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CONSULTING
ENGINEERS

Geotechnical & Foundations
Land Planning
Geo-Structural
Environmental
Water Resources

Principals:

Steven P. Byszewski, PE, PP
Anthony Castillo, PE
Roger Hendrickson
Kenneth Quazza, PE
Michael St. Pierre, PE
Christopher F. Zwingle, PE

Jay Adam (1942-2009)

Consultant:

William J. St. Pierre, PE

January 22, 2015 *via email: jhogan@saberfund.com*
N-8949

Mr. Joseph Hogan
Saber Chauncey WP, LLC
80 Business Park Drive – Suite 100
Armonk, NY 10504

RE: Geotechnical Investigation Report
Proposed Mixed Use Development - The Collection
80 Westchester Avenue
City of White Plains, New York
SESI Project No. 8949

Dear Mr. Hogan:

In accordance with our Professional Services Agreement dated October 20, 2014, we have completed our geotechnical engineering evaluation of the subsurface soil and groundwater conditions for the proposed development to be constructed at the above referenced site. Enclosed are five (5) copies of the report.

If you have any questions, please call.

Sincerely,

SESI CONSULTING ENGINEERS, PC

John M. Nederfield, P.E.
Project Engineer

Michael St. Pierre, P.E.
Vice President

Cc: Richard DeCola via email: rjdeco@live.com

N:/Projects/8949/Reports/jn8949georpt.doc

SESI
CONSULTING
ENGINEERS

GEOTECHNICAL INVESTIGATION AND REPORT FOR

The Collection
80 Westchester Avenue
City of White Plains, Westchester County, New York

PREPARED FOR:

SABER CHAUNCEY WP, LLC
80 Business Park Drive – Suite 100
Armonk, NY 10504

PREPARED BY:

SESI CONSULTING ENGINEERS, PC
12A Maple Avenue
Pine Brook, NJ 07058

Job No.: N-8949

DATE:
January 22, 2015

John M. Nederfield, P.E.

Michael St. Pierre, P.E.
NY Lic. No. 802711

SITE DESCRIPTION AND PROPOSED CONSTRUCTION

We have completed our geotechnical investigation for the proposed development to be known as "The Collection" to be located at 80 Westchester Avenue in White Plains, New York. The site is bounded to the south by Westchester Avenue, to the north by Franklin Avenue, to the east by Avis Rent a Car and a baseball field, and to the west by a diner and a multi-residential building. The site is currently being utilized as a municipal parking lot, an auto dealership with service garage, an abandoned auto dealership, retail stores, and a restaurant, with associated parking lots and roadways.

Based on the Site Plans prepared by Antunovich Associates - Consultants dated August 28, 2014, we understand that the proposed construction will consist of a 14,370 sf restaurant, a hotel, a multi-story mixed-use building with restaurants, retail space, and parking below, several retail stores, an auto dealership, two auto dealership service centers, and two below grade parking levels, and a parking deck. The multi-story residential building will consist of 261 units that will occupy the fourth to eleventh floors. The second and third floors will be occupied by residential parking. The first floor will be occupied by the residential lobby, retail space, and a restaurant. Additionally, one below grade parking level will be provided beneath the restaurant/retail/lobby footprint. A covered pedestrian access path will be provided along the eastern side of the property connecting Westchester Avenue to Franklin Avenue.

We understand that the proposed construction will be completed in two phases. The first phase will consist of the parking deck, two auto dealership service centers, an auto dealership, partial hotel, and retail space all located on the eastern half of the site. The second phase will consist of parking decks, retail space, a restaurant, partial hotel, and multi-story residential on the western half of the site.

Based on the existing grades shown on the Composite Survey of Property prepared by Ward Carpenter Engineers, Inc. dated July 3, 2012, the site grades slope and/or step gently to moderately downward from a high elevation (EL) of EL 176 at the northwestern corner of the site down to a low elevation of EL 153 at the northeastern corner of the site. Typically, the site slopes downward from west to east and south to north. Several concrete walls and one masonry block wall were observed on the property. We also understand that a storm sewer may traverse the eastern side of the site.

Based on a review of the topographic information shown on the survey and proposed site grades, it appears that cuts of up to 26± feet will be required to reach proposed lower floor grades for the proposed development.

We have not been provided with the proposed column, footing or floor loads at this time. Once the loads are known, we should be provided the opportunity to review these loads to confirm our recommendations.

FIELD AND LABORATORY INVESTIGATIONS

Our engineering study consisted of a site reconnaissance, a review of existing soils and geologic data, a review of borings completed by Soil Testing, Inc., and a field investigation consisting of the drilling of fifteen (15) soil borings. The borings were drilled from October 3 through October 20, 2014 to depths of 32 to 70± feet below the ground surface using a truck-mounted drill rig and an ATV-mounted drill rig. A groundwater monitoring well was installed in boring SB-2. Ground surface elevations were interpolated from the contours shown on the Ward Carpenter Survey.

The locations of the borings are shown on the *Boring Location Plan*, which is included as *Figure 1*. Individual soil boring logs, which describe the materials encountered, are presented as *Figures 2 through 16*. A key to soil terminology is included as *Figure 17*.

Soil samples suitable for identification purposes were extracted from the borings at closely spaced intervals in accordance with the procedures of the Standard Penetration Test (ASTM D1586). 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 drive the sampler a distance of 12 inches is recorded and designated as the standard penetration resistance or "N value". The "N value" provides an indication of the relative compactness of the soil in-situ.

All fieldwork was performed under the full time technical observation of an engineer from SESI Consulting Engineers, PC. Our representative located the 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.

All soil samples were taken to our soils laboratory for classification and appropriate geotechnical testing. Laboratory testing consisted of two (2) water content determinations, and two (2) mechanical grain size analyses. The results of the water contents are presented on the individual boring logs. The results of the mechanical grain size analyses are presented in graphical form as *Figures 18 and 19*.

Six (6) borings that were completed between November 2012 and December 2012 and twelve (12) borings that were completed March 2014, by Soil Testing, Inc., are attached in the Appendix.

SUBSURFACE CONDITIONS

Based on our investigation and the information provided on the soil borings performed by others, the subsurface conditions vary considerably throughout the site. The subsurface conditions encountered at the site generally consist of:

Surficial Materials: A 1 to 4-inch thick layer of asphalt was encountered at the surface in most of the borings. Borings B-3, B-4, B-5, B-6, B-8, B-9, and B-10 were drilled through a concrete slab with thicknesses ranging from 5 to 8± inches. (Borings B-6, B-8, and B-10 did not indicate the thickness of the concrete slab on the boring logs.)

Fill: A miscellaneous fill was encountered below the asphalt in the majority of the borings consisting of varying percentages of sand, silt, gravel, and brick, asphalt fragments, wood, concrete, plastic, etc., ranging in depth from approximately 3 to 16± feet below the ground surface, where encountered. It should be anticipated that fill may be encountered at other areas from previous site development.

Natural Soils: Beneath the fill, where encountered, the site contains sand, with varying amounts of silt, and gravel with boulders and fractured/weathered rock. This stratum extends to depths ranging from 13 to 56± feet below existing grade. Based on the blow counts obtained during the soil sampling operation, this layer is in a loose to dense condition.

Bedrock: Bedrock was encountered in all the borings, except SB-3, at depths ranging from 15 to 66± feet below the ground surface. In many areas, the upper portion of the bedrock was weathered. Refusal to advance the casing through a possible boulder from 45 to 50 feet below the ground surface was encountered in boring SB-3. Based on the information provided on the boring logs, the bedrock has been identified as schist and gneiss. The bedrock has also been classified as very poor to excellent, based on the Rock Quality Designation (RQD) calculated from the measurements obtained from each rock core. The top of the bedrock generally slopes downward from west to east based on the information provided on the boring logs. Specifically, the bedrock slopes downward from the west, north, and south to the middle of the site along the eastern end. The bedrock was encountered at a high EL 156± in borings B-12 and at a low elevation of EL 88± in borings SB-9.

Rock cores were taken on the assumed bedrock at borings SB-3, SB-5, SB-7, B-7, B-8, B-9, B-10, B-11, B-12, B-13, B-14, and B-15 at various depths below the ground surface. The borings had percent core recoveries ranging from 17 to 100, and RQD values (Rock Quality Designation) ranging from 0 to 100 percent indicating a very poor to excellent rock quality as shown in the Table below. It should be noted that the upper portions of the rock are generally more weathered and fractured and the rock generally will become more sound with depth.

RELATIONSHIP OF RQD AND ROCK QUALTIY:

ROCK QUALITY DESIGNATION (RQD)[1]	DESCRIPTION OF ROCK QUALITY
0 – 25	VERY POOR
25 – 50	POOR
50 – 75	FAIR
75 – 90	GOOD
90 – 100	EXCELLENT

[1] **"Rock Quality Designation"** is defined as the cumulative amount of pieces of the core that are at least 4 inches long divided by the total length of the rock core run. Obvious fractures caused by drilling are ignored in this system.

Groundwater: Groundwater was encountered in the majority of the borings at depths ranging from 5 to 20± feet below the ground surface. Borings B-6, B-12, B-14, SB-3, and SB-15 did not encounter groundwater during the short period of time that the hole were left open. Groundwater observation wells were installed by Soil Testing Inc. in borings B-7, B-9, B-10, B-15, PW-1, and SB-2 at depths ranging from approximately 5½ to 15 feet below the ground surface. Fluctuations in the groundwater level of several feet should be anticipated based on the time of year and amount of recent precipitation. Groundwater flow into the proposed deep excavations will likely be an issue unless it is cutoff and/or controlled with sumps/well points. It should also be anticipated that groundwater will be encountered at the soil-rock interface. Additional groundwater level observations and evaluations will be done as part of a separate investigation.

EVALUATION AND RECOMMENDATIONS

The existing subsurface conditions are considered poor to fair from a building foundation support standpoint. The existing uncontrolled fills and underlying loose sands would consolidate significantly under the building loads, resulting in unacceptable total and differential settlements.

We have considered various site improvement techniques to densify the existing loose sands; however, many of the improvement methods create vibrations in order to densify the soils. These vibrations could create off-site settlements and/or damage to existing structures, therefore we did not consider them further.

We recommend that the proposed foundations bear directly on the rock when rock is within an economical depth of excavation, otherwise a deep foundation system is required for the support of the proposed building, deriving its load-carrying capacity from the underlying weathered rock or bedrock. In those areas of the site where the bedrock is less than 10 feet from the lowest floor elevation, it may be economical to over-excavate to the bedrock and construct a footing on the

bedrock and extend a pier to the slab elevation. All lower floors should be designed as structural floor slabs to resist uplift pressures. Alternately, drilled caissons socketed into the bedrock could also be used to support the heavier column loads.

We have not considered any environmental issues with regards to our geotechnical recommendations. We recommend that your environmental consultant review our recommendations prior to the start of construction.

Based on the groundwater levels observed during our investigation and indicated on the boring logs by others, groundwater will likely be encountered during the mass excavation to attain the proposed lowest level grades. Dewatering of the excavation during construction will likely be required and could consist of installing well-points or deeper wells to control the groundwater. It may be necessary to construct a watertight (bathtub like) foundation, or install a permanent drainage system which could consist of drywells with permanent sump pumps.

Driven Pile Foundation

In order to eliminate both the potential total and differential settlements, the building superstructure and structural floor slab should be supported on piles (or footings on rock). We recommend that the pile types consist of end bearing piles that would derive their support on the underlying bedrock (e.g. H-piles or pipe piles filled with concrete). The total settlement for a pile-supported structure would be negligible.

Based on the deep soils data, we estimate that end-bearing pile lengths would be on the order of 10 to 44± feet below the proposed lower floor elevation and would achieve capacities on the order of 70 to 120 tons per pile driven into the weathered bedrock or bedrock. The actual pile capacity will be determined based on a test pile program.

Our preliminary recommendations for pile types include:

- HP 12x53 steel H-pile, Grade 50 – allowable capacity 90 tons
- HP14x73 steel H-pile, Grade 50 - allowable capacity 120 tons
- 10.75" x .375" wall thickness steel pipe pile with a minimum yield stress of 42ksi filled with 4,000 psi concrete – allowable capacity 70 tons
- 14" x 0.5" wall thickness steel pipe pile with a minimum yield stress of 42ksi filled with 4,000 psi concrete – allowable capacity 120 tons

Selection of the pile type will be based on the actual column loads and costs associated with each pile type. Since the piles will be driven to bedrock, negative skin friction (downdrag) need not be considered in the pile design.

Regardless of the pile capacity or pile type chosen, a Wave Equation Analysis Program (WEAP) should be performed by the pile contractor using the proposed hammer type, cushion type, etc. to determine the appropriate driving criteria. The selection of the hammer is the responsibility of the pile contractor and should be of sufficient size to achieve the required capacity while not over-stressing the pile.

Selection of the pile driving system should consider driving stresses from difficult driving and hammer energy. For preliminary planning purposes, we recommend that the piles be driven using a single-acting driving hammer with a rated energy of at least 19,500 foot-pounds. Prior to construction, the contractor should perform, and submit for review, a wave equation analysis (WEAP) for the pile installation, demonstrating that the selected driving system, including hammer type, hammer weight, delivered hammer energy, cushion type and thickness, is capable of transferring the appropriate energy to the pile tip without overstressing the pile.

Final pile type, hammer size, and driving criteria for the piles will depend on the selected pile driving system and should be provisionally determined by the geotechnical engineer following review of the contractor's Wave Equation Analysis. The driving resistance should be maintained for at least 12 inches, or to refusal to prevent damage to the piles. Refusal may be taken as twice the required driving resistance, or twenty blows per inch, whichever is less.

The contractor should provide a method to splice piles if additional length is required. Splices shall be constructed so as to provide and maintain true alignment and position of the component parts of the pier or pile during installation and subsequent thereto, and shall be of adequate strength to transmit the vertical and lateral loads and moments occurring at the location of the splice during driving and under service loading. Splices shall develop not less than 50 percent of the least capacity of the pier or pile in bending. In addition, splices occurring in the upper 10 feet of the embedded portion of the pier or pile shall be capable of resisting at allowable working stresses the moment and shear that would result from an assumed eccentricity of the pier or pile load of 3 inches, or the pier or pile shall be braced to other piers or piles that do not have splices in the upper 10 feet of embedment.

It should be noted that driven piles are subject to damage when obstructions are encountered. It should be anticipated that such obstructions may be encountered within the existing fill materials or in the natural soils beneath the fill. The use of a pile point will assist the pile in penetrating through rubble in the existing fill, and protect the pile tip during hard driving on boulders or obstructions. Due to the presence of obstructions within the existing fill materials, spudding each pile location through the fill, pre-drilling, or pre-excavation of the individual pile cap may be warranted, in order to minimize the damage to the piles during driving through the fill.

The lateral load capacity of a pier, pile, or pile group shall be determined by an approved method of analysis or by lateral load tests to at least twice the proposed design working load. The resulting allowable load shall not be more than one-half of that test load that produces a gross lateral movement of 1 inch at the ground surface.

