PRELIMINARY REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION

US HIGHWAY 221 MEGA-SITE
LAURENS COUNTY, SOUTH CAROLINA

Prepared For

LAURENS COUNTY DEVELOPMENT CORPORATION

June 28, 2007

ECS Carolinas, LLP
Geotechnical • Construction Materials • Environmental

June 28, 2007

Mr. Marvin Moss
Laurens County Development Corporation
C/O Laurens County Chamber of Commerce
P.O. Box 248
Laurens, South Carolina 29360

Reference: Report of Preliminary Geotechnical Study
US Highway 221 Mega-Site
Laurens County, South Carolina
ECS Project No: 14-4123

Dear Mr. Moss:

As authorized by your acceptance of our proposal number 14-4902-P, dated April 12, 2007, ECS Carolinas, LLP (ECS) has completed the preliminary subsurface exploration for the above referenced project. This report contains the results of our subsurface exploration, as well as our preliminary recommendations regarding the geotechnical design and construction aspects of the project.

We appreciate the opportunity to be of service to you during this early phase of the project and look forward to our continued involvement during the final design and construction phases. If you have any questions concerning the information and recommendations presented in this report, or if we can be of further assistance, please do not hesitate to contact us.

Sincerely,
ECS CAROLINAS, LLP represented by;

Kathleen D. Hodson, E.I.
Staff Engineer

Stephen J. Geiger, P.E.
Principal Engineer

6/28/07

SOUTH CAROLINA
ECS CAROLINAS, LLP
No. C03239
CERTIFICATE OF AUTHORIZATION

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1.0 PROJECT INFORMATION

This report contains the results of our preliminary subsurface exploration for the approximately 1,381 acre Mega-Site located near the southwestern quadrant of the intersection of US Highway 221 and US Interstate 385 in Laurens County, South Carolina. Overall site topography is moderate and variable, with elevations interpreted from the USGS quadrangle ranging from approximately 550 to 700 feet MSL. Localized drainage features, indicated as blue lines on the most recent USGS survey, are tributaries of Little River, and generally trend from north to south. Much of the site is wooded or overgrown fields, although, some small abandoned structures were observed on the site. Additionally, a few mobile homes in the northern portion of the site were also observed. The H&H Grading facility is located in the southern portion of the site.

Future construction at the site has not been established at this time. However, we are assuming industrial development that is typical of the South Carolina Upstate. We expect planned construction to likely include moderate to large manufacturing and distribution type facilities and associated infrastructure.

2.0 EXPLORATION PROCEDURES

2.1 Field Exploration

Twenty-seven soil test borings were drilled at the approximate locations shown on the Boring Location Diagram in the Appendix. The borings were strategically positioned in readily accessible areas of the site in order to preclude the need for mechanized clearing and were positioned to provide reasonable coverage of the site. The borings were advanced to depths ranging from 15 to 20 feet below the existing ground surface. The boring locations were established in the field by ECS personnel by estimating distances and angles from existing site features and from referencing the site topography. The boring locations on the Boring Location Diagram in the Appendix should be considered approximate. Individual Boring Logs are also included in the Appendix of this report.

The soil borings were performed using an all-terrain mounted, CME-550 drill rig utilizing continuous-flight, hollow-stem augers to advance the boreholes. Drilling fluid was not used in this process. Representative soil samples were obtained by means of the split-barrel sampling procedure in general conformance with ASTM D 1586. In this procedure, a 2-inch O.D., split-barrel sampler is driven into the soil a distance of 18 inches by a 140-pound hammer falling 30 inches. The number of blows required to drive the sampler through a 12-inch interval is termed the Standard Penetration Test (SPT) value and is indicated for each sample on the boring logs. This value can be used as a qualitative indication of the in-place relative density of cohesionless soils. In a less reliable way, it also indicates the consistency of cohesive soils. This indication is qualitative, since many factors can affect the standard penetration resistance value (i.e., differences between drill crews, drill rigs, drilling procedures, and hammer-rod-sampler assemblies) and prevent a direct correlation between SPT resistance value, or N-Value, and the consistency or relative density of the tested soil. Spilt-spoon samples were obtained at approximately 2.5-foot intervals within the upper 10 feet of the borings and at 5-foot intervals thereafter.

The drilling crew maintained a field log of the soils encountered in the borings. After recovery, each sample was removed from the sampler and visually classified. Representative portions of each sample were then sealed in glass jars and brought to our laboratory in Greenville, South Carolina for visual examination by a geotechnical engineer.

2.2 Soil Classification

A geotechnical engineer classified each soil sample on the basis of texture and plasticity in accordance with the Unified Soil Classification System (USCS). The group symbol for each soil type is indicated in parentheses following the soil description on the Boring Logs. A brief explanation of the USCS is included in the Appendix of this report.

3.0 SITE AND SUBSURFACE CONDITIONS

3.1 Site Observations

The site is located in the southwestern quadrant of the intersection of US Highway 221 and US Interstate 385 in Laurens County, South Carolina. The subject site consists of multiple parcels comprising approximately 1,381 acres. Much of the site is wooded or overgrown fields. However, some small abandoned structures were observed on the site, in addition to a few mobile homes in the northern portion of the site. The H&H Grading facility is located in the southern portion of the site. Localized drainage features, tributaries of Little River, traverse the site and generally trend from the north to south. Overall site topography is moderate and variable, with elevations interpreted from the USGS quadrangle ranging from approximately 550 to 700 feet above MSL.

3.2 Area Geology

The project site is located in the Piedmont Physiographic Province of South Carolina. The soils in the Piedmont Province typically consist of residuum (weathered in-place soils) derived from the parent bedrock which typically consists of amphibolite-grade metamorphic rocks. The residuum can be found in both weathered and unweathered states. Although the surficial materials normally retain the structure of the underlying parent bedrock, they typically have a much lower density and exhibit strengths and engineering properties of soil. In a mature weathering profile of the Piedmont Province, the soils are generally found to be finer grained near the surface where more extensive weathering has occurred. With increased depth, the particle size becomes more granular and gradually changes to partially weathered rock and ultimately to unweathered bedrock. The mineral composition of the parent rock and the environment in which the weathering occurs is largely responsible for the residual soil's engineering properties.

It is important to note the presence of alluvial soils at the site. Areas adjacent to rivers (e.g. Little River, etc.), stream and creeks are often underlain by alluvial (water deposited) soils that can extend to significant depths depending on the topography of the area prior to deposition. Alluvium consists of unconsolidated clay, silt, sand, gravel and cobbles deposited by water. It is not uncommon for alluvial soils to contain organic inclusions.

3.3 Subsurface Conditions

Generally, the soil test borings encountered natural residual soils from the ground surface to their termination depths of 15 feet to 20 feet below the existing ground surface, with the exceptions of Borings B-6, B-8, B-10, B-12, B-19 and B-27. Boring B-6, B-8, and B-19 initially encountered 2 to 6 inches of topsoil which was underlain by natural residual soils. It is important to note the lack of topsoil in the remaining borings was due to their location along existing dirt roadways. Borings B-10, B-12, and B-27 encountered alluvial soils from the ground surface to depths ranging from 8 feet to the termination depth of 15 feet below the existing ground surface. The residual soils typically classified as stiff to hard fine sandy silt (ML) and very loose to dense silty fine sand (SM). The standard penetration resistance (N-values) recorded in the residual soils ranged from 5 to more than 50 blows per foot (bpf) with typical values of 8 to 34 bpf. The alluvial soils typically classified as firm to very stiff fine sandy silt and clayey silt (ML) and very loose to medium dense silty fine sand (SM), with N-values ranging from 6 to 20 bpf.

