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June 12, 2018 ***via email:*** HSchulweis@nianticpartners.com
Revised November 22, 2019
Revised June 26, 2020

Harvey Schulweis
Putnam Seabury Partners, LP
287 King Street
Chappaqua, NY 10514

RE: Geotechnical Investigation and Report
Commercial Campus at Fields Corner
Town of Southeast, New York
SESI Project No. 9999

Dear Mr.Schulweis:

In accordance with our Professional Services Agreement dated December 7, 2017, we have completed our geotechnical investigation for the above referenced project. This report contains a description of our investigation, an evaluation of the subsurface soil and groundwater characteristics, and presents recommendations for general site preparation procedures and foundation design criteria for the proposed construction.

Enclosed are three (3) copies of the report.

If you have any questions, please call.

Sincerely,

SESI CONSULTING ENGINEERS D.P.C.

Michael St. Pierre, P.E.
Principal

Encl: Geotechnical Investigation Report Dated June 26, 2020
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SESI
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GEOTECHNICAL INVESTIGATION REPORT

FOR

Commercial Campus At Fields Corner
Route 312 and Pugsley Road
Town of Southeast, Putnam County, New York

Prepared For:

Putnam Seabury Partners, LP
287 King Street
Chappaqua, NY, 10514

Prepared By:

SESI CONSULTING ENGINEERS D.P.C.
12A Maple Avenue
Pine Brook, NJ 07058

Project No.: 9999

DATE:
June 12. 2018

Revised June 26, 2020

Robert L. Rains III, EIT

Michael St. Pierre, P.E.
N.Y. Lic. No. 80271

INTRODUCTION AND PROPOSED CONSTRUCTION

We have completed our geotechnical investigation for the proposed Commercial Campus At Fields Corner in Southeast, Putnam County, New York. The site is located west of Pugsley Road and south of New York State Route 312. The project site is currently wooded with occasional tracked trails, boulders walls, and wetlands located in the approximate middle of the site running north to south, in the west, and in the east beyond Pugsley Road. The site is bounded Pugsley Road and Fields Corner Road to the east and by a wooded area beyond; to the south by Route 312 and Barrett Road; to the west by Barrett Road and residential buildings beyond; to the north by Barrett Road and residential buildings beyond. The previous site use consisted of agricultural fields and are currently overgrown with dense low-lying vegetation and trees.

We have reviewed the *Overall Grading Plan* and *Grading Plan 'A'* through *Grading Plan 'E' revision 2* plans prepared by JMC Planning, Engineering, dated March 18, 2019, last revised June 17, 2020. We understand that the proposed construction will consist of constructing two (2) warehouse buildings with footprint areas of 303,100 sf (Building A), and 630,000 sf (Building B) with associated parking, loading and roadway areas. Additionally, the development will include seven (7) proposed stormwater management areas, a trench drain along Route 312, four (4) septic fields, and several large multi-tiered retaining walls.

Topographically, based on the Overall Grading Plan and *Grading Plan 'A'* through *Grading Plan 'E' revision 2* plans prepared by JMC Planning, Engineering, dated March 18, 2019, last revised June 17, 2020, indicate that the proposed building locations are located in moderately sloped areas, with steep slopes towards the east and west. In the southern portion of the site, grades vary from elevation 672± in the southwestern portion of Building-A and slope downward to the east towards Pugsley Road at elevation 600± and to the west at elevation 600±. In the northern portion of the site, site grades vary from elevation 690± in the southern portion of Building-B and slope downward to elevation 600± in the east, to elevation 530± in the southwest, and to 600± in the northwest.

Based on the grading plans, the proposed finished floor elevations are el. 649.00 for Building-A, el. 672.50 for Building-B. Based on the existing and proposed grades provided, it is anticipated cuts up to 17± feet and fills up to 22.5± will be required to reach finished floor elevation. Similar cuts and fills will be required to reach proposed grades in the parking/roadway areas.

Detailed structural loading criteria were not provided to us at this time; however, we have assumed typical column and wall loads for this type of structure. Typical floor loads for the warehouse are anticipated to be on the order of 750 psf.

Once final site and grading plans, and structural loading are available, we should be provided an opportunity to review them to confirm that our recommendations remain valid.

FIELD INVESTIGATION

Our engineering study consisted of a site reconnaissance, a review of existing soils and geologic data, and a field investigation consisting of observing one-hundred and twenty-two (122) test-pits and twenty-six (26) borings. Nine (9) borings and nine (9) test pits were performed within the vicinity of the proposed buildings, four (4) test pits within the vicinity of the proposed retaining walls, eleven (11) borings along Pugsley road, four (4) borings along

route 312, thirty-eight (38) test pits within the proposed septic fields, and seventy (85) test pits within the vicinity of the proposed stormwater management areas.

Soil samples suitable for identification purposes were extracted from the test pits at variable depths. All soil samples were taken to our soils laboratory for classification and appropriate geotechnical testing.

The borings were drilled within the two proposed building footprints to depths of 12 to 22.5-feet below existing grade with an ATV drill-rig. The seven (7) building area test pits were advanced to depths ranging from 9.5 to 11± feet below the existing ground surface with a track-excavator at accessible locations within the footprint of the buildings. The stormwater and septic test pits were advanced to depths ranging from 5.5 to 12±' and 8 to 10.5±', respectively. The four (4) retaining wall test pits were advanced to depths ranging from 9 to 11±' below grade. Ground surface elevations at the exploration locations were provided from survey data provided by others.

The approximate locations of the borings are shown on the Test Pit and Boring Location Plan included as *Figure 1*. Individual test pit logs and boring logs, which describe the materials encountered, are presented as Figures 2 through 142. A key to soil terminology is include as Figure 143. In addition, the individual supplemental test pit logs, performed in September and October of 2018, which describe the materials encountered, are included in Appendix B. The individual test pit logs, performed in November of 2019, and the individual test pits logs and borings logs, performed in January, February, and June of 2020, are included in Appendix C. The approximate locations of the supplemental test pits performed are shown on the Test Pit Location Plan Included as Figure 1.

Soil samples suitable for identification purposes were extracted from the borings at closely-spaced intervals in accordance with the Standard Penetration Test (ASTM D1586-11). For this test, a standard split-spoon sampler (2 inches outside diameter, one and three-eighths inches inside diameter) is driven into the soil by a 140-pound weight falling 30 inches. After discounting the initial six inches of penetration due to possible disturbance of the material resulting from the drilling operation, the number of blows required to advance the sampler a distance of 12 inches are recorded and designated as the standard penetration resistance or “N” value. The “N” value is an indication of the relative compactness of the soil in-situ.

Laboratory testing on samples collected from the borings consisted of seven (7) mechanical grain size analyses, one (1) Atterburg Limit test, one (1) CBR test, nine (9) percent passing No. 200 sieve analyses, and one (1) expansive index test. The results of the mechanical grain size analyses are presented on the individual boring logs and in graphical form, presented as Figures 144 thru 148. The additional two (2) grainsize analyses, Atterberg limit analysis, expansion index testing, and CBR results are included in the Appendix.

All fieldwork was performed under the full time technical observation of an engineer from SESI Consulting Engineers D.P.C. SESI located survey stakes, staked by others, for the test pits and borings in the field, maintained continuous logs of the explorations as work proceeded and coordinated the soil sampling operations in order to develop the required subsurface information.

SESI previously completed a Preliminary Subsurface Investigation report dated October 7, 1987. The investigation consisted of advancing eight (8) soil borings using hollow-stem augers and excavating fifty-two (52) test pits using a rubber-tired backhoe.

GENERALIZED SUBSURFACE CONDITIONS

Geologically, the site soils are mapped as alluvial materials composed of stratified material deposited during the Quaternary period. The upper 4 to 8 feet generally consist of silty soils and overlie coarser, stratified material consisting of intermixed sand and gravel. The percentage of gravel generally increases with depth. Bedrock is generally encountered at depths greater than 10-feet in the area.

The onsite soils are in general agreement with the geological mapping in the areas investigated for this study, with exception to the depth of bedrock which was not encountered during our investigation. The following subsurface conditions were encountered in order of increasing depth:

Surficial Materials: Topsoil was encountered in all building borings and test pits. The building area test pits and borings encountered a layer of topsoil with thicknesses ranging from 4 to 8± inches. The septic and storm area test pits encountered 3 to 12+" and 2 to 18+" of topsoil, respectively. Approximately 4 to 8+ inches of gravel subbase with varied amounts of silt and sand was encountered below the asphalt in the roadway borings. Fill was encountered within test pits TP-49, TP-50, and TP-50A, to depths ranging from 2 to 8+ feet below grade, and generally consisted of natural sandy silts used to fill the utilities and foundations from the previously demolished residences. An abandoned strip footing was encountered at 8+ feet below grade in TP-49, and abandoned utilities were encountered in TP-50 and TP-50A approximately 2+ feet below grade.

Natural Soils: Beneath the topsoil, asphalt, and fill (where encountered), the natural soils encountered in both the test pits and boring primarily consisted of light brown clayey silt to sand and clayey silt with trace amounts of gravel with occasional cobbles. Cobbles and boulders were encountered periodically throughout the test pits and borings and increased in frequency with depth.

Based on the bucket resistance during excavation of the test pits and the blow counts from the borings, the granular soils are typically in a medium dense condition and the fine-grained soils are typically in a medium stiff to hard condition.

Bedrock: Sound bedrock was not encountered to the depths explored; however, TP-3A, TP-4A, TP-18B, TP-20A, TP-27A, and TP-27B encountered weathered boulder/bedrock at depths ranging from 2 to 5+ below existing grade.

Groundwater: Groundwater was encountered in test pits TP-54, TP-56 and TP-57, TP-101, TP-103 thru TP-105, TP-107, RWTP-2, RWTP-4, RWTP-5, RWTP-7, TP-B312-5, TP-312-6 ranging from 1.5 to 10+ feet below existing grade. Borings SB-5, SB-19, SB-21, SB-22, SB-24,B-312-1 thru B-312-4 and test pits TP-17, TP-55, TP-102, TP-106, TP-27A, TP-50, RWTP-1, RWTP-3, RWTP-6, and STP- 21 did not encounter groundwater during the short period of time the holes were left open. The building and roadway borings encountered groundwater at depths ranging from 5 to 15+ feet below existing grade. The septic and stormwater area test pits encountered groundwater at depths ranging from 2 to 9+' and 20-inches to 10+' below existing grade, respectively. Test Pits TP-10 through 12 were left open for a 24-hour period and standing water was recorded to be 3 to 13-inches below existing grade. It is probable that the groundwater may be perched within the upper fine grained materials after heavy precipitation events. Fluctuations in the groundwater should be anticipated based on the time of year and amount of recent precipitation. Mottling was observed in most of the test pits ranging from 6-inches to 7.0-feet below existing grade.

Pavement Cores: Borings SB-16, 18 thru 20, and SB-23 encountered 1-inch thick asphalt. Due to the poor condition of the asphalt, the asphalt would break-up during drilling. No asphalt cores were obtained. All roadway borings encountered a 4 to 8-inch thick layer of gravel subbase with varied amounts of sand and silt.

Based on the results of the expansive index testing, the existing on-site soils are within the "low" potential expansion index category in accordance with ASTM D 4829.

EVALUATION AND RECOMMENDATIONS

General

From a soils and foundation support standpoint, the existing subsurface conditions can be considered good with respect to providing satisfactory support of the planned buildings and roadways. The natural soils encountered below the topsoil are suitable for support of the anticipated building loads on conventional spread/strip foundations with a slab-on-grade. The primary negative aspects of the site are the high silt/clay content of the existing natural soils making them highly moisture sensitive and the relatively high groundwater in some areas. Groundwater will likely be encountered within the deeper building, roadway, and utility excavations. No organic materials (other than the surface topsoil) or uncontrolled fills were encountered during the investigation within the proposed building areas. If any uncontrolled fill is encountered, it should be removed and replaced.

SITE PREPARATION PROCEDURES

General

The site preparation procedures should consist of clearing the trees, stripping the surface vegetation, topsoil and uncontrolled fill (if encountered) from within the proposed building areas and then cutting and filling the site to grade. The existing site soils can be reused as a structural fill; however, a majority of these soils possess a high silt/clay content and will rut and weave when over optimum moisture content. Therefore, we strongly recommend that these soils be kept a minimum of 2 feet below the building slab subgrade. In order to reuse these materials, it may be necessary to treat the soils with lime/cement to achieve the required moisture contents and densities. We recommend the inorganic granular soils be used immediately below the slab and pavement subgrades.

Prior to placing any fill material in areas requiring fill to achieve the proposed subgrade elevation, the entire area should be proofrolled with a large vibratory roller (minimum 10-ton static weight) under the observation of a qualified geotechnical engineer. The proofrolling operation should consist of making a minimum of 4 complete coverages of the area. Any soft areas disclosed during the proofrolling should be excavated to stable material and backfilled with suitable material in compacted lifts to achieve a minimum of 92 percent and an average of greater than 95 percent of Modified Proctor density (ASTM D 1557). The compaction/proofrolling operations should be inspected by a qualified soils engineer. After completion of the proofrolling operations, the construction of a controlled compacted fill may commence.

The inorganic cut soils beneath the topsoil, may be used as structural fill; however, the majority of these materials possess a high silt/clay content and are moisture sensitive, they cannot be worked or compacted when significantly over optimum water content and, once wet, will require a long period of time to dry. The ease with which soil fills can be constructed

on this site will, to a degree, depend on the time of year in which construction takes place and the construction procedures utilized by the earthwork contractor. Wetting or drying of the fill soils may be required prior to their reuse. The moisture sensitive soils can also be treated with lime/cement in order to achieve the required moisture contents and densities.

Much of the site contains boulder walls used as a boundary line during prior use. These boulders could be used for deep area fills and should be placed as thinly as possible with granular materials tracked between the boulders, with the use of a large dozer, in order to eliminate void space between boulders. Alternatively, the boulders encountered during excavation or from the existing boundary walls may be crushed for use beneath the proposed building slabs or foundations. Shotrock/boulder fills should be limited to areas which will not require future access for utilities, foundations, and/or structures etc.

The fill should be placed in maximum 12-inch thick lifts, with each layer compacted to the required density using a large vibratory roller (minimum 10-ton static weight). Building area fills should be compacted to a minimum of 92 percent and an average of greater than 95 percent of the Modified Proctor density (ASTM D 1557).

Areas, which will not have any foundations or other structural loads, may be compacted to a minimum of 90 percent of the maximum Modified Proctor density (ASTM D 1557).

The fill materials may be obtained from on-site sources or from offsite borrow. Offsite borrow material, if required, should have a maximum particle size of 6 inches and the maximum amount of fines (percentage passing a No. 200 mesh sieve) should be 15% to help facilitate construction during wet weather. The “fines” should be non-plastic.

Backfill in confined areas such as utility trenches and foundations within load bearing or paved areas should be placed in maximum 6-inch thick layers and compacted to a minimum of 95 percent of Modified Proctor density.

As previously indicated, the majority of the subsurface soils encountered contained significant percentages of silt/clay and will readily soften during wet weather and from construction activity. Wetting or drying of the fill material should be accomplished as necessary to achieve the required density. The subgrade should be graded to drain and tight-rolled at the end of the day, particularly if wet weather is anticipated. In addition, stormwater runoff should be diverted away from any open excavations.

If stormwater seepage is encountered during construction, gravel filled sumps with pumps should be installed below the subgrade elevation to allow for dewatering of the excavation.

Slopes and Excavations

All temporary excavations greater than 4 feet in depth should have the sides sloped back or be appropriately sheeted and braced in accordance with all applicable codes.

Permanent soil cut and fill slopes should be limited to a maximum of 2 horizontal to 1 vertical for slopes up to 35 feet high with surcharge loads on the order of 250 psf for proposed roadways and 2ksf to 3ksf for proposed building footing loads. Our analysis consisted of performing global stability calculations along the eastern slope of Building-A through Pugsley Road, and along the southwest corner of Building-B. We should be provided with the final grading plans in order to confirm our recommendation remain valid. It should be noted that only the proposed slopes were evaluated, and the global stability analyses did

not include the proposed retaining walls. Any changes to the slopes or loading conditions should be evaluated by SESI.

The global stability analyses was performed assuming a sandy silt and/or sandy clay soil. During the placement of fill for the steep slopes, each lift should be keyed into the existing

slope by cutting a bench into the existing slope to each lift. In addition, the lifts of fill should extend beyond the proposed slope edge to all compaction of all fill soils and then cut the slope back to the required grade. Erosion matting such as Landlock S2 Erosion Control Blanket from Propex, should be installed on all 2:1 slopes to keep the surface erosion from occurring and to help establish vegetative growth.

All excavations should be performed in accordance with OSHA requirements, including but not limited to, temporary shoring, trench boxes and benching and be evaluated by a qualified Geotechnical Engineer.

Utility Lines

The site soils will provide suitable support for utility lines. Cobbles greater than 3 inches in diameter should be removed from the utility line subgrade or a minimum 4-inch thick sand layer placed beneath the utility lines. If utility lines fall within soft soils, the excavation should be extended an additional 12 inches and replaced with ¾-inch clean crushed stone or clean sand and gravel.

Backfill material placed around utility lines to 6 inches above the utility line should have a maximum particle size of 1.5 inches. Backfill of utility trenches that fall within load-bearing areas should be placed in maximum 6-inch thick lifts and compacted to the same density requirements as in the building/parking areas.

FOUNDATION DESIGN CRITERIA

After the site preparation procedures described above are completed, conventional spread/strip footings and a slab-on-grade floor system may be constructed within the natural inorganic soils/compacted structural fill and may be designed for a maximum net allowable soil bearing pressure of 5,000 psf (2.5 tsf). It should be noted that the allowable bearing capacity is higher than is allowable by IBC 2015 and should be approved by the local building department. Regardless of the loads, the minimum plan dimension of isolated footings should be 36 inches and the minimum width of continuous footings should be 24 inches.

Exterior footings and those footings potentially exposed to frost action should be founded a minimum of 4.0 feet below adjacent exterior grade or as required by the local building code. Interior footings within heated building areas may be founded at conventional depths below the slab provided they are placed on the natural soils or controlled compacted fill.

Should the bottom of a footing excavation become softened during construction, the soft material should be excavated and replaced with clean ¾-inch crushed stone. It may be prudent to over-excavate at all footing locations and place a minimum of 6 inches of ¾-inch clean crushed stone. The stone will provide a stable working mat and a medium through which to pump stormwater runoff. If water is encountered, it should be controlled locally with gravel filled sumps.

The floor slab may be designed using a subgrade modulus of 175 pci, assuming that 6 inches of Item 4 or recycled concrete aggregate with a maximum particle size of 1.5 inches

and a maximum percent passing the No. 200 mesh sieve of 12 percent is placed beneath the floor slab.

After satisfactory completion of the outlined building area preparation procedures, footings and floor slabs founded on the compacted structural fill/natural soils should have post-

construction total settlements of less than 1-inch and maximum differential settlements in a 30-foot span of less than ½ inch.

All retaining walls including foundation walls should be provided with positive drainage behind the wall to preclude hydrostatic pressures from developing or be designed for hydrostatic pressures.

A summary of soil design parameters is provided in the attached Table 1.

Seismic Design

The site soils have been classified as Site Class D for seismic design purposes in accordance with the 2015 International Building Code.

Based on a structural occupancy/risk category of I/II/III and information provided by the USGS: U.S. Seismic Design Maps, the following seismic design criteria should be used for this project:

Mapped Spectral Response Acceleration for Short Periods	SS = 0.222g
Mapped Spectral Response Acceleration for 1-Second Period	S1 = 0.068g
Site Coefficient	Fa = 1.60
Site Coefficient	Fv = 2.40
Spectral Response for short periods	SMS = 0.355g
Spectral Response for 1 second period	SM1 = 0.163g
Design Spectral Response Acceleration for Short Periods	SDS = 0.237g
Design Spectral Response Accelerations for 1-Second Period	SD1 = 0.108g

Retaining Walls

Several large, multi-tiered retaining walls will be required in order to attain the final site grades. The retaining wall leveling coarse subgrade should be excavated to a dense and stable subgrade and proofrolled with a vibratory roller under full-time engineering observation. The retaining wall foundation and backfill material should be placed in accordance with the design specifications. Retaining wall backfill should consist of a free-draining granular material with less than 15 percent non-plastic fines. The maximum particle size for the retaining wall backfill should be 3 inches or as specified by the design engineer. Retaining wall backfill should be placed in maximum 8-inch lifts and compacted with hand-operated compactors to achieve 95 percent of the Modified Proctor density (ASTM D1557). The proposed retaining walls should be designed by a licensed Professional Engineer. It should be noted that the majority of the on-site soils will not be able to be used within the reinforced zone of the walls due to the high silt/clay content.

Based on the presence of large boulders and due to the relatively high silt content within the existing natural soils and site grades, a large block wall such as a Recon retaining wall

would be an applicable option for this condition. The Recon gravity wall would limit the need to excavate behind the wall within the natural silty soils and minimize the need to import select materials for wall backfill.

All retaining walls should be provided with positive drainage behind the wall to preclude hydrostatic pressures from developing.

PAVEMENT AREAS

After stripping the surface topsoil, the parking lot/roadway area subgrade should be proofrolled using a loaded tandem dump truck or a large vibratory roller (minimum 10-ton static weight). Based on the proposed on-site roadway and parking grades, large cuts and fills, up to approximately 20± feet will be required to reach final grades. The proofrolling should consist of making 4 complete coverages of the area. If any soft areas are encountered during the proofrolling, they should be excavated to stable material and replaced with a controlled compacted fill. The thickness of individual lifts of soil fill should be limited to 12 inches. The compaction criteria for fills in the roadway areas may consist of 92 percent, except in the uppermost 2 feet where 95 percent should be achieved to provide for good pavement support. Visual observations and in-place field density tests should be made to determine the adequacy of the compaction. The proofrolling should be inspected by a qualified geotechnical engineer prior to placing any compacted fill.

Upon completion of the stripping/excavation/proofrolling operations, the fill required to attain finished subgrade elevation should be placed in lifts and compacted with the same or similar compactor as used for the proofrolling. The fill materials may be obtained from the existing inorganic onsite soils or from offsite borrow.

It should be noted that the soils are moisture sensitive and possess a high silt/clay content and will rut and weave under construction equipment when they become over optimum moisture content. Therefore, we recommend that these soils be kept a minimum of 2 feet below the pavement subgrade. These soils could also be treated with lime/cement to achieve the required moisture contents and densities.

If offsite borrow material is required, it should have a maximum particle size of 6 inches and the maximum amount of fines (percentages passing a No. 200 mesh sieve) should be 15% to help facilitate construction during wet weather. The “fines” should be non-plastic.

The fill should be compacted using a large vibratory roller (minimum 10-ton static weight) to achieve a minimum dry density of 92 percent and an average density of greater than 95 percent of Modified Proctor density as determined from laboratory test ASTM D 1557.

Based on the CBR testing results, the subgrade soils will have a CBR value (California Bearing Ratio) on the order of 5% due to the relatively high quantity of clayey silt. A representative of SESI should inspect the pavement subgrade prior to the placement of the pavement section in order to determine if it is in accordance with our estimated design criteria. The subgrade soils should be compacted at ±2 percent of optimum moisture to 95 percent of Modified Proctor density (ASTM D 1557). The Pavement Design Analysis is included in the Appendix.

Wetting or drying of the fill material should be accomplished as necessary to achieve the required density.

SESI provided a *Pavement Design Analysis* letter*,* dated May 23, 2018, for the proposed Pugsley Road improvement and is included in the **Appendix**. Based on the poor condition of the asphalt within the existing Pugsley Road, the asphalt should be milled and removed. A light-duty pavement section is as follows: 1.5-inches of Type 6F – Item 403.17, 3-inches Type 3 – Item 403.13, and 6-inches Type 4 – Item 304.05. It should be noted the township may have a minimum pavement section that is greater than the light-duty pavement section provided.

STORMWATER AND SEPTIC TESTING

Infiltration testing was conducted in accordance with the New York State Stormwater Management Design Manual and was tested at test pits TP-33 thru TP-35, TP-37 thru TP-41, and TP-45 thru TP-48 with results ranging from 4.5 in/hr to 30.6 in/hr. Supplemental infiltration testing conducted in September and October of 2018 consisted of test pits TP-20A, TP-27, TP-27A, TP-404, TP-404A, TP-407, TP-412, and TP-413A with results ranging from 7 to 15 in./hr. Additional infiltration testing conducted in November of 2019 consisted of test pits TP-A1 through TP-A5 with results ranging from 7 to 12 in/hr. The results of the in-situ testing is shown on each individual test pit log. Additional infiltration testing conducted in January, February, and June of 2020 consisted of borings B-312-1 thru B-312-4 and test pits TP-AA1 thru TP-AA5, TP-A2-1, TP-A2-2,TP-A4-1 thru TP-A4-3, TP-AA6, and TP-AA7 with results ranging from 0.75 in/hr. to 20 in/hr. The results of the in-situ testing is shown on each individual test pit and boring logs.

Percolation testing was conducted in accordance with the requirements of the Putnam County Health Department, and was conducted at test pits STP-1 thru STP-32. The percolation results ranged from 2.3 min./in. to 120 min./in. Supplemental percolation testing conducted in September and October of 2018 consisted of test pits STP-1, STP-2, STP-8, STP-12, STP-101, STP-102, STP-103, and STP-104. The percolation results ranged from 6.0 min./in. to 40 min./in. The results of the in-situ testing is shown on each individual test pit log.

TESTING REQUIREMENTS

During the placement of all fill, visual observations and in place density tests should be performed to determine the adequacy of the fill. Density testing should be done in accordance with the following minimum frequency requirements, or as determined by the geotechnical engineer:

Building Areas: Minimum of 4 tests per 12-inch lift; spacing not to exceed 50 feet between test locations.

Parking/Roadway Areas: Minimum of 3 tests per 12-inch lift; spacing not to exceed 100 feet between test locations.

Minimum density requirements are outlined in the previous sections of this report.

INSPECTION

The recommendations presented in the previous sections of this report are based on the assumption that the site preparation procedures will be done under engineering inspection by a representative of SESI Consulting Engineers D.P.C. We should inspect the proofrolling operations, the over-excavation (if required), the placement of the compacted fill, and the bottom of the footing excavations prior to the placement of concrete and/or stone. Visual observations and in-place density testing should be done throughout fill construction to determine that the work is done in accordance with our recommendations.

LIMITATIONS

The subsurface investigation performed identifies the subsurface conditions only at the locations of the explorations and at the depths where the samples were taken. SESI Consulting Engineers D.P.C. reviews the published geologic data and the field and laboratory data and uses their professional judgment and experience to render an opinion on the subsurface conditions throughout the site. Because the actual subsurface conditions may differ, we recommend that SESI be retained to provide construction inspection in order to minimize the risks associated with unanticipated conditions.

This report should not be used:

1. When the nature of the proposed building is changed;
2. When the size or configuration of the proposed building is altered;
3. When the location or orientation of the proposed building is modified;
4. When there is a change in ownership; or
5. For application to an adjacent or any other site.

SESI shall not accept any responsibility for problems, which may occur if SESI is not consulted when there are changes to the factors considered in this report's development.

The soil logs should not be separated from the Engineering Report in order to minimize the possibility of soil log misinterpretation.

DISCLAIMER

This Report was prepared by SESI for the sole and exclusive use of Putnam Seabury Partners, LP. Nothing under the Professional Services Agreement between SESI and its client, Putnam Partners, LP shall be constructed to give any rights or benefits to anyone other than Client and SESI, and all duties and responsibilities undertaken pursuant to the Agreement will be for the sole and exclusive benefit of Client and SESI and not for the benefit of any other party. This Report has been prepared and issued subject to the express condition that same is not to be disseminated to anyone other than Client, without the advance written consent of SESI (which SESI, in its sole discretion, is free to grant or withhold). Use of the Report by any other person is unauthorized and such use is at the sole risk of the user.

TABLE I

SUMMARY OF SOIL DESIGN PARAMETERS

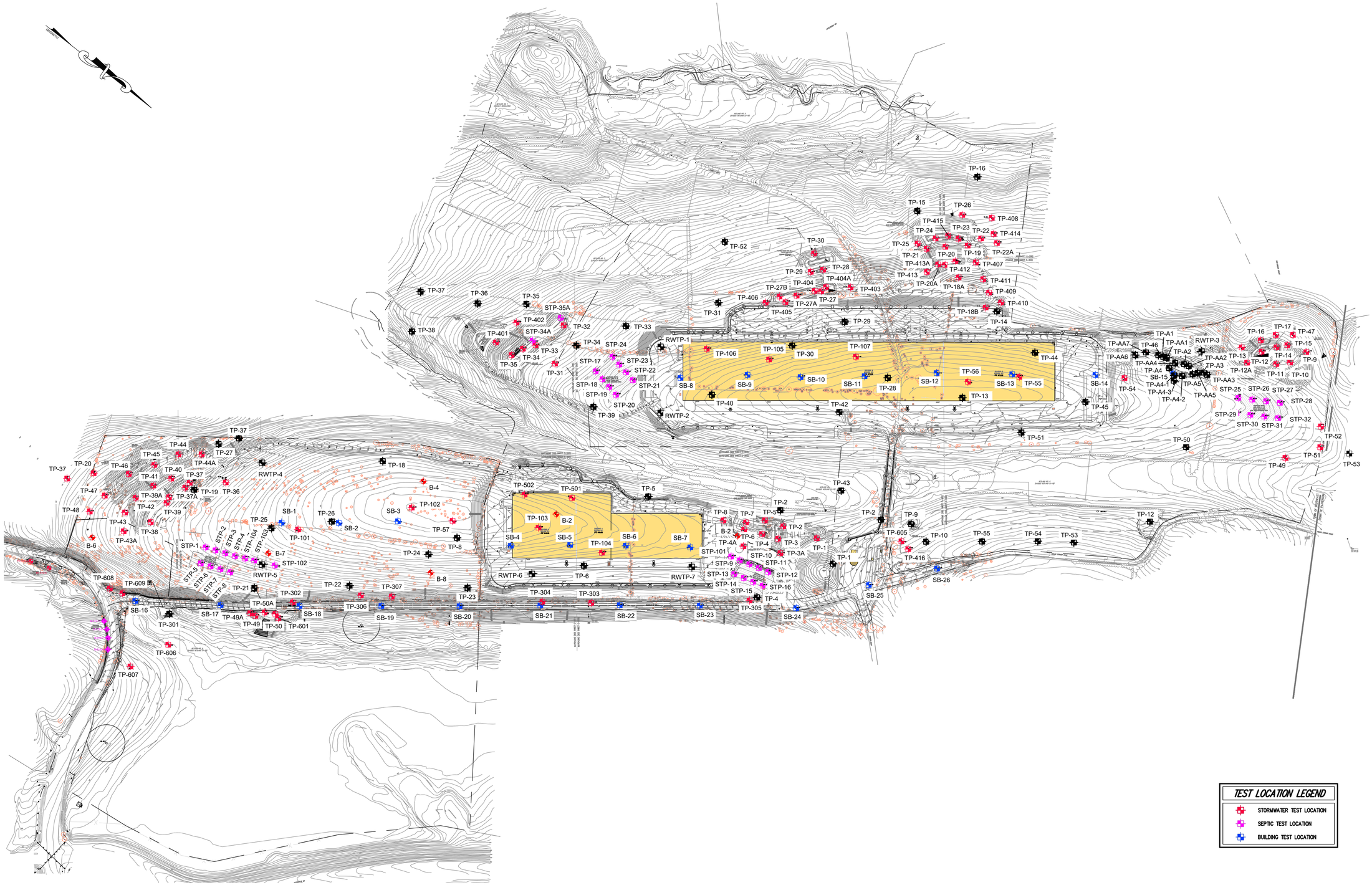
PARAMETER	VALUE
1. Allowable Bearing Capacity (net)	5,000 psf (2.5 tsf)
2. Total Unit Weight	125 pcf
3. Angle of Internal Friction -	28 degrees
a. Backfill against Structures	
4. Earth Pressure Coefficient (See Note 1)	
5. Active Earth Pressure (Ka)	0.35
6. Earth Pressure @ Rest (Ko)	0.55
7. Passive Earth Pressure (Kp)	2.9
8. Coefficient of Sliding (concrete over soil)	0.45
9. Subgrade Modulus for Floor Slab Design	
a. Granular Fill	175 pci
10. CBR (California Bearing Ratio)	5%
11. Slopes (above groundwater) (See Note #3)	
Maximum Cut Slope in Soil	2.0 H:1V
Maximum Fill Slope in Soil	2.0 H:1V
12. Seismic Design Criteria- Site Class	D
13. Minimum Footing Depth (exterior footings)	4.0 feet

Notes:

1.) A drainage medium should be installed along all retaining walls to avoid hydrostatic pressures from developing.

