June 29, 2020
L-91,198

REPORT OF SOILS EXPLORATIONS
PROPOSED TOWNHOME DEVELOPMENT
1001 OAK AVENUE
PROSPECT HEIGHTS, ILLINOIS

PREPARED FOR:
LEXINGTON HOMES
1731 N. MARCEY STREET, SUITE 200
CHICAGO, ILLINOIS 60614

PREPARED BY:
TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188
(630) 653-3920

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1.0 INTRODUCTION

This report presents results of soils explorations performed for a proposed townhome development in Prospect Heights, Illinois. It includes supplemental borings (Nos. 18 - 23) which were performed when unfavorable soil conditions (i.e. peat, organic clay and/or relatively soft clay soils) were revealed in several of the original borings drilled in the east-central portion of the site. Borings have also been added (Nos. 101 - 117) on a park property lying directly south of the original site which is now included as part of the project.

Our continuing geotechnical engineering services are being provided in addition to TSC Proposal Nos. 64,933 and 64,934 dated April 24, 2020 and the attached General Conditions, incorporated herein by reference. The northern portion of the site was previously drilled under TSC Job Nos. 89,217 and 89,217A with associated reports transmitted in December 2018 and February 2019, respectively. Borings 1 - 17 from them have been incorporated in this report.

The project site encompasses approximately 9 acres located at 1001 Oak Avenue, access to it being provided off Drake Terrace to the north. An existing 1-story brick and metal building is present in the center of the northern half of it, with parking lots and driveways lying to the west of it. The southern half

of the parcel consists of a park with baseball diamond located in the northwest corner. Mature trees are present along the southern two-thirds of the eastern border of the site. Ground surface elevations at the boring locations were in the range of 652 to 665, in general sloping down towards the relatively low-lying east-central portion where ponded water was also noted.

Present plans call for twelve (12) townhome buildings to be constructed on the subject property. They are to consist of 3-story wood-frame structures, being slab-on-grade with tuck-under garages on the lower level (mews product). Site improvements will also include paved parking and driveways around the buildings as well as a detention basin in the east-central area. Top of foundation (T/F) for the townhome buildings are in the range of Elevations 658.1 to 660.0.

The proposed site improvements are to include a park playing field on the southern quarter of the site as well as a detention basin in the east-central portion. The basin has a high water level (HWL) preliminarily set at Elevation 656.5 with bottom elevations of 650.75 and 651.50. An outlet control structure, pump station and box culvert overflow structure are to also be located along the middle of the east side of the basin. A retaining wall is to finally extend north from them along the eastern property limit up to the northeast corner of the site.

2.0 FIELD INVESTIGATION AND LABORATORY TESTING

Borings 1 - 17 were performed as a part of the original soils explorations. Borings 18 - 23 were added on the northern half of the site as part of the present study, with Borings 101 - 117 also drilled on the newly added southern half. A Boring Location Plan is included in the Appendix showing the drilling layout. Ground surface elevations at the boring locations were acquired using a Trimble R8s GNSS receiver and rounded to the nearest 0.5 foot.

The majority of the borings were extended 10 to 20 feet below existing grade. They were drilled and samples tested in accordance with currently recommended American Society for Testing and Materials specifications. Soil sampling was performed at 2½-foot intervals in conjunction with the Standard Penetration Test (SPT), for which driving resistance to a 2" split-spoon sampler (N value in blows per foot) provides an indication of the relative density of granular materials and consistency of cohesive soils. Water level readings were taken during and following completion of drilling operations.

The soil samples were examined in the laboratory to verify field descriptions and to classify them in accordance with the Unified Soil Classification System. Laboratory testing included moisture content determinations for all cohesive and intermediate (silt or loamy) soil types along with dry unit weight determinations on cohesive fill. An estimate of unconfined compressive strength was obtained for all cohesive soils using a calibrated pocket penetrometer (Qp), with actual measurements of unconfined compressive strength (Qu) performed on representative samples of native clay. Dry unit weight tests were also run on samples of cohesive fill.

Reference is made to the attached boring logs included with this report indicating subsurface stratigraphy and soil descriptions, results of field and laboratory tests, as well as water level observations. Definitions of descriptive terminology are also included. While strata changes are shown as a definite line on the boring logs, the actual transition between soil layers is likely to be more gradual. Fluctuations in the groundwater table may also occur due to variations in precipitation (short-term and seasonal) as well as rises or drops in pond, creek or other nearby surface water features, i.e. water levels at a future date may be higher or lower than those recorded at the time of drilling.

3.0 DISCUSSION OF TEST DATA

Boring 1 was drilled on existing asphalt pavement, revealing 4 inches bituminous concrete overlying 4 inches crushed stone base course materials. The pavement thickness was estimated from the sides of augered borehole and should be considered approximate; cores may be taken if more accurate measurements or descriptions of the paving materials (including possible fabric interlayers) are required.

Surficial topsoil (native and/or respread) was 6 to 16 inches thick at the majority of the boring locations. It was on the order of 3 feet deep at Borings 5, 10 - 13, 22, 102, 103, 106, 111, 116 and 117 located in the central portion of the site. The thicker clayey topsoil deposits exhibited relatively high moisture contents in the range of 21 to 55 percent. Buried topsoil was also found underlying existing fill at Borings 14, 15 and 17 and extended about 3½ to 5½ feet in depth. Mulch was 6 inches thick at the surface of B-115.

Silty clay fill materials were encountered at the surface or below the topsoil layer at Borings 1, 4, 6 - 8 and 14 - 23, 104, 105 and 110 (20 total), extending 3 to 8 feet below existing grade.

The samples of the cohesive fill had variable moisture contents and dry unit weights typically in the range of 16 to 35 percent and 86 to 120 pounds per cubic foot (pcf), respectively. Pocket penetrometer readings on the fill (i.e. estimates of unconfined compressive strength) were also variable and ranged between 0.5 and 4.5+ tons per square foot (tsf).

Organic clay, peat and/or relatively soft clay soils were encountered below the topsoil layer and/or fill materials in Borings 4, 5, 7 and 10 - 15, 20, 108 and 116 (11 total), concentrated in relatively low-lying areas around the east-central portion of the site. These unsuitable/compressible soil types typically extended to between 3 and 13 feet below existing grade. They had very high moisture contents which in most cases ranged from about 40 to 320 percent.

Tough to hard silty clay soils of medium to high plasticity were found underlying the topsoil layer at Borings 2, 3, 9, 18, 23, 101, 107, 109, 114 and 115 (10 total). These CL/CH materials (Unified classification) extended 3 to 8 feet below existing grade. They had unconfined compressive strengths typically ranging from 0.75 to 4.5+ tons per square foot (tsf) at moisture contents of 24 to 32 percent.

Stiff to tough silty clay and very silty clay soils of low to medium plasticity otherwise predominated, extending to the bottom of of the borings. These deeper cohesive materials had unconfined compressive strengths typically ranging from 1.0 to 6.0 tsf at moisture contents of 12 to 24 percent. Interbedded layers of loose to medium dense clayey sand and/or silt were encountered in Borings 3 and 18, with loose to very loose sandy silt found underlying the peat deposits in Borings 10 and 14. These intermediate materials had SPT N-values in the range of 4 to 16 blows per foot (bpf) and occasionally lower.

Free water was encountered within 6 feet of ground surface at Borings 5, 10 - 12, 14, 15 and 17 (7 total), concentrated in and around the low-lying east-central portion of the site with standing water present at B-10. The majority of the remaining borings were “dry” both during and following completion of drilling operations, except for B-3 where groundwater was present at around 13 feet in depth.

4.0 ANALYSIS AND RECOMMENDATIONS

4.1 Building Foundations

Present plans call for twelve (12) townhome buildings to be constructed on the subject property. They will consist of 3-story wood-frame structures, being slab-on-grade with tuck-under garages on the lower level (mews product). Top of foundation (T/F) for the townhome buildings are in the range of Elevations 658.1 to 660.0, i.e. relatively minor cuts and fills are anticipated as part of building pad construction.

Borings 1 - 4, 6 - 8, 14 - 23 and 101 - 105 (22 total) were drilled for the townhome buildings. Primarily silty clay fill materials extended 3 to 8 feet below existing grade at the majority of them, with surficial topsoil only being present at Borings 2, 3 and 101 - 103. Samples of the fill were variable in consistency, often exhibiting relatively high moisture contents which exceeded 20 percent and low dry unit weights of 110 pcf or under. Buried topsoil, peat, organic clay and/or relatively soft clay soils were found underlying the fill at Borings 4, 7, 14, 15, 17 and 20 (6 total) concentrated in Buildings 5, 6 and 9 lying north and west of the proposed detention basin in the low-lying east-central portion of the site.

On the basis of the boring data outlined above, it is our opinion that the existing fill does not meet a 95 percent compaction criterion. As such it is considered unsuitable for foundation support, as is the buried topsoil, peat, organic clay and/or relatively soft clay soils found underlying the fill in several of the borings. It is recommended that these materials be removed and replaced/recompacted as part of building pad construction, with footings to bear on the new engineered fill or underlying native silty clays if penetrated.

Summarized in the following table is the shallowest depth/elevation at which in-situ native soils considered capable (or marginally capable) of supporting a net allowable bearing pressure of 3000 psf were encountered at the referenced borings. The depth of existing fill (F) and/or clayey topsoil (T) are also shown, as well as peat and organic clay deposits where present. Added notes relate to the presence of marginal bearing soils for fill placement and/or foundation support (M) as well as undercut depths as part of building pad construction (U). The 3000 psf bearing value is typical and generally satisfactory for residential construction.