Of particular interest are the deposits of alluvial (water deposited) materials encountered within Borings B-10, B-12, and B-27. The alluvial soils are typically fine to course grained soils characterized as having relatively low strength and high in-situ moisture content which are deposited in low-lying areas associated with former or existing drainage features. The thickness of the alluvial deposits is often highly variable as the result of the depositional environment in which the soils were deposited.

Partially Weathered Rock (PWR), which is very hard soil with N-values of 100 or greater, was encountered in test borings B-11 and B-26, from approximate depths of 11½ feet and 3½ feet below the ground surface to their termination depths, respectively.

Groundwater was observed in Borings B-12 and B-27 at depths approximately 8.8 feet and 4.8 feet below the prevailing ground surface at the time of drilling, respectively. Some of the boreholes caved above their terminations depths and groundwater observations could not be made below the caved depths upon the completion of the field drilling activities. Groundwater levels should be expected to fluctuate as a result of seasonal variations in precipitation, surface water run-off characteristics, and other factors. In general, the highest groundwater levels typically occur in late winter and spring, while the lowest levels typically occur in late summer and fall.

On sites where there is significant topographic relief and evidence of natural drainage features is evident, wet weather springs are often encountered. It would not be unusual to find such conditions in the immediate vicinity of the drainage features or in areas where the subsurface conditions would promote spring activity (more permeable soils overlying less permeable soils).

The above paragraphs provide a general summary of the subsurface conditions encountered at the site at the time of our exploration. The Boring Logs included in the Appendix contain detailed information regarding the subsurface conditions encountered at each boring location. These Boring Logs represent our visual classification of the samples retrieved during the field exploration. The stratification lines on the Boring Logs designate approximate boundaries between various subsurface strata. The actual in-situ transitions are expected to be more gradual.

4.0 CONCLUSIONS AND PRELIMINARY RECOMMENDATIONS

Based on the subsurface conditions encountered within the test borings and our past experience with similar subsurface conditions and construction, the natural residual soils encountered in the borings typically appear suitable for support of lightly to moderately loaded structures on conventional shallow foundations. Foundations may also be supported on properly placed and compacted engineered fill. Furthermore, properly prepared residual soils and properly placed and compacted engineered fill should typically be suitable for support of conventional slabs-on-grade and pavements. These items are discussed in more detail in the following sections of this report. Final subsurface explorations and engineering assessments should be performed for the individual facilities to be located in the proposed industrial park.

Alluvial soils were encountered at Borings B-10, B-12, and B-27. These areas are associated with natural drainage features. The development of these portions of the site will be complicated by the presence of these compressible soils, because if not completely removed or stabilized, new grade supported improvements (e.g. pavements, sidewalks, utilities, shallow foundations, slabs-on-grade, etc.) constructed over alluvial deposits could experience undesirable settlement. If alluvial soils are encountered within planned building footprints, they should be removed entirely, and replaced with new engineered fill. Within paved areas, unstable alluvial soils should be removed or stabilized in place, if possible. In no case shall alluvial soils remain within 4 feet of the finished subgrade elevation beneath paved surfaces. Localized undercutting, stabilization with geo-synthetics and/or surge stone, or some combination of these methods would typically be considered appropriate. Construction phase dewatering
may be necessary to perform site work activities in areas underlain by the alluvial deposits.

4.1 Foundations and Slabs

Based on the preliminary information from borings, it appears that the residual soils at the site should typically be capable of supporting conventional shallow foundations designed for bearing pressures in the range of 3,000 to 5,000 pounds per square foot (psf). Structures supported by new engineered fill may utilize shallow foundations preparations for a maximum net allowable bearing pressure of 3,000 psf. The net allowable bearing pressure refers to that pressure which may be transmitted to the foundation bearing soils in excess of the final minimum surrounding overburden pressure.

Properly prepared residual soils and engineered fill should also be satisfactory for supporting concrete slabs-on-grade. Our preliminary findings indicate that a modulus of subgrade reaction (k_s) in the range of 100 to 150 pounds per cubic inch (pci) will likely be available provided the subgrades are properly prepared.

Slabs-on-grade should be constructed in a manner so as to be structurally independent of the column and wall footings in order to reduce the risk of unwanted differential settlement-related distress. Depending upon the time between achieving the final grades and the time to begin slab construction for the structures, a structural slab may be necessary if sufficient settlement of the underlying alluvial soils and overlying fill mass has not occurred.

4.2 Engineered Fill

Fill placed beneath foundations, slabs or pavements should consist of engineered fill. In general, engineered fill should consist of an approved material, free of organic matter and debris and cobbles greater

than 4 inches, and have a Liquid Limit (LL) and Plasticity Index (PI) less than 40 and 20, respectively. We also recommend that all fills within structural areas have a standard Proctor maximum dry density (ASTM D 698) of at least 90 pounds per cubic foot (pcf). Unsuitable fill materials include topsoil, alluvial soils, organic materials (OH, OL), and high plasticity clays and silts (CH, MH).

It appears that natural residual on-site soils similar to those sampled in the test borings will generally be suitable for re-use as engineered fill. Groundwater was observed in Borings B-12 and B-27 at depths of 8.8 and 4.8 feet at the time of drilling. It may not be practical to use soils obtained from below the groundwater level due to the work involved with drying these materials. Moisture conditioning of the on-site soils during placement as fill to facilitate proper compaction.

Some of the soils sampled in the borings contained moderate percentages of mica. These materials are often troublesome when used for engineered fill due to difficulties with properly adjusting their moisture content. Furthermore, micaceous soisl are very sensitive to disturbance when exposed at subgrade and often exhibit relatively poor pavement support characteristics especially under heavy loaded pavements.

Engineered fill within the building and pavement areas should typically be placed in lifts not exceeding 10 inches in loose lift thickness, be moisture conditioned to within approximately 3 percent of the optimum moisture content and be compacted to a minimum of 95 percent of their standard Proctor maximum dry density as determined in accordance with ASTM D 698. In general, the upper 18 to 24 inches of the fills should be compacted to at least 98 percent of their standard Proctor maximum dry density as determined in accordance with ASTM D 698 to enhance their support characteristics under slabs and pavements.

4.3 Pavement Considerations

Properly prepared residual soils and engineered fill should typically be satisfactory for supporting pavements. Based on our past experience, California Bearing Ratio (CBR) values of 4 to 6 can typically be developed for soils similar to those encountered during this study which are properly prepared. CBR tests should be performed during the final subsurface explorations to determine appropriate CBR values for use in pavement design.

4.4 Excavation

Boring B-1 encountered auger refusal at a shallow depth and this suggest that an isolated pinnacle of rock or a resistant large boulder or rock ledge of may be present in at least the northern portion of the site. PWR was encountered in Borings B-11 and B-26 at depths of 11½ feet and 3½ feet below the existing surface, respectively. However, the borings were spaced relatively widely and most were advanced to relatively shallow depths, and it is possible for additional shallow rock, boulders or PWR to be present intermediate of the test borings locations. The potential for encountering rock (or partially weathered rock, which can be difficult to remove from confined excavations) will typically increase with increasing excavation depth. We recommend that rock be defined as follows:

Mass Excavation

> Rip Rock - All subsurface materials that cannot be excavated using scrapers, loaders, or bulldozers; and requires pre-loosening with a bulldozer equipped with a single-tooth ripper blade and having a minimum

draw bar pull rating of 56,000 pounds (i.e., Caterpillar D-8K or equivalent), or requires a Caterpillar 977 trackloader or equivalent to achieve excavation.

