

AMORY ENGINEERS, P.C.

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April 27, 2021

Hingham Planning Board
210 Central Street
Hingham, MA 02043

Subject: **128 Hersey Street, Site Plan**

Dear Planning Board Members:

This is to advise that we have reviewed the following documents pertaining to the proposed single family dwelling at the subject site:

- Site Plan – Proposed Sewer Connection (1 sheet), revised April 12, 2021, prepared by PVI Site Design, LLC (PVI)
- Existing Conditions Plan (1 sheet), dated August 6, 2020, prepared by Nantasket Survey Engineering, LLC
- ANR Plan (1 sheet), dated April 2, 2017, prepared by Nantasket Survey Engineering, LLC
- Stormwater Design Narrative, dated April 9, 2021, prepared by PVI

The purpose of our review has been to evaluate conformance with Hingham Zoning By-Laws (ZBL), and good engineering practice.

Background

The project site consists of a 37,679 square foot (s.f.) parcel at 128 Hersey Street. It is located within the Residence A zoning district. The property is currently undeveloped, consisting of mostly grass area with some woods to the rear and ledge outcrops.

The proposal calls for construction of a new single-family dwelling with a covered porch, deck, driveway and detached barn. The dwelling would be served by Town sewer and water along with natural gas and underground electric/CATV/telephone.

Runoff from the driveway would be collected in a low area of lawn where it would be conveyed through an area drain to subsurface infiltration system 1 consisting of plastic chambers surrounded by crushed stone. Roof runoff from the rear of the dwelling is proposed to be collected in a drain line which would also discharge to subsurface infiltration system 1. Roof runoff from the front of the dwelling would flow overland toward Hersey Street. Roof runoff from the proposed barn would be collected and discharged into subsurface infiltration system 2. Overflow from subsurface infiltration system 1 would flow to subsurface infiltration system 2 and overflow from there would discharge through a pipe to the ground surface near the rear of

the lot. Proposed erosion controls will consist of hay bales (or straw wattles) and silt fence around the perimeter of the work area.

Comments

1. Test pits are required at the proposed locations of the subsurface infiltration systems to verify soil textural analysis and depth to seasonal high groundwater.
2. The size of subsurface infiltration system 2 is not modeled correctly. It is modeled as having eight rows of six chambers (total 48) but the plan shows only seven rows of six chambers (total of 42).
3. The inverts of the roof drain piping should be specified to verify that there will be adequate pitch to convey the roof runoff to the proposed subsurface infiltration systems.
4. The outlet invert of the header pipe for subsurface infiltration system 1 is listed at El. 66.0 on the Outlet Elevations table on the plan, but it should be at El. 67.5.
5. A shallow swale or low berm should be provided along the property line of 122 Hersey Street to insure that runoff will flow toward the street and not onto the adjacent property.
6. The Applicant's engineer should explain what will be done with the ledge outcroppings because they are correctly modeled as impervious in the existing conditions calculations but they are modeled as pervious lawn in the proposed calculations. The post-development calculations should model them as impervious unless they are proposed to be completely removed.
7. A stabilized construction entrance should be shown on the plan.
8. The lot area of the subject parcel should be confirmed. It is listed as both 37,629 s.f. and 37,679 s.f. on the Existing Conditions Plan, 37,629 s.f. on the Proposed Sewer Connection plan and 37,680 s.f. on the ANR Plan.
9. The proposed dwelling and barn gross square footages should be corrected on the Zoning Table on the Proposed Sewer Connection plan.
10. We note that there are proposed retaining walls at the rear of the property and a portion of one of the walls will be greater than four feet in height, which will require a building permit and engineered design.
11. There is an existing shallow well shown on the plan with a note stating that it is decommissioned and not in use. Documentation should be provided to verify that the well has been decommissioned in accordance with MassDEP and Board of Health requirements.

Please give us a call should you have any question.

Very truly yours,

AMORY ENGINEERS, P.C.

By:



Patrick G. Brennan, P.E.



PGB