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VIA EMAIL

Ipswich Planning Board
Town Hall
25 Green Street
Ipswich, MA 01938

RE: 14-16 Mitchell Road
Special Permit & Site Plan Review Modification
2nd Drainage and Stormwater Management Review - Task 2

Mr. Ethan Parsons and Planning Board Members:

As requested, I have continued a drainage and stormwater management review of the above referenced site plan modification with respect to Site Plan Review standards of the Planning Board and routine engineering design practice for drainage and stormwater management facilities similar to that being proposed by the Applicant. In response to the ‘initial’ (Task 1) review dated August 11, 2021, the Applicant has submitted the following supplemental and revised material as prepared by Meridian Associates, Inc., of Beverly, MA (unless otherwise noted).

- Correspondence to Ethan Parson, Department of Planning and Development dated August 18, 2021, providing responses to the ‘initial’ review.
- “Permit Site Development Plans, 14-16 Mitchell Road...” consisting of eight (8) sheets, all dated March 18, 2019, and revised to August 18, 2021.
- “Stormwater Management Report for Advanced Precision Engineering, 14-16 Mitchell Road...” dated March 18, 2019, and revised to August 18, 2021, including attachments for Construction Period Pollution Prevention Plan and Erosion Sedimentation Control Plan and Long Term Operation and Maintenance Plan, and Stormwater Analysis and Calculations.

Remaining comments and opinions are offered below for your consideration.

Drainage & Stormwater Management: The revised plans and calculations adequately address the technical comments offered in the initial review. No further engineering objection is offered to the drainage and stormwater management design, however, the following additional notations and graphics are strongly suggested to be added to the plan set.

1. Additional notations and graphics should be provided on the plan set to identify specific roof areas and their associated runoff direction/destination. Such information should be specific enough to clearly depict the direction all roof runoff as assumed in the design calculations.

DEP Stormwater Management Standards: No further objection is offered relative to the revised documents except for the following minor item.

1. Previous review commentary suggested that drain manholes and cleanouts be added to the 'Long Term Operation and Maintenance Plan.' The engineering response states that these items were added, however, they were not found after examination of the revised documents. These items are again suggested to be added to the plan and the checklist.

Additional Planning Board Considerations: The following items, which were presented in the initial review, are restated for the convenience of the Board.

1. An existing catch basin adjacent to Mitchell Road (CB 3) is proposed to be converted to a CDS stormwater treatment unit. No engineering objection is offered to this proposal, however, it is noted that the catch basin is mapped to be within the Mitchell Road right of way rather than within the property. The Planning Board may want to clearly define ownership and maintenance responsibilities of this asset.
2. It is noted that no substantive construction changes are proposed to the front parking area. By contrast, the June 2019 approval involved a reconfiguration of the front parking area and provided a more efficient layout. Given that the applicant is requesting relief from the required amount of parking (with the stated justification that less impervious area and less impact within the buffer zone will result), the Planning Board may want to consider reconfiguration of the front parking lot in a manner similar to the June 2019 plans. Such an approach has the potential to further reduce the impervious area of the proposed site by approximately 3,000 square feet, have no impact on the 100 foot wetland buffer, and could potentially increase parking capacity in the front lot beyond what is presently proposed.
3. A waiver request has been added in the revised plans, requesting relief from Zoning Bylaw Section IX.C.7 Water Supply Protection District Table of Uses footnote 4 (b), which requires three feet of vertical separation between groundwater level and the bottom of an infiltration system. No technical argument has been put forth by the Applicant in support of this request. Consequently, no engineering opinion is offered on the request at this time. It is noted that the relationship of the infiltration system to groundwater level remains unchanged with respect to the June 2019 design and does satisfy DEP Stormwater Management Standards.
4. To ensure that construction of the stormwater management system is conducted in accordance with the design, the following items should be considered for post construction submittal to the Planning Board:
 - a. An as-built plan of the completed project accompanied by a report from the engineer of record indicating whether or not construction complies with the design intent.
 - b. A report from the Architect of record indicating whether or not roof drainage is collected and conveyed in a manner consistent with the stormwater management design assumptions.

The as-built plan and reports should also be appended to the final version of the 'Long Term Operation and Maintenance Plan' prepared for the stormwater management system, for the property owner's future use and reference.

5. The following documents should be incorporated by reference as part of any Planning Board approval:
 - a. The 'Long Term Operation and Maintenance Plan.'
 - b. The 'Construction Period Pollution Prevention and Erosion Sedimentation Control Plan.'
 - c. The Stormwater Pollution Prevention Plan (SWPPP) for the project.
6. Since the project is located within Water Supply Protection District Zone II, the Planning Board may wish to prohibit future use of metal roofing materials unless adequate pretreatment of roof runoff is provided.

Please feel free to contact me if you have any questions or require any additional clarification of the above comments and opinions.

Very truly yours,

R.E. Puff

Robert E. Puff, Jr., PE

cc: Christopher Rokos, PE (via email)