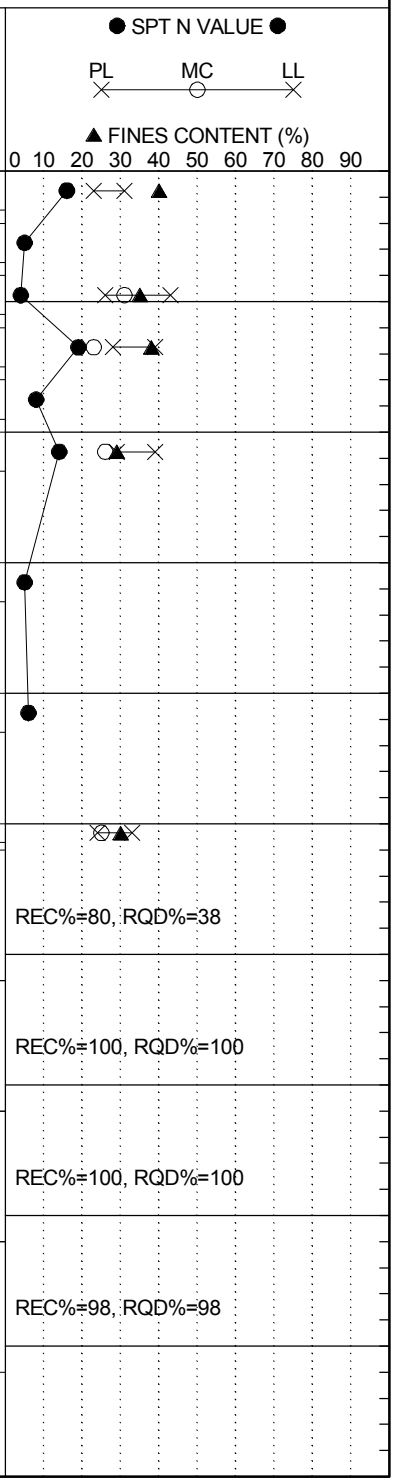
Appendix C

I-85/385 Interchange Boring Logs

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-1	**Boring Location:**	106+81	**Offset:**	83' Lt.	**Alignment:**	I-385 SB C/D
Elev.:	989.9 ft	**Latitude:**	34.82626	**Longitude:**	82.29259	**Date Started:**	7/12/2012
Total Depth:	46 ft	**Soil Depth:**	26.0 ft	**Core Depth:**	46.0 ft	**Date Completed:**	7/16/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0		0.0	SS-1	4	7	9	16
	1.8	Medium dense, brown, non-reactive, silty SAND (SM/A-4). LL=31, PL=23, PI=8, NMC=16.2, %#200=39.5	2.0	SS-2	3	2	3	5
984.9	5.8	Very loose to loose, red & brown, non to weakly reactive, clayey SAND (SC/A-7-6).	4.0	SS-3	2	1	3	4
	7.8	LL=43, PL=26, PI=17, NMC=31.2, %#200=35.2	6.0	SS-4	3	11	8	19
979.9		Medium dense, red & brown, non-reactive, silty SAND (SM/A-6). LL=39, PL=28, PI=11, NMC=22.7, %#200=38.1	8.0	SS-5	3	4	4	8
974.9		Loose to medium dense, brown, gray & red, non-reactive, silty SAND (SM/A-2-4). LL=39, PL=29, PI=10, NMC=25.5, %#200=28.7	10.0	SS-6	4	6	8	14
969.9			15.0	SS-7	2	2	3	5
	23.3		20.0	SS-8	2	2	4	6
964.9	26.0	Very dense, red & brown, non-reactive, silty SAND with gravel (SM/A-2-4). LL=33, PL=24, PI=9, NMC=25.1, %#200=29.5	25.0	SS-9	13	50/0.2		
959.9		Auger Refusal @ 26.0' Begin Coring. Light gray, white-off white, clear, black, trcs. rose-pink, brown-orange stain, sli. weathered grading to fresh, hard to v. hard, med. to occassionally cse. crystalline, VC to C discontinuity spacing w/T to MW width, Feldspar Quartz Augite Gneiss w/cse. crystalline granitoid intervals, scattered biotite, muscovite, scattered garnets.	26.0	NQ-1				
954.9			31.0	NQ-2				
949.9		core loss 26.4'-26.6' & 27.3'-28.1'; granitoid layer 28.8'-30.6'; 3 40° contact jts., hard highly weathered walls; 11 0°-20° jts., hard walls, 0-1mm, iron stain; granitoid layer 42.0'-42.3'	36.0	NQ-3				
	43.5		41.0	NQ-4				
944.9	46.0	Off white, lt. gray-brown, black, trcs. rose-pink, fresh, v. hard, cse. crystalline to megacrystyalline, C discontinuity spacing w/T width, Feldspar Quartz Granitoid Rock, scattered biotite, garnetiferous, no jts..						
		Boring Terminated @ 46.0' (Elev. 943.9).						



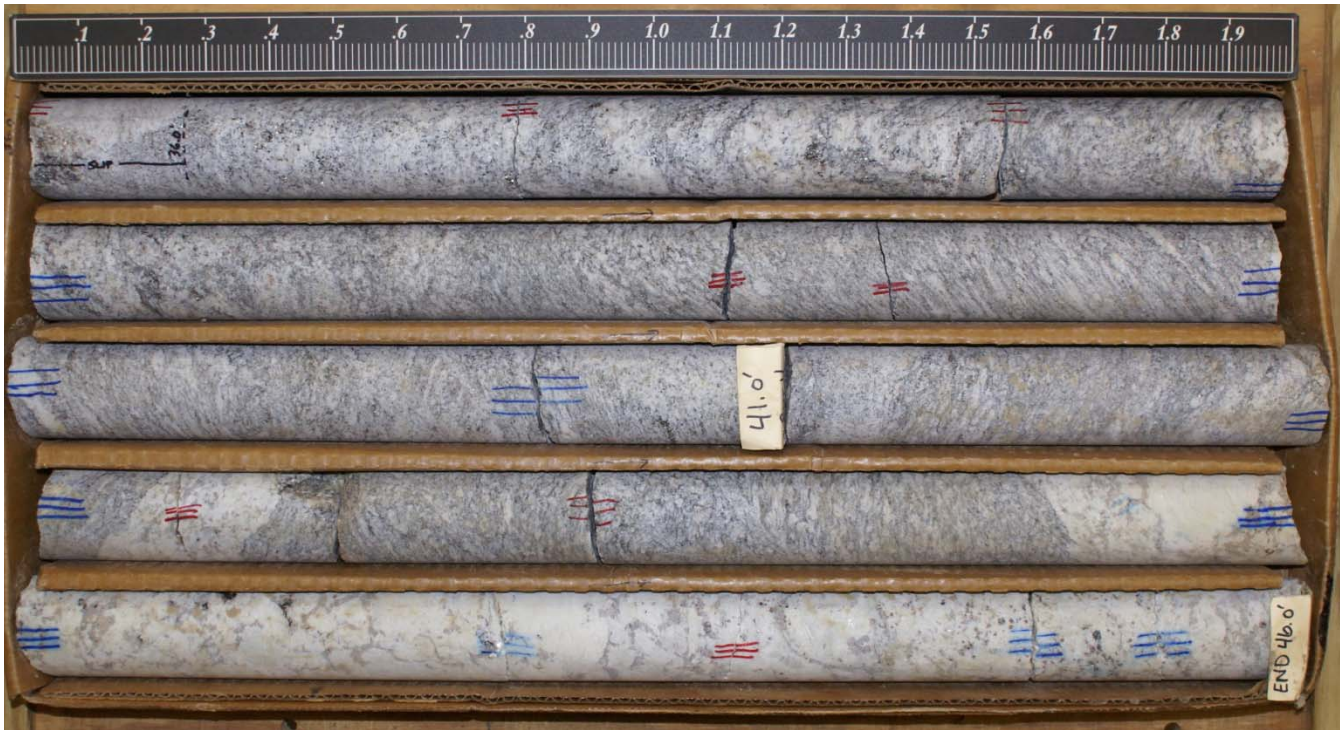
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements

B-1 Box 1 of 2



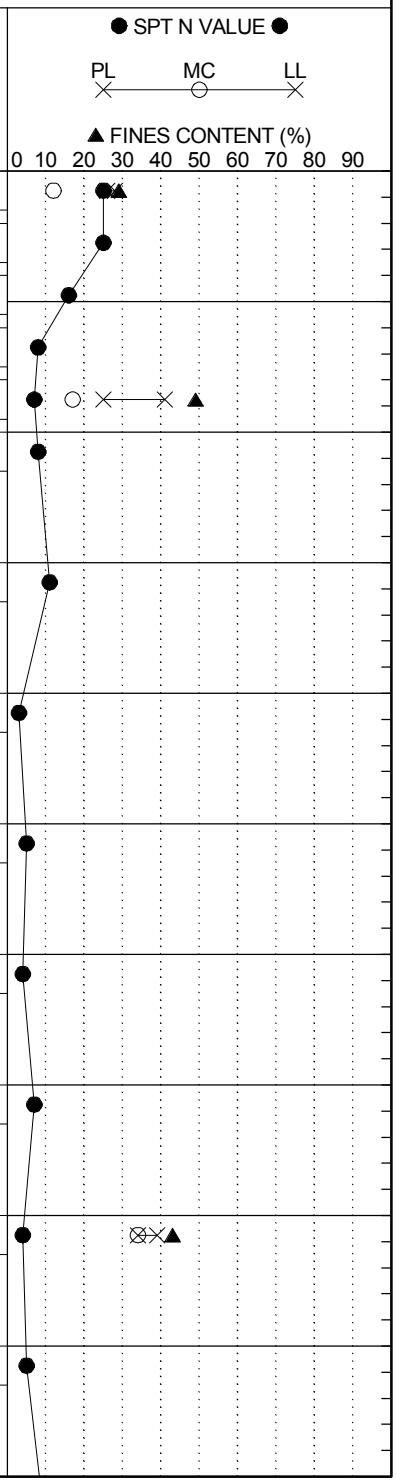
B-1 Box 2 of 2

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-2	**Boring Location:**	100+28	**Offset:**	63' Rt.	**Alignment:**	I-385 SB C/D
Elev.:	975.5 ft	**Latitude:**	34.82779	**Longitude:**	82.29383	**Date Started:**	6/28/2012
Total Depth:	110 ft	**Soil Depth:**	90.0 ft	**Core Depth:**	110.0 ft	**Date Completed:**	7/11/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION
	0.0	
	1.8	Medium dense, brown, non-reactive, silty SAND (SM/A-2-4). LL=28, PL=26, PI=2, NMC=12.2, %#200=29.1
970.5		Loose to medium dense, red, brown, gray & tan, non-reactive, clayey SAND (SC/A-7-6). LL=41, PL=25, PI=16, NMC=17.4, %#200=48.7
965.5		
960.5		
	18.3	Very loose to loose, white, tan & brown, non-reactive, silty SAND (SM/A-4). LL=39, PL=34, PI=5, NMC=34.2, %#200=43.2
955.5		
950.5		
945.5		
940.5		
935.5		
930.5		

Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	SS-1	2	6	19	25
2.0					
	SS-2	10	12	13	25
4.0					
	SS-3	6	7	9	16
6.0					
	SS-4	3	3	5	8
8.0					
	SS-5	2	3	4	7
10.0					
	SS-6	2	2	4	8
15.0					
	SS-7	3	6	5	11
20.0					
	SS-8	1	2	1	3
25.0					
	SS-9	2	2	3	5
30.0					
	SS-10	1	1	3	4
35.0					
	SS-11	2	2	5	7
40.0					
	SS-12	2	1	3	4
45.0					
	SS-13	2	2	3	5
50.0					



LEGEND

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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-2	**Boring Location:**	100+28	**Offset:**	63' Rt.	**Alignment:**	I-385 SB C/D
Elev.:	975.5 ft	**Latitude:**	34.82779	**Longitude:**	82.29383	**Date Started:**	6/28/2012
Total Depth:	110 ft	**Soil Depth:**	90.0 ft	**Core Depth:**	110.0 ft	**Date Completed:**	7/11/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	SPT N VALUE / PL MC LL / FINES CONTENT (%)
				SS-14	3	4	5	9	
	53.3	Loose, brown, non-reactive, silty SAND (SM/A-5). LL=69, PL=64, PI=5, NMC=68.2, %#200=38.8	55.0	SS-15	2	3	5	8	
920.5	58.3	Medium dense to very dense, brown & tan, non-reactive, silty SAND (SM/A-2-4). LL=28, PL=25, PI=3, NMC=19.6, %#200=31.9	60.0	SS-16	9	11	13	23	
915.5			65.0	SS-17	10	13	18	31	
910.5			70.0	SS-18	11	30	20	50	
905.5			75.0	SS-19	11	17	30	47	
900.5			80.0	SS-20	15	23	31	54	
895.5			85.0	SS-21	12	32	30	62	
890.5			90.0	SS-22	50/0.0			50/0.0	>>
885.5	90.0	Auger Refusal @ 90.0' Begin Coring.	90.0	NQ-1					REC%=100, RQD%=17
	92.3	Off white, gray-brown, gray, brown-orange stain, mod. weathered, hard, cse. to med. crystalline, schistose in parts, VC discontinuity spacing w/VN to MW width, Feldspar Quartz Muscovite Granitoid Rock.	93.0	NQ-2					REC%=100, RQD%=72
880.5		Off white, gray to gray-brown, trcs. black, faint brown-orange stain, fresh, v. hard, cse. to med. crystalline w/megacrystalline	98.0						

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LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-2	**Boring Location:**	100+28	**Offset:**	63' Rt.	**Alignment:**	I-385 SB C/D
Elev.:	975.5 ft	**Latitude:**	34.82779	**Longitude:**	82.29383	**Date Started:**	6/28/2012
Total Depth:	110 ft	**Soil Depth:**	90.0 ft	**Core Depth:**	110.0 ft	**Date Completed:**	7/11/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
		intervals, schistose to gneissic intervals, VC discontinuity spacing w/T to VN width, Feldspar Quartz Muscovite Granitoid Rock, traces garnets.		103.0	NQ-3					REC%=98, RQD%=88
870.5		80° jt., hard smooth walls, 1mm open; 44 0°-20° jts., hard, rough walls, some highly weathered, 0-10mm open; 5 30° jts., hard walls, iron oxide stain; 2 50° foliation jts., smooth, hard walls		108.0	NQ-4					REC%=100, RQD%=88
865.5	110.0				NQ-5					REC%=70, RQD%=35
		Boring Terminated @ 110.0' (Elev. 865.5).								
860.5										
855.5										
850.5										
845.5										
840.5										
835.5										
830.5										

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements

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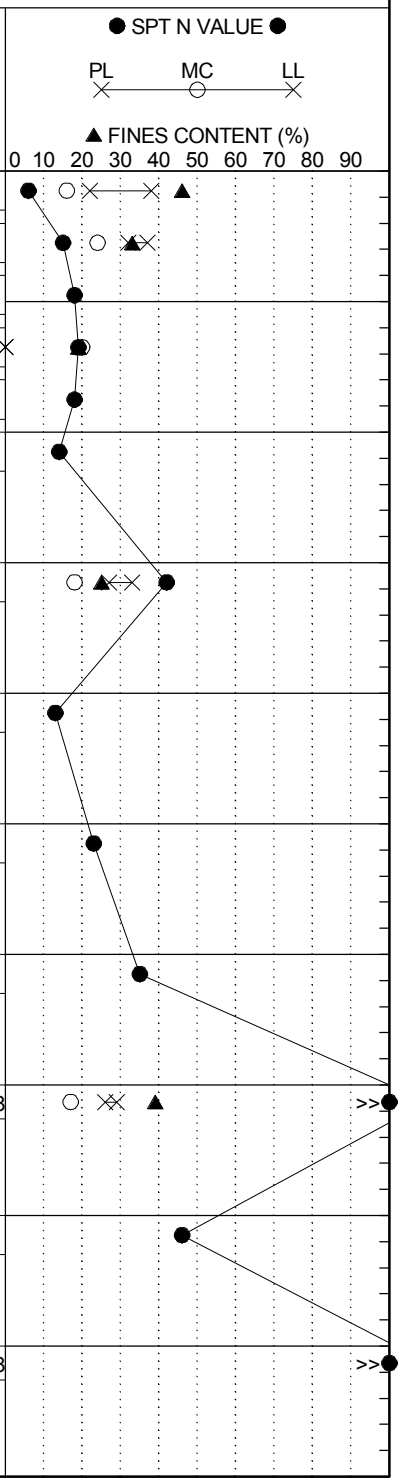
B-2 Box 2 of 2

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-3	**Boring Location:**	359+28	**Offset:**	18' Rt.	**Alignment:**	I-385 NB C/D
Elev.:	955.5 ft	**Latitude:**	34.82341	**Longitude:**	82.29118	**Date Started:**	5/21/2012
Total Depth:	100.3 ft	**Soil Depth:**	100.3 ft	**Core Depth:**	95.0 ft	**Date Completed:**	5/25/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION
	0.0	
	1.8	Loose, red & brown, non-reactive, clayey SAND (SC/A-6). LL=37, PL=32, PI=5, NMC=24.2, %#200=32.5
	3.8	Medium dense, brown, non-reactive, silty SAND (SM/A-2-4).
950.5	7.8	Medium dense, brown, non-reactive, silty SAND (SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=19.9, %#200=19.0
945.5		Medium dense to dense, brown & white, non to weakly reactive, silty SAND (SM/A-2-4). LL=33, PL=27, PI=6, NMC=17.8, %#200=25.0
940.5		
935.5		
930.5		
	28.3	Dense to very dense, brown & white, non-reactive, silty SAND (SM/A-4). LL=29, PL=26, PI=3, NMC=16.6, %#200=38.9
925.5		
920.5		
915.5		
910.5		

Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	SS-1	3	3	3	6
2.0	SS-2	5	5	10	15
4.0	SS-3	7	8	10	18
6.0	SS-4	8	7	12	19
8.0	SS-5	9	10	8	18
10.0	SS-6	4	5	9	14
15.0	SS-7	9	17	25	42
20.0	SS-8	5	4	9	13
25.0	SS-9	6	8	15	23
30.0	SS-10	8	10	25	35
35.0	SS-11	32	34	50/0.3	84/0.8
40.0	SS-12	13	21	25	46
45.0	SS-13	27	38	50/0.3	88/0.8
50.0					



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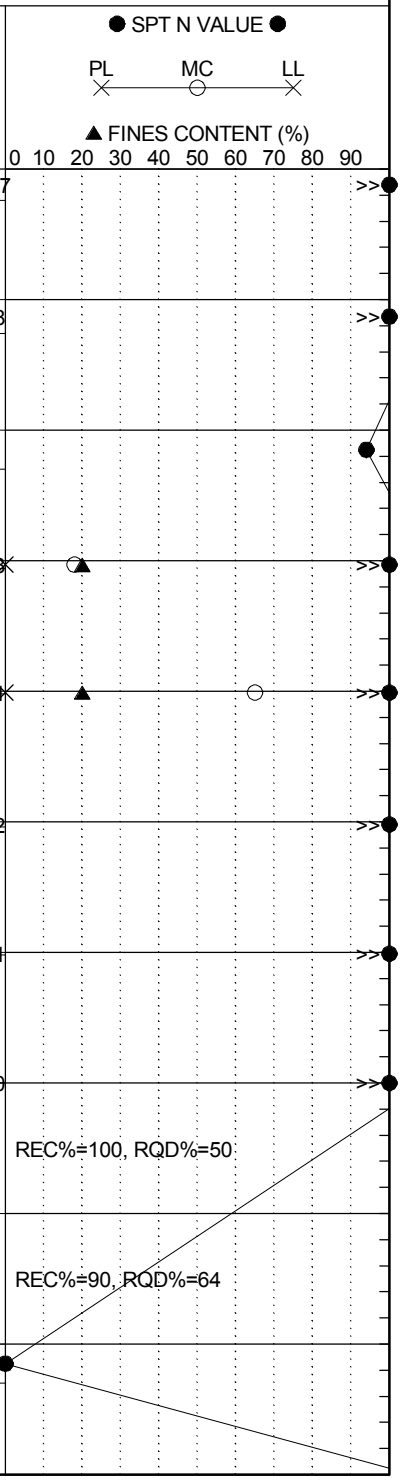
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-3	**Boring Location:**	359+28	**Offset:**	18' Rt.	**Alignment:**	I-385 NB C/D
Elev.:	955.5 ft	**Latitude:**	34.82341	**Longitude:**	82.29118	**Date Started:**	5/21/2012
Total Depth:	100.3 ft	**Soil Depth:**	100.3 ft	**Core Depth:**	95.0 ft	**Date Completed:**	5/25/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
900.5			55.0	SS-14	30	50	50/0.2	100/0.7
				SS-15	43	45	50/0.3	95/0.8
895.5			60.0	SS-16	23	47	47	94
	63.3	Very dense, brown, white & black, non-reactive, silty SAND with gravel (SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=18.2, %#200=20.3						
890.5			65.0	SS-17	50/0.3			50/0.3
885.5			70.0	SS-18	50/0.1			50/0.1
880.5			75.0	SS-19	50/0.2			50/0.2
875.5			80.0	SS-20	50/0.1			50/0.1
870.5	85.0	Auger Refusal @ 85.0' Begin Coring.	85.0	SS-21	50/0.0			50/0.0
		Off white, lt. gray, black, brown-orange-red & yellow-lt. green stains, sli. to mod. weathered w/highly weathered intervals, mod. hard to hard w/friable intervals, med. to cse. crystalline, VC discontinuity spacing w/VN to N width, Feldspar Quartz Biotite Gneiss w/schistose intervals, scattered muscovite, garnets, pyrite.	85.0	NQ-1	REC%=100, RQD%=50			
865.5			90.0	NQ-2	REC%=90, RQD%=64			
	93.6							
860.5	95.0	85.0'-96.3' - 5 55°-60° jts. w/iron stain and/or 2-3mm clay infill; 17 0°-20° jts. w/highly weathered walls 1-2mm clay infill; 2 60° partially open jts. w/0.5-1mm open	95.0	SS-22	6	WOH	WOH	0
		Brown, lt. brown, lt. gray, trcs. black,	100.0					



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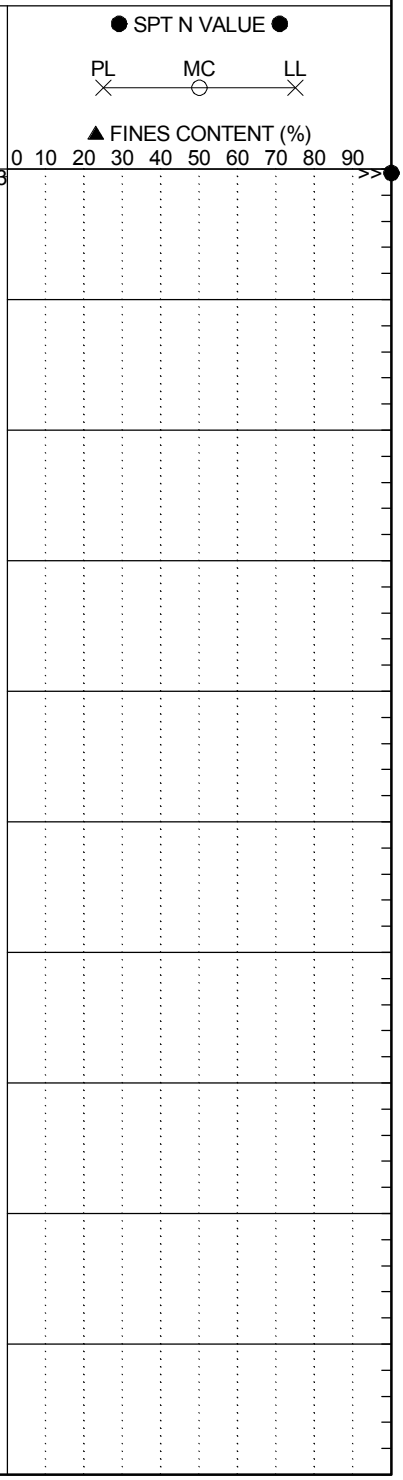
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-3	**Boring Location:**	359+28	**Offset:**	18' Rt.	**Alignment:**	I-385 NB C/D
Elev.:	955.5 ft	**Latitude:**	34.82341	**Longitude:**	82.29118	**Date Started:**	5/21/2012
Total Depth:	100.3 ft	**Soil Depth:**	100.3 ft	**Core Depth:**	95.0 ft	**Date Completed:**	5/25/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	100.3	yellow-lt. green stain, widely scattered pink-rose & off white, highly weathered, mod. hard to friable, f. to med. crystalline w/cse. crystalline grains, VC discontinuity spacing, Biotite Feldspar Quartz Schist w/scattered muscovite & garnets. 93.6'-95.0' discontinuity pattern not apparent; interpreted core loss between 93.6' & 94.8' Coring Terminated @ 95.0' Return to Auger & Sample. SS-22 & SS-23 resulted in No Recovery No Refusal & Boring Terminated @ 100.3' (Elev. 855.2).			SS-23	50/0.3			50/0.3
850.5									
845.5									
840.5									
835.5									
830.5									
825.5									
820.5									
815.5									
810.5									



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

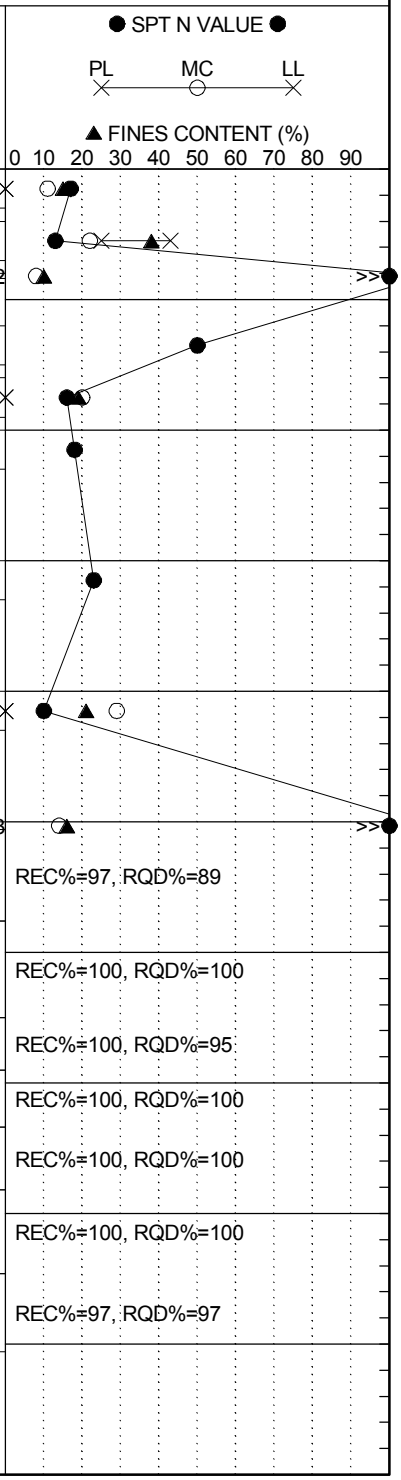
I-85 / I-385 Interchange Improvements

B-3 Box 1 of 1

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-4	**Boring Location:**	114+01	**Offset:**	56' Rt.	**Alignment:**	I-385 SB C/D
Elev.:	973.0 ft	**Latitude:**	34.82426	**Longitude:**	82.29235	**Date Started:**	5/17/2012
Total Depth:	45.3 ft	**Soil Depth:**	25.3 ft	**Core Depth:**	45.3 ft	**Date Completed:**	5/18/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0		0.0	SS-1	3	10	7	17
	1.8	Medium dense, brown & white, non-reactive, silty SAND with gravel (SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=10.7, %#200=15.1	2.0					
	3.8		4.0	SS-2	2	3	10	13
968.0	5.8	Medium dense, red, non-reactive, clayey SAND (SC/A-7-6). LL=43, PL=25, PI=18, NMC=21.7, %#200=37.9	6.0	SS-3	50/0.2			50/0.2
				SS-4	25	25	25	50
			8.0	SS-5	11	9	7	16
963.0		Very dense, black & white, non-reactive, poorly graded SAND with silt and gravel (SP-SM/A-1-b). LL=NA, PL=NA, PI=NA, NMC=7.8, %#200=10.0	10.0	SS-6	3	10	8	18
958.0			15.0	SS-7	6	7	16	23
	18.3	Medium dense to dense, red, black, white & orange, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=20.2, %#200=19.4						
953.0			20.0	SS-8	4	7	3	10
	23.3	Loose, black, white & tan, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=28.5, %#200=21.3						
948.0	25.3		25.0	SS-9	50/0.3			50/0.3
		Very dense, black & white, non-reactive, silty SAND with gravel (SM/A-1-b). LL=NA, PL=NA, PI=NA, NMC=14.4, %#200=15.8	25.3	NQ-1				REC%=97, RQD%=89
943.0		Auger Refusal @ 25.3' Begin Coring.	28.8	NQ-2				REC%=100, RQD%=100
	34.4	White, smoky gray, lt. gray, scat. rose-pink, trcs. lt. green, scattered orange-brown stain, fresh w/sli. weathering on discontinuity walls, hard to v. hard, v. cse. crystalline to megacrystalline, VC to C discontinuity spacing w/T to VN width, Feldspar Quartz Pegmatite w/biotite & muscovite, scat. garnets, gneissic pods, trcs. pyrite-marcasite. 5 15° jts. w/sli. rough, hard walls, iron stain, trcs. pyrite on walls	32.5	NQ-3				REC%=100, RQD%=95
938.0			34.5	NQ-4				REC%=100, RQD%=100
			36.7	NQ-5				REC%=100, RQD%=100
933.0			39.1	NQ-6				REC%=100, RQD%=100
			42.3	NQ-7				REC%=97, RQD%=97
928.0	45.3	White, lt. gray to smoky gray, black, trcs. rose-pink, fresh, hard to v. hard, med. to cse. crystalline, C discontinuity spacing w/T width, Feldspar Quartz Biotite Gneiss w/v. cse. to megacrystalline pegmatite pods, augite, muscovite, scat. garnets.						



LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-4	**Boring Location:**	114+01	**Offset:**	56' Rt.	**Alignment:**	I-385 SB C/D
Elev.:	973.0 ft	**Latitude:**	34.82426	**Longitude:**	82.29235	**Date Started:**	5/17/2012
Total Depth:	45.3 ft	**Soil Depth:**	25.3 ft	**Core Depth:**	45.3 ft	**Date Completed:**	5/18/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

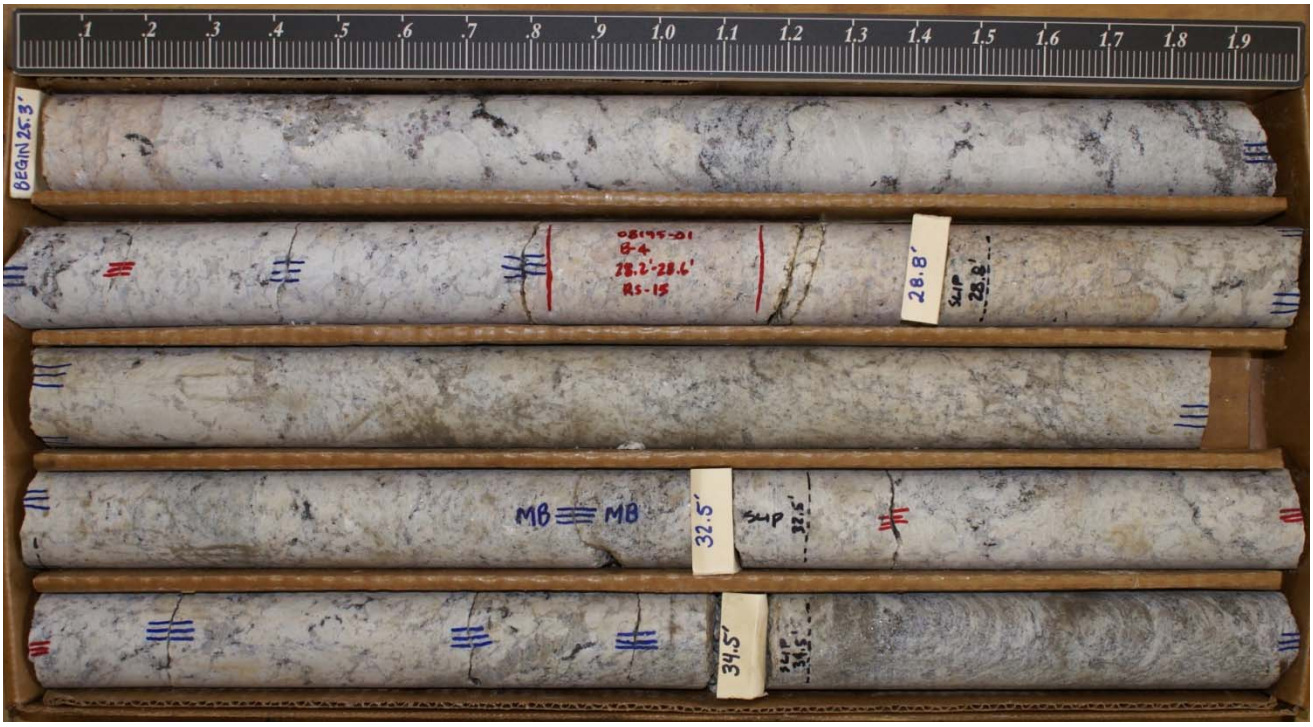
Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
		3 0°-15° jts. w/sli. rough, hard walls, faint iron stain; granitoid interval 37.5'-38.3'; foliation 80°-65°								
		Boring Terminated @ 45.3' (Elev. 927.7).								
918.0										
913.0										
908.0										
903.0										
898.0										
893.0										
888.0										
883.0										
878.0										

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements



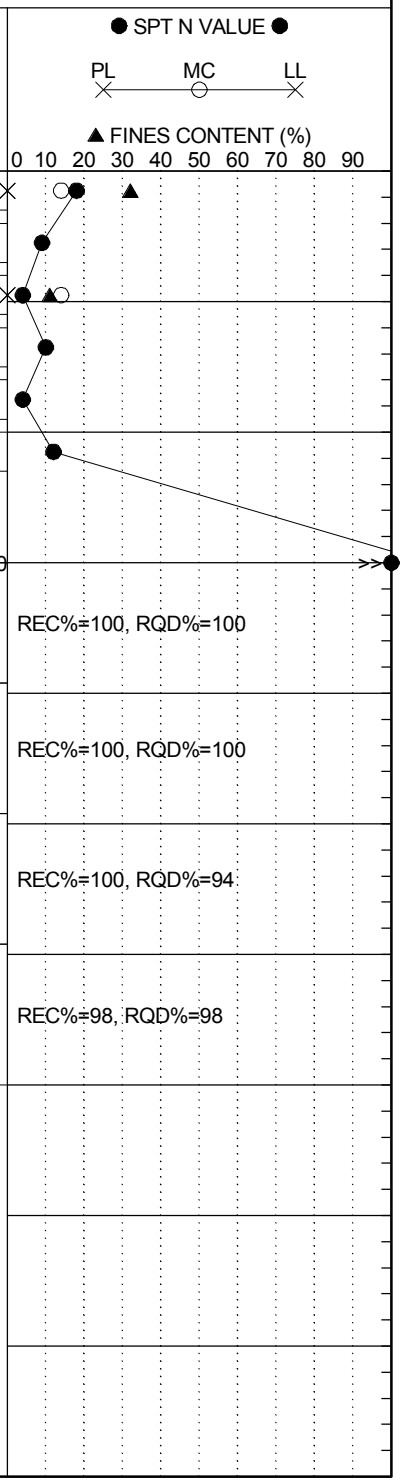
B-4 Box 1 of 2

B-4 Box 2 of 2

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-5	**Boring Location:**	381+47	**Offset:**	37' Rt.	**Alignment:**	I-385 NB C/D
Elev.:	951.5 ft	**Latitude:**	34.82925	**Longitude:**	82.29325	**Date Started:**	6/18/2012
Total Depth:	35 ft	**Soil Depth:**	15.0 ft	**Core Depth:**	35.0 ft	**Date Completed:**	6/20/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 850	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	74%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0		0.0	SS-1	2	4	14	18
	1.8	Medium dense, brown, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=13.7, %#200=31.9	2.0	SS-2	8	5	4	9
946.5		Very loose to medium dense, brown, gray, black, white & yellowish brown, non reactive, well-graded SAND with silt and gravel (SW-SM/A-1-a). LL=NP, PL=NP, PI=NP, NMC=13.7, %#200=10.8	4.0	SS-3	3	2	2	4
			6.0	SS-4	5	6	4	10
			8.0	SS-5	3	3	1	4
941.5			10.0	SS-6	3	7	5	12
936.5	15.0	Auger Refusal @ 15.0' Begin Coring. White, lt. gray, black, pale green in part, fresh w/few mod. weathered intervals, hard to v. hard, med. to cse. crystalline, VC to C discontinuity spacing w/T to VN width, Feldspar Quartz Biotite Gneiss w/granitoid interval, seams & pods, pyrite in intervals, muscovite, scat. garnets. foliation 70°-35° crenulated in parts; 9 0°-15° jts. w/sli. rough, hard walls, iron stain on some, tight to 2mm open; mechanical break 24.5'-24.7'; fract. interval 28.4'-28.6'; granitiod interval 30.0'-31.1'	15.0	SS-7	50/0.0			50/0.0
			15.0	NQ-1				
931.5			19.6	NQ-2				
926.5			24.6	NQ-3				
921.5			29.6	NQ-4				
916.5	35.0	Boring Terminated @ 35.0' (Elev. 916.5).						
911.5								
906.5								

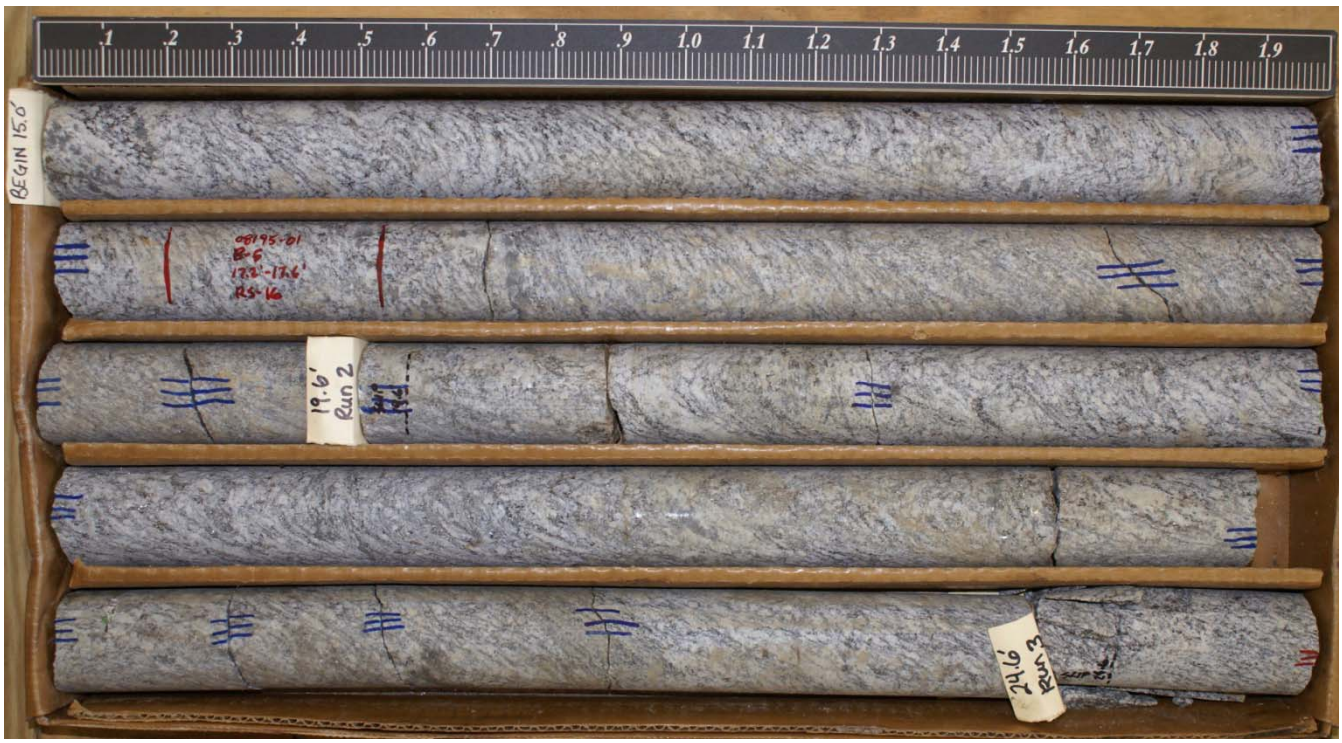


LEGEND

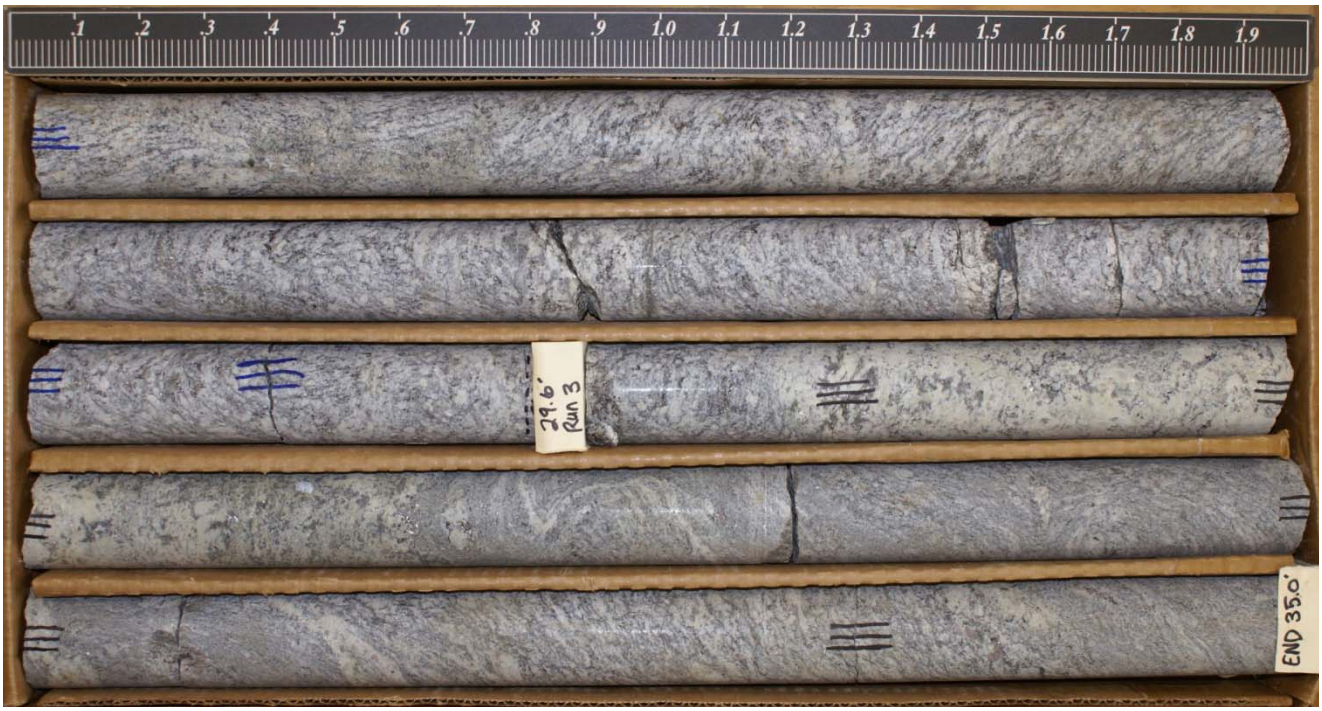
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements



B-5 Box 1 of 2

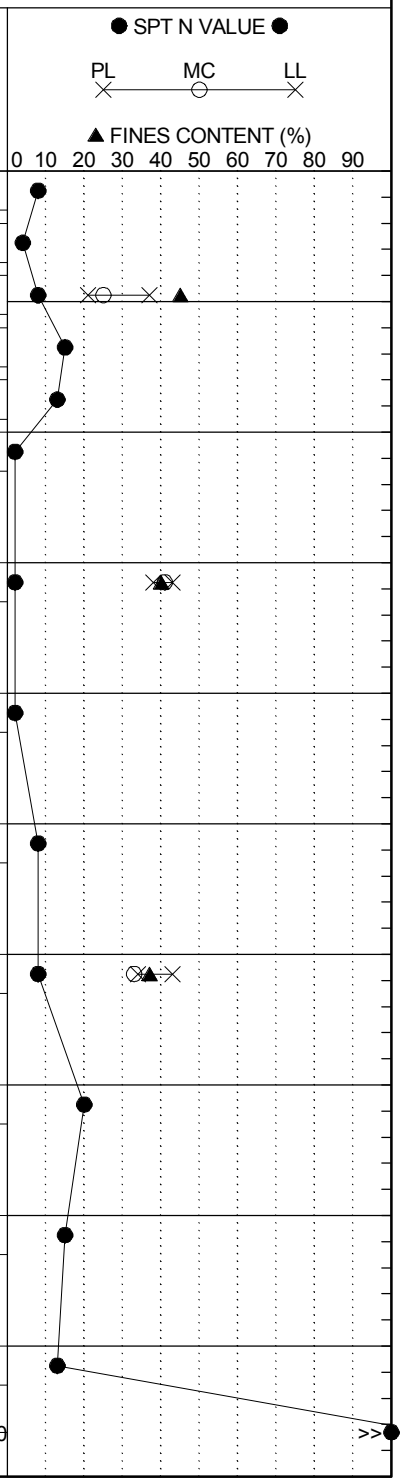


B-5 Box 2 of 2

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-6	**Boring Location:**	376+18	**Offset:**	19' Rt.	**Alignment:**	I-385 NB C/D
Elev.:	952.6 ft	**Latitude:**	34.8279	**Longitude:**	82.29257	**Date Started:**	6/6/2012
Total Depth:	68.3 ft	**Soil Depth:**	48.3 ft	**Core Depth:**	68.3 ft	**Date Completed:**	6/8/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Very loose to medium dense, reddish brown, tan, brown & red, non-reactive, clayey SAND (SC/A-6). LL=37, PL=21, PI=16, NMC=24.7, %#200=45.1	0.0	SS-1	3	3	5	8
			2.0	SS-2	2	2	2	4
947.6			4.0	SS-3	2	3	5	8
			6.0	SS-4	4	7	8	15
			8.0	SS-5	2	6	7	13
942.6			10.0	SS-6	1	1	1	2
	13.3	Very loose, black & white, non to weakly reactive, silty SAND (SM/A-5). LL=43, PL=38, PI=5, NMC=40.7, %#200=39.6						
937.6			15.0	SS-7	1	1	1	2
932.6			20.0	SS-8	1	1	1	2
	23.3	Loose to dense, brown, black & white, non to weakly reactive, silty SAND (SM/A-5). LL=43, PL=34, PI=9, NMC=32.8, %#200=36.5						
927.6			25.0	SS-9	1	3	5	8
922.6			30.0	SS-10	2	3	5	8
917.6			35.0	SS-11	8	11	9	20
912.6			40.0	SS-12	5	6	9	15
907.6			45.0	SS-13	2	5	8	13
	48.3	Auger Refusal @ 48.3' Begin Coring.	48.3	SS-14	50/0.0			50/0.0



LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-6	**Boring Location:**	376+18	**Offset:**	19' Rt.	**Alignment:**	I-385 NB C/D
Elev.:	952.6 ft	**Latitude:**	34.8279	**Longitude:**	82.29257	**Date Started:**	6/6/2012
Total Depth:	68.3 ft	**Soil Depth:**	48.3 ft	**Core Depth:**	68.3 ft	**Date Completed:**	6/8/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

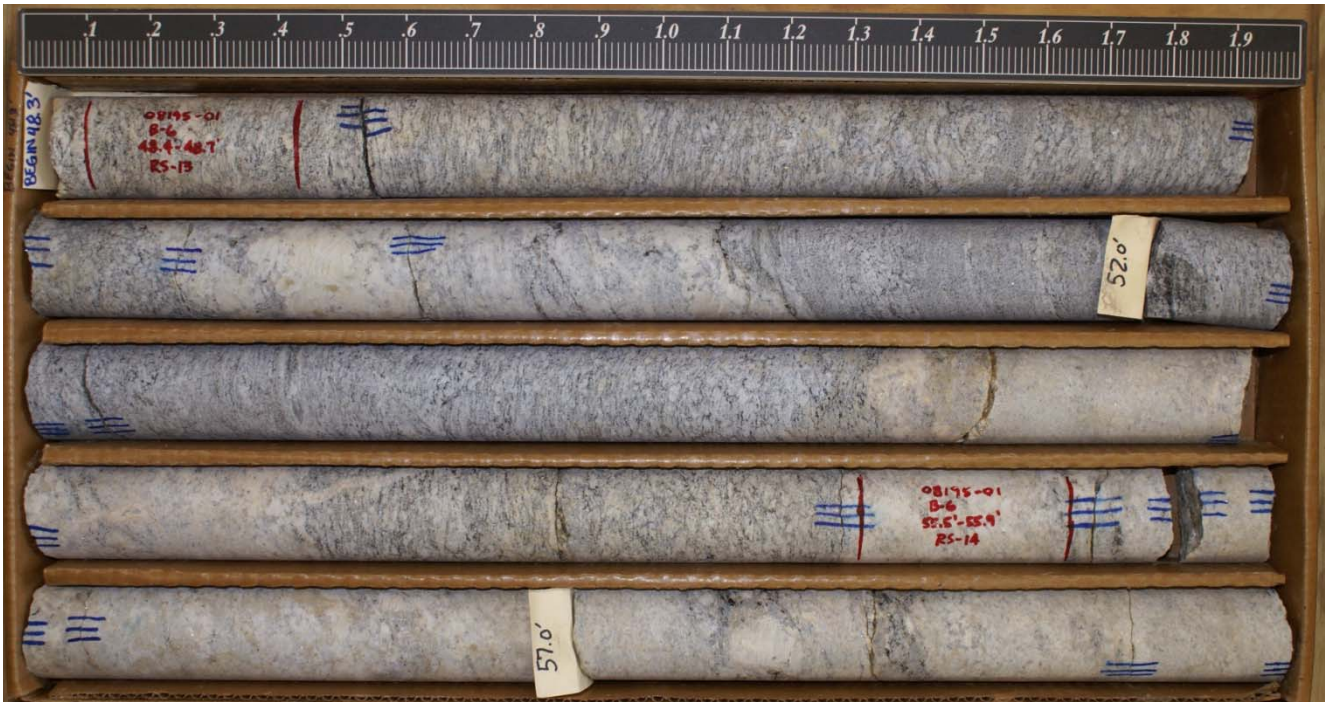
Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
		White, lt. gray, black, trcs. lt. green, faint brown-orange-red stain, fresh, hard to v. hard, med. to cse. crystalline, VC to C discontinuity spacing w/T to VN width, Feldspar Quartz Augite Gneiss w/granitoid intervals, pyrite in widely scattered laminae & disseminated, scattered muscovite, garnets. 48.3'-53.6' healed to partially healed 0°-20° discontinuities		52.0	NQ-1					REC%=100, RQD%=100
897.6	53.6			57.0	NQ-2					REC%=100, RQD%=100
892.6		Off white, lt. to med. gray, black, trcs. lt. green, faint brown-orange-red-pink stain, fresh, v. hard, cse. crystalline to megacrystyalline, VC discontinuity spacing w/T to VN width, Feldspar Quartz Granitoid Rock w/gneissic intervals, scattered muscovite, biotite pods & laminae.		61.2	NQ-3					REC%=100, RQD%=95
887.6		53.6'-58.3' 25 0°-20° jts. w/sli. rough, hard walls, tight to 0.5 open, iron stain on most; jts. & mod. weathered 62.1'-62.2', 62.8'-62.9', 64.3'-64.4'		66.1	NQ-4					REC%=98, RQD%=65
882.6	68.3	Boring Terminated @ 68.3' (Elev. 884.3).			NQ-5					REC%=95, RQD%=45
877.6										
872.6										
867.6										
862.6										
857.6										

LEGEND

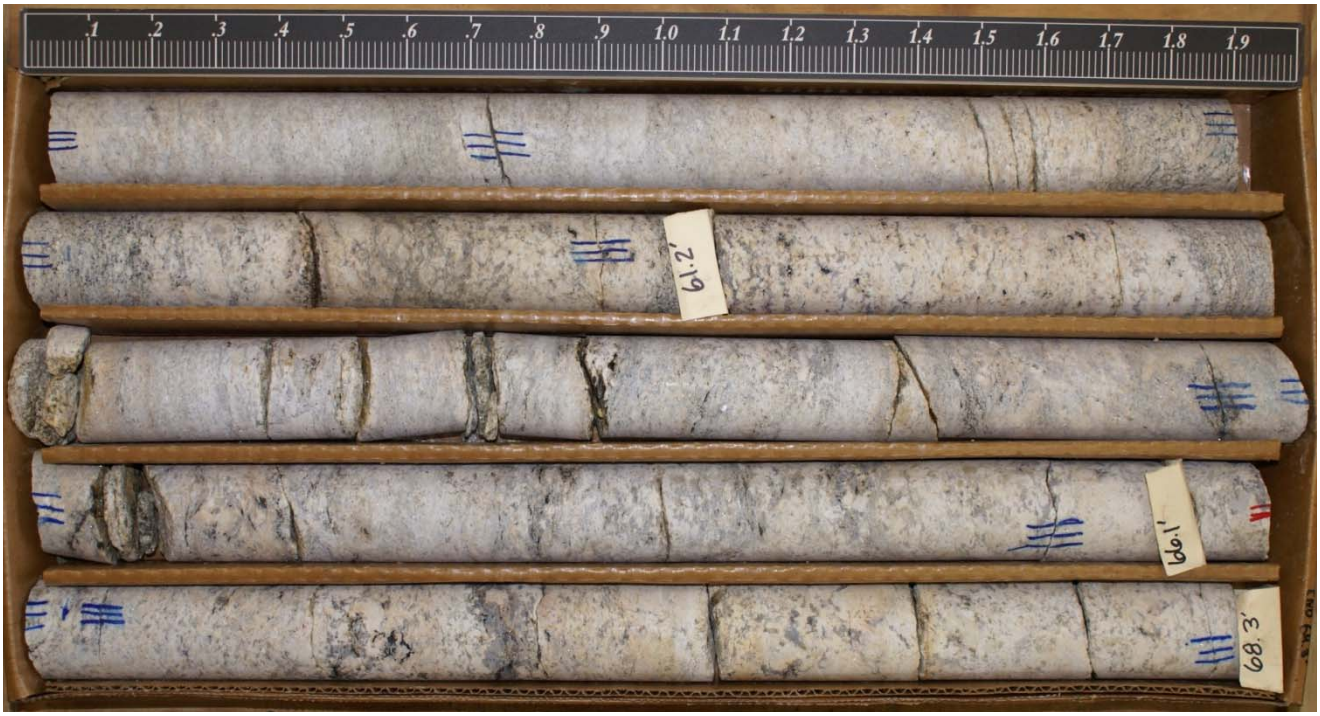
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements



B-6 Box 1 of 2

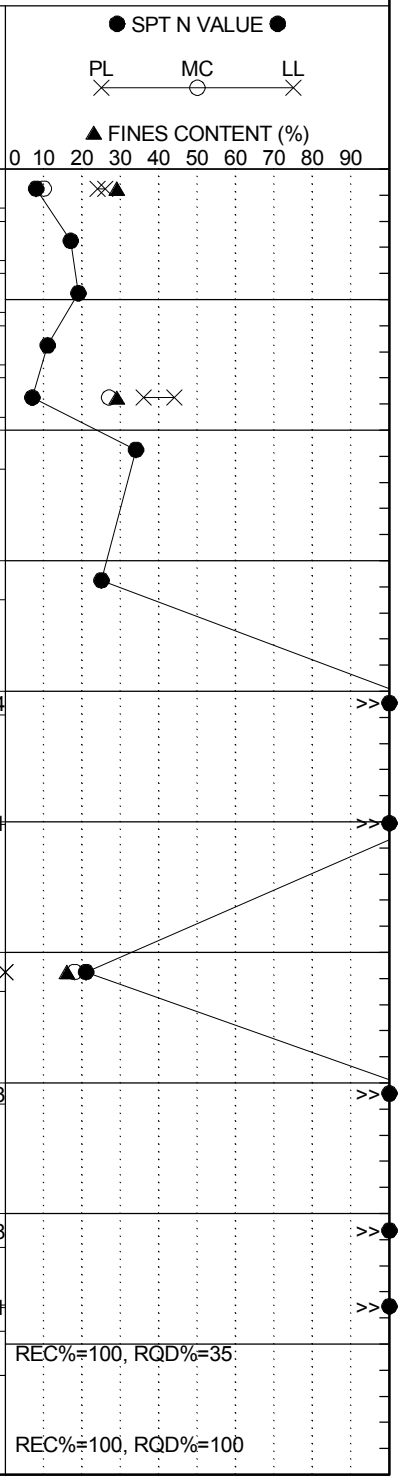


B-6 Box 2 of 2

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-7	**Boring Location:**	385+88	**Offset:**	37' Rt.	**Alignment:**	I-385 NB C/D
Elev.:	969.6 ft	**Latitude:**	34.83035	**Longitude:**	82.29386	**Date Started:**	6/25/2012
Total Depth:	64.5 ft	**Soil Depth:**	44.5 ft	**Core Depth:**	64.5 ft	**Date Completed:**	6/27/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0		0.0	SS-1	1	2	6	8
	1.8	Loose, brown, non-reactive, silty SAND (SM/A-2-4). LL=26, PL=24, PI=2, NMC=10.2, %#200=29.1	2.0	SS-2	7	6	11	17
964.6		Loose to medium dense, brown & red, non-reactive, silty SAND (SM/A-2-5). LL=44, PL=36, PI=8, NMC=27.1, %#200=29.4	4.0	SS-3	9	12	7	19
			6.0	SS-4	3	6	5	11
	9.8		8.0	SS-5	2	4	3	7
959.6		Medium dense to very dense, brown, white, black & tan, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=18.4, %#200=15.5	10.0	SS-6	6	12	22	34
954.6			15.0	SS-7	7	10	15	25
949.6			20.0	SS-8	27	50/0.4		50/0.4
944.6			25.0	SS-9	50/0.1			50/0.1
939.6			30.0	SS-10	10	13	8	21
934.6			35.0	SS-11	14	50/0.3		50/0.3
929.6			40.0	SS-12	23	45	50/0.3	95/0.8
	44.5		43.5	SS-13	50/0.1			50/0.1
924.6		Auger Refusal @ 44.5' Begin Coring. Off white, lt. to med. gray, black, trcs. lt. green & rose-pink, trcs. brown-orange-red stain, fresh, v. hard, cse. crystalline to megacrystyalline, VC to M discontinuity	44.5	NQ-1				REC%=100, RQD%=35
			46.2	NQ-2				REC%=100, RQD%=100



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LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-7	**Boring Location:**	385+88	**Offset:**	37' Rt.	**Alignment:**	I-385 NB C/D
Elev.:	969.6 ft	**Latitude:**	34.83035	**Longitude:**	82.29386	**Date Started:**	6/25/2012
Total Depth:	64.5 ft	**Soil Depth:**	44.5 ft	**Core Depth:**	64.5 ft	**Date Completed:**	6/27/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

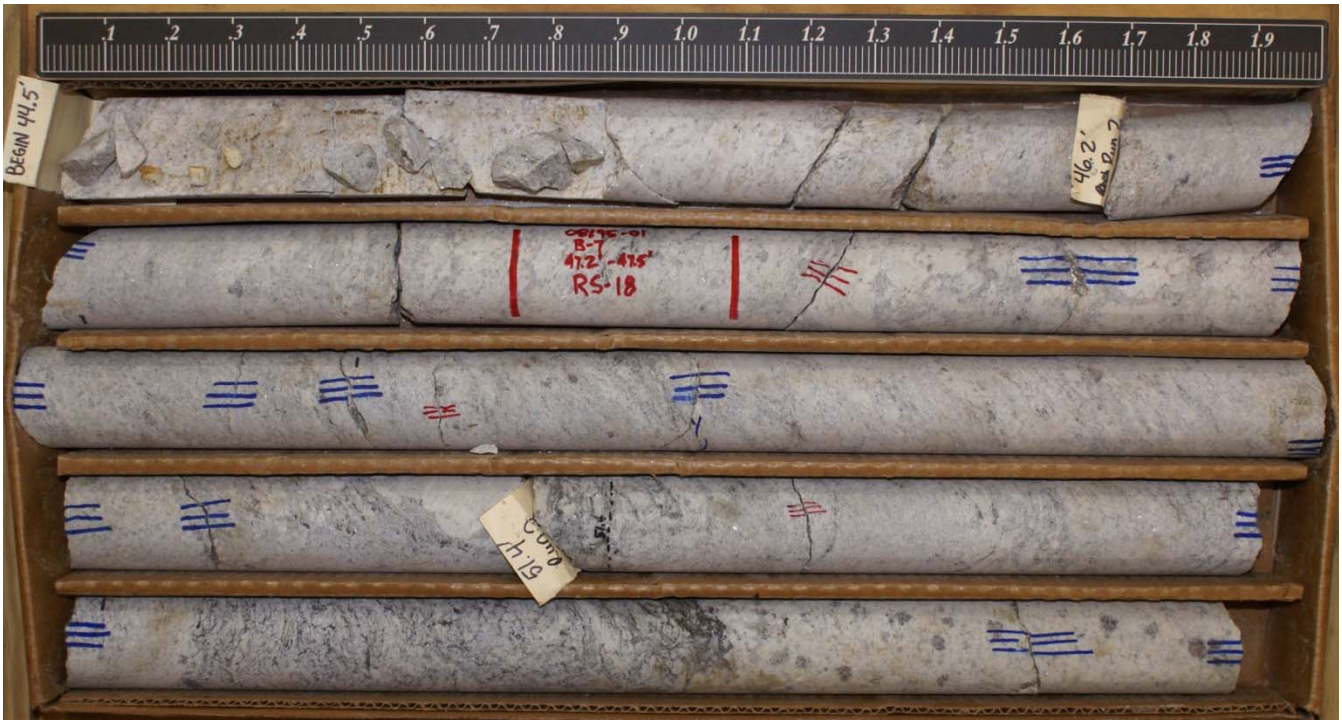
Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
		spacing w/T to VN width, Feldspar Quartz Granitoid Rock w/gneissic foliation in parts, scattered muscovite, biotite pods & laminae, trcs. garnets.		51.4						
	54.5	4 0°-30° jts., v. hard walls, 1mm open; 1 40° jt., v. hard walls, 0mm open; 1 35° foliation jt., hard walls, 0mm open			NQ-3					REC%=100, RQD%=100
914.6				56.0						
		White, lt. gray, black, trcs. lt. green, fresh, v. hard, med. to cse. crystalline, VC to C discontinuity spacing w/T to VN width, Feldspar Quartz Augite Gneiss w/granitoid intervals, biotite & scattered muscovite, garnetiferous.			NQ-4					REC%=96, RQD%=61
909.6				60.6						
					NQ-5					REC%=100, RQD%=100
	64.5	foliation 80°-90° 65° in bottom; 13 0° jts., v. hard walls, 0mm open; 1 20° jt., 1-10mm open; VC discontinuity spacing 56.8'-60.4' includes core loss								
904.6										
		Boring Terminated @ 64.5' (Elev. 905.1).								
899.6										
894.6										
889.6										
884.6										
879.6										
874.6										

LEGEND

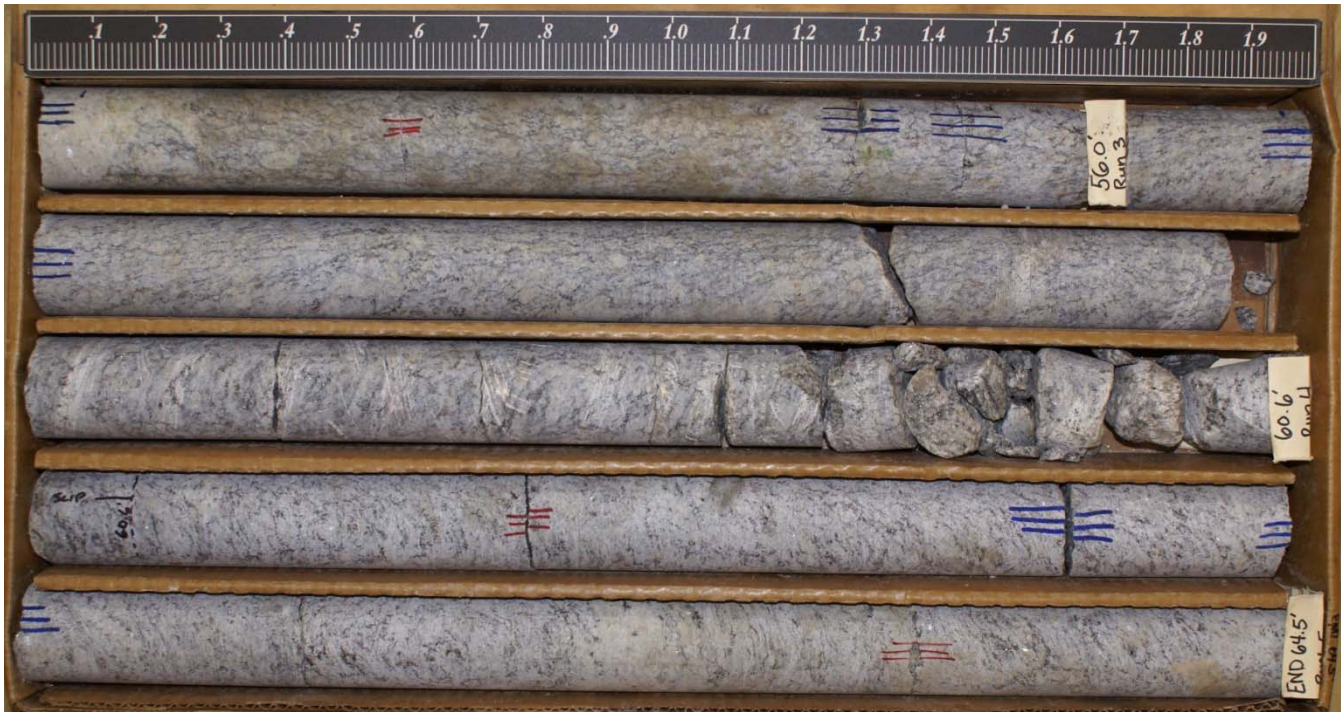
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements



B-7 Box 1 of 2

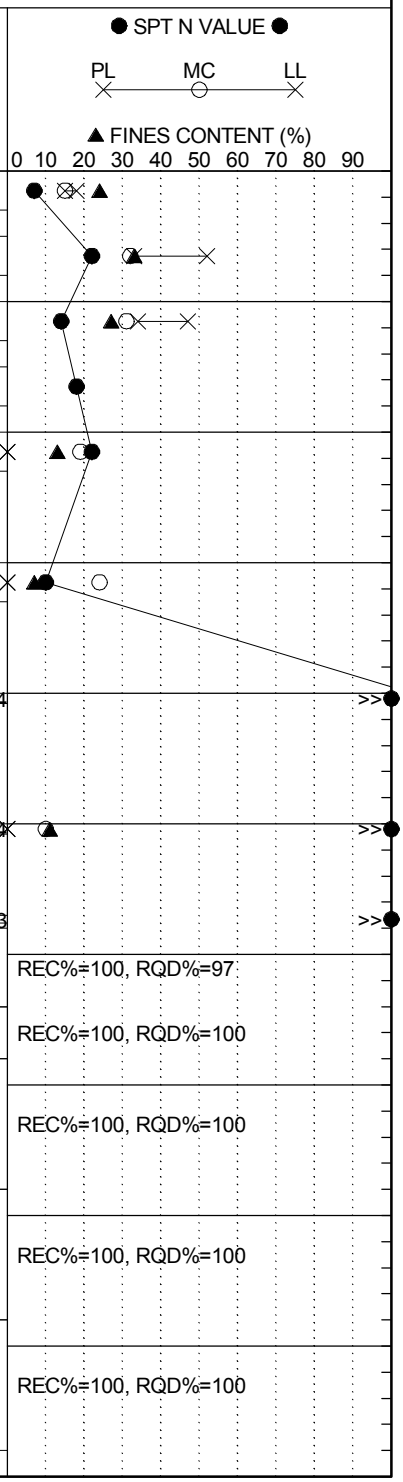


B-7 Box 2 of 2

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-8	**Boring Location:**	60+41	**Offset:**	5' Lt.	**Alignment:**	Ramp 2
Elev.:	1004.7 ft	**Latitude:**	34.83184	**Longitude:**	82.3006	**Date Started:**	1/4/2012
Total Depth:	49 ft	**Soil Depth:**	29.0 ft	**Core Depth:**	49.0 ft	**Date Completed:**	1/4/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0		0.0	SS-1	1	4	3	7
	2.0	Loose, red, non-reactive, silty SAND (SM/A-2-4). LL=18, PL=15, PI=3, NMC=15.4, %#200=23.8	2.5	SS-2	8	9	13	22
999.7	4.5	Medium dense, red, weakly reactive, silty SAND (SM/A-2-7). LL=52, PL=33, PI=19, NMC=31.7, %#200=33.1	5.0	SS-3	6	7	7	14
	7.0		7.5	SS-4	8	7	11	18
994.7	13.3	Medium dense, red, weakly reactive, silty SAND (SM/A-2-7). LL=47, PL=34, PI=13, NMC=30.8, %#200=26.6	10.0	SS-5	6	9	13	22
989.7	18.0	Loose to medium dense, tan & gray, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=19.2, %#200=12.8	15.0	SS-6	5	6	4	10
984.7		Very dense, tan & gray, non-reactive, poorly graded SAND with silt & gravel (SP-SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=24.1, %#200=6.7	20.0	SS-7	50/0.4			50/0.4
979.7		Very dense, blue, gray & tan, poorly graded SAND with silt and gravel (SP-SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=9.9, %#200=10.6	25.0	SS-8	50/0.4			50/0.4
	29.0		28.5	SS-9	50/0.3			50/0.3
974.7		Auger Refusal @ 29.0' Begin Coring.	29.0	NQ-1				
		White, lt. gray, black-dk. brown, pale pink-orange, trcs. pink-rose, fresh w/interval mod. weathered, hard to v. hard, med. to cse. crystalline w/megacrystalline pods, M discontinuity spacing w/T to N width, Feldspar Quartz Augite Schist w/orthoclase rich pods, trcs. mica, disseminated pyrite, widely scattered garnets.	32.0	NQ-2				
969.7			34.0	NQ-3				
964.7		4 0°-10° fracs. w/hard walls, faint iron stain, tight to 2mm open between 30.2'-31.2';1 20° frac. w/hard walls, tight, pyrite; assumed core loss 48.1'-49.0'	39.0	NQ-4				
959.7			44.0	NQ-5				
	49.0	Boring Terminated @ 49.0' (Elev. 955.7).						

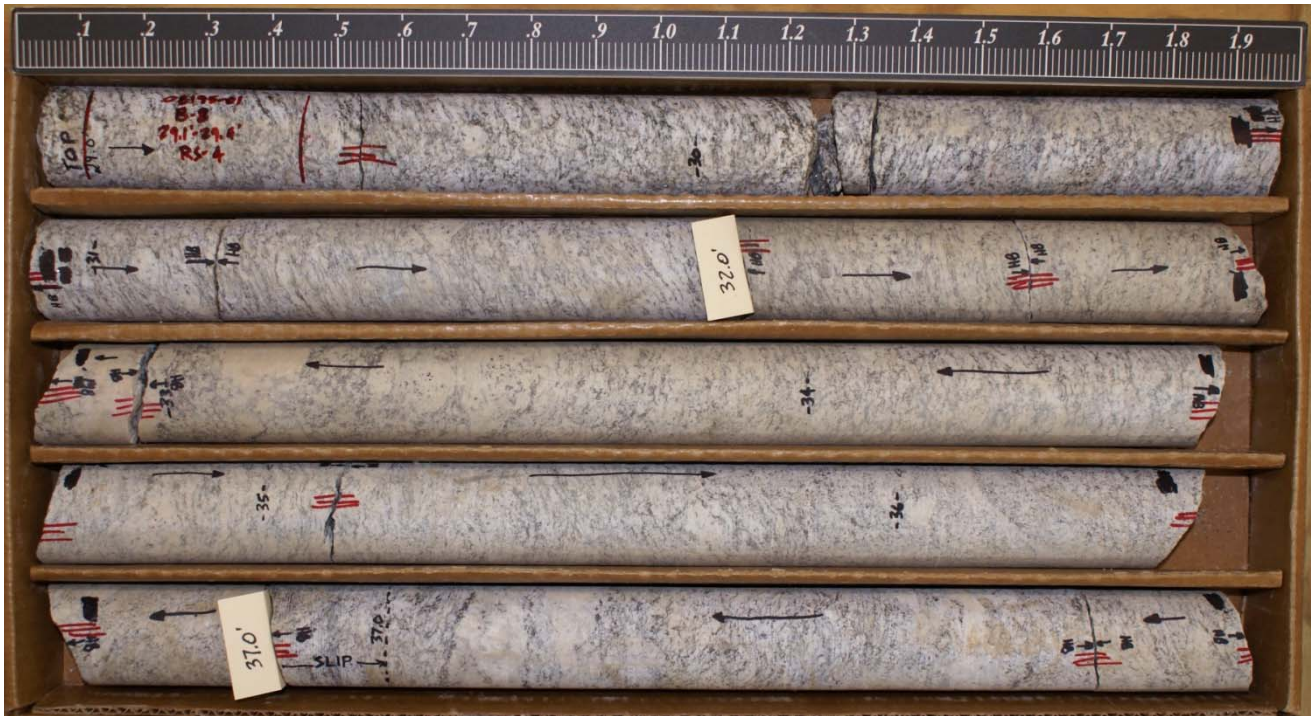


LEGEND

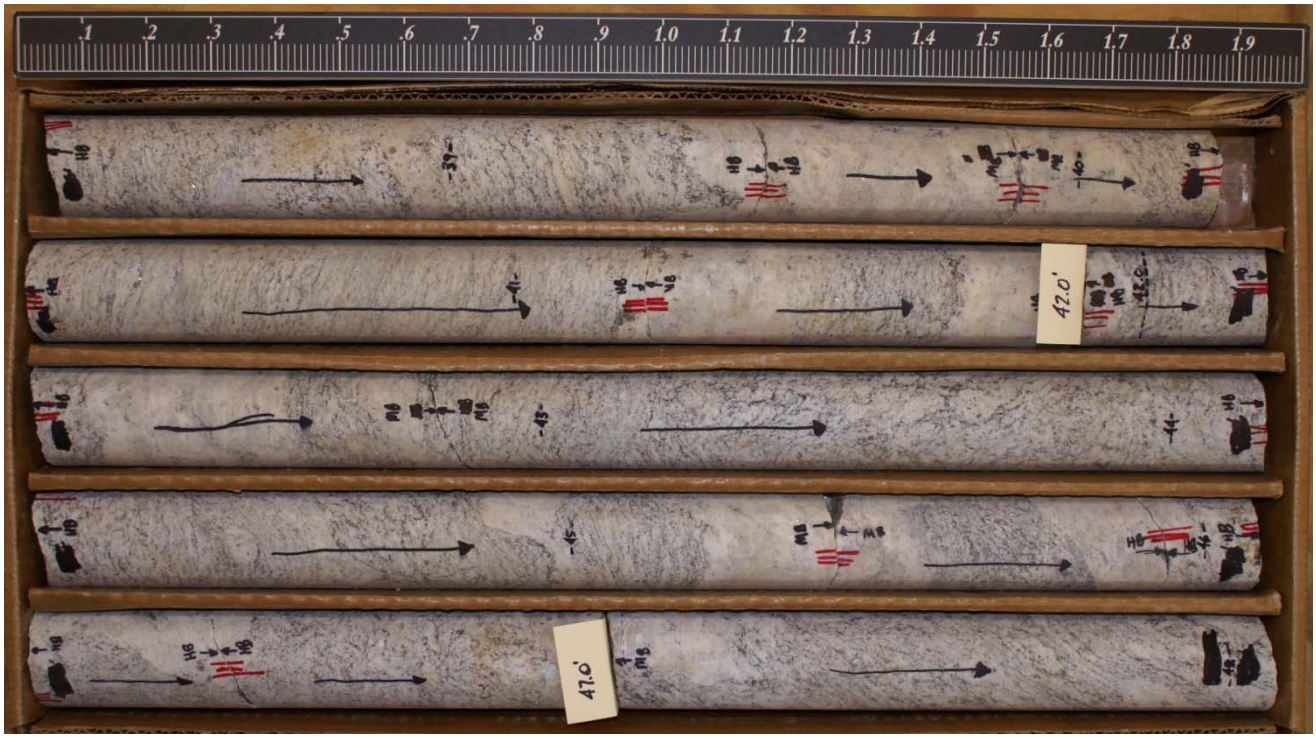
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements



B-8 Box 1 of 2



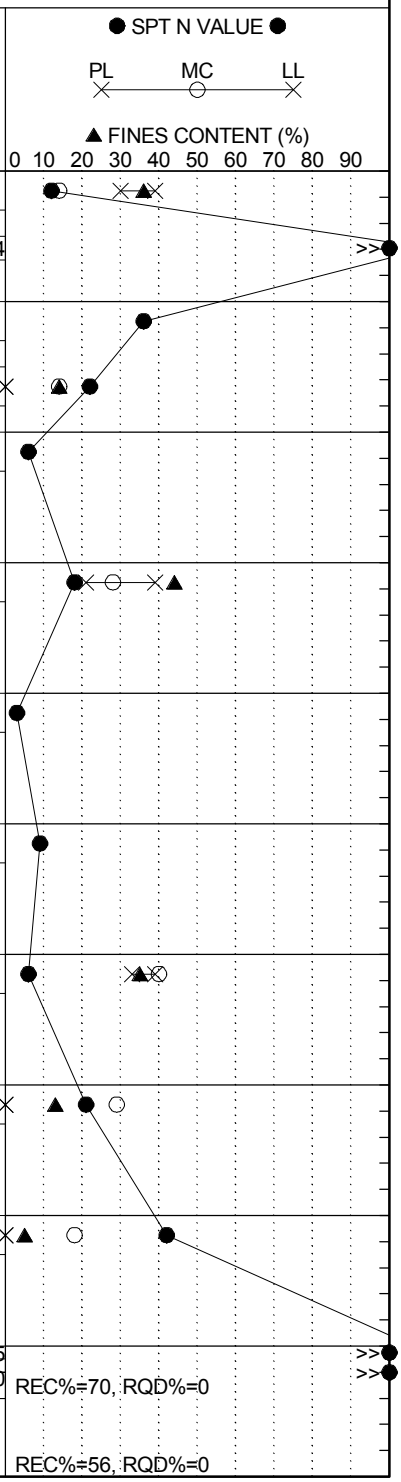
B-8 Box 2 of 2

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-9	**Boring Location:**	411+13	**Offset:**	71' Rt.	**Alignment:**	Ramp 4B
Elev.:	1005.4 ft	**Latitude:**	34.83252	**Longitude:**	82.30001	**Date Started:**	2/1/2012
Total Depth:	66 ft	**Soil Depth:**	46.0 ft	**Core Depth:**	66.0 ft	**Date Completed:**	2/2/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION
	0.0	Medium dense to very dense, red, weakly reactive, silty SAND (SM/A-4). LL=39, PL=30, PI=9, NMC=13.6, %#200=35.9
1000.4	4.5	Medium dense to dense, red & brown, weakly reactive, silty SAND with gravel (SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=13.9, %#200=13.7
995.4	9.5	Very loose to medium dense, red, tan & gray, clayey SAND (SC/A-6). LL=39, PL=21, PI=18, NMC=28.2, %#200=44.1
990.4		
985.4		
980.4	23.3	Loose, brown, weakly reactive, silty SAND (SM/A-2-4).
975.4	28.3	Loose to medium dense, brown, non-reactive, silty SAND (SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=29.3, %#200=13.2
970.4		
965.4	38.3	Dense to very dense, brown & tan, non-reactive, poorly graded GRAVEL with silt and sand (GP-GM/A-1-a). LL=NP, PL=NP, PI=NP, NMC=17.3, %#200=5.2
960.4	46.0	Auger Refusal @ 46.0' Begin Coring. Brown-Orange-Red stain, off white, lt. gray, black, highly weathered w/intervals

Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	SS-1	2	5	7	12
2.5	SS-2	3	50/0.4		50/0.4
5.0	SS-3	4	26	10	36
7.5	SS-4	27	17	05	22
10.0	SS-5	3	2	4	6
15.0	SS-6	4	7	11	18
20.0	SS-7	2	1	2	3
25.0	SS-8	2	3	6	9
30.0	SS-9	3	2	4	6
35.0	SS-10	6	10	11	21
40.0	SS-11	18	20	22	42
45.0	SS-12	50/0.5			50/0.5
46.0	SS-13	50/0.0			50/0.0
46.0	NQ-1				REC%=70, RQD%=0
47.0	NQ-2				REC%=56, RQD%=0



LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-9	**Boring Location:**	411+13	**Offset:**	71' Rt.	**Alignment:**	Ramp 4B
Elev.:	1005.4 ft	**Latitude:**	34.83252	**Longitude:**	82.30001	**Date Started:**	2/1/2012
Total Depth:	66 ft	**Soil Depth:**	46.0 ft	**Core Depth:**	66.0 ft	**Date Completed:**	2/2/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

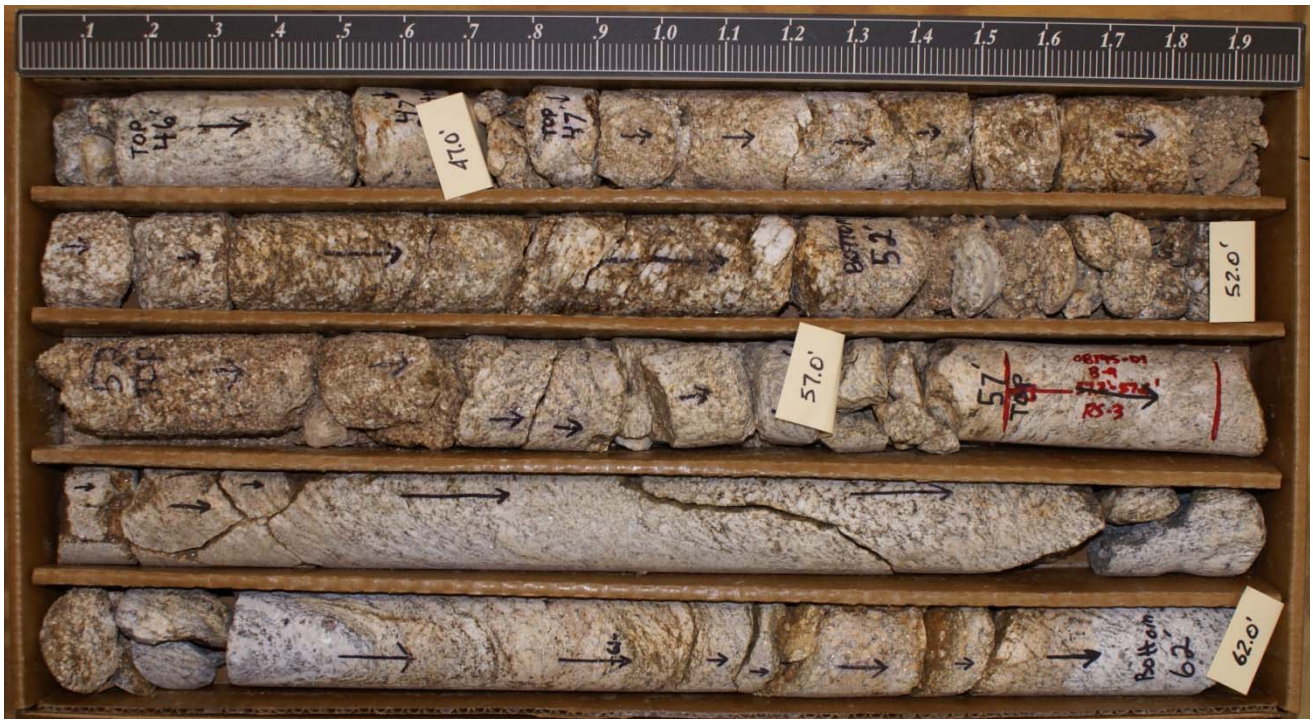
Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
		completely weathered, mod. hard, med. to cse. crystalline w/megacrystalline grains & pods, VC discontinuity spacing w/N to MW width, Feldspar Quartz Augite Gneiss w/granitoid intervals, scattered muscovite.		52.0						
950.4		numerous fracs. & weathered intervals			NQ-3					REC%=26, RQD%=0
	57.0			57.0						
		White, lt. gray, black, brown-orange-red stain, widely scattered pink-rose & pale brown, fresh w/interval mod. to highly weathered, hard to v. hard, med. to cse. crystalline w/megacrystalline pods, VC discontinuity spacing w/N to MW width, Feldspar Quartz Augite Schist w/scattered muscovite & garnets.			NQ-4					REC%=90, RQD%=54
945.4				62.0						
					NQ-5					REC%=98, RQD%=98
940.4	66.0	8 65°-90° fracs. w/iron stain, mica, rough walls, 1-3mm open; 9 10°-30° fracs. w/hard walls, iron stain, 1-4mm open								
		Boring Terminated @ 66.0' (Elev. 939.4).								
935.4										
930.4										
925.4										
920.4										
915.4										
910.4										

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements



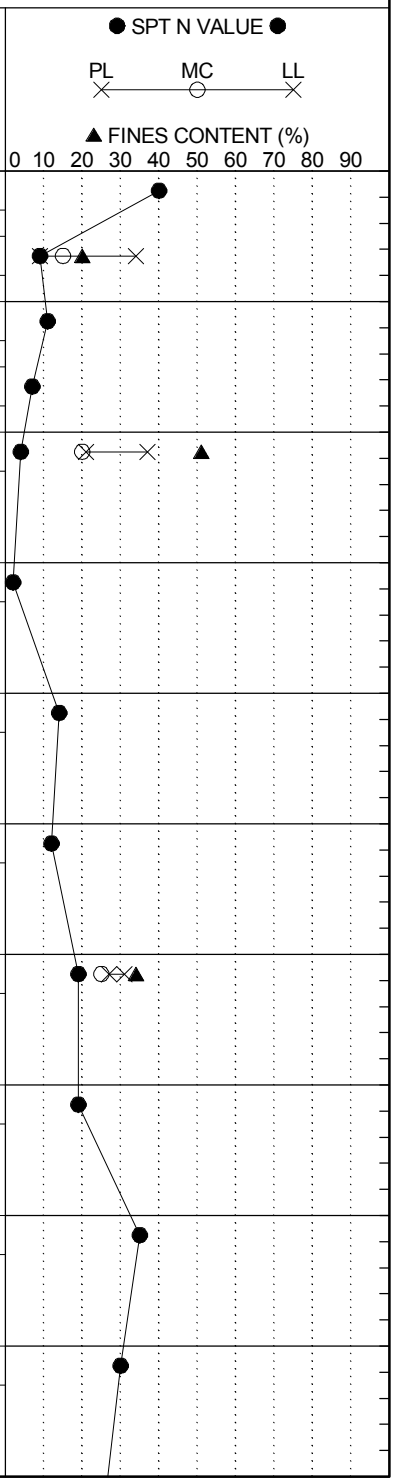
B-9 Box 1 of 2

B-9 Box 2 of 2

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-10	**Boring Location:**	408+78	**Offset:**	94' Rt.	**Alignment:**	Ramp 4B
Elev.:	999.8 ft	**Latitude:**	34.83311	**Longitude:**	82.29955	**Date Started:**	1/19/2012
Total Depth:	102 ft	**Soil Depth:**	80.0 ft	**Core Depth:**	102.0 ft	**Date Completed:**	1/31/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Loose to dense, red, tan & brown,weakly reactive, clayey SAND with gravel (SC/A-2-6). LL=34, PL=9, PI=25, NMC=14.5, %#200=20.0	0.0	SS-1	4	19	21	40
			2.5	SS-2	3	4	5	9
994.8			5.0	SS-3	2	3	8	11
	7.0	Very soft to firm, gray & red, non to weakly reactive, sandy lean CLAY (CL/A-6). LL=37, PL=21, PI=16, NMC=19.8, %#200=50.8	7.5	SS-4	2	5	2	7
989.8			10.0	SS-5	0	2	2	4
984.8			15.0	SS-6	0	1	1	2
	18.3	Medium dense, tan, brown, red & orange, silty SAND (SM/A-2-4). LL=31, PL=27, PI=4, NMC=24.6, %#200=33.9	20.0	SS-7	6	5	9	14
979.8								
974.8			25.0	SS-8	6	5	7	12
969.8			30.0	SS-9	5	9	10	19
964.8			35.0	SS-10	5	9	10	19
	38.3	Medium dense to very dense, brown, orange, white, tan & dark brown, non-reactive, silty SAND (SM/A-2-4). LL=33, PL=24, PI=9, NMC=17.3, %#200=14.8	40.0	SS-11	9	17	18	35
959.8								
954.8			45.0	SS-12	8	12	18	30
			50.0					



LEGEND

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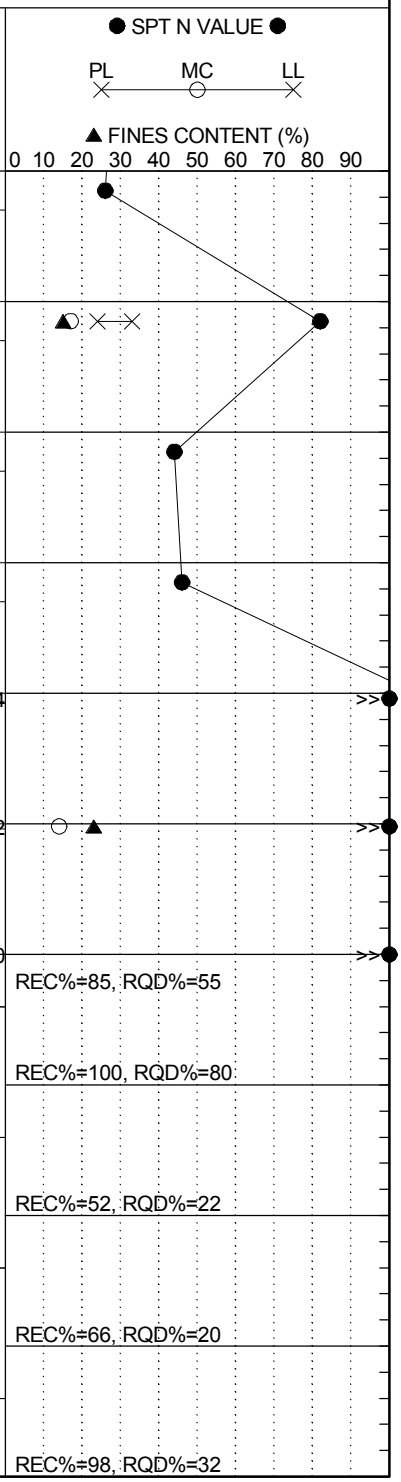
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-10	**Boring Location:**	408+78	**Offset:**	94' Rt.	**Alignment:**	Ramp 4B
Elev.:	999.8 ft	**Latitude:**	34.83311	**Longitude:**	82.29955	**Date Started:**	1/19/2012
Total Depth:	102 ft	**Soil Depth:**	80.0 ft	**Core Depth:**	102.0 ft	**Date Completed:**	1/31/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	REC%=, RQD%=
				SS-13	15	11	15	26	
944.8			55.0	SS-14	25	42	40	82	
939.8			60.0	SS-15	16	19	25	44	
934.8			65.0	SS-16	32	25	21	46	
929.8			70.0	SS-17	50/0.4			50/0.4	
	73.3	Very dense, red, tan & dark brown, non-reactive, silty SAND with gravel (SM/A-2-4). LL=NA, PL=NA, PI=NA, NMC=13.8, %#200=23.4							
924.8			75.0	SS-18	50/0.2			50/0.2	
919.8	80.0	Auger Refusal @ 80.0' Begin Coring.	80.0	SS-19	50/0.0			50/0.0	
		White, lt. gray, pale yellow, trcs. gray-green & rose-pink, scattered iron stain, sli. to mod. weathered w/intervals highly weathered, v. hard, cse. crystalline to megacrystalline, VC to C discontinuity spacing w/VN to N width, Feldspar Quartz Pegmatite w/muscovite pods & layers, trcs. garnets.	80.0	NQ-1					REC%=85, RQD%=55
914.8			82.0	NQ-2					REC%=100, RQD%=80
		4 70°-90° fracs. w/rough walls, trcs. clay 1-2mm open; 6 0°-20° fracs. w/hard walls, some walls rough, 1mm open; interpreted core loss 88.6'-90.9'	87.0	NQ-3					REC%=52, RQD%=22
909.8	90.9								
	92.0	Gray, lt. gray, clear, sli. weathered, v. hard, Quartzite w/pegmatite vein.	92.0	NQ-4					REC%=66, RQD%=20
904.8		1 70° frac. w/smooth walls, tight; 4 0° fracs. w/ hard walls	97.0						
		Gray, off white, black flecks, rose-pink, sli. weathered w/seams mod. weathered, hard to		NQ-5					REC%=98, RQD%=32



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LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-10	**Boring Location:**	408+78	**Offset:**	94' Rt.	**Alignment:**	Ramp 4B
Elev.:	999.8 ft	**Latitude:**	34.83311	**Longitude:**	82.29955	**Date Started:**	1/19/2012
Total Depth:	102 ft	**Soil Depth:**	80.0 ft	**Core Depth:**	102.0 ft	**Date Completed:**	1/31/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

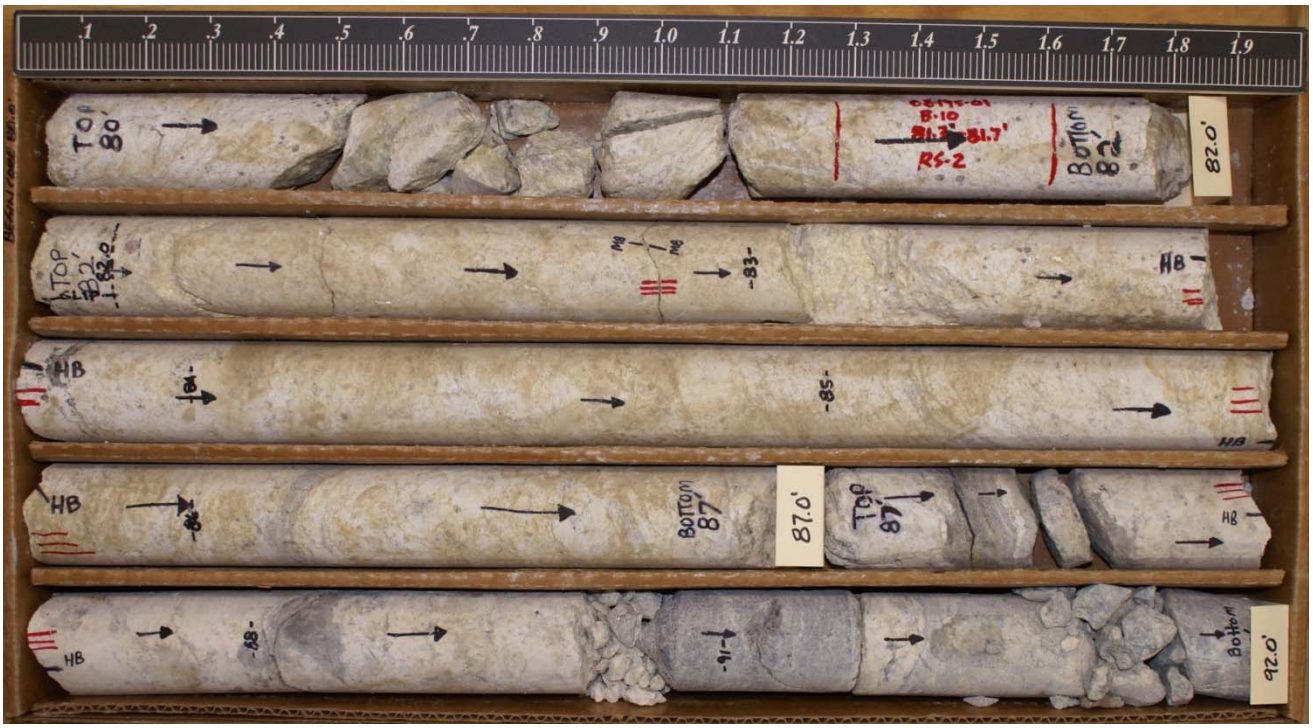
Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	102.0	v. hard, med. crystalline & equigranular w/veins & pods cse. to megacrystalline, VC discontinuity spacing w/T to N width, Quartz Biotite Schist w/Feldspar Quartz Pegmatite veins & pods, pyrite disseminated & along frac. walls, scattered garnets.								
894.8		interpreted core loss 92.7'-94.4'; 4 70°-90° fracs. w/clay film 1-2mm open; 14 40°-50° fracs. w/mod. weathered surfaces, trcs. clay, 2mm open; 24 10°-20° fracs. w/hard walls, some walls rough, 1-2mm open								
889.8		Boring Terminated @ 102.0' (Elev. 897.8).								
884.8		Ground was frozen resulting in higher than expected blow counts for SS-1. At approximately 7.5' the drill bit became tangled with a chain link fence underground, boring moved approximately 5' and drilling resumed with SS-4 @ 7.5'. Crushed rock layer located at approximately 88.65'.								
879.8										
874.8										
869.8										
864.8										
859.8										
854.8										

LEGEND

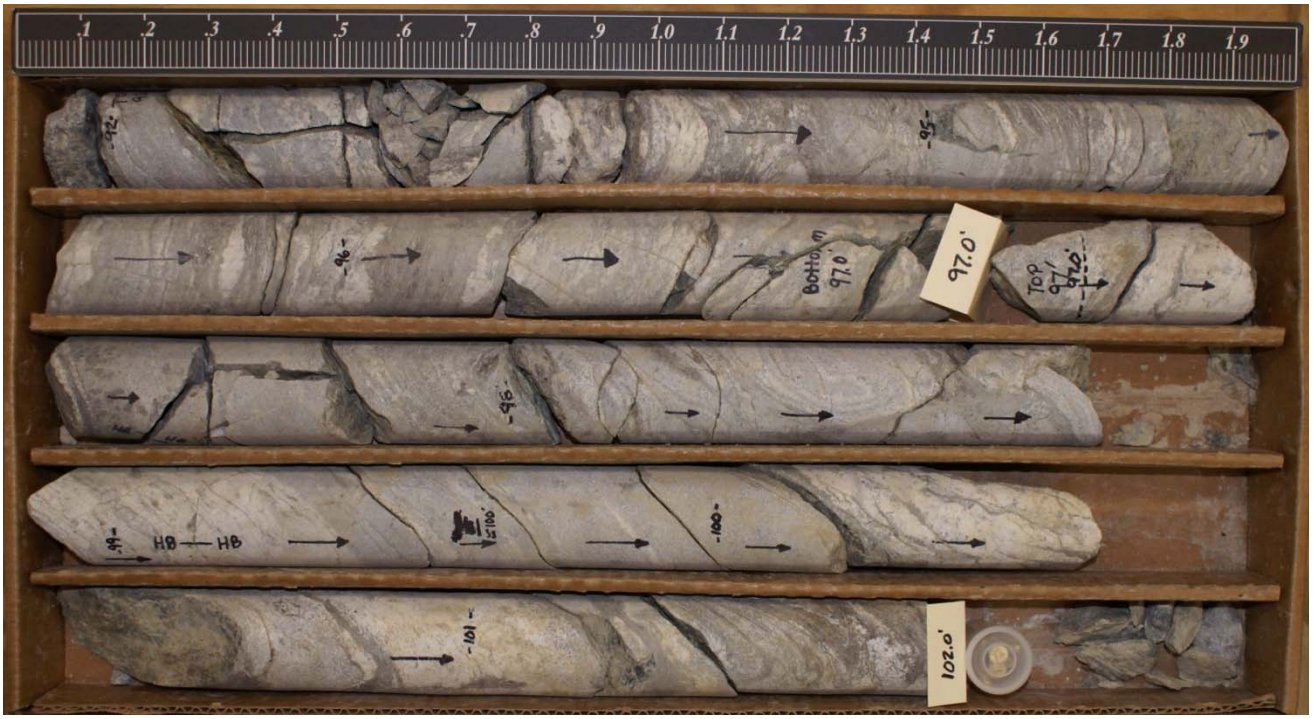
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements



B-10 Box 1 of 2

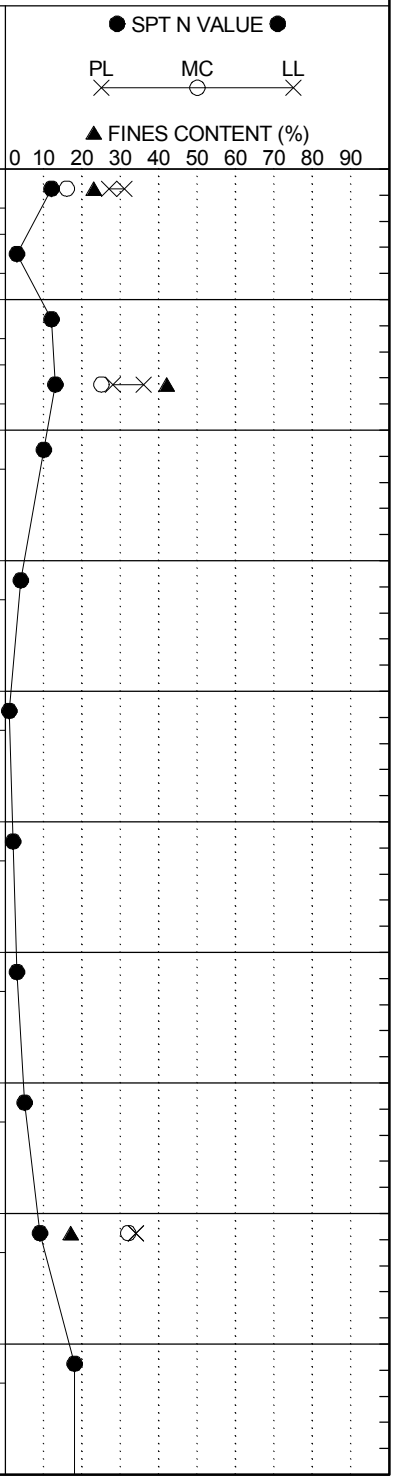


B-10 Box 2 of 2

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-11	**Boring Location:**	404+98	**Offset:**	94' Lt.	**Alignment:**	I-385
Elev.:	1005.7 ft	**Latitude:**	34.83368	**Longitude:**	82.29895	**Date Started:**	1/18/2012
Total Depth:	101.5 ft	**Soil Depth:**	101.5 ft	**Core Depth:**	ft	**Date Completed:**	1/18/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, red & tan, weakly reactive, silty SAND with gravel (SM/A-1-b). LL=31, PL=27, PI=4, NMC=15.9, %#200=23.3	0.0	SS-1	1	4	8	12
	2.0		2.5	SS-2	2	1	2	3
1000.7		Very loose to medium dense, red, tan & gray, non-reactive, silty SAND (SM/A-4). LL=36, PL=28, PI=8, NMC=25.1, %#200=42.3	5.0	SS-3	1	5	7	12
			7.5	SS-4	2	7	6	13
995.7			10.0	SS-5	2	3	7	10
990.7			15.0	SS-6	3	2	2	4
	18.3	Very loose to medium dense, tan, brown, white & black, non to weakly reactive, silty SAND (SM/A-2-4). LL=34, PL=34, PI=NP, NMC=31.7, %#200=16.9	20.0	SS-7	WOH	WOH	1	1
985.7			25.0	SS-8	1	1	1	2
980.7			30.0	SS-9	1	1	2	3
975.7			35.0	SS-10	2	2	3	5
970.7			40.0	SS-11	3	3	6	9
965.7			45.0	SS-12	7	9	9	18
960.7			50.0					



LEGEND

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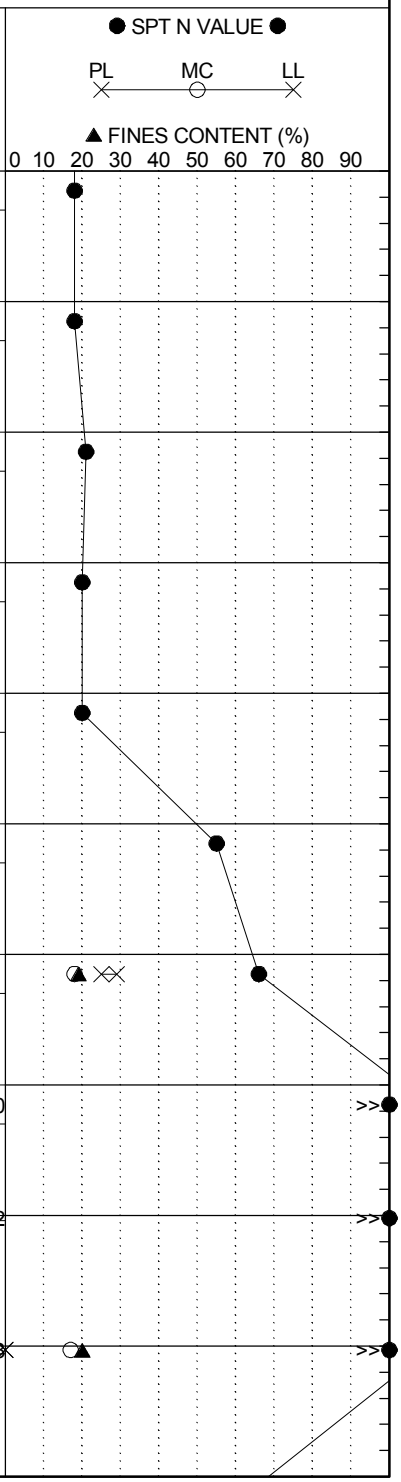
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-11	**Boring Location:**	404+98	**Offset:**	94' Lt.	**Alignment:**	I-385
Elev.:	1005.7 ft	**Latitude:**	34.83368	**Longitude:**	82.29895	**Date Started:**	1/18/2012
Total Depth:	101.5 ft	**Soil Depth:**	101.5 ft	**Core Depth:**	ft	**Date Completed:**	1/18/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
950.7			55.0	SS-13	7	8	10	18
945.7			60.0	SS-14	11	9	9	18
940.7			65.0	SS-15	7	9	12	21
935.7			70.0	SS-16	7	9	11	20
	73.3	Very dense, tan, white and black, non-reactive, silty SAND (SM/A-1-b). LL=29, PL=25, PI=4, NMC=18.3, %#200=18.8	75.0	SS-17	8	10	10	20
930.7			80.0	SS-18	10	26	29	55
925.7			85.0	SS-19	22	28	38	66
920.7			90.0	SS-20	17	22	50/0.5	72/1.0
	88.3	Very dense, black & tan, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=17.1, %#200=19.9	95.0	SS-21	50/0.2			50/0.2
915.7			100.0	SS-22	50/0.3			50/0.3
910.7								
	98.3	Very dense, white, tan & brown, non-reactive,						



LEGEND

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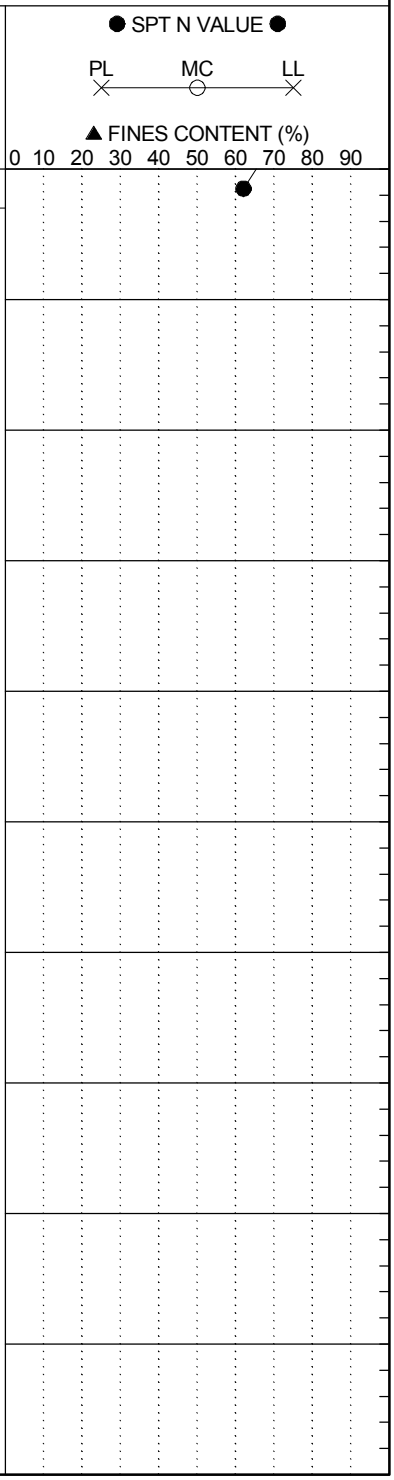
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-11	**Boring Location:**	404+98	**Offset:**	94' Lt.	**Alignment:**	I-385
Elev.:	1005.7 ft	**Latitude:**	34.83368	**Longitude:**	82.29895	**Date Started:**	1/18/2012
Total Depth:	101.5 ft	**Soil Depth:**	101.5 ft	**Core Depth:**	ft	**Date Completed:**	1/18/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	101.5	silty SAND (SM/A-1-b).			SS-23	16	18	44	62
		No Refusal & Boring Terminated @ 101.5' (Elev. 904.2).							
900.7									
895.7									
890.7									
885.7									
880.7									
875.7									
870.7									
865.7									
860.7									



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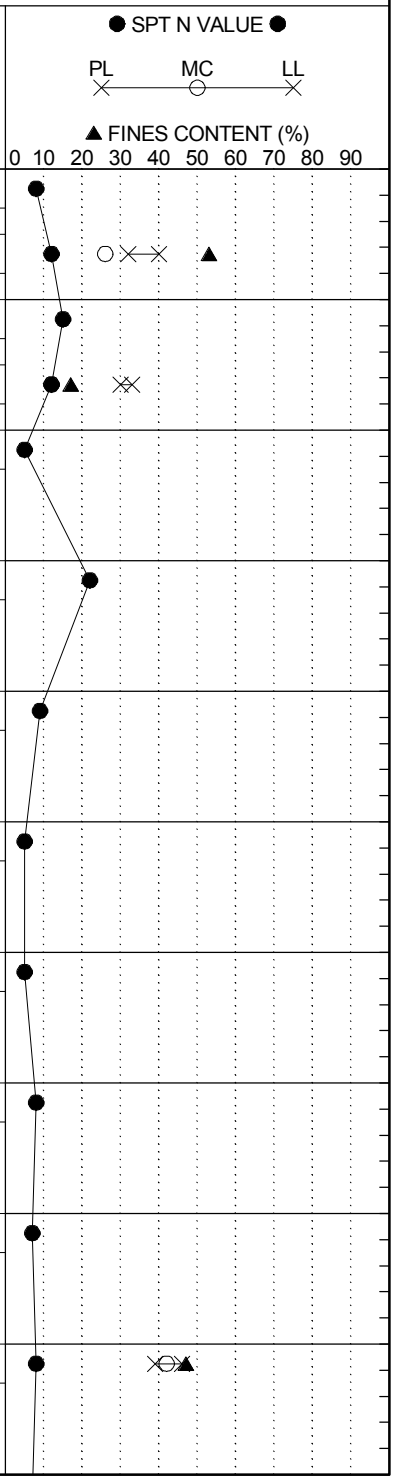
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-12	**Boring Location:**	404+37	**Offset:**	95' Rt.	**Alignment:**	I-385
Elev.:	1013.8 ft	**Latitude:**	34.83407	**Longitude:**	82.29848	**Date Started:**	1/6/2012
Total Depth:	101.5 ft	**Soil Depth:**	101.5 ft	**Core Depth:**	ft	**Date Completed:**	1/10/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Firm to stiff, red & tan, non-reactive, sandy SILT (ML/A-4). LL=40, PL=32, PI=8, NMC=25.5, %#200=52.5	0.0	SS-1	8	4	4	8
			2.5	SS-2	3	6	6	12
1008.8	4.5	Loose to medium dense, tan, non-reactive, silty SAND with gravel (SM/A-1-b). LL=33, PL=30, PI=3, NMC=12.4, %#200=16.6	5.0	SS-3	5	5	10	15
			7.5	SS-4	14	7	5	12
1003.8			10.0	SS-5	4	3	2	5
998.8	13.3	Very stiff, red, non-reactive, sandy SILT (ML/A-4).	15.0	SS-6	4	9	13	22
993.8	18.3	Loose to medium dense, yellow, gray & white, silty SAND (SM/A-5). LL=46, PL=39, PI=7, NMC=42.1, %#200=46.7	20.0	SS-7	3	4	5	9
988.8			25.0	SS-8	2	2	3	5
983.8			30.0	SS-9	1	2	3	5
978.8			35.0	SS-10	4	4	4	8
973.8			40.0	SS-11	3	3	4	7
968.8			45.0	SS-12	2	3	5	8
			50.0					