BORING NO.	GROUND SURFACE ELEVATION	EXISTING FILL (F) AND/OR TOPSOIL (T) DEPTH (FEET)	PEAT AND ORGANIC CLAY DEPTH (FEET)	3000 PSF NATIVE BEARING-BUILDING PAD UNDERCUT	
				DEPTH (FEET)*	ELEVATION*
1	659.5	3.0 F	---	3.0 U	656.5
2	659.5	1.3 T	---	1.5 M	658.0
3	656.5	0.8 T	---	1.0 M	655.5
4	658.5	5.5 F	8.0	8.0 UM	650.5
6	659.0	5.5 F	---	5.5 U	653.5
7	657.0	3.0 F	---	5.5 U	651.5
8	660.0	3.0 F	---	3.0 U	657.0
14	654.0	3.0 F	10.5	10.5 UM	643.5
15	656.0	3.0 F	5.5	6.5 U	649.5
16	659.5	5.5 F	---	5.5 U	654.0
17	656.5	3.5 FT	---	3.5 U	653.0
18	659.0	3.0 TF	---	3.0 UM	656.0
19	658.0	5.5 TF	---	5.5 U	652.5
20	656.5	5.5 TF	8.0	8.0 UM	648.5
21	660.5	8.0 TF	---	8.0 UM	652.5
22	656.0	5.5 TF	---	5.5 U	650.5
23	656.0	3.0 TF	---	3.0 UM	653.0
101	658.0	1.3 T	---	1.5 M	656.5
102	658.5	3.0 T	---	3.0	655.5
103	659.5	3.0 T	---	3.0 M	656.5
104	658.0	3.0 TF	---	3.0 U	655.0
105	659.0	3.0 F	---	3.0 U	656.0

* The ground surface and depth/elevation of 3000 psf native bearing soils are rounded to the nearest 0.5 foot.

M Marginal bearing soils for fill placement and/or foundation support.

U Undercut depth as part of building pad construction (feet).

Marginal bearing soils were encountered at shallow depths (i.e. typically directly underlying the topsoil layer) at Borings 2, 3, 18, 23, 101 and 103 in and around the northeast corner of

the site. They include silty clay soils having unconfined compressive strengths of on the order of to 1.5 tsf and/or moisture contents exceeding 25 percent. If relatively low strength or unstable soils are exposed at footing grade, they should be removed and replaced with structural backfill. Undercuts of 1 to 2 feet are typically required based on field observations. Foundation overexcavations are then backfilled and footings constructed at design elevations in accordance with the following recommended procedures.

The base of foundation overexcavations should exceed footing dimensions by at least 12 inches along each side, 6 inches for every foot of overdig where the undercut exceeds 2.0 feet in depth. Replacement materials should consist of crushed stone, crushed gravel or recycled concrete between ¼ to 3 inches in size and containing no fines; IDOT gradations CA-1 and CA-7 meet these criteria. This "structural" fill should be spread in 12-inch layers loose thickness, each lift to be densified using vibratory compaction equipment or by tamping with a backhoe bucket. Footings constructed on the coarse aggregate backfill may also be proportioned for 3000 psf bearing.

In connection with the townhome buildings, it is recommended that all continuous wall footings be made at least 20 inches wide, trench footings at least 10 inches wide and isolated foundations at least 2.5 feet square, regardless of calculated dimensions. For frost considerations, all exterior footings should be constructed at least 3.5 feet below outside finished grade and 4.0 feet for foundations located outside of heated building limits. Interior footings may be constructed at higher elevations as long as they are protected against frost heave in the event of winter construction. Consideration should be given to reinforcing foundation walls (two #5 rebars top and bottom) where total fill heights are 6 feet or greater.

4.2 Demolition Issues/Mass-Grading

An existing 1-story brick and metal building is present in the center of the site. It will have to be demolished to make way for the new construction. Associated roads and parking lot pavements as well as underground utilities were also present in the area.

Building demolition must be taken into account in foundation and site grading plans. In this regard, existing concrete floor slabs and foundation walls as well as asphalt/concrete pavements are normally removed as part of site demolition. This will promote subsurface

drainage and minimize obstructions in future foundation and utility excavations. Other buried structures should ideally be cut off at least 1'-0" below subgrade level in pavement areas, to typically be completely removed and replaced at floor slab and foundation locations. Utility lines located under proposed building area should be removed.

Granular backfill should ideally be placed in the excavations that are left, to be compacted to 95 percent Modified Proctor density. Deeper pipes may alternatively be filled with flowable grout. However, the condition of backfill materials left in-place over these pipes will have to be further evaluated when the site is stripped, i.e. their suitability for pavement support.

On-site supervision should ideally be provided during building demolition. In this regard, the condition of existing fill and utility trench backfill will need to be further evaluated as different areas are exposed. The site design and geotechnical engineers should be consulted in regard to these matters, it not being likely that a soil technician can make final decisions in all cases. In any event, unexpected soil conditions are likely to be encountered when the site is opened up for observation.

It is recommended that building pad and pavement areas otherwise be cleared of vegetation prior to mass-grading. Stripping operations should also include the removal of all surficial topsoil and other decomposable plant matter. It is also recommended that existing fill materials and buried topsoil be removed and replaced from under the townhome building pads, as well as peat and organic clay encountered in Borings 4, 14, 15 and 20 drilled for Buildings 5 and 6 (to the north of the proposed detention basin). To control long-term settlement, the undercuts for the highly compressible organic deposits should also include sidewalk and pavement areas (i.e. at least a portion of the driveway between Buildings 5 and 6 as well as the sidewalk along the south side of Building 6).

Undercutting of existing fill and other unsuitable soil types will require that the townhome building pads be enlarged to permit the horizontal distribution of footings loads. It is recommended that the base of the undercut, or zone of stripping where only surficial topsoil is to be removed, extending a minimum of 5.0 feet outside the outer edge of the house footprint plus 0.5 feet for every foot of fill to be placed.

Prior to the placement of new fill in undercut areas, the exposed subgrade will have to be evaluated to determine whether adequate compaction may be achieved for the first lift of fill. Marginal subgrade stability and/or water problems are common conditions especially in deep undercuts, specifically being indicated at Boring 4, 14, 20 and 21 drilled for Buildings 5 and 6. Where this condition occurs, it is recommended that coarse aggregate be placed in the bottom of the excavation until a stable base for compaction of clay fill is achieved, 12 to 30 inches typically being required. The coarse aggregate may consist of crushed stone, crushed gravel or recycled concrete between about 1/4 to 4 inches in size and containing no fines; IDOT gradations CA-1, CA-5 and CA-7 meet these criteria. It should be spread in maximum 18-inch layers and compacted to a dense and stable state.

The building pad and pavement areas should then be proof-rolled using a loaded dump truck or other approved piece of heavy rubber-tired construction equipment, in order to detect the presence of unsuitable soil types. All soft or unstable materials determined by proof-rolling should be reworked and recompacted or, if that does not substantially improve subgrade stability, removed and replaced. In this regard, exposed subgrade soils will likely have to be reduced in moisture content as part of subgrade preparation, to include existing fill under pavement areas.

Marginal subgrade stability, represented by clay soil types having unconfined compressive strengths of 1.5 tsf or less and/or moisture contents in excess of about 25 percent, were otherwise encountered in Borings 2, 3, 7, 9, 18, 23, 101, 103, 107, 109, 114 and 115 (10 total). These soils may need to be reduced in moisture content and recompacted in order to provide a stable base. Lime stabilization can achieve similar results and has the advantage of allowing work to proceed under adverse weather conditions. In any event, the need for subgrade reworking or additional undercutting should be evaluated on the basis of proof-rolling.

New fill should consist of inorganic silty clays of low to medium plasticity or approved granular materials. It is recommended that compaction for building pad and pavement areas be to a minimum of 95 and 90 percent of maximum dry density, respectively, as determined by the Modified Proctor test (ASTM D 1557). The upper 2 feet of pavement or roadway subgrade should also be compacted to the 95 percent criterion, to create a stable subgrade for proof-rolling and paving. The fill should be placed in approximate 9 inch lifts loose measure

for cohesive soils and up to 12 inches for granular materials, each lift to be compacted to the specified density prior to the placement of additional fill.

Moisture control is important in the compaction of most soil types, and it is recommended that the water content of new fill be within 1 percentage point on the low side and 3 percentage points on the high side of optimum moisture as established by its laboratory compaction curve. If the soil is compacted too dry, it will have an apparent stability which may be lost if it later becomes saturated. If the soil is too wet, the Contractor will not be able to achieve proper compaction.

In regard to use of on-site borrow, shallow silty clay soils including existing fill materials were often relatively moist - having water contents of between 21 and 33 percent. It is estimated their use as engineered fill will require that the in-situ moisture be reduced by about 4 to 12+ percentage points. This reduction in moisture content is typically achieved by spreading the material in a single lift and aerating with a continuous discing operation. For obvious reasons it will work best in hot, dry and windy weather. Lime stabilization can also be used and has the advantage of working in less ideal weather conditions.

Peat and organic clay will be encountered in the pad undercut for Buildings 5 and 6 (present in Borings 4, 14 and 15). They will also likely be generated in shallow excavations for the detention basin (at Borings 5, 10 - 13 and 20). These materials exhibited relatively low strengths and very high moisture contents, as such being unsuitable for re-use as engineered fill in building pad and pavement areas. They are often disposed of in the bottom of detention areas, to only be possible for the approximate southern half of the basin location.

4.3 Pavement Design and Construction

Pavement subgrade preparation may be in general accordance with previous recommendations for mass-grading. It is anticipated that existing subgrade will, in most areas have to be reduced in moisture content and recompacted prior to paving; compaction to at least 90 percent Modified Proctor density is recommended. However, as noted above the upper 2 feet of pavement or roadway subgrade is often compacted to 95 percent of Modified Proctor density to create a more stable base for proof-rolling and paving. If paving construction is performed when drying of surficial soils cannot be accomplished, lime

stabilization or removal of unstable subgrade and replacement with drier cohesive fill or 1 to 2 feet of granular materials may be required.

Peat and organic clay deposits were encountered in Borings 4, 5, 10 - 15, 20, 108 and 116, about half of which are in close proximity to pavement areas. These unsuitable/compressible materials should ideally be removed and replaced as part of subgrade preparation, to also include sidewalk areas including along the south side of Building 6. In this regard, even minor raises in grade will cause the organic deposits to consolidate and compress, resulting in significant and long-term settlement of the overlying pavements.

It is recommended that a nominal Illinois Bearing Ratio (IBR) value of 2.5 be used in the design of pavements. This reflects the medium to high plasticity cohesive subgrade soils which are prevalent in the area. Use of an IBR of 2.5 assumes that any soft or unstable areas will be remediated, i.e. subgrade stabilized until able to pass a proof-roll.