Blast rock - All subsurface materials that cannot be excavated or pre-loosened with a Caterpillar D-8K, Caterpillar 977, or equivalent equipment, and occupying an original volume of at least one cubic yard.

Trench Excavation

Blast Rock - All subsurface materials that cannot be excavated or pre-loosened with a track-mounted backhoe having a minimum bucket curling force rating of 25,500 pounds (i.e., Caterpillar 225 or equivalent), and occupying an original volume of at least ½ cubic yard.

Additionally, areas of mass excavation, trenches and pits should meet the requirements of the most current Occupational Safety and Health Administration (OSHA) 29 CFR Part 1926, "Occupational Safety and Health Standards-Excavations". Regardless, site safety shall be the responsibility of the contractor and his subcontractors.

There is a potential for encountering groundwater in deeper excavations at the site, and the potential for encountering groundwater is likely the greatest in the vicinity of the creeks and other drainage features. The potential or encountering groundwater and rock will also be increased with increasing excavation depth, and should be further evaluated as the final subsurface explorations for the future developments are performed.

4.5 Other Geotechnical Considerations

Alluvial soils will likely be present adjacent to the existing creeks. Alluvial soils are water deposited materials that are often found in a soft or very loose condition and will tend to settle significantly under loads from structures or fill placed above them. Therefore, developing areas adjacent to the creeks may be more difficult than other areas of the site and require improving subgrade conditions prior to construction.

Soils containing some quantities of mica were occasionally sampled in the test borings. These soils can be relatively weak and easily disturbed, and provide relatively poor subgrade support for heavily loaded slabs and pavements. Micaceous soils may be more suited for placement in deep fill areas.

4.6 Seismic Site Classification

South Carolina has adopted the 2003 Edition of the International Building Code (IBC), and the IBC 2003 requires that a seismic Site Class be assigned for new structures. To determine the site class, the soil profile has to be characterized to a depth of 100 feet. The soil profile in the most of the industrial park site likely classifies as a Site Class C or D.

Once individual structures are sited at the park, a seismic Site Class should be determined for each subdivided parcel. The savings in construction costs between the C and D classifications can be significant. The Site Class can be determined by extending a conventional soil test boring to refusal or a depth of 100 feet and using the N-Value method presented the Section 1615 of the IBC. Although convenient, the N-value method is relatively conservative, especially in the Piedmont residual soils in South Carolina. An alternate method is also presented in Section 1615 of the IBC that uses in-situ measurements

of shear wave velocities. Although this method requires specialized equipment to measure in-situ shear wave velocity, it often results in the determination of a more favorable Site Class and can significantly reduce construction costs. Refraction Microtremor (ReMi) testing or seismic cone penetration testing are economical methods of measuring the shear wave velocity of subsurface materials.

5.0 CLOSING

Our preliminary evaluation of site subsurface conditions has been based on our understanding of the site and project information and from data obtained from the widely spaced test borings. The general subsurface conditions utilized in our preliminary evaluation of the site have been based on interpolation of subsurface data between the borings. The discovery of any site or subsurface conditions during construction which deviate from the data outlined in this exploration should be reported to us for our evaluation. The assessment of site environmental conditions for the presence of pollutants in the soil, rock, and ground water of the site was beyond the scope of this exploration.

Final subsurface explorations and geotechnical engineering assessments should be performed prior to design of all planned construction. The final explorations should be based upon the establishment of final siting and grading requirements for each tract and should concentrate on better defining the potential for encountering rock and shallow groundwater in areas to be excavated. These explorations should also include an evaluation of the seismic Site Class on a per-structure basis.