2.) Compaction equipment used within 5± feet of permanent walls should not weigh more than 5,000 pounds.

3.) Recommended slopes in #11 above do not consider surcharge loading above unless specifically noted in the report. Any slopes greater than 15 feet high and/or have surcharge loading above should be further evaluated by a geotechnical engineer.



REFERENCE
SITE INFORMATION AND SOIL TESTS TAKEN FROM "SOIL TEST LOCATION PLAN" PREPARED BY JMC SITE DEVOLOPMENT CONSULTANTS, LLC. DATED 02/06/2018, REV. 2/28/2018.

NOTE:
THIS PLAN IS FOR LOCATING SOIL TESTS ONLY.
OTHER SITE WORK SHOWN HERE IS NOT INTENDED FOR CONSTRUCTION.

rev	date	description	by

dwg by: yy
chk by: BB
scale: N.T.S.
date: 06/25/2020

SESI
CONSULTING ENGINEERS D.P.C.
SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL
12A MAPLE AVE., PINE BROOK, N.J. 07058 PH: 973-808-9050

PROPOSED NORTHEAST INTERSTATE LOGISTICS CENTER
NY 312 & PUGSLEY ROAD
TOWN OF SOUTHEAST, NEW YORK

drawing title: BORING AND TEST PIT LOCATION PLAN

job no. 9999
drawing no. FIG-1

SESI CONSULTING ENGINEERS

PROJECT NAME:	Proposed Logistics Center	BORING NO.	SB-1
LOCATION:	Southeast, New York	JOB NO.	9999
METHOD:	Hollow Stem Auger	GROUND ELEVATION:	650.0'
BORING BY: GBI	DATE STARTED: 3/23/2018	GROUNDWATER TABLE DEPTH	
INSPECTOR: MZ	DATE COMPLETED: 3/23/2018	0 Hr. 8'± Date 3/23/18	24 Hr. N/A Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
		(in)	(ft)	(ft)					(bl/ft)		
0	S-1	8"	0		2	3			5	8" Topsoil	
				2			2	1			
	S-2	14"	2		5	7			15	Light Brown Clayey SILT, little coarse to fine Sand, trace Gravel,	
				4			8	7		with occasional Cobbles	
5											
	S-3	20"	5		11	8			20	Same...	
				7			12	9			
	S-4	12"	7		8	14			31	Same...	
				9			17	20			
10											
	S-5	20"	10		9	10			27	Same...	
				12			17	20			
15											
	S-6	20"	15		28	38			81	Same...	
				17			44	39			
20											
	S-7	NR	20		29	53			93	No Recovery	
				22			40	40			
										BORING COMPLETED AT 22± FEET	
25											
30											
35											
40											

Nominal I.D. of Hole	In
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	In
Core Size	In

The subsurface information shown hereon was obtained for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or judgment of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: - - - - - - - - - - - -

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 2

SESI CONSULTING ENGINEERS				PROJECT NAME:	Proposed Logistics Center			BORING NO.	SB-2
				LOCATION:	Southeast, New York			JOB NO.	9999
				METHOD:	Hollow Stem Auger			GROUND ELEVATION:	663.0'
BORING BY:	GBI			DATE STARTED:	3/23/2018	GROUNDWATER TABLE DEPTH			
INSPECTOR:	MZ			DATE COMPLETED:	3/23/2018	0 Hr. 10'±	Date 3/23/18	24 Hr. N/A	Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0		(In)	(ft)	(ft)							
	S-1	8"	0		2	2			4	Topsoil	
				2			2	6			
	S-2	12"	2		10	14			64	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				4			50/3"	-		Gravel, with occasional Cobbles	
5											
	S-3	14"	5		6	6			14	Same...	
				7			8	9			
	S-4	18"	7		15	15			25	Same...	
				9			10	9			
10											
	S-5	6"	10		12	26			46	Same...	
				12			20	20			
	S-6	8"	12		24	50/3"			-	Same...	
				14			-	-		BORING COMPLETED AT 13± FEET	
15											
20											
25											
30											
35											
40											

Nominal I.D. of Hole	In
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	in
Core Size	In

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 3

SESI CONSULTING ENGINEERS				PROJECT NAME:	Proposed Logistics Center	BORING NO.	SB-3
				LOCATION:	Southeast, New York	JOB NO.	9999
				METHOD:	Hollow Stem Auger	GROUND ELEVATION:	669.0'
BORING BY:	GBI			DATE STARTED:	3/23/2018	GROUNDWATER TABLE DEPTH	
INSPECTOR:	MZ			DATE COMPLETED:	3/23/2018	0 Hr. 5½ Date 3/23/18	24 Hr. N/A Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
		(In)	(ft)	(ft)					(bl/ft)		
0	S-1	12"	0		3	3			5	Topsoil	
				2			2	3			
	S-2	14"	2		4	6			13	Light Brown Clayey SILT, some coarse to fine Sand, trace	
				4			7	5		Gravel, with Occasional Cobbles	
5											
	S-3	14"	5		3	7			14	Same...	
				7			7	8			
	S-4	24"	7		8	12			22	Same...	
				9			10	10			
10											
	S-5	12"	10		6	13			33	Same...	
				12			20	23			
	S-6	16"	12		28	34			87	Same...	
				14			53	40			
15										BORING COMPLETED AT 14± FEET ON PROBABLE BOULDER	
20											
25											
30											
35											
40											

Nominal I.D. of Hole	in
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	in
Core Size	in

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 4

SESI CONSULTING ENGINEERS				PROJECT NAME:	Proposed Logistics Center			BORING NO.	SB-4
				LOCATION:	Southeast, New York			JOB NO.	9999
				METHOD:	Hollow Stem Auger			GROUND ELEVATION:	658.0'
BORING BY:	GBI			DATE STARTED:	3/23/2018	GROUNDWATER TABLE DEPTH			
INSPECTOR:	MZ			DATE COMPLETED:	3/23/2018	0 Hr. 10±	Date 3/23/18	24 Hr. N/A	Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
		(In)	(ft)	(ft)					(bl/ft)		
0	S-1	12"	0		2	2			5	Topsoil	
				2			3	5			
	S-2	8"	2		8	11			61	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				4			50/3"	-		Gravel, with occasional Cobbles	
5											
	S-3	5"	5		6	6			12	Same... with Root fibers	
				7			6	6			
	S-4	8"	7		9	9			23	Same...	
				9			14	13			
10											
	S-5	20"	10		3	12			26	Same.....	
				12			14	13			
15											
	S-6	18"	15		21	23			44	Same...with Cobbles	
				17			21	23			
										BORING COMPLETED AT 17± FEET	
20											
25											
30											
35											
40											

Nominal I.D. of Hole	in
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	in
Core Size	in

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: - - - - - - - - - - - -

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 5

SESI CONSULTING ENGINEERS				PROJECT NAME:	Proposed Logistics Center			BORING NO.	SB-5
				LOCATION:	Southeast, New York			JOB NO.	9999
				METHOD:	Hollow Stem Auger			GROUND ELEVATION:	658.0'
BORING BY:	GBI			DATE STARTED:	3/23/2018	GROUNDWATER TABLE DEPTH			
INSPECTOR:	MZ			DATE COMPLETED:	3/23/2018	0 Hr. NE	Date 3/23/18	24 Hr. N/A	Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
		(In)	(ft)	(ft)					(bl/ft)		
0	S-1	6"	0		3	2			5	Topsoil	
				2			3	8			
	S-2	14"	2		6	12			24	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				4			12	11		Gravel, with occasional Cobbles	
5											
	S-3	14"	5		9	8			17	Same...	
				7			9	8			
	S-4	14"	7		10	13			28	Same... with Dark Brown/Black Sand	
				9			15	12			
10											
	S-5	24"	10		11	14			33	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				12			19	18		Gravel	
15											
	S-6	NR	15		12	14			34	No Recovery	
				17			20	38			
										BORING COMPLETED AT 17± FEET	
20											
25											
30											
35											
40											

Nominal I.D. of Hole	In
Nominal I.D. of Split Barrel Sampler	1⅜ In
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	In
Core Size	In

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 6

SESI CONSULTING ENGINEERS	PROJECT NAME:	Proposed Logistics Center	BORING NO.	SB-6
	LOCATION:	Southeast, New York	JOB NO.	9999
	METHOD:	Hollow Stem Auger	GROUND ELEVATION:	652.0'
BORING BY: GBI	DATE STARTED:	3/23/2018	GROUNDWATER TABLE DEPTH	
INSPECTOR: MZ	DATE COMPLETED:	3/23/2018	0 Hr. 15± Date 3/23/18	24 Hr. N/A Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0		(in)	(ft)	(ft)							
	S-1	4"	0		6	5			11	Topsoil	
				2			6	6			
	S-2	14"	2		7	5			11	Light Brown Clayey Silt, and coarse to fine Sand, trace fine Gravel, with Cobbles	
				4			6	8		(-200) = 49.0% W.C. = 13.1%	
5											
	S-3	18"	5		4	7			11	Same...	
				7			4	7			
	S-4	15"	7		8	6			11	Same...	
				9			5	11			
10											
	S-5	16"	10		6	9			22	Light Brown Clayey SILT, some coarse to fine Sand, trace	
				12			13	16		Gravel, with Cobbles	
15											
	S-6	6"	15		13	16			37	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				17			21	22		Gravel , with Cobbles	
										BORING COMPLETED AT 17± FEET	
20											
25											
30											
35											
40											

Nominal I.D. of Hole	in
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	in
Core Size	in

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: - - - - - - - - - - - -

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 7

SESI CONSULTING ENGINEERS				PROJECT NAME:	Proposed Logistics Center			BORING NO.	SB-7
				LOCATION:	Southeast, New York			JOB NO.	9999
				METHOD:	Hollow Stem Auger			GROUND ELEVATION:	647.0'
BORING BY:	GBI			DATE STARTED:	3/22/2018	GROUNDWATER TABLE DEPTH			
INSPECTOR:	MZ			DATE COMPLETED:	3/22/2018	0 Hr. 7±	Date 3/22/18	24 Hr. N/A	Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N	SOIL DESCRIPTION AND STRATIFICATION	Symbol
0		(in)	(ft)	(ft)					(bl/ft)		USCS
	S-1	12"	0		1	2			6	Topsoil	
				2			4	5			
	S-2	16"	2		4	6			12	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				4			6	5		Gravel, with Cobbles	
5											
	S-3	20"	5		4	11			25	Light Brown/Gray Clayey SILT, little coarse to fine Sand,	
				7			14	16		trace Gravel, with Cobbles	
	S-4	20"	7		10	13			63	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				9			50/3"	-		Gravel, with Cobbles	
10											
	S-5	14"	10		29	48			106	Same...	
				12			58	22			
15											
	S-6	16"	15		12	11			36	Same...	
				17			25	31			
20											
	S-7	16"	20		23	12			28	Light Brown/Gray Clayey SILT, little coarse to fine Sand,	
				22			16	27		trace Gravel, with Cobbles	
										BORING COMPLETED AT 22± FEET	
25											
30											
35											
40											

Nominal I.D. of Hole	in
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	in
Core Size	in

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 8

SESI CONSULTING ENGINEERS				PROJECT NAME:	Proposed Logistics Center			BORING NO.	SB-8
				LOCATION:	Southeast, New York			JOB NO.	9999
				METHOD:	Hollow Stem Auger			GROUND ELEVATION:	660.0'
BORING BY:	GBI			DATE STARTED:	3/22/2018	GROUNDWATER TABLE DEPTH			
INSPECTOR:	MZ			DATE COMPLETED:	3/22/2018	0 Hr. 10'±	Date 3/22/18	24 Hr. N/A	Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0		(In)	(ft)	(ft)							
	S-1	12"	0		3	5			10	Topsoil	
				2			5	5			
	S-2	14"	2		5	12			28	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				4			16	17		Gravel, with Cobbles	
5											
	S-3	12"	5		7	9			19	Same... (mottled)	
				7			10	10			
	S-4	14"	7		10	17			30	Same...	
				9			13	17			
10											
	S-5	7"	10		27	50/3"			-	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				12			-	-		Gravel, with Cobbles	
15											
	S-6	3"	15		50/3"	-			-	Light Brown Clayey Silt, some coarse to fine gravel, little coarse to fine Sand	
				17			-	-			
										BORING COMPLETED AT 17± FEET ON	
										PROBABLE BOULDER	
20											
25											
30											
35											
40											

Nominal I.D. of Hole	in
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	in
Core Size	in

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 9

SESI CONSULTING ENGINEERS	PROJECT NAME:	Proposed Logistics Center	BORING NO.	SB-9
	LOCATION:	Southeast, New York	JOB NO.	9999
	METHOD:	Hollow Stem Auger	GROUND ELEVATION:	670.0'
BORING BY: GBI	DATE STARTED:	3/19/2018	GROUNDWATER TABLE DEPTH	
INSPECTOR: MZ	DATE COMPLETED:	3/19/2018	0 Hr. 10± Date 3/19/18	24 Hr. N/A Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0		(In)	(ft)	(ft)							
	S-1	12"	0		2	2			4	4" Topsoil	
				2			2	4			
	S-2	15"	2		12	12			19	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				4			7	5		Gravel	
5											
	S-3	16"	5		3	6			16	Light Brown Clayey SILT, little coarse to fine Sand, trace Gravel	
				7			10	30/2"			
	S-4	NR	8		6	7			15	No Recovery	
10				10			8	18			
	S-5	18"	10		12	24			63	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				12			29	26		Gravel with Cobbles and Boulders	
15											
	S-6	14"	15		24	41			107	Light Brown Clayey SILT, little medium to fine Sand, trace	
				17			66	58		Gravel	
										BORING COMPLETED AT 17± FEET ON	
										PROBABLE BOULDER	
20											
25											
30											
35											
40											

Nominal I.D. of Hole	In
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	In
Core Size	In

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 10

SESI CONSULTING ENGINEERS	PROJECT NAME:	Proposed Logistics Center	BORING NO.	SB-10
	LOCATION:	Southeast, New York	JOB NO.	9999
	METHOD:	Hollow Stem Auger	GROUND ELEVATION:	681.0'
BORING BY: GBI	DATE STARTED:	3/19/2018	GROUNDWATER TABLE DEPTH	
INSPECTOR: MZ	DATE COMPLETED:	3/19/2018	0 Hr. 10± Date 3/19/18	24 Hr. N/A Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
		(in)	(ft)	(ft)					(bl/ft)		
0	S-1	12"	0		2	3			7	2" Topsoil	
				2			4	9			
	S-2	22	2		9	10			24	Light Brown Clayey SILT, some coarse to fine Sand, trace	
				4			14	15		Gravel	
5											
	S-3	12"	5		8	8			16	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				7			8	7		Gravel, with Cobbles	
	S-4	22"	7		6	6			13	Same...	
				9			7	6			
10											
	S-5	9"	10		39	23			53	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				12			30	29		Gravel, with Cobbles	
15											
	S-6	6"	15		13	24			54	Same...	
				17			30	34			
20											
	S-7	14"	20		7	14			31	Gray/Green Clayey SILT, little coarse to fine Sand, trace	
				22			17	18		Gravel	
25										BORING COMPLETED AT 22± FEET	
30											
35											
40											

Nominal I.D. of Hole	in
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	in
Core Size	in

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 11

SESI CONSULTING ENGINEERS				PROJECT NAME:	Proposed Logistics Center			BORING NO.	SB-11
				LOCATION:	Southeast, New York			JOB NO.	9999
				METHOD:	Hollow Stem Auger			GROUND ELEVATION:	682.0'
BORING BY:	GBI			DATE STARTED:	3/19/2018	GROUNDWATER TABLE DEPTH			
INSPECTOR:	MZ			DATE COMPLETED:	3/19/2018	0 Hr. 10±	Date 3/19/18	24 Hr. N/A	Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0		(in)	(ft)	(ft)							
	S-1	9"	0		2	5			9	2" Topsoil	
				2			4	3			
	S-2	10"	2		8	11			20	Light Brown SILT, some coarse to fine SAND, trace Gravel	
				4			9	9			
5	S-3	14"	4		5	8			20	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				6			12	13		Gravel	
	S-4	20"	6		14	11			22	Same...	
				8			11	6			
	S-5	14"	8		24	14			20	Light Brown Clayey SILT, little coarse to fine Sand, trace	
10				10			6	11		Gravel	
	S-6	6"	10		60	50/2"			-	Same...	
				12			-	-			
15											
	S-7	12"	15		18	19			39	Light Brown Clayey SILT, some coarse to fine Sand, little	
				17			20	26		Gravel	
20											
	S-8	1"	19		50/3"	-			-	Light Brown Clayey SILT, trace Sand, trace Gravel with Cobbles	
				20			-	-		BORING COMPLETED AT 19.1± FEET	
25											
30											
35											
40											

Nominal I.D. of Hole	in
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	in
Core Size	in

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 12

SESI CONSULTING ENGINEERS				PROJECT NAME:	Proposed Logistics Center			BORING NO.	SB-12
				LOCATION:	Southeast, New York			JOB NO.	9999
				METHOD:	Hollow Stem Auger			GROUND ELEVATION:	686.0'
BORING BY:	GBI			DATE STARTED:	3/22/2018	GROUNDWATER TABLE DEPTH			
INSPECTOR:	MZ			DATE COMPLETED:	3/22/2018	0 Hr. 5±	Date 3/22/18	24 Hr. N/A	Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N	SOIL DESCRIPTION AND STRATIFICATION	Symbol
0		(In)	(ft)	(ft)					(bl/ft)		USCS
	S-1	12"	0		2	2			4	Topsoil	
				2			2	3			
	S-2	12"	2		4	5			10	Light Brown Clayey SILT, little coarse to fine Sand, trace Gravel	
				4			5	8			
5											
	S-3	16"	5		5	6			12	Same...	
				7			6	7			
	S-4	10"	7		10	11			25	Light Brown Clayey SILT, some coarse to fine Sand, trace Gravel,	
				9			14	13		with occasional Cobbles	
10											
	S-5	11"	10		20	18			38	Light Brown Clayey SILT, little coarse to fine Sand, trace Gravel	
				12			20	17			
15											
	S-6	14	15		19	22			42	Same...	
				17			20	21			
20											
	S-7	12"	20		45	48			96	Same...	
				22			48	51			
	S-8	3"	22		50/4"	-			-	Same... with Cobbles	
				24			-	-		BORING COMPLETED AT 22.5± FEET	
25											
30											
35											
40											

Nominal I.D. of Hole	In
Nominal I.D. of Split Barrel Sampler	1⅜ In
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	In
Core Size	In

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 13

SESI CONSULTING ENGINEERS				PROJECT NAME:	Proposed Logistics Center			BORING NO.	SB-13
				LOCATION:	Southeast, New York			JOB NO.	9999
				METHOD:	Hollow Stem Auger			GROUND ELEVATION:	684.0'
BORING BY:	GBI			DATE STARTED:	3/22/2018	GROUNDWATER TABLE DEPTH			
INSPECTOR:	MZ			DATE COMPLETED:	3/22/2018	0 Hr. 10'±	Date 3/22/18	24 Hr. N/A	Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N	SOIL DESCRIPTION AND STRATIFICATION	Symbol
0		(in)	(ft)	(ft)					(bl/ft)		USCS
	S-1	8"	0		2	3			6	Topsoil	
				2			3	3			
	S-2	12"	2		2	7			16	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				4			9	13		Gravel	
5											
	S-3	10	5		25	15			32	Same...	
				7			17	18			
	S-4	NR	7		19	21			43	No Recovery	
				9			22	27			
10											
	S-5	8"	10		13	23			67	Light Brown Clayey SILT, some coarse to fine Sand, trace	
				12			44	50		Gravel, with Cobbles	
	S-6	6"	15		67	58			125	Light Brown Clayey SILT, some coarse to fine Sand, trace	
				17			67	69		Gravel, with Cobbles	
15											
	S-7	9"	20		60	100/3"			-	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				22			-	-		Gravel	
										BORING COMPLETED AT 22± FEET	
20											
25											
30											
35											
40											

Nominal I.D. of Hole	in
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	in
Core Size	in

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 14

SESI CONSULTING ENGINEERS		PROJECT NAME:	Proposed Logistics Center	BORING NO.	SB-14
		LOCATION:	Southeast, New York	JOB NO.	9999
		METHOD:	Hollow Stem Auger	GROUND ELEVATION:	674.0'
BORING BY:	GBI	DATE STARTED:	3/22/2018	GROUNDWATER TABLE DEPTH	
INSPECTOR:	MZ	DATE COMPLETED:	3/22/2018	0 Hr. 9.5± Date 3/22/18	24 Hr. N/A Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0		(In)	(ft)	(ft)					(bl/ft)		
	S-1	10"	0		2	3			5	Topsoil	
				2			2	2			
	S-2	12"	2		8	9			18	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				4			9	11		Gravel, with occasional Cobbles	
5											
	S-3	24"	5		5	6			15	Same...	
				7			9	10			
	S-4	20"	7		6	9			20	Same...	
				9			11	13			
10											
	S-5	15"	10		10	8			16	Same...	
				12			8	16			
										BORING COMPLETED AT 12± FEET	
15											
20											
25											
30											
35											
40											

Nominal I.D. of Hole	in
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	in
Core Size	in

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _ _ _ _ _ _ _ _ _ _ _ _

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 15

SESI CONSULTING ENGINEERS	PROJECT NAME:	Proposed Logistics Center	BORING NO.	SB-15
	LOCATION:	Southeast, New York	JOB NO.	9999
	METHOD:	Hollow Stem Auger	GROUND ELEVATION:	661.0'
BORING BY: GBI	DATE STARTED:	3/22/2018	GROUNDWATER TABLE DEPTH	
INSPECTOR: MZ	DATE COMPLETED:	3/22/2018	0 Hr. 9± Date 3/22/18	24 Hr. N/A Date N/A

DEPTH (ft) 0	SAMPLE No.	REC (in)	DEPTH FROM (ft)	DEPTH TO (ft)	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
	S-1	18"	0		2	3			6	Topsoil	
				2			3	8			
	S-2	12"	2		6	9			25	Light Brown coarse to fine SAND, and Silt, little medium to fine Gravel,	
				4			16	19		with occasional Cobbles	
5											
	S-3	22"	5		7	7			14	Same...	
				7			7	9			
	S-4	24"	7		7	8			16	Same...	
				9			8	9		(-200) = 35.9% W.C. = 14.2%	
10											
	S-5	18"	10		6	15			35	Same...	
				12			20	24			
										BORING COMPLETED AT 12± FEET	
15											
20											
25											
30											
35											
40											

Nominal I.D. of Hole		in
Nominal I.D. of Split Barrel Sampler	1⅜	in
Weight/type of Hammer on Drive Pipe	300	lb
Weight/type of Hammer on Split Barrel	140	lb
Drop of Hammer on Drive Pipe		in
Core Size		in

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ______ Inferred Change in Strata: - - - - - -

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 16

SESI CONSULTING ENGINEERS				PROJECT NAME:	Proposed Logistics Center			BORING NO.	SB-16
				LOCATION:	Southeast, New York			JOB NO.	9999
				METHOD:	Hollow Stem Auger			GROUND ELEVATION:	554
BORING BY:	GBI			DATE STARTED:	3/20/2018	GROUNDWATER TABLE DEPTH			
INSPECTOR:	MZ			DATE COMPLETED:	3/20/2018	0 Hr. 9±	Date 3/20/18	24 Hr. N/A	Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0		(In)	(ft)	(ft)							
	S-1	12	0		52	44			78	1" Asphalt; 4" Subbase	
				2			54	29		Light Brown Clayey SILT, little coarse to	
										fine Sand, trace Gravel, with Cobbles	
5											
	S-2	20"	5		34	25			54	Light Brown Clayey Silt, some coarse to fine Sand, little medium to fine	
				7			29	28		Gravel (-200) = 48.9% W.C. = 9.1%	
	S-3	10"	7		48	41			91	Same...	
				9			50	44			
10										BORING COMPLETED 9± FEET	
15											
20											
25											
30											
35											
40											

Nominal I.D. of Hole	In
Nominal I.D. of Split Barrel Sampler	1⅜ In
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	In
Core Size	In

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: - - - - - - - - - - - -

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 17

SESI CONSULTING ENGINEERS				PROJECT NAME:	Proposed Logistics Center			BORING NO.	SB-17
				LOCATION:	Southeast, New York			JOB NO.	9999
				METHOD:	Hollow Stem Auger			GROUND ELEVATION:	584
BORING BY:	GBI			DATE STARTED:	3/20/2018	GROUNDWATER TABLE DEPTH			
INSPECTOR:	MZ			DATE COMPLETED:	3/20/2018	0 Hr. 9±	Date 3/20/18	24 Hr. N/A	Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0	S-1	18"	0		24	23			43	Fill: Gray coarse to fine GRAVEL, little coarse to fine Sand, little Silt	
				2			20	17		Light Brown Clayey SILT, little coarse to fine Sand, trace Gravel	
5	S-2	12"	5		5	6			18	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				7			12	11		Gravel, with occasional Cobbles	
	S-3	24"	7		10	8			19	Same...	
				9			11	17			
10										BORING COMPLETED AT 9± FEET	
15											
20											
25											
30											
35											
40											

Nominal I.D. of Hole	in
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	in
Core Size	in

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: - - - - - - - - - - - -

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 18

SESI
CONSULTING ENGINEERS

PROJECT NAME:	Proposed Logistics Center	BORING NO.	SB-18
LOCATION:	Southeast, New York	JOB NO.	9999
METHOD:	Hollow Stem Auger	GROUND ELEVATION:	598'±

BORING BY:	GBI	DATE STARTED:	3/20/2018	GROUNDWATER TABLE DEPTH					
INSPECTOR:	MZ	DATE COMPLETED:	3/20/2018	0 Hr.	8'±	Date	3/20/18	24 Hr. N/A	Date N/A

DEPTH (ft)	SAMPLE No.	REC (in)	DEPTH FROM (ft)	DEPTH TO (ft)	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0	S-1	12"	0		38	31			59	Fill: 1" Asphalt, 6" Stone Subbase	
				2			28	17		Light Brown Clayey SILT, little coarse to fine Sand, trace Gravel	
5											
	S-2	8"	5		8	8			21	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				7			13	27		Gravel	
	S-3	12"	7		9	14			30	Same...	
				9			16	16			
10										BORING COMPLETED AT 9± FEET	
15											
20											
25											
30											
35											
40											

Nominal I.D. of Hole	in
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	in
Core Size	in

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ________ Inferred Change in Strata: - - - - - - - - - - - -

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 19

SESI CONSULTING ENGINEERS		PROJECT NAME:	Proposed Logistics Center	BORING NO.	SB-19
		LOCATION:	Southeast, New York	JOB NO.	9999
		METHOD:	Hollow Stem Auger	GROUND ELEVATION:	610
BORING BY:	GBI	DATE STARTED:	3/20/2018	GROUNDWATER TABLE DEPTH	
INSPECTOR:	MZ	DATE COMPLETED:	3/20/2018	0 Hr. NE / Date 3/20/18 / 24 Hr. N/A / Date N/A	

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0		(In)	(ft)	(ft)							
	S-1	12"	0		7	11			22	Fill: 1" Asphalt, 8" Gravel Subbase	
				2			11	17		Light Brown Clayey SILT, little coarse to fine Sand, trace Gravel	
5											
	S-2	14"	5		28	19			73	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				7			54	10		Gravel, with cobbles	
	S-3	10"	7		9	7			15	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				9			8	14		Gravel	
10										BORING COMPLETED AT 9± Feet	
15											
20											
25											
30											
35											
40											

Nominal I.D. of Hole	In
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	In
Core Size	In

The subsurface information shown hereon was obtained for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or judgment of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 20

SESI CONSULTING ENGINEERS				PROJECT NAME:	Proposed Logistics Center			BORING NO.	SB-20
				LOCATION:	Southeast, New York			JOB NO.	9999
				METHOD:	Hollow Stem Auger			GROUND ELEVATION:	607'±
BORING BY:	GBI			DATE STARTED:	3/20/2018	GROUNDWATER TABLE DEPTH			
INSPECTOR:	MZ			DATE COMPLETED:	3/20/2018	0 Hr. 9'±	Date 3/20/18	24 Hr. N/A	Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0		(In)	(ft)	(ft)							
	S-1	16"	0		20	7			15	Fill: 1" Asphalt; 6" Subbase	
				2			8	7		Light Brown Clayey SILT, little coarse to	
										fine Sand, trace Gravel	
5											
	S-2	16"	5		8	50			85	Light Brown Clayey SILT, little coarse to fine Sand, trace	
				7			35	8		Gravel	
	S-3	12"	7		8	8			20	Same...	
				9			12	29			
10										BORING COMPLETED AT 9± FEET	
15											
20											
25											
30											
35											
40											

