



February 17, 2019

Ms. Katherine S. Wickwire
Chairperson
Town of Cortlandville Planning Board
Raymond G. Thorpe Municipal Building
3577 Terrace Road
Cortland, NY 13045

Re: *Proposed Leonidas Group of Virgil, LLC Starr Road Residential PUD - Site Plan Review*
CHA Project No. 19646-5005-30300

Dear Ms. Wickwire:

As requested by the Planning Board, CHA has reviewed the updated plans and information from the Applicant for the project, as follows:

- August 28, 2018 letter to Ms. Katherine S. Wickwire from Timothy C. Buhl, P.E.
- Starr Road Residential PUD Plans, dated September 10, 2018, and prepared by Timothy C. Buhl, P.E.

Based upon our review of the above documents, and CHA's August 24, 2018 review letter, we offer the following comments for consideration by the Town of Cortlandville Planning Board:

1. Although the roadway will be a private road and the ownership, operation and maintenance will be the responsibility of the land owner/home owner's association, the design of the roadways must be in accordance with the Town of Cortlandville Town Code Chapter 135-5- Roadway Requirements, which states that public roadway requirements shall be the same requirements for private roadways to be built, and to be used by the general public. More specifically, but not limited to, the proposed roadway must meet the following Town roadway requirements:
 - a. Maximum 8% grade for a local street.
 - b. Maximum grade shall not last for more than 1,500 ft.
 - c. Center-line grade at the intersections shall not exceed 3% in any direction for a distance of 200 feet from intersecting center lines.
 - d. Roadway cross grade slopes on the driving lane pavement shall be a minimum of 3/8 inch per foot, with a maximum of 5/8 inch per foot.
 - e. Cul-de-sac streets shall be a minimum of 400 feet in length and must have a minimum one-hundred-foot-diameter paved circle with a one-hundred-twenty-foot right-of-way diameter minimum. A maximum length of 1,000 feet is allowed.
 - f. Side slopes of a roadway must not exceed a slope of 4:1 for stability and traffic safety.
 - g. Local residential streets: minimum two lanes, each 14 feet wide and with one-foot shoulders along the edges.
 - h. Open ditches must have a minimum grade of 2% and a maximum grade of 10% within the roadway. Some permanent kind of erosion control must be incorporated on all runoff grades. Grades of 5% or more must have substantially more erosion control design. All open ditches must be a minimum of 23 feet from the center line of the driving lanes of a two-lane road. All open ditches must be a minimum of one foot deeper than the outside edge of pavement, to a maximum of four feet.
 - i. Typical road cross section shall be utilized.

