
| Dinner Revenue per Seat | 3,560 | | 3,696 | | 3,830 | | 3,963 | | 4,082 |
| Dinner Revenue per SF | 137 | | 142 | | 147 | | 153 | | 157 |
| Late Night Capture (% of Guests) | 7.0% | | 7.0% | | 7.0% | | 7.0% | | 7.0% |
| Late Night Covers per Day (Guests) | 6 | | 6 | | 7 | | 7 | | 7 |
| Late Night Covers per Day (Non-Guests) | 50 | | 50 | | 50 | | 50 | | 50 |
| Late Night Revenue per Cover | \$26 | | \$27 | | \$28 | | \$28 | | \$29 |
| Late Night Revenue Subtotal | \$530,720 | | \$552,245 | | \$573,141 | | \$593,804 | | \$611,618 |
| Late Night Revenue per Seat | 3,317 | | 3,452 | | 3,582 | | 3,711 | | 3,823 |
| Late Night Revenue per SF | 128 | | 133 | | 138 | | 143 | | 147 |
| Memberships (Townhouse Residents) | | | | | | | | | |
| Annual Cost | 60 | \$2,500 | 70 | \$2,575 | 80 | \$2,652 | 80 | \$2,732 | \$2,814 |
| Membership Revenue Subtotal | | \$150,000 | | \$180,250 | | \$212,180 | | \$218,545 | \$225,102 |
| Membership Revenue per Seat | | 938 | | 1,127 | | 1,326 | | 1,366 | 1,407 |
| Membership Revenue per SF | | 36 | | 43 | | 51 | | 53 | 54 |
| Total Pool/Fitness Club Revenue | | \$1,535,199 | | \$1,621,015 | | \$1,706,990 | | \$1,766,870 | \$1,819,876 |
| EBITDA Margin | | 32% | | 35% | | 38% | | 38% | 39% |
| Total EBITDA | | \$491,264 | | \$567,355 | | \$648,656 | | \$671,411 | \$691,553 |

Eagle Ridge Development Model

| Potential F&B Revenues - Boutique + Apartments | | | | | | (\$ in actuals) |
|--|----------|----------|----------|-----------|-----------|-----------------|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | |
| Boardroom - (1,732 SF & 45 Seats) | | | | | | |
| Events Per Week | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Number of Attendees | 10 | 10 | 10 | 10 | 10 | |
| Revenue per Attendee | 3.0% | \$62 | \$64 | \$66 | \$68 | |
| Total Revenue | | | | | | |
| Revenue per Seat | \$93,600 | \$96,408 | \$99,300 | \$102,279 | \$105,348 | |
| Revenue per SF | 2,080 | 2,142 | 2,207 | 2,273 | 2,341 | |
| | 54 | 56 | 57 | 59 | 61 | |
| EBITDA Margin | | | | | | |
| Total EBITDA | 32% | 36% | 40% | 40% | 40% | |
| | \$29,952 | \$34,707 | \$39,720 | \$40,912 | \$42,139 | |

Eagle Ridge Development Model

Potential F&B Revenues - Boutique + Apartments

(\$ in actuals)

| F&B Summary | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|--------------------------------|--------------------|--------------------|---------------------|---------------------|---------------------|
| Revenue | | | | | |
| Restaurant (First Floor) | \$2,109,181 | \$2,423,854 | \$2,540,917 | \$2,632,198 | \$2,711,164 |
| Coffee Bar / Bar (First Floor) | 889,069 | 1,015,701 | 1,141,300 | 1,180,398 | 1,215,810 |
| Terrace over 1st Floor | 383,250 | 451,140 | 522,758 | 538,441 | 554,594 |
| Ground Floor Lounge | 1,644,647 | 1,717,849 | 1,787,818 | 1,856,220 | 1,911,907 |
| Ballroom | 1,407,900 | 1,691,827 | 1,991,521 | 2,051,267 | 2,112,805 |
| Junior Ballroom | 520,000 | 535,600 | 662,002 | 681,862 | 702,317 |
| Pool/Outdoor Area | 1,535,199 | 1,621,015 | 1,706,990 | 1,766,870 | 1,819,876 |
| Boardroom | 93,600 | 96,408 | 99,300 | 102,279 | 105,348 |
| Total Revenue | \$8,582,846 | \$9,553,393 | \$10,452,607 | \$10,809,535 | \$11,133,821 |
| EBITDA | | | | | |
| Restaurant (First Floor) | \$442,928 | \$557,486 | \$660,639 | \$684,372 | \$704,903 |
| Coffee Bar / Bar (First Floor) | 195,595 | 264,082 | 319,564 | 342,315 | 364,743 |
| Terrace over 1st Floor | 107,310 | 135,342 | 177,738 | 183,070 | 188,562 |
| Ground Floor Lounge | 460,501 | 515,355 | 607,858 | 631,115 | 650,048 |
| Ballroom | 450,528 | 609,058 | 836,439 | 861,532 | 887,378 |
| Junior Ballroom | 166,400 | 192,816 | 278,041 | 286,382 | 294,973 |
| Pool/Outdoor Area | 491,264 | 567,355 | 648,656 | 671,411 | 691,553 |
| Boardroom | 29,952 | 34,707 | 39,720 | 40,912 | 42,139 |
| Total EBITDA | \$2,344,478 | \$2,876,201 | \$3,568,655 | \$3,701,108 | \$3,824,299 |
| <i>Margin</i> | <i>27.3%</i> | <i>30.1%</i> | <i>34.1%</i> | <i>34.2%</i> | <i>34.3%</i> |

Eagle Ridge Development Model

| Potential F&B Revenues - Boutique + Apartments | | | | | | (\$ in actuals) |
|--|--------------|--------------|--------------|--------------|--------------|-----------------|
| Per SF | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | |
| Revenue Per SF | | | | | | |
| Restaurant (First Floor) | \$508 | \$583 | \$611 | \$633 | \$652 | |
| Coffee Bar / Bar (First Floor) | 483 | 551 | 620 | 641 | 660 | |
| Terrace over 1st Floor | 35 | 42 | 48 | 50 | 51 | |
| Ground Floor Lounge | 568 | 594 | 618 | 641 | 661 | |
| Ballroom | 334 | 401 | 472 | 486 | 501 | |
| Junior Ballroom | 234 | 241 | 298 | 306 | 316 | |
| Pool/Outdoor Area | 125 | 132 | 139 | 144 | 149 | |
| Boardroom | 54 | 56 | 57 | 59 | 61 | |
| Total Revenue Per SF | \$214 | \$238 | \$260 | \$269 | \$277 | |
| EBITDA Per SF | | | | | | |
| Restaurant (First Floor) | \$107 | \$134 | \$159 | \$165 | \$170 | |
| Coffee Bar / Bar (First Floor) | 106 | 143 | 173 | 186 | 198 | |
| Terrace over 1st Floor | 10 | 13 | 16 | 17 | 17 | |
| Ground Floor Lounge | 159 | 178 | 210 | 218 | 225 | |
| Ballroom | 107 | 144 | 198 | 204 | 210 | |
| Junior Ballroom | 75 | 87 | 125 | 129 | 133 | |
| Pool/Outdoor Area | 40 | 46 | 53 | 55 | 56 | |
| Boardroom | 17 | 20 | 23 | 24 | 24 | |
| Total EBITDA Per SF | \$58 | \$72 | \$89 | \$92 | \$95 | |

Eagle Ridge Development Model

Potential F&B Revenues - Boutique + Apartments

(\$ in actuals)

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|--------------------------------|----------------|-----------------|-----------------|-----------------|-----------------|
| Per Seat | | | | | |
| Revenue Per Seat | | | | | |
| Restaurant (First Floor) | \$13,182 | \$15,149 | \$15,881 | \$16,451 | \$16,945 |
| Coffee Bar / Bar (First Floor) | 11,113 | 12,696 | 14,266 | 14,755 | 15,198 |
| Terrace over 1st Floor | 2,555 | 3,008 | 3,485 | 3,590 | 3,697 |
| Ground Floor Lounge | 21,929 | 22,905 | 23,838 | 24,750 | 25,492 |
| Ballroom | 8,533 | 10,253 | 12,070 | 12,432 | 12,805 |
| Junior Ballroom | 6,118 | 6,301 | 7,788 | 8,022 | 8,263 |
| Pool/Outdoor Area | 9,304 | 9,824 | 10,345 | 10,708 | 11,030 |
| Boardroom | 2,080 | 2,142 | 2,207 | 2,273 | 2,341 |
| Total Revenue Per Seat | \$9,279 | \$10,328 | \$11,300 | \$11,686 | \$12,037 |
| EBITDA Per Seat | | | | | |
| Restaurant (First Floor) | \$2,768 | \$3,484 | \$4,129 | \$4,277 | \$4,406 |
| Coffee Bar / Bar (First Floor) | 2,445 | 3,301 | 3,995 | 4,279 | 4,559 |
| Terrace over 1st Floor | 715 | 902 | 1,185 | 1,220 | 1,257 |
| Ground Floor Lounge | 6,140 | 6,871 | 8,105 | 8,415 | 8,667 |
| Ballroom | 2,730 | 3,691 | 5,069 | 5,221 | 5,378 |
| Junior Ballroom | 1,958 | 2,268 | 3,271 | 3,369 | 3,470 |
| Pool/Outdoor Area | 2,977 | 3,439 | 3,931 | 4,069 | 4,191 |
| Boardroom | 666 | 771 | 883 | 909 | 936 |
| Total EBITDA Per Seat | \$2,535 | \$3,109 | \$3,858 | \$4,001 | \$4,134 |
| Margins | | | | | |
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Restaurant (First Floor) | 21.0% | 23.0% | 26.0% | 26.0% | 26.0% |
| Coffee Bar / Bar (First Floor) | 22.0% | 26.0% | 28.0% | 29.0% | 30.0% |
| Terrace over 1st Floor | 28.0% | 30.0% | 34.0% | 34.0% | 34.0% |
| Ground Floor Lounge | 28.0% | 30.0% | 34.0% | 34.0% | 34.0% |
| Ballroom | 32.0% | 36.0% | 42.0% | 42.0% | 42.0% |
| Junior Ballroom | 32.0% | 36.0% | 42.0% | 42.0% | 42.0% |
| Pool/Outdoor Area | 32.0% | 35.0% | 38.0% | 38.0% | 38.0% |
| Boardroom | 32.0% | 36.0% | 40.0% | 40.0% | 40.0% |
| Total Margins | 27.3% | 30.1% | 34.1% | 34.2% | 34.3% |

Eagle Ridge Development Model

Unique Guest Count - Full Service

The following illustrates the number of unique guests by hotel use.

The top section below tabulates the number of annual guests by hotel use (See F&B buildup for assumptions). The Unique Discount Factor section estimates the percentage of hotel guests by use that are unique visitors to the hotel (assuming 100% of the hotel guests are unique, as compared to an estimated 30.0% of restaurant guests being unique, with the balance already being captured in the hotel guest count).

| Guest Count | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|--|----------------|----------------|----------------|----------------|----------------|
| Hotel Rooms Occupied ⁽¹⁾ | 20,593 | 22,586 | 24,081 | 25,243 | 25,243 |
| Restaurant (First Floor) | 92,656 | 101,882 | 103,874 | 104,571 | 104,571 |
| Coffee Bar / Bar (First Floor) | 57,278 | 62,621 | 67,449 | 67,798 | 67,798 |
| Terrace over 1st Floor | 12,775 | 14,600 | 16,425 | 16,425 | 16,425 |
| Ground Floor Lounge | 3,089 | 3,388 | 3,612 | 3,787 | 3,787 |
| Ballroom | 14,820 | 17,290 | 19,760 | 19,760 | 19,760 |
| Junior Ballroom | 6,500 | 6,500 | 7,800 | 7,800 | 7,800 |
| Pool/Outdoor Area | 63,062 | 63,690 | 64,160 | 64,527 | 64,527 |
| Boardroom | 1,560 | 1,560 | 1,560 | 1,560 | 1,560 |
| TOTAL | 272,333 | 294,116 | 308,721 | 311,471 | 311,471 |
| Unique Discount Factor⁽²⁾ | | | | | |
| Hotel Guests | 100% | 100% | 100% | 100% | 100% |
| Restaurant (First Floor) | 30% | 30% | 30% | 30% | 30% |
| Coffee Bar / Bar (First Floor) | 20% | 20% | 20% | 20% | 20% |
| Terrace over 1st Floor | 25% | 25% | 25% | 25% | 25% |
| Ground Floor Lounge | 30% | 30% | 30% | 30% | 30% |
| Ballroom | 25% | 25% | 25% | 25% | 25% |
| Junior Ballroom | 15% | 15% | 15% | 15% | 15% |
| Pool/Outdoor Area | 25% | 25% | 25% | 25% | 25% |
| Boardroom | 10% | 10% | 10% | 10% | 10% |
| Unique Guest Count | | | | | |
| Hotel Guests | 20,593 | 22,586 | 24,081 | 25,243 | 25,243 |
| Restaurant (First Floor) | 27,797 | 30,565 | 31,162 | 31,371 | 31,371 |
| Coffee Bar / Bar (First Floor) | 11,456 | 12,524 | 13,490 | 13,560 | 13,560 |
| Terrace over 1st Floor | 3,194 | 3,650 | 4,106 | 4,106 | 4,106 |
| Ground Floor Lounge | 927 | 1,016 | 1,084 | 1,136 | 1,136 |
| Ballroom | 3,705 | 4,323 | 4,940 | 4,940 | 4,940 |
| Junior Ballroom | 975 | 975 | 1,170 | 1,170 | 1,170 |
| Pool/Outdoor Area | 15,765 | 15,922 | 16,040 | 16,132 | 16,132 |
| Boardroom | 156 | 156 | 156 | 156 | 156 |
| Total Unique Guests | 84,568 | 91,717 | 96,229 | 97,814 | 97,814 |
| Daily Average - Hotel | 56 | 62 | 66 | 69 | 69 |
| Daily Average - F&B/Meeting Space | 175 | 189 | 198 | 199 | 199 |
| Daily Average - Total | 232 | 251 | 264 | 268 | 268 |

(1) Based on the number of occupied rooms in full-service proforma.

(2) Factor applied to guest count to account for unique guests visiting the various hotel facilities.

Eagle Ridge Development Model

Parking Lot Utilization - Full Service

The following builds up the annual number of cars parked by hotel use.

Building off the unique guest count by use, a Unique Guest Parking Capture Rate was estimated and applied, with the Capture Rate representing the estimated percentage of unique guests that utilize the guest parking and also factors in a further discount under the assumption that certain cars will arrive with multiple unique guests.

Similar to the Unique Guest build-up, it was assumed that social functions (which will be largely held in the larger meeting rooms and the ballroom) will generate higher levels of parking capture, however this is offset by an assumption that many cars will carry multiple guests for such functions.

| Unique Guest Count | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---------------|---------------|---------------|---------------|---------------|
| Hotel Rooms Occupied ⁽¹⁾ | 20,593 | 22,586 | 24,081 | 25,243 | 25,243 |
| Restaurant (First Floor) | 27,797 | 30,565 | 31,162 | 31,371 | 31,371 |
| Coffee Bar / Bar (First Floor) | 11,456 | 12,524 | 13,490 | 13,560 | 13,560 |
| Terrace over 1st Floor | 3,194 | 3,650 | 4,106 | 4,106 | 4,106 |
| Ground Floor Lounge | 927 | 1,016 | 1,084 | 1,136 | 1,136 |
| Ballroom | 3,705 | 4,323 | 4,940 | 4,940 | 4,940 |
| Junior Ballroom | 975 | 975 | 1,170 | 1,170 | 1,170 |
| Pool/Outdoor Area | 15,765 | 15,922 | 16,040 | 16,132 | 16,132 |
| Boardroom | 156 | 156 | 156 | 156 | 156 |
| TOTAL | 84,568 | 91,717 | 96,229 | 97,814 | 97,814 |
| Unique Guests Parking Capture Rate ⁽²⁾ | | | | | |
| Hotel Rooms Occupied | 45% | 45% | 45% | 45% | 45% |
| Restaurant (First Floor) | 35% | 35% | 35% | 35% | 35% |
| Coffee Bar / Bar (First Floor) | 20% | 20% | 20% | 20% | 20% |
| Terrace over 1st Floor | 15% | 15% | 15% | 15% | 15% |
| Ground Floor Lounge | 35% | 35% | 35% | 35% | 35% |
| Ballroom | 45% | 45% | 45% | 45% | 45% |
| Junior Ballroom | 35% | 35% | 35% | 35% | 35% |
| Pool/Outdoor Area | 35% | 35% | 35% | 35% | 35% |
| Boardroom | 15% | 15% | 15% | 15% | 15% |
| Unique Guests Parking Capture Amount | | | | | |
| Hotel Rooms Occupied | 9,267 | 10,164 | 10,836 | 11,360 | 11,360 |
| Restaurant (First Floor) | 9,729 | 10,698 | 10,907 | 10,980 | 10,980 |
| Coffee Bar / Bar (First Floor) | 2,291 | 2,505 | 2,698 | 2,712 | 2,712 |
| Terrace over 1st Floor | 479 | 548 | 616 | 616 | 616 |
| Ground Floor Lounge | 324 | 356 | 379 | 398 | 398 |
| Ballroom | 1,667 | 1,945 | 2,223 | 2,223 | 2,223 |
| Junior Ballroom | 341 | 341 | 410 | 410 | 410 |
| Pool/Outdoor Area | 5,518 | 5,573 | 5,614 | 5,646 | 5,646 |
| Boardroom | 23 | 23 | 23 | 23 | 23 |
| Total Cars Parked | 29,640 | 32,152 | 33,706 | 34,367 | 34,367 |
| Daily Average - Hotel | 25 | 28 | 30 | 31 | 31 |
| Daily Average - Outlets | 50 | 54 | 55 | 56 | 56 |
| Daily Average - Meeting Space | 6 | 6 | 7 | 7 | 7 |
| Daily Average - Total | 81 | 88 | 92 | 94 | 94 |

(1) Based on the number of occupied rooms in full-service proforma.

(2) Factor applied to account for percentage of unique guests utilizing guest parking, and further discounted to account for vehicles with multiple occupants.

FTE Analysis - Boutique + Apartments

The following provides the total building-wide FTEs and the Maximum FTEs on-site at any one time

| Department | Total FTEs on Average | | | Maximum FTEs On-Site | | |
|------------------------|-----------------------|----------------|------------|----------------------|----------------|------------|
| | Hotel FTEs | Apartment FTEs | Total FTEs | Hotel FTEs | Apartment FTEs | Total FTEs |
| Front Desk / Lobby | 8 | 3 | 11 | 6 | 1 | 7 |
| Rooms ⁽¹⁾ | 10 | 2 | 12 | 9 | 1 | 10 |
| Food & Beverage | 61 | 0 | 61 | 100 | 0 | 100 |
| Admin & General | 10 | 1 | 11 | 10 | 1 | 11 |
| Sales and Marketing | 9 | 1 | 10 | 9 | 1 | 10 |
| Repair and Maintenance | 9 | 1 | 10 | 6 | 2 | 8 |
| Parking/Valet | 8 | 0 | 8 | 10 | 0 | 10 |
| Other | 6 | 2 | 8 | 8 | 2 | 10 |
| Total Hotel | 121 | 10 | 131 | 158 | 8 | 166 |

(1) Assumes 30 minutes of housekeeping per room, for 91 rooms, at a Year 5 Occupancy of 76.0% plus common area cleaning for the apartment component

Comp Set Overview - Boutique

Eagle Ridge Development Model

The competitive set comprises 5 hotels with an average key count of 157 rooms

| Hotel | Street Address | Rooms | Opening Date | Meeting Space |
|---------------------------------------|--|-------|--------------|---------------|
| Delamar Greenwich Harbor Hotel | 500 Steamboat Rd, Greenwich, CT 06830 | 82 | Oct 2002 | 2,350 |
| The J House Greenwich | 1114 E Putnam Ave, Riverside, CT 06878 | 86 | May 2012 | 3,593 |
| Hotel Zero Degrees Stamford | 909 Washington Blvd, Stamford, CT 06901 | 97 | Oct 2009 | 1,000 |
| Doral Arrowwood | 975 Anderson Hill Rd, Rye Brook, NY 10573 | 374 | Jun 1983 | 37,600 |
| Ritz-Carlton The New York Westchester | 3 Renaissance Square, White Plains, NY 10601 | 146 | Dec 2007 | 12,073 |

| STR Comp Set | 2014 | 2015 | 2016 | TTM 9/2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|--------------|----------|----------|----------|------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Occupancy | 62.5% | 62.0% | 63.4% | 64.0% | 64.4% | 64.4% | 64.7% | 64.9% | 65.0% | 65.0% | 65.0% | 65.0% |
| Growth | 5.3% | -0.8% | 2.3% | 0.9% | 0.7% | -0.1% | 0.5% | 0.3% | 0.1% | 0.0% | 0.0% | 0.0% |
| ADR | \$220.48 | \$217.79 | \$202.92 | \$206.50 | \$209.39 | \$213.37 | \$215.50 | \$217.01 | \$218.10 | \$222.46 | \$226.91 | \$231.45 |
| Growth | 0.9% | -1.2% | -6.8% | 1.8% | 1.4% | 1.9% | 1.0% | 0.7% | 0.5% | 2.0% | 2.0% | 2.0% |
| RevPAR | \$137.83 | \$135.00 | \$128.73 | \$132.16 | \$134.95 | \$137.37 | \$139.44 | \$140.84 | \$141.69 | \$144.52 | \$147.41 | \$150.36 |
| Growth | 6.2% | -2.1% | -4.6% | 2.7% | 2.1% | 1.8% | 1.5% | 1.0% | 0.6% | 2.0% | 2.0% | 2.0% |

Eagle Ridge Hotel Projections - Boutique with Apartments (Hotel Only)

| | | | | | |
|-------------------|----------|----------|----------|----------|----------|
| Occupancy | 62.0% | 68.0% | 72.5% | 76.0% | 76.0% |
| ADR | \$238.00 | \$252.28 | \$264.89 | \$275.49 | \$286.51 |
| Growth | | 6.0% | 5.0% | 4.0% | 4.0% |
| RevPAR | \$147.56 | \$171.55 | \$192.05 | \$209.37 | \$217.75 |
| Growth | | 7.0% | 6.0% | 5.0% | 3.0% |
| Penetration Index | | | | | |
| Occupancy | 95.5% | 104.7% | 111.6% | 117.0% | 117.0% |
| ADR | 109.7% | 115.7% | 119.1% | 121.4% | 123.8% |
| RevPAR | 104.8% | 121.1% | 132.9% | 142.0% | 144.8% |

Source: STR Report as of November 2017

Occupancy and ADR projections as per CBRE Hotel Horizons August 2018 estimates for New York State; Projections after 2022 as per JF Capital assumptions

Eagle Ridge Development Model

Debt Refinancing Analysis - Debt Yield - Boutique + Apartments

(\$ in thousands, except per key amounts)

- The analysis below illustrates a refinancing each year at an implied debt yield of 9.0% and the refinancing excess / (shortfall) to the debt

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|-------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Total Debt | \$47,390 | \$47,081 | \$46,751 | \$46,400 | \$46,026 |
| EBITDA | 3,812 | 5,048 | 6,140 | 6,674 | 6,971 |
| FF&E Reserve | 327 | 552 | 808 | 871 | 919 |
| NOI | \$3,485 | \$4,496 | \$5,332 | \$5,803 | \$6,052 |
| Debt Yield | 7.4% | 9.6% | 11.4% | 12.5% | 13.1% |
| NOI | | | | | |
| <i>Assumed Debt Yield</i> | <i>\$3,485</i> | <i>\$4,496</i> | <i>\$5,332</i> | <i>\$5,803</i> | <i>\$6,052</i> |
| New Loan Proceeds | \$38,721 | \$49,960 | \$59,245 | \$64,480 | \$67,243 |
| Fees ⁽¹⁾ | (1,162) | (1,499) | (1,777) | (1,934) | (2,017) |
| Net Proceeds | \$37,560 | \$48,461 | \$57,468 | \$62,546 | \$65,226 |
| Refinancing Excess/(Shortfall) (\$) | (\$9,830) | \$1,380 | \$10,717 | \$16,146 | \$19,200 |
| Refinancing Excess/(Shortfall) (%) | -20.7% | 2.9% | 22.9% | 34.8% | 41.7% |
| Refinancing Per Key (91 keys) | \$425,510 | \$549,006 | \$651,043 | \$708,572 | \$738,933 |
| Implied Refinancing EBITDA Multiple | 10.2x | 9.9x | 9.6x | 9.7x | 9.6x |

Source: JF Capital Projections

(1) New Debt fees of 3.0% per JF Capital assumption

Eagle Ridge Development Model

Debt Refinancing Analysis - Debt Constant - Boutique + Apartments

(\$ in thousands, except per key amounts)

- The analysis below illustrates a refinancing each year at an implied debt constant of 6.5% and the refinancing excess / (shortfall) to the debt

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|--|------------------|------------------|------------------|------------------|------------------|
| Total Debt | \$47,390 | \$47,081 | \$46,751 | \$46,400 | \$46,026 |
| EBITDA | 3,812 | 5,048 | 6,140 | 6,674 | 6,971 |
| FF&E Reserve | 327 | 552 | 808 | 871 | 919 |
| NOI | \$3,485 | \$4,496 | \$5,332 | \$5,803 | \$6,052 |
| Debt Yield | 7.4% | 9.6% | 11.4% | 12.5% | 13.1% |
| NOI | \$3,485 | \$4,496 | \$5,332 | \$5,803 | \$6,052 |
| <i>Assumed DSCR</i> | 1.3x | 1.3x | 1.3x | 1.3x | 1.3x |
| <i>Assumed Debt Constant</i> | 6.5% | 6.5% | 6.5% | 6.5% | 6.5% |
| New Loan Proceeds | \$41,242 | \$53,211 | \$63,101 | \$68,677 | \$71,620 |
| Fees ⁽¹⁾ | (1,237) | (1,596) | (1,893) | (2,060) | (2,149) |
| Net Proceeds | \$40,005 | \$51,615 | \$61,208 | \$66,617 | \$69,471 |
| Refinancing Excess/(Shortfall) (\$) | (\$7,386) | \$4,534 | \$14,457 | \$20,217 | \$23,445 |
| Refinancing Excess/(Shortfall) (%) | -15.6% | 9.6% | 30.9% | 43.6% | 50.9% |
| Refinancing Per Key (91 keys) | \$453,206 | \$584,740 | \$693,418 | \$754,692 | \$787,029 |
| Implied Refinancing EBITDA Multiple | 10.8x | 10.5x | 10.3x | 10.3x | 10.3x |

Source: JF Capital Projections

(1) New Debt fees of 3.0% per JF Capital assumption

Summary Overview - Apartments

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Eagle Ridge Development Model

Apartments Buildup

The following is a buildup of the types and number of apartments in the residential component of the Eagle Ridge Development.

