

AMORY ENGINEERS, P.C.

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October 8, 2021

Hingham Planning Board
Hingham Zoning Board of Appeals
210 Central Street
Hingham, MA 02043

Subject: **Hingham Yacht Club, 208 Downer Avenue – Special Permit, Site Plan**

Dear Planning and Zoning Board Members:

This is to advise that we have reviewed the following documents pertaining to the proposed storage barn project at the subject site:

- Site Plan, revised October 8, 2021, prepared by Cavanaro Consulting (Cavanaro)
- Response to comments letter from Cavanaro dated October 8, 2021

The documents have been revised to address comments included in our October 6, 2021 letter to the Boards. Below are our original comments in plain text, followed by the current status of each in bold text.

1. The Drywell and Overflow at Downspout Detail on the Site Plan indicates that groundwater elevation will be verified prior to construction (i.e. test pits). If groundwater elevation is not determined prior to the Boards closing the hearings, and the Boards approve the project, we recommend a condition of approval requiring test holes at each proposed drywell to verify depth to seasonal high groundwater and/or soil textural analysis. The condition should require that if depth to groundwater and soil texture are not as assumed then the drywell design shall be modified and the modified design be peer reviewed. **A note has been added to the detail specifying that groundwater elevation and soil conditions are to be field verified prior to construction. We recommend that this be a condition as described above.**
2. The proposed crushed stone diversion trench is designed as an infiltration trench which would bring surface into contact with the foundation. We recommend an impervious membrane be installed along the foundation where the trench is adjacent. Alternatively, the trench could be lined with an impervious membrane to keep runoff from infiltrating next to the foundation. **Addressed – the Infiltration Trench detail has been changed to specify an impervious membrane along the bottom and sides. In the response Cavanaro also states that “additional subsurface foundation drains and waterproofing shall be included with a foundation design by others.”**

3. There is a six inch perforated pipe proposed at the bottom of the diversion trench. The discharge location of this pipe should be shown. **Addressed – the discharge locations of the pipe have been added to the plan with invert elevations and stone spreaders specified.**
4. The proposed silt sock erosion barrier should be extended about fifty feet west along Marion Street to the limit of proposed grading so that sediment does not get onto Marion Street during construction. **Addressed – the silt sock has been extended as recommended.**
5. Due to the slope, there is potential for erosion of the gravel walk/drive between Marion Street and the second floor of the barn. A geocellular confinement system, or similar product, should be considered to hold the gravel in place (see attached brochure¹). **Addressed – a geocellular confinement system has been specified as recommended.**
6. We note that the drainage calculations indicate that post-development rate of runoff will be slightly increased from existing conditions but post-development volume of runoff will not be increased. The MassDEP Stormwater Standards do not require mitigation of post-development runoff when discharge is to a tidal waterbody. Therefore, the project is in compliance with the Stormwater Standards. We note that the increase in the peak rate of runoff is minimal at only 0.01 cubic feet per second (cfs), which equates to about 4.5 gallons per minute. We also note that if the diversion trench is utilized as an infiltration trench then the rate of runoff in the post-development condition will likely be less than existing because the trench was not modeled in the analysis. **Informational, no response required.**
7. Construction of the foundation for the proposed barn will likely require temporary shoring of the uphill side of the excavation to limit disturbance to the slope. **In the response, Cavanaro states that “temporary shoring details shall be included with the foundation design prepared by others prior to issuance of a building permit. Should the Boards approve the project we recommend this be a condition of approval.**

Please give us a call should you have any question.

Very truly yours,

AMORY ENGINEERS, P.C.

By:



Patrick G. Brennan, P.E.



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¹ The brochure was attached to our October 8, 2021 letter.