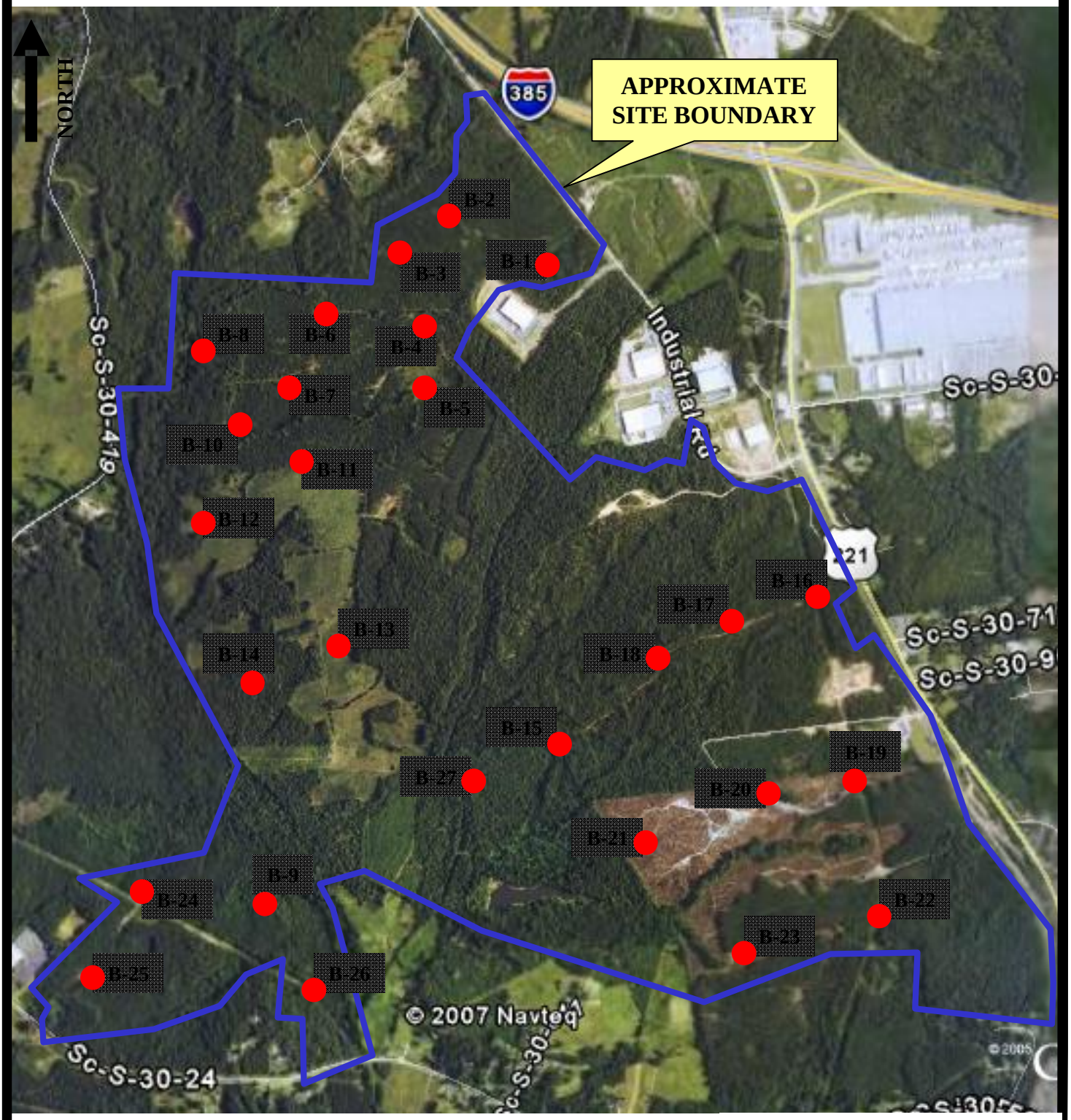
APPENDIX

Boring Location Diagram

Unified Soil Classification System

Reference Notes for Boring Logs

Boring Logs B-1 through B-27



NOT TO SCALE

LEGEND

B-1 SOIL BORING LOCATION

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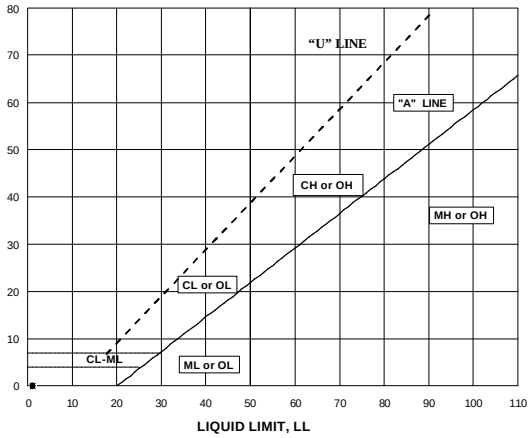
BORING LOCATION DIAGRAM
US HIGHWAY 221 MEGA SITE
PRELIMINARY GEOTECH
LAURENS, SOUTH CAROLINA
ECS PROJECT No. 14-4123

Unified Soil Classification System
(ASTM Designation D-2487)

Major Division			Group Symbol	Typical Names	Classification Criteria
Coarse-grained soils: More than 50% retained on No. 200 sieve	Gravels: More than 50% of coarse fraction retained on No. 4 sieve	Classification on basis of percentage of fines: Less than 5% Pass No. 200 sieve	GW	Well-graded gravels and gravel-sand mixtures, little or no fines	$C_u = D_{60}/D_{10}$ Greater than 4 $C_z = (D_{30})^2/(D_{10}xD_{60})$ Between 1 and 3
			GP	Poorly graded gravels and gravel-sand mixtures, little or no fines	Not meeting both criteria for GW
		More than 12% Pass No. 200 sieve	GM	Silty gravels, gravel-sand-silt mixtures	Atterberg limits plot below "A" line or plasticity index less than 4
			GC	Clayey gravels, gravel-sand-clay mixtures	Atterberg limits plot above "A" line and plasticity index greater than 7
	Sands: More than 50% of coarse fraction passes No. 4 sieve		SW	Well-graded sands and gravelly sands, little or no fines	$C_u = D_{60}/D_{10}$ Greater than 6 $C_z = (D_{30})^2/(D_{10}xD_{60})$ Between 1 and 3
			SP	Poorly graded sands and gravelly sands, little or no fines	Not meeting both criteria for SW
		More than 12% Pass No. 200 sieve	SM	Silty sands, sand-silt mixtures	Atterberg limits plot below "A" line or plasticity index less than 4
			SC	Clayey sands, sand-clay mixtures	Atterberg limits plot above "A" line and plasticity index greater than 7
Fine-grained soils: 50% or more passing No. 200 sieve	Silts and Clays: Liquid limit 50% or less	Borderline classification requiring use of dual symbol: GW, GP, SW, SP; GM, GC, SM, SC	ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands	
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	
			OL	Organic silts and organic silty clays of low plasticity	
	Silts and Clays: Liquid limit greater than 50%		MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts	
			CH	Inorganic clays of high plasticitiy, fat clays	
			OH	Organic clays of medium to high plasticity	
Highly organic soils			Pt	Peat, muck and other highly organic soils	Fibrous organic matter; will char, burn, or glow

Note: U-line represents approximate upper limit of LL and PI combinations for natural soils (empircally determined). ASTM-D2487.



Plasticity chart for the classification of fine-grained soils.
Tests made on fraction finer than No. 40 sieve

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UNIFIED SOIL CLASSIFICATION SYSTEM

REFERENCE NOTES FOR BORING LOGS

I. Drilling and Sampling Symbols:

SS:	Split Spoon Sampler	RB:	Rock Bit Drilling
ST:	Shelby Tube Sampler	BS:	Bulk Sample of Cuttings
RC:	Rock Core; NX, BX, AX	PA:	Power Auger (no sample)
PM:	Pressuremeter	HSA:	Hollow Stem Auger
DC:	Dutch Cone Penetrometer	WS:	Wash Sample

Standard Penetration (Blows/Ft) refers to the blows per foot of a 140 lb. hammer falling 30 inches on a 2 inch O.D. split spoon sample, as specified in ASTM D-1586. The blow count is commonly referred to as the N value.

II. Correlation of Penetration Resistances to Soil Properties:

Relative Density of Cohesionless Soils

SPT-N	Relative Density
0 - 4	Very Loose
5 - 10	Loose
11 - 30	Medium Dense
31 - 50	Dense
51 or more	Very Dense

Consistency of Cohesive Soils

SPT-N	Consistency
0 - 2	Very Soft
3 - 4	Soft
5 - 8	Firm
9 - 15	Stiff
16 - 30	Very Stiff
31 - 50	Hard
50 or more	Very Hard

III. Unified Soil Classification Symbols:

GP:	Poorly Graded Gravel	ML:	Low Plasticity Silts
GW:	Well Graded Gravel	MH:	High Plasticity Silts
GM:	Silty Gravel	CL:	Low Plasticity Clays
GC:	Clayey Gravel	CH:	High Plasticity Clays
SP:	Poorly Graded Sands	OL:	Low Plasticity Organics
SW:	Well Graded Sands	OH:	High Plasticity Organics
SM:	Silty Sands	CL - ML:	Dual Classification (Typical)
SC:	Clayey Sands		

IV. Water Level Measurement Symbols:

WL:	Water Level	BCR:	Before Casing Removal
WS:	While Sampling	ACR:	After Casing Removal
WD:	While Drilling	WCI:	Wet Cave In
		DCI:	Dry Cave In

The water levels are those water levels actually measured in the borehole at the times indicated by the symbol. The measurements are relatively reliable when auguring, without adding fluids, in a granular soil. In clays and plastic silts, the accurate determination of water levels may require several days for the water level to stabilize. In such cases, additional methods of measurement are generally applied.

The elevations indicated on the boring logs should be considered approximate and were not determined using accepted surveying techniques.

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CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-1	1 OF 1

PROJECT NAME	ARCHITECT-ENGINEER
US Highway 221 Mega-Site	

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SITE LOCATION
Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}
1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY
RQD% — — — REC.%
20% 40% 60% 80% 100%

⊗ STANDARD PENETRATION BLOWS/FT.
10 20 30 40 50+

BOTTOM OF CASING ▶ LOSS OF CIRCULATION 100%

SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL — ENGLISH UNITS	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0							
	1	SS	0	0	RESIDUUM – Fine Sandy SILT, Red and Tan, Moist, Hard to Very Stiff (ML)		(50/0) 50/0
	2	SS	18	18			(6-12-18) 30
5	3	SS	18	18			28 (7-11-17)
	4	SS	18	18	Silty Fine SAND, Tan and Red, Moist, Medium Dense (SM)		20 (6-9-11)
10							
	5	SS	18	18	Fine Sandy SILT, Red, Tan and Black, Moist, Firm (ML)		5 (2-2-3)
15					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/16/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/16/07	CAVE IN DEPTH @ 7.9'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-2	1 OF 1
PROJECT NAME	**ARCHITECT-ENGINEER**		
US Highway 221 Mega-Site			

ECS LLP CAROLINAS

SITE LOCATION: Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY: RQD% — — — REC.% — 20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT.: 10 20 30 40 50+