<u>Drilled Caisson Pile Foundation Alternate</u>

In lieu of driven piles, it may be more economical to install drilled caisson piles to support the proposed structure due to the obstructions (boulders) encountered during our investigation and in the boring drilled by Soil Testing Inc. Additionally,

the installation of drilled piles would create less ground vibrations than the driven piles. The caisson should consist of a concrete (min. 4,000 psi) filled pipe extending to bedrock with an uncased rock socket. The caisson pile should have a minimum outside diameter of 18 inches and a minimum wall thickness of ⅜-inch and be fitted with a steel driving shoe welded to the bottom of the pipe. The diameter of the rock socket shall be approximately equal to the inside diameter of the pile. The depth of the rock socket shall not be less than the outside diameter of the pile and should be sufficient to develop the full load capacity of the caisson pile with a minimum factor of safety of two. Higher loads may be obtained by increasing the rock socket depth. The rock socket and pile should be thoroughly cleaned of foreign materials and water should be removed prior filling with concrete. The caisson shall have a full depth structural core or a stub core installed into the rock socket and extending in to the pie portion an equal distance to the socket depth. The steel core shall not exceed 25 percent of the gross area of the caisson and have a minimum clearance of 2 inches between the structural core and the pipe. The steel core shall be bedded in cement grout at the base of the rock socket. If water is present within the pile and rock socket and cannot be removed prior to placing the concrete, the concrete shall be placed by tremie methods or an approved method. The means and methods of the caisson installation should be left to the discretion of the contractor.

A net end bearing capacity of approximately 8 tons per square foot can be used in the caisson design. A friction capacity, along the sides of the rock socket, of 50 pounds per square inch can be used in the design of the caissons. Based on a combination of the end bearing capacity and the skin friction, we estimate that a 2 foot diameter caisson would provide in excess of 100 kip ultimate shaft capacity. Increasing the socket into the rock will greatly increase the caissons ultimate capacity.

Load Tests

Load tests are required for any pile with design loads over 40 tons/pile in accordance with the 2010 Building Code of New York State. For this site, we recommend that a minimum of 2 load tests per uniform subsoil conditions be conducted at a location selected by the geotechnical and structural engineer. The load test should be done in accordance with ASTM D1143, Standard Test Method for Deep Foundations Under Static Axial Compressive Load or ASTM D 4945 Standard Test Method for High-Strain Dynamic Testing of Piles and the requirements of the 2010 Building Code of New York State. The test load should be applied in increments and be held at 2 times the ultimate load on the pile for a minimum of 4 hours. A lateral test and uplift test may also be done, if needed. We also recommend that 5 to10 percent of the total number of piles be drive test piles (spaced throughout the building) and be driven and monitored using a PDA to determine the energy being delivered to the pile, measure the driving stresses and determine the theoretical capacity of the pile.

Shallow Foundations

It is anticipated that the bedrock will be encountered or will be at a relatively shallow depth in the northwest corner of the site. A conventional shallow spread footing could be constructed at grade or at a lower elevation, founded on the

competent bedrock with an allowable bearing capacity of 8 tsf and a reinforced concrete pier extended to grade if required. In areas where the bedrock is within approximately 10 feet of the proposed lower floor elevation, it may be more economical to drill caissons, bearing on or socketed into the bedrock, for support of the proposed building. Regardless of the method chosen, removal of the subgrade soil to the bedrock would be required for either of these options. Excavation support or the stepping/sloping back of the excavation would be required for the construction of the spread footing and pier construction. Slopes and Excavations are discussed later in this report.

Excavation Support

In order to make the required mass excavation to achieve the lowest proposed level, an excavation support/groundwater cut-off wall will be required that must be installed prior to excavating the site soils.

We have been informed that it is your intention to install sheeting for the support of excavation which will also be used as the finished wall in the below grade garage. Due to the depth of the excavation and the presence of groundwater, it is most likely that the sheeting will require some form of bracing or tiebacks under the existing roadways. Bracing of the sheeting may consist of tiebacks or raker beams. Tiebacks are installed by rotary or auger-drilling techniques, drilled through the earth retention wall line into the retained soil behind the sheeting at specified elevations as the mass excavation proceeds. A steel tendon is then inserted into the drilled hole and injected with grout under pressure. After allowing the grout to harden, the steel tendon is stressed to a specific tension and locked into the support wall to restrain it from moving. Temporary easements for the tiebacks that encroach into the roadway and adjacent properties will be required. Testing of all the tiebacks will be required to verify that they meet the design load capacity. The tiebacks should be detensioned once the permanent structural slabs are constructed and the walls can be backfilled.

Raker beams can also provide the necessary support to support the sheeting. Steel beams are supported at the base of the excavation with concrete heel blocks below the proposed floor slab and secured to the sidewalls of the system. Using this system, the raker beams are left in place until the foundation walls are backfilled and the first floor system is in place. Penetrations through the building walls and floors will require closure once the rakers are removed.

Slopes and Excavations

Permanent soil cut and fill slopes should be limited to a maximum of 2 horizontal to 1 vertical for slopes up to 15 feet high and 2.5 horizontal to 1 vertical for slopes greater than 15 feet high and be evaluated by a qualified geotechnical engineer.

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. 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.

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 person.

Utility Lines

The site soils will provide suitable support for utility lines. Cobbles greater than 4 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 the bottom of the excavation for any utility lines falls within soft soils, the excavation should be extended an additional 12-inches and replaced with 3/4-inch clean crushed stone or clean sand and gravel. In any areas where the utility lines are excavated into rock, a minimum of 6 inches of ¾-inch clean crushed stone or a clean sand and gravel layer should be placed beneath the pipe.

Backfill material placed around utility lines to 6 inches above the utility lines 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 a minimum of 92 percent and average of 95 percent of Modified Proctor density (ASTM D 1557). Trench backfill in non-load bearing areas should be compacted to 90 percent of Modified Proctor density (ASTM D 1557).

Permanent Walls

Permanent below grade walls should be designed to resist lateral loadings from static earth pressure, water pressure (if present), and vertical surcharges. Backfill should not be placed against below-grade walls until the concrete has reached its 28-day compressive strength and after adequate lateral bracing has been provided to prevent rotation of the wall. We recommend the following design parameters:

- For braced walls (no rotation) a triangular earth pressure distribution with an equivalent fluid pressure of 60 pounds per square foot per foot of depth for unsaturated soil.

- For cantilevered walls a triangular earth pressure distribution with an equivalent fluid pressure of 40 pounds per square foot per foot of depth for unsaturated soil.

- Lateral pressures due to surface surcharges should have a uniform distribution based on a pressure equal to 0.5 times the vertical pressure for the entire depth of the wall. We recommend using a minimum surcharge load of 250 pounds per square foot to account for fire truck loading scenarios.

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

Seismic Design

The site soils have been classified as Site Class C for seismic design purposes in accordance with the 2010 Building Code of New York State. For any buildings with foundations founded within 10 feet of bedrock Site Class B may be used.

The following seismic design criteria for Class "C" soils should be used for this project:

Mapped Spectral Response Acceleration for Short Periods	SS = 0.270g
Mapped Spectral Response Acceleration for 1-Second Period	S1 = 0.072g
Site Coefficient	Fa = 1.200
Site Coefficient	Fv = 1.700
Spectral Response for short periods	SMS = 0.324g
Spectral Response for 1 second period	SM1 = 0.122g
Design Spectral Response Acceleration for Short Periods	SDS = 0.216g
Design Spectral Response Accelerations for 1-Second Period	SD1 = 0.081g

A summary of recommended soil design parameters is included in Table 1.

Control of Groundwater

Deep foundations (including the excavation for pile caps and/or grade beams) and deep utilities will likely encounter the groundwater. If stormwater/groundwater seepage is encountered during construction, gravel filled sumps with pumps should be installed below the subgrade elevation to allow for dewatering of the excavation. If any significant groundwater inflow is encountered or if any excavations extend greater than two feet below the observed groundwater levels, a more comprehensive dewatering system may be required. This system would consist of installing several well-points to control the groundwater. Design of this system will be based on the depth and size of the excavation and the groundwater levels encountered. NYDEC permits for construction dewatering will also be required.

Foundation drains are required for any retaining walls below grade and should be tied to the storm sewer system or to a sump with pump.

Waterproofing

All foundation walls should be waterproofed. We recommend the Preprufe/Bituthene waterproofing system by W.R. Grace and Co. Depending on the floor finishes in the lowest level, waterproofing may be required under the slab. A drainage board (MiraDRAIN) or stone backfill should be placed along the foundation wall to allow any groundwater to flow down to the footing drains.

It may be necessary to construct a watertight (bathtub like) foundation, or install a permanent dewtering system which could consist of drywells with permanent sump pumps.

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, PC. We should inspect the support of excavation installation, the pile driving, the over-excavation of the existing fill (where required), the placement of the compacted fill (where required), and the bottom of the footing excavations prior to the placement

of concrete. 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 data reviewed identifies the subsurface conditions only at the locations of the test holes and at the depths where the samples were taken by others. SESI Consulting Engineers, PC reviews the published geologic data and the field 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:

- When the nature of the proposed development is changed;
- When the size or configuration of the proposed development is altered;
- When the location or orientation of the proposed development is modified;
- When there is a change in ownership; or
- 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 likelihood of soil log misinterpretation.

DISCLAIMER

This Report was prepared by SESI for the sole and exclusive use of Saber Chauncey WP, LLC. Nothing under the Professional Services Agreement between SESI and its client, Saber Chauncey WP, LLC 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 conditions 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 1

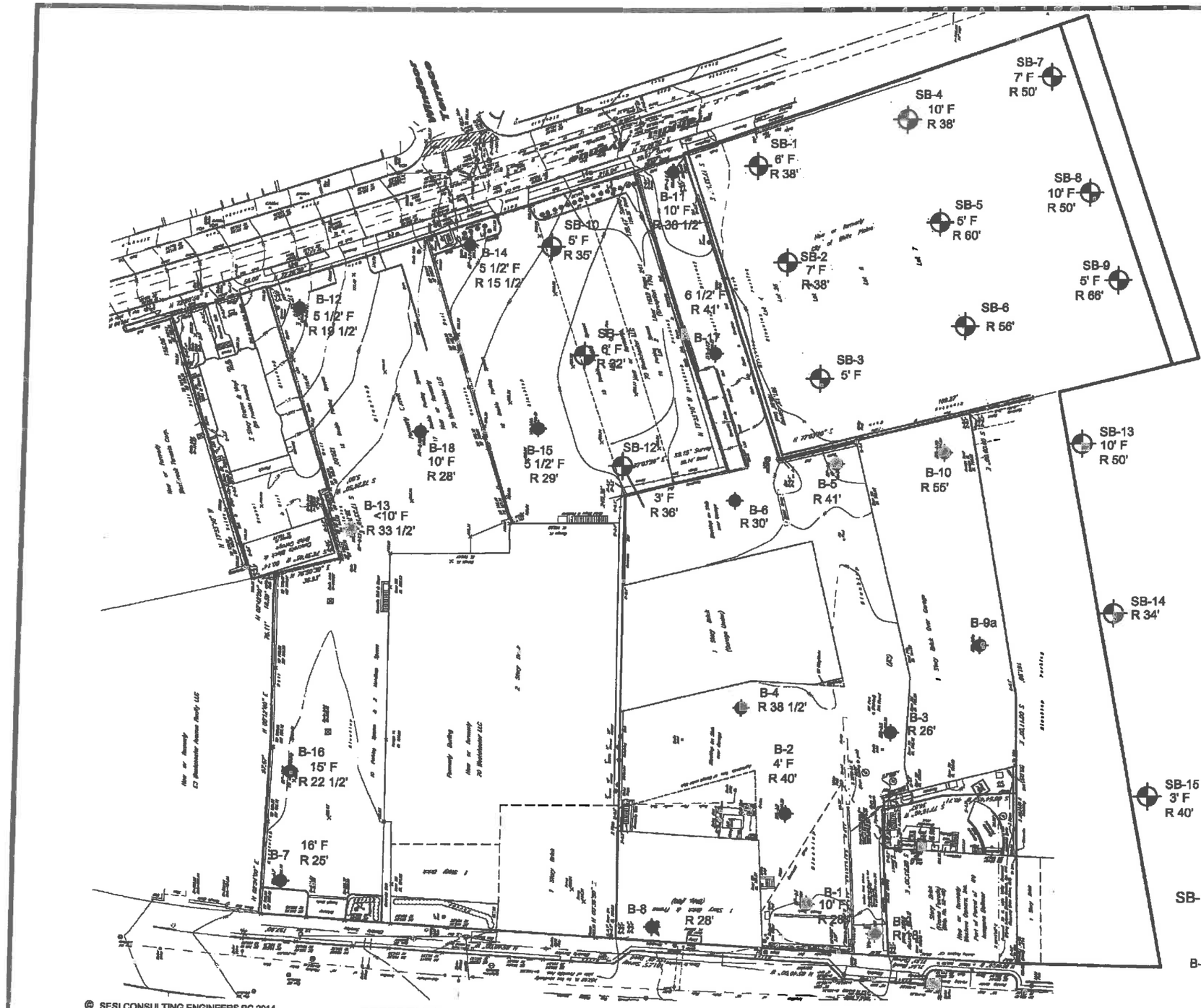
SUMMARY OF SOIL DESIGN PARAMETERS

PARAMETER		VALUE
1. Allowable Bearing Capacity (net)		
Natural Soil/Compacted Fill		2 tsf
Bedrock		8 tsf
2. Total Unit Weight	(Onsite/Imported Soil)	120 pcf
3. Angle of Internal Friction - Backfill Against Structures		32 degrees
4. Earth Pressure Coefficient (See Note 1)		
Active Earth Pressure (Ka)		0.31
Earth Pressure @ Rest (Ko)		0.47
Passive Earth Pressure (Kp)		3.25
5. Coefficient of Sliding (concrete over soil)		0.40
6. Subgrade Modulus for Floor Slab Design (Granular Fill)		175pci
7. Slopes (Above Groundwater)		
Maximum Cut Slope in Soil		2.5H:1V
Maximum Fill Slope in Soil		2.5H:1V
8. Footing Depth for Frost Protection (exterior)		3.5 ft
9. Seismic Design Criteria - Site Class		C
If within 10 feet of bedrock		B

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 permanent walls should not weigh more than 5,000 pounds.



REFERENCE:

1. ALL SITE INFORMATION TAKEN FROM PLAN ENTITLED "COMPOSITE SURVEY OF PROPERTY" PREPARED BY WARD CARPENTER ENGINEERS. INC. DATED JULY 3, 2012.