| Type | Bedrooms | Rent per Month | Average SF | Rent PSF Per Month | Number of Apartments | Dept. Profit Margin | Estimated Value Per Unit | Estimated Value PSF ⁽¹⁾ |
|---|----------|--------------------|------------|--------------------|----------------------|---------------------|--------------------------|------------------------------------|
| Market Rate | 1 | \$3,200 | 767 | \$4.17 | 40 | 95.0% | \$345,048 | \$450 |
| Market Rate | 2 | 4,250 | 1,210 | 3.51 | 14 | 95.0% | 544,584 | 450 |
| Market Rate | 2+ | 5,150 | 1,423 | 3.62 | 9 | 95.0% | 640,170 | 450 |
| Affordable Housing ⁽²⁾ | 1 | 1,384 | 767 | 1.80 | 4 | 90.0% | 76,677 | 100 |
| Affordable Housing ⁽²⁾ | 2 | 1,687 | 1,210 | 1.39 | 2 | 90.0% | 121,019 | 100 |
| Affordable Housing ⁽²⁾ | 2+ | 1,687 | 1,423 | 1.19 | 1 | 90.0% | 142,260 | 100 |
| Total / Weighted Average: | | \$3,492 | 962 | \$3.63 | 70 | 94.5% | \$398,266 | \$415 |
| Gross Annual Apartment Rent Revenue: | | \$2,933,364 | | | | | | |
| Year 1 Assumed Occupancy: | | 90.0% | | | | | | |
| Net Rental Revenue: | | \$2,640,028 | | | | | | |
| Total Annual Apartment Gross Profit: | | 2,494,826 | | | | | | |

(1) Estimated value assumes \$450 PSF for Market-Rate and \$100 PSF for Affordables as per comparables noted in back of model

(2) Affordable Housing rental rates as per Westchester County Planning Department - HOME Program 2018; 2+ Bedrooms assumes 2 Bedroom pricing

Eagle Ridge Development Model

Apartments Buildup

The following is a buildup of the types and dimensions in the residential component of the Eagle Ridge Development.

| 1 Bedroom | | | | | |
|-------------------------|-------|-----------|-----------|-----------------|-------------|
| Type | SF | 3rd Floor | 4th Floor | Penthouse Floor | Total Count |
| A | 1,034 | 2 | 2 | 0 | 4 |
| B | 720 | 2 | 0 | 0 | 2 |
| C | 759 | 2 | 0 | 0 | 2 |
| D | 682 | 2 | 6 | 0 | 8 |
| E | 702 | 1 | 4 | 0 | 5 |
| F | 782 | 1 | 0 | 0 | 1 |
| G | 741 | 2 | 0 | 0 | 2 |
| H | 712 | 4 | 0 | 0 | 4 |
| I | 751 | 1 | 0 | 0 | 1 |
| J | 1,116 | 1 | 1 | 0 | 2 |
| K | 856 | 2 | 2 | 0 | 4 |
| L | 674 | 0 | 5 | 0 | 5 |
| M | 662 | 0 | 0 | 1 | 1 |
| N | 709 | 0 | 0 | 2 | 2 |
| O | 709 | 0 | 0 | 1 | 1 |
| Weighted Average/Total: | 767 | 20 | 20 | 4 | 44 |
| Total 1 Bedroom SF: | | 15,783 | 15,166 | 2,789 | 33,738 |

Eagle Ridge Development Model

Apartments Buildup

The following is a buildup of the types and dimensions in the residential component of the Eagle Ridge Development.

| 2 Bedroom | | | | | |
|-------------------------|-------|-----------|-----------|-----------------|-------------|
| Type | SF | 3rd Floor | 4th Floor | Penthouse Floor | Total Count |
| A | 1,379 | 1 | 1 | 0 | 2 |
| B | 1,119 | 0 | 0 | 1 | 1 |
| C | 1,271 | 0 | 0 | 1 | 1 |
| D | 1,016 | 0 | 0 | 2 | 2 |
| E | 1,568 | 0 | 0 | 1 | 1 |
| F | 1,045 | 0 | 0 | 2 | 2 |
| G | 1,308 | 0 | 0 | 1 | 1 |
| H | 1,189 | 0 | 0 | 1 | 1 |
| I | 1,236 | 0 | 0 | 1 | 1 |
| J | 1,004 | 0 | 0 | 2 | 2 |
| K | 1,269 | 0 | 0 | 1 | 1 |
| L | 1,515 | 0 | 0 | 1 | 1 |
| Weighted Average/Total: | 1,210 | 1 | 1 | 14 | 16 |
| Total 2 Bedroom SF: | 1,379 | 1,379 | 1,379 | 16,605 | 19,363 |

Eagle Ridge Development Model

Apartments Buildup

The following is a buildup of the types and dimensions in the residential component of the Eagle Ridge Development.

| 2 Bedroom + Den | | | | | |
|-------------------------|-------|-----------|-----------|-----------------|-------------|
| Type | SF | 3rd Floor | 4th Floor | Penthouse Floor | Total Count |
| A | 1,456 | 1 | 0 | 0 | 1 |
| B | 1,496 | 1 | 0 | 0 | 1 |
| C | 1,362 | 1 | 1 | 0 | 2 |
| D | 1,499 | 1 | 1 | 0 | 2 |
| E | 1,378 | 1 | 1 | 0 | 2 |
| F | 1,379 | 0 | 1 | 0 | 1 |
| G | 1,417 | 0 | 1 | 0 | 1 |
| Weighted Average/Total: | 1,423 | 5 | 5 | 0 | 10 |
| Total 2+ Bedroom SF: | | 7,191 | 7,035 | 0 | 14,226 |

Eagle Ridge Development Model

Apartments Buildup

The following is a buildup of the types and dimensions in the residential component of the Eagle Ridge Development.

| Total Apartments | | | | | |
|-------------------------|------------|-----------|-----------|-----------------|-------------|
| Type | Average SF | 3rd Floor | 4th Floor | Penthouse Floor | Total Count |
| 1 Bed - MR | 767 | 16 | 20 | 4 | 40 |
| 2 Bed - MR | 1,210 | 0 | 0 | 14 | 14 |
| 2 Bed + Den - MR | 1,423 | 4 | 5 | 0 | 9 |
| 1 Bed - AH | 767 | 4 | 0 | 0 | 4 |
| 2 Bed - AH | 1,210 | 1 | 1 | 0 | 2 |
| 2 Bed + Den - AH | 1,423 | 1 | 0 | 0 | 1 |
| Weighted Average/Total: | 962 | 25 | 26 | 18 | 70 |
| Total | | 23,659 | 23,659 | 20,010 | 67,327 |

Summary Overview - Hotel

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Eagle Ridge Development Model

Hotel Keys - Buildup

The following is a buildup of the types of hotel rooms component of the Eagle Ridge Development.

| Type | Dimensions | SF | Count |
|--------------------------|---------------------|--------|-------|
| A | 12' 6" x 26' 6" | 331 | 21 |
| B | 12' 6" x 29' 6" | 368 | 6 |
| C | 13' 0" x 26' 6" | 344 | 16 |
| D | 13' 0" x 29' 6" | 384 | 6 |
| E | 12' 8" x 26' 6" | 336 | 6 |
| F | 12' 9" x 26' 6" | 338 | 3 |
| G | 12' 7-1/2" x 26' 6" | 334 | 28 |
| Presidential Suite | - | 1,139 | 1 |
| Suite 1 | - | 701 | 1 |
| Suite 2 | - | 675 | 3 |
| Weighted Average / Total | | 365 | 91 |
| Total Rooms | | 33,214 | |

Hotel + Apartment Tax Analysis

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Eagle Ridge Development Model

Tax Analysis - Updated

The following provides the projected occupancy and property taxes the municipality would receive in the 91 Room Boutique Hotel with 70 Apartments scenario.

The property taxes are based on illustrative preliminary assumptions of 2.25% of the Total Hard Cost of the Hotel, 2.25% of the value of the Affordable Apartments estimated at \$691,007, which is \$100 PSF and 2.25% of the value of the Market Rate Apartments, estimated at \$27,187,620, which is \$450 PSF.

Based on our 91 hotel room and 70 apartment financial model and pro forma, the municipality would receive Occupancy Taxes and Property Taxes as follows:

| 91 Room Boutique Hotel Scenario | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|--------------|---------------|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | 5-Year Total | 50-Year Total |
| Occupancy Tax to Armonk ⁽¹⁾ | \$147,036 | \$170,941 | \$191,366 | \$208,629 | \$216,974 | \$934,947 | \$9,349,470 |
| Total Property Tax ⁽²⁾ | 530,913 | 546,840 | 563,245 | 580,143 | 597,547 | 2,818,688 | 28,186,882 |
| Property Tax to Armonk ⁽³⁾ | 90,255 | 92,963 | 95,752 | 98,624 | 101,583 | 479,177 | 4,791,770 |
| Total Tax to Armonk | \$237,291 | \$263,904 | \$287,118 | \$307,253 | \$318,557 | \$1,414,124 | \$14,141,240 |
| 70 Apartment Scenario | | | | | | | |
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | 5-Year Total | 50-Year Total |
| Occupancy Tax to Armonk ⁽¹⁾ | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total Property Tax - Market Rate ⁽²⁾ | 611,721 | 630,073 | 648,975 | 668,445 | 688,498 | 3,247,712 | 32,477,123 |
| Total Property Tax - AFFH ⁽²⁾ | 15,548 | 16,014 | 16,495 | 16,989 | 17,499 | 82,545 | 825,446 |
| Property Tax to Armonk ⁽³⁾ | 106,636 | 109,835 | 113,130 | 116,524 | 120,019 | 566,144 | 5,661,437 |
| Total Tax to Armonk | \$106,636 | \$109,835 | \$113,130 | \$116,524 | \$120,019 | \$566,144 | \$5,661,437 |
| Total Boutique and Apartments Scenario | | | | | | | |
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | 5-Year Total | 50-Year Total |
| Occupancy Tax to Armonk ⁽¹⁾ | \$147,036 | \$170,941 | \$191,366 | \$208,629 | \$216,974 | \$934,947 | \$9,349,470 |
| Total Property Tax ⁽²⁾ | 1,158,182 | 1,192,927 | 1,228,715 | 1,265,577 | 1,303,544 | 6,148,945 | 61,489,451 |
| Property Tax to Armonk ⁽³⁾ | 196,891 | 202,798 | 208,882 | 215,148 | 221,602 | 1,045,321 | 10,453,207 |
| Total Tax to Armonk | \$343,927 | \$373,739 | \$400,248 | \$423,777 | \$438,577 | \$1,980,268 | \$19,802,677 |

Source: Town of North Castle, NY Tax Breakdown and IBM Learning Center Occupancy Tax Breakdown

(1) Calculated as 3% of the Rooms Revenue. Total Occupancy Taxes paid would be 3.0% to the City and 3.0% to the County. Assumed to be \$0 for the Residential Component.

(2) Total property taxes paid are calculated as 2.25% of the value of the hotel which is assumed to be 100% of the Total Hard cost of \$23,596,125. The apartment taxes based on assumptions of market value are calculated as 2.25% of the estimated value for the market rate apartments of \$450 psf and 2.25% for the affordable apartments of \$100 psf or a Total Value of \$27,878,627. Total Property taxes are growing at 3% per year in Years 2-5.

(3) Property taxes to Armonk are calculated as 17.0% of the Total Property Tax paid

Eagle Ridge Development Model

Competitive Set Hotels Property Taxes

The following details the property taxes that each of the following hotels that were assessed and paid in 2017

The property tax competitive set data below is taken from publicly available information for each of the municipalities

The Eagle Ridge pro forma Year 1 and Year 3 uses the assumed annual property taxes from the operating pro forma and shows the implied per key data

The Eagle Ridge assumed assessed value uses the hotel hard construction costs of \$23,596,125

If we use the standard mill rate of 2.25% on the Eagle Ridge Hotel's assumed assessed value, the resulting property taxes would be \$530,913, or \$5,834 per key

This would be well in excess of the comp set per key data for full service, boutique, and limited service hotels, which are \$2,206, \$3,192 and \$3,832 per key, respectively

| Hotel Type | Hotel Name | City | # of Rooms | Meeting Space | | Property Taxes | | Assessment | | Mill Rate |
|---|-----------------------------|---------------|------------|---------------|---------|----------------|---------|--------------|-----------|-----------|
| | | | | Total | Per Key | Total | Per Key | Total | Per Key | |
| Full Service | Hilton Westchester | Rye Brook | 445 | 30,000 | 67 | \$593,232 | \$1,333 | \$20,000,000 | \$44,944 | 2.97% |
| Full Service | Sheraton Tarrytown | Tarrytown | 150 | 1,452 | 10 | 571,625 | 3,811 | 19,657,200 | 131,048 | 2.91% |
| Full Service | Renaissance Westchester | West Harrison | 348 | 23,705 | 68 | 415,000 | 1,193 | 26,433,121 | 75,957 | 1.57% |
| Full Service | Doubletree Tarrytown | Tarrytown | 246 | 24,000 | 98 | 805,611 | 3,275 | 25,553,700 | 103,877 | 3.15% |
| Full Service | Westchester Marriott | Tarrytown | 444 | 26,676 | 60 | 1,204,953 | 2,714 | 38,988,400 | 87,812 | 3.09% |
| Full Service | Hyatt Greenwich | Old Greenwich | 373 | 35,000 | 94 | 835,519 | 2,240 | 100,887,400 | 270,476 | 0.83% |
| Average / Weighted Average: | | | 334 | 23,472 | 70 | \$767,189 | \$2,206 | \$41,014,639 | \$115,414 | 2.37% |
| Boutique | Doral Arrowwood Resort | Rye Brook | 374 | 37,600 | 101 | 758,392 | \$2,028 | \$17,886,600 | \$47,825 | 4.24% |
| Boutique | Castle Hotel and Spa | Tarrytown | 31 | 3,300 | 106 | 422,704 | 13,636 | 12,351,000 | 398,419 | 3.42% |
| Boutique | Ritz Carlton Westchester | White Plains | 146 | 12,073 | 83 | 551,693 | 3,779 | 66,000,000 | 452,055 | 0.84% |
| Boutique | J House Greenwich | Riverside | 86 | 3,593 | 42 | 149,486 | 1,738 | 18,545,700 | 215,648 | 0.81% |
| Boutique | Delamar Greenwich | Greenwich | 82 | 2,350 | 29 | 412,955 | 5,036 | 49,753,614 | 606,751 | 0.83% |
| Average / Weighted Average: | | | 144 | 11,783 | 82 | \$589,719 | \$3,192 | \$31,131,010 | \$228,841 | 2.71% |
| Limited Service | Residence Inn White Plains | White Plains | 134 | 280 | 2 | N/A | N/A | N/A | N/A | N/A |
| Limited Service | Hampton Inn White Plains | Elmsford | 156 | 2,815 | 18 | N/A | N/A | N/A | N/A | N/A |
| Limited Service | Hyatt House White Plains | White Plains | 159 | 1,288 | 8 | N/A | N/A | N/A | N/A | N/A |
| Limited Service | SpringHill Suites Tarrytown | Tarrytown | 145 | 350 | 2 | 644,608 | 4,446 | 21,314,700 | 146,998 | 3.02% |
| Limited Service | Courtyard Tarrytown | Tarrytown | 139 | 1,196 | 9 | 516,290 | 3,714 | 15,672,700 | 112,753 | 3.29% |
| Limited Service | Courtyard Rye | Rye | 145 | 1,308 | 9 | 483,000 | 3,331 | 11,500,000 | 79,310 | 4.20% |
| Average / Weighted Average: | | | 146 | 1,206 | 8 | \$548,409 | \$3,832 | \$16,169,317 | \$113,024 | 3.51% |
| Limited Service | La Quinta Armonk | Armonk | 208 | 12,154 | 53 | \$675,054 | \$2,814 | \$32,916,585 | \$140,973 | 2.72% |
| Limited Service | | | 140 | 4,300 | 31 | 307,622 | 2,197 | 10,357,627 | 73,983 | 2.97% |
| Eagle Ridge Development Pro Forma Year 1 ⁽¹⁾ : | | | 91 | 8,177 | 90 | \$530,913 | \$5,834 | \$23,596,125 | \$259,298 | |
| Eagle Ridge Development Pro Forma Year 3 ⁽¹⁾ : | | | 91 | 8,177 | 90 | \$563,245 | 6,190 | 23,596,125 | 259,298 | |
| Eagle Ridge Development at Mill Rate: | | | 91 | 8,177 | 90 | \$530,913 | 5,834 | 23,596,125 | 259,298 | 2.25% |

Source: scs.gov and individual town websites; There were three hotels in White Plains in the Limited Service competitive set for which the assessment and property tax information was unavailable and are marked "N/A" above

The property tax assumptions are illustrative preliminary estimates and the assessed value is based on the total hard construction costs for the hotel portion of the building

(1) The Eagle Ridge Development projections are all based on the hotel portion of the Total Hybrid scenario (assumes 91 hotel rooms).

Eagle Ridge Development Model

Competitive Set Hotels Property Taxes

The following compares the property taxes from each of the competitive sets to the assumed taxes in the Eagle Ridge proforma. The last three tables show each of the comp set property tax data versus Eagle Ridge at the standard mill rate with the same assessed value. The data shows that the pro forma Year 3 property taxes are in-line with each of the three comp sets. If we were to use the standard mill rate at the same assessed value, then the taxes would be well above the comparable hotels in the market

| Hotel Type | # of Rooms | Meeting Space | | Property Taxes | | Assessment | | Mill Rate |
|---|------------|---------------|-------------|-------------------|------------------|----------------------|--------------------|-----------|
| | | Total | Per Key | Total | Per Key | Total | Per Key | |
| Full Service Comp Set | 334 | 23,472 | 70 | \$767,189 | \$2,206 | \$41,014,639 | \$115,414 | 2.37% |
| Eagle Ridge Development Year 3 ⁽¹⁾ : | 91 | 8,177 | 90 | 563,245 | 6,190 | 23,596,125 | 259,298 | |
| Difference | 243 | 15,295 | -20 | \$203,943 | (\$3,983) | \$17,418,514 | (\$143,884) | |
| Boutique Comp Set | 144 | 11,783 | 82 | \$589,719 | \$3,192 | \$31,131,010 | \$228,841 | 2.71% |
| Eagle Ridge Development Year 3 ⁽¹⁾ : | 91 | 8,177 | 90 | 563,245 | 6,190 | 23,596,125 | 259,298 | |
| Difference | 53 | 3,606 | -8 | \$26,473 | (\$2,997) | \$7,534,885 | (\$30,457) | |
| Limited Service Comp Set | 146 | 1,206 | 8 | \$548,409 | \$3,832 | \$16,169,317 | \$113,024 | 3.51% |
| Eagle Ridge Development Year 3 ⁽¹⁾ : | 91 | 8,177 | 90 | 563,245 | 6,190 | 23,596,125 | 259,298 | |
| Difference | 55 | -6,971 | (82) | (\$14,836) | (\$2,358) | (\$7,426,808) | (\$146,274) | |
| Full Service Comp Set | 334 | 23,472 | 70 | \$767,189 | \$2,206 | \$41,014,639 | \$115,414 | 2.37% |
| Eagle Ridge Development at Mill Rate: | 91 | 8,177 | 90 | 530,913 | 5,834 | 23,596,125 | 259,298 | 2.25% |
| Difference | 243 | 15,295 | -20 | \$236,276 | (\$3,628) | \$17,418,514 | (\$143,884) | |
| Boutique Comp Set | 144 | 11,783 | 82 | \$589,719 | \$3,192 | \$31,131,010 | \$228,841 | 2.71% |
| Eagle Ridge Development at Mill Rate: | 91 | 8,177 | 90 | 530,913 | 5,834 | 23,596,125 | 259,298 | 2.25% |
| Difference | 53 | 3,606 | -8 | \$58,806 | (\$2,642) | \$7,534,885 | (\$30,457) | |
| Limited Service Comp Set | 146 | 1,206 | 8 | \$548,409 | \$3,832 | \$16,169,317 | \$113,024 | 3.51% |
| Eagle Ridge Development at Mill Rate: | 91 | 8,177 | 90 | 530,913 | 5,834 | 23,596,125 | 259,298 | 2.25% |
| Difference | 55 | -6,971 | (82) | \$17,496 | (\$2,002) | (\$7,426,808) | (\$146,274) | |

Source: soc.gov and individual town websites; There were three hotels in White Plains in the Limited Service competitive set for which the assessment and property tax information was unavailable and are marked "NA" above

(1) The Eagle Ridge Development projections are all based on the hotel portion of the Total Hybrid scenario (assumes 91 hotel rooms).

The property tax assumptions are illustrative preliminary estimates and the assessed value is based on the total hard construction costs for the hotel portion of the building

Eagle Ridge Development Model

Multifamily Buildings Property Taxes - Comparables

The following details the 2017 tax assessments and property taxes for multifamily buildings in the area of the Eagle Ridge development

The property tax data below is compiled from publicly available information

The Eagle Ridge apartment taxes, based on assumptions of market value, are calculated as 2.25% of the estimated value for the market rate apartments of \$27,187,620 and 2.25% of the value of the affordable apartments of \$691,007; The Total Value of the Market and Affordable Apartments is \$27,878,627. Total Property taxes are growing at 3% per year in Years 2-5.

| Property Name | Address | City | # of Units | Property Taxes | | Assessment | | Mill Rate |
|---|---|--------------|------------|----------------|----------|---------------|-----------|-----------|
| | | | | Total | Per Unit | Total | Per Unit | |
| 15 Bank Apartments Continuum | 15 Bank Street, White Plains, NY 10606 | White Plains | 501 | 3,640,000 | 7,265 | 132,363,635 | 264,199 | 2.75% |
| Avalon White Plains | 55 Bank St, White Plains, NY 10606 | White Plains | N/A | N/A | N/A | N/A | N/A | N/A |
| Windsor The Gramercy | 27 Baker Ave, White Plains, NY 10601 | White Plains | 407 | 2,249,000 | 5,526 | 81,781,818 | 200,938 | 2.75% |
| One City Place | 2 Canfield Ave, White Plains, NY 10601 | White Plains | 260 | 1,825,000 | 7,019 | 66,363,636 | 255,245 | 2.75% |
| 20 Old Mamaroneck | One City Pl, White Plains, NY 10601 | White Plains | N/A | N/A | N/A | N/A | N/A | N/A |
| La Gianna | 20 Old Mamaroneck, White Plains, NY 1060 | White Plains | 55 | 325,000 | 5,909 | 11,818,181 | 214,876 | 2.75% |
| APEX at 290 | 10 Dekalb Ave, White Plains, NY 10605 | White Plains | 56 | 335,000 | 5,982 | 12,181,818 | 217,532 | 2.75% |
| Avalon Green | 290 E Main St, Elmsford, NY 10523 | Elmsford | 81 | 526,125 | 6,495 | 17,352,400 | 214,227 | 3.03% |
| | 500 Town Green Drive, Elmsford, NY, 1052; | Elmsford | 617 | 3,941,600 | 6,388 | 130,000,000 | 210,697 | 3.03% |
| Average / Weighted Average: | | | 282 | \$2,895,651 | \$6,496 | \$101,063,051 | \$228,559 | 2.85% |
| Eagle Ridge Development Pro Forma Year 1: | | | | | | | | |
| Eagle Ridge Development Pro Forma Year 3: | | | 70 | \$627,269 | \$8,961 | \$27,878,627 | \$398,266 | 2.25% |
| | | | 70 | 665,470 | 9,507 | 27,878,627 | 398,266 | 2.39% |

Source: Property assessments and property tax information websites

Eagle Ridge Development Model

DEIS Tax Breakdown - For Discussion Purposes Only

The following provides an overview of the proposed property taxes to be generated by the Hotel at the Eagle Ridge Development broken out by taxing jurisdiction

| | |
|--|--------------|
| | Hotel |
| Market Value ⁽¹⁾ | \$23,596,125 |
| Equalization Rate to Assessed Value | 2.26% |
| Taxable Assessed Value | 533,272 |
| Initial Estimated Taxes Paid (Nov 2018) ⁽³⁾ | 530,913 |
| Estimated Taxes Paid | 550,562 |

| Hotel Taxes | Taxable Assessed Value / Units | Rate per Unit/\$1000 | Tax Amount |
|-----------------------------|--------------------------------|----------------------|------------|
| Byram Hills School District | \$533,272 | 690.43412 | \$368,189 |
| Water District #4 | 533,272 | 0.348768 | 186 |
| Westchester County | 533,272 | 144.623171 | 77,124 |
| Town of North Castle | 533,272 | 168.322646 | 89,762 |
| Ambulance District #2 | 533,272 | 2.026351 | 1,081 |
| Fire District #2 | 533,272 | 16.767247 | 8,942 |
| Light District #2 | 533,272 | 2.436217 | 1,299 |
| Cap Bond | 533,272 | 7.46341 | 3,980 |
| Sewer (O&M) ⁽²⁾ | N/A | N/A | N/A |
| Zoning ⁽²⁾ | N/A | 126.120297 | N/A |
| Total: | | | \$550,562 |

(1) Estimated Market Value used solely for informational purposes in initial discussions with Town of North Castle Tax Assessor in November 2018 and not to be relied upon for any tax matter

(2) Sewer O&M and Zoning Units / Rates to be discussed and finalized with Town Attorney at a later date

(3) Initial Estimated Taxes paid amount used solely for informational purposes in initial tax discussions with Town of North Castle Assessor in November 2018 and not to be relied upon for any tax matter

Eagle Ridge Development Model

DEIS Tax Breakdown - For Discussion Purposes Only

The following provides an overview of the proposed property taxes to be generated by the Market-Rate Apartments at the Eagle Ridge Development broken out by taxing jurisdiction

| | Market-Rate Apartments | |
|--|--------------------------------|-------------------------------------|
| | Market Value ⁽¹⁾ | Equalization Rate to Assessed Value |
| Taxable Assessed Value | \$27,187,620 | 2.26% |
| Initial Estimated Taxes Paid (Nov 2018) ⁽³⁾ | 611,721 | |
| Estimated Taxes Paid | 634,362 | |
| Market Rate Apartment Taxes | | |
| Market Rate Apartment Taxes | Taxable Assessed Value / Units | Rate per Unit/\$1000 |
| Byram Hills School District | \$614,440 | 690.43412 |
| Water District #4 | 614,440 | 0.348768 |
| Westchester County | 614,440 | 144.623171 |
| Town of North Castle | 614,440 | 168.322646 |
| Ambulance District #2 | 614,440 | 2.026351 |
| Fire District #2 | 614,440 | 16.767247 |
| Light District #2 | 614,440 | 2.436217 |
| Cap Bond | 614,440 | 7.46341 |
| Sewer (O&M) ⁽²⁾ | N/A | N/A |
| Zoning ⁽²⁾ | N/A | 126.120297 |
| Total: | | \$634,362 |

(1) Estimated Market Value used solely for informational purposes in initial discussions with Town of North Castle Tax Assessor in November 2018 and not to be relied upon for any tax matter

(2) Sewer O&M and Zoning Units / Rates to be discussed and finalized with Town Attorney at a later date

(3) Initial Estimated Taxes paid amount used solely for informational purposes in initial tax discussions with Town of North Castle Assessor in November 2018 and not to be relied upon for any tax matter