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL — ENGLISH UNITS BOTTOM OF CASING — LOSS OF CIRCULATION 100% SURFACE ELEVATION	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0					RESIDUUM – Fine Sandy SILT, Red and Tan, Moist, Stiff to Very Stiff (ML)		
	1	SS	18	18			14 (4-5-9)
	2	SS	18	18			19 (5-9-10)
5	3	SS	18	18			18 (6-9-9)
	4	SS	18	18	Fine Sandy SILT, Red and Tan, Moist, Stiff (ML)		11 (4-5-6)
10							
	5	SS	18	18	Fine Sandy SILT With Mica and Rock Fragments, Tan, Moist, Very Stiff (ML)		23 (3-9-14)
15							
	6	SS	18	18			17 (5-7-10)
20					END OF BORING @ 20.0'		
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/16/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/16/07	CAVE IN DEPTH @ 11.6'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-3	1 OF 1
PROJECT NAME	**ARCHITECT-ENGINEER**		
US Highway 221 Mega-Site			

ECS LLP CAROLINAS

SITE LOCATION: Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY: RQD% — — — REC.% ——— 20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT.: 10 20 30 40 50+

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING ▶ — LOSS OF CIRCULATION 100%

SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0					RESIDUUM – Fine Sandy SILT, Red and Tan, Moist, Very Stiff (ML)		
	1	SS	18	18			16 (5-7-9)
	2	SS	18	18			24 (5-12-12)
5					Silty Fine SAND, Red, Moist, Medium Dense (SM)		
	3	SS	18	18			21 (6-11-10)
					Fine Sandy SILT With Mica, Brown, Red and Tan, Moist, Stiff (ML)		
	4	SS	18	18			14 (3-6-8)
10							
	5	SS	18	18	Fine Sandy SILT With Mica, Brown, Red and Tan, Moist, Stiff to Very Stiff (ML)		15 (4-6-9)
15							
	6	SS	18	18			16 (6-7-9)
20					END OF BORING @ 20.0'		
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/16/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/16/07	CAVE IN DEPTH @ 10.9'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-4	1 OF 1
PROJECT NAME	ARCHITECT-ENGINEER		
US Highway 221 Mega-Site			

SITE LOCATION: Clinton, South Carolina

ECS LLP CAROLINAS

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY: RQD% — — — REC.% ——— 20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT. ⊗: 10 20 30 40 50+

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL — ENGLISH UNITS BOTTOM OF CASING ◀ — LOSS OF CIRCULATION 100% SURFACE ELEVATION	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0					RESIDUUM – Fine Sandy SILT, Red, Moist, Stiff (ML)		
	1	SS	18	18			14 (4-5-9)
	2	SS	18	18	Silty Fine SAND, Red and Tan, Moist, Medium Dense (SM)		19 (5-8-11)
5	3	SS	18	18	Silty Fine SAND, Reddish Tan, Moist, Medium Dense to Loose (SM)		15 (6-7-8)
	4	SS	18	18			10 (4-5-5)
10					Silty Fine SAND With Rock Fragments, Reddish Tan, Moist, Medium Dense (SM)		
	5	SS	18	18			27 (6-11-16)
15					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/16/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/16/07	CAVE IN DEPTH @ 8.4'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-5	1 OF 1
PROJECT NAME	**ARCHITECT-ENGINEER**		
US Highway 221 Mega-Site			

ECS LLP CAROLINAS

SITE LOCATION
Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY
RQD% — — — REC.%
20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT.
10 20 30 40 50+

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL — ENGLISH UNITS	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0					BOTTOM OF CASING ◣ — LOSS OF CIRCULATION 100%		
					SURFACE ELEVATION		
					RESIDUUM – Fine Sandy SILT, Red, Moist, Stiff (ML)		
	1	SS	18	18			15 (5-7-8)
					Silty Fine SAND, Red, Moist, Medium Dense (SM)		
5	2	SS	18	18			29 (8-14-15)
	3	SS	18	18			26 (9-13-13)
					Fine Sandy SILT, Red, Moist, Stiff (ML)		
10	4	SS	18	18			14 (3-6-8)
					Silty Fine SAND With Clay, Red and Tan, Moist, Medium Dense (SM)		
15	5	SS	18	18			17 (4-7-10)
	6	SS	18	18	Silty Fine SAND With Mica, Red and Tan, Moist, Medium Dense (SM)		16 (5-7-9)
20					END OF BORING @ 20.0'		
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/16/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/16/07	CAVE IN DEPTH @ 12.8'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-6	1 OF 1
PROJECT NAME	ARCHITECT-ENGINEER		
US Highway 221 Mega-Site			

ECS LLP CAROLINAS

SITE LOCATION
Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}
1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY
RQD% — — — REC.%
20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT.
10 20 30 40 50+

DESCRIPTION OF MATERIAL — ENGLISH UNITS
BOTTOM OF CASING — LOSS OF CIRCULATION 100%
SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0					TOPSOIL DEPTH 6"		
	1	SS	18	18	RESIDUUM – Fine Sandy SILT, Red, Moist, Stiff (ML)		14 (6-7-7)
	2	SS	18	18	Silty Fine SAND, Red, Moist, Medium Dense (SM)		28 (7-13-15)
5	3	SS	18	18			25 (6-12-13)
	4	SS	18	18	Fine Sandy SILT With Mica, Tan and Red, Moist, Stiff (ML)		14 (4-6-8)
10							
	5	SS	18	18			15 (6-7-8)
15					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/16/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/16/07	CAVE IN DEPTH @ 7.2'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-7	1 OF 1
PROJECT NAME	ARCHITECT-ENGINEER		
US Highway 221 Mega-Site			

SITE LOCATION: Clinton, South Carolina

ECS LLP CAROLINAS

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY: RQD% — — — REC.% ——— 20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT. ⊗: 10 20 30 40 50+

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL — ENGLISH UNITS	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
					BOTTOM OF CASING ▶ LOSS OF CIRCULATION 100%		
					SURFACE ELEVATION		
0					RESIDUUM – Fine Sandy SILT, Red, Moist, Stiff (ML)		
	1	SS	18	18			⊗ 13 (4-6-7)
					Silty Fine SAND, Tan, Moist, Medium Dense (SM)		
5	2	SS	18	18			⊗ 17 (6-8-9)
	3	SS	18	18			⊗ 20 (7-9-11)
	4	SS	18	18			⊗ 13 (3-6-7)
10							
	5	SS	18	18			⊗ 14 (3-6-8)
15					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/16/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/16/07	CAVE IN DEPTH @ 7.8'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-8	1 OF 1
PROJECT NAME	**ARCHITECT-ENGINEER**		
US Highway 221 Mega-Site			

ECS LLP CAROLINAS

SITE LOCATION: Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY: RQD% — — — REC.% ——— 20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT.: ⊗ 10 20 30 40 50+

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING ▶ — LOSS OF CIRCULATION 100%

SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0					TOPSOIL DEPTH 2"		
	1	SS	18	18	RESIDUUM – Fine Sandy SILT, Red, Moist, Very Stiff (ML)		18 (7-9-9)
	2	SS	18	18			26 (5-9-17)
5	3	SS	18	18			24 (7-10-14)
	4	SS	18	18	Silty Fine SAND, Red, Moist, Medium Dense to Loose (SM)		16 (7-7-9)
10							
	5	SS	18	18			11 (2-4-7)
15							
	6	SS	18	18			10 (3-4-6)
20					END OF BORING @ 20.0'		
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/17/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/17/07	CAVE IN DEPTH @ 11.8'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-9	1 OF 1
PROJECT NAME	ARCHITECT-ENGINEER		
US Highway 221 Mega-Site			