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

dwg by: yy
chk by: JN
scale: 1"=60'±
date: 11/25/14

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

project: PROPOSED MIXED USE DEVELOPMENT - THE COLLECTION
80 WESTCHESTER AVENUE
CITY OF WHITE PLAINS, NEW YORK

drawing title: BORING LOCATION PLAN

job no: 8949
drawing no: FIG. 1

1 of 1

N:\ACAD\8949\8949 BORING LOCATION PLAN.dwg, Layout1, 11/25/2014 3:44:41 PM, \\sesi2007\KONICA MINOLTA C360 PCL

SESI CONSULTING ENGINEERS

PROJECT NAME:	The Collection	BORING NO.	SB-1
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger	GROUND ELEVATION:	157±
BORING BY: General Borings Inc.	DATE STARTED: 10/16/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: JN	DATE COMPLETED: 10/16/2014	0 Hr. 10± Date 10/16/14	24 Hr. Date

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										2" Asphalt, 4.5" Subbase, 6" Brick	
	1	18	1		8	12			25	FILL: Gray-brown fine SAND and Silt, little coarse to fine Gravel	
				3			13	11			
	2	20	3		8	6			12	FILL: Gray-brown fine SAND, some Silt, trace Gravel	
5				5			6	4			
	3	22	5		WOH/ 12"				3	... with Brick fragment	
				7			3	3		Dark brown CLAY	
	4	24	7		WOH	3			7	Gray-brown CLAY with fine Sand Lenses	
				9			4	5			
10										Gray/orange CLAY, with fine Sand lenses	
	5	16	10		5	6			12	Brown medium to fine SAND, trace Gravel, trace Silt	
				12			6	5			
15											
	6	24	15		3	6			24		
				17			18	34		Brown fine SAND, with Silt lenses	
20											
	7	24	20		WOH/ 12"				6	Brown coarse to fine SAND, trace Gravel, trace Silt	
				22			6	6		Brown fine SAND, little Silt	
25											
	8	24	25		2	3			7	Same	
				27			4	4			
30											
	9	20	30		10	10			22	Brown medium to fine SAND, trace Silt, trace Gravel	
				32			12	17			
35											
										Weathered Rock	
40										BORING COMPLETED AT 38 FEET REFUSAL ON ROCK	

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:	The Collection	BORING NO.	SB-2
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger	GROUND ELEVATION:	157±
BORING BY: General Borings Inc.	DATE STARTED: 10/20/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: RG	DATE COMPLETED: 10/20/2014	0 Hr. 11'± Date 10/20/14	24 Hr. Date

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)		
										4" Asphalt	
	1	22	1		12	14			29	FILL: Dark brown fine SAND, little medium to fine Gravel, little Silt	
				3			15	12			
	2	19	3		16	14			28	Same	
5				5			14	12			
	3	18	5		7	13			26	... with Wood, Asphalt fragments	
				7			13	10			
	4	18	7		10	11			22	Gray-brown Clayey SILT, some fine Sand	
				9			11	11			
10											
	5	14	10		10	12			25	Gray-brown coarse to fine SAND, some medium to fine Gravel, trace Silt	
				12			13	11			
15											
	6	20	15		7	18			43	Gray-brown fine SAND, some Silt	
				17			25	38			
20											
	7	24	20		5	7			14	... trace Gravel	
				22			7	11			
25											
30											
	8	24	30		7	6			13	Same	
				32			7	11			
35											
40										BORING COMPLETED AT 38 FEET REFUSAL ON ROCK	

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:	The Collection	BORING NO.	SB-3
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger/Mud Rotary	GROUND ELEVATION:	158±
BORING BY: General Borings Inc.	DATE STARTED: 10/20/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: RG	DATE COMPLETED: 10/20/2014	0 Hr. 10.5± Date 10/20/14	24 Hr. Date

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										4" Asphalt	
	1	21	1		6	7			14	FILL: Dark brown coarse to fine SAND, some coarse to fine	
				3			7	8		Gravel, little Silt	
	2	20	3		7	8			19	... with Asphalt fragments	
5				5			11	10			
	3	24	5		4	4			12	Gray-brown Clayey SILT, little fine Sand	
				7			8	12			
	4	24	7		8	11			25	Gray-brown fine SAND, little Silt	
				9			14	14		Light brown fine SAND, little coarse to fine Gravel, trace Silt	
10											
	5	19	10		5	4			8		
				12			4	4		Brown coarse to fine SAND, some coarse to fine Gravel, trace Silt	
15											
	6	10	15		2	2			4	Same	
				17			2	3			
20											
	7	19	20		4	5			11	Gray-brown fine SAND and Silt	
				22			6	5			
25											
30											
	8	15	30		5	4			8	Brown coarse to fine SAND and coarse to fine Gravel, trace Silt, with	
				32			4	6		Cobbles	
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:	The Collection	BORING NO.	SB-3
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger/Mud Rotary	GROUND ELEVATION:	157±
BORING BY: General Borings Inc.	DATE STARTED 10/20/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: RG	DATE COMPLETED 10/20/2014	0 Hr. 10.5± Date 10/20/14	24 Hr. Date

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
		(in)	(ft)	(ft)							
40	9	13	40		57	27			43	Weathered Rock: Appears as Gray/white/brown coarse to fine	
				42			16	20		SAND, and coarse to fine Gravel, trace Silt	
45											
	RC-1	0	45						2.5	Rock Core Run 1: (45'-50')	
									1.5	Boulder from 45-50ft	
									1.5		
									1.5		
50				50					1.5		
										BORING COMPLETED AT 50 FEET	
										COULD NOT ADVANCE CASING BEYOND BOULDER	
55											
60											
65											
70											
75											
80											

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:	The Collection	BORING NO.	SB-4
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger	GROUND ELEVATION:	156±
BORING BY: General Borings Inc.	DATE STARTED: 10/16/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: JN	DATE COMPLETED: 10/16/2014	0 Hr. 8.5'± Date 10/16/14	24 Hr. Date

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										1.5" Asphalt, 2.5" Subbase	
	1	20	1		11	13			22	FILL: Dark gray fine SAND and Silt, trace Gravel, with Wood	
				3			9	5			
	2	4	3		2	50/3"				... with Concrete, Plastic	
5				5							
	3	3	5		3	4			11	FILL: Brown coarse to fine SAND, some Silt, little coarse to fine Gravel	
				7			7	5			
	4	8	7		6	6			15	FILL: Gray fine SAND and Silt, trace Gravel, with Wood	
				9			9	9			
10											
	5	24	10		WOH	6			16	Brown coarse to fine SAND, trace Silt	
				12			10	13			
15											
	6	24	15		5	7			22	Brown fine SAND, trace Silt	
				17			15	13			
20											
	7	18	20		4	6			13	Same	
				22			7	10			
25											
	8	24	25		8	8			19	Same	
				27			11	11			
30											
35											
	9	24	35		20	23			45	Brown coarse to fine SAND, trace Silt, trace Gravel	
				37			22	23		Weathered Rock	
40										BORING COMPLETED AT 38 FEET REFUSAL ON ROCK	

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 5

SESI CONSULTING ENGINEERS

PROJECT NAME:	The Collection	BORING NO.	SB-5
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger/Mud Rotary	GROUND ELEVATION:	156±
BORING BY: General Borings Inc.	DATE STARTED: 10/17/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: RG	DATE COMPLETED: 10/17/2014	0 Hr. 11'± Date 10/17/14	24 Hr. Date

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)		
										2" Asphalt, 2.5" Subbase	
	1	22	1		10	10			20	FILL: Brown coarse to fine SAND, little coarse to fine Gravel, little Silt	
				3			10	9			
	2	16	3		6	11			24	FILL: Black/brown coarse to fine SAND, some coarse to fine Gravel,	
5				5			13	12		some Silt	
	3	24	5		2	2			4	Black Silty CLAY, little fine Sand, trace Gravel	
				7			2	4			
	4	23	7		4	5			10	Gray-brown Clayey SILT, and fine Sand	
				9			5	8			
10											
	5	21	10		2	7			14	Same	
				12			7	8		Orange-brown coarse to fine SAND, little medium to fine Gravel, little	
										Silt	
15											
	6	16	15		9	9			21	Brown fine SAND, trace Silt	
				17			12	10			
20											
	7	19	20		6	8			15	Gray-brown fine SAND, some Silt	
				22			7	8			
25											
30											
	8	16	30		9	11			26	Gray-brown coarse to fine SAND, little Silt, trace Gravel	
				32			15	16			
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:	The Collection	BORING NO.	SB-5
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger/Mud Rotary	GROUND ELEVATION:	156±
BORING BY: General Borings Inc.	DATE STARTED	10/17/2014	GROUNDWATER TABLE DEPTH
INSPECTOR: RG	DATE COMPLETED	10/17/2014	0 Hr. 11'± Date 10/17/14 24 Hr. Date

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
40	9	14	40		53	24			66	Gray-brown fine SAND, little Silt, trace Gravel	
				42			42	55			
45											
50											
	10	2	50		100/2"					Weathered Rock: appears as White/ black/ brown coarse to fine SAND and coarse to fine Gravel, with Cobbles	
				52							
55											
60											
	RC-1	48	60						2 min	Rock Core: Run 1 (60'-65')	
									2 min	Schist	
									1 min	Recovery: 48"/60" = 80%	
									1 min	RQD: 35"/60" = 58%	
65				65					3 min		
	RC-2	60	65						2 min	Rock Core: Run 2 (65'-70')	
									1 min	Schist	
									2 min	Recovery: 60"/60" = 100%	
									1 min	RQD: 54"/60" = 90%	
70				70					1 min		
										BORING COMPLETED AT 70 FEET	
75											
80											

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:	The Collection	BORING NO.	SB-6
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger	GROUND ELEVATION:	156±
BORING BY: General Borings Inc.	DATE STARTED: 10/20/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: RG	DATE COMPLETED: 10/120/2014	0 Hr. 11.5'± Date 10/20/14	24 Hr. Date

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										4" Asphalt	
5											
10	1	24	9	11	1	3	3	6	6	Brown fine SAND, trace Silt	
										Drilled to Bedrock	
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 7

SESI CONSULTING ENGINEERS			
PROJECT NAME:	The Collection	BORING NO.	SB-6
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger	GROUND ELEVATION:	157±
BORING BY: General Borings Inc.	DATE STARTED: 10/20/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: RG	DATE COMPLETED: 10/120/2014	0 Hr. 11.5'± Date 10/20/14	24 Hr. Date

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
40										Drilled to Bedrock	
45											
50											
55											
60										BORING COMPLETED AT 56 FEET REFUSAL ON ROCK	
65											
70											
75											
80											

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:	The Collection	BORING NO.	SB-7
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger/Mud Rotary	GROUND ELEVATION:	154±
BORING BY: General Borings Inc.	DATE STARTED: 10/15/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: JN	DATE COMPLETED: 10/15/2014	0 Hr. 8'± Date 10/15/14	24 Hr. Date

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										1.5" Asphalt, 2.5" Subbase	
	1	21	1	3	11	20	14	24	34	FILL: Gray medium to fine SAND, little Silt, trace Gravel, with Wood	
	2	7	3	5	30	16	20	8	36	FILL: Wood fragments	
5	3	2	5	7	2	3	4	7	7	FILL: Gray medium to fine SAND, trace Gravel, trace Clay	
	4	20	7	9	6	9	9	14	18	Gray-brown medium to fine SAND, trace Silt with Organic fibers	
10	5	24	10	12	3	4	9	11	13	Gray-brown CLAY, little fine Sand	
										Brown coarse to fine SAND, little coarse to fine Gravel, trace Silt	
15	6	12	15	17	3	10	12	10	22	Brown medium fine SAND, little Silt, trace Gravel	
20	7	18	20	22	5	7	10	12	17	Brown fine SAND, little Silt	
25	8	12	25	27	2	6	8	10	14	Same	
30	9	14	30	32	4	5	10	15	15	Brown SILT and fine Sand	
35	10	18	35	37	3	7	11	26	18	Same	
40										Weathered Rock	

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 8

SESI CONSULTING ENGINEERS

PROJECT NAME:	The Collection	BORING NO.	SB-7
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger/Mud Rotary	GROUND ELEVATION:	154±
BORING BY: General Borings	DATE STARTED 10/15/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: JN	DATE COMPLETED 10/15/2014	0 Hr. 8± Date 10/15/14	24 Hr. Date

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
40										Weathered Rock	
45											
	11	3	46		35	50/3"				Weathered rock: Appears as Brown coarse to fine SAND,	
				48						some coarse to fine Gravel, trace Silt	
50											
	RC-1	60	50						2 min	Rock Core: Run 1 (50'-55')	
									2 min	Gneiss	
									2.5 min	Recovery: 60"/60" = 100%	
									2.5 min	RQD: 60"/60" = 100%	
55				55					2.5 min		
	RC-2	56	55						2.5 min	Rock Core: Run 2 (55'-60')	
									2.5 min	Gneiss	
									2.5 min	Recovery: 56"/60" = 93%	
									3 min	RQD: 56"/60" = 93%	
60				60					3 min		
										BORING COMPLETED AT 60 FEET	
65											
70											
75											
80											

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:	The Collection	BORING NO.	SB-8
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger	GROUND ELEVATION:	154±
BORING BY: General Borings Inc.	DATE STARTED: 10/20/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: RG	DATE COMPLETED: 10/20/2014	0 Hr. 11.5'± Date 10/20/14	24 Hr. Date

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										2" Asphalt, 2" Subbase	
	1	17	1	3	15	19	27	24	46	FILL: Dark brown coarse to fine SAND, some coarse to fine Gravel, little Silt	
	2	22	3	5	35	25	30	25	55	FILL: Dark brown coarse to fine SAND, little fine Gravel, little Silt, with Cobbles	
5											
	3	8	5	7	16	50/3"				Same (Boulder from 6'-8')	
10											
	4	18	10	12	18	29	21	24	50	Gray-brown fine SAND, some Silt	
										Brown coarse to fine SAND, trace Silt	
15											
	5	18	15	17	6	6	10	20	16	Brown fine SAND, some Silt	
20											
	6	24	20	22	11	11	7	5	18	Gray-brown fine SAND, some Silt	
25											
30											
	7	14	30	32	5	13	13	15	26	Same	
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:	The Collection	BORING NO.	SB-8
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger	GROUND ELEVATION:	155±
BORING BY: General Borings Inc.	DATE STARTED	10/20/2014	GROUNDWATER TABLE DEPTH
INSPECTOR: RG	DATE COMPLETED	10/20/2014	0 Hr. 11.5± Date 10/20/14 24 Hr. Date

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)		
40	8	20	40		9	17			52	Weathered Rock: Appears as Gray-brown coarse to fine	
				42			35	34		SAND, some coarse to fine Gravel, little Silt	
45											
50										Weathered Rock: Appears as Brown/white/black coarse to fine SAND,	
	9	4	50		50/4"					some coarse to fine Gravel, trace Silt	
				50.3"							
55										BORING COMPLETED AT 50.3 FEET	
										REFUSAL ON ROCK	
60											
65											
70											
75											
80											

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:	The Collection	BORING NO.	SB-9
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger	GROUND ELEVATION:	154±
BORING BY: General Borings Inc.	DATE STARTED: 10/15/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: JN	DATE COMPLETED: 10/15/2014	0 Hr. 10'± Date 10/15/14	24 Hr. Date

