

February 13, 2026



c/o Mr. John Lapointe
Old Memorial Golf Club
13600 National Golf Drive
Tampa, Florida 33626

Attention: Mr. John Lapointe
jlapointe@tripointellc.com

Subject: **Report of Geotechnical Exploration**
Old Memorial Golf Club
9602 South Mobley Road
Tampa, Florida 33556
ValleyShore Project No. P26-0018.2

Dear Mr. Lapointe,

We are submitting the results of the geotechnical exploration performed for the subject project. The geotechnical exploration was performed in accordance with our Proposal No. Q26-0018, dated January 16, 2026. The following report presents our findings and recommendations for the proposed project. Should you have any questions regarding this report or if we can be of any further assistance, please contact us at your convenience.

Sincerely,
ValleyShore Engineering, LLC



Saul Moslehy, PhD
Geotechnical Department Manager



T. Brian Williamson, P.E.
Principal
FL #92809

Report of Geotechnical Exploration

Old Memorial Golf Club

9602 South Mobley Road
Tampa, Florida 33556
ValleyShore Engineering Project No. P26-0018.2

Submitted to:



Old Memorial Gof Club
13600 National Golf Drive
Tampa, Florida 33626

Submitted by:



ValleyShore Engineering, LLC
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1.0 INTRODUCTION

1.1 PURPOSE

The purpose of our geotechnical exploration was to explore the subsurface conditions for the proposed Old Memorial Golf Club expansion located at 9602 South Mobley Road in Tampa, Florida. This report provides recommendations for general site preparation, including excavation and fill requirements, foundation design, slab-on-grade construction, and seismic design parameters.

1.2 PROJECT AND SITE DESCRIPTION

Project information was provided via email correspondence between Mr. John Lapointe of Tripointe Engineering, LLC and Mr. Saul Moslehy of ValleyShore Engineering, LLC, on January 14, 2026. We received a site layout plan dated January 31, 2025, as prepared by Tripointe Engineering, LLC, along with a conceptual site plan dated December 31, 2025, as prepared by Lafate Wilson Architects, showing the location of the requested soil test borings.

We understand that the project includes the expansion of the existing golf club's maintenance facilities. Based on our experience with similar projects, we anticipate the buildings will be one to two-story prefabricated steel-framed structures with metal roofs and siding. For purposes of this exploration, we have assumed that maximum column and continuous foundation loads will be less than 50 kips and 4 kips per linear foot, respectively. At this time, we were not provided with information regarding the existing or proposed grades. However, the site is relatively flat, and we have assumed that the site will require cuts/fills of less than 3 feet to facilitate the development.

The proposed site is bordered by South Mobley Road to the north, a tennis court and Tillinghast Drive to the east, and the remainder of the existing golf club to the remaining sides. The site's approximate location and boundaries are shown in Figures 1 and 2 of Appendix A of this report, respectively. At the time of our exploration, the site was occupied by two existing structures and was partially wooded in the western and southern portions of the site. Based on our review of the available historical images (Google Earth), the site was partially cleared and graded, and the existing structures were added to the site sometime between 1994 and 1998. The site has remained relatively unchanged since then.



1.3 SCOPE OF STUDY

This geotechnical exploration involved site reconnaissance, field drilling, and engineering analysis. The following sections of this report present discussions of the field exploration, site conditions, and conclusions. Following the text of this report, Appendix A presents figures and test boring records.

The scope of our geotechnical services did not include an environmental assessment for determining the presence or absence of wetlands or hazardous or toxic materials in the soil, bedrock, surface water, groundwater, or air, on, below, or around this site. Any statements in this report or on the boring logs regarding odors, colors, and unusual or suspicious items or conditions are strictly for informational purposes.

2.0 EXPLORATION AND TESTING PROGRAMS

The site's subsurface conditions were explored by drilling the requested five (5) soil test borings. The borings were located in the field by our subcontractor using a handheld GPS unit and the provided drawing. The soil test borings were drilled on January 30, 2026, and advanced using mud rotary techniques and a track-mounted drill rig. The approximate locations of the test borings are shown in Figure 3 in Appendix A of this report. The depths in this report reference the ground surface that existed at the time of the exploration. Detailed logs for the borings can also be found in Appendix A.

Standard Penetration Tests (SPT) and split-spoon sampling were performed at continuous 2-foot intervals in the upper 10 feet and 5-foot intervals thereafter. The drill crew worked in general accordance with ASTM D5783 for Direct Rotary Drilling. SPT and split-spoon sampling were performed in accordance with ASTM D1586.

In split-spoon sampling, a standard 2-inch O.D. split-spoon sampler is driven into the bottom of the boring with a 140-pound hammer falling at a distance of 30 inches. The number of blows required to advance the sampler the last 12 inches of the standard 18 inches of total penetration (or second and third 6-inch increments when sampling 24 inches) is recorded as the Standard Penetration resistance value (SPT N-value). These N-values are indicated on the boring logs at the test depth and provide an indication of the consistency of fine-grained soils and the relative density of coarse-grained soils.



After completion of the field drilling and sampling phase of this project, the soil samples were returned to our laboratory, where they were visually, manually classified in general accordance with the Unified Soil Classification System (USCS – ASTM D 2488) by a geotechnical professional.

3.0 SUBSURFACE CONDITIONS

3.1 SITE GEOLOGY

According to the United States Geological Survey (USGS), the site is generally underlain by the Tampa Plain of the Coastal Plain Formation. Subsurface materials across the Tampa Plain consist primarily of Undifferentiated Quaternary Sediments that blanket the underlying weathered limestone. These materials include undifferentiated quartz sands, silty sands, and clayey silts, typically categorized by USCS terminology as poorly graded sands (SP) and silty sands (SM). In low-lying depressions and wetlands, these sands are often intermixed with organic-rich muck and mottled sandy loams. The contact between these unconsolidated sediments and the underlying bedrock is frequently marked by a residuum of insoluble clays and rock fragments, which result from the long-term chemical weathering of the limestone. This highly permeable subsurface structure facilitates direct aquifer recharge but also renders the groundwater vulnerable to surface contaminants.