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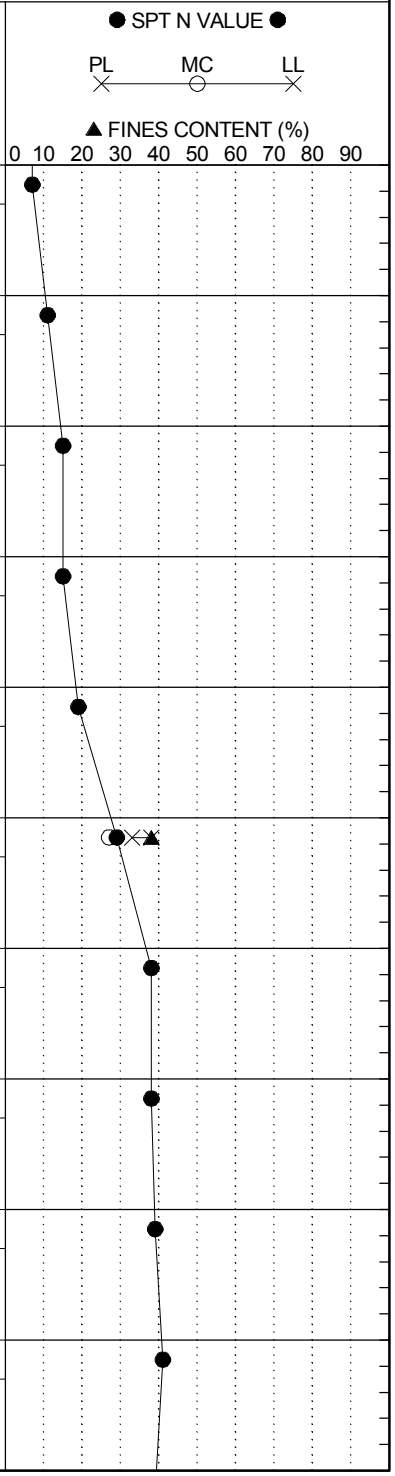
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-12	**Boring Location:**	404+37	**Offset:**	95' Rt.	**Alignment:**	I-385
Elev.:	1013.8 ft	**Latitude:**	34.83407	**Longitude:**	82.29848	**Date Started:**	1/6/2012
Total Depth:	101.5 ft	**Soil Depth:**	101.5 ft	**Core Depth:**	ft	**Date Completed:**	1/10/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
958.8			55.0	SS-13	2	3	4	7
				SS-14	3	5	6	11
	58.3	Medium dense to dense, tan, white & brown, non-reactive, silty SAND (SM/A-4). LL=38, PL=33, PI=5, NMC=26.7, %#200=37.8	60.0	SS-15	4	6	9	15
953.8								
948.8			65.0	SS-16	4	6	9	15
943.8			70.0	SS-17	4	8	11	19
938.8			75.0	SS-18	6	12	17	29
933.8			80.0	SS-19	10	17	21	38
928.8			85.0	SS-20	7	16	22	38
923.8			90.0	SS-21	10	18	21	39
918.8			95.0	SS-22	13	18	23	41
			100.0					



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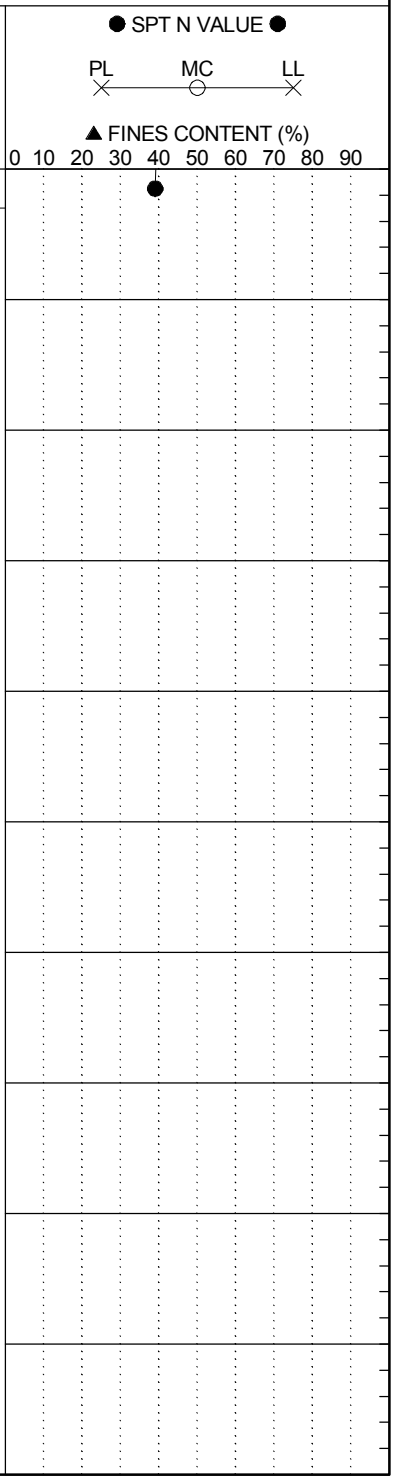
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-12	**Boring Location:**	404+37	**Offset:**	95' Rt.	**Alignment:**	I-385
Elev.:	1013.8 ft	**Latitude:**	34.83407	**Longitude:**	82.29848	**Date Started:**	1/6/2012
Total Depth:	101.5 ft	**Soil Depth:**	101.5 ft	**Core Depth:**	ft	**Date Completed:**	1/10/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	101.5				SS-23	8	11	28	39
		No Refusal & Boring Terminated @ 101.5' (Elev. 912.3).							
908.8									
903.8									
898.8									
893.8									
888.8									
883.8									
878.8									
873.8									
868.8									



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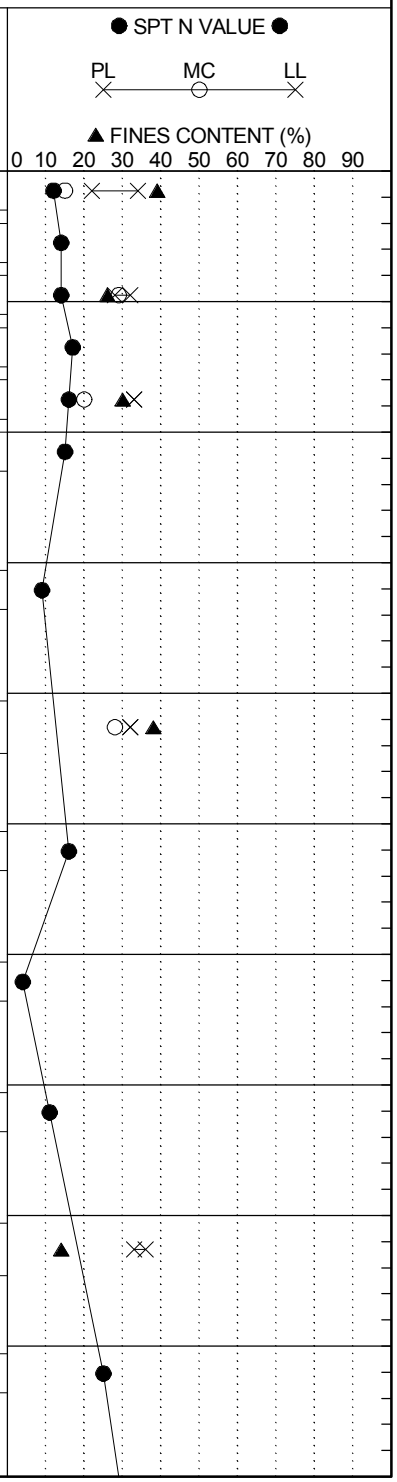
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-13	**Boring Location:**	307+24	**Offset:**	82' Lt.	**Alignment:**	Ramp 3A
Elev.:	1007.7 ft	**Latitude:**	34.83461	**Longitude:**	82.29752	**Date Started:**	11/17/11
Total Depth:	101.8 ft	**Soil Depth:**	101.8 ft	**Core Depth:**	ft	**Date Completed:**	11/18/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	93%
Core Size:	NA	**Driller:**	F. Woodard	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION
	0.0	
	1.8	Medium dense, brown & red, non-reactive, clayey SAND with gravel (SC/A-6). LL=34, PL=22, PI=12, NMC=14.7, %#200=38.7
1002.7	5.8	Medium dense, brown, non-reactive, silty SAND (SM/A-2-4). LL=32, PL=28, PI=4, NMC=28.6, %#200=26.2
997.7		Loose to medium dense, brown & red, non to weakly reactive, silty SAND (SM/A-2-4). LL=33, PL=33, PI=NP, NMC=20.0, %#200=30.1
992.7	18.6	Loose to medium dense, brown, non-reactive, silty SAND (SM/A-4). LL=32, PL=32, PI=NP, NMC=28.4, %#200=37.8
987.7	23.1	Very loose to medium dense, brown & white, non-reactive, silty SAND (SM/A-2-4).
982.7		
977.7		
972.7	38.6	Medium dense, brown, non-reactive, silty SAND (SM/A-2-4). LL=36, PL=33, PI=3, NMC=NA, %#200=13.5
967.7	43.0	Medium dense to very dense, brown & white, non-reactive, silty SAND (SM/A-2-4). LL=39, PL=39, PI=NP, NMC=27.7, %#200=23.7
962.7		

Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	SS-1	4	5	7	12
2.0	SS-2	5	6	8	14
4.0	SS-3	3	6	8	14
6.0	SS-4	2	8	9	17
8.0	SS-5	4	7	9	16
10.0	SS-6	5	6	7	15
15.3	SS-7	3	4	5	9
20.3	ST-1				
25.3	SS-8	3	7	9	16
30.3	SS-9	2	2	2	4
35.3	SS-10	3	5	6	11
40.3	ST-2				
45.3	SS-11	9	10	15	25



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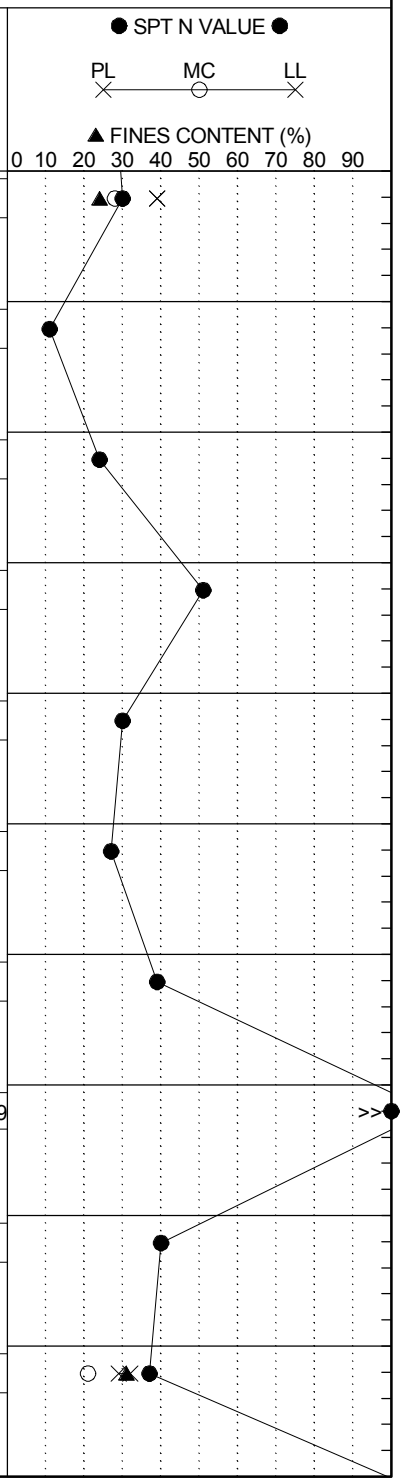
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-13	**Boring Location:**	307+24	**Offset:**	82' Lt.	**Alignment:**	Ramp 3A
Elev.:	1007.7 ft	**Latitude:**	34.83461	**Longitude:**	82.29752	**Date Started:**	11/17/11
Total Depth:	101.8 ft	**Soil Depth:**	101.8 ft	**Core Depth:**	ft	**Date Completed:**	11/18/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	93%
Core Size:	NA	**Driller:**	F. Woodard	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
			50.3	SS-12	6	10	20	30
952.7			55.3	SS-13	6	5	6	11
947.7			60.3	SS-14	11	15	9	24
942.7			65.3	SS-15	17	29	22	51
937.7			70.3	SS-16	9	13	17	30
	73.6	Medium dense to very dense, brown & white, non-reactive, silty SAND (SM/A-2-4). LL=32, PL=29, PI=3, NMC=20.5, %#200=30.6						
932.7			75.3	SS-17	10	13	14	27
927.7			80.3	SS-18	13	14	25	39
922.7			85.3	SS-19	14	30	50/0.4	80/0.9
917.7			90.3	SS-20	10	20	20	40
912.7			95.3	SS-21	9	15	22	37



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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-13	**Boring Location:**	307+24	**Offset:**	82' Lt.	**Alignment:**	Ramp 3A
Elev.:	1007.7 ft	**Latitude:**	34.83461	**Longitude:**	82.29752	**Date Started:**	11/17/11
Total Depth:	101.8 ft	**Soil Depth:**	101.8 ft	**Core Depth:**	ft	**Date Completed:**	11/18/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	93%
Core Size:	NA	**Driller:**	F. Woodard	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	101.8			100.3	SS-22	25	50/0.3		50/0.3
		Rotary Bit Refusal & Boring Terminated @ 101.8' (Elev. 905.9).							
902.7									
897.7									
892.7									
887.7									
882.7									
877.7									
872.7									
867.7									
862.7									

● SPT N VALUE ●

PL MC LL

▲ FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

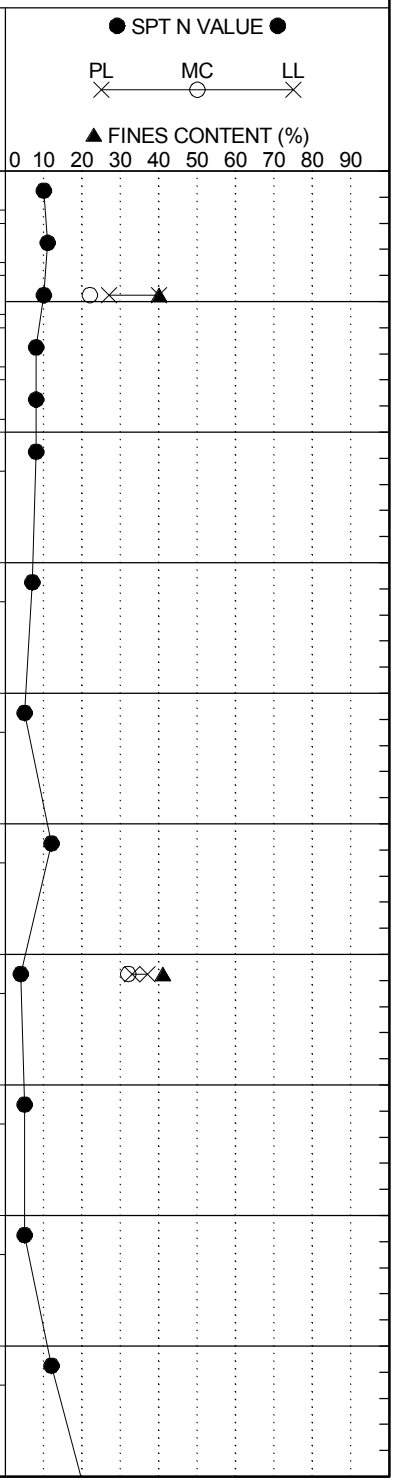
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-14	**Boring Location:**	303+99	**Offset:**	54' Lt.	**Alignment:**	Ramp 3A
Elev.:	1000.7 ft	**Latitude:**	34.83471	**Longitude:**	82.29644	**Date Started:**	11/6/2011
Total Depth:	110.8 ft	**Soil Depth:**	90.8 ft	**Core Depth:**	110.8 ft	**Date Completed:**	11/8/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	RW/RC	**Hammer Type:**	Automatic	**Energy Ratio:**	93%
Core Size:	NQ2	**Driller:**	F. Woodard	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Loose, red, non-reactive, silty SAND (SM/A-6). LL=40, PL=27, PI=13, NMC=22.1, %#200=38.8	0.0	SS-1	4	4	6	10
			2.0	SS-2	4	5	6	11
995.7			4.0	SS-3	3	4	6	10
			6.0	SS-4	2	4	4	8
			8.0	SS-5	2	3	5	8
990.7	9.8	Very loose to medium dense, brown, red, tan & white, non to weakly reactive, silty SAND (SM/A-4). LL=37, PL=33, PI=4, NMC=31.5, %#200=40.6	10.0	SS-6	2	2	6	8
985.7			15.0	SS-7	2	3	4	7
980.7			20.0	SS-8	2	3	2	5
975.7			25.0	SS-9	4	5	7	12
970.7			30.0	SS-10	1	2	2	4
965.7			35.0	SS-11	1	2	3	5
960.7			40.0	SS-12	2	2	3	5
	43.3	Medium dense to very dense, brown, tan & white, non-reactive, silty SAND (SM/A-1-b). LL=31, PL=31, PI=NP, NMC=19.8, %#200=20.1						
955.7			45.0	SS-13	8	6	6	12
			50.0					



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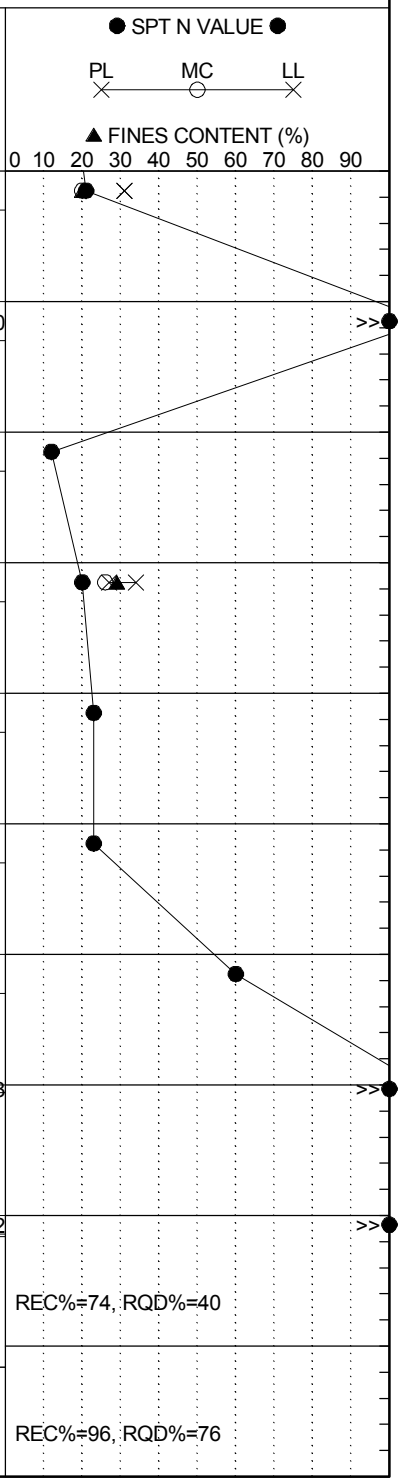
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-14	**Boring Location:**	303+99	**Offset:**	54' Lt.	**Alignment:**	Ramp 3A
Elev.:	1000.7 ft	**Latitude:**	34.83471	**Longitude:**	82.29644	**Date Started:**	11/6/2011
Total Depth:	110.8 ft	**Soil Depth:**	90.8 ft	**Core Depth:**	110.8 ft	**Date Completed:**	11/8/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	RW/RC	**Hammer Type:**	Automatic	**Energy Ratio:**	93%
Core Size:	NQ2	**Driller:**	F. Woodard	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
945.7			55.0	SS-14	20	8	13	21
				SS-15	13	28	50/0.5	78/1.0
	58.3	Medium dense to very dense, brown, tan & white, non-reactive, silty SAND (SM/A-2-4). LL=34, PL=27, PI=7, NMC=25.8, %#200=29.1						
940.7			60.0	SS-16	8	5	7	12
935.7			65.0	SS-17	6	9	11	20
930.7			70.0	SS-18	2	7	16	23
925.7			75.0	SS-19	16	12	11	23
920.7			80.0	SS-20	40	30	30	60
915.7			85.0	SS-21	50/0.3			50/0.3
910.7	90.8	Auger Refusal @ 90.8' Begin Coring.	90.0 / 90.8	SS-22	44	50/0.2		50/0.2
905.7		White, gray, black, orange-brown stain in parts, trcs. pale green, sli. to mod. weathered w/interval highly to completely weathered, hard to v. hard, VC to C discontinuity spacing w/T to N width, thinly to thickly interlayered Feldspar Quartz Sillimanite Schist & Quartz Augite Mica Schist.	95.8	NQ-1				REC%=74, RQD%=40
	98.0			NQ-2				REC%=96, RQD%=76



LEGEND

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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-14	**Boring Location:**	303+99	**Offset:**	54' Lt.	**Alignment:**	Ramp 3A
Elev.:	1000.7 ft	**Latitude:**	34.83471	**Longitude:**	82.29644	**Date Started:**	11/6/2011
Total Depth:	110.8 ft	**Soil Depth:**	90.8 ft	**Core Depth:**	110.8 ft	**Date Completed:**	11/8/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	RW/RC	**Hammer Type:**	Automatic	**Energy Ratio:**	93%
Core Size:	NQ2	**Driller:**	F. Woodard	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
		13 0° fracs. w/iron stain, 2mm sep.; 3 30° fracs. w/iron stain, 1-2mm sep.; 1 90° frac w/heavy iron stain, 1mm sep.; core loss 93.8'-95.1'		100.8	NQ-3					REC%=100, RQD%=92
895.7	107.7	Black-brown, white-lt. gray, orange-brown stain in parts, sli. weathered w/seams highly weathered, mod. hard to hard, VC to C discontinuity spacing w/VN width, Augite Quartz Schist w/augen cse. grain quartz, pyrite grain clusters, trcs. garnet.		105.8	NQ-4					REC%=100, RQD%=96
890.7	110.8	2 20° fracs. w/<1mm sep.; 2 40° fracs. w/<1mm sep.; 2 50°-65° fracs. w/iron stain & <1mm sep.								
885.7		Lt. gray, dk. gray-black, lt. brown stain in parts, fresh, hard, VC discontinuity spacing w/T width, Quartz Augite Schist w/small pods cse. grain quartz, clusters anthophyllite. 1 35° frac. w/faint iron stain, <1mm sep.								
880.7		Boring Terminated @ 110.8' (Elev. 889.9).								
875.7										
870.7										
865.7										
860.7										
855.7										

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements

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CORE PHOTOGRAPHIC RECORD

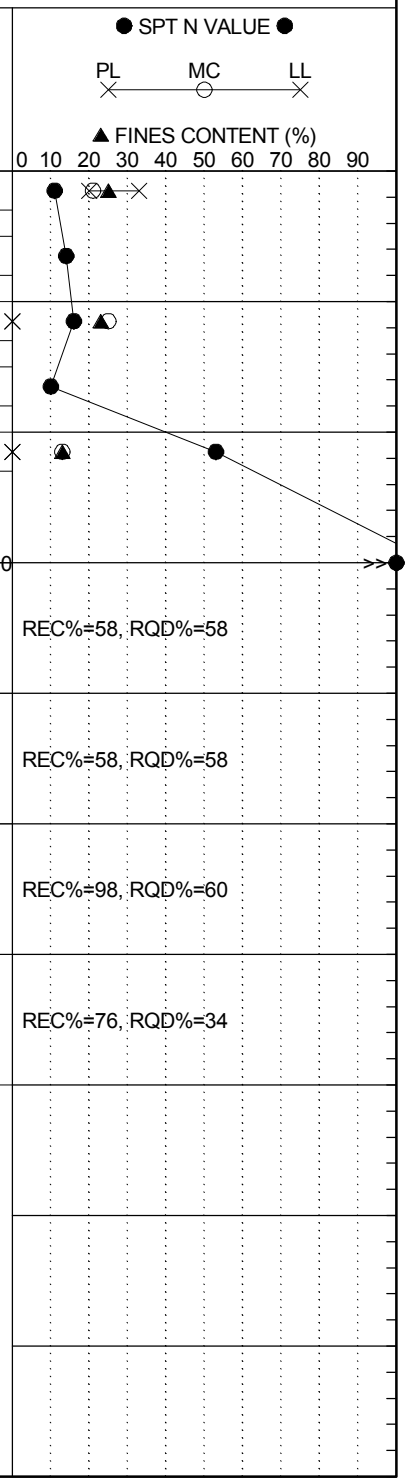
I-85 / I-385 Interchange Improvements

B-14 Box 3 of 3

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-15	**Boring Location:**	412+86	**Offset:**	22' Lt.	**Alignment:**	Ramp 4B
Elev.:	1001.1 ft	**Latitude:**	34.83198	**Longitude:**	82.30007	**Date Started:**	12/7/2011
Total Depth:	35 ft	**Soil Depth:**	15.0 ft	**Core Depth:**	35.0 ft	**Date Completed:**	12/7/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0		0.0	SS-1	2	5	6	11
	2.0	Medium dense, red, weakly reactive, clayey SAND (SC/A-2-6). LL=33, PL=20, PI=13, NMC=20.9, %#200=24.9	2.5	SS-2	10	8	6	14
996.1		Loose to medium dense, brown, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=24.6, %#200=22.6	5.0	SS-3	4	5	11	16
	9.5		7.5	SS-4	4	4	6	10
991.1		Very dense, gray, non-reactive, poorly graded SAND with silt (SP-SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=12.9, %#200=9.1	10.0	SS-5	1	3	50	53
986.1	15.0	Auger Refusal @ 15.0' Begin Coring.	15.0	SS-6	60/0.0			60/0.0
		White, lt. gray, clear, black, trcs. pink-rose, fresh to sli. weathered w/intervals highly to completely weathered, v. hard, dominately med to cse. w/pods megacrystalline, VC to C discontinuity spacing w/T to W width, Feldspar Quartz Biotite Gneiss w/granitiod to pegmatitic pods, disiminated pyrite , widely scattered garnet.	15.0	NQ-1				REC%=58, RQD%=58
981.1			20.0	NQ-2				REC%=58, RQD%=58
976.1		interpreted core loss 18.0'-20.0'; core loss interval not measurable; 30 0°-10° fracs. w/rough walls, clay, 1mm to unknown open; core loss assumed 33.8'-35.0'	25.0	NQ-3				REC%=98, RQD%=60
971.1			30.0	NQ-4				REC%=76, RQD%=34
966.1	35.0	Boring Terminated @ 35.0' (Elev. 966.1).						
961.1								
956.1								



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements

B-15 Box 1 of 2

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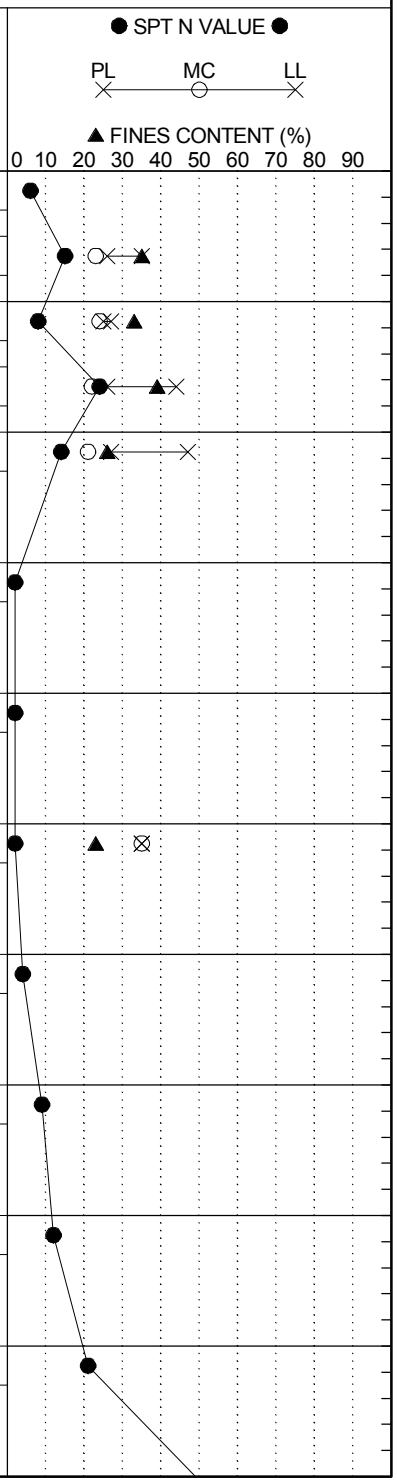
SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-16	**Boring Location:**	406+04	**Offset:**	4' Lt.	**Alignment:**	Ramp 4B
Elev.:	999.4 ft	**Latitude:**	34.83334	**Longitude:**	82.29858	**Date Started:**	1/20/2012
Total Depth:	114 ft	**Soil Depth:**	85.0 ft	**Core Depth:**	114.0 ft	**Date Completed:**	1/27/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION
	0.0	Loose to medium dense, tan & red, non-reactive, silty SAND (SM/A-2-4). LL=35, PL=26, PI=9, NMC=23.3, %#200=34.7
994.4	4.5	Loose, red, tan & gray, non-reactive, silty SAND (SM/A-2-4). LL=27, PL=25, PI=2, NMC=24.3, %#200=32.7
989.4	7.0	Medium dense, red, non-reactive, clayey SAND (SC/A-7-6). LL=44, PL=26, PI=18, NMC=22.3, %#200=39.0
984.4	9.5	Medium dense, tan & red, non-reactive, clayey GRAVEL with sand (GC/A-2-7). LL=47, PL=27, PI=20, NMC=20.7, %#200=25.6
979.4	13.3	Very loose to medium dense, orange, white & tan, non-reactive, silty SAND (SM/A-2-4). LL=35, PL=35, PI=NP, NMC=34.8, %#200=23.3
954.4	43.3	Medium dense to very dense, gray, red, tan, black & white, non to weakly reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=14.0, %#200=32.0

Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	SS-1	2	2	4	6
2.5	SS-2	2	7	8	15
5.0	SS-3	3	4	4	8
7.5	SS-4	0	11	13	24
10.0	SS-5	3	7	7	14
15.0	SS-6	1	1	1	2
20.0	SS-7	1	0	1	2
25.0	SS-8	1	1	1	2
30.0	SS-9	1	1	3	4
35.0	SS-10	2	4	5	9
40.0	SS-11	3	6	6	12
45.0	SS-12	3	12	9	21
50.0					



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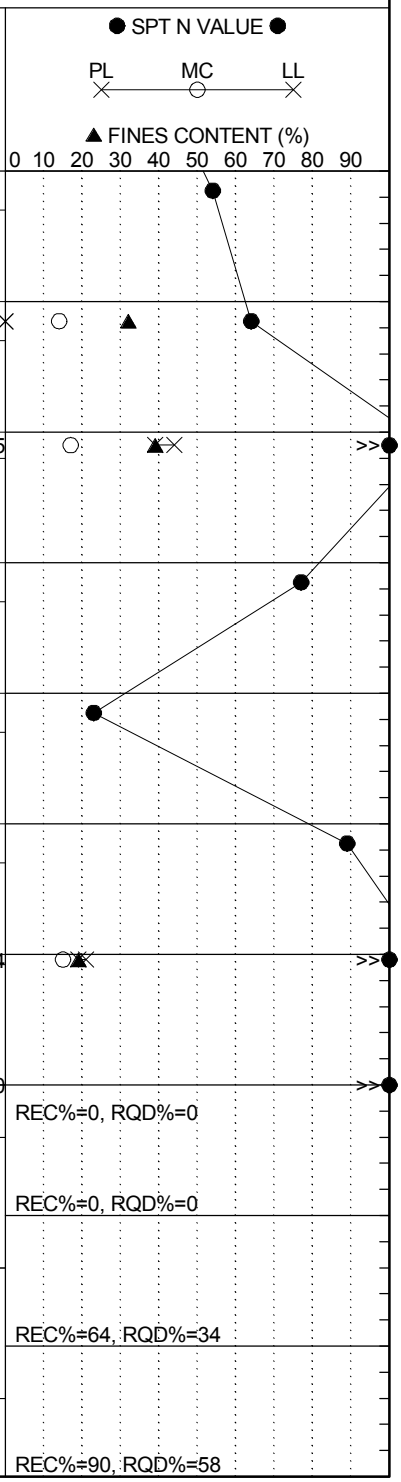
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-16	**Boring Location:**	406+04	**Offset:**	4' Lt.	**Alignment:**	Ramp 4B
Elev.:	999.4 ft	**Latitude:**	34.83334	**Longitude:**	82.29858	**Date Started:**	1/20/2012
Total Depth:	114 ft	**Soil Depth:**	85.0 ft	**Core Depth:**	114.0 ft	**Date Completed:**	1/27/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
944.4			55.0	SS-13	17	23	31	54
939.4			60.0	SS-14	13	20	44	64
				SS-15	40	50/0.5		50/0.5
934.4	63.3	Very dense, black, white & tan, non-reactive, silty SAND (SM/A-5). LL=44, PL=39, PI=5, NMC=17.1, %#200=38.8	65.0	SS-16	15	46	31	77
929.4	68.3	Very dense, gray, red, tan, black & white, non to weakly reactive, silty SAND (SM/A-2-4).	70.0	SS-17	9	9	14	23
924.4			75.0	SS-18	17	40	49	89
919.4	78.3	Very dense, white & tan, non-reactive, silty SAND (SM/A-2-4). LL=21, PL=19, PI=2, NMC=15.2, %#200=18.5	80.0	SS-19	50/0.4			50/0.4
914.4	85.0	Auger Refusal @ 85.0' Begin Coring. No Recovery - interpreted as completely weathered rock & residual soil.	85.0	SS-20	50/0.0			50/0.0
			85.0	NQ-1				
909.4			87.0	NQ-2				
904.4	93.8	Off white, gray, brown-orange stain, sli. to mod. weathered w/intervals highly weathered, hard to v. hard, cse. crystalline to megacrystalline & med. to cse. crystalline, VC discontinuity spacing w/VN width,	92.0	NQ-3				
	98.7	Feldspar Quartz Pegmatite w/trc. garnet,	97.0	NQ-4				



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LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-16	**Boring Location:**	406+04	**Offset:**	4' Lt.	**Alignment:**	Ramp 4B
Elev.:	999.4 ft	**Latitude:**	34.83334	**Longitude:**	82.29858	**Date Started:**	1/20/2012
Total Depth:	114 ft	**Soil Depth:**	85.0 ft	**Core Depth:**	114.0 ft	**Date Completed:**	1/27/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
		diopside rods & Quartz Muscovite Schist w/pods pegmatite, contact 90°. 1 90° contact w/iron stain & precip., 1mm open; 185° frac., clay film, <1mm) open; 15 0°-40° fracs., rough walls, 1-2mm open		102.0						
894.4					NQ-5					REC%=100, RQD%=92
	106.2	Gray, gray-brown, black, off white, trcs. rose-pink, sli. weathered to fresh w/surfaces mod. weathered, hard w/v. hard seams, med. crystalline & equigranular w/pods cse. to megacrystalline, VC discontinuity spacing w/T width, Quartz Muscovite Schist w/muscovite rich layers (4-20mm) & Feldspar Quartz Pegmatite pods, pyrite disseminated & along frac. walls, trcs. garnets. 7 50°-60° foliation partings w/iron stain, high weathering, pyrite, tight; 2 50° fracs. across foliationclay film, 1mm open; 6 0°-20° fracs. w/rough walls, 1-2mm open		107.0					
889.4					NQ-6					REC%=92, RQD%=54
				112.0						
	114.0				NQ-7					REC%=95, RQD%=65
884.4										
879.4		Gray-brown, gray, off white, black, scattered violet, fresh to sli. weathered w/seams mod. to highly weathered, hard to v. hard, med. crystalline & equigranular & cse. to megacrystalline, VC discontinuity spacing w/T to N width, interlayered Muscovite Quartz Schist (contorted foliation), Quartz Muscovite Schist & Feldspar Quartz Pegmatite pods. 60° frac. w/slickensides 106.3'; 11 0°-20° fracs w/iron stain, 1-2mm open; 6 60°-70° foliation partings, iron stain & clay 1-2mm; assumed core loss 111.6'-112.0							
874.4										
869.4										
864.4		Boring Terminated @ 114.0' (Elev. 885.4).								
859.4										
854.4										

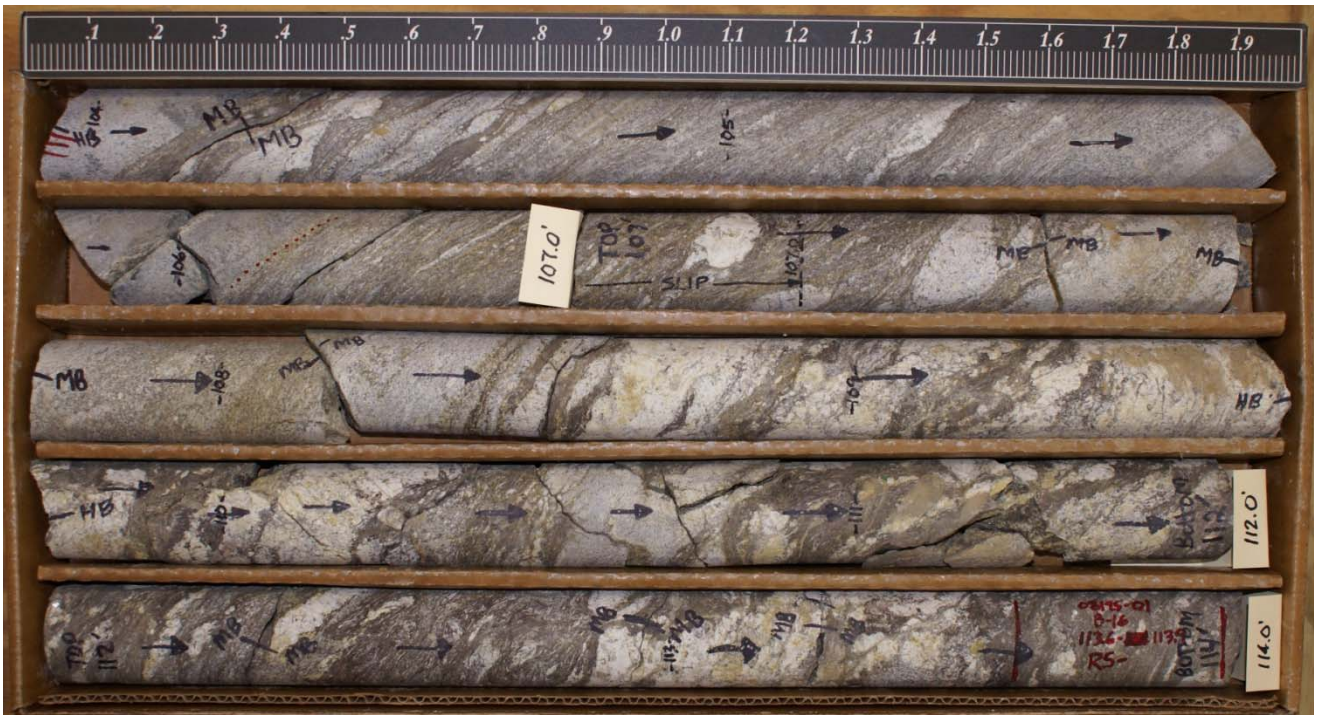
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements

B-16 Box 1 of 2

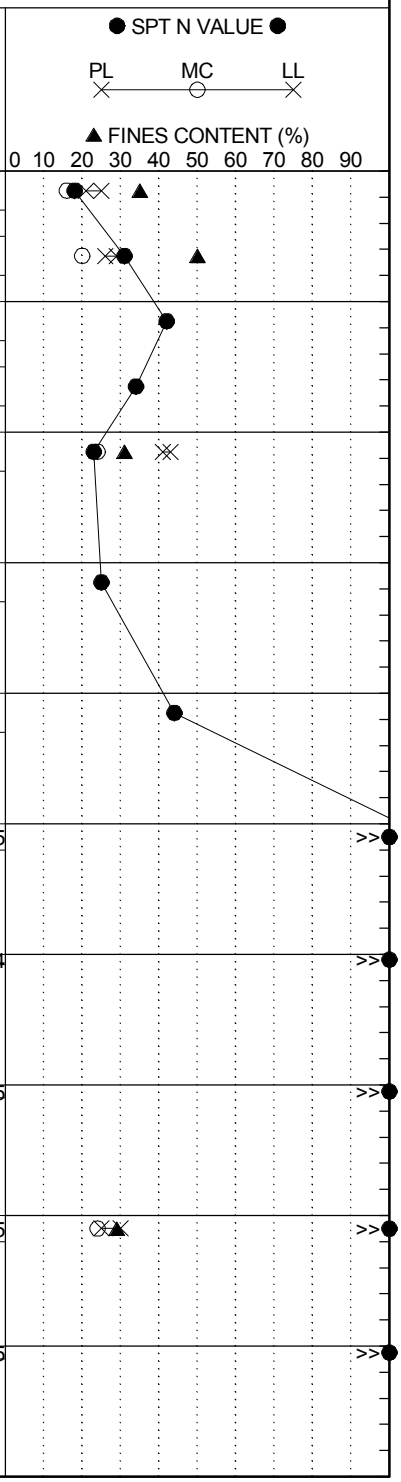


B-16 Box 2 of 2

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-17	**Boring Location:**	395+89	**Offset:**	15' Lt.	**Alignment:**	Ramp 4B
Elev.:	989.6 ft	**Latitude:**	34.8327	**Longitude:**	82.29556	**Date Started:**	1/12/2012
Total Depth:	100.3 ft	**Soil Depth:**	100.3 ft	**Core Depth:**	ft	**Date Completed:**	1/13/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, red, weakly reactive, silty SAND (SM/A-4). LL=25, PL=21, PI=4, NMC=16.3, %#200=35.2	0.0	SS-1	6	11	7	18
	2.0		2.5	SS-2	8	15	16	31
984.6	7.0	Dense, red, non-reactive, silty SAND (SM/A-4). LL=29, PL=26, PI=3, NMC=19.5, %#200=49.8	5.0	SS-3	12	20	22	42
			7.5	SS-4	9	18	16	34
979.6		Medium dense to very dense, red & tan, non-reactive, silty SAND (SM/A-2-5). LL=43, PL=41, PI=2, NMC=23.5, %#200=30.9	10.0	SS-5	6	9	14	23
974.6			15.0	SS-6	13	12	13	25
969.6			20.0	SS-7	6	11	33	44
964.6			25.0	SS-8	40	50/0.5		50/0.5
	28.3	Very dense, tan, weakly reactive, silty SAND (SM/A-2-4). LL=30, PL=25, PI=5, NMC=23.9, %#200=28.7						
959.6			30.0	SS-9	50/0.4			50/0.4
954.6			35.0	SS-10	50/0.5			50/0.5
949.6			40.0	SS-11	20	50/0.5		50/0.5
944.6			45.0	SS-12	50/0.5			50/0.5
			50.0					



LEGEND

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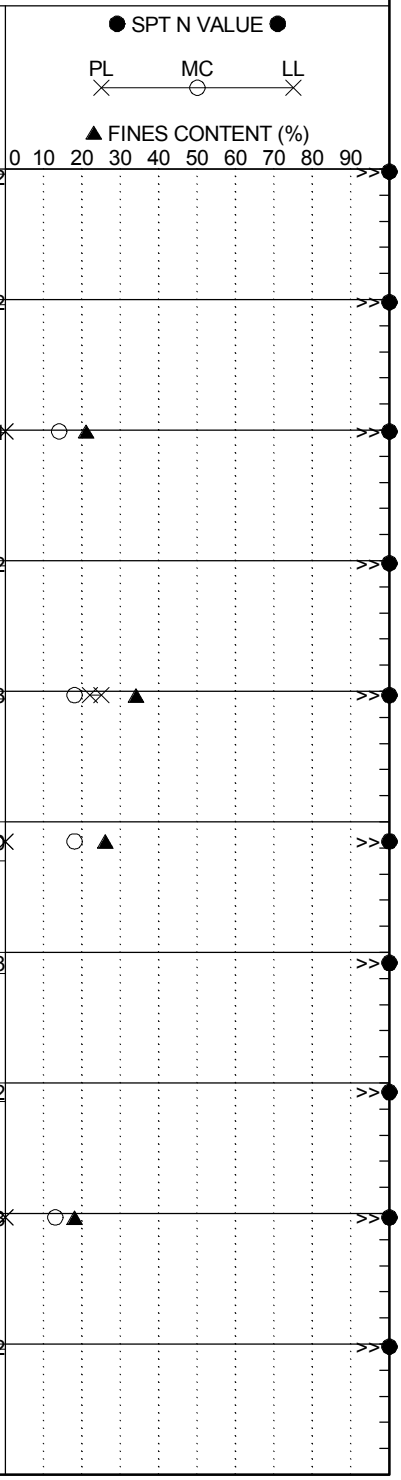
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-17	**Boring Location:**	395+89	**Offset:**	15' Lt.	**Alignment:**	Ramp 4B
Elev.:	989.6 ft	**Latitude:**	34.8327	**Longitude:**	82.29556	**Date Started:**	1/12/2012
Total Depth:	100.3 ft	**Soil Depth:**	100.3 ft	**Core Depth:**	ft	**Date Completed:**	1/13/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
				SS-13	50/0.2			50/0.2
934.6			55.0	SS-14	50/0.2			50/0.2
	58.3	Very dense, red & tan, weakly reactive, silty SAND (SM/A-2-4). LL=NA, PL=NA, PI=NA, NMC=13.7, %#200=21.3						
929.6			60.0	SS-15	50/0.1			50/0.1
	63.3	Very dense, tan, non-reactive, silty SAND (SM/A-2-4). LL=25, PL=22, PI=3, NMC=17.7, %#200=33.6						
924.6			65.0	SS-16	57/0.2			57/0.2
919.6			70.0	SS-17	52/0.3			52/0.3
	73.3	Very dense, tan & white, non to weakly reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=18.1, %#200=25.9						
914.6			75.0	SS-18	45	40	50/0.5	90/1.0
909.6			80.0	SS-19	37	50/0.3		50/0.3
904.6			85.0	SS-20	30	50/0.2		50/0.2
	88.3	Very dense, tan & gray, non to weakly reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=12.5, %#200=17.7						
899.6			90.0	SS-21	50/0.3			50/0.3
894.6			95.0	SS-22	50/0.2			50/0.2
			100.0					



LEGEND

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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-17	**Boring Location:**	395+89	**Offset:**	15' Lt.	**Alignment:**	Ramp 4B
Elev.:	989.6 ft	**Latitude:**	34.8327	**Longitude:**	82.29556	**Date Started:**	1/12/2012
Total Depth:	100.3 ft	**Soil Depth:**	100.3 ft	**Core Depth:**	ft	**Date Completed:**	1/13/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	100.3	SPT Refusal & Boring Terminated @ 100.3' (Elev. 889.3).			SS-23	50/0.3			50/0.3
884.6									
879.6									
874.6									
869.6									
864.6									
859.6									
854.6									
849.6									
844.6									

● SPT N VALUE ●

PL MC LL

▲ FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90 >>

LEGEND

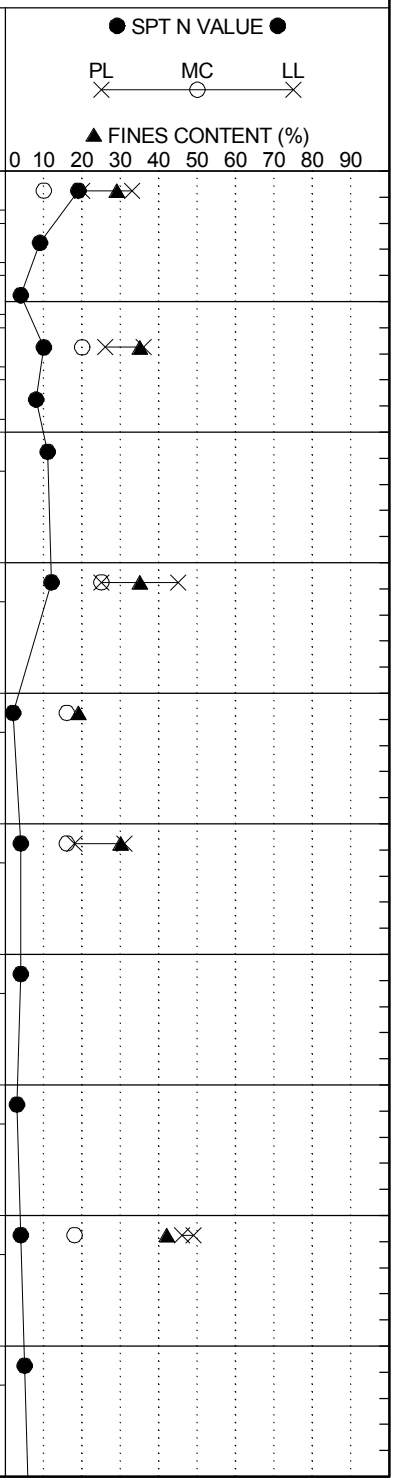
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-18	**Boring Location:**	70+60	**Offset:**	5' Lt.	**Alignment:**	Ramp 2A
Elev.:	1014.9 ft	**Latitude:**	34.83221	**Longitude:**	82.29923	**Date Started:**	5/7/2012
Total Depth:	100.3 ft	**Soil Depth:**	100.3 ft	**Core Depth:**	ft	**Date Completed:**	5/8/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION
	0.0	
	1.8	Medium dense, brown & red, non-reactive, clayey SAND (SC/A-2-6). LL=33, PL=20, PI=13, NMC=9.8, %#200=28.6
1009.9	7.8	Very loose to loose, brown & red, non-reactive, silty SAND (SM/A-2-4). LL=36, PL=26, PI=10, NMC=20.2, %#200=34.8
1004.9		Loose to medium dense, brown & red, non-reactive, clayy SAND (SC/A-2-7). LL=45, PL=25, PI=20, NMC=25.4, %#200=34.8
999.9	18.3	Very loose, gray, non-reactive, silty SAND with gravel (SM/A-1-b). LL=NA, PL=NA, PI=NA, NMC=16.0, %#200=18.9
994.9	23.3	Very loose, brown, non-reactive, clayey SAND (SC/A-2-6). LL=31, PL=18, PI=13, NMC=15.5, %#200=30.3
989.9	28.3	Very loose to loose, red, brown, tan & white, non-reactive, silty SAND (SM/A-5). LL=49, PL=46, PI=3, NMC=47.5, %#200=41.5
984.9		
979.9		
974.9		
969.9		

Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	SS-1	3	9	10	19
2.0	SS-2	3	5	4	9
4.0	SS-3	1	2	2	4
6.0	SS-4	2	6	4	10
8.0	SS-5	2	4	4	8
10.0	SS-6	3	4	7	11
15.0	SS-7	3	5	7	12
20.0	SS-8	2	1	1	2
25.0	SS-9	2	2	2	4
30.0	SS-10	1	2	2	4
35.0	SS-11	WOH	1	2	3
40.0	SS-12	1	2	2	4
45.0	SS-13	1	2	3	5
50.0					



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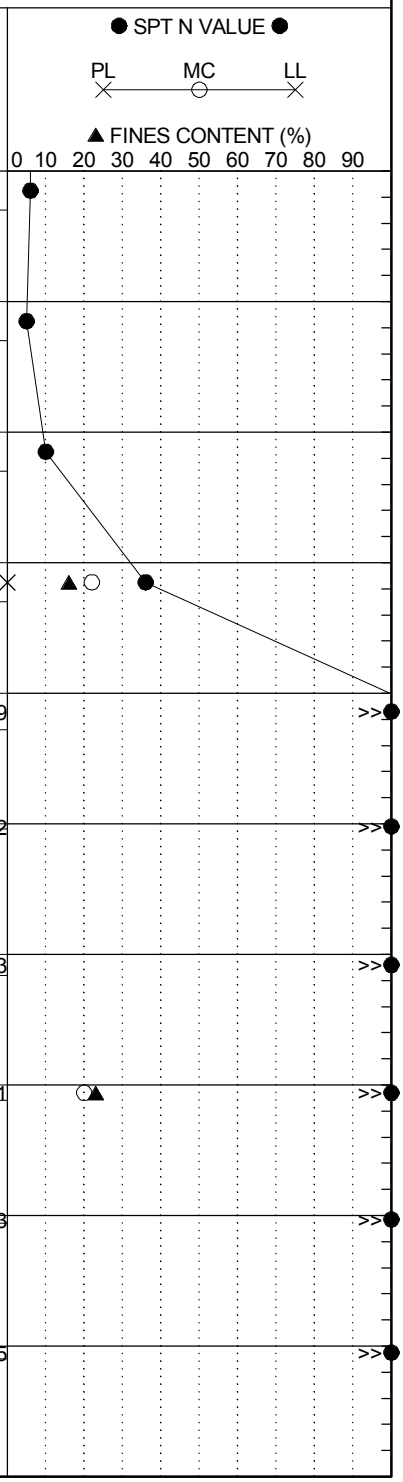
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-18	**Boring Location:**	70+60	**Offset:**	5' Lt.	**Alignment:**	Ramp 2A
Elev.:	1014.9 ft	**Latitude:**	34.83221	**Longitude:**	82.29923	**Date Started:**	5/7/2012
Total Depth:	100.3 ft	**Soil Depth:**	100.3 ft	**Core Depth:**	ft	**Date Completed:**	5/8/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
959.9			55.0	SS-14	1	2	4	6
				SS-15	3	2	3	5
	58.3	Loose to dense, black, white & brown, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=22.0, %#200=16.1						
954.9			60.0	SS-16	6	3	7	10
949.9			65.0	SS-17	9	11	25	36
	68.3	Very dense, brown, black, white & tan, non-reactive, silty SAND (SM/A-2-4). LL=NA, PL=NA, PI=NA, NMC=20.2, %#200=22.9						
944.9			70.0	SS-18	10	35	50/0.4	85/0.9
939.9			75.0	SS-19	50/0.2			50/0.2
934.9			80.0	SS-20	25	50/0.3		50/0.3
929.9			85.0	SS-21	20	50/0.1		50/0.1
924.9			90.0	SS-22	50/0.3			50/0.3
919.9			95.0	SS-23	50/0.5			50/0.5
			100.0					



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LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-18	**Boring Location:**	70+60	**Offset:**	5' Lt.	**Alignment:**	Ramp 2A
Elev.:	1014.9 ft	**Latitude:**	34.83221	**Longitude:**	82.29923	**Date Started:**	5/7/2012
Total Depth:	100.3 ft	**Soil Depth:**	100.3 ft	**Core Depth:**	ft	**Date Completed:**	5/8/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	100.3	No Refusal & Boring Terminated @ 100.3' (Elev. 914.6).			SS-24	50/0.3			50/0.3
909.9									
904.9									
899.9									
894.9									
889.9									
884.9									
879.9									
874.9									
869.9									

● SPT N VALUE ●

PL MC LL

▲ FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90 >>

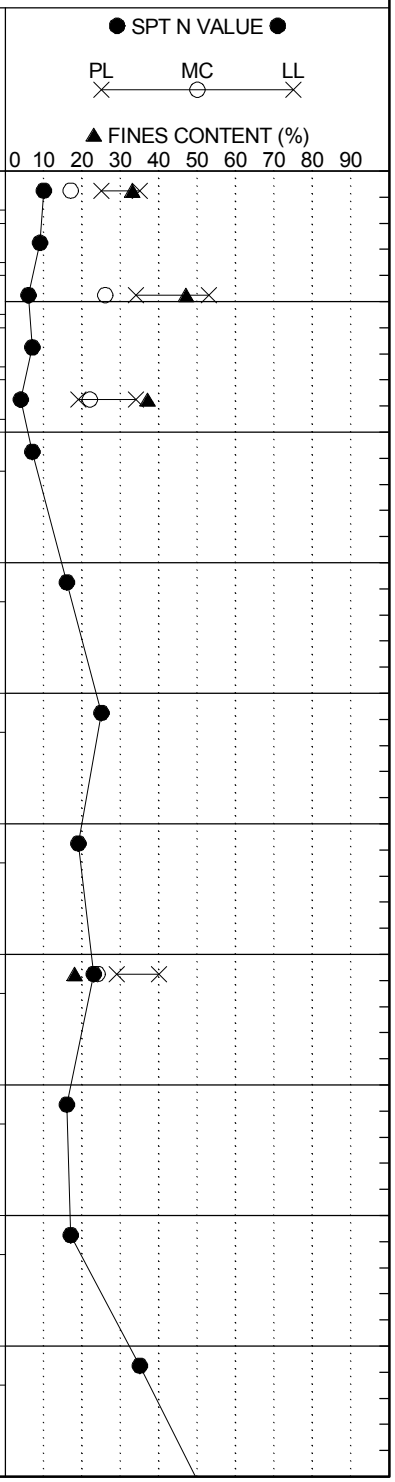
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-19	**Boring Location:**	74+70	**Offset:**	43' Rt.	**Alignment:**	Ramp 2A
Elev.:	990.2 ft	**Latitude:**	34.8318	**Longitude:**	82.29793	**Date Started:**	5/9/2012
Total Depth:	100.2 ft	**Soil Depth:**	100.2 ft	**Core Depth:**	ft	**Date Completed:**	5/9/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0		0.0	SS-1	4	4	6	10
	1.8	Loose, tan & red, non-reactive, silty SAND (SM/A-2-4). LL=35, PL=25, PI=10, NMC=16.5, %#200=33.3	2.0	SS-2	4	4	5	9
985.2	5.8	Loose, tan, orange, red & brown, non-reactive, silty SAND (SM/A-7-5). LL=53, PL=34, PI=19, NMC=26.2, %#200=47.1	4.0	SS-3	3	3	3	6
			6.0	SS-4	1	2	5	7
			8.0	SS-5	2	1	3	4
980.2		Very loose to loose, red, brown & tan, non to weakly reactive, clayey SAND (SC/A-6).	10.0	SS-6	2	3	4	7
	13.3	LL=34, PL=19, PI=15, NMC=22.0, %#200=37.0						
975.2		Medium dense, tan, white & orange, non to weakly reactive, silty SAND (SM/A-2-6). LL=40, PL=29, PI=11, NMC=24.2, %#200=17.9	15.0	SS-7	5	6	10	16
970.2			20.0	SS-8	10	12	13	25
965.2			25.0	SS-9	7	9	10	19
960.2			30.0	SS-10	5	10	13	23
955.2			35.0	SS-11	4	6	10	16
950.2			40.0	SS-12	5	7	10	17
	43.3	Dense to very dense, tan, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=16.9, %#200=18.7						
945.2			45.0	SS-13	9	14	21	35
			50.0					



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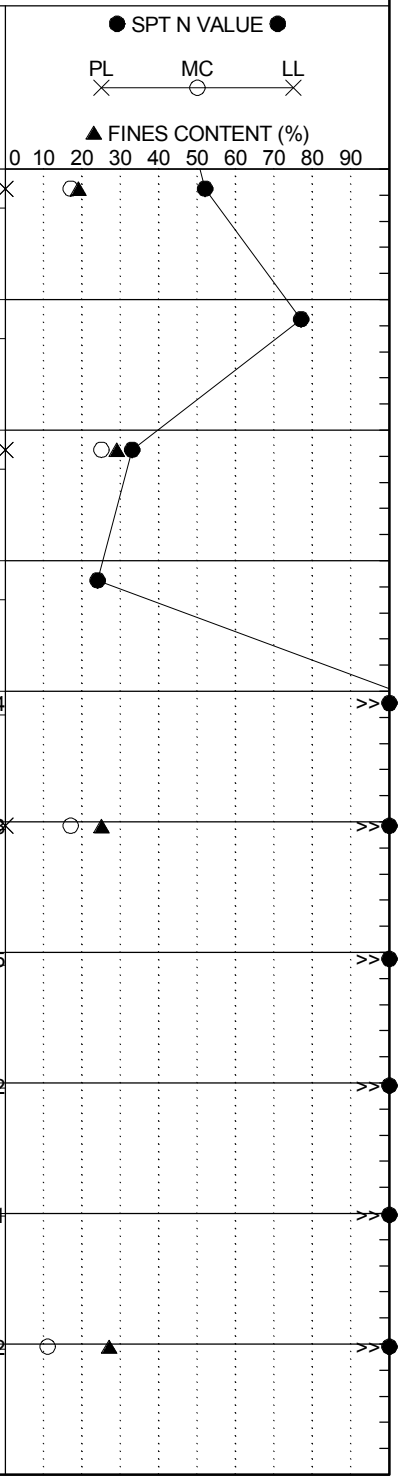
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-19	**Boring Location:**	74+70	**Offset:**	43' Rt.	**Alignment:**	Ramp 2A
Elev.:	990.2 ft	**Latitude:**	34.8318	**Longitude:**	82.29793	**Date Started:**	5/9/2012
Total Depth:	100.2 ft	**Soil Depth:**	100.2 ft	**Core Depth:**	ft	**Date Completed:**	5/9/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
				SS-14	20	20	32	52
	53.3	Dense, to very dense, tan, orange & brown, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=24.5, %#200=29.2	55.0	SS-15	23	30	47	77
935.2			60.0	SS-16	10	16	17	33
930.2			65.0	SS-17	10	10	14	24
925.2			70.0	SS-18	28	50/0.4		50/0.4
920.2	73.3	Very dense, tan, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=16.9, %#200=25.2	75.0	SS-19	50/0.3			50/0.3
915.2			80.0	SS-20	50/0.5			50/0.5
910.2			85.0	SS-21	50/0.2			50/0.2
905.2	88.3	Very dense, purple, non-reactive, silty SAND (SM/A-2-4). LL=NA, PL=NA, PI=NA, NMC=11.0, %#200=27.0	90.0	SS-22	50/0.1			50/0.1
900.2			95.0	SS-23	50/0.2			50/0.2
895.2			100.0					



LEGEND

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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-19	**Boring Location:**	74+70	**Offset:**	43' Rt.	**Alignment:**	Ramp 2A
Elev.:	990.2 ft	**Latitude:**	34.8318	**Longitude:**	82.29793	**Date Started:**	5/9/2012
Total Depth:	100.2 ft	**Soil Depth:**	100.2 ft	**Core Depth:**	ft	**Date Completed:**	5/9/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	100.2	No Refusal & Boring Terminated @ 100.2' (Elev. 890.0).			SS-24	50/0.2			50/0.2	>>
885.2										
880.2										
875.2										
870.2										
865.2										
860.2										
855.2										
850.2										
845.2										

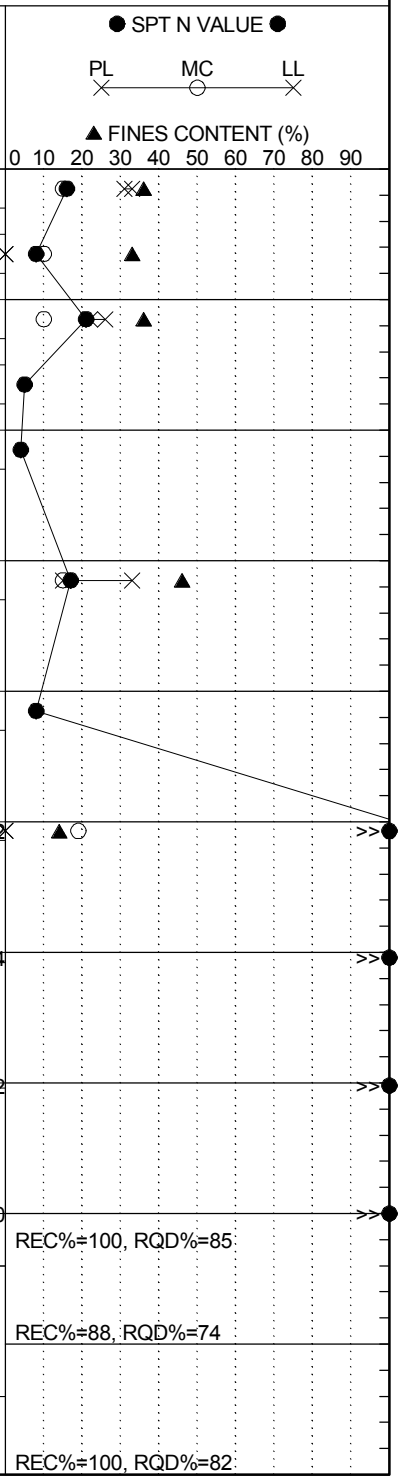
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-20	**Boring Location:**	31+19	**Offset:**	8' Lt.	**Alignment:**	Ramp 2B
Elev.:	994.4 ft	**Latitude:**	34.83284	**Longitude:**	82.29807	**Date Started:**	1/11/2012
Total Depth:	60 ft	**Soil Depth:**	40.0 ft	**Core Depth:**	ft	**Date Completed:**	1/12/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0		0.0	SS-1	4	7	9	16
	2.0	Medium dense, red & tan, non-reactive, silty SAND (SM/A-4). LL=33, PL=31, PI=2, NMC=14.7, %#200=35.5	2.5	SS-2	2	3	5	8
989.4	4.5	Loose, tan, non-reactive, silty SAND (SM/A-4). LL=NP, PL=NP, PI=NP, NMC=10.0, %#200=33.3	5.0	SS-3	3	7	14	21
	7.0		7.5	SS-4	4	2	3	5
984.4		Medium dense, red & tan, non-reactive, silty SAND (SM/A-4). LL=26, PL=22, PI=4, NMC=9.6, %#200=35.5	10.0	SS-5	1	2	2	4
979.4		Very loose to medium dense, gray & tan, non to weakly reactive, clayey SAND (SC/A-6). LL=33, PL=15, PI=18, NMC=14.6, %#200=46.2	15.0	SS-6	4	7	10	17
	18.3	Loose to very dense, orange, tan, yellow & brown, non to weakly reactive, silty SAND (SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=19.2, %#200=14.2	20.0	SS-7	2	4	4	8
974.4			25.0	SS-8	26	50/0.2		50/0.2
969.4			30.0	SS-9	50/0.4			50/0.4
964.4			35.0	SS-10	50/0.2			50/0.2
959.4			40.0	SS-11	50/0.0			50/0.0
954.4	40.0	Auger Refusal @ 40.0' Begin Coring.	40.0	NQ1				
		White, gray, black, green tint, orange-brown stain in parts, trcs. pink-rose & green, fresh to sli. weathered w/interval highly weathered, hard to v. hard, VC discontinuity spacing w/T to VN width, Feldspar Quartz Sillimanite Schist w/augite rich interval, trcs. garnet, tourmaline.	42.0	NQ2				
949.4		core loss 42.6' & 46.3'; 10 0°-20° fracs.	47.0	NQ3				



LEGEND

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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-20	**Boring Location:**	31+19	**Offset:**	8' Lt.	**Alignment:**	Ramp 2B
Elev.:	994.4 ft	**Latitude:**	34.83284	**Longitude:**	82.29807	**Date Started:**	1/11/2012
Total Depth:	60 ft	**Soil Depth:**	40.0 ft	**Core Depth:**	ft	**Date Completed:**	1/12/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

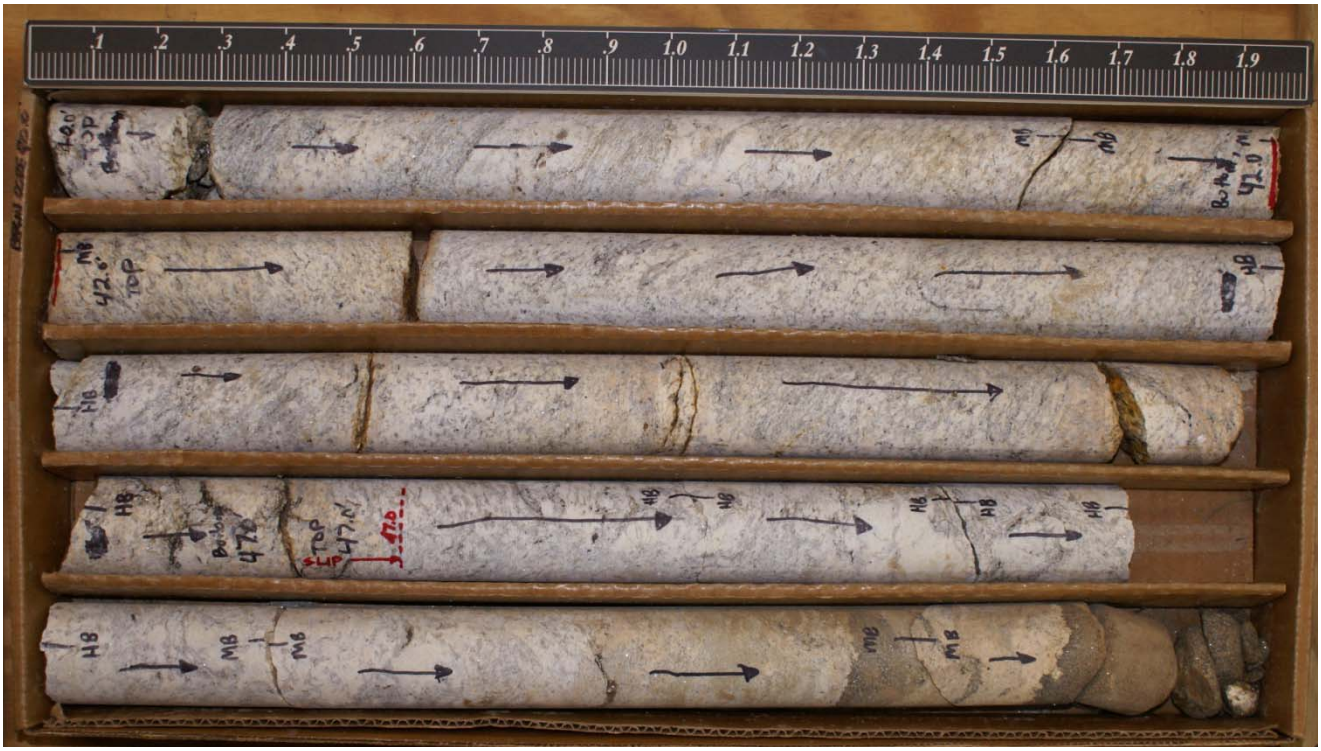
Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
		w/iron stain, hard & rough walls, , 1mm sep.; 5 30° fracs. w/iron stain, hard & rough walls, <1mm sep.; 1 60° frac. w/1mm sep.; highly weathered 49.8'-50.3'		52.0						
939.4					NQ4					REC%=100, RQD%=88
				57.0						
					NQ5					REC%=87, RQD%=87
934.4	60.0	Boring Terminated @ 60.0' (Elev. 934.4).								
929.4										
924.4										
919.4										
914.4										
909.4										
904.4										
899.4										

LEGEND

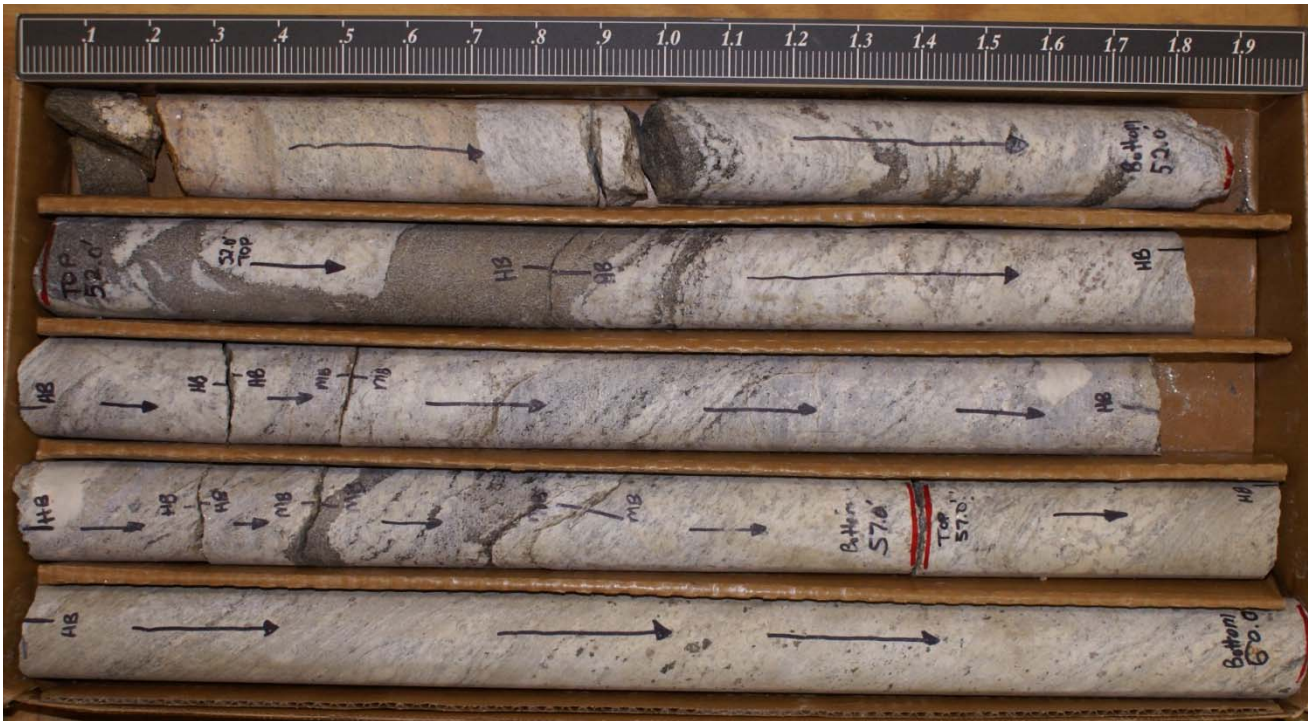
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements



B-20 Box 1 of 2



B-20 Box 2 of 2

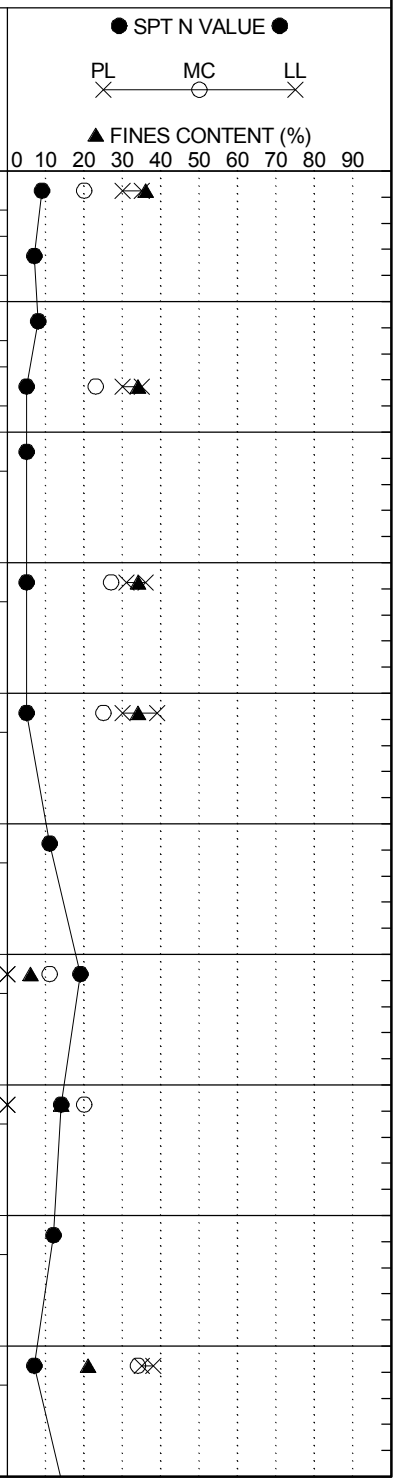
SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-21	**Boring Location:**	36+60	**Offset:**	28' Lt.	**Alignment:**	Ramp 2B
Elev.:	993.5 ft	**Latitude:**	34.83176	**Longitude:**	82.29682	**Date Started:**	12/14/2011
Total Depth:	87 ft	**Soil Depth:**	72.0 ft	**Core Depth:**	87.0 ft	**Date Completed:**	12/30/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION
	0.0	
		Loose, brown, non-reactive, silty SAND (SM/A-4). LL=35, PL=30, PI=5, NMC=19.7, %#200=36.4
988.5	2.0	Loose, red & brown, non-reactive, silty SAND (SM/A-2-4). LL=35, PL=30, PI=5, NMC=22.9, %#200=34.3
983.5	13.3	Loose, brown, non-reactive, silty SAND (SM/A-2-4). LL=36, PL=31, PI=5, NMC=27.1, %#200=34.0
978.5	18.3	Loose, red, non-reactive, silty SAND (SM/A-2-4). LL=39, PL=30, PI=9, NMC=25.4, %#200=34.4
973.5	23.3	Medium dense, med. brown & med. gray, non-reactive, well-graded GRAVEL with silt and sand (GW-GM/A-1-a). LL=NP, PL=NP, PI=NP, NMC=11.1, %#200=5.8
968.5	33.3	Medium dense, med. red, weakly reactive, silty SAND (SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=20.2, %#200=14.1
963.5	38.3	Loose to medium dense, med. brown & brown, non to weakly reactive, silty SAND (SM/A-2-4). LL=38, PL=35, PI=3, NMC=34.2, %#200=21.2
958.5		
953.5		
948.5		

Graphic Log

Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	SS-1	2	4	5	9
2.5	SS-2	3	3	4	7
5.0	SS-3	3	3	5	8
7.5	SS-4	2	2	3	5
10.0	SS-5	2	2	3	5
15.0	SS-6	2	3	2	5
20.0	SS-7	3	2	3	5
25.0	SS-8	19	6	5	11
30.0	SS-9	19	12	8	19
35.0	SS-10	9	8	6	14
40.0	SS-11	2	4	8	12
45.0	SS-12	1	2	5	7
50.0					



LEGEND

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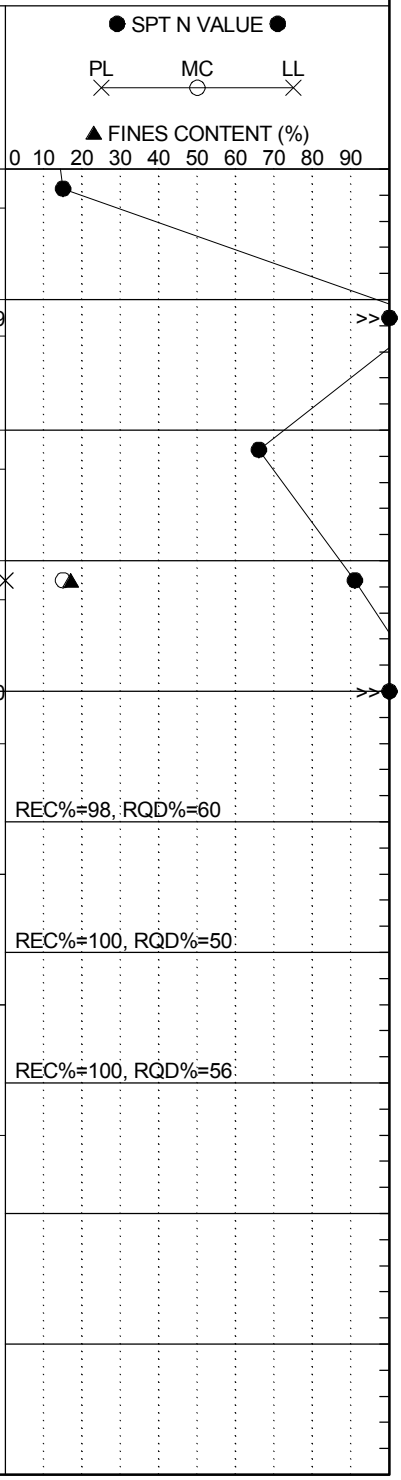
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-21	**Boring Location:**	36+60	**Offset:**	28' Lt.	**Alignment:**	Ramp 2B
Elev.:	993.5 ft	**Latitude:**	34.83176	**Longitude:**	82.29682	**Date Started:**	12/14/2011
Total Depth:	87 ft	**Soil Depth:**	72.0 ft	**Core Depth:**	87.0 ft	**Date Completed:**	12/30/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
				SS-13	5	6	9	15
	53.3	Very dense, brown, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=14.5, %#200=17.4	55.0	SS-14	45	23	60/0.4	83/0.9
938.5								
933.5			60.0	SS-15	23	31	35	66
928.5			65.0	SS-16	35	48	43	91
923.5			70.0	SS-17	60/0.0			60/0.0
	72.0	Auger Refusal @ 72.0' Begin Coring. White, gray, black, pink-rose, brown-orange stain, fresh to sli. weathered w/seams mod. to highly weathered, hard to v. hard, dominately cse. to megacrystalline, VC discontinuity spacing w/T to MW width, garnetiferous Feldspar Quartz Pegmatite w/pods Feldspar Quartz Sillimanite Schist & Feldspar Augite Schist, veins of mica. 1 90° frac. w/faint iron stain; 7 30°-60° frac. w/hard walls, 2-3mm sep.; 37 0°-10° fracs. w/hard walls, <1-3mm sep, heavy iron stain on some	72.0	NQ-1				
918.5			77.0	NQ-2				
913.5			82.0	NQ-3				
908.5								
	87.0	Boring Terminated @ 87.0' (Elev. 906.5).						
903.5								
898.5								



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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements

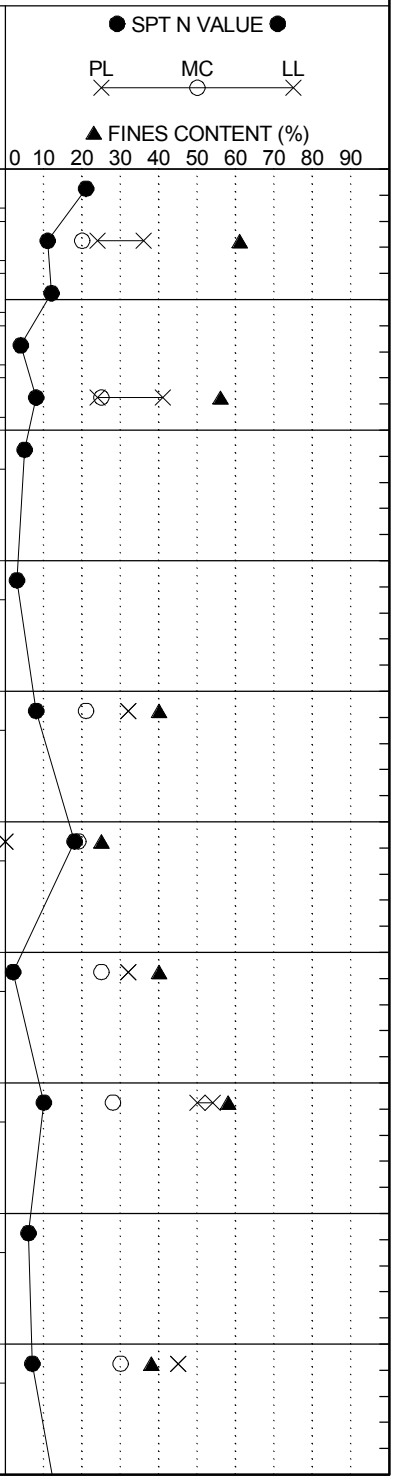
B-21 Box 1 of 2

B-21 Box 2 of 2

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-22	**Boring Location:**	400+62	**Offset:**	81' Rt.	**Alignment:**	I-385
Elev.:	1024.8 ft	**Latitude:**	34.83348	**Longitude:**	82.2974	**Date Started:**	7/11/2012
Total Depth:	101.5 ft	**Soil Depth:**	101.5 ft	**Core Depth:**	ft	**Date Completed:**	7/12/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Stiff to very stiff, brown & red, non-reactive, sandy lean CLAY (CL/A-6). LL=36, PL=24, PI=12, NMC=19.8, %#200=61.1	0.0	SS-1	5	10	11	21
			2.0	SS-2	4	6	5	11
			4.0	SS-3	6	6	6	12
1019.8	5.8	Soft to firm, red & brown, non-reactive, sandy lean CLAY (CL/A-7-6). LL=41, PL=24, PI=17, NMC=25.2, %#200=55.5	6.0	SS-4	1	1	3	4
			8.0	SS-5	3	4	4	8
1014.8			10.0	SS-6	1	2	3	5
	13.3	Very loose to loose, tan, non-reactive, silty SAND (SM/A-4). LL=32, PL=32, PI=NP, NMC=21.4, %#200=40.0	15.0	SS-7	2	1	2	3
1009.8								
1004.8			20.0	SS-8	1	4	4	8
	23.3	Medium dense, brown, non-reactive, silty SAND (SM/A-4). LL=NP, PL=NP, PI=NP, NMC=18.7, %#200=24.9	25.0	SS-9	6	12	6	18
999.8								
	28.3	Very loose, gray, non-reactive, silty SAND (SM/A-4). LL=32, PL=32, PI=NP, NMC=24.5, %#200=40.0	30.0	SS-10	1	1	1	2
994.8								
	33.3	Stiff, brown, non-reactive, sandy, elastic SILT (MH/A-5). LL=54, PL=50, PI=4, NMC=28.0, %#200=58.0	35.0	SS-11	2	4	6	10
989.8								
	38.3	Loose to medium dense, white, brown & red, non-reactive, silty SAND (SM/A-5). LL=45, PL=45, PI=NP, NMC=29.9, %#200=38.3	40.0	SS-12	2	3	3	6
984.8								
979.8			45.0	SS-13	1	3	4	7
			50.0					



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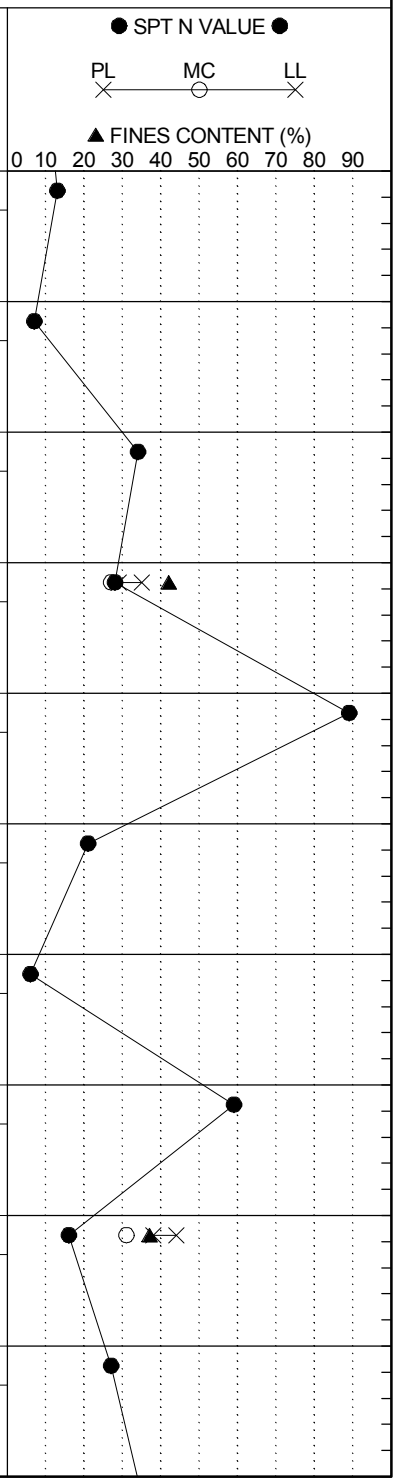
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-22	**Boring Location:**	400+62	**Offset:**	81' Rt.	**Alignment:**	I-385
Elev.:	1024.8 ft	**Latitude:**	34.83348	**Longitude:**	82.2974	**Date Started:**	7/11/2012
Total Depth:	101.5 ft	**Soil Depth:**	101.5 ft	**Core Depth:**	ft	**Date Completed:**	7/12/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
969.8			55.0	SS-14	6	7	6	13
				SS-15	2	2	5	7
	58.3	Medium dense to very dense, red, brown, white & gray, non-reactive, silty SAND (SM/A-4). LL=35, PL=29, PI=6, NMC=26.8, %#200=41.5	60.0	SS-16	12	14	20	34
964.8								
959.8			65.0	SS-17	7	11	17	28
954.8			70.0	SS-18	35	45	44	89
949.8			75.0	SS-19	12	13	8	21
	78.3	Loose to very dense, white & brown, non-reactive, silty SAND (SM/A-5). LL=44, PL=38, PI=6, NMC=30.7, %#200=36.5	80.0	SS-20	1	2	4	6
944.8								
939.8			85.0	SS-21	27	29	30	59
934.8			90.0	SS-22	6	6	10	16
929.8			95.0	SS-23	5	15	12	27
			100.0					



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LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-22	**Boring Location:**	400+62	**Offset:**	81' Rt.	**Alignment:**	I-385
Elev.:	1024.8 ft	**Latitude:**	34.83348	**Longitude:**	82.2974	**Date Started:**	7/11/2012
Total Depth:	101.5 ft	**Soil Depth:**	101.5 ft	**Core Depth:**	ft	**Date Completed:**	7/12/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	101.5				SS-24	7	15	20	35	
		No Refusal & Boring Terminated @ 101.5' (Elev. 923.3).								
919.8										
914.8										
909.8										
904.8										
899.8										
894.8										
889.8										
884.8										
879.8										

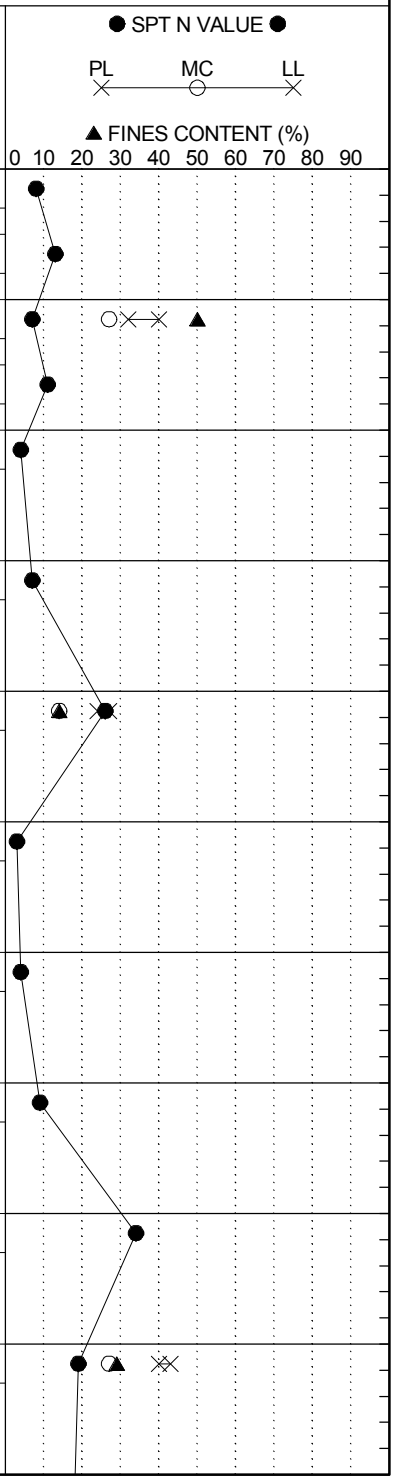
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-23	**Boring Location:**	397+25	**Offset:**	90 Rt.	**Alignment:**	I-385
Elev.:	991.5 ft	**Latitude:**	34.8329	**Longitude:**	82.29648	**Date Started:**	1/12/2012
Total Depth:	100.3 ft	**Soil Depth:**	100.3 ft	**Core Depth:**	ft	**Date Completed:**	1/12/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Soft to stiff, red, tan & brown, non-reactive, sandy SILT (ML/A-4). LL=40, PL=32, PI=8, NMC=27.3, %#200=50.0		0.0	SS-1	1	2	6	8
				2.5	SS-2	4	6	7	13
986.5				5.0	SS-3	2	4	3	7
				7.5	SS-4	4	5	6	11
981.5				10.0	SS-5	2	2	2	4
	13.3	Loose, tan & white, non-reactive, silty SAND (SM/A-2-5).							
976.5				15.0	SS-6	3	3	4	7
	18.3	Medium dense, red & tan, non-reactive, silty SAND (SM/A-1-b). LL=27, PL=24, PI=3, NMC=14.4, %#200=13.9							
971.5				20.0	SS-7	16	13	13	26
	23.3	Very loose to dense, tan, white & brown, non-reactive, silty SAND (SM/A-2-5). LL=43, PL=40, PI=3, NMC=27.1, %#200=29.1							
966.5				25.0	SS-8	1	1	2	3
961.5				30.0	SS-9	1	2	2	4
956.5				35.0	SS-10	3	4	5	9
951.5				40.0	SS-11	8	16	18	34
946.5				45.0	SS-12	6	9	10	19
				50.0					



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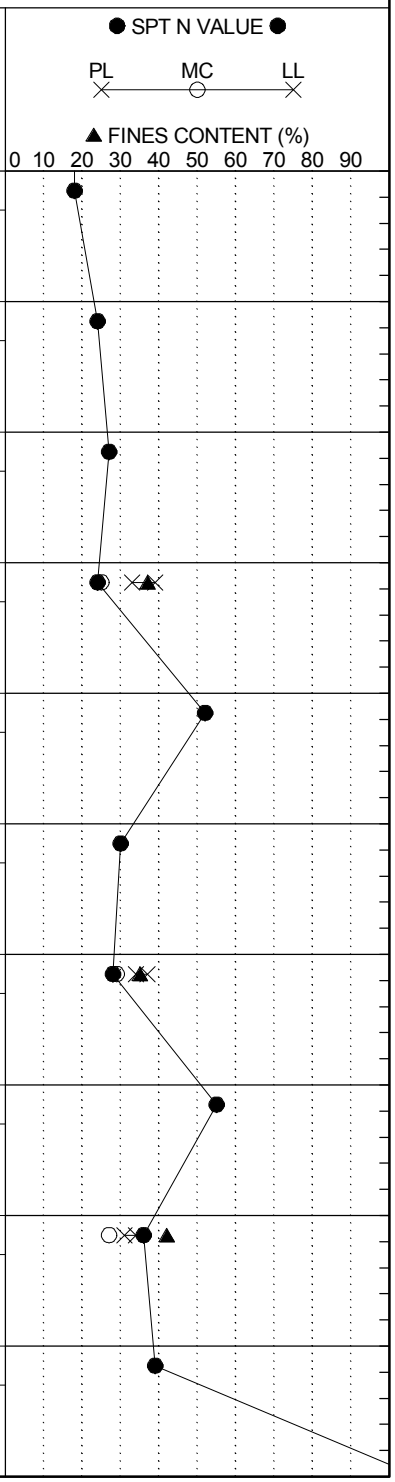
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-23	**Boring Location:**	397+25	**Offset:**	90 Rt.	**Alignment:**	I-385
Elev.:	991.5 ft	**Latitude:**	34.8329	**Longitude:**	82.29648	**Date Started:**	1/12/2012
Total Depth:	100.3 ft	**Soil Depth:**	100.3 ft	**Core Depth:**	ft	**Date Completed:**	1/12/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
936.5			55.0	SS-13	5	5	13	18
931.5			60.0	SS-14	7	10	14	24
	63.3			SS-15	7	12	15	27
926.5		Medium dense to very dense, tan & white, non-reactive, silty SAND (SM/A-4). LL=39, PL=33, PI=6, NMC=24.9, %#200=37.3	65.0	SS-16	6	7	17	24
921.5			70.0	SS-17	9	21	31	52
	73.3							
916.5		Medium dense, gray, non-reactive, silty SAND (SM/A-2-4). LL=37, PL=34, PI=3, NMC=28.5, %#200=34.8	75.0	SS-18	9	12	18	30
911.5			80.0	SS-19	7	12	16	28
	83.3							
906.5		Dense to very dense, yellow, white & tan, non-reactive, silty SAND (SM/A-4). LL=34, PL=31, PI=3, NMC=26.9, %#200=41.7	85.0	SS-20	20	25	30	55
901.5			90.0	SS-21	9	17	19	36
	93.3							
896.5		Dense, red & gray, non-reactive, silty SAND (SM/A-2-4).	95.0	SS-22	7	15	24	39
	98.3							
		Very dense, yellow & white, non-reactive,	100.0					



LEGEND

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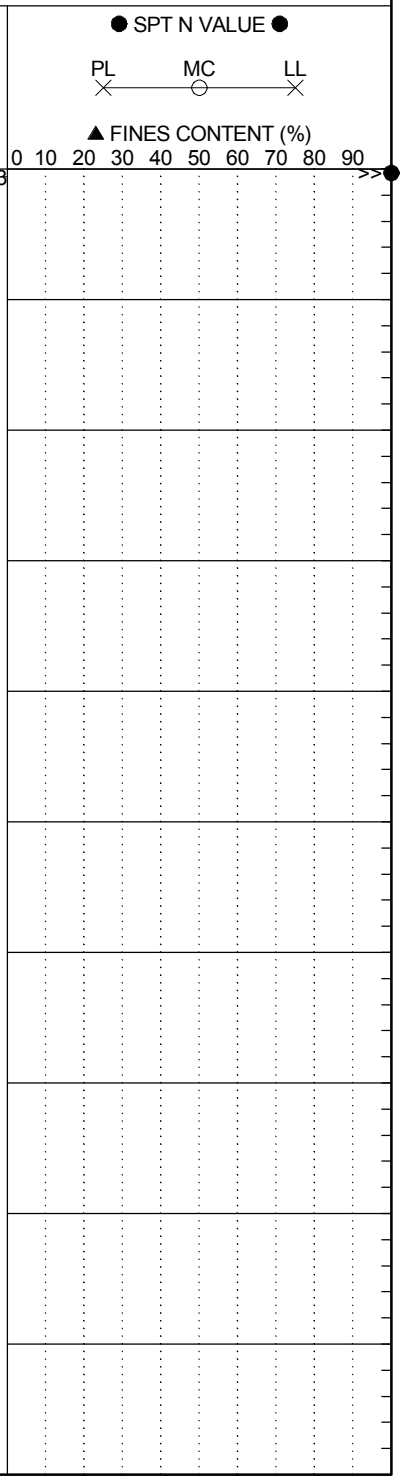
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-23	**Boring Location:**	397+25	**Offset:**	90 Rt.	**Alignment:**	I-385
Elev.:	991.5 ft	**Latitude:**	34.8329	**Longitude:**	82.29648	**Date Started:**	1/12/2012
Total Depth:	100.3 ft	**Soil Depth:**	100.3 ft	**Core Depth:**	ft	**Date Completed:**	1/12/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	100.3	silty SAND (SM/A-4).			SS-23	50/0.3			50/0.3
		SPT Refusal & Boring Terminated @ 100.3' (Elev. 891.2).							
886.5									
881.5									
876.5									
871.5									
866.5									
861.5									
856.5									
851.5									
846.5									



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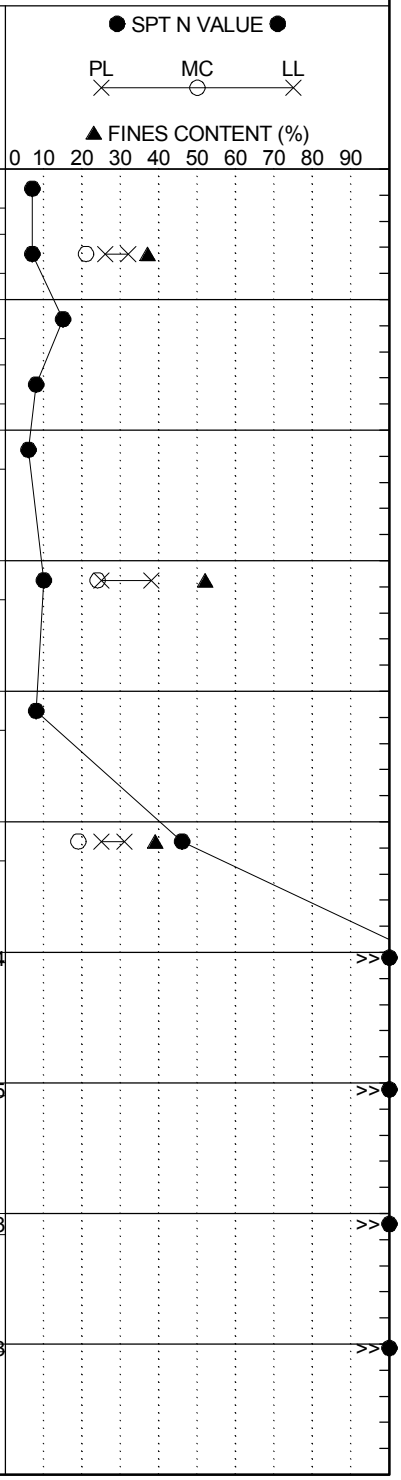
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-24	**Boring Location:**	393+76	**Offset:**	151' Rt.	**Alignment:**	I-385
Elev.:	1000.5 ft	**Latitude:**	34.8323	**Longitude:**	82.29549	**Date Started:**	1/16/2012
Total Depth:	100.3 ft	**Soil Depth:**	100.3 ft	**Core Depth:**	ft	**Date Completed:**	1/17/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Loose, red, orange, tan & yellow, non to weakly reactive, silty SAND (SM/A-4). LL=32, PL=26, PI=6, NMC=20.6, %#200=37.0	0.0	SS-1	2	3	4	7
			2.5	SS-2	2	3	4	7
	4.5	Firm to stiff, tan, brown & red, non-reactive, sandy SILT (ML/A-6). LL=38, PL=25, PI=13, NMC=24.1, %#200=52.3	5.0	SS-3	3	8	7	15
			7.5	SS-4	1	4	4	8
995.5			10.0	SS-5	1	3	3	6
990.5			15.0	SS-6	3	5	5	10
985.5	18.3	Loose to very dense, tan, gray, red & brown, non-reactive, silty SAND (SM/A-4). LL=31, PL=25, PI=6, NMC=18.8, %#200=38.5	20.0	SS-7	4	4	4	8
980.5			25.0	SS-8	2	11	35	46
975.5			30.0	SS-9	50/0.4			50/0.4
970.5	33.3	Very dense, brown, tan, red & gray, non-reactive, silty SAND (SM/A-4). LL=30, PL=28, PI=2, NMC=20.2, %#200=37.2	35.0	SS-10	50/0.5			50/0.5
965.5			40.0	SS-11	19	50/0.3		50/0.3
960.5			45.0	SS-12	50/0.3			50/0.3
955.5			50.0					



LEGEND

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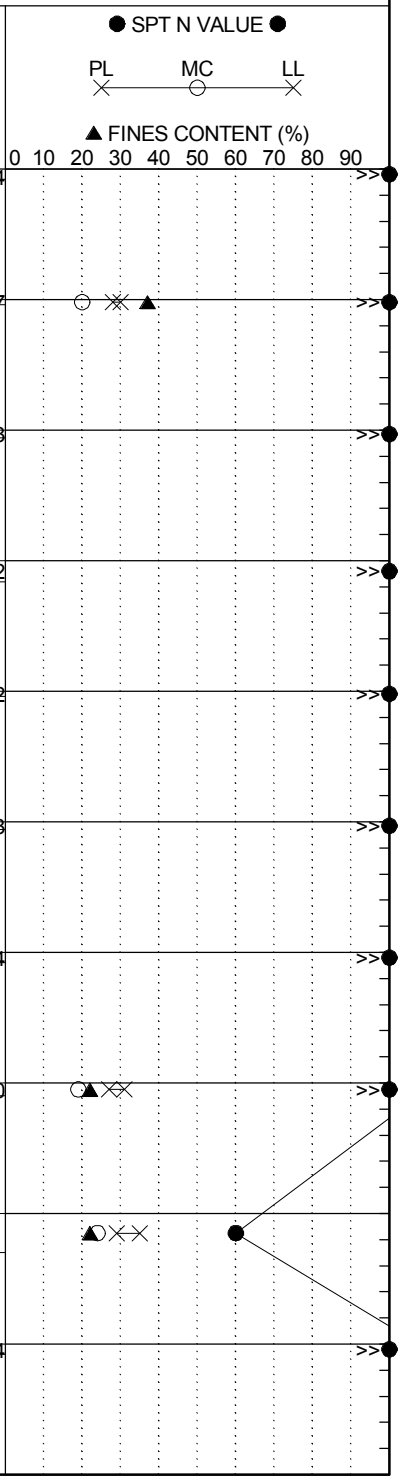
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-24	**Boring Location:**	393+76	**Offset:**	151' Rt.	**Alignment:**	I-385
Elev.:	1000.5 ft	**Latitude:**	34.8323	**Longitude:**	82.29549	**Date Started:**	1/16/2012
Total Depth:	100.3 ft	**Soil Depth:**	100.3 ft	**Core Depth:**	ft	**Date Completed:**	1/17/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
				SS-13	50/0.4			50/0.4
945.5			55.0	SS-14	25	35	50/0.2	85/0.7
940.5			60.0	SS-15	50/0.3			50/0.3
935.5			65.0	SS-16	49	50/0.2		50/0.2
930.5			70.0	SS-17	50/0.2			50/0.2
925.5			75.0	SS-18	50/0.3			50/0.3
	78.3	Very dense, tan, brown, gray, yellow & white, non-reactive, silty SAND (SM/A-2-4). LL=31, PL=27, PI=4, NMC=19.2, %#200=21.9						
920.5			80.0	SS-19	50/0.4			50/0.4
915.5			85.0	SS-20	45	43	50/0.5	93/1.0
	88.3	Very dense, black, white, brown & tan, non-reactive, silty SAND (SM/A-2-4). LL=35, PL=29, PI=6, NMC=23.8, %#200=21.9						
910.5			90.0	SS-21	30	27	33	60
905.5			95.0	SS-22	50/0.4			50/0.4
			100.0					



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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-24	**Boring Location:**	393+76	**Offset:**	151' Rt.	**Alignment:**	I-385
Elev.:	1000.5 ft	**Latitude:**	34.8323	**Longitude:**	82.29549	**Date Started:**	1/16/2012
Total Depth:	100.3 ft	**Soil Depth:**	100.3 ft	**Core Depth:**	ft	**Date Completed:**	1/17/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	100.3	SPT Refusal & Boring Terminated @ 100.3' (Elev. 900.2).			SS-23	50/0.3			50/0.3
895.5									
890.5									
885.5									
880.5									
875.5									
870.5									
865.5									
860.5									
855.5									

● SPT N VALUE ●

PL ✕ MC ○ LL ✕

▲ FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90 >>●

LEGEND

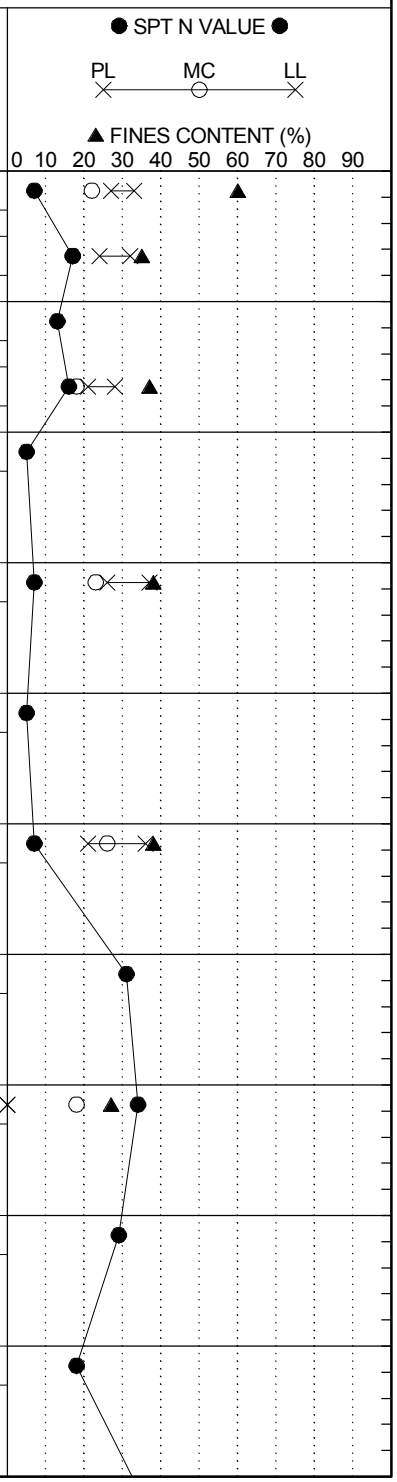
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-25	**Boring Location:**	86+11	**Offset:**	4' Lt.	**Alignment:**	Ramp 1A
Elev.:	1003.4 ft	**Latitude:**	34.8313	**Longitude:**	82.29578	**Date Started:**	12/13/2011
Total Depth:	100.1 ft	**Soil Depth:**	100.1 ft	**Core Depth:**	ft	**Date Completed:**	12/13/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION
	0.0	
	2.0	Firm, brown, non-reactive, sandy SILT (ML/A-4). LL=33, PL=27, PI=6, NMC=21.5, %#200=59.6
998.4	4.5	Medium dense, med. brown, non-reactive, silty SAND (SM/A-2-4). LL=32, PL=24, PI=8, NMC=17.4, %#200=34.9
993.4	13.3	Loose to medium dense, med. brown & brown, non to weakly reactive, clayey SAND (SC-SM/A-4). LL=28, PL=21, PI=7, NMC=18.4, %#200=36.9
988.4		Loose, brown, weakly reactive, silty SAND (SM/A-6). LL=37, PL=26, PI=11, NMC=23.4, %#200=37.5
983.4	23.3	Loose, med. brown, non-reactive, clayey SAND (SC/A-6). LL=36, PL=21, PI=15, NMC=26.3, %#200=37.8
978.4	28.3	Medium dense to dense, red, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=17.5, %#200=26.5
973.4		
968.4		
963.4	43.3	Medium dense to very dense, red & brown, non to weakly reactive, silty SAND (SM/A-4). LL=34, PL=29, PI=5, NMC=26.7, %#200=38.5
958.4		

Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	SS-1	2	3	4	7
2.5	SS-2	6	8	9	17
5.0	SS-3	4	5	8	13
7.5	SS-4	6	7	9	16
10.0	SS-5	3	3	2	5
15.0	SS-6	3	3	4	7
20.0	SS-7	3	3	2	5
25.0	SS-8	2	2	5	7
30.0	SS-9	12	28	3	31
35.0	SS-10	5	17	17	34
40.0	SS-11	6	13	16	29
45.0	SS-12	3	7	11	18
50.0					



LEGEND

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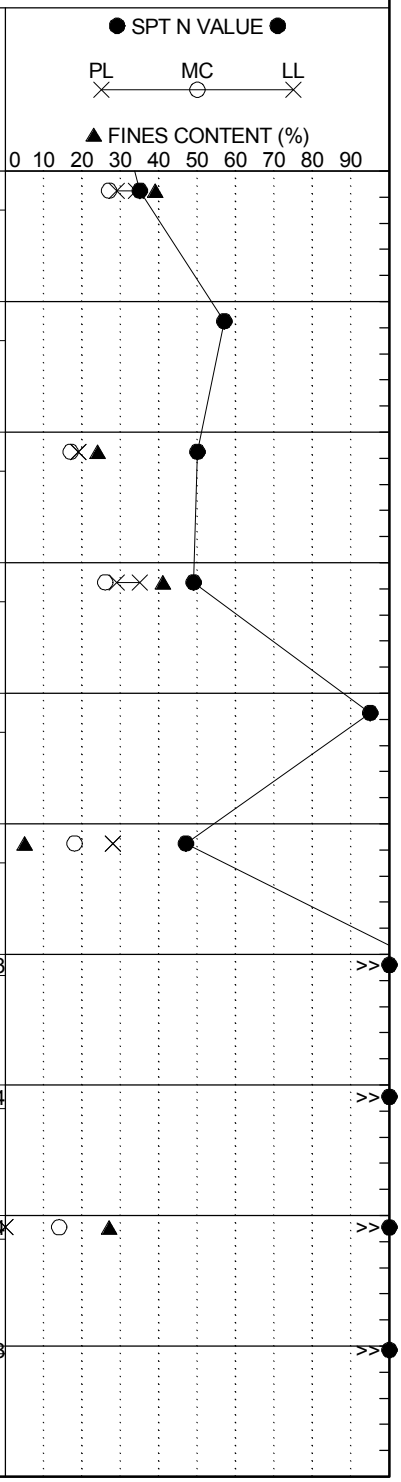
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-25	**Boring Location:**	86+11	**Offset:**	4' Lt.	**Alignment:**	Ramp 1A
Elev.:	1003.4 ft	**Latitude:**	34.8313	**Longitude:**	82.29578	**Date Started:**	12/13/2011
Total Depth:	100.1 ft	**Soil Depth:**	100.1 ft	**Core Depth:**	ft	**Date Completed:**	12/13/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
948.4			55.0	SS-13	5	18	17	35
			60.0	SS-14	10	27	30	57
943.4	58.3	Dense, red, non-reactive, silty SAND (SM/A-2-4). LL=19, PL=19, PI=NP, NMC=17.2, %#200=23.7		SS-15	20	23	27	50
938.4	63.3	Dense to very dense, brown, non-reactive, silty SAND (SM/A-4). LL=35, PL=29, PI=6, NMC=25.8, %#200=41.0	65.0	SS-16	16	24	25	49
933.4			70.0	SS-17	40	47	48	95
928.4	73.3	Dense to very dense, brown, non-reactive, poorly graded SAND with silt (SP-SM/A-2-4). LL=28, PL=28, PI=NP, NMC=17.7, %#200=5.4	75.0	SS-18	20	20	27	47
923.4			80.0	SS-19	20	60/0.3		60/0.3
918.4			85.0	SS-20	40	60/0.4		60/0.4
913.4	88.0	Very dense, gray, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=14.1, %#200=27.2	90.0	SS-21	35	60/0.4		60/0.4
908.4			95.0	SS-22	60/0.3			60/0.3
			100.0					



