

BORING B-1					
DEPTH FT.	SPOON BLOWS PER 1/2 FT.	HOLLOW STEM AUGER	MATERIAL		
GROUND SURFACE					
Water - 4'	3	5			Uncontrolled Fill Class 7
	5	7			
5.0	6	9			Granular Soils SM Fine Brown Sands with Traces of Silts Class 3b
	11	9			
10.0	13	9			Granular Soils SM Fine Brown Sands with Gravel and Traces of Silts Class 3b
	17	10			
15.0	18	18			Granular Soils SP Medium to Coarse Brown Sands with Gravel and Traces of Silts Class 3b
	21	13			
20.0	20	17			Granular Soils SP Medium to Coarse Brown Sands with Gravel and Traces of Silts Class 3a
	18	16			
25.0	21	18			Granular Soils SP Medium to Coarse Brown Sands with Gravel and Traces of Silts Class 3a
	19	20			
30.0	17	19			Granular Soils SP Medium to Coarse Brown Sands with Gravel and Traces of Silts Class 3a
	23	19			
35.0					End of Hole 32"

BORING B-2					
DEPTH FT.	SPOON BLOWS PER 1/2 FT.	HOLLOW STEM AUGER	MATERIAL		
GROUND SURFACE					
	3 4	4 5			Uncontrolled Fill Class 7
Water - 4'					
5.0	7 13	13 13			Granular Soils SM Fine Brown Sands with Traces of Silts Class 3b
10.0	17 19	13 11			Granular Soils SP Medium to Coarse Brown Sands with Gravel and Traces of Silts Class 3b
15.0	17 16	19 20			Granular Soils SP Medium to Coarse Brown Sands with Gravel and Traces of Silts Class 3a
20.0					
	16 20	21 17			Granular Soils SP Medium to Coarse Brown Sands with Gravel and Traces of Silts Class 3a
25.0					
	23 17	20 21			Granular Soils SP Medium to Coarse Brown Sands with Gravel and Traces of Silts Class 3a
30.0					
	23 21	18 20			Granular Soils SP Medium to Coarse Brown Sands with Gravel and Traces of Silts Class 3a
35.0					End of Hole 32"

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B-1 PERCOLATION TEST RESULTS

1	0.2
5	0.5
10	0.7
15	0.8
30	1.0
45	1.3
60	1.5

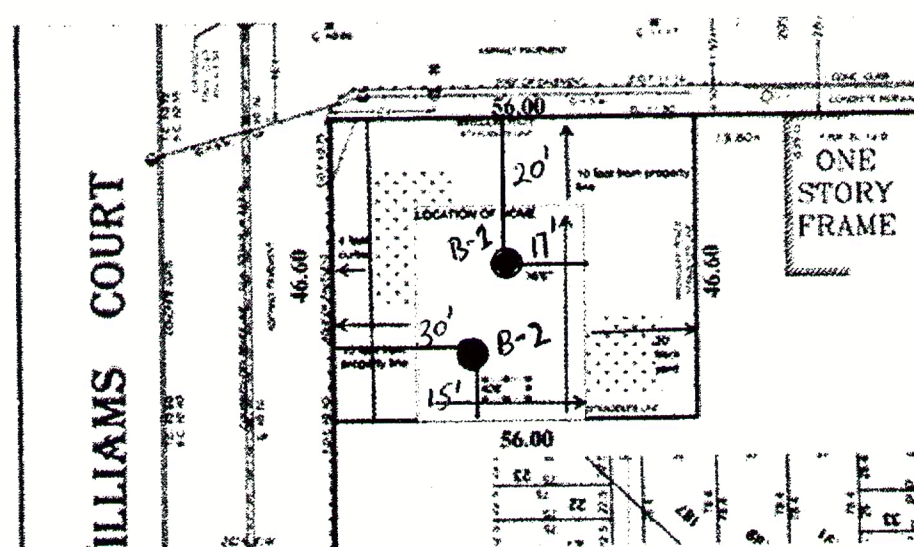
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TABLE 1804.2 UNIFIED SOIL CLASSIFICATION
(Including Identification and Description)

