


MEMORANDUM

TO: North Castle Planning Board

CC: North Castle Conservation Board
Adam Kaufman, AICP
Christopher Fisher, Cuddy & Feder, LLP
Anthony Guccione, Jr., R.L.A.
David Lombardi, P.E.
Airport Campus, LLC
Toll Brothers, Inc.

FROM: John Kellard, P.E. 
KSCJ Consulting
Consulting Town Engineers

DATE: November 27, 2023
Updated February 12, 2024

RE: Site Development Plan Approval Application
Airport Campus
113 King Street
Section 113.04, Block 1, Lots 13 and 14
Section 118.02, Block 1, Lot 1

As requested, KSCJ Consulting has reviewed the plans and documents submitted in conjunction with the above-referenced project. I have met with David Lombardi, P.E. and Anthony Guccione, Jr., R.L.A. of JMC, the applicant's Site Engineers for the project, to discuss my review of the Site Plans. My comments on the Site Engineering Plan Package were conveyed to these gentlemen, who I expect will review the comments and respond accordingly. Comments addressed horizontal and vertical road geometry, water distribution and sewer collection systems, drainage collection, site grading and erosion and sediment controls during construction. My review did not include the Stormwater Pollution Prevention Plan Report for the project, since the document is presently being revised by the applicant.

The majority of my comments were technical in nature and should not significantly alter the project layout presently before the Planning Board. They included utility pipe clearances, locations of drainage inlets, site grading, changes in grade between the side by side driveways, the potential need of retaining walls at certain unit entrances, the need to maintain a positive sloping terrain away from proposed dwelling units and the elevation, depth and drain inlet locations within yard drainage swales. We also discussed

maintenance access to the stormwater basins, erosion and sediment controls during construction and the project phasing. The applicant will need to clarify the responsibilities for utilities and other improvements, which may cross between the Townhouse project, and the separate parcel containing the existing office building.

One comment which could result in slight modification to the project layout is the horizontal geometry of the internal roads. There are approximately six (6) locations where the horizontal radius of roadway curves are less than the minimum required radius within of the Town Code and a number of locations where tangents between horizontal curves are less than the required standards. The applicant intends to request a waiver for these horizontal curves and tangents between curves from your Board, as well as some less significant vertical geometry waivers. I have asked the applicant's Site Engineers to submit additional technical information regarding recommended minimum radii at specific design speeds to support their request.

One (1) additional area, which could impact the layout, is the street frontage at the Townhomes. As proposed, there are no sidewalks within the community, except for the sidewalks in front of the Clubhouse/Pool Facility. The driveway length, at certain units only, provides 20 feet between the edge of the road and the garage door. While vehicles can fit within the 20 foot drive, vehicle bumpers will extend in close proximity to the roadway. Also, if a sidewalk is required, there will not be sufficient room to park a vehicle within the driveway. The Planning Board should advise whether the front yards, as proposed, are acceptable.

The applicant has submitted a revised plan set for the project. Our comments with regard to this recent submission follow below. We have not reviewed the Stormwater Pollution Prevention Plan, Utility Engineering Report, Off-Site Water Main Improvements, On-Site Water Storage Tank and Water Booster Station. We await submission of these documents.

- 1. The applicant has revised the roadway horizontal and vertical geometry of the roadway system, which in most instances is in conformance with the standards for Town roadways. The most recent submission includes seven (7) horizontal curves, which are less than the Town standard radius of 200 feet. Six (6) curves along Roadway B and Roadway A are proposed at 175 feet and one (1) curve within Dead End Roadway B is proposed at 125 feet.**

The submission also includes four (4) intersecting road grades, which are greater than the 1.5% standard within the Town Code. The applicant is proposing a 2.82% intersecting grade, where the subdivision roadway meets NYS Route 120, a 2.0% grade on both sides of Road B intersecting Road A and a 3% grade along Road C where it intersects Road B.

The applicant has agreed to post a 20 mph speed limit throughout the proposed development. The applicant should explain to the Planning Board their need to request modifications to the Town Standards at these locations and the Planning Board will need to consider granting such requests.

- 2. The applicant has submitted a detailed drainage plan for the project. In an effort to confirm that the design is adequate to collect roof runoff from all units, the applicant should submit a separate plan showing roof drainage piping from each unit with pipe size and location of connection to the primary collection system.**
- 3. The proposed sanitary sewer alignment requires the sewer within Roads B and C in the vicinity of the clubhouse and pool to be installed at a significant depth. While it is preferable from a long-term maintenance standpoint to have gravity service instead of a pump station, the excessive depth also presents future maintenance and repair issues. As proposed, the sewer manhole at the intersection of Road B and Road C is 26 feet deep. The applicant should examine re-alignment of the sewer between Manholes #12 and #9. If the sewer was relocated behind Units 12-15 and around the clubhouse and pool complex, the depth of the sewer could be significantly reduced.**
- 4. The applicant has prepared a sanitary sewer profile for the proposed sewer collection system. In response to our previous comment, the plans have been revised to include the locations of sewer services from each townhouse. Our main concern is whether each service crossing the proposed water main and/or storm drainage system will have the necessary clearance to meet grade and depth of cover between the dwelling unit and sewer main. The applicant should include the proposed water main and storm drainage system on the sewer profile, along with the elevation of the sewer invert where it leaves the dwelling unit. Those services with the potential for a conflict can then be examined in greater detail.**
- 5. Sewer profiles should specify any special treatment where sanitary sewer will be constructed on top of significant fills.**
- 6. Proposed grading across the project site provides positive drainage relief away from units should a portion of the drainage collection system become clogged, except at Units 107 and 108 and Units 48 and 54. The applicant should examine the elevation of Units 107 and 108 and provide a minimum of two (2) feet of relief between the elevations at the unit and ground elevation controlling surface runoff across the street. Units 48 and 54 should be reexamined in relationship to the elevation of the stormwater basin berm.**