LEGEND

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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-25	**Boring Location:**	86+11	**Offset:**	4' Lt.	**Alignment:**	Ramp 1A
Elev.:	1003.4 ft	**Latitude:**	34.8313	**Longitude:**	82.29578	**Date Started:**	12/13/2011
Total Depth:	100.1 ft	**Soil Depth:**	100.1 ft	**Core Depth:**	ft	**Date Completed:**	12/13/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	100.1	Rotary Bit Refusal & Boring Terminated @ 100.1' (Elev. 903.3).			SS-23	60/0.1			60/0.1	
898.4										
893.4										
888.4										
883.4										
878.4										
873.4										
868.4										
863.4										
858.4										

LEGEND

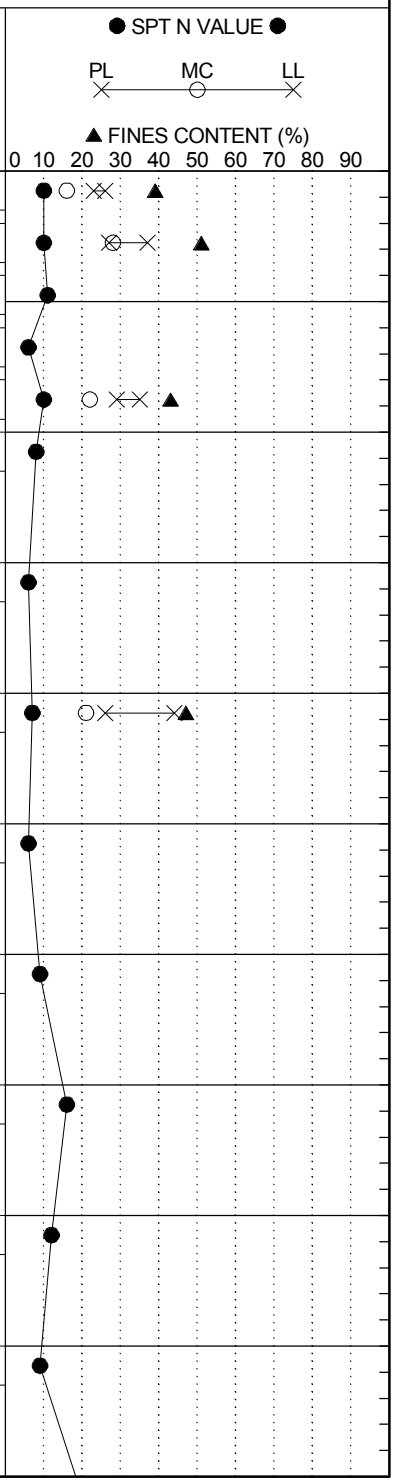
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-26	**Boring Location:**	83+26	**Offset:**	7' Lt.	**Alignment:**	Ramp 1A
Elev.:	1026.0 ft	**Latitude:**	34.832	**Longitude:**	82.29618	**Date Started:**	7/23/2012
Total Depth:	101.5 ft	**Soil Depth:**	101.5 ft	**Core Depth:**	ft	**Date Completed:**	7/24/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 850	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	74%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION
	0.0	
	1.8	Loose, tan, non-reactive, silty SAND (SM/A-4). LL=26, PL=23, PI=3, NMC=16.3, %#200=38.9
	3.8	Stiff, tan, non-reactive, sandy SILT (ML/A-4). LL=37, PL=27, PI=10, NMC=27.6, %#200=51.4
1021.0		
1016.0		Loose to medium dense, tan, non to weakly reactive, silty SAND (SM/A-4). LL=35, PL=29, PI=6, NMC=22.3, %#200=42.6
	13.3	Loose to medium dense, tan, red, brown & gray, non-reactive, clayey SAND (SC/A-7-6). LL=44, PL=26, PI=18, NMC=21.4, %#200=47.4
1011.0		
1006.0		
1001.0		
996.0		
991.0		
986.0		
981.0		

Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	SS-1	3	4	6	10
2.0					
4.0	SS-2	3	4	6	10
6.0	SS-3	4	5	6	11
8.0	SS-4	2	3	3	6
10.0	SS-5	3	4	6	10
15.0	SS-6	2	3	5	8
20.0	SS-7	1	3	3	6
25.0	SS-8	2	3	4	7
30.0	SS-9	2	3	3	6
35.0	SS-10	2	4	5	9
40.0	SS-11	2	7	9	16
45.0	SS-12	3	6	6	12
50.0	SS-13	2	4	5	9



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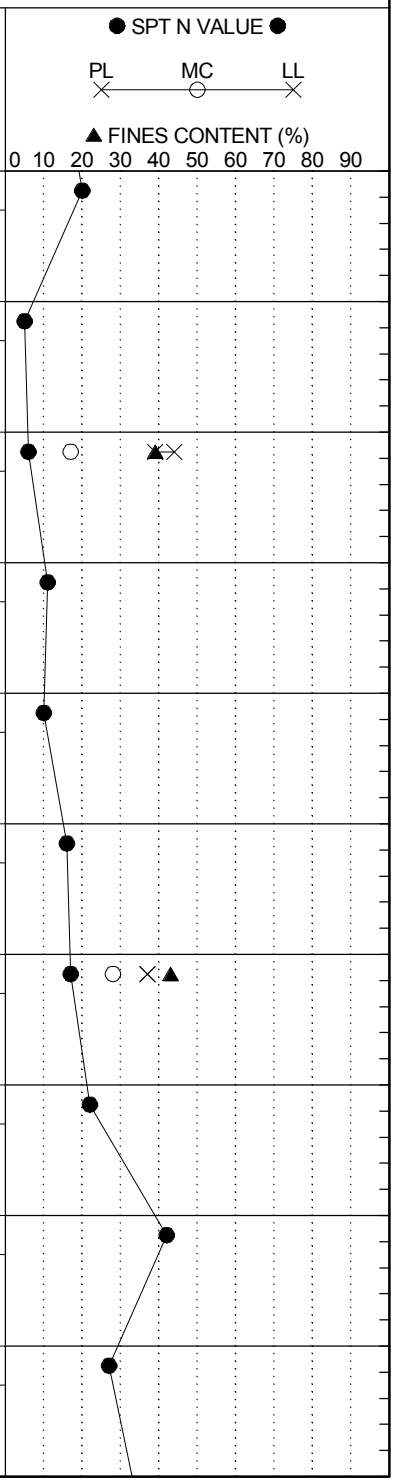
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-26	**Boring Location:**	83+26	**Offset:**	7' Lt.	**Alignment:**	Ramp 1A
Elev.:	1026.0 ft	**Latitude:**	34.832	**Longitude:**	82.29618	**Date Started:**	7/23/2012
Total Depth:	101.5 ft	**Soil Depth:**	101.5 ft	**Core Depth:**	ft	**Date Completed:**	7/24/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 850	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	74%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	53.3	Loose to medium dense, red, white & brown, non-reactive, silty SAND (SM/A-5).	55.0	SS-14	3	7	13	20
971.0				SS-15	2	2	3	5
966.0			60.0	SS-16	1	2	4	6
961.0			65.0	SS-17	3	4	7	11
	68.3	Loose to dense, white, brown & tan, non-reactive, silty SAND (SM/A-4). LL=37, PL=37, PI=NP, NMC=28.0, %#200=42.5	70.0	SS-18	4	5	5	10
956.0								
951.0			75.0	SS-19	4	7	9	16
946.0			80.0	SS-20	5	8	9	17
941.0			85.0	SS-21	5	10	12	22
936.0			90.0	SS-22	14	22	20	42
931.0			95.0	SS-23	10	12	15	27
			100.0					



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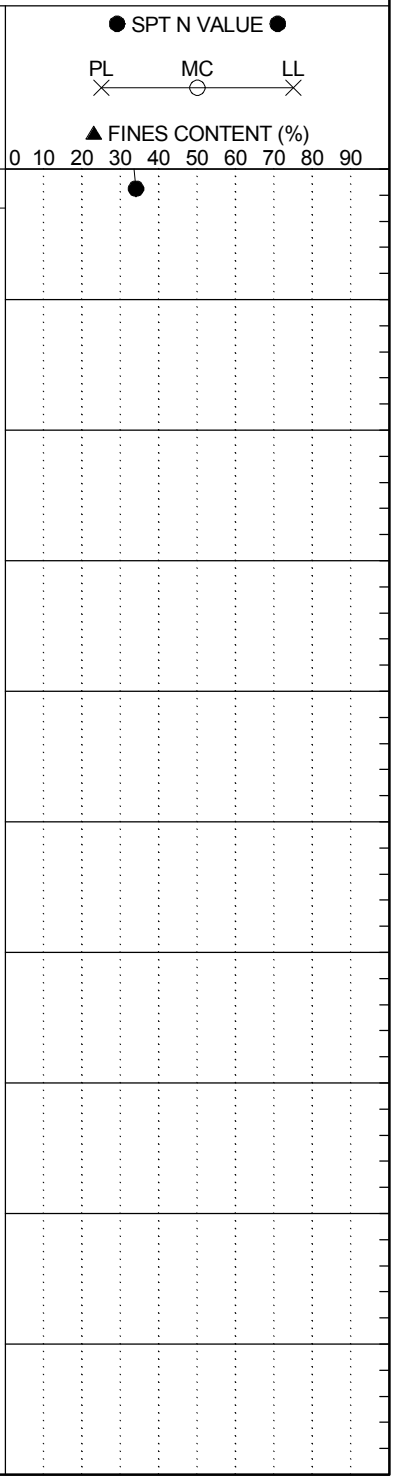
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-26	**Boring Location:**	83+26	**Offset:**	7' Lt.	**Alignment:**	Ramp 1A
Elev.:	1026.0 ft	**Latitude:**	34.832	**Longitude:**	82.29618	**Date Started:**	7/23/2012
Total Depth:	101.5 ft	**Soil Depth:**	101.5 ft	**Core Depth:**	ft	**Date Completed:**	7/24/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 850	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	74%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	101.5				SS-24	16	15	19	34
		No Refusal & Boring Terminated @ 101.5' (Elev. 924.5).							
921.0									
916.0									
911.0									
906.0									
901.0									
896.0									
891.0									
886.0									
881.0									



LEGEND

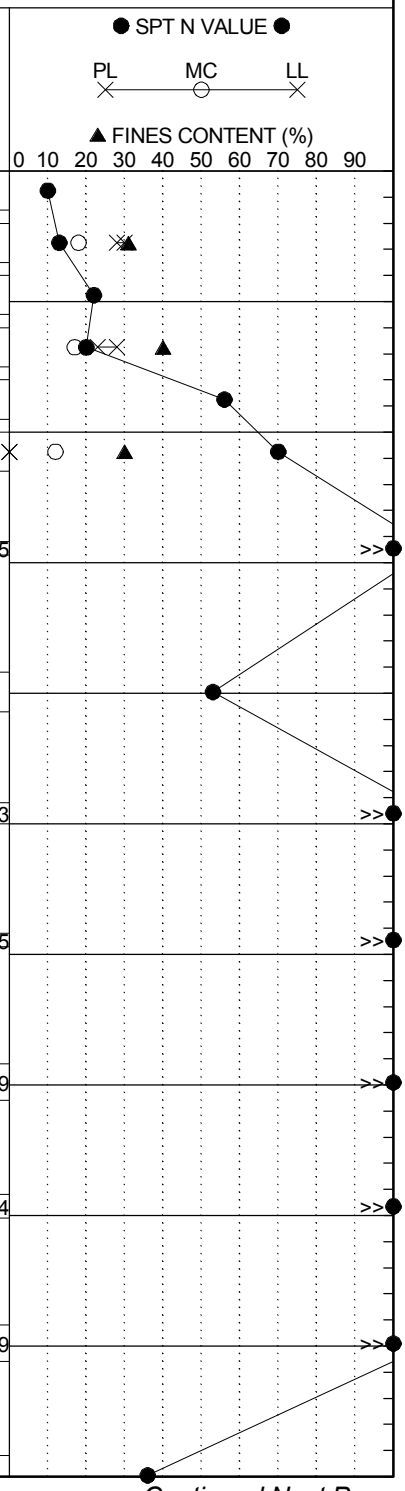
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-27	**Boring Location:**	75+49	**Offset:**	CL	**Alignment:**	Ramp 1A
Elev.:	988.8 ft	**Latitude:**	34.83407	**Longitude:**	82.29592	**Date Started:**	11/4/2011
Total Depth:	104.5 ft	**Soil Depth:**	84.5 ft	**Core Depth:**	104.5 ft	**Date Completed:**	11/5/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA/RC	**Hammer Type:**	Automatic	**Energy Ratio:**	93%
Core Size:	NQ2	**Driller:**	F. Woodard	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION
	0.0	Loose to medium dense, red & brown, non-reactive, silty SAND (SM/A-2-4). LL=30, PL=28, PI=2, NMC=18.0, %#200=30.8
983.8	3.8	Medium dense to very dense, red & brown, non-reactive, silty SAND (SM/A-4). LL=28, PL=23, PI=5, NMC=17.0, %#200=39.7
978.8	9.8	Very dense, red, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=11.7, %#200=29.5
973.8	17.0	Dense to very dense, red, non to weakly reactive, clayey SAND (SC-SM/A-2-4). LL=29, PL=22, PI=7, NMC=19.6, %#200=22.1
968.8		
963.8		
958.8		
953.8		
948.8		
943.8		

Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	SS-1	4	4	6	10
2.0	SS-2	4	5	8	13
4.0	SS-3	6	10	12	22
6.0	SS-4	6	10	10	20
8.0	SS-5	7	28	28	56
10.0	SS-6	22	35	35	70
14.2	SS-7	50/0.5			50/0.5
19.2	SS-8	17	21	32	53
24.2	SS-9	31	50/0.3		50/0.3
29.2	SS-10	50/0.5			50/0.5
34.2	SS-11	28	40	50/0.4	90/0.9
39.2	SS-12	26	50/0.4		50/0.4
44.2	SS-13	10	30	50/0.4	80/0.9
49.2					



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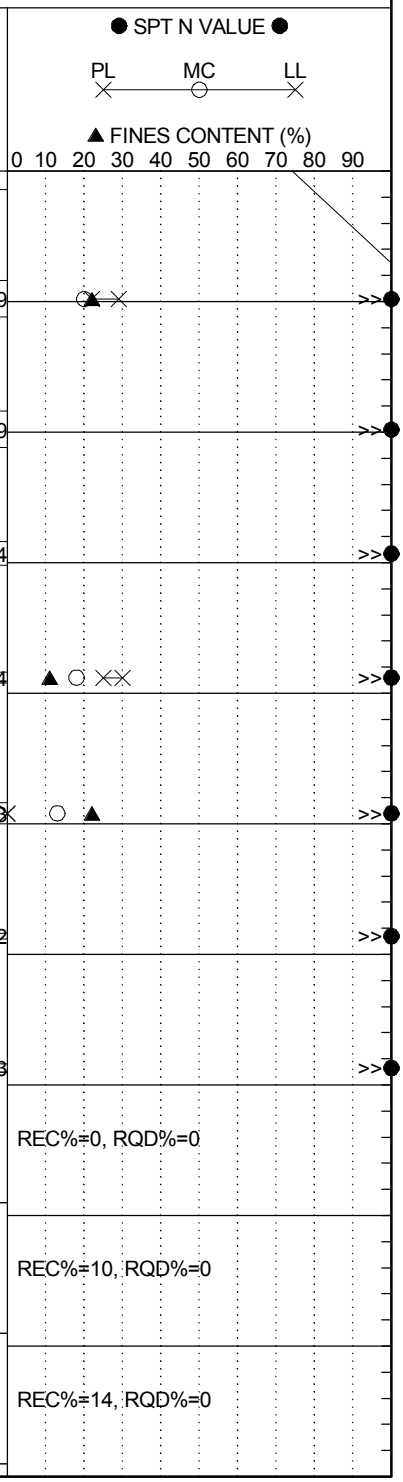
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-27	**Boring Location:**	75+49	**Offset:**	CL	**Alignment:**	Ramp 1A
Elev.:	988.8 ft	**Latitude:**	34.83407	**Longitude:**	82.29592	**Date Started:**	11/4/2011
Total Depth:	104.5 ft	**Soil Depth:**	84.5 ft	**Core Depth:**	104.5 ft	**Date Completed:**	11/5/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA/RC	**Hammer Type:**	Automatic	**Energy Ratio:**	93%
Core Size:	NQ2	**Driller:**	F. Woodard	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
					SS-14	16	16	20	36
933.8				54.2	SS-15	10	30	50/0.4	80/0.9
928.8				59.2	SS-16	10	26	50/0.4	76/0.9
923.8				64.2	SS-17	38	50/0.4		50/0.4
	67.5	Very dense, red, non-reactive, well-graded SAND with silt & gravel (SW-SM/A-1-b). LL=30, PL=25, PI=5, NMC=18.1, %#200=11.4		69.2	SS-18	50/0.4			50/0.4
918.8	72.5	Very dense, red, non to weakly reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=13.3, %#200=22.4		74.2	SS-19	30	50/0.3		50/0.3
913.8				79.2	SS-20	50/0.2			50/0.2
908.8				84.2	SS-21	50/0.3			50/0.3
903.8	84.5	Auger Refusal @ 84.5' Begin Coring. Interpreted core losss interval - completely weathered to residual soil		84.5	NQ-1				
898.8				89.5	NQ-2				
893.8	94.0	Orange-brown-dk. brown-yellow, sparse lt. gray, highly to completely weathered, low hardness w/seams hard, interpreted as Weathered Rock.		94.5	NQ-3				
				99.5					



LEGEND

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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-27	**Boring Location:**	75+49	**Offset:**	CL	**Alignment:**	Ramp 1A
Elev.:	988.8 ft	**Latitude:**	34.83407	**Longitude:**	82.29592	**Date Started:**	11/4/2011
Total Depth:	104.5 ft	**Soil Depth:**	84.5 ft	**Core Depth:**	104.5 ft	**Date Completed:**	11/5/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA/RC	**Hammer Type:**	Automatic	**Energy Ratio:**	93%
Core Size:	NQ2	**Driller:**	F. Woodard	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	100.7	Lt. gray, white, pale green, black, sli. to mod. weathered w/seam highly to completely weathered, hard w/seam friable, VC discontinuity spacing w/VN to N width, Feldspar Quartz Sillimanite Augite Schist.			NQ-4					REC%=90, RQD%=48
883.8	104.5	5 0°-20° w/hard walls, iron stain, 2mm sep.; 4 30°-55° fracs. w/hard walls, pyrtie grains on wallsw, 2mm sep.								
878.8		Boring Terminated @ 104.5' (Elev. 884.3).								
873.8										
868.8										
863.8										
858.8										
853.8										
848.8										
843.8										

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements

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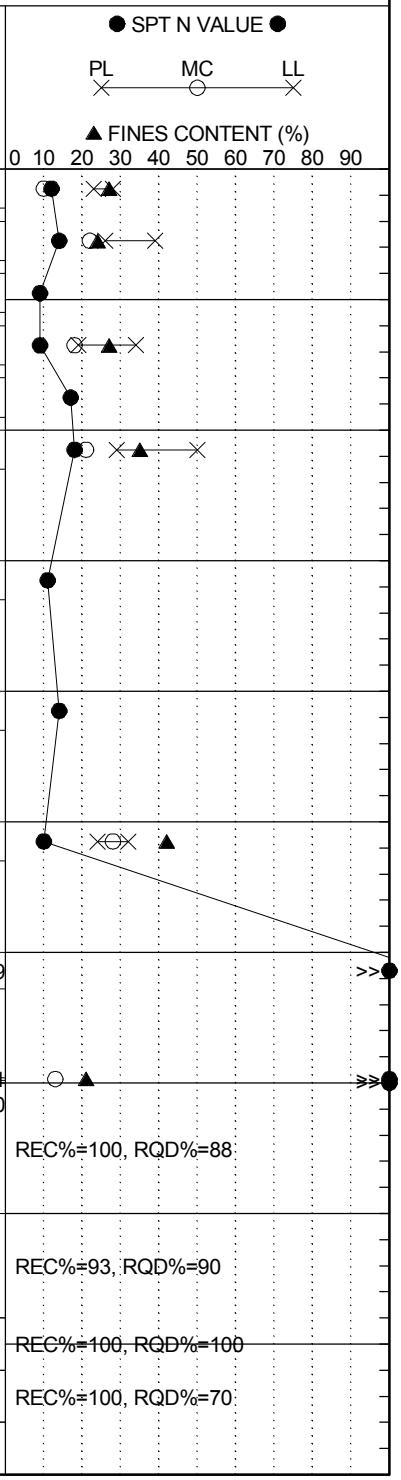
SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-28	**Boring Location:**	72+06	**Offset:**	5' Rt.	**Alignment:**	Ramp 1A
Elev.:	993.7 ft	**Latitude:**	34.83483	**Longitude:**	82.29526	**Date Started:**	5/14/2012
Total Depth:	55 ft	**Soil Depth:**	35.0 ft	**Core Depth:**	55.0 ft	**Date Completed:**	5/16/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0		0.0	SS-1	4	4	8	12
	1.8	Medium dense, brown, non-reactive, silty SAND (SM/A-2-4). LL=28, PL=23, PI=5, NMC=10.1, %#200=27.3	2.0	SS-2	8	6	8	14
	3.8		4.0	SS-3	4	4	5	9
988.7		Medium dense, red & brown, weakly reactive, silty SAND (SM/A-2-6). LL=39, PL=26, PI=13, NMC=22.4, %#200=24.1	6.0	SS-4	2	3	6	9
	7.8		8.0	SS-5	5	7	10	17
983.7		Loose, red & brown, non-reactive, clayey SAND (SC/A-2-6). LL=34, PL=19, PI=15, NMC=18.0, %#200=27.2	10.0	SS-6	6	8	10	18
978.7		Medium dense, red & brown, non-reactive, silty SAND (SM/A-2-7). LL=50, PL=29, PI=21, NMC=21.4, %#200=35.0	15.0	SS-7	4	5	6	11
	18.3		20.0	SS-8	7	7	7	14
973.7		Loose to very dense, tan, white, brown & black, non-reactive, silty SAND (SM/A-4). LL=32, PL=24, PI=8, NMC=28.0, %#200=41.8	25.0	SS-9	9	5	5	10
968.7			30.0	SS-10	25	29	50/0.4	79/0.9
963.7								
	33.2	Very dense, black & white, non-reactive, silty SAND with gravel (SM/A-1-b). LL=NA, PL=NA, PI=NA, NMC=12.5, %#200=20.5	34.8	SS-11	50/0.1			50/0.1
958.7	35.0		35.0	SS-12	50/0.0			50/0.0
		Auger Refusal @ 35.0' Begin Coring.	35.0	NQ-1				
953.7	41.0	White, smoky gray, lt. gray, black, orange-brown stain, fresh w/sli. weathering on discontinuity walls, hard to v. hard, v. cse. crystalline to megacrystalline, VC to C discontinuity spacing w/T to VN width, Feldspar Quartz Pegmatite w/biotite & muscovite, gneissic pods.	40.0	NQ-2				
948.7			44.0	NQ-3				
	47.4	35.0'-35.4' 80° jt. w/sli. rough, hard walls, tight to 1mm open, iron stain; frac. interval 38.2'-38.7' w/open & healed fracs., iron stain	46.0	NQ-4				
	49.7		48.0					



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LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-28	**Boring Location:**	72+06	**Offset:**	5' Rt.	**Alignment:**	Ramp 1A
Elev.:	993.7 ft	**Latitude:**	34.83483	**Longitude:**	82.29526	**Date Started:**	5/14/2012
Total Depth:	55 ft	**Soil Depth:**	35.0 ft	**Core Depth:**	55.0 ft	**Date Completed:**	5/16/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

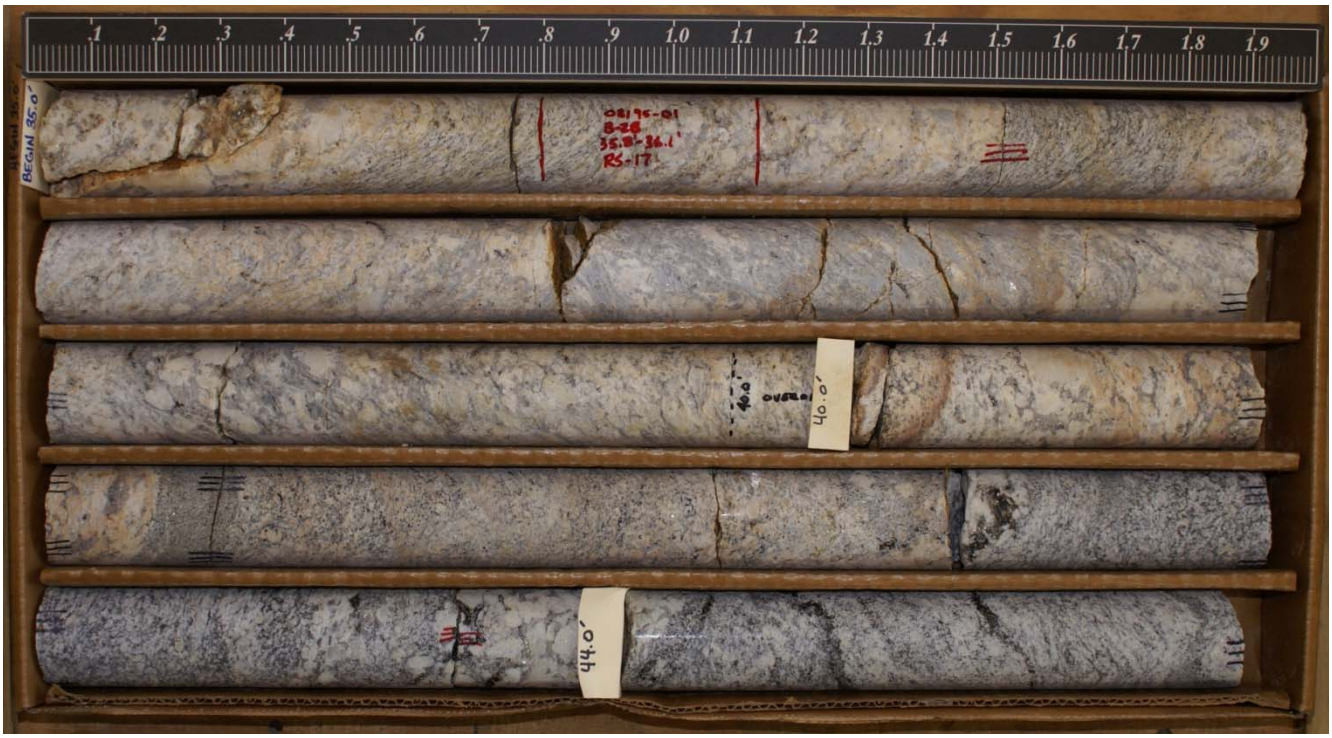
Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
		White, lt. gray, black, pale green in part, fresh, hard to v. hard, med. to cse. crystalline, VC to C discontinuity spacing w/T to VN width, Feldspar Quartz Biotite Gneiss w/pegmatite interval & pods, pyrite-marcasite in intervals, augite, muscovite, trcs. garnets.			NQ-5					REC%=100, RQD%=100
		vugular & healed frac. 41.9'-42.1', pale green stain; interpreted core loss 42.3'-42.6'		54.0						
938.7	55.0				NQ-6					REC%=70, RQD%=70
933.7		Off white, smoky gray, lt. gray, black, orange-brown stain, fresh to sli. weathered, v. hard, v. cse. to megacrystalline, VC discontinuity spacing w/T to VN, width, healed fracs., Feldspar Quartz Pegmatite w/biotite & muscovite.								
928.7		White, lt. gray, black, fresh, v. hard, med. to cse. crystalline, C discontinuity spacing w/T width, Feldspar Quartz Gneiss w/biotite, pyrite-marcasite in laminae, augite, muscovite.								
923.7		interpreted core loss 54.7'-55.0'								
		Boring Terminated @ 55.0' (Elev. 938.7).								
918.7										
913.7										
908.7										
903.7										
898.7										

LEGEND

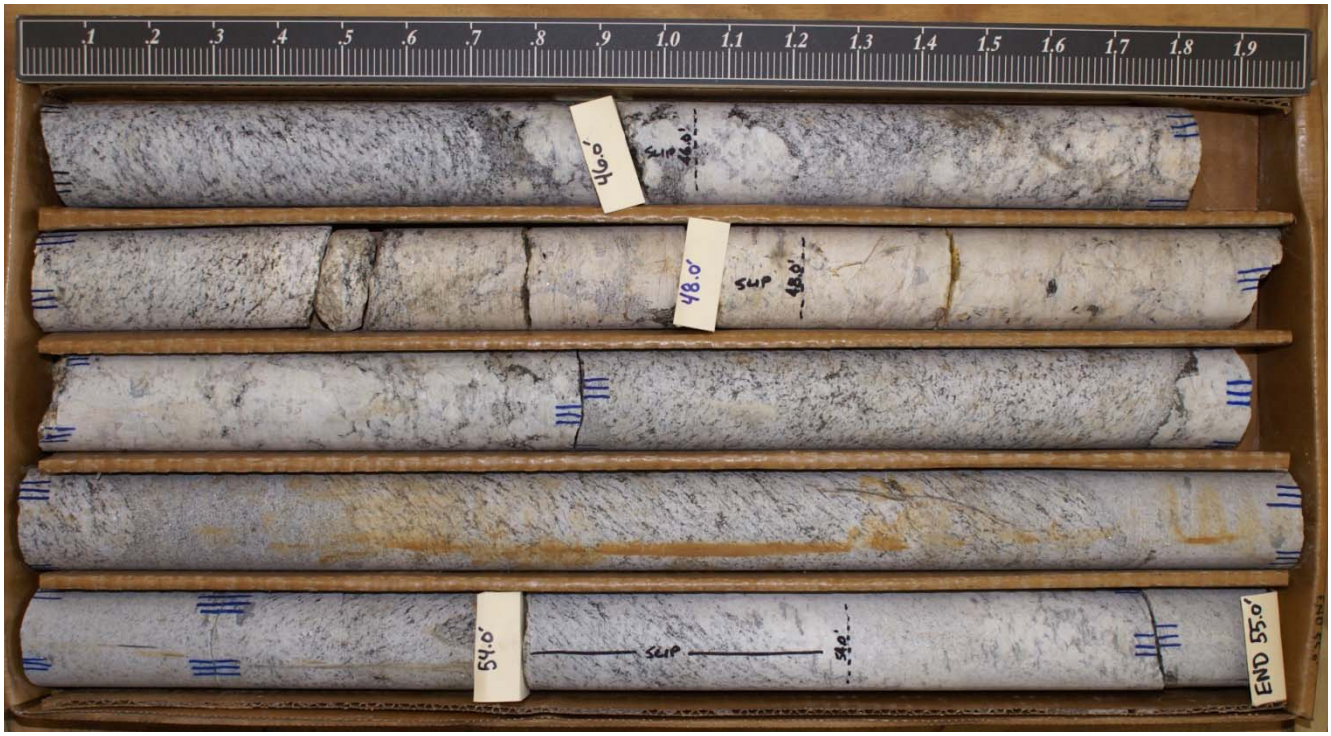
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements



B-28 Box 1 of 2



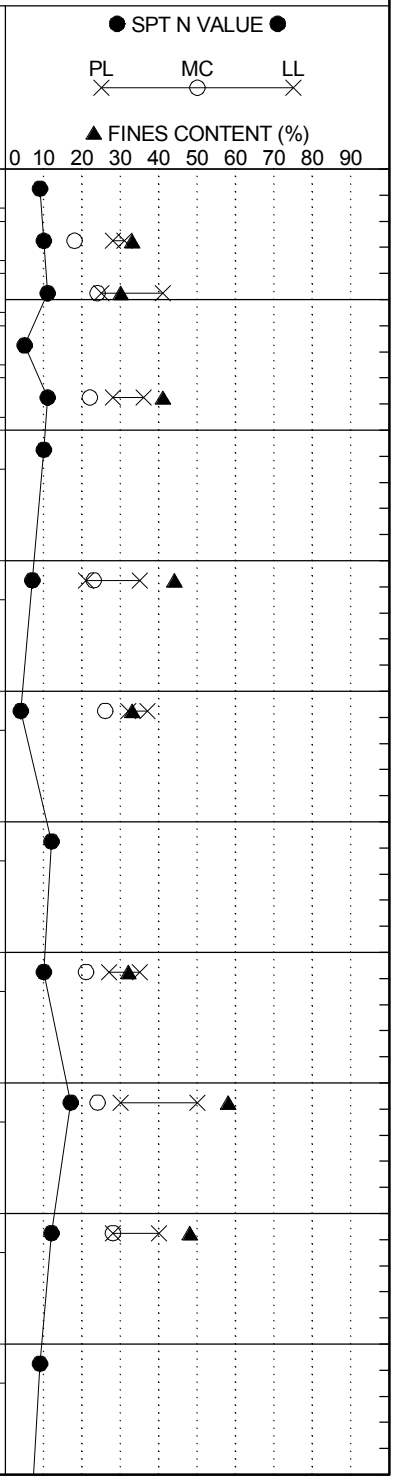
B-28 Box 2 of 2

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-29	**Boring Location:**	296+84	**Offset:**	30' Lt.	**Alignment:**	Ramp 3A
Elev.:	1015.3 ft	**Latitude:**	34.83354	**Longitude:**	82.29524	**Date Started:**	5/10/2012
Total Depth:	101.5 ft	**Soil Depth:**	101.5 ft	**Core Depth:**	ft	**Date Completed:**	5/10/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION
	0.0	Loose, red & brown, non to strongly reactive, silty SAND (SM/A-2-4). LL=31, PL=28, PI=3, NMC=18.0, %#200=32.5
1010.3	3.8	Medium dense, red & brown, non-reactive, clayey SAND with gravel (SC/A-2-7). LL=41, PL=25, PI=16, NMC=23.8, %#200=29.6
1005.3	5.8	Loose to medium dense, red & brown, non-reactive, silty SAND (SM/A-4). LL=36, PL=28, PI=8, NMC=22.0, %#200=40.5
1000.3	13.3	Loose, red & brown, non-reactive, clayey SAND (SC/A-6). LL=35, PL=21, PI=14, NMC=22.6, %#200=43.5
995.3	18.3	Very loose, red & brown, non-reactive, silty SAND (SM/A-2-4). LL=37, PL=32, PI=5, NMC=26.4, %#200=33.1
990.3	23.3	Loose to medium dense, dark brown, red & tan, non-reactive, silty SAND (SM/A-2-4). LL=35, PL=27, PI=8, NMC=20.6, %#200=32.4
985.3	33.3	Very stiff, red, non-reactive, sandy, elastic SILT (MH/A-7-5). LL=50, PL=30, PI=20, NMC=23.8, %#200=58.0
980.3	38.3	Medium dense, red & brown, non-reactive, silty SAND (SM/A-6). LL=40, PL=28, PI=12, NMC=27.9, %#200=48.0
975.3	43.3	Loose to medium dense, white & tan, non to weakly reactive, silty SAND (SM/A-4). LL=40, PL=33, PI=7, NMC=29.4, %#200=45.8
970.3		

Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	SS-1	2	4	5	9
2.0					
4.0	SS-2	4	5	5	10
6.0	SS-3	2	3	8	11
8.0	SS-4	3	2	3	5
10.0	SS-5	4	4	7	11
15.0	SS-6	4	4	6	10
20.0	SS-7	3	3	4	7
25.0	SS-8	2	2	2	4
30.0	SS-9	3	6	6	12
35.0	SS-10	3	5	5	10
40.0	SS-11	5	7	10	17
45.0	SS-12	5	5	7	12
50.0	SS-13	4	4	5	9



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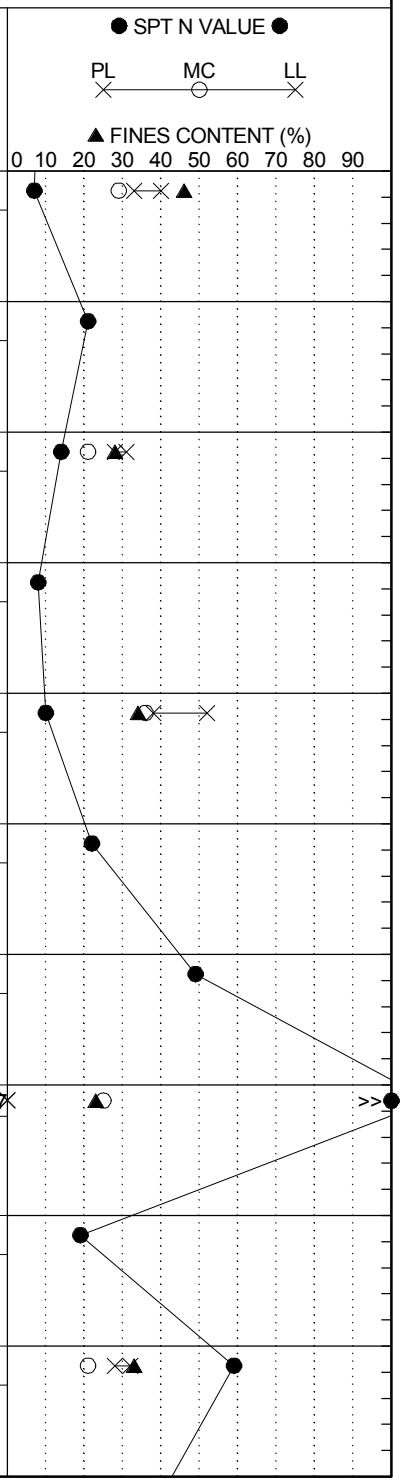
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-29	**Boring Location:**	296+84	**Offset:**	30' Lt.	**Alignment:**	Ramp 3A
Elev.:	1015.3 ft	**Latitude:**	34.83354	**Longitude:**	82.29524	**Date Started:**	5/10/2012
Total Depth:	101.5 ft	**Soil Depth:**	101.5 ft	**Core Depth:**	ft	**Date Completed:**	5/10/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
960.3			55.0	SS-14	2	3	4	7
				SS-15	4	12	9	21
	58.3	Medium dense, white, tan & brown, non-reactive, silty SAND (SM/A-2-4). LL=31, PL=28, PI=3, NMC=20.6, %#200=28.3	60.0	SS-16	12	8	6	14
955.3	63.3	Loose, white, non-reactive, silty SAND (SM/A-2-7). LL=52, PL=38, PI=14, NMC=35.9, %#200=33.8	65.0	SS-17	2	3	5	8
950.3			70.0	SS-18	4	3	7	10
945.3	73.3	Medium dense to very dense, white, tan & dark brown, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=24.8, %#200=23.4	75.0	SS-19	5	7	15	22
940.3			80.0	SS-20	18	13	36	49
935.3			85.0	SS-21	7	30	50/0.2	80/0.7
930.3			90.0	SS-22	9	9	10	19
925.3	93.3	Very dense, white & tan, non-reactive, silty SAND (SM/A-2-4). LL=32, PL=28, PI=4, NMC=21.3, %#200=32.6	95.0	SS-23	15	29	30	59
920.3	98.3	Dense, white & tan, non-reactive, silty SAND	100.0					



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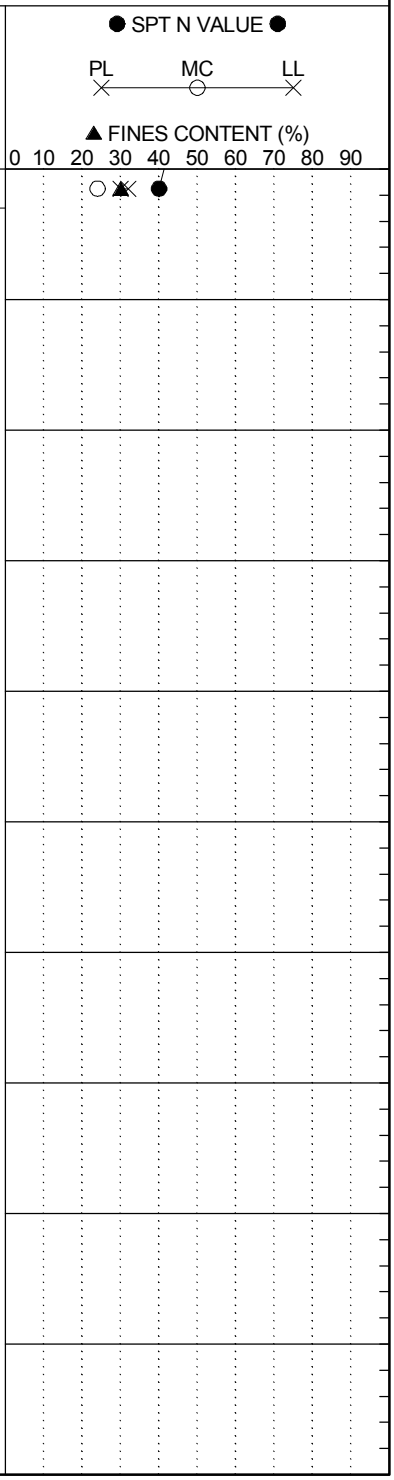
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-29	**Boring Location:**	296+84	**Offset:**	30' Lt.	**Alignment:**	Ramp 3A
Elev.:	1015.3 ft	**Latitude:**	34.83354	**Longitude:**	82.29524	**Date Started:**	5/10/2012
Total Depth:	101.5 ft	**Soil Depth:**	101.5 ft	**Core Depth:**	ft	**Date Completed:**	5/10/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	101.5	(SM/A-2-4). LL=32, PL=30, PI=2, NMC=23.6, %#200=29.7			SS-24	9	17	23	40
910.3		No Refusal & Boring Terminated @ 101.5' (Elev. 913.8).							
905.3									
900.3									
895.3									
890.3									
885.3									
880.3									
875.3									
870.3									



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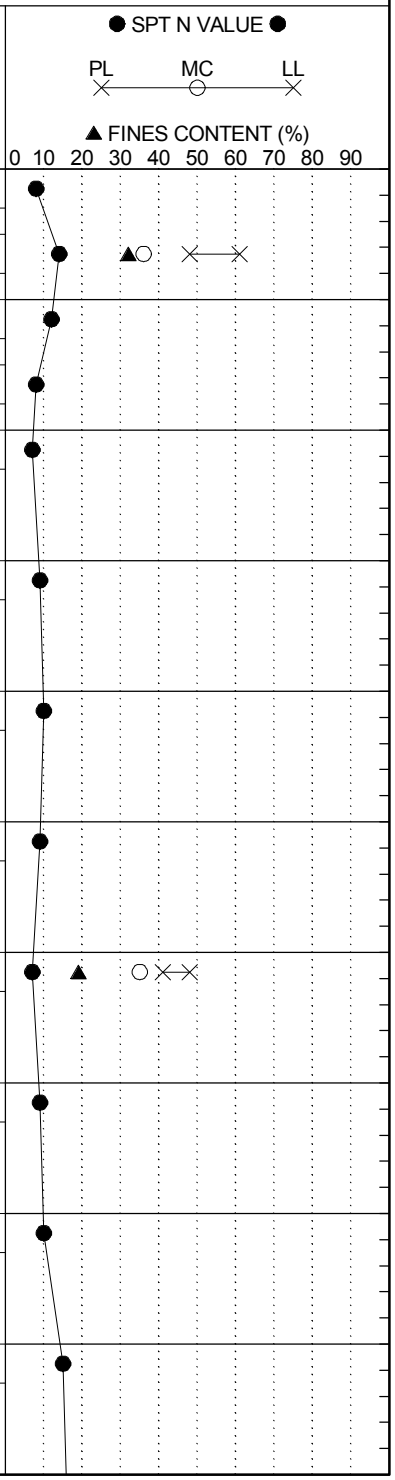
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-30	**Boring Location:**	36+39	**Offset:**	25' Lt.	**Alignment:**	Roper Mounta
Elev.:	936.2 ft	**Latitude:**	34.83776	**Longitude:**	82.28849	**Date Started:**	12/5/2011
Total Depth:	90 ft	**Soil Depth:**	70.0 ft	**Core Depth:**	85.0 ft	**Date Completed:**	12/5/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Loose to medium dense, med. red & red, weakly reactive, silty SAND (SM/A-2-7). LL=61, PL=48, PI=13, NMC=36.2, %#200=31.9		0.0	SS-1	1	3	5	8
				2.5	SS-2	3	5	9	14
931.2				5.0	SS-3	4	5	7	12
	7.0	Loose, red & brown, non to weakly reactive, silty SAND (SM/A-2-5). LL=48, PL=41, PI=7, NMC=34.5, %#200=18.8		7.5	SS-4	3	4	4	8
926.2				10.0	SS-5	3	3	4	7
921.2				15.0	SS-6	2	4	5	9
916.2				20.0	SS-7	3	4	6	10
911.2				25.0	SS-8	3	3	6	9
906.2				30.0	SS-9	2	3	4	7
901.2				35.0	SS-10	2	3	6	9
896.2				40.0	SS-11	2	4	6	10
	43.3	Medium dense to very dense, med. brown & gray, silty SAND (SM/A-2-4). LL=36, PL=33, PI=3, NMC=25.0, %#200=19.4		45.0	SS-12	5	7	8	15
891.2				50.0					



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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-30	**Boring Location:**	36+39	**Offset:**	25' Lt.	**Alignment:**	Roper Mounta
Elev.:	936.2 ft	**Latitude:**	34.83776	**Longitude:**	82.28849	**Date Started:**	12/5/2011
Total Depth:	90 ft	**Soil Depth:**	70.0 ft	**Core Depth:**	85.0 ft	**Date Completed:**	12/5/2011
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 55	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	73%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	SPT N VALUE / PL MC LL / FINES CONTENT (%)
				SS-13	10	7	9	16	
881.2			55.0	SS-14	60/0.2			60/0.2	>>
876.2			60.0	SS-15	60/0.1			60/0.1	>>
871.2			65.0	SS-16	60/0.1			60/0.1	>>
866.2	70.0	Auger Refusal @ 70.0' Begin Coring.	70.0	SS-17	60/0.0			60/0.0	>>
		White, lt. gray, black, pale green, trcs. pink-rose, fresh to sli. weathered w/intervals highly to completely weathered, hard to v. hard, dominately cse. to megacrystalline, VC discontinuity spacing w/T to MW width, Feldspar Quartz Augite Gneiss w/orthoclase pods, mica, pyrite grain clusters on frac. walls & rock mass, trcs. garnet.	70.0	NQ-1					REC%=84, RQD%=68
861.2			75.0	NQ-2					REC%=90, RQD%=48
856.2		15 0° fracs. w1-3mm sep., hard walls; 17 20°-30° fracs w/rough, hard walls, tight -3mm sep.; some frac. walls contain pyrite grain clusters; interpreted core loss 86.9'-90.0'	80.0	NQ-3					REC%=70, RQD%=50
851.2			85.0	NQ-4					REC%=38, RQD%=26
846.2	90.0	Boring Terminated @ 90.0' (Elev. 846.2).							
841.2									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements

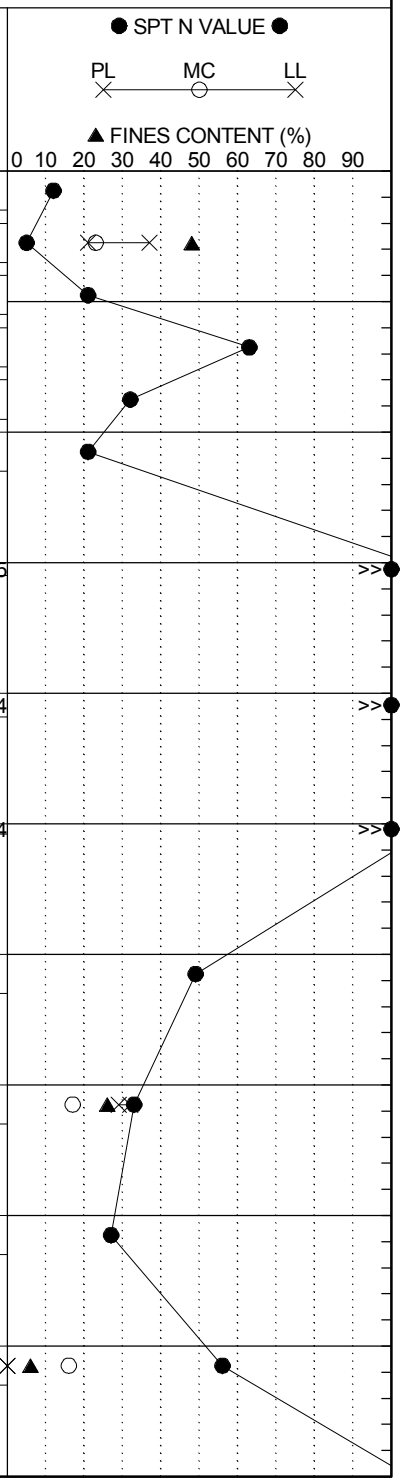
B-30 Box 1 of 2

B-30 Box 2 of 2

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-31	**Boring Location:**	40+08	**Offset:**	69' Rt.	**Alignment:**	Roper Mounta
Elev.:	937.4 ft	**Latitude:**	34.83852	**Longitude:**	82.28934	**Date Started:**	7/16/2012
Total Depth:	85 ft	**Soil Depth:**	65.0 ft	**Core Depth:**	85.0 ft	**Date Completed:**	7/19/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Loose to medium dense, brown & red, non-reactive, clayey SAND (SC/A-6). LL=37, PL=21, PI=16, NMC=22.7, %#200=47.9	0.0	SS-1	1	4	8	12
			2.0	SS-2	2	2	3	5
			4.0	SS-3	4	7	14	21
932.4	5.8	Medium dense to very dense, red, brown, tan & white, non to weakly reactive, silty SAND (SM/A-2-4). LL=32, PL=29, PI=3, NMC=16.8, %#200=26.0	6.0	SS-4	31	31	32	63
			8.0	SS-5	20	16	16	32
927.4			10.0	SS-6	20	8	13	21
922.4			15.0	SS-7	50/0.5			50/0.5
917.4			20.0	SS-8	40	50/0.4		50/0.4
912.4			25.0	SS-9	50/0.4			50/0.4
907.4			30.0	SS-10	20	24	25	49
902.4			35.0	SS-11	17	17	16	33
897.4			40.0	SS-12	7	9	18	27
	43.3	Very dense, tan, brown, gray & white, poorly graded GRAVEL with siilt and sand (GW-GM/A-1-a). LL=NP, PL=NP, PI=NP, NMC=15.7, %#200=6.2						
892.4			45.0	SS-13	10	24	32	56
			50.0					



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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	J. Patterson
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-31	**Boring Location:**	40+08	**Offset:**	69' Rt.	**Alignment:**	Roper Mounta
Elev.:	937.4 ft	**Latitude:**	34.83852	**Longitude:**	82.28934	**Date Started:**	7/16/2012
Total Depth:	85 ft	**Soil Depth:**	65.0 ft	**Core Depth:**	85.0 ft	**Date Completed:**	7/19/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 550	**Drill Method:**	RC	**Hammer Type:**	Automatic	**Energy Ratio:**	77%
Core Size:	NQ2	**Driller:**	SCI	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	SPT N VALUE (PL MC LL) / FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
				SS-14	13	50/0.4		50/0.4	>>
882.4			55.0	SS-15	50/0.1			50/0.1	>>
877.4			60.0	SS-16	50/0.1			50/0.1	>>
872.4	65.0		65.0	SS-17	50/0.0			50/0.0	>>
		Auger Refusal @ 65.0' Begin Coring.	65.0						
		Off white, lt. to med. gray, scattered dk. gray-black, brown-orange-red stain, fresh w/segments sli. weathered, v. hard, cse. crystalline to megacrystyalline, VC discontinuity spacing w/T to VN width, Feldspar Quartz Granitoid Rock w/poor gneissic foliation in parts, scattered muscovite pods w/pyrite, trcs garnets.		NQ-1					REC%=100, RQD%=94
867.4			70.0						
	73.6	11 0°-20° jts., hard walls, heavy iron oxide stain-precipitate, 1mm open; 2 30 ° jts., iron oxide stain, 1mm open; 2 50° jts., hard walls, graphite, gypsum & pyrite infill to 2mm; fracs. 72.0'-75.7' infill w/highly weathered graphite, gypsum & pyrite, 2mm-5mm		NQ-2					REC%=100, RQD%=52
862.4			75.0						
				NQ-3					REC%=100, RQD%=80
857.4			80.0						
		Gray, dk. gray-black, off white, trcs. blue-green, scat brown-orange stain, fresh to mod. weathered w/high weathering along some jts., v. hard to hard, med. to cse. crystalline, VC to C discontinuity spacing w/T to VN width, Feldspar Quartz Biotite Muscovite Gneiss w/granitoid augen, garnetiferous, scattered chlorite, graphite & pyrite.		NQ-4					REC%=90, RQD%=86
852.4	85.0								
847.4		foliation highly contorted; slickensides on 60° foliation 76.9'; 7 30°-50° foliation jts., mod. hard walls, 0-1mm open; 5 0°-20° jts., hard walls 0mm open; 3 70°-75° jts., hard walls 0mm open							
842.4		Boring Terminated @ 85.0' (Elev. 852.4).							

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements

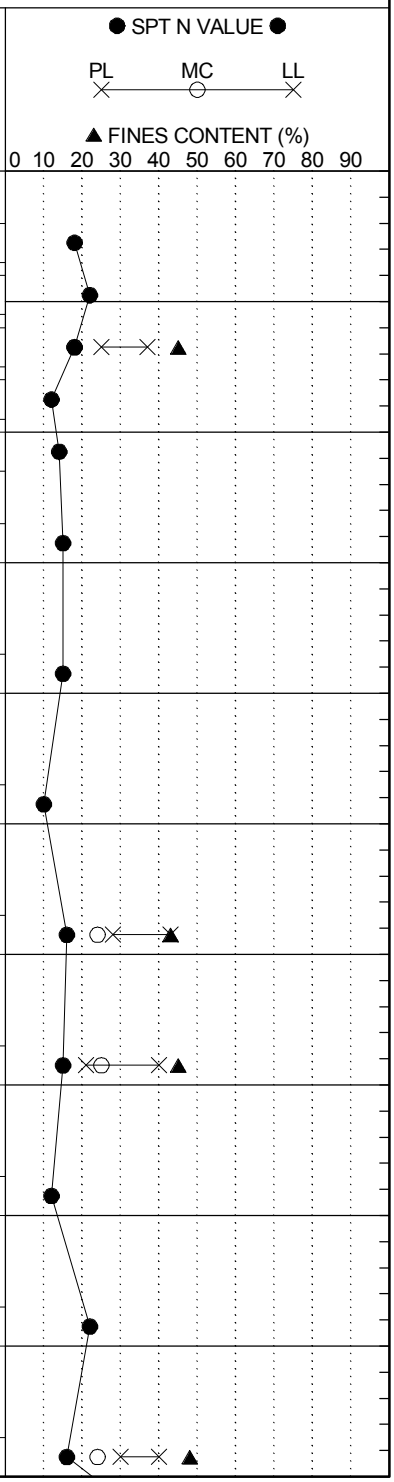
B-31 Box 1 of 2

B-31 Box 2 of 2

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-32	**Boring Location:**	40+70	**Offset:**	87' Lt.	**Alignment:**	Ramp 2B
Elev.:	1002.3 ft	**Latitude:**	34.83109	**Longitude:**	82.29574	**Date Started:**	10/6/2012
Total Depth:	89 ft	**Soil Depth:**	89.0 ft	**Core Depth:**	ft	**Date Completed:**	10/7/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	C. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, tan, brown & red, non-reactive, silty SAND (SM/A-6). LL=37, PL=25, PI=12, NMC=17.9, %#200=45.2	2.0					
				SS-1	6	7	11	18
			4.0					
997.3				SS-2	8	10	12	22
			6.0					
				SS-3	6	7	11	18
			8.0					
				SS-4	5	6	6	12
992.3			10.0					
				SS-5	6	8	6	14
			13.5					
				SS-6	8	7	8	15
987.3								
			18.5					
				SS-7	7	9	6	15
982.3								
	21.8	Loose to medium dense, tan, brown & red, non-reactive, silty SAND (SM/A-7-6). LL=43, PL=28, PI=15, NMC=23.8, %#200=43.0	23.5					
				SS-8	5	5	5	10
977.3								
			28.5					
				SS-9	7	7	9	16
972.3								
	31.8	Medium dense, brown & tan, non-reactive, clayey SAND (SC/A-6). LL=40, PL=21, PI=19, NMC=25.3, %#200=44.8	33.5					
				SS-10	7	7	8	15
967.3								
	36.8	Medium dense to very dense, brown, tan & gray, non-reactive, silty SAND (SM/A-4). LL=40, PL=30, PI=10, NMC=24.3, %#200=48.1	38.5					
				SS-11	5	5	7	12
962.3								
			43.5					
				SS-12	8	10	12	22
957.3								
			48.5					
				SS-13	8	7	9	16



LEGEND

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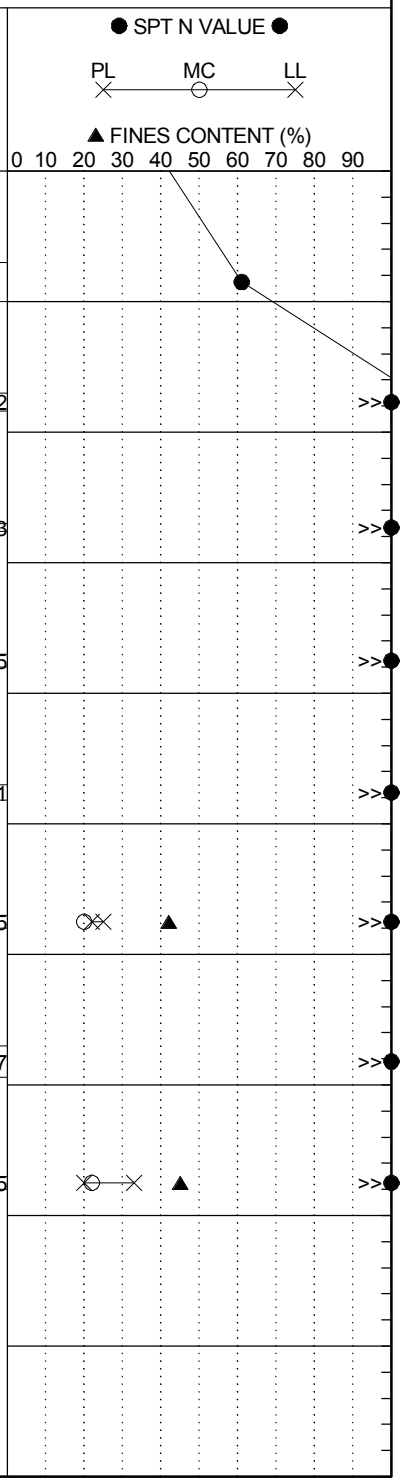
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-32	**Boring Location:**	40+70	**Offset:**	87' Lt.	**Alignment:**	Ramp 2B
Elev.:	1002.3 ft	**Latitude:**	34.83109	**Longitude:**	82.29574	**Date Started:**	10/6/2012
Total Depth:	89 ft	**Soil Depth:**	89.0 ft	**Core Depth:**	ft	**Date Completed:**	10/7/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	C. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
947.3			53.5	SS-14	24	31	30	61
942.3			58.5	SS-15	37	50/0.2		50/0.2
937.3			63.5	SS-16	50/0.3			50/0.3
	66.8	Very dense, tan, gray & white, non-reactive, silty SAND (SM/A-4). LL=25, PL=22, PI=3, NMC=19.9, %#200=41.7	68.5	SS-17	50/0.5			50/0.5
932.3			73.5	SS-18	28	50/0.1		50/0.1
927.3			78.5	SS-19	50/0.5			50/0.5
922.3			83.5	SS-20	27	31	50/0.2	81/0.7
917.3	86.8	Very dense, tan & gray, non-reactive, clayey SAND (SC/A-6). LL=33, PL=20, PI=13, NMC=22.4, %#200=45.2	88.5	SS-21	50/0.5			50/0.5
912.3	89.0	No Refusal & Boring Terminated @ 89.0' (Elev. 913.3).						
907.3								



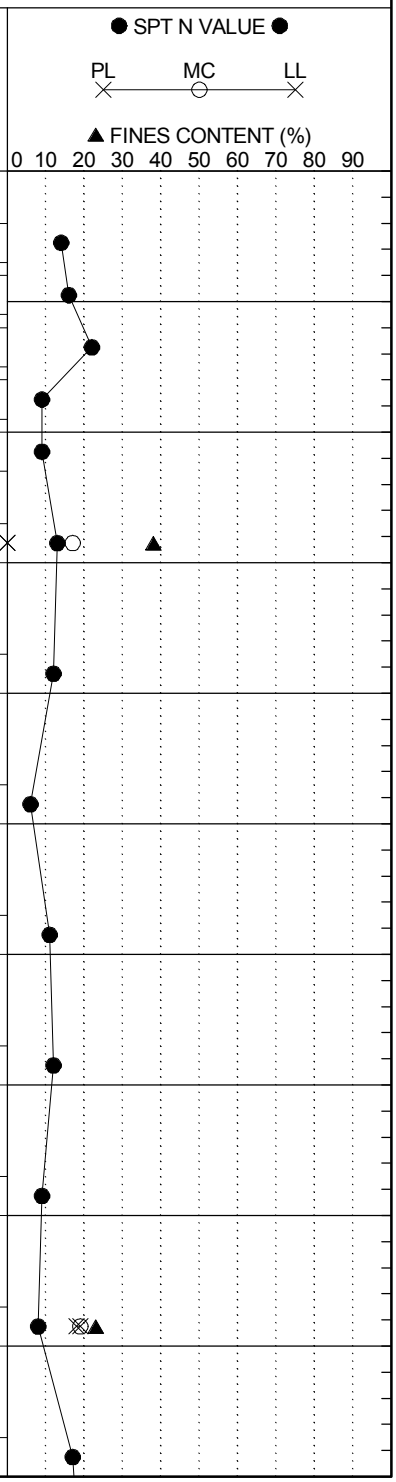
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-33	**Boring Location:**	88+76	**Offset:**	24' Lt.	**Alignment:**	Ramp 1A
Elev.:	1004.4 ft	**Latitude:**	34.83073	**Longitude:**	82.29522	**Date Started:**	10/6/2012
Total Depth:	79.1 ft	**Soil Depth:**	79.1 ft	**Core Depth:**	ft	**Date Completed:**	10/6/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	86%
Core Size:	NA	**Driller:**	M. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Loose to medium dense, red, brown, tan & gray, non-reactive, silty SAND (SM/A-4). LL=NP, PL=NP, PI=NP, NMC=16.5, %#200=37.7		2.0					
					SS-1	6	6	8	14
				4.0					
999.4					SS-2	5	7	9	16
				6.0					
					SS-3	9	11	11	22
				8.0					
					SS-4	5	4	5	9
994.4				10.0					
					SS-5	4	4	5	9
				13.5					
					SS-6	6	7	6	13
989.4									
				18.5					
					SS-7	5	5	7	12
984.4									
				23.5					
					SS-8	2	3	3	6
979.4									
				28.5					
					SS-9	4	5	6	11
974.4									
				33.5					
					SS-10	3	6	6	12
969.4									
				38.5					
					SS-11	3	3	6	9
964.4									
	41.5	Loose, gray, non-reactive, silty SAND (SM/A-2-4). LL=19, PL=18, PI=1, NMC=19.2, %#200=22.6		43.5					
					SS-12	3	3	5	8
959.4									
	46.8	Medium dense to very dense, white & tan, non-reactive, silty SAND (SM/A-4). LL=36, PL=33, PI=3, NMC=23.4,		48.5					
					SS-13	10	10	7	17



LEGEND

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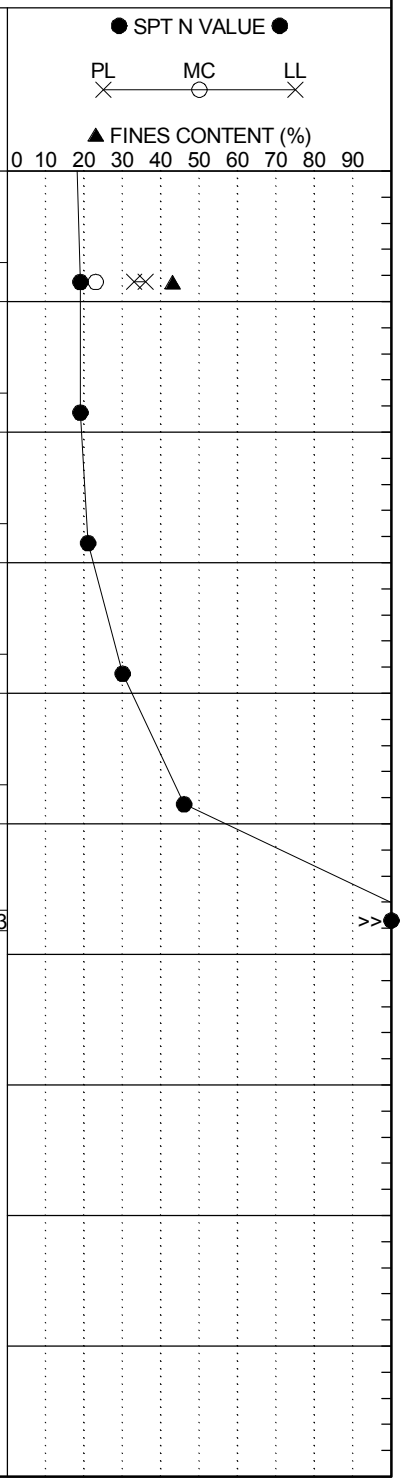
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-33	**Boring Location:**	88+76	**Offset:**	24' Lt.	**Alignment:**	Ramp 1A
Elev.:	1004.4 ft	**Latitude:**	34.83073	**Longitude:**	82.29522	**Date Started:**	10/6/2012
Total Depth:	79.1 ft	**Soil Depth:**	79.1 ft	**Core Depth:**	ft	**Date Completed:**	10/6/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	86%
Core Size:	NA	**Driller:**	M. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
		%#200=42.5		53.5	SS-14	7	9	10	19
949.4				58.5	SS-15	10	10	9	19
944.4				63.5	SS-16	10	11	10	21
939.4				68.5	SS-17	9	13	17	30
934.4				73.5	SS-18	19	26	22	46
929.4				78.3	SS-19	15	50/0.3		50/0.3
	79.1	No Refusal & Boring Terminated @ 79.1' (Elev. 925.3).							
924.4									
919.4									
914.4									
909.4									



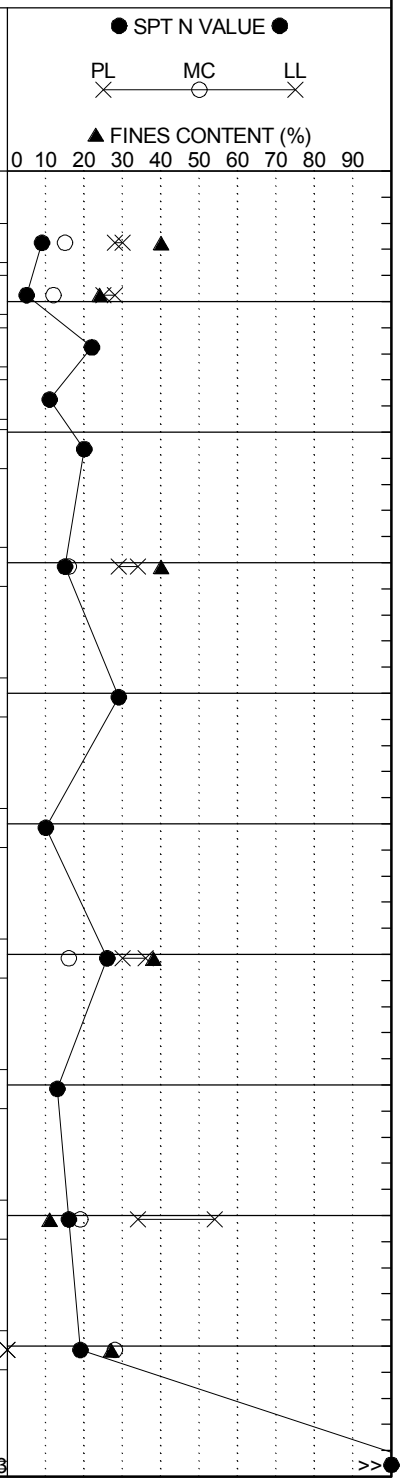
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-34	**Boring Location:**	94+10	**Offset:**	23' Lt.	**Alignment:**	I-385 SB C/D
Elev.:	1004.0 ft	**Latitude:**	34.82946	**Longitude:**	82.29434	**Date Started:**	11/2/2012
Total Depth:	49.7 ft	**Soil Depth:**	49.7 ft	**Core Depth:**	ft	**Date Completed:**	11/2/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NA	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Loose, tan & brown, non-reactive, silty SAND (SM/A-4). LL=30, PL=28, PI=2, NMC=15.4, %#200=40.1	2.0	SS-1	5	4	5	9
	3.8		4.0	SS-2	3	3	2	5
999.0		Loose to medium dense, tan, brown & white, non-reactive, silty SAND (SM/A-2-4). LL=28, PL=25, PI=3, NMC=11.5, %#200=23.6	6.0	SS-3	7	10	12	22
	7.8		8.0	SS-4	3	6	5	11
994.0		Medium dense, red, tan & black, non-reactive, silty SAND (SM/A-4). LL=34, PL=29, PI=5, NMC=15.8, %#200=40.0	9.9	SS-5	5	9	11	20
			14.4	SS-6	3	6	9	15
989.0	17.7	Loose to medium dense, white, black, tan & green, non-reactive, silty SAND (SM/A-4). LL=36, PL=30, PI=6, NMC=16.4, %#200=37.6	19.4	SS-7	3	14	15	29
984.0			24.4	SS-8	4	4	6	10
979.0			29.4	SS-9	7	10	16	26
974.0	32.7	Medium dense, tan, black & red, non-reactive, well-graded SAND with silt (SW-SM/A-2-7). LL=54, PL=34, PI=20, NMC=18.9, %#200=10.6	34.4	SS-10	8	6	7	13
969.0			39.4	SS-11	4	7	9	16
964.0	42.7	Medium dense to very dense, red, tan, black, white & gray, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=28.4, %#200=26.8	44.4	SS-12	2	5	14	19
959.0	49.7		49.4	SS-13	50/0.3			50/0.3



LEGEND

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SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-34	**Boring Location:**	94+10	**Offset:**	23' Lt.	**Alignment:**	I-385 SB C/D
Elev.:	1004.0 ft	**Latitude:**	34.82946	**Longitude:**	82.29434	**Date Started:**	11/2/2012
Total Depth:	49.7 ft	**Soil Depth:**	49.7 ft	**Core Depth:**	ft	**Date Completed:**	11/2/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NA	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
		No Refusal & Boring Terminated @ 49.7' (Elev. 954.3).								
949.0										
944.0										
939.0										
934.0										
929.0										
924.0										
919.0										
914.0										
909.0										

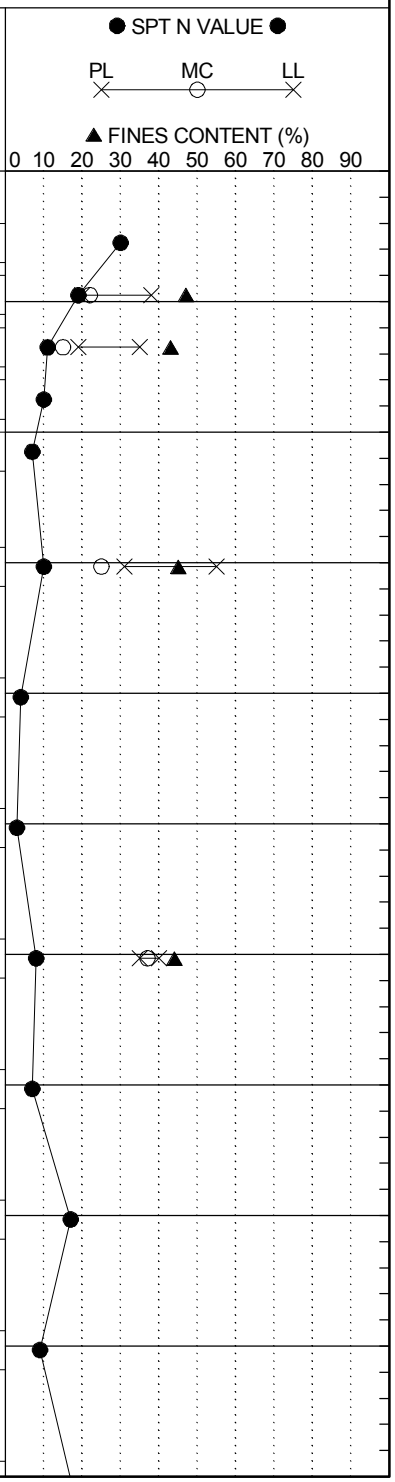
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-35	**Boring Location:**	97+07	**Offset:**	14' Lt.	**Alignment:**	I-385 SB C/D
Elev.:	974.9 ft	**Latitude:**	34.82778	**Longitude:**	82.29386	**Date Started:**	11/3/2012
Total Depth:	50.9 ft	**Soil Depth:**	50.9 ft	**Core Depth:**	ft	**Date Completed:**	11/3/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NA	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, red, brown, orange & red, non-reactive, clayey SAND (SC/A-6). LL=38, PL=20, PI=18, NMC=22.0, %#200=47.2	2.0					
				SS-1	2	14	16	30
			4.0					
969.9	5.8			SS-2	5	10	9	19
		Loose to medium dense, gray & tan, non-reactive, clayey SAND (SC/A-6). LL=35, PL=19, PI=16, NMC=14.5, %#200=43.0	6.0					
				SS-3	4	4	7	11
			8.0					
				SS-4	2	5	5	10
964.9			10.0					
				SS-5	1	3	4	7
	13.0	Loose, tan, red & white, non-reactive, silty SAND (SM/A-7-5). LL=55, PL=31, PI=24, NMC=24.7, %#200=45.4	14.4					
959.9				SS-6	3	4	6	10
	17.7	Very loose to medium dense, white, tan, black & red, non-reactive, silty SAND (SM/A-4). LL=40, PL=35, PI=5, NMC=37.0, %#200=43.9	19.4					
954.9				SS-7	2	2	2	4
			24.4					
949.9				SS-8	1	1	2	3
			29.4					
944.9				SS-9	2	4	4	8
			34.4					
939.9				SS-10	2	3	4	7
			39.4					
934.9				SS-11	3	7	10	17
	42.7	Loose to medium dense, tan, red & white, non-reactive, silty SAND (SM/A-4). LL=37, PL=34, PI=3, NMC=27.7, %#200=39.7	44.4					
929.9				SS-12	WOH	3	6	9
			49.4					



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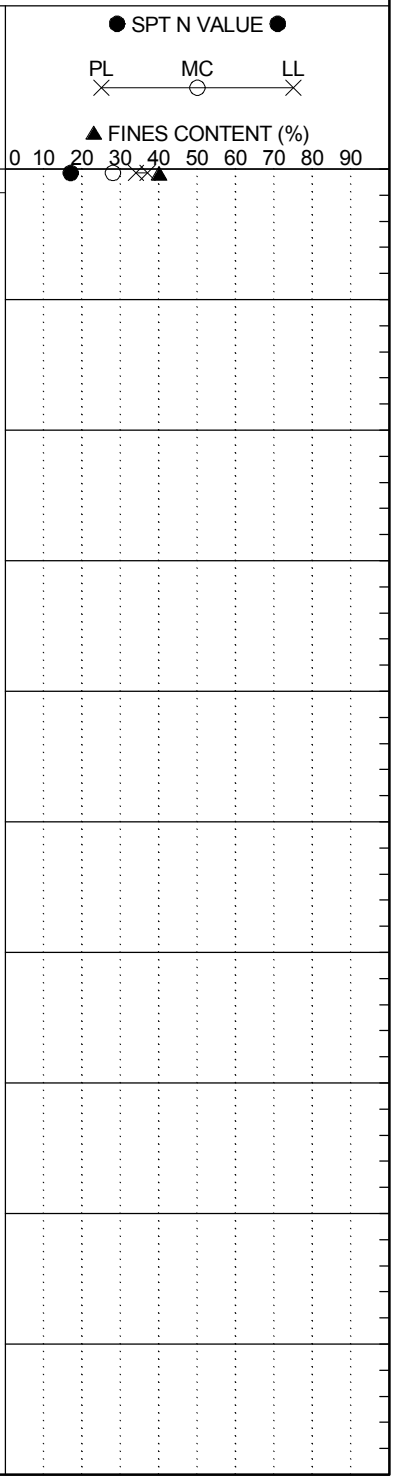
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-35	**Boring Location:**	97+07	**Offset:**	14' Lt.	**Alignment:**	I-385 SB C/D
Elev.:	974.9 ft	**Latitude:**	34.82778	**Longitude:**	82.29386	**Date Started:**	11/3/2012
Total Depth:	50.9 ft	**Soil Depth:**	50.9 ft	**Core Depth:**	ft	**Date Completed:**	11/3/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NA	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	50.9	No Refusal & Boring Terminated @ 50.9' (Elev. 924.0).			SS-13	4	7	10	17



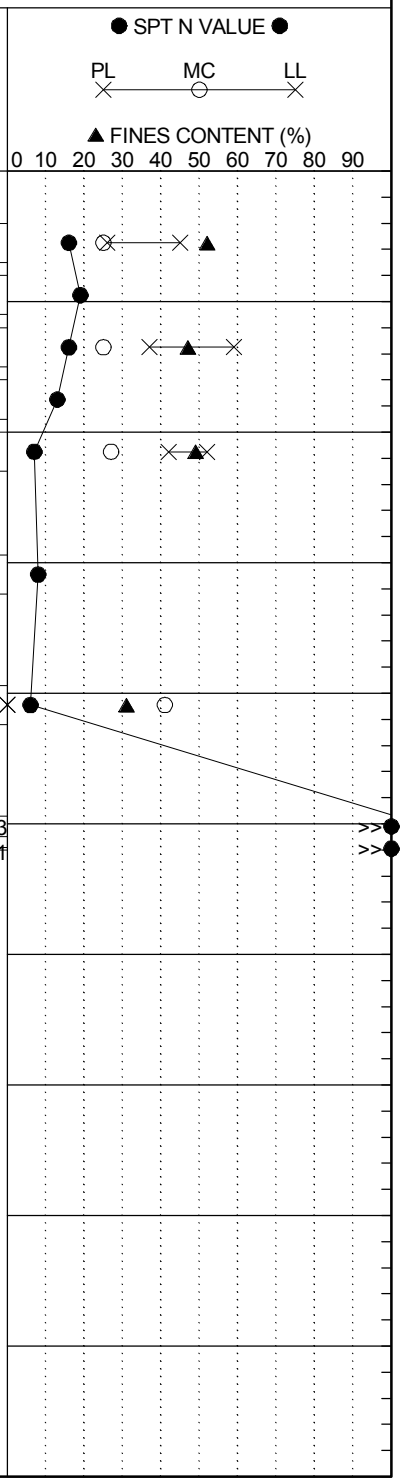
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-36	**Boring Location:**	66+49	**Offset:**	26' Lt.	**Alignment:**	Ramp 1A
Elev.:	978.7 ft	**Latitude:**	34.8356	**Longitude:**	82.29366	**Date Started:**	11/5/2012
Total Depth:	26 ft	**Soil Depth:**	26.0 ft	**Core Depth:**	ft	**Date Completed:**	11/5/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NA	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Very stiff, red & tan, non-reactive, sandy lean CLAY (CL/A-7-6). LL=45, PL=26, PI=19, NMC=25.1, %#200=51.7	2.0					
	3.8		4.0	SS-1	4	7	9	16
973.7		Medium dense, red & tan, non-reactive, silty SAND (SM/A-7-5). LL=59, PL=37, PI=22, NMC=24.6, %#200=46.8	6.0	SS-2	2	8	11	19
	7.8		8.0	SS-3	4	8	8	16
968.7		Loose to medium dense, red, tan, brown & black, non-reactive, silty SAND (SM/A-5). LL=52, PL=42, PI=10, NMC=26.5, %#200=49.3	10.0	SS-4	2	6	7	13
				SS-5	2	3	4	7
963.7			14.7	SS-6	2	4	4	8
	18.0	Loose to very dense, white, tan, brown, black & gray, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=40.8, %#200=31.2	19.7	SS-7	2	3	3	6
958.7								
953.7			24.7	SS-8	8	50/0.3		50/0.3
	26.0	SPT & Auger Refusal & Boring Terminated @ 26.0' (Elev. 952.7).	25.9	SS-9	50/0.1			50/0.1
948.7								
943.7								
938.7								
933.7								



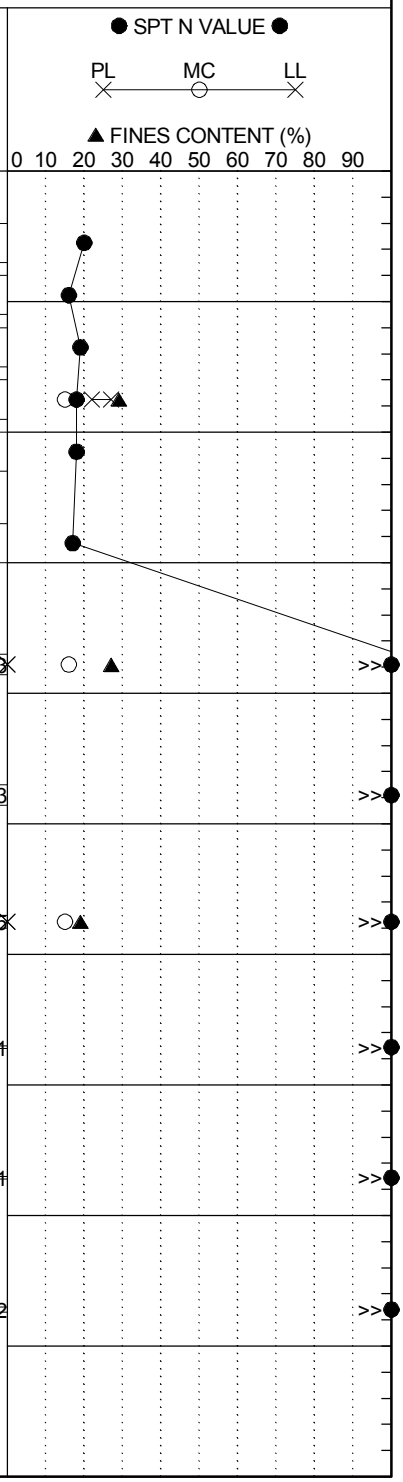
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-37	**Boring Location:**	63+01	**Offset:**	19' Lt.	**Alignment:**	Ramp 1A
Elev.:	974.4 ft	**Latitude:**	34.83616	**Longitude:**	82.29271	**Date Started:**	10/4/2012
Total Depth:	43.7 ft	**Soil Depth:**	43.7 ft	**Core Depth:**	ft	**Date Completed:**	10/5/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	C. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, tan, brown, white & red, non-reactive, silty SAND (SM/A-2-4). LL=27, PL=22, PI=5, NMC=14.5, %#200=28.8		2.0					
				4.0		9	8	12	20
969.4				6.0		10	6	10	16
				8.0		7	10	9	19
				10.0		9	9	9	18
964.4						5	8	10	18
	12.5	Medium dense to very dense, brown, tan, white & gray, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=15.7, %#200=27.4		13.5		8	7	8	17
959.4				18.5		45	50/0.3		50/0.3
954.4				23.5		16	50/0.3		50/0.3
949.4	26.8	Very dense, white, gray, tan & black, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=15.0, %#200=19.1		28.5		50/0.5			50/0.5
944.4				33.5		50/0.1			50/0.1
939.4				38.5		50/0.1			50/0.1
934.4	43.7			43.5		50/0.2			50/0.2
929.4		No Refusal & Boring Terminated @ 43.7' (Elev. 930.7).							



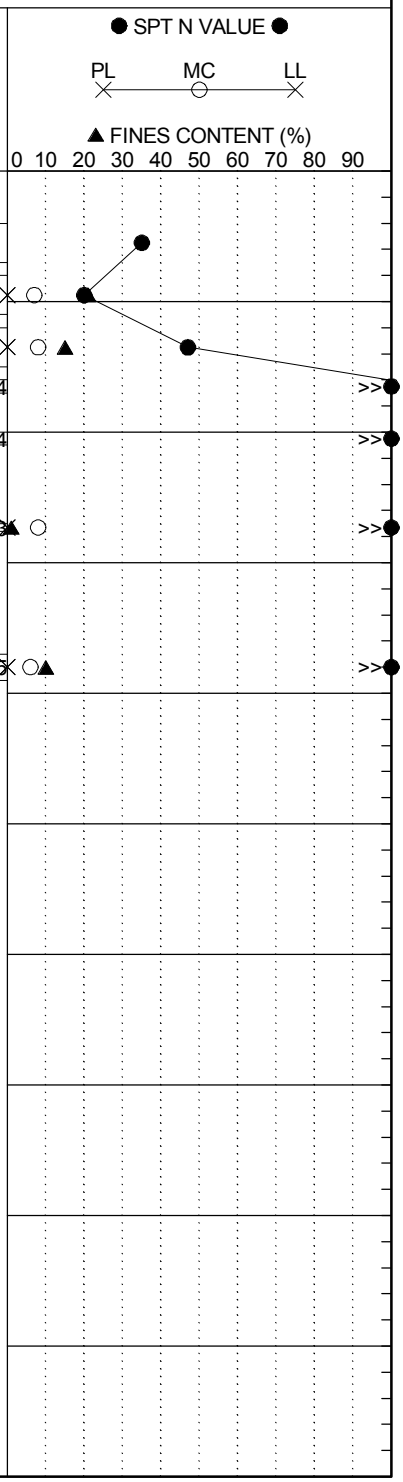
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-38	**Boring Location:**	56+27	**Offset:**	10' Lt.	**Alignment:**	Ramp 1A
Elev.:	952.8 ft	**Latitude:**	34.83729	**Longitude:**	82.29093	**Date Started:**	10/5/2012
Total Depth:	19.5 ft	**Soil Depth:**	19.5 ft	**Core Depth:**	ft	**Date Completed:**	10/5/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	86%
Core Size:	NA	**Driller:**	M. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense to dense, red & tan, non-reactive, silty SAND with gravel (SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=7.3, %#200=20.7	2.0					
				SS-1	4	19	16	35
			4.0					
947.8	5.8			SS-2	19	12	8	20
		Dense to very dense, tan & white, non-reactive, silty SAND (SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=7.7, %#200=15.4	6.0					
				SS-3	9	14	33	47
			8.0					
				SS-4	50/0.4			50/0.4
942.8			10.0					
				SS-5	50/0.4			50/0.4
	12.0	Very dense, black & gray, non-reactive, poorly graded GRAVEL (GP/A-1-a). LL=NP, PL=NP, PI=NP, NMC=7.7, %#200=1.2	13.5					
				SS-6	50/0.3			50/0.3
937.8	15.9	Very dense, tan, non-reactive, poorly graded SAND with silt and gravel (SP-SM/A-1-a). LL=NP, PL=NP, PI=NP, NMC=5.8, %#200=10.3	18.5					
	19.5			SS-7	30	50/0.5		50/0.5
932.8		No Refusal & Boring Terminated @ 19.5' (Elev. 933.3).						
927.8								
922.8								
917.8								
912.8								
907.8								



LEGEND

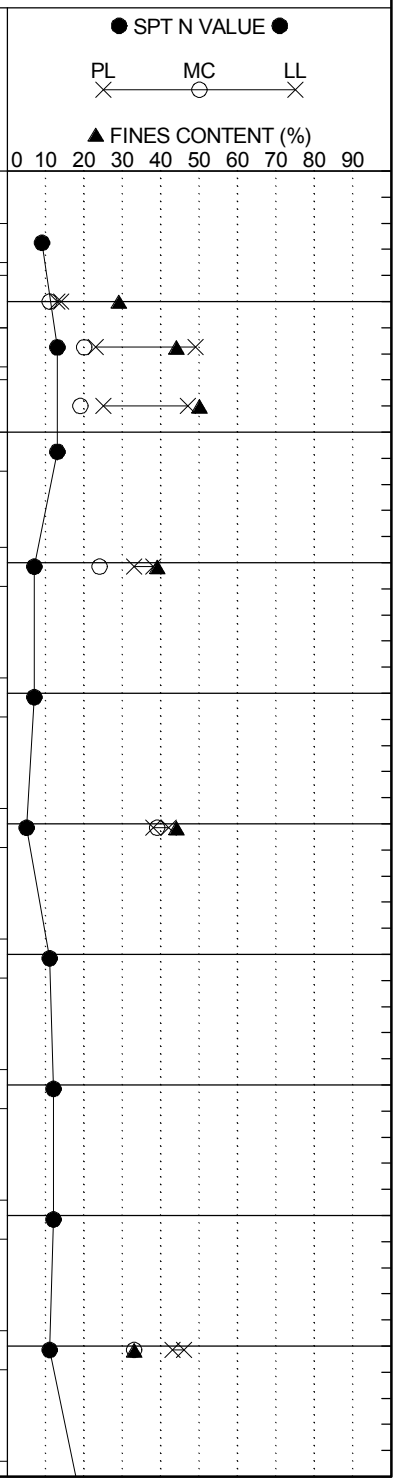
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-39	**Boring Location:**	85+35	**Offset:**	3' Rt.	**Alignment:**	Ramp 2A
Elev.:	982.9 ft	**Latitude:**	34.83322	**Longitude:**	82.29495	**Date Started:**	10/4/2012
Total Depth:	60.9 ft	**Soil Depth:**	60.9 ft	**Core Depth:**	ft	**Date Completed:**	10/4/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NA	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION
	0.0	Loose, brown, non-reactive, clayey SAND (SC/A-7-6).
	3.8	Loose to medium dense, brown, non-reactive, silty SAND (SM/A-2-4). LL=14, PL=13, PI=1, NMC=10.7, %#200=28.6
977.9	5.7	
	7.8	Medium dense, red, non-reactive, clayey SAND (SC/A-7-6). LL=49, PL=23, PI=26, NMC=20.2, %#200=44.1
	9.6	
972.9		
	13.0	Stiff, red & yellow, non-reactive, sandy lean CLAY (CL/A-7-6). LL=47, PL=25, PI=22, NMC=19.4, %#200=50.1
967.9	17.7	
		Medium dense, red & orange, non-reactive, clayey SAND (SC/A-7-6).
962.9		Loose, red & orange, non-reactive, silty SAND (SM/A-4). LL=38, PL=33, PI=5, NMC=23.9, %#200=39.2
957.9		Loose to medium dense, red, white, black, gray & orange, non-reactive, silty SAND (SM/A-5). LL=42, PL=38, PI=4, NMC=38.6, %#200=43.6
952.9		
947.9		
942.9		
	42.7	Medium dense, brown, white & orange, non-reactive, silty SAND (SM/A-2-5). LL=46, PL=43, PI=3, NMC=33.4, %#200=33.4
937.9		
	47.7	Medium dense to dense, brown, white, orange & gray, non-reactive, silty SAND

Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
2.0	SS-1	3	4	5	9
4.0	ST-1				
6.0	SS-2	4	5	8	13
8.0	ST-2				
10.0	SS-3	4	6	7	13
14.4	SS-4	4	3	4	7
19.4	SS-5	2	3	4	7
24.4	SS-6	WOH	2	3	5
29.4	SS-7	3	4	7	11
34.4	SS-8	4	5	7	12
39.4	SS-9	2	5	7	12
44.4	SS-10	3	4	7	11
49.4					



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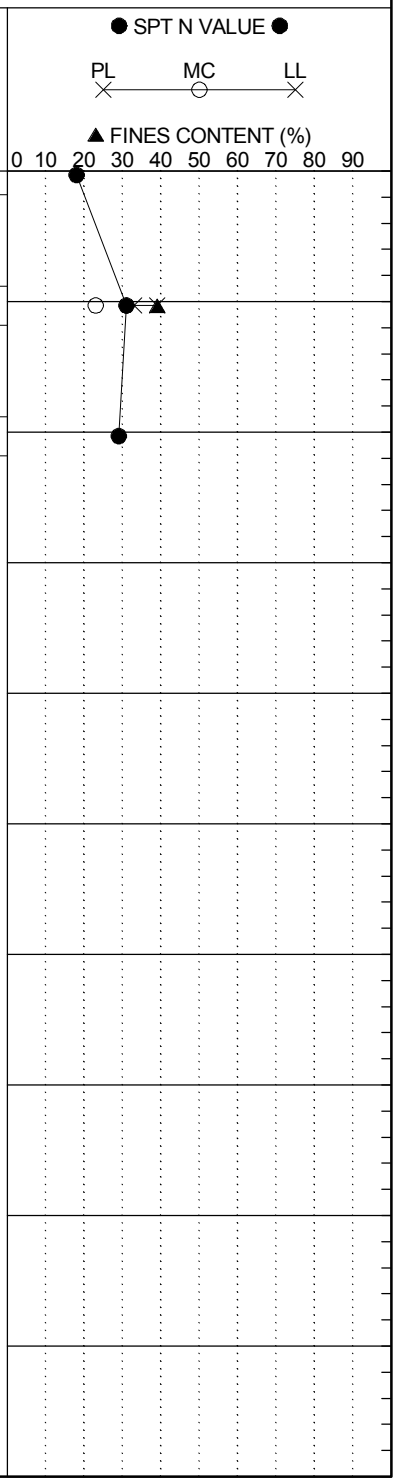
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-39	**Boring Location:**	85+35	**Offset:**	3' Rt.	**Alignment:**	Ramp 2A
Elev.:	982.9 ft	**Latitude:**	34.83322	**Longitude:**	82.29495	**Date Started:**	10/4/2012
Total Depth:	60.9 ft	**Soil Depth:**	60.9 ft	**Core Depth:**	ft	**Date Completed:**	10/4/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NA	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
		(SM/A-4). LL=39, PL=33, PI=6, NMC=23.3, %#200=39.3			SS-11	2	5	13	18
				54.4					
927.9					SS-12	6	11	20	31
				59.4					
922.9	60.9				SS-13	9	14	15	29
		No Refusal & Boring Terminated @ 60.9' (Elev. 922.0).							
917.9									
912.9									
907.9									
902.9									
897.9									
892.9									
887.9									



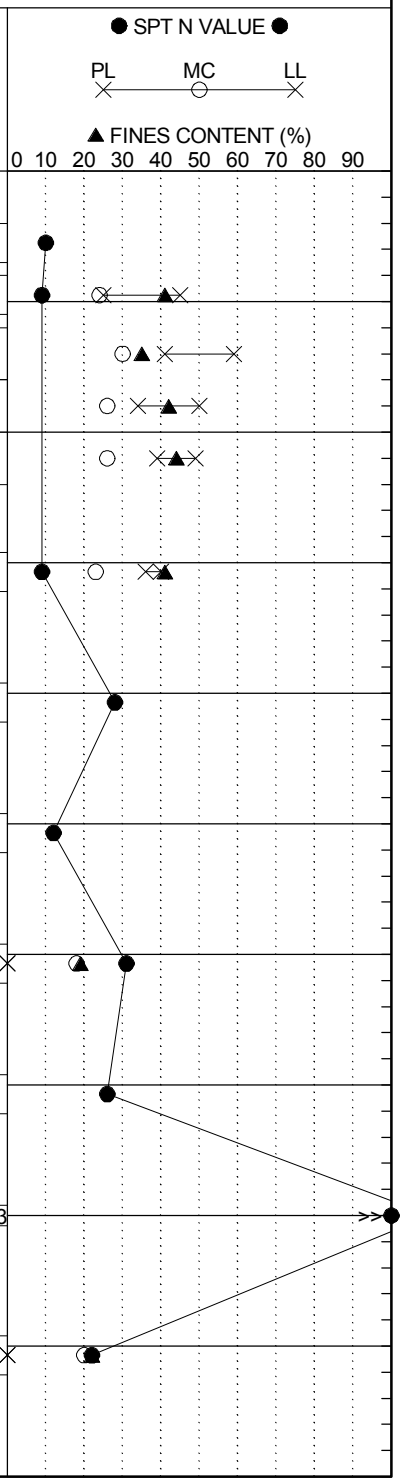
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-40	**Boring Location:**	89+91	**Offset:**	2' Rt.	**Alignment:**	Ramp 2A
Elev.:	982.0 ft	**Latitude:**	34.8343	**Longitude:**	82.29417	**Date Started:**	10/3/2012
Total Depth:	46.1 ft	**Soil Depth:**	46.1 ft	**Core Depth:**	ft	**Date Completed:**	10/3/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NA	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Loose, brown & red, non-reactive, clayey SAND (SC/A-7-6). LL=45, PL=25, PI=20, NMC=24.3, %#200=41.3	2.0					
				SS-1	3	3	7	10
			4.0					
977.0	5.8			SS-2	WOH	3	6	9
		Loose, red, non-reactive, silty SAND (SM/A-2-7). LL=59, PL=41, PI=18, NMC=30.4, %#200=34.9	6.0					
	7.8			ST-1				
	9.6		8.0					
972.0				ST-2				
		Loose, red, non-reactive, silty SAND (SM/A-7-5). LL=50, PL=34, PI=16, NMC=26.0, %#200=41.7	10.0					
				ST-3				
	13.0							
			14.6					
967.0				SS-3	3	4	5	9
		Loose, red, non-reactive, silty SAND (SM/A-5). LL=49, PL=39, PI=10, NMC=25.5, %#200=44.3						
			19.6					
962.0				SS-4	4	10	18	28
		Loose to medium dense, brown, tan, white & gray, non-reactive, silty SAND (SM/A-4) LL=40, PL=36, PI=4, NMC=22.6, %#200=41.3						
			24.6					
957.0				SS-5	5	6	6	12
	27.9							
		Medium dense to very dense, brown, gray & white, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=17.7, %#200=19.1	29.6					
952.0				SS-6	20	18	13	31
			34.6					
947.0				SS-7	26	16	10	26
			39.6					
942.0				SS-8	23	50/0.3		50/0.3
	42.9							
		Medium dense, brown, gray & white, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=20.2, %#200=21.7	44.6					
937.0				SS-9	WOH	WOH	22	22
	46.1	No Refusal & Boring Terminated @ 46.1' (Elev. 935.9).						