Bituminous pavements are typically used in conjunction with residential development. Base course materials for them should conform to IDOT gradation CA-6 and be compacted to 95 percent Modified Proctor density or 100 percent of the Standard Proctor (ASTM D 698) maximum density value. Bituminous materials should conform to an approved IDOT Superpave minimum design (N30 or N50 typical for residential pavements) as well as Standard Specifications for Road and Bridge Construction, Section 406 and 1032. They should be compacted to between 93 and 97 percent of their theoretical maximum density, the "Big D" as determined by the asphalt supplier.

4.4 Detention Basin

Present plans call for a detention basin to be located in the low-lying east-central corner of the site. The basin has a high water level (HWL) preliminarily set at Elevation 656.5 with bottom elevations of 650.75 and 651.50. An outlet control structure, pump station and box culvert overflow structure are to also be located along the middle of the east side of the basin. A retaining wall is to finally extend north from them along the eastern property limit up to the northeast corner of the site.

Borings 5, 10 - 14 and 20 (7 total) were drilled in and around the approximate north half of the detention basin and Borings 106 - 111 (6 total) for the south half. Variable soil conditions were encountered in these two zones, with organic clay and peat deposits typically extending 8 to 13 feet below existing grade on the north half and organic clay/topsoil only being up to 3 feet deep on the south half. These results are summarized in the following table which is very similar to the bearing table included on Page 7 of this report.

BORING NO.	GROUND SURFACE ELEVATION	EXISTING FILL (F) AND/OR TOPSOIL (T) DEPTH (FEET)	PEAT AND ORGANIC CLAY DEPTH (FEET)	3000 PSF NATIVE BEARING-BASIN SLOPE UNDERCUT	
				DEPTH (FEET)*	ELEVATION*
North Half of Detention Basin					
5	656.0	2.5 T	13.0	13.0 UM	643.0
10	652.5	3.0 T	10.5	10.5 UM	642.0
11	654.0	3.0 T	8.0	8.0 UM	646.0
12	655.0	3.0 T	5.5	5.5 UM	649.5
13	656.0	3.0 T	8.0	8.0 UM	648.0
14	654.0	3.0 TF	10.5	10.5 UM	643.5
20	656.5	5.5 TF	8.0	8.0 UM	648.5
South Half of Detention Basin					
106	658.0	3.0 T	---	3.0	655.0
107	657.0	1.0 T	---	1.0 M	656.0
108	655.0	1.3 T	3.0	3.0 U	652.0
109	654.0	1.0 T	---	1.0	653.0
110	656.0	3.0 FT	---	3.0	653.0
111	655.5	3.0 T	---	3.0	652.5

* The ground surface and depth/elevation of 3000 psf native bearing soils are rounded to the nearest 0.5 foot.

M Marginal bearing soils for fill placement and/or foundation support.

U Potential undercut depth for detention basin slopes as well as associated structures (feet).

The peat and organic clay deposits encountered on the north half of the detention basin exhibited very low strengths as well as extremely high moisture contents typically ranging from

about 60 to 320 percent, as such consider to be highly compressible. They will not stand on typical 4H:1V slopes, to often require that excavations be 8H:1V or even flatter. Construction of berms over them will cause the organic deposits to consolidate, resulting in significant and long-term settlement of the overlying embankment fill as well as associated structures.

Our primary recommendation is to remove and replace the organic clay and peat deposits from on as well as under the side slopes of the detention basin. The replacement materials should consist of clay soil types of medium to high plasticity, ideally containing less than 35 percent sand and gravel size particles. The majority of the cohesive deposits encountered by the borings meet these general requirements. The organic deposits to be undercut will have to be placed in non-structural areas or disposed of offsite, even being a problem if left under playing fields due to long term settlement issues.

The replacement materials should be placed in approximate 10 inch lifts loose measure and compacted to at least 90 percent of maximum dry density as determined by the Modified Proctor test (ASTM D 1557). At the time of placement and compaction they should also be on the wet side of optimum moisture content as determined by the laboratory compaction curve. Clay fill meeting these requirements will be stable on the 4H:1V side slopes which are proposed for the detention basin.

Undercutting of the organic deposits may not be feasible along the eastern portion of the detention basin, due to the likelihood of the resulting excavation encroaching into the adjoining properties. As previously discussed, an outlet control structure, pump station, box culvert overflow structure and a portion of the retaining wall are all located in this area. Undercuts for them could be backfilled with open-graded coarse aggregate as previously recommended in connection with building foundations, to otherwise have to be supported by pile or cassion foundations.

Much more favorable soil conditions were encountered on the south half of the detention basin, where stiff to hard native silty clay soils predominated in Borings 106 - 111. These cohesive materials will be stable on the 4H:1V design side slopes. The bottom of the basin in this area will also provide a source for suitable onsite borrow, and may also be able to be used for disposal of organic clay and peat deposits.

4.5 Groundwater Management

Serious groundwater problems are not anticipated at the site, due in large part to the predominately cohesive nature of subsurface soils. However, the accumulation of run-off water or seepage at the base of excavations is still expected to occur during foundation construction and site work, the latter to often be associated with interbedded silt and sand layers. The Contractor should therefore be prepared to implement dewatering procedures, as a minimum to include pumping from strategically placed sumps.

5.0 CLOSURE

It is recommended that full-time inspection be provided by Testing Service Corporation personnel during foundation construction, so that the soils at undercut and foundation levels can be observed and tested. In addition, adequacy of building materials, stripping and undercutting, fill placement and compaction as well as slab-on-grade and pavement construction should be monitored for compliance with the recommended procedures and specifications.

The analysis and recommendations submitted in this report are based upon the data obtained from the seventeen (17) original and twenty-three (23) supplemental soil borings performed at the locations indicated on the Boring Location Plan. This report does not reflect any variations which may occur between these borings, the nature and extent of which may not become evident until during the course of construction. If variations are then identified, recommendations contained in this report should be re-evaluated after performing on-site observations.

We are available to review this report with you at your convenience.

Samuel J. Patrick, E.I.T.
Staff Engineer

MICHAEL V. MACHALINSKI
62-038559
REGISTERED
PROFESSIONAL
ENGINEER
STATE OF ILLINOIS

Michael V. Machalinski
Vice President
Registered Professional Engineer
Illinois No. 062-038559

SJP:MVM:sp

Enc.

GENERAL CONDITIONS

Geotechnical and Construction Services

TESTING SERVICE CORPORATION

1. PARTIES AND SCOPE OF WORK: If Client is ordering the services on behalf of another, Client represents and warrants that Client is the duly authorized agent of said party for the purpose of ordering and directing said services, and in such case the term "Client" shall also include the principal for whom the services are being performed. Prices quoted and charged by TSC for its services are predicated on the conditions and the allocations of risks and obligations expressed in these General Conditions. Unless otherwise stated in writing, Client assumes sole responsibility for determining whether the quantity and the nature of the services ordered by Client are adequate and sufficient for Client's intended purpose. Unless otherwise expressly assumed in writing, TSC's services are provided exclusively for client. TSC shall have no duty or obligation other than those duties and obligations expressly set forth in this Agreement. TSC shall have no duty to any third party. Client shall communicate these General Conditions to each and every party to whom the Client transmits any report prepared by TSC. Ordering services from TSC shall constitute acceptance of TSC's proposal and these General Conditions.

2. SCHEDULING OF SERVICES: The services set forth in this Agreement will be accomplished in a timely and workmanlike manner. If TSC is required to delay any part of its services to accommodate the requests or requirements of Client, regulatory agencies, or third parties, or due to any cause beyond its reasonable control, Client agrees to pay such additional charges, if any, as may be applicable.

3. ACCESS TO SITE: TSC shall take reasonable measures and precautions to minimize damage to the site and any improvements located thereon as a result of its services or the use of its equipment; however, TSC has not included in its fee the cost of restoration of damage which may occur. If Client desires or requires TSC to restore the site to its former condition, TSC will, upon written request, perform such additional work as is necessary to do so and Client agrees to pay to TSC the cost thereof plus TSC's normal markup for overhead and profit.

4. CLIENT'S DUTY TO NOTIFY ENGINEER: Client represents and warrants that Client has advised TSC of any known or suspected hazardous materials, utility lines and underground structures at any site at which TSC is to perform services under this Agreement. Unless otherwise agreed in writing, TSC's responsibility with respect to underground utility locations is to contact the Illinois Joint Utility Locating Information for Excavators for the location of public, but not private, utilities.

5. DISCOVERY OF POLLUTANTS: TSC's services shall not include investigation for hazardous materials as defined by the Resource Conservation Recovery Act, 42 U.S.C.§ 6901, et, seq., as amended ("RCRA") or by any state or Federal statute or regulation. In the event that hazardous materials are discovered and identified by TSC, TSC's sole duty shall be to notify Client.

6. MONITORING: If this Agreement includes testing construction materials or observing any aspect of construction of improvements, Client's construction personnel will verify that the pad is properly located and sized to meet Client's projected building loads. Client shall cause all tests and inspections of the site, materials and work to be timely and properly performed in accordance with the plans, specifications, contract documents, and TSC's recommendations. No claims for loss, damage or injury shall be brought against TSC unless all tests and inspections have been so performed and unless TSC's recommendations have been followed.

TSC's services shall not include determining or implementing the means, methods, techniques or procedures of work done by the contractor(s) being monitored or whose work is being tested. TSC's services shall not include the authority to accept or reject work or to in any manner supervise the work of any contractor. TSC's services or failure to perform same shall not in any way operate or excuse any contractor from the performance of its work in accordance with its contract. "Contractor" as used herein shall include subcontractors, suppliers, architects, engineers and construction managers.

Information obtained from borings, observations and analyses of sample materials shall be reported in formats considered appropriate by TSC unless directed otherwise by Client. Such information is considered evidence, but any inference or conclusion based thereon is, necessarily, an opinion also based on engineering judgment and shall not be construed as a representation of fact. Subsurface conditions may not be uniform throughout an entire site and ground water levels may fluctuate due to climatic and other variations. Construction materials may vary from the samples taken. Unless otherwise agreed in writing, the procedures employed by TSC are not designed to detect intentional concealment or misrepresentation of facts by others.

7. DOCUMENTS AND SAMPLES: Client is granted an exclusive license to use findings and reports prepared and issued by TSC and any sub-consultants pursuant to this Agreement for the purpose set forth in TSC's proposal provided that TSC has received payment in full for its services. TSC and, if applicable, its sub-consultant, retain all copyright and ownership interests in the reports, boring logs, maps, field data, field notes, laboratory test data and similar documents, and the ownership and freedom to use all data generated by it for any purpose. Unless otherwise agreed in writing, test specimens or samples will be disposed immediately upon completion of the test. All drilling samples or specimens will be disposed sixty (60) days after submission of TSC's report.