Additionally, according to the soil survey from the United States Department of Agriculture's (USDA) Soil Conservation Services, the predominant soil type at the site is the Myakka fine sand. Moreover, soil drainage at the site is "poorly drained." Table 1 tabulates the soil survey information, and Figure 4 of Appendix A shows a map of soil types.

Table 1 – Summary of Soil Survey Information

Soil Type	Constituents		Hydrologic Group	Natural Drainage
Myakka fine sand	0-80"	Fine Sand	A/D	Poorly Drained



According to the Florida Department of Environmental Protection, the site Sinkhole Type is Area III, and the Favorability of the Geology for Sinkhole Formation is “most favorable”. Area III is described as having 30 to 200 feet thick covered limestone in which sinkholes are most numerous, of varying size, and develop abruptly. Cover-collapse sinkholes dominate. Sinkholes occur primarily due to differential weathering of the bedrock and “flushing” or “raveling” of overburden soils into the cavities in the bedrock. The loss of solids creates a cavity or “dome” in the overburden. Growth of the dome over time or excavation over the dome can create a condition in which rapid, local subsidence or collapse of the roof of the dome occurs.

A certain degree of risk with respect to sinkhole formation and subsidence should be considered with any site located within any geologic area. A rigorous effort to assess the potential for sinkhole formation on this site was beyond the scope of this evaluation. However, we noted numerous mapped closed depressions, which may indicate previous sinkhole activity on the published United States Geological Survey (USGS – Citrus Park, FL Quadrangle) topographic map in the ½-mile vicinity of this site. Additionally, three (3) relatively smaller subsidence incidents are reported on the Florida Department of Environmental Protection Subsidence Incident Reports Map in the 2-mile vicinity of this site.

Based on the results of this exploration, it is our opinion that the risk of sinkhole development at this site is greater than at other sites located within similar geologic settings, which have been developed successfully. However, the owner must be willing to accept the moderate risk of sinkhole development at this site.

3.2 SITE STRATIGRAPHY

The following subsurface description is of a generalized nature to highlight the subsurface stratification features and material characteristics at the boring locations. The boring logs included in Appendix A of this report should be reviewed for specific information at each boring location. Information on actual subsurface conditions exists only at specific boring locations and is relevant only to the time that this exploration was performed. Variations may occur and should be expected at the site.



Surficial Materials

A clear and obvious layer of surficial materials was not encountered in the boring locations. However, we note that the upper 2 feet of the materials in three boring locations (B-2 through B-4) contained varying amounts of organic materials. We anticipate that the actual depth of surficial materials may vary significantly across the site and between our widely spaced borings. As such, we recommend the contractor evaluate the surficial material depths for bidding purposes.

Marine

Apparent marine materials were encountered in each location. The marine materials generally consisted of light to dark brown, reddish brown, light gray, gray, and tan fine-grained sands with varying amounts of silt and clay. Moreover, a layer of brown and dark brown lean (low plasticity) silt was encountered in the upper 2 feet of boring B-3. Additionally, the upper 2 feet of the materials in three boring locations (B-2 through B-4) contained varying amounts of organic materials.

The SPT N-values within the marine soils generally ranged from 5 to 20 blows per foot (bpf), indicating loose to medium dense relative densities within coarse-grained materials and firm consistencies within the fine-grained materials. The exceptions were the upper 2 to 4 feet of materials in three boring locations (B-1, B-2, and B-4), where some very loose materials were encountered.

Refusal

Refusal was not encountered in boring locations, and each boring location was extended to predetermined termination depths ranging from 15 to 20 feet below the existing grade. Refusal is a designation applied to materials that cannot be penetrated by the drilling rig. Refusal may indicate hard materials within the fill, rock boulders, ledges, or pinnacles, or the top of continuous bedrock.

Groundwater

Groundwater was encountered in each location at depths ranging from approximately 6 to 8 feet below the existing grade at the time of drilling. The USDA Soil Conservation Services estimates the seasonal high-water table for the site to be approximately between $\frac{1}{2}$ and $1 \frac{1}{2}$ feet below the existing ground surface. Based on the depth of the groundwater at the time of drilling, the depth to the restrictive soil layers in the borings, and the available information from USDA, we estimate the seasonal high groundwater table to be between approximately 2 and 4 feet below the existing grade.



We note that each boring was backfilled after drilling in consideration of safety, so delayed water levels were not recorded. Additionally, the groundwater level can fluctuate significantly during various seasons or following significant precipitation or drought events. The groundwater information presented in this report is the information that was collected at the time of our field activities and from the United States Department of Agriculture's Soil Conservation Services. We recommend the contractor verify the groundwater table prior to construction.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 GEOTECHNICAL CONSIDERATIONS

Based on the results of our geotechnical exploration, it is our opinion that the site is generally adaptable for the proposed construction. However, certain geotechnical challenges will likely present themselves during site development, which we have outlined in the following sections.

4.1.1 Lower-Density and Consistency Materials

Each boring location encountered lower-density and consistency marine materials at depths ranging from just below the ground surface to termination depths. These materials are defined as very loose to loose relative densities in the coarse-grained materials and firm or worse in the fine-grained materials. We note that these materials may have been influenced by recent rain events and groundwater. Based on our exploration, we anticipate that some remediation of subgrades will be required where these materials are encountered.

We recommend performing close construction observations during earthwork and foundation excavation activities to observe the density and suitability to support the proposed construction. Any areas observed to be unsuitable for use as foundation or subgrade support should be remediated accordingly. Generally, remediation of these types of soils consists of in-place densification or undercutting and replacing with properly compacted structural soil fill or compacted dense graded aggregate. Areas to receive more than 3 feet of structural soil fill should be stripped and proofrolled to determine if additional undercutting may be necessary.