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										1.5" Asphalt, 2.5" Subbase	
	1	20	1		13	13			24	FILL: Gray medium to fine SAND, some coarse to fine Gravel	
				3			11	8		little Silt, with Brick	
	2	10	3		9	10			22	Same	
5				5			12	8			
	3	24	5		4	5			9	Brown medium to fine SAND, little coarse to fine Gravel, trace Silt	
				7			4	2			
	4	18	7		2	2			6		
				9			4	4		Gray CLAY, little fine Sand, with Organic fibers	
10											
	5	24	10		6	7			14	Gray-brown fine SAND, some Silt	
				12			7	8		Brown fine SAND, little Silt	
15											
	6	24	15		7	8			18	Same	
				17			10	14			
20											
	7	24	20		4	5			12	Same	
				22			7	10			
25											
	8	12	25		6	6			14	Brown coarse to fine SAND, some coarse to fine Gravel, trace Silt	
				27			8	7			
30											
	9	24	30		6	10			30	Same	
				32			20	30			
										Brown fine SAND, little Silt	
35											
	10	18	35		14	27			54	Brown coarse to fine SAND, little coarse to fine Gravel, trace Silt	
				37			27	33			
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:	The Collection	BORING NO.	SB-9
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger	GROUND ELEVATION:	156±
BORING BY: General Borings Inc.	DATE STARTED: 10/15/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: JN	DATE COMPLETED: 10/15/2014	0 Hr. 10'± Date 10/15/14	24 Hr. Date

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
		(in)	(ft)	(ft)							
40	11	20	40		11	20			47	Brown coarse to fine SAND, little coarse to fine Gravel, trace	
				42			27	36		Silt	
45										...Boulder at 43 feet	
	12	24	45		40	44			97	Brown medium to fine SAND, trace Gravel, trace Silt	
				47			53	80			
50											
	13	8	50		50/2"					Weathered Rock	
				52							
55											
	14	3	55		100/3"					Same	
				57							
60											
65											
	15	2	65		50/2"					Same	
				67							
										BORING COMPLETED AT 66 FEET	
										REFUSAL ON ROCK	
70											
75											
80											

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:	The Collection	BORING NO.	SB-10
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger	GROUND ELEVATION:	163' ±
BORING BY: General Borings Inc.	DATE STARTED: 10/3/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: RG	DATE COMPLETED: 10/3/2014	0 Hr. 11' ± Date 10/3/14	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										2" Asphalt and 3" Gravel	
	1	18	1		9	8			11	FILL: Dark brown coarse to fine SAND, trace Gravel, trace Silt	
				3			3	3			
	2	4	3		6	6			10	... with Cobbles	
5				5			4	4			
	3	23	5		3	3			6	Brown medium to fine SAND, little Silt	
				7			3	4			
	4	0	7		10	14			32		
				9			18	24			
10											
	5	16	10		10	9			15	Brown coarse to fine SAND, and coarse to fine Gravel, trace Silt	
				12			6	6		Gray/brown fine SAND, little Silt	
15											
	6	13	15		5	11			21	Brown coarse fine SAND, little coarse to fine Gravel, trace Silt	
				17			10	10			
20											
	7	18	20		3	7			18	Same	
				22			11	27			
25											
	8	16	25		5	15			40	... with Cobble	
				27			25	50/4"			
30											
	9	12	30		16	33				Gray/brown coarse to fine SAND, and coarse to fine Gravel,	
				32			50/4"			little Silt, with fractured rock	
35											
	10	3	35		50/3"					Weatehred Rock - appears asBrown/white coarse to fine GRAVEL, fine	
				37						some coarse to Sand, trace Silt, with fractured Rock	
										BORING COMPLETED AT 35.25 FEET	
										REFUSAL ON ROCK	
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:	The Collection	BORING NO.	SB-11
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger	GROUND ELEVATION:	161' ±
BORING BY: General Borings Inc.	DATE STARTED: 10/3/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: RG	DATE COMPLETED: 10/3/2014	0 Hr. 15' ± Date 10/3/14	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										1" Asphalt and 3" Gravel	
	1	10	1	3	13	13	10	7	23	FILL: Dark brown coarse to fine SAND, and coarse to fine Gravel, trace Silt, with Cobbles and Asphalt fragments	
	2	0	3	5	10	2	1	2	3		
5	3	18	5	7	2	2	3	3	5	Same	
	4	18	7	9	11	15	20	35	35	Brown SILT, and medium to fine Sand, trace Gravel W.C.=19.3% (-200)=52.7%	
10	5	13	10	12	3	6	9	9	15	Brown coarse to fine SAND, little medium to fine Gravel, trace Silt W.C.=4.6% (-200)=2.8%	
15	6	24	15	17	9	9	7	12	16	Gray-brown fine SAND, little Silt	
20	7	24	20	22	3	4	6	7	10	Same	
25	8	22	25	27	7	14	16	19	30	Brown coarse to fine SAND, trace Gravel, trace Silt	
30	9	14	30	32	20	38	50/3"			Weathered Rock - appears as Brown/white coarse to fine SAND, some fine Gravel, trace Silt	
35										BORING COMPLETED AT 32 FEET REFUSAL ON ROCK	
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:	The Collection	BORING NO.	SB-12
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger	GROUND ELEVATION:	160' ±
BORING BY: General Borings Inc.	DATE STARTED: 10/3/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: RG	DATE COMPLETED: 10/3/2014	0 Hr. 16.5' ± Date 10/3/14	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										2" Asphalt and 4" Gravel	
	1	12	1		33	26			50	FILL: Black/gray coarse to fine SAND, and coarse to fine	
				3			24	20		Gravel, trace Silt, with Asphalt fragments	
	2	7	3		3	3			5	Brown coarse to fine SAND, some coarse to fine Gravel,	
5				5			2	3		little Silt, with Cobble	
	3	24	5		2	6			13		
				7			7	11			
	4	17	7		18	34				Brown/gray coarse to fine SAND, little medium to fine	
				9			50/5"			Gravel, little Silt	
10											
	5	14	10		5	9			18	Brown coarse to fine SAND, and medium to fine Gravel,	
				12			9	8		trace Silt	
15											
	6	19	15		3	4			10	Brown/gray/black medium to fine SAND, little Silt (odor)	
				17			6	7			
20											
	7	24	20		4	4			9	Same	
				22			5	5			
										Brown medium to fine SAND, trace Gravel, trace Silt (odor)	
25											
	8	19	25		4	6			13	Brown coarse to fine SAND, some coarse to fine Gravel, trace Silt	
				27			7	20			
30											
	9	24	30		8	8			32	... with Fractured Rock	
				32			24	19			
35											
	10	17	35		11	50/5"				Same	
				37						BORING COMPLETED AT 36 FEET	
										REFUSAL ON ROCK	
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:	The Collection	BORING NO.	SB-13
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger/Mud Rotary	GROUND ELEVATION:	159±
BORING BY: General Borings Inc.	DATE STARTED: 10/16/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: RG	DATE COMPLETED: 10/16/2014	0 Hr. 10'± Date 10/16/14	24 Hr. Date

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										1.5" Asphalt	
	1	14	1		15	15			25	FILL: Light brown coarse to fine SAND, little coarse to fine Gravel,	
				3			10	7		trace Silt	
	2	18	3		6	8			12	Same	
5				5			4	4			
	3	9	5		3	6			12	FILL: Light brown coarse to fine SAND, some coarse to fine Gravel	
				7			6	7		trace Silt, with Cobbles	
	4	16	7		9	7			14	Same	
				9			7	7			
10											
	5	5	10		5	8			14	Brown coarse to fine SAND and coarse to fine Gravel, little Silt	
				12			6	5		(Switched to Mud Rotary at 10 ft.)	
15											
	6	6	15		3	3			6	Same	
				17			3	3			
20											
	7	7	20		6	6			15	Same	
				22			9	7			
25											
30											
	8	15	30		10	12			26	Gray-brown fine SAND, some Silt	
				32			14	12		Gray-brown coarse to fine SAND, some Silt, some coarse to fine Gravel	
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:	The Collection	BORING NO.	SB-13
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger/Mud Rotary	GROUND ELEVATION:	158±
BORING BY: General Borings Inc.	DATE STARTED: 10/16/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: RG	DATE COMPLETED: 10/16/2014	0 Hr. 10'± Date 10/16/14	24 Hr. Date

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
40	9	11	40		26	16			27	Gray-brown coarse to fine SAND, some coarse to fine Gravel	
				42			11	14		little Silt	
45											
50											
	10	0	50		50/1"					BORING COMPLETED AT 50'1" FEET	
				52						REFUSAL ON ROCK	
55											
60											
65											
70											
75											
80											

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 14

SESI CONSULTING ENGINEERS

PROJECT NAME:	The Collection	BORING NO.	SB-14
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger/Mud Rotary	GROUND ELEVATION:	159±
BORING BY: General Borings Inc.	DATE STARTED: 10/16/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: RG	DATE COMPLETED: 10/17/2014	0 Hr. 16'± Date 10/16/14	24 Hr. 16'± Date 10/17/14

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										1.5" Asphalt	
	1	13	1		7	11			21	Light brown coarse to fine SAND, little coarse to fine Gravel, trace Silt	
				3			10	6			
	2	6	3		10	11			20	Same	
5				5			9	9			
	3	12	5		6	8			17	… with Cobble	
				7			9	9			
	4	3	7		15	10			20	Brown medium to fine SAND, trace Silt	
				9			10	9			
10											
	5	16	10		3	3			7	Brown fine SAND, trace Silt	
				12			4	5			
15											
	6	8	15		3	50/2"				Gray-brown fine SAND, some Silt, with Cobble	
				17							
20										Boulder at 19-21 ft.	
	7	3	21		50/3"					Gray-brown coarse to fine GRAVEL, trace Sand, trace Silt	
				23							
25											
	8	8	25		20	40				Gray coarse to fine SAND and coarse to fine Gravel, little Silt,	
				27			50/2"			with weathered Rock	
30										Weathered Rock	
35	9	0	34		50/1"					BORING COMPLETED AT 34 FEET	
				36						REFUSAL ON ROCK	
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 15

SESI CONSULTING ENGINEERS

PROJECT NAME:	The Collection	BORING NO.	SB-15
LOCATION:	White Plains, NY	JOB NO.	8949
METHOD:	Hollow Stem Auger/ Mud Rotary	GROUND ELEVATION:	159±
BORING BY: General Borings Inc.	DATE STARTED: 10/17/2014	GROUNDWATER TABLE DEPTH	
INSPECTOR: RG	DATE COMPLETED: 10/17/2014	0 Hr. NE / Date 10/17/14 / 24 Hr. / Date	

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										1.5" Asphalt	
	1	3	1		5	7			19	FILL: Brown fine SAND, trace Silt, with Asphalt fragments	
				3			12	9			
	2	20	3		4	4			8	Brown fine Sand, trace Silt	
5				5			4	4			
	3	17	5		3	5			11	Same	
				7			6	5			
	4	18	7		5	5			9	Same	
				9			4	3			
10											
	5	20	10		2	4			8	Same	
				12			4	5		(Switched to Mud Rotary at 12 ft.)	
15											
	6	10	15		8	20			60	Brown coarse to fine SAND, some coarse to fine Gravel, little Silt	
				17			40	20			
20											
	7	7	20		20	50/3"				Brown coarse to fine SAND, little coarse to fine Gravel, little Silt	
				22							
25											
30											
	8	3	30		100/3"					Weathered Rock: Appears as black/white/brown coarse to fine SAND,	
				32						some medium to fine Gravel, trace Silt	
35											
40	9	0	40		100/1"					BORING COMPLETED AT 40 FEET REFUSAL ON ROCK	

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 16

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

Fig. 17

APPENDIX

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Chauncey WP LLC and Saber White Plains LLC	SHEET 1 OF 1 HOLE NO. B-1
	PROJECT NO. G172-9243-12	
	PROJECT NAME 80 and 90 - 96 Westchester Ave.	BORING LOCATIONS per Plan
FOREMAN - DRILLER MD/pe	LOCATION White Plains, New York	
INSPECTOR		
GROUND WATER OBSERVATIONS AT 17 FT AFTER 0 HOURS AT FT AFTER HOURS		

	CASING	SAMPLER	CORE BAR
TYPE	HSA	SS	NWD4
SIZE I.D.	4 ¼"	1 3/8"	2 ⅛"
HAMMER WT.		140#	BIT
HAMMER FALL		30"	dia

OFFSET
DATE START 12/11/12
DATE FINISH 12/11/12
SURFACE ELEV.
GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6	6 - 12	12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
		1	ss	24"	8"	2'0"	4	3			dry	0'2½"	BLACKTOP
							4	5			loose		brn FM SAND,sm C sand,F gravel (poss fill)
													brn FM SAND,sm C sand,F gravel (poss fill)
		2	ss	24"	13"	4'6"	6	5			dry		
5							5	5			loose		
		3	ss	24"	14"	7'0"	3	3			dry		lt brn M SAND,sm C sand
							4	4			loose		
		4	ss	24"	16"	9'0"	4	3			dry		
							4	3			loose		brn F SAND (poss fill)
10												10'0"	
		5	ss	24"	10"	12'0"	5	4			dry		lt brn M-C SAND
							7	6			compact		
		6	ss	24"	13"	14'0"	5	7			dry		brn F-C SAND & F GRAVEL
							7	9			compact		
15													
		7	ss	24"	16"	17'0"	4	4			moist/wet		brn F SAND
							5	5			loose		
20													
		8	ss	24"	18"	22'0"	2	2			wet		brn F SAND,tr silt,C sand
							2	2			loose		
25												24'0"	
		9	ss	24"	13"	27'0"	10	21			wet		gry F SAND,sm C sand,lit silt,F gravel
							30	43			v dense	27'0"	
		1	c	60"	52"	33'0"	RQD = 83%			2		28'0"	partially weathered BEDROCK Refusal
30										2			
										2			BEDROCK (Gneiss / Schist)
										2			
										2		33'0"	
35													E.O.B. 33'0"
40													

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____ CASING THEN _____ CASING TO _____FT. HOLE NO. B-1

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST
WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS
SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER
PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

C = COARSE
M = MEDIUM
F = FINE

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Chauncey WP LLC and Saber White Plains LLC	SHEET 1 OF 1 HOLE NO. B-2
	PROJECT NO. G172-9243-12	
	PROJECT NAME 80 and 90 - 96 Westchester Ave.	BORING LOCATIONS per Plan
FOREMAN - DRILLER MD/pe	LOCATION White Plains, New York	
INSPECTOR		
GROUND WATER OBSERVATIONS AT 20 FT AFTER 0 HOURS AT __FT AFTER __HOURS	TYPE: CASING HSA, SAMPLER SS, CORE BAR SIZE I.D.: 4 ¼", 1 3/8" HAMMER WT.: 140#, BIT HAMMER FALL: 30"	OFFSET DATE START 12/11/12 DATE FINISH 12/11/12 SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC.	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 / 6 - 12 / 12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
		1	ss	24"	18"	2'0"	7 3		dry	0'3"	BLACKTOP
							5 7		loose	1'0"	drk brn FM SAND,sm silt,C sand,lit F gravel
		2	ss	24"	16"	4'0"	7 9		dry		lt brn M-C SAND (poss fill)
							7 8		compact		
5											
		3	ss	24"	12"	7'0"	4 5		dry		lt brn F-C SAND & F GRAVEL
							5 5		loose		
		4	ss	24"	11"	9'0"	5 7		dry		SAME
							6 7		compact		
10											
		5	ss	24"	9"	12'0"	5 5		dry		SAME,sm F gravel
							8 7		compact		
		6	ss	24"	16"	14'0"	7 6		dry		lt brn F SAND,sm M-C sand,lit F gravel
							6 7		compact		
15											
		7	ss	24"	13"	17'0"	3 4		dry		lt brn M-C SAND,lit to sm F gravel
							6 9		loose		
20											
		8	ss	24"	16"	22'0"	2 4		wet		brn F SAND,lit M-C sand,lr silt
							4 3		loose		
25											
		9	ss	24"	24"	27'0"	3 4		wet		brn VF F SAND,lit silt
							5 5		loose		
30											
		10	ss	24"	12"	32'0"	13 14		wet	31'0"	
							23 41		dense		gry FM SAND,sm C sand,F gravel,lit silt
35											
		11	ss	16"	16"	36'4"	23 21				brn F SAND,sm C sand,F gravel,lit silt
							50/4"				
40		12	ss	0"	0"	40'0"	50/0"		wet v dense	40'0"	Auger refusal E.O.B. 40'0"