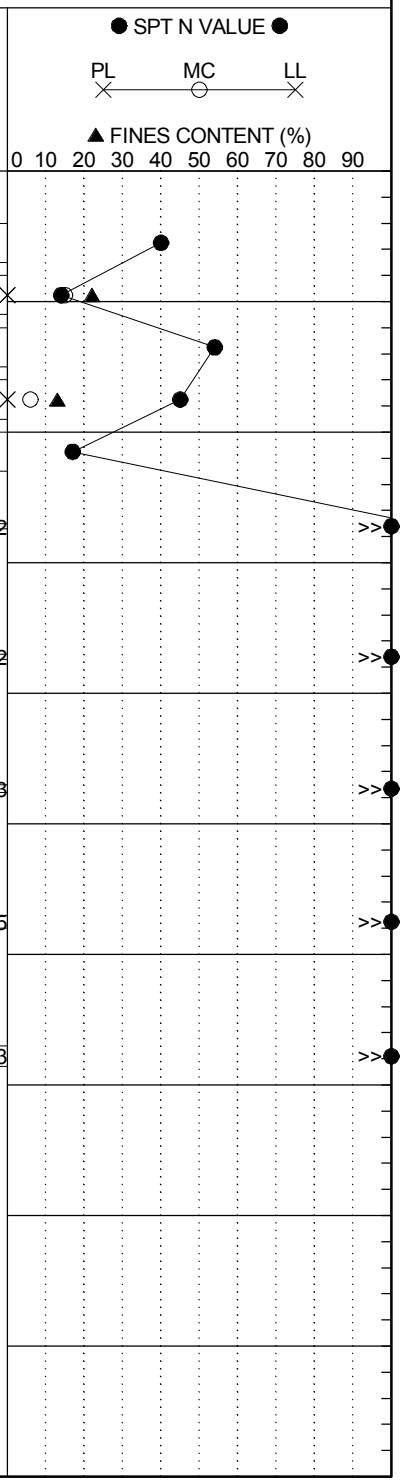
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-41	**Boring Location:**	113+09	**Offset:**	37' Lt.	**Alignment:**	I-385 SB C/D
Elev.:	962.1 ft	**Latitude:**	34.82455	**Longitude:**	82.2923	**Date Started:**	10/7/2012
Total Depth:	34.3 ft	**Soil Depth:**	34.3 ft	**Core Depth:**	ft	**Date Completed:**	10/7/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	86%
Core Size:	NA	**Driller:**	M. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense to very dense, red & tan, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=14.9, %#200=21.8	2.0					
				SS-1	4	14	26	40
			4.0					
957.1				SS-2	6	7	7	14
			6.0					
				SS-3	9	26	28	54
	7.8	Medium dense to very dense, tan, brown, white & black, non-reactive, silty SAND (SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=5.7, %#200=13.4	8.0					
				SS-4	29	22	23	45
952.1			10.0					
				SS-5	8	7	10	17
			13.5	SS-6	50/0.2			50/0.2
947.1								
			18.5	SS-7	50/0.2			50/0.2
942.1								
			23.5	SS-8	50/0.3			50/0.3
937.1								
			28.5	SS-9	50/0.5			50/0.5
932.1								
	34.3	No Refusal & Boring Terminated @ 34.3' (Elev. 927.8).	33.5	SS-10	29	50/0.3		50/0.3
927.1								
922.1								
917.1								



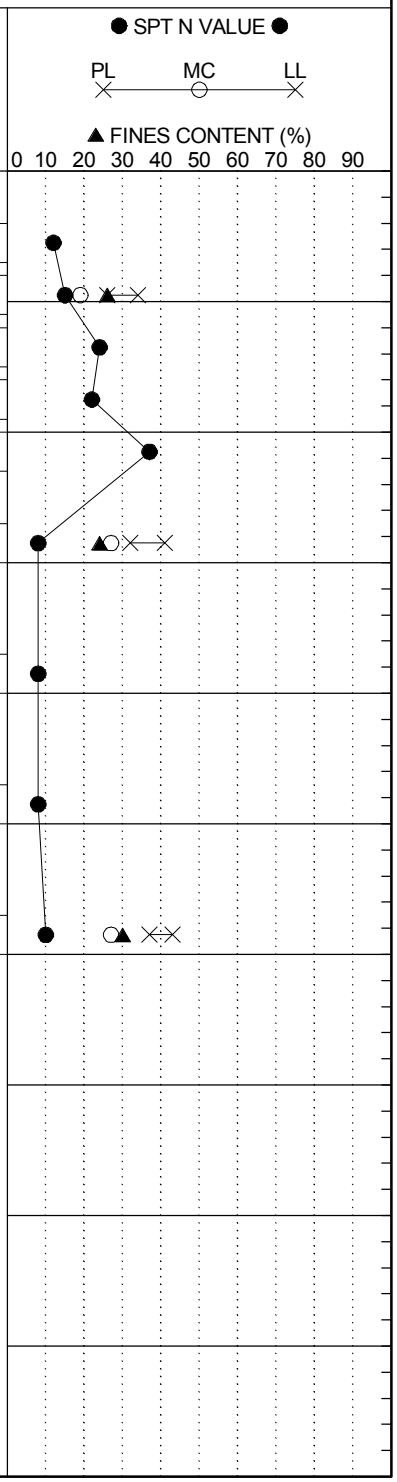
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-42	**Boring Location:**	340+05	**Offset:**	13' Rt.	**Alignment:**	I-385 NB C/D
Elev.:	930.5 ft	**Latitude:**	34.81816	**Longitude:**	82.29043	**Date Started:**	10/8/2012
Total Depth:	30 ft	**Soil Depth:**	30.0 ft	**Core Depth:**	ft	**Date Completed:**	10/8/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	86%
Core Size:	NA	**Driller:**	M. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense to dense, red & tan, non-reactive, silty SAND (SM/A-2-4). LL=34, PL=26, PI=8, NMC=18.6, %#200=25.7	2.0					
				SS-1	4	5	7	12
			4.0					
925.5				SS-2	5	6	7	15
			6.0					
				SS-3	5	8	16	24
			8.0					
				SS-4	4	10	12	22
920.5			10.0					
				SS-5	10	18	19	37
	12.5	Loose, white, tan & red, non-reactive, silty SAND (SM/A-2-5). LL=41, PL=32, PI=9, NMC=27.1, %#200=24.3	13.5					
				SS-6	4	4	4	8
915.5								
			18.5					
				SS-7	3	4	4	8
910.5								
	21.8	Loose, white, tan & red, non-reactive, silty SAND (SM/A-2-5). LL=43, PL=37, PI=6, NMC=26.7, %#200=29.8	23.5					
				SS-8	3	3	5	8
905.5								
			28.5					
				SS-9	4	5	5	10
900.5	30.0	No Refusal & Boring Terminated @ 30.0' (Elev. 900.5).						
895.5								
890.5								
885.5								



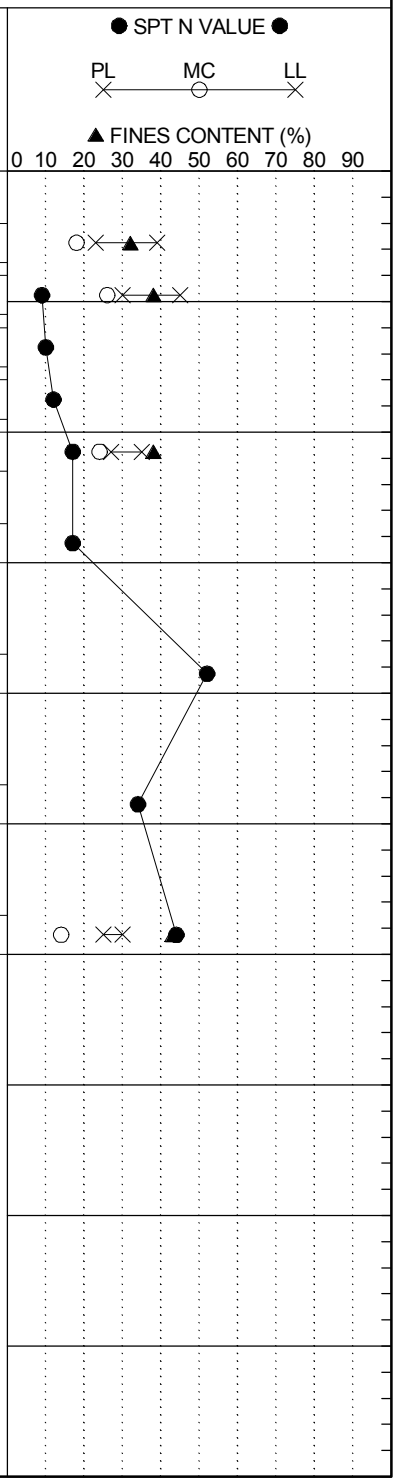
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-43	**Boring Location:**	341+96	**Offset:**	6' Lt.	**Alignment:**	I-385 NB C/D
Elev.:	932.1 ft	**Latitude:**	34.81867	**Longitude:**	82.29058	**Date Started:**	10/9/2012
Total Depth:	30 ft	**Soil Depth:**	30.0 ft	**Core Depth:**	ft	**Date Completed:**	10/9/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	86%
Core Size:		**Driller:**	M. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Loose, orange & tan, non-reactive, clayey SAND (SC/A-2-6). LL=39, PL=23, PI=16, NMC=17.5, %#200=31.8	2.0					
	3.5		4.0	ST-1				
927.1	5.8	Loose, red, non-reactive, silty SAND (SM/A-7-6). LL=45, PL=30, PI=15, NMC=26.0, %#200=38.4	6.0	SS-1	3	4	5	9
			8.0	SS-2	2	4	6	10
			10.0	SS-3	4	5	7	12
922.1		Loose to very dense, white, brown, red & gray, non-reactive, silty SAND (SM/A-4). LL=35, PL=27, PI=8, NMC=23.9, %#200=38.2		SS-4	5	8	9	17
			13.5	SS-5	8	8	9	17
917.1			18.5	SS-6	22	24	28	52
912.1	21.8	Dense, gray, non-reactive, silty SAND (SM/A-4). LL=30, PL=25, PI=5, NMC=14.4, %#200=43.3	23.5	SS-7	17	15	19	34
907.1			28.5	SS-8	21	26	18	44
902.1	30.0	No Refusal & Boring Terminated @ 30.0' (Elev. 902.1).						
897.1								
892.1								
887.1								



LEGEND

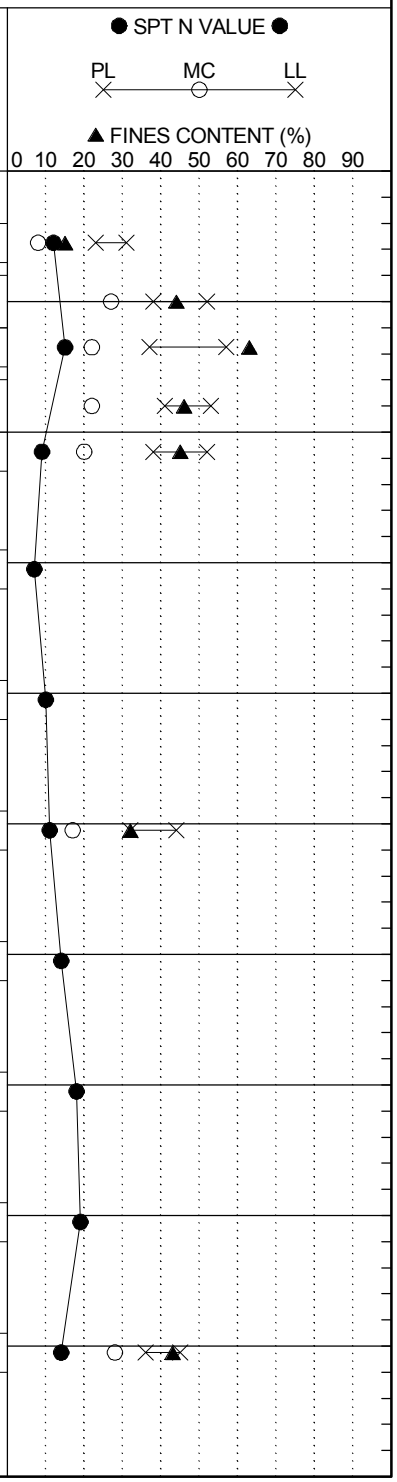
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-44	**Boring Location:**	431+86	**Offset:**	135' Rt.	**Alignment:**	I-385
Elev.:	1055.7 ft	**Latitude:**	34.83648	**Longitude:**	82.30706	**Date Started:**	10/7/2012
Total Depth:	46 ft	**Soil Depth:**	46.0 ft	**Core Depth:**	ft	**Date Completed:**	10/7/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NA	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION
	0.0	Medium dense, gray & red, weakly reactive, clayey GRAVEL with sand (GC/A-2-4). LL=31, PL=23, PI=8, NMC=8.3, %#200=14.6
	3.8	Medium dense, red, weakly reactive, silty SAND (SM/A-7-5). LL=52, PL=38, PI=14, NMC=26.9, %#200=43.5
1050.7	5.5	Stiff, red, non-reactive, sandy elastic SILT (MH/A-7-5). LL=57, PL=37, PI=20, NMC=22.2, %#200=62.8
1045.7	7.8	Loose to medium dense, orange, non-reactive, silty SAND (SM/A-7-5). LL=53, PL=41, PI=12, NMC=21.6, %#200=46.1
1040.7	9.5	Loose, red, non-reactive, silty SAND (SM/A-7-5). LL=52, PL=38, PI=14, NMC=20.4, %#200=44.7
1035.7	13.0	Loose to medium dense, tan & red, non-reactive, silty SAND (SM/A-2-7). LL=44, PL=32, PI=12, NMC=17.1, %#200=32.2
1030.7	37.8	Medium dense, tan, white & black, non-reactive, silty SAND (SM/A-5). LL=45, PL=36, PI=9, NMC=27.5, %#200=42.7
1025.7	46.0	No Refusal & Boring Terminated @ 46.0' (Elev. 1009.7).
1020.7		
1015.7		
1010.7		

Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
2.0	SS-1	14	7	5	12
4.0	ST-1				
6.0	SS-2	3	6	9	15
8.0	ST-2				
10.0	SS-3	4	4	5	9
14.5	SS-4	1	3	4	7
19.5	SS-5	3	4	6	10
24.5	SS-6	5	5	6	11
29.5	SS-7	4	6	8	14
34.5	SS-8	7	9	9	18
39.5	SS-9	7	9	10	19
44.5	SS-10	4	6	8	14



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-45	**Boring Location:**	439+42	**Offset:**	136' Rt.	**Alignment:**	I-385
Elev.:	1070.4 ft	**Latitude:**	34.83741	**Longitude:**	82.30931	**Date Started:**	10/31/2012
Total Depth:	55.7 ft	**Soil Depth:**	9 ft	**Core Depth:**	55.7 ft	**Date Completed:**	11/1/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NQ2	**Driller:**	F. Woodard	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	Medium dense to very dense, tan, red, black & white, non-reactive, silty SAND (SM/A-2-4). LL=26, PL=26, PI=NP, NMC=13.5, %#200=15.5	2.0						
			4.0	SS-1	9	10	7	17	
1065.4				SS-2	6	50/0.4		50/0.4	>>
			6.0						
			8.0	SS-3	12	7	4	11	
			9.0	SS-4	50/0.3			50/0.3	>>
	9.0	Auger Refusal @ 9.0' Begin Coring.	10.5	NQ-1					REC%=100, RQD%=60
1060.4	12.6	White, clear, black, scat. brown-dk. brown-orange stain, sli. weathered w/laminae mod. weathering, v. hard to hard, med. crystalline w/megacrystalline to pegmatite seams, contorted foliation in parts, VC discontinuity spacing w/T to MW width, Quartz Biotite Muscovite Gneiss w/granitoid seams, garnetiferous. 10 0°-15° jts., hard rough walls, 0-10mm open	15.5	NQ-2					REC%=64, RQD%=30
1055.4			20.5	NQ-3					REC%=70, RQD%=18
1050.4	22.9	Gray, black, off white, brown-orange stain, mod. weathered w/highly weathered seams & sli. weathered layers at base, hard to friable, med. to cse. crystalline, VC discontinuity spacing w/T to MW width, Feldspar Quartz Biotite Augite Gneiss w/granitoid & f. to med. crystalline gneiss layers, trcs. garnets. 47 0°-10° jts., mod. hard to friable walls, iron stain, some are foliation jts., 0-8mm open; core loss interpreted as highly weathered seams	25.5	NQ-4					REC%=80, RQD%=44
1045.4	27.7		30.5	NQ-5					REC%=98, RQD%=90
1040.4	31.0	Lt. gray, white, clear, black, brown-orange stain, fresh w/laminae mod. weathering, v. hard, med. to cse. crystalline w/megacrystalline seams, well to poorly foliated, VC to C discontinuity spacing w/T to N width, Feldspar Quartz Biotite Augite Gneiss w/granitoid seams, trcs. garnetiferous. 5 0°-10° jts. hard, rough walls, iron stain	35.7	NQ-6					REC%=100, RQD%=92
1035.4			40.7	NQ-7					REC%=100, RQD%=100
1030.4		Off white, gray, orange-brown stain, sli. weathered, v. hard, v. cse. to pegmatitic, VC discontinuity spacing, T to N width, Feldspar Quartz Muscovite Pegmatite. 5 0°-15° jts., v. hard, rough walls, 0-3mm open	45.7	NQ-8					REC%=100, RQD%=100
1025.4				NQ-9					REC%=100, RQD%=100

Continued Next Page

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-45	**Boring Location:**	439+42	**Offset:**	136' Rt.	**Alignment:**	I-385
Elev.:	1070.4 ft	**Latitude:**	34.83741	**Longitude:**	82.30931	**Date Started:**	10/31/2012
Total Depth:	55.7 ft	**Soil Depth:**	9 ft	**Core Depth:**	55.7 ft	**Date Completed:**	11/1/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NQ2	**Driller:**	F. Woodard	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
		White, lt. gray, clear, black, brown-orange stain in upper part, fresh, v. hard, med. to cse. crystalline w/v. cse. crystalline seams & augen, well to poorly foliated, VC to C discontinuity spacing w/T width, Quartz Feldspar Biotite Gneiss w/granitoid augen & seams, garnetiferous in parts.		50.7	NQ-10					REC%=96, RQD%=96
1015.4	55.7	11 0°-10° jts.. hard, rough walls, some w/faint stain, tight; granitoid seams 42.3'-42.8' & 51.1'-51.8'								
1010.4		Boring Terminated @ 55.7' (Elev. 1014.7).								
1005.4										
1000.4										
995.4										
990.4										
985.4										
980.4										
975.4										

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

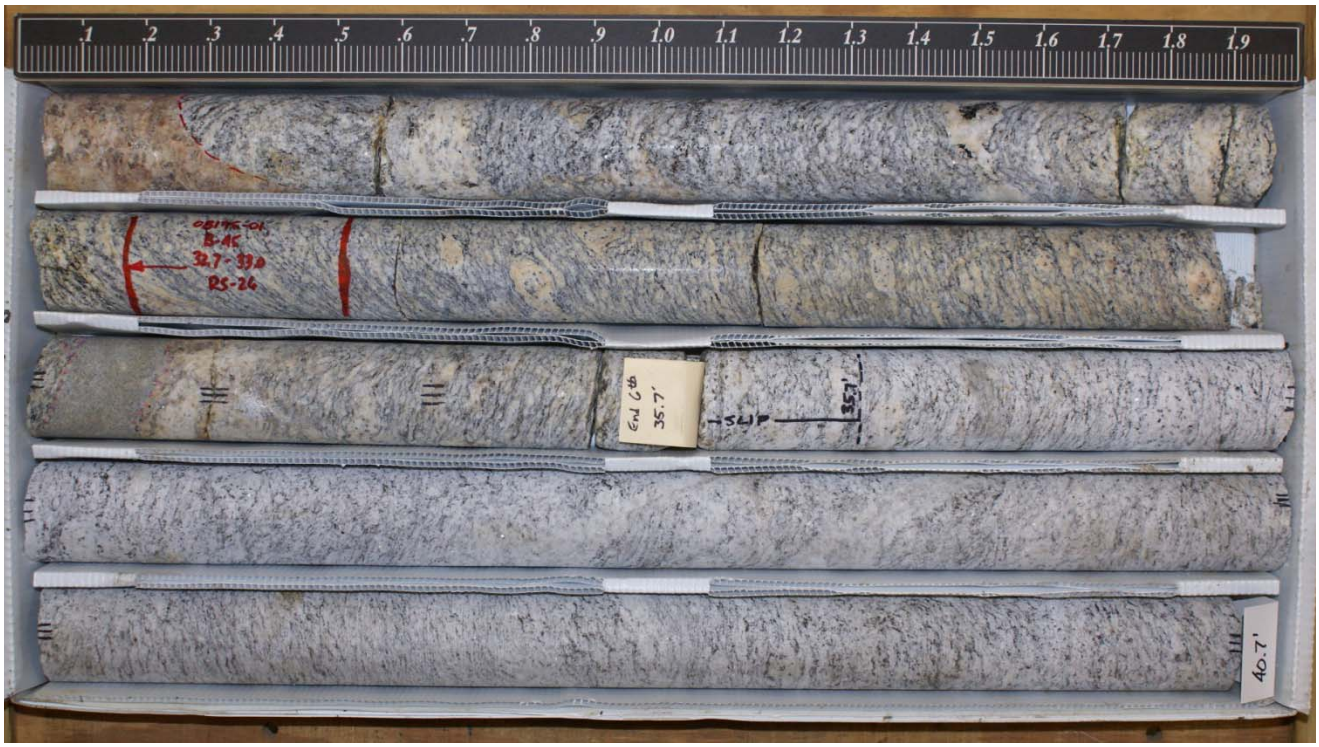
I-85 / I-385 Interchange Improvements

B-45 Box 1 of 5

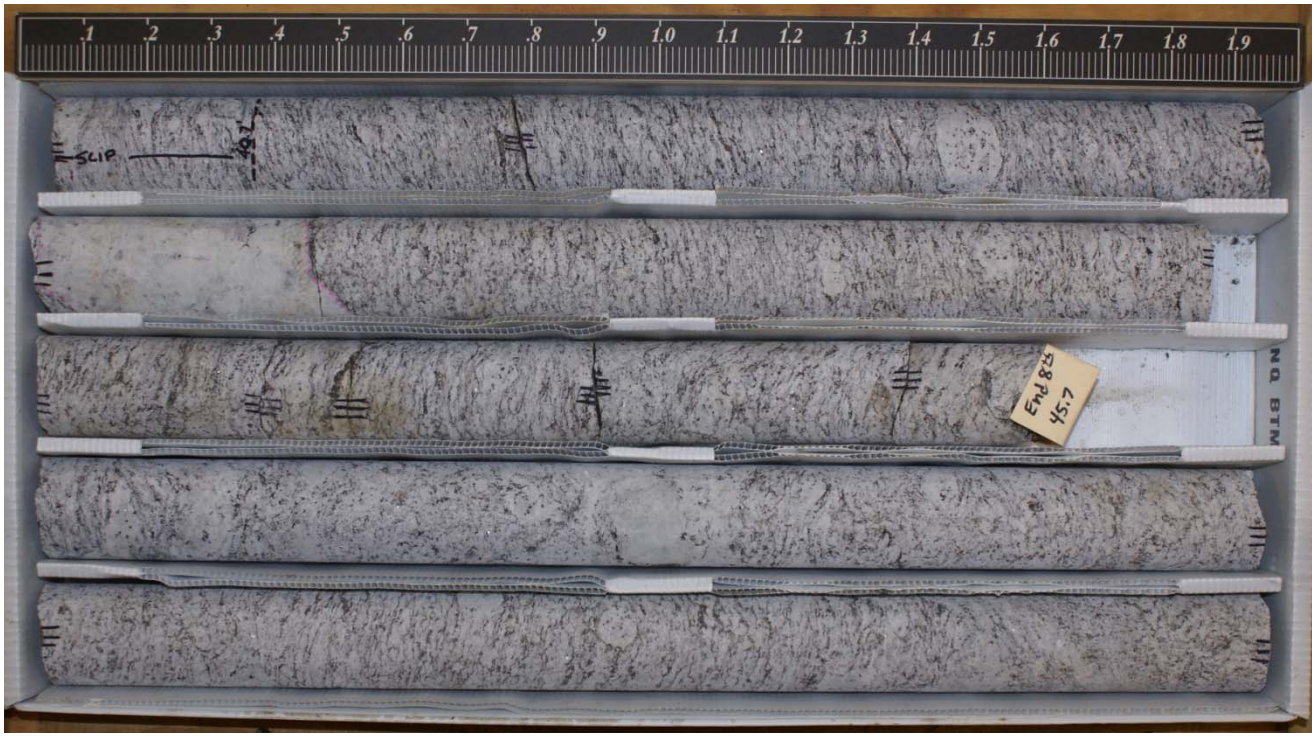
B-45 Box 2 of 5

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements



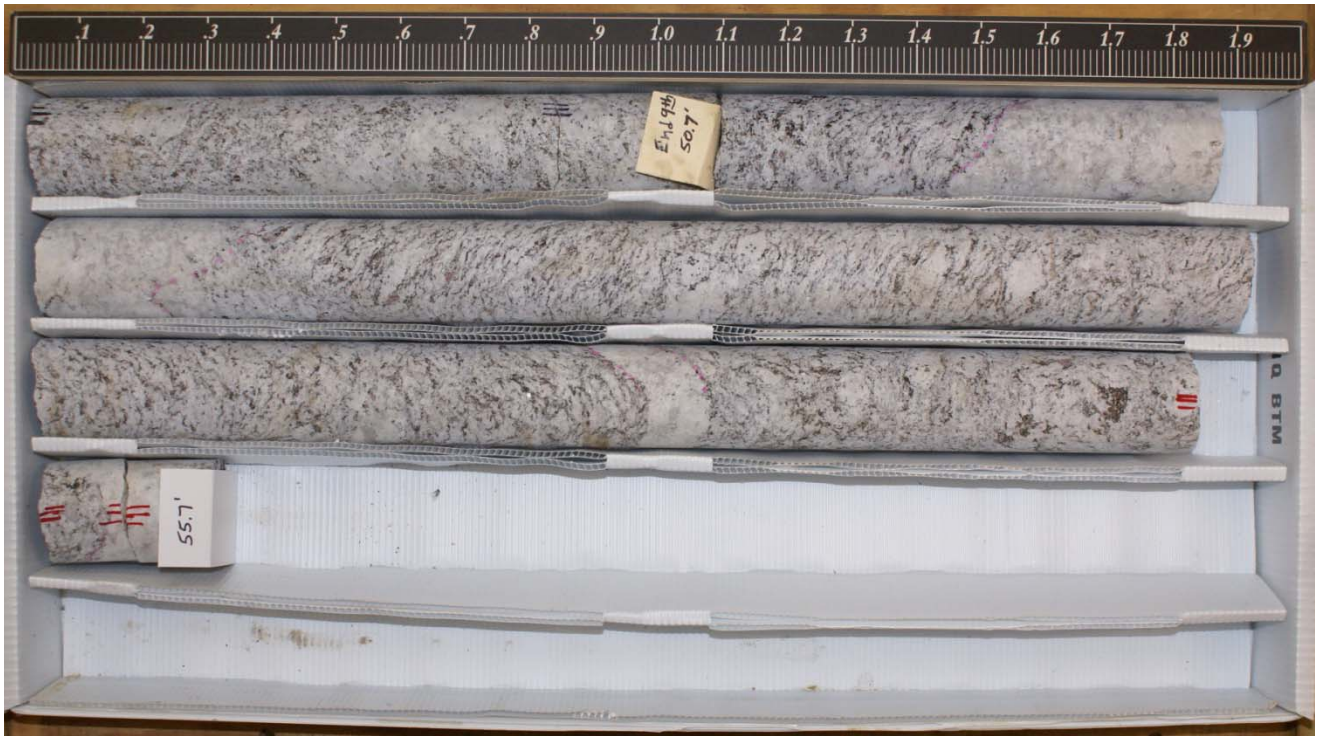
B-45 Box 3 of 5



B-45 Box 4 of 5

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements



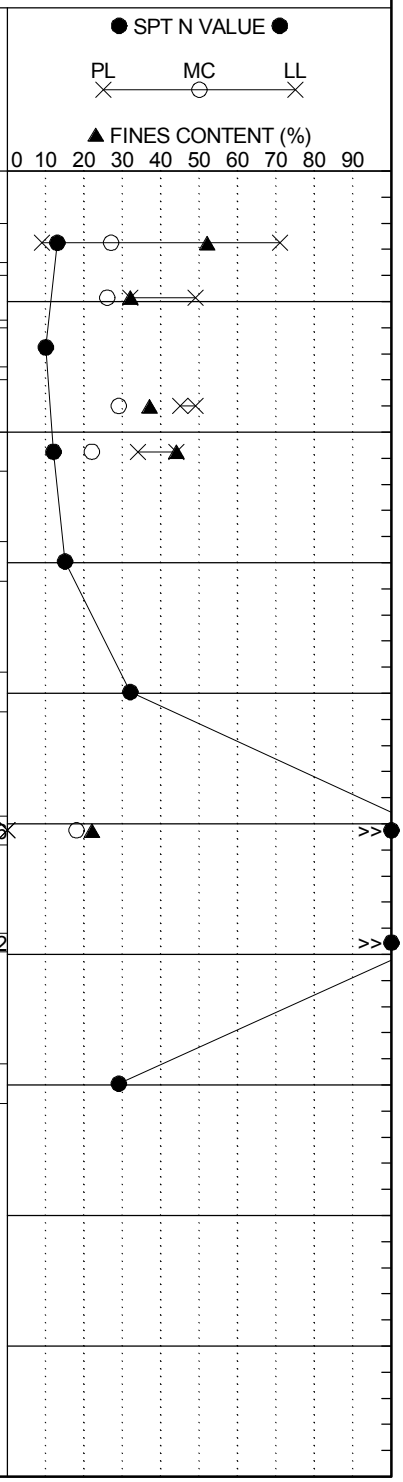
B-45 Box 5 of 5

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-46	**Boring Location:**	107+40	**Offset:**	40' Rt.	**Alignment:**	Ramp 2A
Elev.:	938.0 ft	**Latitude:**	34.83721	**Longitude:**	82.28954	**Date Started:**	10/16/2012
Total Depth:	35.7 ft	**Soil Depth:**	35.7 ft	**Core Depth:**	ft	**Date Completed:**	10/16/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NA	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION
	0.0	Stiff, red, non-reactive, sandy fat CLAY (CH/A-7-6). LL=52, PL=26, PI=26, NMC=27.3, %#200=51.7
933.0	3.8	Loose to medium dense, red & orange, non-reactive, silty SAND (SM/A-2-7). LL=49, PL=32, PI=17, NMC=26.2, %#200=32.4
928.0	5.4	Loose, red, non-reactive, silty SAND (SM/A-5).
923.0	7.8	Loose to medium dense, gray, brown & red, non-reactive, silty SAND (SM/A-5). LL=49, PL=45, PI=4, NMC=28.7, %#200=36.6
918.0	9.8	Medium dense, red, non-reactive, silty SAND (SM/A-5). LL=44, PL=34, PI=10, NMC=22.4, %#200=43.8
913.0	18.0	Medium dense to very dense, brown, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=17.7, %#200=21.8
903.0	35.7	No Refusal & Boring Terminated @ 35.7' (Elev. 902.3).

Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
2.0	SS-1	3	5	8	13
4.0	ST-1				
6.0	SS-2	3	4	6	10
8.0	ST-2				
10.0	SS-3	1	4	8	12
14.2	SS-4	6	7	8	15
19.2	SS-5	8	12	20	32
24.7	SS-6	14	24	50/0.1	74/0.0
29.2	SS-7	43	50/0.2		50/0.2
34.2	SS-8	2	9	20	29



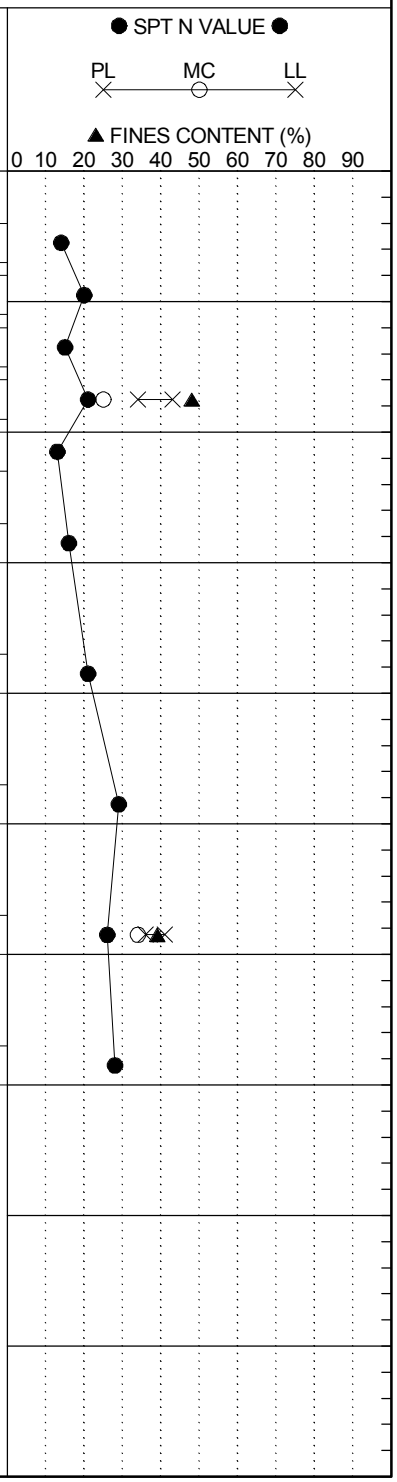
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-47	**Boring Location:**	120+03	**Offset:**	70' Rt.	**Alignment:**	I-385 SB C/D
Elev.:	957.4 ft	**Latitude:**	34.82263	**Longitude:**	82.29204	**Date Started:**	10/7/2012
Total Depth:	35 ft	**Soil Depth:**	35.0 ft	**Core Depth:**	ft	**Date Completed:**	10/7/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	C. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, tan & red, non-reactive, silty SAND (SM/A-5). LL=43, PL=34, PI=9, NMC=24.9, %#200=48.1	2.0					
				SS-1	5	5	9	14
			4.0					
952.4				SS-2	7	9	11	20
			6.0					
				SS-3	6	6	9	15
			8.0					
				SS-4	7	9	12	21
947.4			10.0					
				SS-5	6	5	8	13
	12.5	Medium dense, tan, red, black & white, silty SAND (SM/A-5). LL=41, PL=36, PI=5, NMC=33.5, %#200=39.4	13.5					
942.4				SS-6	7	9	7	16
			18.5					
				SS-7	11	10	11	21
937.4								
			23.5					
				SS-8	10	12	17	29
932.4								
			28.5					
				SS-9	11	12	14	26
927.4								
			33.5					
				SS-10	14	11	17	28
922.4	35.0	No Refusal & Boring Terminated @ 35.0' (Elev. 922.4).						
917.4								
912.4								



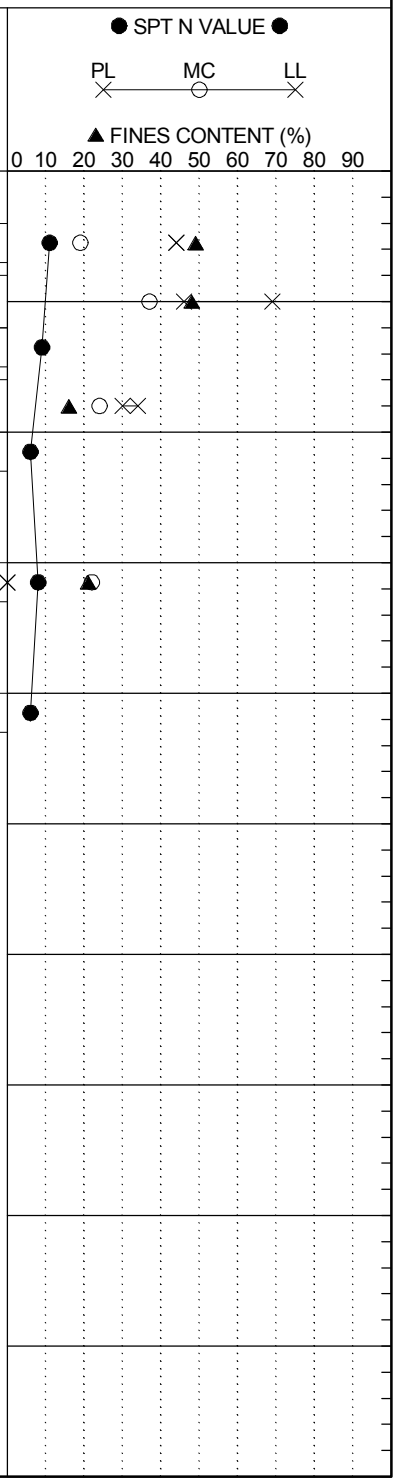
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-49	**Boring Location:**	224+04	**Offset:**	92' Rt.	**Alignment:**	I-85
Elev.:	955.6 ft	**Latitude:**	34.82209	**Longitude:**	82.31453	**Date Started:**	10/18/2012
Total Depth:	21.5 ft	**Soil Depth:**	21.5 ft	**Core Depth:**	ft	**Date Completed:**	10/18/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NA	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, red, non-reactive, silty SAND (SM/A-5).							
		LL=44, PL=44, PI=NP, NMC=19.3, %#200=49.3		2.0	SS-1	2	4	7	11
	3.8			4.0					
950.6	5.4	Loose to medium dense, red, non-reactive, silty SAND (SM/A-7-5).		6.0	ST-1				
		LL=69, PL=46, PI=23, NMC=37.0, %#200=48.2		8.0	SS-2	2	4	5	9
	7.8								
945.6	9.7	Loose, red, non-reactive, silty SAND (SM/A-2-4).		10.0	ST-2				
					SS-3	1	2	4	6
		Loose, green, orange & gray, non-reactive, siilty SAND (SM/A-2-4).							
940.6		LL=34, PL=30, PI=4, NMC=24.1, %#200=16.0		15.0	SS-4	3	3	5	8
		Loose, red & brown, non to weakly reactive, silty SAND (SM/A-2-4).							
935.6		LL=NP, PL=NP, PI=NP, NMC=22.3, %#200=20.9		20.0	SS-5	1	2	4	6
	21.5								
		No Refusal & Boring Terminated @ 21.5' (Elev. 934.1).							
930.6									
925.6									
920.6									
915.6									
910.6									



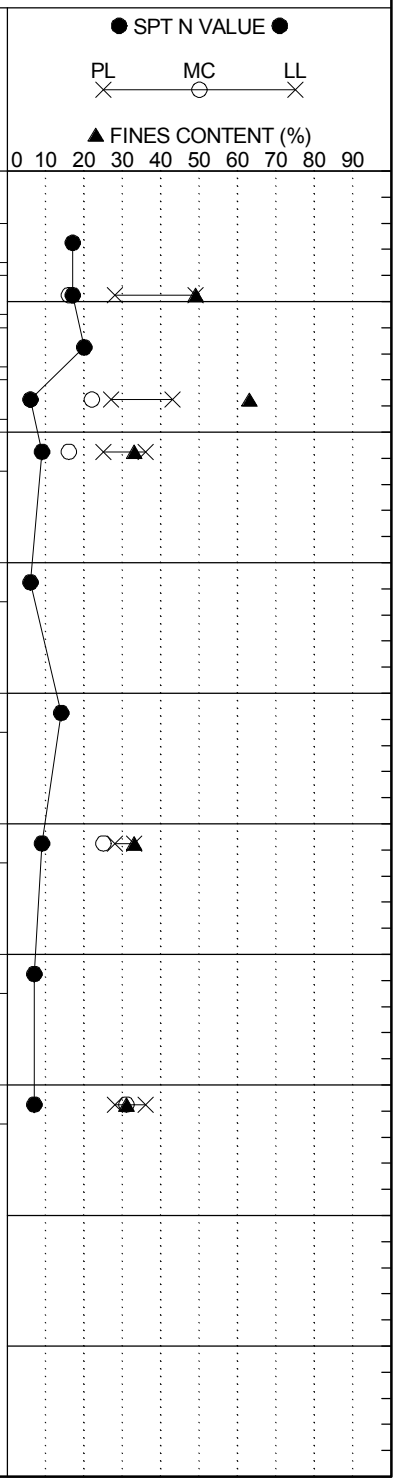
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-50	**Boring Location:**	137+97	**Offset:**	40' Rt.	**Alignment:**	Ramp 5
Elev.:	953.7 ft	**Latitude:**	34.82373	**Longitude:**	82.31288	**Date Started:**	10/18/2012
Total Depth:	36.5 ft	**Soil Depth:**	36.5 ft	**Core Depth:**	ft	**Date Completed:**	10/18/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	F. Woodard	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, tan, red & orange, non-reactive, silty SAND (SM/A-7-6). LL=49, PL=28, PI=21, NMC=15.5, %#200=48.6	2.0					
				SS-1	5	7	10	17
			4.0					
948.7				SS-2	4	11	6	17
			6.0					
				SS-3	2	9	11	20
	7.8		8.0					
	9.8	Firm, white & tan, non-reactive, sandy SILT (ML/A-7-6). LL=43, PL=27, PI=16, NMC=22.3, %#200=62.6		SS-4	2	3	3	6
943.7			10.0					
				SS-5	2	4	5	9
	13.3	Loose, white, non-reactive, silty SAND (SM/A-2-6). LL=36, PL=25, PI=11, NMC=15.6, %#200=33.1						
938.7			15.0					
				SS-6	1	3	3	6
		Loose to medium dense, white, non-reactive, silty SAND (SM/A-2-6). LL=33, PL=28, PI=5, NMC=24.7, %#200=32.5						
933.7			20.0					
				SS-7	2	5	9	14
928.7			25.0					
				SS-8	1	4	5	9
923.7			30.0					
				SS-9	2	3	4	7
	33.3	Loose, red & orange, non-reactive, silty SAND (SM/A-2-4). LL=36, PL=28, PI=8, NMC=30.7, %#200=30.8						
918.7			35.0					
	36.5			SS-10	WOH	1	6	7
		No Refusal & Boring Terminated @ 36.5' (Elev. 917.2).						
913.7								
908.7								



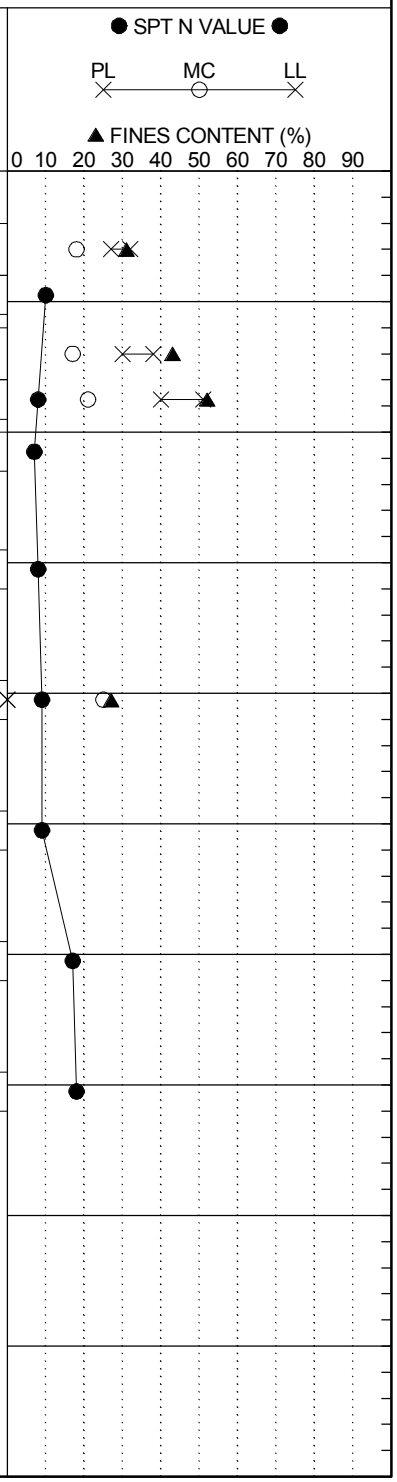
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-51	**Boring Location:**	244+13	**Offset:**	39' Rt.	**Alignment:**	I-85 NB C/D
Elev.:	990.3 ft	**Latitude:**	34.8253	**Longitude:**	82.30909	**Date Started:**	10/5/2012
Total Depth:	36 ft	**Soil Depth:**	36.0 ft	**Core Depth:**	ft	**Date Completed:**	10/5/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NA	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Loose, red, non-reactive, silty SAND (SM/A-2-4).						
	3.3	LL=32, PL=27, PI=5, NMC=18.0, %#200=31.1	2.0	ST-1				
985.3	5.8	Stiff, red, non-reactive, sandy elastic SILT (MH/A-7-5).	4.0	SS-1	1	3	7	10
	7.6	Loose, orange & tan, non-reactive, silty SAND (SM/A-4). LL=38, PL=30, PI=8, NMC=17.2, %#200=42.5	6.0	ST-2				
980.3			8.0	SS-2	2	4	4	8
	13.0	Firm, red, non-reactive, sandy elastic SILT (MH/A-7-5). LL=51, PL=40, PI=11, NMC=21.2, %#200=51.8	10.0	SS-3	2	4	3	7
975.3			14.5	SS-4	4	3	5	8
970.3		Loose to medium dense, brown, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=25.2, %#200=26.9	19.5	SS-5	6	4	5	9
965.3			24.5	SS-6	4	5	4	9
960.3			29.5	SS-7	4	7	10	17
955.3	36.0	No Refusal & Boring Terminated @ 36.0' (Elev. 954.3).	34.5	SS-8	4	7	11	18
950.3								
945.3								



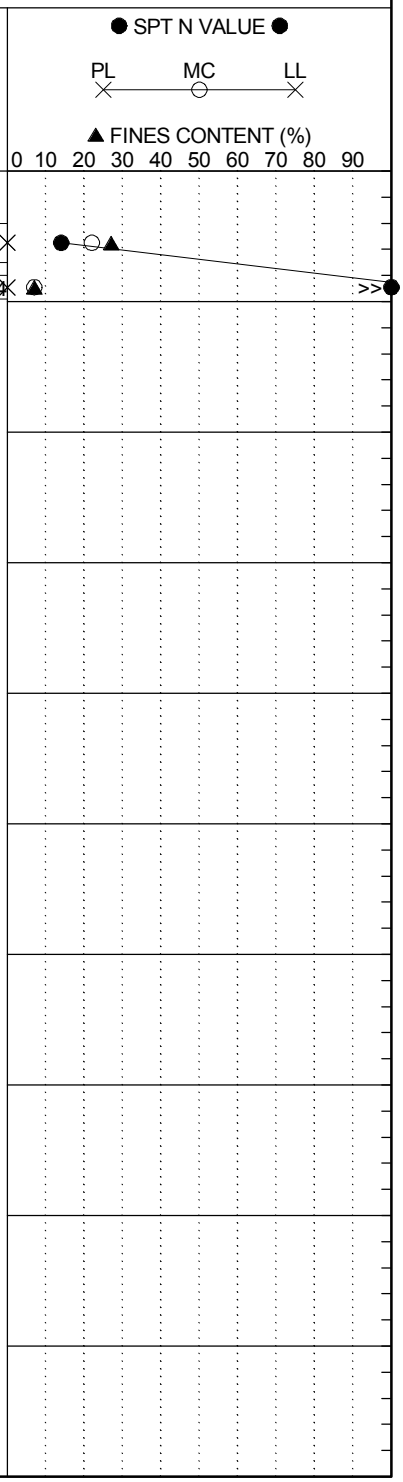
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-52	**Boring Location:**	117+93	**Offset:**	30' Rt.	**Alignment:**	Ramp 5
Elev.:	998.1 ft	**Latitude:**	34.82701	**Longitude:**	82.30752	**Date Started:**	10/18/2012
Total Depth:	5.4 ft	**Soil Depth:**	5.4 ft	**Core Depth:**	ft	**Date Completed:**	10/18/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	F. Woodard	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, tan, white, green & black, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=21.9, %#200=26.7		2.0					
	3.8			4.0	SS-1	5	6	8	14
993.1	5.4	Very dense, gray, yellow & orange, non-reactive, poorly graded GRAVEL with silt and sand (GP-GM/A-1-a). LL=NP, PL=NP, PI=NP, NMC=7.3, %#200=6.6			SS-2	22	50/0.4		50/0.4
988.1		Auger Refusal & Boring Terminated @ 5.4' (Elev. 992.71).							
983.1									
978.1									
973.1									
968.1									
963.1									
958.1									
953.1									



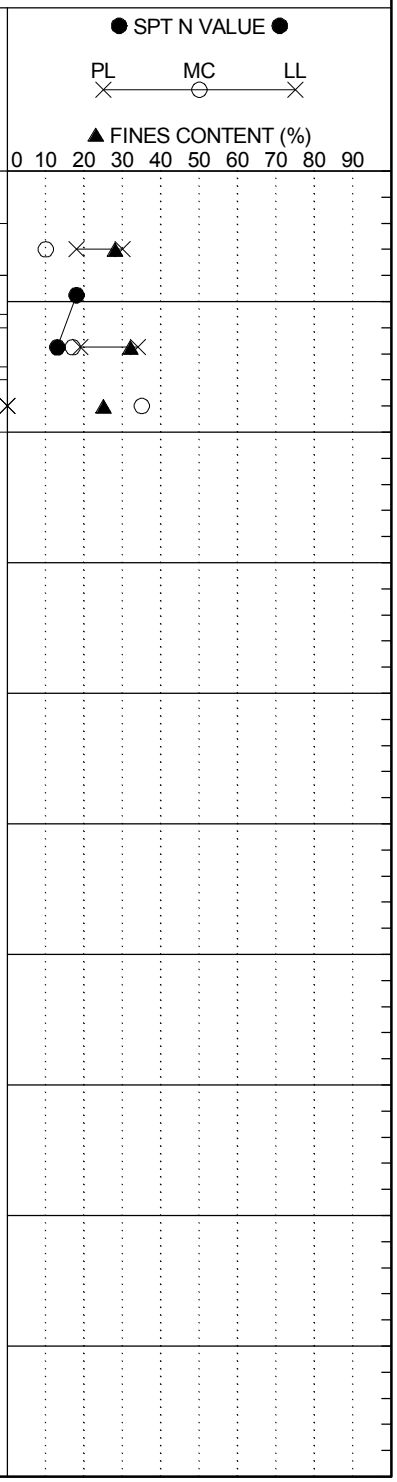
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-53	**Boring Location:**	257+64	**Offset:**	85' Rt.	**Alignment:**	I-85 NB C/D
Elev.:	998.4 ft	**Latitude:**	34.82731	**Longitude:**	82.30529	**Date Started:**	10/6/2012
Total Depth:	10 ft	**Soil Depth:**	10.0 ft	**Core Depth:**	ft	**Date Completed:**	10/6/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NA	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, orange & tan, non-reactive, clayey SAND (SC/A-2-6). LL=30, PL=18, PI=12, NMC=10.0, %#200=27.8		2.0					
	3.4			4.0	ST-1				
993.4		Medium dense, tan & gray, non-reactive, clayey SAND (SC/A-2-6). LL=34, PL=19, PI=15, NMC=17.4, %#200=32.4		6.0	SS-1	4	1	17	18
	7.8			8.0	SS-2	3	6	7	13
988.4	10.0	Medium dense, gray, tan & orange, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=34.6, %#200=24.7			ST-2				
983.4		No Refusal & Boring Terminated @ 10.0' (Elev. 988.4).							
978.4									
973.4									
968.4									
963.4									
958.4									
953.4									



LEGEND

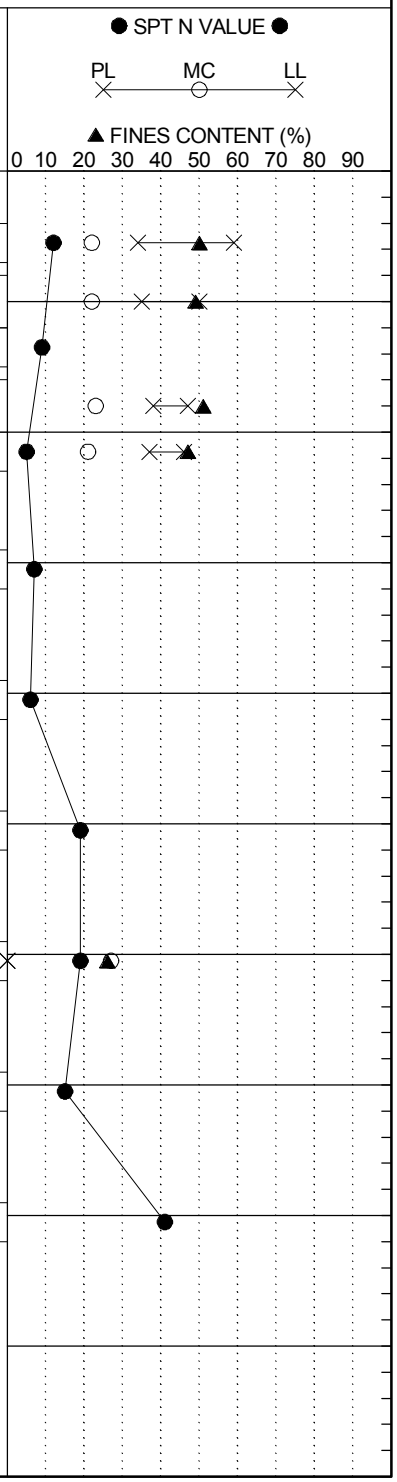
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-54	**Boring Location:**	98+99	**Offset:**	36' Rt.	**Alignment:**	Ramp 2A
Elev.:	974.4 ft	**Latitude:**	34.83581	**Longitude:**	82.29178	**Date Started:**	10/16/2012
Total Depth:	41 ft	**Soil Depth:**	41.0 ft	**Core Depth:**	ft	**Date Completed:**	10/16/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NA	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION
	0.0	Stiff, red, non-reactive, sandy elastic SILT (MH/A-7-5). LL=59, PL=34, PI=25, NMC=21.8, %#200=50.3
969.4	3.8	Loose to medium dense, red & orange, non-reactive, silty SAND (SM/A-7-5). LL=50, PL=35, PI=15, NMC=22.2, %#200=48.9
964.4	5.9	Stiff, red, non-reactive, sandy elastic SILT (MH/A-7-5).
959.4	7.8	Firm to stiff, red & yellow, non-reactive, sandy SILT (ML/A-5). LL=47, PL=38, PI=9, NMC=22.8, %#200=51.4
954.4	9.8	Loose, red & brown, non-reactive, silty SAND (SM/A-5). LL=46, PL=37, PI=9, NMC=21.4, %#200=47.0
949.4	17.8	Loose to dense, brown & white, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=26.8, %#200=26.0
944.4		
939.4		
934.4		
929.4	41.0	No Refusal & Boring Terminated @ 41.0' (Elev. 933.4).

Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
2.0	SS-1	3	5	7	12
4.0	ST-1				
6.0	SS-2	3	4	5	9
8.0	ST-2				
10.0	SS-3	WOH	3	2	5
14.5	SS-4	3	3	4	7
19.5	SS-5	2	3	3	6
24.5	SS-6	4	6	13	19
29.5	SS-7	7	10	9	19
34.5	SS-8	6	6	9	15
39.5	SS-9	12	15	26	41



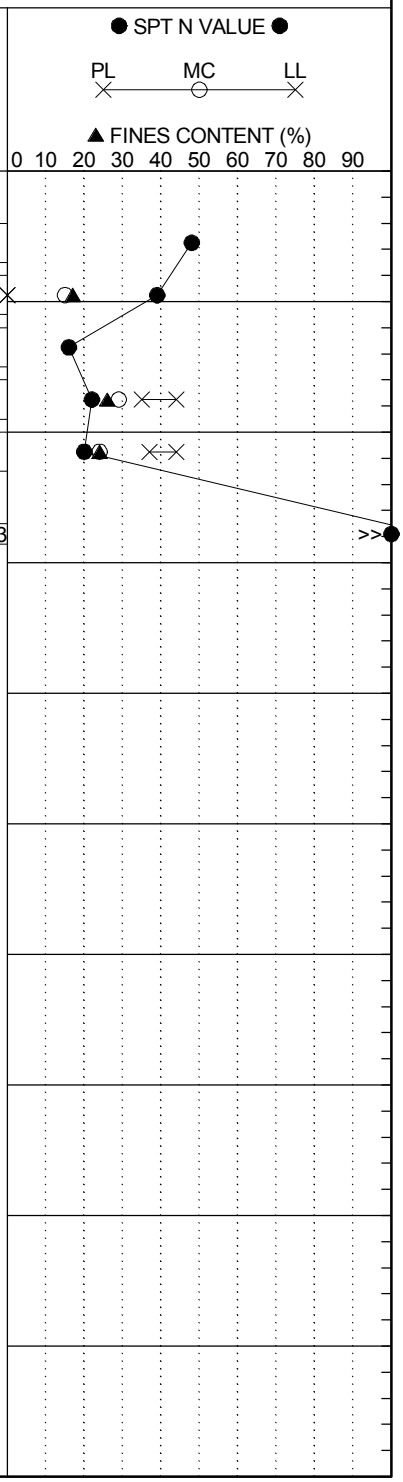
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-55	**Boring Location:**	61+03	**Offset:**	3' Rt.	**Alignment:**	Ramp 1
Elev.:	931.1 ft	**Latitude:**	34.84164	**Longitude:**	82.28397	**Date Started:**	10/17/2012
Total Depth:	17.5 ft	**Soil Depth:**	17.5 ft	**Core Depth:**	ft	**Date Completed:**	10/17/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	86%
Core Size:	NA	**Driller:**	M. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, red & tan, non-reactive, silty SAND with gravel (SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=14.6, %#200=17.1		2.0					
					SS-1	6	9	39	48
				4.0					
926.1					SS-2	11	14	25	39
				6.0					
					SS-3	10	5	11	16
	7.8	Medium dense, gray & red, non-reactive, silty SAND (SM/A-2-5). LL=44, PL=35, PI=9, NMC=29.0, %#200=26.1		8.0					
					SS-4	4	5	17	22
921.1	9.8			10.0					
					SS-5	5	12	8	20
		Medium dense to very dense, tan & white, non-reactive, silty SAND (SM/A-2-5). LL=44, PL=37, PI=7, NMC=24.4, %#200=29.2		13.5					
					SS-6	33	50/0.3		50/0.3
916.1	17.5	Auger Refusal & Boring Terminated @ 17.5' (Elev. 919.9).							
911.1									
906.1									
901.1									
896.1									
891.1									
886.1									



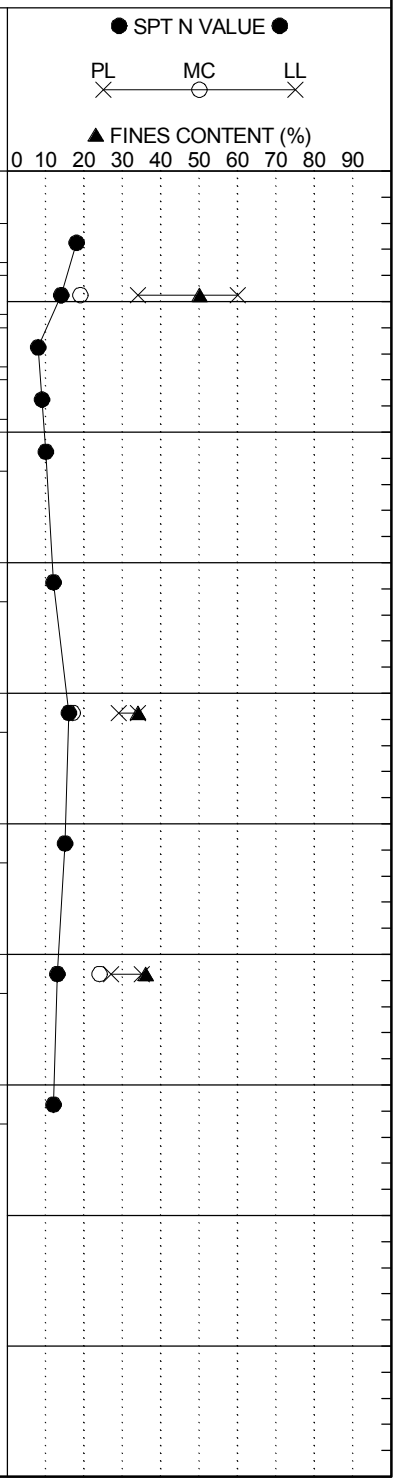
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-56	**Boring Location:**	360+06	**Offset:**	112' Rt.	**Alignment:**	I-85
Elev.:	929.7 ft	**Latitude:**	34.84613	**Longitude:**	82.28035	**Date Started:**	10/18/2012
Total Depth:	36.5 ft	**Soil Depth:**	36.5 ft	**Core Depth:**	ft	**Date Completed:**	10/18/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	F. Woodard	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Firm to very stiff, red & white, non-reactive, sandy, elastic SILT (MH/A-7-5). LL=60, PL=34, PI=26, NMC=19.4, %#200=50.4	2.0					
				SS-1	4	7	11	18
			4.0					
924.7				SS-2	4	6	8	14
			6.0					
	7.8			SS-3	3	4	4	8
		Loose to medium dense, tan & white, non-reactive, silty SAND (SM/A-2-4). LL=34, PL=29, PI=5, NMC=16.8, %#200=34.3	8.0					
				SS-4	3	4	5	9
919.7			10.0					
				SS-5	4	5	5	10
914.7			15.0					
				SS-6	4	4	8	12
909.7			20.0					
				SS-7	4	9	7	16
	23.3	Medium dense, white, non-reactive, silty SAND (SM/A-4). LL=35, PL=27, PI=8, NMC=23.5, %#200=36.3						
904.7			25.0					
				SS-8	7	8	7	15
899.7			30.0					
				SS-9	4	5	8	13
894.7			35.0					
	36.5	No Refusal & Boring Terminated @ 36.5' (Elev. 893.2).		SS-10	3	6	6	12
889.7								
884.7								



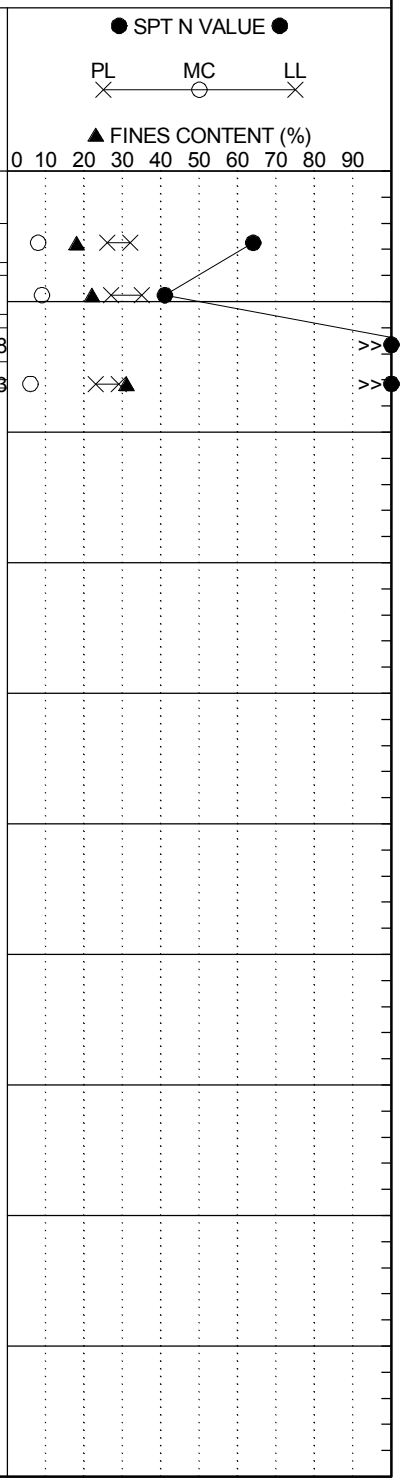
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-57	**Boring Location:**	379+93	**Offset:**	68' Lt.	**Alignment:**	I-85
Elev.:	890.1 ft	**Latitude:**	34.85129	**Longitude:**	82.27806	**Date Started:**	10/16/2012
Total Depth:	8.3 ft	**Soil Depth:**	8.3 ft	**Core Depth:**	ft	**Date Completed:**	10/16/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	86%
Core Size:	NA	**Driller:**	M. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Very dense, red, non-reactive, silty SAND (SM/A-2-4). LL=32, PL=26, PI=6, NMC=7.6, %#200=18.0		2.0	SS-1	14	36	28	64
	3.8	Dense to very dense, red, non-reactive, silty SAND (SM/A-2-4). LL=35, PL=27, PI=8, NMC=9.1, %#200=21.9		4.0	SS-2	14	18	23	41
885.1	7.8	Very dense, red, non-reactive, silty SAND (SM/A-2-4). LL=29, PL=23, PI=6, NMC=6.3, %#200=30.8		6.0	SS-3	8	40	50/0.3	90/0.8
	8.3	No Refusal & Boring Terminated @ 8.3' (Elev. 881.8).		8.0	SS-4	50/0.3			50/0.3
880.1									
875.1									
870.1									
865.1									
860.1									
855.1									
850.1									
845.1									



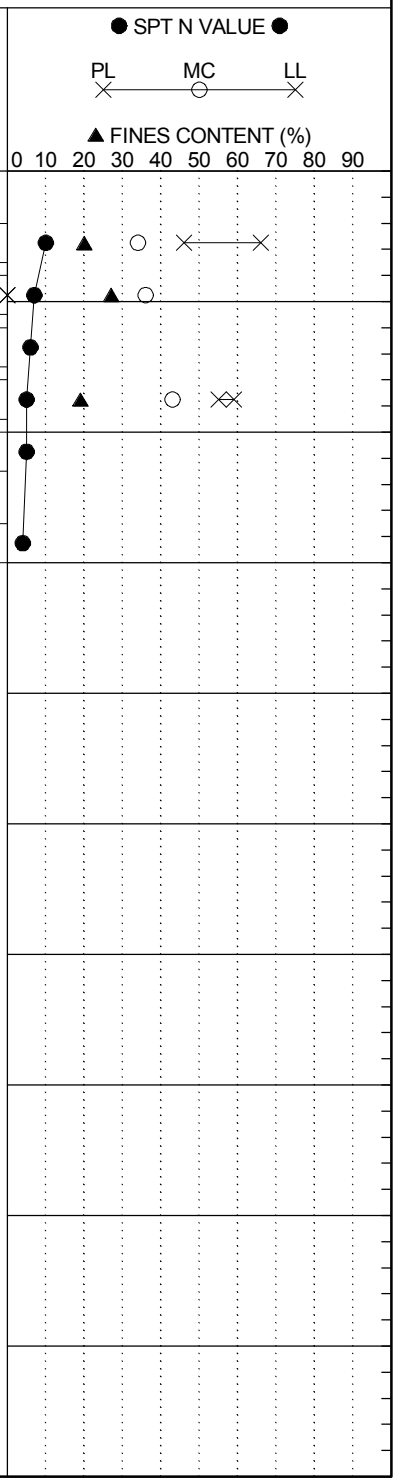
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-58	**Boring Location:**	399+98	**Offset:**	99' Rt.	**Alignment:**	I-85
Elev.:	863.8 ft	**Latitude:**	34.85398	**Longitude:**	82.2723	**Date Started:**	9/25/2012
Total Depth:	15 ft	**Soil Depth:**	15.0 ft	**Core Depth:**	ft	**Date Completed:**	9/25/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	86%
Core Size:	NA	**Driller:**	M. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Loose, tan & red, non-reactive, silty SAND (SM/A-2-7). LL=66, PL=46, PI=20, NMC=34.4, %#200=19.7		2.0					
	3.8			4.0	SS-1	2	5	5	10
858.8	5.8	Loose, red, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=35.7, %#200=27.0		6.0	SS-2	3	3	4	7
				8.0	SS-3	2	3	3	6
853.8		Very loose to loose, gray, tan & black, non-reactive, silty SAND (SM/A-2-5). LL=59, PL=55, PI=4, NMC=42.6, %#200=18.5		10.0	SS-4	2	3	2	5
				13.5	SS-5	2	2	3	5
848.8	15.0	No Refusal & Boring Terminated @ 15.0' (Elev. 848.8).			SS-6	2	2	2	4
843.8									
838.8									
833.8									
828.8									
823.8									
818.8									



LEGEND

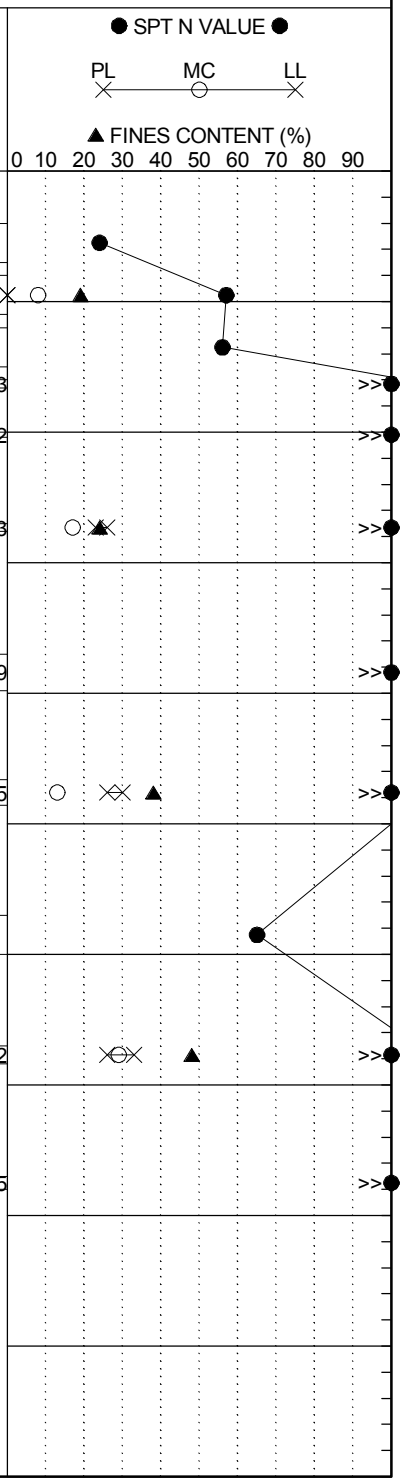
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-59	**Boring Location:**	420+11	**Offset:**	94' Lt.	**Alignment:**	I-85
Elev.:	850.6 ft	**Latitude:**	34.85671	**Longitude:**	82.26643	**Date Started:**	10/3/2012
Total Depth:	39 ft	**Soil Depth:**	39.0 ft	**Core Depth:**	ft	**Date Completed:**	10/4/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y [✓ N]	**Liner Used:**	Y [✓ N]
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	C. Frazier	**Groundwater:**	**TOB**	**24HR**	

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense to very dense, tan, red, white & brown, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=8.4, %#200=19.4	2.0	SS-1	4	9	15	24
			4.0	SS-2	17	23	34	57
845.6								
			6.0	SS-3	21	27	29	56
			8.0	SS-4	50/0.3			50/0.3
840.6	9.8	Very dense, tan & white, non-reactive, silty SAND (SM/A-2-4). LL=26, PL=23, PI=3, NMC=17.3, %#200=24.2	10.0	SS-5	50/0.2			50/0.2
			13.5	SS-6	50/0.3			50/0.3
835.6								
	16.8	Very dense, tan, brown, gray, black & white, non-reactive, silty SAND (SM/A-4). LL=30, PL=26, PI=4, NMC=12.6, %#200=38.2						
			18.5	SS-7	17	33	50/0.4	83/0.9
830.6								
			23.3	SS-8	20	50/0.5		50/0.5
825.6								
			28.5	SS-9	12	27	38	65
820.6								
	31.8	Very dense, tan & gray, non-reactive, silty SAND (SM/A-4). LL=33, PL=26, PI=7, NMC=28.6, %#200=48.3						
			33.5	SS-10	10	50/0.2		50/0.2
815.6								
			38.5	SS-11	50/0.5			50/0.5
	39.0	No Refusal & Boring Terminated @ 39.0' (Elev. 811.6).						
810.6								
805.6								

Graphic Log



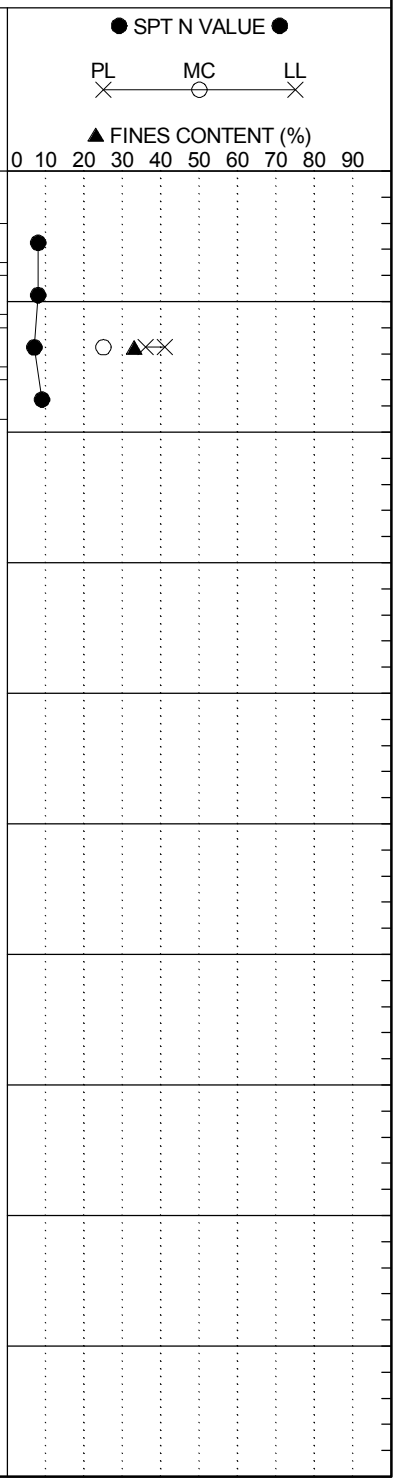
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-60	**Boring Location:**	324+88	**Offset:**	84' Lt.	**Alignment:**	I-385
Elev.:	913.7 ft	**Latitude:**	34.81406	**Longitude:**	82.28929	**Date Started:**	10/8/2012
Total Depth:	9.5 ft	**Soil Depth:**	9.5 ft	**Core Depth:**	ft	**Date Completed:**	10/8/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	86%
Core Size:	NA	**Driller:**	M. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Loose, tan & white, non-reactive, silty SAND (SM/A-2-5). LL=41, PL=36, PI=5, NMC=24.5, %#200=33.0		2.0					
					SS-1	3	5	3	8
				4.0					
908.7					SS-2	4	4	4	8
				6.0					
					SS-3	3	3	4	7
				8.0					
	9.5				SS-4	3	4	5	9
903.7		No Refusal & Boring Terminated @ 9.5' (Elev. 904.2).							
898.7									
893.7									
888.7									
883.7									
878.7									
873.7									
868.7									



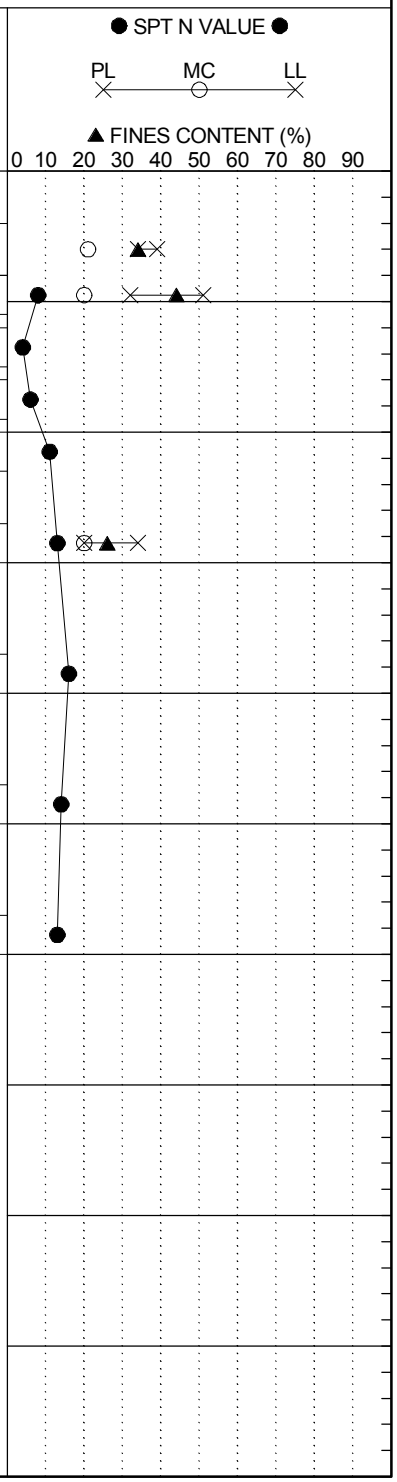
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-61	**Boring Location:**	332+58	**Offset:**	20' Rt.	**Alignment:**	I-385 NB C/D
Elev.:	926.1 ft	**Latitude:**	34.81617	**Longitude:**	82.28983	**Date Started:**	10/9/2012
Total Depth:	30 ft	**Soil Depth:**	30.0 ft	**Core Depth:**	ft	**Date Completed:**	10/9/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	86%
Core Size:	NA	**Driller:**	M. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Loose, red, non-reactive, silty SAND (SM/A-2-4). LL=39, PL=34, PI=5, NMC=20.9, %#200=33.8	2.0					
	3.7		4.0	ST-1				
921.1	5.8	Loose, tan & red, non-reactive, silty SAND (SM/A-7-5). LL=51, PL=32, PI=19, NMC=20.2, %#200=43.5	6.0	SS-1	3	3	5	8
			8.0	SS-2	2	2	2	4
			10.0	SS-3	2	3	3	6
916.1		Very loose to medium dense, red, tan, brown, white & gray, non-reactive, clayey SAND (SC/A-2-6). LL=34, PL=20, PI=14, NMC=20.2, %#200=25.9		SS-4	4	4	7	11
			13.5	SS-5	5	8	5	13
911.1			18.5	SS-6	5	8	8	16
906.1			23.5	SS-7	6	6	8	14
901.1			28.5	SS-8	6	7	6	13
896.1	30.0	No Refusal & Boring Terminated @ 30.0' (Elev. 896.1).						
891.1								
886.1								
881.1								



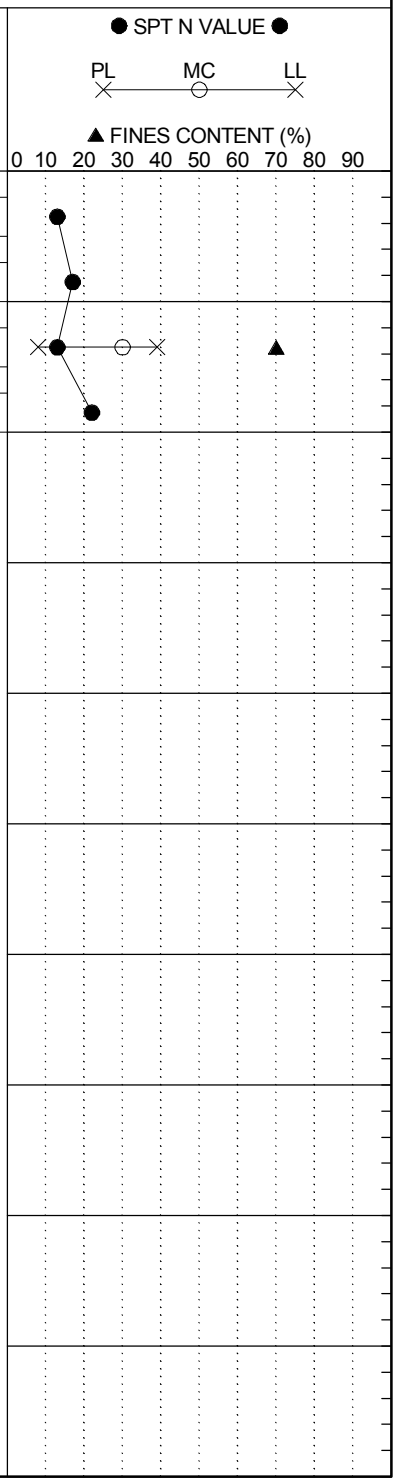
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-62	**Boring Location:**	349+94	**Offset:**	19' Lt.	**Alignment:**	I-385 NB C/D
Elev.:	935.7 ft	**Latitude:**	34.82084	**Longitude:**	82.29095	**Date Started:**	10/8/2012
Total Depth:	10 ft	**Soil Depth:**	10.0 ft	**Core Depth:**	ft	**Date Completed:**	10/8/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	C. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Stiff to very stiff, red, tan & brown, non-reactive, sandy SILT (ML/A-4). LL=39, PL=31, PI=8, NMC=30.3, %#200=70.1		1.0	SS-1	6	5	8	13
				3.5	SS-2	7	7	10	17
930.7				6.0	SS-3	7	9	4	13
				8.5	SS-4	8	9	13	22
925.7	10.0	No Refusal & Boring Terminated @ 10.0' (Elev. 925.6).							
920.7									
915.7									
910.7									
905.7									
900.7									
895.7									
890.7									



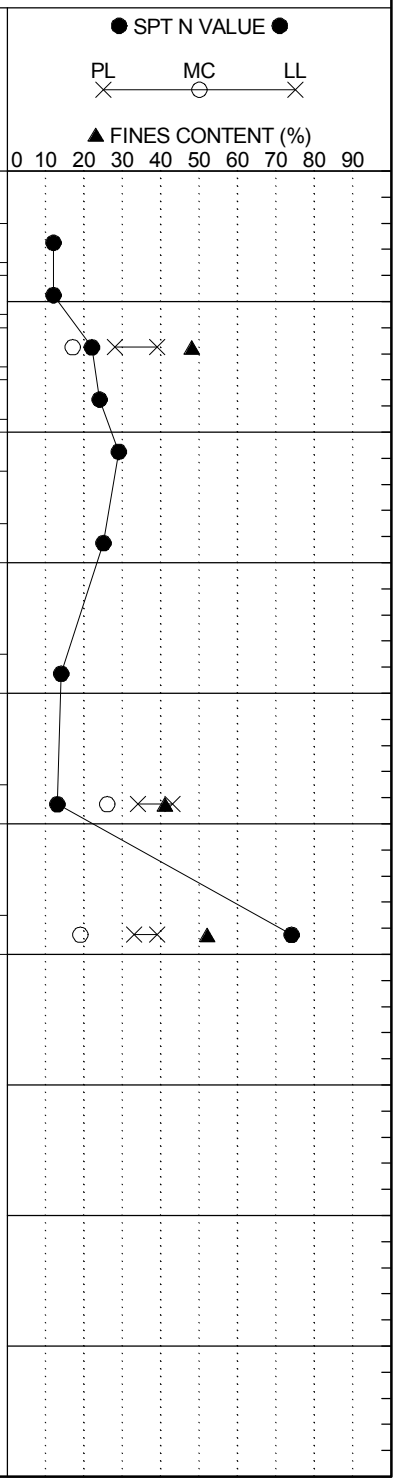
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-63	**Boring Location:**	354+98	**Offset:**	85' Rt.	**Alignment:**	I-385 NB C/D
Elev.:	958.2 ft	**Latitude:**	34.82224	**Longitude:**	82.29076	**Date Started:**	10/8/2012
Total Depth:	30 ft	**Soil Depth:**	30.0 ft	**Core Depth:**	ft	**Date Completed:**	10/8/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	C. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, tan, brown, red & white, non-reactive, silty SAND (SM/A-6). LL=39, PL=28, PI=11, NMC=16.5, %#200=48.0	2.0					
				SS-1	5	7	5	12
			4.0					
953.2				SS-2	8	4	8	12
			6.0					
				SS-3	6	8	14	22
			8.0					
				SS-4	7	11	13	24
948.2	9.8	Medium dense, tan, brown & red, non-reactive, silty SAND (SM/A-5). LL=43, PL=34, PI=9, NMC=25.7, %#200=41.1	10.0					
				SS-5	10	16	13	29
			13.5					
				SS-6	12	14	11	25
943.2								
			18.5					
				SS-7	8	6	8	14
938.2								
			23.5					
				SS-8	9	6	7	13
933.2	26.8	Hard, red & brown, non-reactive, sandy SILT (ML/A-4). LL=39, PL=33, PI=6, NMC=18.7, %#200=52.2	28.5					
				SS-9	26	31	43	74
928.2	30.0	No Refusal & Boring Terminated @ 30.0' (Elev. 928.2).						
923.2								
918.2								
913.2								



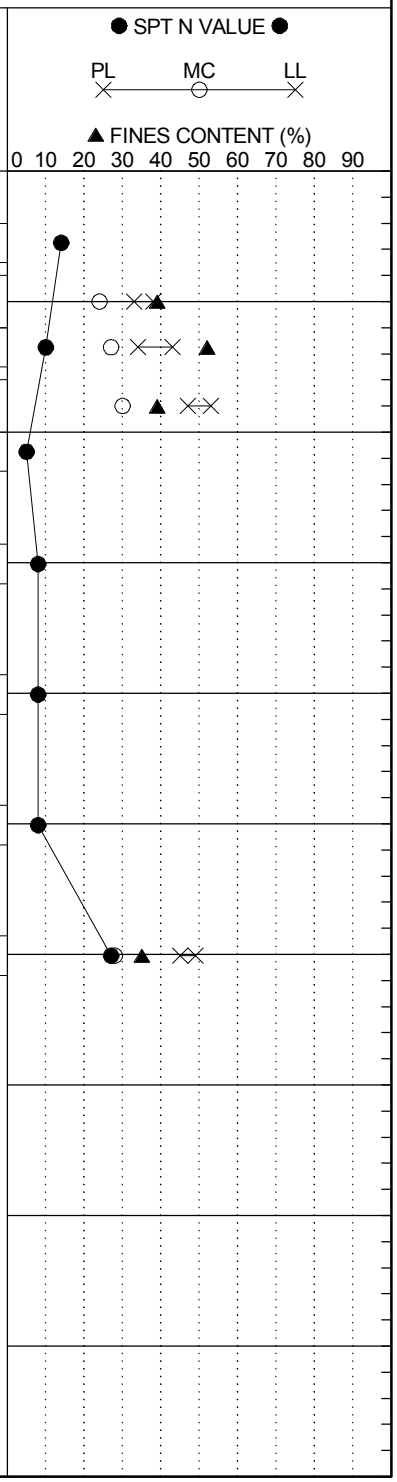
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-64	**Boring Location:**	55+93	**Offset:**	76' Lt.	**Alignment:**	Ramp 8
Elev.:	962.3 ft	**Latitude:**	34.82456	**Longitude:**	82.29118	**Date Started:**	10/18/2012
Total Depth:	30.8 ft	**Soil Depth:**	30.8 ft	**Core Depth:**	ft	**Date Completed:**	10/18/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NA	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Stiff, red, non-reactive, sandy SILT (ML/A-5).	2.0					
	3.8		4.0	SS-1	4	6	8	14
957.3	5.6	Loose to medium dense, red, orange & yellow, non-reactive, silty SAND (SM/A-4). LL=38, PL=33, PI=5, NMC=23.9, %#200=38.7	6.0	ST-1				
	7.8		8.0	SS-2	2	4	6	10
952.3	9.8	Stiff, red, non-reactive, sandy SILT (ML/A-5). LL=43, PL=34, PI=9, NMC=27.2, %#200=51.6	10.0	ST-2				
	12.9			SS-3	WOH	1	4	5
947.3		Loose, gray, red, orange & white, non-reactive, silty SAND (SM/A-5). LL=53, PL=47, PI=6, NMC=29.7, %#200=38.5	14.3	SS-4	2	3	5	8
942.3		Firm, red, non-reactive, sandy SILT (ML/A-5).	19.3	SS-5	3	3	5	8
937.3		Loose to medium dense, brown & white, non-reactive, silty SAND (SM/A-5). LL=49, PL=45, PI=4, NMC=28.4, %#200=35.3	24.3	SS-6	1	3	5	8
932.3	30.8		29.3	SS-7	6	11	16	27
		No Refusal & Boring Terminated @ 30.8' (Elev. 931.5).						
927.3								
922.3								
917.3								



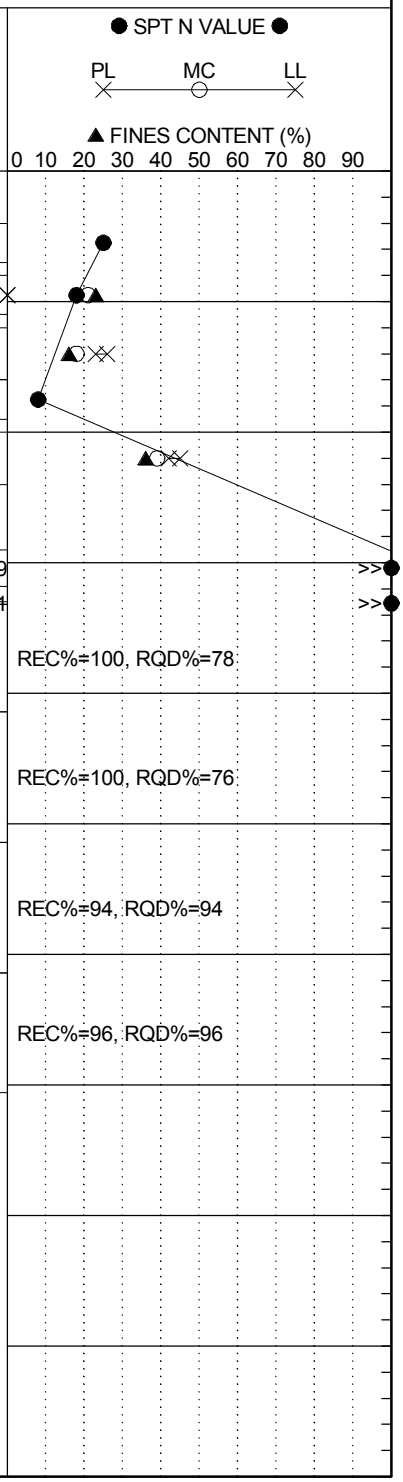
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-65	**Boring Location:**	364+95	**Offset:**	11' Rt.	**Alignment:**	I-385 NB C/D
Elev.:	961.8 ft	**Latitude:**	34.82493	**Longitude:**	82.29158	**Date Started:**	10/9/2012
Total Depth:	35.3 ft	**Soil Depth:**	16.6 ft	**Core Depth:**	35.3 ft	**Date Completed:**	10/9/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NQ2	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, red, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=21.3, %#200=23.0	2.0					
				SS-1	5	11	14	25
			4.0					
956.8	5.8			SS-2	2	8	10	18
		Loose to medium dense, orange, white, yellow & brown, non-reactive, silty SAND (SM/A-2-4).	6.0					
	7.4			ST-1				
			8.0					
	9.8	LL=26, PL=23, PI=3, NMC=18.0, %#200=15.5		SS-3	3	3	5	8
951.8			10.0					
				ST-2				
	13.0	Loose, red, non-reactive, silty SAND (SM/A-2-4).						
			14.5					
946.8		Loose to very dense, gray, black & yellow, non-reactive, silty SAND (SM/A-5).		SS-4	4	18	50/0.4	68/0.9
	16.6		16.5	SS-5	50/0.1			50/0.1
		LL=45, PL=42, PI=3, NMC=39.1, %#200=35.7	16.6					
				NQ-1				
941.8		Very dense, brown, non-reactive, silty SAND (SM/A-2-4).	20.7					
	22.4	Auger Refusal @ 16.6' Begin Coring.						
		Off white, lt. gray, black, trcs. rose-pink, brown-orange stain, sli. weathered to fresh w/mod. to high weathering on some jt. walls, hard, med. crystalline, VC discontinuity spacing w/T to MW width, Feldspar Quartz Biotite Gneiss w/ scattered garnets & pyrite.		NQ-2				
936.8			25.7					
				NQ-3				
	29.4	7 0°-20° jts., hard walls, iron stain; 1 30° foliation jt., hard wall, iron stain						
931.8			30.7					
		Off white, lt. gray, scattered black, brown-orange-red stain, fresh, v. hard, cse. crystalline to megacrystyalline, VC discontinuity spacing w/T to VN width, Feldspar Quartz Granitoid Rock w/discontinuous foliation in parts, scattered muscovite, biotite & augite.		NQ-4				
	33.8							
926.8	35.3							
		contact 70°; 8 0°-20° jts., hard, rough walls; 1 40° jt., hard walls						
921.8								
		Off white, gray, black, fresh, hard, med. crystalline, VC-C discontinuity spacing w/T width, Feldspar Quartz Augite Biotite Gneiss w/scattered garnets.						
916.8								
		contact 50° w/jt., iron stain; 1 40° foliation jt., mica walls						
		Off white, lt. gray, scattered black, trcs. pale						



LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-65	**Boring Location:**	364+95	**Offset:**	11' Rt.	**Alignment:**	I-385 NB C/D
Elev.:	961.8 ft	**Latitude:**	34.82493	**Longitude:**	82.29158	**Date Started:**	10/9/2012
Total Depth:	35.3 ft	**Soil Depth:**	16.6 ft	**Core Depth:**	35.3 ft	**Date Completed:**	10/9/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NQ2	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
		green, fresh, v. hard, cse. crystalline to pegmatitic, Feldspar Quartz Granitoid Rock w/scattered muscovite, biotite & augite, trcs. garnets, no jts..								
906.8		Boring Terminated @ 35.3' (Elev. 926.5).								
901.8										
896.8										
891.8										
886.8										
881.8										
876.8										
871.8										
866.8										

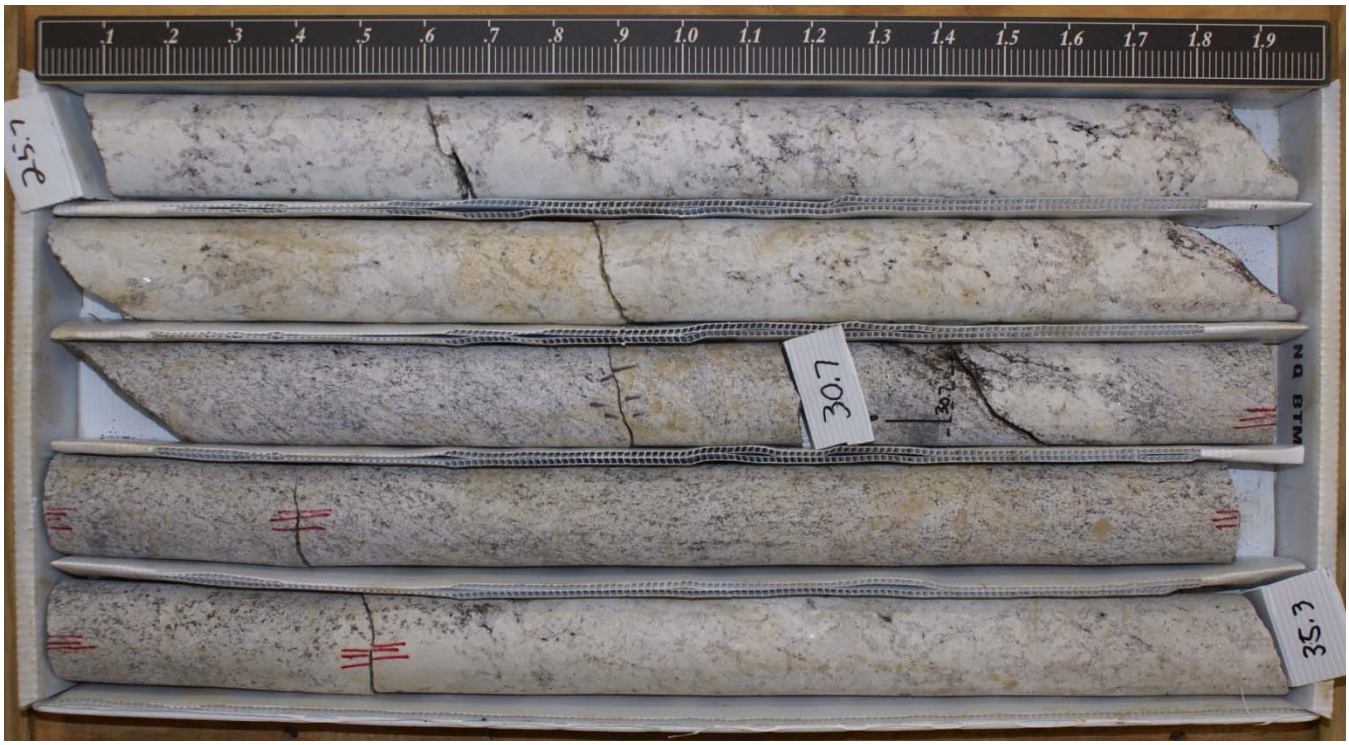
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

I-85 / I-385 Interchange Improvements

B-65 Box 1 of 2

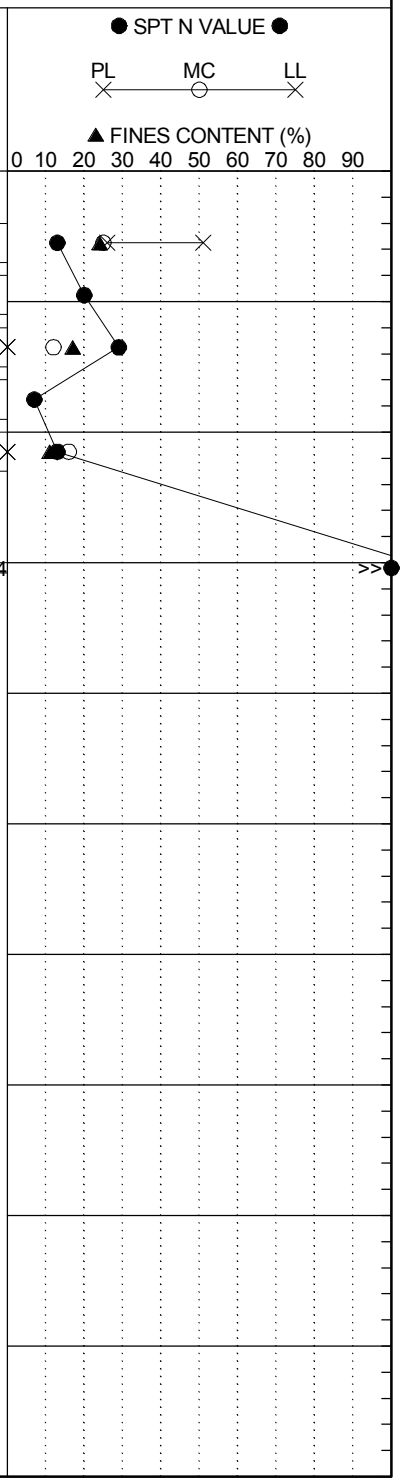


B-65 Box 2 of 2

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-66	**Boring Location:**	369+87	**Offset:**	16' Lt.	**Alignment:**	I-385 NB C/D
Elev.:	967.9 ft	**Latitude:**	34.82623	**Longitude:**	82.292	**Date Started:**	10/17/2012
Total Depth:	15.8 ft	**Soil Depth:**	15.8 ft	**Core Depth:**	ft	**Date Completed:**	10/17/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	F. Woodard	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, red, non-reactive, clayey SAND (SC/A-2-7). LL=51, PL=26, PI=25, NMC=25.2, %#200=23.8	2.0					
	3.8		4.0	SS-1	2	5	8	13
962.9		Medium dense, red, black, white & tan, non-reactive, silty SAND with gravel (SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=11.5, %#200=17.1	6.0	SS-2	2	8	12	20
	7.8		8.0	SS-3	5	9	20	29
957.9		Loose to very dense, white, black & tan, non-reactive, SAND with silt (SW-SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=15.5, %#200=10.7	10.0	SS-4	3	3	4	7
				SS-5	2	5	8	13
952.9	15.8	Auger Refusal & Boring Terminated @ 15.8' (Elev. 952.1).	15.0	SS-6	50/0.4			50/0.4
947.9								
942.9								
937.9								
932.9								
927.9								
922.9								



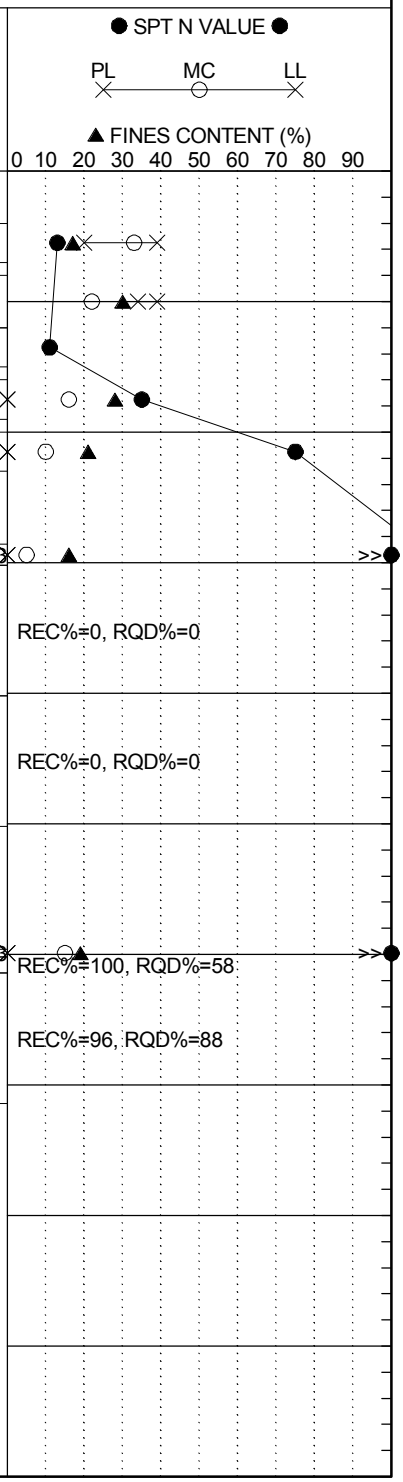
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-67	**Boring Location:**	65+94	**Offset:**	137' Lt.	**Alignment:**	Ramp 8
Elev.:	970.5 ft	**Latitude:**	34.82719	**Longitude:**	82.29241	**Date Started:**	10/17/2012
Total Depth:	35.7 ft	**Soil Depth:**	30.1 ft	**Core Depth:**	35.7 ft	**Date Completed:**	10/17/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NQ2	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, red, non-reactive, clayey SAND (SC/A-2-6). LL=39, PL=20, PI=19, NMC=33.4, %#200=16.5	2.0	SS-1	2	5	8	13
965.5	3.8 / 5.4	Medium dense, orange, red & white, non-reactive, silty SAND (SM/A-2-4). LL=39, PL=34, PI=5, NMC=21.5, %#200=29.6	4.0	ST-1				
			6.0	SS-2	3	5	6	11
			8.0	SS-3	2	10	25	35
960.5	9.8	Medium dense to dense, red, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=16.1, %#200=28.2	10.0	SS-4	3	25	50	75
955.5	12.9 / 15.1	Very dense, red, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=9.7, %#200=20.5	14.3 / 15.1	SS-5	35	50/0.3		50/0.3
				NQ-1				REC%=0, RQD%=0
950.5		Very dense, gray, non-reactive, silty SAND with gravel (SM/A-1-b). LL=NP, PL=NP, PI=NP, NMC=5.3, %#200=16.2	20.1	NQ-2				REC%=0, RQD%=0
945.5	25.1	Auger Refusal @ 15.1' Begin Coring. No recovery, interpreted as weathered rock.						
		End Coring, Return to Auger & Sampling.						
940.5	30.1	gray & brown, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=15.1, %#200=19.1	29.8 / 30.1 / 30.7	SS-6 / NQ-3	50/0.3			50/0.3
				NQ-4				REC%=100, RQD%=58
								REC%=96, RQD%=88
935.5	35.7	Auger Refusal @ 30.1' Begin Coring. Off white, gray, black, scat brown-orange stain, sli. weathered grading to fresh, hard, med. crystalline, VC discontinuity spacing w/VN to MW width, Feldspar Quartz Biotite Gneiss w/ scattered garnets. 4 40°-50° foliation jt., hard walls, 1-3mm open; 4 0°-20° jts., hard walls, 1mm open; foliation 55°						
930.5								
925.5		Boring Terminated @ 35.7' (Elev. 934.8).						



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

CORE PHOTOGRAPHIC RECORD

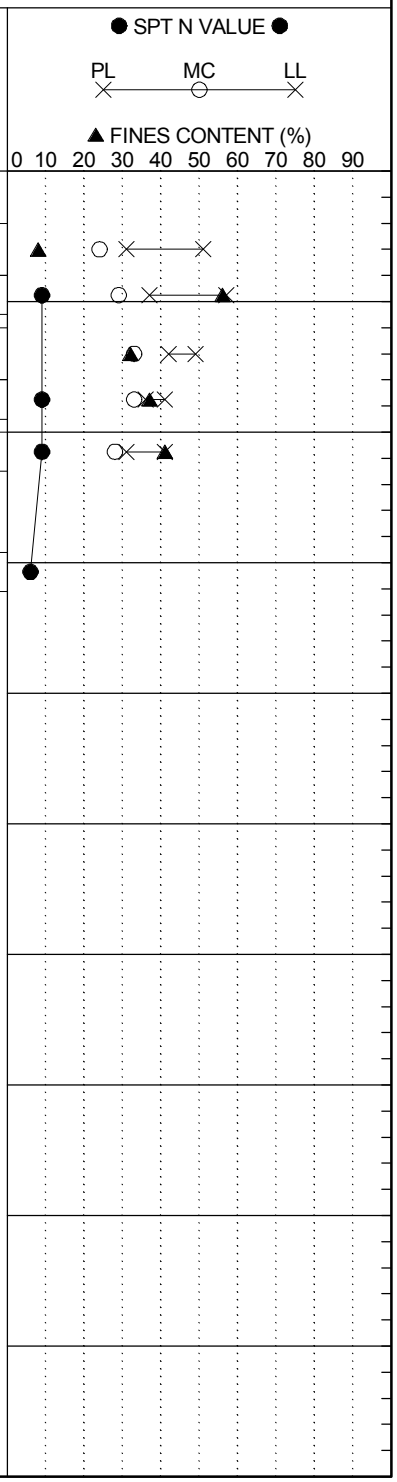
I-85 / I-385 Interchange Improvements

B-67 Box 1 of 1

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-68	**Boring Location:**	59+09	**Offset:**	41' Lt.	**Alignment:**	Ramp 2A
Elev.:	1010.3 ft	**Latitude:**	34.83425	**Longitude:**	82.30217	**Date Started:**	10/6/2012
Total Depth:	16.1 ft	**Soil Depth:**	16.1 ft	**Core Depth:**	ft	**Date Completed:**	10/6/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	82%
Core Size:	NA	**Driller:**	C. Banning	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Loose, orange & yellow, non-reactive, poorly graded SAND with silt (SP-SM/A-2-7). LL=51, PL=31, PI=20, NMC=23.7, %#200=8.3	2.0					
	3.8		4.0	ST-1				
1005.3	5.5	Stiff, red & orange, non-reactive, sandy elastic SILT (MH/A-7-5). LL=57, PL=37, PI=20, NMC=29.2, %#200=56.2		SS-1	1	4	5	9
	7.7		6.0					
			8.0	ST-2				
	9.8			SS-3	1	3	6	9
1000.3		Loose, tan & yellow, non-reactive, silty SAND (SM/A-2-5). LL=49, PL=42, PI=7, NMC=33.2, %#200=32.2	10.0	SS-4	4	4	5	9
			14.6					
995.3	16.1	Loose, brown, black & white, non-reactive, silty SAND (SM/A-5). LL=41, PL=36, PI=5, NMC=32.5, %#200=36.5		SS-5	2	3	3	6
990.3		Loose, tan, black, gray & white, non-reactive, silty SAND (SM/A-5). LL=41, PL=31, PI=10, NMC=27.7, %#200=40.9						
985.3		No Refusal & Boring Terminated @ 16.1' (Elev. 994.2).						
980.3								
975.3								
970.3								
965.3								



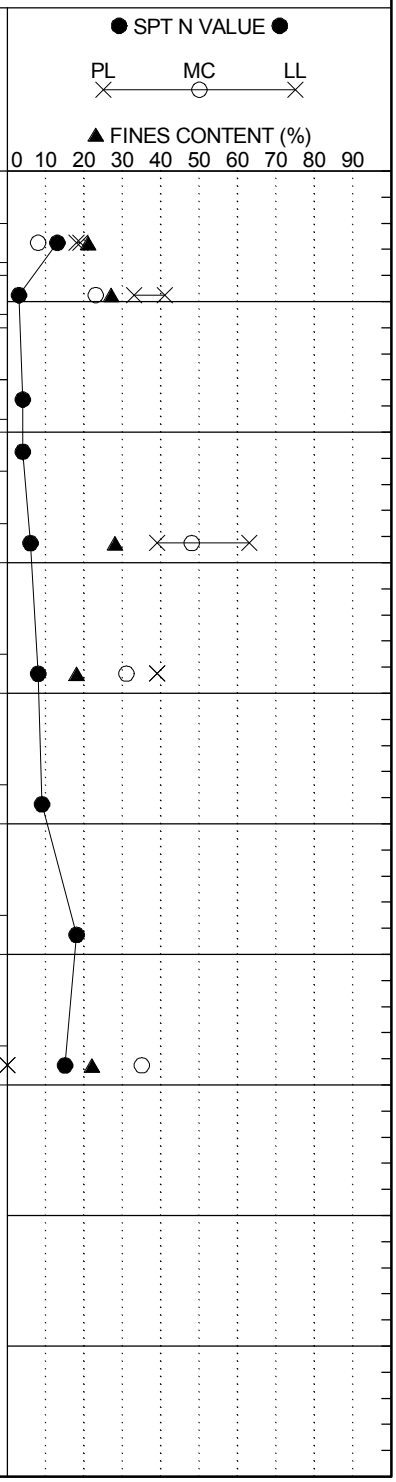
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-70	**Boring Location:**	72+31	**Offset:**	23' Rt.	**Alignment:**	Ramp 1
Elev.:	893.9 ft	**Latitude:**	34.83976	**Longitude:**	82.28695	**Date Started:**	10/18/2012
Total Depth:	35 ft	**Soil Depth:**	35.0 ft	**Core Depth:**	ft	**Date Completed:**	10/18/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	86%
Core Size:	NA	**Driller:**	M. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, brown, non-reactive, silty SAND (SM/A-2-4). LL=19, PL=18, PI=1, NMC=8.1, %#200=21.0	2.0	SS-1	4	4	9	13
888.9	3.8	Very loose, tan & gray, weakly reactive, silty SAND (SM/A-2-5). LL=41, PL=33, PI=8, NMC=22.7, %#200=26.5	4.0	SS-2	1	2	1	3
	5.8		6.0	ST-1				
	7.3	Very loose, tan & green, weakly reactive, silty SAND (SM/A-2-4). LL=39, PL=39, PI=NP, NMC=30.8, %#200=17.8	8.0	SS-3	2	2	2	4
883.9			10.0	SS-4	1	2	2	4
878.9		Very loose to loose, red & tan, non-reactive, silty SAND (SM/A-2-7). LL=63, PL=39, PI=24, NMC=48.1, %#200=27.8	13.5	SS-5	3	2	4	6
			18.5	SS-6	2	3	5	8
873.9			23.5	SS-7	4	4	5	9
868.9	26.8	Medium dense, tan, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=35.1, %#200=21.7	28.5	SS-8	3	6	12	18
863.9			33.5	SS-9	8	7	8	15
858.9	35.0	No Refusal & Boring Terminated @ 35.0' (Elev. 858.9).						
853.9								
848.9								



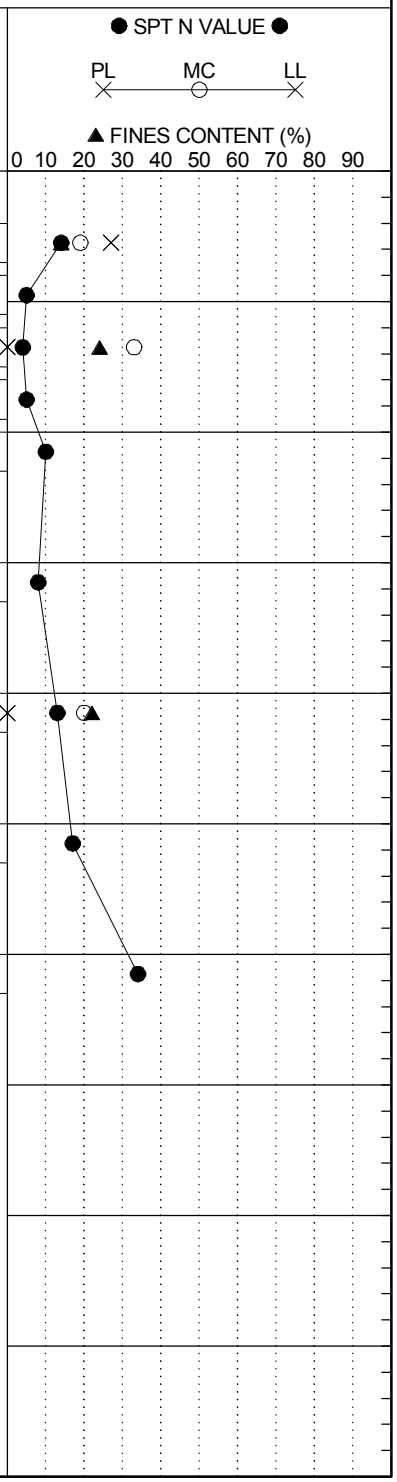
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-71	**Boring Location:**	118+86	**Offset:**	11' Rt.	**Alignment:**	Ramp 2A
Elev.:	898.0 ft	**Latitude:**	34.8392	**Longitude:**	82.28659	**Date Started:**	10/17/2012
Total Depth:	31.5 ft	**Soil Depth:**	31.5 ft	**Core Depth:**	31.5 ft	**Date Completed:**	10/17/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	F. Woodard	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, brown, non-reactive, silty SAND with gravel (SM/A-1-b). LL=27, PL=27, PI=NP, NMC=19.0, %#200=13.9		2.0					
	3.8			4.0	SS-1	6	4	10	14
893.0		Very loose to loose, yellow, brown & black, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=33.0, %#200=23.8		6.0	SS-2	1	3	2	5
				8.0	SS-3	1	2	2	4
888.0				10.0	SS-4	2	2	3	5
	12.3	Loose to dense, black brown & white, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=20.0, %#200=22.0			SS-5	2	5	5	10
883.0				15.0	SS-6	3	4	4	8
878.0				20.0	SS-7	3	6	7	13
873.0				25.0	SS-8	4	7	10	17
868.0				30.0	SS-9	7	14	20	34
	31.5	No Refusal & Boring Terminated @ 31.5' (Elev. 866.5).							
863.0									
858.0									
853.0									



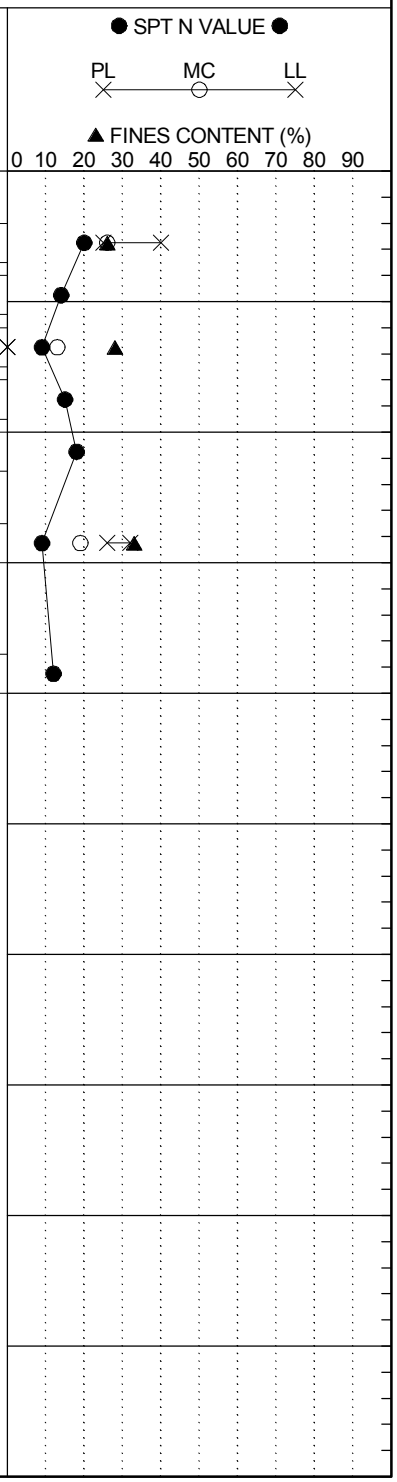
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	R. DeLost
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-72	**Boring Location:**	372+06	**Offset:**	73' Lt.	**Alignment:**	I-85
Elev.:	899.8 ft	**Latitude:**	34.84937	**Longitude:**	82.27939	**Date Started:**	10/16/2012
Total Depth:	20 ft	**Soil Depth:**	20.0 ft	**Core Depth:**	ft	**Date Completed:**	10/16/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	86%
Core Size:	NA	**Driller:**	M. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Medium dense, red, non-reactive, clayey SAND (SC/A-2-6). LL=40, PL=25, PI=15, NMC=26.2, %#200=26.2	2.0					
	3.8		4.0	SS-1	7	9	11	20
894.8		Loose to medium dense, tan. non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=12.9, %#200=27.6	6.0	SS-2	5	7	7	14
	7.8		8.0	SS-3	4	4	5	9
889.8		Loose to medium dense, gray & white, non-reactive, silty SAND (SM/A-2-4). LL=32, PL=26, PI=6, NMC=18.8, %#200=32.8	10.0	SS-4	5	7	8	15
				SS-5	5	8	10	18
884.8			13.5	SS-6	6	4	5	9
879.8	20.0		18.5	SS-7	17	7	5	12
874.8		No Refusal & Boring Terminated @ 20.0' (Elev. 879.8).						
869.8								
864.8								
859.8								
854.8								



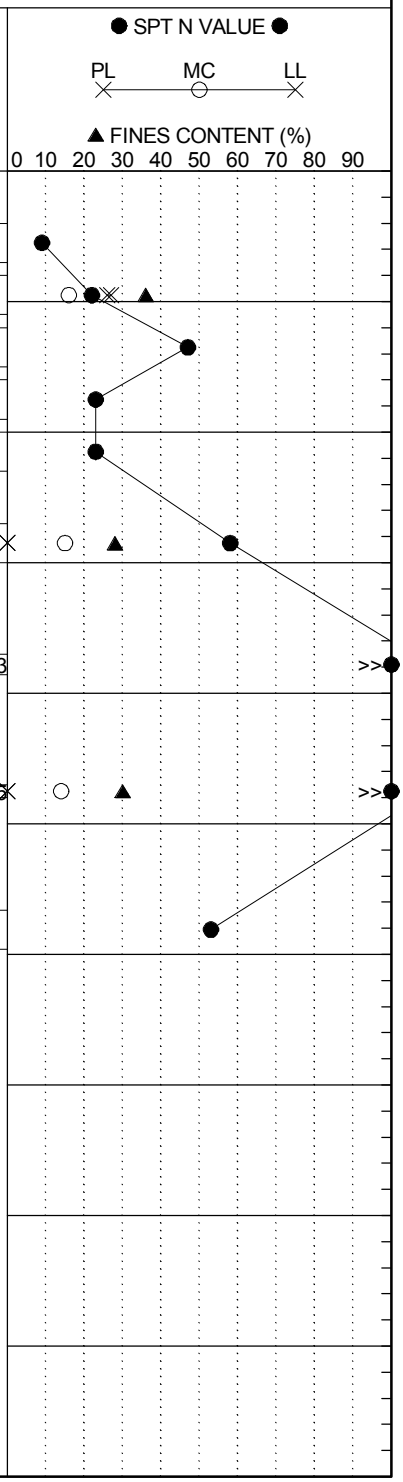
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-73	**Boring Location:**	414+45	**Offset:**	106' Lt.	**Alignment:**	I-85
Elev.:	847.9 ft	**Latitude:**	34.85611	**Longitude:**	82.26817	**Date Started:**	9/25/2012
Total Depth:	30 ft	**Soil Depth:**	30.0 ft	**Core Depth:**	ft	**Date Completed:**	9/25/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	C. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
	0.0	Loose to medium dense, tan & white, non-reactive, silty SAND (SM/A-4). LL=27, PL=26, PI=1, NMC=16.4, %#200=35.5	2.0	SS-1	3	4	5	9
842.9	5.8		4.0	SS-2	4	6	16	22
		Medium dense to very dense, tan, white & gray, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=15.0, %#200=28.4	6.0	SS-3	7	21	26	47
			8.0	SS-4	20	10	13	23
837.9			10.0	SS-5	17	12	11	23
			13.5	SS-6	13	36	22	58
832.9	16.8	Very dense, tan & white, non-reactive, silty SAND (SM/A-2-4). LL=NP, PL=NP, PI=NP, NMC=13.7, %#200=30.0	18.5	SS-7	32	50/0.3		50/0.3
827.9			23.5	SS-8	50/0.5			50/0.5
822.9			28.3	SS-9	20	25	28	53
817.9	30.0	No Refusal & Boring Terminated @ 30.0' (Elev. 817.9).						
812.9								
807.9								
802.9								



LEGEND

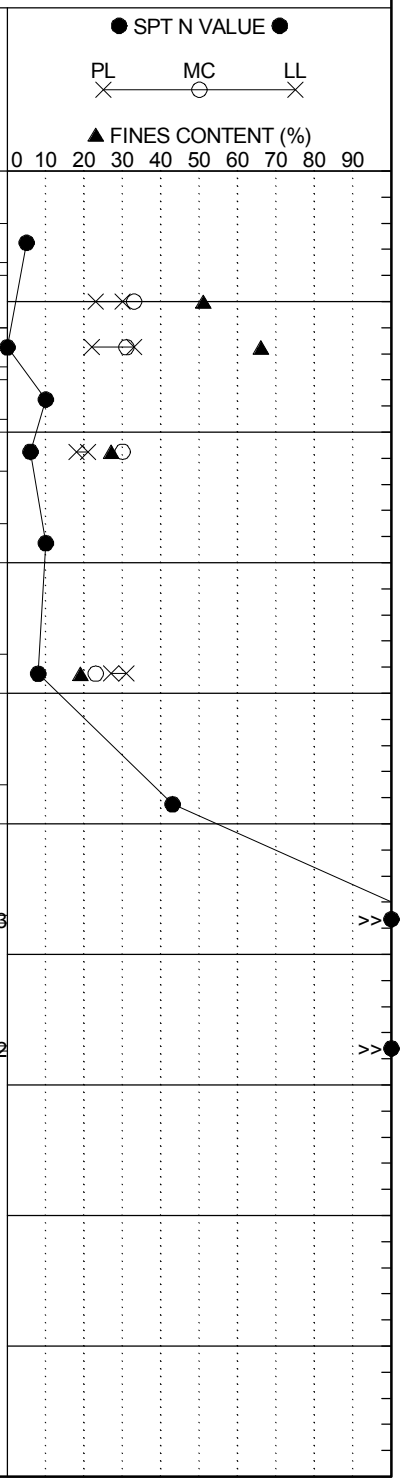
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	S. Berry
Site Description:	I-85/I-385 Interchange Improvements					**Route:**	
Boring No.:	B-74	**Boring Location:**	413+00	**Offset:**	88' Rt.	**Alignment:**	I-85
Elev.:	848.9 ft	**Latitude:**	34.85546	**Longitude:**	82.26835	**Date Started:**	10/3/2012
Total Depth:	33.7 ft	**Soil Depth:**	33.7 ft	**Core Depth:**	ft	**Date Completed:**	10/4/2012
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME 45C	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	86%
Core Size:	NA	**Driller:**	M. Frazier	**Groundwater:**	**TOB**		**24HR**

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION
	0.0	Firm, brown, non-reactive, sandy lean CLAY (CL/A-6).
	3.8	Very soft to firm, brown, non-reactive,sandy SILT (ML/A-4).
843.9	5.7	LL=30, PL=23, PI=7, NMC=33.1, %#200=50.9
	7.8	Very soft, brown, non-reactive, sandy lean CLAY (CL/A-6). LL=33, PL=22, PI=11, NMC=31.0, %#200=66.4
838.9	12.5	Loose, gray, non-reactive, silty SAND (SM/A-2-4). LL=21, PL=18, PI=3, NMC=30.0, %#200=27.1
833.9		Loose, white & gray, non-reactive, silty SAND (SM/A-1-b). LL=31, PL=27, PI=4, NMC=23.4, %#200=18.9
828.9	21.8	Dense to very dense, black & gray, non-reactive, silty SAND (SM/A-2-4). LL=33, PL=33, PI=NP, NMC=16.1, %#200=21.3
823.9		
818.9		
	33.7	No Refusal & Boring Terminated @ 33.7' (Elev. 815.2).
813.9		
808.9		
803.9		

Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
2.0	SS-1	2	2	3	5
4.0	ST-1				
6.0	SS-2	WOH	WOH	WOH	0
8.0	SS-3	WOH	5	5	10
10.0	SS-4	3	3	3	6
13.5	SS-5	8	4	6	10
18.5	SS-6	4	4	4	8
23.5	SS-7	8	14	29	43
28.5	SS-8	50/0.3			50/0.3
33.5	SS-9	50/0.2			50/0.2



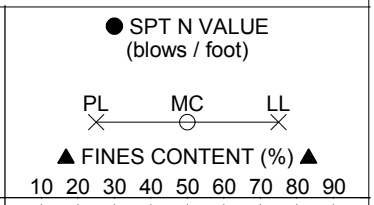
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R1-06	**Boring Location:**	105+23	**Offset:**	RT 29	**Alignment:**	Ramp 1
Elev.:	991.1 ft.	**Latitude:**	34.83430439	**Longitude:**	-82.29568362	**Date Started:**	3/10/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	23.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	990.0	Approximately 3 inches of topsoil. Loose, moist, red, fine to medium grained, with mica, SILTY SAND (SM, A-2), FILL	0.0	SS-1	2	2	4	6
		Loose, moist, red, fine to coarse grained, with mica, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=16.3 %#200=35.9	2.0	SS-2	3	2	4	6
5.0		Loose, fine to medium grained, with mica, FILL	4.0	SS-3	1	2	3	5
	985.0	Loose, moist, red, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	6.0	SS-4	1	2	5	7
10.0		Medium dense, moist, red and white, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=26.3 %#200=45.6	8.0	SS-5	2	3	27	30
	980.0	Loose, with mica, RESIDUUM	10.0	SS-6	6	5	4	9
15.0		Loose, white, with mica, RESIDUUM	13.5	SS-7	1	3	3	6
	975.0							
20.0	970.0	Medium dense, moist, white and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=23.5 %#200=35.4	18.5	SS-8	4	5	9	14
25.0		Medium dense, with mica, RESIDUUM	23.5	SS-9	9	13	12	25



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R1-06	**Boring Location:**	105+23	**Offset:**	RT 29	**Alignment:**	Ramp 1
Elev.:	991.1 ft.	**Latitude:**	34.83430439	**Longitude:**	-82.29568362	**Date Started:**	3/10/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	23.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) ▲ FINES CONTENT (%) ▲ (PL — MC — LL; 10 20 30 40 50 60 70 80 90)
25.0										
	965.0									
30.0		Very dense, reddish brown, with mica, RESIDUUM		28.5	SS-10	4	35	50/4	100	>>●
	960.0									
35.0		Loose, light brown, fine grained, with mica, RESIDUUM		33.5	SS-11	2	3	5	8	●
	955.0									
40.0		Medium dense, light brown and white, with mica, RESIDUUM		38.5	SS-12	5	8	7	15	●
		Boring Terminated at 40.0 feet.								