ALLOWABLE BEARING PRESSURES, N.Y.C. BLDG. CODE BC-1804			
CLASS OF MATERIALS (NOTES 1 AND 3)	MAXIMUM ALLOWABLE FOUNDATION PRESSURE (TSF)	MAXIMUM ALLOWABLE FOUNDATION PRESSURE (Kips)	
1. BEDROCK (NOTES 2&7)			
1a Hard sound rock-quartz, diabase, schist	60	5,745	
1b Medium hard rock-marble, serpentine	40	3,830	
1c Intermediate rock-shale, sandstone	20	1,915	
1d Soft rock-weathered rock	8	766	
2. SANDY GRAVEL, AND GRAVEL (GW. GP) (Notes 3,4,8 & 9)			
2a Dense	10	958	
2b Medium	6	575	
3. GRANULAR SOILS (GC,GM,SW,SP,SM&SC) (Notes 4,5,8 & 9)			
3a Dense	6	575	
3b Medium	3	287	
4. CLAYS (SC,CL&CH) (Notes 4,5,8 & 9)			
4a Hard	5	479	
4b Stiff	3	287	
4c Medium	2	192	
5. SILTS AND SILTY SOILS (ML&MH) (Notes 4,8 & 9)			
5a Dense	3	287	
5b Medium	1.5	144	
6. ORGANIC SILTS, ORGANIC CLAYS, PEATS, SOFT CLAYS, LOOSE GRANULAR SOILS AND VARIED SILTS	See 1804.2.1	See 1804.2.1	
7. CONTROLLED AND UNCONTROLLED FILLS	See 1804.2.2 OR 1804.2.3	See 1804.2.2 OR 1804.2.3	