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. HOLE NO. B-2

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

C = COARSE
M = MEDIUM
F = FINE

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Chauncey WP LLC and Saber White Plains LLC	SHEET 1 OF 1 HOLE NO. B-3
	PROJECT NO. G172-9243-12	
	PROJECT NAME 80 and 90 - 96 Westchester Ave.	BORING LOCATIONS per Plan
FOREMAN - DRILLER MD/pe	LOCATION White Plains, New York	
INSPECTOR	TYPE: CASING FW/MR; SAMPLER SS; CORE BAR	OFFSET
GROUND WATER OBSERVATIONS AT 10 FT AFTER 0 HOURS AT FT AFTER HOURS	SIZE I.D.: CASING 4" / 3 ¼"; SAMPLER 1 3/8"	DATE START 12/12/12 DATE FINISH 12/12/12
	HAMMER WT.: SAMPLER 140#; CORE BAR BIT	SURFACE ELEV. -12' *
	HAMMER FALL: SAMPLER 30"	GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0-6 / 6-12 / 12-18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC. *0' = Top of slab (lower level of parking garage)
										0'5"	CONCRETE
		1	ss	24"	15"	2'6"	2 / 5		dry compact		brn F SAND,sm M-C sand,lit F gravel
							15 / 14		dry compact		
		2	ss	24"	12"	4'6"	17 / 15				
5							14 / 13			5'0"	brn M sand,lit C sand,F gravel
		3	ss	24"	5"	7'0"	4 / 4		dry loose		brn F SAND
							4 / 4		dry loose		
		4	ss	24"	5"	9'0"	3 / 3				
10							3 / 3				
		5	ss	24"	11"	12'0"	3 / 4		wet loose		
							3 / 6				SAME
		6	ss	24"	16"	14'0"	6 / 5		wet loose		
							4 / 7				
15										15'0"	
		7	ss	24"	6"	17'0"	58 / 29		wet dense		brn FM SAND,sm C sand,lit silt,F gravel,tr C gravel
							20 / 24				
20		8	ss	6"	1"	20'6"	85/6"		wet v dense	20'0"	
											partially decomposed BEDROCK
25		9	ss	0"	0"	25'0"	50/0"		wet v dense		
										26'0"	Roller bit refusal
											E.O.B. 26'0"
30											
35											
40											

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. HOLE NO. B-3

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

C = COARSE
M = MEDIUM
F = FINE

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Chauncey WP LLC and Saber White Plains LLC	SHEET 1 OF 1 HOLE NO. B-4
	PROJECT NO. G172-9243-12	
	PROJECT NAME 80 and 90 - 96 Westchester Ave.	BORING LOCATIONS per Plan
FOREMAN - DRILLER MD/pe	LOCATION White Plains, New York	
INSPECTOR	CASING / SAMPLER / CORE BAR	OFFSET
	TYPE FW / MR / SS	DATE START 12/11/12
	SIZE I.D. 4" / 3 ⅞" / 1 3/8"	DATE FINISH 12/12/12
GROUND WATER OBSERVATIONS AT 10 FT AFTER 0 HOURS AT FT AFTER HOURS	HAMMER WT. 140# BIT	SURFACE ELEV. -12' *
	HAMMER FALL 30"	GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 / 6 - 12 / 12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC. *0' = Top of slab (lower level of parking garage)
										0'8"	CONCRETE
		1	ss	24"	14"	3'0"	5 4		dry loose		brn FM SAND,sm to lit C sand (with a 6" layer of) drk brn F sand, silt
							4 4				
		2	ss	24"	13"	5'0"	3 4		dry loose		SAME,no drk brn layer
5							5 5				
		3	ss	24"	18"	7'0"	7 8		dry compact		brn M SAND
							6 7				
		4	ss	24"	16"	9'0"	7 5		dry compact		brn M SAND,sm F gravel
							5 5				
10		5	ss	24"	6"	11'0"	6 6		wet compact		SAME
							7 8				
15											
		6	ss	24"	6"	17'0"	24 14		wet compact		SAME
							10 17				
											BOULDER 18 - 19'6"
20											
		7	ss	24"	16"	22'0"	7 4		wet compact		SAME,lit F sand
							7 8				
25										25'0"	
		8	ss	24"	13"	27'0"	19 16		wet compact		gry brn FM SAND,sm C sand,F gravel,lit silt
							13 12				
30											
		9	ss	18"	10"	31'6"	30 24		wet v dense		SAME,lit C gravel
							41			32'0"	
									wet v dense		partially decomposed BEDROCK
35		10	ss	9"	9"	35'9"	64 50/3"				
										38'6"	Roller bit refusal
40											E.O.B. 38'6"

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. HOLE NO. B-4

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

C = COARSE
M = MEDIUM
F = FINE

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Chauncey WP LLC and Saber White Plains LLC	SHEET 1 OF 1 HOLE NO. B-5
	PROJECT NO. G172-9243-12	
	PROJECT NAME 80 and 90 - 96 Westchester Ave.	BORING LOCATIONS per Plan
FOREMAN - DRILLER MD/pe	LOCATION White Plains, New York	
INSPECTOR	CASING / SAMPLER / CORE BAR TYPE HSA / SS SIZE I.D. 4 ¼" / 1 3/8" HAMMER WT. 140# / BIT HAMMER FALL 30"	OFFSET DATE START 11/19/12 DATE FINISH 11/20/12 SURFACE ELEV. -12' * GROUND WATER ELEV.
GROUND WATER OBSERVATIONS AT 5 FT AFTER 0 HOURS AT __ FT AFTER __ HOURS		

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC.	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 / 6 - 12 / 12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC. *0' = Top of slab (lower level of parking garage)
										0'6"	CONCRETE
		1	ss	24"	14"	2'6"	10 / 6		dry	1'6"	brn SILT & FM SAND,sm C sand,lit F gravel
							13 / 10		compact		brn FM SAND,sm silt,lit C sand,F gravel
		2	ss	24"	18"	4'6"	16 / 23		dry/moist		brn FM SAND,tr silt
5							18 / 16		dense		
		3	ss	24"	10"	7'0"	8 / 7		wet		brn FM SAND
							5 / 7		compact		
		4	ss	24"	12"	9'0"	4 / 3		wet		brn F-C SAND,lit F gravel
							4 / 4		loose		
10											
		5	ss	24"	5"	12'0"	3 / 4		wet		SAME
							4 / 3		loose		
		6	ss	24"	13"	14'0"	5 / 6		wet		
							4 / 4		loose		gry FM SAND,lit silt,C sand,F gravel
15											
		7	ss	24"	18"	17'0"	12 / 12		wet		lt brn F SAND,tr silt
							12 / 11		compact		
20											
		8	ss	24"	15"	22'0"	8 / 9		wet		SAME
							11 / 12		compact		
25											
		9	ss	24"	16"	27'0"	11 / 13		wet		brn VF SAND,lit silt
							14 / 10		compact		brn F-C SAND,sm F gravel
30											
		10	ss	24"	15"	32'0"	11 / 11		wet		brn F SAND,tr C sand
							12 / 12		compact		brn VF-F SAND,lit silt,tr C sand
										32'6"	
											brn F-C SAND,sm F gravel,lit silt
35											
		11	ss	24"	7"	37'0"	53 / 38		wet		
							29 / 21		v dense		
									wet	39'6"	
		12	ss	0"	0"	40'0"	50/0"		v dense		
45										41'0"	partially decomposed BEDROCK Roller bit refusal E.O.B. 41'0"

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____ FT. USED _____ CASING THEN _____ CASING TO _____ FT. HOLE NO. B-5

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

C = COARSE
M = MEDIUM
F = FINE

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Chauncey WP LLC and Saber White Plains LLC	SHEET 1 OF 1 HOLE NO. B-6
	PROJECT NO. G172-9243-12	
	PROJECT NAME 80 and 90 - 96 Westchester Ave.	BORING LOCATIONS per Plan
FOREMAN - DRILLER MD/pe	LOCATION White Plains, New York	
INSPECTOR	TYPE: CASING HSA, SAMPLER SS, CORE BAR	OFFSET
GROUND WATER OBSERVATIONS AT__FT AFTER 0 HOURS AT__FT AFTER__HOURS	SIZE I.D.: 4 ¼", 1 3/8" HAMMER WT.: 140#, BIT HAMMER FALL: 30"	DATE START 11/19/12 DATE FINISH 12/13/12 SURFACE ELEV. -12' * GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6	6 - 12	12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC. *0' = Top of slab (lower level of parking garage)
		1	ss	24"	18"	3'0"	3	5			dry/moist compact		brn M SAND,lit C sand,F gravel,tr C gravel
							9	14					
		2	ss	24"	13"	5'0"	12	11			dry/moist compact		
5							9	9					
		3	ss	24"	9"	7'0"	4	4			wet loose		
							5	4					brn VF SAND,sm silt
		4	ss	24"	18"	9'0"	4	4			wet loose		
							3	4					brn FM SAND,lit to sm C sand
10													
		5	ss	24"	22"	12'0"	3	4			wet loose		SAME,lit C sand,F gravel
							6	4					
		6	ss	24"	20"	14'0"	3	3			wet loose		
							4	6					
15													
		7	ss	24"	19"	17'0"	2	3			wet loose		brn F SAND,tr F gravel
							5	6					
20													
		8	ss	24"	8"	22'0"	2	3			wet loose		SAME
							2	4					
25													
		9	ss	24"	18"	27'0"	17	18			wet v dense	25'0"	
							36	29					brn F-M SAND,sm C sand,lit F gravel,silt,tr C gravel
												27'6"	
													partially decomposed BEDROCK
30												30'0"	Roller bit refusal
		1	c	60"	58"	35'0"	RQD = 52%			1.5			
										2			
										2			BEDROCK (Gneiss / Schist)
										2			
35										2		35'0"	
													E.O.B. 35'0"
40													

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. HOLE NO. B-6

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

C = COARSE
M = MEDIUM
F = FINE

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Real Estate Advisors	SHEET 1 OF 1 HOLE NO. B-7
	PROJECT NO. G37-9648-14	
	PROJECT NAME Keystone Square Phase II	BORING LOCATIONS per Plan
FOREMAN - DRILLER TP/cMc	LOCATION (70 - 96 Westchester Avenue) White Plains, New York	
INSPECTOR		
GROUND WATER OBSERVATIONS AT 16 FT AFTER 0 HOURS AT FT AFTER HOURS	TYPE: CASING HSA, SAMPLER SS, CORE BAR NWD4 SIZE I.D.: 4 ¼", 1 3/8", 2 ⅛" HAMMER WT.: 140#, BIT HAMMER FALL: 30", dia	OFFSET DATE START 3/25/14 DATE FINISH 3/25/14 SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC.	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 / 6 - 12 / 12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
0											2" ASPHALT brn F-M SAND, lit F gravel, tr silt
5		1	ss	24"	13"	7'0"	11 / 8 2 / 2		dry compact		brn F-M SAND, sm concrete, F gravel, lit brick (fill)
10		2	ss	24"	12"	12'0"	15 / 16 39 / 19		moist v dense		brn FM SAND, sm brick, F gravel, lit silt, concrete (fill)
15		3	ss	24"	14"	17'0"	4 / 4 44 / 17		moist-wet v dense	16'0"	brn FM SAND, sm silt, lit F gravel, tr brick (fill)
											gry FMC SAND, sm silt, lit F gravel, tr C gravel
20		4	ss	20"	12"	21'8"	25 / 39 54 / 60/2"		moist-wet v dense	21'0"	
											wh orange highly weathered BEDROCK
25		1	cr	60"	52"	30'0"	RQD = 40%	1.5 1.5 1.75 1.75 1.75		25'0"	partially decomposed BEDROCK Auger refusal *set 3" casing at 25'*
30		2	cr	60"	60"	35'0"	RQD = 61%	1.75 1.75 2.0 2.0 2.0			BEDROCK (Schist)
35										35'0"	
											E.O.B. 35'0"
40											*Set well at 24'*

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. HOLE NO. B-7

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

C = COARSE M = MEDIUM F = FINE

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

Phone
(203) 262-9328

Telefax
(203) 264-3414

WHITE PLAINS, N.Y.
(914) 946-4850

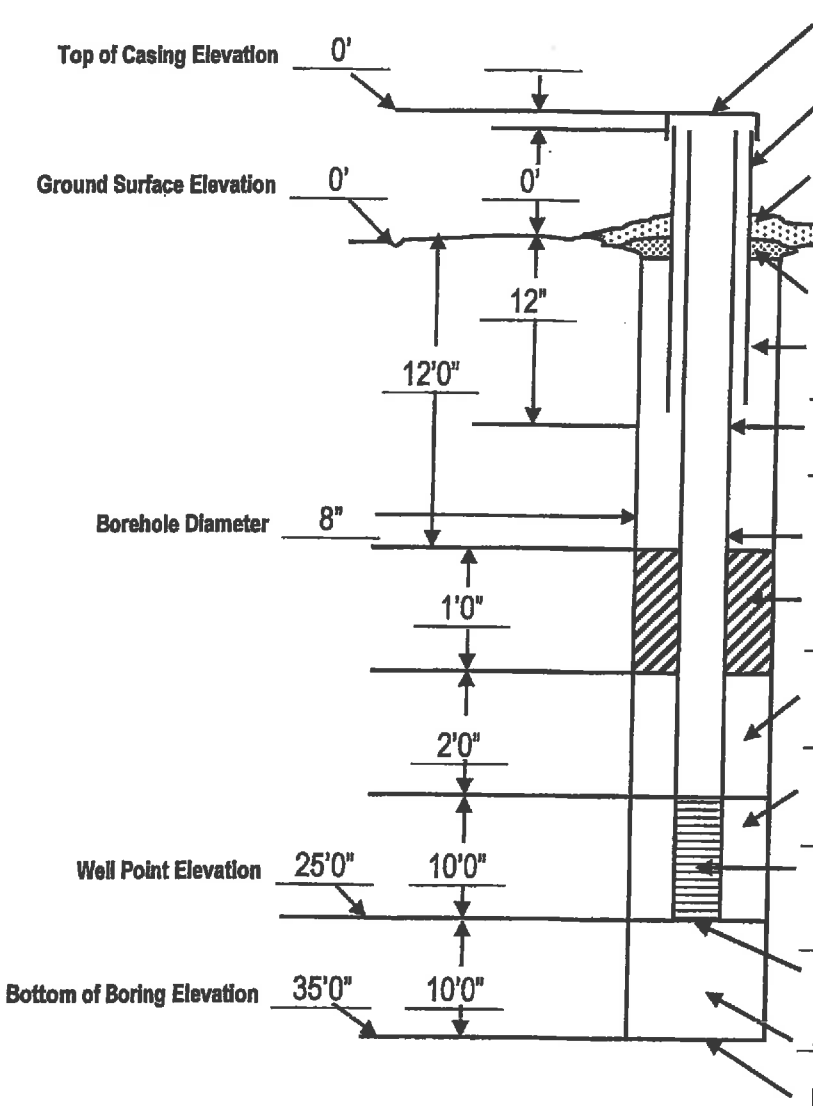
SOILTESTING, INC.