8. TERMINATION: TSC's obligation to provide services may be terminated by either party upon (7) seven days prior written notice. In the event of termination of TSC's services, TSC shall be compensated by Client for all services performed up to and including the termination date, including reimbursable expenses. The terms and conditions of these General Conditions shall survive the termination of TSC's obligation to provide services.

9. PAYMENT: Client shall be invoiced periodically for services performed. Client agrees to pay each invoice within thirty (30) days of its receipt. Client further agrees to pay interest on all amounts invoiced and not paid or objected to in writing for valid cause within sixty (60) days at the rate of twelve (12%) per annum (or the maximum interest rate permitted by applicable law, whichever is the lesser) until paid and TSC's costs of collection of such accounts, including court costs and reasonable attorney's fees.

10. WARRANTY: TSC's professional services will be performed, its findings obtained and its reports prepared in accordance with these General Conditions and with generally accepted principles and practices. In performing its professional services, TSC will use that degree of care and skill ordinarily exercised under similar circumstances by members of its profession. In performing physical work in pursuit of its professional services, TSC will use that degree of care and skill ordinarily used under similar circumstances. This warranty is in lieu of all other warranties or representations, either express or implied. Statements made in TSC reports are opinions based upon engineering judgment and are not to be construed as representations of fact.

Should TSC or any of its employees be found to have been negligent in performing professional services or to have made and breached any express or implied warranty, representation or contract, Client, all parties claiming through Client and all parties claiming to have in any way relied upon TSC's services or work agree that the maximum aggregate amount of damages for which TSC, its officers, employees and agents shall be liable is limited to $50,000 or the total amount of the fee paid to TSC for its services performed with respect to the project, whichever amount is greater.

In the event Client is unwilling or unable to limit the damages for which TSC may be liable in accordance with the provisions set forth in the preceding paragraph, upon written request of Client received within five days of Client's acceptance of TSC's proposal together with payment of an additional fee in the amount of 5% of TSC's estimated cost for its services (to be adjusted to 5% of the amount actually billed by TSC for its services on the project at time of completion), the limit on damages shall be increased to $500,000 or the amount of TSC's fee, whichever is the greater. This charge is not to be construed as being a charge for insurance of any type, but is increased consideration for the exposure to an award of greater damages.

11. INDEMNITY: Subject to the provisions set forth herein, TSC and Client hereby agree to indemnify and hold harmless each other and their respective shareholders, directors, officers, partners, employees, agents, subsidiaries and division (and each of their heirs, successors, and assigns) from any and all claims, demands, liabilities, suits, causes of action, judgments, costs and expenses, including reasonable attorneys' fees, arising, or allegedly arising, from personal injury, including death, property damage, including loss of use thereof, due in any manner to the negligence of either of them or their agents or employees or independent contractors. In the event both TSC and Client are found to be negligent or at fault, then any liability shall be apportioned between them pursuant to their pro rata share of negligence or fault. TSC and Client further agree that their liability to any third party shall, to the extent permitted by law, be several and not joint. The liability of TSC under this provision shall not exceed the policy limits of insurance carried by TSC. Neither TSC nor Client shall be bound under this indemnity agreement to liability determined in a proceeding in which it did not participate represented by its own independent counsel. The indemnities provided hereunder shall not terminate upon the termination or expiration of this Agreement, but may be modified to the extent of any waiver of subrogation agreed to by TSC and paid for by Client.

12. SUBPOENAS: TSC's employees shall not be retained as expert witnesses except by separate, written agreement. Client agrees to pay TSC pursuant to TSC's then current fee schedule for any TSC employee(s) subpoenaed by any party as an occurrence witness as a result of TSC's services.

13. OTHER AGREEMENTS: TSC shall not be bound by any provision or agreement (i) requiring or providing for arbitration of disputes or controversies arising out of this Agreement or its performance, (ii) wherein TSC waives any rights to a mechanics lien or surety bond claim; (iii) that conditions TSC's right to receive payment for its services upon payment to Client by any third party or (iv) that requires TSC to indemnify any party beyond its own negligence These General Conditions are notice, where required, that TSC shall file a lien whenever necessary to collect past due amounts. This Agreement contains the entire understanding between the parties. Unless expressly accepted by TSC in writing prior to delivery of TSC's services, Client shall not add any conditions or impose conditions which are in conflict with those contained herein, and no such additional or conflicting terms shall be binding upon TSC. The unenforceability or invalidity of any provision or provisions shall not render any other provision or provisions unenforceable or invalid. This Agreement shall be construed and enforced in accordance with the laws of the State of Illinois. In the event of a dispute arising out of or relating to the performance of this Agreement, the breach thereof or TSC's services, the parties agree to try in good faith to settle the dispute by mediation under the Construction Industry Mediation Rules of the American Arbitration Association as a condition precedent to filing any demand for arbitration, or any petition or complaint with any court. Paragraph headings are for convenience only and shall not be construed as limiting the meaning of the provisions contained in these General Conditions.

APPENDIX

UNIFIED CLASSIFICATION CHART

LEGEND FOR BORING LOGS

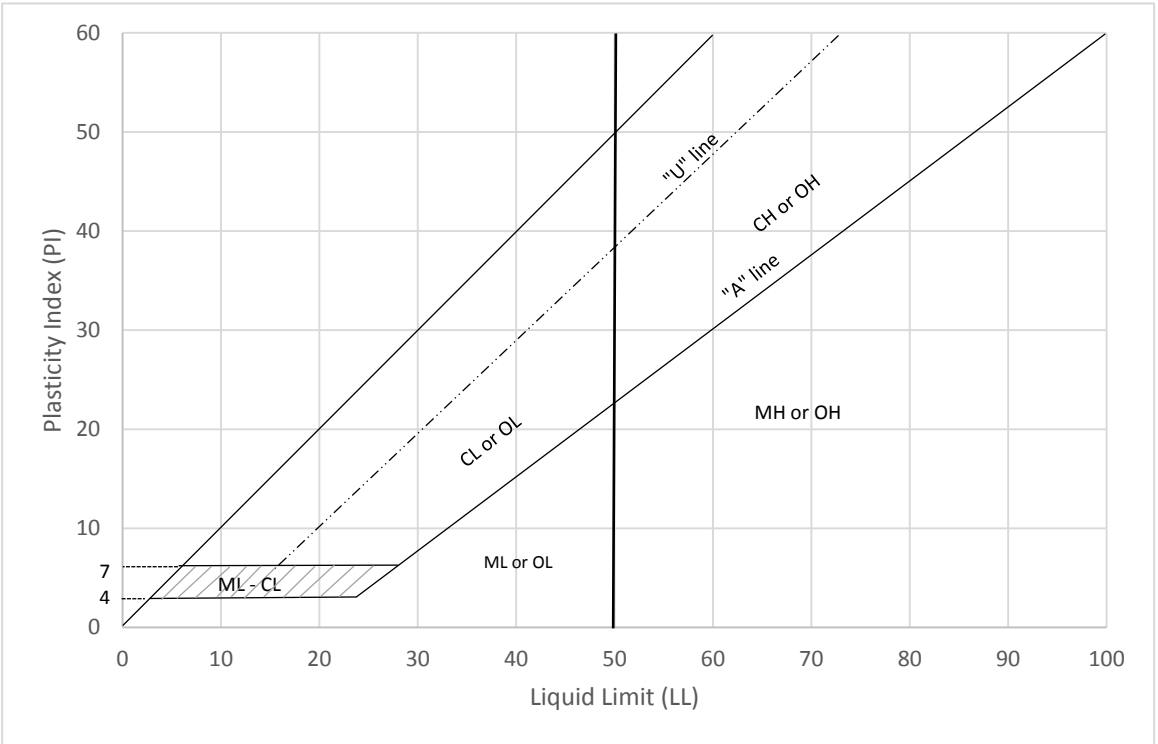
BORING LOGS

BORING LOCATION PLAN

Testing Service Corporation
Unified Classification Chart

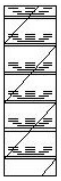
CRITERIA FOR ASSIGNING GROUP SYMBOLS AND GROUP NAMES USING LABORATORY TEST [o]				SOIL CLASSIFICATION	
				Group Symbol	GROUP NAME [b]
COARSE - GRAINED SOILS more than 50% retained on No. 200 sieve	GRAVELS More than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS less than 5% fines [c]	$C_u \geq 4$ and $1 \leq C_C \leq 3$ [e]	GW	Well-graded gravel [f]
			$C_u < 4$ and/or $1 > C_C > 3$ [e]	GP	Poorly-graded gravel [f]
		GRAVELS WITH FINES more than 12% fines [c]	Fines classify as ML or MH	GM	Silty gravel [f, g, h]
			Fines classify as CL or CH	GC	Clayey gravel [f, g, h]
	SANDS 50% or more of coarse fraction passes No. 4 sieve	CLEAN SANDS less than 5% fines [d]	$C_u \geq 6$ and $1 \leq C_C \leq 3$ [e]	SW	Well-graded sand [l]
			$C_u < 6$ and/or $1 > C_C > 3$ [e]	SP	Poorly-graded sand [l]
		SANDS WITH FINES more than 12% fines [d]	Fines classify as ML or MH	SM	Silty sand [g, h, f]
			Fines classify as CL or CH	SC	Clayey sand [g, h, f]
FINE - GRAINED SOILS 50% or more passed the No. 200 sieve	SILTS & CLAYS Liquid limit less than 50%	Inorganic	PI > 7 or plots on or above "A" line j	CL	Lean clay [k, l, m]
			PI < 4 or plots below "A" line j	ML	Silt [k, l, m]
		Organic	$\frac{\text{Liquid limit – oven dried}}{\text{Liquid limit – not dried}} < 0.75$	OL	Organic clay [k, l, m, n] Organic silt [k, l, m, o]
	SILTS & CLAYS Liquid limit 50% or more	Inorganic	PI plots on or above "A" line	CH	Fat clay [k, l, m]
			PI plots below "A" line	MH	Elastic silt [k, l, m]
		Organic	$\frac{\text{Liquid limit – oven dried}}{\text{Liquid limit – not dried}} < 0.75$	OH	Organic clay [k, l, m, p] Organic silt [k, l, m, q]
Highly organic soils		Primarily organic matter, dark in color, and organic odor		PT	Peat