Subgrades for lightly loaded slabs can typically be supported on materials that proofroll successfully. Proofrolling should be observed by a geotechnical engineer or by a qualified representative to help identify areas requiring subgrade support correction. Where the subgrade does not pass proofrolling, remediation should be anticipated.

4.1.2 Shallow Groundwater

Groundwater was encountered in each location at depths ranging from approximately 6 to 8 feet below the existing grade at the time of drilling. However, seasonal and weather-related fluctuations should be considered in the construction method selection and scheduling.

We recommend adequate measures be designed and installed to handle water infiltration during and after construction, if significant cuts are proposed. We note that the satisfactory performance of pavements is dependent on the integrity of the subgrade and base layer beneath the pavement. Additionally, we strongly recommend that runoff from the nearby sites, as well as existing and future slopes, be diverted away from the proposed building and foundations.

Dewatering will be necessary due to the groundwater depths encountered and depending on the final grades. Additionally, the design of an underslab and foundation drain system to capture any subsurface water and redirect the water away from the proposed slabs may be required. We do not recommend excavating beneath the groundwater level without proper dewatering systems in place.

The remedial dewatering operations may consist of installing a well point system, perimeter rim ditches, and, if necessary, secondary rim ditches to withdraw groundwater. Temporary dewatering will not only help improve the natural moisture content of the subgrade soils but will also allow heavy construction equipment to gain more efficient access to portions of the site. The groundwater table should be controlled at least 2 feet below the compacted or excavation surfaces. Groundwater inflows will vary with the seasons, and this type of construction should anticipate and budget for stormwater control in addition to collection and active pumping in deeper excavations and cuts.

We recommend that mass grading and development occur during the drier months of the year, maintain positive drainage, and prevent ponding within structural areas. Furthermore, every effort should be made to keep site construction traffic at a minimum, especially during periods of wetter weather.



We strongly encourage the client to confer with the design team and a contractor regarding the recommendations contained in this report, to assess potential costs and schedule. Additional onsite testing during construction can further classify the marine materials' suitability for reuse as structural soil fill.

4.2 EARTHWORK RECOMMENDATIONS

4.2.1 Site Preparation

Demolition of the existing structures on site should include the complete removal of below-grade items and pavements (including concrete foundations, slabs, and basestone). Existing basements or pits (if any) should be excavated with a 2H:1V side slope, and the excavation backfilled using structural soil fill or compacted dense graded aggregate. Additionally, utilities to be abandoned should be completely removed, and their trenches backfilled using structural soil fill. If utilities are to remain in use, they should be rerouted outside of the building areas.

Site stripping within the proposed construction areas (building and pavement) should include the removal of vegetation, topsoil, organic soils, rock fragments greater than 6 inches, gravel, and debris. The stripping operations should extend a minimum of 5 feet beyond the limits of the proposed pavement areas and 10 feet beyond building footprints. The vegetation should be removed from the site and not utilized as fill material. However, the topsoil can be utilized in non-structural/ non-slope areas (i.e., green spaces). These areas should be observed by a geotechnical engineer upon grading to confirm that the recommendations in this report are followed.

The existing sandy soil may rebound elastically or "fluff up" within the upper 12 to 24 inches after the removal of several feet of confining overburden soils. In cuts where this condition may exist, the elastic rebound problem may be handled by compacting the exposed surface in cut areas with proper compaction equipment.

After the completion of stripping operations and excavation to reach the planned subgrade elevation, we recommend that the subgrade be proofrolled with a fully loaded, tandem-axle dump truck or other pneumatic-tired construction equipment of similar weight. The geotechnical engineer or his representative should observe proofrolling. Areas judged to perform unsatisfactorily (e.g., pumping and/or rutting) by the engineer should be undercut and replaced with structural soil fill or remediated at the geotechnical



engineer's recommendation. Areas to receive structural soil fill should also be proofrolled prior to the placement of new fill. Proofrolling operations shall be extended a distance of 10 feet beyond the edge of the building and 5 feet beyond the edge of pavement areas.

Proofrolling should not be performed in low-lying areas with a near-surface groundwater level. In such areas, any temporary surface and groundwater control and evaluation of the required removal of loose or soft soils should be based upon a program of test excavations and specific geotechnical analysis. Site preparation in such low areas will initially require control of surface and groundwater.

To reduce the potential for additional undercut, water should not be allowed to collect in the foundation excavations, on floor slab areas, or on prepared subgrades of the construction area, either during or after construction. Undercut or excavated areas should be sloped toward one corner to facilitate the removal of collected rainwater, subsurface water, or surface runoff. Positive site surface drainage should be provided to reduce infiltration of surface water around the perimeter of the building and beneath the floor slab. The grades should be sloped away from the building, and surface drainage should be collected and discharged such that water is not permitted to infiltrate the backfill and floor slab areas of the building.

4.2.2 Excavations

Refusal was not encountered in the boring locations, and each boring location was extended to predetermined termination depths ranging from 15 to 20 feet below the existing grade. Refusal conditions generally correspond to materials that require difficult excavation methods such as ripping, chipping (by track-mounted hydraulic hammers), or blasting for removal. However, excavation equipment varies, and field refusal conditions may vary. Generally, the weathering process is erratic, and variations in the rock profile can occur over small lateral distances.

At this time, we were not provided with information regarding the existing or proposed grades. However, the site is relatively flat, and we have assumed that the site will require cuts/fills of less than 3 feet to facilitate the development. At this time, we do not expect that difficult excavation techniques will be required during most grading activities and foundation excavations, if not all. Should field conditions vary, ValleyShore should be allowed to review and revise these recommendations if necessary.



Excavations should be sloped or shored in accordance with local, state, and federal regulations, including OSHA (29 CFR Part 1926) excavation trench safety standards. The contractor is usually solely responsible for site safety. This information is provided only as a service, and under no circumstances should ValleyShore be assumed responsible for construction site safety.