Nominal I.D. of Hole	In
Nominal I.D. of Split Barrel Sampler	1⅜ In
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	In
Core Size	In

The subsurface information shown hereon was obtained for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or judgment of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 21

SESI CONSULTING ENGINEERS

PROJECT NAME:	Proposed Logistics Center	BORING NO.	SB-21
LOCATION:	Southeast, New York	JOB NO.	9999
METHOD:	Hollow Stem Auger	GROUND ELEVATION:	610'±
BORING BY: GBI	DATE STARTED: 3/20/2018	GROUNDWATER TABLE DEPTH	
INSPECTOR: MZ	DATE COMPLETED: 3/20/2018	0 Hr. NE / Date 3/20/18	24 Hr. N/A / Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0		(In)	(ft)	(ft)							
	S-1	18"	0		5	8			11	Fill: 4" Subbase	
				2			3	4		Light Brown Clayey SILT, little coarse to fine Sand, trace Gravel	
5											
	S-2	20	5		8	6			13	Same...	
				7			7	10			
	S-3	18	7		9	12			35	Same...	
				9			23	30			
10										BORING COMPLETED AT 9± FEET	
15											
20											
25											
30											
35											
40											

Nominal I.D. of Hole	In
Nominal I.D. of Split Barrel Sampler	1⅜ In
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	In
Core Size	In

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 22

SESI CONSULTING ENGINEERS				PROJECT NAME:	Proposed Logistics Center			BORING NO.	SB-22
				LOCATION:	Southeast, New York			JOB NO.	9999
				METHOD:	Hollow Stem Auger			GROUND ELEVATION:	610
BORING BY:	GBI			DATE STARTED:	3/20/2018	GROUNDWATER TABLE DEPTH			
INSPECTOR:	MZ			DATE COMPLETED:	3/20/2018	0 Hr. NE	Date 3/20/18	24 Hr. N/A	Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0		(In)	(ft)	(ft)							
	S-1	14	0		20	15			22	Fill: Gray coarse to fine GRAVEL, some coarse to fine Sand, little Silt	
				2			7	11		Light Brown Clayey SILT, little coarse to	
										fine Sand, trace Gravel	
5											
	S-2	10"	5		4	5			11	Same...	
				7			6	7			
	S-3	20"	7		15	10			24	Same...	
				9			14	20			
10										BORING COMPLETED AT 9± FEET	
15											
20											
25											
30											
35											
40											

Nominal I.D. of Hole	in
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	In
Core Size	In

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 23

SESI CONSULTING ENGINEERS	PROJECT NAME:	Proposed Logistics Center	BORING NO.	SB-23
	LOCATION:	Southeast, New York	JOB NO.	9999
	METHOD:	Hollow Stem Auger	GROUND ELEVATION:	613'±
BORING BY: GBI	DATE STARTED:	3/20/2018	GROUNDWATER TABLE DEPTH	
INSPECTOR: MZ	DATE COMPLETED:	3/20/2018	0 Hr. 8'± Date 3/20/18	24 Hr. N/A Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0		(In)	(ft)	(ft)							
	S-1	18"	0		33	22			35	1" Asphalt; 5" Subbase	
				2			13	12		Light Brown Clayey SILT, little coarse to fine Sand, trace Gravel	
5											
	S-2	18"	5		12	12			24	Same...	
				7			12	15			
	S-3	16"	7		12	11			23	Same...	
				9			12	13			
10										BORING COMPLETED AT 9± FEET	
15											
20											
25											
30											
35											
40											

Nominal I.D. of Hole	In
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	In
Core Size	In

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 24

SESI CONSULTING ENGINEERS				PROJECT NAME:	Proposed Logistics Center			BORING NO.	SB-24
				LOCATION:	Southeast, New York			JOB NO.	9999
				METHOD:	Hollow Stem Auger			GROUND ELEVATION:	642'±
BORING BY:	GBI			DATE STARTED:	3/20/2018	GROUNDWATER TABLE DEPTH			
INSPECTOR:	MZ			DATE COMPLETED:	3/20/2018	0 Hr. NE	Date 3/20/18	24 Hr. N/A	Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0		(in)	(ft)	(ft)							
	S-1	20"	0		30	22			40	6" Subbase	
				2			18	14		Light Brown Clayey SILT, little coarse to fine Sand, trace Gravel	
5											
	S-2	20"	5		14	21			32	Same...	
				7			11	18			
	S-3	24"	7		13	14			28	Same...	
				9			14	16			
10										BORING COMPLETED AT 9± FEET	
15											
20											
25											
30											
35											
40											

Nominal I.D. of Hole	In
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	In
Core Size	In

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 25

SESI CONSULTING ENGINEERS				PROJECT NAME:	Proposed Logistics Center			BORING NO.	SB-25
				LOCATION:	Southeast, New York			JOB NO.	9999
				METHOD:	Hollow Stem Auger			GROUND ELEVATION:	664'±
BORING BY:	GBI			DATE STARTED:	3/20/2018	GROUNDWATER TABLE DEPTH			
INSPECTOR:	MZ			DATE COMPLETED:	3/20/2018	0 Hr. 7±	Date 3/20/18	24 Hr. N/A	Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0											
	S-1	20"	0		19	20			35	Fill: 5" Subbase	
				2			15	8		Light Brown Clayey SILT, little coarse to fine Sand, trace Gravel	
5											
	S-2	16"	5		4	12			26	Same...	
				7			14	8			
	S-3	8"	7		6	8			16	Same...	
				9			8	9			
10										BORING COMPLETED AT 9± FEET	
15											
20											
25											
30											
35											
40											

Nominal I.D. of Hole	In
Nominal I.D. of Split Barrel Sampler	1⅜ in
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	In
Core Size	In

The subsurface information shown hereon was obtained for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or judgment of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: _____

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 26

SESI CONSULTING ENGINEERS				PROJECT NAME:	Proposed Logistics Center			BORING NO.	SB-26
				LOCATION:	Southeast, New York			JOB NO.	9999
				METHOD:	Hollow Stem Auger			GROUND ELEVATION:	674'±
BORING BY:	GBI			DATE STARTED:	3/20/2018	GROUNDWATER TABLE DEPTH			
INSPECTOR:	MZ			DATE COMPLETED:	3/20/2018	0 Hr. 7±	Date 3/20/18	24 Hr. N/A	Date N/A

DEPTH (ft)	SAMPLE No.	REC	DEPTH FROM	DEPTH TO	Blows on Spoon 0/6	6/12	12/18	18/24	N (bl/ft)	SOIL DESCRIPTION AND STRATIFICATION	Symbol USCS
0		(in)	(ft)	(ft)							
	S-1	18"	0		26	21			31	Fill: Subbase	
				2			10	20		Light Brown Clayey SILT, little coarse to fine Sand, trace Gravel	
5											
	S-2	20"	5		6	7			28	Same...	
				7			18	20			
	S-3	12"	7		43	48			88	Same...	
				9			40	37			
10										BORING COMPLETED AT 9± FEET	
15											
20											
25											
30											
35											
40											

Nominal I.D. of Hole	In
Nominal I.D. of Split Barrel Sampler	1⅜ In
Weight/type of Hammer on Drive Pipe	300 lb
Weight/type of Hammer on Split Barrel	140 lb
Drop of Hammer on Drive Pipe	In
Core Size	In

The subsurface information shown hereon was obtained for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or judgment of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: _____ Inferred Change in Strata: - - - - - - - - - - - -

Soil descriptions represent a field identification after D. M. Burmister unless otherwise noted.

FIGURE 27

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-1
LOCATION	SEE FIGURE 1	APPROX. ELEV.	649±	INSPECTED BY	RR
WATER OBSERVATION	Light seepage @ 2.5±'; Seepage @ 3.5±'			DATE EXCAVATED	3/5/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6-inch Topsoil	
1	Light Brown Clayey SILT, and coarse to fine Sand, trace Gravel, with occasional cobbles	
2	(USCS : CL)	Medium-Stiff
3	Same as above with mottled Clayey SILT and occasional cobbles	Medium-Stiff
4	(USCS: CL)	
5		
6	End of Test Pit at 5.5± Feet	
7		
8		
9		
10		
11		
12		
13		
14		

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Figure 28

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-2
LOCATION	SEE FIGURE 1	APPROX. ELEV.	643± '	INSPECTED BY	RR
WATER OBSERVATION	Seepage @ 2', 4', Heavy @ 7±',			DATE EXCAVATED	3/5/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3-inch Topsoil	
1	Light Brown Clayey SILT, and coarse to fine Sand, trace Gravel, with occasional cobbles (USCS : CL)	Medium-Stiff
3	Light Brown mottled Clayey SILT, some coarse to fine Sand, trace Gravel, with occasional cobbles (USCS : CL)	Medium Stiff
7	End of Test Pit at 7± Feet	

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Figure 29

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-3
LOCATION	SEE FIGURE 1	APPROX. ELEV.	646± '	INSPECTED BY	RR
WATER OBSERVATION		Heavy seepage @ 2±'		DATE EXCAVATED	3/5/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3-Inch Topsoil	
1	Light Brown Clayey Silt, some coarse to fine Sand, trace Gravel, with occassional cobbles (USCS : CL)	Medium-Stiff
3	Light Brown mottled Clayey Silt, little coarse to fine Sand, trace Gravel, with occasional cobbles (USCS :CL)	Medium Stiff to Stiff
7	End of Test Pit at 6.75± Feet	

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Figure 30

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-3A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	647 ±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 3'			DATE EXCAVATED	4/7/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown SILT, and coarse to fine Sand, trace Gravel with Cobbles	Medium Stiff
2	Brown Clayey Silt, and coarse to fine Sand, little coarse to fine Gravel with Cobbles and Boulders	Medium Stiff
3	...Same Mottled Clayey Silt with weathered Rock or Boulder	Medium Stiff
7	End of Test Pit at 7 ± Feet	
14		

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Figure 31

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-4
LOCATION	SEE FIGURE 1	APPROX. ELEV.	638 ± '	INSPECTED BY	MZ
WATER OBSERVATION	Seepage @ 2.5±', Heavy seepage @ 4±'			DATE EXCAVATED	3/5/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4-Inch Topsoil	
1	Brown Clayey Silt, some coarse to fine Sand, trace Gravel (USCS : CL)	Medium-Stiff
3	Light Brown Clayey SILT, little coarse to fine Sand, trace Gravel with occasional cobble (USCS : CL)	Medium Stiff to Stiff
7	End of Test Pit at 6.8± Feet	

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Figure 32

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-4A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	647 ±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 22"			DATE EXCAVATED	4/7/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	5" Topsoil	
1	Light brown SILT, and coarse to fine Sand, trace coarse to fine Gravel with Cobbles	Medium Stiff
2	Brown Clayey SILT (Mottled), and coarse to fine Sand, little coarse to fine Gravel with Cobbles and Boulders	Stiff
8	Same... with Gray Clayey Silt and possible weathered Bedrock or Boulder	Hard
9	End of Test Pit at 9 ± Feet	
10		
11		
12		
13		
14		

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Figure 33

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-5
LOCATION	SEE FIGURE 1	APPROX. ELEV.	641± '	INSPECTED BY	RR
WATER OBSERVATION	Light Seepage @ 22"/ @ 4±'			DATE EXCAVATED	3/5/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	5-inch Topsoil	
1	Light Brown Clayey SILT, some coarse to fine Sand, trace Gravel (USCS : (CL)	Medium Stiff
3	Light Brown mottled Clayey SILT, little coarse to fine Sand, trace Gravel, with occasional cobbles (USCS : CL)	Medium Stiff
5	Light Brown Clayey Silt, some coarse to fine Sand, little coarse to fine Gravel	Medium Stiff
6	Light Brown Clayey Silt, some coarse to fine Sand, trace medium to fine Gravel with occassional cobbles and boulder (USCS : CL)	Medium Stiff
10	End of Test Pit at 9.8± Feet	
14		

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Figure 34

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-6
LOCATION	SEE FIGURE 1	APPROX. ELEV.	645± '	INSPECTED BY	JQ
WATER OBSERVATION	Seepage @ 1.5±'; Heavy seepage 4±'			DATE EXCAVATED	3/5/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4-inch Topsoil	
1	Brown Clayey SILT, some coarse to fine Sand, trace Gravel (USCS : CL)	Medium-Stiff
3	Dark Brown Clayey Silt, little coarse to fine Sand, trace Gravel, with occasional cobbles (USCS : CL)	Medium Stiff to Stiff
8	End of Test Pit at 8.1± Feet	

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Figure 35

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-7
LOCATION	SEE FIGURE 1	APPROX. ELEV.	643± '	INSPECTED BY	JQ/RR
WATER OBSERVATION		Seepage @ 2±'/ Heavy @ 5±'		DATE EXCAVATED	3/5/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3-inch Topsoil	
1	Light Brown Clayey SILT, some coarse to fine Sand, trace coarse to fine Gravel with occassional cobbles (USCS : CL)	Medium-Stiff
2		
3	Light Brown mottled Clayey SILT, little coarse to fine Sand, trace coarse to fine Gravel with occasional cobbles and boulders (USCS : CL)	Medium-Stiff to Stiff
4		
5		
6		
7		
8		
9	End of Test Pit @ 8.5± Feet	
10		
11		
12		
13		
14		

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Figure 36

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-8
LOCATION	SEE FIGURE 1	APPROX. ELEV.	644± '	INSPECTED BY	RR
WATER OBSERVATION	Seepage @ 2±'/ Heavy seepage @ 6±'			DATE EXCAVATED	3/5/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3-inch Topsoil	
1	Light Brown SILT, and coarse to fine Sand, trace medium to fine Gravel	Medium-Stiff
2	W.C. = 15% (-200) = 53.5% (USCS : CL)	
3	Light Brown mottled SILT, some coarse to fine Sand, little medium to fine Gravel with occasional cobbles and boulders	Medium Stiff
4	W.C. = 12.9% (-200) = 52.3% (USCS : CL)	
5		
6		to
7		
8		
9		
10		Stiff
11		
12		
13	End of Test Pit @ 12± Feet	
14		

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Figure 37

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 9
LOCATION	SEE FIGURE 1	APPROX. ELEV.	625'±	INSPECTED BY	RR
WATER OBSERVATION	Light seepage at 6'±			DATE EXCAVATED	3/5/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3" Topsoil	
1	Light-brown coarse to fine SAND, and Silt, trace medium to fine Gravel (USCS : SM)	Medium Dense
2		
3	Light-brown coarse to fine SAND, some Silt, little medium to fine Gravel with occasional cobbles (USCS :SM)	Medium Dense
4		
5		
6		
7	End of Test Pit at 6.75± Feet	
8		
9		
10		
11		
12		
13		
14		

NOTE:

Figure 38

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PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 10
LOCATION	SEE FIGURE 1	APPROX. ELEV.	629'±	INSPECTED BY	RR
WATER OBSERVATION	24-hour water reading = 13±" Light seepage at 2'±, Heavy seepage at 4'±			DATE EXCAVATED	3/5/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light-brown coarse to fine SAND, and Clayey Silt, trace medium to fine Gravel, with occassional cobbles (USCS : SM)	Medium Dense
7	End of Test Pit at 6.5± Feet	

NOTE:

Figure 39

SESI CONSULTING

PROJECT NO.	9999	**PROJECT**	Southeast, NY	**TEST PIT NO.**	TP- 11
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	630'±	**INSPECTED BY**	RR
WATER OBSERVATION	Seepage at 28"±; 24-hour reading = 4±"			**DATE EXCAVATED**	3/5/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	18" Topsoil with light-brown coarse to fine Sand, some Silt, little coarse to fine Gravel	
2	Light-brown coarse to fine Sand, and Clayey Silt, little medium to fine Gravel, with occasional cobbles (USCS : SM/SC)	Medium Dense
8	End of Test Pit at 8± Feet	

NOTE:

Figure 40

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 12
LOCATION	SEE FIGURE 1	APPROX. ELEV.	629'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 26±"; 24-hour reading = 3±"			DATE EXCAVATED	3/5/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6" Topsoil	
1	Light-brown mottled Clayey SILT, some coarse to fine Sand, trace Gravel with occassional cobbles	
2	(USCS : CL)	Medium Stiff
3		
4		
5		
6		
7		
8	End of Test Pit at 7.5± Feet	
9		
10		
11		
12		
13		
14		

NOTE:

Figure 41

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-12A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	677 ±	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 2'		DATE EXCAVATED	4/7/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	1' Topsoil	
1		
2	Light brown SILT, and coarse to fine Sand, trace Gravel with Cobbles	Medium Stiff
3		
4	Brown mottled Clayey SILT, and coarse to fine Sand, little coarse to fine Gravel with Cobbles and Boulders	Stiff
5		
6		
7		
8		
9		
10		
11	End of Test Pit at 10 ± Feet	
12		
13		
14		

SESI CONSULTING ENGINEERS D.P.C.

Figure 42

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 13
LOCATION	SEE FIGURE 1	APPROX. ELEV.	627'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 3'± to 3.5'±			DATE EXCAVATED	3/5/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2-3" Topsoil	
1 – 2	Light-brown coarse to fine SAND, some Clayey Silt, little coarse to fine Gravel with occassional cobbles (USCS : SM)	Medium Dense
3 – 6	Same as above with mottled Clayey Silt	Medium Dense
7 – 14	End of Test Pit at 7± Feet	

NOTE:

Figure 43

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 14
LOCATION	SEE FIGURE 1	APPROX. ELEV.	633'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 7.5'±			DATE EXCAVATED	3/6/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	8" Topsoil	
1 – 2	Light-brown coarse to fine SAND, some Silt, little coarse to fine Gravel, with occassional cobbles (USCS : SM/SC)	Medium Dense
3 – 8	Light-brown coarse to fine SAND, some clayey Silt, little coarse to fine Gravel, with occassional cobbles (USCS : SM/SC)	Medium Dense
9	End of Test Pit at 8.5± Feet	
10 – 14		

NOTE:

Figure 44

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 15
LOCATION	SEE FIGURE 1	APPROX. ELEV.	631'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 7'±			DATE EXCAVATED	3/6/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6" Topsoil	
1 – 2 – 3	Light-brown coarse to fine SAND, some clayey Silt, little medium to fine Gravel, with occassional cobbles (USCS : SM) W.C. = 13.8% (-200) = 34.2%	Medium Dense
4	Light-brown coarse to fine SAND, some clayey Silt, little medium to fine Gravel, with occassional cobbles (USCS : SM)	Medium Dense
5 – 6 – 7	Same as above with mottled Clayey Silt and occasional Boulder (USCS: SM)	Medium Stiff
8	End of Test Pit at 7± Feet	
9 – 10 – 11 – 12 – 13 – 14		

NOTE:

Figure 45

SESI CONSULTING

PROJECT NO.	9999	**PROJECT**	Southeast, NY	**TEST PIT NO.**	**TP- 16**
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	629'±	**INSPECTED BY**	RR
WATER OBSERVATION	Seepage at 6'11"±			**DATE EXCAVATED**	3/6/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6" Topsoil	
1 – 4	Light-brown coarse to fine SAND, some Silt, little coarse to fine Gravel with occassional cobbles (USCS : SM)	Medium Dense
5 – 7	Same as above with some mottled Clayey Silt, with occassional cobbles and boulders (USCS : SM/SC)	Medium Dense
8 – 14	End of Test Pit at 7.5± Feet	

NOTE:

Figure 46

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 17
LOCATION	SEE FIGURE 1	APPROX. ELEV.	630'±	INSPECTED BY	RR
WATER OBSERVATION	NE			DATE EXCAVATED	3/6/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	8" Topsoil	
1	Light-brown/Orange SILT, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS : CL)	Medium Stiff
3	Light-brown mottled SILT, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles and boulders (USCS : CL)	Medium Stiff
8	End of Test Pit at 7.5± Feet	

NOTE:

Figure 47

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 18
LOCATION	SEE FIGURE 1	APPROX. ELEV.	628'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 2'±, Heavy at 3'±			DATE EXCAVATED	3/6/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	7" Topsoil	
1	Light-brown Clayey SILT, some medium to fine Sand, trace Gravel (USCS : CL)	Medium Stiff
3	Light-brown mottled Clayey SILT, some coarse to fine Sand, little coarse to fine Gravel, with occassional cobbles (USCS : CL)	Medium Stiff
7	End of Test Pit at 6.75± Feet	

NOTE:

Figure 48

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-18A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	659 ±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 8'			DATE EXCAVATED	4/7/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	5" Topsoil	
1 – 2	Light brown SILT, some coarse to fine Sand, trace Gravel with Cobbles	Medium Stiff
3 – 5	Brown Clayey Silt, some coarse to fine Sand, little coarse to fine Gravel with Cobbles and Boulders	Medium Stiff
6 – 9	...Same (Mottled)	Medium Stiff
10	End of Test Pit at 10 ± Feet	
11 – 14		

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Figure 49

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-18B
LOCATION	SEE FIGURE 1	APPROX. ELEV.	645 ±	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 9'		DATE EXCAVATED	4/7/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	5" Topsoil	
1 – 3	Light brown SILT, and coarse to fine Sand, trace Gravel with Cobbles	Medium Stiff
4 – 5	Brown Clayey Silt, and coarse to fine Sand, little coarse to fine Gravel with Cobbles and Boulders	Medium Stiff to Stiff
6 – 10	...Same (Mottled Silt with weathered Mica Schist)	Stiff
11 – 14	End of Test Pit at 10 ± Feet	

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Figure 50

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 19
LOCATION	SEE FIGURE 1	APPROX. ELEV.	619'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 30"±			DATE EXCAVATED	3/6/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	5" Topsoil	
1	Light-brown coarse to fine SAND, some Silt, little coarse to fine Gravel, with occassional cobbles (USCS : CL)	Medium Dense
2	Light-brown coarse to fine SAND, some mottled Silt, little coarse to fine Gravel, with occassional cobbles (USCS : CL)	Medium Dense
7	End of Test Pit at 6.25± Feet	

NOTE:

Figure 51

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 20
LOCATION	SEE FIGURE 1	APPROX. ELEV.	618'±	INSPECTED BY	RR
WATER OBSERVATION	Light seepage at 4'±			DATE EXCAVATED	3/6/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6" Topsoil	
1	Light-brown SILT, some coarse to fine Sand, little medium to fine Gravel, with occassional cobbles (USCS : CL)	Medium Stiff
3	Light-brown mottled SILT, some coarse to fine Sand, little medium to fine Gravel, with occassional cobbles (USCS : CL)	Medium Stiff
7		
8	End of Test Pit at 7.3± Feet	
14		

NOTE:

Figure 52

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-20A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	577 ±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 6'			DATE EXCAVATED	4/7/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light brown SILT, and coarse to fine Sand, trace Gravel with Cobbles	Medium Stiff
3	Brown Clayey Silt, and coarse to fine Sand, little coarse to fine Gravel with Cobbles and Boulders	Medium Stiff
6	...Same Mottled (Observed decomposed Mica Schist)	Medium Stiff to Stiff
9	End of Test Pit at 9 ± Feet	

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Figure 53

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 21
LOCATION	SEE FIGURE 1	APPROX. ELEV.	618'±	INSPECTED BY	RR
WATER OBSERVATION	Light seepage at 5'9"±			DATE EXCAVATED	3/6/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2" Topsoil	
1	Light-brown/yellow coarse to fine SAND, some Silt, trace Gravel (USCS : SM)	Medium Dense
2	Light-brown Clayey SILT, some coarse to fine Sand, little medium to fine Gravel with occassional cobbles (USCS : CL)	Medium Stiff
4	Light-brown mottled Clayey SILT, some coarse to fine Sand, little medium to fine Gravel with occassional cobbles (USCS : CL)	Medium Stiff
8	End of Test Pit at 7.6± Feet	

NOTE:

Figure 54

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 22
LOCATION	SEE FIGURE 1	APPROX. ELEV.	616'±	INSPECTED BY	RR
WATER OBSERVATION	Light seepage at 1'8"±; Heavy at 5'±			DATE EXCAVATED	3/6/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	8" Topsoil	
1	Light-brown coarse to fine SAND, some Silt, little coarse to fine Gravel with occassional cobbles (USCS : SM)	Medium Dense
4	Light-brown mottled Clayey SILT, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS : CL)	Medium Stiff
8	End of Test Pit at 8.1± Feet	
14		

NOTE:

Figure 55

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-22A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	582 ±	INSPECTED BY	RR
WATER OBSERVATION	Heavy Seepage at 8'			DATE EXCAVATED	4/7/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	5" Topsoil	
1	Light brown SILT, and coarse to fine Sand, trace Gravel with Cobbles	Medium Stiff
4	Brown Clayey Silt, and coarse to fine Sand, little coarse to fine Gravel with Cobbles and Boulders	Medium Stiff
6	...Same (Mottled Silt)	Medium Stiff To Stiff
10	End of Test Pit at 10 ± Feet	

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Figure 56

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 23
LOCATION	SEE FIGURE 1	APPROX. ELEV.	615'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 5'3"±			DATE EXCAVATED	3/6/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3" Topsoil	
1	Light-brown coarse to fine SAND, some Silt, little coarse to fine Gravel (USCS : SM)	Medium Dense
4	Light-brown coarse to fine SAND, some mottled Silt, little coarse to fine Gravel, with occassional cobbles and boulders (USCS : SM)	Medium Dense
8	End of Test Pit at 7.3± Feet	
14		

NOTE:

Figure 57

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 24
LOCATION	SEE FIGURE 1	APPROX. ELEV.	614'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 4'±			DATE EXCAVATED	3/6/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light-brown/yellow Clayey SILT, some coarse to fine SAND, trace Gravel (USCS : CL)	Medium Stiff
2	Light-brown coarse to fine SAND, some Silt, little medium to fine Gravel with occassional cobbles (USCS : SM)	Medium Dense
3	Light-brown mottled Clayey SILT, some coarse to fine Sand, little medium to fine Gravel, with occassional cobbles and boulders (USCS : CL)	Medium Stiff
7	End of Test Pit at 7± Feet	
8		
9		
10		
11		
12		
13		
14		

NOTE:

Figure 58

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 25
LOCATION	SEE FIGURE 1	APPROX. ELEV.	615'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 4.5'±			DATE EXCAVATED	3/6/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6" Topsoil	
1	Light-brown/yellow coarse to fine SAND, some Silt, trace Gravel (USCS : SM)	Medium Dense
2		
3	Light-brown coarse to fine SAND, some mottled Silt, trace Gravel, with occassional cobbles (USCS : SM)	Medium Dense to Dense
4		
5		
6		
7	End of Test Pit at 6.4± Feet	
8		
9		
10		
11		
12		
13		
14		

NOTE:

Figure 59

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 26
LOCATION	SEE FIGURE 1	APPROX. ELEV.	602'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 6'1"±			DATE EXCAVATED	3/6/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3" Topsoil	
1	Light-brown SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles (USCS : CL)	Medium Stiff
2	Light-brown mottled SILT, some coarse to fine Sand, trace Gravel, with high frequency of boulders (USCS : CL)	Medium Stiff
3		
4		
5		
6		
7		
8	End of Test Pit at 7.25± Feet	
9		
10		
11		
12		
13		
14		

NOTE:

Figure 60

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 27
LOCATION	SEE FIGURE 1	APPROX. ELEV.	636'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 6.5'±			DATE EXCAVATED	4/16/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light-brown SILT, and coarse to fine Sand, trace Gravel, with cobbles and boulders (USCS : CL)	Medium Stiff
3	Brown SILT, and coarse to fine Sand, trace Gravel, with cobbles and boulders (USCS : CL)	Medium Stiff
6	Same mottled SILT	Medium Stiff
8	End of Test Pit at 8± Feet	
14		

NOTE:

Figure 61

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-27A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	635 ±	INSPECTED BY	RR
WATER OBSERVATION		NE		DATE EXCAVATED	4/7/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	Topsoil with Light Brown SILT, and coarse to fine Sand, trace Gravel with occasional Cobbles	
3	Light Brown SILT, and coarse to fine Sand, light coarse to fine Gravel with Cobbles and Boulders	Medium Stiff
4	Brown Clayey SILT, and coarse to fine Sand, light coarse to fine Gravel with Cobbles and Boulders (Weathered Boulders/Bedrock)	Stiff
6	... Same (Mottled Silt)	
9	End of Test Pit at 9 ± Feet	
14		

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Figure 62

PROJECT NO.	9999	**PROJECT**	Prop. Logistics Center	**TEST PIT NO.**	**TP-27B**
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	629 ±	**INSPECTED BY**	RR
WATER OBSERVATION		Seepage at 10'		**DATE EXCAVATED**	4/7/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	Topsoil	
1	Light brown SILT, some coarse to fine Sand, trace Gravel with Cobbles and Boulders	Medium Stiff
5	Brown Clayey SILT, and coarse to fine Sand, little coarse to fine Gravel with Cobbles and Boulders (Weathered Rock/Boulder)	
7	...Same (Mottled Silt)	Stiff
10	End of Test Pit at 10 ± Feet	

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Figure 63

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 28
LOCATION	SEE FIGURE 1	APPROX. ELEV.	621'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 21"±; Heavy at 4.5'±			DATE EXCAVATED	3/6/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3" Topsoil	
1	Light-brown SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles (USCS : CL)	Medium Dense
3	Light-brown mottled SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles (USCS : CL)	Medium Stiff
7	End of Test Pit at 7± Feet	

NOTE:

Figure 64

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 29
LOCATION	SEE FIGURE 1	APPROX. ELEV.	621'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 3.5'±			DATE EXCAVATED	4/16/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Yellow-brown SILT, and coarse to fine Sand, trace Gravel, with cobbles (USCS : CL)	Medium Stiff
2	Brown SILT, and coarse to fine Sand, little coarse to fine Gravel, with cobbles and occasional boulders (USCS: CL)	Medium Stiff
5	Same mottled SILT	Medium Stiff
8	End of Test Pit at 8± Feet	
14		

NOTE:

Figure 65

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 30
LOCATION	SEE FIGURE 1	APPROX. ELEV.	612'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 2'±			DATE EXCAVATED	4/16/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light-brown SILT, and coarse to fine Sand, trace Gravel, with cobbles (USCS : CL)	Medium Stiff
2	Brown SILT, and coarse to fine Sand, little coarse to fine Gravel, with cobbles (USCS: CL)	Medium Stiff
3		
4	Same mottled SILT	Medium Stiff
5		
6	Brown SILT, and coarse to fine Sand, little coarse to fine Gravel, with cobbles (gravel fequency increased with depth)	Medium Stiff
7		
8	End of Test Pit at 8± Feet	
9		
10		
11		
12		
13		
14		

NOTE:

Figure 66

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 31
LOCATION	SEE FIGURE 1	APPROX. ELEV.	618'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 7.5'±			DATE EXCAVATED	4/17/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3" Topsoil	
1	Yellow-brown SILT, and coarse to fine Sand, trace Gravel, with cobbles (USCS : CL)	Medium Stiff
2	Light-brown SILT and coarse to fine Sand, little Sand, little coarse to fine Gravel, with cobbles (USCS : CL)	Medium Stiff
5	Light-brown mottled SILT, and coarse to fine Sand, little coarse to fine Gravel, with occasional cobbles (USCS : CL)	Medium Stiff
10	End of Test Pit at 10± Feet	

NOTE:

Figure 67

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 32
LOCATION	SEE FIGURE 1	APPROX. ELEV.	602'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 5'±			DATE EXCAVATED	4/17/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	8" Topsoil	
1	Light-brown/yellow-brown SILT, and coarse to fine Sand, trace Gravel (USCS : CL)	Medium Stiff
2		
3	Light-brown SILT, and coarse to fine Sand, little coarse to fine Gravel, with occasional cobbles (USCS : CL)	Medium Stiff
4	Light-brown mottled SILT, and coarse to fine Sand, little coarse to fine Gravel, with occasional cobbles (USCS : CL)	Medium Stiff
5		
6		
7		
8		
9		
10		
11	End of Test Pit at 10± Feet	
12		
13		
14		

NOTE:

Figure 68

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-33
LOCATION	SEE FIGURE 1	APPROX. ELEV.	603'±	INSPECTED BY	JQ/RR
WATER OBSERVATION		Seepage at 7'±		DATE EXCAVATED	4/17/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Yellow-brown/Light-brown SILT, and coarse to fine Sand, trace Gravel	
2	Light-brown SILT, and coarse to fine Sand, little coarse to fine Gravel, with occasional cobbles Infiltration Rate at el. 601 = 22 in/hr	
5	Light-brown mottled SILT, and coarse to fine Sand, little coarse to fine Gravel, with occasional cobbles	
8	End of Test Pit at 8± Feet	
9		
10		
11		
12		
13		
14		

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Figure 69

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-34
LOCATION	SEE FIGURE 1	APPROX. ELEV.	600'±	INSPECTED BY	JQ/RR
WATER OBSERVATION		Seepage at 7'±		DATE EXCAVATED	4/17/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Yellow-brown/Light-brown SILT, and coarse to fine Sand, trace Gravel	
2	Infiltration Rate at el. 598.5 = 30.6 in/hr Light-brown SILT, and coarse to fine Sand, little coarse to fine Gravel, with occasional cobbles	
6	Light-brown mottled SILT, and coarse to fine Sand, little coarse to fine Gravel, with occasional cobbles	
10	End of Test Pit at 10± Feet	
14		

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Figure 70

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-35
LOCATION	SEE FIGURE 1	APPROX. ELEV.	599'±	INSPECTED BY	JQ/RR
WATER OBSERVATION		Not Encountered		DATE EXCAVATED	4/17/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4-5" Topsoil	
1	Yellow-brown/Light-brown Sand, some Silt, little coarse to fine Gravel	
2	Light-brown SILT, and coarse to fine Sand, little coarse to fine Gravel, with occasional cobbles	
5	Infiltration Rate at El. 595= 29.5 in/hr	
6		
7	Light-brown mottled SILT, and coarse to fine Sand, little coarse to fine Gravel, with occasional cobbles	
10		
11	End of Test Pit at 10± Feet	
12		
13		
14		

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Figure 71

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-36
LOCATION	SEE FIGURE 1	APPROX. ELEV.	623'±	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 2'±		DATE EXCAVATED	5/1/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Brown clayey Silt, some coarse to fine Sand, trace Gravel with occasional cobbles and boulders	Medium Stiff
2	Same... Mottled Silt	Medium Stiff
7	End of Test Pit at 7± Feet	

SESI CONSULTING ENGINEERS

Figure 72

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-37
LOCATION	SEE FIGURE 1	APPROX. ELEV.	607'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 6.5'±			DATE EXCAVATED	4/31/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown Silt, and coarse to fine Sand, trace Gravel with occasional cobbles	Medium Stiff
3	Brown Silt, and coarse to fine Sand, little coarse to fine Gravel with occasional cobbles and boulders	Medium Stiff
4	Infiltration Rate at El. 604 = 4.5 in/hr	
5	Same... Mottled Silt	Medium Stiff
9	End of Test Pit at 9± Feet	
14		

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Figure 73

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-38
LOCATION	SEE FIGURE 1	APPROX. ELEV.	600'±	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 4'±		DATE EXCAVATED	4/31/18

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown Silt, and coarse to fine Sand, trace Gravel with occasional cobbles and boulders	Medium Stiff
2	Brown clayey Silt, and coarse to fine Sand, little coarse to fine Gravel	
3	with occasional cobbles and boulders Infiltration Rate at El. 604 = 16.5 in/hr	Medium Stiff
4	Same... Mottled Silt	Medium Stiff
5		
6		
7		
8	End of Test Pit at 7'±	
9		
10		
11		
12		
13		
14		

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Figure 74

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-39
LOCATION	SEE FIGURE 1	APPROX. ELEV.	608'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 4'± / standing water at 7'±			DATE EXCAVATED	4/31/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown Silt, and coarse to fine Sand, trace Gravel with occasional cobbles Infiltration at El.606 = 30.6 in/hr	Medium Stiff
3	Brown clayey Silt, and coarse to fine Sand, trace Gravel with occasional cobbles and boulders	Medium Stiff
4	Same... Mottled Silt	Medium Stiff
8	End of Test Pit at 8± Feet	

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Figure 75

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-40
LOCATION	SEE FIGURE 1	APPROX. ELEV.	598'±	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 9'±		DATE EXCAVATED	4/31/18

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
	Light Brown Silt, and coarse to fine Sand, trace Gravel with occasional cobbles	Medium Stiff
1		
2	Brown clayey Silt, and coarse to fine Sand, little coarse to fine Gravel with occasional cobbles and boulders	Medium Stiff
3		
4	Infiltration Rate at El. 595 = 12 in/hr	
5		
6	Same... Mottled Silt	Medium Stiff
7		
8		
9		
10	End of Test Pit at 9± Feet	
11		
12		
13		
14		

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Figure 76

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-41
LOCATION	SEE FIGURE 1	APPROX. ELEV.	596'±	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 6.5'±		DATE EXCAVATED	4/31/18

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown Silt, and coarse to fine Sand, trace Gravel with occasional cobbles	Medium Stiff
2		
3	Brown clayey Silt, and coarse to fine Sand, little coarse to fine Gravel with occasional cobbles and boulders Infiltration Rate at el. 592 = 12in/hr.	Medium Stiff
4		
5		
6	Same... Mottled Silt	Medium Stiff
7		
8		
9		
10		
11	End of Test Pit at 10± Feet	
12		
13		
14		

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Figure 77

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP- 42
LOCATION	SEE FIGURE 1	APPROX. ELEV.	596'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 12"±;			DATE EXCAVATED	4/31/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light-brown SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles	Medium Stiff
2	Light-brown mottled SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles and occasional boulder (USCS : SC/CL)	Medium Stiff to Stiff
8	End of Test Pit at 7.5± Feet	

NOTE:

Fig. 78

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PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-43
LOCATION	SEE FIGURE 1	APPROX. ELEV.	596'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 3.5'±			DATE EXCAVATED	4/31/18

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	5" Topsoil	
1	Light Brown Silt, and coarse to fine Sand, trace Gravel with occasional cobbles	Medium Stiff
2		
3	Brown clayey Silt, and coarse to fine Sand with occasional cobbles and boulders	Medium Stiff
4	Same... Mottled Silt	Medium Stiff
5		
6		
7	End of Test Pit at 6.5± Feet	
8		
9		
10		
11		
12		
13		
14		

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Figure 79

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-43A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	603 ±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 4.75'			DATE EXCAVATED	4/7/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light brown SILT	Medium Stiff
2		
3		
4	Brown Clayey Silt	
5	...Same (Mottled Silt)	
6		
7		
8		
9		
10	End of Test Pit at 10 ± Feet	
11		
12		
13		
14		

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Figure 80

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-44
LOCATION	SEE FIGURE 1	APPROX. ELEV.	584'±	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 3'±		DATE EXCAVATED	4/31/18

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown Silt, and coarse to fine Sand, trace Gravel with cobbles	Medium Stiff
2		
3	Mottled Brown clayey Silt, and coarse to fine Sand, little coarse to fine Gravel with occasional cobbles and boulders	Medium Stiff
4		
5		
6		
7	End of Test Pit at 7± Feet	
8		
9		
10		
11		
12		
13		
14		

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Figure 81

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-44A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	582 ±	INSPECTED BY	RR
WATER OBSERVATION	Light Seepage at 3' Heavy Seepage at 7'			DATE EXCAVATED	4/7/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1 – 3	Light brown SILT, and coarse to fine Sand, trace Gravel with Cobbles	Medium Stiff
4 – 8	Brown Clayey Mottled SILT, and coarse to fine Sand, little coarse to fine Gravel with Cobbles and Boulders	Medium Stiff
9	End of Test Pit at 8 ± Feet	
10 – 14		

SESI CONSULTING ENGINEERS D.P.C.

Figure 82

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-45
LOCATION	SEE FIGURE 1	APPROX. ELEV.	584 ±	INSPECTED BY	RR
WATER OBSERVATION	Seepage @ 5± '			DATE EXCAVATED	4/31/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light brown SILT, and coarse to fine Sand, trace Gravel with Cobbles	Medium Stiff
2	Brown Clayey Mottled SILT, and coarse to fine Sand, little coarse to fine Gravel with Cobbles and Boulders	Medium Stiff
3		
4	Infiltration Rate at El. 581.5 = 15 in/hr	
5	Same... (Mottled Silt)	Medium Stiff
6		
7		
8		
9		
10	End of Test Pit at 8 ± Feet	
11		
12		
13		
14		

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Figure 83

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP- 46
LOCATION	SEE FIGURE 1	APPROX. ELEV.	581'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 2'3"±; Heavy at 4.0'±			DATE EXCAVATED	3/22/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	8" Topsoil	
1	Light-brown SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles	Medium Stiff
2	(USCS : SC/CL) Infiltration Rate at El. 579 = 13 in/hr	
3	Light-brown mottled SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles	Medium Stiff
4	(USCS : SC/CL)	
5		
6		
7		
8		
9		
10	End of Test Pit at 9.3± Feet	
11		
12		
13		
14		

NOTE:

Figure 84

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PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-47
LOCATION	SEE FIGURE 1	APPROX. ELEV.	583'±	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 7'±		DATE EXCAVATED	4/31/18

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
	Light Brown Silt, and coarse to fine Sand, trace Gravel with occasional cobbles	Medium Stiff
1		
2	Brown clayey Silt, and coarse to fine Sand, trace Gravel with occasional cobbles and boulders	Medium Stiff
3		
4	Infiltration Rate at El. 581 = 17 in/hr	
5		
6	Same... Mottled Silt	Medium Stiff
7		
8		
9		
10	End of Test Pit at 9± Feet	
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

Figure 85

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-48
LOCATION	SEE FIGURE 1	APPROX. ELEV.	581'±	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 7.5'±		DATE EXCAVATED	4/31/18

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown Silt, some coarse to fine Sand, little coarse to fine Gravel with occasional cobbles and boulders	Medium Stiff
2		
3	Brown clayey Silt, and coarse to fine Sand, little coarse to fine Gravel with occasional cobbles and boulders	Medium Stiff
4	Infiltration Rate at El. 578 = 12 in/hr	
5		
6	Same... Mottled Silt	Medium Stiff
7		
8		
9		
10		
11	End of Test Pit at 10± Feet	
12		
13		
14		

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Figure 86

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-49
LOCATION	SEE FIGURE 1	APPROX. ELEV.	586'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 10.5'±			DATE EXCAVATED	5/1/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Fill- Light Brown Silt, and coarse to fine Sand, trace Gravel with occasional cobble, brick, and concrete	
2		
3	Fill- Brown clayey Silt, and coarse to fine Sand, little coarse to fine Gravel with occasional cobbles and boulders	
4		
5		
6		
7		
8	Same... (Bottom of Footing from pervious residence)	Medium Stiff
9		
10	Same... Mottled Silt	Stiff
11		
12	End of Test Pit at El. 11± Feet	
13		
14		

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Figure 87

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-50
LOCATION	SEE FIGURE 1	APPROX. ELEV.	588'±	INSPECTED BY	RR
WATER OBSERVATION		N/E		DATE EXCAVATED	5/1/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Fill- Light Brown Silt, some coarse to fine Sand, trace Gravel with occasional cobbles (Existing Drain line observed at 2 Feet below Grade)	
4	Brown clayey Silt, and coarse to fine Sand, little coarse to fine Gravel with cobbles and boulders	Medium Stiff
8	Same... Mottled Silt	Medium Stiff
11	End of Test Pit at 11+ Feet	

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Figure 88

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-50A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	588	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 10'±			DATE EXCAVATED	5/2/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	5" Topsoil	
1	Fill- Light Brown Silt, and coarse to fine Sand, trace Gravel with cobbles	Medium Stiff
2	6-inch diameter clay pipe at 2' (From previous residence)	
3	Light Brown clayey Silt, and coarse to fine Sand, little coarse to fine Gravel with cobbles	Medium Stiff
4		
5	Brown clayey Silt, and coarse to fine Sand, little coarse to fine Gravel with cobbles	Medium Stiff
6		
7		
8		
9	Same... Mottled Silt	Medium Stiff
10		
11		
12	End of Test Pit at 11± Feet	
13		
14		

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Figure 89

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-51
LOCATION	SEE FIGURE 1	APPROX. ELEV.	635.0±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 7.5±'			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	9" Topsoil	
1	Light Brown/Yellow coarse to fine Sand, and Silt, trace Gravel (USCS: SM)	Medium Dense
3	Light Brown Silt, some coarse to fine Sand, travel Gravel with occassional cobbles (USCS: CL)	Medium Stiff
5	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL)	Medium Stiff
10	Test Pit Completed at 10± Feet	
14		

NOTE:

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Figure 90

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-52
LOCATION	SEE FIGURE 1	APPROX. ELEV.	634±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 4±', Heavy seepage at 4.5±'			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown Silt, some coarse to fine Sand, travel Gravel with occassional cobbles (USCS: CL)	Medium Stiff
4	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL)	Medium Stiff
10	Test Pit Completed at 9.5± Feet	

NOTE:

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Figure 91

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-53
LOCATION	SEE FIGURE 1	APPROX. ELEV.	632±'	INSPECTED BY	JQ
WATER OBSERVATION	Heavy seepage at 5.5±'			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6" Topsoil	
1	Light Brown/Yellow coarse to fine Sand, some Silt, trace Gravel (USCS: SM)	Medium Dense
2	Light Brown Silt, some coarse to fine Sand, trave Gravel with occassional cobbles (USCS: CL)	Medium Stiff
3		
4	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL)	Medium Stiff
5		
6		
7		
8		
9		
10	Test Pit Completed at 9.3± Feet	
11		
12		
13		
14		

NOTE:

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Figure 92

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-54
LOCATION	SEE FIGURE 1	APPROX. ELEV.	676±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 4±' Heavy seepage at 5±'			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	7" Topsoil	
1	Light Brown Silt, some coarse to fine Sand, trace Gravel with occassional cobbles (USCS: CL)	Medium Stiff
3	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL)	Medium Stiff to Stiff
10	Test Pit Completed at 9.9±'	

NOTE:

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Figure 93

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-55
LOCATION	SEE FIGURE 1	APPROX. ELEV.	686±	INSPECTED BY	JQ
WATER OBSERVATION	NE			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	8" Topsoil	
1	Light Brown/Yellow coarse to fine Sand, and Silt, trace Gravel (USCS: SM)	Medium Dense
2		
3	Light Brown Silt, some coarse to fine Sand, trace Gravel (USCS: CL)	Medium Stiff
4	Light Brown Silt, some coarse to fine Sand, trace Gravel with occassional cobbles (USCS: CL)	Medium Stiff
5		
6	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL)	Medium Stiff
7		
8		
9		
10		
11	Test Pit Completed at 10.3±	
12		
13		
14		

NOTE:

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Figure 94

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-56
LOCATION	SEE FIGURE 1	APPROX. ELEV.	688±'	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 10±'			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown/Gray Silt, some coarse to fine Sand, trace Gravel with occassional cobbles (USCS: CL)	Medium Stiff
4	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL)	Medium Stiff
10	Test Pit Complete at 10.3±'	
14		

NOTE:

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Figure 95

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-57
LOCATION	SEE FIGURE 1	APPROX. ELEV.	672+'	INSPECTED BY	JQ
WATER OBSERVATION	7' 0" seepage			DATE EXCAVATED	3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown/Yellow coarse to fine Sand and Silt, trace Gravel	Medium Dense
2	Light Brown Silt, some coarse to fine sand, little coarse to fine Gravel with occassional cobbles	Medium Stiff
4	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles	Medium Stiff
11	TEST PIT COMPLETED AT 11' 3"	
12		
13		
14		

NOTE:

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Figure 96

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-101
LOCATION	SEE FIGURE 1	APPROX. ELEV.	652+'	INSPECTED BY	RR
WATER OBSERVATION	4' 0" seepage			DATE EXCAVATED	5/1/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	5" Topsoil	
1	Light brown Silt, and coarse to fine Sand, trace Gravel, with occassional cobbles	Medium Stiff
2		
3	Brown Clayey Silt, and coarse to fine Sand, little coarse to fine Gravel, with cobbles and boulders	Medium Stiff
4		
5		
6		to
7		
8		
9		Stiff
10	TEST PIT COMPLETED AT 10.0 FEET	
11		
12		
13		
14		

NOTE:

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Figure 97

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-102
LOCATION	SEE FIGURE 1	APPROX. ELEV.	671±'	INSPECTED BY	RR
WATER OBSERVATION	NE			DATE EXCAVATED	5/1/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light brown Silt, and coarse to fine Sand, trace Gravel, with occassional cobbles	Medium Stiff
3	Brown Clayey Silt, and coarse to fine Sand, little coarse to fine Gravel, with cobbles and occassional boulders	Medium Stiff
10	TEST PIT COMPLETED AT 10.0 FEET	

NOTE:

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Figure 98

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-103
LOCATION	SEE FIGURE 1	APPROX. ELEV.	667.5±'	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 8'0"			DATE EXCAVATED	5/2/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6-7" Topsoil	
1 – 3	Light brown Silt, and coarse to fine Sand, trace Gravel, with cobbles	Medium Stiff
4 – 6	Brown Clayey Silt, and coarse to fine Sand, little coarse to fine Gravel, with cobbles and occassional boulders	Medium Stiff
7 – 10	... Same as above, mottled Silt	Medium Stiff
11 – 14	TEST PIT COMPLETED AT 10.0 FEET	

NOTE:

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Figure 99

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-104
LOCATION	SEE FIGURE 1	APPROX. ELEV.	660±'	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 9'0"			DATE EXCAVATED	5/2/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	5" Topsoil	
1	Light brown Silt, and coarse to fine Sand, trace Gravel, with cobbles	Medium Stiff
2		
3		
4	Brown Clayey Silt, and coarse to fine Sand, little coarse to fine Gravel, with cobbles and boulders	Medium Stiff
5		
6		
7		
8	... Same as above, mottled Silt	Medium Stiff
9		
10	TEST PIT COMPLETED AT 9.5 FEET	
11		
12		
13		
14		

NOTE:

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Figure 100

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-105
LOCATION	SEE FIGURE 1	APPROX. ELEV.	679+'	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 8.75'			DATE EXCAVATED	5/2/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	5" Topsoil	
1	Light brown Silt, and coarse to fine Sand, trace Gravel, with cobbles	Medium Stiff
2		
3	Brown Clayey Silt, and coarse to fine Sand, little coarse to fine Gravel, with cobbles and boulders	Medium Stiff
4		
5		
6	... Same as above, mottled Silt	Medium Stiff
7		
8		
9		
10	TEST PIT COMPLETED AT 9.0 FEET	
11		
12		
13		
14		

NOTE:

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Figure 101

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-106
LOCATION	SEE FIGURE 1	APPROX. ELEV.	671±'	INSPECTED BY	RR
WATER OBSERVATION	NE			DATE EXCAVATED	5/2/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	5" Topsoil	
1	Light brown Silt, and coarse to fine Sand, trace Gravel, with cobbles	Medium Stiff
3	Brown Clayey Silt, and coarse to fine Sand, little coarse to fine Gravel, with cobbles and boulders	Medium Stiff
8	... Same as above, mottled Silt	Medium Stiff
9	TEST PIT COMPLETED AT 9.0 FEET	
14		

NOTE:

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Figure 102

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-107
LOCATION	SEE FIGURE 1	APPROX. ELEV.	682+'	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 9.0'			DATE EXCAVATED	5/2/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	5" Topsoil	
1	Light brown Silt, and coarse to fine Sand, trace Gravel, with cobbles	Medium Stiff
2		
3	Brown Clayey Silt, and coarse to fine Sand, little coarse to fine Gravel, with cobbles and boulders	Medium Stiff
4		
5		
6		
7		
8	... Same as above, mottled Silt	Medium Stiff
9		
10	TEST PIT COMPLETED AT 10.0 FEET	
11		
12		
13		
14		

NOTE:

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Figure 103

PROJECT NO.	9999	**PROJECT**	Southeast, NY	**TEST PIT NO.**	RWTP- 1
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	651.0'±	**INSPECTED BY**	JQ
WATER OBSERVATION	Not Encountered			**DATE EXCAVATED**	4/17/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6" Topsoil	
1	Yellow-brown/light-brown SILT, and coarse to fine Sand, trace Gravel (USCS : CL)	Medium Stiff
2		
3	Light-brown SILT, and coarse to fine Sand, little coarse to fine Gravel, with occasional Cobbles (USCS : CL)	Medium Stiff
4		
5	Light-brown mottled SILT, and coarse to fine Sand, little coarse to fine Gravel, with occasional Cobbles (USCS : CL)	Medium Stiff
6		
7		
8		
9		
10	End of Test Pit at 9 ± Feet	
11		
12		
13		
14		

NOTE: Retaining Wall B1-3

Figure 104

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PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	RWTP- 2
LOCATION	SEE FIGURE 1	APPROX. ELEV.	655' ±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 8' ±			DATE EXCAVATED	4/17/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	5" Topsoil	
1	Yellow-brown/light-brown SILT, and coarse to fine Sand, trace Gravel (USCS : CL)	
2	Light-brown SILT, and coarse to fine Sand, little coarse to fine Gravel, with occasional Cobbles (USCS : CL)	Medium Stiff
5	Light-brown mottled SILT, and coarse to fine Sand, little coarse to fine Gravel, with occasional Cobbles (USCS : CL)	Medium Stiff
6	Boulder frequency increased with depth	
9	End of Test Pit at 9 ± Feet	
10		
11		
12		
13		
14		

NOTE: Retaining Wall B1-3

Figure 105

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	RWTP- 3
LOCATION	SEE FIGURE 1	APPROX. ELEV.	644'±	INSPECTED BY	JQ
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	4/17/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3" Topsoil	
1	Yellow-brown/light-brown SILT, and coarse to fine Sand, trace Gravel (USCS : CL)	Medium Stiff
2	Light-brown SILT, and coarse to fine Sand, little coarse to fine Gravel, with occasional Cobbles (USCS : CL)	Medium Stiff
4	Light-brown mottled SILT, and coarse to fine Sand, little coarse to fine Gravel with occasional Cobbles (USCS : CL)	Medium Stiff
7	Boulder frequency increased with depth	
9	End of Test Pit at 9 ± Feet	
14		

NOTE: Retaining Wall B1-4

Figure 106

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	RWTP- 4
LOCATION	SEE FIGURE 1	APPROX. ELEV.	622'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 2' ±			DATE EXCAVATED	5/2/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown SILT, and coarse to fine Sand, trace Gravel with Cobbles (USCS : CL)	Medium Stiff
3	Brown Clayey SILT, and coarse to fine Sand, little coarse to fine Gravel with Cobbles and Boulders (USCS : CL)	Medium Stiff
6	Boulders increased frequency with depth	Stiff to Hard
9	End of Test Pit at 9 ± Feet	
14		

NOTE: Retaining Wall B12-1

Figure 107

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	RWTP- 5
LOCATION	SEE FIGURE 1	APPROX. ELEV.	631'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 9' ±			DATE EXCAVATED	5/2/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3-4" Topsoil	
1	Light Brown SILT, and coarse to fine Sand, trace Gravel with Cobbles (USCS : CL)	Medium Stiff
2		
3	Brown Clayey SILT, and coarse to fine Sand, little coarse to fine Gravel with Cobbles and Boulders (USCS : CL)	
4		
5		Medium Stiff
6		
7		
8	...Same (Mottled Silt)	Medium Stiff
9		
10		
11	End of Test Pit at 10 ± Feet	
12		
13		
14		

NOTE: Retaining Wall B12-1

Figure 108

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	RWTP- 6
LOCATION	SEE FIGURE 1	APPROX. ELEV.	640'±	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	5/2/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown SILT, and coarse to fine Sand, trace Gravel with Cobbles (USCS : CL)	Medium Stiff
4	Brown Clayey SILT, and coarse to fine Sand, little coarse to fine Gravel with Cobbles and Boulders (USCS : CL)	Medium Stiff to Stiff
9	End of Test Pit at 9 ± Feet	

NOTE: Retaining Wall B12-1

Figure 109

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	RWTP- 7
LOCATION	SEE FIGURE 1	APPROX. ELEV.	642'±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 9' ±			DATE EXCAVATED	5/2/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	5" Topsoil	
1	Light Brown SILT, and coarse to fine Sand, trace Gravel with Cobbles (USCS : CL)	Medium Stiff
4	Brown Clayey SILT, and coarse to fine Sand, little medium to fine Gravel with Cobbles and Boulders (USCS : CL)	Medium Stiff
8	... Same (Mottled Silt)	Medium Stiff
11	End of Test Pit at 11 ± Feet	
14		

NOTE: Retaining Wall B12-2

Figure 110

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-1
LOCATION	SEE FIGURE 1	APPROX. ELEV.	626.0±'	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 2±'; Heavy seepage at 3±'			DATE EXCAVATED	3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown Silt, some coarse to fine Sand, trace Gravel (USCS: CL)	Medium Stiff
2	Percolation Rate = 60 min/in @ Elv. 624.1	Medium Stiff
3	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with frequent cobbles and occasional Boulder (USCS: CL)	
4		
5		to
6		
7		
8		Stiff
9	Test Pit Completed at 8± Feet	
10		
11		
12		
13		
14		

NOTE:

SESI CONSULTING ENGINEERS

Fig. 111

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-2
LOCATION	SEE FIGURE 1	APPROX. ELEV.	628.0±'	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 2±'			DATE EXCAVATED	3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL)	Medium Stiff
3	Percolation Rate: 120 min/in @ Elv. 626 Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL)	Medium Stiff
9	Test Pit Completed at 8.5± Feet	

NOTE:

SESI CONSULTING ENGINEERS

Fig. 112

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-3
LOCATION	SEE FIGURE 1	APPROX. ELEV.	632±'	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 6±'			DATE EXCAVATED	3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6" Topsoil	
1	Light Brown/Yellow coarse to fine Sand, and Silt, trace Gravel (USCS: SM)	Medium Dense
2		
3	Percolation Rate = 40 min/in @ Elv. 630 Light Brown Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL)	Medium Stiff
4		
5	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles and boulders (USCS: CL)	Medium Stiff
6		
7		
8		
9		
10	Test Pit Completed at 9.5± Feet	
11		
12		
13		
14		

NOTE:

SESI CONSULTING ENGINEERS

Fig. 113

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-4
LOCATION	SEE FIGURE 1	APPROX. ELEV.	631.0±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 6'10"±			DATE EXCAVATED	3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6" Topsoil	
1	Light Brown/Yellow coarse to fine Sand, and Silt, trace Gravel (USCS: SM)	Medium Dense
2	Percolation Rate = 30 min/in @ Elv. 629.1 Light Brown Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL)	Medium Stiff
4	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL)	Medim Stiff to Stiff
9	Test Pit Completed at 9.1± Feet	
10		
11		
12		
13		
14		

NOTE:

SESI CONSULTING ENGINEERS

Fig. 114

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	STP- 5
LOCATION	SEE FIGURE 1	APPROX. ELEV.	618'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 3'4"±			DATE EXCAVATED	3/22/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3" Topsoil	
1	Light-brown SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles (USCS : SC/CL)	Medium Stiff
2		
3	Percolation Rate = 40 min/in @ Elv. 616 Light-brown mottled SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles (USCS : SC/CL)	Medium Stiff
4		
5		
6		
7		
8		
9		
10	End of Test Pit at 9.5± Feet	
11		
12		
13		
14		

NOTE:

Fig. 115

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	STP- 6
LOCATION	SEE FIGURE 1	APPROX. ELEV.	613'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 8'10"±			DATE EXCAVATED	3/22/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	8" Topsoil	
1	Light-brown SILT, and coarse to fine Sand, trace Gravel (USCS : SC/CL) Percolation Rate = 15 min/in @ Elv. 610.9	Medium Stiff
4	Light-brown mottled SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles (USCS : SC/CL)	Medium Stiff
11	End of Test Pit at 10.5± Feet	

NOTE:

Fig. 116

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-7
LOCATION	SEE FIGURE 1	APPROX. ELEV.	616.0±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 6.5±			DATE EXCAVATED	3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6" Topsoil	
1	Light Brown Silt, and coarse to fine Sand, trace Gravel	Medium Stiff
2	(USCS: CL)	
3	Percolation Rate = 40 min/in @ Elv. 614.0	
4	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel	Medium Stiff
5	with occassional cobbles	
6	(USCS: CL)	to
7		
8		Stiff
9	Test Pit Completed at 8.5± Feet	
10		
11		
12		
13		
14		

NOTE:

SESI CONSULTING ENGINEERS

Fig. 117

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-8
LOCATION	SEE FIGURE 1	APPROX. ELEV.	619.0±'	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 6±'			DATE EXCAVATED	3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3" Topsoil	
1	Light Brown/Yellow medium to fine Sand, and Silt, trace Gravel (USCS: SM)	Medium Dense
2	Light Brown Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL) Percolation Rate = 120 min/in @ Elv. 617.0	Medium Stiff
4	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL)	Medium Stiff
9	Test Pit Completed at 9± Feet	
10		
11		
12		
13		
14		

NOTE:

SESI CONSULTING ENGINEERS

Fig. 118

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-9
LOCATION	SEE FIGURE 1	APPROX. ELEV.	644.0±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 4±'			DATE EXCAVATED	3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6" Topsoil	
1	Light Brown Silt, some coarse to fine Sand, trace Gravel	Medium Stiff
	(USCS: CL)	
2	Percolation Rate = 40 min/in @ Elv. 642.0	
3	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel	Medium Stiff
	with occassional cobbles	
4	(USCS: CL)	
5		
6		
7		
8		
9		
	Test Pit Completed at 9± Feet	
10		
11		
12		
13		
14		

NOTE:

SESI CONSULTING ENGINEERS

Fig. 119

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	STP- 10
LOCATION	SEE FIGURE 1	APPROX. ELEV.	645'±	INSPECTED BY	JQ
WATER OBSERVATION	Light seepage at 4'9"±; Heavy at 5'2"±			DATE EXCAVATED	3/22/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	8" Topsoil	
1	Light-brown SILT, and coarse to fine Sand, trace Gravel	Medium Stiff
2	(USCS : SC/CL)	
	Percolation Rate = 20 min/in @ Elv. 643.0	
3		
4	Light-brown mottled SILT, some coarse to fine Sand, trace Gravel,	Medium Stiff
	with occassional cobbles	
5	(USCS : SC/CL)	
6		to
7		
8		Stiff
9		
10	End of Test Pit at 9.0± Feet	
11		
12		
13		
14		

NOTE:

Fig. 120

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	STP- 11
LOCATION	SEE FIGURE 1	APPROX. ELEV.	645'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 7'6"±			DATE EXCAVATED	3/22/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	10" Topsoil	
1	Light-brown SILT, and coarse to fine Sand, trace Gravel (USCS : SC/CL) Percolation Rate = 15 min/in @ Elv. 643.0	Medium Stiff
3	Light-brown mottled SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles (USCS : SC/CL)	Medium Stiff
9	End of Test Pit at 9.0± Feet	
14		

NOTE:

Fig. 121

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-12
LOCATION	SEE FIGURE 1	APPROX. ELEV.	645.0±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 4±			DATE EXCAVATED	3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6" Topsoil	
1	Light Brown Silt, and coarse to fine Sand, trace Gravel (USCS: CL)	Medium Stiff
3	Percolation Rate = 60 min/in @ Elv. 643.0 Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel, with occassional cobbles (USCS: CL)	Medium Stiff
9	Test Pit Completed at 8.5± Feet	

NOTE:

SESI CONSULTING ENGINEERS

Fig. 122

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-13
LOCATION	SEE FIGURE 1	APPROX. ELEV.	639.0±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 4±'			DATE EXCAVATED	3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6" Topsoil	
1	Light Brown Silt, some coarse to fine Sand, trace Gravel (USCS: CL) Percolation Rate = 30 min/in @ Elv. 637.0	Medium Stiff
4	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles and boulder (USCS: CL)	Medium Stiff
9	Test Pit Completed at 9± Feet	

NOTE:

SESI CONSULTING ENGINEERS

Fig. 123

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-14
LOCATION	SEE FIGURE 1	APPROX. ELEV.	639.0±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 6±'			DATE EXCAVATED	3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	8" Topsoil	
1	Light Brown Silt, and coarse to fine Sand, trace Gravel (USCS: CL)	Medium Stiff
3	Percolation Rate = 10 min/in @ Elv. 637.0 Light Brown Silt, some coarse to fine Sand, trace Gravel (USCS: CL)	Medium Stiff
4	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL)	Medium Stiff to Stiff
9	Test Pit Completed at 9.25±'	
14		

NOTE:

SESI CONSULTING ENGINEERS

Fig. 124

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-15
LOCATION	SEE FIGURE 1	APPROX. ELEV.	639.0±	INSPECTED BY	JQ
WATER OBSERVATION	Light seepage at 4.5±'; Heavy seepage at 7±'			DATE EXCAVATED	3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	9" Topsoil	
1	Light Brown Silt, and coarse to fine Sand, trace Gravel	Medium Stiff
2	(USCS: CL)	
3	Percolation Rate = 2.3 min/in @ Elv. 637.0	
4	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine	Medium Stiff
5	Gravel with occassional cobbles	
6	(USCS: CL)	to
7		
8		
9		Stiff
10	Test Pit Completed at 9± Feet	
11		
12		
13		
14		

NOTE:

SESI CONSULTING ENGINEERS

Fig. 125

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-16
LOCATION	SEE FIGURE 1	APPROX. ELEV.	638.0±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 3±'			DATE EXCAVATED	3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown Silt, some coarse to fine Sand, trace Gravel (USCS: CL)	Medium Stiff
2	Percolation Rate = 15 min/in @ Elv. 636.0	Medium Stiff
3	Light Brown mottled Clayey Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles	
4	(USCS: CL)	
5		
6		
7		
8		
9		
10	Test Pit Completed at 9± Feet	
11		
12		
13		
14		

NOTE:

SESI CONSULTING ENGINEERS

Fig. 126

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP- 17
LOCATION	SEE FIGURE 1	APPROX. ELEV.	638'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 7'			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6" Topsoil	
1 – 5	Light-brown SILT, some medium to fine Sand, trace Gravel Percolation Rate = 30 min/in @ Elv. 636.0	Medium Stiff
6 – 10	Light-brown mottled SILT, some medium to fine Sand, little coarse to fine Gravel, with occassional cobbles	Medium Stiff
11 – 14	End of Test Pit at 10.1 Feet	

NOTE:

Fig. 127

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP- 18
LOCATION	SEE FIGURE 1	APPROX. ELEV.	640'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 7'			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	8" Topsoil	
1	Light-brown/yellow SILT, and medium to fine Sand, trace Gravel	Medium Stiff
2		
3	Light-brown SILT, some medium to fine Sand, little coarse to fine Gravel Percolation Rate = 17.1 min/in @ Elv. 638.0	Medium Stiff
4		
5		
6	Light-brown mottled SILT, some medium to fine Sand, little coarse to fine Gravel, with occassional cobbles and boulder	Medium Stiff
7		
8		
9		
10		
11	End of Test Pit at 10.2 Feet	
12		
13		
14		

NOTE:

Fig. 128

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP- 19
LOCATION	SEE FIGURE 1	APPROX. ELEV.	649'±	INSPECTED BY	JQ
WATER OBSERVATION		8'+		DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	8" Topsoil	
1	Light-brown/yellow coarse to fine Sand, some Silt, little coarse to fine Gravel, with occassional cobbles and boulders	Medium Dense
2		
3	Light-brown SILT, some coarse to fine Sand, little coarse to fine Gravel, with occassional cobbles and boulders Percolation Rate = 17.1 min/in @ Elv. 647.0	Medium Stiff
4		
5	Light-brown coarse to fine Sand, and mottled Silt, little coarse to fine Gravel, with occassional cobbles and boulders	Medium Stiff
6		
7		
8		
9		
10		
11	End of Test Pit at 10.5 Feet	
12		
13		
14		

NOTE:

Fig. 129

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP- 20
LOCATION	SEE FIGURE 1	APPROX. ELEV.	648'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 8'5"			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6" Topsoil	
1	Light-brown/yellow medium to fine Sand, and Silt, trace Gravel Percolation Rate = 30 min/in @ Elv. 646.0	Medium Dense
3	Light-brown SILT, and medium to fine Sand, little coarse to fine Gravel	Medium Dense
5	Light-brown mottled Silt, some medium to fine Sand, little coarse to fine Gravel, with occassional cobbles	Medium Stiff
10	End of Test Pit at 10.0 Feet	
11		
12		
13		
14		

NOTE:

Fig. 130

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP- 21
LOCATION	SEE FIGURE 1	APPROX. ELEV.	638'±	INSPECTED BY	JQ
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	12" Topsoil	
1	Light-brown/yellow coarse to fine Sand, and Silt, trace Gravel	Medium Dense
2	Light-brown SILT, and medium to fine Sand, little coarse to fine Gravel	Medium Stiff
3	Percolation Rate = 10 min/in @ Elv. 636.0	
4	Light-brown mottled Silt, some medium to fine Sand, little coarse to fine	Medium Stiff
5	Gravel, with occassional cobbles	
6		to
7		
8		Stiff
9		
10	End of Test Pit at 9.5 Feet	
11		
12		
13		
14		

NOTE:

Fig. 131

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP- 22
LOCATION	SEE FIGURE 1	APPROX. ELEV.	646'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 9'±			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1–2	Light-brown SILT, some coarse to fine Sand, trace Gravel with occassional cobbles Percolation Rate = 30 min/in @ Elv. 644.0	Medium Stiff
5–10	Light-brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel, with occassional cobbles	Medium Stiff
11	End of Test Pit at 10.5 Feet	
14		

NOTE:

Fig. 132

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP- 23
LOCATION	SEE FIGURE 1	APPROX. ELEV.	644'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 8'±			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light-brown/yellow SILT, some coarse to fine Sand, little coarse to fine Gravel, with occassional cobbles	Medium Stiff
2		
3	Light-brown SILT, some coarse to fine Sand, little coarse to fine Gravel, with occassional cobbles Percolation Rate = 15 min/in @ Elv. 642.0	Medium Stiff
4		
5	Light-brown mottled SILT, some coarse to fine Sand, little coarse to fine Gravel, with occassional cobbles and boulders	Medium Stiff
6		
7		
8		
9		
10		
11	End of Test Pit at 10.3 Feet	
12		
13		
14		

NOTE:

Fig. 133

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP- 24
LOCATION	SEE FIGURE 1	APPROX. ELEV.	649'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 7'4"±			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	8" Topsoil	
1	Light-brown/yellow SILT, some medium to fine Sand, trace Gravel	Medium Stiff
2	Light-brown SILT, some medium to fine Sand, little coarse to fine Gravel, Percolation Rate = 10 min/in @ Elv. 647.0	Medium Stiff
3		
4	Light-brown mottled SILT, some medium to fine Sand, little coarse to fine Gravel, with occassional cobbles	Medium Stiff
5		
6		
7		
8		
9		
10		
11	End of Test Pit at 10.2 Feet	
12		
13		
14		

NOTE:

Fig. 134

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP- 25
LOCATION	SEE FIGURE 1	APPROX. ELEV.	657'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 5'6"±			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	8" Topsoil	
1	Light-brown/yellow coarse to fine SAND, and Silt, little coarse to fine Gravel	Medium Dense
2	Percolation Rate = 40 min/in @ Elv. 655.0 Light-brown SILT, some coarse to fine Sand, little coarse to fine Gravel, with occassional cobbles	Medium Stiff
4	Light-brown mottled SILT, some coarse to fine Sand, little coarse to fine Gravel, with occassional cobbles	Medium Stiff
8	End of Test Pit at 8.0 Feet	
14		

NOTE:

Fig. 135

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP- 26
LOCATION	SEE FIGURE 1	APPROX. ELEV.	655'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 6.5'±			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light-brown SILT, some coarse to fine Sand, little coarse to fine Gravel, with occassional cobbles	Medium Stiff
3	Percolation Rate = 13.3 min/in @ Elv. 653.0 Brown coarse to fine SAND, some Silt, trace Gravel	Medium Dense
7	Light-brown mottled SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles	Medium Stiff
8	End of Test Pit at 8.0 Feet	
14		

NOTE:

Fig. 136

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP- 27
LOCATION	SEE FIGURE 1	APPROX. ELEV.	652'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 8'±			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light-brown SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles Percolation Rate = 24 min/in @ Elv. 650.0	Medium Stiff
5	Light-brown mottled SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles	Medium Stiff
9	End of Test Pit at 9.0 Feet	
14		

NOTE:

Fig. 137

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP- 28
LOCATION	SEE FIGURE 1	APPROX. ELEV.	648'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 8'±			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	8" Topsoil	
1	Light-brown/yellow coarse to fine SAND, and Silt, trace Gravel	Medium Dense
2		
3	Percolation Rate = 7.2 min/in @ Elv. 646.0 Light-brown SILT, some coarse to fine Sand, little coarse to fine Gravel, with occassional cobbles	Medium Stiff
4		
5		
6	Light-brown mottled SILT, some coarse to fine Sand, little coarse to fine Gravel, with occassional cobbles	Medium Stiff
7		
8		
9	End of Test Pit at 8.5 Feet	
10		
11		
12		
13		
14		

NOTE:

Fig. 138

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP- 29
LOCATION	SEE FIGURE 1	APPROX. ELEV.	657'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 7'±			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light-brown SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles Percolation Rate = 10 min/in @ Elv. 655.0	Medium Dense
3	Brown/gray mottled SILT, some coarse to fine Sand, trace Gravel	Medium Stiff
9	End of Test Pit at 8.5 Feet	

NOTE:

Fig. 139

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP- 30
LOCATION	SEE FIGURE 1	APPROX. ELEV.	655'±	INSPECTED BY	JQ
WATER OBSERVATION	Light seepage at 5'5"±; Heavy at 6'±			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	8" Topsoil	
1	Light-brown/yellow coarse to fine SAND, and Silt, trace Gravel	Medium Dense
2	Percolation Rate = 30 min/in @ Elv. 653.0	Medium Stiff
3	Light-brown SILT, some coarse to fine Sand, trace Gravel, with occasional cobbles	
4	Light-brown mottled SILT, some coarse to fine Sand, little coarse to fine Gravel, with occassional cobbles	Medium Stiff
5		
6		
7		
8		
9		
10	End of Test Pit at 9.0 Feet	
11		
12		
13		
14		

NOTE:

Fig. 140

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP- 31
LOCATION	SEE FIGURE 1	APPROX. ELEV.	652'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 7'±			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light-brown/yellow SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles Percolation Rate = 10.9 min/in @ Elv. 650.0	Medium Stiff
3	Light-brown mottled SILT, some coarse to fine Sand, little coarse to fine Gravel, with occassional cobbles	Medium Stiff
9	End of Test Pit at 9.0 Feet	
14		

NOTE:

Fig. 141

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP- 32
LOCATION	SEE FIGURE 1	APPROX. ELEV.	647'±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 6.5'±			DATE EXCAVATED	3/19/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	8" Topsoil	
1	Light-brown/yellow coarse to fine SAND, and Silt, trace Gravel	Medium Dense
2	Percolation Rate = 12 min/in @ Elv. 645.0	
3	Light-brown SILT, some coarse to fine Sand, trace Gravel, with occassional cobbles	Medium Stiff
4		
5	Light-brown mottled SILT, some coarse to fine Sand, little coarse to fine Gravel, with occassional cobbles	Medium Stiff
6		
7		
8		
9	End of Test Pit at 8.0 Feet	
10		
11		
12		
13		
14		

NOTE:

Fig. 142

SESI CONSULTING

Definitions of Identification Terms for Granular Soils

Our experience has shown that the following field identification system, which is patterned somewhat after the Burmister System, permits a more detailed breakdown of the components within a soil sample than other identification systems allow. It also compels the supervising technician to examine a sample quite closely in order to accurately describe the components within the sample.

Principal Component (All Capitalized)

- GRAVEL — More than 50% of the sample by weight is Gravel
- SAND — More than 50% of the sample by weight is Sand
- SILT — More than 50% of the sample by weight is Silt

Minor Component (Proper Case)

- Gravel — Less than 50% of the sample by weight is Gravel
- Sand — Less than 50% of the sample by weight is Sand
- Silt — Less than 50% of the sample by weight is Silt

Proportion Terms

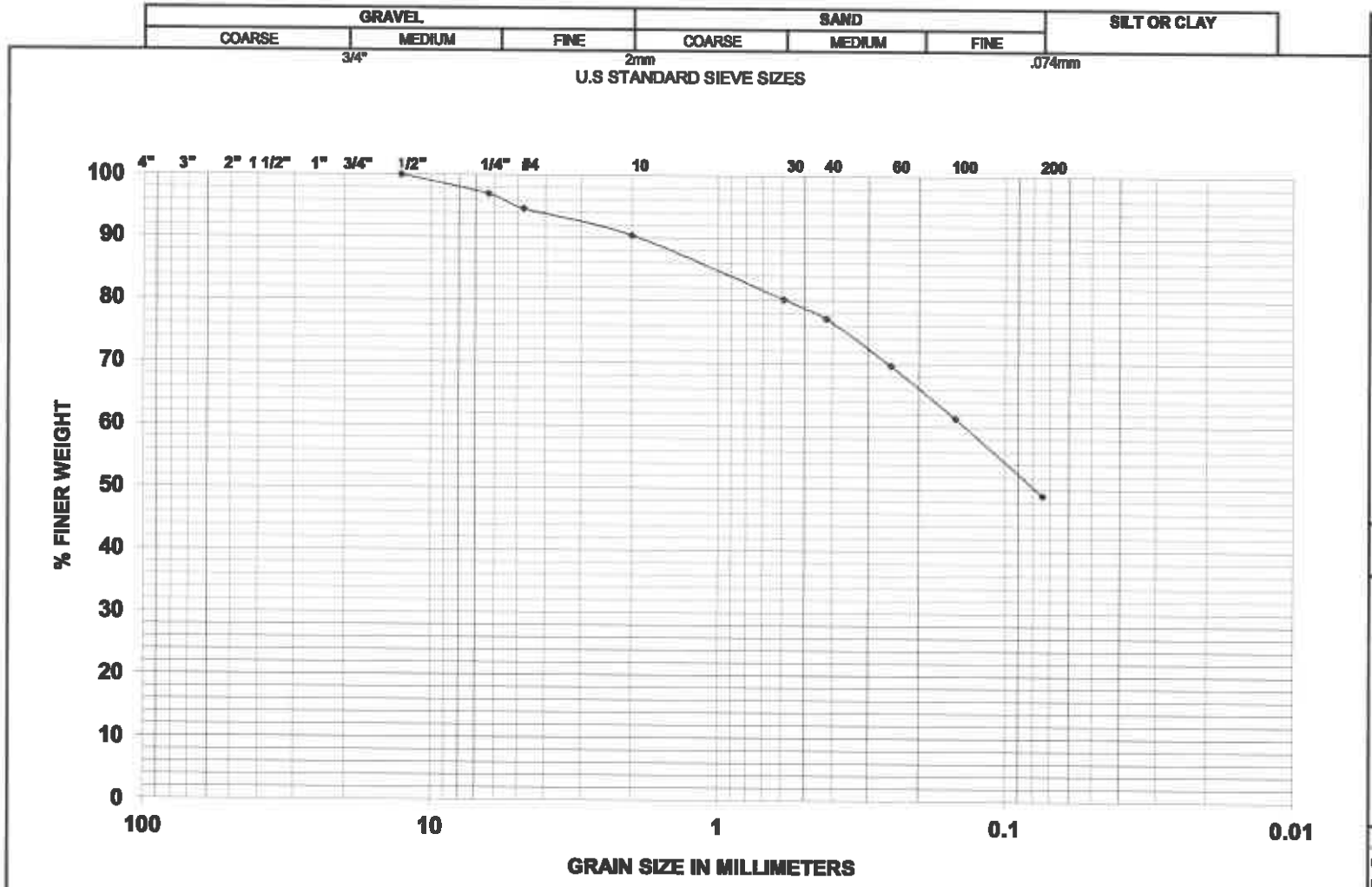
- and — Component ranges from 35% to 50% of the sample by weight
- some — Component ranges from 20% to 35% of the sample by weight
- little — Component ranges from 10% to 20% of the sample by weight
- trace — Component ranges from 0% to 10% of the sample by weight

Size of Soil Components

- Gravel
  - Coarse gravel ranges from 3 inches to 1 inch
  - Medium gravel ranges from 1 inch to 3/8 inch
  - Fine gravel ranges from 3/8 inch to No. 10 sieve
- Sand
  - Coarse sand ranges from No. 10 sieve to No. 30 sieve
  - Medium sand ranges from No. 30 sieve to No. 60 sieve
  - Fine sand ranges from No. 60 sieve to No. 200 sieve
- Silt
  - Material which passes the No. 200 sieve
- Clay
  - Material which passes the No. 200 sieve
  - Exhibits varying degrees of plasticity

Gradation Designations

- Coarse to fine (c-f) — All fractions greater than 10%of the component
- Coarse to medium (c-m) — Less than 10% of the component is fine
- Medium to fine (m-f) — Less than 10% of the component is coarse
- Coarse (c) — Less than 10% of the component is medium and fine
- Medium (m) — Less than 10% of the component is coarse and fine
- Fine (f) — Less than 10% of the component is coarse and medium



SYMBOL	DESCRIPTION AND REMARKS
◆	Light Brown Clayey Silt, and coarse to fine Sand, trace fine Gravel
■	
▲	

Symbol	◆	■	▲
Boring	SB-6		
Sample	S-2		
Depth	2-4'		
% +3"			
% Gravel	9.63		
% Sand	41.37		
% Fines	49.00		
% Silt			
% Clay			
Sp.G			
LL			
PL			
PI			
W (%)	13.1		

Particle Size Sieve #	Percent Finer Than
3"	-
1 1/2"	-
1"	-
3/4"	-
1/2"	100.00
1/4"	96.95
4	94.57
10	90.37
30	80.17
40	77.12
60	69.69
100	61.30
200	49.00

PARTICLE SIZE DISTRIBUTION

CLIENT:
PROJECT: Proposed Logistics Center
DATE: April 6, 2018
JOB NO. 9999 FIGURE No 144

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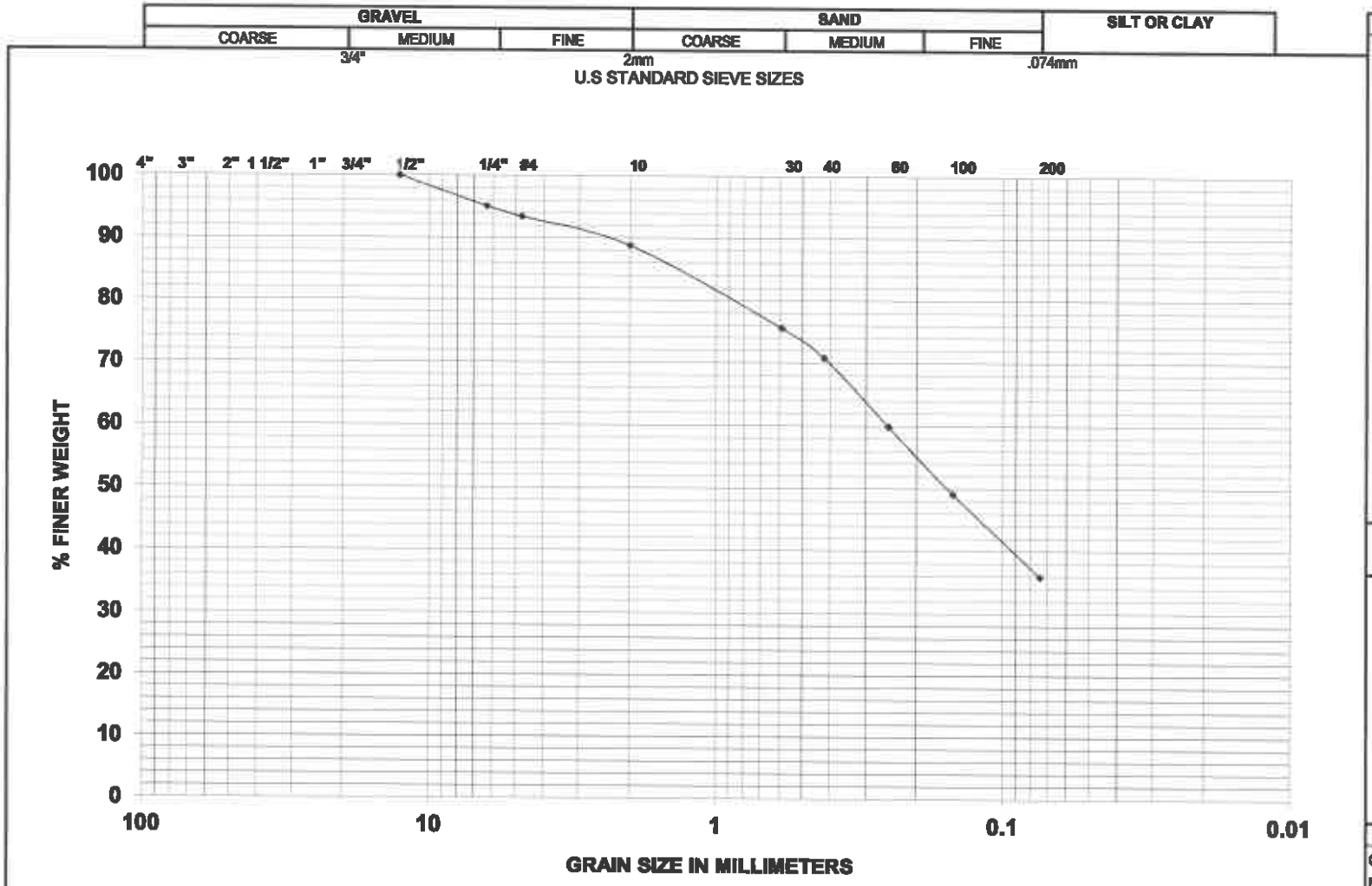

Symbol	◆	■	▲
Boring	SB-15		
Sample	S-4		
Depth	2-4'		
% +3"			
% Gravel	11.22		
% Sand	52.90		
% Fines	35.88		
% Silt			
% Clay			
Sp.G			
LL			
PL			
PI			
W (%)	14.2		

Particle Size Sieve #	Percent Finer Than
3"	-
1 1/2"	-
1"	-
3/4"	-
1/2"	100.00
1/4"	95.07
4	93.40
10	88.78
30	75.58
40	70.80
60	59.82
100	48.09
200	35.88

PARTICLE SIZE DISTRIBUTION

CLIENT:

PROJECT: Proposed Logistics Center

DATE: April 6, 2018

JOB NO. 9999 FIGURE No 145

SYMBOL	DESCRIPTION AND REMARKS
◆	Light Brown coarse to fine SAND, and Silt, little medium to fine Gravel
■	
▲	

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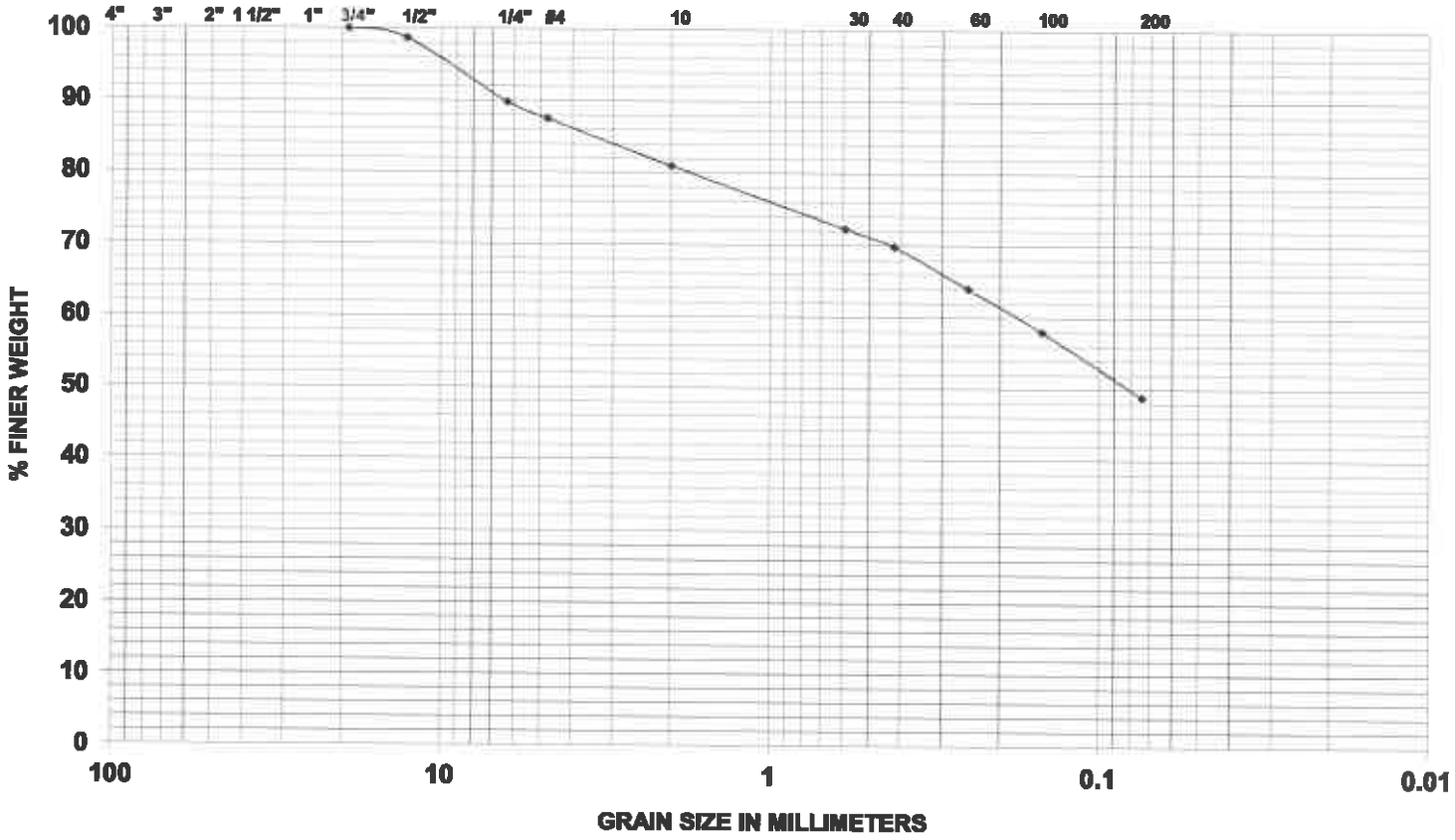
GRAVEL			SAND			SILT OR CLAY
COARSE	MEDIUM	FINE	COARSE	MEDIUM	FINE	

3/4" 2mm .074mm

U.S STANDARD SIEVE SIZES



Symbol	◆	■	▲
Boring	SB-16		
Sample	S-2		
Depth	5-7'		
% +3"			
% Gravel	19.01		
% Sand	32.17		
% Fines	48.82		
% Silt			
% Clay			
Sp.G			
LL			
PL			
PI			
W (%)	9.1		