Eagle Ridge Development Model

DEIS Tax Breakdown - For Discussion Purposes Only

The following provides an overview of the proposed property taxes to be generated by the Affordable-Rate Apartments at the Eagle Ridge Development broken out by taxing jurisdiction

| | Affordable Apartments | |
|--|--------------------------------|-------------------------------------|
| | Market Value ⁽¹⁾ | Equalization Rate to Assessed Value |
| Taxable Assessed Value | \$691,007 | 2.26% |
| Initial Estimated Taxes Paid (Nov 2018) ⁽³⁾ | 15,548 | |
| Estimated Taxes Paid | 16,123 | |
| Affordable Rate Apartment Taxes | | |
| Affordable Rate Apartment Taxes | Taxable Assessed Value / Units | Rate per Unit/\$1000 |
| Byram Hills School District | \$15,617 | 690.43412 |
| Water District #4 | 15,617 | 0.348768 |
| Westchester County | 15,617 | 144.623171 |
| Town of North Castle | 15,617 | 168.322646 |
| Ambulance District #2 | 15,617 | 2.026351 |
| Fire District #2 | 15,617 | 16.767247 |
| Light District #2 | 15,617 | 2.436217 |
| Cap Bond | 15,617 | 7.46341 |
| Sewer (O&M) ⁽²⁾ | N/A | N/A |
| Zoning ⁽²⁾ | N/A | 126.120297 |
| Total: | | \$16,123 |

(1) Estimated Market Value used solely for informational purposes in initial discussions with Town of North Castle Tax Assessor in November 2018 and not to be relied upon for any tax matter

(2) Sewer O&M and Zoning Units / Rates to be discussed and finalized with Town Attorney at a later date

(3) Initial Estimated Taxes paid amount used solely for informational purposes in initial tax discussions with Town of North Castle Assessor in November 2018 and not to be relied upon for any tax matter

APPENDIX

Comparables

Courtyard Tarrytown Greenburgh
Hampton White Plains Tarrytown
Courtyard Rye
Delamar Greenwich Harbor
Doral Arrowwood Hotel
Renaissance Westchester
La Quinta Inn & Suites Armonk



CAPITAL ADVISORS

Eagle Ridge Development Model

Operating Statistics

The following shows the projected operating statistics for the proposed Eagle Ridge Hotel in the Full Service, Boutique, Limited Service, and Boutique with Apartments scenarios and the comparable hotels.

| Occupancy | # of Rooms | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | | | | | | | | |
| Full Service - Year 3 ⁽¹⁾ | 300 | 69.0% | 69.0% | 69.0% | 69.0% | 69.0% | 69.0% | 69.0% | 69.0% | 69.0% |
| Boutique - Year 3 ⁽¹⁾ | 120 | 65.0% | 65.0% | 65.0% | 65.0% | 65.0% | 65.0% | 65.0% | 65.0% | 65.0% |
| Boutique with Apartments- Year 3 ⁽²⁾ | 91 | 72.5% | 72.5% | 72.5% | 72.5% | 72.5% | 72.5% | 72.5% | 72.5% | 72.5% |
| STR - Full Service | 334 | | | 69.1% | 70.7% | 69.9% | 71.7% | 76.5% | 73.9% | 71.1% |
| STR - Boutique | 157 | | | | 58.9% | 59.4% | 62.5% | 62.0% | 63.4% | 64.0% |
| Courtyard Tarrytown Greenburgh | 139 | 58.3% | 69.0% | 76.2% | 76.7% | 66.6% | 73.0% | 82.9% | 77.8% | 79.2% |
| Hampton White Plains Tarrytown | 156 | | | | 76.1% | 74.7% | 73.8% | | | |
| Courtyard Rye | 145 | | 74.0% | 75.0% | 71.0% | | | 73.9% | | |
| Delamar Greenwich Harbor | 82 | | | | | 67.1% | 70.6% | 71.1% | 72.0% | |
| Doral Arrowwood Hotel | 374 | 67.0% | 67.0% | 67.0% | 69.0% | 69.0% | | 67.0% | 69.0% | |
| Renaissance Westchester | 348 | | | | | | | 80.9% | 76.4% | 72.3% |
| La Quinta Inn & Suites Armonk | 140 | | | | | | 66.1% | 63.4% | 60.6% | 59.7% |

(1) Represents JF Capital Projections for Year 3

(2) Operating statistics are for the Boutique Hotel component only

Eagle Ridge Development Model

Operating Statistics

The following shows the projected operating statistics for the proposed Eagle Ridge Hotel in the Full Service, Boutique, Limited Service, and Boutique with Apartments scenarios and the comparable hotels.

| ADR | # of Rooms | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | | | | | | | | | | |
| Full Service - Year 3 ⁽¹⁾ | 300 | \$179.76 | \$179.76 | \$179.76 | \$179.76 | \$179.76 | \$179.76 | \$179.76 | \$179.76 | \$179.76 |
| Boutique - Year 3 ⁽¹⁾ | 120 | 255.99 | 255.99 | 255.99 | 255.99 | 255.99 | 255.99 | 255.99 | 255.99 | 255.99 |
| Boutique with Apartments- Year 3 ⁽²⁾ | 91 | 264.89 | 264.89 | 264.89 | 264.89 | 264.89 | 264.89 | 264.89 | 264.89 | 264.89 |
| STR - Full Service | 334 | | | 134.76 | 137.27 | 138.87 | 140.51 | 141.08 | 145.54 | 146.30 |
| STR - Boutique | 157 | | | | 216.31 | 218.54 | 220.48 | 217.79 | 202.92 | 206.50 |
| Courtyard Tarrytown Greenburgh | 139 | 122.64 | 118.57 | 117.59 | 125.52 | 140.09 | 141.12 | | | |
| Hampton White Plains Tarrytown | 156 | | | | 129.76 | 129.51 | 134.33 | 130.03 | 131.39 | 129.64 |
| Courtyard Rye | 145 | | 135.00 | 135.00 | 147.00 | | | | | |
| Delamar Greenwich Harbor | 82 | | | | | 308.83 | 310.16 | 313.20 | 333.60 | |
| Doral Arrowwood Hotel | 374 | 131.26 | 128.47 | 133.13 | 129.97 | 143.41 | | 151.00 | 111.75 | |
| Renaissance Westchester | 348 | | | | | | | 145.49 | 153.46 | 156.09 |
| La Quinta Inn & Suites Armonk | 140 | | | | | | 91.43 | 98.26 | 96.18 | 93.53 |

(1) Represents JF Capital Projections for Year 3

(2) Operating statistics are for the Boutique Hotel component only

Eagle Ridge Development Model

Operating Statistics

The following shows the projected operating statistics for the proposed Eagle Ridge Hotel in the Full Service, Boutique, Limited Service, and Boutique with Apartments scenarios and the comparable hotels.

| RevPAR | # of Rooms | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Full Service - Year 3 ⁽¹⁾ | 300 | \$124.03 | \$124.03 | \$124.03 | \$124.03 | \$124.03 | \$124.03 | \$124.03 | \$124.03 | \$124.03 |
| Boutique - Year 3 ⁽¹⁾ | 120 | 166.39 | 166.39 | 166.39 | 166.39 | 166.39 | 166.39 | 166.39 | 166.39 | 166.39 |
| Boutique with Apartments- Year 3 ⁽²⁾ | 91 | 192.05 | 192.05 | 192.05 | 192.05 | 192.05 | 192.05 | 192.05 | 192.05 | 192.05 |
| STR - Full Service | 334 | | | 93.15 | 97.03 | 97.05 | 100.70 | 107.97 | 107.54 | 104.02 |
| STR - Boutique | 157 | | | | 127.38 | 129.77 | 137.83 | 135.00 | 128.73 | 132.16 |
| Courtyard Tarrytown Greenburgh | 139 | 71.50 | 81.81 | 89.60 | 96.27 | 93.30 | 103.02 | | 102.22 | 102.67 |
| Hampton White Plains Tarrytown | 156 | | | | 98.75 | 96.74 | 99.14 | 107.79 | | |
| Courtyard Rye | 145 | | 99.90 | 101.25 | 104.37 | | | | | |
| Delamar Greenwich Harbor | 82 | | | | | 207.22 | 218.97 | 222.69 | 240.19 | |
| Doral Arrowwood Hotel | 374 | 87.94 | 86.08 | 89.20 | 89.68 | 98.95 | | 101.17 | 77.11 | |
| Renaissance Westchester | 348 | | | | | | | 117.70 | 117.24 | 93.53 |
| La Quinta Inn & Suites Armonk | 140 | | | | | | 60.44 | 62.30 | 58.29 | 55.84 |

(1) Represents JF Capital Projections for Year 3

(2) Operating statistics are for the Boutique Hotel component only

Courtyard Tarrytown Greenburgh

Address: 475 White Plains Road

Keys: 139

Food and Beverage: The Bistro - Open for breakfast and dinner

Meeting Space:

Sleepy Hollow Room

598

Kykuit Room

598

Total Meeting Space:

1,196

| | Total | Per Key |
|------------------|--------------|-----------|
| Loan | \$10,559,476 | \$75,967 |
| Mezz | 2,294,320 | 16,506 |
| Total | \$12,853,796 | \$92,473 |
| Appraisal | \$16,000,000 | \$115,108 |

| | 2009 | 2010 | 2011 | 2012 | 2013 | TTM 8/31/14 |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Occ | 58.3% | 69.0% | 76.2% | 76.7% | 66.6% | 73.0% |
| ADR | \$122.64 | \$118.57 | \$117.59 | \$125.52 | \$140.09 | \$141.12 |
| RevPAR | 71.50 | 81.81 | 89.60 | 96.27 | 93.30 | 103.02 |
| Revenue | \$3,889,723 | \$4,524,818 | \$4,962,679 | \$5,387,455 | \$5,276,659 | \$5,814,381 |
| EBITDA | 828,136 | 867,136 | 869,951 | 1,046,799 | 1,091,936 | 1,346,622 |
| Margin | 21.3% | 19.2% | 17.5% | 19.4% | 20.7% | 23.2% |

Source: Trepp

Hampton White Plains Tarrytown

| | |
|-----------------------------|---|
| Address: | 200 West Main Street |
| Notes: | Built in 1957, Renovated in 2016 |
| Keys: | 156 |
| Food and Beverage: | Hotel lounge serving breakfast and selling snacks |
| Meeting Space: | |
| Elmsford Room | 750 |
| Tarrytown Room | 1,015 |
| White Plains Room | 1,050 |
| Total Meeting Space: | 2,815 |

| | Total | Per Key | | | | |
|------------------|--------------|-------------|-------------|-------------|-------------|-------------------|
| Loan | \$20,723,000 | \$132,840 | | | | |
| Appraisal | \$25,000,000 | \$160,256 | | | | |
| (as of 5/1/2017) | | | | | | |
| | 2012 | 2013 | 2014 | 2015 | 2015 | TTM 4/2017 |
| Occ | 76.1% | 74.7% | 73.8% | 82.9% | 77.8% | 79.2% |
| ADR | \$129.76 | \$129.51 | \$134.33 | \$130.03 | \$131.39 | \$129.64 |
| RevPAR | 98.75 | 96.74 | 99.14 | 107.79 | 102.22 | 102.67 |
| Revenue | \$5,910,824 | \$5,702,120 | \$5,838,357 | \$6,433,587 | \$6,119,635 | \$6,093,577 |
| EBITDA | 1,912,854 | 1,553,738 | 1,675,752 | 2,126,219 | 1,694,359 | 1,725,125 |
| <i>Margin</i> | 32.4% | 27.2% | 28.7% | 33.0% | 27.7% | 28.3% |

Source: Trepp

Courtyard Rye

| | | | |
|-----------------------------|--|----------------|---------------------|
| Address: | 631 Midland Avenue | | |
| Notes: | Built 1988, Renovated 2009 | | |
| Keys: | 145 | | |
| Food and Beverage: | The Bistro - Open for breakfast and dinner | | |
| Meeting Space: | | | |
| Meeting Room A | 654 | | |
| Meeting Room B | 654 | | |
| Total Meeting Space: | 1,308 | | |
| | Total | Per Key | |
| Loan | \$7,978,480 | \$55,024 | |
| Appraisal | \$25,500,000 | \$175,862 | |
| (as of 3/1/2015) | | | |
| | 2013 | 2014 | T-12 2/28/15 |
| Revenue | \$6,624,269 | \$6,694,148 | \$5,838,357 |
| EBITDA | 2,324,186 | 2,400,280 | 1,675,752 |
| <i>Margin</i> | 35.1% | 35.9% | 28.7% |
| Occupancy | | | 73.9% |

Source: Trepp

Delamar Greenwich Hotel

Address: 500 Steamboat Road, Greenwich, CT 06830

Keys: 82

Food and Beverage:

l'escale - French Restaurant

The Lounge - Cocktail bar

Meeting Space:

Delamar Boardroom 350

Antibes Room 1,000

Deauville Room 1,000

Total Meeting Space: 2,350

| | Total | Per Key |
|----------------------|--------------|-----------|
| Mortgage Loan | \$35,500,000 | \$432,927 |
| Appraisal | 50,000,000 | 609,756 |

Delamar Greenwich Harbor

(\$ in thousands except ADR and RevPAR)(cept ADR and RevPAR)

| | Historicals | | | | | |
|-------------------------------|-------------|----------|----------|-------------|----------|--------|
| | 2013 | 2014 | 2015 | TTM 10/2016 | 2017 | |
| Number of Rooms | 82 | 82 | 82 | 82 | 82 | |
| Occupancy | 67.1% | 70.6% | 71.1% | 72.7% | 72.0% | |
| Growth (% p/a) | 5.2% | 5.2% | 0.7% | 3.0% | 1.3% | |
| ADR | \$308.83 | \$310.16 | \$313.20 | \$323.02 | \$333.60 | |
| Growth | 0.4% | 1.0% | 1.0% | 4.1% | 6.5% | |
| RevPAR | \$207.22 | \$218.97 | \$222.69 | \$234.84 | \$240.19 | |
| Growth | 5.7% | 5.7% | 1.7% | 7.2% | 7.9% | |
| Days Open | 365 | 365 | 365 | 365 | 365 | |
| Rooms Available | 29,930 | 29,930 | 29,930 | 29,930 | 29,930 | |
| Rooms Occupied | 20,083 | 21,131 | 21,280 | 21,759 | 21,550 | |
| Revenues | | | | | | |
| Rooms | \$ 6,203 | \$ 6,550 | \$ 6,661 | \$ 7,044 | \$ 7,189 | % |
| Food & Beverage | 74 | 72 | 75 | 79 | 976 | 68.5% |
| Other | 1,905 | 2,393 | 2,423 | 2,554 | 2,333 | 9.3% |
| Total Revenue | \$8,182 | \$9,015 | \$9,159 | \$9,677 | \$10,498 | 22.2% |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Distributed Expenses | | | | | | |
| Rooms | 1,716 | 1,815 | 1,858 | 1,869 | 1,956 | 27.2% |
| Food & Beverage | 30 | 29 | 29 | 37 | 0 | 0.0% |
| Other | 520 | 847 | 791 | 858 | 850 | 36.4% |
| Total Distributed Expenses | \$2,265 | \$2,691 | \$2,678 | \$2,764 | \$2,806 | 26.7% |
| | 27.7% | 29.9% | 29.2% | 28.6% | | |
| Distributed Profit | | | | | | |
| Rooms | 4,487 | 4,735 | 4,803 | 5,175 | 5,233 | 72.8% |
| Food & Beverage | 44 | 43 | 46 | 42 | 976 | 100.0% |
| Other | 1,386 | 1,546 | 1,632 | 1,696 | 1,483 | 63.6% |
| Operating Income | \$5,917 | \$6,324 | \$6,481 | \$6,913 | \$7,692 | 73.3% |
| | 72.3% | 70.1% | 70.8% | 71.4% | | |
| Undistributed Expenses | | | | | | |
| A&G | 0 | 0 | 0 | 0 | 1,052 | 10.0% |
| Sales and Marketing | 0 | 0 | 0 | 0 | 805 | 7.7% |
| Repairs | 0 | 0 | 0 | 0 | 418 | 4.0% |
| Energy | 0 | 0 | 0 | 0 | 180 | 1.7% |
| Franchise Fee | 0 | 0 | 0 | 0 | 0 | 0.0% |
| Total Undistributed Expenses | \$2,146 | \$2,220 | \$2,044 | \$2,216 | \$2,455 | 23.4% |
| | 26.2% | 24.6% | 22.3% | 22.9% | | |
| GOP | \$3,772 | \$4,104 | \$4,437 | \$4,696 | \$5,237 | 49.9% |
| | 46.1% | 45.5% | 48.4% | 48.5% | | |
| Management Fee | 188 | 206 | 206 | 227 | 315 | 3.0% |
| | 2.3% | 2.3% | 2.2% | 2.3% | | |
| Fixed Expenses | | | | | | |
| Property & Other Taxes | 188 | 186 | 191 | 209 | 236 | 2.2% |
| Insurance | 79 | 135 | 138 | 148 | 85 | 0.8% |
| Other | 33 | 23 | 23 | 15 | 752 | 7.2% |
| | 0.4% | 0.3% | 0.2% | 0.2% | | |
| Total Fixed Expenses | \$299 | \$344 | \$351 | \$372 | \$1,073 | 10.2% |
| | 3.7% | 3.8% | 3.8% | 3.8% | | |
| EBITDA | \$3,285 | \$3,553 | \$3,880 | \$4,097 | \$3,849 | 36.7% |
| | 40.1% | 39.4% | 42.4% | 42.3% | | |
| FF&E Reserve | 328 | 361 | 366 | 380 | 419 | 4.0% |
| | 4.0% | 4.0% | 4.0% | 3.9% | | |
| NOI | \$2,956 | \$3,193 | \$3,514 | \$3,717 | \$3,430 | 32.7% |
| | 36.1% | 35.4% | 38.4% | 38.4% | | |

Source: JPMDB 2017-C5 Mortgage Loan

Doral Arrowwood Hotel

Address: 975 Anderson Hill Road, Rye Brook, NY 10573

Keys: 374

Food and Beverage:

Mulligans Outdoor Café - café serving lunch outdoors

The Atrium - restaurant serving breakfast, lunch, and dinner

The PUB - wine and cocktail bar

Pool Bar - poolside bar serving drinks and snacks

Meeting Space:

Westchester Wing 30,000

Executive Boardroom 1,100

Ballroom 6,500

Total Meeting Space: 37,600

| | Total | Per Key |
|----------------------|--------------|-----------|
| Mortgage Loan | \$75,000,000 | \$200,535 |
| Appraisal | 158,000,000 | 422,460 |

Doral Arrowwood Hotel

| | Historicals | | | | | | | | | | | | | |
|------------------------------|-------------|----------|----------|----------|----------|----------|-----------|----------|--|--|--|--|--|--|
| | 2009 | 2010 | 2011 | 2012 | 2013 | 2015 | 2016 | 2017 | | | | | | |
| Number of Rooms | 374 | 374 | 374 | 374 | 374 | 374 | 374 | 374 | | | | | | |
| Occupancy | 67.0% | 67.0% | 67.0% | 69.0% | 69.0% | 67.0% | 69.0% | 59.7% | | | | | | |
| Growth | 0.0% | 0.0% | 0.0% | 3.0% | 0.0% | -2.9% | 3.0% | -13.5% | | | | | | |
| ADR | \$131.26 | \$128.47 | \$133.13 | \$129.97 | \$143.41 | \$151.00 | \$111.75 | \$156.00 | | | | | | |
| Growth | -2.1% | -2.1% | 3.6% | -2.4% | 10.3% | 5.3% | -26.0% | 39.6% | | | | | | |
| RevPAR | \$87.94 | \$86.08 | \$89.20 | \$89.68 | \$98.95 | \$101.17 | \$77.11 | \$93.13 | | | | | | |
| Growth | -2.1% | -2.1% | 3.6% | 0.5% | 10.3% | 2.2% | -23.8% | 20.8% | | | | | | |
| Days Open | 365 | 365 | 365 | 366 | 365 | 365 | 366 | 365 | | | | | | |
| Rooms Available | 136,510 | 136,510 | 136,510 | 136,884 | 136,510 | 136,510 | 136,884 | 136,510 | | | | | | |
| Rooms Occupied | 91,462 | 91,462 | 91,462 | 94,450 | 94,192 | 91,462 | 94,450 | 81,496 | | | | | | |
| Revenues | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | | | | | | |
| Rooms | 0 | 0 | 0 | 12,276 | 13,508 | 0 | 10,555 | 12,713 | | | | | | |
| Food & Beverage | 0 | 0 | 0 | 8,110 | 7,712 | 0 | 1,572 | 5,379 | | | | | | |
| Telephone | 0 | 0 | 0 | 30 | 18 | 0 | 0 | 0 | | | | | | |
| Other | 0 | 0 | 0 | 15,401 | 13,352 | 0 | 15,524 | 0 | | | | | | |
| Total Revenue | \$34,300 | \$33,573 | \$34,789 | \$35,816 | \$34,590 | \$32,626 | \$27,651 | N/A | | | | | | |
| Distributed Expenses | | | | | | | | | | | | | | |
| Rooms | 0 | 0 | 0 | 3,751 | 3,860 | 0 | 3,649 | 0 | | | | | | |
| Food & Beverage | 0 | 0 | 0 | 6,646 | 6,464 | 0 | 8,773 | 558.2% | | | | | | |
| Telephone | 0 | 0 | 0 | 252 | 278 | 0 | 127 | 0 | | | | | | |
| Other | 0 | 0 | 0 | 3,897 | 3,452 | 0 | 1,293 | 0 | | | | | | |
| Total Distributed Expenses | \$26,573 | \$26,942 | \$26,253 | \$14,547 | \$14,055 | \$26,050 | \$13,841 | \$0 | | | | | | |
| Distributed Profit | | | | | | | | | | | | | | |
| Rooms | 0 | 0 | 0 | 8,525 | 9,648 | 0 | 6,906 | 65.4% | | | | | | |
| Food & Beverage | 0 | 0 | 0 | 1,463 | 1,247 | 0 | (7,201) | -458% | | | | | | |
| Telephone | 0 | 0 | 0 | (222) | (260) | 0 | (127) | N/A | | | | | | |
| Other | 0 | 0 | 0 | 11,504 | 9,900 | 0 | 14,231 | 91.7% | | | | | | |
| Operating Income | \$7,727 | \$6,630 | \$8,535 | \$21,270 | \$20,535 | \$6,576 | \$13,809 | \$0 | | | | | | |
| Undistributed Expenses | | | | | | | | | | | | | | |
| A&G | N/A | N/A | N/A | 3,482 | 3,311 | N/A | 4,577 | N/A | | | | | | |
| Sales and Marketing | N/A | N/A | N/A | 1,898 | 1,981 | N/A | 368 | N/A | | | | | | |
| Repairs | N/A | N/A | N/A | 1,496 | 1,373 | N/A | 1,504 | N/A | | | | | | |
| Energy | N/A | N/A | N/A | 1,743 | 1,759 | N/A | 2,216 | N/A | | | | | | |
| Franchise Fee | N/A | N/A | N/A | 201 | 203 | N/A | 7 | N/A | | | | | | |
| Other | N/A | N/A | N/A | 0 | 0 | N/A | 829 | N/A | | | | | | |
| Total Undistributed Expenses | \$0 | \$0 | \$0 | \$8,820 | \$8,626 | \$0 | \$9,502 | \$0 | | | | | | |
| GOP | \$0 | \$0 | \$0 | \$12,450 | \$11,909 | \$0 | \$4,307 | \$0 | | | | | | |
| Management Fee | 0 | 0 | 0 | 1,433 | 1,384 | 0 | 1,106 | N/A | | | | | | |
| Fixed Expenses | | | | | | | | | | | | | | |
| Rent | N/A | N/A | N/A | 37 | 34 | N/A | 0 | N/A | | | | | | |
| Property & Other Taxes | N/A | N/A | N/A | 2,577 | 2,652 | N/A | 3,141 | N/A | | | | | | |
| Insurance | N/A | N/A | N/A | 212 | 195 | N/A | 495 | N/A | | | | | | |
| Total Fixed Expenses | \$0 | \$0 | \$0 | \$2,827 | \$2,880 | \$0 | \$3,634 | \$0 | | | | | | |
| EBITDA | \$7,727 | \$6,630 | \$8,535 | \$8,191 | \$7,645 | \$6,576 | (\$433) | N/A | | | | | | |
| FF&E Reserve | 1,372 | 1,343 | 1,392 | 1,433 | 1,384 | 1,305 | 1,717 | N/A | | | | | | |
| NOI | \$6,355 | \$5,287 | \$7,144 | \$6,758 | \$6,261 | \$5,271 | (\$2,150) | N/A | | | | | | |

Source: Tripp Loan Details

For Years 2009-2011 and 2015, RevPAR is calculated as 80% of Total Revenue divided by the number of available rooms. This is due to the fact that there is no financial data available for Rooms Revenue in those years, while the Total Revenue is stated. In 2012-2013 and 2016, the Rooms Revenue as a percentage of Total Revenue was between 34% and 39%. Therefore, we estimated the Rooms Revenue percentage to be approximately 35% in 2009-2011 and 2015 for calculation purposes.