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

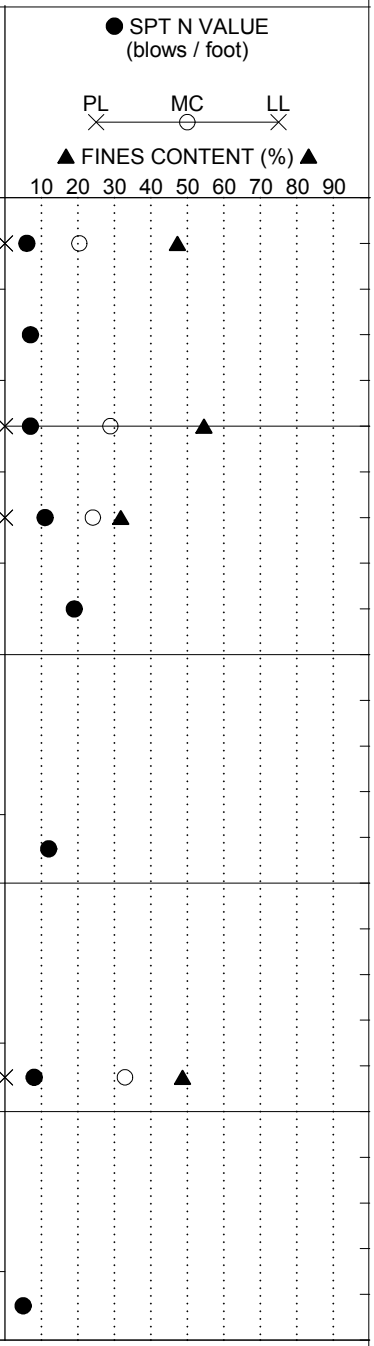
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R1-40	**Boring Location:**	112+05	**Offset:**	LT 17	**Alignment:**	Ramp 1
Elev.:	1009.0 ft.	**Latitude:**	34.83404991	**Longitude:**	-82.29784429	**Date Started:**	2/25/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/25/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D50	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	101%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	5.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 3 inches of topsoil. Loose, moist, brown and light brown, non reactive, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=20.4 %#200=47.3	0.0	SS-1	2	2	4	6
		Loose, brown and light brown, FILL	2.0	SS-2	3	3	4	7
	1005.0	Firm, moist, brown, SANDY SILT (ML, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=28.9 %#200=54.6	4.0	SS-3	2	3	4	7
5.0 ▽		Medium dense, moist, brown and light brown, fine to medium grained, with trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=24.1 %#200=31.8	6.0	SS-4	4	5	6	11
	1000.0	Medium dense, brown, light brown and white, fine grained, with trace mica, RESIDUUM	8.0	SS-5	7	9	10	19
10.0								
	995.0	Medium dense, brown and light brown, with trace mica, RESIDUUM	13.5	SS-6	6	6	6	12
15.0								
	990.0	Loose, moist, light brown and tan, non reactive, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.9 %#200=48.7	18.5	SS-7	3	4	4	8
20.0								
	985.0	Loose, with trace mica, RESIDUUM	23.5	SS-8	2	2	3	5
25.0								



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R1-40	**Boring Location:**	112+05	**Offset:**	LT 17	**Alignment:**	Ramp 1
Elev.:	1009.0 ft.	**Latitude:**	34.83404991	**Longitude:**	-82.29784429	**Date Started:**	2/25/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/25/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D50	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	101%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	5.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
30.0	980.0	Loose, moist, white, tan and brown, fine to medium grained, with trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=42.2 %#200=34.8		28.5	SS-9	2	3	3	6	
35.0	975.0	Loose, with trace mica, RESIDUUM		33.5	SS-10	3	3	4	7	
		Boring Terminated at 35.0 feet.								

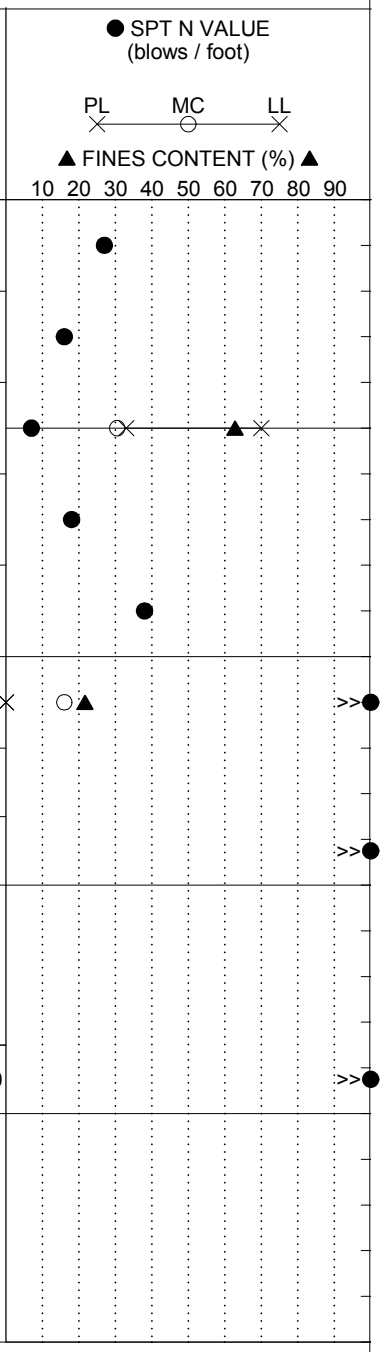
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R1A-50	**Boring Location:**	54+48	**Offset:**	LT 24	**Alignment:**	Ramp 1A
Elev.:	938.6 ft.	**Latitude:**	34.83752088	**Longitude:**	-82.29040222	**Date Started:**	5/7/2015
Total Depth:	18.5 ft.	**Soil Depth:**	18.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/7/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	8.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Medium dense, moist, brown, fine grained, with trace gravel, SILTY SAND (SM, A-2), FILL	0.0	SS-1	4	9	18	27
		Medium dense, with trace gravel, FILL	2.0	SS-2	11	7	9	16
	935.0							
5.0		Firm, moist, reddish brown, SANDY FAT CLAY (CH, A-7-5(23)), ALLUVIUM, LL=70 PL=33 PI=37 NMC=30.5 %#200=62.8	4.0	SS-3	2	2	5	7
		Very stiff, moist, red and light brown, SANDY FAT CLAY (CH, A-7), RESIDUUM	6.0	SS-4	4	6	12	18
	930.0	Dense, moist, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	8.0	SS-5	6	6	32	38
10.0		Very dense, moist, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), PARTIALLY WEATHERED ROCK, LL=NP PL=NP PI=NP NMC=16.0 %#200=21.7	10.0	SS-6	40	35	50/2	100
	925.0	Very dense, red and brown, with mica, PARTIALLY WEATHERED ROCK	13.5	SS-7	6	40	50/3	100
15.0								
		Very dense, No recovery, ROCK	18.5	SS-8	50/0	X	X	50/0
		Boring Terminated at 18.5 feet.						



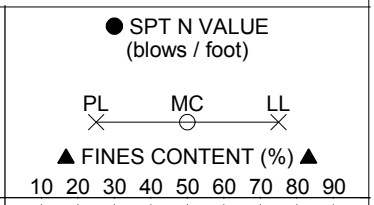
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R1A-51	**Boring Location:**	59+12	**Offset:**	CL	**Alignment:**	Ramp 1A
Elev.:	962.9 ft.	**Latitude:**	34.83683982	**Longitude:**	-82.29170873	**Date Started:**	5/8/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/8/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 33.5 ft.	**24 HR**	15.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Medium dense, dry, red and brown, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=15.8 %#200=46.1	0.0	SS-1	3	8	15	23
	960.0	Medium dense, moist, light brown, fine to medium grained, FILL	2.0	SS-2	6	9	6	15
5.0		Very stiff, moist, red and light brown, non reactive, SANDY FAT CLAY (CH, A-7-5(13)), ALLUVIUM, LL=61 PL=31 PI=30 NMC=22.6 %#200=51.6	4.0	SS-3	3	7	12	19
	955.0	Medium dense, moist, red and light brown, fine to medium grained, CLAYEY SAND (SC, A-2), ALLUVIUM	6.0	SS-4	8	11	13	24
		Medium dense, red and light gray, ALLUVIUM	8.0	SS-5	12	8	12	20
10.0		Medium dense, moist, red and light gray, fine to medium grained, with mica, CLAYEY SAND (SC, A-6(1)), RESIDUUM, LL=40 PL=24 PI=16 NMC=22.2 %#200=35.6	10.0	SS-6	4	8	6	14
	950.0	Loose, red and light brown, with mica, RESIDUUM	13.5	SS-7	1	3	4	7
15.0								
	945.0	Medium dense, moist, red and brown, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=31.1 %#200=35.0	18.5	SS-8	1	4	12	16
20.0								
	940.0	Medium dense, red and light brown, fine grained, with mica, RESIDUUM	23.5	SS-9	9	10	15	25
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

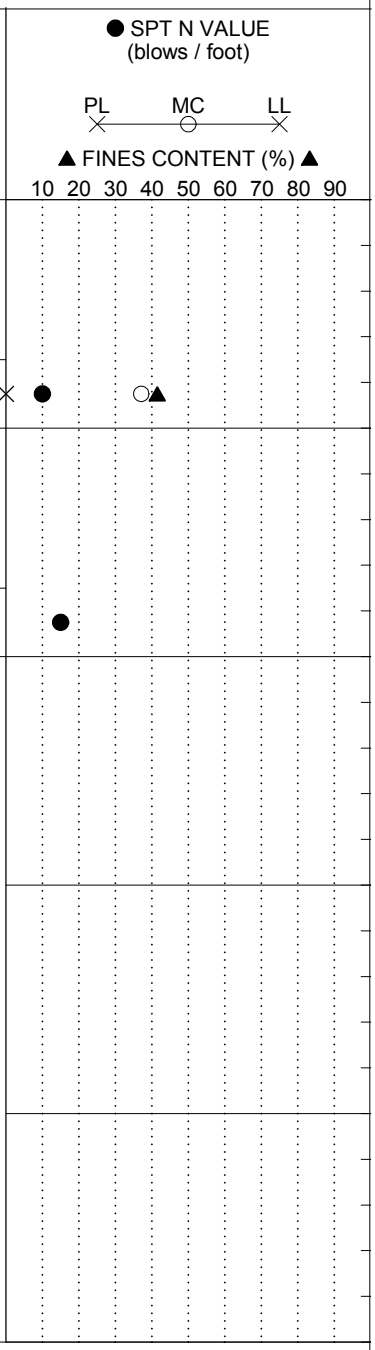
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R1A-51	**Boring Location:**	59+12	**Offset:**	CL	**Alignment:**	Ramp 1A
Elev.:	962.9 ft.	**Latitude:**	34.83683982	**Longitude:**	-82.29170873	**Date Started:**	5/8/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/8/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 33.5 ft.	**24 HR**	15.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	935.0								
30.0		Loose, moist, red and brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=37.1 %#200=41.5		28.5	SS-10	2	4	6	10
	930.0								
35.0		Medium dense, wet, brown and light brown, with mica, RESIDUUM		33.5	SS-11	4	6	9	15
		Boring Terminated at 35.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

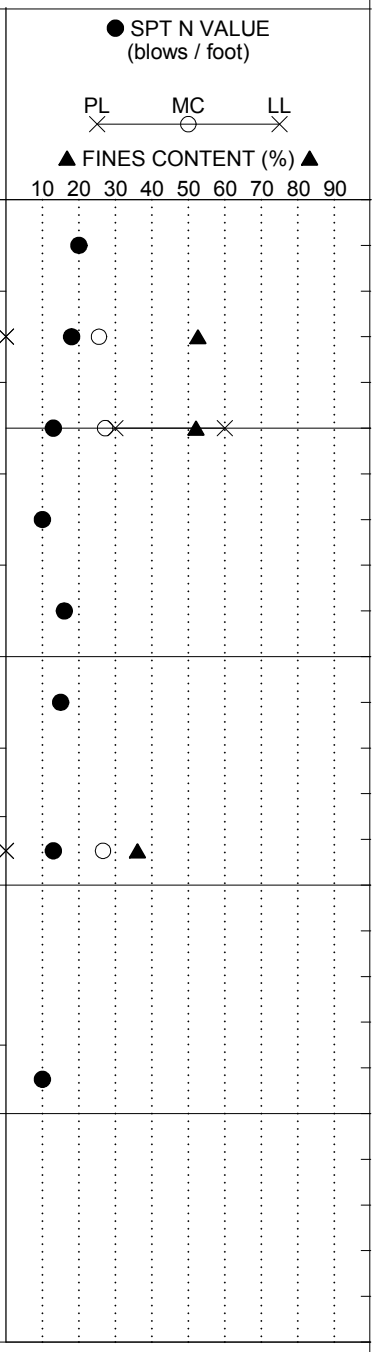
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R1A-76	**Boring Location:**	63+85	**Offset:**	LT 20	**Alignment:**	Ramp 1A
Elev.:	974.9 ft.	**Latitude:**	34.83602048	**Longitude:**	-82.29293534	**Date Started:**	5/16/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/16/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	16.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Medium dense, dry, reddish brown and dark brown, fine grained, with trace organics, CLAYEY SAND (SC, A-2), FILL	0.0	SS-1	4	11	9	20
		Very stiff, moist, reddish brown, with mica, SANDY SILT (ML, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=25.5 %#200=52.6	2.0	SS-2	5	8	10	18
5.0	970.0	Stiff, moist, reddish brown, with mica, SANDY FAT CLAY (CH, A-7-5(13)), FILL, LL=60 PL=30 PI=30 NMC=27.2 %#200=52.1	4.0	SS-3	3	4	9	13
		Loose, moist, brown, light brown, tan, fine grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	6.0	SS-4	4	4	6	10
		Medium dense, light brown and tan, with mica, RESIDUUM	8.0	SS-5	4	7	9	16
10.0	965.0	Medium dense, tan, brown and dark brown, RESIDUUM	10.0	SS-6	8	9	6	15
15.0	960.0	Medium dense, moist, brown and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=26.6 %#200=36.1	13.5	SS-7	3	5	8	13
20.0	955.0	Loose, moist, brown and light brown, with mica, RESIDUUM	18.5	SS-8	3	4	6	10
		Boring Terminated at 20.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

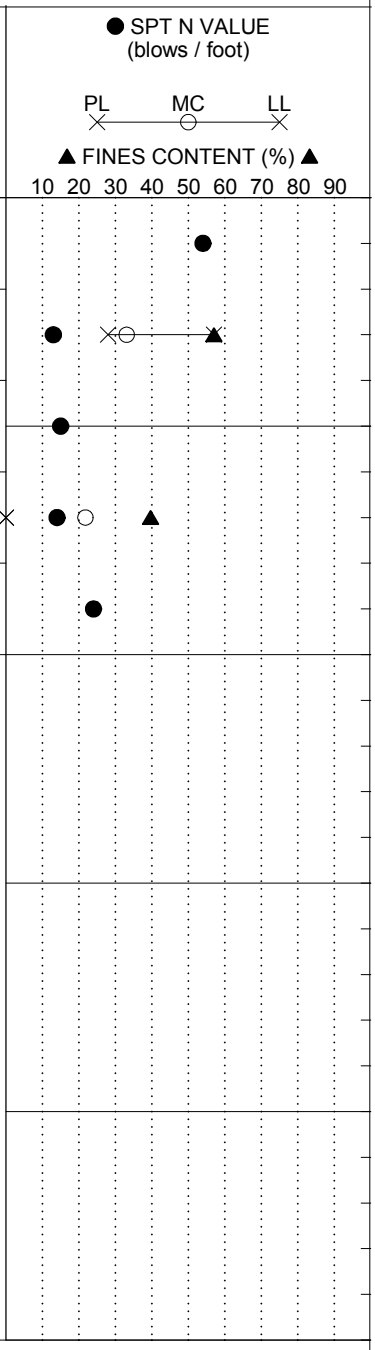
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R1A-77	**Boring Location:**	350+38	**Offset:**	LT 87	**Alignment:**	I-85
Elev.:	936.2 ft.	**Latitude:**	34.84388656	**Longitude:**	-82.28219656	**Date Started:**	5/14/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/14/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 4.0 ft.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0									
	935.0	Approximately 2 inches of topsoil. Very hard, dry, dark brown and reddish brown, SANDY FAT CLAY (CH, A-7), FILL		0.0	SS-1	9	30	24	54
		Stiff, moist, reddish brown and dark brown, SANDY FAT CLAY (CH, A-7-6(14)), FILL, LL=57 PL=28 PI=29 NMC=33.1 %#200=57.0		2.0	SS-2	5	6	7	13
5.0		Stiff, reddish brown to brown and tan, fine grained, SILTY SAND (SM, A-2), RESIDUUM		4.0	SS-3	2	6	9	15
	930.0	Medium dense, moist, white, tan and brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=21.8 %#200=39.7		6.0	SS-4	5	8	6	14
		Medium dense, RESIDUUM		8.0	SS-5	7	13	11	24
10.0									
		Boring Terminated at 10.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

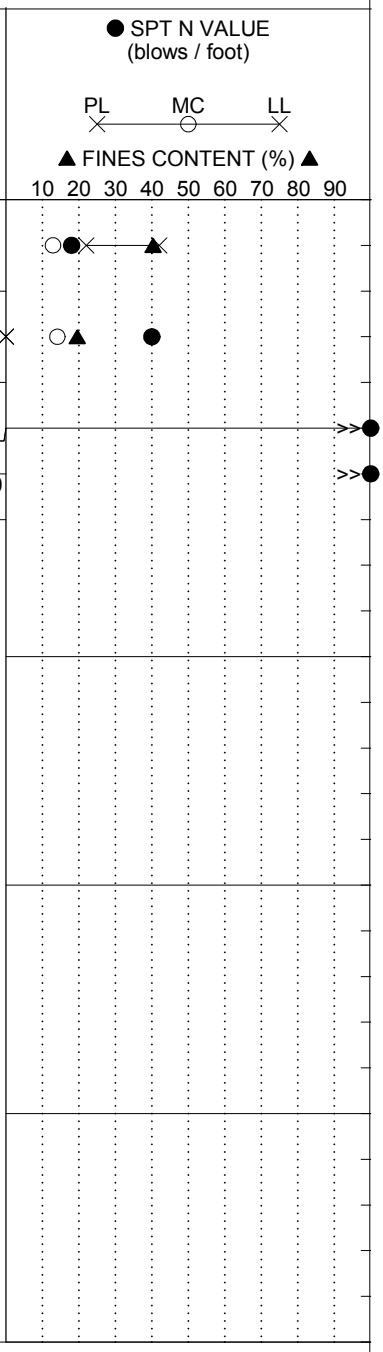
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R1B-04	**Boring Location:**	76+63	**Offset:**	RT 48	**Alignment:**	Ramp 1B
Elev.:	1009.4 ft.	**Latitude:**	34.83012128	**Longitude:**	-82.3027149	**Date Started:**	5/5/2015
Total Depth:	5.0 ft.	**Soil Depth:**	5.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/5/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Medium dense, dry, red, fine to medium grained, CLAYEY SAND (SC, A-7-6(4)), FILL, LL=42 PL=22 PI=20 NMC=12.9 %#200=40.4		0.0	SS-1	5	10	8	18
		Dense, dry, white and black, fine to medium grained, with mica, SILTY SAND with GRAVEL (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=14.1 %#200=19.6		2.0	SS-2	8	21	19	40
	1005.0			4.0					
5.0		Very dense, moist, brown and black, fine grained, with mica, PARTIALLY WEATHERED ROCK		5.0	SS-3	50/5	X	X	100
		Very dense, No recovery, ROCK			SS-4	50/0	X	X	50/0
		Boring Terminated at 5.0 feet.							



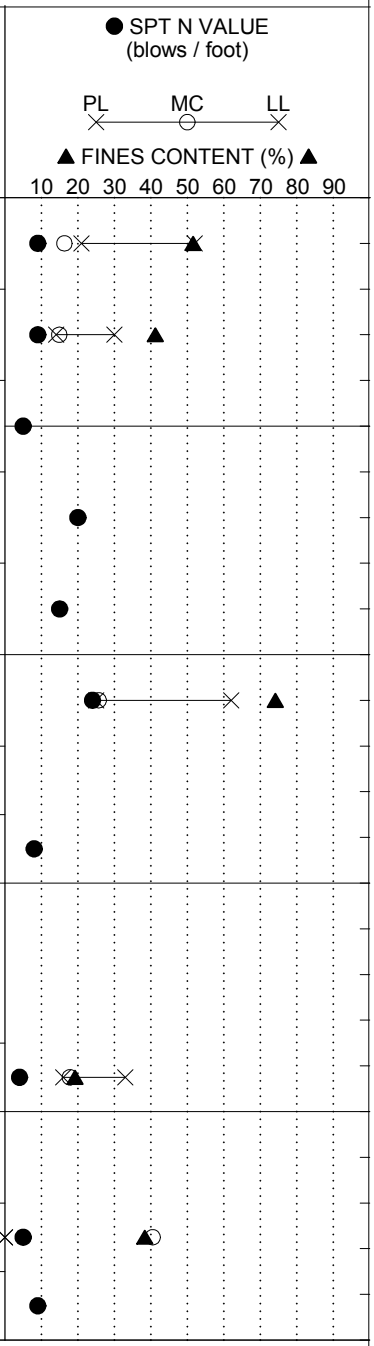
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2-39	**Boring Location:**	62+34	**Offset:**	LT 34	**Alignment:**	Ramp 2
Elev.:	1002.6 ft.	**Latitude:**	34.83270052	**Longitude:**	-82.30056636	**Date Started:**	3/11/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 18.5 ft.	**24 HR**	7.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Stiff, moist, red and brown, SANDY FAT CLAY (CH, A-7-6(12)), FILL, LL=52 PL=21 PI=31 NMC=16.3 %#200=51.6	0.0	SS-1	2	4	5	9
	1000.0	Loose, moist, brown and gray, fine to medium grained, CLAYEY SAND (SC, A-6(2)), FILL, LL=30 PL=14 PI=16 NMC=14.9 %#200=41.2	2.0	SS-2	4	4	5	9
5.0		Firm, moist, red and light brown, FAT CLAY with SAND (CH, A-7), ALLUVIUM	4.0	SS-3	2	2	3	5
		Very stiff, ALLUVIUM	6.0	SS-4	4	8	12	20
	995.0							
		Stiff, ALLUVIUM	8.0	SS-5	2	6	9	15
10.0		Very stiff, moist, red, light brown and gray, FAT CLAY with SAND (CH, A-7-6(28)), ALLUVIUM, LL=62 PL=25 PI=37 NMC=25.7 %#200=74.1	10.0	SS-6	4	9	15	24
	990.0							
		Firm, gray and reddish brown, ALLUVIUM	13.5	SS-7	3	4	4	8
15.0								
	985.0							
		Very loose, wet, light gray, fine to medium grained, CLAYEY SAND (SC, A-2-6(0)), ALLUVIUM, LL=33 PL=16 PI=17 NMC=17.8 %#200=19.2 Undisturbed sample obtained from approximately 20.0 to 22.0 feet. Approximately 18 inches of recovery.	18.5	SS-8	4	2	2	4
20.0			20.0	ST-1				
	980.0	Loose, wet, light gray and brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=40.5 %#200=38.3	22.0	SS-9	2	2	3	5
		Loose, moist, white and brown, with mica, RESIDUUM	23.5	SS-10	1	3	6	9
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

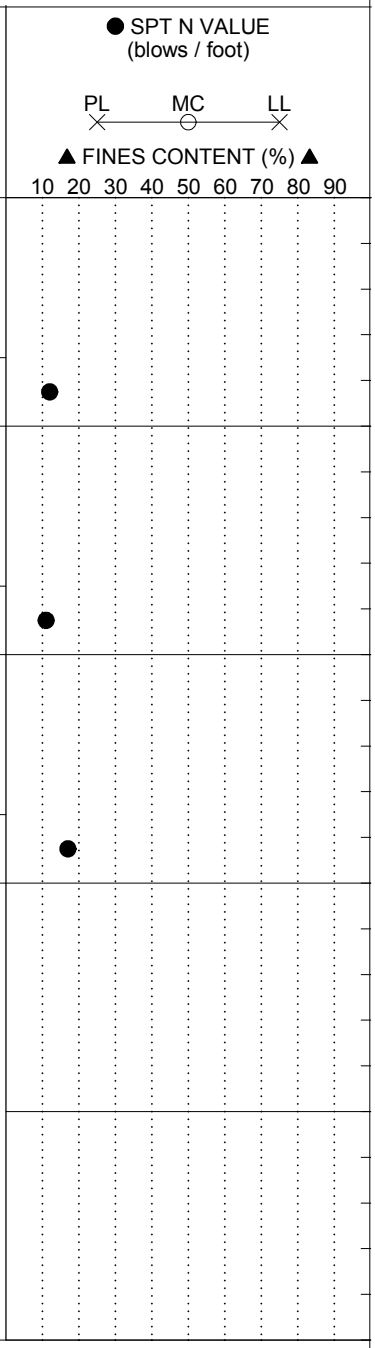
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2-39	**Boring Location:**	62+34	**Offset:**	LT 34	**Alignment:**	Ramp 2
Elev.:	1002.6 ft.	**Latitude:**	34.83270052	**Longitude:**	-82.30056636	**Date Started:**	3/11/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 18.5 ft.	**24 HR**	7.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	975.0								
30.0		Medium dense, fine to medium grained, with mica, RESIDUUM		28.5	SS-11	3	4	8	12
	970.0								
35.0		Medium dense, gray and brown, fine grained, with mica, RESIDUUM		33.5	SS-12	3	4	7	11
	965.0								
40.0		Medium dense, brown and white, with mica, RESIDUUM		38.5	SS-13	4	8	9	17
		Boring Terminated at 40.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

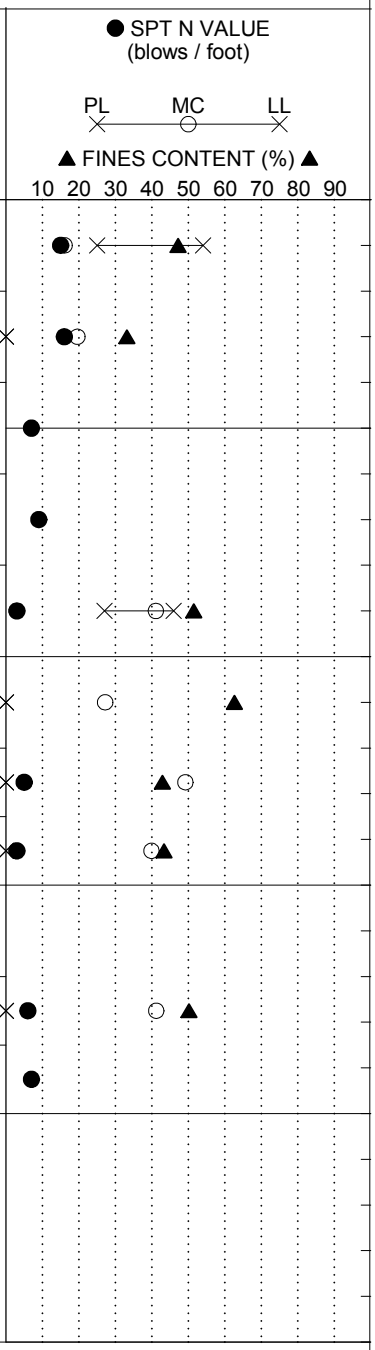
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2-43	**Boring Location:**	59+29	**Offset:**	LT 107	**Alignment:**	Ramp 2
Elev.:	1005.5 ft.	**Latitude:**	34.83355344	**Longitude:**	-82.301011	**Date Started:**	2/24/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/24/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D50	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	101%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	6.7 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	1005.0	Approximately 1 inch of topsoil. Medium dense, moist, red and brown, non reactive, fine to medium grained, with trace mica, CLAYEY SAND (SC, A-7-6(9)), FILL, LL=54 PL=25 PI=29 NMC=16.1 %#200=47.2	0.0	SS-1	3	6	9	15
		Medium dense, moist, brown, tan and white, black, fine to medium grained, with trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=19.6 %#200=33.2	2.0	SS-2	11	8	8	16
5.0	1000.0	Firm, moist, red, white and black, with trace mica, SANDY LEAN CLAY (CL, A-6), RESIDUUM	4.0	SS-3	5	4	3	7
▽		Stiff, gray and brown, RESIDUUM	6.0	SS-4	2	3	6	9
10.0	995.0	Soft, moist, gray and brown, non reactive, with trace mica, SANDY LEAN CLAY, (CL, A-7-6(7)), RESIDUUM, LL=46 PL=27 PI=19 NMC=41.1 %#200=51.5	8.0	SS-5	2	2	1	3
		Undisturbed sample obtained from 10.0 to 12.0 feet. Approximately 24 inches of recovery. Moist, brown, tan and white, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=27.2 %#200=62.6	10.0	ST-1				
		Loose, moist, brown, tan and white, fine to medium grained, with trace mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=49.2 %#200=42.9	12.0	SS-6	2	2	3	5
15.0	990.0	Soft, wet, brown tan and white, fine to medium grained, with trace mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=39.9 %#200=43.3	13.5	SS-7	1	1	2	3
		Undisturbed sample obtained from 15.0 to 17.0 feet. Approximately 24 inches of recovery.	15.0	ST-2				
		Firm, moist, brown, light brown and white, non reactive, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=41.2 %#200=50.2	17.0	SS-8	2	2	4	6
20.0		Firm, with trace mica, RESIDUUM	18.5	SS-9	1	3	4	7
		Boring Terminated at 20.0 feet.						



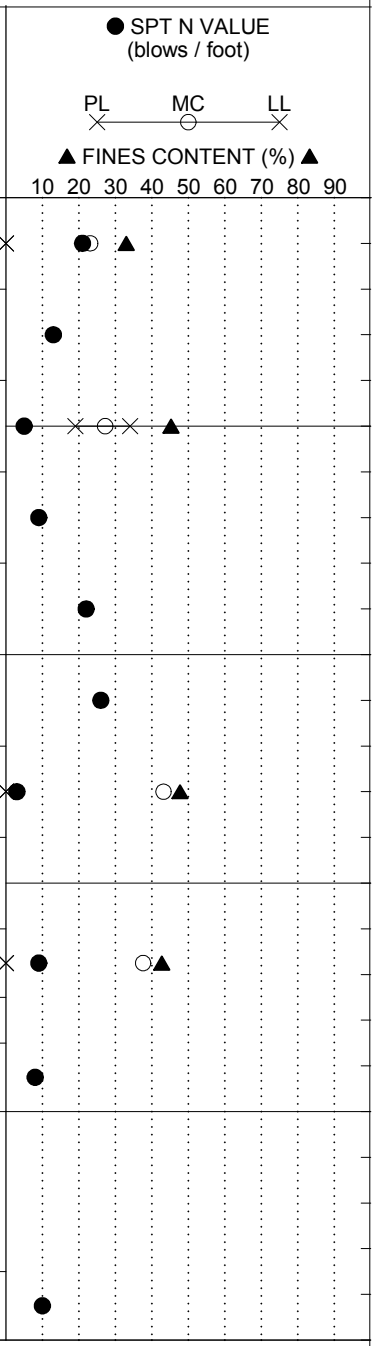
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2-67	**Boring Location:**	61+41	**Offset:**	LT 5	**Alignment:**	Ramp 2
Elev.:	1003.8 ft.	**Latitude:**	34.83290146	**Longitude:**	-82.30079412	**Date Started:**	6/9/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 12.0 ft.	**24 HR**	8.3 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Medium dense, moist, red, brown and white, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=23.1 %#200=33.0	0.0	SS-1	2	12	9	21
	1000.0	Medium dense, red and brown, with mica, FILL	2.0	SS-2	4	6	7	13
5.0		Loose, moist, brown fine to medium grained, CLAYEY SAND (SC, A-6(3)), ALLUVIUM, LL=34 PL=19 PI=15 NMC=27.2 %#200=45.3	4.0	SS-3	2	2	3	5
		Loose, moist, brown and red, fine to medium grained, CLAYEY SAND (SC, A-2), RESIDUUM	6.0	SS-4	5	5	4	9
	995.0	Medium dense, red and gray, RESIDUUM	8.0	SS-5	7	9	13	22
10.0		Medium dense, gray and light brown, RESIDUUM	10.0	SS-6	6	11	15	26
	990.0	Very loose, wet, light brown and gray, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=43.2 %#200=47.7	12.0	SS-7	1	1	2	3
15.0		Undisturbed sample obtained from 14.0 to 16.0 feet. Approximately 20 inches of recovery.	14.0	ST-1				
		Loose, moist, light brown, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=37.6 %#200=42.7	16.0	SS-8	2	4	5	9
	985.0	Loose, wet, light brown and white, with mica, RESIDUUM	18.5	SS-9	3	4	4	8
20.0								
	980.0	Loose, with mica, RESIDUUM	23.5	SS-10	4	4	6	10
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

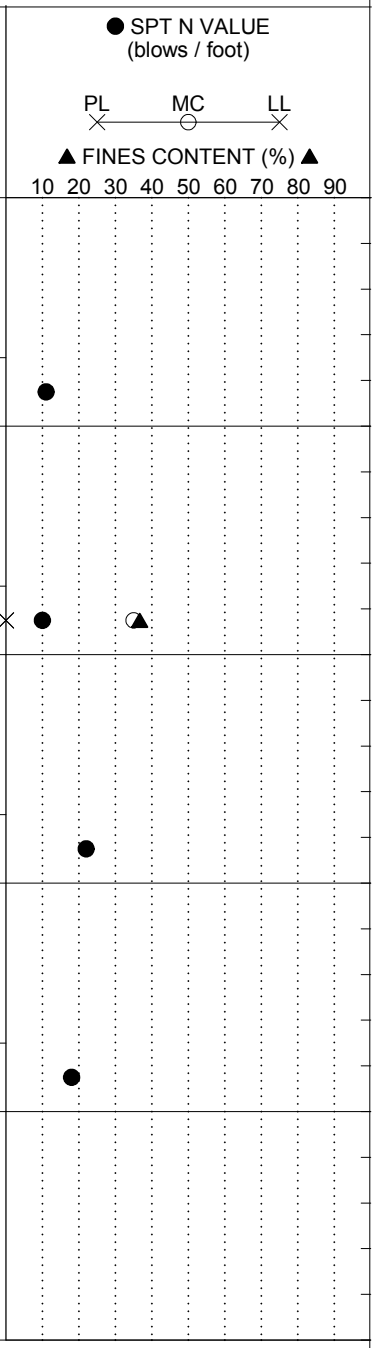
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2-67	**Boring Location:**	61+41	**Offset:**	LT 5	**Alignment:**	Ramp 2
Elev.:	1003.8 ft.	**Latitude:**	34.83290146	**Longitude:**	-82.30079412	**Date Started:**	6/9/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 12.0 ft.	**24 HR**	8.3 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
30.0	975.0	Medium dense, moist, with mica, RESIDUUM		28.5	SS-11	3	5	6	11
35.0	970.0	Loose, moist, light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=35.0 %#200=36.7		33.5	SS-12	2	4	6	10
40.0	965.0	Medium dense, white and reddish brown, with mica, RESIDUUM		38.5	SS-13	9	10	12	22
45.0	960.0	Medium dense, with mica, RESIDUUM		43.5	SS-14	5	7	11	18
		Boring Terminated at 45.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
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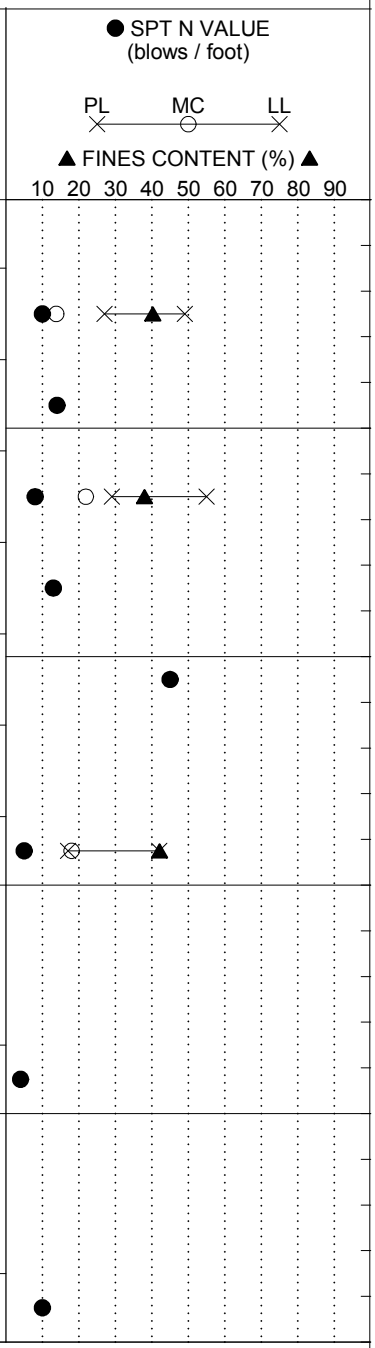
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2-68	**Boring Location:**	61+16	**Offset:**	LT 96	**Alignment:**	Ramp 2
Elev.:	1007.0 ft.	**Latitude:**	34.83309647	**Longitude:**	-82.30058708	**Date Started:**	5/21/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/21/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 9.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 14 inches of asphalt.						
	1005.0	Loose, moist, red and brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(4)), FILL, LL=49 PL=27 PI=22 NMC=13.8 %#200=40.3	1.5	SS-1	11	5	5	10
5.0		Medium dense, moist, red and light brown, fine to medium grained, with mica, CLAYEY SAND (SC, A-2), RESIDUUM	3.5	SS-2	5	7	7	14
	1000.0	Loose, moist, red and brown, fine to medium grained, with mica, CLAYEY SAND (SC, A-7-6(5)), RESIDUUM, LL=55 PL=29 PI=26 NMC=21.9 %#200=38.0	5.5	SS-3	1	4	4	8
		Medium dense, red, with mica, RESIDUUM	7.5	SS-4	3	4	9	13
10.0		Very dense, wet, white and black, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	9.5	SS-5	43	35	10	45
	995.0							
15.0		Loose, moist, gray, fine to medium grained, CLAYEY SAND (SC, A-7-6(6)), RESIDUUM, LL=42 PL=17 PI=25 NMC=18.0 %#200=42.1	13.5	SS-6	WOH	1	4	5
	990.0							
20.0		Very loose, RESIDUUM	18.5	SS-7	2	2	2	4
	985.0							
25.0		Loose, wet, reddish brown and light brown, fine grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	23.5	SS-8	3	5	5	10



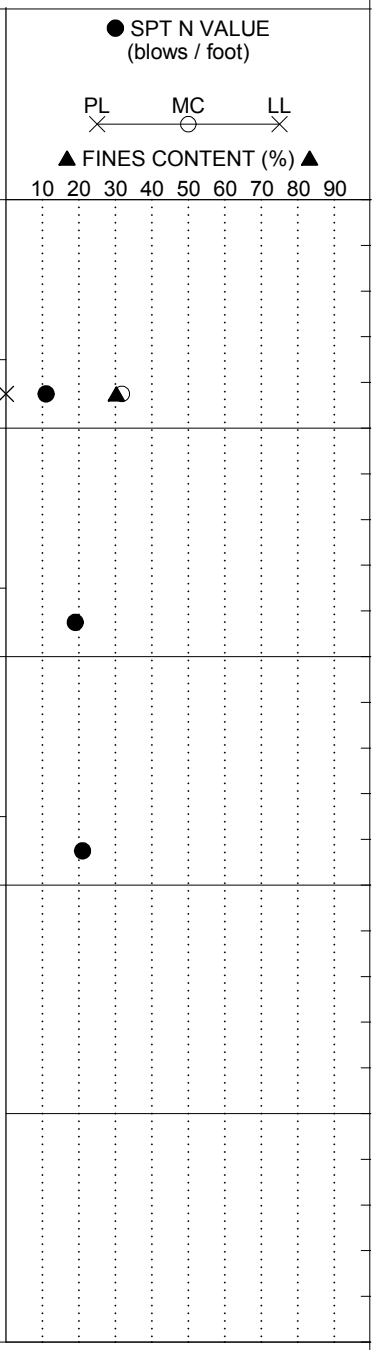
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2-68	**Boring Location:**	61+16	**Offset:**	LT 96	**Alignment:**	Ramp 2
Elev.:	1007.0 ft.	**Latitude:**	34.83309647	**Longitude:**	-82.30058708	**Date Started:**	5/21/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/21/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 9.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	980.0								
30.0		Medium dense, wet, light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=31.8 %#200=30.3		28.5	SS-9	4	5	6	11
	975.0								
35.0		Medium dense, RESIDUUM		33.5	SS-10	5	9	10	19
	970.0								
40.0		Medium dense, RESIDUUM		38.5	SS-11	6	8	13	21
		Boring Terminated at 40.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

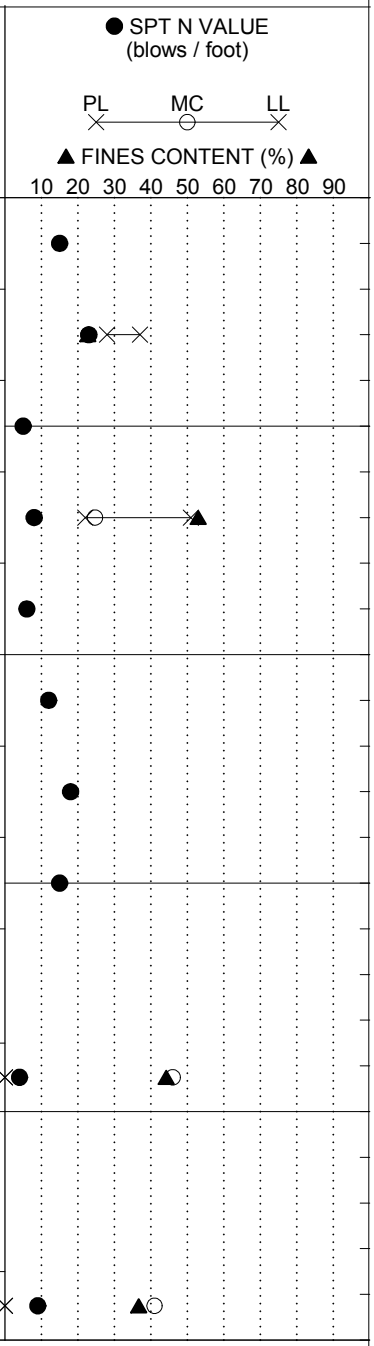
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2-70	**Boring Location:**	59+74	**Offset:**	RT 24	**Alignment:**	Ramp 2
Elev.:	1004.3 ft.	**Latitude:**	34.83321024	**Longitude:**	-82.30121045	**Date Started:**	6/8/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/8/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	6.8 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 4 inches of topsoil. Medium dense, moist, red, fine to medium grained, with trace gravel, SILTY SAND (SM, A-2), FILL	0.0	SS-1	3	8	7	15
		Medium dense, moist, red and brown, non reactive, fine to medium grained, SILTY SAND with GRAVEL (SM, A-2-4(0)), LL=37 PL=28 PI=9 NMC=22.9 %#200=22.7	2.0	SS-2	5	8	15	23
	1000.0	Loose, red, FILL	4.0	SS-3	2	2	3	5
5.0		Firm, moist, red and gray, SANDY FAT CLAY (CH, A-7-6(12)), ALLUVIUM, LL=51 PL=22 PI=29 NMC=24.7 %#200=53.0	6.0	SS-4	2	3	5	8
		Firm, gray, ALLUVIUM	8.0	SS-5	1	3	3	6
	995.0							
10.0		Stiff, ALLUVIUM	10.0	SS-6	5	6	6	12
		Very stiff, moist, gray and light brown, SANDY FAT CLAY (CH, A-7), RESIDUUM	12.0	SS-7	6	9	9	18
	990.0	Stiff, light gray, RESIDUUM	14.0	SS-8	6	7	8	15
15.0								
	985.0	Very loose, moist, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=46.0 %#200=44.2	18.5	SS-9	2	2	2	4
20.0								
	980.0	Loose, moist, brown and light red, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP	23.5	SS-10	2	4	5	9
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

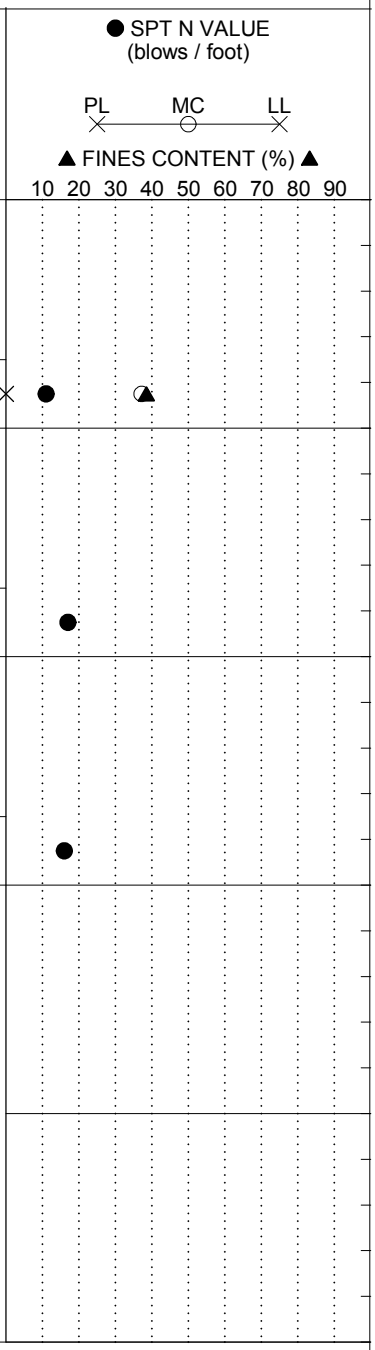
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2-70	**Boring Location:**	59+74	**Offset:**	RT 24	**Alignment:**	Ramp 2
Elev.:	1004.3 ft.	**Latitude:**	34.83321024	**Longitude:**	-82.30121045	**Date Started:**	6/8/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/8/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	6.8 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0		NMC=41.0 %#200=36.7							
30.0	975.0	Medium dense, moist, red and brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=37.2 %#200=38.5		28.5	SS-11	3	5	6	11
35.0	970.0	Medium dense, white and red, with mica, RESIDUUM		33.5	SS-12	4	8	9	17
40.0	965.0	Medium dense, light brown and white, fine grained, with mica, RESIDUUM		38.5	SS-13	5	6	10	16
		Boring Terminated at 40.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
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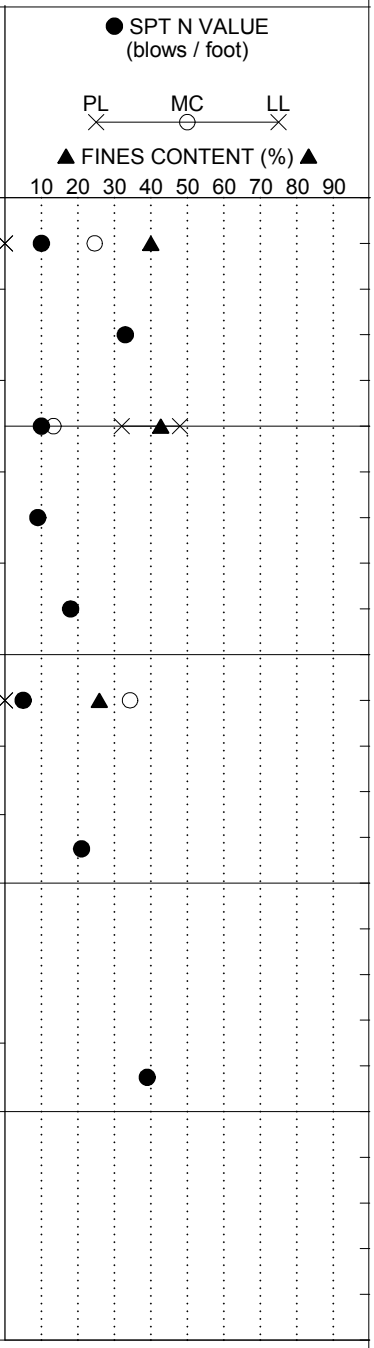
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2-84	**Boring Location:**	65+66	**Offset:**	RT 22	**Alignment:**	Ramp 2
Elev.:	1004.3 ft.	**Latitude:**	34.83178159	**Longitude:**	-82.30063146	**Date Started:**	5/9/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/9/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 10.0 ft.	**24 HR**	11.0 ft

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 6 inches of topsoil. Loose, moist, brown, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=24.6 %#200=40.0	0.0	SS-1	4	5	5	10
		Dense, moist, red, fine to medium grained, SILTY SAND (SM, A-2), ALLUVIUM	2.0	SS-2	10	16	17	33
5.0	1000.0	Loose, moist, red, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-7-5(4)), ALLUVIUM, LL=48 PL=32 PI=16 NMC=13.3 %#200=42.7	4.0	SS-3	5	5	5	10
		Loose, moist, red, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	6.0	SS-4	4	3	6	9
		Medium dense, light brown, with mica, RESIDUUM	8.0	SS-5	5	10	8	18
10.0	995.0	Loose, wet, light brown and black, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=34.3 %#200=25.9	10.0	SS-6	2	1	4	5
15.0	990.0	Medium dense, white and black, with mica and trace gravel, RESIDUUM	13.5	SS-7	7	6	15	21
20.0	985.0	Dense, with mica, RESIDUUM	18.5	SS-8	12	19	20	39
		Boring Terminated at 20.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

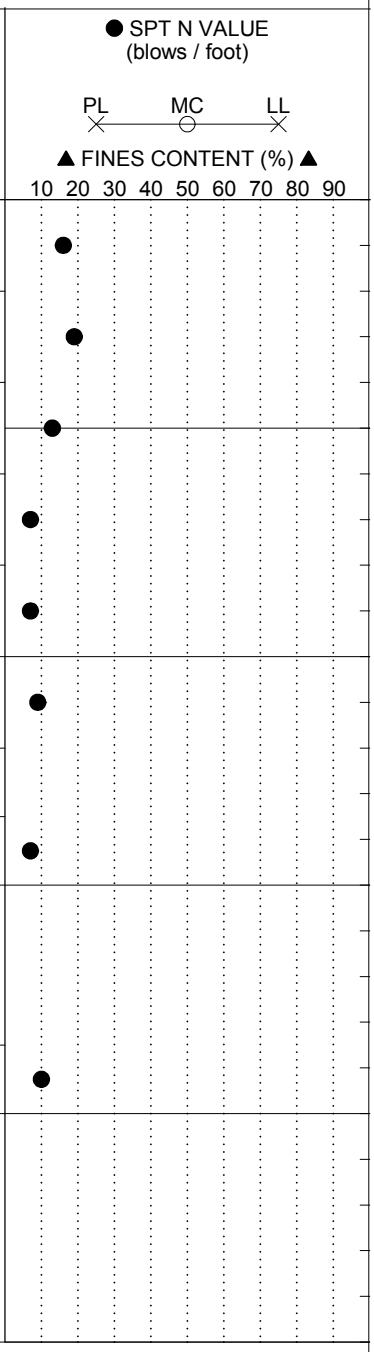
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Blake Ellis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2A-45	**Boring Location:**	55+03	**Offset:**	LT 41	**Alignment:**	Ramp 2A
Elev.:	1020.8 ft.	**Latitude:**	34.83452245	**Longitude:**	-82.30353693	**Date Started:**	3/12/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	6.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	1020.0	Approximately 4 inches of topsoil. Very stiff, moist, reddish brown, SANDY LEAN CLAY (CL, A-6), FILL	SS-1	3	7	9	16
2.0		Very stiff, reddish brown, FILL	SS-2	6	7	12	19
4.0		Medium dense, moist, reddish light brown, fine to medium grained, with trace mica, SILTY SAND (SM, A-2), RESIDUUM	SS-3	5	6	7	13
5.0	1015.0	Loose, reddish brown and light brown, with mica, RESIDUUM	SS-4	3	3	4	7
6.0		Loose, with mica, RESIDUUM	SS-5	2	3	4	7
8.0		Loose, light brown and brown, fine grained, RESIDUUM	SS-6	2	4	5	9
10.0	1010.0	Loose, RESIDUUM	SS-7	2	3	4	7
13.5		Loose, RESIDUUM	SS-8	2	4	6	10
15.0	1005.0						
18.5							
20.0		Boring Terminated at 20.0 feet.					



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

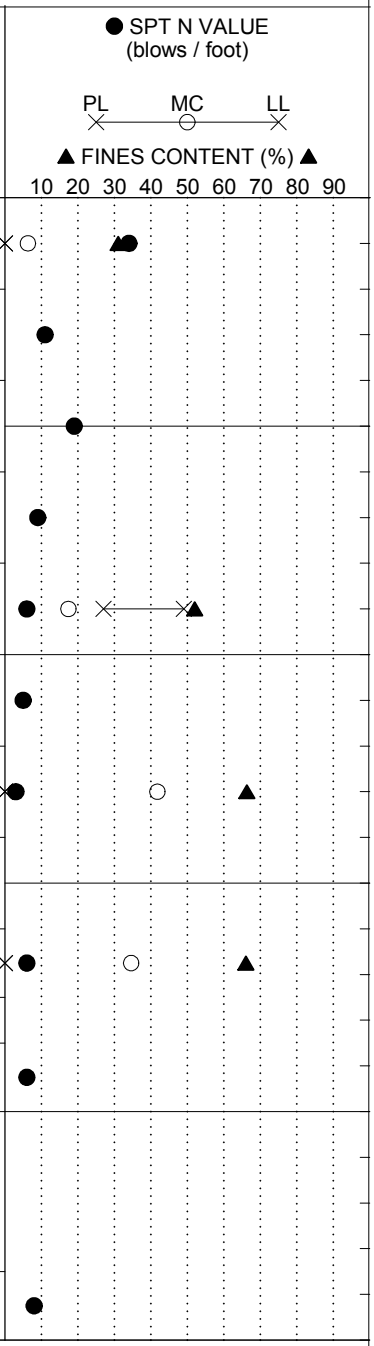
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2A-69	**Boring Location:**	65+73	**Offset:**	LT 20	**Alignment:**	Ramp 2A
Elev.:	1004.4 ft.	**Latitude:**	34.8332864	**Longitude:**	-82.30031414	**Date Started:**	5/8/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/8/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 7.0 ft.	**24 HR**	10.6 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 4 inches of topsoil. Dense, moist, brown and red, fine to medium grained, with trace asphalt, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=6.3 %#200=31.1	0.0	SS-1	5	13	21	34
		Medium dense, brown, fine to medium grained, with trace asphalt, FILL	2.0	SS-2	6	5	6	11
5.0	1000.0	Medium dense, with trace asphalt, FILL	4.0	SS-3	6	15	4	19
		Stiff, wet, red and brown, SANDY LEAN CLAY (CL, A-6), ALLUVIUM	6.0	SS-4	2	5	4	9
10.0	995.0	Firm, moist, red and light brown, non reactive, SANDY LEAN CLAY (CL, A-7-6(9)), ALLUVIUM, LL=49 PL=27 PI=22 NMC=17.4 %#200=52.0	8.0	SS-5	2	2	4	6
		Firm, moist, red, light brown and gray, SANDY SILT (ML, A-6), RESIDUUM	10.0	SS-6	2	2	3	5
		Soft, moist, red, light brown and gray, with mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=41.8 %#200=66.3	12.0	SS-7	2	1	2	3
15.0	990.0	Undisturbed sample obtained from 14.0 to 16.0 feet.	14.0	ST-1				
		Loose, moist, brown, with mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=34.6 %#200=66.1	16.0	SS-8	2	2	4	6
20.0	985.0	Loose, brown, white and gray, with mica, RESIDUUM	18.5	SS-9	2	2	4	6
25.0	980.0	Loose, reddish brown and white, with mica, RESIDUUM	23.5	SS-10	4	3	5	8



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2A-69	**Boring Location:**	65+73	**Offset:**	LT 20	**Alignment:**	Ramp 2A
Elev.:	1004.4 ft.	**Latitude:**	34.8332864	**Longitude:**	-82.30031414	**Date Started:**	5/8/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/8/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 7.0 ft.	**24 HR**	10.6 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
30.0	975.0	Medium dense, moist, brown, fine grained, with mica, SILTY SAND (SM, A-2), RESIDUUM		28.5	SS-11	4	4	7	11	
35.0	970.0	Dense, moist, reddish brown, fine grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=31.7 %#200=27.7		33.5	SS-12	7	8	28	36	
40.0	965.0	Medium dense, brown, red and white, fine grained, with mica, RESIDUUM		38.5	SS-13	8	7	9	16	
		Boring Terminated at 40.0 feet.								

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

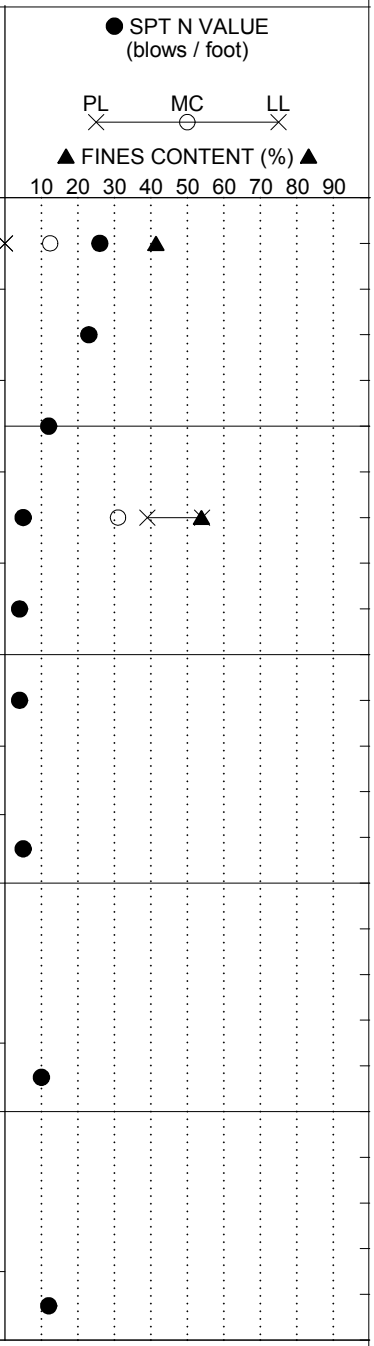
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2A-71	**Boring Location:**	63+85	**Offset:**	LT 23	**Alignment:**	Ramp 2A
Elev.:	1004.6 ft.	**Latitude:**	34.8336228	**Longitude:**	-82.30079729	**Date Started:**	5/8/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/8/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 8.0 ft.	**24 HR**	9.6 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Medium dense, moist, red and brown, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=12.4 %#200=41.4	0.0	SS-1	2	8	18	26
		Very stiff, moist, brown and red, SANDY LEAN CLAY (CL, A-7), FILL	2.0	SS-2	11	11	12	23
5.0	1000.0	Stiff, moist, light brown and red, SANDY LEAN CLAY (CL, A-7), ALLUVIUM	4.0	SS-3	6	6	6	12
		Firm, moist, light brown and gray, SANDY ELASTIC SILT (MH, A-7-5(7)), RESIDUUM, LL=54 PL=39 PI=15 NMC=31.0 %#200=53.9	6.0	SS-4	2	2	3	5
10.0	995.0	Very loose, wet, light brown, red and gray, fine grained, with mica, CLAYEY SAND (SC, A-2), RESIDUUM	8.0	SS-5	1	2	2	4
		Very loose, wet, light brown, red and gray, fine grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	10.0	SS-6	2	2	2	4
15.0	990.0	Loose, light brown and gray, with mica, RESIDUUM	13.5	SS-7	2	2	3	5
20.0	985.0	Loose, brown and white, fine to medium grained, with mica, RESIDUUM	18.5	SS-8	2	5	5	10
25.0	980.0	Medium dense, moist, fine grained, with mica, RESIDUUM	23.5	SS-9	3	5	7	12



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

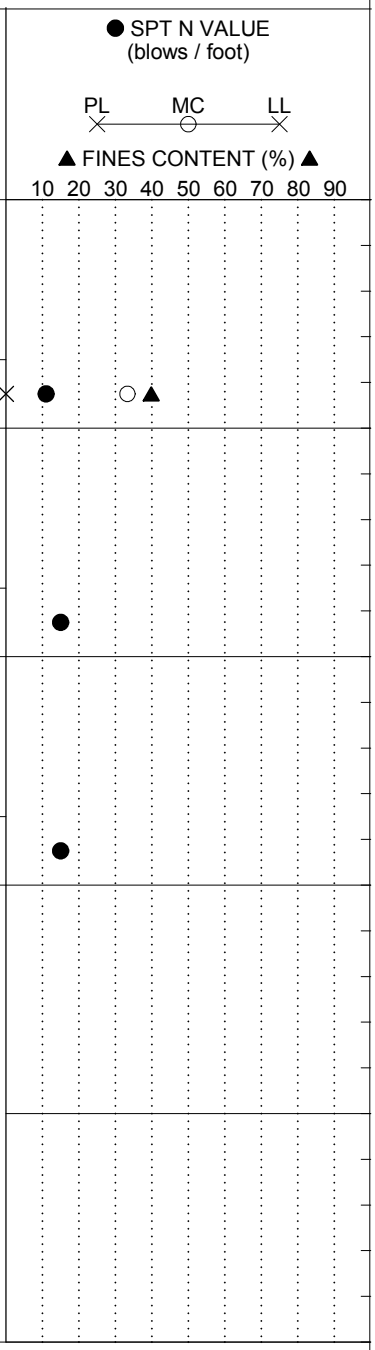
HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2A-71	**Boring Location:**	63+85	**Offset:**	LT 23	**Alignment:**	Ramp 2A
Elev.:	1004.6 ft.	**Latitude:**	34.8336228	**Longitude:**	-82.30079729	**Date Started:**	5/8/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/8/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 8.0 ft.	**24 HR**	9.6 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
30.0	975.0	Medium dense, moist, gray and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=33.3 %#200=39.8		28.5	SS-10	3	5	6	11
35.0	970.0	Medium dense, with mica, RESIDUUM		33.5	SS-11	4	5	10	15
40.0	965.0	Medium dense, fine grained, with mica, RESIDUUM		38.5	SS-12	5	7	8	15

Boring Terminated at 40.0 feet.



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

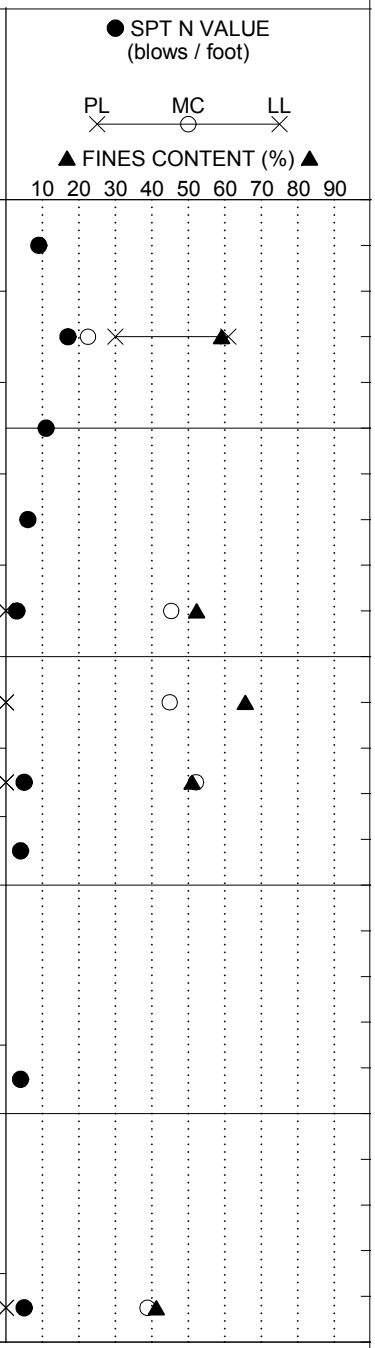
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2B-42	**Boring Location:**	27+04	**Offset:**	LT 8	**Alignment:**	Ramp 2B
Elev.:	1003.4 ft.	**Latitude:**	34.83398507	**Longitude:**	-82.29995512	**Date Started:**	2/23/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/23/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D50	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	101%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 33.5 ft.	**24 HR**	7.7 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 7 inches of topsoil. Stiff, moist, brown and red, SANDY FAT CLAY (CH, A-7), FILL	0.0	SS-1	4	5	4	9
	1000.0	Very stiff, moist, red, non reactive, SANDY FAT CLAY (CH, A-7-5(17)), FILL, LL=61 PL=30 PI=31 NMC=22.5 %#200=59.1	2.0	SS-2	4	8	9	17
5.0		Stiff, moist, red and light brown, with mica, SANDY FAT CLAY (CH, A-7), RESIDUUM	4.0	SS-3	5	4	7	11
		Firm, RESIDUUM	6.0	SS-4	2	2	4	6
	995.0	Soft, moist, red and light brown, with mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=45.3 %#200=52.3	8.0	SS-5	2	1	2	3
10.0		Undisturbed sample obtained from 10.0 to 12.0 feet. Approximately 24 inches of recovery. Moist, light brown, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=44.9 %#200=65.6	10.0	ST-1				
	990.0	Firm, brown, light brown, tan and gray, non reactive, with trace mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=52.1 %#200=51.1	12.0	SS-6	2	2	3	5
15.0		Soft, with trace mica, RESIDUUM	13.5	SS-7	1	2	2	4
	985.0	Very loose, moist, light brown, red and white, fine to medium grained, with trace mica, SILTY SAND (SM, A-2), RESIDUUM	18.5	SS-8	1	2	2	4
20.0	980.0	Loose, moist, light brown, red and white, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=38.8	23.5	SS-9	1	2	3	5
25.0								



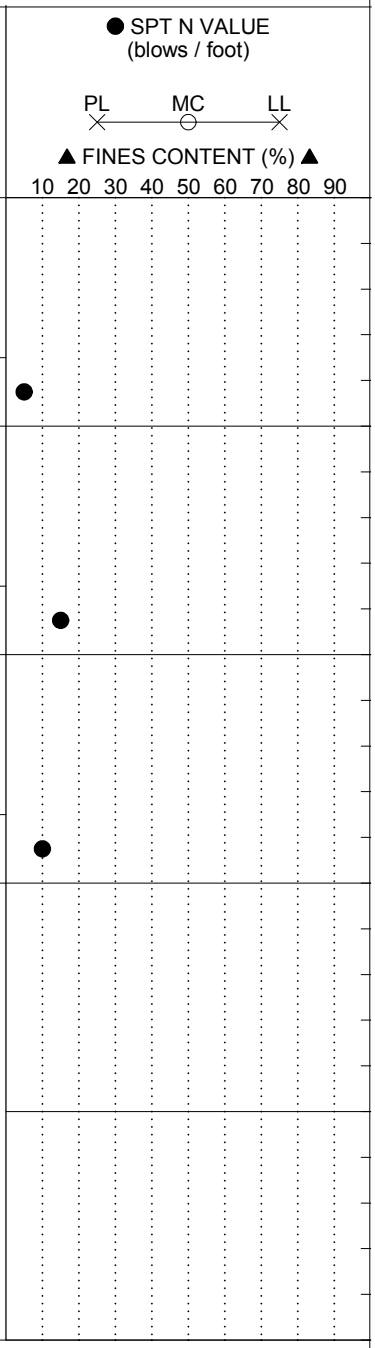
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2B-42	**Boring Location:**	27+04	**Offset:**	LT 8	**Alignment:**	Ramp 2B
Elev.:	1003.4 ft.	**Latitude:**	34.83398507	**Longitude:**	-82.29995512	**Date Started:**	2/23/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/23/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D50	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	101%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 33.5 ft.	**24 HR**	7.7 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0		%#200=41.2							
	975.0	Loose, red and light brown, with mica, RESIDUUM		28.5	SS-10	2	1	4	5
30.0									
	970.0	Medium dense, wet, black, light brown, red and white, with mica, RESIDUUM		33.5	SS-11	4	6	9	15
35.0									
	965.0	Loose, white and brown, with mica, RESIDUUM		38.5	SS-12	2	4	6	10
40.0									
		Boring Terminated at 40.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

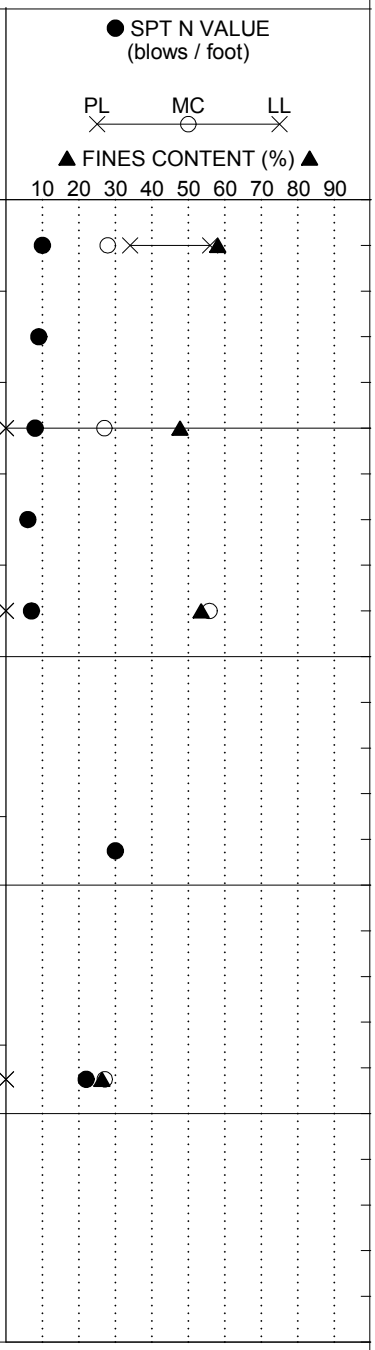
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2B-44	**Boring Location:**	23+00	**Offset:**	RT 2	**Alignment:**	Ramp 2B
Elev.:	1007.8 ft.	**Latitude:**	34.8342215	**Longitude:**	-82.30127399	**Date Started:**	2/24/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/24/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D50	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	101%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	9.4 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 1 inch of topsoil. Stiff, moist, reddish brown, non reactive, with trace mica, SANDY ELASTIC SILT (MH, A-7-5(12)), FILL, LL=56 PL=34 PI=22 NMC=27.9 %#200=58.1	0.0	SS-1	3	5	5	10
	1005.0	Stiff, red and light brown, FILL	2.0	SS-2	3	4	5	9
5.0		Loose, moist, red and light brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=27.0 %#200=47.7	4.0	SS-3	3	3	5	8
		Loose, with trace mica, RESIDUUM	6.0	SS-4	3	3	3	6
	1000.0							
10.0		Firm, moist, red and light brown, non reactive, with trace mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=55.8 %#200=53.5	8.0	SS-5	2	2	5	7
	995.0							
15.0		Medium dense, moist, red, brown and light brown, fine to medium grained, with trace mica, SILTY SAND (SM, A-2), RESIDUUM	13.5	SS-6	10	14	16	30
	990.0							
20.0		Medium dense, moist, red, brown and white, fine to medium grained, with trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=27.1 %#200=26.3	18.5	SS-7	11	11	11	22
		Boring Terminated at 20.0 feet.						



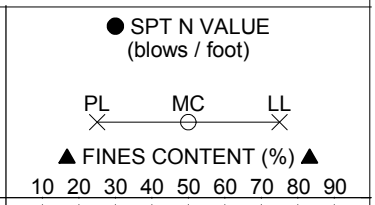
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2B-72	**Boring Location:**	24+96	**Offset:**	RT 29	**Alignment:**	Ramp 2B
Elev.:	1000.1 ft.	**Latitude:**	34.83402997	**Longitude:**	-82.30065652	**Date Started:**	5/8/2015
Total Depth:	30.0 ft.	**Soil Depth:**	30.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/8/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 13.5 ft.	**24 HR**	5.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	1000.0	Approximately 1 inch of topsoil. Loose, moist, red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=28.2 %#200=37.2	0.0	SS-1	2	2	3	5
		Loose, red and brown, with mica, RESIDUUM	2.0	SS-2	3	3	4	7
5.0	995.0	Loose, red and light brown, with mica, RESIDUUM	4.0	SS-3	1	2	3	5
		Loose, reddish brown, with mica, RESIDUUM	6.0	SS-4	2	3	6	9
10.0	990.0	Loose, moist, reddish brown and light brown, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=35.4 %#200=30.3	8.0	SS-5	2	3	3	6
15.0	985.0	Very loose, light brown and white, fine grained, with mica, RESIDUUM	13.5	SS-6	2	2	2	4
20.0	980.0	Loose, with mica, RESIDUUM	18.5	SS-7	1	2	3	5
25.0		Loose, wet, brown, with mica, RESIDUUM	23.5	SS-8	2	2	3	5



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

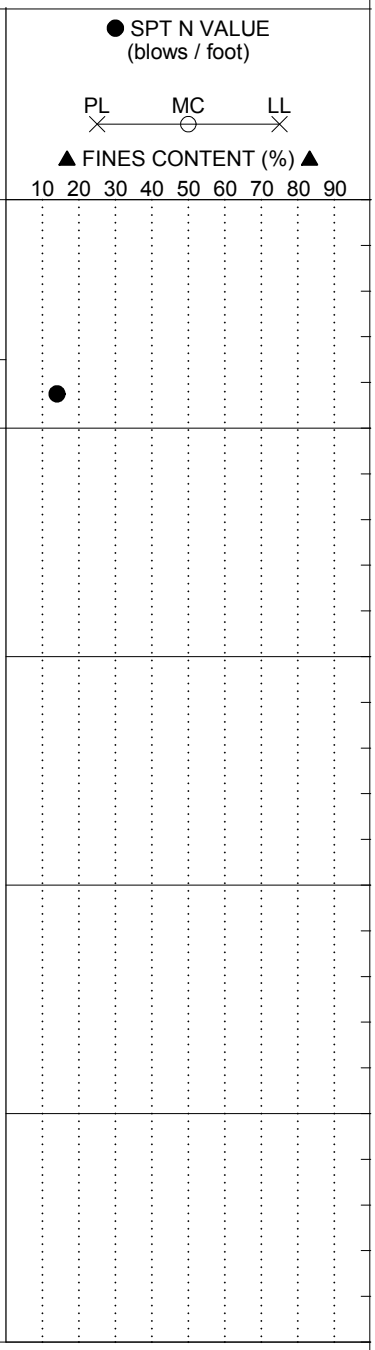
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R2B-72	**Boring Location:**	24+96	**Offset:**	RT 29	**Alignment:**	Ramp 2B
Elev.:	1000.1 ft.	**Latitude:**	34.83402997	**Longitude:**	-82.30065652	**Date Started:**	5/8/2015
Total Depth:	30.0 ft.	**Soil Depth:**	30.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/8/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 13.5 ft.	**24 HR**	5.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0	975.0								
30.0		Medium dense, moist, with mica, RESIDUUM		28.5	SS-9	2	4	10	14
		Boring Terminated at 30.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

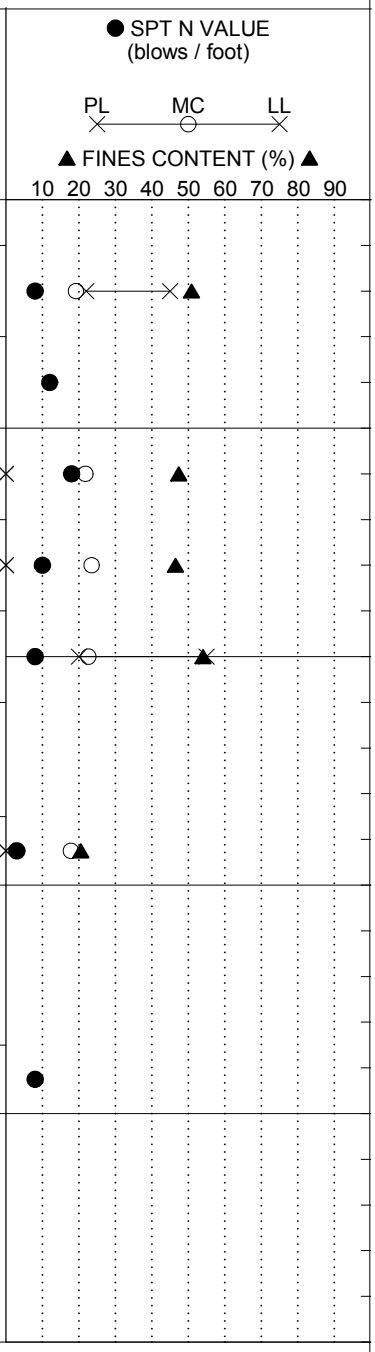
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R3-05	**Boring Location:**	31+96	**Offset:**	LT 1	**Alignment:**	Ramp 3
Elev.:	995.4 ft.	**Latitude:**	34.83132772	**Longitude:**	-82.29896999	**Date Started:**	5/21/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/21/2015
Bore Hole Diameter (in):	5-5/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 16.0 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	995.0	Approximately 10 inches of asphalt.						
		Firm, moist, red, non reactive, SANDY LEAN CLAY (CL, A-7-6(8)), FILL, LL=45 PL=22 PI=23 NMC=19.2 %#200=50.9	1.0	SS-1	3	4	4	8
		Medium dense, moist, red and gray, fine to medium grained, with trace clay, SILTY SAND (SM, A-2), FILL	3.0	SS-2	5	6	6	12
5.0	990.0	Medium dense, moist, red, brown and white, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=21.8 %#200=47.4	5.0	SS-3	8	10	8	18
		Loose, moist, red and brown, fine to medium grained, with mica, SILTY SAND with GRAVEL (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=23.5 %#200=46.5	7.0	SS-4	3	5	5	10
10.0	985.0	Firm, moist, gray, non reactive, SANDY FAT CLAY (CH, A-7-6(15)), ALLUVIUM, LL=55 PL=20 PI=35 NMC=22.6 %#200=54.0	9.0	SS-5	2	4	4	8
		Very loose, moist, white, fine to medium grained, with trace gravel, SILTY SAND (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=17.8 %#200=20.5	13.5	SS-6	3	2	1	3
15.0	980.0							
		Loose, wet, light brown and white, RESIDUUM	18.5	SS-7	2	3	5	8
20.0		Boring Terminated at 20.0 feet.						



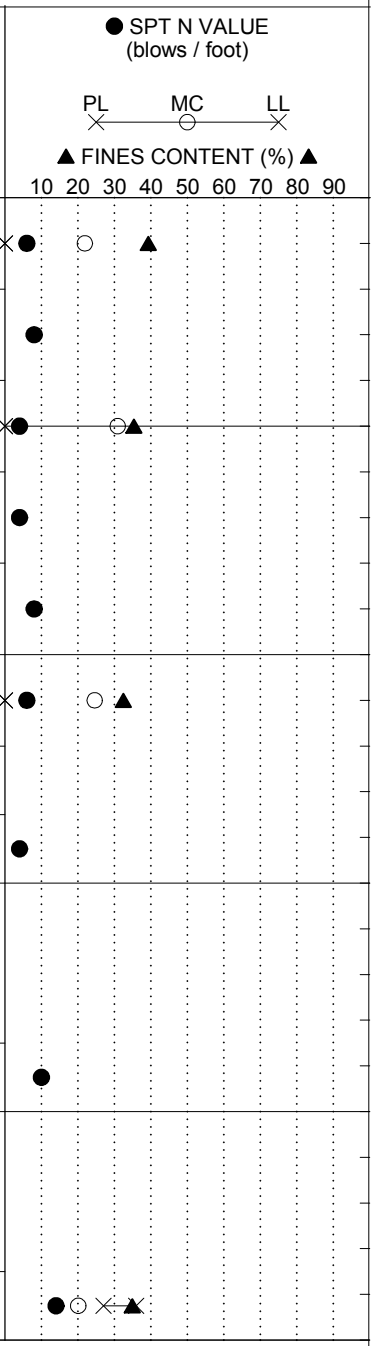
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R3-38	**Boring Location:**	41+65	**Offset:**	CL	**Alignment:**	Ramp 3
Elev.:	1008.7 ft.	**Latitude:**	34.83155523	**Longitude:**	-82.29593742	**Date Started:**	4/15/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	19.1 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 3 inches of topsoil. Loose, moist, brownish red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=21.9 %#200=39.3	0.0	SS-1	1	3	3	6
		Loose, with mica, FILL	2.0	SS-2	2	3	5	8
	1005.0							
5.0		Very loose, light brown, red and white, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=30.9 %#200=35.4	4.0	SS-3	1	2	2	4
		Very loose, light brown, with mica, FILL	6.0	SS-4	2	1	3	4
	1000.0	Loose, fine grained, with mica, FILL	8.0	SS-5	2	3	5	8
10.0		Loose, moist, light brown and red, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=24.6 %#200=32.5	10.0	SS-6	3	3	3	6
	995.0	Very loose, mica, FILL	13.5	SS-7	3	2	2	4
15.0								
	990.0	Loose, fine to medium grained, with mica, FILL	18.5	SS-8	3	4	6	10
20.0								
	985.0	Medium dense, moist, light brown, red and gray, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), FILL, LL=36 PL=27 PI=9 NMC=20.1	23.5	SS-9	6	6	8	14
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

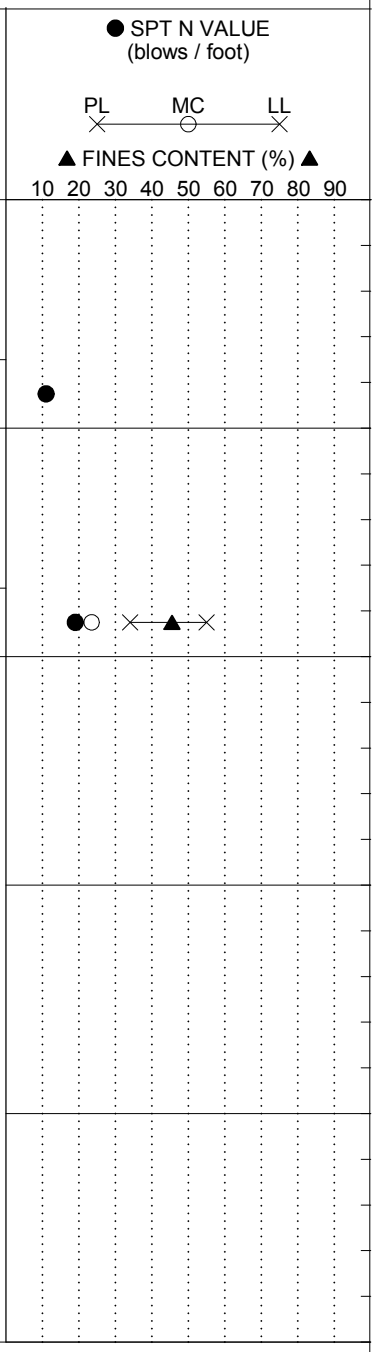
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R3-38	**Boring Location:**	41+65	**Offset:**	CL	**Alignment:**	Ramp 3
Elev.:	1008.7 ft.	**Latitude:**	34.83155523	**Longitude:**	-82.29593742	**Date Started:**	4/15/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	19.1 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0		%#200=34.9							
	980.0	Medium dense, brown, red and gray, with mica, FILL		28.5	SS-10	3	4	7	11
30.0									
	975.0	Medium dense, moist, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-7-5(6)), FILL, LL=55 PL=34 PI=21 NMC=23.5 %#200=45.5		33.5	SS-11	5	7	12	19
35.0		Boring Terminated at 35.0 feet.							



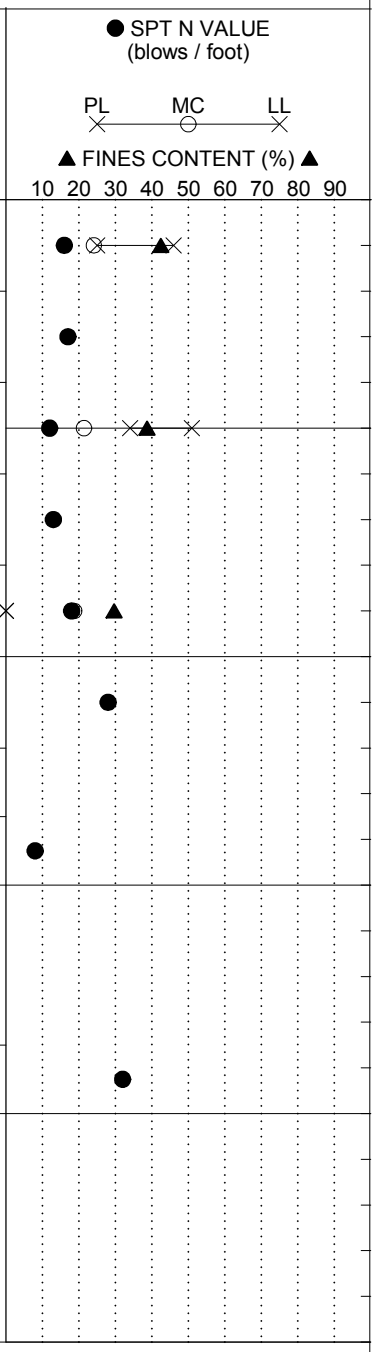
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R3-75	**Boring Location:**	316+79	**Offset:**	RT 23	**Alignment:**	Ramp 3A
Elev.:	1011.9 ft.	**Latitude:**	34.83483602	**Longitude:**	-82.30067934	**Date Started:**	5/9/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/9/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	12.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 1 inch of topsoil.	0.0					
	1010.0	Medium dense, dry, red and brown, fine to medium grained, with mica and trace gravel, CLAYEY SAND (SC, A-7-6(5)), FILL, LL=46 PL=25 PI=21 NMC=24.1 %#200=42.5		SS-1	5	9	7	16
		Medium dense, moist, red and light brown, fine to medium grained, with mica, CLAYEY SAND (SC, A-2), ALLUVIUM	2.0	SS-2	6	7	10	17
5.0		Medium dense, moist, light brown and red, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-7-5(3)), RESIDUUM, LL=51 PL=34 PI=17 NMC=21.4 %#200=38.7	4.0	SS-3	4	5	7	12
	1005.0	Medium dense, with mica, RESIDUUM	6.0	SS-4	4	6	7	13
		Medium dense, moist, light brown and red, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=18.7 %#200=29.7	8.0	SS-5	4	6	12	18
10.0		Medium dense, brownish red, fine grained, with mica, RESIDUUM	10.0	SS-6	9	16	12	28
	1000.0							
		Loose, white and light brown, fine to medium grained, with mica, RESIDUUM	13.5	SS-7	3	3	5	8
15.0								
	995.0							
		Dense, reddish brown, fine grained, with mica, RESIDUUM	18.5	SS-8	12	12	20	32
20.0								
		Boring Terminated at 20 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

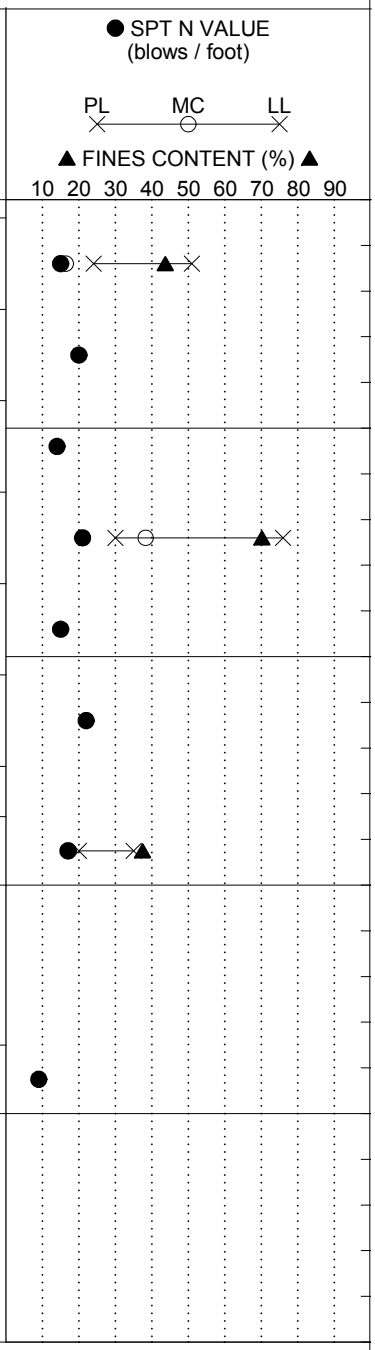
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R3A-41	**Boring Location:**	304+08	**Offset:**	CL	**Alignment:**	Ramp 3A
Elev.:	1001.7 ft.	**Latitude:**	34.83487934	**Longitude:**	-82.29644519	**Date Started:**	4/1/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/1/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 5 inches of asphalt.	0.4					
	1000.0	Medium dense, moist, brown, fine to medium grained, with mica, CLAYEY SAND (SC, A-7-6(7)), FILL, LL=51 PL=24 PI=27 NMC=16.4 %#200=43.7		SS-1	4	7	8	15
		Very stiff, brown and red, with mica, FILL	2.4	SS-2	5	8	12	20
5.0		Stiff, moist, red and light brown, with mica, FAT CLAY with SAND (CH, A-7), ALLUVIUM	4.4	SS-3	2	7	7	14
	995.0	Very stiff, moist, red, FAT CLAY with SAND (CH, A-7-5(33)), ALLUVIUM, LL=76 PL=30 PI=46 NMC=38.3 %#200=70.2	6.4	SS-4	5	8	13	21
		Medium dense, moist, red and white, fine to medium grained, CLAYEY SAND (SC, A-2), RESIDUUM	8.4	SS-5	2	6	9	15
10.0		Medium dense, moist, RESIDUUM	10.4	SS-6	4	8	14	22
	990.0							
		Medium dense, moist, red and white, fine to medium grained, CLAYEY SAND (SC, A-6(2)), RESIDUUM, LL=35 PL=20 PI=15 NMC=17.2 %#200=37.5	13.5	SS-7	2	9	8	17
15.0								
	985.0							
		Loose, white and light brown, RESIDUUM	18.5	SS-8	4	4	5	9
20.0								
		Boring Terminated at 20.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

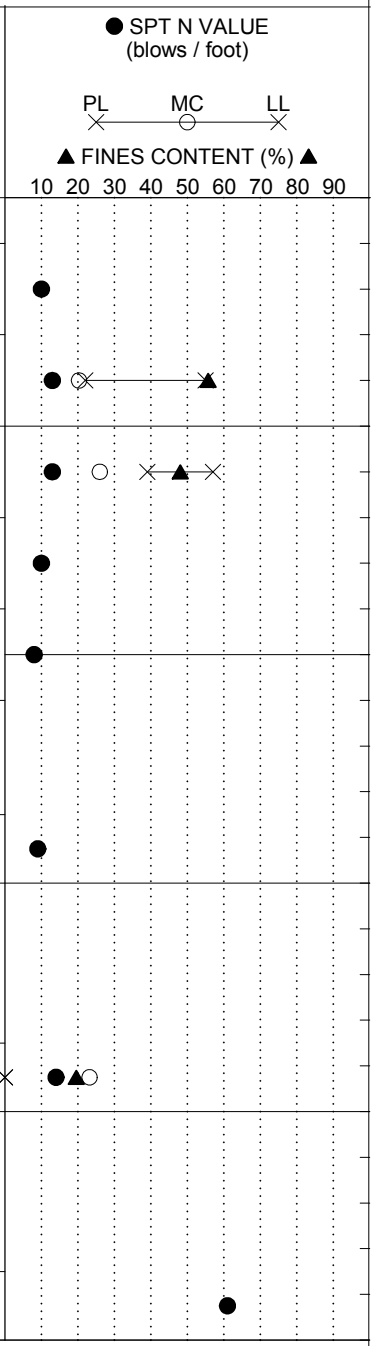
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R3A-46	**Boring Location:**	423+03	**Offset:**	RT 128	**Alignment:**	I-385
Elev.:	1030.9 ft.	**Latitude:**	34.83534668	**Longitude:**	-82.30434801	**Date Started:**	4/16/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/16/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	1030.0	Approximately 12 inches of asphalt.						
		Stiff, moist, red and brown, SANDY FAT CLAY (CH, A-7), FILL	1.0	SS-1	6	3	7	10
		Stiff, moist, red, SANDY FAT CLAY (CH, A-7-6(15)), FILL, LL=55 PL=22 PI=33 NMC=20.3 %#200=55.7	3.0	SS-2	3	5	8	13
5.0	1025.0	Medium dense, moist, red and light brown, fine to medium grained, SILTY SAND (SM, A-7-5(6)), RESIDUUM, LL=57 PL=39 PI=18 NMC=26.0 %#200=48.1	5.0	SS-3	3	5	8	13
		Loose, white and light brown, with mica, RESIDUUM	7.0	SS-4	2	5	5	10
10.0	1020.0	Loose, with mica, RESIDUUM	9.0	SS-5	3	4	4	8
15.0	1015.0	Loose, black and white, with mica, RESIDUUM	13.5	SS-6	3	4	5	9
20.0	1010.0	Medium dense, moist, brown, fine to medium grained, with mica, SILTY SAND (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=23.2 %#200=19.6	18.5	SS-7	5	6	8	14
25.0		Very dense, white and black, with mica, RESIDUUM	23.5	SS-8	13	29	32	61



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

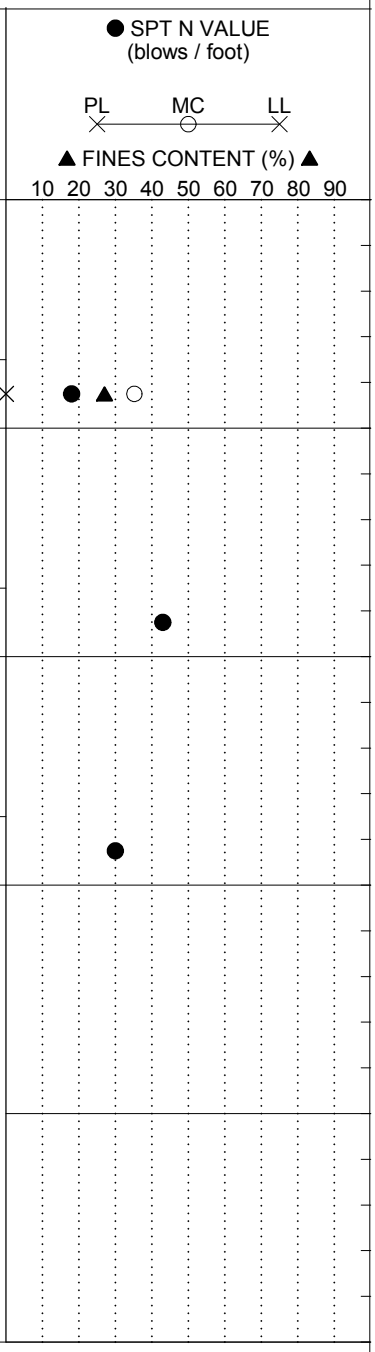
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R3A-46	**Boring Location:**	423+03	**Offset:**	RT 128	**Alignment:**	I-385
Elev.:	1030.9 ft.	**Latitude:**	34.83534668	**Longitude:**	-82.30434801	**Date Started:**	4/16/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/16/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	1005.0								
30.0		Medium dense, moist, white and black, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=35.2 %#200=27.0		28.5	SS-9	17	7	11	18
	1000.0								
35.0		Dense, with mica, RESIDUUM		33.5	SS-10	9	12	31	43
	995.0								
40.0		Medium dense, white and light brown, with mica, RESIDUUM		38.5	SS-11	6	13	17	30
		Boring Terminated at 40.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

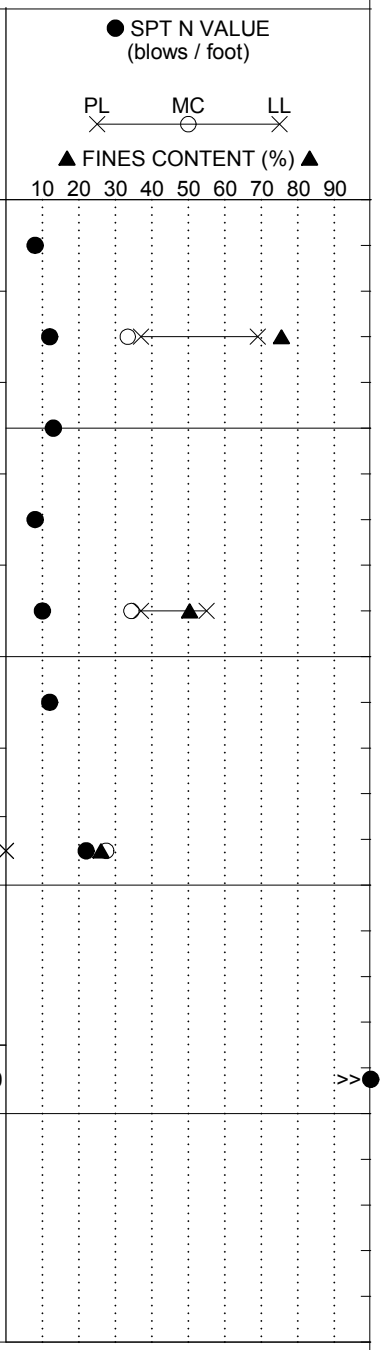
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R4B-85	**Boring Location:**	413+73	**Offset:**	LT 31	**Alignment:**	Ramp 4B
Elev.:	1002.8 ft.	**Latitude:**	34.83183266	**Longitude:**	-82.30031115	**Date Started:**	5/9/2015
Total Depth:	18.5 ft.	**Soil Depth:**	18.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/9/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 13.5 ft.	**24 HR**	9.7 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 1 inch of topsoil. Loose, moist, brown, fine to medium grained, SILTY SAND (SM, A-2), FILL	0.0	SS-1	1	4	4	8
	1000.0	Stiff, moist, red, ELASTIC SILT with SAND (MH, A-7-5(28)), ALLUVIUM, LL=69 PL=37 PI=32 NMC=33.4 %#200=75.5	2.0	SS-2	4	4	8	12
5.0		Stiff, red and light brown, ALLUVIUM	4.0	SS-3	3	6	7	13
		Firm, ALLUVIUM	6.0	SS-4	1	3	5	8
	995.0	Stiff, moist, red and light brown, non reactive, SANDY ELASTIC SILT (MH, A-7-5(7)), ALLUVIUM, LL=55 PL=37 PI=18 NMC=34.4 %#200=50.4	8.0	SS-5	2	4	6	10
10.0		Stiff, ALLUVIUM	10.0	SS-6	3	6	6	12
	990.0							
15.0		Medium dense, wet, white and black, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), with mica, RESIDUUM, LL=NP PL=NP PI=NP NMC=27.5 %#200=26.1	13.5	SS-7	7	9	13	22
	985.0							
		Very dense, No recovery, ROCK	18.5	SS-8	50/0	X	X	50/0
		Boring Terminated at 18.5 feet.						



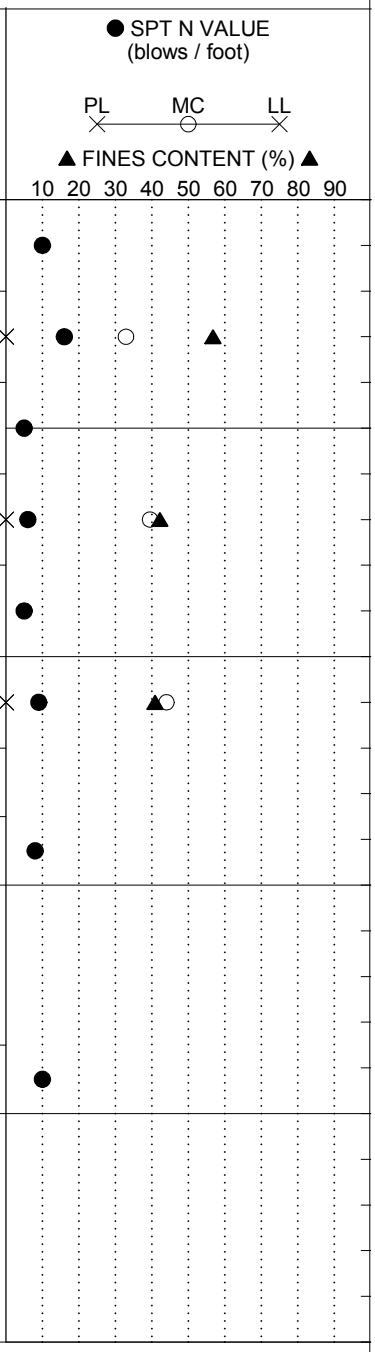
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R7-03A	**Boring Location:**	25+13	**Offset:**	LT 37	**Alignment:**	Ramp 7
Elev.:	1003.8 ft.	**Latitude:**	34.8293361	**Longitude:**	-82.30190391	**Date Started:**	6/10/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 18.5 ft.	**24 HR**	18.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 1 inch of topsoil. Stiff, moist, red, with mica, SANDY SILT (ML, A-4), FILL	0.0	SS-1	3	6	4	10
	1000.0	Very stiff, moist, red and light brown, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.9 %#200=56.8	2.0	SS-2	5	6	10	16
5.0		Firm, light brown and red, RESIDUUM	4.0	SS-3	2	2	3	5
		Loose, moist, red and light brown, fine grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=39.5 %#200=42.2	6.0	SS-4	2	2	4	6
	995.0	Loose, reddish brown and white, with mica, RESIDUUM	8.0	SS-5	2	2	3	5
10.0		Loose, moist, red and brown, fine grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=44.0 %#200=40.9	10.0	SS-6	2	4	5	9
	990.0	Loose, with mica, RESIDUUM	13.5	SS-7	3	3	5	8
15.0								
	985.0	Loose, light brown with mica, RESIDUUM	18.5	SS-8	2	4	6	10
20.0								
		Boring Terminated at 20.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

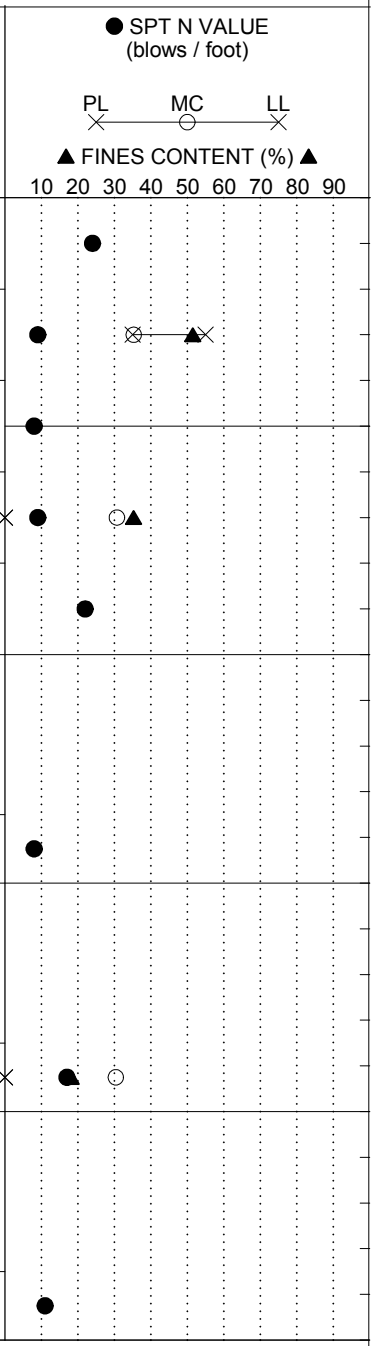
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R8A-31	**Boring Location:**	53+16	**Offset:**	LT 2	**Alignment:**	Ramp 8
Elev.:	966.7 ft.	**Latitude:**	34.82393286	**Longitude:**	-82.29047932	**Date Started:**	5/10/2015
Total Depth:	38.8 ft.	**Soil Depth:**	38.8 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 1 inch of topsoil.	0.0					
	965.0	Very stiff, dry, brown, SANDY ELASTIC SILT (MH, A-7), FILL		SS-1	15	15	9	24
		Stiff, moist, reddish brown, SANDY ELASTIC SILT (MH, A-7-5(8)), FILL, LL=55 PL=35 PI=20 NMC=35.3 %#200=51.5	2.0	SS-2	2	4	5	9
5.0		Loose, moist, brown, fine to medium grained, with mica, SILTY SAND with GRAVEL (SM, A-2), RESIDUUM	4.0	SS-3	3	3	5	8
	960.0	Loose, moist, brown, fine grained, with mica, SILTY SAND with GRAVEL (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=30.7 %#200=35.3	6.0	SS-4	5	4	5	9
		Medium dense, moist, brown, fine grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	8.0	SS-5	9	10	12	22
10.0								
	955.0							
		Loose, brown, dark brown and tan, fine to medium grained, with mica, RESIDUUM	13.5	SS-6	5	4	4	8
15.0								
	950.0							
		Medium dense, moist, dark brown and brown, fine to medium grained, with mica and trace gravel, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=30.4 %#200=18.2	18.5	SS-7	4	9	8	17
20.0								
	945.0							
		Medium dense, dark brown, with mica, RESIDUUM	23.5	SS-8	6	5	6	11
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

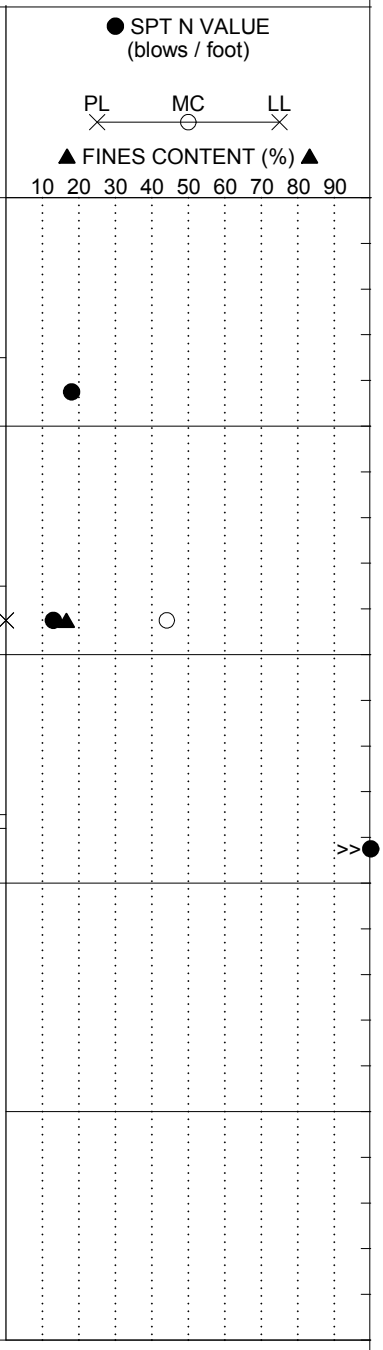
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R8A-31	**Boring Location:**	53+16	**Offset:**	LT 2	**Alignment:**	Ramp 8
Elev.:	966.7 ft.	**Latitude:**	34.82393286	**Longitude:**	-82.29047932	**Date Started:**	5/10/2015
Total Depth:	38.8 ft.	**Soil Depth:**	38.8 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	940.0								
30.0		Medium dense, dark brown, brown and tan, with mica, RESIDUUM		28.5	SS-9	5	10	8	18
	935.0								
35.0		Medium dense, moist, dark brown, tan and white, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=44.1 %#200=16.6		33.5	SS-10	3	5	8	13
	930.0								
		Very dense, dark brown and brown, fine grained, with mica, PARTIALLY WEATHERED ROCK		38.5	SS-11	50/3	X	X	100
		Boring Terminated at 38.8 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

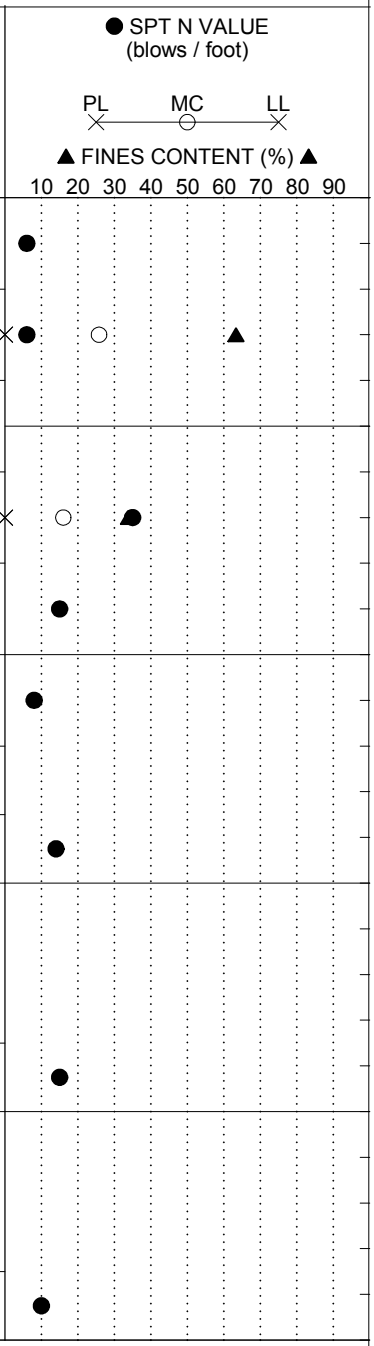
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R8A-33	**Boring Location:**	15+83	**Offset:**	LT 4	**Alignment:**	Ramp 8A
Elev.:	962.4 ft.	**Latitude:**	34.82532774	**Longitude:**	-82.29115627	**Date Started:**	1/30/2015
Total Depth:	35.1 ft.	**Soil Depth:**	35.1 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/30/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 18.0 ft.	**24 HR**	19.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Firm, moist, red and brown, SANDY SILT (ML, A-4), RESIDUUM	0.0	SS-1	4	3	3	6
	960.0	Firm, moist, brown, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=25.8 %#200=63.3	2.0	SS-2	2	2	4	6
5.0		Undisturbed sample obtained from 4.0 to 6.0 feet. Approximately 22 inches of recovery.	4.0	ST-1				
	955.0	Dense, moist, red, brown and white, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=16.0 %#200=33.9	6.0	SS-3	4	18	17	35
		Medium dense, light brown, with mica, RESIDUUM	8.0	SS-4	4	7	8	15
10.0		Loose, brown and white, with mica and trace gravel, RESIDUUM	10.0	SS-5	6	3	5	8
	950.0							
15.0		Medium dense, white, reddish brown and black, with mica, RESIDUUM	13.5	SS-6	11	10	4	14
	945.0							
20.0		Medium dense, wet, light brown, fine to coarse grained, with mica, RESIDUUM	18.5	SS-7	5	6	9	15
	940.0							
25.0		Loose, white and gray, with mica, RESIDUUM	23.5	SS-8	1	5	5	10



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R8A-33	**Boring Location:**	15+83	**Offset:**	LT 4	**Alignment:**	Ramp 8A
Elev.:	962.4 ft.	**Latitude:**	34.82532774	**Longitude:**	-82.29115627	**Date Started:**	1/30/2015
Total Depth:	35.1 ft.	**Soil Depth:**	35.1 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/30/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 18.0 ft.	**24 HR**	19.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
	935.0									
30.0		Loose, wet, white, fine to medium grained, SILTY SAND (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=29.1 %#200=18.4		28.5	SS-6	2	4	3	7	
	930.0									
35.0		Very dense, white, PARTIALLY WEATHERED ROCK		33.5	SS-10	50/2	X	X	100	>>
		Very dense, ROCK Boring Terminated at 35.1 feet.		35.0	SS-11	50/1	X	X	50/1	>>

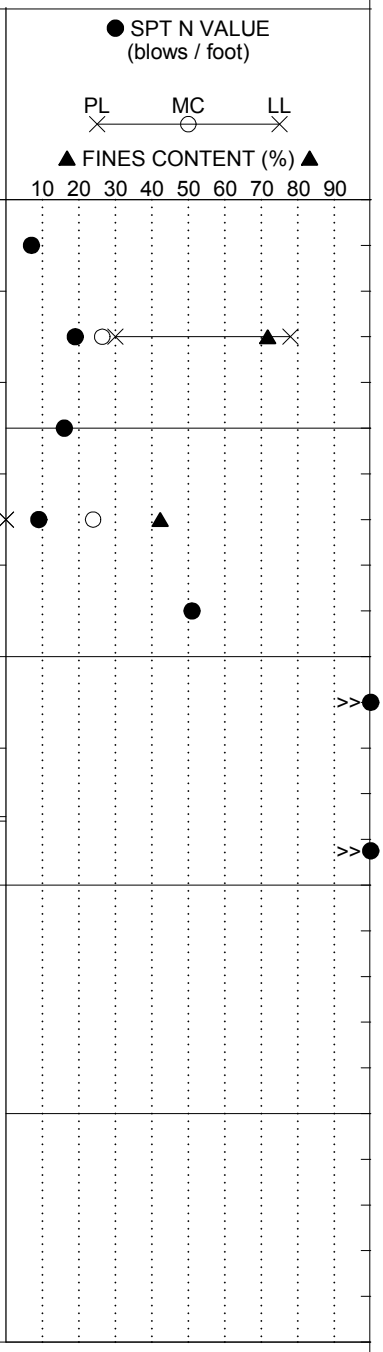
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R8A-35	**Boring Location:**	370+07	**Offset:**	RT 10	**Alignment:**	I385 NB C/D
Elev.:	964.9 ft.	**Latitude:**	34.82629598	**Longitude:**	-82.29182196	**Date Started:**	1/29/2015
Total Depth:	13.6 ft.	**Soil Depth:**	13.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/29/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 4 inches of topsoil. Firm, moist, red and brown, FAT CLAY with SAND (CH, A-7), RESIDUUM		0.0	SS-1	2	3	4	7
		Very stiff, moist, red, FAT CLAY with SAND (CH, A-7-5(36)), RESIDUUM, LL=78 PL=30 PI=48 NMC=26.4 %#200=71.8		2.0	SS-2	5	8	11	19
5.0	960.0	Very stiff, with mica, RESIDUUM		4.0	SS-3	2	7	9	16
		Loose, moist, red, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=23.9 %#200=42.3		6.0	SS-4	2	4	5	9
		Very dense, white and light brown, with mica, RESIDUUM		8.0	SS-5	8	16	35	51
10.0	955.0	Very dense, white and reddish brown, with mica, PARTIALLY WEATHERED ROCK		10.0	SS-6	33	43	50/2	100
		Very dense, No recovery, with mica, ROCK		13.5	SS-7	50/1	X	X	50/1
		Boring Terminated at 13.6 feet.							