4.2.3 Structural Soil Fill

Materials considered suitable for use as structural fill should be clean soil free of organics and other deleterious material, containing no rock fragments greater than 6 inches in dimension. Preferably, structural soil fill material should consist of clean fine sands (less than 5 percent fine-grained soils). Fill soils containing up to 12 percent fines may also be used; however, some moisture content conditioning may be required. All material to be used as structural fill should be tested by the geotechnical engineer to confirm that it meets the project requirements before being placed.

Based on the data from this exploration, we expect that some of the existing marine soils may be reused as a structural fill. However, the existing soil will likely be above optimum moisture content, and moisture conditioning will likely be required. Structural fill should be placed in loose, horizontal lifts not exceeding 12 inches in thickness. Each lift should be compacted to at least 95 percent of the soil's maximum dry density per the modified Proctor method (ASTM D 1557) and within the range of (+/-) 2 percent of the optimum moisture content. Each lift should be tested by geotechnical personnel to confirm that the contractor's method is capable of achieving the project requirements before placing subsequent lifts. Areas that have become soft or wet should be removed before additional structural fill is placed.

4.2.4 Drainage and Surface Water Concerns

Groundwater was encountered in each location at depths ranging from approximately 6 to 8 feet below the existing grade at the time of drilling. However, we expect seasonal high groundwater depths to be shallower during different times of the year. We recommend provisions be made to control waters that may be encountered at the time of construction. Waters encountered in relatively shallow excavations can typically be controlled by pumping from cased sumps. Waters removed by pumping should be routed to an approved outfall, away from the construction area. Construction dewatering has been discussed previously and should be anticipated at this site.



To reduce the potential for undercutting, water should not be allowed to collect in the foundation excavations, on slab subgrade areas, or on prepared subgrades of the construction area, either during or after construction. Excavated areas should be sloped to facilitate the removal of collected rainwater, groundwater, or surface runoff. Positive site surface drainage should be provided to reduce infiltration of surface water around the perimeter of the structure and slabs. The grades should be sloped away from the structure, and the water should be collected and discharged such that water is not permitted to infiltrate.

Where excavations near the groundwater level are anticipated, construction planning should include provisions for the removal of surface water and groundwater by sloping excavation bottoms toward a sump pit to remove the water. Surface water runoff should be prevented from running into the excavation(s). The sumps should be gravel-lined and cased.

Typically, a temporary drawdown of groundwater encroaching on shallow excavations can be achieved by digging shallow sump pits in the underlying soil, installing a sump casing, and continuously pumping water out of the excavation. The number of sump pits and their depth will depend on the actual soil and groundwater conditions encountered. Deeper sumps may be required if the depth of water in the excavation cannot be maintained. Should heavy seepage occur or should there be evidence of soil particle migration, such as silting of the sump, then the Geotechnical Engineer should be contacted. Waters removed by pumping should be diverted to an approved outfall away from the construction area.

4.2.5 Sinkhole Risk Reduction and Corrective Actions

Based on our experience with sites underlain by carbonate formations in Florida, corrective actions can be implemented to reduce the potential for sinkhole development; however, such measures will decrease but not eliminate the potential for future subsidence. In Florida, where shallow limestone and sandy overburden are common, sinkhole activity is frequently influenced by surface water infiltration and subsurface soil migration. As such, much can be accomplished to decrease the potential for future sinkhole activity through proper grade selection and the establishment and long-term maintenance of positive site drainage.



In general, portions of a site that are excavated to achieve the desired grades may present a relatively higher risk of sinkhole development than areas that receive modest fill. Excavation can remove naturally compacted near-surface soils and may expose loose sands, raveled seams, or relic fractures within the overburden soils. These exposed zones may provide pathways for rainfall or runoff to infiltrate more readily into the subsurface. Conversely, areas that receive a modest thickness of properly compacted cohesive fill may exhibit a reduced risk of infiltration-related subsidence. The placement of compacted sandy clay or similar low-permeability material can act as a relatively impervious blanket that limits the direct downward migration of surface water. While this does not eliminate sinkhole potential, it may reduce the likelihood that surface infiltration will trigger soil raveling into underlying solution features.

Although it is our opinion that the risk of ground subsidence associated with sinkhole formation cannot be eliminated in karst geology, several practical measures can be incorporated into site design and development to reduce this potential risk. Foremost among these is the provision of positive surface drainage during construction and for the life of the structure. Finished grades should be established to direct runoff away from foundations, slabs, pavements, and other structural elements. Ponding adjacent to structures should be avoided. Roof downspouts, paved areas, and other concentrated discharge points should be directed away from structural areas so that water does not infiltrate in a focused manner.

In cut areas, we recommend scarification and recompaction of the upper 6 to 10 inches of exposed subgrade soils. Reworking and properly compacting this surface layer can reduce loosened conditions created during grading operations and may help seal minor fractures or sand seams that could otherwise act as preferential infiltration pathways. Compaction should be performed at appropriate moisture contents to achieve a dense, relatively low-permeability surface condition.

Utility work represents another important sinkhole consideration in Florida due to the sandy nature of many overburden soils. Leaks from water lines, sewer lines, irrigation systems, or pools can introduce concentrated water flow into the subsurface and initiate soil piping. Therefore, subsurface utilities should be carefully constructed and pressure tested prior to placement into service. Utility systems and pool structures should be periodically inspected and maintained so that leaks are identified and corrected in a timely manner.



Backfill placed within utility trenches or other excavations should consist of compacted, well-graded materials such as dense graded aggregate or properly compacted on-site soils. Open-graded stone backfill is generally not recommended unless it is designed with a positive drainage outlet and is not allowed to pond. In sinkhole-prone areas, open-graded materials without an exit path can function as vertical conduits that promote infiltration into deeper soils.

If sinkhole conditions or unusual ground movements are observed during or after construction, the appropriate corrective action should be determined by a geotechnical engineer on a case-by-case basis. The selection of remedial measures depends on site-specific factors, including depth to the underlying limestone bedrock, thickness and character of overburden soils, groundwater conditions, and proximity to structures. While diligent site design and construction practices can significantly reduce the likelihood of sinkhole activity, some inherent level of risk remains in areas underlain by karst geology.