Renaissance Westchester

General Information

Address: 80 West Red Oak Lane, West Harrison, NY 10604

Keys: 348

Food and Beverage:

Hive Living Room + Bar - restaurant serving breakfast, lunch, and dinner

Chef's Table - restaurant serving 5-7 course dinners

Meeting Space:

| | | | |
|-----------------|-------|-------------------|-------|
| Grand Ballroom | 6,460 | Hudson Room | 1,128 |
| Irving Room | 1,820 | Gallery | 272 |
| Greeley Room | 1,820 | Veranda | 336 |
| Cooper Room | 1,820 | Library | 288 |
| Masefield Room | 840 | Parlor | 506 |
| Hutchinson Room | 660 | Portico | 368 |
| Zenger Room | 589 | Red Oak Terrace | 2,772 |
| The Commons | 2,232 | Harrison Ballroom | 1,794 |

Total Meeting Space: 23,705

Renaissance Westchester

CONFIDENTIAL

Financial and Operating Information

(Revenue and EBITDA \$ in thousands)

The following details the operating statistics for the Renaissance Westchester Hotel, a 348-room hotel with 23,705 square feet of meeting space.

| | 2015 FY | 2016 Q1 | 2016 Q2 | 2016 Q3 | 2016 Q4 | 2016 FY | 2017 Q1 | 2017 Q2 | 2017 Q3 | 2017 Q4 | 2017 FY |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Occ | 80.9% | 60.7% | 83.1% | 80.7% | 72.6% | 76.4% | 66.1% | 79.7% | 76.1% | 71.6% | 72.3% |
| ADR | \$145.49 | \$138.66 | \$161.15 | \$158.87 | \$152.73 | \$153.46 | \$148.18 | \$161.67 | \$158.85 | \$153.69 | \$156.09 |
| RevPAR | 117.70 | 84.17 | 133.92 | 128.21 | 110.88 | 117.24 | 97.95 | 128.85 | 120.88 | 110.04 | 112.85 |
| Revenue | \$22,801 | \$4,410 | \$6,409 | \$5,779 | \$5,520 | \$22,118 | \$4,279 | \$6,432 | \$5,649 | \$5,535 | \$21,936 |
| EBITDA | 4,129 | 68 | 1,531 | 1,022 | 863 | 3,484 | (17) | 1,564 | 749 | 797 | 3,093 |
| Margin | 18.1% | 1.5% | 23.9% | 17.7% | 15.6% | 15.8% | -0.4% | 24.3% | 13.3% | 14.4% | 14.1% |

| | 2018 YTD | 2018 Q1 | 2018 Q2 |
|---------|----------|----------|----------|
| Occ | 75.1% | 69.7% | 80.4% |
| ADR | \$158.69 | \$148.90 | \$167.08 |
| RevPAR | 119.18 | 103.78 | 134.33 |
| Revenue | \$11,405 | \$4,761 | \$6,644 |
| EBITDA | 1,417 | 5 | 1,412 |
| Margin | 12.4% | 0.1% | 21.3% |

Eagle Ridge Development Model**Comp Set Overview - La Quinta Inn & Suites Armonk Westchester County**

- For the La Quinta Inn & Suites Armonk Westchester County Competitive Set, occupancy has averaged 72.8% with an average ADR of \$119.
 - Peak Occupancy for the La Quinta Inn & Suites on a TTM basis was in December 2014 at 66.1% with a corresponding ADR of \$91.
 - The latest TTM occupancy for the hotel as of October 2017 was 59.7% at an ADR of \$94.
 - In the competitive set, Tuesday and Wednesday have the highest occupancies at 78.9% and 78.0% and highest ADRs of \$129 and \$128.
 - Saturday occupancy is also very high at 76.3% at a \$116 ADR.
 - The weakest occupancy is Sunday at 54.3% at a \$111 ADR
 - Overall ADRs are not very variable, ranging from \$111 on Sunday to \$129 on Tuesday for the competitive set and \$91 on Sunday to \$99 on Saturday for the hotel itself.
 - The competitive set consists of 5 hotels with 598 rooms.
-

Eagle Ridge Development Model
Comp Set Overview - La Quinta Inn & Suites Armonk Westchester County

The following is an overview of the operating statistics of the competitive set for the La Quinta Inn & Suites Armonk Westchester County and the La Quinta Hotel.

| Hotel | Street Address | Meeting Space | |
|--|---|---------------|---------|
| | | Rooms | Per Key |
| La Quinta Inn & Suites Armonk Westchester Holiday Inn Mount Kisco Westchester Hampton Inn White Plains Tarrytown Super 8 Stamford Comfort Inn & Suites Hawthorne | 20 Saw Mill River Rd, Hawthorne, NY 10532 | 140 | 4,300 |
| | 1 Holiday Inn Dr, Mt Kisco, NY 10549 | 118 | 6,000 |
| | 200 W Main St, Elmsford, NY 10523 | 156 | 2,800 |
| | 32 Grenhart Rd, Stamford, CT 06902 | 99 | 0 |
| | 20 Saw Mill River Rd, Hawthorne, NY 10532 | 85 | 600 |
| Total/Average: | | 598 | 2,740 |
| | | | 21 |

| STR Comp Set ⁽¹⁾ | 2014 | | 2015 | | 2016 | | TTM 9/2017 | |
|-----------------------------|-----------|--------|-----------|--------|-----------|--------|------------|------------|
| | Occupancy | Growth | Occupancy | Growth | Occupancy | Growth | TTM 9/2017 | TTM 9/2017 |
| ADR | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| RevPAR | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Growth | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| La Quinta Inn & Suites Armonk Westchester | 2014 | | 2015 | | 2016 | | TTM 9/2017 | |
|---|-----------|--------|-----------|--------|-----------|--------|------------|------------|
| | Occupancy | Growth | Occupancy | Growth | Occupancy | Growth | TTM 9/2017 | TTM 9/2017 |
| ADR | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| RevPAR | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Growth | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| Penetration Index | 2014 | | 2015 | | 2016 | | TTM 9/2017 | |
|-------------------|-----------|-----|-----------|-----|-----------|-----|------------|------------|
| | Occupancy | ADR | Occupancy | ADR | Occupancy | ADR | TTM 9/2017 | TTM 9/2017 |
| RevPAR | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

APPENDIX

Apartment Comparables

Metro White Plains
Comp Set Analysis
Wampus Mills Development



CAPITAL ADVISORS

The Metro White Plains

| | 2017 | TTM May 2018 | As-Is Underwritten ⁽¹⁾ | As-Is Per Unit | As-Stabilized Underwritten ⁽²⁾ | As-Stabilized Appraisal |
|-------------------------------|--------------------|--------------------|--------------------------------------|-----------------|--|----------------------------|
| Gross Potential Rent | \$3,751,821 | \$3,765,946 | \$3,748,886 | \$30,233 | \$3,976,325 | \$3,976,325 |
| Vacancy/Rent Abatements | (194,153) | (215,543) | (283,604) | (2,287) | (286,180) | (286,180) |
| Net Rental Income | \$3,557,668 | \$3,550,403 | \$3,465,282 | \$27,946 | \$3,690,145 | \$3,690,145 |
| Other Income | 414,932 | 448,284 | 419,021 | 3,379 | 707,443 | 707,443 |
| Effective Gross Income | \$3,972,600 | \$3,998,687 | \$3,884,303 | \$31,325 | \$4,397,588 | \$4,397,588 |
| Total Expenses | 1,950,895 | 2,102,729 | 1,948,355 | 15,713 | 2,054,096 | 2,032,108 |
| Net Operating Income | \$2,021,705 | \$1,895,958 | \$1,935,948 | \$15,612 | \$2,343,492 | \$2,365,480 |
| Capital Expenditures | 0 | 0 | 35,960 | 290 | 35,960 | 0 |
| TI/LC | 0 | 0 | 0 | 0 | 0 | 0 |
| Net Cash Flow | \$2,021,705 | \$1,895,958 | \$1,899,988 | \$15,322 | \$2,307,532 | \$2,365,480 |
| Net Cash Flow Margin | 57% | 53% | 55% | 55% | 63% | 64% |
| Occupancy ⁽³⁾ | 94.8% | 95.2% | 92.4% | | 92.8% | 92.8% |
| NOI Debt Yield | 6.4% | 6.0% | 6.1% | | 7.4% | 7.5% |
| NCF Debt Yield | 6.4% | 6.0% | 6.0% | | 7.3% | 7.5% |
| NOI DSCR | 1.31x | 1.23x | 1.25x | | 1.52x | 1.53x |
| NCF DSCR | 1.31x | 1.23x | 1.23x | | 1.49x | 1.53x |

Source: JP Morgan Mortgage Asset Summaries

- (1) As-Is Underwritten Gross Potential Rent is underwritten based on the in-place rents according to the June 1, 2018 rent roll with vacant units at market rents. Vacancy/Rent Abatement is underwritten at 6.8% applied to Gross Potential Rent based on the submarket vacancy plus 0.8% for a model unit. Expenses are generally based on the Borrower's budget.
- (2) As-Stabilized Underwritten Gross Potential Rent is underwritten to the appraiser's conclusion for Year 3. Vacancy/Rent Abatement is underwritten at 5.5% applied to net rents (Gross Potential Rent less the model unit) and Other Income plus 0.7% of Gross Potential Rent for the model unit, totaling 7.2% of Gross Potential Rent. The retail space rent is included in Other Income. Expenses are generally based on the As-Stabilized Appraisal figures.
- (3) Historical occupancies represent physical occupancies. TTM May 2018 occupancy represents physical occupancy as of June 1, 2018. As-Is Underwritten, As-Stabilized Underwritten, and As-Stabilized Appraisal occupancies represent economic occupancies.

The Metro White Plains

Notes

The renovation includes approximately \$5 million budgeted. Following the repositioning, the Sponsor is seeking to reach rental rates 15% to 20% higher (\$3.75 to \$3.90 per square foot) than average rental rate of \$3.24 achieved in 2017. Post-renovation increase in parking rent per space (\$175 per space per month compared to the current rate of \$150). The property is comprised of a 124-unit nine-story high-rise apartment complex on a 0.54-acre site in the CBD of White Plains, NY. The property was constructed in 1985 and renovated in 2004 and 2015. Adjacent to the Property are two 14- and 16-story office buildings totaling 495,214 square feet also owned by affiliates of GDCC. There is also an underground 1,017-space parking garage. The property is located approximately one block from the White Plains Metro North train station.

Unit Mix Overview

| Unit Type / # of Units | Unit Size (SF) | Occupancy | Avg. In-Place Rent | Avg. In-Place Rent PSF | Appraiser Rent As-Is | Appraiser Rent As-Is PSF |
|----------------------------|----------------|-----------|--------------------|------------------------|----------------------|--------------------------|
| Studio - 18 | 591 | 100.0% | \$2,139 | \$3.62 | \$2,160 | \$3.65 |
| 1 Bed/1 Bath - 71 | 743 | 95.8% | 2,376 | 3.20 | 2,420 | 3.26 |
| 2 Bed/1 Bath - 24 | 942 | 95.8% | 2,815 | 2.98 | 2,880 | 3.06 |
| 2 Bed/2 Bath - 11 | 1,062 | 81.8% | 3,035 | 2.86 | 3,370 | 3.17 |
| Total/Wtd. Avg - 124 Units | 787 | 95.2% | \$2,475 | \$3.19 | \$2,556 | \$3.27 |
| Eagle Ridge Apartments | 962 | 90.0% | \$3,492 | \$3.63 | N/A | N/A |

The units at Eagle Ridge will be larger than those at the Metro White Plains and are forecasted to achieve a higher in-place rent as a result of significantly better building amenities and a newer product;

Eagle Ridge Residential Competitive Set

| | Eagle Ridge (Year) | The Metro White Plains | 15 Bank Apartments | Continuum | Avalon White Plains | Windsor The Gramercy | One City Place | La Gianna |
|-------------------------|--------------------|------------------------|--------------------|-----------|---------------------|----------------------|----------------|-----------|
| Year Built | | 1985 | 2005 | 2017 | 2009 | 2003 | 2004 | 2014 |
| Total Units | 70 | 124 | 501 | 288 | 407 | 260 | 316 | 56 |
| Total Occupancy | 90.0% | 95.2% | 98.4% | 40.6% | 96.0% | 96.9% | 96.8% | 98.1% |
| Distance to Metro North | 6.9 miles | 0.3 miles | 0.2 miles | 0.3 miles | 0.4 miles | 0.9 miles | 0.7 miles | 1.4 miles |
| Studio | | | | | | | | |
| Size (SF) | N/A | 591 | N/A | 556 | 627 | N/A | 533 | 485 |
| Monthly Rent | N/A | \$2,139 | N/A | \$2,412 | \$2,135 | N/A | \$2,119 | \$1,601 |
| Rent PSF | N/A | 3.62 | N/A | 4.34 | 3.41 | N/A | 3.98 | 3.30 |
| 1BR/1BA | | | | | | | | |
| Size (SF) | 767 | 743 | 732 | 717 | 782 | 737 | 688 | 810 |
| Monthly Rent | \$3,200 | \$2,376 | \$2,335 | \$2,921 | \$2,491 | \$2,263 | \$2,431 | \$2,585 |
| Rent PSF | 4.17 | 3.20 | 3.19 | 4.07 | 3.19 | 3.07 | 3.53 | 3.19 |
| 2BR/1BA | | | | | | | | |
| Size (SF) | 1,210 | 942 | 956 | N/A | N/A | N/A | N/A | N/A |
| Monthly Rent | \$4,250 | \$2,815 | \$3,266 | N/A | N/A | N/A | N/A | N/A |
| Rent PSF | 3.51 | 2.99 | 3.42 | N/A | N/A | N/A | N/A | N/A |
| 2BR/2BA | | | | | | | | |
| Size (SF) | 1,423 | 1,062 | 1,150 | 1,150 | 1,212 | 1,015 | 1,144 | 1,200 |
| Monthly Rent | \$5,150 | \$3,035 | \$3,779 | \$4,069 | \$3,617 | \$2,866 | \$3,321 | \$3,282 |
| Rent PSF | 3.62 | 2.86 | 3.29 | 3.54 | 2.98 | 2.82 | 2.90 | 2.74 |

Eagle Ridge Residential Competitive Set

Notes

In the first quarter of 2018, the Westchester apartment market contained a total inventory of approximately 41,099 units, with a vacancy rate of 4.2%, and an average asking rent of \$2,175 per month. Class A properties are experiencing lower vacancies than Class B/C properties.

| Wampus Mills Appraisal | | |
|---|-----------------|---------------------|
| Unit Size (SF) | Appraised Value | Appraised Value PSF |
| 1,800 | \$1,150,000 | \$638.89 |
| 1,910 | 1,200,000 | 628.27 |
| 2,080 | 1,200,000 | 576.92 |
| 2,020 | 1,200,000 | 594.06 |
| 1,910 | 1,200,000 | 628.27 |
| 1,920 | 1,200,000 | 625.00 |
| 1,560 | 218,000 | 139.74 |
| 1,800 | 1,200,000 | 666.67 |
| 1,910 | 1,200,000 | 628.27 |
| 2,080 | 1,200,000 | 576.92 |
| 2,020 | 1,200,000 | 594.06 |
| 1,910 | 1,200,000 | 628.27 |
| 1,920 | 1,200,000 | 625.00 |
| 1,560 | 218,000 | 139.74 |
| 2,030 | 1,200,000 | 591.13 |
| 2,000 | 1,200,000 | 600.00 |
| Average Unit Size (Market-Rate): 1,951 SF | | |
| Average Appraised Value PSF: \$555 | | |
| Eagle Ridge (Development Cost per Unit) | | |
| | \$429,974 | \$406.84 |

Eagle Ridge Illustrative Multifamily Sales Comps

| Address City | Eagle Ridge Armonk | 18 Rivers Edge Tarrytown | 10 Byron Place Larchmont | 10 City Place White Plains | Place Scarsdale | 5 Renaissance Sq White Plains | 585 Main Street Armonk |
|--------------------------------|-----------------------|-----------------------------|-----------------------------|-------------------------------|--------------------|----------------------------------|---------------------------|
| Sales Price ⁽¹⁾ | \$492,553 | \$1,256,000 | \$1,200,000 | \$960,000 | \$1,340,000 | \$1,075,000 | \$1,200,000 |
| Square Footage | 962 | 1,592 | 2,255 | 1,922 | 1,445 | 1,534 | 1,951 |
| Sales Price PSF ⁽²⁾ | \$512 | \$789 | \$532 | \$499 | \$927 | \$701 | \$615 |
| Distance to Metro North | 6.9 miles | 6.1 miles | 0.3 miles | 0.7 miles | 0.1 miles | 0.4 miles | 6.7 miles |
| Bedrooms | 1 / 2 / 2+ | 2 | 2 | 2 | 2 | 2 | 2 |
| Baths | 1 / 2 | 2.0 | 2.5 | 2.0 | 2.5 | 2.5 | 2.5 |
| Built | 2021 | 2015 | 2016 | 2005 | 2008 | 2008 | 2020 |
| Parking Spaces | 1 | 1 | 2 | 1 | 1 | 2 | 2 |
| Annual Real Estate Taxes | \$10,086 | \$16,126 | \$11,054 | \$10,000 | \$14,896 | \$8,148 | \$9,500 |
| Real Estate Taxes PSF | 10 | 10 | 5 | 5 | 10 | 5 | 5 |
| Annual CAM | N/A | \$7,164 | \$9,096 | \$20,664 | \$18,012 | \$18,264 | \$8,400 |
| Annual CAM PSF | N/A | 5 | 4 | 11 | 12 | 12 | 4 |
| Annual Clubhouse | 2,500 | 725 | | | | | |

(1) Eagle Ridge Sales Price based on assumed sale in year 5 as multifamily building; 962 square feet reflects average sf per unit

(2) Reflects average sale price per rentable square foot

(3) Blended average of affordable and market rate units; includes 1, 2, 2+ bedroom units

Eagle Ridge Development Model

Ritz Carlton Westchester Residences

The following is an overview of the available residences at the Ritz Carlton Westchester, which are 0.4 miles to Metro North

| Unit Type | Beds | Baths | SF | Price | Price PSF | Amenities |
|-----------------------|------|-------|-------|-------------|-----------|--|
| Duplex, Unit 6A | 1 | 1.5 | 1,641 | \$1,025,000 | \$625 | Powder room, washer/dryer, wine fridge |
| Duplex, Unit 6B | 1 | 1.5 | 1,555 | 933,000 | 600 | Powder room, washer/dryer, wine fridge |
| Unit 8A, with Terrace | 1 | 2.5 | 1,489 | 1,150,000 | 772 | Powder room, washer/dryer, wine fridge |
| Penthouse 37A | 2 | 2.5 | 2,542 | 1,990,000 | 783 | Powder room, laundry room, office space, wine fridge |
| Penthouse 35C | 2 | 2.5 | 2,841 | 2,200,000 | 774 | Powder room, laundry room, office space, wine fridge |
| Penthouse 39G | 3 | 3.5 | 5,500 | 4,300,000 | 782 | Powder room, laundry room, office space, wine fridge |
| Penthouse 40C | 3 | 3.5 | 5,383 | 6,500,000 | 1,208 | Powder room, laundry room, office space, wine fridge |
| Average | | | 2,993 | \$2,585,429 | \$864 | |

Note: All residents have access to the building's glass covered pool, billiards room, outdoor sun deck, fitness center, children's playground, screening room, board room, and full-service spa and salon.

Eagle Ridge Development Model

White Plains Sold Condominiums

The following is an overview of recently sold condominiums in White Plains, NY.

The Residences at Eagle Ridge will be priced slightly lower than most of these comps as they will not be branded or include the same type of amenities in a downtown location

| Address | Beds | Baths | Sq Ft | Date | Price PSF | Year Built | List Price | Sold Price |
|--|------|-------|-------|-----------|-----------|------------|------------|------------|
| 10 City Place #10D | 2 | 3 | 1,547 | 6/25/2018 | \$487 | 2005 | \$759,000 | \$753,000 |
| 1 Renaissance Square #12A | 2 | 3 | 1,459 | 7/10/2018 | 583 | 2007 | 875,000 | 850,000 |
| 1 Renaissance Square #19A | 2 | 3 | 1,489 | 4/4/2018 | 591 | 2007 | 945,000 | 880,000 |
| 10 City Place #19A | 2 | 3 | 1,622 | 6/11/2018 | 549 | 2005 | 899,000 | 890,000 |
| 10 City Place #29D | 2 | 3 | 1,547 | 2/27/2018 | 579 | 2005 | 919,000 | 895,000 |
| 5 Renaissance Square #6B | 1 | 2 | 1,555 | 3/26/2018 | 592 | 2008 | 933,000 | 920,000 |
| 1 Renaissance Square #20A | 2 | 3 | 1,453 | 5/4/2018 | 637 | 2007 | 949,000 | 925,000 |
| 5 Renaissance Square #8A | 2 | 3 | 1,489 | 3/1/2018 | 628 | 2008 | 999,600 | 935,000 |
| 1 Renaissance Square #V1F | 2 | 3 | 1,445 | 6/8/2018 | 657 | 2007 | 979,000 | 950,000 |
| Average: | | | 1,512 | | \$589 | | \$917,511 | \$888,667 |
| Median: | | | 1,489 | | 591 | | 933,000 | 895,000 |
| High: | | | 1,622 | | 657 | | 999,600 | 950,000 |
| Low: | | | 1,445 | | 487 | | 759,000 | 753,000 |
| Average (Ritz-Carlon Residences) | | | 1,482 | | \$615 | | \$946,767 | \$910,000 |
| Average (Excluding Ritz-Carlon Residences) | | | 1,572 | | 538 | | 859,000 | 846,000 |
| Average - Eagle Ridge Residences | | | 917 | | \$415 | | \$380,350 | N/A |

(1) Renaissance Square units are branded Ritz-Carlon, fully amenitized, and connected to the Ritz-Carlon White Plains

The Vanderbilt - Luxury Rentals and Hotel Suites

900 Corporate Drive, Westbury, NY

The Vanderbilt is a brand new full service building of luxury rental residences and hotel suites located in Westbury, New York. The property spans 6 stories and includes a total of 187 total units split among 17 hotel suites and 170 luxury rental units

The first floor contains the 17 Hotel suites - each around 540 SF and 1 Bedroom / 1 Bath

The second through the sixth floor contain the 170 apartment units. These apartments range from 1 Bedroom / 1.5 Bath to 2 Bedrooms / 2.5 Bath
Current asking rents range between \$3,495 and \$7,025 per month depending on unit size and location

All of the building's amenities are shared between the hotel guests and apartment tenants and include the following:

The ground level features a full service restaurant and bar, 24 hour concierge, fitness center, yoga/aerobics studio, library, recreational lounge with billiards, poker tables, and shuffleboard. The complex also features a screening/party room, business center, grab and go café, outdoor pool & pool deck area with cabanas, outdoor gas grills, and Bocce Ball court

All parking on-site with covered parking available for monthly fee

Unit Mix Overview (Asking Rents)

| Unit Type | Unit Size (SF) | Avg. In-Place Rent (Monthly) | Avg. In-Place Rent PSF |
|-----------------------------------|----------------|------------------------------|------------------------|
| 1 Bed/1.5 Bath | 880 | \$3,495 | \$3.97 |
| 1 Bed/1.5 Bath | 1,038 | 3,650 | 3.52 |
| Average - 1 Bed | 959 | 3,573 | 3.73 |
| 2 Bed/2 Bath | 1,157 | 4,550 | 2.98 |
| 2 Bed/2.5 Bath | 1,317 | 4,635 | 3.52 |
| 2 Bed/3.5 Bath | 1,438 | 4,700 | 3.27 |
| 2 Bed/2.5 Bath | 1,719 | 7,025 | 4.09 |
| Average - 2 Bed | 1,408 | 5,228 | 3.71 |
| Eagle Ridge - 1 Bed (Market-Rate) | 767 | 3,200 | 4.17 |
| Eagle Ridge - 2 Bed (Market-Rate) | 1,210 | 4,250 | 3.51 |
| Vanderbilt Hotel Keys | 540 | 4,500 | 8.33 |

Source: Complex website and on-site telephone operator

RCA Comparables - Armonk

| |
|------------------------|
| Hotel |
| Multifamily Apartments |
| Office |
| Retail |



CAPITAL ADVISORS

Eagle Ridge Hotel RCA Sales Comparables

The following is a comparison of the development costs and the assumed sale prices after development and a 5-year operating period under the 4 different scenarios.

| | Keys | Price | Per Key |
|--|-------------------|---------------|-----------|
| Average of Transaction Sales Comps | 193 | \$23,649,025 | \$122,276 |
| Median of Transaction Sales Comps | 146 | 18,292,508 | 122,897 |
| Full Service Hotel Scenario Development Cost: | 300 | \$103,211,411 | \$344,038 |
| Full Service Hotel Scenario Exit Price: | 300 | 81,230,054 | 270,767 |
| Boutique Hotel Scenario Development Cost: | 120 | 44,906,475 | 374,221 |
| Boutique Hotel Scenario Exit Price: | 120 | 42,026,550 | 350,221 |
| Limited Service Hotel Scenario Development Cost: | 145 | 40,174,760 | 277,067 |
| Limited Service Hotel Scenario Exit Price: | 145 | 29,773,100 | 205,332 |
| Boutique Hotel w/Apartments Scenario Development Cost: | 91 ⁽¹⁾ | \$38,626,622 | \$424,468 |
| Boutique Hotel w/Apartments Scenario Exit Price: | 91 ⁽¹⁾ | \$44,724,482 | \$491,478 |

Based on the above, all 4 scenarios have significantly higher development costs and exit prices as compared to the average and median of the 64 local investment sales comparable transactions.

