

August 4, 2017
VIA EMAIL & MAIL

Mr. Michael Miner, Building Department Coordinator
Town of North Greenbush
Town Hall
2 Douglas St.
Wynantskill, New York 12198

Re: **Concept Plan Review**
Tech Valley Residential Community PDD
Town of North Greenbush Planning Board

Dear Mr. Miner:

We are in receipt of a set of plans consisting of 4 sheets (C-1 to C4) entitled Planning Board Submittal dated May 22, 2017 and 33 sheets (C-1 to C-33) dated June 26, 2017 revised to July 24, 2017 along with the following for the above referenced subject:

- Application for Site Plan Review;
- Application for Major Subdivision Final Plan Review;
- Supplemental Traffic Impact Evaluation;
- Sight Distance Evaluation;
- Preliminary Storm Water Pollution Prevention Plan; and
- Town of North Greenbush, New York Local Law No. 4 for 2017.

Per your request for our office to conduct a review of the proposed preliminary engineering plans, we offer our comments as they relate to the following Town Local Law Chapters:

- A. Chapter 155 Site Plan Review;
- B. Chapter 165 Stormwater Management and Erosion Control;
- C. Chapter 159 Streets and Sidewalks;
- D. Chapter 163 Subdivision of Land; and
- E. Local Law No. 4 for 2017 (Creation of a Planned Development District "Amended Tech Valley Residential Community Planned Development District").

Subdivision:

1. The applicant should submit a subdivision plat for further review.
2. Sidewalk snow removal and common area maintenance should be the responsibility of the Homeowner's Association.

Sight Distance Evaluation Letter:

3. The review notes that additional information will be provided for the Rte. 4 intersections with Williams and Glenmore Roads. Therefore, the Applicant shall supply the additional information for review.
4. The letter report concludes that vegetation clearing should be performed to improve intersection site distance on Glenmore Road at the proposed access. The Applicant should secure a permanent easement for vegetation clearing in order to maintain the required sight distance. Homeowner's maintenance agreements should include the continued maintenance of sight lines by vegetation clearing. The sight line clearing limits, sight triangle to be maintained should be shown on the plans.

Supplemental Traffic Impact Evaluation Letter:

5. While the traffic intersection analysis indicates that the Level Of Service (LOS) will remain unchanged at existing intersections; the intersection at Rte.4 / Williams / Glenmore Roads operates at LOS F. Recognizing that this existing condition will need to be addressed; the Applicant has offered to share in the costs of future intersection improvements undertaken by others at this location. The Town should determine appropriate mitigation fees to be assessed upon the approved project to enable future intersection improvements such as the construction of a traffic safety roundabout.

Preliminary Site Plans:

6. Indicate areas of archaeological and historical sensitivity on the plans with appropriate protections.
7. Indicate areas of land on which development is prohibited due to land slope per Part I.F.6.c of Construction General Permit (Soil Slope Phases E or F.)
8. In accordance with the NYS Stormwater Management Design Manual, Stormwater Management Planning, Table 3.1 notes that projects should avoid construction on steep slopes. Further, the Construction General Permit, Part I.F.6.c indicates that construction on land with Soil Slope Phases E {9-15%} or F {15-30%} is not eligible for coverage under the permit. The applicant should revise the proposed improvements to avoid construction on these areas or indicate they intend to apply for an individual permit.
9. Indicate the limits of authorized/permitted impacts such as wetlands disturbance.
10. Indicate structures and existing conditions to be removed such as the limits of road and houses.
11. A key map should be provided on each sheet to show the section of the entire development represented on each plan sheet.
12. Road Names should be clearly depicted/appear on each plan sheet.
13. The typical lot layout should be revised to fully label the required minimum yard setback dimensions or a table of these should be provided and associated with the detail.
14. The typical lot layout should include a note that the maximum building height is limited to 2 story design with walk-out basements.
15. Site layout should indicate which buildings will have walkout basements.
16. The typical lot layout should indicate how the two (2) required off-street parking spaces per unit are provided.
17. The typical lot layout should show all proposed utilities as underground installations.
18. A typical detail for the layout and construction of the shared driveway for a typical lot should be provided. This detail shall also indicate how the driveway will not drain into the street.

