



for Lot 2 should not be a required prior to approval of the subdivision. Additional clarification will be needed from the County if they are deviating from what has been "standard".

As for the comment on page 34 of Geoquest's report:

Due to encountering groundwater at the depth of 9 feet, the excavation and the placement of the foundation components must not penetrate more than 5 feet. Additional drainage may be required during construction due to the high moisture content. If the bottom of the excavation becomes unstable, the use of 1' to 2' of 4" to 8" ballast rock may be required.

A satisfactory foundation for this structure is a properly designed shallow foundation system consisting of foundation components resting directly on undisturbed materials. Foundation components resting directly on undisturbed materials shall be designed for a loading of not greater than 1,500 pounds per square foot. Any design by any engineer is subject to revision based on the results of the open hole observation. The compressibility of this material is low. This bearing capacity is calculated with a safety factor of three. The type of foundation configuration used depends on the building loads applied. The depth of foundation elements shall be determined by the foundation engineer but should be at least as deep as the minimum depth required by the governing building authority. The laboratory testing revealed that the on-site soil is silty sand (U.S.C.S. Classification Symbol SM). The unit weight of equivalent fluid soil pressure of this material is 40 pounds per cubic foot. The owners shall be made aware that movement will occur if surface or subsurface water is allowed to collect around the foundation wall.

#### GENERAL

The investigation was made to reveal important characteristics of the soils and of the site influencing the foundation design. Also evaluated during the investigation were subsurface conditions that affect the depth of the foundation and subsequent loading design, such as ground water levels, soil types, and other factors which affect the bearing capacity of the soils. Design loadings are based on soils characteristics and represent the maximum permissible loads for these conditions.

#### FIELD AND LABORATORY INVESTIGATION

Mitigation should be added as a plat note

Hazard areas that cannot be mitigated must be shown on plat as no-build areas. Please provide graphic indicating hazard areas within site.

If the County is requesting a note be added to the plat for mitigation of seasonally shallow groundwater, I would recommend a note stating:

As noted in the site specific Soils Report for Lot 1, prepared by Geoquest, LLC dated May 27, 2020, seasonally shallow groundwater was encountered at the time of drilling on May 12, 2020. Geoquest, LLC recommends, "the excavation of the foundation components must not penetrate more than 5 feet". The foundation is to rest directly on undisturbed material and be designed for a loading of not greater than 1,500 pounds per square foot. Any design by any engineer is subject to revision based on the result of the open hole observation". A site specific soils report and OWTS evaluation will be required for any future proposed structures on Lot 2. There are no additional hazards on Lot 1 or Lot 2 that cannot be mitigated with appropriate planning, engineering and local construction practices.

At this time, I do not believe we need to revise the reports, if you have any questions let me know. Thank you.

**Kelli Zigler**

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