NOTES

1. WHERE THERE IS DOUBT AS TO THE APPLICABLE CLASSIFICATION OF A SOIL STRATUM, THE ALLOWABLE BEARING PRESSURE APPLICABLE TO THE LOWER CLASS OF MATERIAL TO WHICH THE GIVEN STRATUM MOST CONFORM SHALL APPLY.
2. THE TABULATED VALUES OF ALLOWABLE BEARING PRESSURES APPLY ONLY FOR MASSIVE ROCKS OR FOR SEDIMENTARY OR FOLIATED ROCKS, WHERE THE STRATA ARE LEVEL OR NEARLY SO, AND THEN ONLY IF THE AREA AFFECTED BY THE MATERIAL, SUBJECTED TO THE BEARING PRESSURE, IS NOT LESS THAN 100 SQ. FT. AND SHALL RECEIVE SPECIAL CONSIDERATION. THE TABULATED VALUES FOR CLASS 1 MATERIALS (HARD SOUND ROCK) MAY BE INCREASED BY 25 PERCENT PROVIDED THE GEOTECHNICAL ENGINEER PERFORMS ADDITIONAL TESTS AND/OR CONSIDERATIONS ESTIMATING THE BEARING CAPACITY OF THE ROCK.
3. FOR INTERMEDIATE CONDITIONS, VALUES OF ALLOWABLE BEARING PRESSURE SHALL BE ESTIMATED BY FOOTING EMBEDMENT IN SOILS SHALL BE IN ACCORDANCE WITH SECTION 1805.2 AND THE WIDTH OF THE LOADED AREA NOT LESS THAN 2 FEET (610MM), UNLESS ANALYSIS DEMONSTRATES THAT THE PROPOSED CONSTRUCTION WILL BE ADEQUATE TO SUPPORT THE LOADS.
4. ESTIMATES OF SETTLEMENTS SHALL GOVERN THE ALLOWABLE BEARING VALUE, SUBJECT TO THE MAXIMUMS GIVEN IN THIS TABLE, AND AS PROVIDED IN SECTION 1804.2.
5. THE ALLOWABLE BEARING VALUE OF SOILS DETERMINED ON THE BASIS OF THE STRENGTH OF SUCH SOILS AS DETERMINED BY FIELD OR LABORATORY TESTS, SHALL PROVIDE A FACTOR OF SAFETY AGAINST FAILURE OF THE SOILS NOT LESS THAN THAT REQUIRED FOR ROCKS. THE ALLOWABLE BEARING VALUE OF ROCKS SHALL ALWAYS ACCOUNT FOR PROBABLE SETTLEMENTS OF THE BUILDING AND SHALL NOT EXCEED THE TABULATED MAXIMUM VALUES.
6. WORKING IN ALLOWABLE BEARING PRESSURE DUE TO EMBEDMENT OF THE FOUNDATION, THE ALLOWABLE BEARING VALUES FOR INTERMEDIATE TO HARD ROCK SHALL APPLY WHERE THE LOADED AREA IS ON THE SURFACE OF SOUND ROCK, WHERE THE LOADED AREA IS BELOW THE ADJACENT ROCK SURFACE AND IS FULLY CONFINED BY ADJACENT ROCK MASS. WHERE THE LOADED AREA IS BELOW THE ADJACENT ROCK SURFACE AND IS NOT FULLY CONFINED BY ADJACENT ROCK MASS, THESE VALUES MAY BE INCREASED TO 100 PERCENT OF THE BASE VALUES FOR EACH 1 FOOT (305 MM) OF ADJACENT ROCK SURFACE BELOW THE ADJACENT ROCK SURFACE IN EXCESS OF 1 FOOT (0.3 METERS), BUT SHALL NOT EXCEED 200 PERCENT OF THE VALUES.
7. THE ALLOWABLE BEARING VALUES FOR SOILS OF CLASSES 2, 3, 4 AND 5 DETERMINED IN ACCORDANCE WITH NOTES 1 AND 2 AND THE ADJACENT ROCK SURFACE SHALL BE INCREASED 50 PERCENT FOR EACH 12 INCHES (305 MM) OF THE BEARING STRATUM WHERE THE LOADED AREA IS SUBMERGED MORE THAN 4 FEET (1219MM) BELOW THE ADJACENT SURFACE OF THE BEARING STRATUM AND IS FULLY CONFINED BY THE WEIGHT OF THE ADJACENT SOIL. WHERE THE LOADED AREA IS NOT FULLY CONFINED BY THE WEIGHT OF THE ADJACENT SOIL, IN EMBEDMENT, BUT SHALL NOT EXCEED TWICE THE VALUES. INCREASES IN ALLOWABLE BEARING PRESSURE DUE TO ADJACENT SOIL SHALL NOT APPLY TO ROCKS.
8. THE ALLOWABLE BEARING VALUES FOR SOILS OF CLASSES 2, 3, 4 AND 5 DETERMINED IN ACCORDANCE WITH THIS TABLE AND THE NOTES THEREO, MAY BE INCREASED UP TO ONE-THIRD WHERE THE DENSITY OF THE BEARING STRATUM EXCEEDS THE DENSITY OF THE SOILS TO BE SUPPORTED.
9. THE ALLOWABLE BEARING VALUES SHALL BE DEMONSTRATED BY A REASONED MEANS OF ANALYSIS THAT THE PROBABLE SETTLEMENT OF THE FOUNDATION DUE TO COMPRESSION, SHEAR, OR TENSION OF THE FOUNDATION WILL NOT EXCEED THE ALLOWABLE SETTLEMENTS.
10. THE MAXIMUM TOP PRESSURE FOR ECCENTRICALLY LOADED FOOTINGS MAY EXCEED THE ALLOWABLE BEARING PRESSURE BY UP TO 25 PERCENT IF IT IS DEMONSTRATED THAT THE HEEL OF THE FOOTING IS NOT SUBJECT TO TENSION.

