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November 30, 2023

Groton Zoning Board of Appeals  
c/o Mr. Takashi Tada  
Town of Groton  
173 Main Street  
Groton, MA 01450

RE: Heritage Landing 40B/Plan Revisions/Waiver Requests

Dear Members of the Board:

Reference is hereby made to the revised plan showing a reduction from 40 to 28 residential units submitted on November 28, 2023. Whereas, as a result of the reduction in the number of units and bedrooms, the combined design flow of the shared septic systems will be under 10,000 gallons per day, the design of the systems will now fall under the jurisdiction of the Groton Board of Health. We have reviewed the Rules and Regulation of the Town of Groton Board of Health, specifically: Chapter 315 Subsurface Sewage Disposal Regulations (Amended May 15, 2023), and we would like to augment our previously submitted list of requested Waivers to include the following waivers from said Chapter 315 Subsurface Sewage Disposal Regulations:

*Section 315-3.J. – Pump Systems: (1) All force main sewer lines used for effluent pump and grinder pump systems shall be 160 pounds flex or equal. The force main, once installed, must be pressure tested at least 15 p.s.i. for 15 minutes prior to backfill. The force main must be bedded in a minimum of six inches of sand.*

This may be appropriate for a single family dwelling type system but the Heritage Landing systems will comply with Title 5 and standard engineering practice concerning the force main pipe type and sizing since it is a commercial sized system.

*Section 315-3.J. – Pump Systems (3) Rail systems for pumps up to one horsepower shall consist of 3/4-inch PVC pipe with steel rebar within for support, or approved equal. The ends of the pipe are to be sealed to prevent effluent infiltration.*

All rail systems will be as supplied by the manufacturer for the specific pumps as designed and installed.

*Section 315-3.J. – Pump Systems (4) Rail systems for pumps greater than one horsepower shall consist of two-inch stainless-steel pipe.*

All rail systems will be as supplied by the manufacturer for the specific pumps as designed and installed.

*Section 315-3.J. – Pump Systems (6) For effluent pump systems, there shall be a drain hole to allow effluent to drain back from the force main. The drain hole shall be installed after the check valve.*

This may be appropriate for a single family dwelling type system but we will comply with Title 5, 310CMR15.221(6) concerning this item since it is a commercial sized system. This section of Title 5 states:

“All pressurized pipes shall be designed and installed to meet the following requirements:  
(a) to prevent freezing by being installed below the frost line, by being adequately insulated if installed above the frost line, or be self-draining;  
(b) to specify the appropriate class or schedule of pipe to withstand maximum pressure and/or anticipated vehicular loads; and  
(c) to specify appropriate thrust blocking at all angles, bends, branches, plugs and wherever else necessary to prevent disruption of proper functioning of the line.”

*Section 315-3.L. - No component of a sewage disposal system, including but not limited to the leach area, sewer line, distribution box, distribution line, septic tank, clean-out or manhole, shall be located under any portion of a public or private road right-of-way.*

A portion of the piping will be required to be located under the private roadway within this site.

*Section 315—5.A. - Leaching facilities (including the proposed expansion area) must be located at least 100 feet from any wetland, watercourse, wetland vegetation, seasonal streams and drainage ditches.*

Drainage ditches as mentioned above is a vague term. This could be construed to include drainage swales which may be part of the storm water design. We will maintain or exceed Title 5 setback requirements

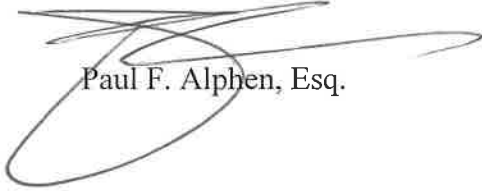
*Section 315-5.F. - A minimum of 20 feet must be available between the edge of any street right-of-way, passageway or road line and the entire exterior perimeter of any proposed leach areas.* Passageway and road line as mentioned above are vague terms. At this point we don't know the exact location of the leaching systems versus any entrance drives which may be construed as passageways or road lines.

*Section 315.6 – Square Footage Requirements*

This section requires a 50% increase over the square footage requirements of Title 5 for conventional systems. Considering the size of the systems for this site, this is an enormous increase. This may be appropriate for a single family dwelling, but these systems will be commercially sized with pressure dosing which provides for a more complete and uniform method of applying effluent to a leach area.

Thank you for your attention to these matters.

Very truly yours,  
Alphen & Santos, P.C.

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

Paul F. Alphen, Esq.