4.3 FOUNDATION RECOMMENDATIONS

4.3.1 Shallow Foundations

Upon completion of site preparation, as previously recommended, it is our opinion that the proposed building can be supported on conventional spread footing foundations bearing on approved properly compacted structural soil fill or suitable existing materials in accordance with the recommendations of this report. We recommend that if lower-consistency materials or unstable soils are encountered during footing excavations, they be undercut and backfilled with structural soil fill in the building area. Spread and continuous footings supported on properly placed and compacted structural soil fill or suitable existing materials can be designed for an allowable soil bearing capacity of 2,000 psf.

We recommend that continuous foundations be a minimum of 18 inches wide and that isolated spread footings be a minimum of 24 inches wide to reduce the possibility of a localized punching shear failure. Exterior foundations should be designed to bear at least 12 inches below the finished exterior grade to develop the design bearing pressure.



The available lateral capacity of shallow foundations includes a soil lateral pressure and coefficient of friction as described in the IBC, Section 1806. Footings will be embedded in a material similar to those described as Class 4 in Table 1806.2. Where footings are cast neat against the sides of excavations, an allowable lateral bearing pressure of 150 psf per foot depth below natural grade may be used in computations. Resistance to lateral sliding, represented by a coefficient of friction of 0.25, may be used for sands similar to those described as soil Class 4. An increase of one-third in the allowable lateral capacity may be considered for transient load combinations, including wind or earthquake, unless otherwise restricted by design code provisions.

A geotechnical representative should be retained to perform foundation subgrade tests to confirm that the recommendations provided in this report are consistent with the site conditions encountered. Some undercutting of lower-consistency or unstable soils, where encountered in foundation excavations, should be anticipated. A dynamic cone penetrometer (DCP) is commonly utilized to provide information that is compared to the data obtained in the geotechnical report. Where unacceptable materials are encountered, the material should be excavated to stiff, suitable soils or remediated at the geotechnical engineer's direction.

We recommend that if lower-consistency or unstable soils are encountered during footing excavations, they be undercut and backfilled with compacted structural soil fill in the building area. We anticipate the majority of the additional undercut will be in areas of minimal grading, where these materials will not be removed. Areas to receive more than 5 feet of structural soil fill should be stripped and proof-rolled to determine if additional undercutting may be necessary. The undercut areas should be backfilled using structural soil fill and extended at least 10 feet laterally beyond the building footprint in areas where over-excavation is necessary. Where undercut and replacement are performed, we recommend that excavations be backfilled the same day to reduce the risk of sidewall collapse.

Foundation excavations should be opened, the subgrade evaluated, remedial work performed (if required), and concrete placed in an expeditious manner. Exposure to weather often reduces foundation support capabilities, thus necessitating remedial measures prior to concrete placement. It is also important that proper surface drainage be maintained both during construction (especially in terms of maintaining dry footing trenches) and after construction. Soil backfill for footings should be placed in accordance with the recommendations for structural fill presented herein. We note that the onsite soils that contain clays will



be susceptible to moisture changes. Therefore, if foundation excavations are to be left open for an extended period of time (i.e., overnight), we recommend that a 2-inch layer of lean concrete be placed as a mud mat in the excavation to reduce the potential for the determination of the foundation subgrade soils.

Based on the known subsurface conditions, geology, and past experience, we estimate foundations supported on recommended structural soil fill or other approved soils should experience maximum total and differential settlements of 1 inch and $\frac{3}{4}$ inch, respectively. The settlement information provided was with maximum loads of 50 kips (for columns) and 4 kips per foot (for walls) and an allowable bearing pressure of 2,000 psf. Additionally, this information assumes that the site is prepared in accordance with our recommendations provided in this report, including allowing the proposed fill time to consolidate under its own weight. If these parameters are determined to be incorrect, we should be notified to reevaluate the settlements for the building.

4.3.2 Slabs-on-Grade

Following the recommended site preparation activities, it is our opinion that the floor slab can be grade-supported on structural soil fill materials or suitable existing soils. Observing proofrolling of the subgrade, as discussed earlier in this report, should be accomplished to identify lower-consistency or unstable soils, which should be removed from the floor slab area prior to the fill placement and/or floor slab construction. Based on our exploration, the client should anticipate and budget for some remediation of the existing materials at the foundation subgrade.

We recommend that a minimum 4-inch-thick granular mat be placed beneath the floor slab to enhance drainage and provide a capillary break. The subgrade should be proofrolled and approved prior to the placement of the crushed stone. Additionally, moisture barriers should be placed between the base and the concrete slab. Based on the conditions encountered on this site, we recommend that the floor slabs be designed using a subgrade modulus of 100 pounds per cubic inch (pci). This modulus is appropriate for small-diameter loads (i.e., a 1ft x 1ft plate) and should be adjusted for wider loads.



4.4 SEISMIC DESIGN CRITERIA

In accordance with the Florida Building Code (FBC) 2023 and ASCE 7-22, we are providing the following seismic design information. After evaluating the SPT N-value data from the soil boring locations and considering the changes to the site and the foundation types, it was determined that the subsurface conditions at the site most closely matched the description for “Seismic Site Class D” or “Stiff Soil Profile”. Table 2 provides the spectral response accelerations for both short and 1-second periods, which may be used for design.

Table 2 – Seismic Design Parameters – ASCE 7-22

Structure	S_s g	S_1 g	S_{DS} g	S_{D1} g	PGA_M G
Old Memorial Golf Club – Tampa, FL	0.069	0.031	0.062	0.044	0.034

The short and 1-second period values indicate the structure should be assigned a Seismic Design Category “A” using the published information. The provided values are based on the results of our field exploration and the assumption that the structure will be designed utilizing Risk categories I, II, or III. If these assumptions are incorrect, we should be contacted to re-evaluate the seismic design information.