a. Based on the material passing the 3-inch (75-mm) sieve.
b. If field sample contained cobbles and/or boulders, add "with cobbles and/or boulders" to group name
c. Gravels with 5 to 12% fines required dual symbols
GW-GM well graded gravel with silt
GW-GC well graded gravel with clay
GP-GM poorly graded gravel with silt
GP-GC poorly graded gravel with clay
d. Sands with 5 to 12% fines require dual symbols
SW-SM well graded sand with silt
SW-SC well graded sand with clay
SP-SM poorly graded sand with silt
SP-SC poorly graded sand with clay
e. $C_u = D_{60}/D_{10}$ $C_C = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
f. If soils contains ≥ 15% sand, add "with sand" to group name.
g. If fines classify as CL-ML, use dual symbol GC-GM, SC-SM
h. If fines are organic, add "with organic fines" to group name
i. If soils contains ≥ 15% gravel, add "with gravel" to group name
j. If Atterberg Limits plot in hatched area, soil is a CL – ML, silty clay
k. If soils contains 15 to 29% plus No. 200, add "with sand" or "with gravel" whichever is predominant
l. If soil contains ≥ 30% plus No. 200, predominantly sand, add "sandy" to group name.
m. If soils contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name
n. PI ≥ 4 and plots on or above "A" line
o. PI ≥ 4 and plots below "A" line
p. PI plots on or above "A" line
q. PI plots below "A" line

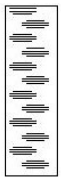


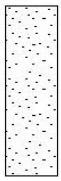
LEGEND FOR BORING LOGS

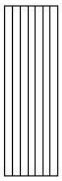

FILL

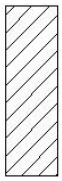

TOPSOIL

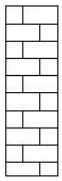

PEAT


GRAVEL


SAND


SILT


CLAY


LIMESTONE/ DOLOMITE

SAMPLE TYPE

SS	=	Split-Spoon
ST	=	Thin-Walled Tube
A	=	Auger
MC	=	Macro-Core (Geoprobe)

WATER LEVEL OBSERVATIONS

▼	While Drilling
▽	End of Boring
▼	24 Hours

FIELD AND LABORATORY TEST DATA

N	=	Standard Penetration Resistance in Blows per Foot (bpf)
WC	=	In-Situ Water Content (%)
Qu	=	Unconfined Compressive Strength in Tons per Square Foot (tsf)
	*	Pocket Penetrometer Reading: Maximum Value = 4.5 tsf
γ_{dry}	=	Dry Unit Weight in Pounds per Cubic Foot (pcf)

SOIL DESCRIPTIONS:

MATERIAL	PARTICLE SIZE RANGE
BOULDER	Over 12 inches
COBBLE	12 inches to 3 inches
Large GRAVEL	3 inches to ¾ inch
Small GRAVEL	¾ inch to No. 4 Sieve
Coarse SAND	No. 4 Sieve to No. 10 Sieve
Medium SAND	No. 10 Sieve to No. 40 Sieve
Fine SAND	No. 40 Sieve to No. 200 Sieve
SILT and CLAY	Passing No. 200 Sieve

COHESIVE SOILS

CONSISTENCY	Qu (tsf)
Very Soft	Less than 0.25
Soft	0.25 to 0.5
Medium Stiff	0.5 to 1.0
Stiff	1.0 to 2.0
Very Stiff	2.0 to 4.0
Hard	4.0 and over

COHESIONLESS SOILS

RELATIVE DENSITY	N (bpf)
Very Loose	0 – 3
Loose	4 – 9
Medium Dense	10 – 29
Dense	30 – 49
Very Dense	50 and over

MODIFYING TERM	PERCENT BY WEIGHT
Trace	1 – 10
Little	10 – 20
Some	20 – 35

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **1** DATE STARTED **12-11-18** DATE COMPLETED **12-11-18** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **659.5**

END OF BORING **644.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.3	659.2	4" Bituminous Concrete
							0.7	658.8	4" Crushed Stone
1	SS		12	15.7	2.5*	112			FILL - Brown trace black silty CLAY, little sand and gravel, trace Brick pieces, moist (CL)
							3.0	656.5	
2	SS		10	19.1	4.13 4.5+*				Hard brown silty CLAY, little sand and gravel, moist (CL)
3	SS		10	17.6	4.5+*				
4	SS		15	17.7	6.23 4.5+*				
5	SS		14	17.8	4.5+*				
							13.0	646.5	
6	SS		14	18.6	2.81 2.0*				Very tough gray silty CLAY, little sand and gravel, moist (CL)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **2** DATE STARTED **12-11-18** DATE COMPLETED **12-11-18** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **659.5**

END OF BORING **644.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		Black clayey TOPSOIL (OL)
							1.3	658.2	
1	SS		12	28.2	4.5*				Hard brown silty CLAY, trace sand, trace organic, moist (CL/CH)
							3.0	656.5	
2	SS		12	18.6	4.47 4.5+*				Hard brown silty CLAY, little sand and gravel, moist (CL)
3	SS		20	18.6	4.5+*				
4	SS		23	21.0	5.15 4.5+*				
							10.5	649.0	
5	SS		18	19.5	4.5+*				Hard brown and gray silty CLAY, little sand and gravel, moist (CL)
							13.0	646.5	
6	SS		14	19.6	4.25*				Hard gray silty CLAY, little sand and gravel, moist (CL)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **3** DATE STARTED **12-11-18** DATE COMPLETED **12-11-18** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **656.5**

END OF BORING **639.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **13.0 '**

AT END OF BORING **15.0 '**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.8	655.7	Black clayey TOPSOIL (OL)
1	SS		7	25.3	1.62 1.25*				Tough brown trace black silty CLAY, trace sand, trace organic, moist to very moist (CL/CH)
2	SS		7	30.1	1.5*				
							5.5	651.0	
3	SS		12	18.9	3.5*				Very tough brown silty CLAY, little sand and gravel, moist (CL)
							8.0	648.5	
4	SS		10	17.4	7.56 4.5+*				Hard to very tough gray silty CLAY, little sand and gravel, moist (CL)
5	SS		9	19.2	2.5*				
							13.0	643.5	
6	SS		4	24.7					Loose gray clayey SAND, little gravel, very moist (SC)
							15.5	641.0	
7	SS		8	15.7	0.96 0.75*				Stiff gray silty CLAY, little to some sand and gravel, occasional sand seams, moist (CL)
									End of Boring at 17.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **4** DATE STARTED **12-11-18** DATE COMPLETED **12-11-18** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **658.5**

END OF BORING **643.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.0	657.5	FILL - Black clayey TOPSOIL (OL)
1	SS		7	31.1	1.0*	92			FILL - Brown and black silty CLAY, little sand and gravel, trace organic, very moist (CL)
2	SS		9	25.8	1.5*	99			
							5.5	653.0	
3	SS		5	80.5	1.0*				Dark brown ORGANIC CLAY, very moist (OH)
							8.0	650.5	
4	SS		7	23.7	0.75*				Stiff gray very silty CLAY, little sand, very moist (CL-ML)
							10.5	648.0	
5	SS		9	21.3	1.49 1.0*				Tough gray silty CLAY, little sand and gravel, moist to very moist (CL)
6	SS		10	20.8	1.5*				
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **5** DATE STARTED **12-11-18** DATE COMPLETED **12-11-18** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **656.0**

END OF BORING **638.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **1.0 '**

AT END OF BORING **1.0 '**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS		3	48.7			0	656.0	Black clayey TOPSOIL, very moist (OL)
							2.5	653.5	
2	SS		WOH	275					Black PEAT, very moist (Pt)
3	SS		WOH	160					
4	SS		3	165					
							10.5	645.5	
5	SS		WOH	64.4					Gray and black ORGANIC CLAY, very moist (OH)
							13.0	643.0	
6	SS		4	19.4	0.75*				Stiff gray silty CLAY, little sand, very moist (CL)
7	SS		11	23.1	0.96 1.0*				
									End of Boring at 17.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **6** DATE STARTED **12-11-18** DATE COMPLETED **12-11-18** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **659.0**

END OF BORING **644.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.8	658.2	FILL - Black clayey TOPSOIL (OL)
1	SS		5	21.8	0.75*	106	3.0	656.0	FILL - Brown silty CLAY, little sand and gravel, very moist (CL)
2	SS		9	26.0	1.0*	96	5.5	653.5	FILL - Brown and gray silty CLAY, trace sand, very moist (CL/CH)
3	SS		11	23.0	3.0*				Very tough to hard brown silty CLAY, little sand and gravel, moist (CL)
4	SS		16	18.3	7.56 4.5+*		10.5	648.5	
5	SS		18	17.2	4.5+*				Hard brown and gray silty CLAY, little to some sand and gravel, moist (CL)
6	SS		21	14.6	7.56 4.5+*				
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **7** DATE STARTED **12-11-18** DATE COMPLETED **12-11-18** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **657.0**

END OF BORING **642.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.8	656.2	FILL - Black clayey TOPSOIL (OL)
1	SS		7	34.2	0.75*	88	3.0	654.0	FILL - Brown and black silty CLAY, trace sand, trace organic, very moist (CL/CH)
2	SS		4	39.4	0.83 0.75*		5.5	651.5	Stiff brown silty CLAY, trace sand, very moist (CL/CH)
3	SS		12	18.2	3.0*				Very tough to hard brown and gray silty CLAY, little sand and gravel, moist (CL)
4	SS		14	17.9	4.53 4.5+*				
5	SS		13	18.4	2.5*				
6	SS		12	18.2	3.47 3.0*				
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **8** DATE STARTED **12-11-18** DATE COMPLETED **12-11-18** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **660.0**

END OF BORING **645.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.5	659.5	FILL - Black clayey TOPSOIL (OL)
1	SS		11	21.5	4.5+*	104			FILL - Brown silty CLAY, little sand and gravel, moist (CL)
							3.0	657.0	
2	SS		14	19.7	2.75*				Very tough brown silty CLAY, little sand and gravel, moist (CL)
3	SS		13	17.6	3.77 4.0*				
							8.0	652.0	
4	SS		20	18.4	4.5+*				Hard brown and gray silty CLAY, little sand and gravel, moist (CL)
5	SS		18	17.3	5.62 4.5+*				
							13.0	647.0	
6	SS		12	18.6	2.75*				Very tough gray silty CLAY, little sand and gravel, moist (CL)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **9** DATE STARTED **12-11-18** DATE COMPLETED **12-11-18** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **660.0**