Source: Real Capital Analytics

(1) Only includes the 97 hotel rooms from the Boutique with Apartments Scenario; excludes all apartment units

Eagle Ridge Hotel RCA Sales Comps

The following lists the sales of all hotels within 20 miles of the Eagle Ridge Hotel site sorted by price-per-key.

| Date | Property Name | City | State | Units | Price | Price Per Key | Cap Rate |
|--------|---|--------------|-------|-------|--------------|------------------|-------------|
| Feb-16 | HNA Palisades Premier Conference Center | Palisades | NY | 206 | \$59,634,000 | \$289,485 | |
| Dec-06 | Summerfield Suites | Harrison | NY | 159 | 43,600,000 | 274,214 | 8.3% |
| Mar-05 | Tarrytown House | Tarrytown | NY | 209 | 50,500,000 | 241,627 | |
| Jun-16 | Stamford Courtyard | Stamford | CT | 115 | 26,000,000 | 226,087 | |
| Nov-14 | Hampton Inn | Elmsford | NY | 156 | 34,853,431 | 223,419 | |
| Jun-14 | Marriott Courtyard | Montvale | NJ | 190 | 40,615,494 | 213,766 | |
| Jul-07 | Dolce Norwalk | Norwalk | CT | 120 | 24,932,623 | 207,772 | 6.7% |
| Aug-08 | 195 Oenoke Ridge | New Canaan | CT | 17 | 3,407,500 | 200,441 | |
| Apr-06 | Sheraton Stamford | Stamford | CT | 448 | 79,574,082 | 177,621 | |
| Oct-10 | Residence Inn New Rochelle | New Rochelle | NY | 124 | 21,000,000 | 169,355 | |
| Nov-13 | Hilton Garden Inn Norwalk | Norwalk | CT | 170 | 28,650,000 | 168,529 | 8.1% |
| Feb-03 | Hilton | Port Chester | NY | 446 | 74,000,000 | 165,919 | |
| Apr-07 | Hilton | Port Chester | NY | 446 | 73,581,137 | 164,980 | 7.6% |
| Sep-03 | Dolce Norwalk | Norwalk | CT | 120 | 19,700,000 | 164,167 | |
| Sep-10 | Residence Inn by Marriott | White Plains | NY | 133 | 21,200,000 | 159,398 | |
| Oct-06 | Hilton Stamford | Stamford | CT | 484 | 69,000,000 | 142,562 | |
| May-10 | fmr Maples Inn | New Canaan | CT | 22 | 3,100,000 | 140,909 | |
| Mar-05 | Courtyard by Marriott Norwalk | Norwalk | CT | 145 | 20,400,000 | 140,690 | |
| Jul-07 | Westchester Marriott | Tarrytown | NY | 444 | 62,150,000 | 139,977 | 8.9% |
| Feb-07 | Fairfield Inn | Stamford | CT | 158 | 22,000,000 | 139,241 | |
| Jun-05 | Renaissance Westchester | Harrison | NY | 347 | 48,237,500 | 139,013 | 6.1% |
| Jan-06 | Glen Cove Mansion Hotel | Glen Cove | NY | 200 | 27,500,000 | 137,500 | |
| Oct-13 | Hilton Garden Inn | Nanuet | NY | 88 | 11,895,339 | 135,174 | |
| Oct-13 | Hampton Inn | Nanuet | NY | 84 | 11,354,642 | 135,174 | |
| Nov-06 | Hampton Inn Stamford | Stamford | CT | 100 | 13,250,000 | 132,500 | |
| Nov-13 | Sheraton Hotel Tarrytown | Tarrytown | NY | 150 | 19,748,735 | 131,658 | 7.8% |
| May-15 | Hampton Inn White Plains/Tarrytown | White Plains | NY | 156 | 19,921,080 | 127,699 | |

Eagle Ridge Hotel RCA Sales Comps

The following lists the sales of all hotels within 20 miles of the Eagle Ridge Hotel site sorted by price-per-key.

| Date | Property Name | City | State | Units | Price | Price Per Key | Cap Rate |
|--------|--------------------------------|----------------|-------|-------|------------|------------------|-------------|
| Nov-13 | SpringHill Suites Tarrytown | Tarrytown | NY | 145 | 18,404,808 | 126,930 | 8.6% |
| Oct-11 | Marriott Courtyard | Montvale | NJ | 190 | 23,922,973 | 125,910 | |
| Feb-05 | Crowne Plaza | White Plains | NY | 401 | 48,073,000 | 119,883 | |
| Apr-07 | Hampton Inn | Elmsford | NY | 156 | 18,180,208 | 116,540 | |
| May-07 | Extended Stay America | Elmsford | NY | 136 | 14,730,208 | 108,310 | 7.5% |
| May-07 | Homestead Studio Suites | Norwalk | CT | 131 | 14,188,656 | 108,310 | 7.5% |
| May-08 | Doubletree Club | Norwalk | CT | 268 | 29,000,000 | 108,209 | |
| Oct-13 | Central Motel Court | White Plains | NY | 29 | 3,135,000 | 108,103 | |
| Sep-14 | Courtyard Tarrytown Greenburgh | Tarrytown | NY | 139 | 14,500,000 | 104,317 | 8.3% |
| Oct-10 | Homestead Studio Suites | Norwalk | CT | 131 | 13,000,000 | 99,237 | |
| Jan-05 | Marriott Courtyard | Montvale | NJ | 190 | 18,000,000 | 94,737 | |
| Jul-15 | Clinton Inn | Tenafly | NJ | 119 | 10,950,000 | 92,017 | |
| Feb-17 | La Quinta Inn & Suites | Elmsford | NY | 106 | 9,500,000 | 89,623 | |
| Oct-10 | Extended Stay America | Elmsford | NY | 136 | 11,700,000 | 86,029 | |
| Sep-14 | Hilton Woodcliff Lake | Woodcliff Lake | NJ | 338 | 28,250,000 | 83,580 | |
| Mar-11 | Hilton Rye Town | Port Chester | NY | 447 | 35,500,000 | 79,418 | |
| Aug-05 | Howard Johnson | Riverside | CT | 103 | 8,000,000 | 77,670 | |
| Oct-07 | Orangeburg Holiday Inn | Orangeburg | NY | 167 | 12,525,000 | 75,000 | |
| Aug-13 | Holiday Inn | Mount Kisco | NY | 122 | 8,500,000 | 69,672 | |
| Feb-07 | Holiday Inn | Stamford | CT | 380 | 22,000,000 | 57,895 | |
| Oct-04 | Armork Wellesley Inn | Armork | NY | 140 | 7,771,699 | 55,512 | |
| Jun-07 | Marriott Courtyard | Montvale | NJ | 190 | 10,365,269 | 54,554 | 6.0% |
| Nov-01 | Homestead Studio Suites | Norwalk | CT | 131 | 7,141,068 | 54,512 | |
| Oct-10 | Ramada - Yonkers | Yonkers | NY | 103 | 5,250,000 | 50,971 | |
| Mar-05 | Courtyard by Marriott Rye | Rye | NY | 145 | 6,000,000 | 41,379 | |
| Oct-04 | Wellesley Inn | Elmsford | NY | 101 | 3,800,000 | 37,624 | |

Eagle Ridge Hotel RCA Sales Comps

The following lists the sales of all hotels within 20 miles of the Eagle Ridge Hotel site sorted by price-per-key.

| Date | Property Name | City | State | Units | Price | Price Per Key | Cap Rate |
|--------------------------|--------------------------------|--------------|-------|---------------------|---------------------|------------------|-------------|
| Apr-04 | Wellesley Inn | Elmsford | NY | 101 | 3,800,000 | 37,624 | |
| Aug-04 | Clarion | Norwalk | CT | 268 | 10,000,000 | 37,313 | |
| Feb-05 | Hilton | Tarrytown | NY | 246 | 9,000,000 | 36,585 | |
| Nov-08 | YMCA-Hotel | Stamford | CT | 132 | 4,650,000 | 35,227 | |
| Jul-09 | Stamford Plaza | Stamford | CT | 448 | 12,000,000 | 26,786 | |
| Apr-17 | Residence Inn | Stamford | CT | 156 | n/a | | |
| Dec-16 | Hilton Westchester | Port Chester | NY | 446 | n/a | | |
| Jun-15 | Marriott-Park Ridge | Park Ridge | NJ | 100 | n/a | | |
| Aug-12 | Ritz Carlton Westchester | White Plains | NY | 146 | n/a | | |
| May-11 | Stamford Courtyard | Stamford | CT | 115 | n/a | | |
| Mar-05 | Courtyard Tarrytown Greenburgh | Tarrytown | NY | 139 | n/a | | |
| Transactions (64) | | | | Average: 193 | \$23,649,025 | \$122,276 | |

Source: Real Capital Analytics

RCA Comparables - Armonk**Multifamily, Office, and Retail Comparables**

- The following pages highlight the capital transactions for apartment, office and retail since the beginning of 2016 within 10 miles of the Eagle Ridge Hotel site located at 20 Old Post Road in Armonk, NY.
 - The data, which was collected by RCA, includes transactions in Westchester County, as well as Stamford, Greenwich and surrounding towns in Connecticut
 - The summaries are separated by sector, as well as refinancings and sales
 - The real estate market in the surrounding areas has been strong over the last few years with 123 transactions completed.
 - There were 29 apartment transactions over the last 2 years, 17 of which were sales and 12 were refinancings
 - There were 60 office transactions over the last 2 years, 40 of which were sales and 20 were refinancings
 - There were 34 retail transactions over the last 2 years, 26 of which were sales and 8 were refinancings
 - The average sales price of an apartment building was \$14,831,969. At an average door count of 126, this represents \$247,303 per door.
 - The median sales price of an apartment building was \$8,410,000, with a high of \$67,000,000 and a low of \$1,770,000
 - The average sales price of an office building was \$22,354,979. At an average SF of 105,373, this represents \$188 per square foot.
 - The median sales price of an office building was \$10,925,000, with a high of \$147,000,000 and a low of \$1,788,477
 - The average sales price of a retail building was \$18,135,307. At an average SF of 56,913, this represents \$715 per square foot.
 - The median sales price of a retail building was \$20,297,578, with a high of \$27,500,000 and a low of \$13,095,157
-

The following is a list of recent Apartment transactions within 10 miles of 20 Old Post Road in Armonk, NY sorted by date.

| Date | Property Name | City | State | Units | Status | Type | Price | Price Per Unit | Cap Rate | Distance | Lender |
|-----------------------------|-----------------------------------|--------------|-------|-------|--------|-----------|-----------------------|-------------------|-------------|----------|---|
| Dec-17 | Wescott | Stamford | CT | 261 | Sale | Apartment | 67,000,000 | 256,705 | | 10.0 | Freddie Mac (\$55m approx) |
| Oct-17 | Augustana Homes of Greenwich | Riverside | CT | 31 | Sale | Apartment | 10,300,000 | 332,258 | | 8.5 | Fannie Mae (\$7m approx) |
| Sep-17 | Maple House Apartments | Ossining | NY | 105 | Sale | Apartment | 30,634,000 | 291,752 | | 8.0 | Fannie Mae (\$27m approx) |
| Jul-17 | 264 King Street | Port Chester | NY | 56 | Sale | Apartment | 4,137,500 | 73,884 | | 7.7 | Peapack Gladstone Bank (\$2m approx) |
| May-17 | Riverkeeper | Ossining | NY | 25 | Sale | Apartment | 4,450,000 | 178,000 | 6.4% | 7.8 | First Nat'l Bk of Long Island (\$3m approx) |
| Apr-17 | Apuovia | White Plains | NY | 30 | Sale | Apartment | 11,500,000 | 383,333 | | 5.1 | |
| Jan-17 | Halstead White Plains Metro North | White Plains | NY | 124 | Sale | Apartment | 35,250,000 | 284,274 | 5.8% | 5.8 | |
| Jan-17 | Quinby 15 | White Plains | NY | 16 | Sale | Apartment | 2,700,000 | 168,750 | 5.7% | 6.7 | Freddie Mac 2017-SB30 (\$2m approx) |
| Jan-17 | The Gables | White Plains | NY | 12 | Sale | Apartment | 4,300,000 | 358,333 | 5.6% | 6.9 | Freddie Mac 2017-SB32 (\$3m approx) |
| Jan-17 | 8 Howard Avenue | White Plains | NY | 18 | Sale | Apartment | 4,150,000 | 230,556 | | 6.5 | |
| Dec-16 | The Residences at Tarryhill | White Plains | NY | 87 | Sale | Apartment | n/a | | | 5.4 | |
| Jul-16 | 22 Main Street | Tarrytown | NY | 244 | Sale | Apartment | 1,770,000 | 354,000 | 5.5% | 7.3 | Freddie Mac 2016-SB21 (\$1m approx) |
| May-16 | 3 Calvert St | Harrison | NY | 122 | Sale | Apartment | 6,250,000 | 178,571 | | 9.5 | |
| Apr-16 | 224 Purchase Street | Rye | NY | 500 | Sale | Apartment | 6,800,000 | 425,000 | | 8.4 | |
| Feb-16 | Audubon Manor | Ossining | NY | 146 | Sale | Apartment | 10,020,000 | 133,600 | | 7.8 | |
| Feb-16 | Corlandt Ridge | Ossining | NY | 123 | Sale | Apartment | 26,190,000 | 143,115 | | 8.3 | |
| Feb-16 | Waterview on the Hudson | Ossining | NY | 245 | Sale | Apartment | 11,860,000 | 164,722 | | 8.6 | |
| Subtotal: Transactions (17) | | | | | | | Average: \$14,831,969 | \$247,303 | 5.7% | 7.5 | |
| | | | | | | | Median: 8,410,000 | 243,631 | 5.7% | 7.8 | |
| | | | | | | | High: 67,000,000 | 425,000 | 6.4% | 10.0 | |
| | | | | | | | Low: 1,770,000 | 73,884 | 5.5% | 5.1 | |

Source: Real Capital Analytics

The following is a list of recent Apartment transactions within 10 miles of 20 Old Post Road in Armonk, NY sorted by date.

| Date | Property Name | City | State | Units | Status | Type | Price | Price Per Unit | Cap Rate | Distance | Lender |
|-----------------------------|-------------------------|--------------|-------|-------------|-----------|-----------|-------------|-------------------|-------------|----------|--------------------------------------|
| Nov-17 | 74 Widley Street | Tarrytown | NY | 6 | Refinance | Apartment | 1,088,710 | 181,452 | | 7.3 | Fannie Mae (\$1m approx) |
| Oct-17 | The Castle | Port Chester | NY | 122 | Refinance | Apartment | n/a | | | 7.8 | SunTrust (\$22m approx) |
| Sep-17 | Laddin's Rock | Stamford | CT | 24 | Refinance | Apartment | 3,950,000 | 164,583 | 6.3% | 9.6 | Fredddie Mac 2017-SB44 (\$3m approx) |
| Jul-17 | 132-132A North Broadway | Tarrytown | NY | 12 | Refinance | Apartment | 2,300,000 | 191,667 | 5.5% | 7.1 | Fredddie Mac 2017-SB40 (\$2m approx) |
| May-17 | Woodside Street | Stamford | CT | 30 | Refinance | Apartment | 4,600,000 | 153,333 | 4.9% | 9.9 | Fredddie Mac 2017-SB36 (\$3m approx) |
| Apr-17 | Oxford House Apartments | Ossining | NY | 67 | Refinance | Apartment | 8,700,000 | 129,851 | 5.8% | 8.1 | Fredddie Mac 2017-SB36 (\$7m approx) |
| Feb-17 | Westwood | Stamford | CT | 95 | Refinance | Apartment | n/a | | | 9.3 | Dwight Capital (\$13m approx) |
| Dec-16 | Steamboat Road | Greenwich | CT | 29 | Refinance | Apartment | n/a | | | 8.5 | Sterling National Bank (\$8m approx) |
| Oct-16 | Clinton Terrace | Ossining | NY | 100 | Refinance | Apartment | 12,600,000 | 126,000 | | 8.0 | Fannie Mae (\$5m approx) |
| Sep-16 | Sherwood Green | Greenwich | CT | 10 | Refinance | Apartment | 3,247,450 | 324,745 | 5.6% | 7.2 | COMM 2016-COR1 (\$2m alloc'd) |
| Aug-16 | Stepping Stones | White Plains | NY | 364 | Refinance | Apartment | n/a | | | 4.9 | Capital One (\$23m approx) |
| Apr-16 | 38 Hamilton Place | Tarrytown | NY | 72 | Refinance | Apartment | 1,350,000 | 225,000 | 5.3% | 7.2 | Fredddie Mac 2016-SB20 (\$1m approx) |
| Subtotal: Transactions (12) | | | | Average: 78 | | | \$4,729,520 | \$187,079 | 5.5% | 7.9 | |
| | | | | Median: 49 | | | 3,598,725 | 173,018 | 5.5% | 7.9 | |
| | | | | High: 364 | | | 12,600,000 | 324,745 | 6.3% | 9.9 | |
| | | | | Low: 6 | | | 1,088,710 | 126,000 | 4.9% | 4.9 | |

Source: Real Capital Analytics

The following is a list of recent Office transactions within 10 miles of 20 Old Post Road in Armonk, NY sorted by date.

| Date | Property Name | City | State | SF | Status | Type | Price | Price Per SF | Cap Rate | Distance | Lender |
|-----------------------------|-------------------------------------|------------------|-------|---------|--------|--------|-----------------------|-----------------|-------------|----------|--|
| Nov-17 | 7-11 S Broadway | White Plains | NY | 74,100 | Sale | Office | 9,600,000 | 130 | | 5.5 | |
| Oct-17 | 2 Depot Plz | Bedford Hills | NY | 25,000 | Sale | Office | 5,400,000 | 216 | | 9.0 | |
| Sep-17 | Westchester Business Center | White Plains | NY | 90,527 | Sale | Office | 13,700,000 | 151 | | 5.7 | |
| Sep-17 | 1011 High Ridge Road | Stamford | CT | 24,219 | Sale | Office | 3,577,692 | 148 | | 9.2 | |
| Sep-17 | 992 High Ridge Road | Stamford | CT | 12,107 | Sale | Office | 1,788,477 | 148 | | 9.2 | |
| Jul-17 | Greenwich Atrium | Greenwich | CT | 105,526 | Sale | Office | 33,750,000 | 320 | | 7.5 | Pacific Western Bank (\$27m approx) |
| Jun-17 | 225 High Ridge Street | Stamford | CT | 227,966 | Sale | Office | 22,550,000 | 99 | 6.3% | 9.4 | |
| Jun-17 | fmr Philips Research | Briarcliff Manor | NY | 180,000 | Sale | Office | 12,250,000 | 68 | | 7.3 | |
| Jun-17 | Westchester One | White Plains | NY | 907,436 | Sale | Office | 147,000,000 | 162 | 8.6% | 5.6 | BANK 2017-BNK6 (\$68m approx) |
| May-17 | 555 White Plains Road | Tarrytown | NY | 133,645 | Sale | Office | 5,475,000 | 41 | | 6.7 | |
| Apr-17 | 520 White Plains Road | Tarrytown | NY | 174,000 | Sale | Office | 20,750,000 | 119 | | 6.8 | |
| Apr-17 | 611 West Hartsdale Avenue | White Plains | NY | 28,000 | Sale | Office | 5,700,000 | 204 | | 6.6 | |
| Apr-17 | 80 Grassland Road | Elmsford | NY | 87,613 | Sale | Office | 10,800,000 | 123 | | 5.3 | |
| Mar-17 | Tarrytown Corporate Center | Tarrytown | NY | 275,675 | Sale | Office | 30,125,000 | 109 | | 6.6 | |
| Mar-17 | 111-123 High Road | Stamford | CT | 40,000 | Sale | Office | 10,250,000 | 256 | | 9.4 | Sterling National Bank (\$7m approx) |
| Dec-16 | Pace University - Briarcliff Campus | Briarcliff Manor | NY | 330,000 | Sale | Office | 17,375,000 | 53 | | 5.6 | |
| Dec-16 | 272 North Bedford Road | Mount Kisco | NY | 50,000 | Sale | Office | 9,025,000 | 181 | 9.0% | 7.6 | |
| Dec-16 | 401 Columbus Ave | Valhalla | NY | 26,508 | Sale | Office | 2,995,000 | 113 | | 2.8 | |
| Nov-16 | One Lafayette Place | Greenwich | CT | 130,073 | Sale | Office | 70,430,000 | 541 | | 7.3 | RBC Capital (\$24m alloc'd) |
| Nov-16 | New York Life Building | Sleepy Hollow | NY | 383,000 | Sale | Office | 50,000,000 | 131 | | 7.1 | |
| Nov-16 | Greenwich Office Park | Pembewick | CT | 380,245 | Sale | Office | 130,000,000 | 342 | 6.3% | 7.3 | Natixis, MS 2016-UBS12, CSMC 2016-NXSR |
| Nov-16 | 440 Hamilton Avenue | White Plains | NY | 337,900 | Sale | Office | 20,500,000 | 61 | | 5.4 | Madison Realty Capital (\$15m approx) |
| Oct-16 | 470 West Ave | Stamford | CT | 56,136 | Sale | Office | 4,000,000 | 71 | | 9.9 | Connecticut Cmnty Bk (\$3m approx) |
| Oct-16 | 22 5th St | Stamford | CT | 20,000 | Sale | Office | 3,400,000 | 170 | | 9.9 | |
| Sep-16 | 411 Theodore Fremd Avenue | Rye | NY | 111,086 | Sale | Office | 25,250,000 | 227 | | 9.3 | |
| Aug-16 | Greenwich Bank & Trust building | Greenwich | CT | 429 | Sale | Office | 18,500,000 | 338 | | 7.5 | Mesa West Capital (\$36m approx) |
| Jul-16 | 500 West Putnam | Greenwich | CT | 551 | Sale | Office | 41,000,000 | 413 | | 9.1 | |
| Jul-16 | Stamford Health | Stamford | CT | 305 | Sale | Office | 19,000,000 | 512 | | 7.4 | CIBC (\$35m approx) |
| Jun-16 | Wexford Plaza | Greenwich | CT | 224 | Sale | Office | 51,250,000 | 512 | | 7.4 | |
| Jun-16 | 10 County Center Road | White Plains | NY | 310 | Sale | Office | 9,250,000 | 44 | | 5.5 | |
| Jun-16 | 77 Tarrytown Rd | White Plains | NY | 124 | Sale | Office | 3,550,000 | 169 | | 5.6 | |
| Jun-16 | 33 Davis Avenue | White Plains | NY | 348 | Sale | Office | 2,950,000 | 311 | | 6.2 | |
| May-16 | Westchester Office Building | Ossining | NY | 115 | Sale | Office | 3,408,010 | 133 | | 8.6 | |
| May-16 | International Drive Seven | Rye Brook | NY | 258 | Sale | Office | 20,000,000 | 63 | | 4.4 | |
| Apr-16 | Rye Brook Plaza | Port Chester | NY | 90 | Sale | Office | 11,050,000 | 147 | | 7.4 | |
| Apr-16 | Kohberg & Company | Mount Kisco | NY | 81 | Sale | Office | 2,900,000 | | | 5.8 | |
| Apr-16 | 1 Maritime Ave | White Plains | NY | 90 | Sale | Office | 10,750,000 | 131 | | 5.9 | |
| Mar-16 | Renaissance Square | White Plains | NY | 409 | Sale | Office | 20,800,000 | 317 | | 5.6 | |
| Mar-16 | Connecticut Light & Power | Greenwich | CT | 97 | Sale | Office | 8,300,000 | 271 | | 7.7 | |
| Mar-16 | 200 N Central Ave | Hartsdale | NY | 710 | Sale | Office | 5,800,000 | 119 | | 6.7 | |
| Subtotal: Transactions (40) | | | | | | | Average: \$22,354,979 | \$188 | 7.7% | 7.1 | |
| | | | | | | | Median: 27,254 | 148 | 7.5% | 7.2 | |
| | | | | | | | High: 907,436 | 541 | 9.0% | 9.9 | |
| | | | | | | | Low: 81 | 41 | 6.3% | 2.8 | |

Source: Real Capital Analytics

The following is a list of recent Office transactions within 10 miles of 20 Old Post Road in Armonk, NY sorted by date.

| Date | Property Name | City | State | SF | Status | Type | Price | Price Per SF | Cap Rate | Distance | Lender |
|-----------------------------|----------------------------|---------------|-------|---------|-----------|--------|------------------|-----------------|-------------|----------|------------------------------------|
| Nov-17 | Centre at Purchase | Harrison | NY | 683,676 | Refinance | Office | \$177,000,000 | \$259 | | 5.7 | JPMCC 2017-FL11 (\$94m approx) |
| Sep-17 | 143 Sound Beach Avenue | Old Greenwich | CT | 14,346 | Refinance | Office | n/a | | | 9.6 | Columbia Bank (\$4m approx) |
| Sep-17 | 1133 Westchester Avenue | White Plains | NY | 609,690 | Refinance | Office | n/a | | | 6.7 | Union Labor Life (\$17m approx) |
| Jul-17 | 440 Mamaroneck Avenue | Harrison | NY | 239,156 | Refinance | Office | 52,000,000 | 217 | 6.1% | 9.4 | CITI 2017-P8 (\$33m approx) |
| Apr-17 | 280 Mamaroneck Avenue | White Plains | NY | 27,225 | Refinance | Office | n/a | | | 6.0 | Signature Bank (\$3m approx) |
| Feb-17 | Red Oak Corporate Park | Harrison | NY | 149,896 | Refinance | Office | n/a | | | 6.2 | |
| Feb-17 | 31 River Road | Cos Cob | CT | 13,430 | Refinance | Office | n/a | | | 8.4 | Union Savings Bank (\$3m approx) |
| Feb-17 | Greenwich Financial Center | Greenwich | CT | 81,334 | Refinance | Office | 87,500,000 | 1,076 | 4.9% | 7.8 | LSTAR 2017-5 (\$54m approx) |
| Dec-16 | 239 Greenwich Avenue | Greenwich | CT | 31,929 | Refinance | Office | n/a | | | 7.6 | Signature Bank (\$27m approx) |
| Nov-16 | 79 East Post Road | White Plains | NY | 18,750 | Refinance | Office | n/a | | | 6.0 | TD Bank (\$4m approx) |
| Oct-16 | Unknown | Harrison | NY | 316,604 | Refinance | Office | 44,500,000 | 141 | 6.2% | 6.7 | GS 2016-GS4 (\$27m approx) |
| Oct-16 | 711 Westchester Avenue | White Plains | NY | 116,799 | Refinance | Office | n/a | | | 5.8 | GS 2016-GS4 (\$10m alloc'd) |
| Oct-16 | 777 Westchester Avenue | White Plains | NY | 124,108 | Refinance | Office | n/a | | | 5.8 | GS 2016-GS4 (\$11m alloc'd) |
| Oct-16 | 200 Pemberwick Road | Glenville | CT | 54,922 | Refinance | Office | 9,000,000 | 164 | 6.6% | 6.4 | RCMT 2016-3 (\$5m approx) |
| Oct-16 | 297 Knollwood Road | White Plains | NY | 34,946 | Refinance | Office | n/a | | | 6.0 | |
| Sep-16 | 32 Sherwood Pl | Greenwich | CT | 12,463 | Refinance | Office | 4,157,389 | 334 | 5.6% | 7.2 | COMM 2016-COR1 (\$3m alloc'd) |
| Jul-16 | Sutton Park | Valhalla | NY | 148 | Refinance | Office | 17,500,000 | 178 | 7.0% | 2.9 | CD 2016-CD1 (\$12m approx) |
| Jul-16 | 1200 High Ridge Road | Stamford | CT | 82 | Refinance | Office | n/a | | | 9.2 | Connecticut Cmnty Bk (\$7m approx) |
| Apr-16 | 79 East Post Road | White Plains | NY | 118 | Refinance | Office | n/a | | | 6.0 | Santander (\$3m approx) |
| Apr-16 | One Theall Rd | Rye | NY | 160 | Refinance | Office | n/a | | | 9.3 | |
| Subtotal: Transactions (20) | | | | | | | Average: 126,489 | \$442 | 6.0% | 6.9 | |
| | | | | | | | Median: 33,438 | 217 | 6.1% | 6.5 | |
| | | | | | | | High: 683,676 | 1,076 | 7.0% | 9.6 | |
| | | | | | | | Low: 82 | 141 | 4.9% | 2.9 | |

Source: Real Capital Analytics

The following is a list of recent Retail transactions within 10 miles of 20 Old Post Road in Armonk, NY sorted by date.

| Date | Property Name | City | State | SF | Status | Type | Price | Price Per SF | Cap Rate | Distance | Lender |
|-----------------------------|--------------------------|---------------|-------|---------|--------|--------|-----------------------|-----------------|-------------|----------|--------------------------------|
| Nov-17 | Christie Place | Scarsdale | NY | 12,731 | Sale | Retail | 17,000,000 | 1,335 | | 9.1 | |
| Nov-17 | Citibank | White Plains | NY | 3,663 | Sale | Retail | 3,300,000 | 901 | | 5.5 | |
| Oct-17 | 70 Memorial Plaza | Pleasantville | NY | 15,000 | Sale | Retail | 5,800,000 | 387 | | 4.0 | |
| Oct-17 | 220 Garth Road | Scarsdale | NY | 21,738 | Sale | Retail | 5,000,000 | 230 | | 9.3 | M&T Bank (\$3m approx) |
| Oct-17 | 1075 East Putnam Avenue | Riverside | CT | 4,580 | Sale | Retail | 3,500,000 | 764 | | 8.6 | Patriot Bank (\$4m approx) |
| Oct-17 | 300 West Putnam Avenue | Greenwich | CT | 10,000 | Sale | Retail | 3,600,000 | 360 | | 7.4 | |
| Jun-17 | 17-45 Washington Avenue | Pleasantville | NY | 3,280 | Sale | Retail | 6,350,000 | 1,936 | | 4.0 | |
| May-17 | 1492 High Ridge Road | Stamford | CT | 11,885 | Sale | Retail | 3,350,000 | 282 | | 9.4 | Tomkins Mahopac (\$2m approx) |
| Mar-17 | Chappaqua Crossing | Chappaqua | NY | 120,000 | Sale | Retail | 68,000,000 | 567 | | 5.1 | M&T Bank (\$30m approx) |
| Mar-17 | Chase Bank | Stamford | CT | 4,200 | Sale | Retail | n/a | | | 9.2 | |
| Mar-17 | High Ridge Center | Stamford | CT | 89,050 | Sale | Retail | n/a | | | 9.3 | |
| Mar-17 | CVS | Old Greenwich | CT | 8,000 | Sale | Retail | n/a | | | 9.7 | |
| Mar-17 | Westchester Pavilion | White Plains | NY | 171,180 | Sale | Retail | 55,400,000 | 324 | | 5.7 | |
| Oct-16 | 970 High Ridge Road | Stamford | CT | 27,233 | Sale | Retail | 13,296,750 | 488 | | 9.2 | |
| Oct-16 | 2-10 Greenwich | Greenwich | CT | 15,900 | Sale | Retail | 8,850,000 | 557 | | 7.3 | BankUnited (\$7m alloc'd) |
| Oct-16 | 42 Greenwich Ave | Greenwich | CT | 5,425 | Sale | Retail | 4,850,000 | 894 | | 7.4 | BankUnited (\$4m alloc'd) |
| Oct-16 | 46 Greenwich Avenue | Greenwich | CT | 6,275 | Sale | Retail | 5,000,000 | 797 | | 7.4 | BankUnited (\$4m alloc'd) |
| Oct-16 | Stop & Shop Stamford | Stamford | CT | 69,733 | Sale | Retail | 45,400,000 | 651 | 5.2% | 9.3 | CFCRE 2016-C6 (\$24m approx) |
| Sep-16 | Galleria at White Plains | White Plains | NY | 878,153 | Sale | Retail | 119,600,000 | 136 | | 5.8 | |
| Jun-16 | 180 Mamaroneck Avenue | White Plains | NY | 710 | Sale | Retail | 4,500,000 | 173 | | 5.9 | |
| May-16 | Bank of America | Stamford | CT | 407 | Sale | Retail | 3,550,000 | 2,507 | | 9.4 | |
| Apr-16 | 269 Purchase Street | Rye | NY | 110 | Sale | Retail | 4,900,000 | 590 | 5.0% | 8.3 | |
| Apr-16 | Bank of America | Greenwich | CT | 98 | Sale | Retail | n/a | | | 7.6 | Bank of America (\$13m approx) |
| Mar-16 | 150-152 Central Avenue | Greenville | NY | 76 | Sale | Retail | 8,830,000 | 418 | 6.9% | 7.6 | |
| Mar-16 | 88 Greenwich Avenue | Greenwich | CT | 120 | Sale | Retail | 5,750,000 | 987 | | 7.4 | |
| Mar-16 | 26 King St | Chappaqua | NY | 202 | Sale | Retail | 3,150,000 | 443 | | 4.4 | |
| Subtotal: Transactions (26) | | | | | | | Average: \$18,135,307 | \$715 | 5.2% | 7.4 | |
| | | | | | | | Median: 7,138 | 562 | 5.2% | 7.5 | |
| | | | | | | | High: 878,153 | 2,507 | 6.9% | 9.7 | |
| | | | | | | | Low: 76 | 136 | 5.0% | 4.0 | |