19. A general note should be provided on the typical lot layout stating that exterior parking areas shall not be utilized for storage or parking of recreational vehicles, motor homes, trailers, boats, unregistered vehicles or other items deemed unacceptable by the Town of North Greenbush Building Department.
20. The applicant should submit a detailed estimated cost for the completion of the project infrastructure for review and future use by the Town in determining a surety in the amount of the cost for the remaining work that may be left at the time of roadway dedication.
21. Concrete sidewalks and driveways should be reinforced with WWF or other reinforcement. Provide corrected details and notes.
22. The location of common mailbox/newspaper box facility should be shown on the drawings along with the required minimum of 4 off-street parking spaces and landscaping.
23. The location of site signage should be shown on the plans in addition to a table of sign types to be utilized. Provide a separate street signage and pavement marking plan that also includes:
 - a. Signage shall include dead end signs;
 - b. A stop sign shall be shown on the plans to control traffic exiting the site onto Glenmore Road;
 - c. A street name sign is required at the Glenmore Road entrance; and
 - d. No parking signs installed at locations per the Fire Marshall through out the site.
24. The General Note 8 should indicate the applicable standard as the latest edition of the New York State Department of Transportation Manual of Uniform Traffic Control Devices and supplement.
25. The General Note 13 should also include on-site environmentally sensitive areas such as wetlands and watercourses.
26. The General Note 14 should be revised to indicate that the New York State Department of Environmental Conservation is the authorizing authority for the NYS DEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-15-002 (the Construction General Permit) and it is required to be obtained by the Owner/Operator prior to the start of on-site soil disturbing activities.
27. A general note should be added to the plans that indicates the Construction General Permit's requirement to limit soil disturbance to under five acres at anyone time.
28. A construction sequence plan(s) should be included in the plan set showing the phases of development with sequence of construction notes.
29. The Utilities Note 7 should include the required pipe sizes and material types such as required by the Local Law which stipulates the water and sewer main materials.
30. Additional plan notes should be included that reiterate the permit requirements of the USACOE and NYS DEC regarding the wetlands and watercourses.
31. Add other requirements fo~~r~~ from the Local Law for the Amended Tech Valley Residential Community Planned Development District.
32. The plans should indicated at least two bench marks based upon USGS datum.
33. The survey should be updated as interpolation of contours as noted (10' contours are indicated as sketched in from USGS maps) is not acceptable. In addition the plans should be signed and sealed by a NYS Licensed land surveyor as the stated use of several different surveys utilizing different datum should be resolved to be accurate and not approximated as noted.
34. The site location plan should label additional existing streets such as Jordan Road, Mazoway Ave and other streets that may be associated with the project.
35. Provide all necessary survey data layout to include right of way bearings, distances, arc/curve information, centerline layout information edge of pavement information, property line information.

Streets:

36. Plans should indicate the center line radius. The street alignments are required to have a minimum curve of 250 feet is required unless supporting recommendations are provided by a qualified traffic safety engineer along with the indication of necessary street signs.
37. The plans should show the locations of soil borings along streets to a minimum depth of 10 feet, logs should be provided on the plans and also indicate the depth to water table, soil types, date of boring and other information normally shown on the logs. The maximum spacing of borings along proposed street center lines is 300 feet.
38. Subsurface drainage shall be provided for the proposed streets based upon the results of soil boring and geotechnical investigation and reporting.
39. Road profiles shall show all proposed utilities including water mains, sanitary sewers (gravity and force mains) and storm sewers together with all structures proposed rim and invert elevations. Minimum depths called out shall be indicated as typical.
40. Road profiles shall show the location of water main valves and hydrants and utility vaults.
41. Road profiles and plans should indicated the locations of protective sleeves to be installed for utilities (power, telephone/cable, gas) placed under pavement.
42. Vertical curve lengths and K values appear low, profiles should indicate the vertical curve design speed, minimum stopping sight distances, passing sight distances and headlight sight distances required and provided.
43. Vertical alignments should be reviewed for recommended practice to eliminate back to back curves without sufficient separating tangent lengths, see Road "G" Sta. 11+00 for an example of a back to back curve that is unacceptable.
44. The grade at intersections shall be between 1% to 3% within 100 feet of the intersection. The following road intersections should be redesigned to meet the criteria:
 - e. Road A with the intersection of Road G;
 - f. Road B with the intersection of Road A;
 - g. Road H, both intersections with Road G;
 - h. Road I, both intersections with Road G
45. The plans should be revised to provide the required minimum right-of-way width of 50 feet throughout the proposed development. Road "A" is indicated as not having a continuous 50 foot right-of-way. A 50 foot right-of-way is required per §159-11 and 12.
46. The plans should include detailed intersection plans at a minimum scale of one inch equals 30 feet. These plans should show the following:
 - i. Drainage structures placed at the point of curve or point of tangent of edge of pavement curves;
 - j. Edges of the pavements, with intersecting edges of pavements being connected by a curve having a radius of 30 feet.
 - k. Right-of-way lines, the center lines of pavements;
 - l. Proposed elevations along the edges of pavement and along the right-of-way lines;
 - m. The location of all storm drain lines, structures on the storm drain lines with elevations of frame grates or frame covers; and
 - n. Curve data for all horizontal curves.
47. A typical detail for the construction of cul-de-sac's should be provided and include the necessary construction and layout details that include but is not limited to showing a minimum radius of the outside property line of at least 75 feet.

