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July 14, 2022
VIA EMAIL

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

RE: 55 Waldingfield Road – Phases 2 and 3
Site Plan Review & Special Permit Applications
3rd Drainage and Stormwater Management Review (Task 3)

Mr. Ethan Parsons and Planning Board Members:

As requested, I have continued a drainage and stormwater management review of the above referenced project. In response to the second (Task 2) review dated May 19, 2022, I have received the following supplemental or revised plans and documents as prepared by Hancock Associates of Danvers, MA (unless otherwise noted).

- Copy of correspondence from Hancock Associates to the Ipswich Planning Board, dated June 30, 2022, regarding responses to the ‘Task 2’ review.
- Plan set entitled “Permit Site Plan, Phase 2/3 (to accompany a Great Estate Preservation Development Special Permit) 55 Waldingfield Road...” consisting of sheets 1, and 3 through 9, all dated March 28, 2022 and revised to June 28, 2022.
- “Partial Existing Conditions Plan of Land in Ipswich, MA...” consisting of six (6) plan sheets (2A through 2F), all dated July 1, 2021.
- “Stormwater Report in Support of A Great Estate Preservation Development (GEPD) Special Permit Phase 2-3 for 55 Waldingfield Road...” dated March 2022 and revised to June 2022, including appendices for a Long Term Pollution Prevention Plan, a Construction Period Pollution Prevention Plan, and an Operation and Maintenance Plan.

After review of the above material, it is my opinion that the drainage and stormwater management design is satisfactory and adequately addresses previously stated comments and opinions. It is suggested that the following minor drafting items be provided as part of a final plan and document submission.

1. Plan Sheet 5 (Grading Plan) - Proposed grading/contouring is incomplete along the westerly side of the proposed parking field. Additional contouring should be provided on the plans to sufficiently specify side slope grading in this area.
2. Plan sheet 5 (Grading Plan) - Specify a flow arrow at the location where surface runoff is intended to cross driveway towards the pasture area.
3. Plan sheet 6 (Utility Plan) – Correct the drafting error at DMH A-3. Inverts specified are incorrect and should be coordinated with the data contained in the ‘Drainage Pipe Schedule.’

Additional Planning Board Considerations: The following items are suggested for consideration by the Planning Board with respect to quality assurance and long term care of the drainage and stormwater management infrastructure.

1. As noted in prior reviews, portions of the westerly section of proposed development are in close proximity to the existing 'Conservation Restriction' boundary and the '200 foot Riverfront' boundary. As such, the Planning Board may wish to require either temporary (during construction) or permanent physical monumentation to clarify and define these boundaries.
2. To ensure that construction of the stormwater management system is conducted in accordance with the design, an as-built plan of the stormwater management and drainage improvements should be submitted to the Planning Board along with a report from the engineer of record indicating whether or not construction complies with the design intent. The as-built plan and engineering report should also be appended to the final version of the 'Operation and Maintenance Plan' prepared for the stormwater management system, for the property owner's future use and reference. In addition, the following items should be provided.
 - a. The as-built plan should include an updated survey and condition assessment of drainage ponds P1, P2, and P3 (located in the pasture area) as proposed in Phase 1A.
 - b. The engineering report should also speak specifically to the ability of runoff from the northerly portion of subcatchment P2 (i.e., the northerly portion of the peastone parking area) to flow across the project driveway and into the lower pasture area, as intended in the stormwater management calculations.
 - c. An as-built plan and accompanying report of the gravel foundation grading within the peastone parking area should be conducted prior to placement of peastone, as stipulated in the 'Notes' contained on plan sheet 6 (Utility Plan).
3. Because existing topographical depressions within the pasture are being utilized as part of the stormwater management system, any earthwork that would alter these depressions from what was submitted as part of the Phase 1A stormwater management plan should be subject to appropriate hydrologic/hydraulic study and Planning Board review to ensure that the stormwater management design intent is not adversely impacted.
4. If the Planning Board determines that the Application is ready to be voted upon, the following documents are suggested to be incorporated as part of any approval:
 - a. The 'Construction Period Pollution Prevention Plan' (LTPPP) and the 'Stormwater Pollution Prevent Plan' (SWPPP) to clarify responsibilities relative to sedimentation and erosion control during construction. The Planning Board may wish to reserve the right to review and comment on the SWPPP prior to the start of construction.
 - b. The 'Operation and Maintenance Plan' to provide guidance for the long term inspection and maintenance of the drainage and stormwater management systems.
 - c. The 'Long Term Pollution Prevention Plan' (LTPPP) to provide guidance relative to long term management of the site.
5. Rain Garden planting should be done in accordance with recommendations contained in the MA DEP Stormwater Management Handbook and as generally specified in the "Ora at Waldingfield, Rain Garden Planting Plans" dated April 9, 2022 and prepared by Laura Gibson, ASLA, of Manchester, MA.

Please feel free to contact me if you have any questions regarding the above comments and opinions.

Very truly yours,

R.E. Puff

Robert E. Puff, Jr., PE

cc: C Wear, PE (via email)