

Engineering, Architecture, Surveying, D.P.C.

April 8, 2021

Mr. Doug Finch, Town Manager Town of Canandaigua 5440 Routes 5 & 20 West Canandaigua, New York 14424

RE: METROSE SUBDIVISION – 5100 AND 5150 BRISTOL ROAD Final Conservation Subdivision Plan Review TAX MAP NO. 83.00-1-7.150 & 83.00-1-8.000 CPN NO. 21-005

MRB PROJECT NO.: 0300.12001.000 Phase 213

Dear Mr. Finch:

MRB has completed a review of the submitted Final Conservation Subdivision Plans regarding the above referenced project, dated March 4, 2021 prepared by Marks Engineering, P.C. We offer the following comments for the Planning Board's consideration. A brief written response to each comment should be provided by the design engineer.

## SUBDIVISION, SITE PLAN AND GENERAL COMMENTS

- 1. Numerous site improvements and areas of grading extend outside of the limits of disturbance. The limits of disturbance is to be revised to include all disturbances associated with this project.
- 2. A detail of the proposed street lights should be added to the plans. Also cut sheets from the design manufacturers should be provided.
- 3. The sizing calculations for the proposed culverts and culvert details should be provided. All culverts should include stabilized outlet protection.
- 4. Seeding and stabilization related notes should be added to the plans. A seed mix appropriate for the swales and infiltration area should also be provided.
- 5. All proposed downspout locations should be indicated on the plans. Where feasible they should be shown to tie into the proposed storm sewer system.
- 6. The proposed watermain is shown in close proximity to the proposed infiltration basin and swale. This could result in insufficient cover for the watermain and/or especially the proposed water services. The infiltration basin's outlet pipe is also shown to be approximately 3' from the proposed main, which may not meet separation requirements. Greater separation may also be needed from the infiltration basin underdrain.

- 7. The slopes indicated for the sanitary sewer between manholes 2 and 3, and 3 and 4 appears to be incorrect. The infiltration basin outlet pipe may also have an incorrectly reported slope. Please verify.
- 8. Temporary check dams are to be provided for all swales at a frequency of at least one check dam for every 2' of elevation change. Please update the plans accordingly.
- 9. The reported scale on sheets C302 and C402 appears to be incorrect. Please verify.
- 10. On Sheet C-500 the Water Pipe should be represented by the diameter pipe that is proposed. All sewer crossings of the watermain are to be called out on the profile with the requirement to provide 18" vertical separation. Where such separation is infeasible (if any), the watermain will be required to be encased in concrete.
- 11. The utility/road profile should show the connection of the proposed watermain into the existing watermain and at the proper station. The watermain and deadend hydrant should terminate prior to SANMH-4. The profile also appears to be missing the culvert around station 0+15. DI-6 and its associated piping should also be added to the profile.
- 12. The profile appears to be missing a gridline at 7+50.
- 13. A detail for the proposed scourstop transition mats is to be provided on the plans.

## **STORMWATER MANAGEMENT & DRAINAGE COMMENTS**

- 14. The proposed infiltration basin underdrain is to be shown on the plans, and all inverts noted.
- 15. The infiltration basin is to be provided with a stabilized emergency spillway.
- 16. All pipe discharges into the infiltration basin are to discharge into a permanent sediment trap in order to protect against clogging of the infiltration practice. The swale discharging into the basin should be well vegetated in order to trap any sediments or other particles.
- 17. Infiltration practices cannot be designed to rely on underdrains and must be located over suitable soils well protected from construction impacts. Due to the nature of the proposed stormwater management practices and the onsite soils being HSG C/D and HSG D, infiltration testing and soil exploration results are to be provided prior to SWPPP approval being granted. In order to verify that the practice was installed correct and is in good working order, infiltration testing will also be required upon completion of construction but prior to the filing of the NOT.

- 18. The infiltration basin is required to be protected from siltation buildup, compaction, and other construction impacts. As such, silt fence and orange construction fencing is to encompass the facility until all contributing drainage areas have achieved final stabilization. The facility may not be used a temporary sediment trap, however a trap may be placed adjacent to the facility.
- 19. It appears that drainage from the western side of the subdivision may not be treated by a stormwater management practice. All runoff from new impervious surfaces must be directed to a suitably sized stormwater management practice or green infrastructure practice.

## PRELIMINARY STORMWATER CALCULATIONS (FROM OCTOBER 22, 2020 COMMENT LETTER)

- 20. The Town of Canandaigua stormwater maintenance agreement will be required to be completed and filed.
- 21. Since this project will be disturbing over 1 Acre of land a stormwater pollution prevention plan (SWPPP) will need to be provided.
- 22. The soil type for drainage area 1 should be determined and this information should be represented in the stormwater analysis.
- 23. The point of interest should be called out on the drainage maps. Consider adding arrows to demonstrate the flow of water.
- 24. The existing drainage map does not show where drainage area 2 conveys to.
- 25. Consider adding a narrative for the flow of stormwater on the site for the existing and the proposed site.
- 26. On the existing and proposed drainage map the end of sheet flow should be called out.
- 27. Pages 19 and 20 of 150 have the same title but are displaying different information. This should be revised to better identify the information that is being shown.
- 28. Subcatchment 2:2 sheet flow length is 300 feet; the maximum sheet flow is 150 feet pre-development and 100 feet post-development. This should be revised and recalculated.
- 29. The drainage map should have the node designations used in the HydroCAD model to make it easier to follow.
- 30. The stormwater modeling should show what the conditions are upstream to downstream.
- 31. The filter strip location should be shown on the plans with details.
- 32. The infiltration basin's lowest point is at a greater elevation than the invert of the outlet from 2.2B. This should be revised.

If you have any questions, comments or concerns regarding any of the above comments please call me at our office.

Sincerely,

Lance S. Brabant, CPESC

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Director of Planning & Environmental Services