SITE LOCATION: Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY: RQD% — — — REC.% ——— 20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT. ⊗: 10 20 30 40 50+

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL — ENGLISH UNITS BOTTOM OF CASING ◀ — LOSS OF CIRCULATION 100% SURFACE ELEVATION	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0					RESIDUUM – Fine Sandy SILT, Red, Moist, Stiff (ML)		
	1	SS	18	18			12 (3-5-7)
					Silty Fine SAND, Red, Moist, Medium Dense (SM)		
5	2	SS	18	18			20 (4-9-11)
	3	SS	18	18			19 (6-9-10)
					Silty Fine SAND, Tan and Red, Moist, Medium Dense (SM)		
10	4	SS	18	18			20 (7-11-9)
	5	SS	18	18			13 (4-6-7)
15					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/17/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/17/07	CAVE IN DEPTH @ 6.9'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-10	1 OF 1
PROJECT NAME	**ARCHITECT-ENGINEER**		
US Highway 221 Mega-Site			

ECS LLP CAROLINAS

SITE LOCATION
Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2} 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY
RQD% — — — REC.%
20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT. ⊗
10 20 30 40 50+

DESCRIPTION OF MATERIAL — ENGLISH UNITS
BOTTOM OF CASING ▶ — LOSS OF CIRCULATION 100%
SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0							
	1	SS	18	18	ALLUVIUM – Silty Fine SAND, Brown and Tan, Moist, Loose (SM)		7 (3-3-4)
	2	SS	18	18	ALLUVIUM – Fine Sandy SILT, Trace Roots, Brown and Tan, Moist, Stiff (ML)		10 (2-4-6)
5	3	SS	18	18	ALLUVIUM – Clayey SILT, Trace Sand, Brown, Tan and Gray, Moist, Stiff (ML)		9 (3-4-5)
	4	SS	18	18	RESIDUUM – Clayey SILT With Sand, Brown, Tan and Gray, Moist, Stiff (ML)		9 (2-4-5)
10							
	5	SS	18	18	Clayey SILT With Mica, Brown, Gray, Moist, Stiff (ML)		7 (2-3-4)
15					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/17/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/17/07	CAVE IN DEPTH @ 6.9'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-11	1 OF 1
PROJECT NAME	**ARCHITECT-ENGINEER**		
US Highway 221 Mega-Site			

ECS LLP CAROLINAS

SITE LOCATION
Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY
RQD% — — — REC.%
20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT.
10 20 30 40 50+

DESCRIPTION OF MATERIAL — ENGLISH UNITS
BOTTOM OF CASING ▶ — LOSS OF CIRCULATION 100%
SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0					RESIDUUM – Fine Sandy SILT, Red, Moist, Stiff (ML)		
	1	SS	18	18			10 (4-4-6)
					Silty Fine SAND, Tan and Red, Moist, Loose (SM)		
5	2	SS	18	18			10 (3-4-6)
	3	SS	18	18			8 (4-4-4)
	4	SS	18	18			9 (3-4-5)
10					PARTIALLY WEATHERED ROCK – Sampled As: Silty Fine SAND, Tan and Red, Moist (PWR)		
	5	SS	12	12			(14-50/5.5) 50/5.5
15							
	6	SS	3	3			(50/3) 50/3
20					END OF BORING @ 20.0'		
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/17/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/17/07	CAVE IN DEPTH @ 11.7'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-12	1 OF 1
PROJECT NAME	**ARCHITECT-ENGINEER**		
US Highway 221 Mega-Site			

ECS LLP CAROLINAS

SITE LOCATION: Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY: RQD% — — — REC.% ——— 20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT. ⊗: 10 20 30 40 50+

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL — ENGLISH UNITS	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
					BOTTOM OF CASING ▶ LOSS OF CIRCULATION 100%		
					SURFACE ELEVATION		
0					ALLUVIUM – Fine Sandy SILT, Trace Roots, Reddish Brown, Moist, Firm (ML)		
	1	SS	18	18			6 (2-3-3)
	2	SS	18	18	ALLUVIUM – Fine Sandy SILT, Trace Mica, Reddish Brown, Moist, Very Stiff (ML)		19 (4-7-12)
5	3	SS	18	18			20 (5-9-11)
	4	SS	18	18	ALLUVIUM – Clayey SILT With Sand, Trace Roots, Gray and Brown, Moist, Very Stiff (ML)	▽	16 (4-7-9)
10							
	5	SS	18	18			18 (6-9-9)
15					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL 8.8' WS OR WD	BORING STARTED 05/16/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/16/07	CAVE IN DEPTH @
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-13	1 OF 1
PROJECT NAME	**ARCHITECT-ENGINEER**		
US Highway 221 Mega-Site			

ECS LLP CAROLINAS

SITE LOCATION
Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY
RQD% — — — REC.%
20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT.
10 20 30 40 50+

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL — ENGLISH UNITS BOTTOM OF CASING — LOSS OF CIRCULATION 100% SURFACE ELEVATION	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0					RESIDUUM – Fine Sandy SILT, Red, Moist, Very Stiff (ML)		
	1	SS	18	18			24 (10-11-13)
	2	SS	18	18	Fine Sandy SILT, Red, Moist, Hard to Very Stiff (ML)		(6-14-18) 32
5	3	SS	18	18			21 (5-9-12)
	4	SS	18	18	Silty Fine SAND, Reddish Tan, Moist, Medium Dense (SM)		17 (6-7-10)
10							
	5	SS	18	18			15 (4-6-9)
15					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/16/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/16/07	CAVE IN DEPTH @ 8.1'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-14	1 OF 1
PROJECT NAME	ARCHITECT-ENGINEER		
US Highway 221 Mega-Site			

SITE LOCATION: Clinton, South Carolina

ECS LLP CAROLINAS

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY: RQD% — — — REC.% ——— 20% 40% 60% 80% 100%

⊗ STANDARD PENETRATION BLOWS/FT. 10 20 30 40 50+

BOTTOM OF CASING ▶ LOSS OF CIRCULATION 100%

SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL — ENGLISH UNITS	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0							
	1	SS	18	18	RESIDUUM – Fine Sandy SILT, Trace Roots, Red, Moist, Stiff (ML)		14 (3-6-8)
	2	SS	18	18	Silty Fine SAND, Tannish Red, Moist, Medium Dense (SM)		19 (5-8-11)
5	3	SS	18	18			18 (6-7-11)
	4	SS	18	18	Silty Fine SAND, Tannish Red and Black, Moist, Loose (SM)		9 (3-4-5)
10							
	5	SS	18	18			8 (2-3-5)
15					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/16/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/16/07	CAVE IN DEPTH @ 7'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-15	1 OF 1
PROJECT NAME	ARCHITECT-ENGINEER		
US Highway 221 Mega-Site			

ECS LLP CAROLINAS

SITE LOCATION
Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}
1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY
RQD% — — — REC.%
20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT.
10 20 30 40 50+

DESCRIPTION OF MATERIAL ENGLISH UNITS
BOTTOM OF CASING ◣ LOSS OF CIRCULATION 100%
SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0							
	1	SS	18	18	RESIDUUM – Fine Sandy SILT, Brownish Red and Tan, Moist, Stiff (ML)		14 (9-7-7)
	2	SS	18	18	Silty Fine SAND, Brownish Red and Tan, Moist, Medium Dense to Loose (SM)		16 (6-8-8)
5	3	SS	18	18			16 (5-7-9)
	4	SS	18	18			8 (4-4-4)
10							
	5	SS	18	18	Silty Fine SAND and Mica, Brownish Red and Tan, Moist, Loose (SM)		10 (4-6-4)
15					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 06/08/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 06/08/07	CAVE IN DEPTH @ 7.2'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-16	1 OF 1
PROJECT NAME	**ARCHITECT-ENGINEER**		
US Highway 221 Mega-Site			