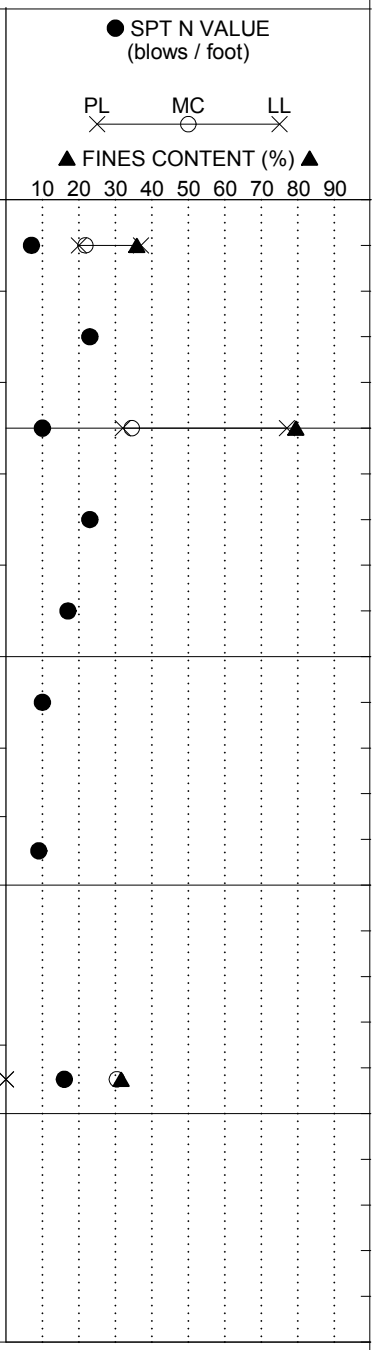
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R9-34	**Boring Location:**	56+46	**Offset:**	LT 43	**Alignment:**	Ramp 9
Elev.:	978.4 ft.	**Latitude:**	34.82558395	**Longitude:**	-82.29265541	**Date Started:**	3/11/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	7.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Loose, moist, red fine to medium grained, with mica, CLAYEY SAND with GRAVEL (SC, A-6(2)), FILL, LL=37 PL=20 PI=17 NMC=21.8 %#200=35.9	0.0	SS-1	2	3	4	7
	975.0	Very stiff, moist, red, with mica, FAT CLAY with SAND (CH, A-7), FILL	2.0	SS-2	5	10	13	23
5.0		Stiff, moist, red and light brown, non reactive, FAT CLAY with SAND (CH, A-7-5(40)), ALLUVIUM, LL=77 PL=32 PI=45 NMC=34.5 %#200=79.5	4.0	SS-3	2	2	8	10
		Very stiff, ALLUVIUM	6.0	SS-4	3	8	15	23
	970.0	Very stiff, ALLUVIUM	8.0	SS-5	1	7	10	17
10.0		Stiff, ALLUVIUM	10.0	SS-6	2	4	6	10
	965.0	Stiff, ALLUVIUM	13.5	SS-7	2	4	5	9
15.0								
	960.0	Medium dense, moist, gray and brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=30.4 %#200=31.6	18.5	SS-8	5	7	9	16
20.0		Boring Terminated at 20.0 feet.						



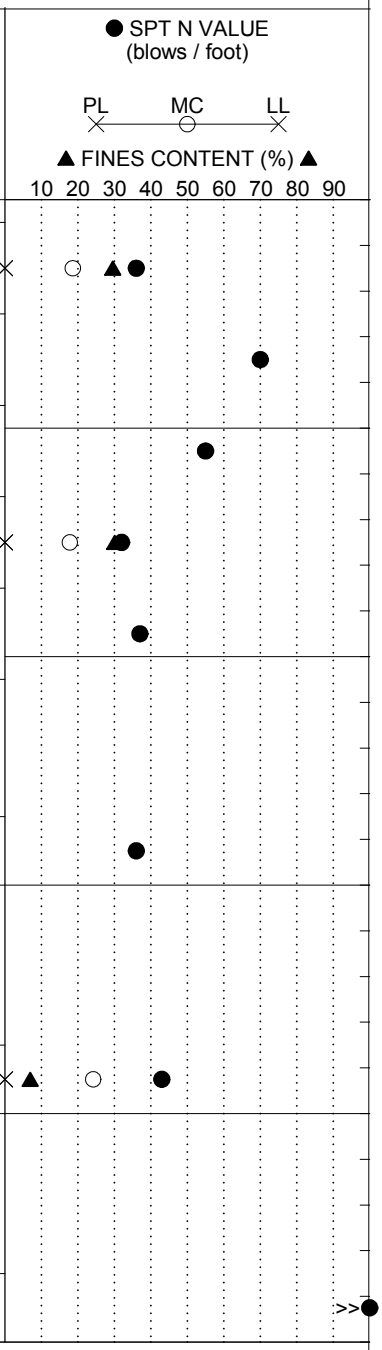
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R10-29	**Boring Location:**	29+19	**Offset:**	RT 6	**Alignment:**	Ramp 10
Elev.:	945.0 ft.	**Latitude:**	34.82174472	**Longitude:**	-82.29184397	**Date Started:**	4/21/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/21/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	945.0	Approximately 6 inches of asphalt.						
		Dense, moist, red and brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=18.6 %#200=29.6	0.5	SS-1	5	11	25	36
		Very dense, moist, brown and white, fine to medium grained, with mica, SILTY SAND (SM, A-2)), RESIDUUM	2.5	SS-2	21	37	33	70
5.0	940.0	Very dense, fine grained, with mica, RESIDUUM	4.5	SS-3	11	24	31	55
		Dense, moist, red and brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=17.8 %#200=30.1	6.5	SS-4	10	18	14	32
		Dense, brown and white, with mica, RESIDUUM	8.5	SS-5	8	14	23	37
10.0	935.0							
15.0	930.0	Dense, moist, red and brown, fine to medium grained, POORLY GRADED SAND with SILT (SP-SM, A-2), RESIDUUM	13.5	SS-6	12	18	18	36
20.0	925.0	Dense, moist, red and brown, fine to medium grained, with mica, POORLY GRADED SAND with SILT (SP-SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=24.2 %#200=6.9	18.5	SS-7	13	21	22	43
25.0	920.0	Very dense, moist, brown, red, white and gray, fine to medium grained, with mica, SILTY SAND (SM, A-2), PARTIALLY WEATHERED ROCK	23.5	SS-8	24	50/3	X	100



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R10-29	**Boring Location:**	29+19	**Offset:**	RT 6	**Alignment:**	Ramp 10
Elev.:	945.0 ft.	**Latitude:**	34.82174472	**Longitude:**	-82.29184397	**Date Started:**	4/21/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/21/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0	920.0									
30.0	915.0	Very dense, red and brown, fine grained, with mica, PARTIALLY WEATHERED ROCK		28.5	SS-9	19	38	50/3	100	>>●
35.0	910.0	Dense, with mica, RESIDUUM		33.5	SS-10	13	19	24	43	●
		Boring Terminated at 35.0 feet.								

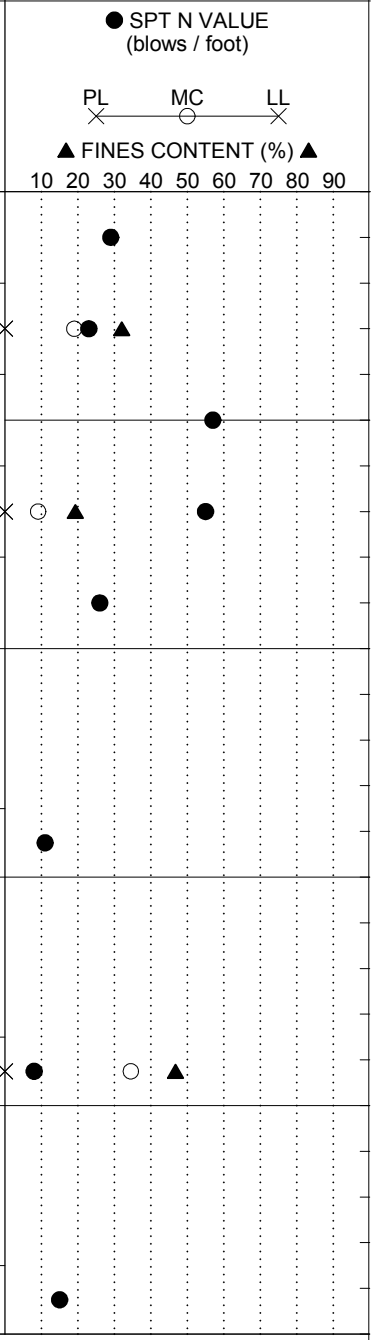
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R10-30	**Boring Location:**	22+53	**Offset:**	LT 29	**Alignment:**	Ramp 10
Elev.:	968.8 ft.	**Latitude:**	34.82353182	**Longitude:**	-82.29234286	**Date Started:**	5/9/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/9/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 1 inch of topsoil. Medium dense, dry, brown, fine grained, with trace organics, SILTY SAND (SM, A-2), RESIDUUM	0.0	SS-1	10	14	15	29
	965.0	Medium dense, moist, brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=19.0 %#200=32.0	2.0	SS-2	12	9	14	23
5.0		Very dense, brown and dark brown, RESIDUUM	4.0	SS-3	14	21	36	57
		Very dense, moist, dark brown, tan, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=9.1 %#200=19.3	6.0	SS-4	15	30	25	55
	960.0	Medium dense, brown and light brown, fine grained, RESIDUUM	8.0	SS-5	2	13	13	26
10.0								
	955.0	Medium dense, RESIDUUM	13.5	SS-6	4	6	5	11
15.0								
	950.0	Loose, moist, white, light brown and tan, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=34.5 %#200=46.8	18.5	SS-7	2	3	5	8
20.0								
	945.0	Medium dense, moist, brown and light brown, RESIDUUM	23.5	SS-8	4	6	9	15
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R10-30	**Boring Location:**	22+53	**Offset:**	LT 29	**Alignment:**	Ramp 10
Elev.:	968.8 ft.	**Latitude:**	34.82353182	**Longitude:**	-82.29234286	**Date Started:**	5/9/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/9/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL ✕ MC ○ LL ✕ ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
	940.0	Stiff, moist, brown, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=39.8 %#200=51.5		28.5	SS-9	3	5	8	13	
30.0										
	935.0	Very stiff, brown and dark brown, RESIDUUM		33.5	SS-10	3	5	11	16	
35.0										
		Boring Terminated at 35.0 feet.								

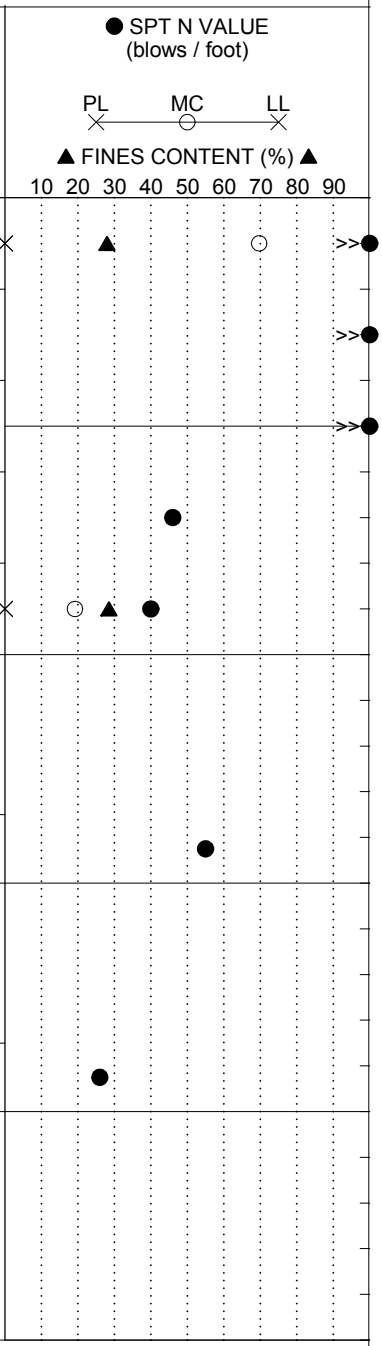
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R11-28	**Boring Location:**	52+98	**Offset:**	RT 11	**Alignment:**	Ramp 11
Elev.:	933.3 ft.	**Latitude:**	34.82030918	**Longitude:**	-82.29065167	**Date Started:**	5/7/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/7/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 18.5 ft.	**24 HR**	4.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 4 inches of topsoil.	0.0	SS-1	2	30	50/4	100
		Very dense, moist, white and light brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=69.7 %#200=28.0	2.0	SS-2	25	50/4	X	100
	930.0	Very dense, moist, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2), PARTIALLY WEATHERED ROCK	4.0	SS-3	46	50/5	X	100
5.0		Very dense, reddish brown, with mica, PARTIALLY WEATHERED ROCK	6.0	SS-4	28	26	20	46
		Dense, with mica, RESIDUUM	8.0	SS-5	8	12	28	40
	925.0	Dense, moist, light brown, red and white, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=19.2 %#200=28.5						
10.0								
	920.0	Very dense, white and light brown, with mica, RESIDUUM	13.5	SS-6	12	24	31	55
15.0								
	915.0	Medium dense, wet, reddish brown and white, with mica, RESIDUUM	18.5	SS-7	6	11	15	26
20.0								
		Boring Terminated at 20.0 feet.						



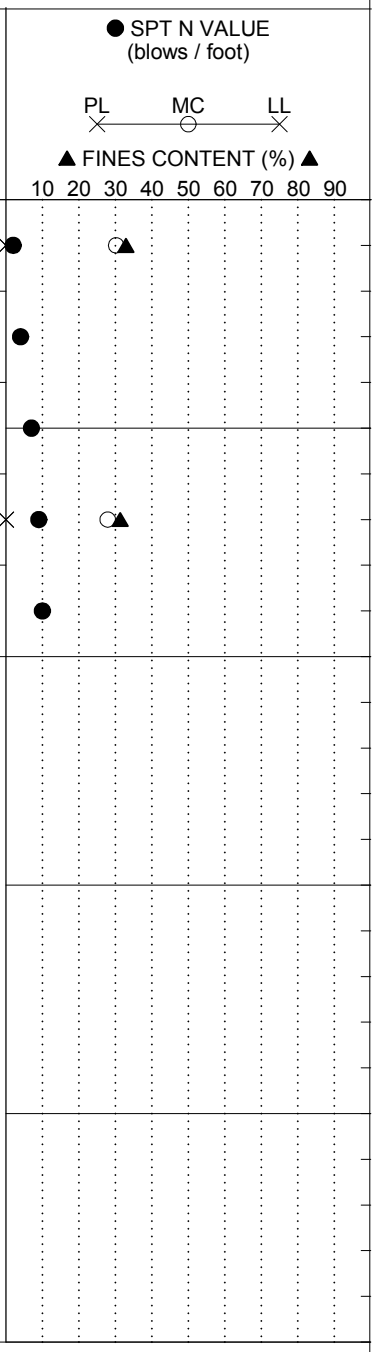
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-01	**Boring Location:**	213+43	**Offset:**	RT 63	**Alignment:**	I-85
Elev.:	956.7 ft.	**Latitude:**	34.82045038	**Longitude:**	-82.31745648	**Date Started:**	5/20/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/20/2015
Bore Hole Diameter (in):	5-5/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 1 inch of topsoil.		0.0					
	955.0	Very loose, moist, reddish brown, fine grained, with mica, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=30.2 %#200=32.9			SS-1	1	1	1	2
		Very loose, moist, white and reddish brown, fine grained, with mica, SILTY SAND (SM, A-2), RESIDUUM		2.0	SS-2	1	2	2	4
5.0		Loose, with mica, RESIDUUM		4.0	SS-3	2	3	4	7
	950.0	Loose, moist, white and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=27.9 %#200=31.3		6.0	SS-4	3	4	5	9
		Loose, with mica, RESIDUUM		8.0	SS-5	3	4	6	10
10.0		Boring Terminated at 10.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

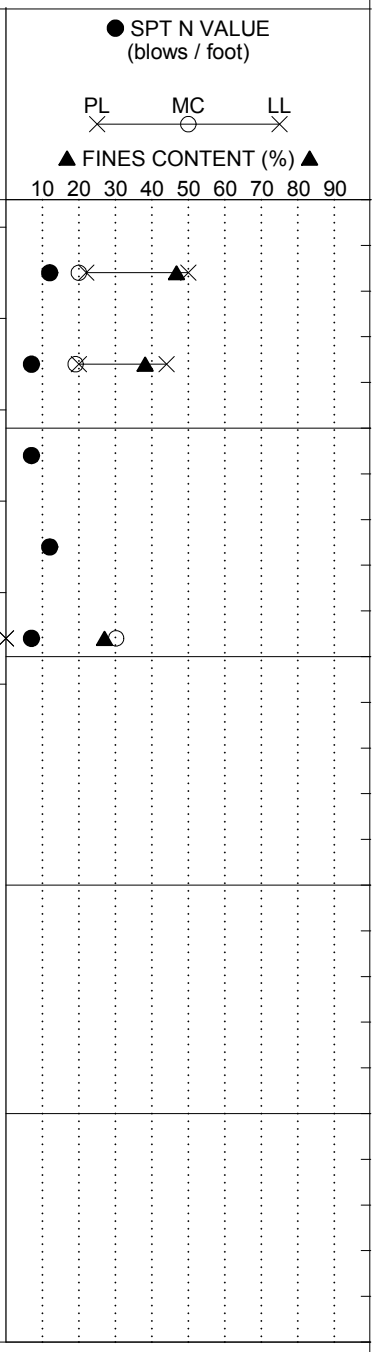
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-02	**Boring Location:**	264+23	**Offset:**	RT 11	**Alignment:**	I-85 NB C/D
Elev.:	1009.6 ft.	**Latitude:**	34.8285287	**Longitude:**	-82.30365588	**Date Started:**	5/18/2015
Total Depth:	10.6 ft.	**Soil Depth:**	10.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/18/2015
Bore Hole Diameter (in):	5-5/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 6 inches of asphalt and 3 inches of topsoil.		0.6					
		Medium dense, moist, red and brown, fine to medium grained,with trace gravel, CLAYEY SAND (SC, A-7-6(9)), FILL, LL=50 PL=22 PI=28 NMC=20.0 %#200=46.8		2.6	SS-1	3	6	6	12
5.0	1005.0	Loose, moist, red, fine to medium grained, with mica, CLAYEY SAND (SC, A-7-6(4)), FILL, LL=44 PL=20 PI=24 NMC=19.1 %#200=38.2		4.6	SS-2	3	3	4	7
		Loose, red and light brown with mica, FILL		6.6	SS-3	27	3	4	7
		Medium dense, moist, red and light brown, fine to medium grained, CLAYEY SAND (SC, A-2), RESIDUUM		8.6	SS-4	6	6	6	12
10.0	1000.0	Loose, moist, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=30.2 %#200=27.0			SS-5	4	3	4	7
		Boring Terminated at 10.6 feet.							



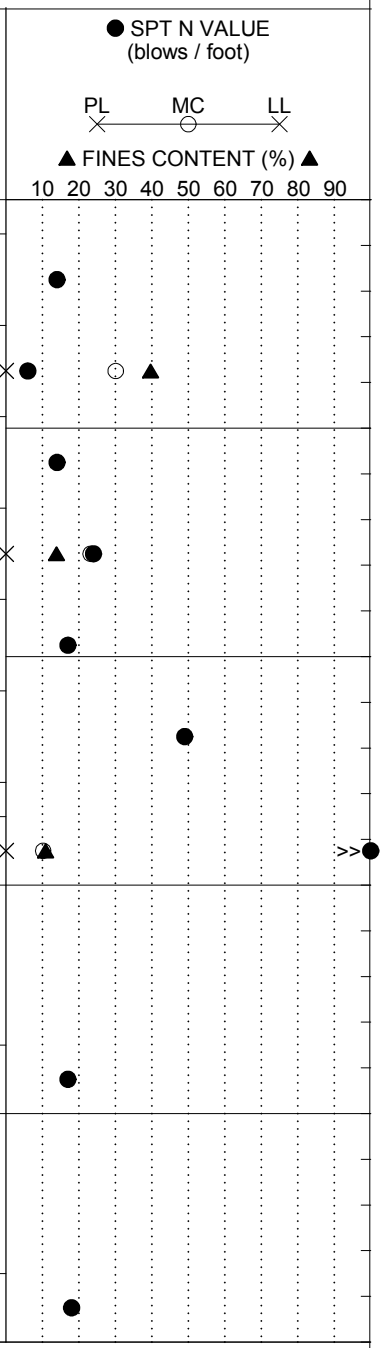
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Blake Ellis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-09	**Boring Location:**	311+81	**Offset:**	RT 76	**Alignment:**	I-85
Elev.:	957.0 ft.	**Latitude:**	34.83649328	**Longitude:**	-82.29106927	**Date Started:**	3/15/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 10.0 ft.*	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 9 inches of asphalt.						
	955.0	Medium dense, moist, reddish brown and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2), FILL	0.8	SS-1	5	5	9	14
5.0		Loose, moist, reddish brown and brown, fine to medium grained, with trace mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=30.1 %#200=39.7	2.8	SS-2	3	2	4	6
		Medium dense, reddish brown, with organics and mica, RESIDUUM	4.8	SS-3	4	6	8	14
	950.0	Medium dense, moist, reddish brown and brown, fine to medium grained, with mica, SILTY SAND (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=23.2 %#200=13.9	6.8	SS-4	4	9	15	24
10.0		Medium dense, dark brown and reddish brown, with mica, RESIDUUM	8.8	SS-5	11	9	8	17
	945.0	Dense, black, brown and light brown, fine grained, with mica, RESIDUUM	10.8	SS-6	9	20	29	49
15.0		Very dense, moist, brown and dark brown, fine to medium grained, with mica, WELL GRADED SAND with SILT (SW-SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=10.2 %#200=10.9	13.5	SS-7	7	18	50/5	100
	940.0							
20.0		Medium dense, moist, dark brown, fine grained, SILTY SAND (SM, A-2), RESIDUUM	18.5	SS-8	6	4	13	17
	935.0							
25.0		Medium dense, white and dark brown, with mica, RESIDUUM	23.5	SS-9	14	9	9	18



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Blake Ellis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-09	**Boring Location:**	311+81	**Offset:**	RT 76	**Alignment:**	I-85
Elev.:	957.0 ft.	**Latitude:**	34.83649328	**Longitude:**	-82.29106927	**Date Started:**	3/15/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 10.0 ft.*	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	930.0								
30.0		Medium dense, with mica, RESIDUUM		28.5	SS-10	15	10	11	21
	925.0								
35.0		Very dense, dark brown and brown, fine to coarse grained, with mica, PARTIALLY WEATHERED ROCK		33.5	SS-11	50/2	X	X	100

● SPT N VALUE (blows / foot)

PL — MC — LL

▲ FINES CONTENT (%) ▲

10 20 30 40 50 60 70 80 90

Boring Terminated at 35.0 feet.

*Observed at time of borehole completion.

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

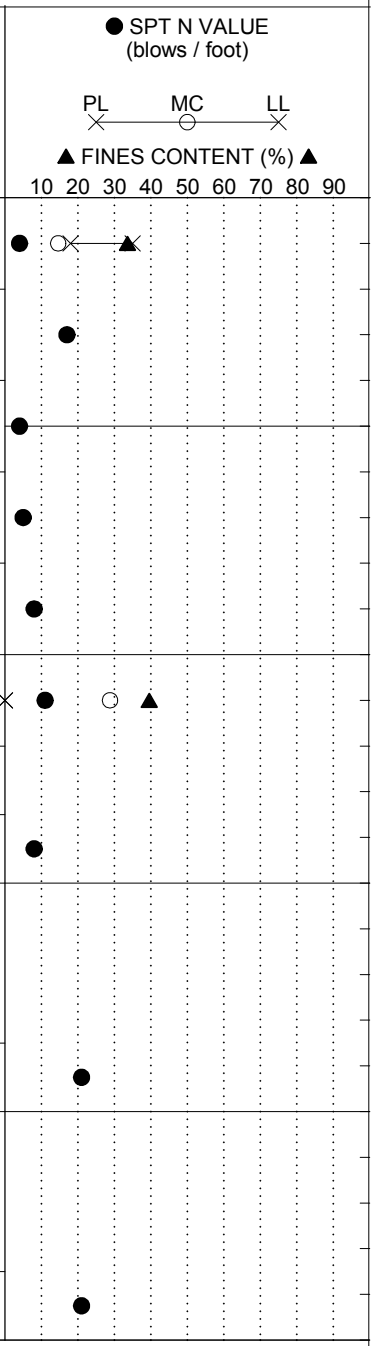
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-13	**Boring Location:**	117+03	**Offset:**	LT 18	**Alignment:**	Ramp 2A
Elev.:	899.9 ft.	**Latitude:**	34.83918513	**Longitude:**	-82.28677898	**Date Started:**	5/14/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/14/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 4.0 ft.	**24 HR**	4.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 3 inches of topsoil. Very loose, moist, brown, fine to medium grained, with trace organics, CLAYEY SAND (SC, A-2-6(1)), RESIDUUM, LL=35 PL=18 PI=17 NMC=14.6 %#200=33.6	0.0	SS-1	1	2	2	4
		Medium dense, RESIDUUM	2.0	SS-2	11	10	7	17
5.0	895.0	Very loose, wet, brown and light brown, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	4.0	SS-3	2	2	2	4
		Loose, fine to medium grained, RESIDUUM	6.0	SS-4	2	2	3	5
		Loose, brown, dark brown and light brown, RESIDUUM	8.0	SS-5	2	3	5	8
10.0	890.0	Loose, moist, dark brown and tan, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=28.8 %#200=39.6	10.0	SS-6	3	3	8	11
		Loose, RESIDUUM	13.5	SS-7	1	1	7	8
15.0	885.0							
		Medium dense, brown, tan and white, fine grained, RESIDUUM	18.5	SS-8	4	8	13	21
20.0	880.0							
		Medium dense, RESIDUUM	23.5	SS-9	6	8	13	21
25.0	875.0							



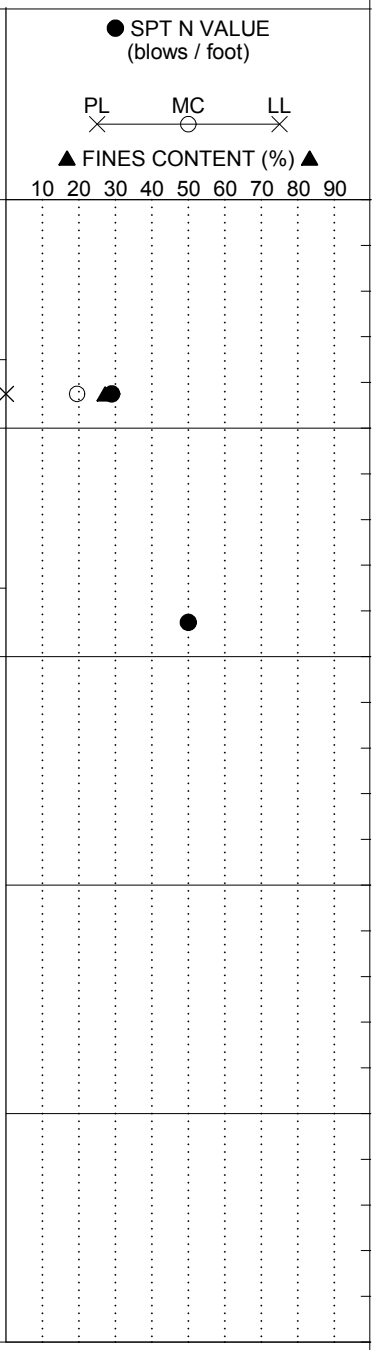
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-13	**Boring Location:**	117+03	**Offset:**	LT 18	**Alignment:**	Ramp 2A
Elev.:	899.9 ft.	**Latitude:**	34.83918513	**Longitude:**	-82.28677898	**Date Started:**	5/14/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/14/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 4.0 ft.	**24 HR**	4.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
30.0	870.0	Medium dense, moist, brown, tan and white, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=19.5 %#200=27.2		28.5	SS-10	10	13	16	29
35.0	865.0	Dense, RESIDUUM		33.5	SS-11	17	20	30	50
		Boring Terminated at 35.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

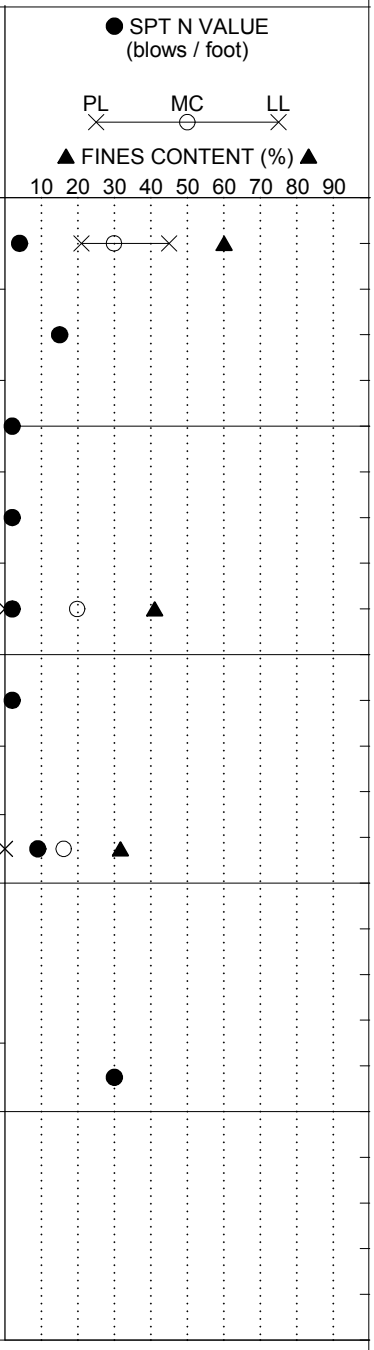
HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-14A	**Boring Location:**	72+28	**Offset:**	RT 16	**Alignment:**	Ramp 1
Elev.:	893.7 ft.	**Latitude:**	34.8397479	**Longitude:**	-82.28692697	**Date Started:**	5/16/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/16/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	4.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 4 inches of topsoil. Soft, moist, brown and dark brown, with trace organics, SANDY LEAN CLAY (CL, A-7-6(12)), RESIDUUM, LL=45 PL=21 PI=24 NMC=29.9 %#200=60.1	0.0	SS-1	1	2	2	4
	890.0	Stiff, brown, with trace gravel, RESIDUUM	2.0	SS-2	2	4	11	15
5.0		Very loose, No Recovery, RESIDUUM	4.0	SS-3	2	1	1	2
		Very loose, wet, brown, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	6.0	SS-4	0	0	2	2
	885.0	Very loose, wet, brown and dark brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=19.8 %#200=41.1	8.0	SS-5	1	1	1	2
10.0		Very loose, brown, with mica, RESIDUUM	10.0	SS-6	1	1	1	2
	880.0	Loose, wet, brown and dark brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=16.1 %#200=31.7	13.5	SS-7	2	4	5	9
15.0								
	875.0	Medium dense, moist, RESIDUUM	18.5	SS-8	6	13	17	30
20.0								
		Boring Terminated at 20.0 feet.						

Graphic Log



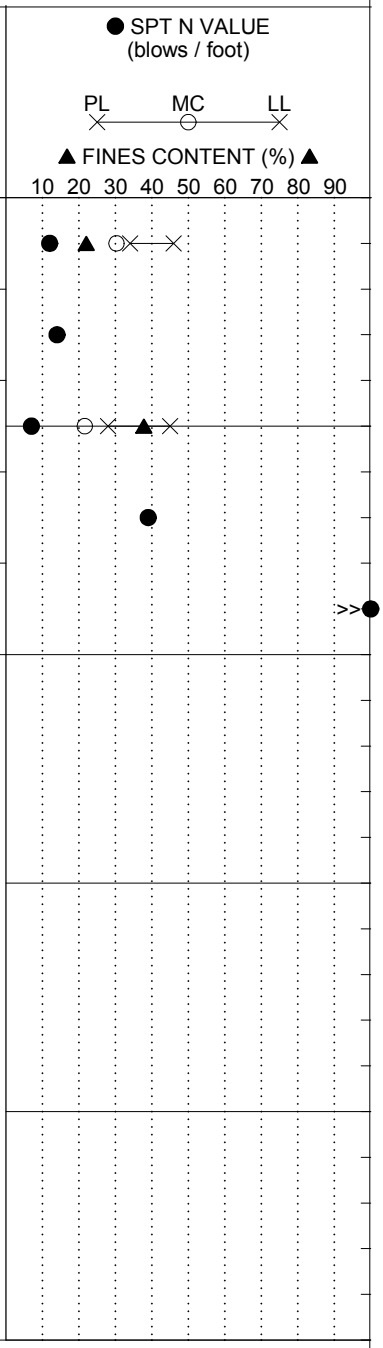
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Blake Ellis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-15	**Boring Location:**	335+65	**Offset:**	RT 87	**Alignment:**	I-85
Elev.:	927.5 ft.	**Latitude:**	34.84044289	**Longitude:**	-82.28473017	**Date Started:**	3/12/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 1.5 inches of topsoil Medium dense, moist, reddish brown and brown, fine to medium grained, SILTY SAND with GRAVEL (SM, A-2-7(0)), FILL, LL=46 PL=34 PI=12 NMC=30.3 %#200=22.0		0.0	SS-1	3	6	6	12
	925.0	Medium dense, reddish light brown, with mica, FILL		2.0	SS-2	5	6	8	14
5.0		Loose, moist, light brown and reddish, non reactive, fine to medium grained, with trace organics, SILTY SAND (SM, A-7-6(2)), RESIDUUM, LL=45 PL=28 PI=17 NMC=21.6 %#200=37.8		4.0	SS-3	2	3	4	7
	920.0	Dense, light brown, white and red, RESIDUUM		6.0	SS-4	10	8	31	39
10.0		Very dense, white, black and reddish brown, RESIDUUM		8.0	SS-5	30	50/5	X	100



Boring Terminated at 10.0 feet.

LEGEND

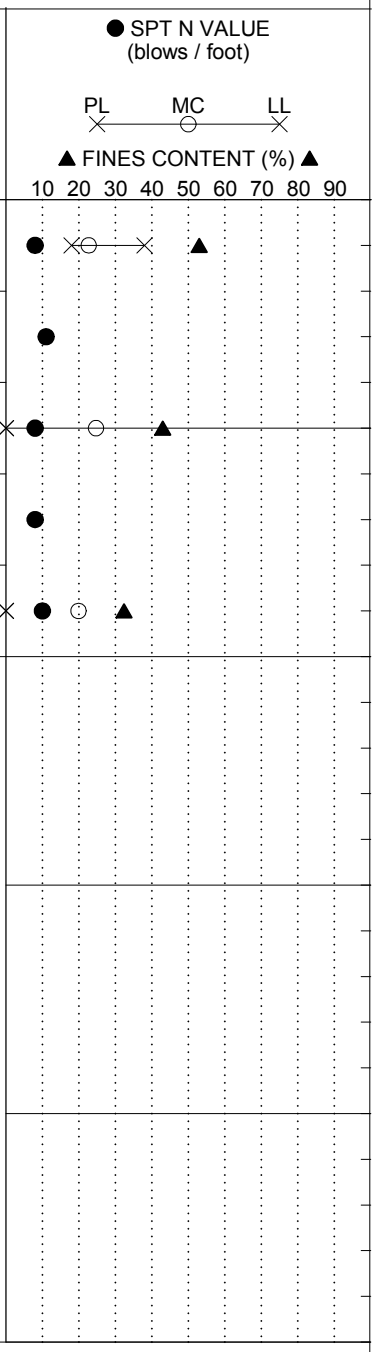
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Blake Ellis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-16	**Boring Location:**	348+14	**Offset:**	RT 88	**Alignment:**	I-85
Elev.:	945.3 ft.	**Latitude:**	34.84312486	**Longitude:**	-82.28198795	**Date Started:**	3/12/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	6.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	945.0	Approximately 2 inches of asphalt. Firm, moist, reddish brown, SANDY LEAN CLAY (CL, A-6(7)), FILL, LL=38 PL=18 PI=20 NMC=22.7 %#200=53.0		0.0	SS-1	2	4	4	8
		Stiff, red, with trace mica, FILL		2.0	SS-2	3	5	6	11
5.0	940.0	Loose, moist, reddish white, non reactive, fine to medium grained, with trace mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=24.7 %#200=43.0		4.0	SS-3	2	3	5	8
		Loose, light brown and red, RESIDUUM		6.0	SS-4	2	4	4	8
10.0		Loose, moist, white and light brown, fine to medium grained, with trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=19.9 %#200=32.4		8.0	SS-5	3	5	5	10

Boring Terminated at 10.0 feet.



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

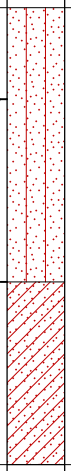
HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

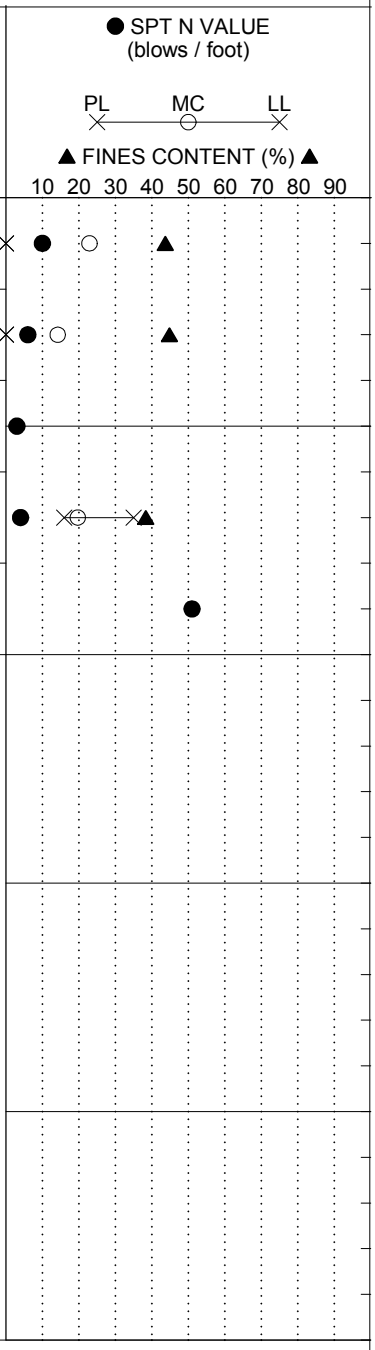
Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-17	**Boring Location:**	367+08	**Offset:**	LT 85	**Alignment:**	I-85
Elev.:	904.3 ft.	**Latitude:**	34.84812101	**Longitude:**	-82.28005945	**Date Started:**	5/14/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/14/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 4.0 ft.	**24 HR**	5.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Loose, dry, brown, fine to medium grained, with trace organics, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=22.9 %#200=43.7	0.0	SS-1	1	5	5	10
		Loose, dry, dark brown and brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=14.2 %#200=44.8	2.0	SS-2	3	3	3	6
5.0	900.0	Very loose, wet, fine to medium grained, RESIDUUM	4.0	SS-3	1	1	2	3
		Very loose, wet, brown and gray, fine to medium grained, CLAYEY SAND (SC, A-6(3)), RESIDUUM, LL=35 PL=16 PI=19 NMC=19.7 %#200=38.3	6.0	SS-4	1	2	2	4
10.0	895.0	Very dense, brown and tan, fine to medium grained, RESIDUUM	8.0	SS-5	1	35	16	51

Graphic Log





Boring Terminated at 10.0 feet.

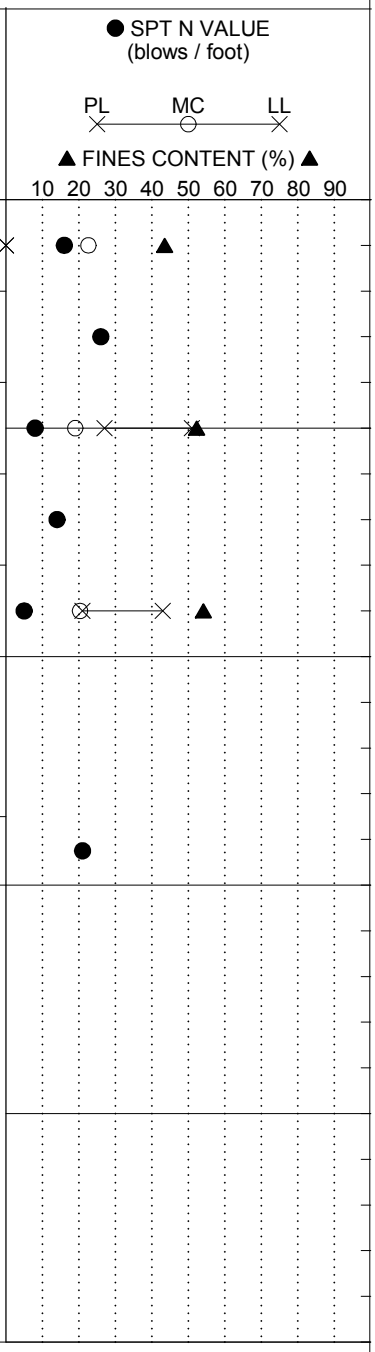
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-18	**Boring Location:**	375+38	**Offset:**	LT 79	**Alignment:**	I-85
Elev.:	893.0 ft.	**Latitude:**	34.85022657	**Longitude:**	-82.27892953	**Date Started:**	5/6/2015
Total Depth:	15.0 ft.	**Soil Depth:**	15.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	9.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 4 inches of topsoil. Medium dense, moist, brown and red, non reactive, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=22.6 %#200=43.5	0.0	SS-1	2	8	8	16
	890.0	Medium dense, brown, FILL	2.0	SS-2	13	14	12	26
5.0		Firm, moist, red, SANDY FAT CLAY (CH, A-7-6(10)), FILL, LL=51 PL=27 PI=24 NMC=19.0 %#200=52.3	4.0	SS-3	4	4	4	8
		Stiff, red and brown, FILL	6.0	SS-4	7	8	6	14
	885.0		8.0					
10.0		Firm, moist, red, SANDY LEAN CLAY (CL, A-7-6(9)), FILL, LL=43 PL=21 PI=22 NMC=20.3 %#200=54.1		SS-5	2	2	3	5
	880.0							
15.0		Medium dense, moist, brown and light brown, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	13.5	SS-6	6	11	10	21
		Boring Terminated at 15.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

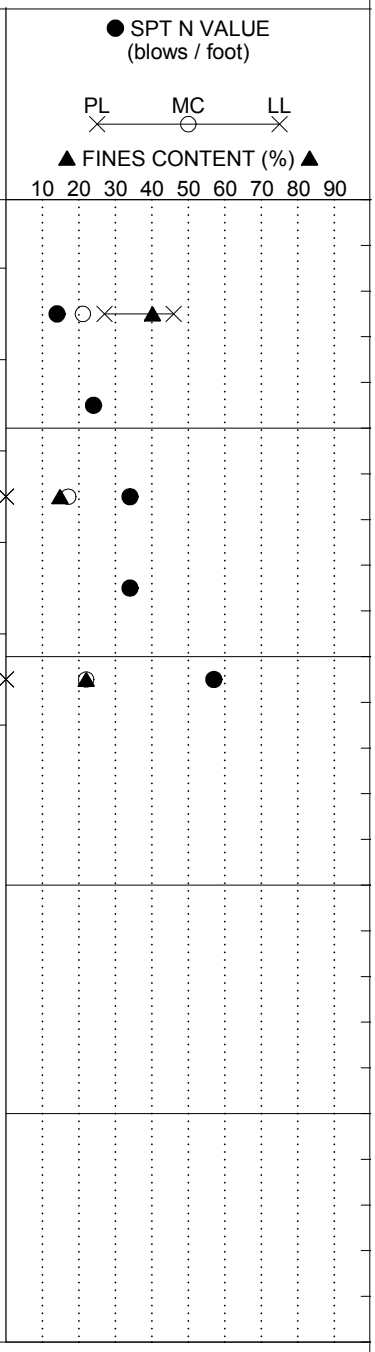
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Blake Ellis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-19	**Boring Location:**	389+99	**Offset:**	RT 53	**Alignment:**	I-85
Elev.:	874.5 ft.	**Latitude:**	34.85291328	**Longitude:**	-82.27532862	**Date Started:**	3/15/2015
Total Depth:	11.5 ft.	**Soil Depth:**	11.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 19 inches of asphalt.							
		Medium dense, moist, reddish brown and brown, fine to medium grained, with mica, CLAYEY SAND (SC, A-7-6(3)), FILL, LL=46 PL=27 PI=19 NMC=21.1 %#200=40.2		1.5	SS-1	5	7	7	14
5.0	870.0	Medium dense, moist, white and dark brown, fine to coarse grained, with mica, SILTY SAND (SM, A-2), RESIDUUM		3.5	SS-2	16	12	12	24
		Dense, moist, dark brown and white, fine to medium grained, with mica, SILTY SAND (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=17.1 %#200=14.8		5.5	SS-3	6	10	24	34
		Dense, RESIDUUM		7.5	SS-4	26	21	13	34
10.0	865.0	Very dense, moist, dark brown and brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=22.0 %#200=22.0		9.5	SS-5	13	25	32	57
		Boring Terminated at 11.5 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

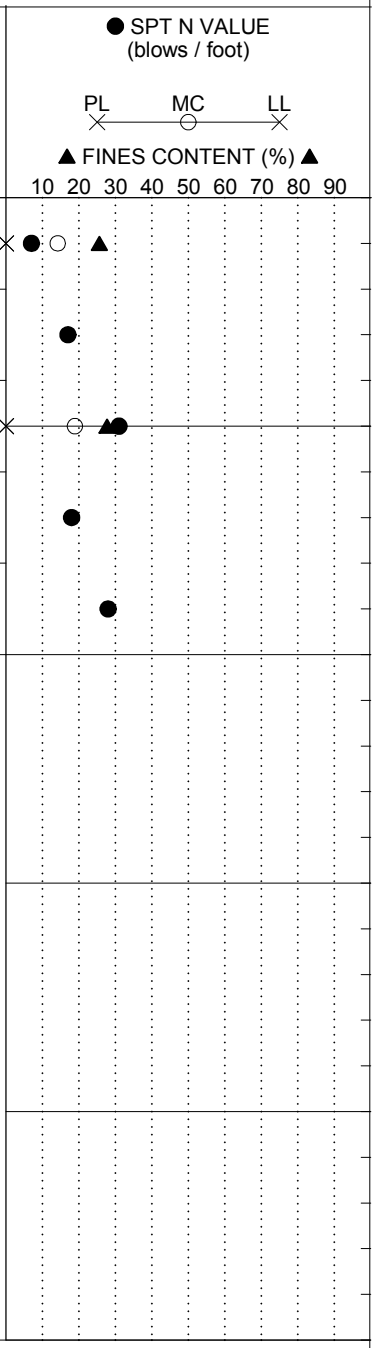
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Blake Ellis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-20	**Boring Location:**	405+04	**Offset:**	LT 58	**Alignment:**	I-85
Elev.:	865.0 ft.	**Latitude:**	34.85494252	**Longitude:**	-82.27096949	**Date Started:**	3/15/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 10.0 ft.*	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	865.0	Approximately 4 inches of topsoil. Loose, moist, brown and dark brown, fine to medium grained, with organics, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=14.2 %#200=25.6		0.0	SS-1	2	4	3	7
		Medium dense, dark brown and brown, with mica, FILL		2.0	SS-2	5	8	9	17
5.0	860.0	Dense, moist, light brown and brown, fine to medium grained, with mica and oranics, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=18.9 %#200=27.7		4.0	SS-3	11	14	17	31
		Medium dense, dark brown and white, with mica, RESIDUUM		6.0	SS-4	6	7	11	18
		Medium dense, brown and light brown, with mica, RESIDUUM		8.0	SS-5	5	10	18	28
10.0	855.0	Boring Terminated at 10.0 feet. *Observed at time of borehole completion.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

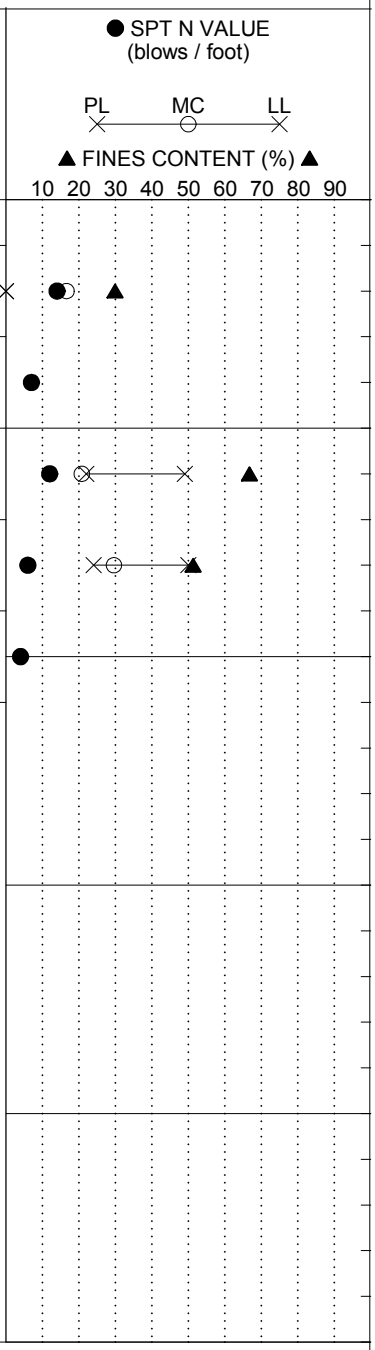
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-21	**Boring Location:**	423+99	**Offset:**	RT 59	**Alignment:**	I-85
Elev.:	856.6 ft.	**Latitude:**	34.85676061	**Longitude:**	-82.26503824	**Date Started:**	5/12/2015
Total Depth:	11.0 ft.	**Soil Depth:**	11.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 9.0 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 12 inches of asphalt.						
	855.0	Medium dense, moist, reddish brown and dark brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=16.6 %#200=29.9	1.0	SS-1	6	8	6	14
		Loose, mica, FILL	3.0	SS-2	2	3	4	7
5.0		Stiff, moist, reddish brown, brown, tan and white, with mica, SANDY LEAN CLAY (CL, A-7-6(17)), RESIDUUM, LL=49 PL=22 PI=27 NMC=20.8 %#200=66.8	5.0	SS-3	7	6	6	12
	850.0	Firm, moist, brown and reddish brown, with mica, SANDY FAT CLAY (CH, A-7-6(10)), RESIDUUM, LL=50 PL=24 PI=26 NMC=29.6 %#200=51.3	7.0	SS-4	1	3	3	6
10.0		Soft, wet, brown, RESIDUUM	9.0	SS-5	1	1	3	4
		Boring Terminated at 11.0 feet.						



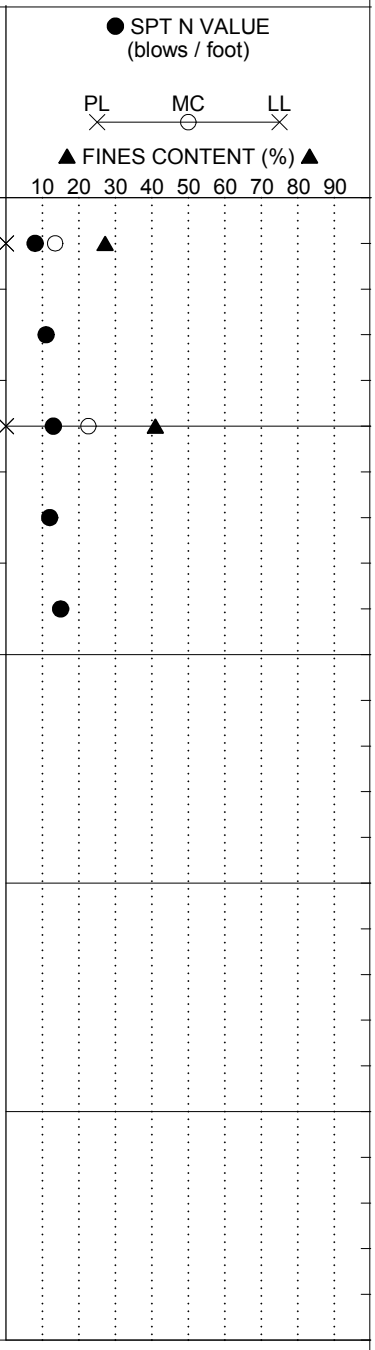
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Blake Ellis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-22	**Boring Location:**	439+55	**Offset:**	RT 63	**Alignment:**	I-85
Elev.:	886.8 ft.	**Latitude:**	34.85848353	**Longitude:**	-82.26029296	**Date Started:**	3/12/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	6.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil.		0.0					
	885.0	Loose, moist, light brown and brown, non reactive, fine to medium grained, with trace gravel, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=13.5 %#200=27.2			SS-1	3	4	4	8
		Medium dense, moist, light brown and white, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM		2.0	SS-2	3	5	6	11
5.0		Medium dense, moist, light brown, brown and white, fine to meidum grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=22.6 %#200=41.0		4.0	SS-3	4	6	7	13
	880.0	Medium dense, fine grained, RESIDUUM		6.0	SS-4	4	6	6	12
		Medium dense, fine to medium grained, RESIDUUM		8.0	SS-5	5	6	9	15
10.0									
		Boring Terminated at 10.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

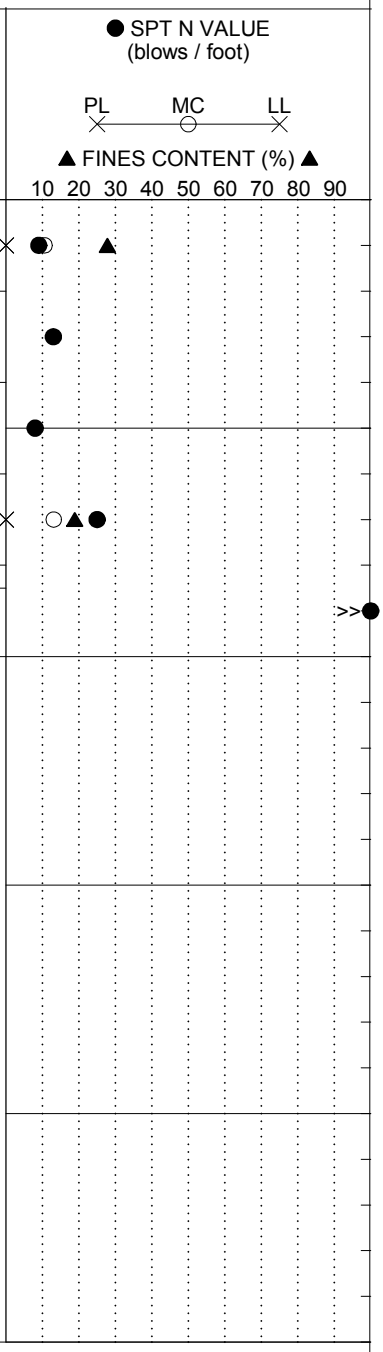
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-52	**Boring Location:**	203+56	**Offset:**	RT 55	**Alignment:**	I-85
Elev.:	940.1 ft.	**Latitude:**	34.81888162	**Longitude:**	-82.32013655	**Date Started:**	5/20/2015
Total Depth:	8.5 ft.	**Soil Depth:**	8.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/20/2015
Bore Hole Diameter (in):	5-5/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 7.0 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	940.0	Loose, moist, brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=10.6 %#200=27.8		0.0	SS-1	4	5	4	9
		Medium dense, red and brown, with mica, FILL		2.0	SS-2	2	7	6	13
5.0	935.0	Loose, moist, brownish red, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM		4.0	SS-3	3	3	5	8
		Dense, wet, reddish brown, fine to medium grained, with mica, SILTY SAND with GRAVEL (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=13.1 %#200=18.9		6.0	SS-4	18	12	13	25
		Very dense, white and reddish brown, fine to coarse grained, with mica, PARTIALLY WEATHERED ROCK		8.0	SS-5	50/2	X	X	100
		Boring Terminated at 8.5 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

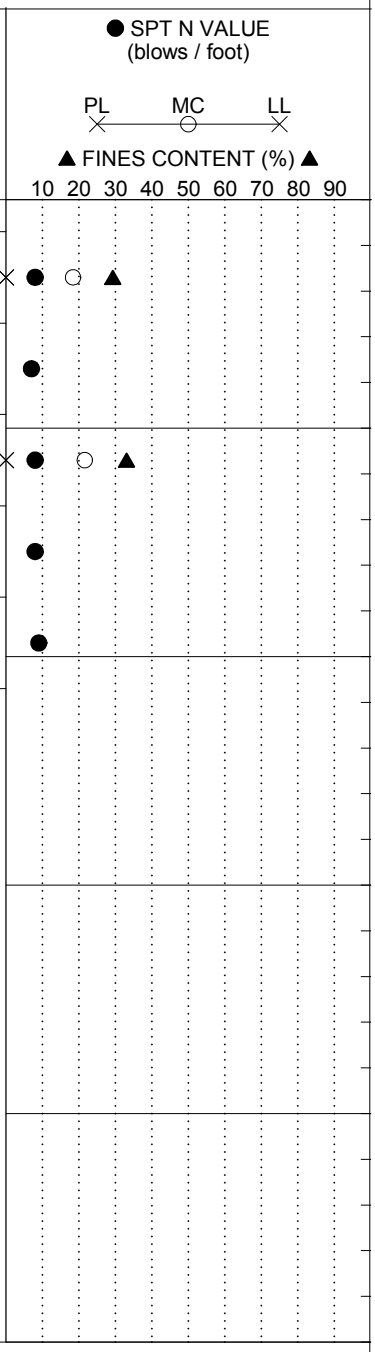
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-53	**Boring Location:**	212+47	**Offset:**	RT 49	**Alignment:**	I-85
Elev.:	958.0 ft.	**Latitude:**	34.82032747	**Longitude:**	-82.31774295	**Date Started:**	5/20/2015
Total Depth:	10.7 ft.	**Soil Depth:**	10.7 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/20/2015
Bore Hole Diameter (in):	5-5/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 8 inches of asphalt.							
		Loose, moist, reddish brown and gray, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=18.4 %#200=29.3		0.7	SS-1	8	4	4	8
	955.0	Loose, moist, fine grained, reddish brown, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM		2.7	SS-2	4	3	4	7
5.0		Loose, moist, light brown and white, fine grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=21.6 %#200=33.1		4.7	SS-3	2	3	5	8
		Loose, with mica, RESIDUUM		6.7	SS-4	2	4	4	8
	950.0	Loose, reddish brown, with mica, RESIDUUM		8.7	SS-5	3	4	5	9
10.0		Boring Terminated at 10.7 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

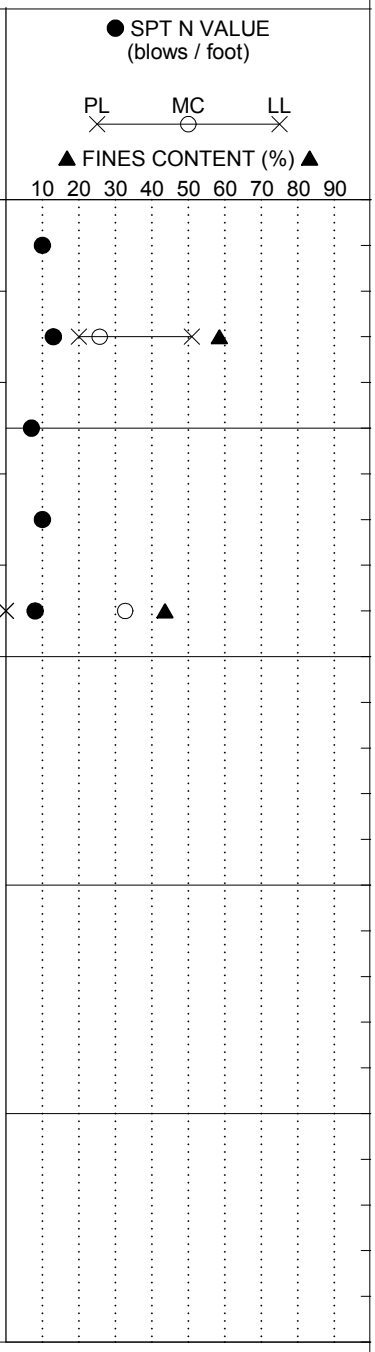
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-54	**Boring Location:**	223+57	**Offset:**	RT 85	**Alignment:**	I-85
Elev.:	952.2 ft.	**Latitude:**	34.82202792	**Longitude:**	-82.3146717	**Date Started:**	6/13/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/13/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	2.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 1 inch of topsoil. Stiff, moist, red and brown, SANDY FAT CLAY (CH, A-7), RESIDUUM		0.0	SS-1	3	4	6	10
	950.0	Stiff, moist, brownish red, SANDY FAT CLAY (CH, A-7-6(15)), RESIDUUM, LL=51 PL=20 PI=31 NMC=25.7 %#200=58.5		2.0	SS-2	5	5	8	13
5.0		Firm, red and light brown, RESIDUUM		4.0	SS-3	1	2	5	7
	945.0	Stiff, light brown and red, RESIDUUM		6.0	SS-4	3	4	6	10
10.0		Loose, moist, brown and gray, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.7 %#200=43.6		8.0	SS-5	2	3	5	8
		Boring Terminated at 10.0 feet.							



LEGEND

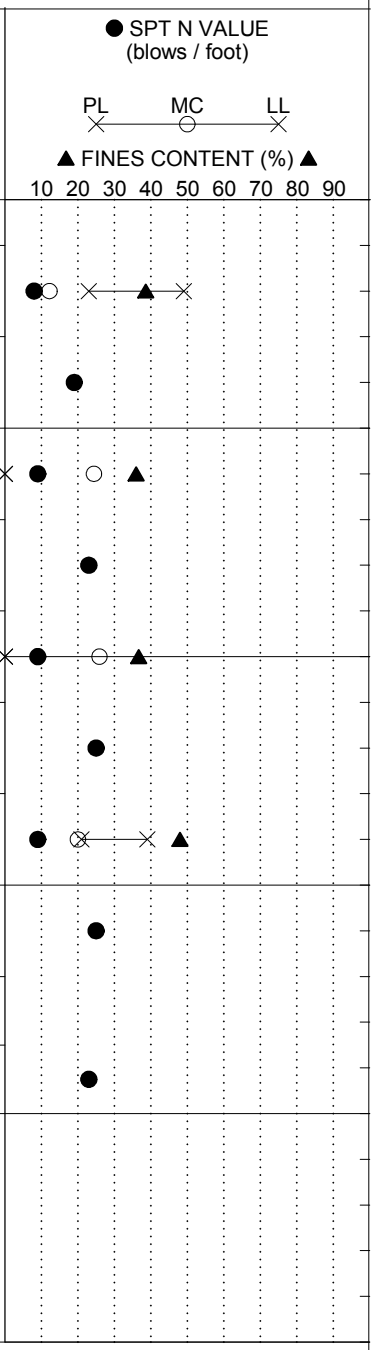
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-55	**Boring Location:**	223+43	**Offset:**	LT 53	**Alignment:**	I-85
Elev.:	962.6 ft.	**Latitude:**	34.82231525	**Longitude:**	-82.31497735	**Date Started:**	6/10/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 9 inches of asphalt.						
	960.0	Loose, moist, red, fine to medium grained, CLAYEY SAND (SC, A-7-6(5)), FILL, LL=49 PL=23 PI=26 NMC=12.2 %#200=38.6	1.0	SS-1	3	3	5	8
		Medium dense, with mica, FILL	3.0	SS-2	4	8	11	19
5.0		Loose, moist, red, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=24.4 %#200=36.0	5.0	SS-3	3	4	5	9
	955.0	Medium dense, moist, red, fine grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	7.0	SS-4	5	11	12	23
10.0		Loose, moist, red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=25.9 %#200=36.7	9.0	SS-5	1	4	5	9
	950.0	Medium dense, moist, red, with mica, CLAYEY SAND (SC, A-2), RESIDUUM	11.0	SS-6	6	10	15	25
15.0		Loose, moist, red, fine to medium grained, CLAYEY SAND (SC, A-6(5)), RESIDUUM, LL=39 PL=21 PI=18 NMC=20.0 %#200=48.0	13.0	SS-7	2	3	6	9
		Medium dense, red and light brown, RESIDUUM	15.0	SS-8	6	10	15	25
	945.0							
20.0		Medium dense, RESIDUUM	18.5	SS-9	6	9	14	23

Graphic Log



Boring Terminated at 20.0 feet.

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

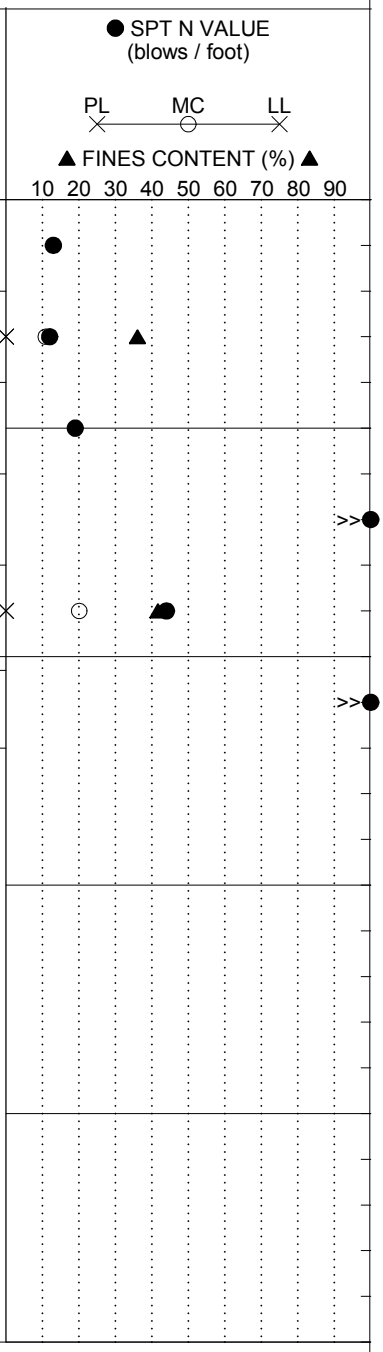
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-56	**Boring Location:**	228+84	**Offset:**	LT 72	**Alignment:**	I-85
Elev.:	958.3 ft.	**Latitude:**	34.82322678	**Longitude:**	-82.3135519	**Date Started:**	5/18/2015
Total Depth:	10.3 ft.	**Soil Depth:**	10.3 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/18/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	7.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Medium dense, moist, red and brown, fine grained, SILTY SAND (SM, A-2), FILL		0.0	SS-1	2	6	7	13
	955.0	Medium dense, moist, red and brown, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=10.9 %#200=36.1		2.0	SS-2	5	5	7	12
5.0		Medium dense, moist, red, fine grained, with trace gravel, SILTY SAND (SM, A-2), RESIDUUM		4.0	SS-3	2	5	14	19
		Very dense, with mica, PARTIALLY WEATHERED ROCK		6.0	SS-4	30	50/2	X	100
	950.0	Dense, moist, red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=20.1 %#200=41.7		8.0	SS-5	24	19	25	44
10.0		Very dense, dark red, with mica, PARTIALLY WEATHERED ROCK Boring Terminated at 10.3 feet.		10.0	SS-6	50/4	X	X	100



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

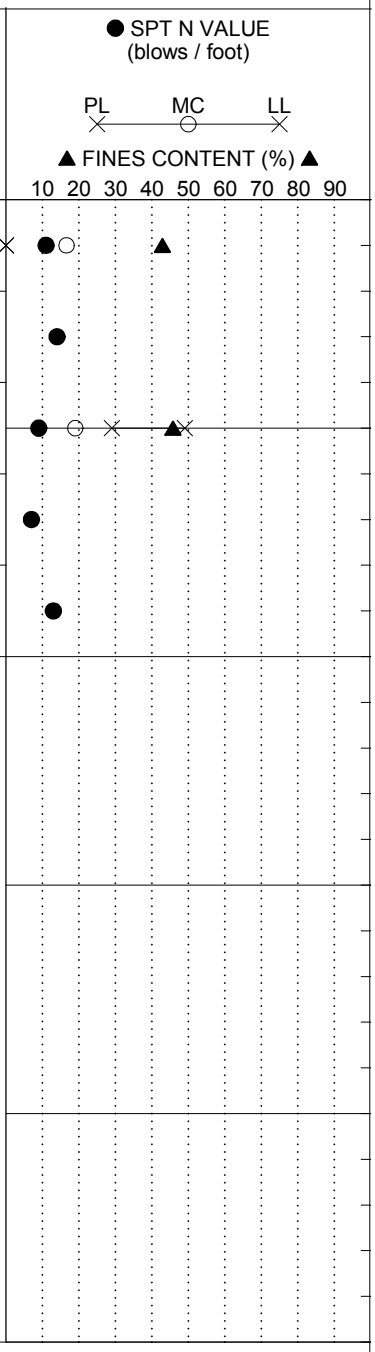
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-57	**Boring Location:**	234+22	**Offset:**	RT 69	**Alignment:**	I-85
Elev.:	966.9 ft.	**Latitude:**	34.82377549	**Longitude:**	-82.31182286	**Date Started:**	5/15/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	3.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 3 inches of topsoil.		0.0					
	965.0	Medium dense, dry, dark brown and brown, fine to medium grained, with trace organics, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=16.6 %#200=42.9			SS-1	4	5	6	11
		Medium dense, moist, brown and reddish brown, FILL		2.0	SS-2	4	7	7	14
5.0		Loose, moist, brown, reddish brown, and light brown, fine to medium grained, SILTY SAND (SM, A-7-6(6)), RESIDUUM, LL=49 PL=29 PI=20 NMC=19.0 %#200=45.8		4.0	SS-3	2	4	5	9
	960.0	Loose, light brown, brown and tan, RESIDUUM		6.0	SS-4	3	4	3	7
10.0		Medium dense, white, brown and tan, fine grained, RESIDUUM		8.0	SS-5	2	4	9	13



Boring Terminated at 10.0 feet.

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

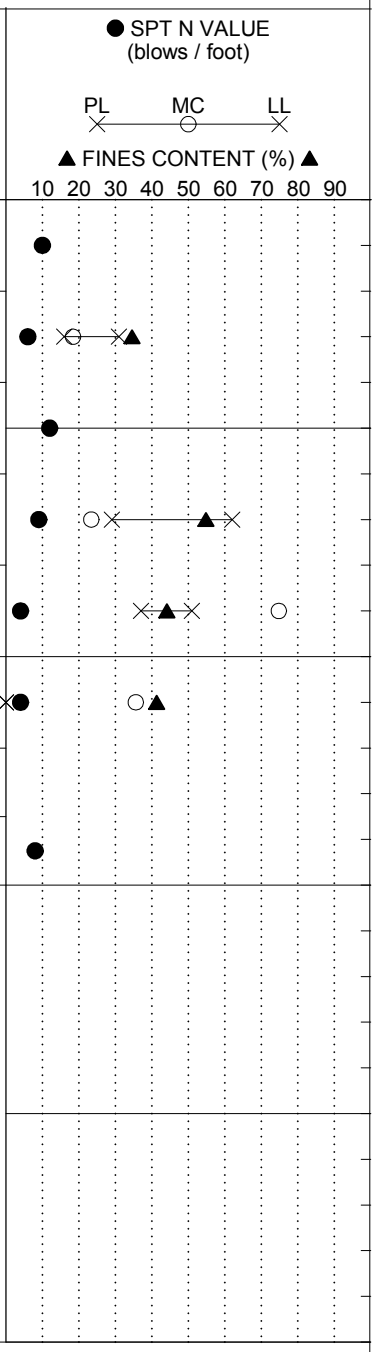
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-58	**Boring Location:**	241+97	**Offset:**	RT 28	**Alignment:**	I-85 NB C/D
Elev.:	982.7 ft.	**Latitude:**	34.82498587	**Longitude:**	-82.30970141	**Date Started:**	5/15/2015
Total Depth:	15.0 ft.	**Soil Depth:**	15.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	7.4 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 4 inches of topsoil. Loose, dry, brown and dark brown, fine grained, CLAYEY SAND (SC, A-2), FILL	0.0	SS-1	2	6	4	10
	980.0	Loose, moist, brown, fine to medium grained, CLAYEY SAND (SC, A-2-6(1)), FILL, LL=31 PL=16 PI=15 NMC=18.4 %#200=34.6	2.0	SS-2	2	3	3	6
5.0		Stiff, moist, light brown and brown, SANDY FAT CLAY (CH, A-7), RESIDUUM	4.0	SS-3	4	5	7	12
	975.0	Stiff, moist, light brown and brown, SANDY FAT CLAY (CH, A-7-6(15)), RESIDUUM, LL=62 PL=29 PI=33 NMC=23.4 %#200=54.8	6.0	SS-4	1	5	4	9
10.0		Very loose, moist, light brown, gray, and brown, fine to medium grained, SILTY SAND (SM, A-7-5(3)), RESIDUUM, LL=51 PL=37 PI=14 NMC=74.8 %#200=44.1	8.0	SS-5	1	2	2	4
	970.0	Very loose, moist, brown, light brown and tan, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=35.6 %#200=41.3	10.0	SS-6	1	2	2	4
15.0		Loose, light brown, tan and white, fine grained, RESIDUUM	13.5	SS-7	3	3	5	8



Boring Terminated at 15.0 feet.

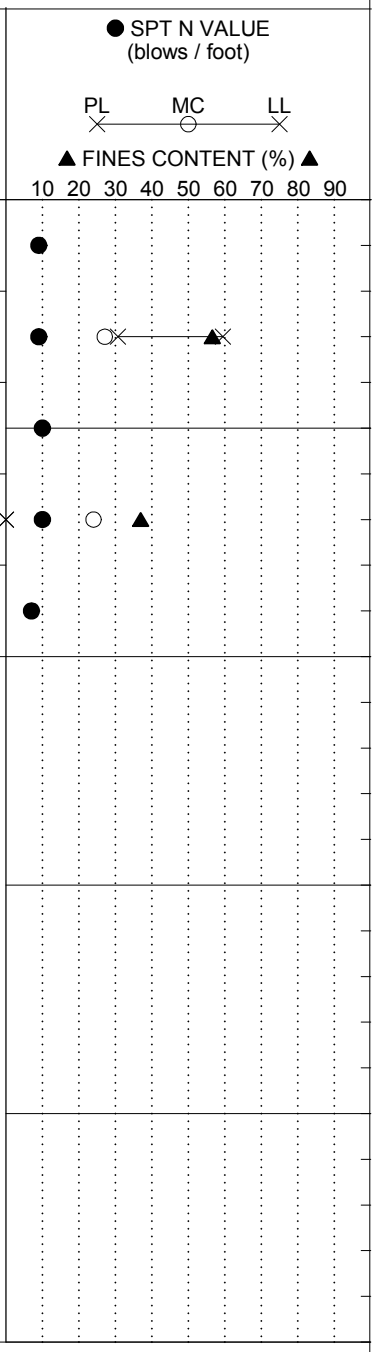
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-59	**Boring Location:**	241+53	**Offset:**	LT 122	**Alignment:**	I-85
Elev.:	976.3 ft.	**Latitude:**	34.82537582	**Longitude:**	-82.31021977	**Date Started:**	5/15/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	975.0	Approximately 4 inches of topsoil. Loose, dry, dark brown, fine grained, with trace organics, SILTY SAND (SM, A-2), RESIDUUM		0.0	SS-1	3	5	4	9
		Stiff, moist, brown, SANDY ELASTIC SILT (MH, A-7-5(14)), RESIDUUM, LL=59 PL=31 PI=29 NMC=27.1 %#200=56.6		2.0	SS-2	1	4	5	9
5.0		Stiff, moist, brown and light brown, RESIDUUM		4.0	SS-3	2	4	6	10
	970.0	Loose, moist, brown, light brown and tan, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=24.0 %#200=36.9		6.0	SS-4	3	5	5	10
10.0		Loose, RESIDUUM		8.0	SS-5	4	3	4	7
		Boring Terminated at 10.0 feet.							



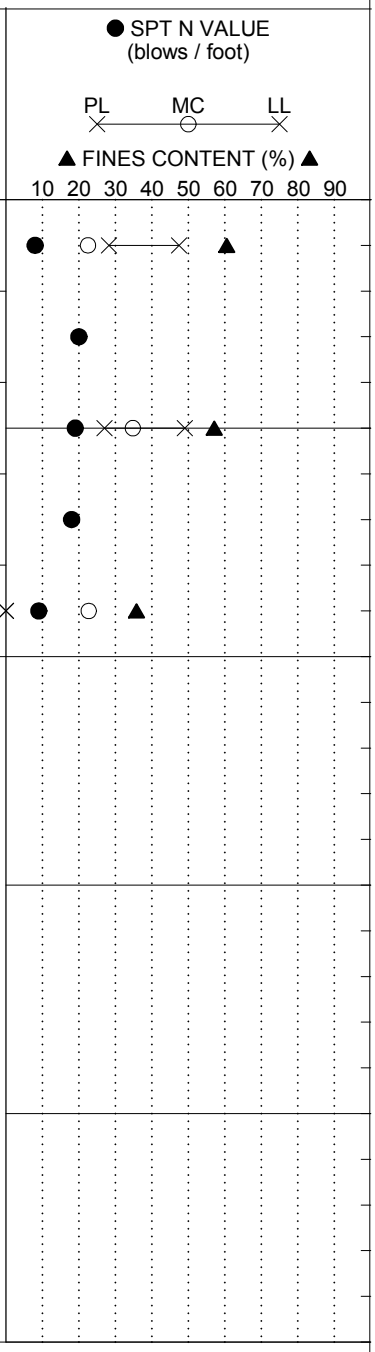
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-60	**Boring Location:**	250+78	**Offset:**	RT 22	**Alignment:**	I-85 NB C/D
Elev.:	999.9 ft.	**Latitude:**	34.82635304	**Longitude:**	-82.30727696	**Date Started:**	5/15/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 4.0 ft.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 3 inches of topsoil. Firm, moist, reddish brown, SANDY SILT (ML, A-7-6(11)), FILL, LL=47 PL=28 PI=19 NMC=22.5 %#200=60.5	0.0	SS-1	1	3	5	8
		Very stiff, moist, reddish brown, brown and tan, SANDY LEAN CLAY (CL, A-6), RESIDUUM	2.0	SS-2	5	8	12	20
5.0	995.0	Very stiff, wet, reddish brown, brown and tan, SANDY LEAN CLAY (CL, A-7-6(10)), RESIDUUM, LL=49 PL=27 PI=22 NMC=34.8 %#200=57.1	4.0	SS-3	2	8	11	19
		Medium dense, moist, light brown and tan, fine grained, SILTY SAND (SM, A-2), RESIDUUM	6.0	SS-4	4	7	11	18
10.0	990.0	Loose, moist, white, tan and brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=22.7 %#200=35.8	8.0	SS-5	3	4	5	9
		Boring Terminated at 10.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

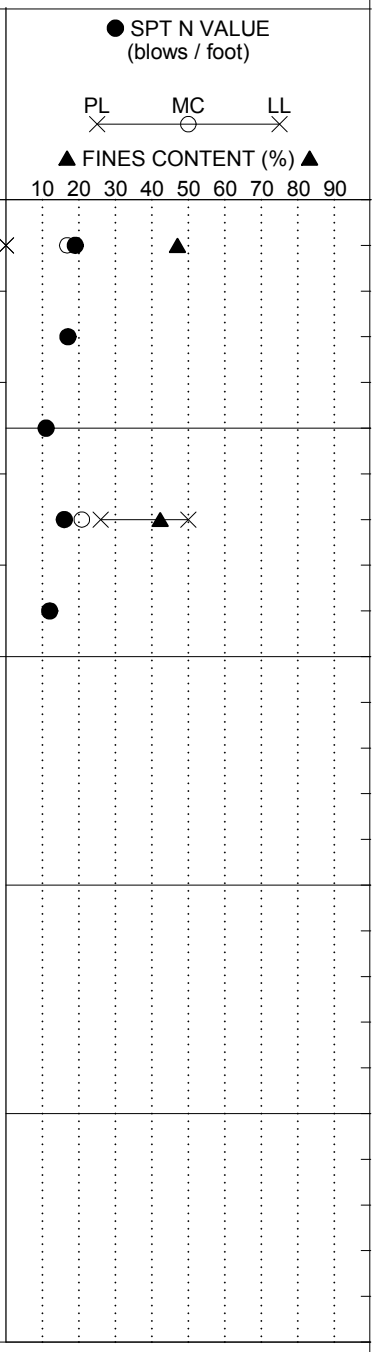
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-61	**Boring Location:**	249+12	**Offset:**	LT 115	**Alignment:**	I-85
Elev.:	994.8 ft.	**Latitude:**	34.82657845	**Longitude:**	-82.30815304	**Date Started:**	5/15/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	6.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 4 inches of topsoil. Medium dense, moist, reddish brown, fine to medium grained, with trace organics, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=16.8 %#200=47.0		0.0	SS-1	4	9	10	19
		Medium dense, reddish brown, white, tan, black, with trace organics, FILL		2.0	SS-2	7	9	8	17
5.0	990.0	Medium dense, moist, brown, fine to medium grained, CLAYEY SAND (SC, A-2), RESIDUUM		4.0	SS-3	1	4	7	11
		Medium dense, moist, reddish brown and brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(6)) RESIDUUM, LL=50 PL=26 PI=24 NMC=20.8 %#200=42.3		6.0	SS-4	3	7	9	16
		Medium dense, brown, fine grained, RESIDUUM		8.0	SS-5	4	6	6	12
10.0	985.0								



Boring Terminated at 10.0 feet.

LEGEND

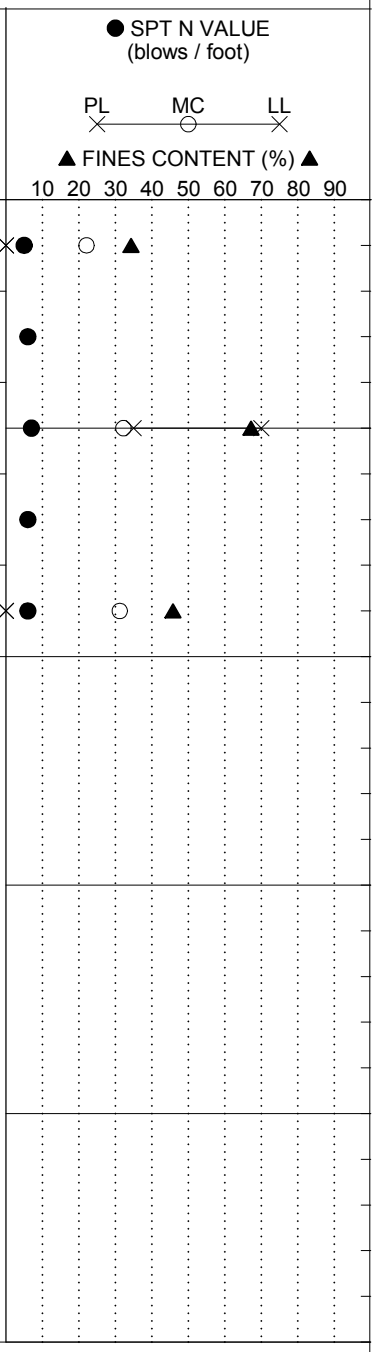
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-62	**Boring Location:**	255+16	**Offset:**	LT 56	**Alignment:**	I-85
Elev.:	1009.5 ft.	**Latitude:**	34.82741715	**Longitude:**	-82.30640517	**Date Started:**	5/19/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/19/2015
Bore Hole Diameter (in):	5-5/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Loose, moist, red and brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=22.1 %#200=34.3 Loose, FILL		0.0	SS-1	7	2	3	5
				2.0	SS-2	3	3	3	6
5.0	1005.0	Firm, light brown and red, SANDY ELASTIC SILT (MH, A-7-5(24)), ALLUVIUM, LL=70 PL=35 PI=35 NMC=32.2 %#200=67.2		4.0	SS-3	3	3	4	7
		Loose, moist, light brown and red, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM		6.0	SS-4	3	3	3	6
10.0	1000.0	Loose, moist, light brown and red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=31.2 %#200=45.8		8.0	SS-5	3	3	3	6

Boring Terminated at 10.0 feet.



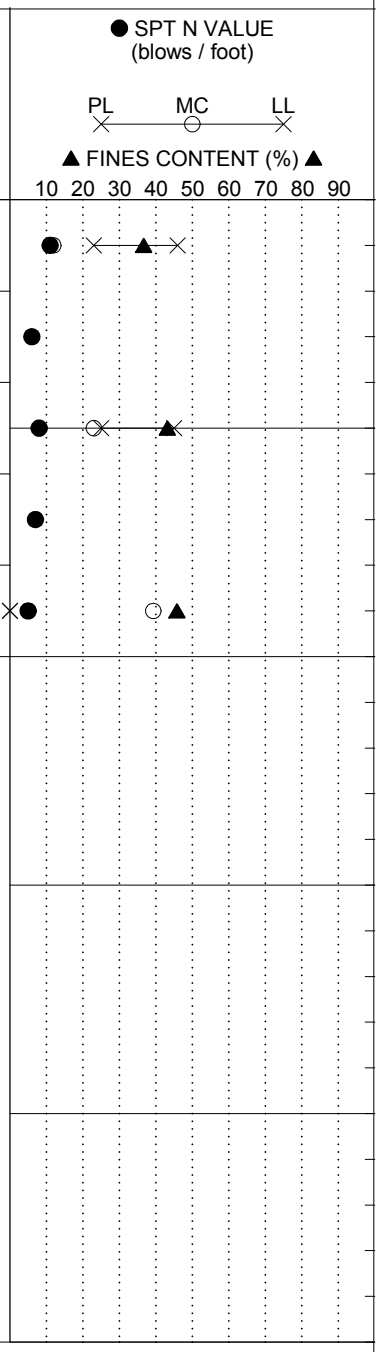
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-63	**Boring Location:**	266+52	**Offset:**	RT 24	**Alignment:**	I-85 NB C/D
Elev.:	1006.8 ft.	**Latitude:**	34.82887226	**Longitude:**	-82.30301239	**Date Started:**	5/18/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/18/2015
Bore Hole Diameter (in):	5-5/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 1 inch of topsoil. Medium dense, moist, red and light brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(3)), ALLUVIUM, LL=46 PL=23 PI=23 NMC=11.9 %#200=36.7		0.0	SS-1	4	6	5	11
	1005.0	Loose, moist, light brown, fine to medium grained, with mica, CLAYEY SAND (SC, A-2), RESIDUUM		2.0	SS-2	2	3	3	6
5.0		Loose, moist, light brown and brown, fine to medium grained, with mica, CLAYEY SAND (SC, A-7-6(5)), RESIDUUM, LL=45 PL=25 PI=20 NMC=23.0 %#200=43.2		4.0	SS-3	2	5	3	8
	1000.0	Loose, with mica, RESIDUUM		6.0	SS-4	2	3	4	7
10.0		Loose, moist, light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=39.3 %#200=45.8		8.0	SS-5	2	2	3	5



Boring Terminated at 10.0 feet.

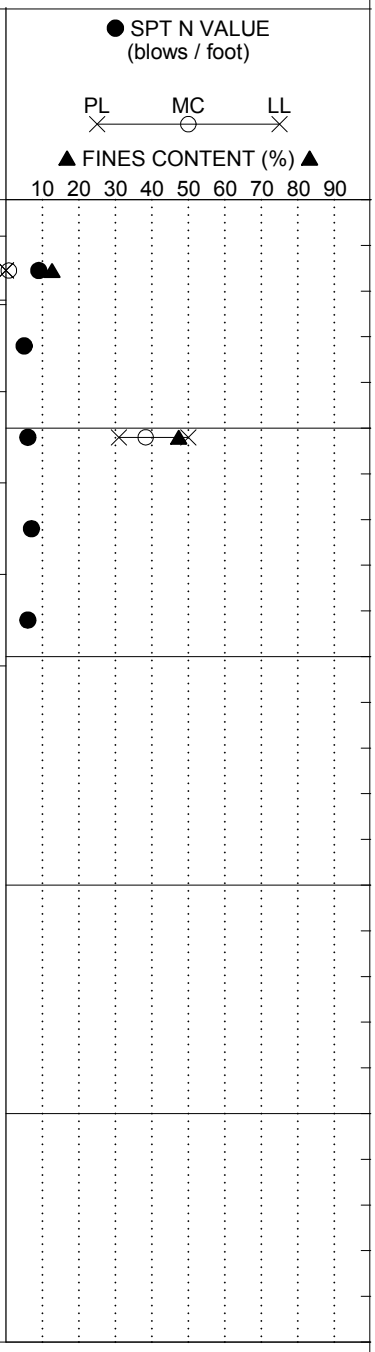
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-64	**Boring Location:**	267+60	**Offset:**	RT 17	**Alignment:**	I-85 NB C/D
Elev.:	1006.3 ft.	**Latitude:**	34.82906448	**Longitude:**	-82.30273864	**Date Started:**	5/18/2015
Total Depth:	10.2 ft.	**Soil Depth:**	10.2 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/18/2015
Bore Hole Diameter (in):	5-5/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 10 inches of asphalt.							
	1005.0	Loose, moist, black and gray, fine to medium grained, SILTY SAND with GRAVEL (SM, A-1-b(0)), FILL, LL=NP PL=NP PI=NP NMC=0.8 %#200=12.6		0.8	SS-1	19	5	4	9
		Loose, moist, red and light brown, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM		2.2	SS-2	2	2	3	5
5.0		Loose, moist, red and light brown, fine to medium grained, SILTY SAND (SM, A-7-5(6)), RESIDUUM, LL=50 PL=31 PI=19 NMC=38.3 %#200=47.4		4.2	SS-3	1	3	3	6
	1000.0	Loose, RESIDUUM		6.2	SS-4	2	3	4	7
		Loose, light brown, fine to medium grained, RESIDUUM		8.2	SS-5	2	2	4	6
10.0									



Boring Terminated at 10.2 feet.

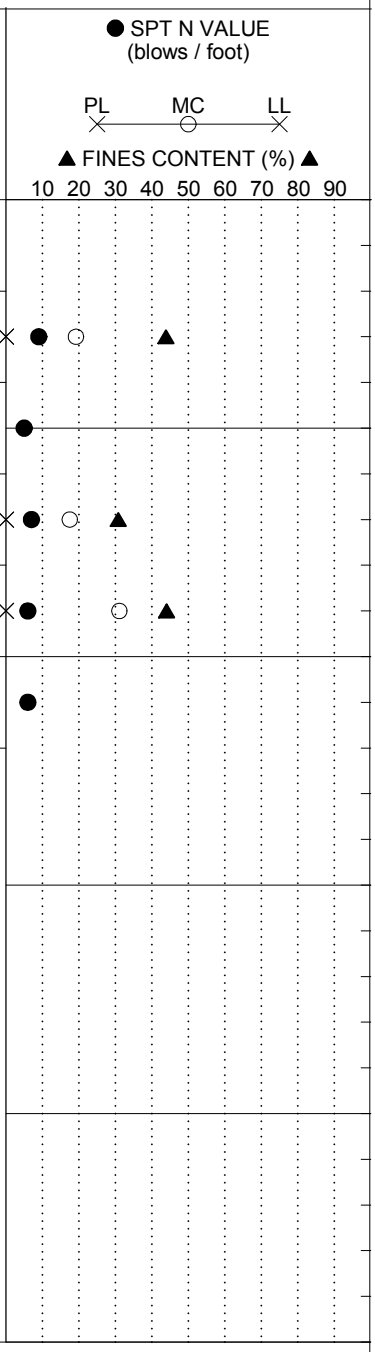
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-65	**Boring Location:**	272+90	**Offset:**	RT 22	**Alignment:**	I-85
Elev.:	1003.3 ft.	**Latitude:**	34.83012686	**Longitude:**	-82.30148549	**Date Started:**	6/14/2015
Total Depth:	12.0 ft.	**Soil Depth:**	12.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/14/2015
Bore Hole Diameter (in):	5-5/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 12.0 ft.*	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 18 inches of asphalt.							
	1000.0	Loose, moist, red and brown, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=19.2 %#200=43.9		2.0	SS-1	3	4	5	9
5.0		Loose, brown, fine grained, FILL		4.0	SS-2	2	2	3	5
	995.0	Loose, moist, brown and red, non reactive, fine to medium grained, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=17.5 %#200=30.8		6.0	SS-3	2	3	4	7
10.0		Loose, moist, brown, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=31.1 %#200=44.0		8.0	SS-4	2	3	3	6
		Loose, red and brown, fine to medium grained, FILL		10.0	SS-5	2	3	3	6
		Boring Terminated at 12.0 feet. *Observed at time of borehole completion.							



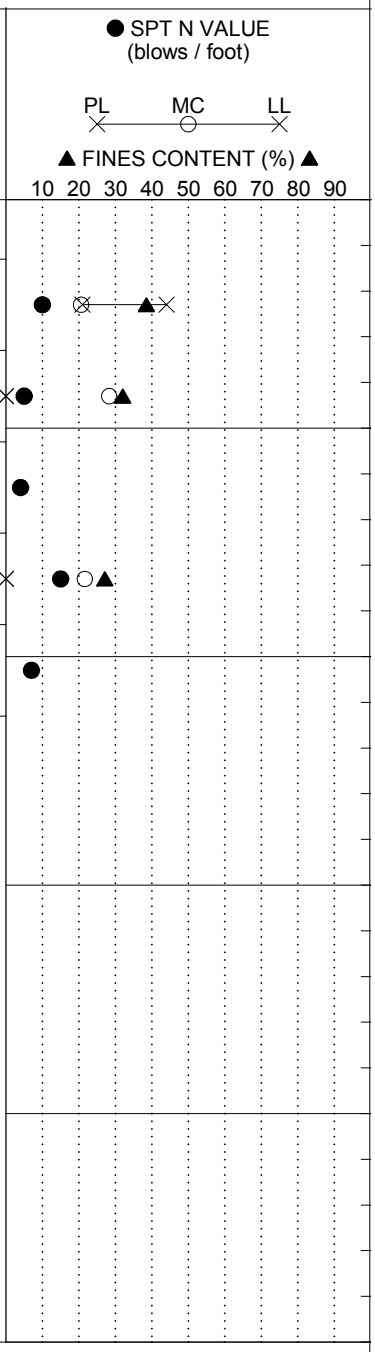
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-66	**Boring Location:**	273+70	**Offset:**	RT 14	**Alignment:**	I-85 NB C/D
Elev.:	1001.6 ft.	**Latitude:**	34.83006904	**Longitude:**	-82.30110889	**Date Started:**	5/21/2015
Total Depth:	11.3 ft.	**Soil Depth:**	11.3 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/21/2015
Bore Hole Diameter (in):	5-5/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 10.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 16 inches of asphalt.							
	1000.0	Loose, moist, red, fine to medium grained, CLAYEY SAND (SC, A-7-6(4)), FILL, LL=44 PL=21 PI=23 NMC=20.6 %#200=38.5		1.3	SS-1	5	5	5	10
5.0		Loose, moist, red and light brown, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0), RESIDUUM, LL=NP PL=NP PI=NP NMC=28.3 %#200=32.0		3.3	SS-2	3	2	3	5
	995.0	Very loose, light brown, with mica, RESIDUUM		5.3	SS-3	2	1	3	4
		Medium dense, moist, white, black and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=21.6 %#200=27.1		7.3	SS-4	8	9	6	15
10.0		Loose, wet, white and black, fine to medium grained, with mica, RESIDUUM		9.3	SS-5	14	4	3	7
		Boring Terminated at 11.3 feet.							



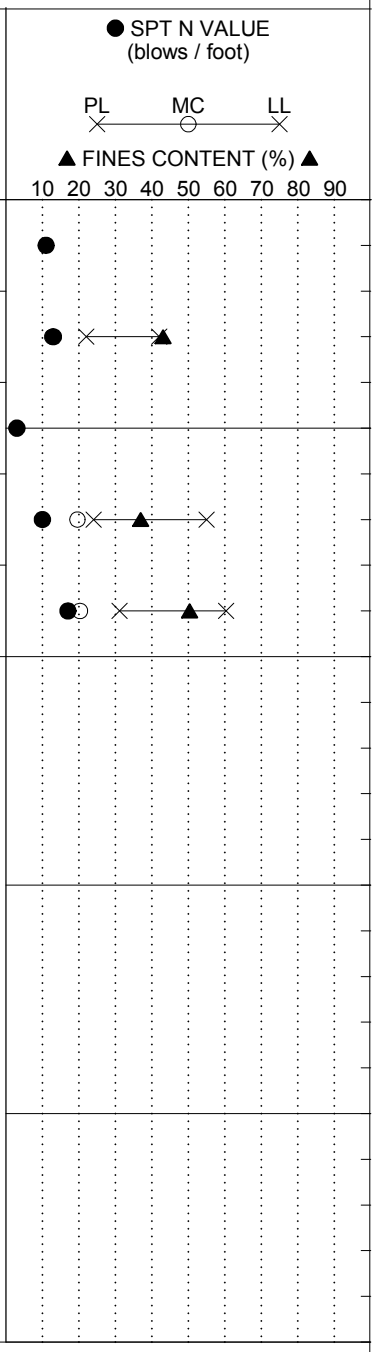
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-78	**Boring Location:**	356+86	**Offset:**	LT 77	**Alignment:**	I-85
Elev.:	923.3 ft.	**Latitude:**	34.84551927	**Longitude:**	-82.2813376	**Date Started:**	5/14/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/14/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 4.0 ft.	**24 HR**	2.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 3 inches of topsoil. Medium dense, dry, brown and dark brown, fine grained, with trace organics, SILTY SAND (SM, A-2), RESIDUUM	0.0	SS-1	3	5	6	11
	920.0	Medium dense, moist, brown and dark brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(4)), RESIDUUM, LL=42 PL=22 PI=20 NMC=12.7 %#200=43.1	2.0	SS-2	5	6	7	13
5.0		Very loose, wet, brown, RESIDUUM	4.0	SS-3	1	1	2	3
		Loose, wet, brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(5)), RESIDUUM, LL=55 PL=24 PI=31 NMC=19.6 %#200=36.9	6.0	SS-4	2	3	7	10
	915.0	Medium dense, moist, brown, SANDY ELASTIC SILT (MH, A-7-5(1)), RESIDUUM, LL=60 PL=31 PI=29 NMC=20.3 %#200=50.4	8.0	SS-5	1	7	10	17
10.0		Boring Terminated at 10.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

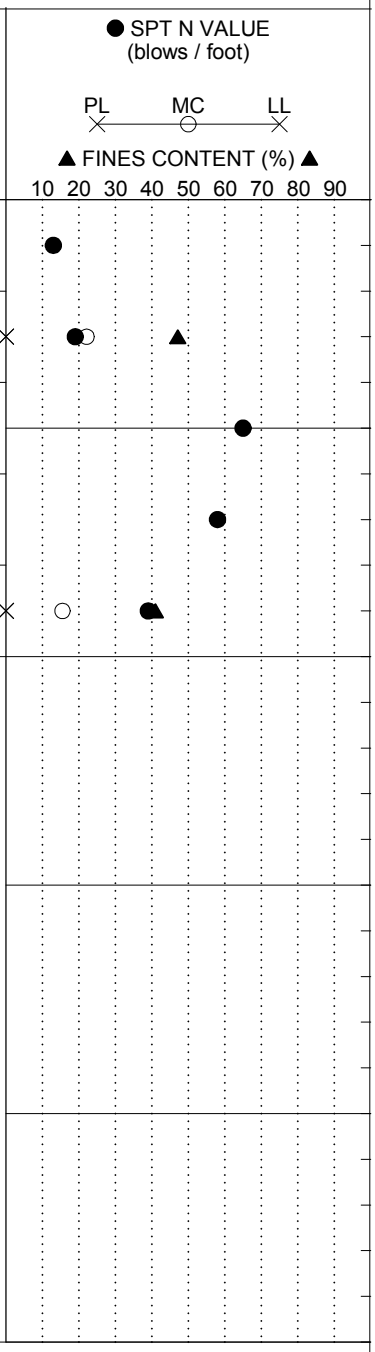
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-79	**Boring Location:**	362+18	**Offset:**	LT 68	**Alignment:**	I-85
Elev.:	916.9 ft.	**Latitude:**	34.84686096	**Longitude:**	-82.28063324	**Date Started:**	5/14/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/14/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 1.0 ft.*	**24 HR**	5.8 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil.	0.0					
	915.0	Medium dense, dry, brown and dark brown, fine grained, with trace organics, CLAYEY SAND (SC, A-2), RESIDUUM		SS-1	6	7	6	13
		Medium dense, moist, brown, light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=22.1 %#200=47.1	2.0	SS-2	7	7	12	19
5.0		Very dense, dry, white, brown and tan, fine grained, PARTIALLY WEATHERED ROCK	4.0	SS-3	5	15	50	65
	910.0	Very dense, moist, RESIDUUM	6.0	SS-4	35	33	25	58
10.0		Dense, moist, white and brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=15.5 %#200=41.0	8.0	SS-5	18	18	21	39



Boring Terminated at 10.0 feet.

*Observed at time of borehole completion.

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

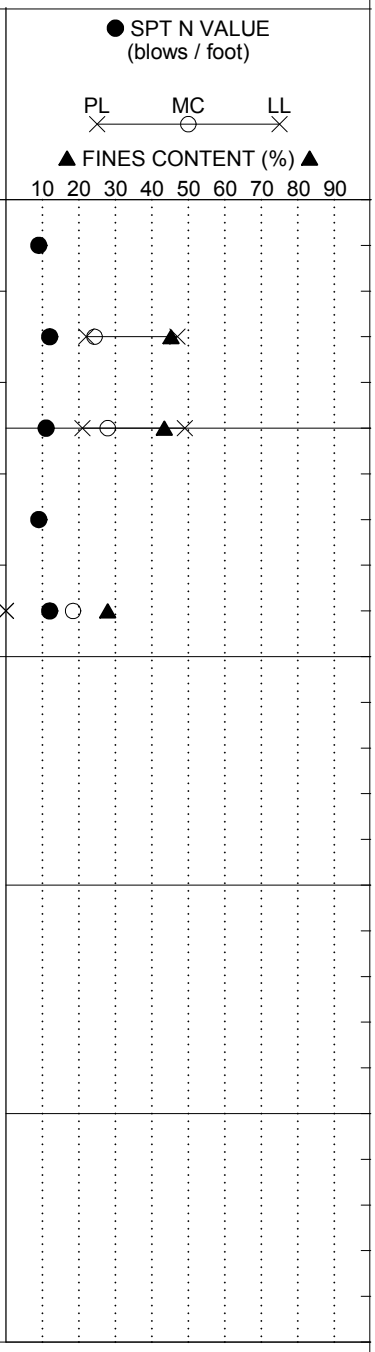
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-80	**Boring Location:**	366+93	**Offset:**	RT 81	**Alignment:**	I-85
Elev.:	908.9 ft.	**Latitude:**	34.84790841	**Longitude:**	-82.27956744	**Date Started:**	5/15/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Loose, dry, brown, fine grained, with trace organics, CLAYEY SAND (SC, A-2), FILL	0.0	SS-1	3	5	4	9
	905.0	Medium dense, moist, light brown and brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(7)), RESIDUUM, LL=47 PL=22 PI=25 NMC=24.3 %#200=45.3	2.0	SS-2	3	5	7	12
5.0		Medium dense, moist, light brown, tan and dark brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(7)), RESIDUUM, LL=49 PL=21 PI=28 NMC=27.9 %#200=43.4	4.0	SS-3	2	5	6	11
		Loose, moist, tan, light brown, dark brown and gray, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	6.0	SS-4	3	5	4	9
	900.0	Medium dense, moist, tan, light brown and dark brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=18.4 %#200=27.9	8.0	SS-5	7	7	5	12
10.0		Boring Terminated at 10.0 feet.						



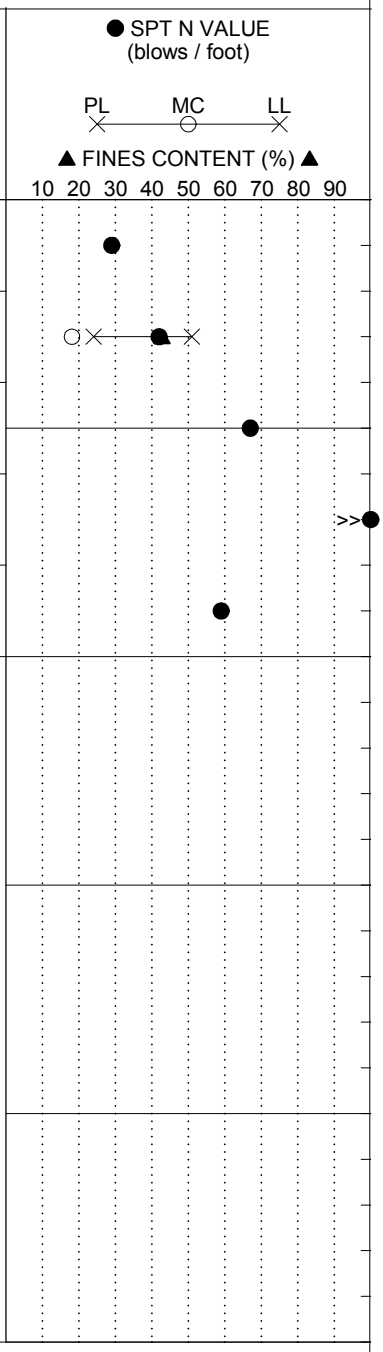
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R85-81	**Boring Location:**	371+14	**Offset:**	LT 86	**Alignment:**	I-85
Elev.:	901.8 ft.	**Latitude:**	34.84915464	**Longitude:**	-82.27954701	**Date Started:**	5/14/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/14/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil.		0.0					
	900.0	Medium dense, dry, brown, white and tan, fine grained, with trace organics, CLAYEY SAND (SC, A-2), RESIDUUM			SS-1	8	16	13	29
		Dense, dry, tan, white and brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(7)), RESIDUUM, LL=51 PL=24 PI=27 NMC=18.1 %#200=42.8		2.0	SS-2	7	17	25	42
5.0		Very dense, moist, brown and tan, RESIDUUM		4.0	SS-3	13	25	42	67
	895.0	Very dense, PARTIALLY WEATHERED ROCK		6.0	SS-4	50/5	X	X	100
		Very dense, white, tan and brown, RESIDUUM		8.0	SS-5	18	19	40	59
10.0									
		Boring Terminated at 10.0 feet.							



LEGEND

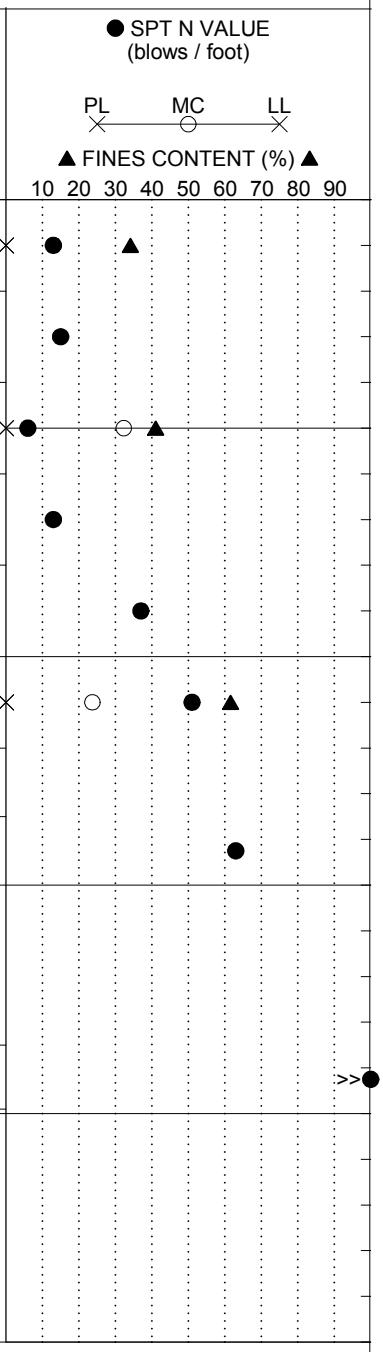
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R385-23	**Boring Location:**	321+81	**Offset:**	RT 68	**Alignment:**	I-385
Elev.:	908.1 ft.	**Latitude:**	34.81351739	**Longitude:**	-82.28836015	**Date Started:**	5/7/2015
Total Depth:	19.9 ft.	**Soil Depth:**	19.9 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/7/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 13.5 ft.	**24 HR**	6.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Medium dense, moist, brown and red, fine to medium grained, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=13.0 %#200=34.1	0.0	SS-1	3	5	8	13
	905.0	Medium dense, red, white and brown, with mica, FILL	2.0	SS-2	6	6	9	15
5.0		Loose, moist, brown, non reactive, fine grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.3 %#200=41.1	4.0	SS-3	1	3	3	6
		Medium dense, red, brown and white, with mica, RESIDUUM	6.0	SS-4	2	4	9	13
	900.0	Dense, red, white and light brown, fine to medium grained, with mica, RESIDUUM	8.0	SS-5	13	15	22	37
10.0		Hard, moist, red and brown, with mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=23.7 %#200=61.6	10.0	SS-6	10	20	31	51
	895.0	Very dense, wet, brown, with mica, RESIDUUM	13.5	SS-7	12	28	35	63
15.0								
	890.0	Very dense, moist, white and brown, fine to medium grained, with mica, SILTY SAND (SM, A-2), PARTIALLY WEATHERED ROCK	18.5	SS-8	18	30	50/5	100

Boring Terminated at 19.9 feet.