END OF BORING **652.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.8	659.2	Black clayey TOPSOIL (OL)
1	SS		9	31.2	1.75*				Tough brown silty CLAY, trace sand, moist (CL/CH)
							3.0	657.0	
2	SS		12	16.2	4.5+*				Hard brown silty CLAY, little sand, moist (CL)
3	SS		22	16.1	4.5+*				
									End of Boring at 7.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **10** DATE STARTED **2-11-19** DATE COMPLETED **2-11-19** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **652.5**

END OF BORING **632.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Surface**

AT END OF BORING

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS		4	46.9					Black clayey TOPSOIL, very moist (OL)
							3.0	649.5	
2	SS		4	300					Dark brown PEAT, very moist (Pt)
3	SS		WOH	325					
4	SS		WOH	200					
							10.5	642.0	
5	SS		7	25.2					Loose to very loose gray sandy SILT, saturated (ML)
6	SS		0	20.3					
7	SS		3	27.2					
							18.0	634.5	
8	SS		9	21.2	1.15 1.5*				Tough gray silty CLAY, little sand, very moist (CL)
									End of Boring at 20.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **262**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **11** DATE STARTED **2-11-19** DATE COMPLETED **2-11-19** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **654.0**

END OF BORING **634.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **6.0 '**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
1	SS		9	31.8	1.0*				Black clayey TOPSOIL, very moist (OL)
							3.0	651.0	
2	SS		5	45.5	0.64 0.75*				Brown ORGANIC CLAY, very moist (OH)
							5.5	648.5	
3	SS		0	61.2					Gray ORGANIC SILT, little sand, wet (ML)
							8.0	646.0	
4	SS		7	22.5	1.28 1.25*				Tough to very tough gray silty CLAY, trace to little sand, very moist to moist (CL)
5	SS		11	24.1	1.53 1.75*				
6	SS		13	20.9	2.0*				
7	SS		15	19.6	2.56 2.25*				
8	SS		19	21.1	1.0*				
									End of Boring at 20.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **262**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **12** DATE STARTED **2-11-19** DATE COMPLETED **2-11-19** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **655.0**

END OF BORING **640.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **2.0 '**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
1	SS		11	20.6					Black clayey TOPSOIL, moist (OL)
							3.0	652.0	
2	SS		4	85.6	0.5*				Brown and gray ORGANIC CLAY, very moist (OH)
							5.5	649.5	
3	SS		6	24.4	1.0*				
4	SS		8	22.8	1.53 1.5*				Tough to very tough gray silty CLAY, little sand, trace gravel, very moist to moist (CL)
5	SS		13	19.9	2.25*				
6	SS		17	18.4	3.71 3.5*				
							15		End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **262**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **13** DATE STARTED **2-11-19** DATE COMPLETED **2-11-19** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **656.0**

END OF BORING **641.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
1	SS		9	28.6					Black clayey TOPSOIL, very moist (OL)
							3.0	653.0	
2	SS		7	135					Dark brown PEAT, very moist (Pt)
							5.5	650.5	
3	SS		4	75.9	0.25*				Dark brown ORGANIC CLAY, very moist (OH)
							8.0	648.0	
4	SS		6	23.2	1.02 1.25*				Tough to very tough gray silty CLAY, little sand, trace gravel, very moist to moist (CL)
5	SS		9	21.1	1.25*				
6	SS		16	19.8	2.75 2.5*				
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **262**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **14** DATE STARTED **2-11-19** DATE COMPLETED **2-11-19** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **654.0**

END OF BORING **634.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **6.0 '**

24 HOURS

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.5	653.5	FILL - Black clayey TOPSOIL (OL)
	1	SS	13	21.7					FILL - Brown and gray silty CLAY, little sand and gravel, trace Concrete pieces, moist (CL)
							3.0	651.0	
	2	SS	5	67.8	1.25*				Black ORGANIC CLAY/TOPSOIL, very moist (OH)
							5.5	648.5	
	3	SS	WOH	210					Gray and dark brown PEAT, very moist (Pt)
	4	SS	WOH	165					
							10.5	643.5	
	5	SS	4	23.3					Loose to firm gray sandy SILT, damp to very moist (ML)
	6	SS	12	25.5					
	7	SS	4	19.0					
							18.0	636.0	
	8	SS	11	17.7	1.25*				Tough gray silty CLAY, little sand and gravel, moist to very moist (CL)
									End of Boring at 20.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **262**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **15** DATE STARTED **2-11-19** DATE COMPLETED **2-11-19** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **656.0**

END OF BORING **643.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **8.0 '**

AT END OF BORING **3.0 '**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
							1.0	655.0	FILL - Black clayey TOPSOIL (OL)
1	SS		22	20.2	2.0*	109			FILL - Dark brown silty CLAY, little sand and gravel, trace organic, trace Concrete and Brick pieces
							3.0	653.0	
2	SS		7	54.6	1.5*				Black ORGANIC CLAY/TOPSOIL, very moist (OH)
							5.5	650.5	
A				49.5	0.57				Soft to stiff brown and gray silty CLAY, trace sand, very moist (CH)
3	SS		6		0.5*		6.5	649.5	
B				19.1	2.0*				
4	SS		7	21.4	1.25*				Very tough to tough gray silty CLAY, trace to little sand, moist to very moist (CL)
5	SS		9	19.1	2.25*				
									End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **262**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **16** DATE STARTED **2-11-19** DATE COMPLETED **2-11-19** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **659.5**

END OF BORING **649.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.8	658.7	FILL - Black clayey TOPSOIL (OL)
1	SS		10	19.9	2.5*	110			FILL - Brown trace black silty CLAY, little sand and gravel, trace organic, moist (CL)
2	SS		11	19.0	1.75*	111			
							5.5	654.0	
3	SS		10	23.5	1.75*				Tough brown and gray silty CLAY, little sand, trace gravel, moist (CL)
							8.0	651.5	
4	SS		14	18.8	4.0*				Very tough to hard brown and gray silty CLAY, little sand and gravel, moist (CL)
									End of Boring at 10.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **262**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **17** DATE STARTED **2-11-19** DATE COMPLETED **2-11-19** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **656.5**

END OF BORING **646.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **5.5 '**

24 HOURS

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.0		FILL - Black clayey TOPSOIL (OL)
	A			20.6	4.5*	108	0.9	655.6	FILL - Brown trace black silty CLAY, little sand and gravel, trace organic, moist (CL)
	1	SS	6				1.8	654.7	
	B			30.7	1.5*				Black clayey TOPSOIL, moist to very moist (OL)
							3.5	653.0	
	2	SS	8	24.0	2.0*				Tough to very tough brown silty CLAY, little sand, moist (CL)
							5.5	651.0	▼
	3	SS	17	16.0	2.75*				Very tough brown and gray silty CLAY, little sand and gravel, moist (CL)
							8.0	648.5	
	4	SS	16	18.1	4.5+*				Hard gray silty CLAY, little sand and gravel, moist (CL)
									End of Boring at 10.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **262**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **18** DATE STARTED **5-22-20** DATE COMPLETED **5-22-20** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **659.0**

END OF BORING **639.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **13.0 '**

AT END OF BORING **16.0 '**

24 HOURS

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
									FILL - Black clayey TOPSOIL (OL)
	1	SS	7	18.7	4.0*	112	1.2	657.8	FILL - Brown and black silty CLAY, little sand and gravel, moist (CL)
	2	SS	5	29.8	1.23 1.0*		3.0	656.0	Stiff to medium stiff dark brown silty CLAY, trace sand, trace organic, moist to very moist (CL/CH)
	3	SS	8	31.8	0.75*				
							8.0	651.0	
	4	SS	16	15.0					Medium dense brown SILT, little fine sand, moist (ML)
							10.5	648.5	
	5	SS	18	18.7	4.5+*				Hard brownish gray silty CLAY, little sand and gravel, moist (CL)
							13.0	646.0	
	6	SS	16	17.7	1.89 1.5*				Soft to medium stiff gray silty CLAY, little sand and gravel, moist to very moist (CL)
	7	SS	10	19.1	1.5*				
	8	SS	12	18.4	1.0*				
							20		End of Boring at 20.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217B.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **19** DATE STARTED **5-22-20** DATE COMPLETED **5-22-20** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **658.0**

END OF BORING **638.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **15.5 '**

AT END OF BORING **18.0 '**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.8	657.2	FILL - Black clayey TOPSOIL (OL)
1	SS		17	20.6	3.5*	108			FILL - Brown trace black silty CLAY, little sand and gravel, moist to very moist (CL)
2	SS		6	25.6	0.5*	100			
							5.5	652.5	
3	SS		15	18.4	3.5*				Very stiff to hard brownish gray silty CLAY, little sand and gravel, moist (CL)
4	SS		15	18.1	3.34 3.5*				
5	SS		18	17.4	4.0*				
6	SS		16	18.1	3.25*				
							15.5	642.5	▼
7	SS		9	18.3	1.0*				▽ Stiff to very stiff gray silty CLAY, little sand and gravel, occasional sand seams, very moist to moist (CL)
8	SS		11	20.2	2.0*				
									End of Boring at 20.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217B.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **20** DATE STARTED **5-22-20** DATE COMPLETED **5-22-20** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **656.5**

END OF BORING **636.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **18.0 '**

AT END OF BORING **18.0 '**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.0	655.5	FILL - Black clayey TOPSOIL (OL)
1	SS		9	19.3	1.75*	111			FILL - Brown, gray and black silty CLAY, little sand and gravel, moist to very moist (CL)
2	SS		5	20.6	0.75*	105			
							5.5	651.0	
3	SS		4	165					Dark brown PEAT, very moist (Pt)
							8.0	648.5	
4	SS		8	20.5	1.0*				Stiff to very stiff brownish gray silty CLAY, little sand and gravel, very moist to moist (CL)
5	SS		8	20.9	1.0*				
6	SS		11	19.0	2.5*				
7	SS		15	17.3	1.5*				
8	SS		13	19.5	1.0*				
									End of Boring at 20.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217B.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **21** DATE STARTED **5-22-20** DATE COMPLETED **5-22-20** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **660.5**