Source: Real Capital Analytics

The following is a list of recent Retail transactions within 10 miles of 20 Old Post Road in Armonk, NY sorted by date.

| Date | Property Name | City | State | SF | Status | Type | Price | Price Per SF | Cap Rate | Distance | Lender |
|----------------------------|--------------------------------|--------------|-------|---------|-----------|--------|-----------------|-----------------|-------------|----------|---------------------------------------|
| Jul-17 | Ridgeway Center | Stamford | CT | 350,000 | Refinance | Retail | n/a | | | 9.7 | |
| Jul-17 | Chimney Corners | Stamford | CT | 16,805 | Refinance | Retail | n/a | | | 8.2 | Peoples United Bank (\$2m approx) |
| May-17 | 319 - 333 North Central Avenue | Hartsdale | NY | 28,005 | Refinance | Retail | n/a | | | 6.5 | Pesb Bank (\$9m approx) |
| May-17 | 260-300 Boston Post Road | Port Chester | NY | 59,533 | Refinance | Retail | 27,500,000 | 462 | 5.8% | 8.2 | CSAIL 2017-C8 (\$16m approx) |
| Apr-17 | 288 West Avenue | Stamford | CT | 30,000 | Refinance | Retail | n/a | | | 9.7 | Union Savings Bank (\$4m approx) |
| Sep-16 | 35 Church St | Greenwich | CT | 12,415 | Refinance | Retail | 13,095,157 | 1,055 | 5.6% | 7.2 | COMM 2016-COR1 (\$9m alloc'd) |
| Aug-16 | 1212 Putnam Avenue | Riverside | CT | 17,562 | Refinance | Retail | n/a | | | 8.8 | Bankwell (\$5m approx) |
| Feb-16 | 289 Greenwich Ave | Greenwich | CT | 309 | Refinance | Retail | n/a | | | 7.7 | Sterling National Bank (\$17m approx) |
| Subtotal: Transactions (8) | | | | | | | Average: 64,329 | \$759 | 5.8% | 8.2 | |
| | | | | | | | Median: 22,784 | 759 | 5.7% | 8.2 | |
| | | | | | | | High: 350,000 | 1,055 | 5.8% | 9.7 | |
| | | | | | | | Low: 309 | 462 | 5.6% | 6.5 | |