ECS LLP CAROLINAS

SITE LOCATION
Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY
RQD% — — — REC.%
20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT.
10 20 30 40 50+

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL — ENGLISH UNITS BOTTOM OF CASING — LOSS OF CIRCULATION 100% SURFACE ELEVATION	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0					RESIDUUM – Silty Fine SAND With Rock Fragments, Reddish Tan to Tan, Moist, Medium Dense (SM)		
	1	SS	18	18			17 (7-8-9)
	2	SS	18	18			24 (8-12-12)
5	3	SS	18	18			23 (8-10-13)
	4	SS	18	18			15 (4-7-8)
10	5	SS	18	18			13 (5-6-7)
15					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 06/08/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 06/08/07	CAVE IN DEPTH @ 6.4'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-17	1 OF 1
PROJECT NAME	**ARCHITECT-ENGINEER**		
US Highway 221 Mega-Site			

ECS LLP CAROLINAS

SITE LOCATION: Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY: RQD% — — — REC.% ——— 20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT. ⊗: 10 20 30 40 50+

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING ◣ — LOSS OF CIRCULATION 100%

SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0							
	1	SS	18	18	RESIDUUM – Silty Fine SAND, Reddish Tan, Moist, Medium Dense (SM)		16 (7-7-9)
	2	SS	18	18	Fine Sandy SILT, Brownish Red, Moist, Very Stiff (ML)		26 (9-12-14)
5	3	SS	18	18			29 (11-13-16)
	4	SS	18	18	Silty Fine SAND, Brown to Tan, Moist, Medium Dense (SM)		12 (3-5-7)
10							
	5	SS	18	18			26 (12-12-14)
15							
	6	SS	18	18			29 (10-13-16)
20					END OF BORING @ 20.0'		
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 06/08/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 06/08/07	CAVE IN DEPTH @ 11.6'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-18	1 OF 1
PROJECT NAME	ARCHITECT-ENGINEER		
US Highway 221 Mega-Site			

SITE LOCATION
Clinton, South Carolina

ECS LLP CAROLINAS

CALIBRATED PENETROMETER TONS/FT.^{2}
1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY
RQD% — — — REC.%
20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT.
10 20 30 40 50+

DESCRIPTION OF MATERIAL ENGLISH UNITS

BOTTOM OF CASING ▶ LOSS OF CIRCULATION 100%

SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS ELEVATION (FT)
0					RESIDUUM – Fine Sandy SILT, Brownish Red, Moist, Very Stiff (ML)	
	1	SS	18	18		
	2	SS	18	18		
5	3	SS	18	18		
	4	SS	18	18	Silty Fine SAND, Brownish Red to Tan, Moist, Medium Dense (SM)	
10						
	5	SS	18	18		
15					END OF BORING @ 15.0'	
20						
25						
30						

20 (6-9-11)
26 (11-12-14)
29 (13-14-15)
11 (5-5-6)
14 (7-7-7)

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 06/08/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 06/08/07	CAVE IN DEPTH @ 6'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-19	1 OF 1

PROJECT NAME	ARCHITECT-ENGINEER
US Highway 221 Mega-Site	

ECS LLP CAROLINAS

SITE LOCATION
Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}
1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY
RQD% — — — REC.%
20% 40% 60% 80% 100%

⊗ STANDARD PENETRATION BLOWS/FT.
10 20 30 40 50+

DESCRIPTION OF MATERIAL — ENGLISH UNITS
BOTTOM OF CASING — LOSS OF CIRCULATION 100%
SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0					TOPSOIL DEPTH 2"		
	1	SS	18	18	RESIDUUM – Fine Sandy SILT With Mica, Red and Tan, Moist, Stiff (ML)		⊗ 12 (4-5-7)
	2	SS	18	18	Fine Sandy SILT With Mica, Red, Tan and Gray, Moist, Very Stiff (ML)		⊗ 21 (5-8-13)
5	3	SS	18	18			⊗ 22 (7-10-12)
	4	SS	18	18			⊗ 26 (5-10-16)
10					Silty Fine SAND With Mica, Brown, Tan and Red, Moist, Medium Dense (SM)		
	5	SS	18	18			⊗ 11 (3-5-6)
15							
	6	SS	18	18	Silty Fine SAND With Mica, Brown, Tan and Red, Moist, Loose (SM)		⊗ 9 (2-4-5)
20					END OF BORING @ 20.0'		
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/17/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/17/07	CAVE IN DEPTH @ 12.1'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-20	1 OF 1
PROJECT NAME	ARCHITECT-ENGINEER		
US Highway 221 Mega-Site			

SITE LOCATION
Clinton, South Carolina

ECS LLP CAROLINAS

CALIBRATED PENETROMETER TONS/FT.^{2}
1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY
RQD% — — — REC.%
20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT.
10 20 30 40 50+

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL — ENGLISH UNITS BOTTOM OF CASING — LOSS OF CIRCULATION 100% SURFACE ELEVATION	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0							
	1	SS	18	18	RESIDUUM – Silty Fine SAND, Brown, Moist, Loose (SM)		10 (3-4-6)
	2	SS	18	18	Fine Sandy SILT With Mica, Red and Tan, Moist, Hard to Very Stiff (ML)		(6-13-20) 33
5	3	SS	18	18			28 (5-11-17)
	4	SS	18	18	Silty Fine SAND With Mica, Brown, Tan and Red, Moist, Medium Dense (SM)		13 (4-6-7)
10							
	5	SS	18	18	Silty Fine SAND With Mica, Moist, Tan and Red, Medium Dense (SM)		29 (10-12-17)
15					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/17/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/17/07	CAVE IN DEPTH @ 8.1'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-21	1 OF 1

PROJECT NAME	ARCHITECT-ENGINEER
US Highway 221 Mega-Site	

ECS LLP CAROLINAS

SITE LOCATION
Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}
1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY
RQD% — — — REC.%
20% 40% 60% 80% 100%

⊗ STANDARD PENETRATION BLOWS/FT.
10 20 30 40 50+

BOTTOM OF CASING ▶ LOSS OF CIRCULATION 100%

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL — ENGLISH UNITS — SURFACE ELEVATION	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0							
	1	SS	18	18	RESIDUUM – Fine Sandy SILT With Mica, Red and Tan, Moist, Stiff (ML)		⊗ 11 (4-4-7)
	2	SS	18	18	RESIDUUM – Fine Sandy SILT With Mica, Red and Tan, Moist, Very Hard (ML)		⊗ (12-25-36) 61
5	3	SS	18	18			⊗ (10-29-41) 70
	4	SS	18	18	Silty Fine SAND With Mica, Reddish Tan, Moist, Medium Dense (SM)		⊗ 14 (5-7-7)
10							
	5	SS	18	18	Silty Fine SAND With Mica, Tan, Moist, Medium Dense (SM)		⊗ 13 (4-6-7)
15					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/17/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/17/07	CAVE IN DEPTH @ 7.9'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-22	1 OF 1

PROJECT NAME	ARCHITECT-ENGINEER
US Highway 221 Mega-Site	

ECS LLP CAROLINAS

SITE LOCATION
Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}
1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY
RQD% — — — REC.%
20% 40% 60% 80% 100%