Particle Size Sieve #	Percent Finer Than
3"	-
1 1/2"	-
1"	-
3/4"	100.00
1/2"	98.67
1/4"	89.79
4	87.50
10	80.99
30	72.28
40	69.82
60	63.98
100	57.99
200	48.82

SYMBOL	DESCRIPTION AND REMARKS
◆	Light Brown Silt, some coarse to fine Sand, little medium to fine Gravel
■	
▲	

PARTICLE SIZE DISTRIBUTION

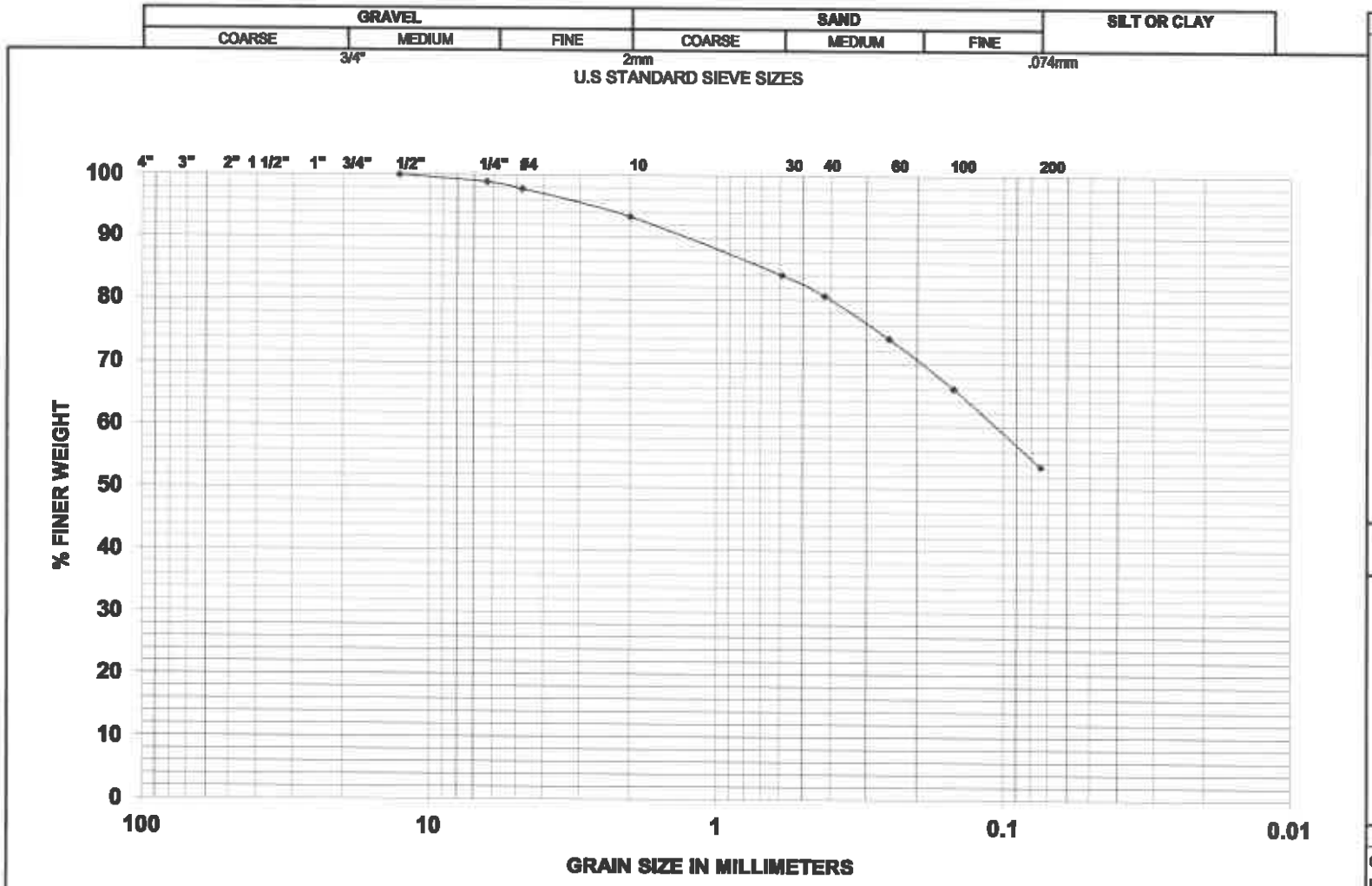
CLIENT:

PROJECT: Proposed Logistics Center

DATE: April 6, 2018

JOB NO. 9999 FIGURE No 146

SESI CONSULTING ENGINEERS



Symbol	◆	■	▲
Boring	TP-8		
Sample	S-1		
Depth	0.3-2.5'		
% +3"			
% Gravel	6.69		
% Sand	39.84		
% Fines	53.47		
% Silt			
% Clay			
Sp.G			
LL			
PL			
PI			
W (%)	15%		

Particle Size Sieve #	Percent Finer Than
3"	
1 1/2"	
1"	
3/4"	
1/2"	100.00
1/4"	98.87
4	97.78
10	93.31
30	83.99
40	80.71
60	73.95
100	66.05
200	53.47

PARTICLE SIZE DISTRIBUTION

CLIENT: Putnam Seabury Partners, LP
PROJECT: PNILC
DATE: March 6, 2018
JOB NO. 9999 FIGURE No 147

SYMBOL	DESCRIPTION AND REMARKS
◆	Light Brown SILT, and coarse to fine Sand, trace Gravel
■	
▲	

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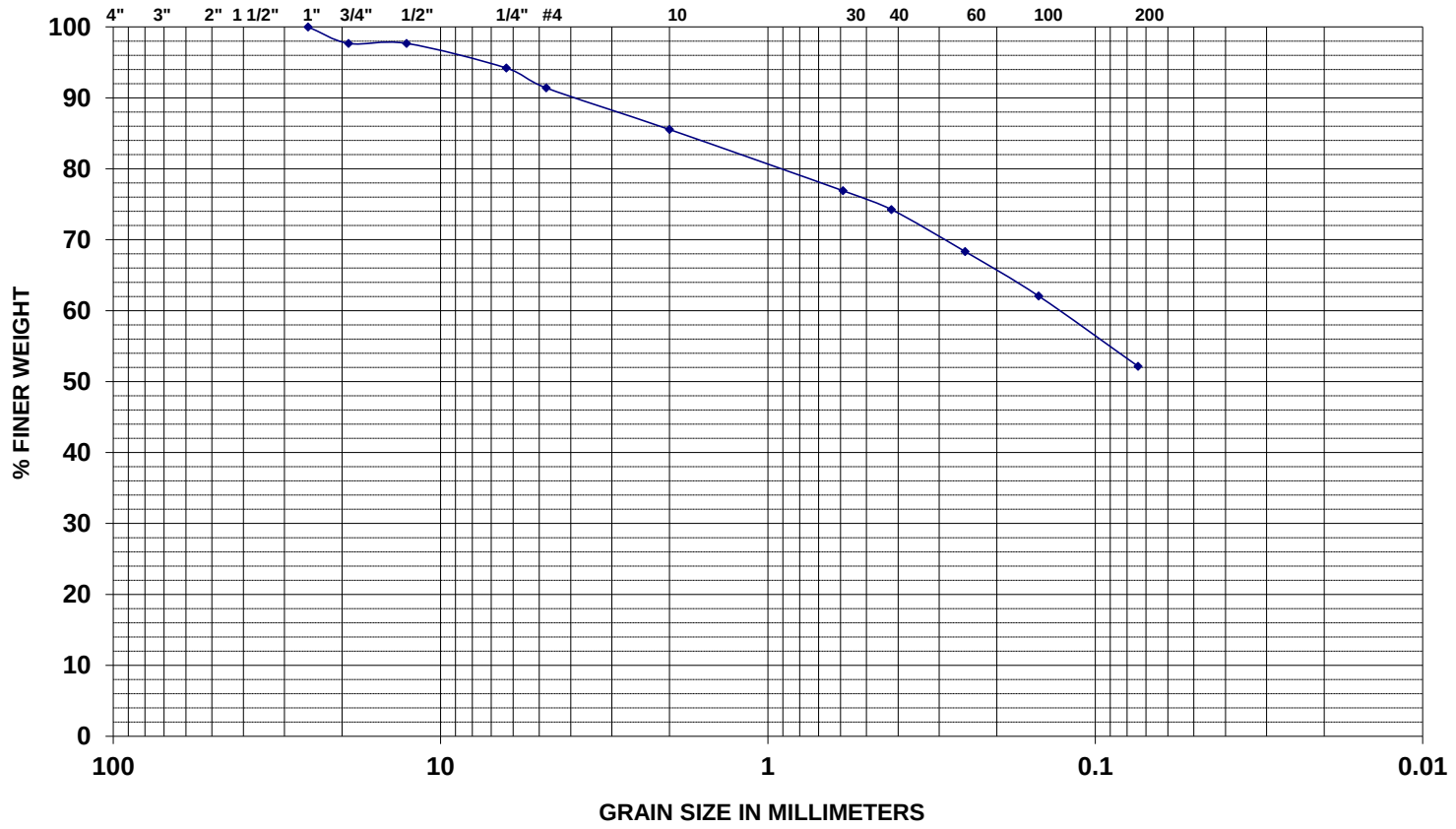
GRAVEL			SAND			SILT OR CLAY
COARSE	MEDIUM	FINE	COARSE	MEDIUM	FINE	

3/4" 2mm .074mm

U.S STANDARD SIEVE SIZES



Symbol	◆		
Boring	TP-A5		
Sample			
Depth	5.5-8'		
% +3"			
% Gravel	14.46		
% Sand	33.39		
% Fines	52.15		
% Silt			
% Clay			
Sp.G			
LL			
PL			
PI			
W (%)	11.1		

Particle Size Sieve #	Percent Finer Than
3"	-
1 1/2"	-
1"	100.00
3/4"	97.67
1/2"	97.67
1/4"	94.20
4	91.40
10	85.54
30	76.90
40	74.26
60	68.33
100	62.06
200	52.15

PARTICLE SIZE DISTRIBUTION

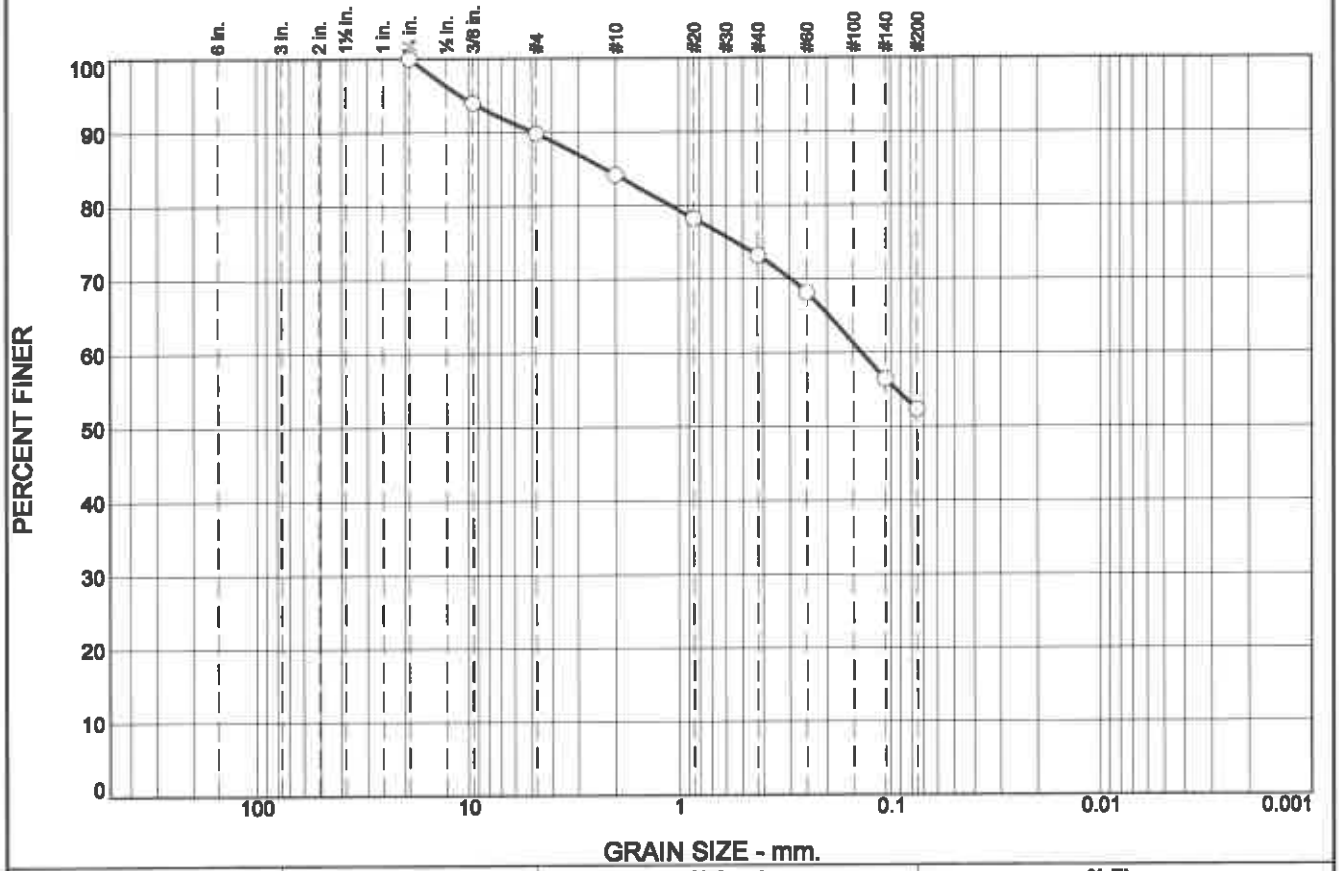
CLIENT: Putnam Seabury Partners, LP
PROJECT: Northeast Interstate Logistics
DATE: November 16, 2019
JOB NO. 9999 FIGURE No 148

SYMBOL	DESCRIPTION AND REMARKS
◆	Brown clayey SILT, some coarse tofine Sand, little fine Gravel

SESI CONSULTING ENGINEERS

APPENDIX

GRAIN SIZE DISTRIBUTION REPORT



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	10.2	5.6	11.0	20.9	52.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.75	100.0		
.375	94.0		
#4	89.8		
#10	84.2		
#20	78.2		
#40	73.2		
#60	68.2		
#140	56.5		
#200	52.3		

* (no specification provided)

Material Description

Light gray-brown sandy lean clay

Atterberg Limits

PL= 16 LL= 25 PI= 9

Coefficients

D_{90}= 4.9026 D_{85}= 2.2459 D_{60}= 0.1373
D_{50}= D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= CL AASHTO= A-4(2)

Remarks

Sample washed on #200 sieve
Moisture content=12.9%

Source of Sample: TP-8 **Depth:** 2.5-12 ft.
Sample Number: S-2

Date: 3-16-2018

SKYLANDS TESTING, LLC

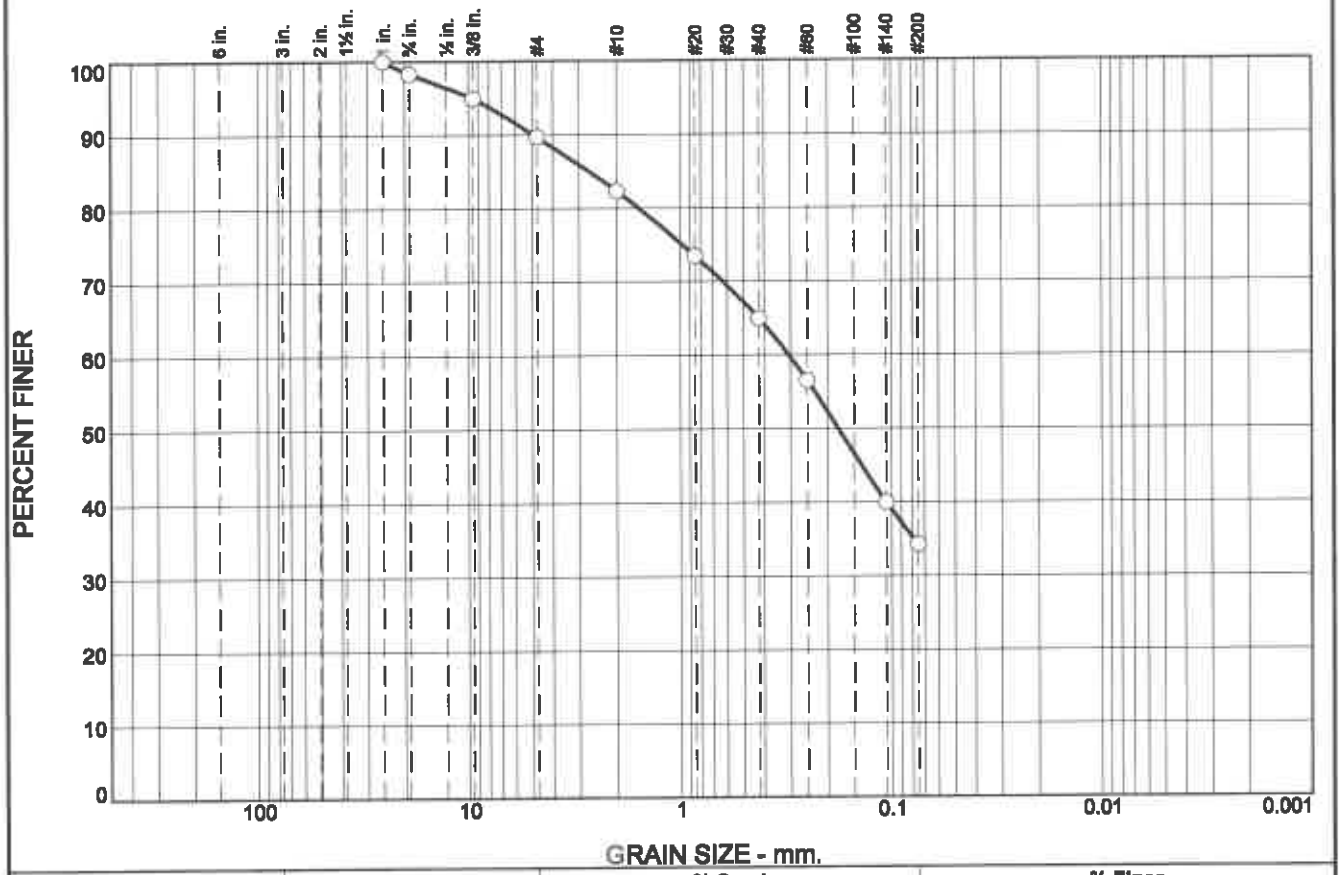
Sparta, NJ

Client: SESI Consulting Engineers
Project: Southeast, NY

Project No: 18-011 **Figure**

Tested By: EJS, AB **Checked By:** VRS

GRAIN SIZE DISTRIBUTION REPORT



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	1.7	8.6	7.4	17.3	30.8	34.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	98.3		
.375	94.9		
#4	89.7		
#10	82.3		
#20	73.5		
#40	65.0		
#60	56.5		
#140	40.0		
#200	34.2		

* (no specification provided)

Material Description

Brown silty sand; w/ trace(-) roots

Atterberg Limits

PL= NP LL= PI=

Coefficients

D_{90}= 4.9396 D_{85}= 2.6965 D_{60}= 0.3054
D_{50}= 0.1781 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Sample washed on #200 sieve
Moisture content=13.8%

Source of Sample: TP-15 **Depth:** 1-3 ft.
Sample Number: S-1

Date: 3-16-2018

SKYLANDS TESTING, LLC

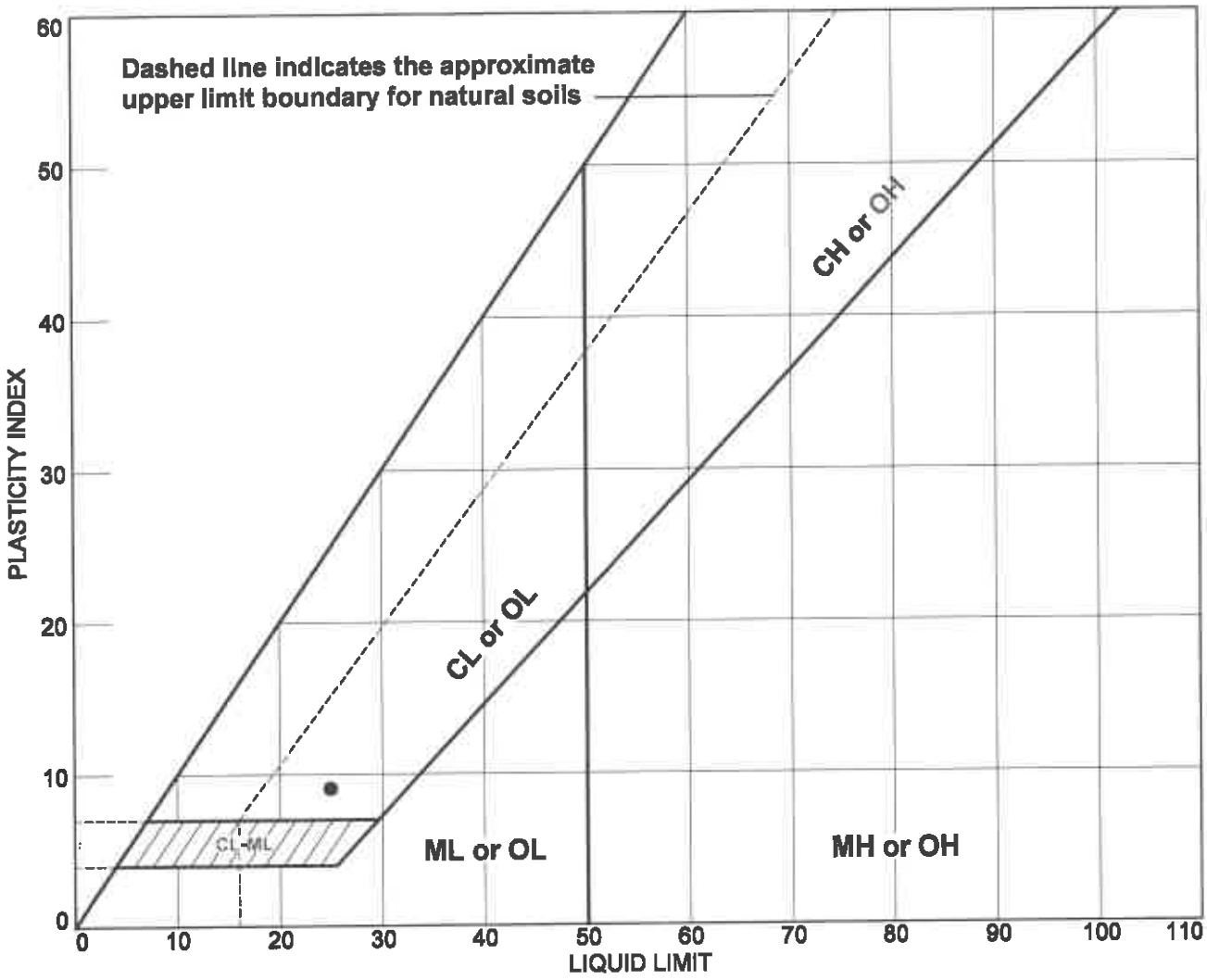
Sparta, NJ

Client: SESI Consulting Engineers
Project: Southeast, NY

Project No: 18-011 **Figure**

Tested By: EJS, AB **Checked By:** VRS

ATTERBERG LIMITS REPORT



SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	TP-8	S-2[1]	2.4-12 ft.	12.9	16	25	9	CL
■	TP-15	S-1[1]	1-3 ft.	13.8	NP			SM

Notes: 1 - sample washed on #40

SKYLANDS TESTING, LLC

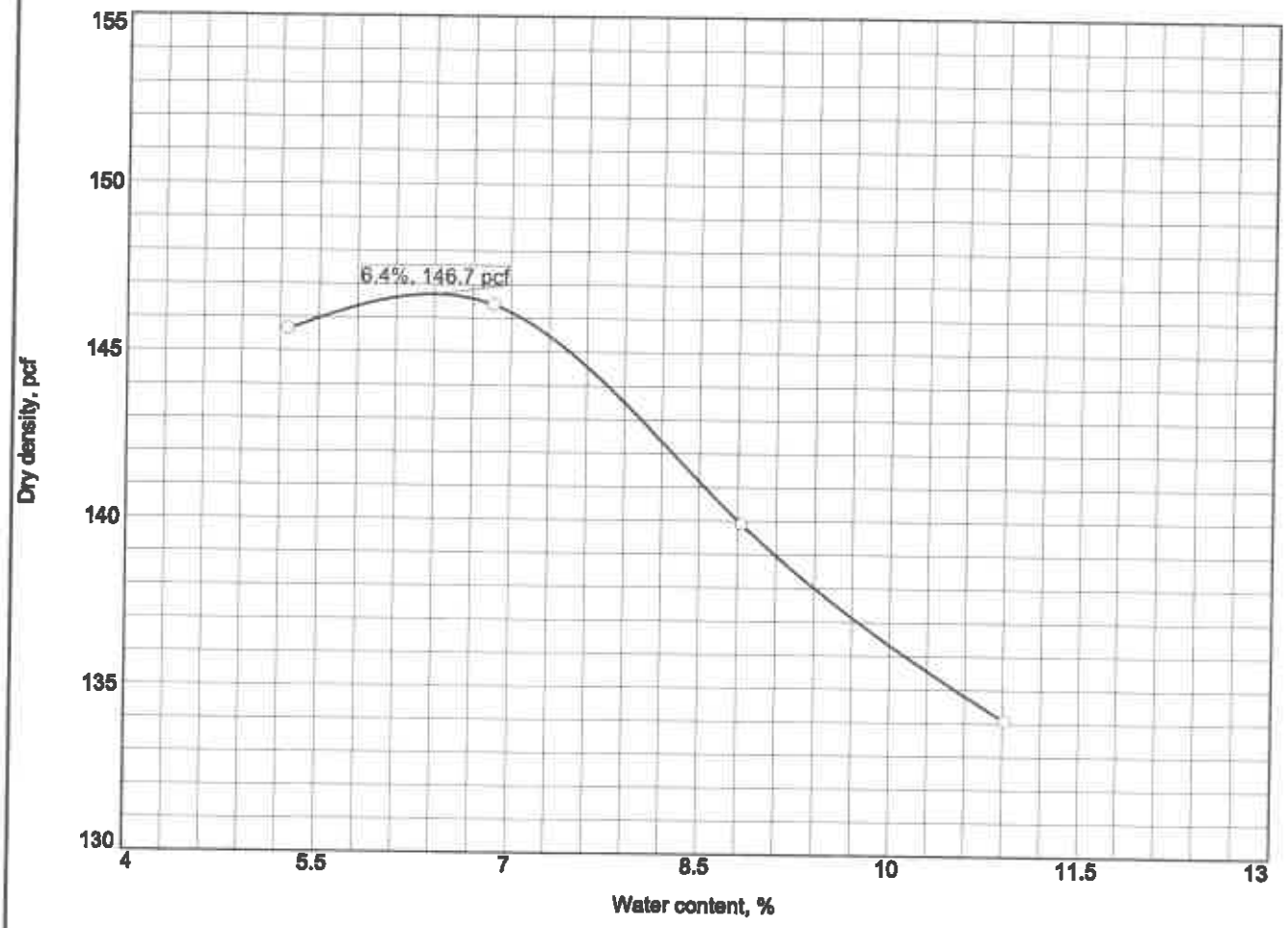
Sparta, NJ

Client: SESI Consulting Engineers
Project: Southeast, NY
Project No.: 18-011

Date: 3-16-2018
Figure

Tested By: EJS **Checked By:** VRS

COMPACTION TEST REPORT



Test specification: ASTM D 1557-12 Method B Modified
ASTM D4718-15 Oversize Corr. Applied to Each Test Point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.77			22	

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 146.7 pcf	140.7 pcf	Olive cmf Sand little, cf Gravel, trace Silt & Clay (visual)
Optimum moisture = 6.4 %	6.4 %	

Project No. 892 **Client:** SESI
Project: Proposed Logistic Center
SESI Job#09999 Phase 2
Location: Pugsley Road (S-1)

Remarks:
5-1-18
SG Assumed

RSA Geolab

Union, New Jersey

Figure

Tested By: MF **Checked By:** KP

RSA GEOLAB

CALIFORINIA BEARING RATIO

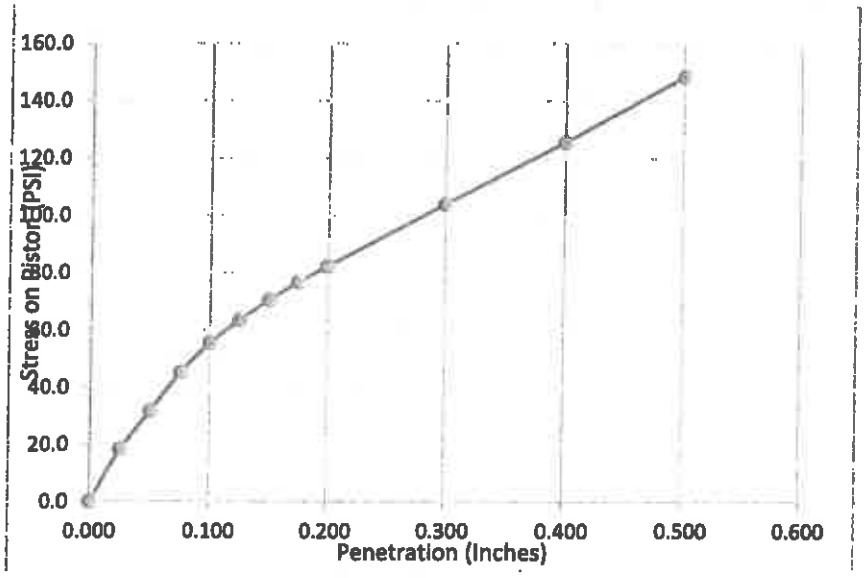
Project:	Propose Logistics Center	Project No.:	892
	SESI Job No. 09999 Phase 2	Lab Log #:	18-086
Client:	SESI Consulting Engineers	Date:	5-1-18

Sample: Pugsley Road (S-1) Blows/Layer: 10

Moisture Content		Dry Density:	126.2	pcf (initial)
		CBR Soaked' Yes		
Initial:	6.6 %	Soak Period	96	hrs.
Final:	10.8 %	Surcharge W·	10	lbs.
Final (Top 1"):	9.7 %	Swell:	0.27	%

Rate of Penetration: 0.05 in./min.

