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RECEIVED

May 12, 2020

Planning Board
Grafton, MA

May 11, 2020

Grafton Planning Board
Grafton Municipal Center

30 Providence Road
Grafton, MA 01519

Exhibit 10

Subject: Abby Woods Definitive Plan Review

Dear Planning board members:

We have received a review letter from Jeffery Walsh, P.E. of Graves Engineering dated March 26, 2020.

In response to this review letter we offer the following comments.

We have provided a synopsis of the outstanding issues from Jefferey Walsh as plain text. Our responses to these issues are depicted as **bold** text. We have also maintained the same comment numbers as provided in the letter from Jeffrey Walsh for clarity purposes.

The Definitive Subdivision plans and associated hydrology report have been revised to address the review comments from Jefferey Walsh. The plan set and report have revision dates of May 11, 2020.

Zoning By-Law

1. GEI has no issues relative to compliance with the Town of Grafton Zoning By-Law.

Noted

Rules and Regulations Governing the Subdivision of Land

2. The notes in the other sheets' title block regarding the decision for the Major Residential Special Permit need to be included on Sheet **1**. (§3.3.3.14)

The notes regarding the Major Residential Special have been added to the title sheet

3. The plans need to be clear that catch basins are required to have curb inlets. The plan view on Sheet 8 needs to show the granite curbing extending beyond catch basins CB 1 and CB2 enough to accommodate a curb inlet and a transition stone, and on Sheet 9 the "Catch Basin Detail" or the "Municipal Standard Catch Basin Frame & Grate" construction detail needs to specify that a curb inlet (which requires a three-flange frame) is required. (41.7.8.3)

The curbing has been extended beyond the catch basin on sheet 8 and the catch basin detail on sheet 9 has been updated to show a curb inlet.

4. On Sheet 10 the "Drain Manhole Detail" needs to be revised to include an invert channel constructed of concrete or sewer brick. (§5.4.1.6)

The drain manhole detail on sheet 10 has been updated to show an invert channel constructed of sewer brick.

Hydrology & Stormwater Management Review

5. GEI reviewed the hydrology computations and found them to be in order relative to definitive plan review by the Planning Board.

Noted

6. Compliance with the MassDEP Stormwater Standards and Handbook is in order except as noted in the three following comments.

7. The rip rap calculations need to be revised to incorporate the new (higher) flow rates.

Rip rap calculations have been revised to incorporate new higher flows. See Hydrology Report for revision.

8. We are concerned about whether the STC450i is suitable for the proposed tributary areas that are larger than those modeled in the supporting documents. Larger areas can produce higher runoff flow rates that could re-suspend accumulated sediments. The TSS removal rates in the supporting documents were based upon one acre of tributary area that is 100% impervious. Although the actual impervious areas are smaller (0.40 and 0.45 acres), the actual tributary areas are much larger (3.66 acres and 5.55 acres). The supporting documents need to be revised to include the entire tributary area. If it is found that larger treatment units are required, then the plans will have to be revised accordingly.

The impervious areas and tributary areas have been updated accordingly. It has been confirmed that the STC450i is suitable for the tributary areas. See hydrology report for revision.

9. Each lot is proposed to have a Cultec system for roof runoff. However, the Cultec details on Sheet 9 are generic instead of being project specific. A detail needs to be prepared that clearly shows the contractor the Cultec system required for each building lot. (One detail is sufficient if the same configuration is proposed for each of the ten lots.) Required information includes the number of Cultec chambers, and overall system dimensions (footprint).

The cultic detail on sheet 9 has been updated to be project specific. One detail is provided ad the systems are the same for each lot.

General Engineering Comments

10. At DMH5, the pipe invert elevation drop of 0.10 feet needs to be increased to accommodate the change in pipe diameter from 12" to 18". The drop needs to be 0.5 feet to match pipe crowns. As an alternative to the 0.5-foot drop, the design engineer could consider matching the 8/10 height of the two pipe sizes, but the invert elevation difference would still be greater than the proposed 0.10 feet.

The inverts at DMH5 have been adjusted to reflect the change in pipe diameter

11. On Sheet 3, the bearings of the access and drain easement lines (four lines) that run parallel to the lot line between Lots 3 and 4 must be revised to be consistent with the bearings of the lot lines. The easement lines were drawn parallel to the lot lines but the bearings of the easement lines are substantially different than the bearings of the lot lines.

The drain easement bearing on sheet 3 has been corrected

12. Sheet 2 shows a snow easement that is in conflict with the driveway of Lot 5 (see Sheet 6 for driveway location). This easement needs to be eliminated and replaced with the snow easement shown on Sheet 3 at the property line between Lots 5 and 6. Also, on Sheet 3 the label for the snow easement needs to be revised from "50' x 10- to "50' x 15-

The snow easement on sheet 2 and 3 are now consistent and show a dimension of 50'x15'

General Comments

13. Grafton Wetlands Regulations and Grafton Stormwater Regulations have additional design requirements. The Applicant should be cognizant of these regulations.

The wetlands and buffers have been updated based on peer review from JMM Wetland Consulting Services, LLC

If you have any questions or additional comments, please feel free to call or email me to discuss.

Respectfully,



Zac Couture

Senior Project Engineer

H.S.&T. Group, Inc.