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

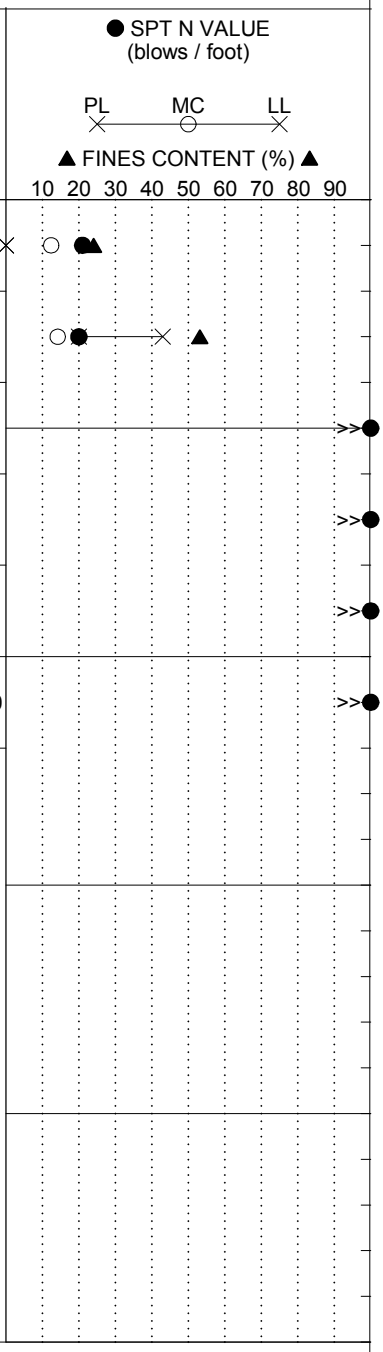
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R385-24A	**Boring Location:**	327+51	**Offset:**	RT 65	**Alignment:**	I-385
Elev.:	919.0 ft.	**Latitude:**	34.81488902	**Longitude:**	-82.2892286	**Date Started:**	5/9/2015
Total Depth:	10.0 ft.	**Soil Depth:**	10.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/9/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Medium dense, dry, red and brown, fine to medium grained, SILTY SAND with GRAVEL (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=12.4 %#200=24.0		0.0	SS-1	6	9	12	21
		Very stiff, moist, red and light brown, non reactive, with mica, SANDY LEAN CLAY (CL, A-7-6(9)), RESIDUUM, LL=43 PL=20 PI=23 NMC=14.2 %#200=53.2		2.0	SS-2	6	7	13	20
	915.0			4.0					
5.0		Very dense, moist, light brown, white and black, fine to medium grained, with mica, SILTY SAND (SM, A-2), PARTIALLY WEATHERED ROCK			SS-3	8	23	50/2	100
		Very dense, white, PARTIALLY WEATHERED ROCK		6.0	SS-4	50/2	X	X	100
	910.0	Very dense, with mica, PARTIALLY WEATHERED ROCK		8.0	SS-5	50/2	X	X	100
10.0		Very dense, No recovery, ROCK		10.0	SS-6	50/0	X	X	50/0
		Boring Terminated at 10 feet.							



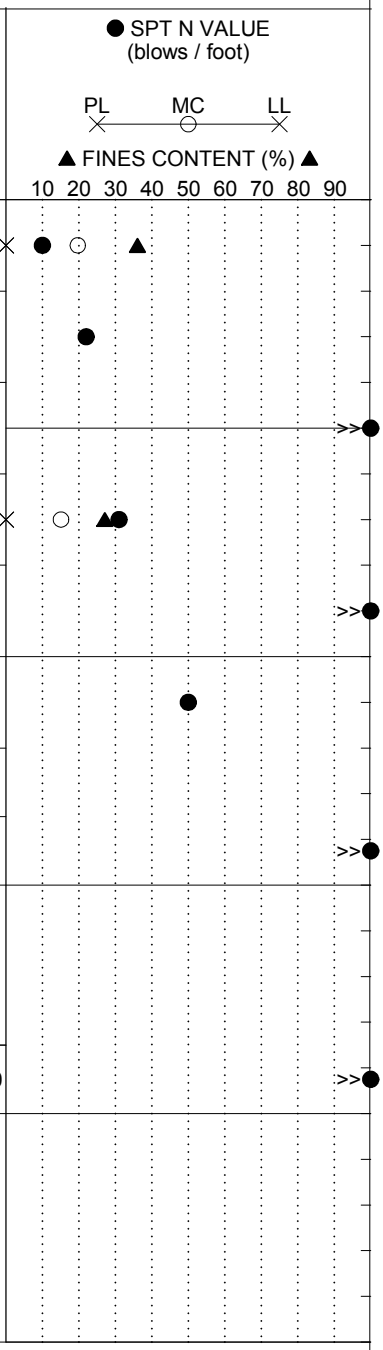
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R385-25A	**Boring Location:**	329+04	**Offset:**	RT 16	**Alignment:**	I-385 NB / CD
Elev.:	921.8 ft.	**Latitude:**	34.81525974	**Longitude:**	-82.28942953	**Date Started:**	5/9/2015
Total Depth:	18.5 ft.	**Soil Depth:**	18.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/9/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	9.4 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Loose, moist, brown, fine to medium grained, with trace asphalt, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=19.7 %#200=36.1		0.0	SS-1	5	5	5	10
	920.0	Medium dense, moist, red and brown, fine to medium grained, CLAYEY SAND (SC, A-2), FILL		2.0	SS-2	7	7	15	22
		Dense, moist, white and light brown, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM		4.0					
5.0		Very dense, brown and gray, with mica, PARTIALLY WEATHERED ROCK			SS-3	2	16	50/1	50/1
	915.0	Dense, moist, white and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=15.1 %#200=27.1		6.0	SS-4	9	12	19	31
		Very dense, white, with mica, PARTIALLY WEATHERED ROCK		8.0	SS-5	50	X	X	100
10.0		Dense, white and light brown, with mica, RESIDUUM		10.0	SS-6	12	20	30	50
	910.0								
		Medium dense, white and black, with mica, PARTIALLY WEATHERED ROCK		13.5	SS-7	50/4	X	X	100
15.0									
	905.0								
		Very Dense, No recovery, ROCK		18.5					
		Boring Terminated at 18.5 feet.			SS-8	50/0	X	X	50/0



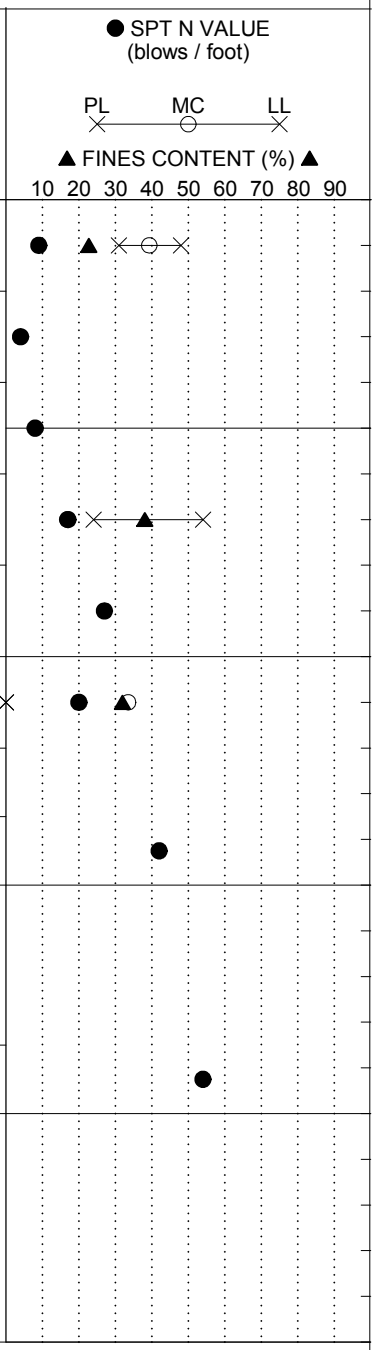
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R385-26	**Boring Location:**	335+82	**Offset:**	RT 28	**Alignment:**	I-385 NB / CD
Elev.:	925.8 ft.	**Latitude:**	34.81702909	**Longitude:**	-82.29010304	**Date Started:**	5/7/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/7/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	5.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	925.0	Approximately 4 inches of topsoil. Loose, moist, brown and red, fine grained, SILTY GRAVEL with SAND (GM, A-2-7(1)), FILL, LL=48 PL=31 PI=17 NMC=39.3 %#200=22.7	0.0	SS-1	2	5	4	9
		Soft, moist, red and brown, SANDY CLAY (CL, A-6), ALLUVIUM	2.0	SS-2	3	2	2	4
5.0	920.0	Firm, red and light brown, ALLUVIUM	4.0	SS-3	1	3	5	8
		Medium dense, moist, white and light brown, fine to medium grained, with mica, CLAYEY SAND (SC, A-7-6(5), RESIDUUM, LL=54 PL=24 PI=30 NMC=16.8 %#200=38.1	6.0	SS-4	3	7	10	17
10.0		Medium dense, light brown and white, with mica, RESIDUUM	8.0	SS-5	7	17	10	27
	915.0	Medium dense, moist, reddish brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=33.5 %#200=31.9	10.0	SS-6	3	8	12	20
15.0	910.0	Dense, with mica, RESIDUUM	13.5	SS-7	8	18	24	42
20.0		Dense, red and brown, with mica, RESIDUUM	18.5	SS-8	12	23	31	54



Boring Terminated at 20.0 feet.

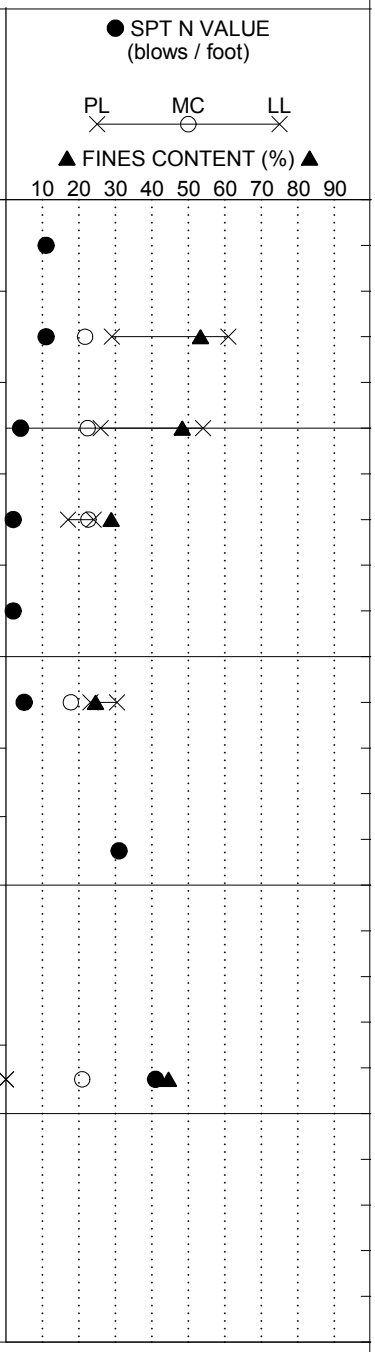
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R385-27A	**Boring Location:**	341+32	**Offset:**	CL	**Alignment:**	I-385 NB / CD
Elev.:	931.0 ft.	**Latitude:**	34.81849401	**Longitude:**	-82.29053396	**Date Started:**	5/16/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/16/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	4.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	930.0	Approximately 1 inch of topsoil. Stiff, dry, brown, with trce organics, SANDY FAT CLAY (CH, A-7), FILL	0.0	SS-1	2	6	5	11
		Stiff, moist, reddish brown and brown, SANDY FAT CLAY (CH, A-7-6(14)), RESIDUUM, LL=61 PL=29 PI=32 NMC=21.7 %#200=53.3	2.0	SS-2	5	5	6	11
5.0	925.0	Very loose, wet, brown and dark brown, fine to medium grained, with trace organics, CLAYEY SAND (SC, A-7-6(9)), RESIDUUM, LL=54 PL=26 PI=28 NMC=22.4 %#200=48.3	4.0	SS-3	1	2	2	4
		Very loose, brown and gray, fine to medium grained, SILTY CLAYEY SAND (SC-SM, A-2-4(0)), RESIDUUM, LL=24 PL=17 PI=7 NMC=22.6 %#200=28.9	6.0	SS-4	1	1	1	2
10.0		Very loose, wet, gray and brown, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	8.0	SS-5	1	1	1	2
	920.0	Loose, wet, brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=30 PL=23 PI=7 NMC=17.8 %#200=24.6	10.0	SS-6	1	1	4	5
15.0	915.0	Dense, RESIDUUM	13.5	SS-7	3	11	20	31
20.0		Dense, moist, brown and tan, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=20.9 %#200=44.6	18.5	SS-8	7	16	25	41
		Boring Terminated at 20.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

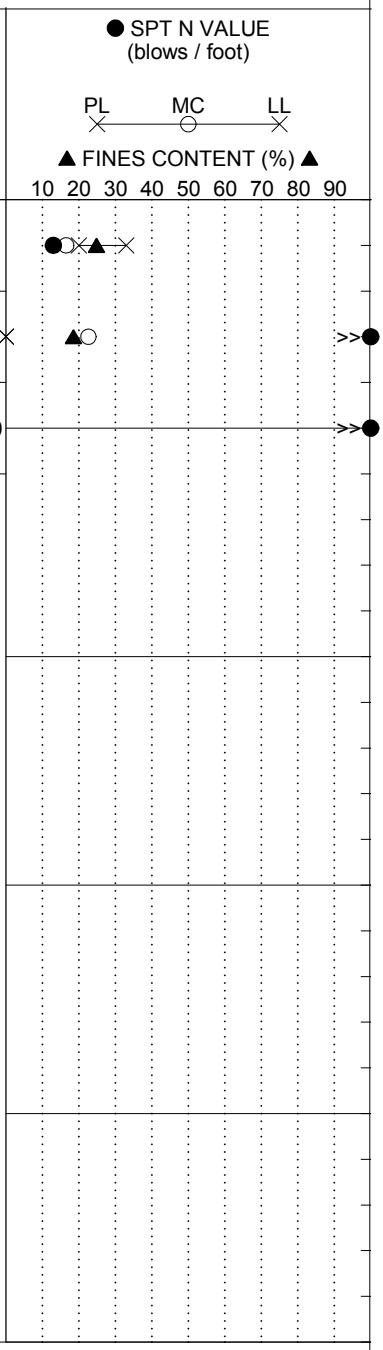
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R385-32	**Boring Location:**	117+38	**Offset:**	CL	**Alignment:**	I-385 SB CD
Elev.:	964.2 ft.	**Latitude:**	34.82487798	**Longitude:**	-82.29234383	**Date Started:**	3/11/2015
Total Depth:	4.0 ft.	**Soil Depth:**	4.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Medium dense, moist, reddish brown, fine to medium grained, with mica, CLAYEY SAND with GRAVEL (SC, A-2-6(0)), FILL, LL=33 PL=20 PI=13 NMC=16.5 %#200=24.8		0.0	SS-1	2	4	9	13
		Very dense, moist, gray and brown, fine to medium grained, with mica, SILTY SAND with GRAVEL (SM, A-1-b(0)), PARTIALLY WEATHERED ROCK, LL=NP PL=NP PI=NP NMC=22.6 %#200=18.5		2.0	SS-2	36	17	50/5	100
		Very dense, No recovery, ROCK		4.0	SS-3	50/0	X	X	50/0
		Boring Terminated at 4.0 feet.							



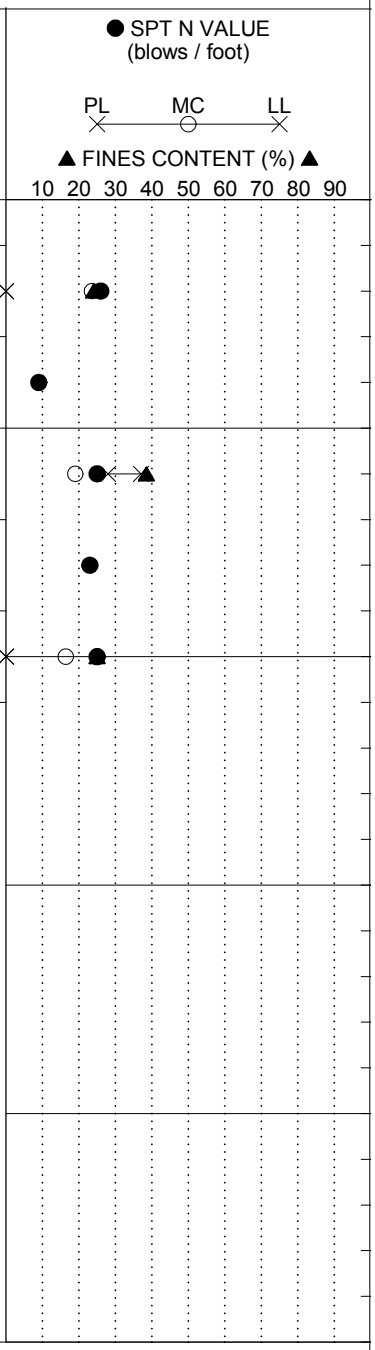
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R385-36	**Boring Location:**	380+45	**Offset:**	LT 52	**Alignment:**	I-385
Elev.:	1010.6 ft.	**Latitude:**	34.82879391	**Longitude:**	-82.29386527	**Date Started:**	4/21/2015
Total Depth:	11.0 ft.	**Soil Depth:**	11.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/21/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	1010.0	Approximately 8 inches of asphalt.						
		Medium dense, moist, red and brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=23.6 %#200=24.0	1.0	SS-1	17	17	9	26
		Loose, red and light brown, fine grained, FILL	3.0	SS-2	2	2	7	9
5.0	1005.0	Medium dense, moist, brown and gray, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), FILL, LL=37 PL=28 PI=9 NMC=19.0 %#200=38.5	5.0	SS-3	3	10	15	25
		Medium dense, brown, with mica, FILL	7.0	SS-4	7	10	13	23
10.0	1000.0	Medium dense, moist, gray, brown and red, fine to medium grained, with mica, SILTY SAND with GRAVEL (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=16.4 %#200=25.0	9.0	SS-5	8	12	13	25



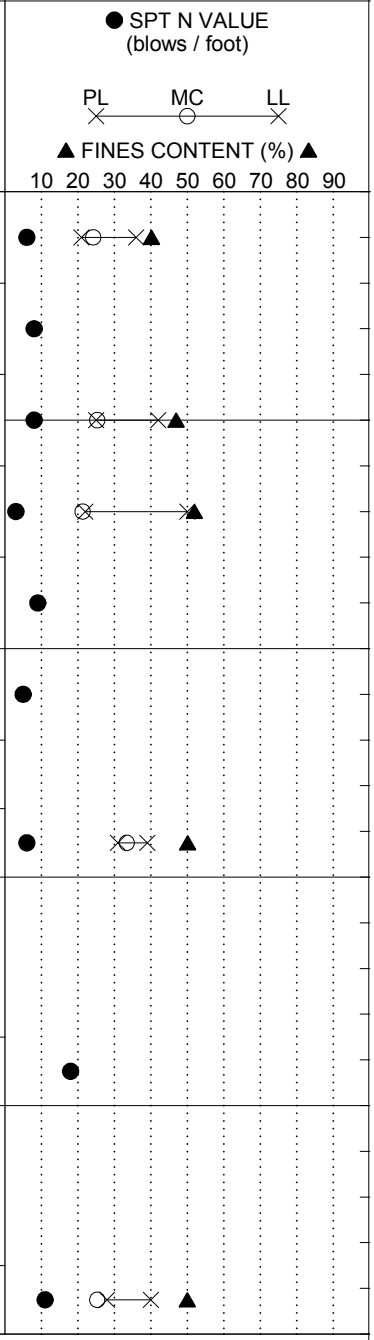
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R385-37	**Boring Location:**	390+12	**Offset:**	LT 53	**Alignment:**	I-385
Elev.:	1018.4 ft.	**Latitude:**	34.8311886	**Longitude:**	-82.29516462	**Date Started:**	4/21/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/21/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 4 inches of topsoil. Loose, moist, red and brown, fine to medium grained, CLAYEY SAND (SC, A-6(2)), FILL, LL=36 PL=21 PI=15 NMC=24.2 %#200=40.2	0.0	SS-1	2	4	2	6
		Loose, red, FILL	2.0	SS-2	4	4	4	8
	1015.0	Loose, moist, red, light brown and gray, non reactive, fine to medium grained, CLAYEY SAND (SC, A-7-6(5)), FILL, LL=42 PL=25 PI=17 NMC=25.3 %#200=46.9	4.0	SS-3	2	4	4	8
5.0		Soft, moist, red and light gray, SANDY FAT CLAY (CH, A-7-6(11), FILL, LL=50 PL=22 PI=28 NMC=21.3 %#200=51.9	6.0	SS-4	1	1	2	3
	1010.0	Stiff, moist, brown, SANDY SILT (ML, A-6), FILL	8.0	SS-5	3	4	5	9
10.0		Firm, red and brown, FILL	10.0	SS-6	2	3	2	5
	1005.0	Firm, moist, red and brown, SANDY SILT (ML, A-4(2)), FILL, LL=39 PL=31 PI=8 NMC=33.4 %#200=50.1	13.5	SS-7	1	3	3	6
15.0								
	1000.0	Very stiff, red and light brown, FILL	18.5	SS-8	3	7	11	18
20.0								
	995.0	Medium dense, moist, red and light brown, SANDY SILT (ML, A-6(4)), FILL, LL=40 PL=28 PI=12 NMC=25.3 %#200=50.0	23.5	SS-9	1	6	5	11
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

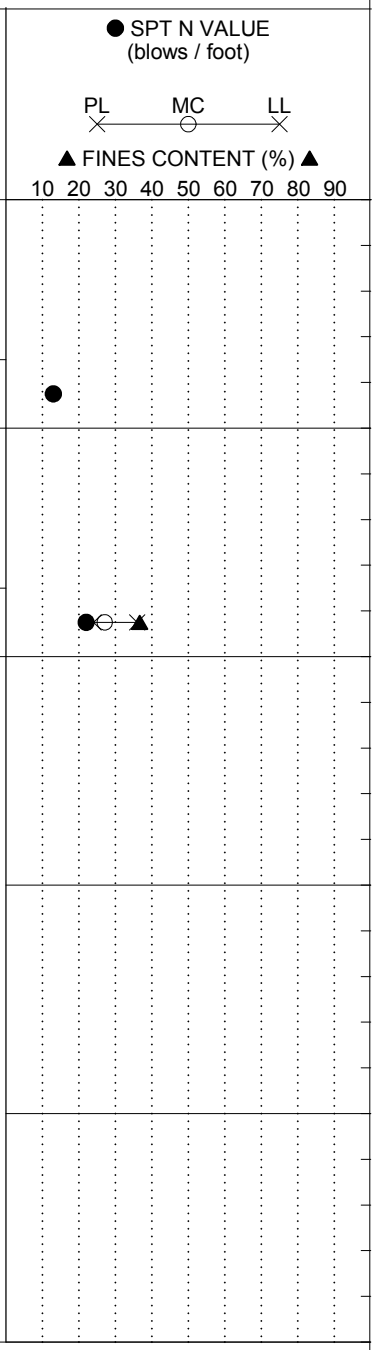
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R385-37	**Boring Location:**	390+12	**Offset:**	LT 53	**Alignment:**	I-385
Elev.:	1018.4 ft.	**Latitude:**	34.8311886	**Longitude:**	-82.29516462	**Date Started:**	4/21/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/21/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
30.0	990.0	Stiff, light brown, FILL		28.5	SS-10	4	5	8	13
35.0	985.0	Medium dense, moist, light brown and gray, fine to medium grained, CLAYEY SAND (SC, A-6(1)), FILL, LL=36 PL=24 PI=12 NMC=27.1 %#200=36.7		33.5	SS-11	6	10	12	22
		Boring Terminated at 35.0 feet.							



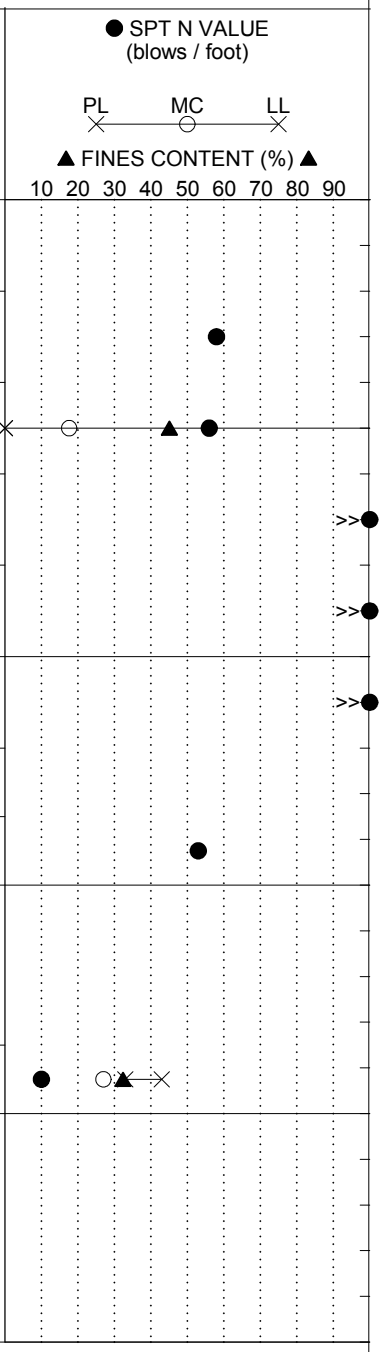
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R385-73	**Boring Location:**	411+39	**Offset:**	LT 52	**Alignment:**	I-385
Elev.:	1011.2 ft.	**Latitude:**	34.83428334	**Longitude:**	-82.30073434	**Date Started:**	5/22/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/22/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	1010.0	Approximately 20 inches of asphalt.						
		Very dense, moist, reddish brown, fine to medium grained, with mica, SILTY SAND (SM, A-2), FILL	2.0	SS-1	18	29	29	58
5.0	1005.0	Very dense, moist, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=17.6 %#200=45.1	4.0	SS-2	16	27	29	56
		Very dense, reddish brown and light brown, with mica, PARTIALLY WEATHERED ROCK	6.0	SS-3	22	50/5	X	100
		Very dense, red and light brown, PARTIALLY WEATHERED ROCK	8.0	SS-4	31	50	X	100
10.0	1000.0	Very dense, light brown, with mica, PARTIALLY WEATHERED ROCK	10.0	SS-5	34	50/4	X	100
15.0	995.0	Very dense, reddish brown, with mica, RESIDUUM	13.5	SS-6	14	24	29	53
20.0		Loose, moist, white and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-5(0)), RESIDUUM, LL=43 PL=33 PI=10 NMC=27.0 %#200=32.4	18.5	SS-7	3	4	6	10
		Boring Terminated at 20.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

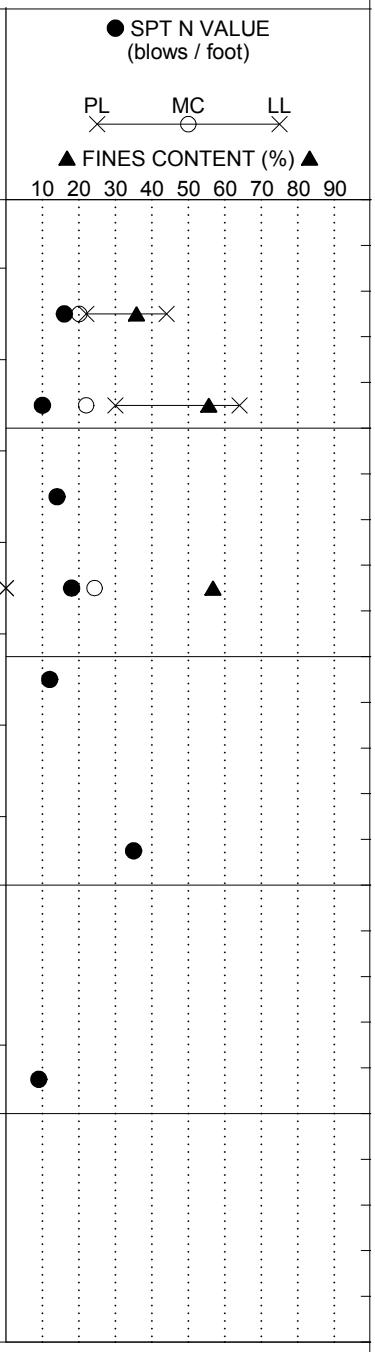
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R385-74	**Boring Location:**	411+34	**Offset:**	RT 52	**Alignment:**	I-385
Elev.:	1013.5 ft.	**Latitude:**	34.83456443	**Longitude:**	-82.30066857	**Date Started:**	5/22/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/22/2015
Bore Hole Diameter (in):	5-5/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 19.0 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 16 inches of asphalt.						
	1010.0	Medium dense, moist, red, fine to medium grained, with mica, CLAYEY SAND (SC, A-7-6(3)), FILL, LL=44 PL=22 PI=22 NMC=20.1 %#200=35.8	1.5	SS-1	7	7	9	16
5.0		Stiff, moist, red, SANDY FAT CLAY (CH, A-7-5(17)), RESIDUUM, LL=64 PL=30 PI=34 NMC=22.0 %#200=55.6	3.5	SS-2	5	4	6	10
		Stiff, red and light brown, RESIDUUM	5.5	SS-3	4	5	9	14
	1005.0	Very stiff, dry, red and light brown, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=24.3 %#200=56.8	7.5	SS-4	6	8	10	18
10.0		Stiff, with mica, RESIDUUM	9.5	SS-5	3	5	7	12
	1000.0	Dense, dry, light brown and red, fine grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	13.5	SS-6	10	18	17	35
15.0								
	995.0	Loose, wet, reddish brown, fine to medium grained, with mica, RESIDUUM	18.5	SS-7	4	4	5	9
20.0		Boring Terminated at 20.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

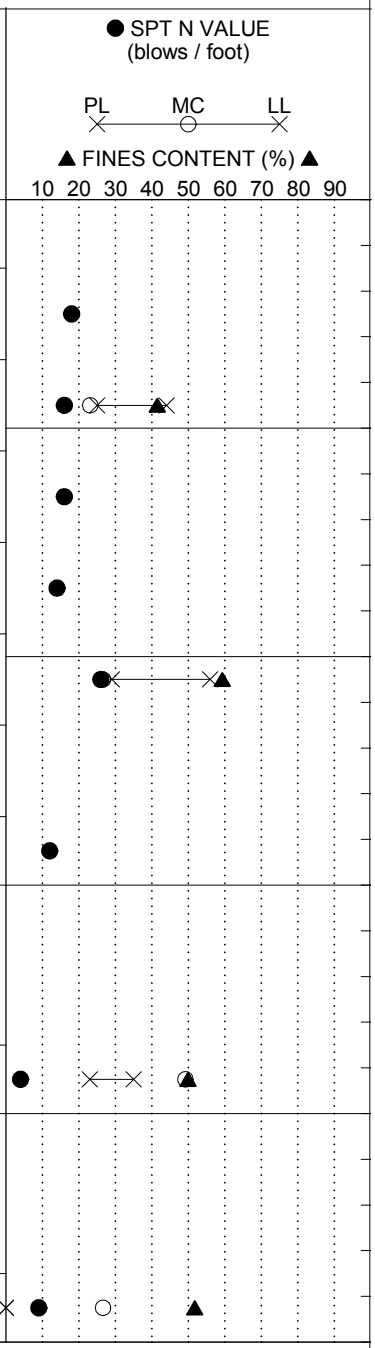
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R385-82	**Boring Location:**	334+87	**Offset:**	LT 57	**Alignment:**	I-385
Elev.:	931.9 ft.	**Latitude:**	34.81665844	**Longitude:**	-82.29047412	**Date Started:**	6/13/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/13/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 38.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 16 inches of asphalt.						
	930.0	Medium dense, moist, red and brown, fine grained, SILTY SAND (SM, A-2), FILL	1.5	SS-1	21	9	9	18
5.0		Medium dense, moist, brown and red, non reactive, fine to medium grained, with mica, CLAYEY SAND (SC, A-7-6(4)), FILL, LL=44 PL=25 PI=19 NMC=23.1 %#200=41.5	3.5	SS-2	6	7	9	16
	925.0	Medium dense, red and light brown, with mica, FILL	5.5	SS-3	5	7	9	16
		Medium dense, red, fine grained, FILL	7.5	SS-4	8	8	6	14
10.0		Very stiff, moist, red, SANDY FAT CLAY (CH, A-7-6(14)), FILL, LL=56 PL=29 PI=27 NMC=26.6 %#200=59.3	9.5	SS-5	5	5	21	26
	920.0							
15.0		Stiff, FILL	13.5	SS-6	2	4	8	12
	915.0							
20.0		Very loose, moist, brown, fine to medium grained, with wood, CLAYEY SAND (SC, A-6(3)), ALLUVIUM, LL=35 PL=23 PI=12 NMC=49.2 %#200=49.9	18.5	SS-7	2	2	2	4
	910.0							
25.0		Stiff, moist, brown and gray, non reactive, with mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=26.6 %#200=51.8	23.5	SS-8	2	3	6	9



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

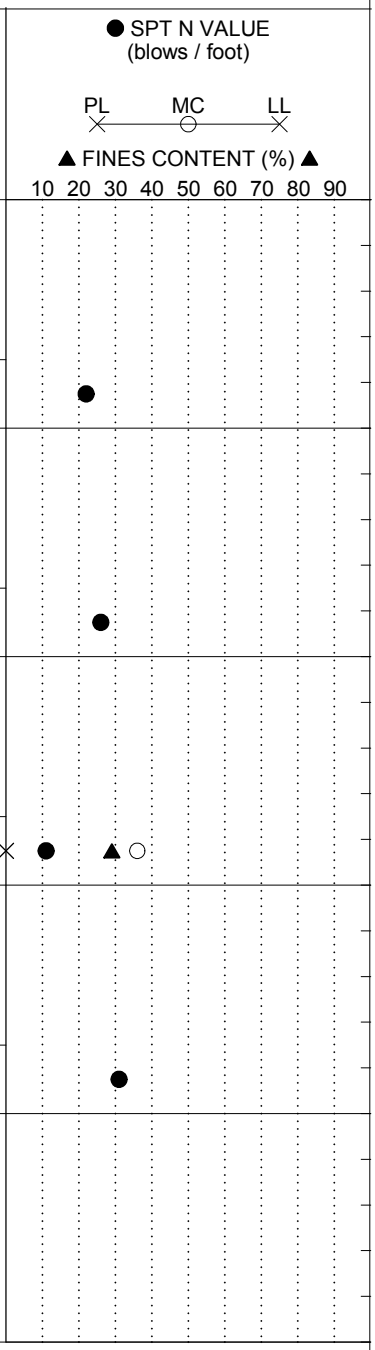
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R385-82	**Boring Location:**	334+87	**Offset:**	LT 57	**Alignment:**	I-385
Elev.:	931.9 ft.	**Latitude:**	34.81665844	**Longitude:**	-82.29047412	**Date Started:**	6/13/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/13/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 38.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0								
	905.0							
30.0		Medium dense, moist, red and white, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	28.5	SS-9	9	10	12	22
	900.0							
35.0		Medium dense, red, white and brown, with mica, RESIDUUM	33.5	SS-10	6	11	15	26
	895.0							
40.0		Medium dense, wet, brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=36.0 %#200=29.0	38.5	SS-11	3	5	6	11
	890.0							
45.0		Dense, moist, fine to medium grained, with mica, RESIDUUM	43.5	SS-12	17	14	17	31
		Boring Terminated at 45.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

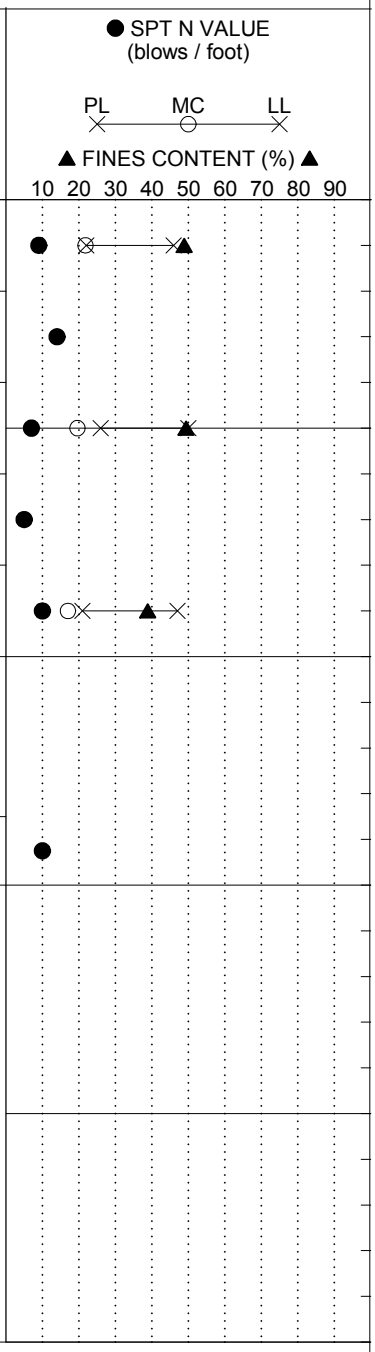
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	R385NBCD-83	**Boring Location:**	338+97	**Offset:**	LT 3	**Alignment:**	I-385 NB / CD
Elev.:	930.8 ft.	**Latitude:**	34.8178529	**Longitude:**	-82.29042283	**Date Started:**	6/14/2015
Total Depth:	15.0 ft.	**Soil Depth:**	15.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/14/2015
Bore Hole Diameter (in):	5-5/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 13.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	930.0	Approximately 2 inches of topsoil. Loose, moist, red and brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(8)), FILL, LL=46 PL=22 PI=24 NMC=21.8 %#200=48.9 Medium dense, red, with mica, FILL		0.0	SS-1	3	3	6	9
				2.0	SS-2	4	5	9	14
5.0	925.0	Loose, moist, red and brown, non reactive, fine to medium grained, with mica, CLAYEY SAND (SC, A-7-6(8)), FILL, LL=50 PL=26 PI=24 NMC=19.6 %#200=49.4 Loose, brown, FILL		4.0	SS-3	6	3	4	7
				6.0	SS-4	1	2	3	5
10.0	920.0	Loose, moist, red and light brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(5)), RESIDUUM, LL=47 PL=21 PI=26 NMC=17.0 %#200=38.9		8.0	SS-5	2	5	5	10
15.0		Loose, wet, white, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM		13.5	SS-6	4	4	6	10
		Boring Terminated at 15.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

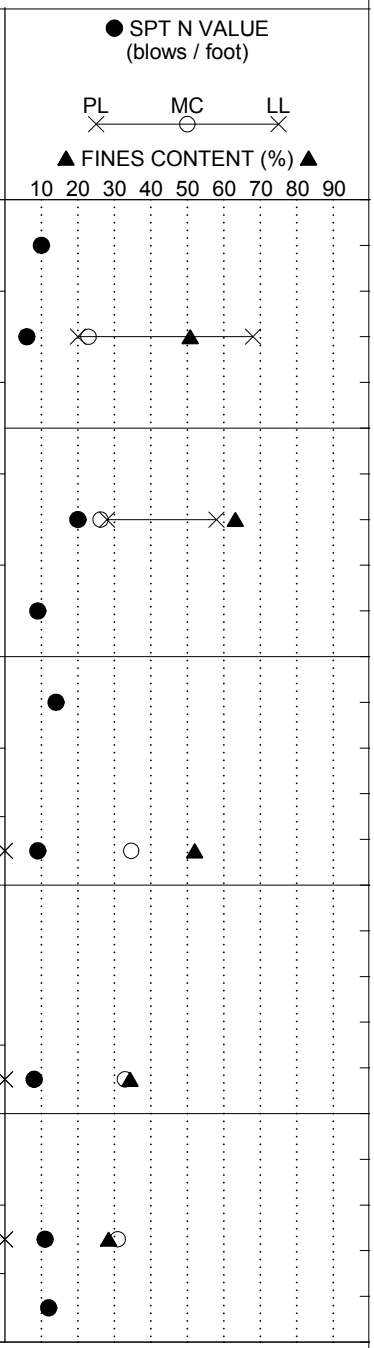
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1.1-R2-01	**Boring Location:**	102+98	**Offset:**	RT 30	**Alignment:**	Ramp 1
Elev.:	987.2 ft.	**Latitude:**	34.83466242	**Longitude:**	-82.29508626	**Date Started:**	3/10/2015
Total Depth:	40.1 ft.	**Soil Depth:**	40.1 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	23.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 3 inches of topsoil. Stiff, moist, brown and red, SANDY FAT CLAY (CH, A-7), FILL	0.0	SS-1	2	5	5	10
	985.0	Firm, moist, brown, non reactive, SANDY FAT CLAY (CH, A-7-6(19)), FILL, LL=68 PL=20 PI=48 NMC=22.9 %#200=50.8	2.0	SS-2	4	3	3	6
5.0		Undisturbed sample obtained from 4.0 to 6.0 feet. Approximately 23 inches of recovery.	4.0	ST-1				
	980.0	Very stiff, moist, red, SANDY FAT CLAY (CH, A-7-6(18)), ALLUVIUM, LL=58 PL=28 PI=30 NMC=26.2 %#200=63.2	6.0	SS-3	5	10	10	20
		Stiff, ALLUVIUM	8.0	SS-4	2	3	6	9
10.0		Stiff, ALLUVIUM	10.0	SS-5	2	6	8	14
	975.0	Loose, moist, red and light brown, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=34.6 %#200=52.0	13.5	SS-6	2	4	5	9
15.0								
	970.0	Loose, moist, light brown and red, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.9 %#200=34.3	18.5	SS-7	2	4	4	8
20.0			20.0	ST-2				
	965.0	Medium dense, moist ,white and brown, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=30.9 %#200=28.4	22.0	SS-8	3	4	7	11
25.0		Medium dense, with mica, RESIDUUM	23.5	SS-9	1	5	7	12



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1.1-R2-01	**Boring Location:**	102+98	**Offset:**	RT 30	**Alignment:**	Ramp 1
Elev.:	987.2 ft.	**Latitude:**	34.83466242	**Longitude:**	-82.29508626	**Date Started:**	3/10/2015
Total Depth:	40.1 ft.	**Soil Depth:**	40.1 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	23.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
	960.0									
		Medium dense, with mica, RESIDUUM		28.5	SS-10	5	6	10	16	●
30.0										
	955.0									
		Medium dense, gray and light brown, fine grained, RESIDUUM		33.5	SS-11	3	5	9	14	●
35.0										
	950.0									
		Very dense, gray and reddish brown, fine to medium grained, with mica, PARTIALLY WEATHERED ROCK		38.5	SS-12	20	50/2	X	100	>>●
40.0		Very dense, No recovery, ROCK		40.0						
		Boring Terminated at 40.1 feet.			SS-13	50/1	X	X	50/1	>>●

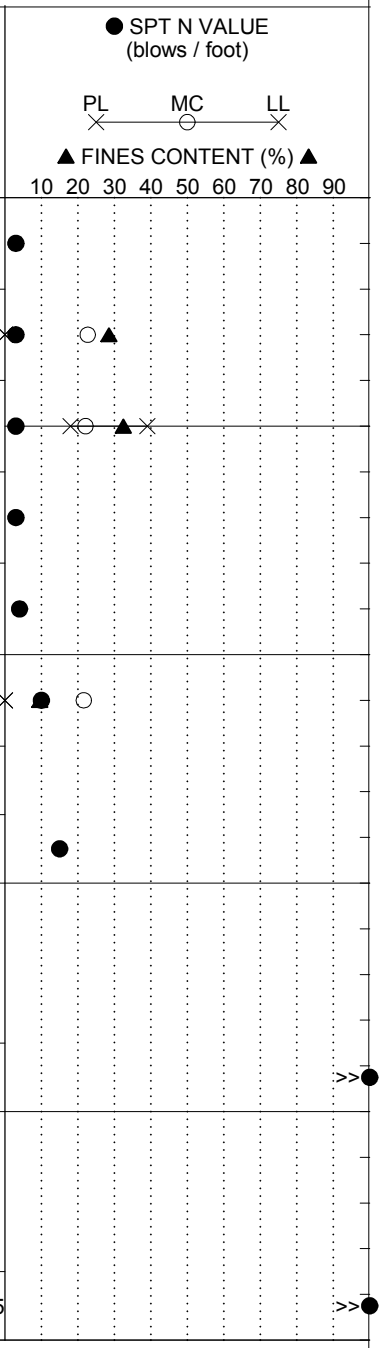
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-01	**Boring Location:**	48+15	**Offset:**	RT 12	**Alignment:**	Ramp 1A
Elev.:	908.6 ft.	**Latitude:**	34.838886	**Longitude:**	-82.28833756	**Date Started:**	1/10/2015
Total Depth:	25.0 ft.	**Soil Depth:**	25.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 7.0 ft.	**24 HR**	7.3 ft

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Soft, moist, reddish brown and brown, SANDY CLAY (CL, A-6), FILL	0.0	SS-1	1	1	2	3
	905.0	Very loose, moist, brownish red, weakly reactive, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=22.7 %#200=28.5	2.0	SS-2	1	1	2	3
5.0		Loose, moist, brownish gray, fine to medium grained, CLAYEY SAND (SC, A-2-6(2)), RESIDUUM, LL=39 PL=18 PI=21 NMC=22.1 %#200=32.5	4.0	SS-3	1	1	2	3
		Very loose, wet, brown, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	6.0	SS-4	2	2	1	3
	900.0	Loose, moist, fine grained, RESIDUUM	8.0	SS-5	3	1	3	4
10.0		Medium dense, brown, black and light brown, weakly reactive, fine to coarse grained, WELL GRADED SAND with SILT (SW-SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=21.6 %#200=9.6	10.0	SS-6	3	4	6	10
	895.0	Medium dense, moist, dark brown and black, fine to medium, with mica, SILTY SAND (SM, A-2), RESIDUUM	13.5	SS-7	5	7	8	15
15.0								
	890.0	Very dense, dark brown, with trace gravel, PARTIALLY WEATHERED ROCK	18.5	SS-8	2	17	50/5	100
20.0								
	885.0	Very dense, black and brown, with mica, PARTIALLY WEATHERED ROCK	23.5	SS-9	1	13	50/.5	50/.5
25.0								



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-01	**Boring Location:**	48+15	**Offset:**	RT 12	**Alignment:**	Ramp 1A
Elev.:	908.6 ft.	**Latitude:**	34.838886	**Longitude:**	-82.28833756	**Date Started:**	1/10/2015
Total Depth:	25.0 ft.	**Soil Depth:**	25.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 7.0 ft.	**24 HR**	7.3 ft

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
		Very dense, No recovery, ROCK Boring Terminated at 25.0 feet.		25.0	SS-10	50/1	X	X	50/1	>>●

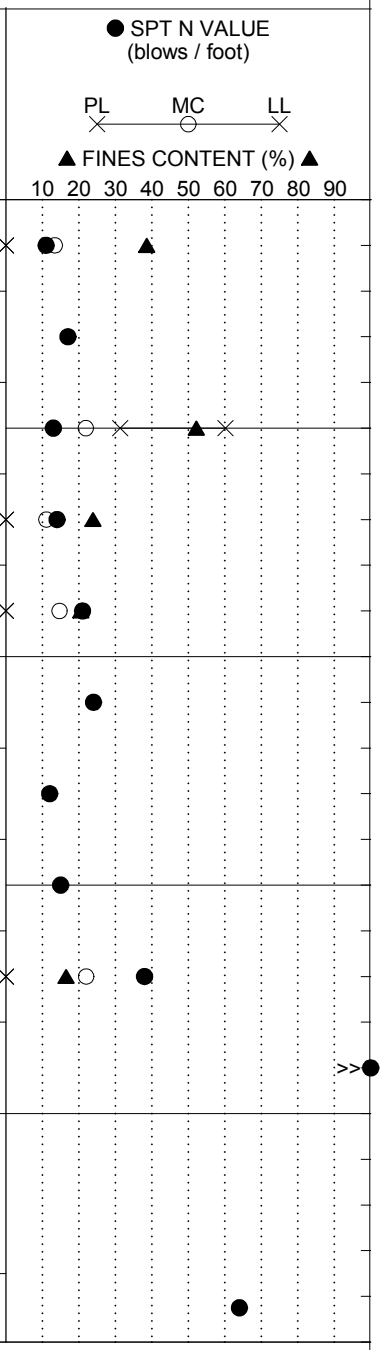
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-02	**Boring Location:**	48+44	**Offset:**	RT 14	**Alignment:**	Ramp 1A
Elev.:	922.9 ft.	**Latitude:**	34.83857688	**Longitude:**	-82.28884179	**Date Started:**	1/10/2015
Total Depth:	38.5 ft.	**Soil Depth:**	38.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 23.0 ft.	**24 HR**	27.0 ft

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Medium dense, moist, reddish brown, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=13.4 %#200=38.6	0.0	SS-1	3	4	7	11
	920.0	Very stiff, moist, red, SANDY ELASTIC SILT (MH, A-5), FILL	2.0	SS-2	4	7	10	17
5.0		Stiff, moist, red, weakly reactive, SANDY ELASTIC SILT (MH, A-7-5(12)), FILL, LL=60 PL=31 PI=29 NMC=21.9 %#200=52.2	4.0	SS-3	1	6	7	13
	915.0	Medium dense, moist, gray and reddish brown, fine to medium grained, SILTY SAND with GRAVEL (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=11.1 %#200=23.9	6.0	SS-4	5	8	6	14
10.0		Medium dense, moist, reddish brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=14.7 %#200=20.5	8.0	SS-5	3	7	14	21
		Medium dense, RESIDUUM	10.0	SS-6	8	14	10	24
	910.0	Medium dense, RESIDUUM	12.0	SS-7	9	8	4	12
15.0		Medium dense, RESIDUUM	14.0	SS-8	4	9	6	15
	905.0	Dense, moist, red, brown and white, fine to medium grained, SILTY SAND (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=22.0 %#200=16.5	16.0	SS-9	8	27	11	38
20.0		Very dense, reddish brown, PARTIALLY WEATHERED ROCK	18.0	SS-10	6	50	X	100
	900.0							
25.0		Very dense, reddish brown and black, fine to coarse grained, with trace rock, RESIDUUM	23.5	SS-11	5	32	32	64



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-02	**Boring Location:**	48+44	**Offset:**	RT 14	**Alignment:**	Ramp 1A
Elev.:	922.9 ft.	**Latitude:**	34.83857688	**Longitude:**	-82.28884179	**Date Started:**	1/10/2015
Total Depth:	38.5 ft.	**Soil Depth:**	38.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 23.0 ft.	**24 HR**	27.0 ft

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	SPT N VALUE (blows / foot) / FINES CONTENT (%)
25.0										
	895.0									
30.0		Dense, wet, reddish brown, light brown, black and white, fine to medium grained, with mica, SILTY SAND (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=16.0 %#200=14.4		28.5	SS-12	11	17	17	34	
	890.0									
35.0		Very dense, moist, black and brown, PARTIALLY WEATHERED ROCK		33.5	SS-13	50/2	X	X	100	>>
	885.0									
		Very dense, No recovery, ROCK Boring Terminated at 38.5 feet.		38.5	SS-14	50/0	X	X	50/0	>>

PL MC LL

▲ FINES CONTENT (%) ▲

10 20 30 40 50 60 70 80 90

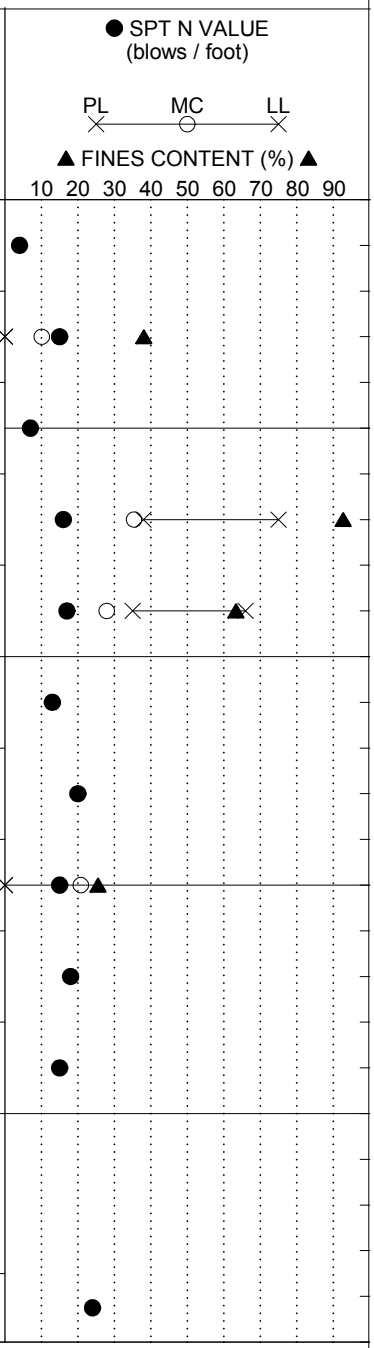
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-03	**Boring Location:**	49+21	**Offset:**	RT 11	**Alignment:**	Ramp 1A
Elev.:	927.7 ft.	**Latitude:**	34.83844343	**Longitude:**	-82.28904261	**Date Started:**	1/9/2015
Total Depth:	38.6 ft.	**Soil Depth:**	38.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/9/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 28.5 ft.	**24 HR**	16.8 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Soft, moist, dark red, SANDY CLAY (CL, A-6), FILL	0.0	SS-1	2	2	2	4
	925.0	Medium dense, moist, brown and red, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=10.1 %#200=38.1	2.0	SS-2	3	6	9	15
5.0		Firm, moist, red, ELASTIC SILT (MH, A-7), FILL	4.0	SS-3	1	2	5	7
	920.0	Very stiff, moist, red, ELASTIC SILT (MH, A-7-5(43)), FILL, LL=75 PL=38 PI=37 NMC=35.4 %#200=92.7	6.0	SS-4	1	6	10	16
10.0		Very stiff, moist, red, SANDY ELASTIC SILT (MH, A-7-5(19)), FILL, LL=66 PL=35 PI=31 NMC=27.9 %#200=63.3	8.0	SS-5	2	7	10	17
		Medium dense, moist, red and brown, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	10.0	SS-6	8	8	5	13
	915.0	Medium dense, reddish brown, RESIDUUM	12.0	SS-7	2	9	11	20
15.0		Medium dense, moist, reddish brown and brown, fine to coarse grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=20.8 %#200=25.5	14.0	SS-8	10	8	7	15
		Medium dense, reddish brown, with mica, RESIDUUM	16.0	SS-9	7	9	9	18
	910.0	Medium dense, with mica, RESIDUUM	18.0	SS-10	4	6	9	15
20.0								
	905.0		23.5					
25.0		Medium dense, light brown and black, with trace gravel, RESIDUUM		SS-11	20	14	10	24



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-03	**Boring Location:**	49+21	**Offset:**	RT 11	**Alignment:**	Ramp 1A
Elev.:	927.7 ft.	**Latitude:**	34.83844343	**Longitude:**	-82.28904261	**Date Started:**	1/9/2015
Total Depth:	38.6 ft.	**Soil Depth:**	38.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/9/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 28.5 ft.	**24 HR**	16.8 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL ✕ MC ○ LL ✕ ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
	900.0									
30.0		Dense, reddish brown, black and white, RESIDUUM		28.5	SS-12	20	22	24	46	●
	895.0									
35.0		Very dense, moist, reddish brown, black and white, fine to medium grained, SILTY SAND (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=24.5 %#200=16.9		33.5	SS-13	23	27	36	63	✕ ▲ ○ ●
	890.0									
		Very dense, No recovery, ROCK Boring Terminated at 38.6 feet.		38.5	SS-14	50/.5	X	X	50/.5	>>●

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

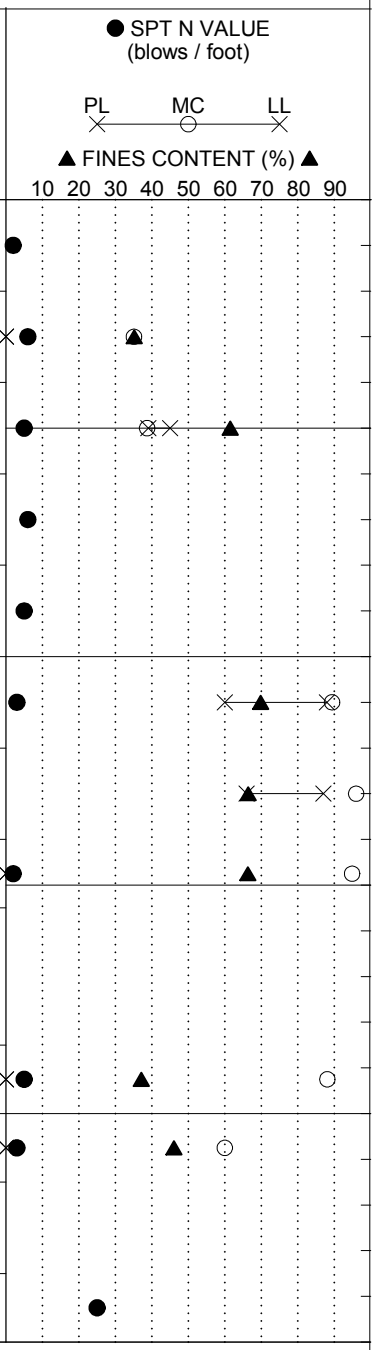
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-04	**Boring Location:**	51+48	**Offset:**	RT 31	**Alignment:**	Ramp 1A
Elev.:	929.3 ft.	**Latitude:**	34.83812144	**Longitude:**	-82.28969003	**Date Started:**	1/12/2015
Total Depth:	25.0 ft.	**Soil Depth:**	25.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	14.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 6 inches of topsoil. Soft, moist, red and brown, SANDY CLAY (CL, A-6), FILL	0.0	SS-1	1	1	1	2
		Loose, moist, red and white, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=35.1 %#200=35.2	2.0	SS-2	2	3	3	6
5.0	925.0	Firm, moist, red and white, SANDY SILT (ML, A-5(4)), RESIDUUM, LL=45 PL=39 PI=6 NMC=38.7 %#200=61.5	4.0	SS-3	1	2	3	5
		Firm, with mica, RESIDUUM	6.0	SS-4	1	2	4	6
10.0	920.0	Firm, moist, red, SANDY ELASTIC SILT (MH, A-7), RESIDUUM	8.0	SS-5	1	2	3	5
		Soft, moist, red, SANDY ELASTIC SILT (MH, A-7-5(25)), RESDIUUM, LL=88 PL=60 PI=28 NMC=89.4 %#200=69.8	10.0	SS-6	1	1	2	3
		Moist, red, with mica, SANDY ELASTIC SILT (MH, A-7-5(19)), RESIDUUM, LL=87 PL=66 PI=21 NMC=96.0 %#200=66.4	12.0	ST-1				
15.0	915.0	Soft, moist, red, with mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=94.9 %#200=66.3	14.0	SS-7	WOH	1	1	2
20.0	910.0	Loose, moist, red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=88.1 %#200=37.1	18.5	SS-8	1	2	3	5
		Undisturbed sample attemped at 20 feet. No recovery. Loose, moist, light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=60.0 %#200=46.1	20.0	SS-9	1	2	1	3
25.0	905.0	Medium dense, light brown and white, with mica, RESIDUUM	23.5	SS-10	5	8	17	25



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-04	**Boring Location:**	51+48	**Offset:**	RT 31	**Alignment:**	Ramp 1A
Elev.:	929.3 ft.	**Latitude:**	34.83812144	**Longitude:**	-82.28969003	**Date Started:**	1/12/2015
Total Depth:	25.0 ft.	**Soil Depth:**	25.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	14.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
		Boring Terminated at 25.0 feet.								

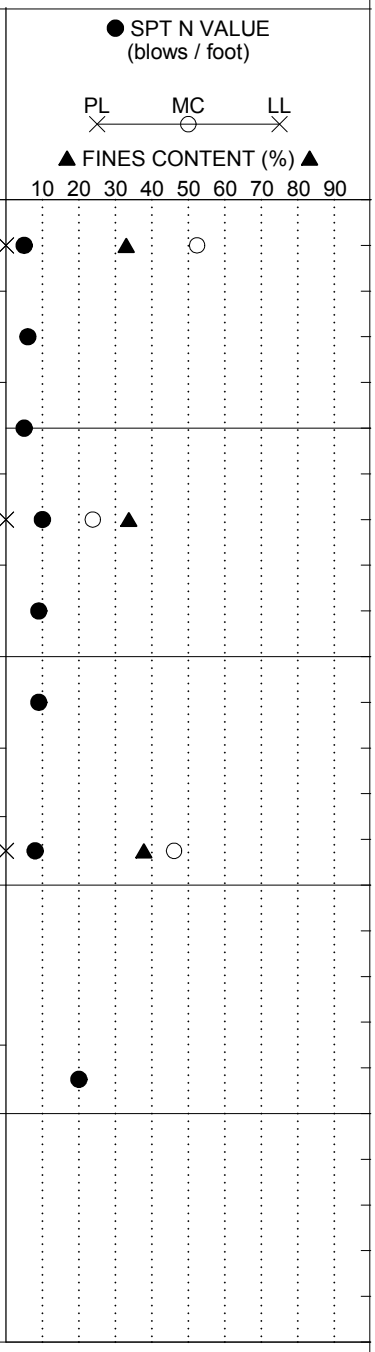
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-05	**Boring Location:**	52+28	**Offset:**	RT 18	**Alignment:**	Ramp 1A
Elev.:	929.5 ft.	**Latitude:**	34.8379659	**Longitude:**	-82.28988435	**Date Started:**	1/9/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/9/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	7.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 6 inches of topsoil. Loose, moist, red and brown, fine to medium grained, SILTY SAND with GRAVEL (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=52.4 %#200=33.0	0.0	SS-1	1	2	3	5
		Loose, light reddish brown, fine grained, FILL	2.0	SS-2	2	3	3	6
5.0	925.0	Loose light brown, FILL	4.0	SS-3	1	2	3	5
		Medium dense, moist, light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=23.8 %#200=33.7	6.0	SS-4	3	5	5	10
		Medium dense, with mica, RESIDUUM	8.0	SS-5	3	4	5	9
10.0	920.0	Medium dense, fine grained, with mica, RESIDUUM	10.0	SS-6	2	3	6	9
15.0	915.0	Loose, moist, white and light brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=46.1 %#200=37.8	13.5	SS-7	3	3	5	8
20.0	910.0	Medium dense, light brown, with mica, RESIDUUM	18.5	SS-8	3	6	14	20
		Boring Terminated at 20.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

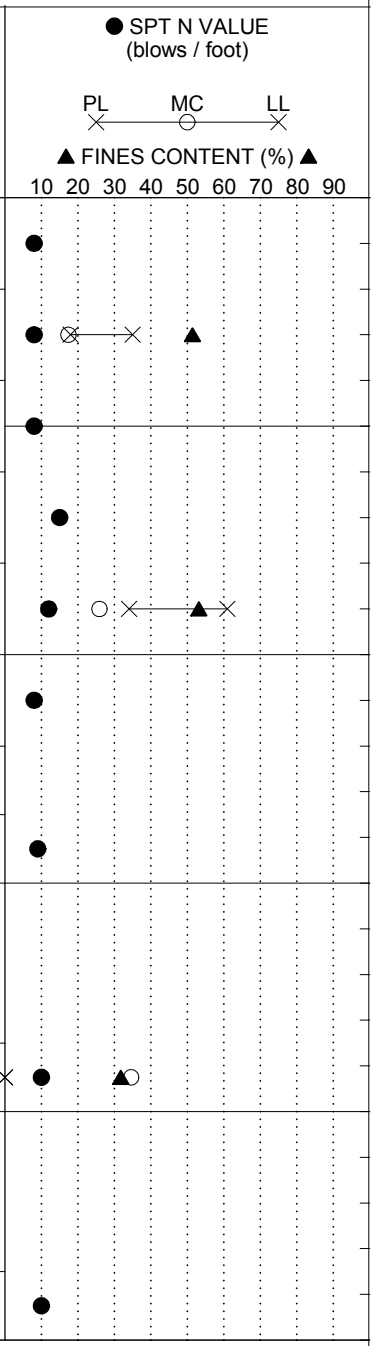
Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-06	**Boring Location:**	65+17	**Offset:**	RT 24	**Alignment:**	Ramp 1A
Elev.:	977.4 ft.	**Latitude:**	34.8358949	**Longitude:**	-82.29337378	**Date Started:**	3/22/2015
Total Depth:	28.5 ft.	**Soil Depth:**	28.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/22/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	18.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION
0.0		Approximately 4 inches of topsoil. Firm, moist, red and brown, SANDY LEAN CLAY (CL, A-6), FILL
	975.0	Firm, moist, reddish brown, non reactive, SANDY LEAN CLAY (CL, A-6(5)), FILL, LL=35 PL=18 PI=17 NMC=17.4 %#200=51.4
5.0		Firm, moist, red and brown, SANDY LEAN CLAY (CL, A-6), ALLUVIUM
	970.0	Stiff, moist, red, SANDY ELASTIC SILT (MH, A-5), ALLUVIUM
10.0		Stiff, moist, red, SANDY ELASTIC SILT (MH, A-7-5(12)), ALLUVIUM, LL=61 PL=34 PI=27 NMC=25.9 %#200=53.2
	965.0	Firm, red, ALLUVIUM
15.0		Loose, moist, reddish brown, fine grained, SILTY SAND (SM, A-2), ALLUVIUM
	960.0	
20.0		Loose, moist, brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=34.6 %#200=31.8
	955.0	
25.0		Loose, white, RESIDUUM

Graphic Log

Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	SS-1	1	4	4	8
2.0	SS-2	4	4	4	8
4.0	SS-3	1	2	6	8
6.0	SS-4	4	7	8	15
8.0	SS-5	2	6	6	12
10.0	SS-6	4	4	4	8
13.5	SS-7	3	4	5	9
18.5	SS-8	2	4	6	10
23.5	SS-9	3	4	6	10



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-06	**Boring Location:**	65+17	**Offset:**	RT 24	**Alignment:**	Ramp 1A
Elev.:	977.4 ft.	**Latitude:**	34.8358949	**Longitude:**	-82.29337378	**Date Started:**	3/22/2015
Total Depth:	28.5 ft.	**Soil Depth:**	28.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/22/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	18.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
	950.0									
		Very dense, No recovery, RESIDUUM		28.5						
		Boring Terminated at 28.5 feet.			SS-10	50/0	X	X	50/0	>>●

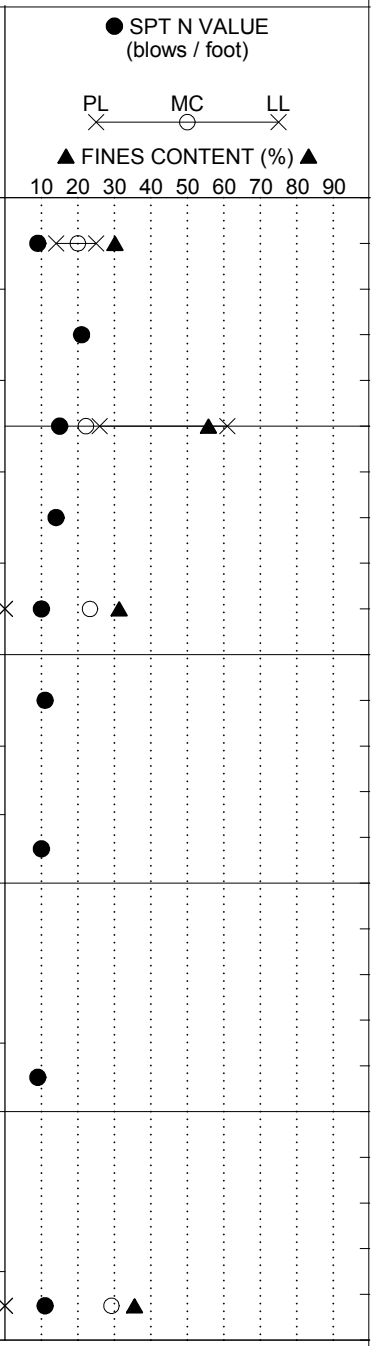
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-07	**Boring Location:**	69+51	**Offset:**	RT 47	**Alignment:**	Ramp 1A
Elev.:	985.6 ft.	**Latitude:**	34.83526027	**Longitude:**	-82.29457542	**Date Started:**	4/22/2015
Total Depth:	33.5 ft.	**Soil Depth:**	33.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/22/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 28.5 ft.	**24 HR**	23.4 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	985.0	Approximately 3 inches of topsoil. Loose, moist, brown, fine to medium grained, CLAYEY SAND (SC, A-2-6(0)), ALLUVIUM, LL=25 PL=14 PI=11 NMC=20.0 %#200=30.2	0.0	SS-1	3	4	5	9
		Very stiff, moist, red and light brown, SANDY FAT CLAY (CH, A-7), ALLUVIUM	2.0	SS-2	4	8	13	21
5.0	980.0	Stiff, moist, red and light brown, SANDY FAT CLAY (CH, A-7-6(17)), ALLUVIUM, LL=61 PL=26 PI=35 NMC=22.2 %#200=55.8	4.0	SS-3	1	6	9	15
		Medium dense, moist, red, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	6.0	SS-4	4	6	8	14
10.0	975.0	Loose, moist, red, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=23.3 %#200=31.3	8.0	SS-5	4	5	5	10
		Medium dense, white and red, RESIDUUM	10.0	SS-6	5	6	5	11
15.0	970.0	Loose, red and brown, fine grained, with mica, RESIDUUM	13.5	SS-7	1	4	6	10
20.0	965.0	Loose, white and brown, fine to medium grained, with mica, RESIDUUM	18.5	SS-8	3	3	6	9
25.0		Medium dense, wet, white and brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=29.2	23.5	SS-9	2	5	6	11



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

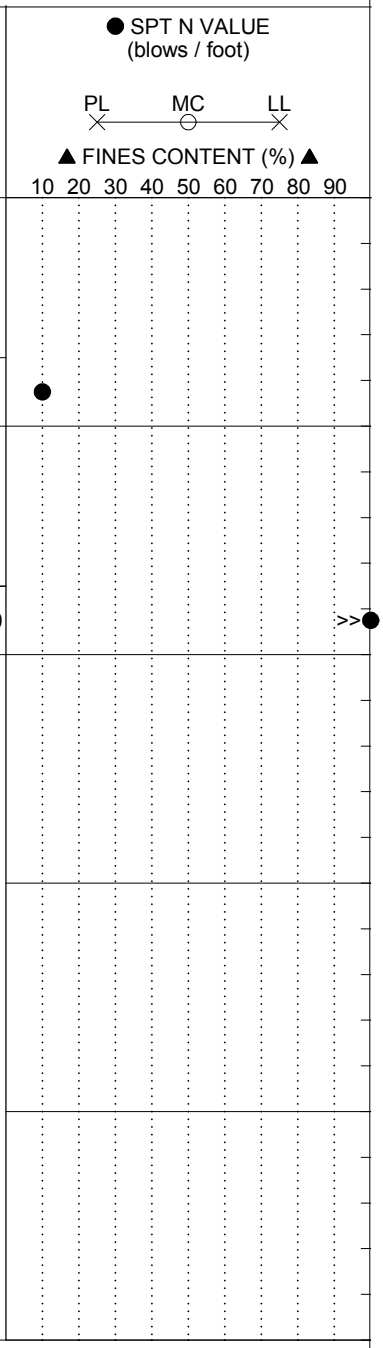
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-07	**Boring Location:**	69+51	**Offset:**	RT 47	**Alignment:**	Ramp 1A
Elev.:	985.6 ft.	**Latitude:**	34.83526027	**Longitude:**	-82.29457542	**Date Started:**	4/22/2015
Total Depth:	33.5 ft.	**Soil Depth:**	33.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/22/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 28.5 ft.	**24 HR**	23.4 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0	960.0	%#200=35.5							
30.0	955.0	Loose, with mica, RESIDUUM		28.5	SS-10	3	4	6	10
		Very dense, No recovery, ROCK Boring Terminated at 33.5 feet.		33.5	SS-11	50/0	X	X	50/0



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

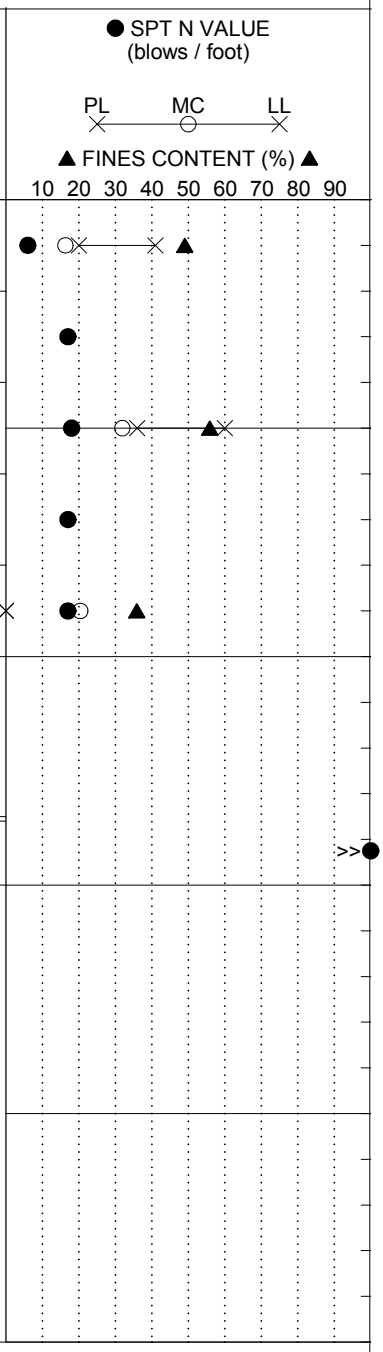
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-08	**Boring Location:**	71+25	**Offset:**	RT 21	**Alignment:**	Ramp 1A
Elev.:	988.7 ft.	**Latitude:**	34.83498489	**Longitude:**	-82.295041	**Date Started:**	2/10/2015
Total Depth:	13.6 ft.	**Soil Depth:**	13.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D50	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	101%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Loose, moist, reddish brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(7)), FILL, LL=41 PL=20 PI=21 NMC=16.3 %#200=49.0	0.0	SS-1	2	2	4	6
	985.0	Very stiff, moist, reddish brown, SANDY ELASTIC SILT (MH, A-7), FILL	2.0	SS-2	6	7	10	17
5.0		Very stiff, moist, reddish brown, SANDY ELASTIC SILT (MH, A-7-5(12)), FILL, LL=60 PL=36 PI=24 NMC=31.9 %#200=55.9	4.0	SS-3	5	9	9	18
		Medium dense, moist, brown and black, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	6.0	SS-4	4	7	10	17
	980.0	Medium dense, moist, brown, tan, white and black, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=20.4 %#200=35.9	8.0	SS-5	6	7	10	17
10.0								
		Very dense, No recovery, ROCK	13.5	SS-6	50/1	X	X	50/1
		Boring Terminated at 13.6 feet.						



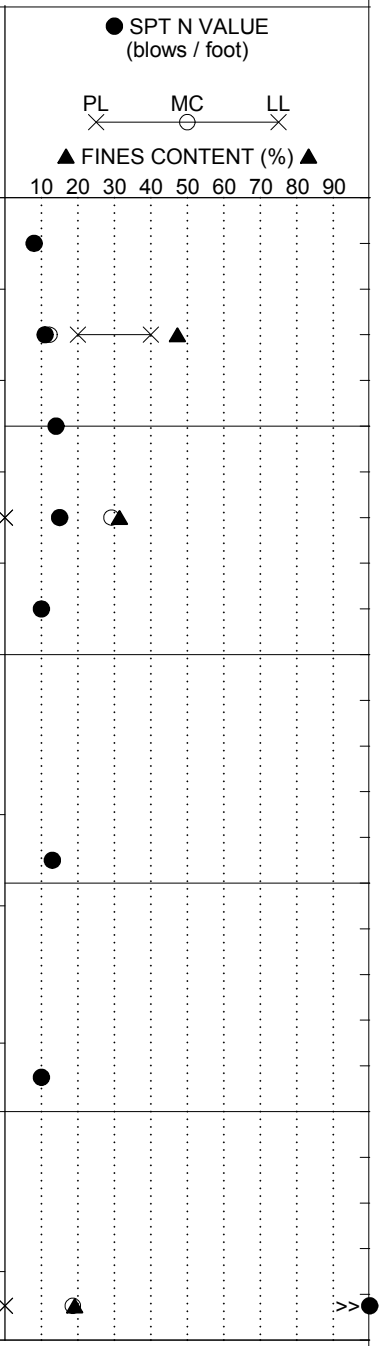
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-09	**Boring Location:**	72+02	**Offset:**	RT 36	**Alignment:**	Ramp 1A
Elev.:	991.9 ft.	**Latitude:**	34.83494366	**Longitude:**	-82.29529327	**Date Started:**	2/10/2015
Total Depth:	26.6 ft.	**Soil Depth:**	26.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D50	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	101%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Loose, moist, reddish brown and brown, fine grained, CLAYEY SAND (SC, A-2), FILL	0.0	SS-1	5	4	4	8
	990.0	Medium dense, moist, brown and reddish brown, fine to medium grained, CLAYEY SAND (SC, A-6(6)), FILL, LL=40 PL=20 PI=20 NMC=12.2 %#200=47.3	2.0	SS-2	7	6	5	11
5.0		Medium dense, FILL	4.0	SS-3	5	6	8	14
	985.0	Medium dense, moist, brown, reddish brown and tan, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=29.2 %#200=31.4 Loose, RESIDUUM	6.0	SS-4	7	7	8	15
			8.0	SS-5	5	6	4	10
10.0								
	980.0							
		Medium dense, RESIDUUM	13.5	SS-6	7	7	6	13
15.0								
	975.0							
		Loose, brown, tan and black, RESIDUUM	18.5	SS-7	7	5	5	10
20.0								
	970.0							
		Very dense, moist, brown, tan, black and white, fine to medium grained, SILTY SAND (SM, A-1-b(0)), PARTIALLY WEATHERED ROCK, LL=NP PL=NP	23.5	SS-8	12	12	50/4	100
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-09	**Boring Location:**	72+02	**Offset:**	RT 36	**Alignment:**	Ramp 1A
Elev.:	991.9 ft.	**Latitude:**	34.83494366	**Longitude:**	-82.29529327	**Date Started:**	2/10/2015
Total Depth:	26.6 ft.	**Soil Depth:**	26.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D50	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	101%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0		PI=NP NMC=18.6 %#200=19.1								
		Very dense, No recovery, ROCK		26.5						
		Boring Terminated at 26.6 feet.			SS-9	50/1	X	X	50/1	>>●

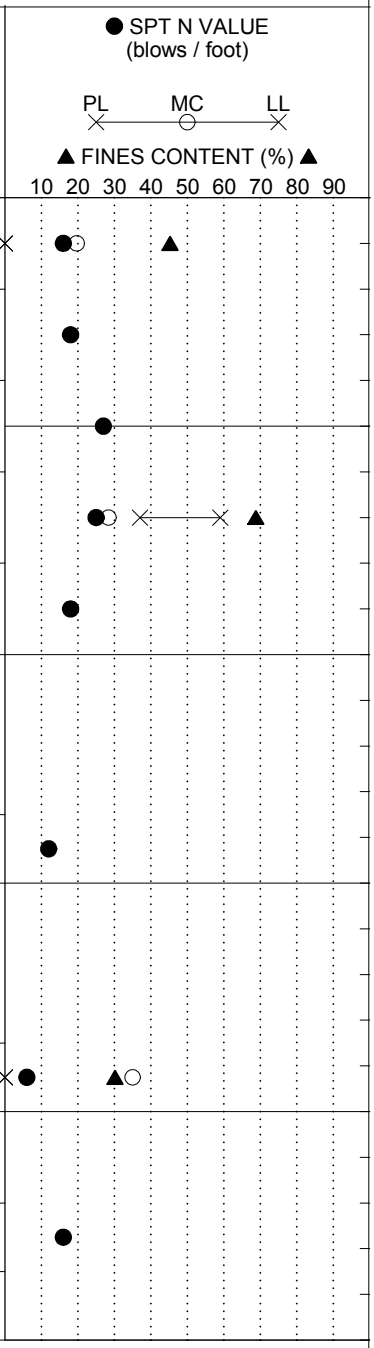
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-10	**Boring Location:**	70+08	**Offset:**	LT 41	**Alignment:**	Ramp 1A
Elev.:	986.1 ft.	**Latitude:**	34.83497093	**Longitude:**	-82.29459836	**Date Started:**	2/8/2015
Total Depth:	43.6 ft.	**Soil Depth:**	43.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/8/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	22.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	985.0	Approximately 3 inches of topsoil. Medium dense, dry, brown and tan, fine to medium grained, with trace mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=19.7 %#200=45.3	0.0	SS-1	5	6	10	16
		Very stiff, moist, brown and tan, SANDY ELASTIC SILT (MH, A-5), RESIDUUM	2.0	SS-2	6	9	9	18
5.0		Very stiff, brown, reddish brown and tan, RESIDUUM	4.0	SS-3	6	11	16	27
	980.0	Very stiff, miost, brown, reddish brown and tan, SANDY ELASTIC SILT (MH, A-7-5(17)), RESIDUUM, LL=59 PL=37 PI=22 NMC=28.4 %#200=68.8	6.0	SS-4	6	12	13	25
		Very stiff, brown and reddish brown, with trace mica, RESIDUUM	8.0	SS-5	5	9	9	18
10.0	975.0							
15.0		Medium dense, moist, brown, tan and white, fine grained, with trace mica, SILTY SAND (SM, A-2), RESIDUUM	13.5	SS-6	2	5	7	12
	970.0							
20.0		Loose, moist, brown, tan, white and black, fine to medium grained, with trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=35.0 %#200=30.2	18.5	SS-7	2	3	3	6
	965.0	Undisturbed sample obtained from 20.0 to 22.0 feet. Approximately 21 inches of recovery.	20.0	ST-1				
		Medium dense, brown, white, tan and black, with trace mica, RESIDUUM	22.0	SS-8	10	10	6	16
25.0								



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-10	**Boring Location:**	70+08	**Offset:**	LT 41	**Alignment:**	Ramp 1A
Elev.:	986.1 ft.	**Latitude:**	34.83497093	**Longitude:**	-82.29459836	**Date Started:**	2/8/2015
Total Depth:	43.6 ft.	**Soil Depth:**	43.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/8/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	22.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
	960.0									
30.0		Loose, wet, brown, white, tan and black, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=44.3 %#200=27.5		28.5	SS-9	3	4	5	9	
	955.0									
35.0		Medium dense, moist, with trace mica, RESIDUUM		33.5	SS-10	7	6	6	12	
	950.0									
40.0		Very dense, brown, tan and white, PARTIALLY WEATHERED ROCK		38.5	SS-11	25	50/3	X	100	>>
	945.0									
		Very dense, No recovery, ROCK		43.5	SS-12	50/.75	X	X	50/.75	>>
		Boring Terminated at 43.6 feet.								

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

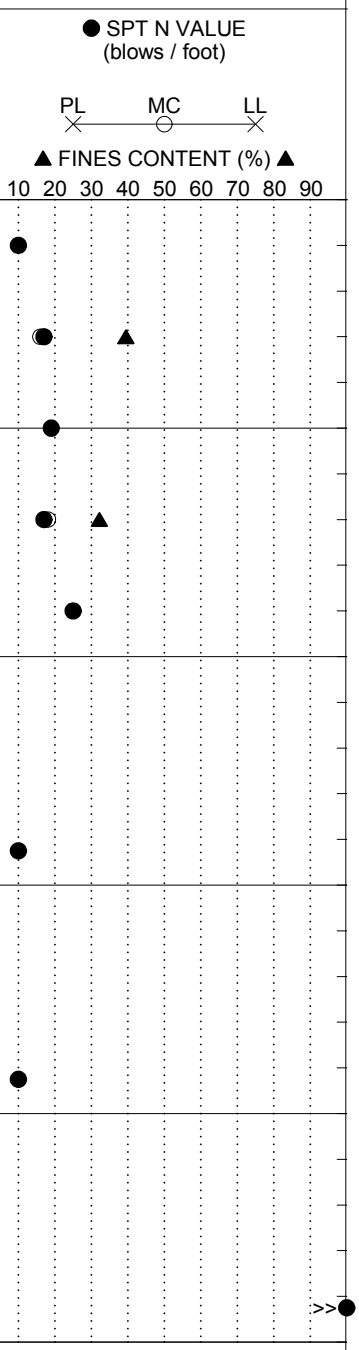
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-11	**Boring Location:**	71+12	**Offset:**	LT 26	**Alignment:**	Ramp 1A
Elev.:	989.9 ft.	**Latitude:**	34.83488042	**Longitude:**	-82.29493744	**Date Started:**	2/10/2015
Total Depth:	28.0 ft.	**Soil Depth:**	28.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D50	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	101%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 3 inches of topsoil. Loose, dry, reddish brown, fine to medium grained, with trace mica, CLAYEY SAND (SC, A-2), FILL	0.0	SS-1	4	3	7	10
		Medium dense, moist, brown and reddish brown, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=16.0 %#200=39.5	2.0	SS-2	8	10	7	17
5.0	985.0	Medium dense, FILL	4.0	SS-3	5	7	12	19
		Medium dense, moist, brown, reddish brown and white, fine to medium grained, with trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=18.1 %#200=32.2	6.0	SS-4	6	8	9	17
		Medim dense, brown and white, with trace mica, RESIDUUM	8.0	SS-5	6	9	16	25
10.0	980.0							
		Loose, brown and tan, fine grained, RESIDUUM	13.5	SS-6	6	4	6	10
15.0	975.0							
		Loose, brown, tan, black and white, with trace mica, RESIDUUM	18.5	SS-7	4	4	6	10
20.0	970.0							
		Very dense, white, tan and brown, fine to coarse grained, RESIDUUM	23.5	SS-8	46	50/4	X	100
25.0	965.0							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-11	**Boring Location:**	71+12	**Offset:**	LT 26	**Alignment:**	Ramp 1A
Elev.:	989.9 ft.	**Latitude:**	34.83488042	**Longitude:**	-82.29493744	**Date Started:**	2/10/2015
Total Depth:	28.0 ft.	**Soil Depth:**	28.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D50	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	101%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0		Very dense, No recovery, ROCK		28.0						
		Boring Terminated at 28.0 feet.			SS-9	50/.3	X	X	50/.3	>>●

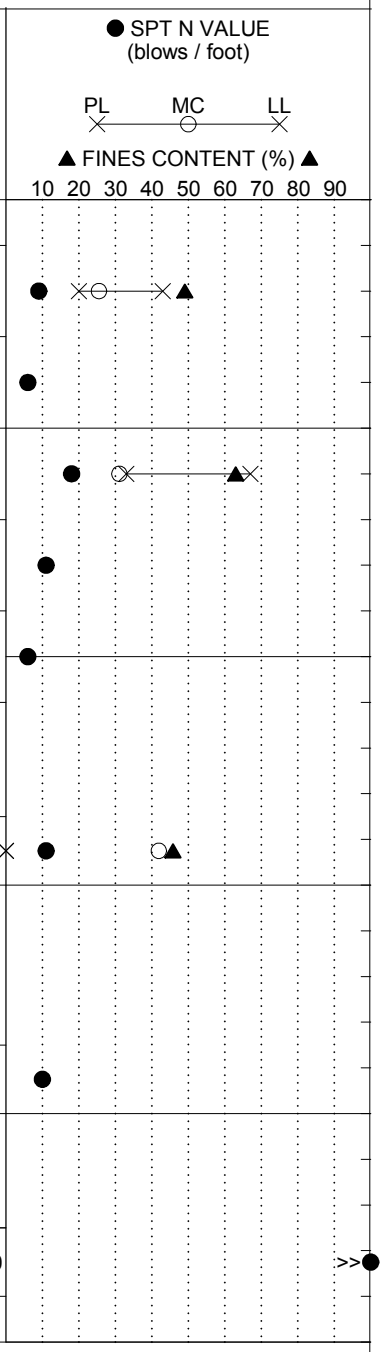
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1A-1R-17	**Boring Location:**	66+97	**Offset:**	RT 39	**Alignment:**	Ramp 1A
Elev.:	980.2 ft.	**Latitude:**	34.8356291	**Longitude:**	-82.29388157	**Date Started:**	6/23/2015
Total Depth:	22.5 ft.	**Soil Depth:**	22.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/23/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 18.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	980.0	Approximately 1 inch of asphalt and 9 inches of base.						
		Stiff, moist, red and brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(7)), FILL, LL=43 PL=20 PI=23 NMC=25.5 %#200=49.0	1.0	SS-1	4	4	5	9
		Loose, moist, red and brown, fine to medium grained, CLAYEY SAND (SC, A-2), ALLUVIUM	3.0	SS-2	2	3	3	6
5.0	975.0	Very stiff, moist, red, SANDY ELASTIC SILT (MH, A-7-5(21)), RESIDUUM, LL=67 PL=33 PI=34 NMC=31.1 %#200=63.0	5.0	SS-3	5	7	11	18
		Stiff, RESIDUUM	7.0	SS-4	4	5	6	11
10.0	970.0	Loose, moist, red, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	9.0	SS-5	3	3	3	6
15.0	965.0	Medium dense, moist, red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=41.9 %#200=45.8	13.5	SS-6	3	5	6	11
20.0	960.0	Loose, wet, with mica, RESIDUUM	18.5	SS-7	3	6	4	10
		Very dense, No recovery, ROCK	22.5	SS-8	50/0	X	X	50/0
		Boring Terminated at 22.5 feet.						



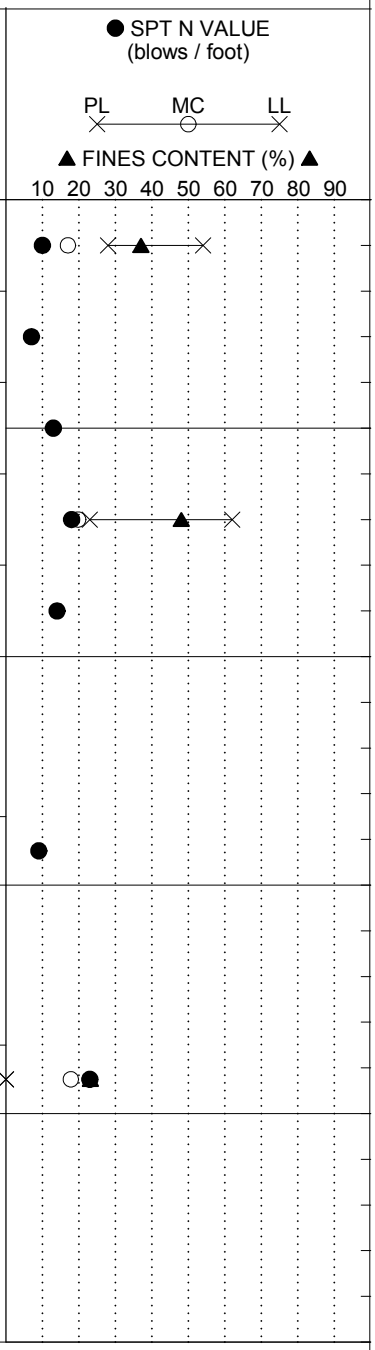
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1B-2R-01	**Boring Location:**	63+35	**Offset:**	RT 15	**Alignment:**	Ramp 1B
Elev.:	995.5 ft.	**Latitude:**	34.83210688	**Longitude:**	-82.29900115	**Date Started:**	3/27/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/27/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 18.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	995.0	Loose, moist, red, fine to medium grained, with mica, CLAYEY SAND with GRAVEL (SC, A-7-6(4)), FILL, LL=54 PL=28 PI=26 NMC=17.0 %#200=37.0	0.0	SS-1	5	4	6	10
		Loose, with mica, FILL	2.0	SS-2	2	3	4	7
5.0	990.0	Medium dense, moist, light brown and red, fine to medium grained, CLAYEY SAND (SC, A-2), ALLUVIUM	4.0	SS-3	3	6	7	13
		Medium dense, moist, red and light brown, fine to medium grained, with mica, CLAYEY SAND (SC, A-7-6(14)), ALLUVIUM, LL=62 PL=23 PI=39 NMC=19.8 %#200=48.1	6.0	SS-4	5	8	10	18
10.0	985.0	Medium dense, moist, red and light brown, fine grained, with mica, CLAYEY SAND (SC, A-2), RESIDUUM	8.0	SS-5	3	5	9	14
15.0	980.0	Loose, moist, light brown and red, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	13.5	SS-6	3	4	5	9
20.0		Medium dense, wet, brown, fine to medium grained, with gravel and mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=17.8 %#200=23.2	18.5	SS-7	8	9	14	23
		Boring Terminated at 20.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

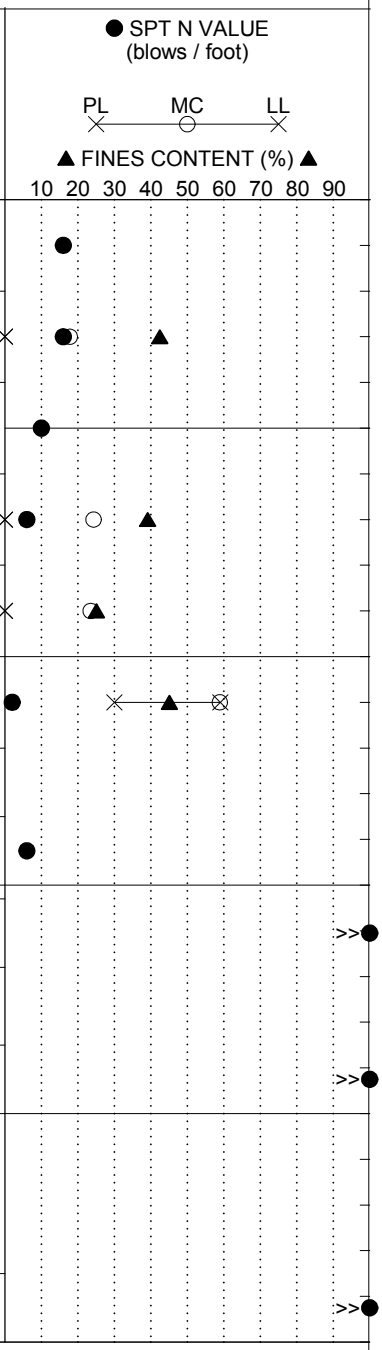
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1B-2R-02	**Boring Location:**	61+06	**Offset:**	RT 28	**Alignment:**	Ramp 1B
Elev.:	995.1 ft.	**Latitude:**	34.83251668	**Longitude:**	-82.29841953	**Date Started:**	3/27/2015
Total Depth:	28.5 ft.	**Soil Depth:**	28.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/27/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	9.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	995.0	Approximately 2 inches of topsoil. Medium dense, moist, red and brown, fine to medium grained, with mica, SILTY SAND (SM, A-2), FILL	0.0	SS-1	3	6	10	16
		Medium dense, moist, red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), ALLUVIUM, LL=NP PL=NP PI=NP NMC=17.8 %#200=42.5	2.0	SS-2	8	8	8	16
5.0	990.0	Loose, moist, red, light brown and white, fine to coarse grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	4.0	SS-3	2	4	6	10
		Loose, moist, light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=24.3 %#200=39.1	6.0	SS-4	2	3	3	6
10.0	985.0	Undisturbed sample obtained from 8 to 10 feet. Approximately 16 inches of recovery. Moist, red, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=23.5 %#200=25.1	8.0	ST-1				
		Very loose, moist, brown, fine to medium grained, CLAYEY SAND (SC, A-7-5(9)), RESIDUUM, LL=59 PL=30 PI=29 NMC=58.9 %#200=45.1	10.0	SS-5	1	1	1	2
15.0	980.0	Loose, brown and gray, RESIDUUM	13.5	SS-6	1	3	3	6
		Undisturbed sample attempted at 15 feet. Approximately 3 inches pushed before refusal.	15.3	SS-7	50/3	X	X	100
		Very dense, moist, white and gray, fine to coarse grained, with mica, SILTY SAND (SM, A-2), PARTIALLY WEATHERED ROCK						
20.0	975.0	Very dense, with mica, PARTIALLY WEATHERED ROCK	18.5	SS-8	1	13	50/3	100
25.0		Very dense, light brown, with mica, PARTIALLY WEATHERED ROCK	23.5	SS-9	50/2	X	X	100



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1B-2R-02	**Boring Location:**	61+06	**Offset:**	RT 28	**Alignment:**	Ramp 1B
Elev.:	995.1 ft.	**Latitude:**	34.83251668	**Longitude:**	-82.29841953	**Date Started:**	3/27/2015
Total Depth:	28.5 ft.	**Soil Depth:**	28.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/27/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	9.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0	970.0									
		Very dense, No recovery, ROCK		28.5						
		Boring Terminated at 28.5 feet.			SS-10	50/.5	X	X	50/.5	>>●

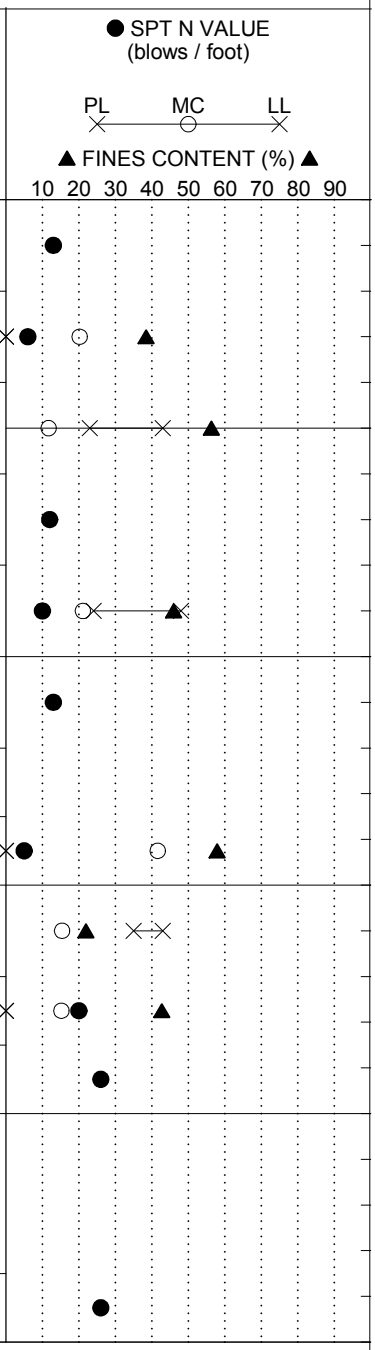
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1B-2R-03	**Boring Location:**	59+30	**Offset:**	RT 33	**Alignment:**	Ramp 1B
Elev.:	993.0 ft.	**Latitude:**	34.83282276	**Longitude:**	-82.29796452	**Date Started:**	12/10/2014
Total Depth:	55.1 ft.	**Soil Depth:**	55.1 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	12/10/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	11.1 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 3 inches of topsoil. Medium dense, moist, reddish brown, fine to medium grained, SILTY SAND (SM, A-2), FILL	0.0	SS-1	2	5	8	13
	990.0	Loose, moist, reddish brown, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=20.2 %#200=38.4	2.0	SS-2	2	3	3	6
5.0		Undisturbed sample obtained from 4 to 6 feet. Approximately 24 inches of recovery. Moist, reddish brown, fine to medium grained, SANDY LEAN CLAY (CL, A-7-6(9)), FILL, LL=43 PL=23 PI=20 NMC=11.7 %#200=56.3 Stiff, FILL	4.0	ST-1				
			6.0	SS-3	3	5	7	12
	985.0	Stiff, moist, reddish brown, yellowish brown and gray, fine to medium grained, CLAYEY SAND (SC, A-7-6(7)), RESIDUUM, LL=48 PL=24 PI=24 NMC=21.1 %#200=46.0 Stiff, light gray, yellowish brown, RESIDUUM	8.0	SS-4	2	5	5	10
10.0			10.0	SS-5	4	6	7	13
	980.0	Firm, moist, yellowish brown and light gray, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=41.6 %#200=57.9	13.5	SS-6	1	2	3	5
15.0		Medium dense, moist, reddish brown, tan and white, fine to coarse grained, SILTY SAND (SM, A-2-5(0)), RESIDUUM, LL=43 PL=35 PI=8 NMC=15.4 %#200=21.9	15.0	ST-2				
	975.0	Medium dense, moist, reddish brown, yellowish brown and tan, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=15.2 %#200=42.7	17.0	SS-7	8	10	10	20
			18.5	SS-8	7	12	14	26
20.0		Medium dense, yellowish brown and light gray, fine to medium grained, with occassional friable rock fragments, SILTY SAND (SM, A-4(0)), RESIDUUM						
	970.0		23.5	SS-9	7	13	13	26
25.0		Medium dense, reddish brown, black and tan, RESIDUUM						



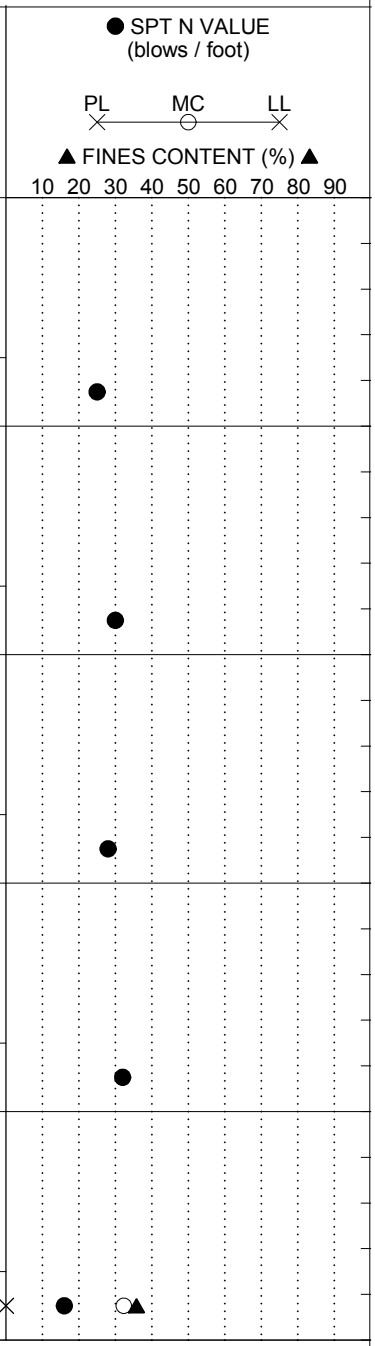
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1B-2R-03	**Boring Location:**	59+30	**Offset:**	RT 33	**Alignment:**	Ramp 1B
Elev.:	993.0 ft.	**Latitude:**	34.83282276	**Longitude:**	-82.29796452	**Date Started:**	12/10/2014
Total Depth:	55.1 ft.	**Soil Depth:**	55.1 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	12/10/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	11.1 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0								
	965.0	Medium dense, reddish brown, white, tan and black, RESIDUUM	28.5	SS-10	7	8	17	25
30.0								
	960.0	Medium dense, reddish brown, yellowish brown, white, tan and black, RESIDUUM	33.5	SS-11	12	14	16	30
35.0								
	955.0	Medium dense, gray, white and black, fine to coarse grained, RESIDUUM	38.5	SS-12	6	12	16	28
40.0								
	950.0	Dense, brown, tan, white and black, RESIDUUM	43.5	SS-13	7	12	20	32
45.0								
	945.0	Medium dense, moist, white, black and gray, fine grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.3 %#200=35.8	48.5	SS-14	4	5	11	16
50.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1B-2R-03	**Boring Location:**	59+30	**Offset:**	RT 33	**Alignment:**	Ramp 1B
Elev.:	993.0 ft.	**Latitude:**	34.83282276	**Longitude:**	-82.29796452	**Date Started:**	12/10/2014
Total Depth:	55.1 ft.	**Soil Depth:**	55.1 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	12/10/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	11.1 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
50.0										
	940.0									
		Very dense, white and black, with rock fragments, PARTIALLY WEATHERED ROCK		53.5	SS-15	50/2	X	X	100	>>●
55.0		Very Dense, No Recovery, ROCK		55.0	SS-16	50/.5	X	X	50/.5	>>●
		Boring Terminated at 55.1 feet.								

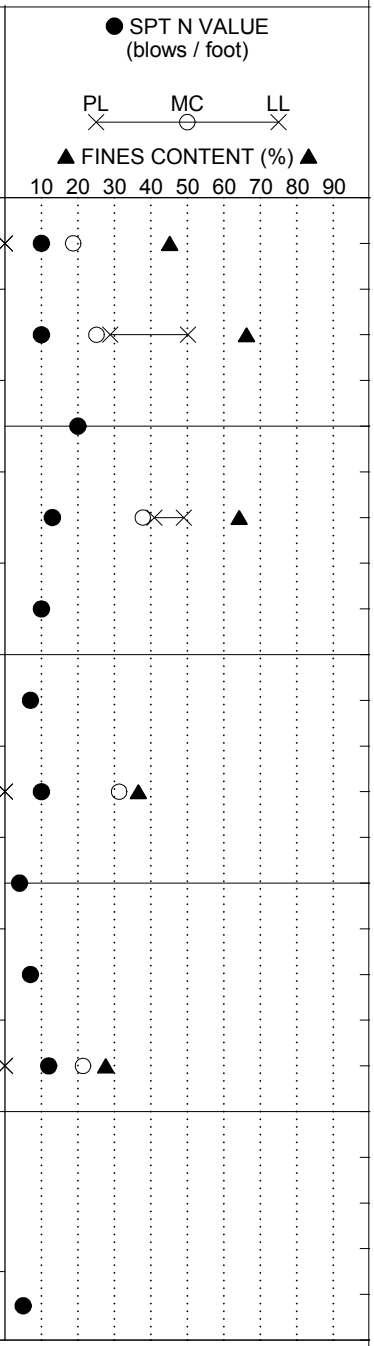
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1B-3R-01	**Boring Location:**	72+53	**Offset:**	RT 29	**Alignment:**	Ramp 1B
Elev.:	1013.0 ft.	**Latitude:**	34.83075317	**Longitude:**	-82.3015845	**Date Started:**	1/24/2015
Total Depth:	33.6 ft.	**Soil Depth:**	33.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/24/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D120	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	85%
Core Size:	NA	**Driller:**	F and R	**Groundwater:**	**TOB** N.E.	**24 HR**	19.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 3 inches of topsoil. Loose, moist, red, fine to medium grained, with trace organics, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=18.7 %#200=45.2	0.0	SS-1	5	6	4	10
	1010.0	Stiff, moist, reddish brown, weakly reactive, SANDY ELASTIC SILT (MH, A-7-6(15)), FILL, LL=50 PL=29 PI=21 NMC=25.1 %#200=66.2	2.0	SS-2	1	4	6	10
5.0		Very stiff, FILL	4.0	SS-3	6	9	11	20
		Stiff, moist, reddish brown, SANDY SILT (ML, A-5(6)), FILL, LL=49 PL=41 PI=8 NMC=37.8 %#200=64.2	6.0	SS-4	3	5	8	13
	1005.0	Stiff, FILL	8.0	SS-5	3	4	6	10
10.0		Firm, reddish brown, brown and black, RESIDUUM	10.0	SS-6	1	3	4	7
	1000.0	Loose, moist, brown and tan, fine grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=31.3 %#200=36.6	12.0	SS-7	1	5	5	10
15.0		Very loose, brown, white, tan and black, with trace mica, RESIDUUM	14.0	SS-8	3	2	2	4
		Loose, with trace mica, RESIDUUM	16.0	SS-9	4	3	4	7
	995.0	Medium dense, moist, brown, white, tan and black, weakly reactive, fine to medium grained, with trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=21.4 %#200=27.6	18.0	SS-10	6	5	7	12
20.0								
	990.0	Loose, with trace mica, RESIDUUM	23.5	SS-11	1	2	3	5
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1B-3R-01	**Boring Location:**	72+53	**Offset:**	RT 29	**Alignment:**	Ramp 1B
Elev.:	1013.0 ft.	**Latitude:**	34.83075317	**Longitude:**	-82.3015845	**Date Started:**	1/24/2015
Total Depth:	33.6 ft.	**Soil Depth:**	33.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/24/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D120	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	85%
Core Size:	NA	**Driller:**	F and R	**Groundwater:**	**TOB** N.E.	**24 HR**	19.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
	985.0									
		Loose, with trace mica, RESIDUUM		28.5	SS-12	1	3	4	7	●
30.0										
	980.0									
		Very dense, No recovery, ROCK		33.5	SS-13	50/1	X	X	50/1	>>●
		Boring Terminated at 33.6 feet.								

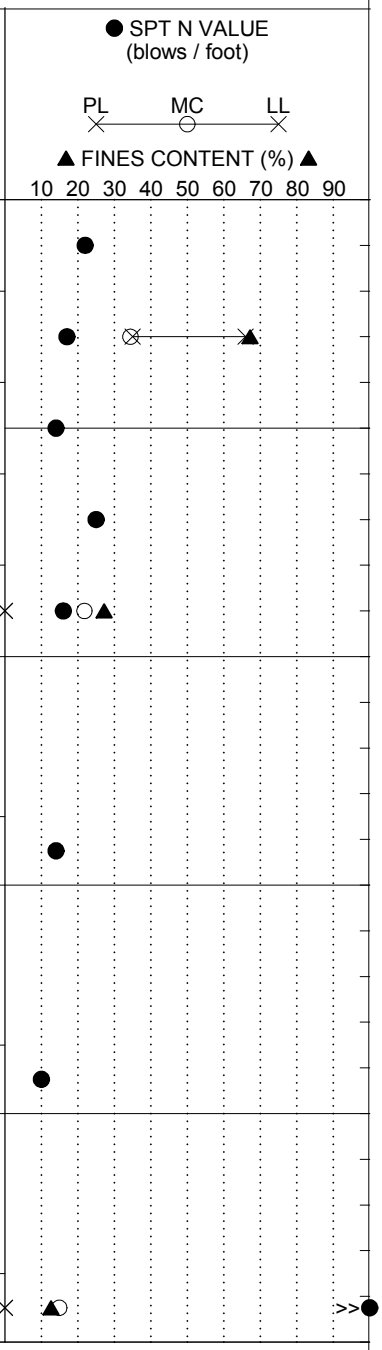
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1B-3R-02	**Boring Location:**	71+57	**Offset:**	RT 4	**Alignment:**	Ramp 1B
Elev.:	1010.7 ft.	**Latitude:**	34.83085821	**Longitude:**	-82.30127799	**Date Started:**	1/26/2015
Total Depth:	25.0 ft.	**Soil Depth:**	25.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/26/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D120	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	85%
Core Size:	NA	**Driller:**	F and R	**Groundwater:**	**TOB** N.E.	**24 HR**	17.8 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	1010.0	Approximately 2 inches of topsoil. Medium dense, moist, reddish brown and brown, fine grained, SILTY SAND (SM, A-2), FILL	0.0	SS-1	12	11	11	22
		Very stiff, moist, reddish brown, non reactive, SANDY ELASTIC SILT (MH, A-7-5(21)), FILL, LL=66 PL=35 PI=31 NMC=34.4 %#200=67.2	2.0	SS-2	6	8	9	17
5.0	1005.0	Stiff, FILL	4.0	SS-3	5	7	7	14
		Medium dense, moist, reddish brown, tan, black and brown, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	6.0	SS-4	11	14	11	25
10.0	1000.0	Medium dense, moist, brown, gray, white, black and tan, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=21.8 %#200=27.2	8.0	SS-5	8	9	7	16
15.0	995.0	Medium dense, tan, brown, black and white, RESIDUUM	13.5	SS-6	6	7	7	14
20.0	990.0	Loose, RESIDUUM	18.5	SS-7	5	5	5	10
25.0		Very dense, moist, tan, brown, black and white, weakly reactive, fine to medium grained, with weathered rock fragements, SILTY SAND with	23.5	SS-8	23	6	50/2	100



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W1B-3R-02	**Boring Location:**	71+57	**Offset:**	RT 4	**Alignment:**	Ramp 1B
Elev.:	1010.7 ft.	**Latitude:**	34.83085821	**Longitude:**	-82.30127799	**Date Started:**	1/26/2015
Total Depth:	25.0 ft.	**Soil Depth:**	25.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/26/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D120	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	85%
Core Size:	NA	**Driller:**	F and R	**Groundwater:**	**TOB** N.E.	**24 HR**	17.8 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
		GRAVEL (SM, A-1-b(0)), PARTIALLY WEATHERED ROCK, LL=NP PL=NP PI=NP NMC=14.9 %#200=12.6 Very dense, No recovery, ROCK		25.0	SS-9	50/0	X	X	50/0	>>●
		Boring Terminated at 25.0 feet.								