90 DONOVAN ROAD - OXFORD, CONN. 06478-1028

GEOTECHNICAL / ENVIRONMENTAL SUBSURFACE INVESTIGATIONS - Test Borings - Core Drilling
Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling
UNDERPINNING - HELICAL PILES - SOIL NAILS

Monitor Well # B-7

CLIENT: Saber Real Estate Advisors
JOB #: G37-9648-14



Stick Up Vented Locking Steel Cap ___ Yes X No
Drive/over w/Bolting Cover X Yes ___ No
Mounded Backfill ___ Yes X No
Concrete Collar X Yes ___ No
Backfill Material Formation
Type of Casing Screen 2" SCH 40 PVC
I.D. 2.067" O.D. 2.375"
Joint Type thd'd F.J.
Impermeable Backfill Bentonite Chips
Backfill Material #1 Silica Sand
Screen Packing #1 Silica Sand
Filter Fabric ___ Yes X No
If yes, Type ___
Screen Slot Size .010
Backfill Material #1 Sand
Refusal ___ Yes ___ No

Screen	10'	Bentonite Pellets		Locking Exp. Plug	1
Riser	15'	Bentonite Chips	1/2 bag	Lock	
Plug	1	Concrete Mix	1 bag	D/O	1
Slip Cap		Portland Cement		S/U	
Silica Sand	450#				
Powdered Bentonite					

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: **Saber Real Estate Advisors**	SHEET 1 OF 1 HOLE NO. B-8
	PROJECT NO. **G37-9648-14**	
	PROJECT NAME **Keystone Square Phase II**	BORING LOCATIONS per Plan
FOREMAN - DRILLER **TP/cMc**	LOCATION **(70 - 96 Westchester Avenue) White Plains, New York**	*Interior location*
INSPECTOR		
GROUND WATER OBSERVATIONS AT 7 FT AFTER 0 HOURS AT__FT AFTER__HOURS	TYPE: CASING HSA / FW; SAMPLER SS; CORE BAR NWD$ SIZE I.D.: 2½" / 3"; 1 3/8"; 2 ⅛" HAMMER WT.: 140#; BIT HAMMER FALL: 30"; dia	OFFSET DATE START 3/26/14 DATE FINISH 3/27/14 SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6	6 - 12	12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
													Basement Floor - 0'
5		1	ss	24"	14"	7'0"	5	11			moist-wet compact		brn F-M SAND, tr silt
							7	6					
10		2	ss	24"	13"	12'0"	5	6			wet compact		brn F-M SAND, lit C sand
							11	7					
15		3	ss	24"	18"	17'0"	7	9			wet compact		brn F-M SAND
							11	5					
20		4	ss	24"	14"	22'0"	5	9			wet compact		gry brn VFF-M SAND, lit C sand, silt
							11	10					
25		5	ss	21"	21"	26'9"	9	11			wet compact	27'0"	gry brn VF F SAND, tr highly weathered BEDROCK
							18	60/3"				27'9"	weathered BEDROCK *(set casing at 27')*
		1	cr	60"	50"	32'0"	RQD = 35%			2.5			
30										2.5			
										3.0			BEDROCK (Schist)
										2.5			
										2.75		32'0"	
35													E.O.B. 32'0"
40													

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. **HOLE NO. B-8**

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

C = COARSE
M = MEDIUM
F = FINE

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Real Estate Advisors	SHEET 1 OF 1 HOLE NO. B-9
	PROJECT NO. G37-9648-14	
	PROJECT NAME Keystone Square Phase II	BORING LOCATIONS per Plan
FOREMAN - DRILLER TP/cMc	LOCATION (70 - 96 Westchester Avenue) White Plains, New York	
INSPECTOR		
GROUND WATER OBSERVATIONS AT 15 FT AFTER 0 HOURS AT FT AFTER HOURS	TYPE: CASING HSA; SAMPLER SS; CORE BAR NWD4 SIZE I.D.: 4 ¼"; 1 3/8"; 2 ⅛" HAMMER WT.: 140#; BIT HAMMER FALL: 30"; dia	OFFSET DATE START 3/25/14 DATE FINISH 3/25/14 SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6	6 - 12	12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
													3" ASPHALT / 6" CONCRETE
													brn F-M SAND, lit F gravel, cobbles, tr silt
5		1	ss	24"	18"	7'0"	5	5			dry compact		brn F-M SAND, lit C sand, lit F gravel
							5	5					
10		2	ss	24"	18"	12'0"	5	4			dry loose		lt brn tan VF F SAND
							5	7					
15		3	ss	24"	18"	17'0"	2	4			moist-wet loose		brn VF F SAND & SLT
							5	6					brn VF F-M SAND, lit F gravel, lit silt
												18'0"	
		1	cr	60"	60"	23'0"	RQD = 100%			1.5			
20										1.25			BEDROCK (Schist)
										1.25			
										1.25			
										1.25		23'0"	
25													E.O.B. 23'0"
													Set well at 18' 8' seam
30													
35													
40													

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. **HOLE NO. B-9**

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

C = COARSE
M = MEDIUM
F = FINE

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(203) 262-9328

Telefax
(203) 264-3414

WHITE PLAINS, N.Y.
(914) 946-4850

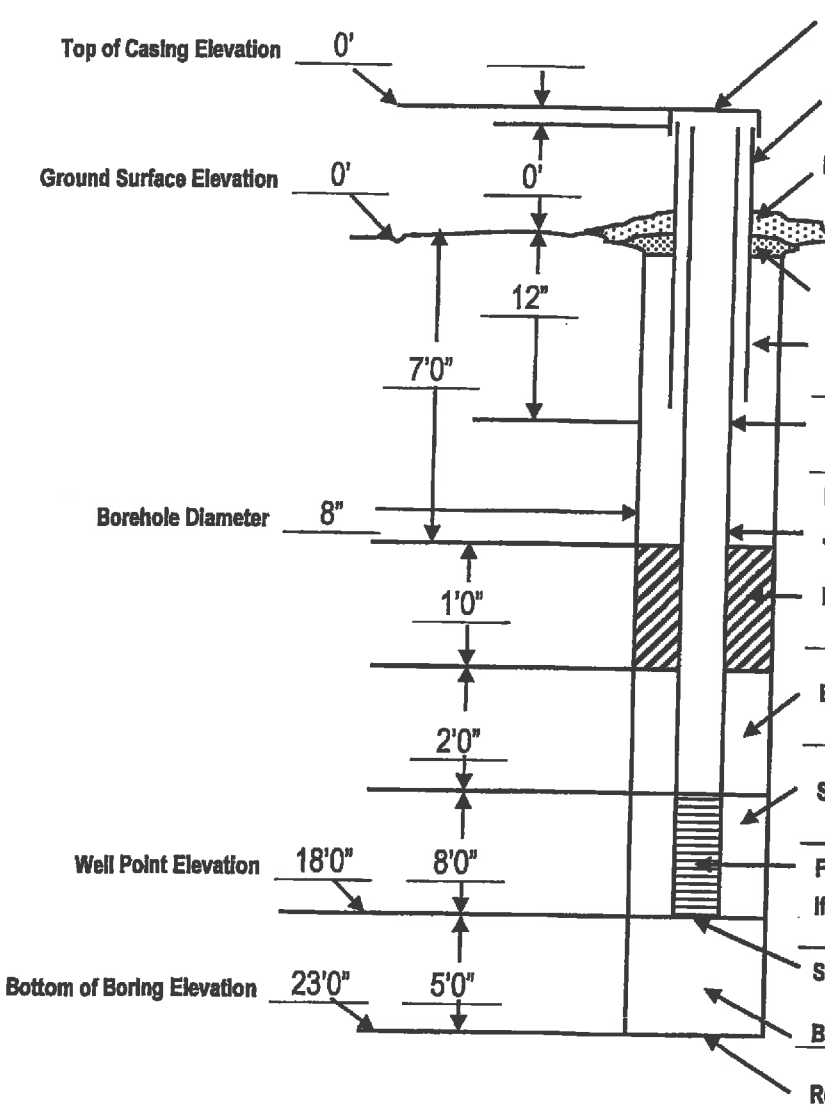
SOILTESTING, INC.

90 DONOVAN ROAD - OXFORD, CONN. 06478-1028

GEOTECHNICAL / ENVIRONMENTAL SUBSURFACE INVESTIGATIONS - Test Borings - Core Drilling
Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling
UNDERPINNING - HELICAL PILES - SOIL NAILS

Monitor Well # B-9

CLIENT: Saber Real Estate Advisors
JOB #: G37-9648-14



Stick Up Vented Locking Steel Cap ___ Yes X No
Drive/over w/Bolting Cover X Yes ___ No
Mounded Backfill ___ Yes X No
Concrete Collar X Yes ___ No
Backfill Material Formation
Type of Casing Screen 2" SCH 40 PVC
I.D. 2.067" O.D. 2.375"
Joint Type thd'd F.J.
Impermeable Backfill Bentonite Chips
Backfill Material #1 Silica Sand
Screen Packing #1 Silica Sand
Filter Fabric ___ Yes X No
If yes, Type ___
Screen Slot Size .010
Backfill Material #1 Sand
Refusal ___ Yes ___ No

Screen	10'	Bentonite Pellets		Locking Exp. Plug	1
Riser	10'	Bentonite Chips	1/2 bag	Lock	
Plug	1	Concrete Mix	1 bag	D/O	1
Slip Cap		Portland Cement		S/U	
Silica Sand	300#				
Powdered Bentonite					

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Real Estate Advisors	SHEET 1 OF 2 HOLE NO. B-10
	PROJECT NO. G37-9648-14	
	PROJECT NAME Keystone Square Phase II	BORING LOCATIONS per Plan
FOREMAN - DRILLER MD/bd	LOCATION (70 - 96 Westchester Avenue) White Plains, New York	*Interior location*
INSPECTOR		OFFSET
GROUND WATER OBSERVATIONS AT 9 FT AFTER 0 HOURS AT FT AFTER HOURS	TYPE: CASING HSA; SAMPLER SS; CORE BAR NWD4 SIZE I.D.: 4 ¼"; 1 3/8"; 2 ⅛" HAMMER WT.: 140#; BIT HAMMER FALL: 30"; dia	DATE START 3/19/14 DATE FINISH 3/19/14 SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6	6 - 12	12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
													Garage floor to basement = 11'
5		1	ss	24"	16"	6'0"	9 12	13 11			dry-moist compact		orange brn FM SAND, sm C sand, silt, lit F gravel
10		2	ss	24"	15"	11'0"	7 7	8 8			wet compact		brn FM SAND, sm silt from 10' - 10'6"
15		3	ss	24"	14"	16'0"	3 2	1 3			wet v loose		brn F-C SAND, sm F gravel
20		4	ss	18"	18"	20'6"	7 8	5			wet compact		brn M-C SAND, lit F sand, F gravel
25		5	ss	18"	18"	25'6"	7 19	13			wet dense		SAME
30		6	ss	9"	9"	29'9"	11	50/3"			wet v dense		lit C gravel
35		7	ss	18"	18"	35'6"	13 19	16			wet dense		brn FM SAND, sm C sand, F gravel
40		8	ss	1"	0"	39'1"	50/1"				wet v dense		cobbles, C gravel 38 - 40'

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. **HOLE NO. B-10**

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

C = COARSE
M = MEDIUM
F = FINE

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Real Estate Advisors	SHEET 2 OF 2 HOLE NO. B-10
	PROJECT NO. G37-9648-14	
	PROJECT NAME Keystone Square Phase II	BORING LOCATIONS per Plan
FOREMAN - DRILLER MD/bd	LOCATION (70 - 96 Westchester Avenue) White Plains, New York	*Interior location*
INSPECTOR		
	CASING / SAMPLER / CORE BAR	OFFSET
	TYPE: HSA / SS / NWD4	DATE START 3/19/14
GROUND WATER OBSERVATIONS AT 9 FT AFTER 0 HOURS AT FT AFTER HOURS	SIZE I.D.: 4 ¼" / 1 3/8" / 2 ⅛"	DATE FINISH 3/19/14
	HAMMER WT.: 140# / BIT	SURFACE ELEV.
	HAMMER FALL: 30" / dia	GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 / 6 - 12 / 12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
45		9	ss	18"	18"	45'6"	10 / 6 / 9		wet compact		brn F SAND, lit M-C SAND, silt, F gravel, tr C gravel
		10	ss	9"	9"	49'9"	51 / 50/3"		wet v dense		gry brn FM SAND, lit C sand, F gravel, silt
50											
55										55'0"	Refusal
		1	cr	60"	10"	60'0"	RQD = 0%	0.5			
								0.5			
								1.0			BEDROCK
60								1.0			
								1.0		60'0"	
											E.O.B. 60'0"
65											
70											
75											
80											

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. **HOLE NO. B-10**

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

C = COARSE
M = MEDIUM
F = FINE

Phone
(203) 262-9328

Telefax
(203) 264-3414

WHITE PLAINS, N.Y.
(914) 946-4850

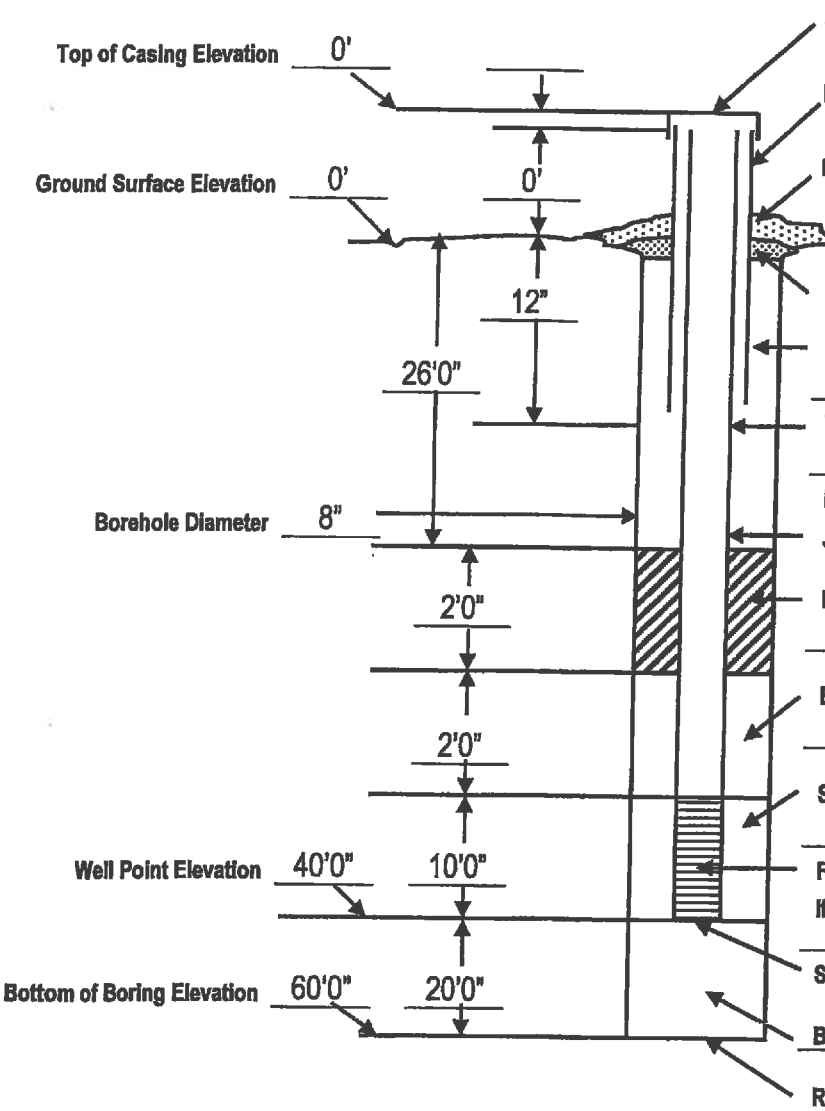
SOILTESTING, INC.

