


## MEMORANDUM

TO: North Castle Planning Board

CC: North Castle Conservation Board  
Adam Kaufman, AICP  
David Lombardi, P.E.  
Paul Sysak, R.L.A.

FROM: Joseph M. Cermele, P.E., CFM   
Kellard Sessions Consulting  
Consulting Town Engineers

DATE: April 9, 2020

RE: A & R Real Estate Holdings Proposed Warehouse  
100 Business Park Drive  
Section 108.03, Block 1, Lot 51

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As requested, Kellard Sessions Consulting has reviewed the site plans submitted in conjunction with the above-referenced project. The applicant is seeking Amended Site Plan Approval for the construction of a single story,  $\pm 74,850$  s.f. warehouse on the undeveloped portion of the site. The site is currently developed with a  $\pm 62,800$  s.f. light industrial/warehouse building and associated off-street parking. Associated improvements for the proposed warehouse include off-street parking, access driveways, loading areas, compensatory storage basins to off-set floodplain development, wetland mitigation and stormwater management facilities. The plan proposes to land-bank 44 of the 63 required off-street parking spaces. The total area of the property is  $\pm 11.3$  acres and is located in the PLI Zoning District.

Our comments are outlined below.

### GENERAL COMMENTS

1. As illustrated on the plan, the project site is located partially within the FEMA regulated floodway of the Byram River and the associated 100-year floodplain with a base flood elevation (BFE) of Elevation 370.0. Development is proposed within both the floodway and floodplain. As such, the applicant will be required to obtain a Floodplain Development Permit demonstrating compliance with Chapter 177 - Flood Damage Prevention of the Town Code. The Existing Condition Site Plan shall include references to the FEMA Effective FIRM Maps. The applicant has prepared a Flood

Storage Volume Analysis Plan for review; however, the required no-rise analysis has not been provided and shall be prepared for consideration.

2. The plan proposes earthwork at the rear of the property to construct basins for compensatory flood water storage, as required Section 177-14 B (3) of the Town Code. The applicant has prepared an Existing and Proposed Flood Storage Volume Analysis Plan to demonstrate that adequate compensatory storage has been provided by the development. In review of the plan, we offer the following comments for consideration:
  - After review of the Existing Condition Plan, it appears that the terrain model requires additional refinement and should include existing spot grades. As currently shown, areas of existing available storage within the site have not been accounted for and will be eliminated by the development, requiring additional storage to offset the loss. A copy of the TIN model should be provided.
  - The Proposed Flood Storage Plan should be revised to discount the volume accounted for in the proposed stormwater management basin below Elevation 370.0. This volume must be reserved for stormwater mitigation for runoff from the building.
  - In addition to the compensatory flood storage evaluation noted above and, as required by Section 177-14 B (2)(a) of the Town Code, on streams with a regulatory floodway, such as the Byram River, no new construction or development in the floodway shall be permitted unless a technical evaluation is prepared demonstrating that the development will not result in any increase in flood levels during the 100-year storm. The required study shall be prepared and submitted for review.
3. The Byram River flows generally north to south along the eastern property boundary. This watercourse is a locally-regulated wetland, as well as a New York State Department of Environmental Conservation (NYSDEC) Class C(T) stream. The 100-foot regulated buffer and adjacent area extends onto the property and within the proposed development area. A local Wetland Permit will be required.
4. The applicant has prepared a Wetland Evaluation and Impact Report, which indicates that the NYSDEC and the US Army Corps of Engineers (US ACOE) will not require permitting for the proposed development. The property is located within the check-zone of two (2) adjacent NYSDEC Freshwater Wetlands, Wetlands No. G-1 and G-2. Written confirmation from these agencies, indicating that no permits are required, should be provided to the Town for their information.
5. The applicant shall confirm whether the wetland boundary illustrated on the plan has been established in the field with fluorescent, sequentially-numbered ribbons. Once confirmed, please notify this office for field verification of the boundary by the Town Wetland Consultant.