48. Plans should show the locations of street monuments at intervals not exceeding 500 feet, in pairs (one on each side of the street) and correlated to one another by bearing and distance.
49. A detail for street monuments should be provided that indicates the minimum construction of 4000 psi concrete, No.3 deformed reinforcing rods, 4 inches square and four feet in length with a stainless steel pin 3/8" diameter anchored on center and flush with the top of the monument. The top of the monument shall be set flush with the finish grade.
50. Right-of-way and pavement widths should be indicated for each road and labeled as typical.
51. Full property line/right-of-way information should be shown on the drawings.
52. All radii shall be developed tangent to incoming and outgoing curb lines and shall not be so offset as to create a traffic hazard. The curb radius of Road "C" near Sta.0+40 left is unacceptable.
53. Provide intersections detail plans at a scale of 1"=30' with required information per §159-15.
54. A design for the typical roadway section should be based upon a geotechnical analysis and submitted for review. The section should also show the location of all proposed underground utilities to include telephone/cable, gas, power, storm sewers, water and sewer, valves, hydrants and surface features like the location of sidewalks, snow storage, curb, grass swales, drainage structures, light fixtures and signage. Both vertical and horizontal layout dimensions shall be provided in accordance with Figure L of Chapter 159 of the Local Law.
55. The location for the use of the proposed monolithic concrete curb and sidewalk should be identified.

Utilities:

56. The water main is required to be a minimum of 8-inch C900. Plans and road detail show 8-inch DI and should be corrected.
57. The plans should show the locations of fire hydrants, all valves including pressure reducing valves and vaults. All details should specify Town standards, where applicable.
58. Construction details for the PRV vault should be provided also.
59. The location of the dry hydrant as detailed should be identified on the plans and justification for the use of a dry hydrant should be provided for further consideration for approval. A detail design with flow calculations will be required.
60. Per the PDD approval, the water main shall also be connected to the existing main for Water District No. 3 at the intersection of Glenmore Road and Route 4. This connection should be shown on the plans. The water main shall be installed in the Glenmore Road Row and shall be extended and continued through the development. Design calculations should be submitted for review to show flow available at key hydrants.
61. Sanitary sewer pump station details should be provided and design calculations submitted.
62. Per the PDD approval, the sanitary sewer system shall be connected to the Town's pump station located at the end of Jordan Road. Currently a connection is indicated at Mazoway Ave.
63. The Map Plan and Report for both water and sewer district expansion should be provided for review.
64. Indicate in plan and details that the 8-inch sanitary sewer shall be SDR-26 PVC.
65. The sanitary sewer manhole casting indicated in detail references Syracuse Castings which is now EJ Companies and the model should be updated to specify the required 24" diameter vented manhole casting.
66. Separate utility trench details should be provided for the proposed underground utilities.
67. All utilities are to be underground and their location and service manholes should be shown on the plans.
68. Above ground structures should be shown on the plan a detailed landscaping plans provided to indicate the required screening of these.