⊗ STANDARD PENETRATION BLOWS/FT.
10 20 30 40 50+

DESCRIPTION OF MATERIAL ENGLISH UNITS

BOTTOM OF CASING ◣ LOSS OF CIRCULATION 100%

SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0					RESIDUUM – Fine Sandy SILT, Red, Moist, Stiff (ML)		
	1	SS	18	18			⊗ 15 (5-6-9)
					Fine Sandy SILT With Mica, Red, Moist, Hard (ML)		
5	2	SS	18	18			(10-15-18) ⊗ 33
	3	SS	18	18			(9-14-20) ⊗ 34
					Silty Fine SAND With Mica, Tan and Red, Moist, Medium Dense (SM)		
10	4	SS	18	18			⊗ 14 (4-6-8)
					Silty Fine SAND With Mica, Tan and Red, Moist, Dense (SM)		
15	5	SS	18	18			(10-15-16) ⊗ 31
					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/17/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/17/07	CAVE IN DEPTH @ 8.9'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-23	1 OF 1
PROJECT NAME	**ARCHITECT-ENGINEER**		
US Highway 221 Mega-Site			

ECS LLP CAROLINAS

SITE LOCATION
Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}
1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY
RQD% — — — REC.%
20% 40% 60% 80% 100%

⊗ STANDARD PENETRATION BLOWS/FT.
10 20 30 40 50+

BOTTOM OF CASING ▶ LOSS OF CIRCULATION 100%

SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL (ENGLISH UNITS)	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0							
	1	SS	18	18	RESIDUUM – Fine Sandy SILT With Mica, Red and Tan, Moist, Stiff to Very Stiff (ML)		10 (3-4-6)
	2	SS	18	18			20 (6-9-11)
5							
	3	SS	18	18	RESIDUUM – Fine Sandy SILT With Mica, Trace Roots, Red and Tan, Moist, Very Stiff (ML)		18 (5-9-9)
	4	SS	18	18	Silty Fine SAND With Mica, Tan and Red, Moist, Medium Dense (SM)		13 (4-5-8)
10							
	5	SS	18	18	Silty Fine SAND With Mica, Tan and Gray, Moist, Medium Dense (SM)		13 (4-6-7)
15							
	6	SS	18	18			15 (3-6-9)
20					END OF BORING @ 20.0'		
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/17/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/17/07	CAVE IN DEPTH @ 11.5'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-24	1 OF 1
PROJECT NAME	ARCHITECT-ENGINEER		
US Highway 221 Mega-Site			

SITE LOCATION: Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY: RQD% — — — REC.% ——— 20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT. ⊗: 10 20 30 40 50+

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL — ENGLISH UNITS	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
					BOTTOM OF CASING ▶ LOSS OF CIRCULATION 100%		
					SURFACE ELEVATION		
0					RESIDUUM – Fine Sandy SILT With Mica, Red, Moist, Very Stiff (ML)		
	1	SS	18	18			17 (7-8-9)
	2	SS	18	18			19 (6-7-12)
5	3	SS	18	18			19 (8-9-10)
	4	SS	18	18	Silty Fine SAND With Mica, Reddish Tan, Moist, Medium Dense (SM)		12 (4-6-6)
10							
	5	SS	18	18			14 (5-6-8)
15					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/17/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/17/07	CAVE IN DEPTH @ 7.6'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-25	1 OF 1
PROJECT NAME	**ARCHITECT-ENGINEER**		
US Highway 221 Mega-Site			

ECS LLP CAROLINAS

SITE LOCATION: Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY: RQD% — — — REC.% ——— 20% 40% 60% 80% 100%

⊗ STANDARD PENETRATION BLOWS/FT. 10 20 30 40 50+

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING ◣ — LOSS OF CIRCULATION 100%

SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0					RESIDUUM – Fine Sandy SILT With Mica, Red, Moist, Very Stiff (ML)		
	1	SS	18	18			21 (7-9-12)
	2	SS	18	18	Silty Fine SAND With Mica, Tan and Red, Moist, Dense to Medium Dense (SM)		(16-17-17) 34
5	3	SS	18	18			(11-16-19) 35
	4	SS	18	18			18 (3-6-12)
10							
	5	SS	18	18			25 (7-9-16)
15							
	6	SS	18	18			28 (7-11-17)
20					END OF BORING @ 20.0'		
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/17/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/17/07	CAVE IN DEPTH @ 12.0'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-26	1 OF 1
PROJECT NAME	**ARCHITECT-ENGINEER**		
US Highway 221 Mega-Site			

ECS LLP CAROLINAS

SITE LOCATION: Clinton, South Carolina

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY: RQD% — — — REC.% — 20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT.: ⊗ 10 20 30 40 50+

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING ▶ — LOSS OF CIRCULATION 100%

SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0					RESIDUUM – Silty Fine SAND, Red and Tan, Moist, Medium Dense (SM)		
	1	SS	18	18			⊗ 15 (7-6-9)
					PARTIALLY WEATHERED ROCK – Sampled As: Silty Fine SAND, Red to Tan, Moist (PWR)		
5	2	SS	17	17			(12-21-50/5) ⊗ 50/5
	3	SS	4	4			(50/4) ⊗ 50/4
	4	SS	1	1			(50/1) ⊗ 50/1
10							
	5	SS	0	0			(50/0) ⊗ 50/0
15					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL DRY WS OR WD	BORING STARTED 05/17/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 05/17/07	CAVE IN DEPTH @ 6.3'
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA

CLIENT	JOB #	BORING #	SHEET
Laurens County Development Corporation	14-4123	B-27	1 OF 1
PROJECT NAME	ARCHITECT-ENGINEER		
US Highway 221 Mega-Site			

SITE LOCATION: Clinton, South Carolina

ECS LLP CAROLINAS

CALIBRATED PENETROMETER TONS/FT.^{2}: 1 2 3 4 5+

PLASTIC LIMIT % X — WATER CONTENT % ● — LIQUID LIMIT % △

ROCK QUALITY DESIGNATION & RECOVERY: RQD% — — — REC.% — 20% 40% 60% 80% 100%

STANDARD PENETRATION BLOWS/FT. ⊗: 10 20 30 40 50+

DESCRIPTION OF MATERIAL — ENGLISH UNITS

BOTTOM OF CASING ◣ — LOSS OF CIRCULATION 100%

SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	WATER LEVELS ELEVATION (FT)	STANDARD PENETRATION BLOWS/FT.
0							
	1	SS	18	18	ALLUVIUM – Fine Sandy SILT, Trace Roots, Brown and Gray, Moist to Damp, Firm to Very Soft (ML)		7 (3-3-4)
	2	SS	18	18			2 (1-1-1)
5						▽	
	3	SS	18	18	ALLUVIUM – Silty Coarse SAND With Organics, Brown and Gray, Moist, Very Loose (SM)		4 (2-1-3)
	4	SS	18	18	Coarse SAND With Silt, Trace Rock Fragments, Brownish Tan, Damp, Loose to Medium Dense (SM)		7 (2-4-3)
10							
	5	SS	18	18			16 (6-7-9)
15					END OF BORING @ 15.0'		
20							
25							
30							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

▽WL 4.8' WS OR WD	BORING STARTED 06/08/07	
▽WL(BCR) ▼WL(ACR)	BORING COMPLETED 06/08/07	CAVE IN DEPTH ⊗
▽WL	RIG CME550 FOREMAN SD	DRILLING METHOD HSA