Source: Real Capital Analytics

Disclaimer

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Appendix M

Tree Inventory

| Tag # | Field Code | DBH (in.) | Add. Info | Species | Quality |
|-------|------------|-----------|-----------|--------------|-----------|
| 1 | TREE | 22 | | Sugar Maple | Good |
| 2 | TREE | 22 | | Sugar Maple | Good |
| 3 | TREE | 26 | | Ash | Good |
| 4 | TREE | 12 | | Ash | Fair/Poor |
| 5 | TREE | 14 | | Ash | Fair/Poor |
| 6 | TREE | 12 | | Ash | Fair/Poor |
| 7 | TREE | 14 | | Ash | Fair/Poor |
| 8 | TREE | 14 | Clump | Ash | Fair |
| 9 | TREE | 38 | | Norway Maple | Poor |
| 10 | TREE | 36 | | Norway Maple | Fair |
| 11 | TREE | 18 | | Norway Maple | Fair |
| 12 | TREE | 28 | | Norway Maple | Fair/Poor |
| 13 | TREE | 32 | | Norway Maple | Fair |
| 14 | TREE | 30 | | Norway Maple | Fair/Poor |
| 15 | TREE | 39 | | Norway Maple | Poor |
| 16 | TREE | 32 | | Norway Maple | Poor |
| 17 | TREE | 27 | | Norway Maple | Fair/Poor |
| 18 | TREE | 24 | | Norway Maple | Fair |
| 19 | TREE | 32 | | Norway Maple | Fair |
| 20 | TREE | 34 | | Norway Maple | Poor |
| 21 | TREE | 30 | | Norway Maple | Fair |
| 22 | TREE | 12 | | Cherry | Poor |
| 23 | TREE | 14 | | Cherry | Poor |
| 24 | TREE | 6 | | | |
| 25 | TREE | 14 | | Norway Maple | Fair |
| 26 | TREE | 12 | | Norway Maple | Fair/Poor |
| 27 | TREE | 9 | | Cherry | Poor |
| 28 | TREE | 10 | | Cherry | Poor |
| 29 | TREE | 10 | | Cherry | Poor |
| 30 | TREE | 14 | | Norway Maple | Fair |
| 31 | TREE | 14 | | Norway Maple | Fair/Poor |
| 32 | TREE | 12 | | Cherry | Poor |
| 33 | TREE | 20 | | Cherry | Poor |
| 34 | TREE | 10 | | Cherry | Poor |
| 35 | TREE | 10 | | Cherry | Poor |
| 36 | TREE | 9 | | Cherry | Poor |
| 37 | TREE | 14 | Twin | Sugar Maple | Fair |
| 38 | TREE | 12 | | Norway Maple | Poor |
| 39 | TREE | 10 | | Cherry | Poor |
| 40 | TREE | 9 | | Cherry | Poor |
| 41 | TREE | 10 | | Cherry | Poor |
| 42 | TREE | 7 | | | |
| 43 | TREE | 6 | | | |
| 44 | TREE | 27 | | Norway Maple | Poor |
| 45 | TREE | 15 | | Norway Maple | Fair/Poor |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|----|------|-----------|--------------|-----------|
| 46 | TREE | 19 | Norway Maple | Poor |
| 47 | TREE | 6 | | |
| 48 | TREE | 7 | | |
| 49 | TREE | 9 | Norway Maple | Poor |
| 50 | TREE | 8 | Norway Maple | Poor |
| 51 | TREE | 8 | Norway Maple | Poor |
| 52 | TREE | 14 | Norway Maple | Poor |
| 53 | TREE | 10 Twin | Norway Maple | Fair/Poor |
| 54 | TREE | 12 | Norway Maple | Fair/poor |
| 55 | TREE | 12 | Norway Maple | Fair/Poor |
| 56 | TREE | 9 | Norway Maple | Fair/Poor |
| 57 | TREE | 6 | | |
| 58 | TREE | 12 | Norway Maple | Fair/Poor |
| 59 | TREE | 7 | | |
| 60 | TREE | 12 | Norway Maple | Poor |
| 61 | TREE | 6 | | |
| 62 | TREE | 12 | Cherry | Poor |
| 63 | TREE | 10 | Norway Maple | Fair |
| 64 | TREE | 13 | Norway Maple | Fair |
| 65 | TREE | 24 | Norway Maple | Fair |
| 66 | TREE | 23 | Sugar Maple | Good |
| 67 | TREE | 12 Triple | Red Oak | Fair/Poor |
| 68 | TREE | 8 | Norway Maple | Poor |
| 69 | TREE | 9 | Red Oak | Poor |
| 70 | TREE | 18 | Norway Maple | Fair/Poor |
| 71 | TREE | 16 | Cherry | Poor |
| 72 | TREE | 44 | Norway Maple | Fair/Poor |
| 73 | TREE | 49 | Norway Maple | Fair/Poor |
| 74 | TREE | 20 | Norway Maple | Fair/Poor |
| 75 | TREE | 32 | Norway Maple | Fair/Poor |
| 76 | TREE | 30 | Norway Maple | Fair/Poor |
| 77 | TREE | 33 | Norway Maple | Poor |
| 78 | TREE | 24 | Norway Maple | Poor |
| 79 | TREE | 36 | Norway Maple | Poor |
| 80 | TREE | 34 | Norway Maple | Poor |
| 81 | TREE | 28 | Norway Maple | Poor |
| 82 | TREE | 18 | Cherry | Poor |
| 83 | TREE | 14 Twin | Cherry | Poor |
| 84 | TREE | 23 | Cherry | Fair |
| 85 | TREE | 19 | Cherry | Fair |
| 86 | TREE | 10 | Cherry | Fair |
| 87 | TREE | 14 | Cherry | Fair |
| 88 | TREE | 12 | Cherry | Fair |
| 89 | TREE | 12 | Cherry | Fair |
| 90 | TREE | 18 | Cherry | Fair |
| 91 | TREE | 14 | Cherry | Poor |
| 92 | TREE | | Cherry | Poor |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|-----------|--------------|-----------|
| 93 | TREE | 18 Triple | Norway Maple | Poor |
| 94 | TREE | 36 | Cherry | Poor |
| 95 | TREE | 14 Twin | Cherry | Poor |
| 96 | TREE | 10 Clump | Apple | Poor |
| 97 | TREE | 12 Quad | Cherry | Poor |
| 98 | TREE | 44 | Cherry | Poor |
| 99 | TREE | 14 | | |
| 100 | TREE | 14 | Cherry | Fair/Poor |
| 101 | TREE | 24 | Cherry | Fair |
| 102 | TREE | 20 | Cherry | Poor |
| 103 | TREE | 11 | | |
| 104 | TREE | 10 | Cherry | Poor |
| 105 | TREE | 14 | White Oak | Fair |
| 106 | TREE | 14 | Cherry | Poor |
| 107 | TREE | 6 | | |
| 108 | TREE | 6 | | |
| 109 | TREE | 28 | Norway Maple | Poor |
| 110 | TREE | 18 | Norway Maple | Poor |
| 111 | TREE | 20 | Norway Maple | Poor |
| 112 | TREE | 14 Clump | Ash | Fair |
| 113 | TREE | 20 | Norway Maple | Poor |
| 114 | TREE | 20 | Norway Maple | Poor |
| 115 | TREE | 12 | Cherry | Fair |
| 116 | TREE | 14 Twin | Cherry | Fair |
| 117 | TREE | 12 Twin | Cherry | Fair |
| 118 | TREE | 18 | Cherry | Fair |
| 119 | TREE | 14 | Black Locust | Fair |
| 120 | TREE | 18 | Black Locust | Fair |
| 121 | TREE | 19 | | |
| 122 | TREE | 12 Twin | Black Locust | Fair |
| 123 | TREE | 16 | Black Locust | Fair |
| 124 | TREE | 12 | Black Locust | Fair |
| 125 | TREE | 12 | Black Locust | Fair |
| 126 | TREE | 16 | Black Locust | Fair |
| 127 | TREE | 6 | | |
| 128 | TREE | 10 | Black Locust | Poor |
| 129 | TREE | 18 | Black Locust | Fair |
| 130 | TREE | 18 | Black Locust | Poor |
| 131 | TREE | 10 | Black Locust | Poor |
| 132 | TREE | 7 | | |
| 133 | TREE | 16 | Black Locust | Poor |
| 134 | TREE | 6 | | |
| 135 | TREE | 18 | Black Locust | Fair |
| 136 | TREE | 8 | | |
| 137 | TREE | 8 | Black Locust | Poor |
| 138 | TREE | 6 | | |
| 139 | TREE | 20 | Cherry | Poor |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|-----------|--------------|------|
| 140 | TREE | 10 | Cherry | Poor |
| 141 | TREE | 40 | Black Locust | Poor |
| 142 | TREE | 16 | Black Locust | Poor |
| 143 | TREE | 10 | Black Locust | Poor |
| 144 | TREE | 22 | Black Locust | Poor |
| 145 | TREE | 24 | Black Locust | Poor |
| 146 | TREE | 10 | Cherry | Poor |
| 147 | TREE | 30 | Black locust | Poor |
| 148 | TREE | 7 | | |
| 149 | TREE | 8 | Cherry | Poor |
| 150 | TREE | 6 | | |
| 151 | TREE | 8 | Black Locust | Poor |
| 152 | TREE | 8 | Black Locust | Poor |
| 153 | TREE | 12 | Black Locust | Poor |
| 154 | TREE | 8 | Black Locust | Poor |
| 155 | TREE | 12 | Black Locust | Poor |
| 156 | TREE | 12 | Cherry | Poor |
| 157 | TREE | 10 | Black Locust | Poor |
| 158 | TREE | 10 | Black Locust | Poor |
| 159 | TREE | 10 | Black Locust | Poor |
| 160 | TREE | 12 | Black Locust | Poor |
| 161 | TREE | 16 | Cherry | Poor |
| 162 | TREE | 18 | Norway Maple | Fair |
| 163 | TREE | 12 | Cherry | Fair |
| 164 | TREE | 18 | Black Locust | Poor |
| 165 | TREE | 8 | Cherry | Poor |
| 166 | TREE | 9 | White Oak | Poor |
| 167 | TREE | 18 | Cherry | Fair |
| 168 | TREE | 20 | Cherry | Fair |
| 169 | TREE | 24 Twin | Norway Maple | Good |
| 170 | TREE | 10 Twin | Cherry | Poor |
| 171 | TREE | 11 | Ash | Dead |
| 172 | TREE | 18 | White Oak | fair |
| 173 | TREE | 12 | White Oak | Fair |
| 174 | TREE | 22 | Cherry | Poor |
| 175 | TREE | 14 | Sugar Maple | Fair |
| 176 | TREE | 12 Triple | Cherry | Poor |
| 177 | TREE | 20 | Red Oak | Good |
| 178 | TREE | 18 | Elm | Fair |
| 179 | TREE | 10 | Elm | Fair |
| 180 | TREE | 14 | Red Oak | Good |
| 181 | TREE | 15 | Black Locust | Poor |
| 182 | TREE | 32 | Cherry | Poor |
| 183 | TREE | 19 | Black Locust | Poor |
| 184 | TREE | 18 | Black Locust | Poor |
| 185 | TREE | 14 | Black Locust | Poor |
| 186 | TREE | 18 | Red Oak | Poor |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|-----------|----------------|-----------|
| 187 | TREE | 8 | Cherry | Poor |
| 188 | TREE | 16 | White Oak | Poor |
| 189 | TREE | 20 | Cherry | Poor |
| 190 | TREE | 22 | Cherry | Poor |
| 191 | TREE | 10 | Ash | Poor |
| 192 | TREE | 7 | | |
| 193 | TREE | 16 | Red Oak | Fair |
| 194 | TREE | 16 | Cherry | Poor |
| 195 | TREE | 18 Twin | Red Oak | Fair |
| 196 | TREE | 20 | Red Oak | Fair |
| 197 | TREE | 10 | Cherry | Poor |
| 198 | TREE | 16 Triple | Cherry | Poor |
| 199 | TREE | 16 | Cherry | Poor |
| 200 | TREE | 16 | Fallen | Dead |
| 201 | TREE | 24 | Ash | Poor |
| 202 | TREE | 12 | Black Birch | Poor |
| 203 | TREE | 20 | Pin Oak | Poor |
| 204 | TREE | 18 | Pin Oak | Fair |
| 205 | TREE | 18 | Pin Oak | Poor |
| 206 | TREE | 8 | Black Birch | Poor |
| 207 | TREE | 10 | Cherry | Poor |
| 208 | TREE | 20 | Red Oak | Poor |
| 209 | TREE | 16 | Apple | Fair |
| 210 | TREE | 8 Twin | Pin Oak | Poor |
| 211 | TREE | 16 | Pin Oak | Poor |
| 212 | TREE | 16 | Pin Oak | Fair |
| 213 | TREE | 16 | Red Oak | Fair |
| 214 | TREE | 16 | Red Oak | Fair |
| 215 | TREE | 7 | | |
| 216 | TREE | 19 | Apple | Poor |
| 217 | TREE | 8 | Cherry | Poor |
| 218 | TREE | 8 | American Beech | Good |
| 219 | TREE | 10 | American Beech | Good |
| 220 | TREE | 10 | Norway Maple | Fair/Poor |
| 221 | TREE | 12 | White Oak | Fair/Poor |
| 222 | TREE | 14 | Norway Maple | Fair |
| 223 | TREE | 14 | Pin Oak | Fair |
| 224 | TREE | 10 | American Beech | Good |
| 225 | TREE | 8 | Sugar Maple | Poor |
| 226 | TREE | 12 | Norway Maple | Poor |
| 227 | TREE | 6 | | |
| 228 | TREE | 10 | Cherry | Poor |
| 229 | TREE | 7 | | |
| 230 | TREE | 9 Fallen | Red Oak | |
| 231 | TREE | 8 | Norway Maple | Poor |
| 232 | TREE | 8 Fallen | Red Oak | |
| 233 | TREE | 14 Fallen | Red Oak | Poor |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|----------|--------------|------|
| 234 | TREE | 9 Fallen | Cherry | Poor |
| 235 | TREE | 12 | Cherry | Poor |
| 236 | TREE | 6 | | |
| 237 | TREE | 16 Twin | Black Birch | Fair |
| 238 | TREE | 22 | Pin Oak | Good |
| 239 | TREE | 9 | Cherry | Poor |
| 240 | TREE | 12 | Norway Maple | Poor |
| 241 | TREE | 12 | Red Oak | Poor |
| 242 | TREE | 14 | Black Birch | Poor |
| 243 | TREE | 18 | Pin Oak | Poor |
| 244 | TREE | 12 | Cherry | Poor |
| 245 | TREE | 16 | Pin Oak | Poor |
| 246 | TREE | 16 | Pin Oak | Poor |
| 247 | TREE | 20 | Red Oak | Poor |
| 248 | TREE | 14 | Red Oak | Poor |
| 249 | TREE | 14 | Pin Oak | Poor |
| 250 | TREE | 16 Twin | White Oak | Poor |
| 251 | TREE | 8 | Cherry | Poor |
| 252 | TREE | 14 | Black Birch | Poor |
| 253 | TREE | 25 | Red Oak | Poor |
| 254 | TREE | 22 | | |
| 255 | TREE | 14 | | |
| 256 | TREE | 10 | | |
| 257 | TREE | 16 | | |
| 258 | TREE | 12 | | |
| 259 | TREE | 12 | | |
| 260 | TREE | 8 | | |
| 261 | TREE | 9 | | |
| 262 | TREE | 6 | | |
| 263 | TREE | 12 | | |
| 266 | TREE | 8 | | |
| 267 | TREE | 10 | | |
| 268 | TREE | 16 | | |
| 269 | TREE | 10 | | |
| 270 | TREE | 16 | | |
| 271 | TREE | 6 Twin | | |
| 272 | TREE | 14 Twin | | |
| 273 | TREE | 14 | | |
| 274 | TREE | 10 | Cherry | Poor |
| 276 | TREE | 9 | Cherry | Poor |
| 277 | TREE | 9 | | |
| 278 | TREE | 8 | | |
| 279 | TREE | 14 | | |
| 280 | TREE | 9 | | |
| 281 | TREE | 7 | | |
| 282 | TREE | 10 | Cherry | Poor |
| 283 | TREE | 11 | Cherry | Poor |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|---------|------|---------|-----------|------|
| 284 | TREE | 10 | Dead | Dead |
| 285 | TREE | 18 | Pin Oak | Fair |
| 286 | TREE | 8 | Cherry | Poor |
| 287 | TREE | 8 | Cherry | Poor |
| 288 | TREE | 28 | Red Oak | Good |
| 289 | TREE | 8 | Red Oak | Poor |
| 290 | TREE | 9 | Pin Oak | Poor |
| 291 | TREE | 6 | | |
| 292 | TREE | 28 | Red Oak | Good |
| 293 | TREE | 8 | | |
| 294 | TREE | 10 | Red Maple | Poor |
| 295 | TREE | 10 | Red Oak | Poor |
| 296 | TREE | 18 | Red Oak | Poor |
| 297 | TREE | 10 | Red Oak | Poor |
| 298 | TREE | 12 | | |
| 299 | TREE | 6 | | |
| 300 | TREE | 6 | | |
| 301 | TREE | 12 | Red Oak | Poor |
| 302 | TREE | 14 | Red Oak | Poor |
| 303 | TREE | 18 | Red Oak | Poor |
| 304 | TREE | 12 | Red Oak | Poor |
| 305 | TREE | 12 | Red Oak | Fair |
| 306/337 | TREE | 16 | Pin Oak | Fair |
| 307 | TREE | 16 | Red Maple | Poor |
| 308/338 | TREE | 12 Twin | Red Oak | Poor |
| 309 | TREE | 12 | Red Oak | Good |
| 310 | TREE | 6 | | |
| 311 | TREE | 18 | Pin Oak | Fair |
| 312 | TREE | 10 | Cherry | Poor |
| 313 | TREE | 21 | Red Oak | Good |
| 314 | TREE | 22 | Red Oak | Good |
| 315 | TREE | 8 | Red Oak | Good |
| 316 | TREE | 18 | Pin Oak | Fair |
| 317 | TREE | 10 Twin | Cherry | Poor |
| 318 | TREE | 10 | Cherry | Poor |
| 319 | TREE | 12 | Ash | Poor |
| 320 | TREE | 16 | Cherry | Poor |
| 321 | TREE | 6 | | |
| 322 | TREE | 8 | Cherry | Poor |
| 323 | TREE | 18 | Red Oak | Fair |
| 324 | TREE | 10 Twin | Cherry | Poor |
| 325 | TREE | 6 | | |
| 326 | TREE | 6 | | |
| 327 | TREE | 9 | Cherry | Poor |
| 328 | TREE | 7 | | |
| 329 | TREE | 9 | Cherry | Poor |
| 330 | TREE | 7 | | |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|-----------|--------------|------|
| 331 | TREE | 7 | | |
| 332 | TREE | 12 | Black Birch | Poor |
| 333 | TREE | 9 | Black Birch | Poor |
| 334 | TREE | 12 | Pin Oak | Fair |
| 335 | TREE | 14 | Pin Oak | Fair |
| 336 | TREE | 14 | Red Oak | Fair |
| 337 | TREE | 12 Twin | Red Oak | Poor |
| 338 | TREE | 14 | Pin Oak | Fair |
| 339 | TREE | 10 | Red Oak | Poor |
| 340 | TREE | 12 | | |
| 341 | TREE | 12 | Pin Oak | Poor |
| 342 | TREE | 10 | Pin Oak | Poor |
| 343 | TREE | 7 | Pin Oak | Poor |
| 344 | TREE | 12 Twin | Black Birch | Poor |
| 345 | TREE | 17 | Pin Oak | Poor |
| 346 | TREE | 18 | Red Oak | Good |
| 347 | TREE | 20 | Red Oak | Good |
| 348 | TREE | 12 | Pin Oak | Fair |
| 349 | TREE | 14 | Pin Oak | Fair |
| 350 | TREE | 14 | Pin Oak | Fair |
| 351 | TREE | 7 | | |
| 352 | TREE | 10 | Black Birch | Poor |
| 353 | TREE | 8 | Cherry | Poor |
| 354 | TREE | 8 | Cherry | Poor |
| 355 | TREE | 8 | Cherry | Poor |
| 356 | TREE | 20 | Norway Maple | Good |
| 357 | TREE | 20 | Mulberry | Poor |
| 358 | TREE | 10 | Cherry | Poor |
| 359 | TREE | 7 | | |
| 360 | TREE | 7 | | |
| 361 | TREE | 22 | Red Oak | Good |
| 362 | TREE | 9 | Cherry | Poor |
| 363 | TREE | 10 Triple | Cherry | Poor |
| 364 | TREE | 12 | Red Oak | Fair |
| 365 | TREE | 10 | Red Oak | Fair |
| 366 | TREE | 7 | | |
| 367 | TREE | 21 | Norway Maple | Good |
| 368 | TREE | 7 | | |
| 369 | TREE | 9 | Pin Oak | Poor |
| 370 | TREE | 13 | Pin Oak | Good |
| 371 | TREE | 6 | | |
| 372 | TREE | 16 | Red Oak | Fair |
| 373 | TREE | 8 | Red Oak | Poor |
| 374 | TREE | 16 | Red Oak | Poor |
| 375 | TREE | 10 Twin | Cherry | Poor |
| 376 | TREE | 10 | Cherry | Poor |
| 377 | TREE | 7 | | |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|-----------|--------------|------|
| 378 | TREE | 10 | Red Oak | Fair |
| 379 | TREE | 8 | Cherry | Poor |
| 380 | TREE | 8 | Cherry | Poor |
| 381 | TREE | 7 | | |
| 382 | TREE | 8 | Cherry | Poor |
| 383 | TREE | 10 | Cherry | Poor |
| 384 | TREE | 9 | Cherry | Poor |
| 385 | TREE | 14 | Red Oak | Fair |
| 386 | TREE | 9 | Pin Oak | Fair |
| 387 | TREE | 10 | Red Oak | Fair |
| 388 | TREE | 10 | Cherry | Poor |
| 389 | TREE | 8 | Cherry | Poor |
| 390 | TREE | 10 | Cherry | Poor |
| 391 | TREE | 10 | Black Birch | Poor |
| 392 | TREE | 10 | Black Birch | Poor |
| 393 | TREE | 8 | Black Birch | Poor |
| 394 | TREE | 12 | Red Oak | Poor |
| 395 | TREE | 10 | Red Oak | Poor |
| 396 | TREE | 6 | | |
| 397 | TREE | 10 Triple | Cherry | Fair |
| 398 | TREE | 6 | | |
| 399 | TREE | 22 | Red Oak | Poor |
| 400 | TREE | 18 | Red Oak | Good |
| 401 | TREE | 6 | | |
| 402 | TREE | 6 | | |
| 403 | TREE | 10 Twin | White Oak | Fair |
| 404 | TREE | 10 | Cherry | Poor |
| 405 | TREE | 10 | Cherry | Poor |
| 406 | TREE | 12 Triple | Cherry | Poor |
| 407 | TREE | 8 | Apple | Poor |
| 408 | TREE | 8 | Cherry | Poor |
| 409 | TREE | 10 | Cherry | Poor |
| 410 | TREE | 12 | Black Locust | Poor |
| 411 | TREE | 14 | Cherry | Poor |
| 412 | TREE | 18 | Sugar Maple | Good |
| 413 | TREE | 12 | Sugar Maple | Poor |
| 414 | TREE | 13 Rock | Pin Oak | Fair |
| 415 | TREE | 11 | Elm | Poor |
| 416 | TREE | 8 | Cherry | Poor |
| 417 | TREE | 12 | Red Oak | Poor |
| 418 | TREE | 7 | | |
| 419 | TREE | 8 | Norway Maple | Poor |
| 420 | TREE | 14 | Red Oak | Poor |
| 421 | TREE | 12 | Cherry | Poor |
| 422 | TREE | 18 | Cherry | Poor |
| 423 | TREE | 12 | Beech | Poor |
| 424 | TREE | 10 Twin | Norway Maple | Poor |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|----------|--------------|------|
| 425 | TREE | 9 | Ash | Poor |
| 426 | TREE | 7 | | |
| 427 | TREE | 7 | | |
| 428 | TREE | 10 | Ash | Poor |
| 429 | TREE | 12 Twin | Ash | Dead |
| 430 | TREE | 7 | | |
| 431 | TREE | 10 | Cherry | Poor |
| 432 | TREE | 7 | | |
| 433 | TREE | 10 | Red Maple | Fair |
| 434 | TREE | 6 | | |
| 435 | TREE | 18 Rock | Pin Oak | Fair |
| 436 | TREE | 10 | Red Maple | Poor |
| 437 | TREE | 18 | Red Maple | Fair |
| 438 | TREE | 10 | Red Maple | Poor |
| 439 | TREE | 16 Quad | Red Maple | Fair |
| 440 | TREE | 9 | Red Maple | Poor |
| 441 | TREE | 24 | Red Maple | Poor |
| 442 | TREE | 18 | Red Maple | Poor |
| 443 | TREE | 10 | Red Maple | Poor |
| 444 | TREE | 10 | Apple | Poor |
| 445 | TREE | 8 | Mulberry | Poor |
| 446 | TREE | 26 | Cherry | Poor |
| 447 | TREE | 9 Twin | Cherry | Poor |
| 448 | TREE | 16 | Cherry | Fair |
| 449 | TREE | 10 | Cherry | Fair |
| 450 | TREE | 12 | Cherry | Fair |
| 451 | TREE | 11 Twin | Cherry | Fair |
| 453 | TREE | 10 | Ash | Poor |
| 454 | TREE | 12 | Elm | Poor |
| 455 | TREE | 8 Triple | Red Maple | Fair |
| 456 | TREE | 12 | Red Maple | Poor |
| 457 | TREE | 10 | Cherry | Poor |
| 458 | TREE | 8 | Red Maple | Poor |
| 459 | TREE | 9 | Ash | Poor |
| 460 | TREE | 9 | Cherry | Poor |
| 461 | TREE | 12 Twin | Norway Maple | Poor |
| 462 | TREE | 10 | Ash | Poor |
| 463 | TREE | 9 | Black Birch | Poor |
| 464 | TREE | 18 | Norway Maple | Poor |
| 465 | TREE | 22 | Norway Maple | Poor |
| 466 | TREE | 10 | Norway Maple | Poor |
| 467 | TREE | 20 | Red Maple | Fair |
| 468 | TREE | 16 Twin | Cherry | Poor |
| 469 | TREE | 18 | Norway Maple | Poor |
| 470 | TREE | 8 | Elm | Poor |
| 471 | TREE | 6 | | |
| 472 | TREE | 7 | | |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|---------|-------------|------|
| 473 | TREE | 14 Twin | Cherry | Fair |
| 474 | TREE | 9 | Ash | Poor |
| 475 | TREE | 7 | | |
| 476 | TREE | 7 | | |
| 477 | TREE | 14 | Hickory | Good |
| 478 | TREE | 12 | Cherry | Fair |
| 479 | TREE | 14 | Ash | Poor |
| 480 | TREE | 11 | Ash | Poor |
| 481 | TREE | 9 | Black Birch | Fair |
| 482 | TREE | 7 | | |
| 483 | TREE | 16 | Hickory | Fair |
| 484 | TREE | 11 | Cherry | Poor |
| 485 | TREE | 22 | Pin Oak | Good |
| 486 | TREE | 9 | Cherry | Fair |
| 487 | TREE | 20 | White Oak | Fair |
| 488 | TREE | 14 | Cherry | Poor |
| 489 | TREE | 10 | Elm | Good |
| 490 | TREE | 30 | Tulip Tree | Good |
| 491 | TREE | 18 | Elm | Poor |
| 492 | TREE | 11 | Elm | Fair |
| 493 | TREE | 6 | | |
| 494 | TREE | 9 | Cherry | Poor |
| 495 | TREE | 16 | Red Maple | Fair |
| 496 | TREE | 16 | Hickory | Good |
| 497 | TREE | 20 | Ash | Poor |
| 498 | TREE | 10 | Elm | Poor |
| 499 | TREE | 7 | | |
| 500 | TREE | 7 | | |
| 501 | TREE | 14 | Ash | Poor |
| 502 | TREE | 14 | Cherry | Poor |
| 503 | TREE | | Red Maple | Poor |
| 504 | TREE | 16 | Hickory | Good |
| 505 | TREE | 12 Twin | Cherry | Poor |
| 506 | TREE | 7 Twin | | |
| 507 | TREE | 8 | Apple | Poor |
| 508 | TREE | 9 | Cherry | Poor |
| 509 | TREE | 14 | Ash | Fair |
| 510 | TREE | 16 | Hickory | Fair |
| 511 | TREE | 8 | Red Maple | Poor |
| 512 | TREE | 8 | Hickory | Fair |
| 513 | TREE | 16 | Black Birch | Poor |
| 514 | TREE | 14 | Hickory | Fair |
| 515 | TREE | 12 | Black Birch | Poor |
| 516 | TREE | 12 | Hickory | Fair |
| 517 | TREE | 10 | Black Birch | Poor |
| 518 | TREE | 16 | Hickory | Poor |
| 519 | TREE | 17 | Ash | Poor |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|-----------|----------------------|------|
| 520 | TREE | 8 | Black Birch | Poor |
| 521 | TREE | 16 | Hickory | Good |
| 522 | TREE | 10 Triple | Cherry | Poor |
| 523 | TREE | 16 Twin | Carolina Silver Bell | Poor |
| 524 | TREE | 18 | Cherry | Poor |
| 525 | TREE | 20 | Cherry | Poor |
| 526 | TREE | 18 | Cherry | Poor |
| 527 | TREE | 9 Twin | Cherry | Fair |
| 528 | TREE | 10 | Hickory | Fair |
| 529 | TREE | 8 Triple | Hickory | Poor |
| 530 | TREE | 9 | Hickory | Poor |
| 531 | TREE | 19 | Hickory | Fair |
| 532 | TREE | 9 | Elm | Poor |
| 533 | TREE | 9 | Elm | Poor |
| 535 | TREE | 8 | | |
| 536 | TREE | 12 | Red Oak | Poor |
| 537 | TREE | 8 | Sugar Maple | Fair |
| 538 | TREE | 28 | Red Oak | Good |
| 539 | TREE | 7 | | |
| 540 | TREE | 16 | Sugar Maple | Fair |
| 541 | TREE | 20 | Red Oak | Good |
| 542 | TREE | 20 | Red Oak | Fair |
| 543 | TREE | 11 | Red Oak | Fair |
| 544 | TREE | 18 | Hickory | Fair |
| 545 | TREE | 12 | Red Oak | Fair |
| 546 | TREE | 18 | Red Oak | Fair |
| 547 | TREE | 18 | Norway Maple | Poor |
| 548 | TREE | 20 | Red Oak | Fair |
| 549 | TREE | 18 Twin | Red Oak | Fair |
| 550 | TREE | 8 | Black Birch | Fair |
| 551 | TREE | 8 | Norway Maple | Fair |
| 552 | TREE | 18 | Red Oak | Good |
| 553 | TREE | 16 | Hickory | Fair |
| 554 | TREE | 7 | | |
| 555 | TREE | 7 | | |
| 556 | TREE | 7 | | |
| 557 | TREE | 8 | Elm | Poor |
| 558 | TREE | 10 | Ash | Poor |
| 559 | TREE | 10 | Ash | Dead |
| 560 | TREE | 10 | Norway Maple | Fair |
| 561 | TREE | 10 | Cherry | Poor |
| 562 | TREE | 12 | Cherry | Poor |
| 563 | TREE | 15 | Red Oak | Fair |
| 564 | TREE | 10 | Red Oak | Poor |
| 565 | TREE | 12 | Red Oak | Poor |
| 566 | TREE | 16 | Beech | Fair |
| 567 | TREE | 10 | Beech | Poor |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|---------|--------------|------|
| 568 | TREE | 18 | Norway Maple | Fair |
| 569 | TREE | 18 | Norway Maple | Fair |
| 570 | TREE | 9 | Elm | Poor |
| 571 | TREE | 10 | Red Maple | Fair |
| 572 | TREE | 16 | Cherry | Dead |
| 573 | TREE | 10 | Ash | Dead |
| 574 | TREE | 9 | White Oak | Fair |
| 575 | TREE | 12 | Ash | Dead |
| 576 | TREE | 12 | Ash | Poor |
| 577 | TREE | 30 | Norway Maple | Fair |
| 578 | TREE | 10 | Elm | Poor |
| 579 | TREE | 16 | Norway Maple | Fair |
| 580 | TREE | 36 | Norway Maple | Good |
| 581 | TREE | 10 | Cherry | Fair |
| 582 | TREE | 12 | Cherry | Poor |
| 583 | TREE | 10 | Cherry | Poor |
| 584 | TREE | 12 Twin | Cherry | Poor |
| 585 | TREE | 18 | Cherry | Poor |
| 586 | TREE | 7 | | |
| 587 | TREE | 7 | | |
| 588 | TREE | 10 | Cherry | Poor |
| 589 | TREE | 16 | Red Maple | Poor |
| 590 | TREE | 8 | Cherry | Poor |
| 591 | TREE | 10 | White Oak | Fair |
| 592 | TREE | 16 | Ash | Poor |
| 593 | TREE | 7 | | |
| 594 | TREE | 6 | | |
| 595 | TREE | 20 | Red Oak | Fair |
| 596 | TREE | 24 | Black Birch | Fair |
| 597 | TREE | 18 | Red Maple | Fair |
| 598 | TREE | 10 | Ash | Poor |
| 599 | TREE | 14 | Black Birch | Fair |
| 600 | TREE | 14 | Red Maple | Poor |
| 601 | TREE | 6 | | |
| 602 | TREE | 6 | | |
| 603 | TREE | 24 | Tulip Tree | Poor |
| 604 | TREE | 12 | Norway Maple | Poor |
| 605 | TREE | 7 | | |
| 606 | TREE | 13 | Norway Maple | Poor |
| 607 | TREE | 12 | Norway Maple | Poor |
| 608 | TREE | 14 | Cherry | Poor |
| 609 | TREE | 16 | Black Birch | Poor |
| 610 | TREE | 19 | Cherry | Poor |
| 611 | TREE | 14 | Norway Maple | Poor |
| 612 | TREE | 13 | Cherry | Poor |
| 613 | TREE | 14 | Ash | Poor |
| 614 | TREE | 19 | Red Oak | Fair |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|----|--------------|------|
| 615 | TREE | 10 | Cherry | Poor |
| 616 | TREE | 13 | Elm | Poor |
| 617 | TREE | 10 | Cherry | Poor |
| 618 | TREE | 7 | | |
| 619 | TREE | 16 | Elm | Fair |
| 620 | TREE | 20 | White Oak | Fair |
| 621 | TREE | 20 | Hickory | Fair |
| 622 | TREE | 20 | Red Oak | Fair |
| 623 | TREE | 11 | Norway Maple | Fair |
| 624 | TREE | 16 | Norway Maple | Poor |
| 625 | TREE | 19 | Norway Maple | Fair |
| 626 | TREE | 18 | Sugar Maple | Fair |
| 627 | TREE | 10 | Elm | Poor |
| 628 | TREE | 18 | Norway Maple | Poor |
| 629 | TREE | 19 | Norway Maple | Good |
| 630 | TREE | 8 | Red Oak | Poor |
| 631 | TREE | 15 | Beech | Fair |
| 632 | TREE | 8 | Black Birch | Poor |
| 633 | TREE | 19 | Red Oak | Poor |
| 634 | TREE | 26 | Norway Maple | Fair |
| 635 | TREE | 19 | Norway Maple | Poor |
| 636 | TREE | 19 | Red Oak | Fair |
| 637 | TREE | 22 | | |
| 638 | TREE | 7 | | |
| 639 | TREE | 26 | | |
| 640 | TREE | 19 | | |
| 641 | TREE | 10 | | |
| 642 | TREE | 8 | | |
| 643 | TREE | 12 | | |
| 644 | TREE | 14 | | |
| 645 | TREE | 10 | | |
| 646 | TREE | 9 | | |
| 647 | TREE | 10 | | |
| 648 | TREE | 10 | | |
| 649 | TREE | 9 | | |
| 650 | TREE | 9 | | |
| 651 | TREE | 13 | | |
| 652 | TREE | 12 | | |
| 653 | TREE | 10 | | |
| 654 | TREE | 19 | | |
| 655 | TREE | 20 | | |
| 656 | TREE | 8 | | |
| 657 | TREE | 14 | | |
| 658 | TREE | 7 | | |
| 659 | TREE | 20 | | |
| 660 | TREE | 17 | | |
| 661 | TREE | 18 | | |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|---------|--------------|------|
| 662 | TREE | 18 | | |
| 663 | TREE | 19 | Norway Maple | Fair |
| 664 | TREE | 18 Twin | Black Birch | Fair |
| 665 | TREE | 18 Twin | Norway Maple | Poor |
| 666 | TREE | 10 | Norway Maple | Good |
| 667 | TREE | 19 | Red Maple | Poor |
| 668 | TREE | 17 | Norway Maple | Poor |
| 669 | TREE | 16 | Norway Maple | Poor |
| 670 | TREE | 20 | Red Maple | Poor |
| 671 | TREE | 18 | Elm | Poor |
| 672 | TREE | 13 | Red Maple | Poor |
| 673 | TREE | 9 | Red Oak | Poor |
| 674 | TREE | 9 | | |
| 675 | TREE | 18 | | |
| 676 | TREE | 19 | | |
| 677 | TREE | 22 | | |
| 678 | TREE | 25 | | |
| 679 | TREE | 18 | | |
| 680 | TREE | 9 | | |
| 681 | TREE | 7 | | |
| 682 | TREE | 8 | | |
| 683 | TREE | 12 | | |