2. As it relates to sidewalks, it is the goal of the Town of Cortlandville to create a safe atmosphere throughout for pedestrians and nonmotorized uses. The Development Regulations of a PUD require pedestrian connections to be provided between parking areas and buildings along fully accessible paved walkways to provide for pedestrian safety and accessibility. The roadway and sidewalk shall be designed to be pedestrian friendly by providing adequate separation of pedestrians and non-motorized means of transportation from vehicular traffic circulation patterns. The proposed location of the sidewalk is directly adjacent to the travel lane and does not provide a safe separation from vehicles. The location of the proposed sidewalks shall be buffered from the vehicular travel lane for the safety of pedestrians and motorists. The sidewalks do not appear to meet ADA requirements and there is no grading or elevation information on the plans to ensure that the handicap parking spaces, parking areas, and curb ramps will meet ADA requirements.
3. As a reminder, Highway Work Permits will be needed from the County DOT and Town Highway Department for the connections to Starr Road and Parti Drive, respectively.
4. The Cortlandville Fire Department should be consulted in order to provide their comments as it relates to, but is not limited to, the overall access to the property, ability to maneuver equipment around the cul-de-sac and driveways, access around the buildings, and location of the fire hydrants.
5. The proposed sanitary sewer main and water main will NOT become public Town utilities and will remain private utilities to be owned and operated by the land owner/home owner's association. Reference to a Utility Easement remains on Sheet PUD-1 and ST-16 and should be removed or labeled as "Private Utility Easement", if the easement is needed.
6. The Applicant will need to coordinate the project's water and sanitary sewer connections at Starr Road and Parti Drive with the Town Water and Sewer Superintendent. Furthermore, the Applicant shall consult with the NYSDEC and NYSDOH as it relates to the review, approval, and permitting of the utilities.
7. Due to the slope of both the water and sanitary sewer, ABS trench dams shall be installed during construction within the trench per the manufacturer's recommendation in order to reduce underground water seepage. Please note this requirement on the plans and in the trench details.
8. There are steep slopes throughout the property, as well as within the drainage swales, as shown on the proposed grading plan. Turf reinforcement shall be utilized in all areas with more than 3:1 slope and in all the vegetated swales due to the channel slope and stormwater flow velocities. The location of the turf reinforcement shall be noted on the plans and shown on the grass/vegetated swale detail, which shall be installed in accordance to manufacturer's recommendations.
9. The bend of the new drainage swale along the eastern property line as it heads towards Forebay2 should be further evaluated by the Applicant to ensure that the swale will fully contain the stormwater flows, will not erode along the banks, and most importantly will not impact the adjacent properties.
10. There are significant elevation changes along the walking trails and in the playground/picnic areas. Further information should be provided that details the slope and grading of the walking trails and playground/picnic areas.

11. The Applicant has provided a Sign Location Plan. It appears that the proposed monument sign exceeds the permitted square footage. The location of the monument sign shall not be located nearer than 15 feet to a street line or lot line, as measured from the sign's nearest edge, and may not interfere with safe visibility for pedestrians and vehicles entering and exiting at the property's intersection with Starr Road. This distance should be noted on the Sign Location Plan. The building announcement signs shall be supplemented with detailed sign information (dimensions, construction materials, etc.), as well as the distances from the street lines noted on the plan. The Town Code also states that only one ground sign is permitted. The notes for the handicap parking sign details do not reference sheets within this package and their locations shall be noted on the plans in accordance with ADA Regulations.
12. As noted in our previous letter, it is important that the construction of the stormwater management facilities are consistent with the plans and that regular inspection and maintenance of the facilities takes place once the project is complete. To ensure that these actions are taken by the developer/land owner/homeowner's association, we recommend that the Town require the following, as part of either the Site Plan approval, prior to the issuance of a Building Permit, or prior to the issuance of a Certificate of Occupancy:
 - a. Stormwater Maintenance Easement
 - b. One Year Warranty
 - c. Performance Bond
 - d. Full implementation of the SWPPP, to include: submission of the completed NOI, MS4 Acceptance Form, and NOT; and inspection at least once every seven calendar days by a licensed professional.
 - e. Regular construction observation reports, certified by a Licensed Professional Engineer
 - f. As-Built Drawings of the constructed facilities, certified by a Licensed Land Surveyor
 - g. Certification of Completion, by a Licensed Professional Engineer
 - h. Development of a Site-Specific Inspection and Maintenance Plan, consistent with the NYSDEC Maintenance Guidance for Stormwater Management Practices, including the development of a reporting schedule with the Town.

We trust that you will find these comments useful in your review of the proposed project. We request that the Applicant address the comments above and provide updated documents. If you have any questions, please do not hesitate to contact me.

Very truly yours,

Laura C. Cassalia

Laura C. Cassalia, P.E.
Project Manager

cc: Planning Board Members
John B. Folmer- Town Attorney
Bruce Weber-Planning/Zoning Officer
Peter Alteri- Town Water & Sewer Superintendent
Glenn Bassett- Town Highway Superintendent
Kathleen McGrath- Cortland County Soil & Water Conservation District
Al Kryger, Leonidas Group of Vigil, LLC -Applicant
Tim Buhl, P.E.-Applicant Engineer
Kristy Harris, CPESC, CPSWQ -CHA