90 DONOVAN ROAD - OXFORD, CONN. 06478-1028

GEOTECHNICAL / ENVIRONMENTAL SUBSURFACE INVESTIGATIONS - Test Borings - Core Drilling
Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling
UNDERPINNING - HELICAL PILES - SOIL NAILS

Monitor Well # B-10

CLIENT: Saber Real Estate Advisors
JOB #: G37-9648-14



Stick Up Vented Locking Steel Cap ___ Yes X No

Drive/over w/Bolting Cover X Yes ___ No

Mounded Backfill ___ Yes X No

Concrete Collar X Yes ___ No

Backfill Material Formation

Type of Casing Screen 2" SCH 40 PVC

I.D. 2.067" O.D. 2.375"

Joint Type thd'd F.J.

Impermeable Backfill Bentonite Chips

Backfill Material #1 Silica Sand

Screen Packing #1 Silica Sand

Filter Fabric ___ Yes X No

If yes, Type ___

Screen Slot Size .010

Backfill Material #1 Sand

Refusal X Yes ___ No

Screen	10'	Bentonite Pellets		Locking Exp. Plug	1
Riser	30'	Bentonite Chips	1/2 bag	Lock	
Plug	1	Concrete Mix	1 bag	D/O	1
Slip Cap		Portland Cement		S/U	
Silica Sand	300#				
Powdered Bentonite					

SOILTESTING, INC.
90 DONOVAN RD.
OXFORD, CT 06478
CT (203) 262-9328
NY (914) 946-4850

CLIENT: **Saber Real Estate Advisors**

SHEET 1 OF 2
HOLE NO. B-11

PROJECT NO. **G37-9648-14**

PROJECT NAME **Keystone Square Phase II**

LOCATION **(70 - 96 Westchester Avenue) White Plains, New York**

BORING LOCATIONS per Plan

FOREMAN - DRILLER **TP/cMc**

INSPECTOR

GROUND WATER OBSERVATIONS
AT 10 FT AFTER 0 HOURS
AT FT AFTER HOURS

	CASING	SAMPLER	CORE BAR
TYPE	HSA / FW	SS	NWD4
SIZE I.D.	4¼" / 3"	1 3/8"	2 ⅛"
HAMMER WT.		140#	BIT
HAMMER FALL		30"	dia

OFFSET
DATE START 3/19/14
DATE FINISH 3/19/14
SURFACE ELEV.
GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 / 6 - 12 / 12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
										5'0"	2" ASPHALT / 3" lit cobbles brn FM SAND, sm F gravel, lit silt
5		1	ss	24"	7"	7'0"	2 3 2 3		l moist stiff		
										10'0"	brn SILT, sm FM sand, tr F gravel, tr asphalt (fill)
10		2	ss	24"	18"	12'0"	7 10 8 9		wet compact		
										15'0"	brn VF F SAND, lit to tr silt
15		3	ss	24"	20"	17'0"	2 1 4 4		wet stiff		
20		4	ss	24"	18"	22'0"	2 1 2 3		wet soft	21'6"	olv brn SILT, lit to tr clay
											olv brn VF SAND, tr silt
25		5	ss	24"	19"	27'0"	4 7 14 11		wet compact		brn FMC SAND, sm F gravel, lit silt
30		6	ss	24"	13"	32'0"	28 18 21 35		wet dense	31'6"	brn F-C SAND, sm F-C gravel, lit silt
											brn wh weathered BEDROCK
35		7	ss	2"	2"	35'2"	60/2"		wet v dense		SAME
40		1	cr	60"	42"	43'6"	RQD = 67%	2.0		38'6"	Auger refusal
											BEDROCK (Schist)

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. HOLE NO. B-11

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST
WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS
SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER
PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

C = COARSE
M = MEDIUM
F = FINE

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Real Estate Advisors	SHEET 2 OF 2 HOLE NO. B-11
	PROJECT NO. G37-9648-14	
	PROJECT NAME Keystone Square Phase II	BORING LOCATIONS per Plan
FOREMAN - DRILLER TP/cMc	LOCATION (70 - 96 Westchester Avenue) White Plains, New York	
INSPECTOR		OFFSET
GROUND WATER OBSERVATIONS AT 10 FT AFTER 0 HOURS AT __FT AFTER __HOURS	TYPE: CASING HSA / FW; SAMPLER SS; CORE BAR NWD4 SIZE I.D.: 4¼" / 3"; 1 3/8"; 2 ⅛" HAMMER WT.: 140#; BIT HAMMER FALL: 30"; dia	DATE START 3/19/14 DATE FINISH 3/19/14 SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 6 - 12 12- 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
								2.0			
								2.0			
								2.5			
								2.75			
45		2	cr	60"	30"	48'6"	RQD = 0%	2.0			
								1.75			BEDROCK (Schist)
								2.5			
								2.5			
								3.0			
50		3	cr	60"	50"	53'6"	RQD = 50%	2.0			
								2.0			
								2.0			
								2.0			
								2.0		53'6"	
55											E.O.B. 53'6"
60											
65											
70											
75											
80											

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. HOLE NO. B-11

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

C = COARSE M = MEDIUM F = FINE

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Real Estate Advisors	SHEET 1 OF 1 HOLE NO. B-12
	PROJECT NO. G37-9648-14	
	PROJECT NAME Keystone Square Phase II	BORING LOCATIONS 5' Offset
FOREMAN - DRILLER TP/cMc	LOCATION (70 - 96 Westchester Avenue) White Plains, New York	
INSPECTOR		OFFSET
GROUND WATER OBSERVATIONS AT none FT AFTER 0 HOURS AT FT AFTER HOURS	TYPE: CASING HSA; SAMPLER SS; CORE BAR NWD4 SIZE I.D.: 4 ¼"; 1 3/8"; 2 ⅛" HAMMER WT.: 140#; BIT HAMMER FALL: 30"; dia	DATE START 3/21/14 DATE FINISH 3/21/14 SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 | 6 - 12 | 12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
											3" ASPHALT / 1" PROCESS GRAVEL brn SILT & FM SAND, lit F gravel
5		1	ss	24"	16"	7'0"	3 | 4 5 | 6		l moist loose	5'6"	drk brn SILT, sm F-M sand, tr F gravel, tr roots
											lt brn VF FM SAND, lit silt, lit F gravel, tr roots, C sand
10		2	ss	24"	15"	12'0"	13 | 8 9 | 16		dry compact		brn VF FM SAND, sm F gravel, lit silt, tr weathered bedrock
15		3	ss	14"	0"	17'0"	13 | 11 9 | 10		dry compact		No recovery
										17'0"	poss weathered BEDROCK or BOULDER
20		1	cr	60"	12"	24'6"	RQD = 11%	3.0 4.0 3.0 4.0 4.0		19'6"	Auger refusal
25										24'6"	BEDROCK
											E.O.B. 24'6"
30											
35											
40											

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. HOLE NO. B-12

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

C = COARSE
M = MEDIUM
F = FINE

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Real Estate Advisors	SHEET 1 OF 1 HOLE NO. B-13
	PROJECT NO. G37-9648-14	
	PROJECT NAME Keystone Square Phase II	BORING LOCATIONS per Plan
FOREMAN - DRILLER TP/cMc	LOCATION (70 - 96 Westchester Avenue) White Plains, New York	
INSPECTOR		OFFSET
GROUND WATER OBSERVATIONS AT 16 FT AFTER 0 HOURS AT FT AFTER HOURS	TYPE: CASING HSA, SAMPLER SS, CORE BAR NWD4 SIZE I.D.: 4 ¼", 1 3/8", 2 ⅛" HAMMER WT.: 140#, BIT HAMMER FALL: 30", dia	DATE START 3/24/14 DATE FINISH 3/24/14 SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 / 6 - 12 / 12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
5											brn FM SAND, sm silt, lit F-C gravel (fill)
		1	ss	24"	18"	7'0"	2 / 4 / 1 / 8		l moist loose		brn F SAND & SILT, lit M sand, tr F gravel (poss fill)
10		2	ss	24"	17"	12'0"	10 / 6 / 11 / 7		dry compact		brn F-M SAND, tr C sand, tr F gravel
15		3	ss	24"	12"	17'0"	4 / 24 / 12 / 10		moist-wet dense		gry brn F-M SAND, lit silt, F gravel
20		4	ss	24"	14"	22'0"	9 / 7 / 5 / 11		l moist compact		
25		5	ss	9"	8"	25'9"	62 / 60/3"		dry v dense	23'6"	poss weathered BEDROCK or BOULDERS
30		6	ss	0"	0"	30'0"	60/0"		dry v dense	30'0"	
		1	cr	42"	10"	33'6"	RQD = 0%				partially decomposed BEDROCK
35		2	cr	60"	54"	38'6"	RQD = 47%			33'6"	
										38'6"	BEDROCK
40											E.O.B. 38'6"

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. HOLE NO. B-13

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

C = COARSE
M = MEDIUM
F = FINE

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Real Estate Advisors	SHEET 1 OF 1 HOLE NO. B-14
	PROJECT NO. G37-9648-14	
	PROJECT NAME Keystone Square Phase II	BORING LOCATIONS per Plan
FOREMAN - DRILLER TP/cMc	LOCATION (70 - 96 Westchester Avenue) White Plains, New York	
INSPECTOR		
GROUND WATER OBSERVATIONS AT none FT AFTER 0 HOURS AT FT AFTER HOURS	TYPE: CASING HSA, SAMPLER SS, CORE BAR NWD4 SIZE I.D.: 4 ¼", 1 3/8", 2 ⅛" HAMMER WT.: 140#, BIT HAMMER FALL: 30", dia	OFFSET DATE START 3/20/14 DATE FINISH 3/20/14 SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 / 6 - 12 / 12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
											3" ASPHALT / 6" PROCESS GRAVEL
5		1	ss	24"	22"	7'0"	5 / 7 11 / 17		dry v stiff	5'6"	brn FMC SAND, sm silt, lit F gravel (fill)
											lt brn SILT, sm F SAND, tr F gravel, roots
10		2	ss	24"	17"	12'0"	12 / 12 10 / 5		l moist compact	10'0"	lt brn FMC SAND, lit F gravel gry brn FMC SAND, lit F gravel, silt
15		3	ss	3"	2"	15'3"	60/3"		l moist v dense	13'6"	poss partially decomposed BEDROCK from 13'6"
		1	cr	60"	57"	20'6"	RQD = 52%	3.0 4.0 3.0 4.0 4.0		15'6"	Auger refusal
20										20'6"	BEDROCK (Schist)
25											E.O.B. 20'6"
30											
35											
40											

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. **HOLE NO. B-14**

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

C = COARSE
M = MEDIUM
F = FINE

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Real Estate Advisors	SHEET 1 OF 1 HOLE NO. B-15
	PROJECT NO. G37-9648-14	
	PROJECT NAME Keystone Square Phase II	BORING LOCATIONS per Plan
FOREMAN - DRILLER TP/cMc	LOCATION (70 - 96 Westchester Avenue) White Plains, New York	
INSPECTOR		OFFSET
GROUND WATER OBSERVATIONS AT 12 FT AFTER 0 HOURS AT FT AFTER HOURS	TYPE: CASING HSA; SAMPLER SS; CORE BAR NWD4 SIZE I.D.: 4 ¼"; 1 3/8"; 2 ⅛" HAMMER WT.: 140#; BIT HAMMER FALL: 30"; dia	DATE START 3/21/14 DATE FINISH 3/21/14 SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC.	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0-6 6-12 12-18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
0											3" ASPHALT / 6" PROCESS GRAVEL drk brn gry F-M SAND, sm silt, lit F gravel, tr roots (fill)
5		1	ss	24"	21"	7'0"	2 4 7 9		moist compact	5'6"	drk gry F-M SAND, sm silt, tr F gravel, roots
										10'0"	gry brn SILT, lit to sm VF sand brn SILT & VFF sand
10		2	ss	24"	15"	12'0"	6 4 5 6		moist-wet compact		brn FM SAND brn FM SAND, tr silt
15		3	ss	24"	20"	17'0"	3 4 5 5		wet compact		gry VF SAND, sm silt, tr F gravel
20		4	ss	24"	20"	22'0"	1 2 5 2		wet loose		brn FM SAND brn FM SAND, C sand, lit F gravel, tr silt
25		5	ss	24"	18"	27'0"	17 15 15 51		wet dense	28'0"	brn FMC SAND, sm F gravel, tr silt
30		1	cr	60"	58"	34'0"	RQD = 21%	1.5 2.0 2.0 2.0 2.0		29'0"	partially weathered BEDROCK Auger refusal
										34'0"	BEDROCK
35											E.O.B. 34'0" *Set well at 20'*
40											

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. **HOLE NO. B-15**

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

C = COARSE M = MEDIUM F = FINE

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

Phone
(203) 262-9328

Telefax
(203) 264-3414

WHITE PLAINS, N.Y.
(914) 946-4850

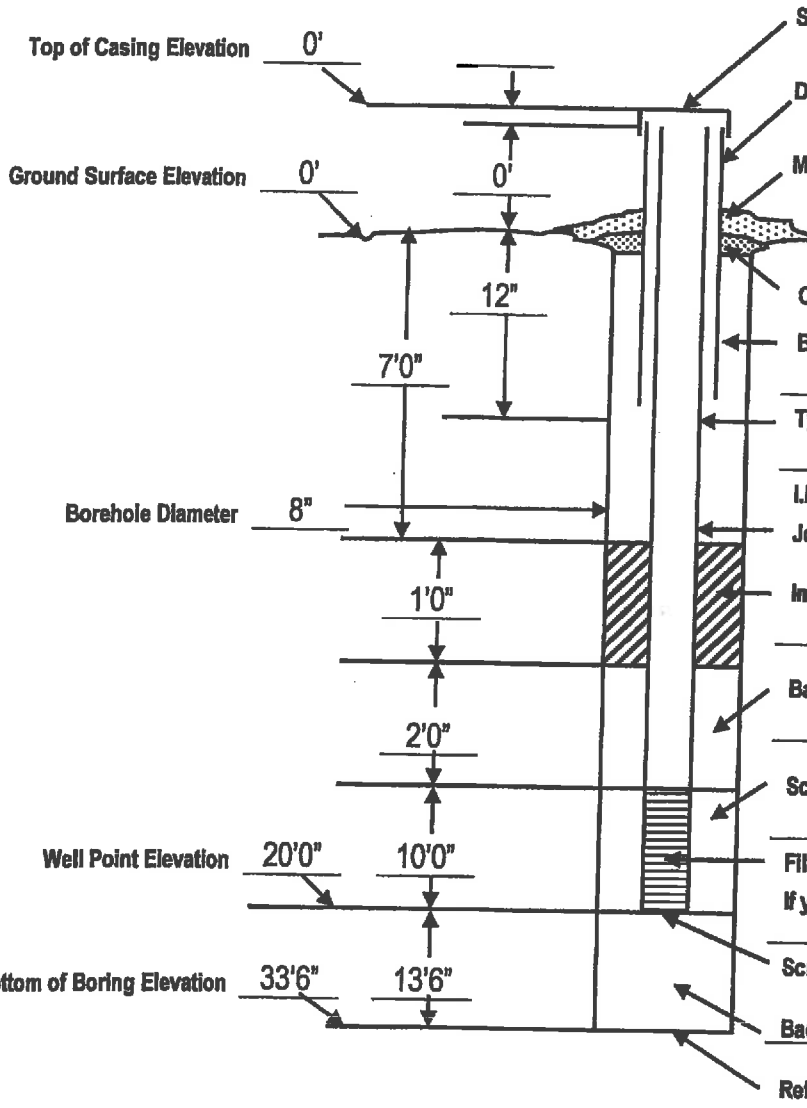
SOILTESTING, INC.