SOIL DESCRIPTIONS ARE BY VISUAL EXAMINATION OF SOIL SAMPLES RECOVERED DURING DRILLING OPERATIONS.
SOIL DESCRIPTIONS ARE IN ACCORD WITH THE UNIFIED SOILS CLASSIFICATION SYSTEM AND N.Y.C. BUILDING CODE BC-1804.
GROUND WATER WAS MEASURED INSIDE THE DRILL CASING OR HOLLOW AUGER AT THE COMPLETION OF EACH BOREHOLE.
ALL BORING ELEVATIONS ARE REFERENCED TO EXISTING GROUND LEVEL AS ZERO ELEVATION.

"N"	STANDARD PENETRATION TEST (2" SPOON, 140LB HAMMER, 30" FALL)
	SPOON BLOW COUNT IS GENERALLY SHOWN IN 6" INCREMENTS FOR 2' DRIVE TO OBTAIN BLOWS PER FOOT (N) USE THE 2ND & 3RD 6" INCREMENT

THIS REPORT IS SUBMITTED WITH THE SPECIFIC UNDERSTANDING THAT THE SOLE LIABILITY OF ACE INSPECTION AND TESTING SERVICES, INC. ITS ENGINEERS AND EMPLOYEES FOR ERRORS AND OMISSIONS IS LIMITED TO THE AMOUNT OF THE FEE PAID FOR THIS REPORT. THE USE OF THIS REPORT WILL CONSTITUTE AN ACCEPTANCE BY THE CLIENT OF THIS DISCLAIMER. THE FEE CHARGED FOR THIS REPORT IS PREPONDED UPON THIS LIMITATION OF LIABILITY WHICH IS THE ESSENCE OF THIS AGREEMENT. IF THESE LIMITATIONS ARE NOT ACCEPTED BY THE CLIENT, THE CLIENT MUST SIGN AND RETURN TO ACE INSPECTION AND TESTING SERVICES, INC. A WRITTEN REJECTION REQUESTED WITHIN FIVE (5) DAYS. ACE INSPECTION AND TESTING SERVICES, INC., ITS ENGINEERS AND EMPLOYEES DO NOT ACCEPT ANY LIABILITY OR RESPONSIBILITY FOR PERSONS OTHER THAN THE CLIENT FOR WHOM THIS WORK WAS DIRECTLY PREPARED AND ANY SUCH PERSON, FIRM OR CORPORATION RELIES ON THIS REPORT AT HIS OWN RISK. NO LITIGABLE CLAIMS WILL BE HELD VALID AGAINST ANY OF US FROM THE DATE OF THIS REPORT IN OUR LABORATORY UNLESS OTHERWISE DIRECTED BY THE CLIENT IN WRITING.

TYPE OF CORE BARRELS AND DIAMOND BITS

	<u>SIZE</u>	<u>O.D.</u>	<u>CORE DIMETERS</u>
☐	AX	1-7/8"	1-1/8"
☐	BX	2-3/8"	1-5/8"
☐	NX	2-15/16"	2-1/8"
☐	AXM	1-7/8"	1-1/8"
☐	NXM	2-15/16"	2-1/8"
☐	R.	2"	1-3/8"

WEIGHT OF HAMMERS:
300 LBS. ON 2 1/2" CASING-18" DROP
140 LBS. ON 2" SPOON-30" DROP
SPOON, SPLIT SAUNDER 2" O.D. 1 3/8"

GROUND WATER TABLE (G.W.T.) AS NOTED ON BORING LOGS, IS ONLY THE FIRST INDICATION OF WATER ENCOUNTERED BY OUR DRILLERS.

ACE INSPECTION AND TESTING SERVICES, INC.
SUBSOIL INVESTIGATION

TITLE

APPLICANT SEAL

DRAWN BY: Shazad Khan

CHECKED BY: Kenneth C. Thomas, P.E.

DATE DRAWN: 11-12-2015

DATE REVISED:

PROJECT: *Williams Court Block 15622, Lot 181, Queen*

CLIENT: **Urban Pioneering**

B-7695.00

DRAWING REF.: **SB-7023**

SHEET NO.: 1 OF 1

DEPARTMENT OF BUILDING

SELF CERTIFICATION