6. The Byram River is a Westchester County controlled stream and development is proposed within 100 feet of its banks. The applicant shall provide confirmation from the Westchester County Department of Public Works (WC DPW) whether a Stream Control Permit is required.
7. As previously indicated, the plan proposes disturbances within the locally regulated 100-foot buffer of the Byram River and associated fringe wetland area. The applicant will be required to provide mitigation at a ratio of 2:1 for unavoidable disturbances within the wetland/wetland buffer, as required by Chapter 340, Wetlands and Watercourse Protection of the Town Code. We recommend that the Planning Board refer the plan to the Conservation Board for review and consideration.
8. As required by Town Code, the applicant will be required to provide a long-term monitoring and maintenance plan for the proposed wetland mitigation for a period of at least five (5) years. This office will provide standard conditions for this plan for inclusion on the Site Landscaping and Wetland Mitigation Plan.
9. The wetland mitigation plan shall include a summary table illustrating and quantifying the total area of disturbance for the project, the disturbance area within the wetland and wetland buffer, existing and proposed pervious and impervious surface areas, as well as the total area of wetland mitigation proposed.
10. As indicated in the Wetland Evaluation and Impact Report, a total of approximately 34,270 s.f. of disturbance is proposed within the wetland buffer. This same area is proposed for wetland mitigation. As such, it appears that the 2:1 ratio of mitigation to disturbed areas has not been met by this plan. However, there seems to be other on-site areas which could be used for additional mitigation. We will defer further comment until the Conservation Board has had an opportunity to review the plan. We note that the plantings proposed for the stormwater infiltration basin are typically not credited towards wetland mitigation, as they are required for compliance with the NYSDEC Stormwater Management Design Manual (SMDM) for stormwater mitigation. Additionally, the application rate of the stormwater basin seeding should be confirmed by the applicant, as the 4 lbs./acre appears to be insufficient for adequate stabilization.
11. The Wetland Evaluation and Impact Report makes reference to debris removal along the Byram River and its banks. This work is not shown on the plans and may require permitting by the NYSDEC and/or Westchester County Department of Public Works. Please clarify this on the plans and provide confirmation from both agencies regarding the need for any permits.
12. The plan proposes the removal of 259 Town-regulated trees, six (6) of which are Significant Trees, as defined by Town Code. The Planning Board should discuss whether the amount of proposed tree removal is appropriate for the development and if any tree preservation or replacement, in

addition to what is shown on the proposed Site Landscaping and Wetland Mitigation Plan, is required.

13. The proposed southern driveway access is opposite an existing well potentially to be used as a public water supply for the Town. A portion of this driveway is located within 100 feet of the well and the access drive, a portion of the proposed land-banked parking spaces and stormwater infiltration basin lie within the 200 foot control radius. The applicant should communicate with the Town and Westchester County Department of Health (WCHD) regarding any restrictions that may result should this well be put into service. Specifically, Part 5, Appendix 5-D, Table 1 of the NYCRR, Public Water Systems, provides required minimum separation distances to public water supply wells. We note that the proposed stormwater infiltration basin is a potential contamination source and is located within the 200 foot control area. The basin may require relocation or be subject to monitoring.
14. The plan proposes to land-bank 44 of the 63 required off-street parking spaces at the south side of the property. The Planning Board should discuss whether this is appropriate for the project.
15. The plan proposes a circulation drive around the south and east perimeter of the proposed building to connect to the existing parking area and driveway access. We note that a significant portion of this proposed access drive and adjacent parking will be submerged by as much as three (3) feet of water during the 100 year storm event; presumably to help off-set the impacts to the floodplain area and lost compensatory storage volume. This office recommends that the plan be revised to eliminate this condition. The Planning Board should discuss whether this is appropriate and if any flooding of the driveway or associated parking should be permitted. At a minimum, we would recommend that the plan be referred to the Armonk Fire Department and emergency services for their review for adequate emergency access for both emergency and aerial apparatus. The applicant should provide the Board with copies of any communication from the Fire Department in this regard and modify the plan, as may be required.
16. The applicant should illustrate turning movements for fire apparatus vehicles around the proposed building and exiting the site. We note that, as part of the prior approval for the existing facility, the Fire Department designated certain areas for fire access. These areas should be illustrated on the plan and reviewed with the Fire Department.
17. The plan proposes a total of eight (8) loading docks at the front of the proposed warehouse building, four (4) of which are shown as tandem spaces. The applicant should provide vehicle turning movements for the size trailer anticipated to access the site to demonstrate adequate maneuverability into the site and accessing these loading areas.
18. The site plan illustrates available sight line distances for vehicles exiting both proposed driveway locations. The plan should also include sight line profiles for these locations to demonstrate

adequate visibility in both directions from both locations. The plan should identify whether any additional existing vegetation along the right-of-way of Business Park Drive will require removal to maintain adequate sight lines.

19. The plan proposes a reduction in the depth of the parking stalls to 16 feet, as permitted by Town Code Section 355-56 D. The plan should illustrate the area of the required two (2) foot bumper overhang to demonstrate that no conflicts with proposed site lighting, landscaping or otherwise will result.
20. The plan proposes an accessible parking space in the front of the building, as required by Town Code. The plan should illustrate the required directional signage.
21. We note that, as required by Section 177-17 of the Town Code, the proposed building floor elevation has been set two (2) feet above the Base Flood Elevation (Elevation 372.0). The plan should also illustrate the location of any electrical transformer or similar utility and note that it shall be set at an elevation no lower than the BFE (Elev. 370.0).
22. The applicant has provided a Landscape Plan for consideration by the Planning Board. We note that the proposed off-street loading spaces in the front of the building are immediately opposite the entry drive. The Board should consider whether adequate screening of this loading area has been provided by the current plan.
23. The plan shall include proposed driveway profiles to demonstrate compliance with Section 355-59, Driveways of the Town Code.
24. The plan proposes approximately 4.8 acres of disturbance, which will require the owner to obtain coverage under the NYSDEC General Permit (GP-0-20-001) for Stormwater Discharge from Construction Activities. The applicant has prepared a Stormwater Pollution Prevention Plan (SWPPP) and Erosion and Sediment Control Plan for review. We will defer a detailed review of the SWPPP until the plan is developed further. However, we offer the following preliminary comments for consideration:
  - The proposed Water Quality Unit, located in the front of the building, is partially within the limits of an existing drainage easement in favor of the Town. The structure should be shifted to the south beyond the limits of this easement area.
  - The plan proposes the removal and relocation of existing storm conveyances in the central portion of the site, with the exception of a final section of 24-inch corrugated metal pipe that ultimately discharges to the Byram River. The condition of this section of pipe should be inspected with this office and the Superintendent of Highways to determine whether this last section shall also be replaced.