90 DONOVAN ROAD - OXFORD, CONN. 06478-1028

GEOTECHNICAL / ENVIRONMENTAL SUBSURFACE INVESTIGATIONS - Test Borings - Core Drilling
Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling
UNDERPINNING - HELICAL PILES - SOIL NAILS

Monitor Well # B-15

CLIENT: Saber Real Estate Advisors
JOB #: G37-9648-14



Stick Up Vented Locking Steel Cap ___ Yes X No

Drive/over w/Bolting Cover X Yes ___ No

Mounded Backfill ___ Yes X No

Concrete Collar X Yes ___ No

Backfill Material Formation

Type of Casing Screen 2" SCH 40 PVC

I.D. 2.067" O.D. 2.375"

Joint Type thd'd F.J.

Impermeable Backfill Bentonite Chips

Backfill Material #1 Silica Sand

Screen Packing #1 Silica Sand

Filter Fabric ___ Yes X No

If yes, Type ___

Screen Slot Size .010

Backfill Material #1 Sand

Refusal X Yes ___ No

Screen	10'	Bentonite Pellets		Locking Exp. Plug	1
Riser	10'	Bentonite Chips	1/2 bag	Lock	
Plug	1	Concrete Mix	1 bag	D/O	1
Slip Cap		Portland Cement		S/U	
Silica Sand	700#				
Powdered Bentonite					

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Real Estate Advisors	SHEET 1 OF 1 HOLE NO. B-16
	PROJECT NO. G37-9648-14	
	PROJECT NAME Keystone Square Phase II	BORING LOCATIONS per Plan
FOREMAN - DRILLER TP/cMc	LOCATION (70 - 96 Westchester Avenue) White Plains, New York	
INSPECTOR		
GROUND WATER OBSERVATIONS AT 18 FT AFTER 0 HOURS AT FT AFTER HOURS	TYPE: CASING HSA; SAMPLER SS; CORE BAR NWD4 SIZE I.D.: 4 ¼"; 1 3/8"; 2 ⅛" HAMMER WT.: 140#; BIT HAMMER FALL: 30"; dia	OFFSET DATE START 3/24/14 DATE FINISH 3/25/14 SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 / 6 - 12 / 12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
5		1	ss	24"	21"	7'0"	16 / 18 24 / 31		dry dense		brn FM SAND, sm F gravel, lit brick (fill) Cobbles, boulders 7 - 10'
10		2	ss	24"	15"	12'0"	15 / 20 23 / 21		dry dense		brn gry FMC SAND, sm brick, concrete, lit F gravel (fill)
15		3	ss	24"	20"	17'0"	16 / 9 10 / 13		dry compact	15'0"	brn FM SAND, lit F gravel, tr silt
20		4	ss	10"	8"	20'10"	11 / 60/4"		wet v dense	21'0"	brn F-M SAND, lit silt, tr F gravel
										22'6"	partially decomposed BEDROCK Auger refusal
25											E.O.B. 22'6"
30											
35											
40											

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. HOLE NO. B-16

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

C = COARSE M = MEDIUM F = FINE

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Real Estate Advisors	SHEET 1 OF 1 HOLE NO. B-17
	PROJECT NO. G37-9648-14	
	PROJECT NAME Keystone Square Phase II	BORING LOCATIONS per Plan
FOREMAN - DRILLER TP/cMc	LOCATION (70 - 96 Westchester Avenue) White Plains, New York	
INSPECTOR		OFFSET
GROUND WATER OBSERVATIONS AT 13 FT AFTER 0 HOURS AT FT AFTER HOURS	TYPE: CASING HSA; SAMPLER SS; CORE BAR NWD4 SIZE I.D.: 4 ¼"; 1 3/8"; 2 ⅛" HAMMER WT.: 140#; BIT HAMMER FALL: 30"; dia	DATE START 3/20/14 DATE FINISH 3/20/14 SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6	6 - 12	12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
0													2" ASPHALT / 6" PROCESS GRAEL
													brn FM SAND, sm F gravel, lit cobbles, tr silt
5													
		1	ss	24"	15"	7'0"	3	7			l moist compact	6'6"	brn FM SAND, lit silt, lit F gravel gry brn FMC SAND, sm F gravel, lit silt (fill)
							18	14					brn FM SAND, lit F gravel, lit silt, tr C sand
10													
		2	ss	24"	18"	12'0"	7	9			l moist compact		brn F-M SAND, lit C sand, tr F gravel
							8	7					
15													
		3	ss	24"	18"	17'0"	2	1			wet v loose		brn FMC SAND, lit F gravel
							1	2					
20													
		4	ss	24"	20"	22'0"	6	6			wet compact	21'6"	gry VF SAND, slit, tr clay
							6	5					gry SILT, lit clay
25												25'0"	
		5	ss	24"	20"	27'0"	2	2			wet loose		gry VF SAND
							3	3					
30													
		6	ss	24"	17"	32'0"	1	1/12"			wet v loose	31'0"	gry brn SILT, lit lenses of clay
								1					gry brn VFF-M SAND
35													lit cobbles at 34'
		7	ss	24"	20"	37'0"	3	7			wet dense	36'0"	gry brn FMC SAND
							26	16					gry FMC SAND, sm silt, lit F gravel
		8	ss	1"	0"	40'1"	60/1"				v dense		No recovery
45												41'0"	BEDROCK OR BOULDER frags AUGER REFUSAL
													E.O.B. 41'0"

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. **HOLE NO. B-17**

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

C = COARSE M = MEDIUM F = FINE

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Real Estate Advisors	SHEET 1 OF 1 HOLE NO. B-18
	PROJECT NO. G37-9648-14	
	PROJECT NAME Keystone Square Phase II	BORING LOCATIONS per Plan
FOREMAN - DRILLER TP/cMc	LOCATION (70 - 96 Westchester Avenue) White Plains, New York	
INSPECTOR		OFFSET
GROUND WATER OBSERVATIONS AT 18 FT AFTER 0 HOURS AT FT AFTER HOURS	TYPE: CASING HSA, SAMPLER SS, CORE BAR SIZE I.D.: 4 ¼", 1 3/8" HAMMER WT.: 140#, BIT HAMMER FALL: 30"	DATE START 3/24/14 DATE FINISH 3/24/14 SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	Type	PEN	REC	DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 / 6 - 12 / 12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
0											3" ASPHALT
											small boulder at 4'
5		1	ss	24"	3"	7'0"	24 / 5 / 11 / 5		l moist compact		brn FM SAND, lit F gravel, lit silt, tr brick (fill)
10		2	ss	24"	17"	12'0"	11 / 12 / 12 / 16		dry compact	10'0"	brn F SAND
										10'6"	brn F SAND, sm silt
15		3	ss	24"	18"	17'0"	4 / 7 / 6 / 7		dry compact	11'6"	brn F-M SAND, lit F gravel, silt
											lt brn VF F SAND
20		4	ss	24"	18"	22'0"	5 / 20 / 15 / 16		wet dense	20'6"	gry brn F-M SAND, tr silt
											gry brn FMC SAND, sm silt, lit F gravel
25		5	ss	3"	3"	25'3"	60/3"		wet v dense	24'0"	partially weathered BEDROCK
										28'0"	Auger refusal
30											E.O.B. 28'0"
35											
40											

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. **HOLE NO. B-18**

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

C = COARSE M = MEDIUM F = FINE

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

SOILTESTING, INC. 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: Saber Real Estate Advisors	SHEET 1 OF 1 HOLE NO. PW-1
	PROJECT NO. G37-9648-14	
	PROJECT NAME Keystone Square Phase II	BORING LOCATIONS per Plan
FOREMAN - DRILLER TP/cMc	LOCATION (70 - 96 Westchester Avenue) White Plains, New York	
INSPECTOR	CASING / SAMPLER / CORE BAR	OFFSET
	TYPE: HSA / SS	DATE START 3/28/14
GROUND WATER OBSERVATIONS AT 13 FT AFTER 0 HOURS AT __FT AFTER __HOURS	SIZE I.D.: 9 ¼" / 1 3/8" HAMMER WT.: 140# / BIT HAMMER FALL: 30"	DATE FINISH 3/28/14 SURFACE ELEV. GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	SAMPLE Type	SAMPLE PEN	SAMPLE REC	SAMPLE DEPTH @ BOT	BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE) 0 - 6 / 6 - 12 / 12 - 18	CORE TIME PER FT (MIN)	DENSITY OR CONSIST / MOIST	STRATA CHANGE DEPTH / ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
5											
10											
15											
20											
25											
30											
35										38'0"	
40											E.O.B. 38'0" *Installed 6" PVC Well*

NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.

GROUND SURFACE TO _____FT. USED _____CASING THEN _____ CASING TO _____FT. **HOLE NO. PW-1**

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND =35 - 50%

C = COARSE
M = MEDIUM
F = FINE

Phone
(203) 262-9328

Telefax
(203) 264-3414

WHITE PLAINS, N.Y.
(914) 946-4850

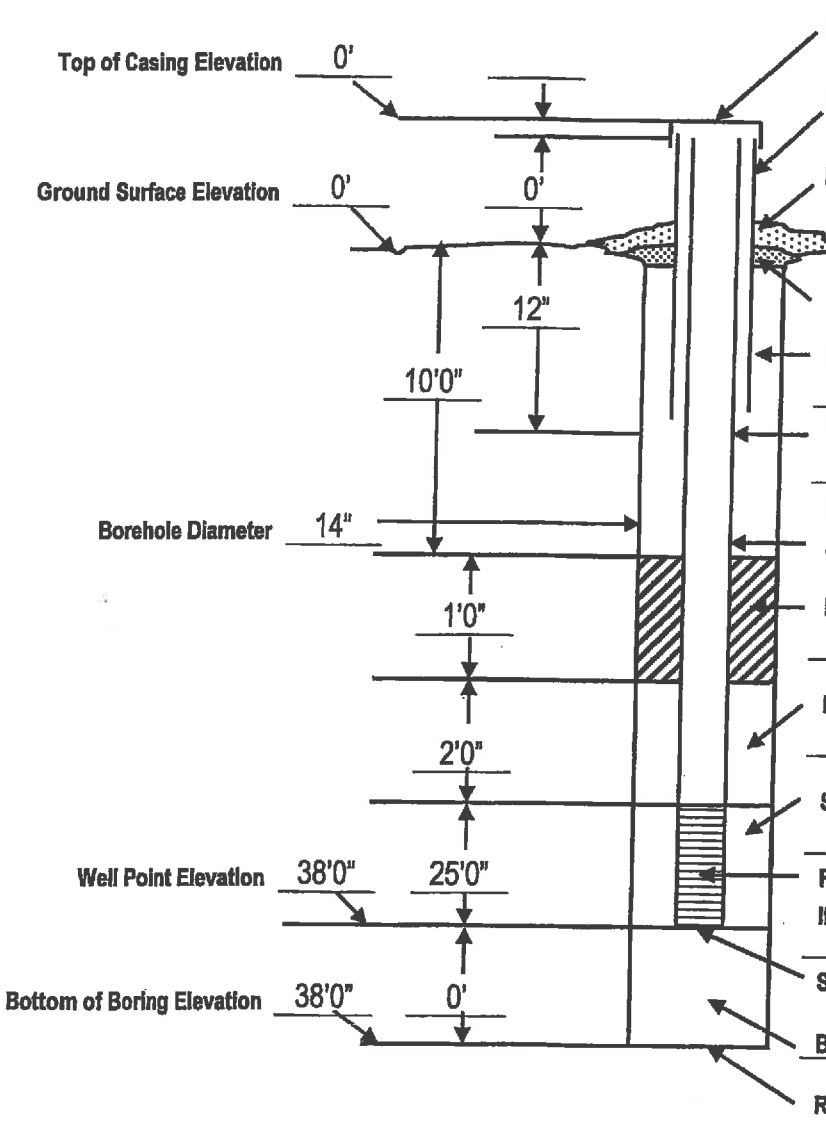
SOILTESTING, INC.

90 DONOVAN ROAD - OXFORD, CONN. 06478-1028

GEOTECHNICAL / ENVIRONMENTAL SUBSURFACE INVESTIGATIONS - Test Borings - Core Drilling
Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling
UNDERPINNING - HELICAL PILES - SOIL NAILS

Monitor Well # PW-1

CLIENT: Saber Real Estate Advisors
JOB #: G37-9648-14



Stick Up Vented Locking Steel Cap ___ Yes X No
Drive/over w/Bolting Cover X Yes ___ No
Mounded Backfill ___ Yes X No
Concrete Collar X Yes ___ No
Backfill Material Formation
Type of Casing Screen 6" SCH 40 PVC
I.D. 6" O.D. 6.75"
Joint Type thd'd F.J.
Impermeable Backfill Bentonite Chips
Backfill Material #1 Silica Sand
Screen Packing #1 Silica Sand
Filter Fabric ___ Yes X No
If yes, Type
Screen Slot Size .010
Backfill Material
Refusal X Yes ___ No

Screen	25'	Bentonite Pellets		Locking Exp. Plug	1
Riser	13'	Bentonite Chips	1 bag	Lock	
Plug	1	Concrete Mix	1 bag	D/O	1
Slip Cap		Portland Cement	½ bag	S/U	
Silica Sand	1800#				
Powdered Bentonite					