KELLARD SESSIONS

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MEMORANDUM

TO: North Castle Town Board

CC: North Castle Planning Board

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

DATE: October 27, 2021

RE: DGEIS Review
Airport Campus
113 King Street

As requested, Kellard Sessions Consulting has reviewed the DEIS and plans submitted in conjunction with the above-referenced project. The applicant is proposing to redevelop a 38-acre parcel by redeveloping the northernmost existing office building into a hotel, the construction of a new, 5-story, 149-unit, multi-family building with a parking garage, the construction of 22 townhouse units and the reoccupation of the southernmost existing office building with office tenants. The 38-acre property is located in the Designated Office Business 20A (DOB-20A) Zoning District. The applicant has petitioned the Town Board for text amendments to the provisions of the DOB-20A Zoning Ordinance to permit residential and hotel uses via Special Permit.

Our comments are outlined below.

Chapter 8: Stormwater
Appendix E-1 Preliminary Stormwater Pollution Prevention Plan
Appendix E-2 Erosion and Sediment Control Plan

1. The project site is situated within the Kensico Reservoir Basin, a New York City Watershed area. As such, the project will be required to comply with regulations from the NYCDEP, NYSDEC and the Town of North Castle. The NYCDEP has acknowledged the prior approval of the Stormwater Pollution Prevention Plan (SWPPP) issued in June 2005 and has compared the prior approved plan to the current proposal. The NYCDEP has indicated that the project will be reviewed as an amendment to the original approval, requiring that all newly proposed impervious surfaces be captured and treated and receive appropriate runoff reduction. The appliance will be required to

revise the plans and SWPPP as may be needed, to obtain the amended approval. In addition to approval by the NYCDEP, the plan will require coverage under the NYSDEC SPDES General Permit, GP-0-20-001, for Stormwater Discharges from Construction Activity as well as demonstrate compliance with Chapter 267, Stormwater Management of the Town Code. The owner will be required to file a Notice of Intent (NOI) with the NYSDEC to obtain the above-mentioned General Permit. The SWPPP should include a draft copy of the NOI for review.

2. As part of the stormwater management system, the SWPPP proposes the use of several approved stormwater practices and green infrastructure practices to provide quality and quantity controls including vegetated swales, several bioretention areas, a wet pond, an extended detention basin, green roof, permeable pavers and infiltration systems with hydrodynamic separators for pre-treatment.

    a. The plans should include planting plans for each of the vegetated stormwater treatment systems including species, size and quantities of each planting material.

    b. The plans should include construction details and cross-sections of the various practices, as appropriate, to support the provided sizing calculations and demonstrate compliance with the design guidelines and specifications.

Chapter 9: Utilities
Appendix F-1: 72 Hour Pumping Test Report
Appendix F-2: Sanitary Sewer Calculations

Water Supply:

1. Average daily water demand for the project is estimated to be 58,600 gpd. The estimate does not include irrigation supply which will be supplied from the on-site pond or fire supply which would be stored within tanks at the multi-family building.

    NYS Regulations require that a well supply serving a water system be able to supply twice the average daily demand with the best producing well out of service. Water supply for the project is proposed from four (4) existing on-site wells (Wells 3, 6, 7 and 8), which range between 620 – 760 feet deep. The applicant performed a 72-hour pump test of the four (4) on-site wells servicing the project. The combined well yield of the test was 108.5 gpm, however, with the best well out of service, the combined yield of the remaining wells is 68.5 gpm or 98,640 gpd. The proposed project requires a combined yield of 117,200 gpd (58,600 gpd x 2 = 117,200 gpd). A deficit of 18,560 gpd or 12.9 gpm.

The applicant notes within the report two (2) options available to obtain the required supply. Should the project be approved as presently proposed, the applicant will need to develop and test the additional supply.

2. Laboratory results of water quality testing of the four (4) proposed supply wells for the project have not yet been provided.

3. The DGEIS estimates the total water supply to service full development of all rezoned parcels to be 146,300 gpd. This would require the development of 292,600 gpd of well supply with the best wells on each parcel not included. The ability of the rezoned parcels to support the required supply for the complete district has not been analyzed within the report.

4. Although pumping tests were performed for the on-site wells, it is important to understand whether the aquifer can be replenished during drought conditions at a rate which can support the project, as well as support the rezoned parcels.

   The April 5, 2021 submission of the Draft EIS included an evaluation of the aquifer. The watershed utilized within the applicant's evaluation did not follow the surface contours of the area and appeared significantly larger than our estimate. The applicant noted their evaluation included a combination of analytical tools useful for water resource planning. Our comments at that time requested that the applicant provide the backup data to support their assessment. Instead of providing the requested data, the aquifer evaluation was removed for the report.

   The previous report expanded the watershed to 282.2 acres encompassing portions of the reservoir, lands down gradient of the project site and portions of Citigroup and Swiss Re properties. The report estimated a drought year recharge of 118,740 gpd well below the 146,300 gpd required for all parcels included within the rezoning, a 27,560 gpd deficit. The applicant should substantiate the recharge expected at the project site and also the expected recharge for the proposed rezoned parcels.

Sanitary Sewer:

1. The applicant has examined the existing sanitary sewer infrastructure servicing the project site and parcels to be rezoned. Wastewater demand was estimated and utilized in determination of the necessary improvements to the existing sanitary sewer infrastructure. The study reveals that no modifications are required to the Town or County collection system or force mains to service the project.

Pump Station #2 at King Street and #3 at New King Street will require upgrades to meet present Health Department regulations. Work would include modifications to the wet wells and new pumps at each pumping station.

2. Average daily flows for office space were changed between the project calculations provided herein and the previous calculations within the Engineering Report used when the sewer system was originally approved and constructed. Previous values used a flow per square feet for office space while the new calculations use a flow per employee, resulting in significantly lower flow values. This is an acceptable method of determining average daily flows by the Health Department when the employee population can be pre-determined. The applicant also used a multiplier of 3.39 when converting average daily flow to peak hourly flows. The standard acceptable by the Health Department is 4.0. Peak flow values should be corrected.

3. The daily flow report included within Appendix F-2 provides a total daily flow per day between 11/13/2018 – 12/6/2018 and includes the corresponding daily rainfall totals. It is evident from the report that flows are higher during periods of significant rainfall events. The applicant should examine inflow and infiltration of the existing system in an effort to reduce such unwanted flows. Such a study would be appropriate during the site plan review phase of the project.

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.

DOCUMENTS REVIEWED, PREPARED BY AKRF, DATED SEPTEMBER 30, 2021:

- Draft Environmental Impact Statement (DEIS) & Draft Generic Environmental Impact Statement (DGEIS) Report and Appendices

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