CONCORD BOARD OF HEALTH

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Public Health
Prevent. Promote. Protect.

TO: Elizabeth Hughes, Planning Director

FROM: Susan Rask, Public Health Director

DATE: August 29, 2019

RE: 35-unit Planned Residential Development, 1440 Main St.

By memo dated August 1, 2019, I provided comments to the Planning Board relative to the 35-unit Planned Residential Development at 1440 Main St. This review was based on the plans dated June 14, 2019, prepared by Williams and Sparages (W&S) Engineers. By letter dated August 2, 2019, Rich Harrington P.E. of Williams and Sparages responded to my comments. Below are my responses to W&S's comments:

The Health Division offers the following comments relative to construction of the proposed shared on-site sewage disposal system that will serve the 35 units

1. **Original Comment**: The plans submitted with the application do not show sufficient detail to determine if the on-site sewage disposal system will conforms with all requirements of 310 CMR 15.000 (Title 5).
   Response to W&S comments: W&S provided requested information about design of the septic system, and the response is generally satisfactory. However, in the absence of full sewage design plans, it cannot be determined if the proposed on-site sewage disposal system will conform with all requirements of 310 CMR 15.000 (Title 5) and Concord Board of Health regulations. W&S agreed that a generator can be provided if required, to power the system pumps in the event of a power failure.

2. **Original Comment**: The septic system as proposed will be significantly challenging to construct and maintain, as the space available is highly constrained due to the number of units, significant competition for space for underground utilities, topography, and other site constraints.
   Response to W&S comments: I stand by my original comment that, if the final design of the septic system does meet 310 CMR 15.000, there will be limited options for re-design and relocation of the system, due to site density and competition for space to provide for utilities and stormwater drainage. I also stand by my original comment that, should SAS need to be replaced, it will be challenging to do so due to limited access for construction equipment to enter and maneuver and stockpile materials. Soil absorption systems have finite life spans, generally assumed to be 20-30 years if proper maintenance is followed. W&S suggests that, if future upgrades/repairs to the SAS are needed and it necessary to utilize the reserve area currently

shown co-located with the primary SAS, that the complex could be connected to municipal sewer. It is highly unlikely that this would be allowed in any foreseeable future timeframe.

3. **Original comment**: It should be noted that the septic system is designed for 90 bedrooms with a design flow of 9900 gpd. If the design flow was 10,000 gpd or above, permitting of the system would be done by MA DEP who would require a Groundwater Discharge Permit. As part of this permit, DEP would likely require an advanced wastewater treatment unit be constructed in recognition that effluent must be treated to a higher level to prevent impacts to groundwater when high volumes of effluent are being applied to the ground in a small area. Adding one bedroom to the current design would put design flow above 10,000 gpd.
   Response to W&S comments: I stand by my original comment**.** The Planning Board may wish to require the installation of an Alternative Treatment Unit (as defined and in 310 CMR 15.282) which provides secondary wastewater treatment as an additional component of the **T**itle 5 system. A unit of this type should contribute to the longevity of the SAS.