Penetration (inches)	Load lbs.	Corrected Load (lbs)	Stress (psi)	C.B. Ratio
0.000	-8.3	0.0	0.0	
0.025	46.3	54.6	18.3	
0.050	86.2	94.5	31.6	
0.075	126.8	135.1	45.2	
0.100	157.1	165.4	55.4	5.54
0.125	181.5	189.8	63.6	
0.150	202.2	210.5	70.5	
0.175	221.0	229.3	76.8	
0.200	237.2	245.5	82.2	5.48
0.300	302.0	310.3	103.9	
0.400	367.0	375.3	125.7	
0.500	435.4	443.7	148.6	



Tested By: EE Entered By: KH Checked By: KP

EM\NY-GL\CBR\SESI-pugsley10

RSA GEOLAB

CALIFORINIA BEARING RATIO

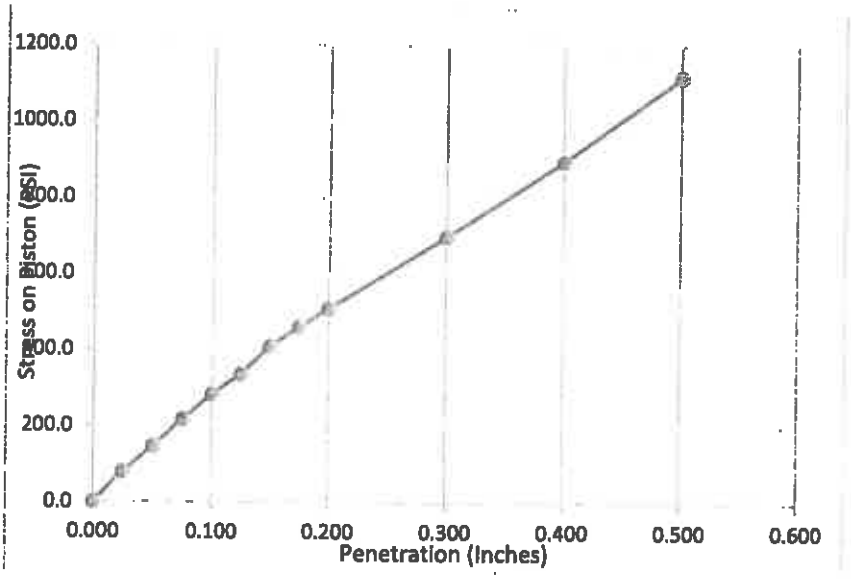
Project:	Propose Logistics Center	Project No.:	892
	SESI Job No. 09999 Phase 2	Lab Log #:	18-086
Client:	SESI Consulting Engineers	Date:	5-1-18

Sample: Pugsley Road (S-1) Blows/Layer: 25

Moisture Content		Dry Density:	135.3	pcf (initial)
		CBR Soaked	Yes	
Initial:	6.6 %	Soak Period	96	hrs.
Final:	8.4 %	Surcharge W	10	lbs.
inal (Top 1"):	8.1 %	Swell:	0.04	%

Rate of Penetration: 0.05 in./min.

Penetration (inches)	Load lbs.	Corrected Load (lbs)	Stress (psi)	C.B. Ratio
0.000	-8.3	0.0	0.0	
0.025	228.6	236.9	79.3	
0.050	429.6	437.9	146.6	
0.075	642.6	650.9	217.9	
0.100	836.6	844.9	282.9	28.29
0.125	995.6	1003.9	336.1	
0.150	1211.0	1219.3	408.3	
0.175	1370.0	1378.3	461.5	
0.200	1510.0	1518.3	508.4	33.89
0.300	2074.0	2082.3	697.2	
0.400	2665.0	2673.3	895.1	
0.500	3329.0	3337.3	1117.5	



Tested By: EE Entered By: KH Checked By: KP

EM\NY-GL\CBR\SESI-pugsley25

RSA GEOLAB

CALIFORINIA BEARING RATIO

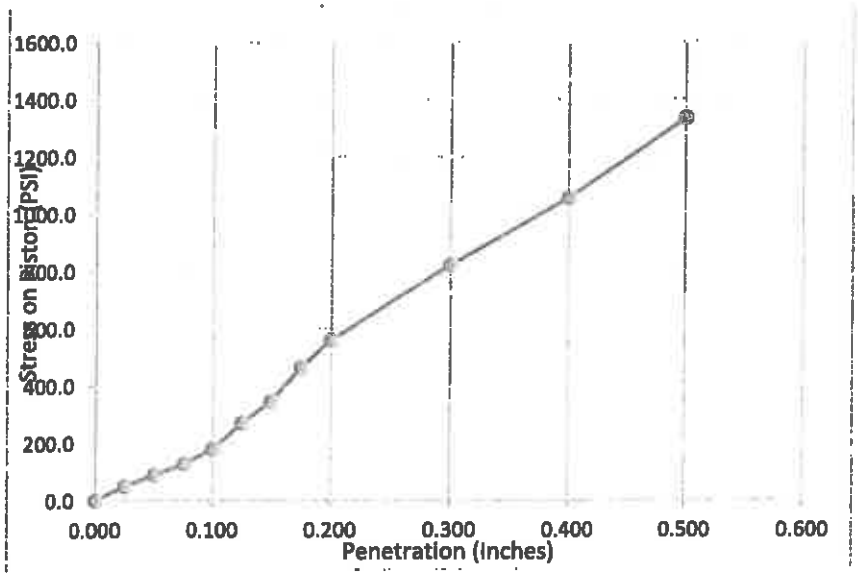
Project:	Propose Logistics Center	Project No.:	892
	SESI Job No. 09999 Phase 2	Lab Log #:	18-086
Client:	SESI Consulting Engineers	Date:	5-1-18

Sample: Pugsley Road (S-1) Blows/Layer: 56

Moisture Content		Dry Density:	138.9	pcf (initial)
		CBR Soaked' Yes		
Initial:	6.6 %	Soak Period	96	hrs.
Final:	9.6 %	Surcharge W	10	lbs.
inal (Top 1"):	7.9 %	Swell:	0.03	%

Rate of Penetration: 0.05 in./min.

Penetration (inches)	Load lbs.	Corrected Load (lbs)	Stress (psi)	C.B. Ratio
0.000	-8.3	0.0	0.0	
0.025	139.0	147.3	49.3	
0.050	255.0	263.3	88.2	
0.075	375.0	383.3	128.3	
0.100	525.0	533.3	178.6	17.86
0.125	796.0	804.3	269.3	
0.150	1022.0	1030.3	345.0	
0.175	1380.0	1388.3	464.9	
0.200	1663.0	1671.3	559.6	37.31
0.300	2445.0	2453.3	821.5	
0.400	3146.0	3154.3	1056.2	
0.500	3975.0	3983.3	1333.8	



Tested By: EE Entered By: KH Checked By: KP

EM\NY-GL\CBR\SESI-pugsley56

RSA Geolab

Expansion Index of Soils

ASTM D4829

Project:	Proposed Logistics Center SESI Job No. 09999 Phase 2	Proj. No.	892
Client:	SESI Consulting Engineers	Date:	5-1-18
Sample:	TP-16		

Initial Moisture:	6.0 %	Ring Wt:	204.94 gms.
Initial Wet Wt:	174.66 gms.	Initial Ht:	1.000 in
Initial Dry Unit Wt:	127.87 pcf	Specific Gravity: (assumed)	2.7
Initial Saturation:	51.35 %	Final Wt:	182.11 gms
		Dry Wt:	164.77 gms

Expansion Test Data

Initial Dial Reading:	0.000 mm	Final Moisture:	10.5 %
Final Dial Reading:	0.548 mm		

Expansion Index (EI): 22

Tested by: EE Entered by: KH Checked by: KP

SESI
CONSULTING
ENGINEERS

Geotechnical
Foundations
Land Planning
Geo-Structural
Environmental
Water Resources

Principals:

Steven P. Byszewski, PE, PP
Anthony Castillo, PE
Fuad Dahan, PhD, PE, LSRP
Roger Hendrickson
John M. Nederfield, PE
Justin M. Protasiewicz, PE
Kenneth Quazza, PE
Michael St. Pierre, PE

May 23, 2018 *via email:* HSchulweis@nianticpartners.com

Harvey Schulweis
Putnam Seabury Partners, LP
287 King Street
Chappaqua, NY 10514

RE: **Pavement Design Analysis**
Proposed Northeast Interstate Logistics Center
Town of Southeast, New York
SESI Project No. 9999

Dear Mr. Schulweis:

SESI Consulting Engineers is pleased to submit this Pavement Design and Equivalent Section Analysis for the subject project. Based on our experience in projects of this type, and based on your particular concerns, we have outlined the appropriate design that we believe will fit your needs.

If you have any questions, please call.

Sincerely,

SESI CONSULTING ENGINEERS D.P.C.

Michael St. Pierre, P.E.
Vice President

Cc: David P. Lombardi, P.E. (JMC) via email: DLombardi@jmcplic.com

Encl: ***Pavement Design dated May 23, 2018***

N:\PROJECTS\9999 \Calculations\9999 PAVEMENT DESIGN_05232018.doc

PROPOSED NORTHEAST INTERSTATE LOGISTICS CENTER
SOUTHEAST, NY
SESI JOB #9999

PAVEMENT DESIGN (Car and Tractor Trailer Traffic)

Proposed Traffic (Provided)

Loaded: 3,490 Average Cars per day x 365 days per year = 1,273,850 vehicles per year
510 Delivery Trucks per day x 365 days per year = 186,150 vehicles per year

Subgrade Conditions – From SESI Draft Report Dated 4/11/2018

Compacted onsite material (silty sandy soils)

Estimated California Bearing Ratio (CBR): 5-10% (Use conservative CBR = 5% for design purposes)

Asphalt Institute - "Asphalt Pavements for Highways & Streets" (MS-1, 10th Edition)

M_R = CBR x 1500psi = 5 x 1500psi = 7,500psi = $7.5x10^3$ psi

Design Load Equivalency Factors for 10, 15, and 20 years (5% growth factor)

Car Load Equivalency Factor (EAL) = 0.00036 (gross weight = 4,000lbs)
Truck Load Equivalency Factor (EAL) = 2.39 (gross weight = 80,000lbs)

Design EAL with 5% Growth factor

- 10 years: [(1,273,850 x 0.00036) + (186,150 x 2.39)] x 12.58 = 5.6×10^6
- 15 years: [(1,273,850 x 0.00036) + (186,150 x 2.39)] x 21.58 = 9.6×10^6
- 20 years: [(1,273,850 x 0.00036) + (186,150 x 2.39)] x 33.06 = 14.7×10^7

Pavement Thickness (Full-Depth Asphalt Concrete - Design Chart A-19)

- 10 years:
  M_R = 7,500psi; EAL = 5.6×10^6 =11.0 inch minimum pavement thickness
- 15 years:
  M_R = 7,500psi; EAL = 9.6×10^6 = 12.0 inch minimum pavement thickness
- 20 years:
  M_R = 7,500psi; EAL = 14.7×10^7 = 12.5 inch minimum pavement thickness

10 Year Pavement Thickness (Equivalent Section)

Road Surface
2" Top Coarse - Asphalt Concrete, Type 6F – Item 403.17
5" Binder Course - Asphalt Concrete, Type 3 – Item 403.13
12.5" Base/Subbase Course - Subbase, Type 4 – Item No. 304.05
Compacted Soils

15 Year Pavement Thickness (Equivalent Section)

Road Surface

2" Top Coarse - Asphalt Concrete, Type 6F - Item 403.17

5" Binder Course - Asphalt Concrete, Type 3 – Item 403.13

16" Base/Subbase Course - Subbase, Type 4 – Item No. 304.05

Compacted Soils

20 Year Pavement Thickness (Equivalent Section)

Road Surface

2" Top Coarse - Asphalt Concrete, Type 6F - Item 403.17

5" Binder Course - Asphalt Concrete, Type 3 - Item 403.13

17.5" Base/Subbase Course - Subbase, Type 4 – Item No. 304.05

Compacted Soils

Minimum Town Pavement Section

Road Surface

2" Top Coarse - Asphalt Concrete, Type 6F - Item 403.17

5" Binder Course - Asphalt Concrete, Type 3 - Item 403.13

12" Base/Subbase Course - Subbase, Type 4 – Item No. 304.05

Compacted Soils

It should be noted that the Equivalent Pavement Sections designed by SESI above are greater than the minimum required by the Township.

We have also provided the following pavement sections using TriAx TX8 geogrid produced by Tensar. The cost for the TriAx TX8 is approximately $4/SY.

10 Year Pavement Thickness (Equivalent Section)

Road Surface

2" Top Coarse - Asphalt Concrete, Type 6F – Item 403.17

2.5" Binder Course - Asphalt Concrete, Type 3 – Item 403.13

8" Base/Subbase Course - Subbase, Type 4 – Item No. 304.05

TX8 Geogrid

Compacted Soils

15 Year Pavement Thickness (Equivalent Section)

Road Surface

2" Top Coarse - Asphalt Concrete, Type 6F – Item 403.17

2.5" Binder Course - Asphalt Concrete, Type 3 – Item 403.13

10" Base/Subbase Course - Subbase, Type 4 – Item No. 304.05

TX8 Geogrid

Compacted Soils

20 Year Pavement Thickness (Equivalent Section)

Road Surface

2" Top Coarse - Asphalt Concrete, Type 6F – Item 403.17

3" Binder Course - Asphalt Concrete, Type 3 – Item 403.13

12" Base/Subbase Course - Subbase, Type 4 – Item No. 304.05

TX8 Geogrid

Compacted Soils

APPENDIX B

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-20A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	625 ±	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 7' ±		DATE EXCAVATED	10/29/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light brown SILT, and coarse to fine Sand, trace Gravel with Cobbles	Medium Stiff
2		
3	Brown Clayey Silt, and coarse to fine Sand, little coarse to fine Gravel with Cobbles and Boulders Infiltration Rate at el. 622 = 9 in/hr	Medium Stiff
4		
5		
6	...Same Mottled (Observed decomposed Mica Schist)	Medium Stiff to Stiff
7		
8		
9		
10	End of Test Pit at 9 ± Feet	
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	**PROJECT**	Prop. Logistics Center	**TEST PIT NO.**	**TP-27**
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	632 ±	**INSPECTED BY**	RR
WATER OBSERVATION	Not Encountered			**DATE EXCAVATED**	10/29/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2 inch Topsoil	
1	Brown coarse to fine Sand, and Silt, little medium to fine Gravel with occasional Cobbles and Boulders	Medium Dense
2		
3	Infiltration Rate at el. 629 = 15.0 in/hr	
4		
5	Same... Mottled Silt	Medium Dense
6		
7		
8		
9		
10	End of Test Pit at 10 ± Feet	
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-27A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	634 ±	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	10/29/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2 inch Topsoil	
1	Brown coarse to fine Sand, and Silt, little coars to fine Gravel with occasional Cobbles and Boulders	Medium Dense
2		
3		
4		
5	Infiltration Rate at el. 629.5 = 15.0 in/hr	
6	Same... Mottled SILT	Medium Stiff
7		
8		
9		
10		
11	End of Test Pit at 10 ± Feet	
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-34A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	600 ±	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 9' ±		DATE EXCAVATED	10/31/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2 inch Topsoil	
1	Brown coarse to fine Sand, and Silt, little medium to fine Gravel with occasional Cobbles and Boulders	Medium Dense
6	Same... Mottled Silt	Medium Dense
9	End of Test Pit at 9 ± Feet	
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-35A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	599 ±	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 8' ±		DATE EXCAVATED	10/31/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2 inch Topsoil	
1	Brown coarse to fine Sand, and Silt, little coarse to fine Gravel with occasional Cobbles and Boulders	Medium Dense
5	Same... Mottled Silt	Medium Dense
9	End of Test Pit at 9.5 ± Feet	
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-37A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	607 ±	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 6' ±		DATE EXCAVATED	10/31/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4 inch Topsoil	
1	Brown coarse to fine Sand, and Silt, little medium to fine Gravel with occassional Cobbles and Boulders	Medium Dense
4	Same... Mottled Silt	Medium Dense
8	End of Test Pit at 8 ± Feet	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-39A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	608 ±	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 6.5' ±		DATE EXCAVATED	10/31/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3 inch Topsoil	
1	Brown Silt, and coarse to fine Sand, little medium to fine Gravel with occasional Cobbles and Boulders	Medium Stiff
4	Same... Mottled Silt	Medium Stiff
7	End of Test Pit at 7 ± Feet	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-49A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	588 ±	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 8' ±		DATE EXCAVATED	10/31/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3 inch Topsoil	
1	Brown Silt, and coarse to fine Sand, little medium to fine Gravel with occasional Cobbles and Boulders	Medium Stiff
5	Same... Mottled Silt	Medium Stiff
11	End of Test Pit at 11 ± Feet	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-50A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	588 ±	INSPECTED BY	RR
WATER OBSERVATION		Light Seepage at 8' ±		DATE EXCAVATED	10/31/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	Brown clayey Silt, and coarse to fine Sand, little medium to fine Gravel with occasional Cobbles and Boulders	Medium Stiff
4	Same... Mottled clayey Silt	Medium Stiff
8	End of Test Pit at 8 ± Feet	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-301
LOCATION	SEE FIGURE 1	APPROX. ELEV.	555'±	INSPECTED BY	RR
WATER OBSERVATION		Not Encountered		DATE EXCAVATED	9/14/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3" Topsoil	
1 – 2	Fill- Light Brown/Gray coarse to fine Sand, some Silt, little medium to fine Gravel, with occasional cobble, brick, and concrete	Loose
3 – 4	Possible Fill- Light Brown coarse to fine Sand, some Silt, little medium to fine Gravel, with occasional cobbles	Loose
5	Topsoil	
6	Orange brown clayey Silt, some medium to fine Sand, trace Gravel	Medium-Stiff
7 – 8 – 9	Brown medium to fine Sand, some Silt, trace Gravel	Medium-Dense
10 – 11 – 12 – 13 – 14	End of Test Pit at 9.0± Feet	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-302
LOCATION	SEE FIGURE 1	APPROX. ELEV.	596'±	INSPECTED BY	RR
WATER OBSERVATION		Not Encountered		DATE EXCAVATED	9/14/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0 – 3	Light Brown medium to fine Sand, some Silt, little Gravel, with occasional boulders	Medium-Dense
3 – 5	Brown medium to fine Sand, some Silt, little Gravel, with occasional boulder	Medium-Dense
6 – 14	End of Test Pit at 5.5± Feet	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-303
LOCATION	SEE FIGURE 1	APPROX. ELEV.	618'±	INSPECTED BY	RR
WATER OBSERVATION		Not Encountered		DATE EXCAVATED	9/14/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	Light Brown medium to fine Sand, and Silt, little medium to fine Gravel, with occasional cobbles and boulders	Medium-Dense
5	End of Test Pit at 5± Feet	
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-304
LOCATION	SEE FIGURE 1	APPROX. ELEV.	616'±	INSPECTED BY	RR
WATER OBSERVATION		Not Encountered		DATE EXCAVATED	9/14/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0 – 5	Light Brown medium to fine Sand, some Silt, trace Gravel, with occasional cobbles and boulders	Medium-Dense
5 – 14	End of Test Pit at 5± Feet	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-305
LOCATION	SEE FIGURE 1	APPROX. ELEV.	618'±	INSPECTED BY	RR
WATER OBSERVATION		Not Encountered		DATE EXCAVATED	9/14/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0 – 6	Light Brown medium to fine Sand, some Silt, trace Gravel, with occasional cobbles and boulders	Medium-Dense
6 – 14	End of Test Pit at 6± Feet	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-306
LOCATION	SEE FIGURE 1	APPROX. ELEV.	618'±	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	9/14/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2-Inches Topsoil	
1	Light Brown Silt, some coarse to fine Sand, trace Gravel	Stiff
2		
3		
4	Infiltration Rate = 10 in/hr @ El. 614'±	
5		
6		
7	Light Bown mottled Silt, some medium to fine Sand, little medium to fine Gravel with weathered boulders	Very Stiff
8		
9		
10	End of Test Pit at 9.0± Feet	
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-307
LOCATION	SEE FIGURE 1	APPROX. ELEV.	616'±	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	9/14/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0 – 4	Light Brown medium to fine SAND, and Silt, trace Gravel Infiltration Rate= 8 in/hr @ El. 616'±	Medium-Dense
5 – 9	Same with some mottled Silt and occasional boulder	Dense
9	End of Test Pit at 9± Feet	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-401
LOCATION	SEE FIGURE 1	APPROX. ELEV.	568.5'±	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	9/17/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2-Inch Topsoil	
1	Light Brown medium to fine SAND, and Silt, trace Gravel, with occasional cobbles	Medium-Dense
2		
3	Light Brown to Brown medium to fine SAND, some Silt, trace Gravel, with occasional cobbles and boulders	Medium-Dense to Dense
4		
5		
6	...Same with mottled Silt	
7		
8		
9		
10	End of Test Pit at 9± Feet	
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	**PROJECT**	Prop. Logistics Center	**TEST PIT NO.**	TP-402
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	595.5'±	**INSPECTED BY**	RR
WATER OBSERVATION	Not Encountered			**DATE EXCAVATED**	9/17/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2-Inch Topsoil	
1	Light Brown medium to fine Sand, and clayey Silt, trace Gravel, with occasional cobbles and boulders	Medium-Dense
2		
3		
4	Light Brown to Brown medium to fine SAND, some Silt, trace Gravel, with occasional cobbles and boulders	Medium-Dense
5	...Same with mottled Silt	to
6		Dense
7		
8		
9		
10		
11	End of Test Pit at 10± Feet	
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-403
LOCATION	SEE FIGURE 1	APPROX. ELEV.	634'±	INSPECTED BY	RR
WATER OBSERVATION		Not Encountered		DATE EXCAVATED	9/17/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3-Inch Topsoil	
1	Light Brown clayey Silt, and medium to fine Sand, little medium to fine Gravel, with occasional cobbles and boulders	Medium-Stiff
2	Infiltration Rate = 15 in/hr @ El. 632±'	
3		
4		
5	Brown medium to fine SAND, some mottled clayey Silt, trace Gravel, with occasional cobbles and boulders	Medium-Dense to Dense
6		
7		
8		
9		
10		
11	End of Test Pit at 11± Feet	
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-404
LOCATION	SEE FIGURE 1	APPROX. ELEV.	632 ±	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	10/29/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	Brown coarse to fine Sand, and Silt, little coarse to fine Gravel with occasional Cobbles and Boulders	Medium Dense
1		
2		
3	Infiltration Rate at el. 629 = 10.25 in/hr	
4		
5	Same... Mottled Silt	Medium Dense
6		
7		
8		
9		
10	End of Test Pit at 9 ± Feet	
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-404A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	632	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	10/29/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3-inch topsoil	
1	Brown medium to fine Sand, and Silt, little medium to fine Gravel with occasional Cobbles and Boulders	Medium Dense
2		
3	Infiltration Rate at el. 629 = 7 inches/hour	
4		
5	Same... Mottled Silt	Medium Dense
6		
7		
8		
9	End of Test Pit at 9 ± Feet	
10		
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-405
LOCATION	SEE FIGURE 1	APPROX. ELEV.	634.75'±	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	9/17/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3-inch Topsoil	
	Light Brown clayey Silt, some medium to fine Sand, trace Gravel	Medium-Stiff
1		
2		
3		
4	Infiltration Rate = 6 in/hr @ El. 631.75±'	
5	...Same with mottled clayey Silt	
6		
7		
8		
9		
10	End of Test Pit at 10± Feet	
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	TP-406
LOCATION	SEE FIGURE 1	APPROX. ELEV.	632'±	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	9/17/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3" Topsoil	
1	Light Brown clayey Silt, some coarse to fine Sand, trace Gravel	Medium Stiff
2		
3		
4	Infiltration Rate = 5 in/hr @ El. 629±'	
5	...Same with mottled clayey Silt	
6		
7		
8		
9		
10	End of Test Pit at 10 ± Feet	
11		
12		
13		
14		

NOTE:

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-407
LOCATION	SEE FIGURE 1	APPROX. ELEV.	625	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 8 Feet ±		DATE EXCAVATED	10/29/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3-inch topsoil	
	Brown medium to fine Sand, and Silt, little medium to fine Gravel	Medium Dense
1		
2		
3	Infiltration Rate at el. 622 = 12.0 Inches/hour	
4		
5	Brown Mottled Silt, and medium to fine Sand,	Medium Stiff
	little coarse to fine Gravel with boulders and cobbles	
6		
7		
8		
9		
	End of Test Pit at 9 ± Feet	
10		
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	**PROJECT**	Prop. Logistics Center	**TEST PIT NO.**	TP-408
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	604 ±	**INSPECTED BY**	RR
WATER OBSERVATION		Not Encountered		**DATE EXCAVATED**	9/17/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2-Inch Topsoil	
1	Light Brown clayey SILT, some medium to fine Sand, trace Gravel	Medium Stiff
2		to
3		
4	...Same with mottled clayey Silt	Stiff
5		
6		
7		
8	End of Test Pit at 8 ± Feet	
9		
10		
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-409
LOCATION	SEE FIGURE 1	APPROX. ELEV.	642 ±	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	9/17/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2-inch Topsoil	
1	Light Brown clayey SILT, some medium to fine Sand, trace Gravel	Medium Stiff
2	Infiltration Rate = 6 in/hr @ El. 640±'	
3		to
4	...Same with mottled clayey Silt	Stiff
5		
6		
7		
8		
9	End of Test Pit at 8 ± Feet	
10		
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	**PROJECT**	Prop. Logistics Center	**TEST PIT NO.**	TP-410
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	644 ±	**INSPECTED BY**	RR
WATER OBSERVATION		Seepage @ 6±'		**DATE EXCAVATED**	9/21/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3-Inch Topsoil	
1	Light Brown SILT, and medium to fine Sand, trace Gravel	Medium Stiff
2	Infiltration Rate = 10in/hr @ El. 642±'	
3		
4		
5	Brown medium to fine Sand, and mottled Silt, little medium to fine Gravel, with occasional Cobbles and Boulders (Weathered Schist)	Medium Dense
6		
7		
8		
9		
10		
11	End of Test Pit at 10 ± Feet	
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-411
LOCATION	SEE FIGURE 1	APPROX. ELEV.		INSPECTED BY	RR
WATER OBSERVATION		Light Seepage at 8'+/-		DATE EXCAVATED	9/21/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2" Topsoil with light brown medium to fine Sand, and Silt, trace Gravel	
1	Light brown SILT, and medium to fine Sand, trace Gravel with Boulders	Medium Stiff
2		
3		
4		
5		
6		
7	Brown mottled medium to fine SAND, and Silt, little medium to fine Gravel with occasional Cobbles	Medium Dense
8		
9		
10		
11	End of Test Pit at 10'±	
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-412
LOCATION	SEE FIGURE 1	APPROX. ELEV.	625 ±	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	10/29/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3 inch Topsoil	
1	Brown coarse to fine Sand, and Silt, little medium to fine Gravel	Medium Dense
2		
3	Infiltration Rate at el. 622 = 10.25 in/hr	
4		
5	Same... Mottled Silt	
6		
7		
8		
9		
10	End of Test Pit at 9 ± Feet	
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-413
LOCATION	SEE FIGURE 1	APPROX. ELEV.	625 ±	INSPECTED BY	RR
WATER OBSERVATION		Seepage at 7 ±		DATE EXCAVATED	10/29/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2-inch topsoil	
1	Brown coarse to fine Sand, and Silt, little medium to fine Gravel with occasional Cobbles and Boulder	Medium Dense
4	Same... Mottled Silt	Medium Dense
9	End of Test Pit at 9 ± Feet	
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999.4.1	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-413A
LOCATION	SEE FIGURE 1	APPROX. ELEV.	625 ±	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	10/29/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2-inch topsoil	
1	Brown medium to fine Sand, and Silt, little medium to fine Gravel with occasional Cobbles and Boulders	Medium Dense
2		
3	Infiltration Rate at el. 622 = 12 in/hr	
4		
5	Brown Mottled Silt, and coarse to fine Sand, little medium to fine Gravel	Medium Stiff
6		
7		
8		
9	End of Test Pit at 9 ± Feet	
10		
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-414
LOCATION	SEE FIGURE 1	APPROX. ELEV.		INSPECTED BY	RR
WATER OBSERVATION		NE		DATE EXCAVATED	9/21/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2" Topsoil	
1	Light brown SILT, and medium to fine Sand, trace Gravel with occasional cobbles	Medium Stiff
2		
3		
4		
5		
6	Brown medium to fine SAND, and Silt, little mottled medium to fine Gravel with occasional Cobbles and Boulders	Medium Dense
7		
8		
9		
10		
11	End of Test Pit at 10'±	
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-416
LOCATION	SEE FIGURE 1	APPROX. ELEV.		INSPECTED BY	RR
WATER OBSERVATION		NE		DATE EXCAVATED	9/21/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2" Topsoil	
1 – 5	Light Brown SILT, and medium to fine Sand	Medium Stiff
6 – 10	Brown mottled medium to fine SAND, and Silt, little medium to fine Gravel with occasional Cobbles and Boulders	Medium Dense
11 – 14	End of Test Pit at 10'±	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	**PROJECT**	Prop. Logistics Center	**TEST PIT NO.**	TP-416
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**		**INSPECTED BY**	RR
WATER OBSERVATION	Seepage @ 4' ±			**DATE EXCAVATED**	9/21/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2" Topsoil	
1 – 4	Light brown SILT, and medium to fine Sand, trace Gravel	Medium Stiff
5 – 10	Brown mottled medium to fine SAND, and Silt, little medium to fine Gravel with occasional Cobbles and Boulders	Medium Dense
11 – 14	End of Test Pit at 10'±	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-601
LOCATION	SEE FIGURE 1	APPROX. ELEV.		INSPECTED BY	RR/UK
WATER OBSERVATION	Heavy Seepage @ 5.0'±/ Seepage @ 3.0'±			DATE EXCAVATED	10/3/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2-Inch Topsoil	
1	Light Brown Silt and medium to fine Sand, trace Gravel with occasional cobbles	Med. Soft
2		
3		
4	Brown Sand and mottled Silt, trace Gravel with occasional cobbles and boulders	Med. Dense
5		
6		
7		
8		
9	END OF TEST PIT AT 8 FEET ±	
10		
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-502
LOCATION	SEE FIGURE 1	APPROX. ELEV.		INSPECTED BY	RR
WATER OBSERVATION	Seepage @ 3.5'±/ Heavy Seepage @ 5.5'±			DATE EXCAVATED	10/3/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0 – 3	Light Brown Silt and medium to fine Sand, trace Gravel	Med. Soft
4 – 8	Brown medium to fine Sand and mottled Silt, trace Gravel	Med. Dense
9 – 14	END OF TEST PIT AT 9 FEET ±	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-901
LOCATION	SEE FIGURE 1	APPROX. ELEV.		INSPECTED BY	RR
WATER OBSERVATION		Seepage @ 9.0'±		DATE EXCAVATED	10/3/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2-inch Topsoil	
1	Light Brown Silt, and medium to fine Sand, trace Gravel with occasional cobbles	Med. Stiff
2		
3		
4		
5	Brown medium to fine Sand and mottled Silt, trace Gravel with occasional cobbles and boulders	Med. Dense
6		
7		
8		
9		
10	END OF TEST PIT AT 10 FEET ±	
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-602
LOCATION	SEE FIGURE 1	APPROX. ELEV.		INSPECTED BY	RR
WATER OBSERVATION	Seepage @ 3.5' ± /Heavy Seepage @ 5' ±			DATE EXCAVATED	10/4/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2-Inch Topsoil	
1	Light Brown Silt and medium to fine Sand, trace Gravel with occasional cobbles	Med. Stiff
2		
3		
4	Brown medium to fine Sand and mottled Silt, little coarse to fine Gravel with cobbles and occasional boulders	Med. Dense
5		
6		
7		
8		
9	END OF TEST PIT AT 9 FEET ±	
10		
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