7. The applicant should reconsider the drainage connection between CIA-11 and DIA-10 where roadway runoff will be redirected between and behind units. It would be preferable to see CIA-12 connected to DIA-5, which will reduce the runoff directed to the rear yard between units fronting on the circle.
8. The applicant has prepared a grading plan for the project. The plan generally provides positive pitch from the garage of each unit to the roadway and positive pitch away from the units. In general, we find the plan acceptable, except for the following locations where additional detail may be warranted when a more significant grade change occurs between units, Units 66-67, 70-71, 80-81, 96-97, 99-100, 84-85 and 100-101. The applicant should also check the garage floor elevation of Unit 118 and the proposed grading between Units 51-52.
9. The plans note that retaining walls shown on the Site Plan have been designed by others. The plans should reference the designer of the retaining walls and plan set where such details may be found.
10. Fencing should be provided at the top of the hill above the stormwater basin within the rear yard of Units 9-11.
11. The applicant depicts street lights on the site plan. The applicant should explain the rationale of the spacing proposed. The Lighting Photometric Plan includes numerous locations throughout the community where no light coverage is provided along roadways or within parking areas. The site plans should include lighting at the pool.
12. The plans should state the dimensions of the fire truck turn around at the end of Road B dead end.
13. The applicant has provided a signage plan. It appears that additional stop signs are required at the driveway west of the garage, at both exits of the garage and along Road B where it intersects Road C.
14. The Do Not Enter Sign does not appear necessary at Road C rear entrance.
15. The applicant should explain whether either entrance will be gated.
16. The applicant is proposing a trash enclosure to house refuse and recyclables for the occupants of the existing office building to be converted to condominiums. The applicant should meet with the carter servicing the community and confirm dumpster, compactor and container requirements confirming proposed enclosure is properly sized to service the community.

17. **The Temporary Storm Trap ST-1 located within Phase I will likely not be available during construction of Phase II. A separate storm trap should be proposed during construction of Phase II. A likely location would be in the vicinity of Units 84-89.**
18. **An additional storm trap should be considered for the rear yards of those lots fronting the loop created by Roads B and C. Drainage for this portion of the project is proposed to be routed through the rear yards, which makes this area an ideal location to control sediment during the construction phase.**
19. **Anti-tracking pads should be expanded to work with the separate phases of work. Anti-tracking pads should be located at each entry (both sides) to Road B, at the exit from the single building, multi-family project at Road A and both exits from Phase II. The anti-tracking pads should move as each phase of the project progresses.**
20. **The erosion mitigation primarily includes perimeter silt fence protection, which is fine to ensure all surface runoff is treated before discharge. Due to the size of the disturbance of each phase, it can be expected that portions of each phase will be completed as other buildings are still under construction. It is therefore important that each building includes its own independent mitigation in addition to the perimeter and phase mitigation proposed. The applicant should illustrate separate silt fencing for each building site.**
21. **Silt fencing should be provided behind Units 5-15.**
22. **If the applicant intends to use a rock crusher on the project, such operations, equipment stockpiles and standards shall be detailed within the plan package.**
23. **The applicant has provided a detail of the Type II Utility trench. Trench bedding should always include a minimum depth of six (6) inches of gravel or crushed stone for sewers. A minimum depth of six (6) inches of trench run is acceptable for water mains, however, trench run should be replaced with crushed stone or gravel when rock or groundwater is encountered. Drainage pipe shall require six (6) inches of crushed stone or gravel when rock or ground water is encountered.**
24. **Twelve (12) inches of select fill shall be placed over all utilities.**
25. **The applicant should explain locations where the proposed wood guide rail is located.**
26. **The applicant should explain where different light pole bases are proposed.**

As additional information becomes available, we will continue our review. We note that additional information provided to address the above may result in further comments. It is noted that an itemized response to all comments will facilitate completeness and efficiency of review.

PLANS REVIEWED, PREPARED BY JMC, DATED JANUARY 22, 2024:

- Cover Sheet (C-000)
- Existing Conditions Plan (C-010)
- Demolition Plan (C-020)
- Overall Layout Plan (C-100)
- Layout Plan (C-101 & C-102)
- Tree Protection Plan (C-151 & C-152)
- Tree Protection Table (Part A) (C-153)
- Tree Protection Table (Part B) (C-154)
- Tree Protection Table (Part C) (C-155)
- Grading Plan (C-201, C-202)
- Road Profiles (C-210)
- Utilities Plan (C-301 & C-302)
- Sanitary Sewer Profiles (C-320)
- Water Main Profiles (C-330)
- Erosion and Sediment Control Plan (C-401 & C-402)
- Vehicle Access Plan (Fire Truck) (C-700)
- Vehicle Access Plan (Delivery Truck) (C-701)
- Vehicle Access Plan (Garbage Truck) (C-702)
- Construction Details (C-900, C-901, C-902, C-903, C-904)
- Landscape Plan (L-101, L-102)
- Typical Unit Landscape Plan (L-103)
- Integrated Plot Plan (IPP-1)
- Preliminary Subdivision Plat (PSP-1)

PLANS REVIEWED, PREPARED BY WLS LIGHTING, DATED NOVEMBER 8, 2023:

- Lighting Plans (Sheets 1 of 3, 2 of 3 and 3 of 3)

PLANS REVIEWED, PREPARED BY LESSARD DESIGNS, DATED JULY 22, 2022:

- Architectural Plan Set

JK/dc