5.0 LIMITATIONS

This report has been prepared in accordance with generally accepted geotechnical engineering practice for specific application to this project. This report is for our geotechnical work only, and no environmental assessment efforts have been performed. The conclusions and recommendations contained in this report are based upon applicable standards of our practice in this geographic area at the time this report was prepared. No other warranty, express or implied, is made.



The analyses and recommendations submitted herein are based, in part, on the data obtained from the exploration. The nature and extent of variations between the boring locations will not become evident until construction. If variations appear evident, then we will re-evaluate the recommendations of this report. In the event that any changes in the nature, design, or location of the structures are planned, the conclusions and recommendations contained in this report will not be considered valid unless the changes are reviewed and the conclusions modified or verified in writing. Also, if the scope of the project should change significantly from that described herein, these recommendations may need to be re-evaluated.



Appendices

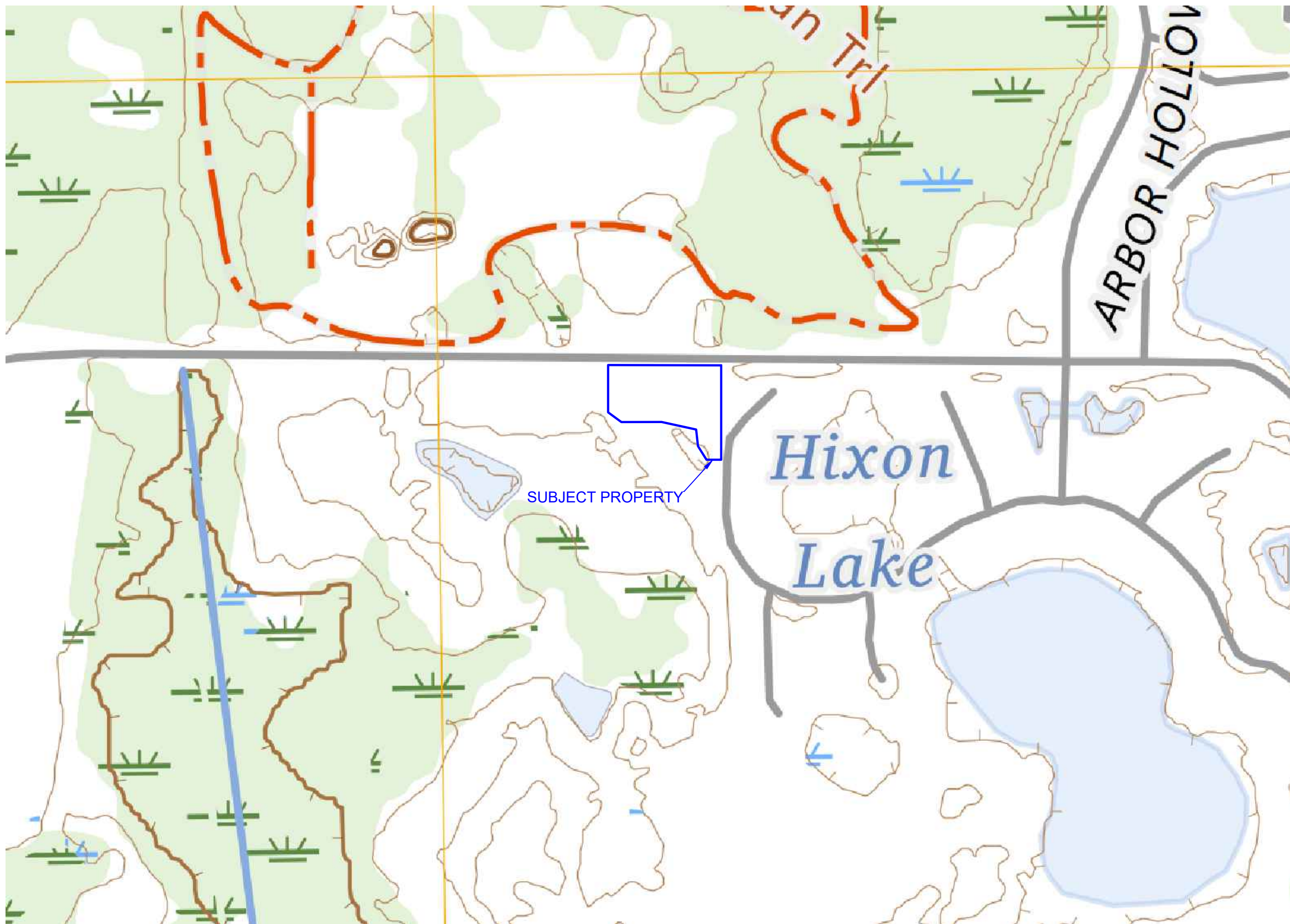


Appendices

Appendix A

Figures, General Notes, & Boring Logs

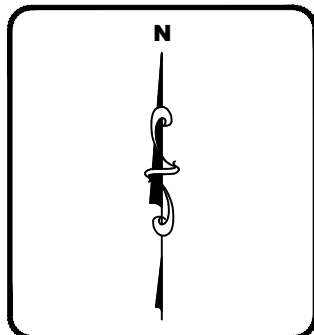




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SITE LOCATION
PLAN

PROJECT:
OLD MEMORIAL GOLF CLUB
SOUTH MOBLEY ROAD
TAMPA, FL

NOTES:
1.) BASE MAP: USGS QUADRANGLE - 2024 CITRUS PARK
FL

PROJECT NO.:	P26-0018.2
DRAWN BY:	JAP
APPROVED BY:	TBW
SCALE:	NTS
DATE:	02/03/2026

FIGURE NO.: 1



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AERIAL SITE BOUNDARY MAP

PROJECT:
OLD MEMORIAL GOLF CLUB
SOUTH MOBLEY ROAD
TAMPA, FL

NOTES:
1.) BASE MAP GOOGLE EARTH: IMAGE CIRCA 2024

PROJECT NO.:	P26-0018.2
DRAWN BY:	JAP
APPROVED BY:	TBW
SCALE:	NTS
DATE:	02/03/2026

FIGURE NO.: 2

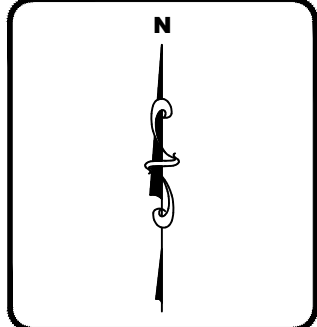




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BORING LOCATION
PLAN

PROJECT:
OLD MEMORIAL GOLF CLUB
SOUTH MOBLEY ROAD
TAMPA, FL

- NOTES:
- 1.) BORING LOCATIONS ARE SHOWN IN GENERAL ARRANGEMENT.
 - 2.) DO NOT USE BORING LOCATIONS FOR DETERMINATIONS OF DISTANCES OR QUANTITIES.
 - 3.) BASE MAP PROVIDED BY: CLIENT
- LOCATION OF SOIL TEST BORINGS

PROJECT NO.:	P26-0018.2
DRAWN BY:	JAP
APPROVED BY:	TBW
SCALE:	NTS
DATE:	02/03/2026

FIGURE NO.: 3



S Mobley Rd

29

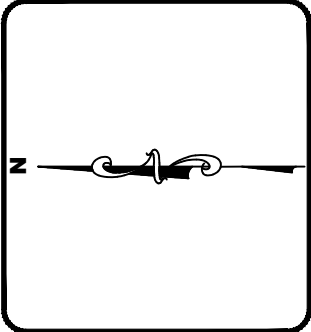
Map Unit Symbol	Soil Type	Natural Drainage	Hydrologic Rating	Stratigraphy (in.)	Stratigraphy
29	Myakka Fine Sand	Poorly Drained	A/D	0-80	Fine Sand

PROJECT NO.:	P26-0018.2
DRAWN BY:	JAP
APPROVED BY:	TBW