- The SWPPP should include pipe capacity calculations and storm drain profiles demonstrating adequate capacity for the increased flows.
- The two (2) proposed compensatory storage areas are piped to permit flows to surcharge the basins during a flood event and then recede once the storm passes. It appears, however, that the bottom elevation of the northerly basin (Elevation 386) should be lowered to Elevation 384 to allow proper drainage based on the proposed pipe layout.
- The plan proposes a stormwater infiltration basin, water quality treatment unit and porous pavement as stormwater management practices. A Long-Term Maintenance Agreement will be required to be put in place by the owner. A draft agreement should be provided for review by the Town Attorney.
- The SWPPP should include a draft copy of the Notice of Intent (NOI) for review.
- The plans should include a detail of the infiltration basin providing elevations for the channel protection volume, and peak water surface elevations for the 10-year and 100-year storm events.
- Provide confirmation as to whether the proposed stormwater basin is permitted to be located as proposed within 200 feet of the public water supply well.
- This office witnessed deep and percolation soil testing at various locations throughout the site. Based on the soil testing and observed groundwater elevations (approximate Elevation 363.5), it appears that the minimum three (3) foot separation from the bottom of the practice to the ground water surface, as required by the NYS SMDM, has not been provided for either the stormwater infiltration basin or the porous pavement. The plan shall be revised, as required, to maintain this separation.
- The drainage area Maps provided in the SWPPP should be supplemented with soil types and land cover areas to support the calculations in the hydrologic model.
- The infiltration basin calculation should be reviewed for consistency with the plan and revised, as needed. The available depth of the basin appears to only be 2½ feet deep, as opposed to the 3½ feet used in the calculation.
- The SWPPP shall clearly indicate the bypass rate provided by the water quality unit to ensure safe passage of the 100-year design flow.
- The plans and SWPPP shall provide details and documentation to support design compliance with the minimum requirements of the NYS SMDM for infiltration basins

(Practice I-2). Specifically, provisions for pre-treatment of the water quality volume shall be provided with a capacity based on the infiltration rate of the underlying soil.

- The location of the temporary construction fence illustrated on the Erosion and Sediment Control Plan is within the boundaries of the FEMA floodway. The plan shall be revised to avoid this.
  - The plan shall illustrate the area of the stormwater infiltration basin to be cordoned-off during construction.
  - The sequence of construction on the plan and within the SWPPP shall be expanded to include the following, at a minimum:
    - Steps to construct the proposed stormwater infiltration basin and temporary measures to prevent flow into the basin until stabilized and timing as to when it should be put online;
    - Construction of the compensatory storage basins and the associated interconnection to the existing storm system;
    - Construction of the porous pavement system and means of protection during construction;
    - Wetland mitigation, landscaping and site restoration.
25. The site plan illustrates utility connections for domestic water and sanitary sewer services. The applicant should clarify whether a water service for Fire Protection is required and whether any fire hydrants are proposed or required by the Armonk Fire Department in the vicinity of the proposed building. Any alternative means of Fire Protection should be noted on the plan.
26. The applicant has provided a Site Lighting and Photometric Plan for consideration by the Planning Board.
27. The applicant should indicate what fuel source is proposed to heat the space. We note that in March 2019, ConEdison imposed a moratorium on new or expansions to existing gas services.
28. The plan shall include details of the storm water basin and outlet structure.
29. The plans include a detail for steel bollards. Please indicate their location on the site plan.

As additional information becomes available, we will continue our review. It is noted that an itemized response to all comments will facilitate completeness and efficiency of review.

**PLANS & REPORT REVIEWED, PREPARED BY JMC, DATED MARCH 23, 2020:**

- Cover Sheet (C-000)
- Overall Existing Conditions Map (C-010)
- Site Existing Conditions Map (C-011)
- Site Demolition & Tree Removal Plan (C-020)
- Site Layout Plan (C-100)
- Site Grading Plan (C-200)
- Site Utilities Plan (C-300)
- Site Erosion & Sediment Control Plan (C-400)
- Site Landscaping & Wetland Mitigation Plan (C-500)
- Site Lighting Plan (C-600)
- Existing Flood Storage Volume Analysis Plan (C-700)
- Proposed Flood Storage Volume Analysis Plan (C-710)
- Construction Details (C-900, C-901, C-902, C-903)
- *Stormwater Pollution Prevention Plan* Report

**PLANS REVIEWED, PREPARED BY J GROUP DESIGNS, LLC, DATED MARCH 23, 2020:**

- Schematic Plan & Elevations (A-1)
- Schematic Exterior Views (A-2)

JMC/dc