TP-603 and TP-604 NOT EXCAVATED

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-605
LOCATION	SEE FIGURE 1	APPROX. ELEV.	±	INSPECTED BY	RR
WATER OBSERVATION	Light Seepage @ 3.5±', Heavy @ 6.5±'			DATE EXCAVATED	10/4/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2-Inch Topsoil	
1	Light Brown SILT, and medium to fine Sand, trace Gravel, with Cobbles	Medium Stiff
2	Percolation Rate = 6 in/hr	
3		
4	Brown coarse to fine Sand, and Silt, little medium to fine Gravel with occasional Cobbles and Boulders	Medium Dense
5		
6		
7		
8	End of Test Pit at 8 ± Feet	
9		
10		
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-606
LOCATION	SEE FIGURE 1	APPROX. ELEV.	El 540±	INSPECTED BY	RR
WATER OBSERVATION	Seepage @ 1'±/Heavy @ 3'±			DATE EXCAVATED	10/16/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	10-inch Topsoil	
1	Gray/Brown SILT, and medium to fine Sand, trace Gravel with occasional cobbles	Med. Stiff
5	END OF TEST PIT AT 5 FEET ±	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	**PROJECT**	Prop. Logistics Center	**TEST PIT NO.**	**TP-607**
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	El 560±	**INSPECTED BY**	RR
WATER OBSERVATION	Heavy Seepage @ 2.74'±			**DATE EXCAVATED**	10/16/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6-inch Topsoil	
1	Light Brown SILT, and medium to fine Sand,trace Gravel with occasional cobbles	
2	Mottled Silt @ 2'±	
3		
4	END OF TEST PIT AT 3.5 FEET ±	
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-608
LOCATION	SEE FIGURE 1	APPROX. ELEV.	El 550±	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	10/31/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	10-inch Topsoil	
1	Light Brown medium to fine Sand and Silt, trace Gravel with occasional cobbles	Medium Dense
5	Light Brown medium to fine Sand and mottled Silt, trace Gravel with occasional Cobbles	Medium Dense
8	End of Test Pit at 8 ± Feet	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-609
LOCATION	SEE FIGURE 1	APPROX. ELEV.	El 550±	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	10/31/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6-inch Topsoil	
1	Light Brown Silt and medium to fine Sand, trace Gravel with occasional cobbles	Medium Stiff
5	Light Brown mottled Silt and medium to fine Sand, trace Gravel with occasional cobbles	Medium Stiff
9	End of Test Pit at 9 ± Feet	
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-1
LOCATION	SEE FIGURE 1	APPROX. ELEV.	626.0±'	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 2±'; Heavy seepage at 3±'			DATE EXCAVATED	3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown Silt, some coarse to fine Sand, trace Gravel (USCS: CL)	Medium Stiff
2	Percolation Rate = 6 min/in (Test A) @ Elv. 624 (10/30/18) Percolation Rate = 10.9 min/in (Test B) @ Elv. 624.1 (10/30/18)	Medium Stiff
4	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with frequent cobbles and occasional Boulder (USCS: CL)	to
7		Stiff
8	Test Pit Completed at 8± Feet	
14		

NOTE:

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-2
LOCATION	SEE FIGURE 1	APPROX. ELEV.	628.0±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 2±			DATE EXCAVATED	3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4" Topsoil	
1	Light Brown Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL)	Medium Stiff
2		
3	Percolation Rate: 20 min/in (Test A) @ Elv. 626 (10/30/18) Percolation Rate: 20 min/in (Test B) @ Elv. 626 (10/30/18)	Medium Stiff
4		
5	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL)	
6		
7		
8		
9	Test Pit Completed at 8.5± Feet	
10		
11		
12		
13		
14		

NOTE:

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-8
LOCATION	SEE FIGURE 1	APPROX. ELEV.	619.0±'	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 6±'			DATE EXCAVATED	3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3" Topsoil	
1	Light Brown/Yellow medium to fine Sand, and Silt, trace Gravel (USCS: SM)	Medium Dense
2	Light Brown Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles Percolation Rate = 30 min/in (Test A) @ Elv. 617.0 (10/30/18) Percolation Rate = 40 min/in (Test B) @ Elv. 617.0 (10/30/18)	Medium Stiff
4	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel with occassional cobbles (USCS: CL)	Medium Stiff
9	Test Pit Completed at 9± Feet	
10		
11		
12		
13		
14		

NOTE:

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-12
LOCATION	SEE FIGURE 1	APPROX. ELEV.	645.0±	INSPECTED BY	JQ
WATER OBSERVATION	Seepage at 4±			DATE EXCAVATED	10/3/2018 3/28/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6" Topsoil	
1	Light Brown Silt, and coarse to fine Sand, trace Gravel (USCS: CL)	Medium Stiff
2		
3	Test 1: Percolation Rate = 60 min/in @ Elv. 643.0 Test 2: Percolation Rate = 30 min/in @ Elv. 643.0 (10/3/18) Test 3: Percolation Rate = 30 min/in @ Elv. 643.0 (10/3/18)	
4		
5		
6	Light Brown mottled Silt, some coarse to fine Sand, little coarse to fine Gravel, with occassional cobbles (USCS: CL)	Medium Stiff
7		
8		
9	Test Pit Completed at 8.5± Feet	
10		
11		
12		
13		
14		

NOTE:

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	STP-101
LOCATION	SEE FIGURE 1	APPROX. ELEV.	659.0±	INSPECTED BY	RR
WATER OBSERVATION	Seepage at 5±'			DATE EXCAVATED	9/14/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2" Topsoil	
1	Light Brown Silt, some medium to fine Sand, trace Gravel (USCS: CL) Percolation Rate = 15 min/in @ Elev. 657 (10/31/18)	Medium-Stiff
5	Light Brown mottled Silt, and medium to fine Sand, little coarse to fine Gravel, with occassional cobbles (USCS: CL)	Medium-Stiff to Stiff
10	Test Pit Completed at 9.5± Feet	

NOTE:

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	STP- 102
LOCATION	SEE FIGURE 1	APPROX. ELEV.	632'±	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	9/14/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2" Topsoil	
1	Light-brown SILT, and medium to fine Sand, trace Gravel .	Soft
2	(USCS : SC/CL)	to
3	Percolation Rate = 30 min/in @ Elv. 630.0 (10/30/18)	Medium-Stiff
4	Light-brown SILT, some medium to fine Sand, little Gravel,	Medium-Stiff
5	with occassional cobbles	
6	(USCS : SC/CL)	
7	...Same with mottled SILT	to
8		
9		
10		Stiff
11	End of Test Pit at 10.5± Feet	
12		
13		
14		

NOTE:

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	STP- 103
LOCATION	SEE FIGURE 1	APPROX. ELEV.	631'±	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	9/14/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2" Topsoil	
1	Light-brown SILT, and medium to fine Sand, trace Gravel .	Soft
2	(USCS : SC/CL)	to
3	Percolation Rate = 9.6 min/in @ Elv. 629.0 (10/30/18)	Medium-Stiff
4	Light-brown SILT, some medium to fine Sand, little Gravel,	Medium-Stiff
5	with occassional cobbles	
6	(USCS : SC/CL)	
7	...Same with mottled SILT	to
8		Stiff
9	End of Test Pit at 8.5± Feet	
10		
11		
12		
13		
14		

NOTE:

SESI CONSULTING

PROJECT NO.	9999	PROJECT	Southeast, NY	TEST PIT NO.	STP- 104
LOCATION	SEE FIGURE 1	APPROX. ELEV.	630'±	INSPECTED BY	RR
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	9/14/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2" Topsoil	
1	Light-brown SILT, and medium to fine Sand, trace Gravel .	Medium-Stiff
2	(USCS : SC/CL)	
3	Percolation Rate = 30 min/in @ Elv. 628.0 (10/30/18)	
4		
5	Light-brown SILT, some medium to fine Sand, little Gravel,	
6	with occassional cobbles	Medium-Stiff
7	(USCS : SC/CL)	to
8		Stiff
9	...Same with mottled SILT	
10	End of Test Pit at 9.0± Feet	
11		
12		
13		
14		

NOTE:

SESI CONSULTING

PROJECT NO.	9999	**PROJECT**	Southeast, NY	**TEST PIT NO.**	STP- 105
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	638'±	**INSPECTED BY**	RR
WATER OBSERVATION	Not Encountered			**DATE EXCAVATED**	9/14/2018

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	2" Topsoil	
1	Light-brown SILT, and medium to fine Sand, trace Gravel . (USCS : SC/CL)	Medium-Stiff
2		
3		
4	Light-brown SILT, some medium to fine Sand, little Gravel, with occassional cobbles (USCS : SC/CL)	Medium-Stiff to Stiff
5		
6	...Same with mottled SILT	
7		
8		
9		
10		
11	End of Test Pit at 10.0± Feet	
12		
13		
14		

NOTE:

SESI CONSULTING

APPENDIX C

PROJECT NO.	9999	**PROJECT**	Prop. Logistics Center	**TEST PIT NO.**	**TP-A1**
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	655±	**INSPECTED BY**	RR/JT
WATER OBSERVATION	Not Encountered			**DATE EXCAVATED**	11/11/2019

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4± Inches Topsoil	
	Light brown Clayey Silt, and coarse to fine Sand, trace Gravel	Medium Stiff
1	with occasional Cobbles	
2		
3	Infiltration Rate at el. 652 = 7.5 in/hr Kv = 0.67 in/hr	
4		
	Brown coarse to fine SAND, some mottled Clayey Silt, little coarse to fine	Medium Dense
5	Gravel, with Cobbles and occasional Boulders	
	TEST PIT COMPLETED AT 5± FEET	
6		
7		
8		
9		
10		
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	**PROJECT**	Prop. Logistics Center	**TEST PIT NO.**	**TP-A2**
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	655±	**INSPECTED BY**	RR/JT
WATER OBSERVATION	Not Encountered			**DATE EXCAVATED**	11/11/2019

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4± Inches Topsoil	
	Brown Clayey Silt, and coarse to fine Sand, trace Gravel,	Medium Stiff
1	with occasional Cobbles	
2		
3	Infiltration Rate at el. 652 = 7 in/hr Kv = 0.62 in/hr	
4		
	Brown coarse to fine SAND, some Clayey Silt, little coarse to fine Gravel	Medium Dense
5	with occasional Cobbles and Boulders	
	TEST PIT COMPLETED AT 5± FEET	
6		
7		
8		
9		
10		
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12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-A3
LOCATION	SEE FIGURE 1	APPROX. ELEV.	655±	INSPECTED BY	RR/JT
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	11/11/2019

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3± Inches Topsoil	
	Light brown Clayey Silt, and coarse to fine Sand, trace Gravel	Medium Stiff
1	with occasional Cobbles	
2		
3	Infiltration Rate at el. 652 = 12 in/hr Kv = 1.24 in/hr	
4		
	Brown mottled Clayey SILT, some coarse to fine Sand, little medium to fine	Stiff
5	Gravel, with frequent Cobbles and occasional Boulders	
	TEST PIT COMPLETED AT 5± FEET	
6		
7		
8		
9		
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12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	**PROJECT**	Prop. Logistics Center	**TEST PIT NO.**	**TP-A4**
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	659±	**INSPECTED BY**	RR/JT
WATER OBSERVATION	Not Encountered			**DATE EXCAVATED**	11/11/2019

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3± Inches Topsoil	
1	Light brown Clayey Silt, and coarse to fine Sand, trace Gravel, with occasional Cobbles	Medium Stiff
6	Infiltration Rate at el. 652 = 2.5 in/hr Kv = 0.24 in/hr	
8	Brown mottled coarse to fine SAND, some Clayey Silt, little medium to fine Gravel, with frequent cobbles and occasional boulders	Loose to Medium Dense
9	TEST PIT COMPLETED AT 9± FEET	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	**PROJECT**	Prop. Logistics Center	**TEST PIT NO.**	**TP-A5**
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	658±	**INSPECTED BY**	RR/JT
WATER OBSERVATION	Not Encountered			**DATE EXCAVATED**	11/11/2019

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4± Inches Topsoil	
	Light brown Clayey Silt, and coarse to fine Sand, trace Gravel,	Medium Stiff
1	with occasional Cobbles	
2		
3		
4		
5		
6	Brown clayey SILT, some coarse to fine Sand, little fine Gravel	Loose
	with frequent cobbles and occasional boulders (-200) = 52% W.C. = 11.1%	to
7		Medium Dense
	Infiltration Rate at el. 652 = 12 in/hr Kv = 1.24 in/hr	
8		
	TEST PIT COMPLETED AT 8± FEET	
9		
10		
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-AA1
LOCATION	SEE FIGURE 1	APPROX. ELEV.	655±	INSPECTED BY	RR/JT
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	1/8/2020

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4± Inches Topsoil	
1	Light brown Clayey Silt, and coarse to fine Sand, trace Gravel with occasional Cobbles	Medium Stiff
2	Infiltration Rate at el. 653 = 3 in/hr Kv =0.31 in/hr	
3		
4	Brown coarse to fine SAND, some mottled Clayey Silt, little coarse to fine Gravel, with Cobbles and occasional Boulders	Medium Dense
5	TEST PIT COMPLETED AT 5± FEET	
6		
7		
8		
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12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-AA2
LOCATION	SEE FIGURE 1	APPROX. ELEV.	655±	INSPECTED BY	RR/JT
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	1/8/2020

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4± Inches Topsoil	
1	Brown Clayey Silt, and coarse to fine Sand, trace Gravel, with occasional Cobbles	Medium Stiff
2	Infiltration Rate at el. 653 = 0.25 in/hr Kv = 0.02 in/hr	
3		
4		
5	Brown coarse to fine SAND, some Clayey Silt, little coarse to fine Gravel with occasional Cobbles and Boulders	Medium Dense
	TEST PIT COMPLETED AT 5± FEET	
6		
7		
8		
9		
10		
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-A2-1
LOCATION	SEE FIGURE 1	APPROX. ELEV.	655±	INSPECTED BY	RR/JT
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	2/14/2020

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4± Inches Topsoil	
1	Brown Clayey Silt, and coarse to fine Sand, trace Gravel, with occasional Cobbles	Medium Stiff
2	Infiltration Rate at el. 653 = 14 in/hr Kv = 2.0 in/hr	
3		
4		
5	Brown coarse to fine SAND, some Clayey Silt, little coarse to fine Gravel with occasional Cobbles and Boulders	Medium Dense
	TEST PIT COMPLETED AT 5± FEET	
6		
7		
8		
9		
10		
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12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-A2-2
LOCATION	SEE FIGURE 1	APPROX. ELEV.	655±	INSPECTED BY	RR/JT
WATER OBSERVATION	Not Encountered			DATE EXCAVATED	2/14/2020

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4± Inches Topsoil	
1	Brown Clayey Silt, and coarse to fine Sand, trace Gravel, with occasional Cobbles	Medium Stiff
2	Infiltration Rate at el. 653 = 20 in/hr Kv = 4.1 in/hr	
3		
4		
5	Brown coarse to fine SAND, some Clayey Silt, little coarse to fine Gravel with occasional Cobbles and Boulders	Medium Dense
	TEST PIT COMPLETED AT 5± FEET	
6		
7		
8		
9		
10		
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-AA3
LOCATION	SEE FIGURE 1	APPROX. ELEV.	655±	INSPECTED BY	RR/JT
WATER OBSERVATION	Seepage @ 4'±			DATE EXCAVATED	1/8/2020

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3± Inches Topsoil	
1	Light brown Clayey Silt, and coarse to fine Sand, trace Gravel with occasional Cobbles	Medium Stiff
2	Infiltration Rate at el. 653 = Kv = 8.3 in/hr	
3		
4		
5	Brown mottled Clayey SILT, some coarse to fine Sand, little medium to fine Gravel, with frequent Cobbles and occasional Boulders	Stiff
	TEST PIT COMPLETED AT 5± FEET	
6		
7		
8		
9		
10		
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-AA4
LOCATION	SEE FIGURE 1	APPROX. ELEV.	656±	INSPECTED BY	RR/JT
WATER OBSERVATION	Seepage @ 4'±, GW @ 4.8'±			DATE EXCAVATED	1/8/2020

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	3± Inches Topsoil	
1	Light brown Clayey Silt, and coarse to fine Sand, trace Gravel, with occasional Cobbles	Medium Stiff
2		
3	Infiltration Rate at el. 653 = 8.6 in/hr Kv = 1.04 in/hr	
4		
5	Brown mottled coarse to fine SAND, some Clayey Silt, little medium to fine Gravel, with frequent cobbles and occasional boulders	Loose to Medium Dense
6	TEST PIT COMPLETED AT 5.5± FEET	
7		
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9		
10		
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12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-A4-1
LOCATION	SEE FIGURE 1	APPROX. ELEV.	660±	INSPECTED BY	RR/JT
WATER OBSERVATION	Seepage at 5.5'			DATE EXCAVATED	2/14/2020

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4± Inches Topsoil	
1	Brown Clayey Silt, and coarse to fine Sand, trace Gravel, with occasional Cobbles	Medium Stiff
6	Brown coarse to fine SAND, some Clayey Silt, little coarse to fine Gravel with occasional Cobbles and Boulders	Medium Dense
10	TEST PIT COMPLETED AT 6± FEET	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-A4-2
LOCATION	SEE FIGURE 1	APPROX. ELEV.	660±	INSPECTED BY	RR/JT
WATER OBSERVATION	Seepage at 5.5'			DATE EXCAVATED	2/14/2020

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4± Inches Topsoil	
1	Brown Clayey Silt, and coarse to fine Sand, trace Gravel, with occasional Cobbles	Medium Stiff
6	Brown coarse to fine SAND, some Clayey Silt, little coarse to fine Gravel with occasional Cobbles and Boulders	Medium Dense
7	TEST PIT COMPLETED AT 6± FEET	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-A4-3
LOCATION	SEE FIGURE 1	APPROX. ELEV.	664±	INSPECTED BY	RR/JT
WATER OBSERVATION	Seepage at 6.5'			DATE EXCAVATED	2/14/2020

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4± Inches Topsoil	
1	Brown Clayey Silt, and coarse to fine Sand, trace Gravel, with occasional Cobbles	Medium Stiff
6	Brown coarse to fine SAND, some Clayey Silt, little coarse to fine Gravel with occasional Cobbles and Boulders	Medium Dense
8	TEST PIT COMPLETED AT 6± FEET	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-AA5
LOCATION	SEE FIGURE 1	APPROX. ELEV.	656±	INSPECTED BY	RR/JT
WATER OBSERVATION	Seepage at 4±'; GW @5'			DATE EXCAVATED	1/8/2020

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	4± Inches Topsoil	
1	Light brown Clayey Silt, and coarse to fine Sand, trace Gravel, with occasional Cobbles	Medium Stiff
3	Infiltration Rate at el. 653 = 13.5 in/hr Kv = 1.93 in/hr	
5	Brown mottled clayey SILT, some coarse to fine Sand, little fine Gravel with frequent cobbles and occasional boulders	Loose to Medium Dense
6	TEST PIT COMPLETED AT 5.5± FEET	

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	**PROJECT**	Prop. Logistics Center	**TEST PIT NO.**	**TP AA6**
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	658' ±	**INSPECTED BY**	RR
WATER OBSERVATION	Mottled @ 6.5'±			**DATE EXCAVATED**	06.13.2020

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6"± Topsoil	
1	Tan-brown coarse to fine Sand, some coarse to fine Gravel, little Silt, with occasional cobbles	Loose to Medium Dense
4	Tan-brown coarse to fine Sand, some coarse to fine Gravel, some Silt, with occasional cobbles Infiltration Rate: Kv=1.4 in/hr	Dense
7	TEST PIT COMPLETED @ 7'±	
8		
9		
10		
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

PROJECT NO.	9999	**PROJECT**	Prop. Logistics Center	**TEST PIT NO.**	**TP AA7**
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	656' ±	**INSPECTED BY**	RR
WATER OBSERVATION	NE			**DATE EXCAVATED**	06.13.2020

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6"± Topsoil	
1	Tan-brown coarse to fine Sand, some coarse to fine Gravel, little Silt, with occasional cobbles	Medium Dense
2		to
3	Infiltration Rate: Kv=1.2 in/hr	
4		Dense
5	TEST PIT COMPLETED @ 5'±	
6		
7		
8		
9		
10		
11		
12		
13		
14		

SESI CONSULTING ENGINEERS

SESI CONSULTING ENGINEERS

BORING LOG

Job:	9999	Boring:	B-312-1	Client:	Putnam Seaburty Partners, LP		
Project:	Northeast Interstate Logistics Center			Observer:	RR/JT		
Location:	Southeast, NY			Elevation:	547'±		
Date Started:	June 4, 2020	Date Completed:	June 4, 2020	Boring Location Offset:	3'± NE		
Contractor:	General Borings, INC.	Type of Rig:	ATV	Weather:	Sunny	Temperature:	75F
Driller:	John	Helper:		Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: 6 Inches	ID: 4	Inches

Drilling Mud Utilized: ☑ None ☐ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☐ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	lbs.	Drop Height:	Inches	

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
06.05.2020	8:05 AM	13'±	10'±	NE	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Augered to 5'±				10.4' = Top of casing to bottom of hole
						5			
S-1	5	6	7	18	Brown coarse to fine Sand, and Clayey Silt, little medium to fine Gravel				
	7	11	11						
S-2	7	8	10	22	Same as above				
	9	12	12						
S-3	9	3	5	12	Brown Silt, and coarse to fine Sand, little medium to fine Gravel	10			
	11	7	9		Unfactored Infiltration Rate (EL 353'±) = 0.7"/hr				
S-4	11	3	6	13	Same as above				
	13	7	10						
					BORING COMPLETED @ 13'±				
						15			
						20			
						25			
						30			

Page 1 of 1 **Figure No.:**

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

BORING LOG

SESI CONSULTING ENGINEERS

Job:	9999	Boring:	B-312-2	Client:	Putnam Seaburty Partners, LP
Project:	Northeast Interstate Logistics Center			Observer:	RR/JT
Location:	Southeast, NY			Elevation:	552'±

Date Started:	June 4, 2020	Date Completed:	June 4, 2020	Boring Location Offset:	2'± NE
Contractor:	General Borings, INC.	Type of Rig:	ATV	Weather:	Sunny — Temperature: 75F
Driller:	John	Helper:		Rotary Bit Diameter:	
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: 6 Inches; ID: 4 Inches

Drilling Mud Utilized: ☑ None ☐ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☐ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter ☐ 3-inch Diameter
U-tube Sampler:	☐ Piston ☐ Shelby ☐ Other
Core Barrel:	Core Bit:
Sampler Hammer:	☐ External Anvil ☐ Mobile Safety ☑ Auto ☐ Mechanical Trip
Weight:	lbs. Drop Height: Inches

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
06.05.2020	8:15 AM	11'±	10'±	NE	

Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Augered to 5'±				9.7' = Top of casing to bottom of hole
						5			
S-1	5	5	9	20	Brown Silt, and coarse to fine Sand, trace medium to fine Gravel				
	7	11	13						
S-2	7	8	11	23	No recovery (gravel in tip)				
	9	12	12						
S-3	9	12	13	28	Gray-brown coarse to fine Sand, and Silt, little medium to fine Gravel	10			
	11	15	17		Unfactored Infiltration Rate (EL 543'±) = 1.1"/hr				
					BORING COMPLETED @ 11'±				
						15			
						20			
						25			
						30			

 Figure No.:

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: - - - - - -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	9999	Boring:	B-312-3	Client:	Putnam Seaburty Partners, LP		
Project:	Northeast Interstate Logistics Center			Observer:	RR/JT		
Location:	Southeast, NY			Elevation:	556'±		
Date Started:	June 4, 2020	Date Completed:	June 4, 2020	Boring Location Offset:	N/A		
Contractor:	General Borings, INC.	Type of Rig:	ATV	Weather:	Sunny	Temperature:	75F
Driller:	John	Helper:		Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: 6 Inches	ID: 4	Inches

Drilling Mud Utilized: ☑ None ☐ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☐ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	lbs.	Drop Height:	Inches	

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
06.05.2020	8:30AM	13'±	10'±	NE	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Augered to 5'±				10.4' = Top of casing to bottom of hole
						5			
S-1	5	3	3	7	Brown coarse to fine Sand, some Silt, trace medium to fine Gravel				
	7	4	6						
S-2	7	4	7	15	Brown coarse to fine Sand, and Silt, trace medium to fine Gravel				
	9	8	12						
S-3	9	8	8	17	Brown coarse to fine Sand, some coarse to fine Gravel, some Silt	10			
	11	9	11		Unfactored Infiltration Rate (EL 545'±) = 1.5"/hr				
S-4	11	14	14	26	Brown Silt, some coarse to fine Sand, trace medium to fine Gravel				
	13	12	16						
					BORING COMPLETED @ 13'±				
						15			
						20			
						25			
						30			

Page 1 of 1 **Figure No.:**

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	9999	Boring:	B-312-4	Client:	Putnam Seaburty Partners, LP
Project:	Northeast Interstate Logistics Center			Observer:	RR/JT
Location:	Southeast, NY			Elevation:	570.0±

Date Started:	June 4, 2020	Date Completed:	June 4, 2020	Boring Location Offset:	4'± SE
Contractor:	General Borings, INC.	Type of Rig:	ATV	Weather:	Sunny; Temperature: 75F
Driller:	John	Helper:		Rotary Bit Diameter:	
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: 6 Inches; ID: 4 Inches

Drilling Mud Utilized: ☑ None ☐ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☐ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)		
Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter
U-tube Sampler:	☐ Piston ☐ Shelby ☐ Other	
Core Barrel:		Core Bit:
Sampler Hammer:	☐ External Anvil ☐ Mobile Safety ☑ Auto ☐ Mechanical Trip	
Weight:	lbs.	Drop Height: Inches

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
06.05.2020	8:00 AM	24'±	20'±	NE	

Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Augered to 6'±				23.2' = Top of casing to bottom of hole
						5			
S-1	6	6	7	19	Light-brown coarse to fine Sand, some Silt, little medium to fine Gravel				
	8	12	12						
S-2	8	6	10	22	Black-gray coarse to fine Sand, some coarse to fine Gravel, trace Silt,				
	10	12	14		with cobbles	10			
S-3	10	6	6	18	Brown medium to fine Sand, some Silt, trace Gravel (moist)				
	12	12	12						
S-4	12	6	12	22	Same as above				
	14	10	10						
S-5	14	8	10	20	Gray-brown medium to fine Sand, some Silt, trace Gravel	15			
	16	10	17						
S-6	16	9	10	22	Gray Clayey Silt, some coarse to fine Sand, trace Gravel				
	18	12	18						
S-7	18	8	12	27	No recovery				
	20	15	19			20			
S-8	20	10	13	31	Gray Clayey Silt, and coarse to fine Sand, trace Gravel				
	22	18	26		Unfactored Infiltration Rate (EL 548'±) = 1.3"/hr				
S-9	22	24	26	60	Gray coarse to fine Sand, some Clayey Silt, trace Gravel				
	24	34	36						
					BORING COMPLETED @ 24'±	25			
						30			

 Figure No.:

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: - - - - - -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

PROJECT NO.	9999	**PROJECT**	Prop. Logistics Center	**TEST PIT NO.**	**TP 301A**
LOCATION	SEE FIGURE 1	**APPROX. ELEV.**	556' ±	**INSPECTED BY**	RR
WATER OBSERVATION	NE			**DATE EXCAVATED**	06.04.2020

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	Fill: Black coarse to fine Sand, little Silt, trace Gravel	Loose
1		
	Tan-brown coarse to fine Sand, some Silt, trace Gravel, with cobbles	Medium
2		Dense
3		to
4		Dense
5		
	TEST PIT COMPLETED @ 5'±	
6		
7		
8		
9		
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PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-B312-5
LOCATION	SEE FIGURE 1	APPROX. ELEV.	525' ±	INSPECTED BY	RR
WATER OBSERVATION	Seepage @ 1.5' ±			DATE EXCAVATED	06.04.2020

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6"± Topsoil	
1	Tan-brown coarse to fine Sand, and coarse to fine Gravel, some Silt, with frequent cobbles; slight mottling @ 1.5'±	Medium Dense to Dense
5	Tan-brown coarse to fine Sand, and Silt, some coarse to fine Gravel, with with occasional cobbles; cobbles are highly weathered rock	Dense to Very Dense
8	TEST PIT COMPLETED @ 8'±	

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PROJECT NO.	9999	PROJECT	Prop. Logistics Center	TEST PIT NO.	TP-B312-6
LOCATION	SEE FIGURE 1	APPROX. ELEV.	520' ±	INSPECTED BY	RR
WATER OBSERVATION	Seepage @ 1.5' ±			DATE EXCAVATED	06.04.2020

DEPTH FT.	DESCRIPTION / SOIL CLASSIFICATION	RELATIVE DENSITY OR CONSISTENCY
0	6"± Topsoil	
1	Tan-brown coarse to fine Sand, and coarse to fine Gravel, some Silt, with frequent cobbles; some cobbles are highly weathered rock	Medium Dense to Dense
5	TEST PIT COMPLETED @ 4.5'±	

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