END OF BORING **640.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **18.0 '**

AT END OF BORING **18.0 '**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.5	660.0	FILL - Black clayey TOPSOIL (OL)
1	SS		9	15.2	4.5+*	120			FILL - Brown, gray and black silty CLAY, little sand and gravel, moist (CL)
2	SS		13	20.4	2.0*	109			
							5.5	655.0	
3	SS		6	28.2	1.25*	96			FILL - Brown, gray and black silty CLAY, trace sand, trace organic, moist to very moist (CL/CH)
							8.0	652.5	
4	SS		8	22.6	0.96 1.0*				Stiff brown and gray silty CLAY, little sand and gravel, very moist (CL)
							10.5	650.0	
5	SS		22	19.1	4.5+*				Hard brown and gray silty CLAY, little sand and gravel, moist (CL)
							13.0	647.5	
6	SS		11	19.0	2.94 3.0*				Very stiff brownish gray silty CLAY, little sand and gravel, moist (CL)
7	SS		13	17.0	3.0*				
8	SS		12	18.9	2.5*				End of Boring at 20.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217B.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **22** DATE STARTED **5-22-20** DATE COMPLETED **5-22-20** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **656.0**

END OF BORING **641.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **3.0 '**

AT END OF BORING **5.0 '**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
1	SS		9	30.5					FILL - Black clayey TOPSOIL (OL)
							3.0	653.0	
2	SS		4	35.4	1.0*	86			FILL - Brown and black silty CLAY, little sand and gravel, with TOPSOIL and trace brick pieces, very moist (CL-OL)
							5.5	650.5	
3	SS		18	21.6	1.75*				Stiff to very stiff brownish gray silty CLAY, little sand and gravel, moist (CL)
4	SS		17	18.1	2.55 3.0*				
							10.5	645.5	
5	SS		13	18.3	2.75*				Very stiff to stiff gray silty CLAY, little sand and gravel, moist to very moist (CL)
6	SS		11	17.6	1.36 1.0*				
							15		End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217B.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Proposed Townhome Development, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **23** DATE STARTED **5-22-20** DATE COMPLETED **5-22-20** JOB **L-89,217**

ELEVATIONS

GROUND SURFACE **656.0**

END OF BORING **641.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **8.0 '**

AT END OF BORING **10.0 '**

24 HOURS

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.5	655.5	FILL - Black clayey TOPSOIL (OL)
	1	SS	3	24.9	1.5*	99			FILL - Dark brown silty CLAY, little sand and gravel, moist to very moist (CL)
							3.0	653.0	
	2	SS	6	25.8	1.23 1.0*				Brown trace black silty CLAY, trace sand, trace organic, moist to very moist (CL/CH)
							5.5	650.5	
	3	SS	14	18.2	2.5*				Very stiff brown silty CLAY, little sand and gravel, moist (CL)
							8.0	648.0	
	4	SS	9	15.6	2.0*				Very stiff to hard gray silty CLAY, little sand and gravel, occasional silt seams, moist (CL)
	5	SS	17	14.9	5.57 4.5+*				
							13.0	643.0	
	6	SS	12	20.7	1.0*				Stiff gray silty CLAY, little sand and gravel, very moist (CL)

End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 89217B.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **101** DATE STARTED **5-26-20** DATE COMPLETED **5-26-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **658.0**

END OF BORING **643.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
									Black clayey TOPSOIL (OL)
							1.3	656.7	
1	SS		6	25.0	1.5*				Stiff brown silty CLAY, trace sand, moist to very moist (CL/CH)
2	SS		8	25.2	1.75*		5		
							5.5	652.5	
3	SS		15	19.3	3.21 3.5*				Very stiff to hard brownish-gray silty CLAY, little sand and gravel, moist (CL)
4	SS		23	18.1	4.5+*		10		
5	SS		22	18.4	4.66 4.5+*				
6	SS		13	17.2	3.5*		15		End of Boring at 15.0'
							20		

DISTANCE BELOW SURFACE IN FEET

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **102** DATE STARTED **5-26-20** DATE COMPLETED **5-26-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **658.5**

END OF BORING **643.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS		8	31.5					Black clayey TOPSOIL, moist (OL)
							3.0	655.5	
2	SS		11	21.8	2.02 2.0*				Very stiff to hard brown silty CLAY, little sand and gravel, moist (CL)
3	SS		22	18.5	4.5+*				
4	SS		20	17.5	4.5+*				
							10.5	648.0	
5	SS		20	17.0	4.79 4.0*				Hard brownish gray silty CLAY, little sand and gravel, moist (CL)
6	SS		17	16.5	4.5+*				
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 91198.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **103** DATE STARTED **5-26-20** DATE COMPLETED **5-26-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **659.5**

END OF BORING **644.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS		10	32.0			0		Black clayey TOPSOIL, moist (OL)
							3.0	656.5	
2	SS		8	24.3	1.34 1.5*				Stiff brown silty CLAY, little sand and gravel, moist to very moist (CL)
							5.5	654.0	
3	SS		20	16.8	4.5+*				Hard brownish gray silty CLAY, little sand and gravel, moist (CL)
4	SS		19	18.7	5.05 4.5+*				
5	SS		18	17.8	4.5+*				
							13.0	646.5	
6	SS		10	18.6	2.5*				Hard gray silty CLAY, little sand and gravel, moist (CL)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 91198.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **104** DATE STARTED **5-26-20** DATE COMPLETED **5-26-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **658.0**

END OF BORING **643.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

DISTANCE BELOW SURFACE IN FEET

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
							0.8	657.2	FILL - Black clayey TOPSOIL (OL)
	1	SS	6	23.5	1.25*	103			FILL - Brown and black silty CLAY, little sand and gravel, trace organic, moist to very moist (CL)
							3.0	655.0	
	2	SS	17	17.2	5.56 4.5+*				Hard brown silty CLAY, little sand and gravel, moist (CL)
	3	SS	18	17.0	4.5+*				
							8.0	650.0	
	4	SS	18	18.7	4.73 4.5+*				Hard brownish gray silty CLAY, little sand and gravel, moist (CL)
	5	SS	23	19.2	4.5+*				
							13.0	645.0	
	6	SS	12	15.9	3.75*				Hard gray silty CLAY, little sand and gravel, moist (CL)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **105** DATE STARTED **5-26-20** DATE COMPLETED **5-26-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **659.0**

END OF BORING **644.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS		6	18.8	1.5*	112			FILL - Brown and black silty CLAY, little sand and gravel, trace organic, moist to very moist (CL)
							3.0	656.0	
2	SS		13	13.3	2.75 3.0*				Very stiff brown silty CLAY, little to some sand and gravel, moist (CL)
3	SS		15	17.4	4.5+*				
4	SS		20	17.9	6.58 4.5+*				
5	SS		21	18.4	4.5+*				
							13.0	646.0	
6	SS		11	18.9	1.25*				Stiff gray silty CLAY, little sand and gravel, occasional sand seams, moist to very moist (CL)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **106** DATE STARTED **5-26-20** DATE COMPLETED **5-26-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **658.0**

END OF BORING **643.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS		11	19.6					Black clayey TOPSOIL, moist (OL)
							3.0	655.0	
2	SS		6	23.0	2.28 2.0*				Very stiff to hard brown and gray silty CLAY, little sand and gravel, moist (CL)
3	SS		11	20.5	2.0*				
4	SS		17	16.8	4.5+*				
5	SS		18	16.8	4.66 4.5+*				
6	SS		13	18.0	3.0*				
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 91198.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **107** DATE STARTED **5-27-20** DATE COMPLETED **5-27-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **657.0**

END OF BORING **642.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
							1.0	656.0	Black clayey TOPSOIL (OL)
1	SS		12	27.7	1.75*				Stiff dark brown silty CLAY, trace sand, moist (CL/CH)
							3.0	654.0	
2	SS		18	19.8	2.11 2.25*				Very stiff brown silty CLAY, little sand and gravel, moist (CL)
							5.5	651.5	
3	SS		16	18.8	3.25*				Very stiff brown and gray silty CLAY, little sand and gravel, moist (CL)
4	SS		20	18.9	3.58 3.25*				
							10.5	646.5	
5	SS		18	18.6	3.25*				Very stiff gray silty CLAY, little sand and gravel, moist (CL)
6	SS		12	18.9	3.25*				
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 91198.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **108** DATE STARTED **5-27-20** DATE COMPLETED **5-27-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **655.0**

END OF BORING **640.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
									Black clayey TOPSOIL (OL)
							1.3	653.7	
1	SS		5	39.1	1.0*				Stiff dark brown ORGANIC CLAY, very moist (OH)
							3.0	652.0	
2	SS		19	20.7	3.26 3.25*				Very stiff brown and gray silty CLAY, little sand and gravel, moist (CL)
3	SS		17	18.2	2.75*				
							8.0	647.0	
4	SS		11	17.2	2.94 2.5*				Very stiff gray silty CLAY, little sand and gravel, moist (CL)
5	SS		10	17.5	3.5*				
6	SS		13	19.4	2.5*				
							15		End of Boring at 15.0'
									* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **109** DATE STARTED **5-27-20** DATE COMPLETED **5-27-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **654.0**

END OF BORING **639.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0	654.0	
							1.0	653.0	Black clayey TOPSOIL (OL)
1	SS		4	24.9	1.75*				Stiff brown silty CLAY, trace sand, moist (CL/CH)
							3.0	651.0	
2	SS		20	19.5	3.77 3.75*				Very stiff brown and gray silty CLAY, little sand and gravel, moist (CL)
3	SS		23	16.8	3.0*				
							8.0	646.0	
4	SS		12	17.2	3.83 3.5*				Very stiff gray silty CLAY, little sand and gravel, moist (CL)
5	SS		10	17.3	3.0*				
6	SS		13	18.5	2.75*				
							15.0		End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 91198.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **110** DATE STARTED **5-27-20** DATE COMPLETED **5-27-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **656.0**