SCALE:	NTS
DATE:	02/03/2026

NOTES:
1.) BASE MAP: NATURAL RESOURCES CONVERSATION
SERVICE: IMAGE CIRCA 2023

PROJECT:
OLD MEMORIAL GOLF CLUB
SOUTH MOBLEY ROAD
TAMPA, FL

SOIL TYPE
DESCRIPTION MAP





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FIGURE NO.: 4

GENERAL NOTES

FINE AND COARSE GRAINED SOIL PROPERTIES

PARTICLE SIZE

BOULDERS:	GREATER THAN 300 mm
COBBLES:	75 mm to 300 mm
GRAVEL:	4.74 mm to 75 mm
COARSE SAND:	2 mm to 4.74 mm
MEDIUM SAND:	0.425 mm to 2 mm
FINE SAND:	0.075 mm to 0.425 mm
SILTS & CLAYS:	LESS THAN 0.075 mm

COARSE GRAINED SOILS (SANDS & GRAVELS)

N-VALUE	RELATIVE DENSITY
0 - 4	VERY LOOSE
5 - 10	LOOSE
11 - 30	MEDIUM DENSE
31 - 50	DENSE
OVER 50	VERY DENSE

FINE GRAINED SOILS (SILTS & CLAYS)

N-VALUE	CONSISTENCY	Qu, PSF
0 - 2	VERY SOFT	0 - 500
3 - 4	SOFT	500 - 1000
5 - 8	FIRM	1000 - 2000
9 - 15	STIFF	2000 - 4000
16 - 30	VERY STIFF	4000 - 8000
OVER 31	HARD	8000 +

STANDARD PENETRATION TEST (ASTM D1586)

THE STANDARD PENETRATION TEST AS DEFINED BY ASTM D1586 IS A METHOD TO OBTAIN A DISTURBED SOIL SAMPLE FOR EXAMINATION AND TESTING AND TO OBTAIN RELATIVE DENSITY AND CONSISTENCY INFORMATION. THE 1.4 INCH I.D./2.0 INCH O.D. SAMPLER IS DRIVEN 3-SIX INCH INCREMENTS WITH A 140 LB. HAMMER FALLING 30 INCHES. THE BLOW COUNTS REQUIRED TO DRIVE THE SAMPLER THE FINAL 2 INCREMENTS ARE ADDED TOGETHER AND DESIGNATED THE N-VALUE. AT TIMES, THE SAMPLER CAN NOT BE DRIVEN THE FULL 18 INCHES. THE FOLLOWING REPRESENTS OUR INTERPRETATION OF THE STANDARD PENETRATION TEST WITH VARIATIONS.

BLOWS/FOOT (N-VALUE)

DESCRIPTION

25.....	25 BLOWS DROVE SAMPLER 12" AFTER INITIAL 6" SEATING
75/10"	75 BLOWS DROVE SAMPLER 10" AFTER INITIAL 6" SEATING
50/PR.....	PENETRATION REFUSAL OF SAMPLER AFTER INITIAL 6" SEATING

SAMPLING SYMBOLS

ST:	UNDISTURBED SAMPLE
SS:	SPLIT SPOON SAMPLE
CORE:	ROCK CORE SAMPLE
AU:	AUGER OR BAG SAMPLE

SOIL PROPERTY SYMBOLS

N:	STANDARD PENETRATION, BPF
M:	MOISTURE CONTENT %
LL:	LIQUID LIMIT %
PI:	PLASTICITY INDEX %
Qp:	POCKET PENETROMETER VALUE, TSF
Qu:	UNCONFINED COMPRESSIVE STRENGTH, TSF
DUW:	DRY UNIT WEIGHT, PCF

ROCK PROPERTIES

ROCK HARDNESS

ROCK QUALITY DESIGNATION (RQD)

PERCENT	QUALITY
90 TO 100	EXCELLENT
75 TO 90	GOOD
50 TO 75	FAIR
25 TO 50	POOR
0 TO 25	VERY POOR

VERY SOFT:	ROCK DISINTEGRATES OR EASILY COMPRESSES TO TOUCH: CAN BE HARD TO VERY HARD SOIL.
SOFT:	ROCK IS COHERANT BUT BREAKS EASILY TO THUMB PRESSURE AT SHARP EDGES AND CRUMBLES WITH FIRM HAND PRESSURE.
MODERATELY HARD:	SMALL PIECES CAN BE BROKEN OFF ALONG SHARP EDGES BY CONSIDERABLE HARD THUMB PRESSURE: CAN BE BROKEN BY LIGHT HAMMER BLOWS.
HARD:	ROCK CAN NOT BE BROKEN BY THUMB PRESSURE, BUT CAN BE BROKEN BY MODERATE HAMMER BLOWS.
VERY HARD:	ROCK CAN BE BROKEN BY HEAVY HAMMER BLOWS.