69. A lighting plan should be included in the plan set showing fixture locations and details on type, mounting height, etc. The plan should also include the associated photo-metrics foot-candle plot.
70. The applicant should submit storm sewer system designs:
 - o. For pipe flow calculations shall demonstrate full flow capacity with minimum flow velocity of 3 fps and a maximum of 8 fps based upon a 10-year design storm frequency. Storm sewers shall have a minimum cover of 4 feet.
 - p. For surface flows, designs shall be in accordance with the NYS Standards and Specifications For Erosion and Sediment Control, 2016 with the submission of supporting calculations.

Grading and Drainage Plans:

71. Preliminary grading should be advanced to demonstrate the feasibility of the proposed locations of the stormwater management practices to be employed. Final grading shall include detailed site plans for these facilities.
72. Grading should be developed that allows for the collection of all developed areas via grass lined swales to the stormwater management facilities.
73. Details of all proposed retaining walls should be provided including those on lots.
74. ACOE permits and approved plans should be submitted for review in order to further assess the proposed project grading plans.

Erosion and Sediment Control Plans:

75. Plans are incomplete and insufficient and should be advanced. They are required to be in compliance with the NYS Standards and Specifications For Erosion and Sediment Control, 2016.
76. Indicate additional stabilized stone erosion control exits with minimum lengths and widths.
77. Indicate soils stockpile areas, locations of all required ES&C measures.
78. Indicate additional measure to address flow in channels, silt fence shall not be used across flow paths.
79. Indicate phases of construction and note that soil disturbance shall not exceed five (5) acres of soil at any one time. Provide a sequence of construction including project phasing.
80. The proposed locations of silt fence and concrete wash outs in proximity of wetland areas does not sufficiently protect these sensitive environmental areas.

Landscaping:

81. Planting details and tree protection fencing are provided but none are shown on the plans. Provide a landscaping plan that shows where these are to be located.
82. Planting of trees within the right of way is prohibited. Small shrubs with grass area should be shown in the center of divided streets and cul-de-sacs.
83. Plantings within a 50 foot radius of intersections shall be limited to those having a mature height not greater than 18 inches.
84. References on plans to details should be provided.
85. Typical stormwater details are not in compliance with the NYS Stormwater Management Design Manual. Further the locations of these elements need to be indicated on the plans.

Storm Water Pollution Prevention Plan (Preliminary):

86. The applicant should include the findings of the ACOE, the NY Natural Heritage Program and the New York State Historic Preservation Office (SHPO) Office of Parks, Recreation and Historic Preservation (OPRHP). Existing Site Conditions, page 4, SHPO OPRHP Cultural Resource Information System (CRIS) findings regarding historical and archaeological significance in accordance with the requirements of Part 1.F.8.a of the Construction General Permit should also be included.
87. The soils description should include a report on areas of steep slope that should not be developed.
88. Plans presented do not demonstrate how all disturbed lands and impervious areas are directed to a stormwater management facility.
89. Plans will need to indicate which homes will utilize roof top runoff disconnection.
90. Soil borings documenting acceptable conditions for the use of bio retention facilities is required.
91. All stormwater ponds are required to be fenced with a 4 foot high heavy duty black vinyl-clad chain link fence with access gates to allow maintenance equipment access and man gates to allow for routine access.
92. Provide the Notice of Intent to obtain permit coverage GP-0-15-002.
93. Since the existing land use is not a commercial, industrial, institutional, or multifamily residential use, the proposed design utilizing Chapter 9 Redevelopment criteria is not applicable per Frequently Asked Questions About Technical Requirements of the SPDES General Permit.
94. Sediment traps are mentioned but no designs are presented.
95. The stormwater analysis indicates unacceptable increases in runoff. The NYS Stormwater Management Design Manual requires:
 - a. Stream Channel Protection Volume (Cap) by providing 24-hour extended detention of the one-year, 24-hour storm event, remained from runoff reduction;
 - b. Overbank control requires storage to attenuate the post development 10-year, 24-hour peak discharge rate (Q_p) to predevelopment rates,
 - c. 100 Year Control requires storage to attenuate the post development 100-year, 24-hour peak discharge rate (Q_f) to predevelopment rates.

The applicant should revise the plans and other information and provide a cover letter indicating their response to each of the above comments and how the plans were modified to facilitate review.

Please contact us with any questions or comments on the above.

Very truly yours,
LABERGE GROUP