END OF BORING **641.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

DISTANCE BELOW SURFACE IN FEET

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
									FILL - Black clayey TOPSOIL (OL)
							1.0	655.0	
	1	SS	5	22.1	1.75*	105			FILL - Brown and black silty CLAY, little sand and gravel, moist (CL)
							3.0	653.0	
	2	SS	22	16.5	6.90 4.5+*				Hard brown silty CLAY, little sand and gravel, moist (CL)
	3	SS	20	17.7	4.5+*				
							8.0	648.0	
	4	SS	17	20.8	3.5*				Very stiff brownish gray silty CLAY, little sand and gravel, moist (CL)
	5	SS	11	18.4	2.68 2.5*				
	6	SS	14	19.1	3.5*				
							15		End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **111** DATE STARTED **5-27-20** DATE COMPLETED **5-27-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **655.5**

END OF BORING **640.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS		6	34.1			0		Black clayey TOPSOIL, moist to very moist (OL)
							3.0	652.5	
2	SS		12	21.7	2.04 2.25*				Very stiff brown and gray silty CLAY, little sand and gravel, moist (CL)
3	SS		21	18.5	3.25*				
							8.0	647.5	
4	SS		22	18.5	4.0*				Very stiff to stiff gray silty CLAY, little sand and gravel, moist (CL)
5	SS		16	16.7	2.75*				
6	SS		11	19.9	1.75*				
							15.0		End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 91198.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **112** DATE STARTED **5-26-20** DATE COMPLETED **5-26-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **657.5**

END OF BORING **645.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.0	656.5	Black clayey TOPSOIL (OL)
1	SS		7	23.2	1.75*				Stiff brown trace black silty CLAY, trace to little sand and gravel, trace organic, moist (CL)
							3.0	654.5	
2	SS		10	19.2	2.42 2.75*				
3	SS		11	21.4	1.5*				Very stiff to stiff brown and gray silty CLAY, little sand and gravel, moist (CL)
4	SS		10	18.3	1.75*				
5	SS		12	18.6	2.5*				
									End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 91198.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **113** DATE STARTED **5-26-20** DATE COMPLETED **5-26-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **658.0**

END OF BORING **643.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

DISTANCE BELOW SURFACE IN FEET

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
									Black clayey TOPSOIL (OL)
							1.2	656.8	
	1	SS	7	24.0	1.75*				Stiff brown trace black silty CLAY, trace to little sand, moist (CL)
	2	SS	6	23.2	1.75*				
							5.5	652.5	
	3	SS	18	17.2	5.17 4.5+*				Hard brown silty CLAY, little sand and gravel, moist (CL)
							8.0	650.0	
	4	SS	21	18.5	4.5+*				Hard brown and gray silty CLAY, little sand and gravel, moist (CL)
	5	SS	20	19.0	4.54 4.5+*				
							13.0	645.0	
	6	SS	10	15.7	3.25*				Very stiff gray silty CLAY, little sand and gravel, moist (CL)
									End of Boring at 15.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **114** DATE STARTED **5-27-20** DATE COMPLETED **5-27-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **657.5**

END OF BORING **645.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
									Black clayey TOPSOIL (OL)
							1.0	656.5	
1	SS		7	24.0	2.5*				Very stiff to stiff brown trace black silty CLAY, trace sand, moist to very moist (CL/CH)
2	SS		5	26.4	1.28 1.5*				
							5.5	652.0	
3	SS		18	18.4	4.5+*				Hard brown silty CLAY, little sand and gravel, moist (CL)
4	SS		21	16.9	4.5+*				
							10.5	647.0	
5	SS		20	16.7	4.5*				Hard brown and gray silty CLAY, little sand and gravel, moist (CL)
									End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 91198.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **115** DATE STARTED **5-27-20** DATE COMPLETED **5-27-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **665.0**

END OF BORING **652.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

DISTANCE BELOW SURFACE IN FEET

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.5	664.5	6" Mulch
	1	SS	6	25.3	1.25*				Stiff to very stiff dark brown silty CLAY, trace sand, trace organic, very moist to moist (CL/CH)
	2	SS	1	26.2	3.0*				
							5.5	659.5	
	3	SS	16	20.1	4.02 3.5*				Very stiff brown and gray silty CLAY, little sand and gravel, moist (CL)
	4	SS	24	18.1	3.25*				
							10.5	654.5	
	5	SS	12	17.9	2.5*				Very stiff gray silty CLAY, little sand and gravel, moist (CL)
									End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **116** DATE STARTED **5-27-20** DATE COMPLETED **5-27-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **655.5**

END OF BORING **643.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **2.0 '**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS		4	35.8					Black clayey TOPSOIL (OL)
							3.0	652.5	
2	SS		5	43.9	1.21 1.5*				Stiff dark brown ORGANIC CLAY, very moist (OH)
							5.5	650.0	
3	SS		17	18.3	3.25*				Very stiff brownish gray silty CLAY, little sand and gravel, moist (CL)
4	SS		16	20.5	2.25*				
							10.5	645.0	
5	SS		11	19.1	2.25*				Very stiff gray silty CLAY, little sand and gravel, moist (CL)
									End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 91198.GPJ TSC_ALL.GDT 6/17/20

PROJECT **Park/South Parcel Prospect Pointe, 1001 Oak Avenue, Prospect Heights, IL**

CLIENT **Lexington Homes, 1731 North Marcey Suite 200, Chicago, IL**

BORING **117** DATE STARTED **5-27-20** DATE COMPLETED **5-27-20** JOB **L-91,198**

ELEVATIONS

GROUND SURFACE **656.0**

END OF BORING **643.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS		4	31.0			3.0	653.0	Black clayey TOPSOIL, very moist (OL)
2	SS		14	16.4	3.25*				Very stiff to stiff brown silty CLAY, little sand and gravel, moist (CL)
3	SS		12	14.6	1.56 1.75*		8.0	648.0	
4	SS		14	17.7	3.5*				Very stiff gray silty CLAY, little sand and gravel, moist (CL)
5	SS		12	19.1	2.75*				End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

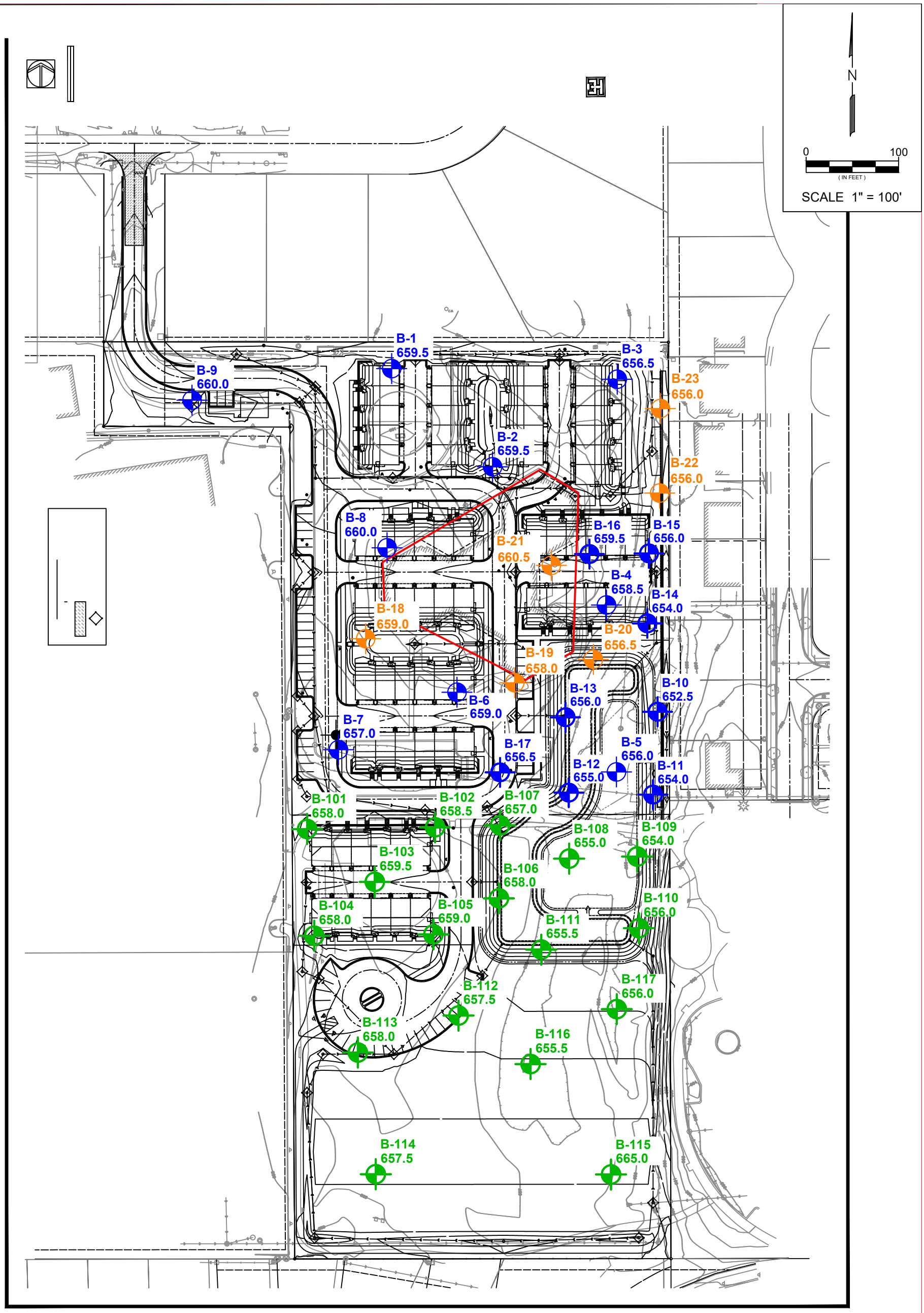
DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20

DRILL RIG NO. **314**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 91198.GPJ TSC_ALL.GDT 6/17/20



NOTE: GROUND SURFACE ELEVATIONS AT THE BORINGS WERE ACQUIRED BY TSC USING A TRIMBLE R8S GNSS RECEIVER, BEING ROUNDED TO THE NEAREST 0.5 FOOT.

LEGEND

TSC, 89,217 NOVEMBER 2018

TSC, 89,217B MAY 2020

TSC, 91,198 MAY 2020

BORING LOCATION PLAN
PROSPECT POINTE
1001 OAK AVENUE
PROSPECT HEIGHTS, ILLINOIS

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188

DRAWN BY:	TJF
CHECKED BY:	MVM
JOB NO. :	L-91198
DATE:	05-19-20

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