| 684 | TREE | 16 | | |
| 685 | TREE | 16 | | |
| 686 | TREE | 14 | | |
| 687 | TREE | 14 | | |
| 688 | TREE | 16 | | |
| 689 | TREE | 10 | | |
| 690 | TREE | 6 | | |
| 691 | TREE | 23 | | |
| 692 | TREE | 12 | | |
| 693 | TREE | 7 | | |
| 694 | TREE | 18 | | |
| 695 | TREE | 8 | | |
| 696 | TREE | 11 | | |
| 697 | TREE | 12 | | |
| 698 | TREE | 20 | | |
| 699 | TREE | 20 | | |
| 700 | TREE | 16 | | |
| 701 | TREE | 9 | | |
| 702 | TREE | 16 | | |
| 703 | TREE | 9 | | |
| 704 | TREE | 7 | | |
| 705 | TREE | 16 | | |
| 706 | TREE | 9 | | |
| 707 | TREE | 7 | | |
| 708 | TREE | 18 | Norway Maple | Good |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|---------|--------------|------|
| 709 | TREE | 7 | | |
| 710 | TREE | 10 | Red Maple | Poor |
| 711 | TREE | 14 | Elm | Dead |
| 712 | TREE | 16 Twin | Norway Maple | Poor |
| 713 | TREE | 18 | Norway Maple | Poor |
| 714 | TREE | 10 | Sassafras | Poor |
| 715 | TREE | 12 | Elm | Poor |
| 716 | TREE | 18 | Ash | Dead |
| 717 | TREE | 22 | Yellow Birch | Fair |
| 718 | TREE | 24 | Norway Maple | Poor |
| 719 | TREE | 24 | Elm | Poor |
| 720 | TREE | 8 | Cherry | Poor |
| 722 | TREE | 20 | | |
| 723 | TREE | 10 | | |
| 724 | TREE | 10 | | |
| 725 | TREE | 9 | | |
| 726 | TREE | 9 | | |
| 727 | TREE | 19 | | |
| 728 | TREE | 10 | | |
| 729 | TREE | 20 | | |
| 730 | TREE | 12 | | |
| 731 | TREE | 8 | | |
| 732 | TREE | 8 | | |
| 733 | TREE | 8 | | |
| 734 | TREE | 16 | | |
| 735 | TREE | 11 | | |
| 736 | TREE | 11 | | |
| 737 | TREE | 11 | | |
| 738 | TREE | 7 | | |
| 739 | TREE | 12 | | |
| 740 | TREE | 14 | | |
| 741 | TREE | 20 | | |
| 742 | TREE | 14 | | |
| 743 | TREE | 8 | | |
| 744 | TREE | 18 | | |
| 745 | TREE | 11 | | |
| 746 | TREE | 9 | | |
| 747 | TREE | 12 | | |
| 748 | TREE | 18 | | |
| 749 | TREE | 16 Twin | | |
| 750 | TREE | 9 | | |
| 751 | TREE | 18 | | |
| 752 | TREE | 18 | | |
| 753 | TREE | 12 | | |
| 754 | TREE | 20 | | |
| 755 | TREE | 10 | | |
| 756 | TREE | 30 | | |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|-----------|--------------|------|
| 757 | TREE | 12 | | |
| 758 | TREE | 14 | | |
| 759 | TREE | 7 | | |
| 760 | TREE | 8 | | |
| 761 | TREE | 8 | | |
| 762 | TREE | 19 | | |
| 763 | TREE | 7 | | |
| 764 | TREE | 8 | | |
| 765 | TREE | 6 | | |
| 766 | TREE | 8 | | |
| 767 | TREE | 36 | | |
| 768 | TREE | 10 | | |
| 769 | TREE | 20 Twin | | |
| 770 | TREE | 7 | | |
| 771 | TREE | 16 | | |
| 772 | TREE | 16 | | |
| 773 | TREE | 12 | | |
| 774 | TREE | 11 | | |
| 775 | TREE | 10 | | |
| 776 | TREE | 10 | | |
| 777 | TREE | 25 | | |
| 778 | TREE | 16 | | |
| 779 | TREE | 9 | | |
| 780 | TREE | 14 Triple | | |
| 781 | TREE | 18 | | |
| 782 | TREE | 18 | | |
| 783 | TREE | 8 | | |
| 784 | TREE | 30 | Norway Maple | Poor |
| 785 | TREE | 30 | | |
| 786 | TREE | 15 | | |
| 787 | TREE | 14 | | |
| 788 | TREE | 18 | | |
| 789 | TREE | 17 | | |
| 790 | TREE | 18 | | |
| 791 | TREE | 18 | | |
| 792 | TREE | 12 | | |
| 793 | TREE | 18 | | |
| 794 | TREE | 12 | | |
| 795 | TREE | 12 | | |
| 796 | TREE | 14 | | |
| 797 | TREE | 30 | | |
| 798 | TREE | 16 | | |
| 799 | TREE | 18 | Norway Maple | Good |
| 800 | TREE | 24 | | |
| 801 | TREE | 10 | Norway Maple | Poor |
| 802 | TREE | 10 | Ash | Poor |
| 803 | TREE | 16 | Ash | Poor |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|---------|--------------|------|
| 804 | TREE | 12 Twin | Norway Maple | Poor |
| 805 | TREE | 18 | Red Oak | Fair |
| 806 | TREE | 10 | Cherry | Poor |
| 807 | TREE | 10 | Ash | Poor |
| 808 | TREE | 10 | Ash | Poor |
| 809 | TREE | 10 | Red Oak | Poor |
| 810 | TREE | 12 | Cherry | Poor |
| 811 | TREE | 10 | Red Oak | Fair |
| 812 | TREE | 7 | | |
| 813 | TREE | 7 | | |
| 814 | TREE | 7 | | |
| 816 | TREE | 24 | Cherry | Poor |
| 817 | TREE | 19 | Red Oak | Poor |
| 818 | TREE | 17 | Red Oak | Fair |
| 819 | TREE | 8 | Cherry | Poor |
| 820 | TREE | 9 | Cherry | Poor |
| 821 | TREE | 12 | Red Oak | Fair |
| 822 | TREE | 12 | Red Maple | Fair |
| 823 | TREE | 9 | Elm | Dead |
| 824 | TREE | 10 | Cherry | Poor |
| 825 | TREE | 11 | Norway Maple | Fair |
| 826 | TREE | | Norway Maple | Poor |
| 827 | TREE | 12 Twin | Cherry | Poor |
| 828 | TREE | 18 | Cherry | Poor |
| 829 | TREE | 20 | Cherry | Poor |
| 830 | TREE | 14 | Norway Maple | Fair |
| 831 | TREE | 18 | Norway Maple | Poor |
| 832 | TREE | 18 | Red Oak | Fair |
| 833 | TREE | 7 | | |
| 834 | TREE | 26 | Norway Maple | Fair |
| 835 | TREE | 7 | | |
| 836 | TREE | 16 | Black Birch | Poor |
| 837 | TREE | 7 | | |
| 838 | TREE | 10 | Red Oak | Fair |
| 839 | TREE | 14 | Norway Maple | Poor |
| 840 | TREE | 15 | Norway Maple | Poor |
| 841 | TREE | 14 | Norway Maple | Poor |
| 842 | TREE | 7 | | |
| 843 | TREE | 13 | Norway Maple | Poor |
| 844 | TREE | 7 | | |
| 845 | TREE | 14 | Red Oak | Poor |
| 846 | TREE | 20 | Red Oak | Fair |
| 847 | TREE | 8 | Cherry | Poor |
| 848 | TREE | 10 | Red Oak | Poor |
| 849 | TREE | 14 | Red Oak | Poor |
| 850 | TREE | 7 | | |
| 851 | TREE | 14 | Black Birch | Poor |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|----|--------------|------|
| 852 | TREE | 10 | Norway Maple | Poor |
| 853 | TREE | 14 | Norway Maple | Poor |
| 854 | TREE | 8 | Norway Maple | Poor |
| 855 | TREE | 15 | Black Birch | Poor |
| 856 | TREE | 18 | Black Birch | Poor |
| 857 | TREE | 14 | Black Birch | Poor |
| 858 | TREE | 7 | | |
| 859 | TREE | 14 | Red Oak | Poor |
| 860 | TREE | 7 | | |
| 861 | TREE | 10 | Red Oak | Poor |
| 862 | TREE | 10 | White Oak | Poor |
| 863 | TREE | 8 | Red Oak | Poor |
| 864 | TREE | 16 | Red Oak | Fair |
| 865 | TREE | 9 | Red Oak | Poor |
| 866 | TREE | 9 | Red Oak | Poor |
| 867 | TREE | 10 | Cherry | Poor |
| 868 | TREE | 10 | Red Oak | Poor |
| 869 | TREE | 18 | Elm | Good |
| 870 | TREE | 11 | Black Birch | Poor |
| 871 | TREE | 7 | | |
| 872 | TREE | 8 | | |
| 873 | TREE | 21 | | |
| 874 | TREE | 14 | | |
| 875 | TREE | 16 | | |
| 876 | TREE | 9 | | |
| 877 | TREE | 10 | | |
| 878 | TREE | 10 | | |
| 879 | TREE | 24 | | |
| 880 | TREE | 19 | | |
| 881 | TREE | 9 | | |
| 882 | TREE | 8 | Elm | Poor |
| 883 | TREE | 8 | Red Oak | Poor |
| 884 | TREE | 19 | Red Oak | Good |
| 885 | TREE | 7 | | |
| 886 | TREE | 10 | Red Oak | Fair |
| 887 | TREE | 10 | White Oak | Fair |
| 888 | TREE | 8 | Ash | Dead |
| 889 | TREE | 11 | Ash | Dead |
| 890 | TREE | 26 | Norway Maple | Poor |
| 891 | TREE | 22 | Norway Maple | Fair |
| 892 | TREE | 30 | Tulip Tree | Fair |
| 893 | TREE | 10 | Red Oak | Poor |
| 894 | TREE | 10 | Red Oak | Poor |
| 895 | TREE | 10 | Red Oak | Poor |
| 896 | TREE | 10 | Red Oak | Poor |
| 897 | TREE | 10 | Red Oak | Poor |
| 898 | TREE | 12 | Red Maple | Fair |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|-----------|--------------|------|
| 899 | TREE | 8 | Elm | Poor |
| 900 | TREE | 14 | Red Oak | Fair |
| 901 | TREE | 18 | | |
| 902 | TREE | 16 | Red Oak | Good |
| 903 | TREE | 14 | Red Oak | Good |
| 904 | TREE | 7 | | |
| 906 | TREE | 16 | | |
| 907 | TREE | 7 | | |
| 908 | TREE | 8 | | |
| 909 | TREE | 16 | | |
| 910 | TREE | 10 | | |
| 911 | TREE | 18 | | |
| 912 | TREE | 18 | | |
| 913 | TREE | 8 | | |
| 914 | TREE | 20 | | |
| 915 | TREE | 20 | | |
| 916 | TREE | 18 | | |
| 917 | TREE | 14 | | |
| 918 | TREE | 14 | | |
| 919 | TREE | 18 | | |
| 920 | TREE | 8 | | |
| 921 | TREE | 24 | | |
| 922 | TREE | 8 | | |
| 923 | TREE | 7 | | |
| 924 | TREE | 24 | | |
| 925 | TREE | 14 | Norway Maple | Poor |
| 926 | TREE | 9 | Norway Maple | Poor |
| 927 | TREE | 20 | Sugar Maple | Poor |
| 928 | TREE | 10 | Norway Maple | Poor |
| 929 | TREE | 15 | Norway Maple | Poor |
| 930 | TREE | 7 | | |
| 931 | TREE | 6 | | |
| 932 | TREE | 28 | Sugar Maple | Poor |
| 933 | TREE | 9 | Norway Maple | Fair |
| 934 | TREE | 19 | Hickory | Poor |
| 935 | TREE | 19 | Sugar Maple | Good |
| 936 | TREE | 17 | Ash | Poor |
| 937 | TREE | 19 | Norway Maple | Fair |
| 938 | TREE | 10 Twin | Norway Maple | Poor |
| 939 | TREE | 12 | Sugar Maple | Poor |
| 940 | TREE | 11 | Sugar Maple | Fair |
| 941 | TREE | 18 | Norway Maple | Fair |
| 942 | TREE | 7 | | |
| 943 | TREE | 12 Triple | Cherry | Poor |
| 944 | TREE | 8 Twin | Sugar Maple | Poor |
| 945 | TREE | 10 | Norway Maple | Poor |
| 946 | TREE | 10 | Norway Maple | Poor |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|-----|------|-----------|--------------|------|
| 947 | TREE | 16 | Cherry | Poor |
| 948 | TREE | 14 | Sugar Maple | Fair |
| 949 | TREE | 9 | Norway Maple | Fair |
| 950 | TREE | 14 | Norway Maple | Fair |
| 951 | TREE | 36 | White Oak | Good |
| 952 | TREE | 46 | Red Oak | Good |
| 953 | TREE | 9 | Sugar Maple | Poor |
| 954 | TREE | 8 | Norway Maple | Poor |
| 955 | TREE | 6 | | |
| 956 | TREE | 16 | Sugar Maple | Fair |
| 957 | TREE | 14 | Cherry | Poor |
| 958 | TREE | 16 Triple | Elm | Fair |
| 959 | TREE | 8 | Sugar Maple | Fair |
| 960 | TREE | 30 | Sugar Maple | Poor |
| 961 | TREE | 12 | Red Maple | Poor |
| 962 | TREE | 12 | Red Maple | Poor |
| 963 | TREE | 12 | Norway Maple | Poor |
| 964 | TREE | 16 | Red Maple | Poor |
| 965 | TREE | 18 | Hickory | Good |
| 966 | TREE | 19 | Ash | Dead |
| 967 | TREE | 28 | Sugar Maple | Good |
| 968 | TREE | 7 | | |
| 969 | TREE | 6 | | |
| 970 | TREE | 12 | Ash | Poor |
| 971 | TREE | 8 | Norway Maple | Poor |
| 972 | TREE | 9 | Norway Maple | Poor |
| 973 | TREE | 10 | Sugar Maple | Fair |
| 974 | TREE | 16 | Sugar Maple | Fair |
| 975 | TREE | 10 | Sugar Maple | Fair |
| 976 | TREE | 28 | Sugar Maple | Fair |
| 977 | TREE | 19 | Red Oak | Poor |
| 978 | TREE | 18 | Hickory | Good |
| 979 | TREE | 30 | Sugar Maple | Good |
| 980 | TREE | 16 | Norway Maple | Fair |
| 981 | TREE | 10 | Norway Maple | Fair |
| 982 | TREE | 16 | Red Oak | Fair |
| 983 | TREE | 22 Split | Sugar Maple | Fair |
| 984 | TREE | 18 | Red Oak | Fair |
| 985 | TREE | 10 | Sugar Maple | Fair |
| 986 | TREE | 10 | Beech | Good |
| 987 | TREE | 11 | Norway Maple | Fair |
| 988 | TREE | 8 | Sugar Maple | Fair |
| 989 | TREE | 36 | Norway Maple | Good |
| 990 | TREE | 30 | Red Oak | Fair |
| 991 | TREE | 16 | Sugar Maple | Good |
| 992 | TREE | 24 | Red Oak | Good |
| 993 | TREE | 28 | Red Oak | Good |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|------|------|--------|--------------|------|
| 994 | TREE | 38 | | |
| 995 | TREE | 19 | | |
| 996 | TREE | 27 | | |
| 997 | TREE | 7 | | |
| 998 | TREE | 12 | | |
| 999 | TREE | 24 | | |
| 1000 | TREE | 11 | | |
| 1001 | TREE | 32 | Red Oak | Good |
| 1002 | TREE | 24 | | |
| 1003 | TREE | 18 | | |
| 1004 | TREE | 16 | | |
| 1005 | TREE | 7 | | |
| 1006 | TREE | 24 | | |
| 1007 | TREE | 9 | | |
| 1008 | TREE | 7 | | |
| 1009 | TREE | 7 | | |
| 1010 | TREE | 10 | | |
| 1011 | TREE | 10 | | |
| 1012 | TREE | 14 | Elm | Poor |
| 1013 | TREE | 18 | Sugar Maple | Poor |
| 1014 | TREE | 6 | | |
| 1015 | TREE | 7 | | |
| 1016 | TREE | 9 | | |
| 1017 | TREE | 9 | | |
| 1018 | TREE | 30 | Sugar Maple | Poor |
| 1019 | TREE | 17 | Elm | Poor |
| 1020 | TREE | 30 | Sugar Maple | Good |
| 1021 | TREE | 14 | Sugar Maple | Poor |
| 1022 | TREE | 14 | Sugar Maple | Poor |
| 1023 | TREE | 7 | | |
| 1024 | TREE | 16 | Sugar Maple | Fair |
| 1025 | TREE | 7 | | |
| 1026 | TREE | 12 | Sugar Maple | Poor |
| 1027 | TREE | 12 | Sugar Maple | Poor |
| 1028 | TREE | 18 | Sugar Maple | Fair |
| 1029 | TREE | 9 | Sugar Maple | Poor |
| 1030 | TREE | 7 | | |
| 1031 | TREE | 19 | Norway Maple | Poor |
| 1032 | TREE | 8 | Cherry | Poor |
| 1033 | TREE | 10 | Cherry | Poor |
| 1034 | TREE | 7 Twin | | |
| 1035 | TREE | 14 | Sugar Maple | Poor |
| 1036 | TREE | 17 | Sugar Maple | Fair |
| 1037 | TREE | 13 | Sugar Maple | Poor |
| 1038 | TREE | 17 | Sugar Maple | Fair |
| 1039 | TREE | 22 | Sugar Maple | Good |
| 1040 | TREE | 11 | Beech | Fair |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|------|------|---------|--------------|------|
| 1041 | TREE | 13 | Elm | Poor |
| 1042 | TREE | 26 | Sugar Maple | Fair |
| 1043 | TREE | 8 | Sugar Maple | Poor |
| 1044 | TREE | 22 | Red Oak | Fair |
| 1045 | TREE | 8 | Sugar Maple | Fair |
| 1046 | TREE | 10 | Sugar Maple | Fair |
| 1047 | TREE | 10 | Sugar Maple | Fair |
| 1048 | TREE | 26 | Red Oak | Good |
| 1049 | TREE | 25 | Red Oak | Good |
| 1050 | TREE | 9 | Sugar Maple | Poor |
| 1051 | TREE | 20 | Black Birch | Poor |
| 1052 | TREE | 16 | Sugar Maple | Good |
| 1053 | TREE | 7 | | |
| 1054 | TREE | 10 | Sugar Maple | Fair |
| 1055 | TREE | 16 | Cherry | Fair |
| 1056 | TREE | 21 | Sugar Maple | Good |
| 1057 | TREE | 6 | | |
| 1058 | TREE | 8 | Sugar Maple | Fair |
| 1059 | TREE | 8 | Sugar Maple | Poor |
| 1060 | TREE | 7 | | |
| 1061 | TREE | 43 | Sugar Maple | Good |
| 1062 | TREE | 42 | Norway Maple | Good |
| 1063 | TREE | 10 | Cherry | Poor |
| 1064 | TREE | 18 Wall | Norway Maple | Poor |
| 1065 | TREE | 27 | Norway Maple | Poor |
| 1066 | TREE | 12 | Sugar Maple | Good |
| 1067 | TREE | 19 | Sugar Maple | Good |
| 1068 | TREE | 18 | Sugar Maple | Fair |
| 1069 | TREE | 21 | Sugar Maple | Fair |
| 1070 | TREE | 14 | Sugar Maple | Poor |
| 1071 | TREE | 6 | | |
| 1072 | TREE | 17 | Sugar Maple | Poor |
| 1073 | TREE | 7 | | |
| 1074 | TREE | 18 | Sugar Maple | Poor |
| 1075 | TREE | 18 | Sugar Maple | Poor |
| 1076 | TREE | 21 | Norway Maple | Fair |
| 1077 | TREE | 28 | Norway Maple | Fair |
| 1078 | TREE | 12 | Sugar Maple | Fair |
| 1079 | TREE | 23 | Sugar Maple | Good |
| 1080 | TREE | 30 | Norway Maple | Fair |
| 1081 | TREE | 14 | Norway Maple | Fair |
| 1082 | TREE | 18 | Cherry | Poor |
| 1083 | TREE | 14 | Sugar Maple | Fair |
| 1084 | TREE | 24 | Sugar Maple | Good |
| 1085 | TREE | 7 | | |
| 1086 | TREE | 26 | Sugar Maple | Good |
| 1087 | TREE | 14 | Sugar Maple | Fair |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|------|------|-----------|--------------|------|
| 1088 | TREE | 14 | Norway Maple | Fair |
| 1089 | TREE | 16 | Apple | Poor |
| 1090 | TREE | 20 | Apple | Poor |
| 1091 | TREE | 9 | Norway Maple | Fair |
| 1092 | TREE | 32 | Red Oak | Fair |
| 1093 | TREE | 7 | | |
| 1094 | TREE | 9 | Sugar Maple | Fair |
| 1095 | TREE | 9 | Sugar Maple | Fair |
| 1096 | TREE | 9 | Norway Maple | Fair |
| 1097 | TREE | 9 | Cherry | Poor |
| 1098 | TREE | 9 | Norway Maple | Fair |
| 1099 | TREE | 7 | | |
| 1100 | TREE | 34 | Red Oak | Fair |
| 1101 | TREE | 9 | Norway Maple | Poor |
| 1102 | TREE | 20 | Sugar Maple | Good |
| 1103 | TREE | 20 | Sugar Maple | Good |
| 1104 | TREE | 11 | Sugar Maple | Fair |
| 1105 | TREE | 7 | | |
| 1106 | TREE | 13 | Norway Maple | Dead |
| 1107 | TREE | 26 | Norway Maple | Fair |
| 1108 | TREE | 10 | Ash | Poor |
| 1109 | TREE | 34 | Norway Maple | Poor |
| 1110 | TREE | 35 | Red Oak | Fair |
| 1111 | TREE | 34 | Red Oak | Good |
| 1112 | TREE | 6 | | |
| 1113 | TREE | 18 | Sugar Maple | Good |
| 1114 | TREE | 38 | Red Oak | Good |
| 1115 | TREE | 14 | Norway Maple | Poor |
| 1116 | TREE | 6 | | |
| 1117 | TREE | 20 | Sugar Maple | Fair |
| 1118 | TREE | 6 | | |
| 1119 | TREE | 6 | | |
| 1120 | TREE | 16 | Norway Maple | Poor |
| 1121 | TREE | 10 Triple | Cherry | Poor |
| 1122 | TREE | 20 | Norway Maple | Poor |
| 1123 | TREE | 20 | Norway Maple | Fair |
| 1124 | TREE | 17 | Norway Maple | Fair |
| 1125 | TREE | 10 | Norway Maple | Poor |
| 1126 | TREE | 8 | Norway Maple | Fair |
| 1127 | TREE | 16 | Norway Maple | Poor |
| 1128 | TREE | 11 | Norway Maple | Poor |
| 1129 | TREE | 12 | Norway Maple | Poor |
| 1130 | TREE | 10 | Norway Maple | Fair |
| 1131 | TREE | 18 | Norway Maple | Poor |
| 1132 | TREE | 18 | Norway Maple | Poor |
| 1133 | TREE | 18 | Norway Maple | Poor |
| 1134 | TREE | 10 | Beech | Poor |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|------|------|---------|--------------|------|
| 1135 | TREE | 20 | Norway Maple | Fair |
| 1136 | TREE | 7 | | |
| 1137 | TREE | 18 | Norway Maple | Poor |
| 1138 | TREE | 20 | Norway Maple | Poor |
| 1139 | TREE | 14 | Norway Maple | Poor |
| 1140 | TREE | 7 | | |
| 1141 | TREE | 14 | Norway Maple | Poor |
| 1142 | TREE | 16 | Norway Maple | Poor |
| 1143 | TREE | 16 | Norway Maple | Poor |
| 1144 | TREE | 29 | Red Oak | Poor |
| 1145 | TREE | 16 | Cherry | Poor |
| 1146 | TREE | 32 | Red Oak | Poor |
| 1147 | TREE | 24 | Beech | Good |
| 1148 | TREE | 18 | Beech | Poor |
| 1149 | TREE | 10 | Norway Maple | Poor |
| 1150 | TREE | 14 Twin | | |
| 1151 | TREE | 20 | | |
| 1152 | TREE | 7 | | |
| 1153 | TREE | 14 | Sugar Maple | Poor |
| 1154 | TREE | 7 | | |
| 1155 | TREE | 7 | | |
| 1156 | TREE | 8 | Sugar Maple | Poor |
| 1157 | TREE | 14 | Norway Maple | Good |
| 1158 | TREE | 16 | Norway Maple | Poor |
| 1159 | TREE | 24 | Norway Maple | Poor |
| 1160 | TREE | 6 | | |
| 1161 | TREE | 6 | | |
| 1162 | TREE | 6 | | |
| 1163 | TREE | 18 | | |
| 1164 | TREE | 8 | | |
| 1165 | TREE | 12 | | |
| 1166 | TREE | 24 | Red Oak | Poor |
| 1167 | TREE | 18 | | |
| 1168 | TREE | 20 | Sugar Maple | Poor |
| 1169 | TREE | 10 | | |
| 1170 | TREE | 8 | Norway Maple | Poor |
| 1171 | TREE | 18 | Norway Maple | Poor |
| 1172 | TREE | 18 | Norway Maple | Poor |
| 1173 | TREE | 25 | Red Oak | Poor |
| 1174 | TREE | 16 | | |
| 1175 | TREE | 9 | | |
| 1176 | TREE | 9 | | |
| 1177 | TREE | 6 | | |
| 1178 | TREE | 6 | | |
| 1179 | TREE | 7 | | |
| 1180 | TREE | 19 | | |
| 1181 | TREE | 8 | | |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | |
|------|------|----|
| 1182 | TREE | 8 |
| 1183 | TREE | 6 |
| 1184 | TREE | 7 |
| 1185 | TREE | 8 |
| 1186 | TREE | 6 |
| 1187 | TREE | 6 |
| 1188 | TREE | 6 |
| 1189 | TREE | 7 |
| 1190 | TREE | 24 |
| 1191 | TREE | 12 |
| 1192 | TREE | 8 |
| 1193 | TREE | 10 |
| 1194 | TREE | 6 |
| 1195 | TREE | 34 |
| 1196 | TREE | 6 |
| 1197 | TREE | 36 |
| 1198 | TREE | 6 |
| 1199 | TREE | 18 |
| 1200 | TREE | 8 |
| 1201 | TREE | 10 |
| 1202 | TREE | 10 |
| 1203 | TREE | 7 |
| 1204 | TREE | 7 |
| 1205 | TREE | 28 |
| 1206 | TREE | 9 |
| 1207 | TREE | 6 |
| 1208 | TREE | 12 |
| 1209 | TREE | 8 |
| 1210 | TREE | 11 |
| 1211 | TREE | 10 |
| 1212 | TREE | 29 |
| 1213 | TREE | 34 |
| 1214 | TREE | 6 |
| 1215 | TREE | 24 |
| 1216 | TREE | 36 |
| 1218 | TREE | 9 |
| 1219 | TREE | 7 |
| 1220 | TREE | 36 |
| 1221 | TREE | 8 |
| 1222 | TREE | 23 |
| 1223 | TREE | 13 |
| 1224 | TREE | 6 |
| 1225 | TREE | 16 |
| 1226 | TREE | 7 |
| 1227 | TREE | 6 |
| 1228 | TREE | 13 |
| 1229 | TREE | 14 |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | |
|------|------|---------|
| 1231 | TREE | 6 |
| 1232 | TREE | 15 |
| 1233 | TREE | 40 |
| 1234 | TREE | 10 |
| 1235 | TREE | 10 |
| 1235 | TREE | 24 |
| 1236 | TREE | 6 |
| 1237 | TREE | 14 |
| 1238 | TREE | 18 |
| 1239 | TREE | 9 |
| 1240 | TREE | 14 |
| 1241 | TREE | 12 |
| 1242 | TREE | 6 |
| 1243 | TREE | 7 |
| 1244 | TREE | 20 |
| 1245 | TREE | 18 |
| 1246 | TREE | 8 |
| 1247 | TREE | 6 |
| 1248 | TREE | 14 |
| 1249 | TREE | 7 |
| 1250 | TREE | 34 |
| 1251 | TREE | 17 |
| 1252 | TREE | 6 |
| 1253 | TREE | 18 |
| 1254 | TREE | 14 |
| 1255 | TREE | 26 |
| 1256 | TREE | 8 |
| 1257 | TREE | 18 |
| 1258 | TREE | 10 |
| 1259 | TREE | 9 |
| 1260 | TREE | 13 |
| 1261 | TREE | 18 |
| 1262 | TREE | 10 |
| 1263 | TREE | 26 |
| 1264 | TREE | 24 Twin |
| 1265 | TREE | 9 |
| 1266 | TREE | 18 |
| 1267 | TREE | 16 |
| 1268 | TREE | 13 |
| 1269 | TREE | 7 |
| 1270 | TREE | 6 |
| 1271 | TREE | 6 |
| 1272 | TREE | 6 |
| 1273 | TREE | 8 |
| 1274 | TREE | 19 |
| 1275 | TREE | 20 |
| 1277 | TREE | 23 |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | |
|------|------|----|
| 1278 | TREE | 34 |
| 1279 | TREE | 17 |
| 1280 | TREE | 14 |
| 1281 | TREE | 36 |
| 1282 | TREE | 8 |
| 1283 | TREE | 12 |
| 1284 | TREE | 6 |
| 1285 | TREE | 6 |
| 1286 | TREE | 6 |
| 1287 | TREE | 30 |
| 1288 | TREE | 24 |
| 1289 | TREE | 6 |
| 1290 | TREE | 10 |
| 1291 | TREE | 28 |
| 1292 | TREE | 14 |
| 1293 | TREE | 7 |
| 1294 | TREE | 9 |
| 1295 | TREE | 30 |
| 1296 | TREE | 6 |
| 1297 | TREE | 8 |
| 1298 | TREE | 18 |
| 1299 | TREE | 28 |
| 1300 | TREE | 34 |
| 1301 | TREE | 7 |
| 1302 | TREE | 8 |
| 1303 | TREE | 6 |
| 1304 | TREE | 6 |
| 1305 | TREE | 10 |
| 1306 | TREE | 6 |
| 1307 | TREE | 7 |
| 1308 | TREE | 6 |
| 1309 | TREE | 7 |
| 1310 | TREE | 6 |
| 1311 | TREE | 10 |
| 1312 | TREE | 7 |
| 1313 | TREE | 20 |
| 1314 | TREE | 24 |
| 1315 | TREE | 16 |
| 1316 | TREE | 7 |
| 1317 | TREE | 20 |
| 1318 | TREE | 7 |
| 1319 | TREE | 6 |
| 1320 | TREE | 33 |
| 1321 | TREE | 11 |
| 1322 | TREE | 8 |
| 1323 | TREE | 8 |
| 1324 | TREE | 10 |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | |
|------|------|----|
| 1325 | TREE | 6 |
| 1326 | TREE | 12 |
| 1327 | TREE | 12 |
| 1328 | TREE | 14 |
| 1329 | TREE | 20 |
| 1330 | TREE | 9 |
| 1331 | TREE | 23 |
| 1332 | TREE | 30 |
| 1333 | TREE | 9 |
| 1334 | TREE | 9 |
| 1335 | TREE | 10 |
| 1336 | TREE | 9 |
| 1337 | TREE | 12 |
| 1338 | TREE | 11 |
| 1339 | TREE | 14 |
| 1340 | TREE | 11 |
| 1341 | TREE | 6 |
| 1342 | TREE | 30 |
| 1343 | TREE | 6 |
| 1344 | TREE | 6 |
| 1345 | TREE | 7 |
| 1346 | TREE | 7 |
| 1347 | TREE | 12 |
| 1348 | TREE | 7 |
| 1349 | TREE | 6 |
| 1350 | TREE | 7 |
| 1351 | TREE | 14 |
| 1352 | TREE | 7 |
| 1353 | TREE | 24 |
| 1354 | TREE | 6 |
| 1355 | TREE | 7 |
| 1356 | TREE | 6 |
| 1357 | TREE | 28 |
| 1358 | TREE | 26 |
| 1359 | TREE | 12 |
| 1360 | TREE | 22 |
| 1361 | TREE | 22 |
| 1362 | TREE | 22 |
| 1363 | TREE | 16 |
| 1364 | TREE | 16 |
| 1365 | TREE | 7 |
| 1366 | TREE | 14 |
| 1367 | TREE | 19 |
| 1368 | TREE | 6 |
| 1369 | TREE | 19 |
| 1370 | TREE | 6 |
| 1371 | TREE | 20 |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | |
|------|------|---------|
| 1372 | TREE | 13 |
| 1373 | TREE | 12 |
| 1374 | TREE | 12 |
| 1375 | TREE | 22 |
| 1376 | TREE | 7 |
| 1377 | TREE | 9 |
| 1378 | TREE | 8 |
| 1379 | TREE | 16 |
| 1380 | TREE | 7 |
| 1381 | TREE | 13 |
| 1382 | TREE | 10 |
| 1383 | TREE | 27 |
| 1384 | TREE | 14 |
| 1385 | TREE | 6 |
| 1386 | TREE | 6 |
| 1387 | TREE | 14 |
| 1388 | TREE | 18 |
| 1389 | TREE | 27 |
| 1390 | TREE | 13 |
| 1391 | TREE | 11 |
| 1392 | TREE | 7 Twin |
| 1393 | TREE | 10 |
| 1394 | TREE | 16 |
| 1395 | TREE | 30 |
| 1396 | TREE | 11 |
| 1397 | TREE | 16 Twin |
| 1398 | TREE | 14 |
| 1399 | TREE | 28 |
| 1400 | TREE | 8 |
| 1401 | TREE | 14 |
| 1402 | TREE | 14 |
| 1403 | TREE | 19 Twin |
| 1404 | TREE | 30 |
| 1405 | TREE | 16 |
| 1406 | TREE | 10 |
| 1407 | TREE | 14 |
| 1408 | TREE | 28 |
| 1409 | TREE | 8 |
| 1410 | TREE | 6 |
| 1411 | TREE | 6 |
| 1412 | TREE | 12 |
| 1413 | TREE | 30 |
| 1414 | TREE | 10 |
| 1415 | TREE | 6 |
| 1416 | TREE | 12 |
| 1417 | TREE | 8 |
| 1418 | TREE | 30 |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | |
|------|------|----|
| 1419 | TREE | 8 |
| 1420 | TREE | 18 |
| 1421 | TREE | 14 |
| 1422 | TREE | 10 |
| 1423 | TREE | 12 |
| 1424 | TREE | 16 |
| 1425 | TREE | 11 |
| 1426 | TREE | 20 |
| 1427 | TREE | 20 |
| 1428 | TREE | 8 |
| 1429 | TREE | 8 |
| 1430 | TREE | 9 |
| 1431 | TREE | 10 |
| 1432 | TREE | 10 |
| 1433 | TREE | 30 |
| 1434 | TREE | 8 |
| 1435 | TREE | 11 |
| 1436 | TREE | 20 |
| 1437 | TREE | 9 |
| 1438 | TREE | 10 |
| 1439 | TREE | 30 |
| 1440 | TREE | 9 |
| 1441 | TREE | 48 |
| 1442 | TREE | 10 |
| 1443 | TREE | 10 |
| 1444 | TREE | 8 |
| 1445 | TREE | 10 |
| 1446 | TREE | 12 |
| 1447 | TREE | 8 |
| 1448 | TREE | 20 |
| 1450 | TREE | 18 |
| 1451 | TREE | 18 |
| 1452 | TREE | 18 |
| 1453 | TREE | 18 |
| 1454 | TREE | 9 |
| 1455 | TREE | 25 |
| 1456 | TREE | 7 |
| 1457 | TREE | 10 |
| 1458 | TREE | 7 |
| 1459 | TREE | 12 |
| 1460 | TREE | 20 |
| 1461 | TREE | 19 |
| 1462 | TREE | 8 |
| 1463 | TREE | 8 |
| 1464 | TREE | 30 |
| 1466 | TREE | 11 |
| 1467 | TREE | 8 |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | | | |
|------|------|-----------|--------------|------|
| 1468 | TREE | 7 Triple | | |
| 1469 | TREE | 15 | | |
| 1470 | TREE | 18 | | |
| 1471 | TREE | 36 | | |
| 1472 | TREE | 34 | | |
| 1473 | TREE | 9 | | |
| 1474 | TREE | 32 | | |
| 1475 | TREE | 14 | | |
| 1476 | TREE | 12 | | |
| 1477 | TREE | 15 | | |
| 1478 | TREE | 15 | | |
| 1479 | TREE | 14 | | |
| 1480 | TREE | 10 | | |
| 1481 | TREE | 26 | | |
| 1482 | TREE | 28 | | |
| 1483 | TREE | 8 | | |
| 1484 | TREE | 20 | Apple | Poor |
| 1485 | TREE | 10 | Cherry | Poor |
| 1486 | TREE | 34 | | |
| 1487 | TREE | 32 | Norway Maple | Fair |
| 1488 | TREE | 36 | Norway Maple | Fair |
| 1489 | TREE | 25 | Norway Maple | Fair |
| 1490 | TREE | 36 | Sugar Maple | Fair |
| 1491 | TREE | 35 | Sugar Maple | Fair |
| 1492 | TREE | 28 | Norway Maple | Fair |
| 1493 | TREE | 21 | Sugar Maple | Good |
| 1494 | TREE | 24 | Sugar Maple | Poor |
| 1495 | TREE | 26 | | |
| 1496 | TREE | 24 | | |
| 1497 | TREE | 24 | Norway Maple | Poor |
| 1498 | PINE | 14 Twin | White Pine | Good |
| 1499 | PINE | 15 | White Pine | Dead |
| 1500 | TREE | 24 | Sugar Maple | Good |
| 1501 | TREE | 8 Triple | Cherry | Poor |
| 1502 | TREE | 12 Clump | Beech | Poor |
| 1503 | TREE | 19 | Norway Maple | Poor |
| 1504 | TREE | 20 | | |
| 1505 | TREE | 16 Twin | | |
| 1506 | TREE | 22 | | |
| 1507 | TREE | 18 | | |
| 1508 | TREE | 22 | | |
| 1509 | TREE | 24 | | |
| 1510 | TREE | 16 Triple | | |
| 1511 | TREE | 20 | | |
| 1512 | TREE | 9 Clump | | |
| 1513 | TREE | 12 | | |
| 1514 | TREE | 6 | | |

*Yellow denotes trees to be removed / located within limit of disturbance with at least 8" DBH

| | | |
|------|------|----|
| 1515 | TREE | 27 |
| 1516 | TREE | 20 |
| 1517 | TREE | 7 |
| 1518 | TREE | 11 |
| 1519 | TREE | 19 |

| | | | | |
|------|------|----|---------|------|
| 1520 | TREE | 10 | Ash | Poor |
| 1521 | TREE | 24 | Pin Oak | Good |
| 1522 | TREE | 18 | Pin Oak | Good |
| 1523 | TREE | 24 | Pin Oak | Good |
| 1524 | TREE | 24 | Pin Oak | Good |