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Project Location: **Tampa, FL**

Project Number: **P26-0018.2**



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Boring Log Legend

Sheet 1 of 1

Depth (feet)	Graphic Log	Soil Classification	MATERIAL DESCRIPTION	Sample Type	Sample Number	Sampling Resistance, blows/ft	REMARKS AND OTHER TESTS
1	2	3	4	5	6	7	8

COLUMN DESCRIPTIONS

1 Depth (feet): Depth in feet below the ground surface.

2 Graphic Log: Graphic depiction of the subsurface material encountered.

3 Soil Classification: Type of material encountered.

4 MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.

5 Sample Type: Type of soil sample collected at the depth interval shown.

6 Sample Number: Sample identification number.

7 Sampling Resistance, blows/ft: Number of blows to advance driven sampler one foot (or distance shown) beyond seating interval using the hammer identified on the boring log.

8 REMARKS AND OTHER TESTS: Comments and observations regarding drilling or sampling made by driller or field personnel.

FIELD AND LABORATORY TEST ABBREVIATIONS

ESHGWT: Estimated Seasonal High Groundwater Table

COMP: Compaction test

CONS: One-dimensional consolidation test

LL: Liquid Limit, percent

PI: Plasticity Index, percent

SA: Sieve analysis (percent passing No. 200 Sieve)

UC: Unconfined compressive strength test, Qu, in ksf

WA: Wash sieve (percent passing No. 200 Sieve)

MATERIAL GRAPHIC SYMBOLS



SILT, SILT w/SAND, SANDY SILT (ML)



Silty SAND (SM)



Poorly graded SAND (SP)

TYPICAL SAMPLER GRAPHIC SYMBOLS



2-inch-OD unlined split spoon (SPT)

OTHER GRAPHIC SYMBOLS



Water level (at time of drilling, ATD)



Water level (after waiting, AW)



Minor change in material properties within a stratum



Inferred/gradational contact between strata



Queried contact between strata

GENERAL NOTES

1: Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.

2: Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

Project: **Old Memorial Golf Club**
 Project Location: **Tampa, FL**
 Project Number: **P26-0018.2**



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Log of Boring B-02
Sheet 1 of 1

Date(s) Drilled 01/30/26	Logged By JAP	Checked By TBW
Drilling Method Mud Rotary	Drill Bit Size/Type	Total Depth of Borehole 20 feet bgs
Drill Rig Type Geoprobe 6620	Drilling Contractor Ridge Drilling	Approximate Surface Elevation
Groundwater Level and Date Measured 8 ft. ATD	Sampling Method(s) SPT	Hammer Data 30 in, 140 lbs
Borehole Backfill Backfilled with cuttings	Location	

Depth (feet)	Graphic Log	Soil Classification	MATERIAL DESCRIPTION	Sample Type	Sample Number	Sampling Resistance, blows/ft	REMARKS AND OTHER TESTS
0		SM	Silty Sand (SM) - with significant organics - brown and dark brown - slightly moist - very loose (MARINE)	X	1	2-2-2-2 (4)	
		SM	Silty Sand (SM) - with clay - light gray and gray - slightly moist - loose (MARINE)	X	2	3-2-3-2 (5)	
5		SP	Fine Sand (SP) - gray and light gray - wet - loose to medium dense (MARINE)	X	3	4-3-3-4 (6)	
				X	4	5-4-6-9 (10)	
				X	5	4-7-7-9 (14)	
10				X	6	6-5-4 (9)	
15				X	7	4-5-5 (10)	
20			Boring completed at 20 feet.				

Project: **Old Memorial Golf Club**
 Project Location: **Tampa, FL**
 Project Number: **P26-0018.2**



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Log of Boring B-03
Sheet 1 of 1

Date(s) Drilled 01/30/26	Logged By JAP	Checked By TBW
Drilling Method Mud Rotary	Drill Bit Size/Type	Total Depth of Borehole 15 feet bgs
Drill Rig Type Geoprobe 6620	Drilling Contractor Ridge Drilling	Approximate Surface Elevation
Groundwater Level and Date Measured 7.5 ft. ATD	Sampling Method(s) SPT	Hammer Data 30 in, 140 lbs
Borehole Backfill Backfilled with cuttings	Location	

Depth (feet)	Graphic Log	Soil Classification	MATERIAL DESCRIPTION	Sample Type	Sample Number	Sampling Resistance, blows/ft	REMARKS AND OTHER TESTS
0		ML	Lean Silt (ML) - with organics - brown and dark brown - slightly moist - firm (MARINE)		1	2-2-3-2 (5)	
		SM	Silty Sand (SM) - gray and light gray - slightly moist - loose (MARINE)		2	3-3-2-2 (5)	
5		SM	Silty Sand (SM) - with clay - gray, light gray, reddish brown, and tan - moist - loose (MARINE)		3	3-3-4-4 (7)	
		SP	Fine Sand (SP) - gray, light gray, and light brown - wet - medium dense (MARINE)		4	7-7-6-5 (13)	
10					5	10-8-12-12 (20)	
15					6	5-5-9 (14)	
			Boring completed at 15 feet.				
20							

