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March 14, 2022
VIA EMAIL

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

RE: 55 Waldingfield Road – Phase 1A
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 December 22, 2021, 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 March 4, 2022, regarding ‘Response to Initial Drainage and Stormwater Management Review (Task 2).’
- “Permit Site Plan (to accompany a Great Estate Preservation Development Special Permit) 55 Waldingfield Road...” consisting of ten (10) sheets, dated August 30, 2021, and revised to March 2, 2022.
- “Stormwater Report in Support of A Great Estate Preservation Development (GEPD) Special Permit Phase 1A for 55 Waldingfield Road...” dated July 2021 and revised to February 2022, including appendices for a Long Term Pollution Prevention Plan, a Construction Period Pollution Prevention Plan, and an Operation and Maintenance Plan.

The following remaining comments and opinions are offered for your consideration relative to the proposed stormwater management design and the MA DEP Stormwater Management Standards.

Remaining Items:

1. It is presumed that all proposed peastone areas are intended to have a ‘soil stabilizer’ (i.e., geogrid) used as foundation material. As such, the details entitled ‘Section for Peastone’ and ‘Soil Stabilizer for Peastone’ should reflect the intent that the soil stabilizer shall apply to all peastone surfaced areas.
 - a. It should be further specified that the geogrid utilized should be capable of supporting fire apparatus and all anticipated truck traffic loads at the site.
2. Directional flow arrows should be added to the plans indicating the intended drainage flow direction along the easterly side of the peastone parking field (i.e., in a southerly direction) and the general location where drainage will flow across the main driveway (i.e., from the upper portion of subcatchment 2 to the lower pasture stormwater management area).

3. Time of concentration for post development subcatchment P3 is higher than the corresponding existing condition value and is based on an incorrect flow length. The value, and resulting subcatchment output, should be revised for the record.
4. DEP Stormwater Management Standard 4 – As noted in prior reviews, the Long Term Pollution Prevention Plan (LTPPP) continues to be unsatisfactory with respect to the topics contained in the ‘Checklist for Stormwater Report.’ The document should be revised and reformatted as needed to address these topics.

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

1. It should be noted that stormwater impacts associated with the initial 500 linear feet of driveway widening proposed in Phase 1A are proposed to be mitigated in conjunction with Phase 1B development. As such, additional temporary mitigation should be provided if Phase 1A is to be constructed significantly in advance of Phase 1B.
2. To ensure that construction of the stormwater management system is conducted in accordance with the design, an as-built plan of the completed project 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.
 - a. The engineering report should specifically speak to the ability of runoff from the peastone parking area (i.e., the northerly portion of subcatchment P2) to flow across the project driveway and into the lower pasture area, as assumed in the calculations.
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 is proposed on the plans 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. The following documents are suggested to be incorporated as part of any Planning Board approval:
 - a. The ‘Construction Period Pollution Prevention Plan’ to clarify responsibilities relative to sedimentation and erosion control during 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.

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

Very truly yours,

R.E. Puff

Robert E. Puff, Jr., PE

cc: C Wear, PE (via email)