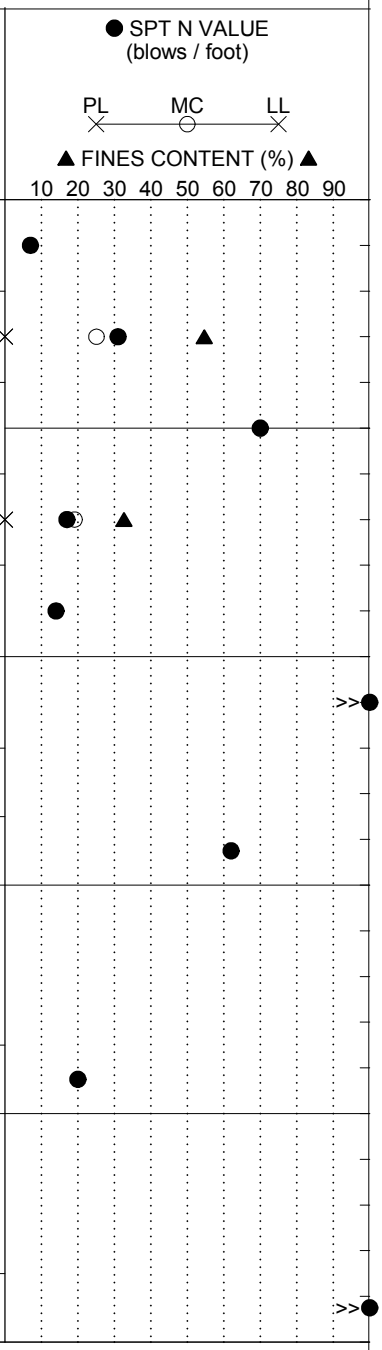
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-1R-01	**Boring Location:**	107+12	**Offset:**	RT 19	**Alignment:**	Ramp 2A
Elev.:	933.3 ft.	**Latitude:**	34.83743071	**Longitude:**	-82.28930902	**Date Started:**	3/29/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/29/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 6 inches of topsoil. Firm, moist, red and brown, SANDY SILT (ML, A-4), ALLUVIUM	0.0	SS-1	1	4	3	7
	930.0	Hard, dry, red and light brown, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=25.1 %#200=54.7	2.0	SS-2	8	12	19	31
5.0		Very dense, dry, red and light brown, fine grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	4.0	SS-3	11	34	36	70
	925.0	Medium dense, moist, red and brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=19.1 %#200=32.6	6.0	SS-4	6	8	9	17
		Medium dense, with mica, RESIDUUM	8.0	SS-5	2	6	8	14
10.0		Very dense, with mica, PARTIALLY WEATHERED ROCK	10.0	SS-6	16	50	X	100
	920.0	Very dense, reddish brown and white, with mica, RESIDUUM	13.5	SS-7	12	32	30	62
15.0								
	915.0	Medium dense, red and brown, fine to medium grained, with mica, RESIDUUM	18.5	SS-8	8	10	10	20
20.0								
	910.0	Very dense, brown, white and gray, with mica, PARTIALLY WEATHERED ROCK	23.5	SS-9	15	50/4	X	100
25.0								



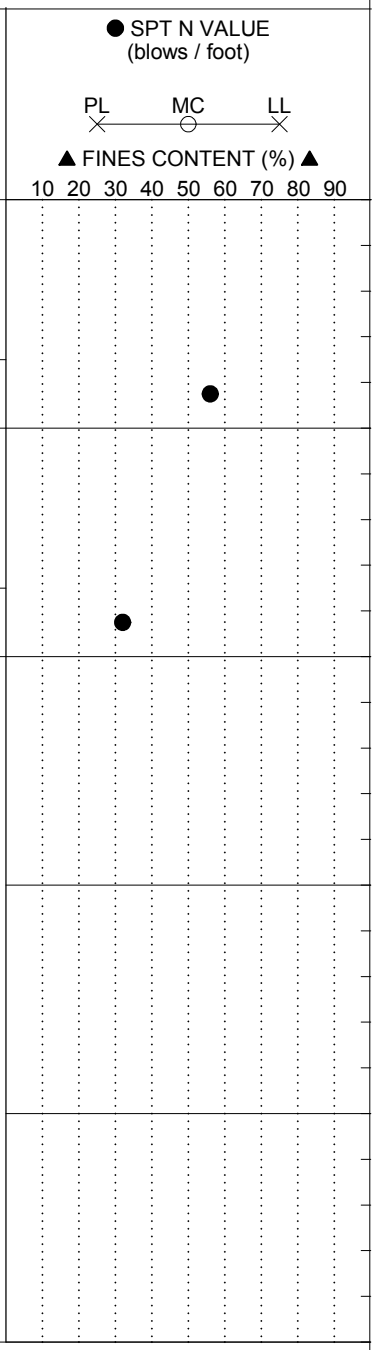
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-1R-01	**Boring Location:**	107+12	**Offset:**	RT 19	**Alignment:**	Ramp 2A
Elev.:	933.3 ft.	**Latitude:**	34.83743071	**Longitude:**	-82.28930902	**Date Started:**	3/29/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/29/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	905.0	Very dense, white, red and brown, with mica, RESIDUUM		28.5	SS-10	4	9	47	56
30.0									
	900.0	Dense, reddish brown, with mica, RESIDUUM		33.5	SS-11	6	13	19	32
35.0									
		Boring Terminated at 35.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

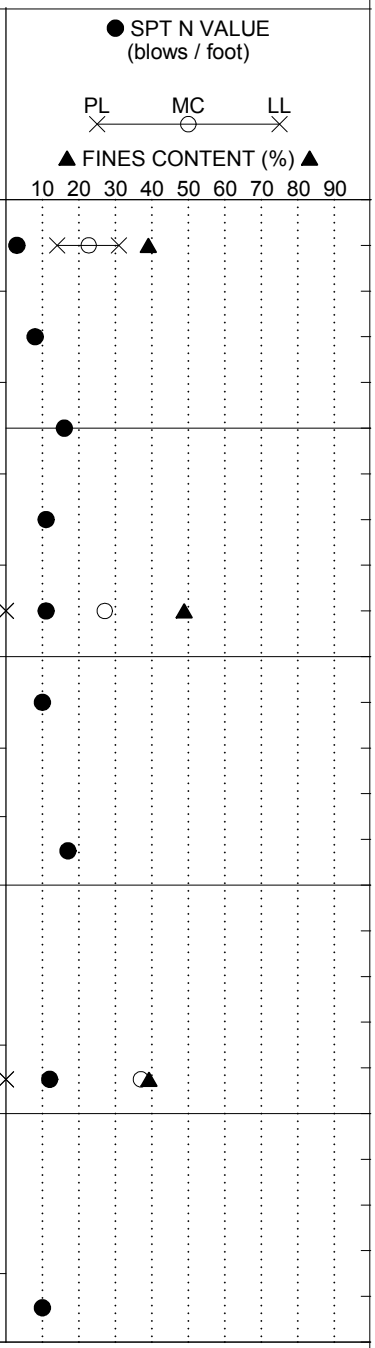
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-1R-02	**Boring Location:**	107+99	**Offset:**	RT 42	**Alignment:**	Ramp 2A
Elev.:	934.2 ft.	**Latitude:**	34.83753079	**Longitude:**	-82.28903519	**Date Started:**	1/4/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/4/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	17.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 6 inches of topsoil. Loose, wet, reddish brown, weakly reactive, fine to medium grained, CLAYEY SAND (SC, A-6(2)), FILL, LL=31 PL=14 PI=17 NMC=22.7 %#200=39.0 Loose, FILL	0.0	SS-1	1	1	2	3
			2.0	SS-2	2	3	5	8
5.0	930.0	Medium dense, moist, fine grained, FILL	4.0	SS-3	3	7	9	16
		Medium dense, FILL	6.0	SS-4	2	4	7	11
10.0	925.0	Medium dense, moist, brown and white, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=27.1 %#200=48.9 Loose, brown and white, RESIDUUM	8.0	SS-5	3	5	6	11
			10.0	SS-6	3	5	5	10
15.0	920.0	Medium dense, fine grained, with trace gravel, RESIDUUM	13.5	SS-7	3	7	10	17
20.0	915.0	Medium dense, moist, brown and white, weakly reactive, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=37.0 %#200=39.2	18.5	SS-8	3	5	7	12
25.0	910.0	Loose, brown, black and white, RESIDUUM	23.5	SS-9	3	4	6	10



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

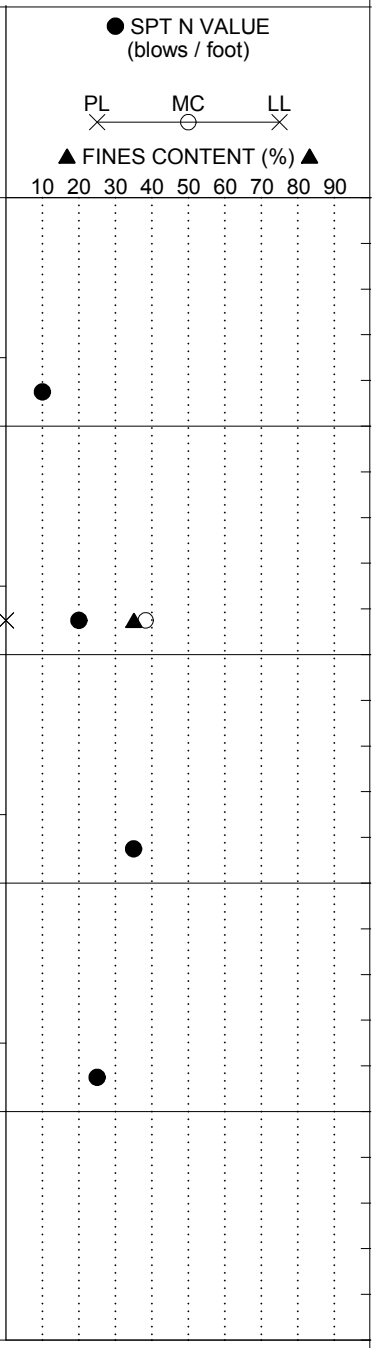
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-1R-02	**Boring Location:**	107+99	**Offset:**	RT 42	**Alignment:**	Ramp 2A
Elev.:	934.2 ft.	**Latitude:**	34.83753079	**Longitude:**	-82.28903519	**Date Started:**	1/4/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/4/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	17.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
30.0	905.0	Loose, brown and white, with trace gravel, RESIDUUM		28.5	SS-10	2	2	8	10
35.0	900.0	Medium dense, moist, brown and white, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=38.3 %#200=35.1		33.5	SS-11	3	5	15	20
40.0	895.0	Dense, RESIDUUM		38.5	SS-12	9	12	23	35
45.0	890.0	Medium dense, RESIDUUM		43.5	SS-13	9	10	15	25
		Boring Terminated at 45.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

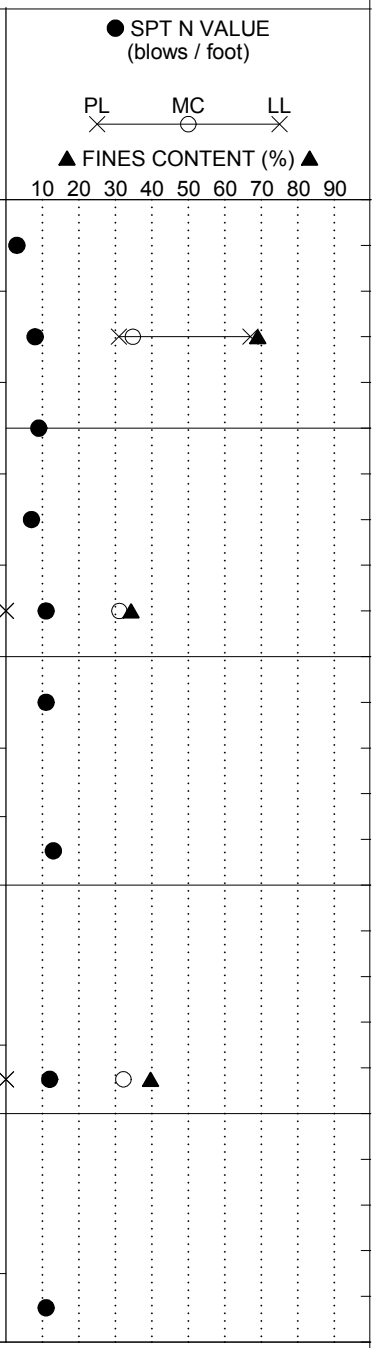
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-1R-03	**Boring Location:**	108+66	**Offset:**	RT 36	**Alignment:**	Ramp 2A
Elev.:	933.3 ft.	**Latitude:**	34.83765748	**Longitude:**	-82.28887174	**Date Started:**	1/4/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/4/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	21.7 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 6 inches of topsoil. Soft, moist, reddish brown, SANDY FAT CLAY (CH, A-7), FILL	0.0	SS-1	2	2	1	3
	930.0	Firm, moist, reddish brown, SANDY FAT CLAY (CH, A-7-5(25)), FILL, LL=67 PL=31 PI=36 NMC=34.8 %#200=69.0	2.0	SS-2	2	3	5	8
5.0		Stiff, FILL	4.0	SS-3	1	4	5	9
		Firm, FILL	6.0	SS-4	2	3	4	7
	925.0	Medium dense, moist, brown and white, non reactive, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=31.1 %#200=34.3	8.0	SS-5	3	5	6	11
10.0		Medium dense, brown and black, with trace gravel, RESIDUUM	10.0	SS-6	3	4	7	11
	920.0	Medium dense, brown, RESIDUUM	13.5	SS-7	2	3	10	13
15.0								
	915.0	Medium dense, moist, brown and white, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.2 %#200=39.7	18.5	SS-8	3	5	7	12
20.0								
	910.0	Medium dense, wet, brown and white, fine to coarse grained, RESIDUUM	23.5	SS-9	3	3	8	11
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

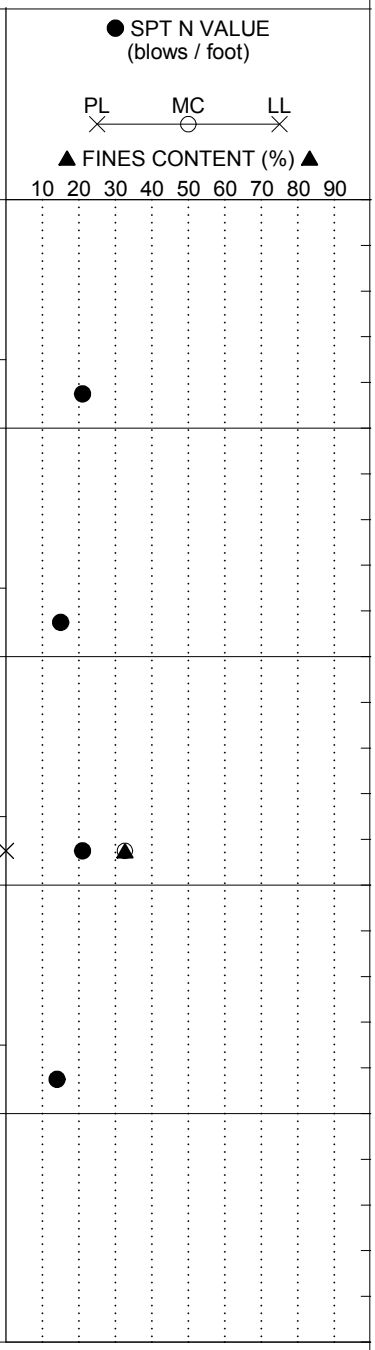
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-1R-03	**Boring Location:**	108+66	**Offset:**	RT 36	**Alignment:**	Ramp 2A
Elev.:	933.3 ft.	**Latitude:**	34.83765748	**Longitude:**	-82.28887174	**Date Started:**	1/4/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/4/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	21.7 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	905.0	Medium dense, fine grained, RESIDUUM		28.5	SS-10	4	5	16	21
30.0									
	900.0	Medium dense, moist, brown and black, RESIDUUM		33.5	SS-11	4	6	9	15
35.0									
	895.0	Medium dense, wet, brown and white, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.6 %#200=32.6		38.5	SS-12	6	8	13	21
40.0									
	890.0	Medium dense, moist, RESIDUUM		43.5	SS-13	4	5	9	14
45.0									
		Boring Terminated at 45.0 feet.							



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

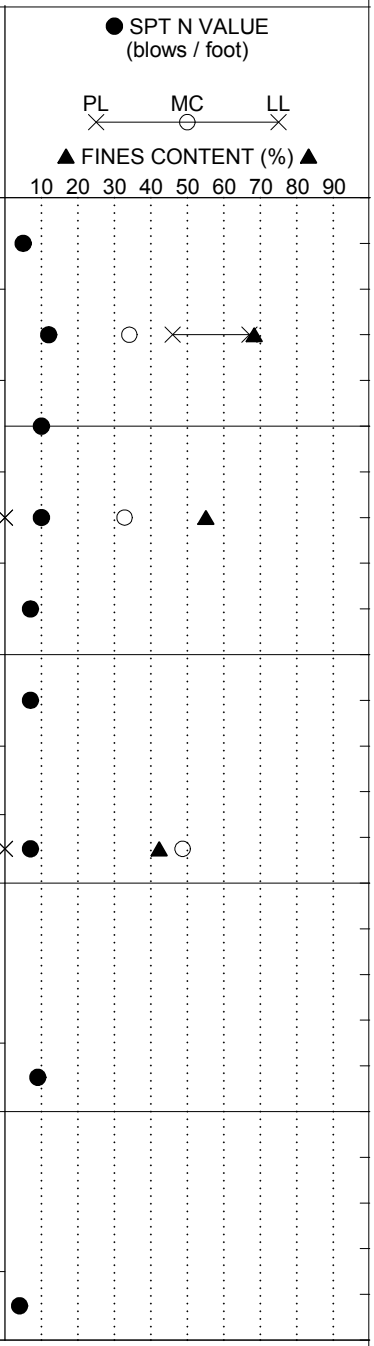
Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-1R-04	**Boring Location:**	110+92	**Offset:**	RT 42	**Alignment:**	Ramp 2A
Elev.:	935.2 ft.	**Latitude:**	34.83803479	**Longitude:**	-82.28827284	**Date Started:**	1/7/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/7/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	27.0 ft.*

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION
0.0	935.0	Approximately 3 inches of topsoil. Firm, moist, reddish brown, with organics, SANDY ELASTIC SILT (MH, A-7), FILL
		Medium dense, moist, reddish brown, with mica, SANDY ELASTIC SILT (MH, A-7-5(17)), FILL, LL=67 PL=46 PI=21 NMC=34.1 %#200=68.3
5.0	930.0	Stiff, moist, reddish brown, with mica, SANDY SILT (ML, A-4), FILL
		Firm, moist, reddish brown, weakly reactive, with mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.8 %#200=55.1
		Firm, RESIDUUM
10.0	925.0	Firm, RESIDUUM
15.0	920.0	Loose, moist, reddish brown and tan, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=48.7 %#200=42.3
		Loose, tan, white and brown, RESIDUUM
20.0	915.0	
		Very loose, moist, brown and tan, RESIDUUM
25.0		

Graphic Log

Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	SS-1	1	2	3	5
2.0	SS-2	3	5	7	12
4.0	SS-3	2	4	6	10
6.0	SS-4	2	5	5	10
8.0	SS-5	3	3	4	7
10.0	SS-6	3	3	4	7
13.5	SS-7	2	3	4	7
18.5	SS-8	1	3	6	9
23.5	SS-9	2	1	3	4



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-1R-04	**Boring Location:**	110+92	**Offset:**	RT 42	**Alignment:**	Ramp 2A
Elev.:	935.2 ft.	**Latitude:**	34.83803479	**Longitude:**	-82.28827284	**Date Started:**	1/7/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/7/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	27.0 ft.*

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0	910.0									
30.0	905.0	Very loose, brown, tan, white and black, with mica, RESIDUUM		28.5	SS-10	2	1	2	3	
35.0	900.0	Loose, moist, brown, black and tan, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=52.9 %#200=31.5		33.5	SS-11	1	2	3	5	
40.0	895.0	Loose, RESIDUUM		38.5	SS-12	1	3	4	7	
45.0		Medium dense, brown, fine grained, RESIDUUM		43.5	SS-13	3	7	10	17	

Boring Terminated at 45.0 feet.

*Boring cave in depth.

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

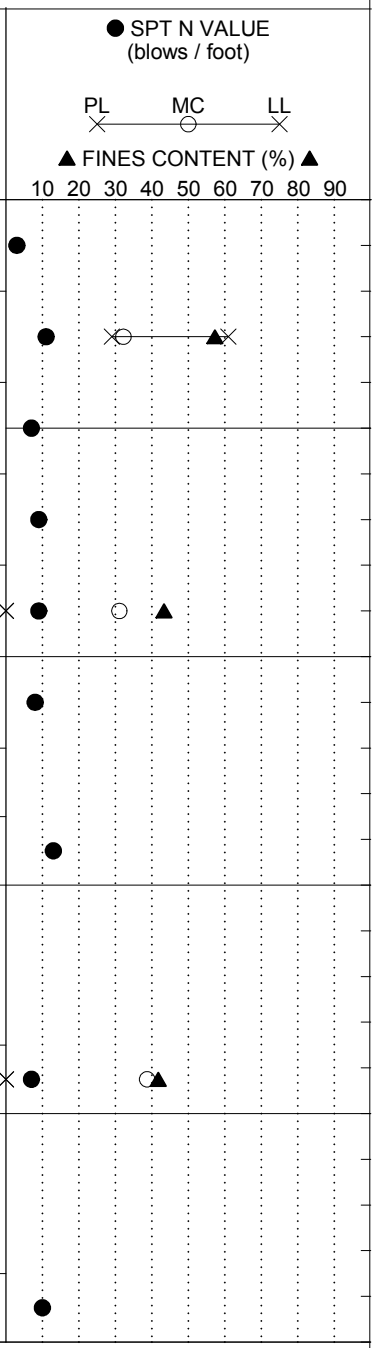
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-1R-05	**Boring Location:**	111+65	**Offset:**	RT 44	**Alignment:**	Ramp 2A
Elev.:	935.1 ft.	**Latitude:**	34.83815224	**Longitude:**	-82.28807904	**Date Started:**	1/6/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	26.0 ft.*

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	935.0	Approximately 6 inches of topsoil. Soft, moist, reddish brown and dark brown, with organics, SANDY FAT CLAY (CH, A-7), FILL	0.0	SS-1	2	1	2	3
		Stiff, moist, reddish brown and tan, SANDY FAT CLAY (CH, A-7-6(16)), FILL, LL=61 PL=29 PI=32 NMC=32.2 %#200=57.3	2.0	SS-2	3	5	6	11
5.0	930.0	Firm, reddish brown, FILL	4.0	SS-3	1	3	4	7
		Loose, moist, reddish brown, fine grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	6.0	SS-4	3	4	5	9
10.0	925.0	Loose, moist, reddish brown, weakly reactive, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=31.1 %#200=43.3 Loose, RESIDUUM	8.0	SS-5	1	4	5	9
			10.0	SS-6	2	4	4	8
15.0	920.0	Medium dense, brown and black, fine to medium grained, RESIDUUM	13.5	SS-7	3	5	8	13
20.0	915.0	Loose, moist, brown and black, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=38.7 %#200=41.8	18.5	SS-8	2	3	4	7
25.0		Loose, brown, RESIDUUM	23.5	SS-9	2	4	6	10



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-1R-05	**Boring Location:**	111+65	**Offset:**	RT 44	**Alignment:**	Ramp 2A
Elev.:	935.1 ft.	**Latitude:**	34.83815224	**Longitude:**	-82.28807904	**Date Started:**	1/6/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	26.0 ft.*

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0	910.0									
		Loose, fine grained, RESIDUUM		28.5	SS-10	2	2	4	6	
30.0	905.0									
		Loose, moist, brown and black, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=52.9 %#200=23.0		33.5	SS-11	2	3	5	8	
35.0	900.0									
		Loose, RESIDUUM		38.5	SS-12	2	3	5	8	
40.0	895.0									
		Medium dense, RESIDUUM		43.5	SS-13	4	5	7	12	
45.0										
		Boring Terminated at 45.0 feet. *Boring cave in depth.								

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

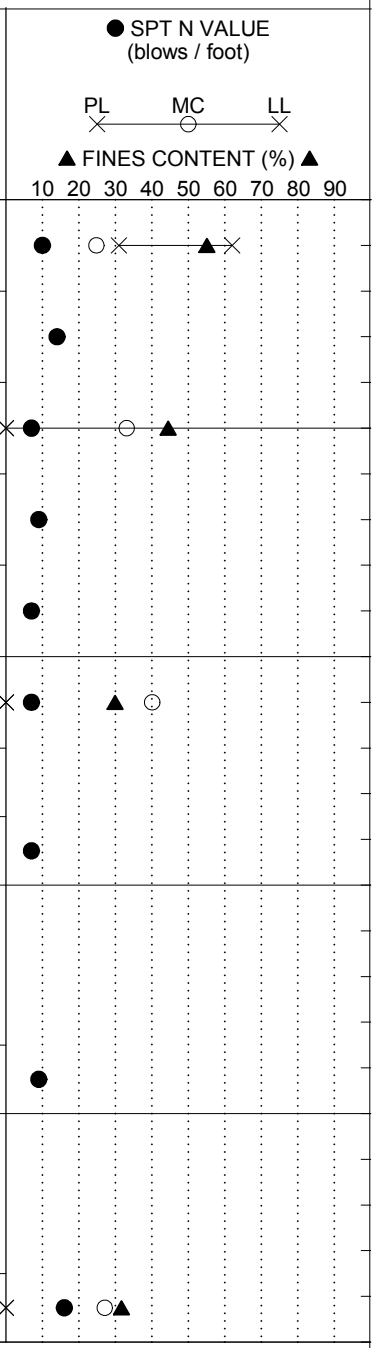
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-1R-06	**Boring Location:**	113+70	**Offset:**	RT 36	**Alignment:**	Ramp 2A
Elev.:	916.4 ft.	**Latitude:**	34.83851329	**Longitude:**	-82.28755253	**Date Started:**	1/7/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/7/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	10.3 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	915.0	Approximately 3 inches of topsoil. Stiff, moist, reddish brown, with mica, SANDY FAT CLAY (CH, A-7-5(15)), FILL, LL=62 PL=31 PI=31 NMC=24.8 %#200=55.1	0.0	SS-1	2	5	5	10
		Medium dense, moist, reddish brown, with mica, SILTY SAND (SM, A-2), RESIDUUM	2.0	SS-2	5	7	7	14
5.0		Loose, moist, reddish brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=33.1 %#200=44.5	4.0	SS-3	1	3	4	7
	910.0	Loose, brown, tan and white, RESIDUUM	6.0	SS-4	2	4	5	9
		Loose, RESIDUUM	8.0	SS-5	2	4	3	7
10.0 ▽	905.0	Loose, moist, brown, tan and black, weakly reactive, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=40.1 %#200=29.9	10.0	SS-6	2	3	4	7
		Loose, brown, tan, white and black, RESIDUUM	13.5	SS-7	2	2	5	7
15.0	900.0							
		Loose, brown, tan and white, RESIDUUM	18.5	SS-8	2	3	6	9
20.0	895.0							
25.0		Medium dense, moist, tan, white and brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP	23.5	SS-9	4	7	9	16



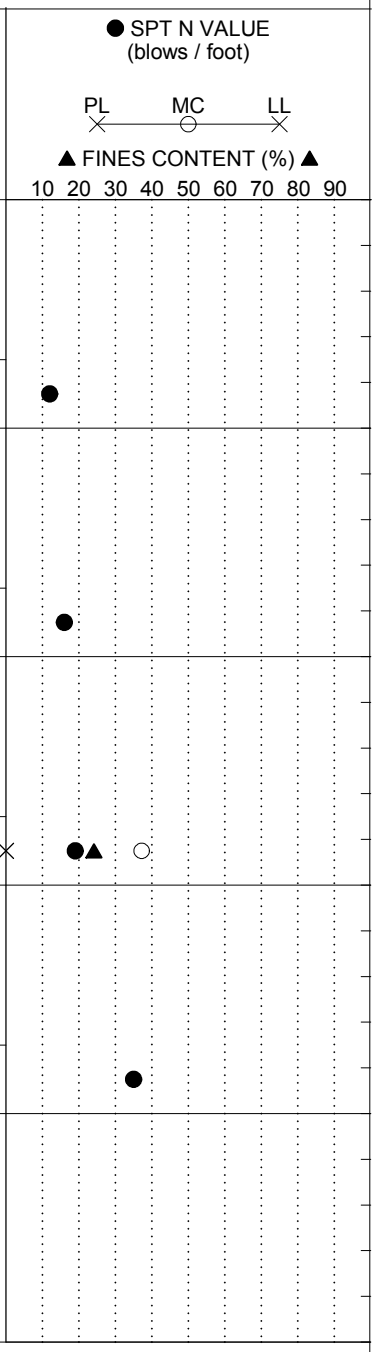
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-1R-06	**Boring Location:**	113+70	**Offset:**	RT 36	**Alignment:**	Ramp 2A
Elev.:	916.4 ft.	**Latitude:**	34.83851329	**Longitude:**	-82.28755253	**Date Started:**	1/7/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/7/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	10.3 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0		NMC=27.1 %#200=31.7							
	890.0								
		Medium dense, brown, white and black, RESIDUUM		28.5	SS-10	2	5	7	12
30.0									
	885.0								
		Medium dense, tan, white and black, RESIDUUM		33.5	SS-11	4	7	9	16
35.0									
	880.0								
		Medium dense, moist, brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=37.2 %#200=24.1		38.5	SS-12	3	6	13	19
40.0									
	875.0								
		Dense, tan, black, and white, fine grained, with trace gravel, RESIDUUM		43.5	SS-13	4	12	23	35
45.0									
		Boring Terminated at 45.0 feet.							



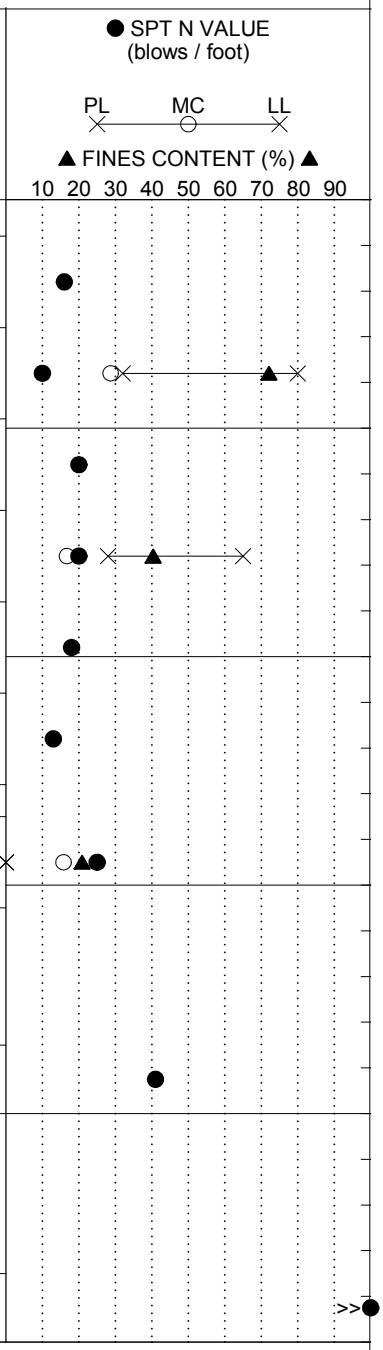
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-2L-01	**Boring Location:**	91+27	**Offset:**	LT 14	**Alignment:**	Ramp 2A
Elev.:	980.1 ft.	**Latitude:**	34.83483556	**Longitude:**	-82.29355574	**Date Started:**	3/26/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/27/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 23.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	980.0	Approximately 10 inches of asphalt.						
		Medium dense, moist, brown, fine to medium grained, SILTY SAND (SM, A-2), FILL	0.8	SS-1	7	8	8	16
		Stiff, moist, red, with mica, FAT CLAY with SAND (CH, A-7-5(36)), ALLUVIUM, LL=80 PL=32 PI=48 NMC=28.7 %#200=72.1	2.8	SS-2	4	4	6	10
5.0	975.0	Very stiff, with mica, ALLUVIUM	4.8	SS-3	2	8	12	20
		Medium dense, moist, red, fine to medium grained, CLAYEY SAND (SC, A-7-6(8)), ALLUVIUM, LL=65 PL=28 PI=37 NMC=16.7 %#200=40.4	6.8	SS-4	2	9	11	20
10.0	970.0	Medium dense, dry, red, fine grained, SILTY SAND (SM, A-2), RESIDUUM	8.8	SS-5	3	8	10	18
		Medium dense, red, brown and white, RESIDUUM	10.8	SS-6	5	5	8	13
15.0	965.0	Medium dense, moist, white and black, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=15.8 %#200=20.9	13.5	SS-7	10	14	11	25
20.0	960.0	Dense, RESIDUUM	18.5	SS-8	8	13	28	41
25.0		Very dense, with mica, PARTIALLY WEATHERED ROCK	23.5	SS-9	17	27	50/3	100



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

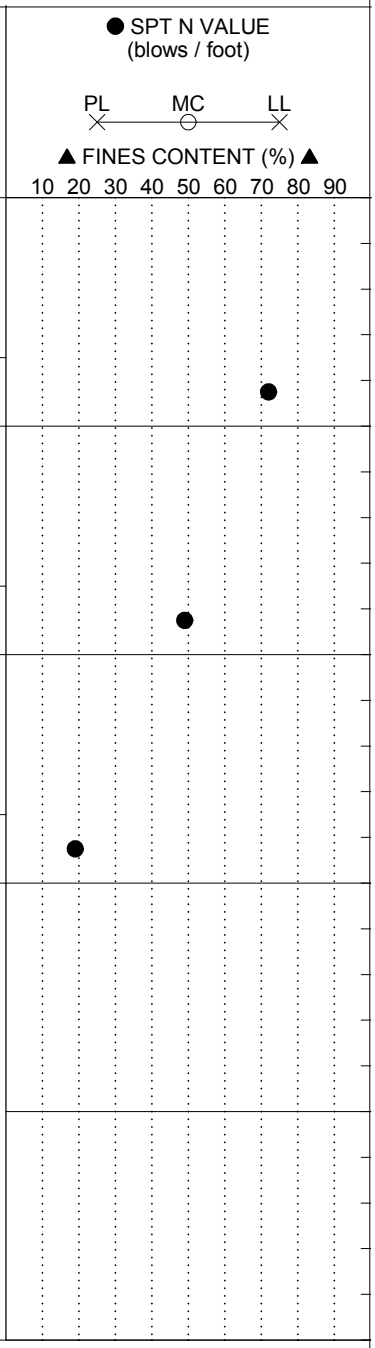
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-2L-01	**Boring Location:**	91+27	**Offset:**	LT 14	**Alignment:**	Ramp 2A
Elev.:	980.1 ft.	**Latitude:**	34.83483556	**Longitude:**	-82.29355574	**Date Started:**	3/26/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/27/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 23.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0	955.0								
		Very dense, with mica, RESIDUUM		28.5	SS-10	11	25	47	72
30.0	950.0								
		Dense, with mica, RESIDUUM		33.5	SS-11	4	13	36	49
35.0	945.0								
		Medium dense, wet, fine to coarse grained, with mica, RESIDUUM		38.5	SS-12	23	9	10	19
40.0									
		Boring Terminated at 40.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

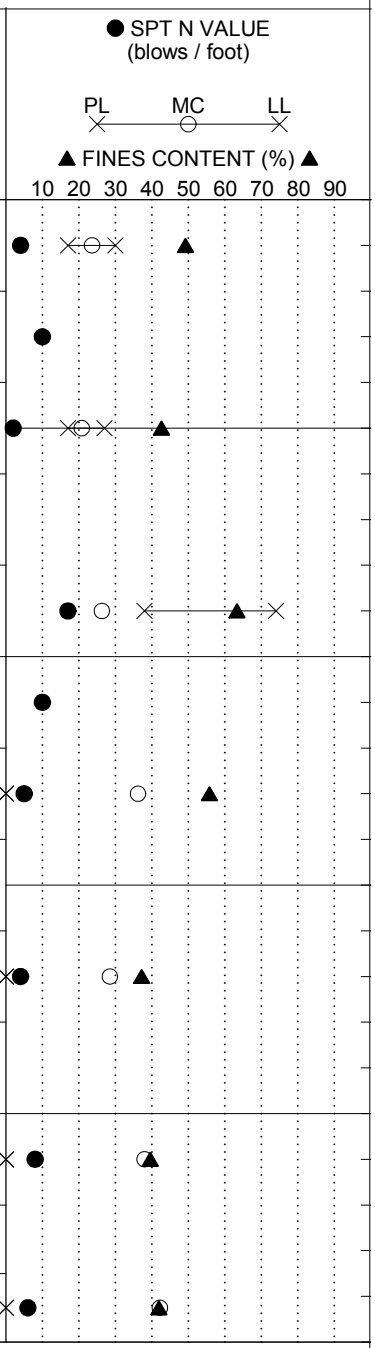
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-MB1-01	**Boring Location:**	84+67	**Offset:**	LT 23	**Alignment:**	Ramp 2A
Elev.:	981.5 ft.	**Latitude:**	34.83339024	**Longitude:**	-82.29487661	**Date Started:**	1/29/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/29/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	22.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	980.0	Approximately 2 inches of topsoil. Very loose, moist, red and brown, fine to medium grained, CLAYEY SAND (SC, A-6(3)), FILL, LL=30 PL=17 PI=13 NMC=23.6 %#200=49.2 Loose, with mica, FILL	0.0	SS-1	1	2	2	4
			2.0	SS-2	5	6	4	10
5.0	975.0	Very loose, moist, red and light brown, fine to medium grained, CLAYEY SAND (SC, A-4(1)), FILL, LL=27 PL=17 PI=10 NMC=20.8 %#200=42.6 Undisturbed sample obtained from 6.0 to 8.0 feet. Approximately 18 inches of recovery.	4.0	SS-3	1	1	1	2
			6.0	SS-4				
10.0	970.0	Very stiff, moist, red and light brown, with mica, SANDY ELASTIC SILT (MH, A-7-5(23)), RESIDUUM, LL=74 PL=38 PI=36 NMC=26.3 %#200=63.3 Stiff, with mica, RESIDUUM	8.0	SS-5	4	9	8	17
			10.0	SS-5	1	4	6	10
15.0	965.0	Firm, moist, red and light brown, with mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=36.2 %#200=55.8 Undisturbed sample obtained from 14.0 to 16.0 feet. Approximately 24 inches of recovery.	12.0	SS-6	1	2	3	5
			14.0	ST-2				
20.0	960.0	Very loose, moist, red and light brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=28.5 %#200=37.2 Undisturbed sample obtained from 18.0 to 20.0 feet. Approximately 22 inches of recovery.	16.0	SS-7	1	2	2	4
			18.0	ST-3				
		Loose, moist, red and purple, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=38.0 %#200=39.6	20.0	SS-8	2	3	5	8
25.0		Loose, moist, red and purple, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=42.2 %#200=41.9	23.5	SS-9	1	2	4	6



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

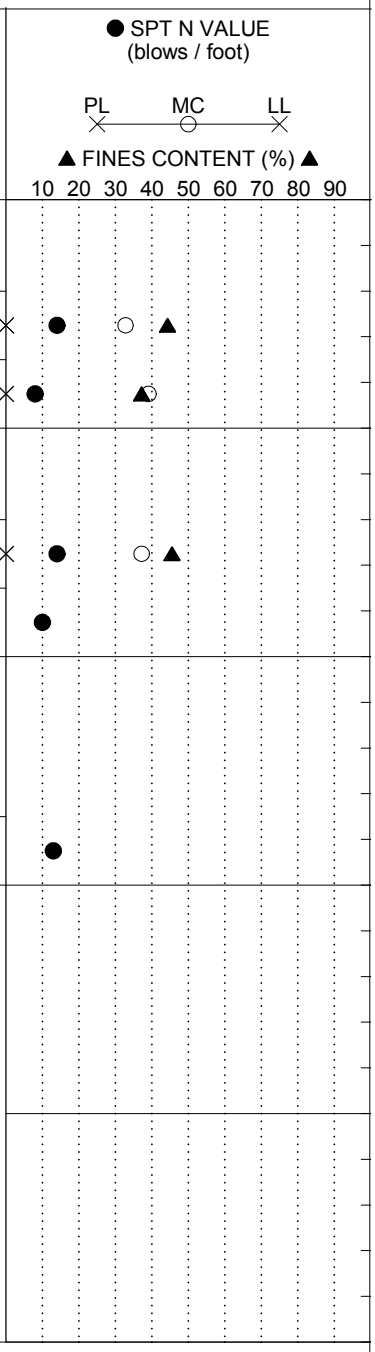
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-MB1-01	**Boring Location:**	84+67	**Offset:**	LT 23	**Alignment:**	Ramp 2A
Elev.:	981.5 ft.	**Latitude:**	34.83339024	**Longitude:**	-82.29487661	**Date Started:**	1/29/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/29/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	22.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	955.0	Undisturbed sample obtained from 25.0 to 27.0 feet. Approximately 24 inches of recovery.		25.0	ST-4				
		Medium dense, moist, brown and dark red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.8 %#200=44.3		27.0	SS-10	2	4	10	14
30.0		Loose, moist, purple and brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=39.1 %#200=37.2		28.5	SS-11	1	3	5	8
	950.0	Undisturbed sample obtained from 30.0 to 32.0 feet. Approximately 24 inches of recovery.		30.0	ST-5				
		Medium dense, moist, brown and red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=37.2 %#200=45.5		32.0	SS-12	3	5	9	14
35.0		Loose, brown and white, with mica, RESIDUUM		33.5	SS-13	2	2	8	10
	945.0								
40.0		Medium dense, white, fine to coarse grained, with mica, RESIDUUM		38.5	SS-14	3	6	7	13



Boring Terminated at 40.0 feet.

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

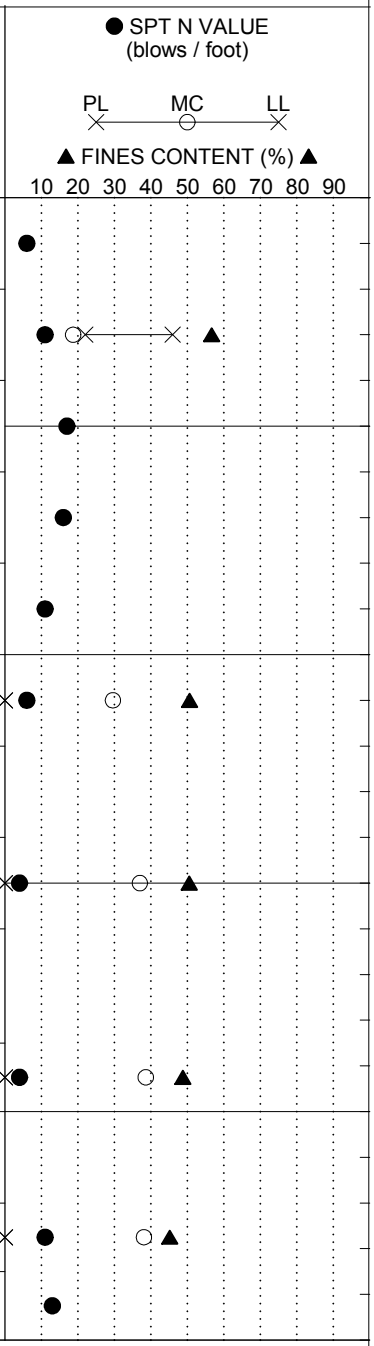
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-MB1-02	**Boring Location:**	83+10	**Offset:**	RT 1	**Alignment:**	Ramp 2A
Elev.:	984.9 ft.	**Latitude:**	34.83302123	**Longitude:**	-82.29513874	**Date Started:**	3/26/2015
Total Depth:	44.0 ft.	**Soil Depth:**	44.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/26/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 28.5 ft.	**24 HR**	24.4 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 3 inches of topsoil. Firm, moist, red, SANDY LEAN CLAY (CL, A-6), ALLUVIUM	0.0	SS-1	2	3	3	6
		Stiff, moist, red, SANDY LEAN CLAY (CL, A-7-6(11)), ALLUVIUM, LL=46 PL=22 PI=24 NMC=18.7 %#200=56.7	2.0	SS-2	2	5	6	11
5.0	980.0	Very stiff, red and light brown, ALLUVIUM	4.0	SS-3	2	7	10	17
		Very stiff, red, with mica, ALLUVIUM	6.0	SS-4	2	7	9	16
		Stiff, red, ALLUVIUM	8.0	SS-5	3	5	6	11
10.0	975.0	Stiff, moist, red and white, with mica, SANDY SILT (ML, A-4), RESIDUUM	10.0	SS-6	3	3	3	6
		Firm, moist, red and light brown, with mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=29.6 %#200=50.6						
		Moist, red, and light brown, RESIDUUM	12.0	ST-1				
15.0	970.0	Soft, moist, red and light brown, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=37.0 %#200=50.5	14.0	SS-7	2	2	2	4
20.0	965.0	Very loose, moist, red and light brown, non reactive, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=38.6 %#200=48.8	18.5	SS-8	2	2	2	4
		Undisturbed sample obtained from 20.0 to 22.0 feet. Approximately 22 inches of recovery. Moist, with mica, RESIDUUM	20.0	ST-2				
		Medium dense, moist, light brown and white, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=38.1 %#200=45.2	22.0	SS-9	2	3	8	11
▽ 25.0	960.0	Medium dense, light brown, white and red, fine	23.5	SS-10	2	6	7	13



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

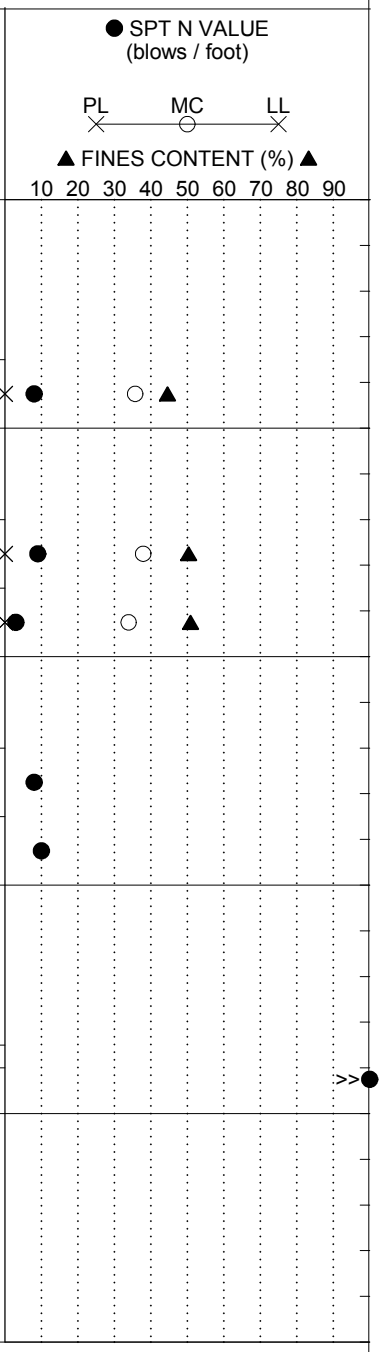
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-MB1-02	**Boring Location:**	83+10	**Offset:**	RT 1	**Alignment:**	Ramp 2A
Elev.:	984.9 ft.	**Latitude:**	34.83302123	**Longitude:**	-82.29513874	**Date Started:**	3/26/2015
Total Depth:	44.0 ft.	**Soil Depth:**	44.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/26/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 28.5 ft.	**24 HR**	24.4 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0		grained, RESIDUUM						
30.0	955.0	Loose, wet, white and light brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=35.7 %#200=44.6	28.5	SS-11	3	3	5	8
		Undisturbed sample obtained from 30.0 to 32.0 feet. Approximately 24 inches of recovery. Moist, white, RESIDUUM	30.0	ST-3				
		Stiff, wet, white, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=37.9 %#200=50.4	32.0	SS-12	3	4	5	9
35.0	950.0	Soft, moist, white, non reactive, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=33.9 %#200=50.9	33.5	SS-13	1	2	1	3
		Moist, white, red and light brown, RESIDUUM	35.0	ST-4				
		Loose, wet, white, fine to coarse grained, RESIDUUM	37.0	SS-14	4	4	4	8
40.0	945.0	Loose, wet, white and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	38.5	SS-15	1	3	7	10
		Very dense, white and reddish brown, with mica, PARTIALLY WEATHERED ROCK	43.5	SS-16	50/5	X	X	100
		Boring Terminated at 44.0 feet.						



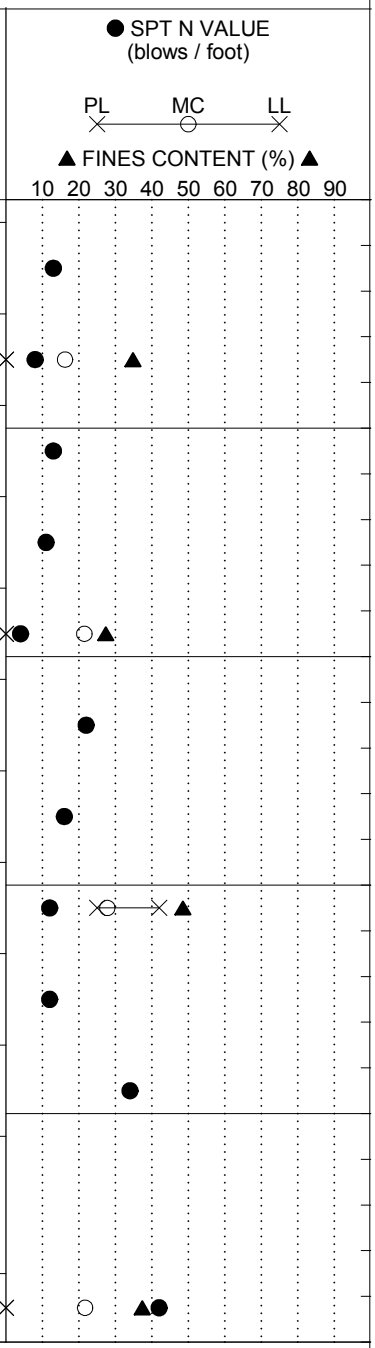
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-MB1-03	**Boring Location:**	81+27	**Offset:**	LT 48	**Alignment:**	Ramp 2A
Elev.:	1008.4 ft.	**Latitude:**	34.83282315	**Longitude:**	-82.29570569	**Date Started:**	3/19/2015
Total Depth:	34.4 ft.	**Soil Depth:**	34.4 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/19/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 6 inches of asphalt.	0.5					
		Medium dense, moist, brown, fine to medium grained, with mica, CLAYEY SAND (SC, A-2), FILL		SS-1	9	7	6	13
	1005.0	Loose, moist, brown and red, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=16.2 %#200=34.8	2.5	SS-2	2	3	5	8
5.0		Medium dense, red, brown and white, with mica, FILL	4.5	SS-3	4	5	8	13
		Medium dense, red and brown, with mica, FILL	6.5	SS-4	3	6	5	11
	1000.0	Very loose, moist, brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=21.5 %#200=27.4	8.5	SS-5	2	2	2	4
10.0		Medium dense, moist, red and brown, fine to medium grained, with mica, CLAYEY SAND (SC, A-2), RESIDUUM	10.5	SS-6	14	11	11	22
	995.0	Medium dense, red and light brown, fine grained, with mica, RESIDUUM	12.5	SS-7	6	7	9	16
15.0		Medium dense, moist, red and light brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(5)), RESIDUUM, LL=42 PL=25 PI=17 NMC=27.8 %#200=48.5	14.5	SS-8	5	5	7	12
		Medium dense, red and brown, with mica, RESIDUUM	16.5	SS-9	2	4	8	12
	990.0	Dense, moist, brown and red, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	18.5	SS-10	3	17	17	34
20.0								
	985.0	Dense, moist, red and brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=21.7 %#200=37.4	23.5	SS-11	8	16	26	42
25.0								



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-MB1-03	**Boring Location:**	81+27	**Offset:**	LT 48	**Alignment:**	Ramp 2A
Elev.:	1008.4 ft.	**Latitude:**	34.83282315	**Longitude:**	-82.29570569	**Date Started:**	3/19/2015
Total Depth:	34.4 ft.	**Soil Depth:**	34.4 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/19/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
	980.0	Dense, red and white, with mica, RESIDUUM		28.5	SS-12	4	8	27	35	
30.0										
	975.0	Very dense, red and light brown, with mica, PARTIALLY WEATHERED ROCK		33.5	SS-13	27	50/4	X	100	>>●
		Boring Terminated at 34.4 feet.								

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

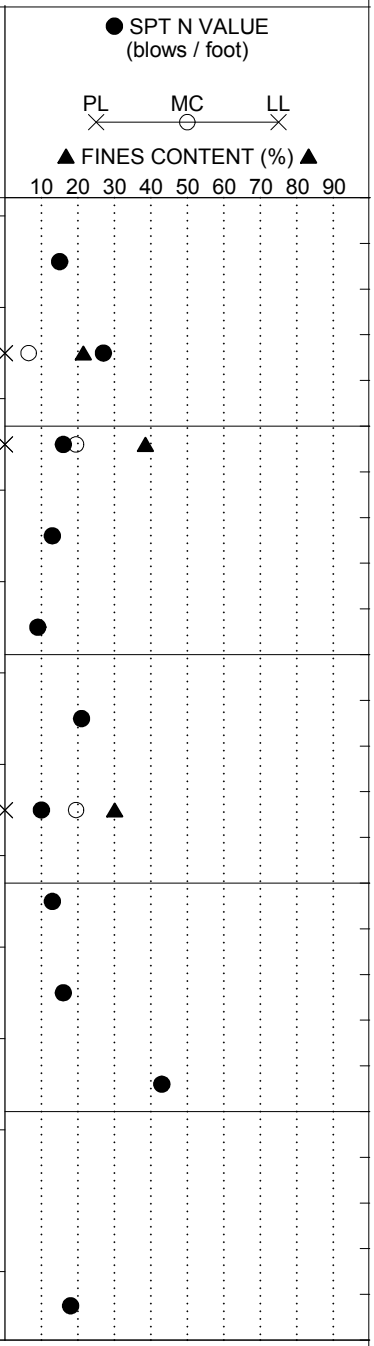
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-MB1-04	**Boring Location:**	80+21	**Offset:**	LT 55	**Alignment:**	Ramp 2A
Elev.:	1003.4 ft.	**Latitude:**	34.83270182	**Longitude:**	-82.29600828	**Date Started:**	3/19/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/19/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 5 inches of asphalt.	0.4					
		Medium dense, moist, red, fine to medium grained, with mica, CLAYEY SAND (SC, A-2), FILL		SS-1	9	7	8	15
	1000.0	Medium dense, moist, brown, white and red, fine to medium grained, with mica, SILTY SAND with GRAVEL (SM, A-1-b(0)), FILL, LL=NP PL=NP PI=NP NMC=6.5 %#200=21.5	2.4	SS-2	3	15	12	27
5.0		Medium dense, moist, red, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=19.5 %#200=38.5	4.4	SS-3	3	7	9	16
		Medium dense, red and brown, with mica, FILL	6.4	SS-4	4	6	7	13
	995.0	Loose, red, fine grained, with mica, FILL	8.4	SS-5	3	3	6	9
10.0		Medium dense, moist, red and light brown, fine grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	10.4	SS-6	4	8	13	21
	990.0	Loose, moist, brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=19.5 %#200=30.1	12.4	SS-7	6	5	5	10
15.0		Medium dense, red and brown, with mica, RESIDUUM	14.4	SS-8	5	5	8	13
		Medium dense, red and light brown, fine grained, with mica, RESIDUUM	16.4	SS-9	5	6	10	16
	985.0	Dense, brown, fine to medium grained, with mica, RESIDUUM	18.4	SS-10	6	24	19	43
20.0								
	980.0	Medium dense, dark red, with mica, RESIDUUM	23.5	SS-11	3	6	12	18
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-MB1-04	**Boring Location:**	80+21	**Offset:**	LT 55	**Alignment:**	Ramp 2A
Elev.:	1003.4 ft.	**Latitude:**	34.83270182	**Longitude:**	-82.29600828	**Date Started:**	3/19/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/19/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
	975.0	Medium dense, moist, dark red and white, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=34.4 %#200=31.4		28.5	SS-12	3	6	8	14	
30.0										
	970.0	Medium dense, light red and white, with mica, RESIDUUM		33.5	SS-13	4	5	10	15	
35.0										
		Boring Terminated at 35.0 feet.								

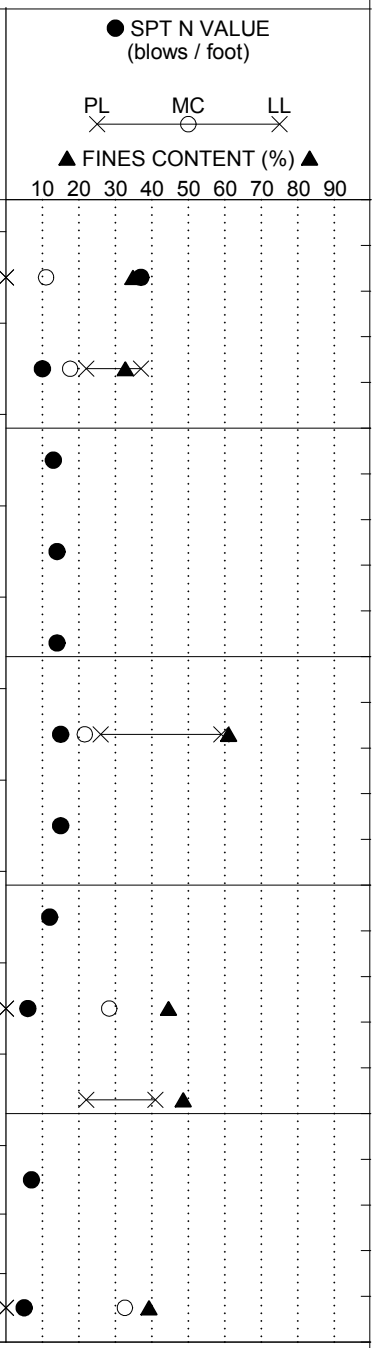
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-MB2-01	**Boring Location:**	84+15	**Offset:**	RT 38	**Alignment:**	Ramp 2A
Elev.:	985.6 ft.	**Latitude:**	34.83317628	**Longitude:**	-82.29481059	**Date Started:**	3/18/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/18/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 30.0 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	985.0	Approximately 8 inches of asphalt.						
		Approximately 8 inches of topsoil. Dense, moist, red, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=11.0 %#200=34.8	0.7	SS-1	39	23	14	37
		Loose, moist, red, fine to medium grained, CLAYEY SAND (SC, A-2-6(1)), FILL, LL=37 PL=22 PI=15 NMC=17.6 %#200=32.7	2.7	SS-2	4	5	5	10
5.0	980.0	Medium dense, with mica, FILL	4.7	SS-3	5	6	7	13
		Medium dense, red, with mica, FILL	6.7	SS-4	2	6	8	14
10.0	975.0	Medium dense, brown, with mica, FILL	8.7	SS-5	2	8	6	14
		Stiff, moist, red and light brown, non reactive, SANDY FAT CLAY (CH, A-7-6(18)), ALLUVIUM, LL=59 PL=26 PI=33 NMC=21.6 %#200=61.1	10.7	SS-6	2	6	9	15
		Stiff, with mica, ALLUVIUM	12.7	SS-7	2	6	9	15
15.0	970.0	Stiff, with mica, ALLUVIUM	14.7	SS-8	3	5	7	12
		Loose, moist, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), ALLUVIUM, LL=NP PL=NP PI=NP NMC=28.3 %#200=44.6	16.7	SS-9	2	3	3	6
20.0	965.0	Undisturbed sample obtained from 18.7 to 20.7 feet. Approximately 18 inches of recovery. Moist, red and light brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(6)), ALLUVIUM, LL=41 PL=22 PI=19 %#200=48.6	18.7	ST-1				
		Loose, moist, red and dark brown, fine grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	20.7	SS-10	2	3	4	7
25.0		Loose, moist, light brown and red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.6	23.5	SS-11	2	2	3	5



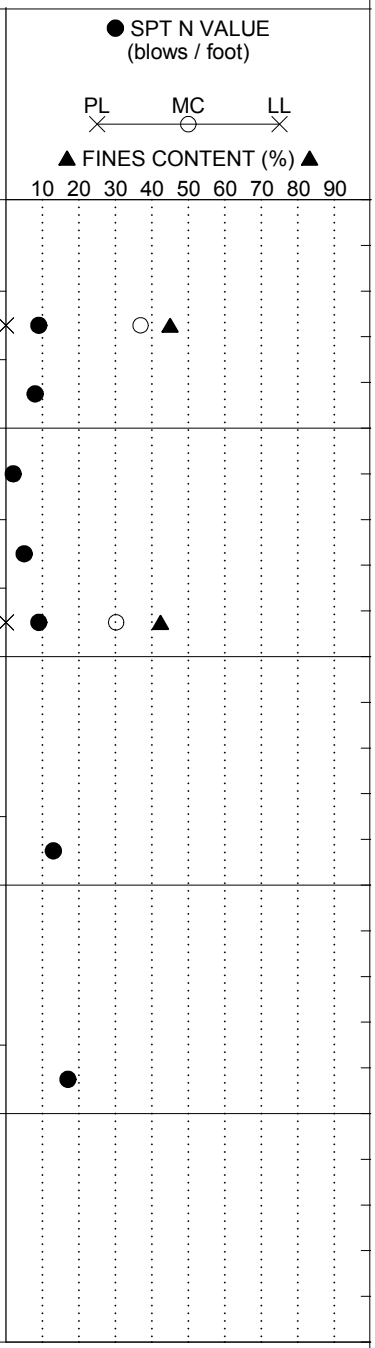
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2A-MB2-01	**Boring Location:**	84+15	**Offset:**	RT 38	**Alignment:**	Ramp 2A
Elev.:	985.6 ft.	**Latitude:**	34.83317628	**Longitude:**	-82.29481059	**Date Started:**	3/18/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/18/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 30.0 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0	960.0	%#200=39.2 Undisturbed sample obtained from 25.0 to 27.0 feet. Approximately 21 inches of recovery.		25.0	ST-2				
		Loose, moist, brown, white and light red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=36.9 %#200=45.0		27.0	SS-12	2	3	6	9
		Loose, white and brown, with mica, RESIDUUM		28.5	SS-13	1	4	4	8
30.0	955.0	Very loose, wet, white and gray, fine to medium grained, with mica, RESIDUUM		30.0	SS-14	0	0	2	2
		Loose, with mica, RESIDUUM		32.0	SS-15	2	2	3	5
35.0	950.0	Loose, wet, white, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=30.2 %#200=42.4		33.5	SS-16	2	4	5	9
40.0	945.0	Medium dense, moist, red, brown and white, with mica, RESIDUUM		38.5	SS-17	4	5	8	13
45.0		Medium dense, red and gray, with mica, RESIDUUM		43.5	SS-18	6	8	9	17
		Boring Terminated at 45.0 feet.							



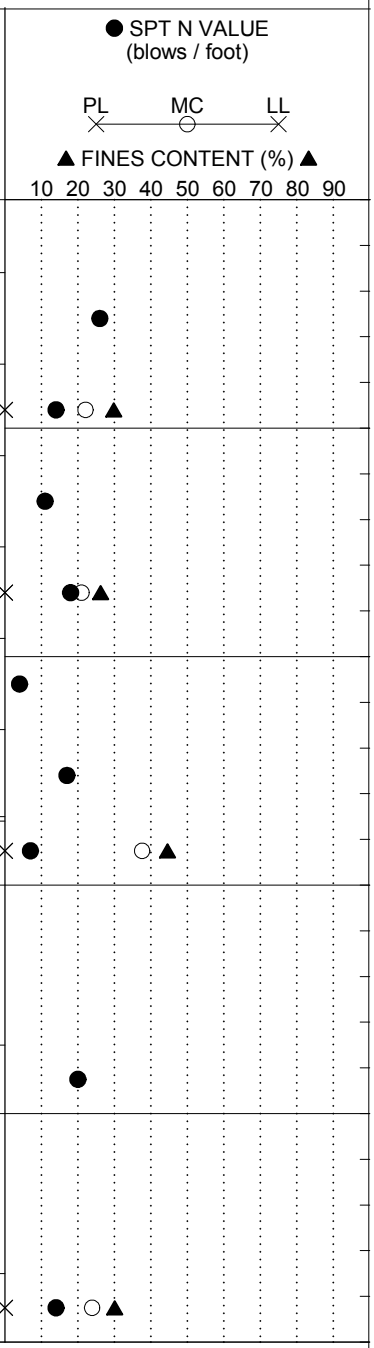
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2B-1R-01	**Boring Location:**	40+30	**Offset:**	LT 12	**Alignment:**	Ramp 2B
Elev.:	995.5 ft.	**Latitude:**	34.83143348	**Longitude:**	-82.29686829	**Date Started:**	1/28/2015
Total Depth:	43.6 ft.	**Soil Depth:**	43.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/29/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	995.0	Approximately 5.5 inches of asphalt and 14 inches of aggregate base.						
		Medium dense, moist, brown, fine to medium grained, SILTY SAND (SM, A-2), FILL	1.6	SS-1	35	13	13	26
5.0	990.0	Medium dense, moist, brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=22.1 %#200=29.8	3.6	SS-2	4	7	7	14
		Medium dense, FILL	5.6	SS-3	3	4	7	11
		Medium dense, moist, brown, fine to medium grained, SILTY SAND with GRAVEL (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=21.0 %#200=26.2	7.6	SS-4	12	11	7	18
10.0	985.0	Loose, FILL	9.6	SS-5	1	2	2	4
		Medium dense, light gray-brown, tan, white and black, FILL	11.6	SS-6	5	9	8	17
15.0	980.0	Loose, moist, brown, white and tan, fine to medium grained, with trace mica, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=37.6 %#200=44.6	13.5	SS-7	2	3	4	7
20.0	975.0	Medium dense, gray, fine to medium grained, FILL	18.5	SS-8	14	14	6	20
25.0		Medium dense, moist, light brown, light gray and white, fine to medium grained, SILTY SAND with GRAVEL (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP	23.5	SS-9	10	7	7	14



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2B-1R-01	**Boring Location:**	40+30	**Offset:**	LT 12	**Alignment:**	Ramp 2B
Elev.:	995.5 ft.	**Latitude:**	34.83143348	**Longitude:**	-82.29686829	**Date Started:**	1/28/2015
Total Depth:	43.6 ft.	**Soil Depth:**	43.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/29/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0	970.0	PI=NP NMC=23.9 %#200=30.1								
30.0	965.0	Loose, yellowish brown, reddish brown and tan, with trace mica, RESIDUUM		28.5	SS-10	6	3	3	6	●
35.0	960.0	Medium dense, wet, tan, white and reddish brown, fine to coarse grained, with rock fragments and trace mica, RESIDUUM		33.5	SS-11	6	10	8	18	●
40.0	955.0	Very dense, No recovery, PARTIALLY WEATHERED ROCK		38.5	SS-12	50/1.3	X	X	100	>>●
		Very dense, No recovery, PARTIALLY WEATHERED ROCK Boring Terminated at 43.6 feet.		43.5	SS-13	50/.8	X	X	50/.8	>>●

LEGEND

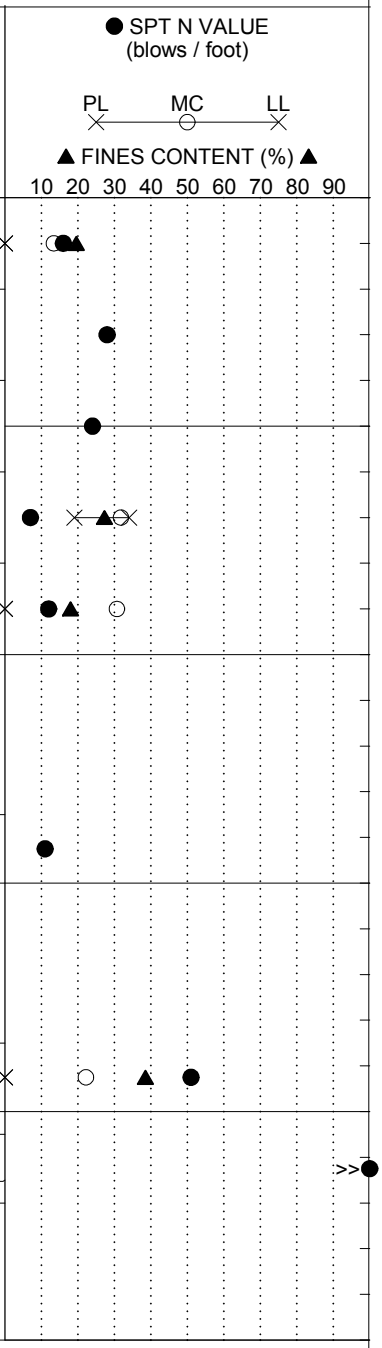
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2B-1R-02	**Boring Location:**	41+10	**Offset:**	RT 15	**Alignment:**	Ramp 2B
Elev.:	975.7 ft.	**Latitude:**	34.83125142	**Longitude:**	-82.29669197	**Date Started:**	5/26/2015
Total Depth:	21.5 ft.	**Soil Depth:**	21.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/27/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	Tri-Pod	**Drill Method:**	MR	**Hammer Type:**	Safety	**Energy Ratio:**	62%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 8.0 ft.	**24 HR**	6.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	975.0	Approximately 2 inches of topsoil. Medium dense, moist, light brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=13.4 %#200=19.6	0.0	SS-1	3	7	9	16
		Medium dense, light brown and reddish brown, with mica, FILL	2.0	SS-2	8	13	15	28
5.0	970.0	Medium dense, light brown, fine grained, FILL	4.0	SS-3	8	12	12	24
		Loose, moist to wet, gray, fine to medium grained, CLAYEY SAND (SC, A-2-6(1)), ALLUVIUM, LL=34 PL=19 PI=15 NMC=31.8 %#200=27.3	6.0	SS-4	4	4	3	7
10.0	965.0	Medium dense, wet, gray and brown, fine to medium grained, SILTY SAND with GRAVEL (SM, A-1-b(0)), ALLUVIUM, LL=NP PL=NP PI=NP NMC=30.7 %#200=18.0	8.0	SS-5	6	8	4	12
15.0	960.0	Medium dense, wet, brown, ALLUVIUM	13.5	SS-6	6	5	6	11
20.0	955.0	Very dense, moist, light brown and red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=22.2 %#200=38.5	18.5	SS-7	32	29	22	51
		Very dense, light brown, PARTIALLY WEATHERED ROCK	20.5	SS-8	38	50/5	X	100

Graphic Log



Boring Terminated at 21.5 feet.

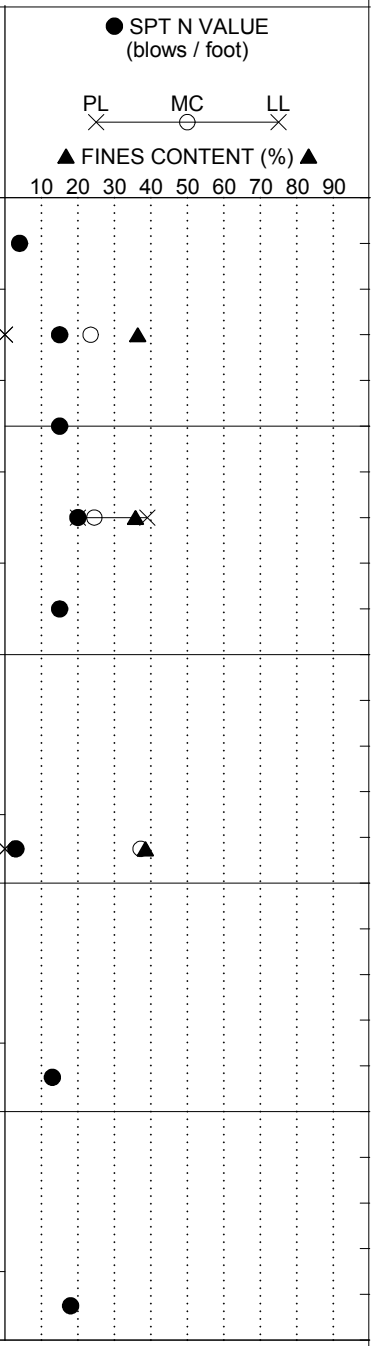
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2B-1R-03	**Boring Location:**	41+94	**Offset:**	RT 13	**Alignment:**	Ramp 2B
Elev.:	976.9 ft.	**Latitude:**	34.83113799	**Longitude:**	-82.29644871	**Date Started:**	5/28/2015
Total Depth:	41.4 ft.	**Soil Depth:**	41.4 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/28/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	Tri-Pod	**Drill Method:**	MR	**Hammer Type:**	Safety	**Energy Ratio:**	62%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 23.5 ft.	**24 HR**	8.6 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	975.0	Approximately 1 inch of topsoil. Very loose, moist, brown, fine to medium grained, SILTY SAND (SM, A-2), FILL	0.0	SS-1	2	2	2	4
		Medium dense, moist, reddish brown, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=23.5 %#200=36.4	2.0	SS-2	7	6	9	15
5.0		Medium dense, red and light brown, with mica, FILL	4.0	SS-3	5	7	8	15
	970.0	Medium dense, moist, gray, fine to medium grained, CLAYEY SAND (SC, A-6(2)), ALLUVIUM, LL=39 PL=20 PI=19 NMC=24.5 %#200=35.8	6.0	SS-4	10	10	10	20
10.0		Medium dense, ALLUVIUM	8.0	SS-5	8	9	6	15
	965.0							
15.0		Very loose, moist, light gray, fine to medium grained, SILTY SAND (SM, A-4(0)), ALLUVIUM, LL=NP PL=NP PI=NP NMC=37.2 %#200=38.5	13.5	SS-6	3	1	2	3
	960.0							
20.0		Medium dense, moist, light brown and white, fine grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	18.5	SS-7	4	5	8	13
	955.0							
25.0		Medium dense, wet, light brown and red, fine to medium grained, with mica, RESIDUUM	23.5	SS-8	5	9	9	18



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2B-1R-03	**Boring Location:**	41+94	**Offset:**	RT 13	**Alignment:**	Ramp 2B
Elev.:	976.9 ft.	**Latitude:**	34.83113799	**Longitude:**	-82.29644871	**Date Started:**	5/28/2015
Total Depth:	41.4 ft.	**Soil Depth:**	41.4 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/28/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	Tri-Pod	**Drill Method:**	MR	**Hammer Type:**	Safety	**Energy Ratio:**	62%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 23.5 ft.	**24 HR**	8.6 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
	950.0									
30.0		Medium dense, moist, light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=25.1 %#200=31.7		28.5	SS-9	8	10	14	24	
	945.0									
35.0		Medium dense, light brown and white, with mica, RESIDUUM		33.5	SS-10	10	12	15	27	
	940.0									
40.0		Very dense, with mica, PARTIALLY WEATHERED ROCK		38.5	SS-11	23	28	50/4	100	>>
		Very dense, reddish brown, fine grained, with mica, PARTIALLY WEATHERED ROCK Boring Terminated at 41.4 feet.		41.0	SS-12	50/5	X	X	100	>>

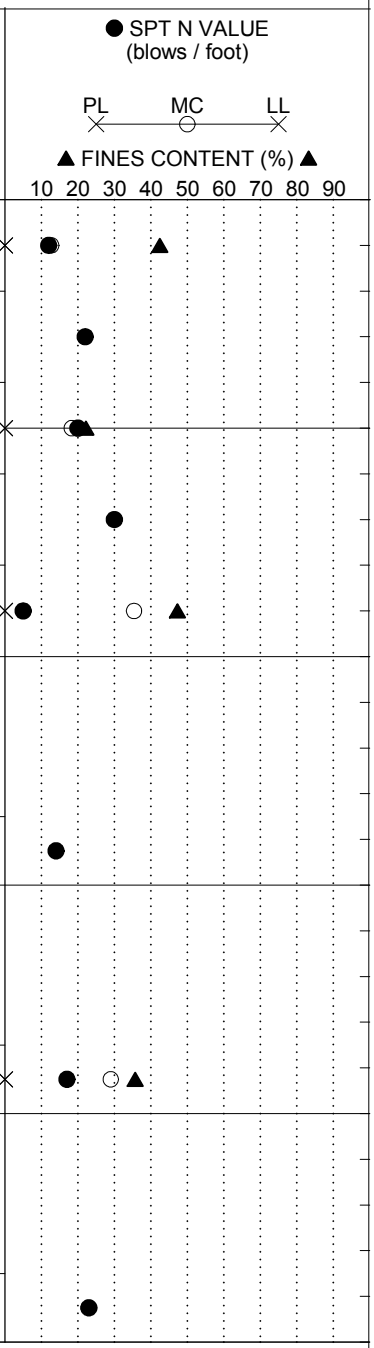
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2B-1R-04	**Boring Location:**	46+93	**Offset:**	RT 67	**Alignment:**	Ramp 2B
Elev.:	976.9 ft.	**Latitude:**	34.8302727	**Longitude:**	-82.29522448	**Date Started:**	6/2/2015
Total Depth:	40.3 ft.	**Soil Depth:**	40.3 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/3/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	Tri-Pod	**Drill Method:**	MR	**Hammer Type:**	Safety	**Energy Ratio:**	62%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 4.0 ft.	**24 HR**	4.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 4 inches of topsoil.	0.0					
	975.0	Medium dense, moist, light brown and red, fine to medium grained, SILTY SAND (SM, A-4(0)), ALLUVIUM, LL=NP PL=NP PI=NP NMC=12.7 %#200=42.5		SS-1	3	5	7	12
		Very stiff, ALLUVIUM	2.0	SS-2	8	11	11	22
5.0		Dense, wet, light brown and red, fine to medium grained, SILTY SAND (SM, A-2-4(0)), ALLUVIUM, LL=NP PL=NP PI=NP NMC=18.3 %#200=22.2	4.0	SS-3	11	8	12	20
	970.0	Medium dense, wet, light brown and red, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	6.0	SS-4	12	20	10	30
10.0		Loose, moist, white, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=35.4 %#200=47.3	8.0	SS-5	2	2	3	5
	965.0							
15.0		Loose, white and light brown, RESIDUUM	13.5	SS-6	4	5	9	14
	960.0							
20.0		Medium dense, moist, white, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=29.0 %#200=35.7	18.5	SS-7	5	8	9	17
	955.0							
25.0		Medium dense, white and gray, with mica, RESIDUUM	23.5	SS-8	10	11	12	23



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

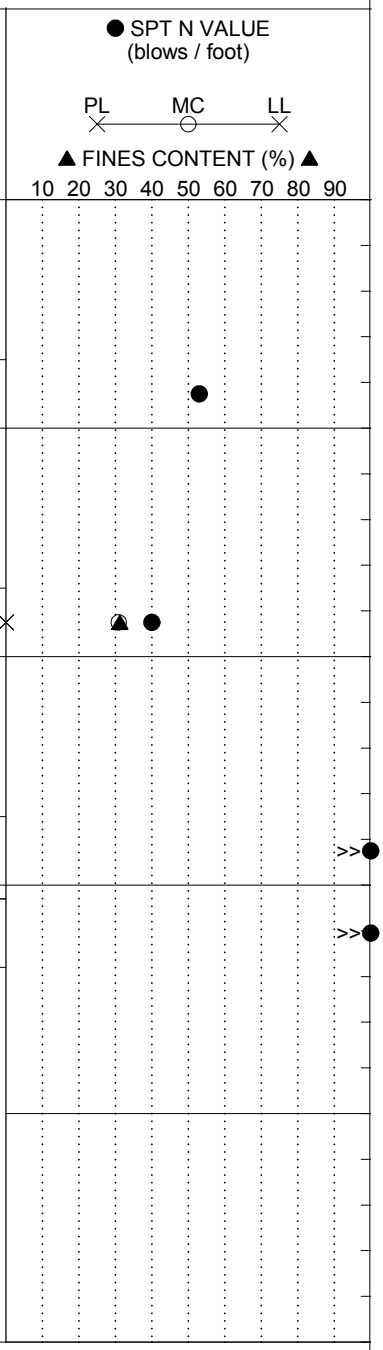
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2B-1R-04	**Boring Location:**	46+93	**Offset:**	RT 67	**Alignment:**	Ramp 2B
Elev.:	976.9 ft.	**Latitude:**	34.8302727	**Longitude:**	-82.29522448	**Date Started:**	6/2/2015
Total Depth:	40.3 ft.	**Soil Depth:**	40.3 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/3/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	Tri-Pod	**Drill Method:**	MR	**Hammer Type:**	Safety	**Energy Ratio:**	62%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 4.0 ft.	**24 HR**	4.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	950.0								
		Very dense, No recovery, RESIDUUM		28.5	SS-9	11	23	30	53
30.0									
	945.0								
		Medium dense, moist, reddish brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=30.9 %#200=31.2		33.5	SS-10	13	18	22	40
35.0									
	940.0								
		Very dense, light brown, with mica, PARTIALLY WEATHERED ROCK		38.5	SS-11	13	50/5	X	100
40.0									
		Very dense, reddish brown, fine to medium grained, with mica, PARTIALLY WEATHERED ROCK		40.3	SS-12	50/3	X	X	100
		Boring Terminated at 40.3 feet.							



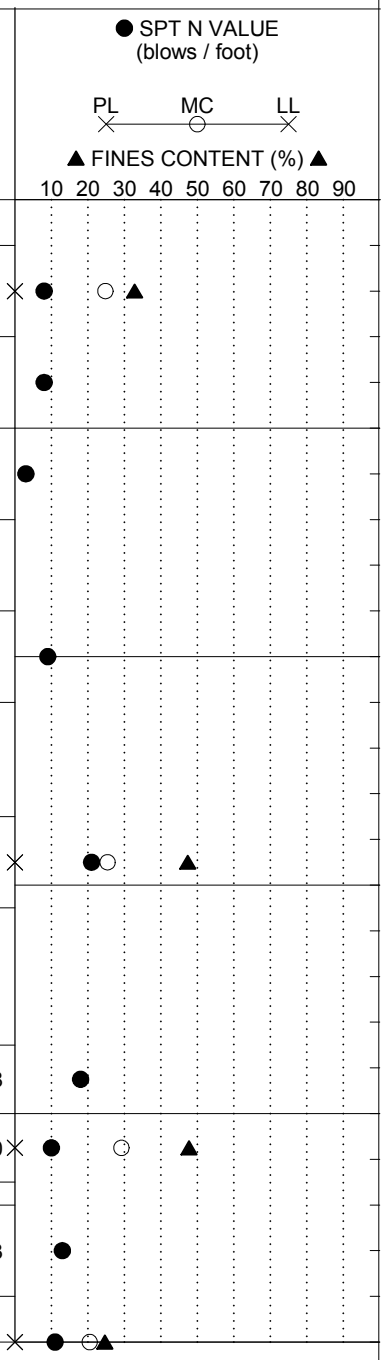
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2B-1R-05	**Boring Location:**	49+35	**Offset:**	LT 21	**Alignment:**	Ramp 2B
Elev.:	1002.4 ft.	**Latitude:**	34.82986623	**Longitude:**	-82.29455605	**Date Started:**	1/29/2015
Total Depth:	58.6 ft.	**Soil Depth:**	58.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/30/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 8.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 13 inches of asphalt and base.						
	1000.0	Loose, moist, light brown, reddish brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=24.8 %#200=32.8	1.0	SS-1	6	5	3	8
		Loose, wet, brown, fine to coarse grained, FILL	3.0	SS-2	6	5	3	8
5.0		Very loose, No recovery, FILL	5.0	SS-3	1	2	1	3
	995.0	Possible void noted from 6 to 13 feet. Loss water and stabilized around 8.5 feet. Very loose, No recovery, FILL	7.0	ST-1				
10.0		Loose, No recovery, FILL	9.0	SS-4	2	3	6	9
	990.0							
15.0		Medium dense, moist, brown and black, fine to medium grained, with trace mica, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=25.4 %#200=47.4	13.5	SS-5	4	9	12	21
	985.0							
20.0		Medium dense, reddish brown, light brown, tan and white, with trace mica, FILL	18.5	SS-6	6	9	9	18
		Loose, moist, brown, reddish brown and white, fine to medium grained, with trace mica, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=29.2 %#200=47.7	20.0	SS-7	5	5	5	10
	980.0	Medium dense, light gray-brown, dark reddish brown and white, with trace mica, FILL	22.0	SS-8	3	6	7	13
25.0		Medium dense, moist, light brown, dark brown and black, fine to medium grained, with trace mica, SILTY	24.0					



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

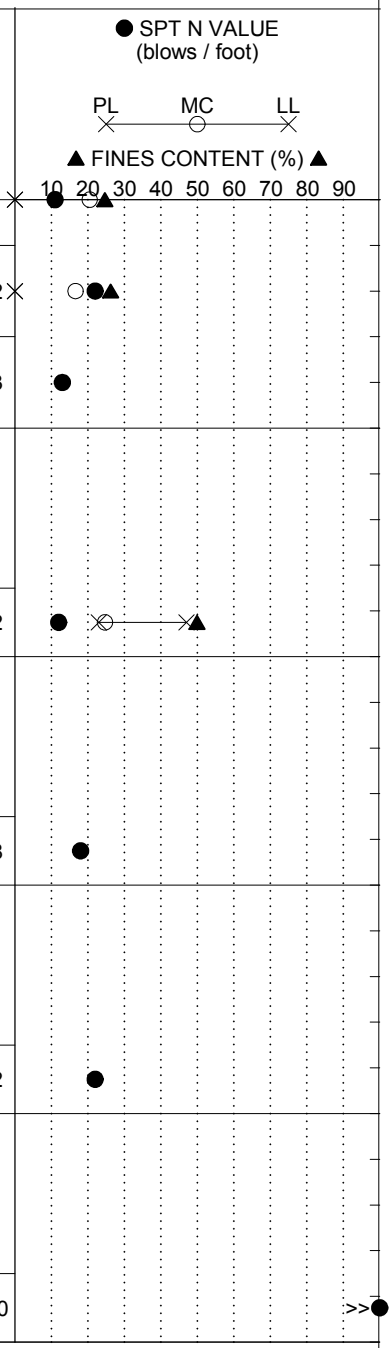
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2B-1R-05	**Boring Location:**	49+35	**Offset:**	LT 21	**Alignment:**	Ramp 2B
Elev.:	1002.4 ft.	**Latitude:**	34.82986623	**Longitude:**	-82.29455605	**Date Started:**	1/29/2015
Total Depth:	58.6 ft.	**Soil Depth:**	58.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/30/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 8.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0		SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=20.5 %#200=24.7		SS-9	9	5	6	11
	975.0	Medium dense, moist, light reddish brown, yellowish brown and white, fine to medium grained, with trace mica, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=16.6 %#200=26.2	26.0	SS-10	9	12	10	22
30.0		Medium dense, light brown and reddish brown, with trace mica, FILL	28.0	SS-11	5	6	7	13
	970.0							
35.0		Medium dense, moist, dark brown and brown, fine to medium grained, with fine roots, CLAYEY SAND (SC, A-7-6(8)), RESIDUUM, LL=47 PL=23 PI=24 NMC=24.7 %#200=49.9	33.5	SS-12	3	5	7	12
	965.0							
40.0		Medium dense, reddish brown and brown, RESIDUUM	38.5	SS-13	6	8	10	18
	960.0							
45.0		Medium dense, light brown, yellowish brown and light reddish brown, RESIDUUM	43.5	SS-14	10	10	12	22
	955.0							
50.0		Very dense, No recovery, PARTIALLY WEATHERED ROCK	48.5	SS-15	50/2	X	X	100



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W2B-1R-05	**Boring Location:**	49+35	**Offset:**	LT 21	**Alignment:**	Ramp 2B
Elev.:	1002.4 ft.	**Latitude:**	34.82986623	**Longitude:**	-82.29455605	**Date Started:**	1/29/2015
Total Depth:	58.6 ft.	**Soil Depth:**	58.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/30/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 8.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
50.0										
	950.0									
55.0		Very dense, moist, dark reddish brown and brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=11.1 %#200=19.6		53.5	SS-16	55	27	21	48	
	945.0									
		Very dense, No recovery, ROCK Boring Terminated at 58.6 feet.		58.5	SS-17	50/.3	X	X	50/.3	>>●

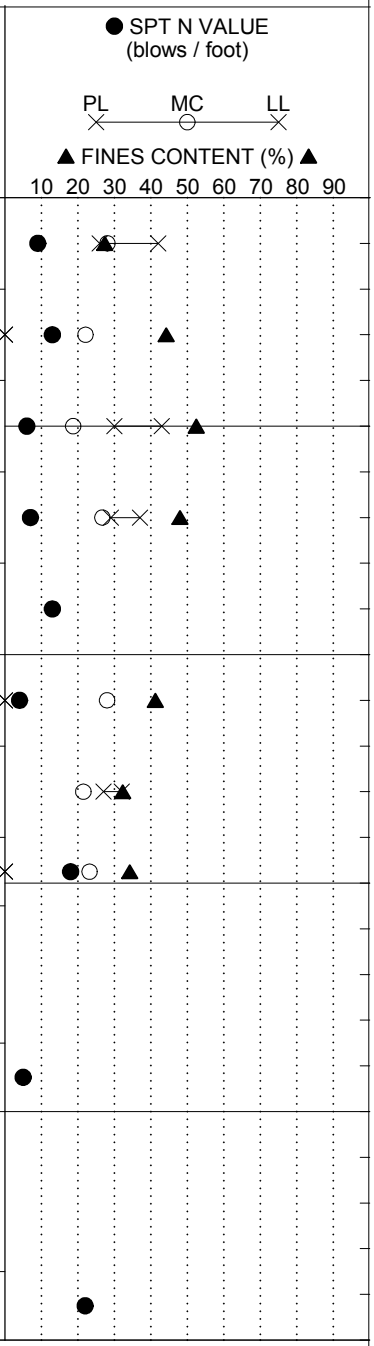
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W3A-1R-01	**Boring Location:**	288+48	**Offset:**	RT 20	**Alignment:**	Ramp 3A
Elev.:	991.6 ft.	**Latitude:**	34.83241255	**Longitude:**	-82.29711094	**Date Started:**	1/12/2015
Total Depth:	25.0 ft.	**Soil Depth:**	25.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	19.7 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	990.0	Approximately 1 inch of topsoil. Loose, moist, reddish brown, fine to medium grained, SILTY SAND (SM, A-2-7(1)), FILL, LL=42 PL=26 PI=16 NMC=28.1 %#200=27.4	0.0	SS-1	3	5	4	9
		Medium dense, moist, reddish brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=22.1 %#200=44.2	2.0	SS-2	3	6	7	13
5.0		Firm, moist, reddish brown, with trace mica, SANDY SILT (ML, A-7-5(5)), RESIDUUM, LL=43 PL=30 PI=13 NMC=18.7 %#200=52.5	4.0	SS-3	1	2	4	6
	985.0	Loose, moist, reddish brown, fine to medium grained, with trace mica and gravel, SILTY SAND (SM, A-4(2)), RESIDUUM, LL=37 PL=29 PI=8 NMC=26.7 %#200=48.0	6.0	SS-4	2	3	4	7
		Medium dense, with trace mica, RESIDUUM	8.0	SS-5	2	6	7	13
10.0		Loose, moist, reddish brown, fine to medium grained, with trace mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=28.0 %#200=41.2	10.0	SS-6	1	2	2	4
	980.0	Moist, reddish brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=32 PL=27 PI=5 NMC=21.5 %#200=32.3	12.0	ST-1				
15.0		Medium dense, moist, reddish brown, fine to medium grained, with trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=23.2 %#200=34.2	14.0	SS-7	2	6	12	18
	975.0							
		Loose, red, light brown and white, RESIDUUM	18.5	SS-8	1	2	3	5
20.0								
	970.0							
		Medium dense, grayish and reddish brown, RESIDUUM	23.5	SS-9	7	10	12	22
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W3A-1R-01	**Boring Location:**	288+48	**Offset:**	RT 20	**Alignment:**	Ramp 3A
Elev.:	991.6 ft.	**Latitude:**	34.83241255	**Longitude:**	-82.29711094	**Date Started:**	1/12/2015
Total Depth:	25.0 ft.	**Soil Depth:**	25.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	19.7 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
		Boring Terminated at 25.0 feet.								

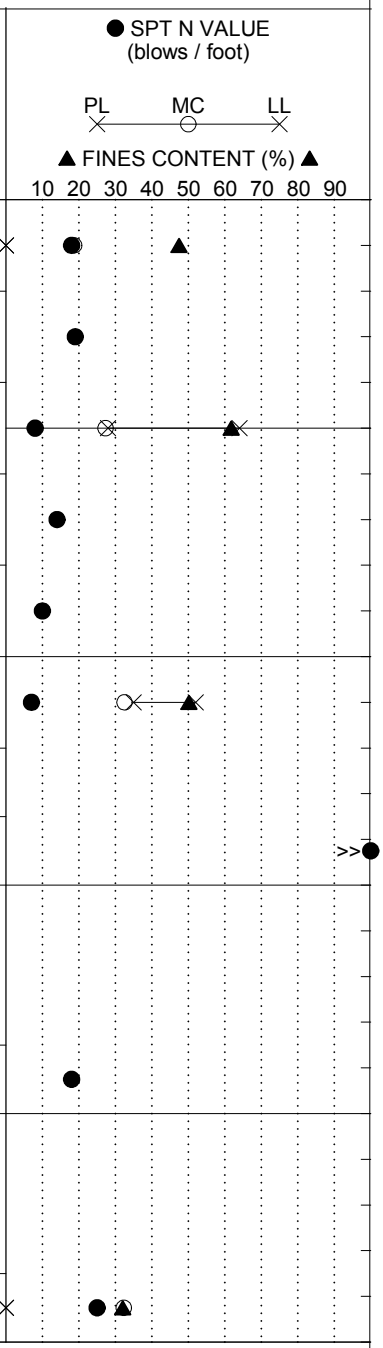
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-01	**Boring Location:**	60+00	**Offset:**	RT 32	**Alignment:**	Ramp 4
Elev.:	978.6 ft.	**Latitude:**	34.83418819	**Longitude:**	-82.29390429	**Date Started:**	1/7/2015
Total Depth:	33.5 ft.	**Soil Depth:**	33.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/7/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	18.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 6 inches of topsoil. Medium dense, moist, reddish brown, fine to medium grained, with organics, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=18.7 %#200=47.5	0.0	SS-1	1	9	9	18
	975.0	Very stiff, moist, reddish brown, SANDY FAT CLAY (CH, A-7), FILL	2.0	SS-2	11	10	9	19
5.0		Firm, moist, reddish brown, weakly reactive, SANDY FAT CLAY (CH, A-7-6(21)), FILL, LL=64 PL=28 PI=36 NMC=27.3 %#200=61.8	4.0	SS-3	2	3	5	8
		Stiff, moist, reddish brown, SANDY ELASTIC SILT (MH, A-7), FILL	6.0	SS-4	1	6	8	14
	970.0	Stiff, moist, reddish brown, SANDY ELASTIC SILT, (MH, A-7), RESIDUUM	8.0	SS-5	2	4	6	10
10.0		Firm, moist, reddish brown, SANDY ELASTIC SILT (MH, A-7-5(6)), RESIDUUM, LL=52 PL=35 PI=17 NMC=32.5 %#200=50.2	10.0	SS-6	2	3	4	7
	965.0	Very dense, moist, brown, fine grained, SILTY SAND (SM, A-2), PARTIALLY WEATHERED ROCK	13.5	SS-7	50	X	X	100
15.0								
	960.0	Medium dense, brown, tan, white and black, RESIDUUM	18.5	SS-8	2	12	6	18
20.0								
	955.0	Medium dense, moist, brown, black, white and tan, weakly reactive, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP	23.5	SS-9	2	5	20	25
25.0								



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-01	**Boring Location:**	60+00	**Offset:**	RT 32	**Alignment:**	Ramp 4
Elev.:	978.6 ft.	**Latitude:**	34.83418819	**Longitude:**	-82.29390429	**Date Started:**	1/7/2015
Total Depth:	33.5 ft.	**Soil Depth:**	33.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/7/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	18.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0		NMC=32.3 %#200=32.0								
	950.0	Dense, brown, tan and white		28.5	SS-10	7	25	10	35	
30.0		Very dense, No recovery, ROCK		33.5						
		Boring Terminated at 33.5 feet.			SS-11	50/.5	X	X	50/.5	>>●

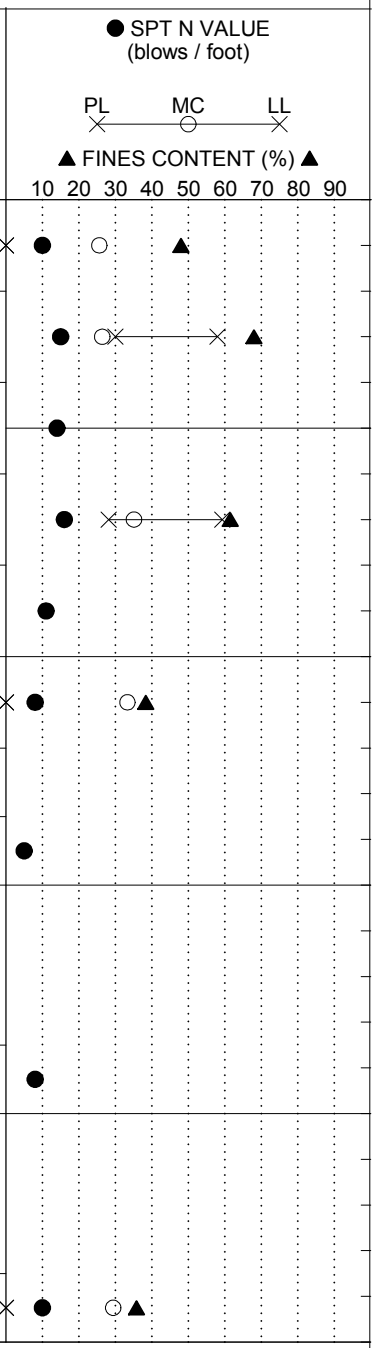
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-02	**Boring Location:**	57+97	**Offset:**	RT 39	**Alignment:**	Ramp 4
Elev.:	977.3 ft.	**Latitude:**	34.8337123	**Longitude:**	-82.29422609	**Date Started:**	1/7/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/7/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	16.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 6 inches of topsoil. Loose, moist, reddish brown and brown, weakly reactive, fine to medium grained, with trace organics, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=25.6 %#200=48.0	0.0	SS-1	2	4	6	10
	975.0	Stiff, moist, reddish brown and white, with mica, SANDY FAT CLAY (CH, A-7-5(19)), FILL, LL=58 PL=30 PI=28 NMC=26.4 %#200=68.0	2.0	SS-2	6	7	8	15
5.0		Stiff, reddish brown, FILL	4.0	SS-3	2	5	9	14
	970.0	Very stiff, moist, reddish brown, weakly reactive, SANDY FAT CLAY (CH, A-7-6(18)), FILL, LL=59 PL=28 PI=31 NMC=35.1 %#200=61.5	6.0	SS-4	4	7	9	16
		Medium dense, moist, reddish brown and tan, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	8.0	SS-5	2	4	7	11
10.0		Loose, moist, reddish brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=33.3 %#200=38.3	10.0	SS-6	2	3	5	8
	965.0	Loose, RESIDUUM	13.5	SS-7	2	2	3	5
15.0								
	960.0							
		Loose, brown, tan, white and black, RESIDUUM	18.5	SS-8	2	3	5	8
20.0								
	955.0							
25.0		Loose, moist, brown and white, fine to medium grained, SILTY SAND with GRAVEL (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=29.4	23.5	SS-9	2	3	7	10



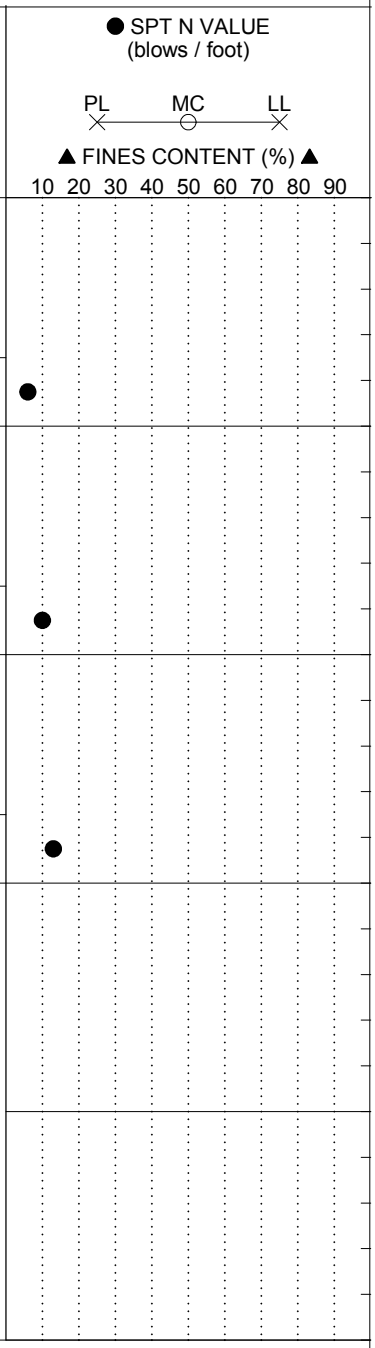
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-02	**Boring Location:**	57+97	**Offset:**	RT 39	**Alignment:**	Ramp 4
Elev.:	977.3 ft.	**Latitude:**	34.8337123	**Longitude:**	-82.29422609	**Date Started:**	1/7/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/7/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	16.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0		%#200=35.8							
	950.0								
		Loose, brown, tan and white, RESIDUUM		28.5	SS-10	3	3	3	6
30.0									
	945.0								
		Loose, RESIDUUM		33.5	SS-11	3	4	6	10
35.0									
	940.0								
		Medium dense, brown, white and black, RESIDUUM		38.5	SS-12	3	5	8	13
40.0									
		Boring Terminated at 40.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

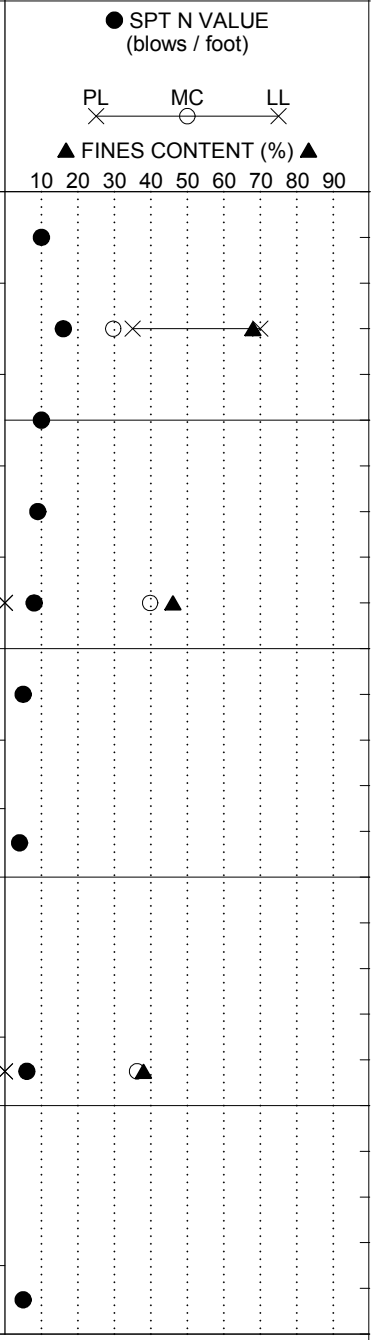
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-03	**Boring Location:**	55+92	**Offset:**	RT 31	**Alignment:**	Ramp 4
Elev.:	976.8 ft.	**Latitude:**	34.83323287	**Longitude:**	-82.2945456	**Date Started:**	1/8/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/8/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 18.5 ft.	**24 HR**	14.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	975.0	Approximately 4 inches of topsoil. Stiff, moist, reddish brown, SANDY ELASTIC SILT (MH, A-7), FILL	0.0	SS-1	3	5	5	10
		Very stiff, moist, reddish brown, non reactive, SANDY ELASTIC SILT (MH, A-7-5(25)), FILL, LL=70 PL=35 PI=35 NMC=29.7 %#200=68.0	2.0	SS-2	9	7	9	16
5.0	970.0	Stiff, with mica, FILL	4.0	SS-3	1	3	7	10
		Stiff, with mica, FILL	6.0	SS-4	3	3	6	9
10.0	965.0	Loose, moist, brown, fine grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=39.8 %#200=46.1	8.0	SS-5	1	3	5	8
		Loose, with mica, RESIDUUM	10.0	SS-6	2	2	3	5
15.0	960.0	Very loose, brown, white and black, with mica, RESIDUUM	13.5	SS-7	2	1	3	4
20.0	955.0	Loose, wet, white, tan and brown, fine to medium grained, with trace gravel and quartz, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=36.2 %#200=38.0	18.5	SS-8	2	2	4	6
25.0		Loose, brown and white, RESIDUUM	23.5	SS-9	2	2	3	5



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

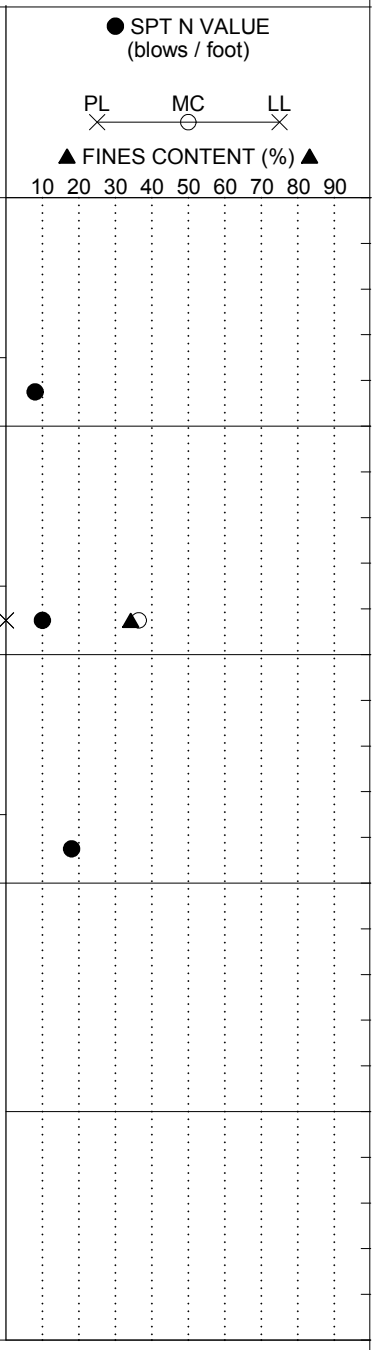
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-03	**Boring Location:**	55+92	**Offset:**	RT 31	**Alignment:**	Ramp 4
Elev.:	976.8 ft.	**Latitude:**	34.83323287	**Longitude:**	-82.2945456	**Date Started:**	1/8/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/8/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 18.5 ft.	**24 HR**	14.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	950.0								
30.0		Loose, moist, red, white and light brown, RESIDUUM		28.5	SS-10	2	4	4	8
	945.0								
35.0		Loose, moist, red and light brown, non reactive, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=36.4 %#200=34.2		33.5	SS-11	2	4	6	10
	940.0								
40.0		Medium dense, red and white, RESIDUUM		38.5	SS-12	3	7	11	18
		Boring Terminated at 40.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

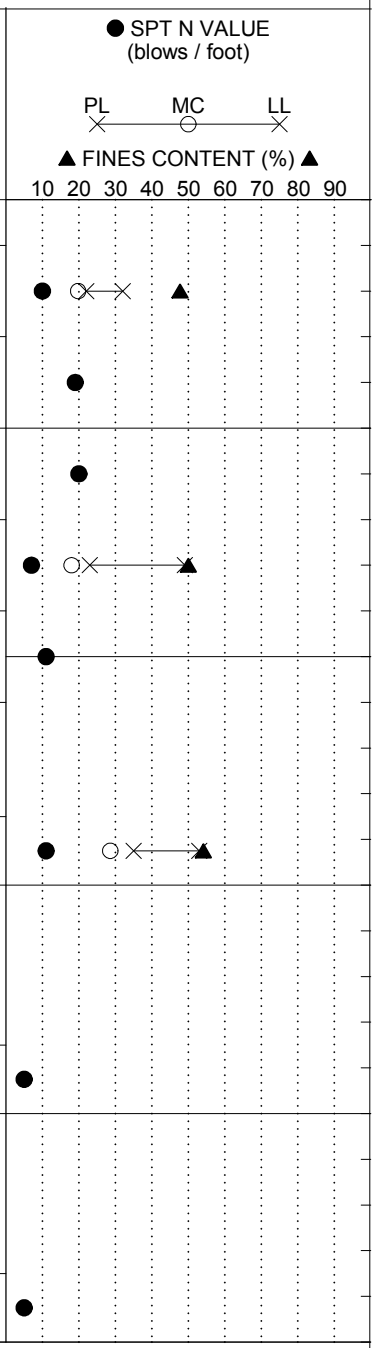
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-04	**Boring Location:**	54+04	**Offset:**	LT 18	**Alignment:**	Ramp 4
Elev.:	987.7 ft.	**Latitude:**	34.83277293	**Longitude:**	-82.29486284	**Date Started:**	6/10/2015
Total Depth:	90.0 ft.	**Soil Depth:**	90.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 28.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 12 inches of asphalt.						
	985.0	Medium dense, moist, red, fine to medium grained, CLAYEY SAND (SC, A-4(2)), FILL, LL=32 PL=22 PI=10 NMC=19.8 %#200=47.7	1.0	SS-1	2	4	6	10
		Medium dense, red and brown, FILL	3.0	SS-2	8	8	11	19
5.0		Medium dense, FILL	5.0	SS-3	10	15	5	20
	980.0	Firm, moist, red, non reactive, SANDY LEAN CLAY (CL, A-7-6(9)), FILL, LL=49 PL=23 PI=26 NMC=18.0 %#200=50.0	7.0	SS-4	3	3	4	7
10.0		Stiff, red and brown, with trace gravel, FILL	9.0	SS-5	3	6	5	11
	975.0							
15.0		Stiff, moist, red and light brown, SANDY ELASTIC SILT (MH, A-7-5(8)), RESIDUUM, LL=53 PL=35 PI=18 NMC=28.6 %#200=54.1	13.5	SS-6	3	5	6	11
	970.0							
20.0		Loose, moist, red and light brown, fine grained, SILTY SAND (SM, A-2), RESIDUUM	18.5	SS-7	2	2	3	5
	965.0							
25.0		Loose, light brown and white, with mica, RESIDUUM	23.5	SS-8	2	2	3	5



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

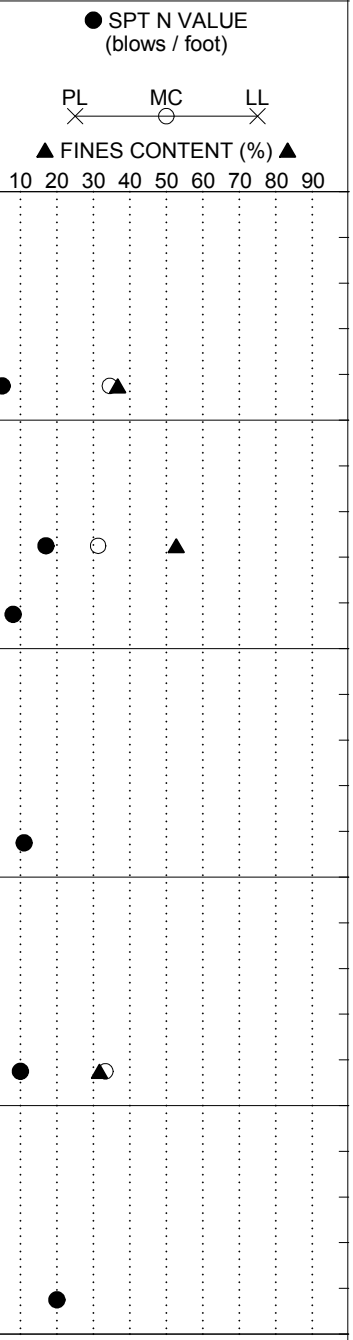
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-04	**Boring Location:**	54+04	**Offset:**	LT 18	**Alignment:**	Ramp 4
Elev.:	987.7 ft.	**Latitude:**	34.83277293	**Longitude:**	-82.29486284	**Date Started:**	6/10/2015
Total Depth:	90.0 ft.	**Soil Depth:**	90.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 28.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0								
	960.0							
30.0		Loose, wet, light brown and red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=34.5 %#200=36.7	28.5	SS-9	2	2	3	5
		Undisturbed sample obtained from 30.0 to 32.0 feet. Approximately 24 inches of recovery.	30.0	ST-1				
	955.0	Very stiff, moist, light brown and white, fine to medium grained, with mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=31.3 %#200=52.7	32.0	SS-10	4	8	9	17
35.0		Firm, with mica, RESIDUUM	33.5	SS-11	1	3	5	8
	950.0							
40.0		Stiff, wet, white, with mica, RESIDUUM	38.5	SS-12	4	4	7	11
	945.0							
45.0		Loose, moist, brown, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=33.3 %#200=31.7	43.5	SS-13	4	4	6	10
	940.0							
50.0		Medium dense, white and brown, with mica, RESIDUUM	48.5	SS-14	4	8	12	20



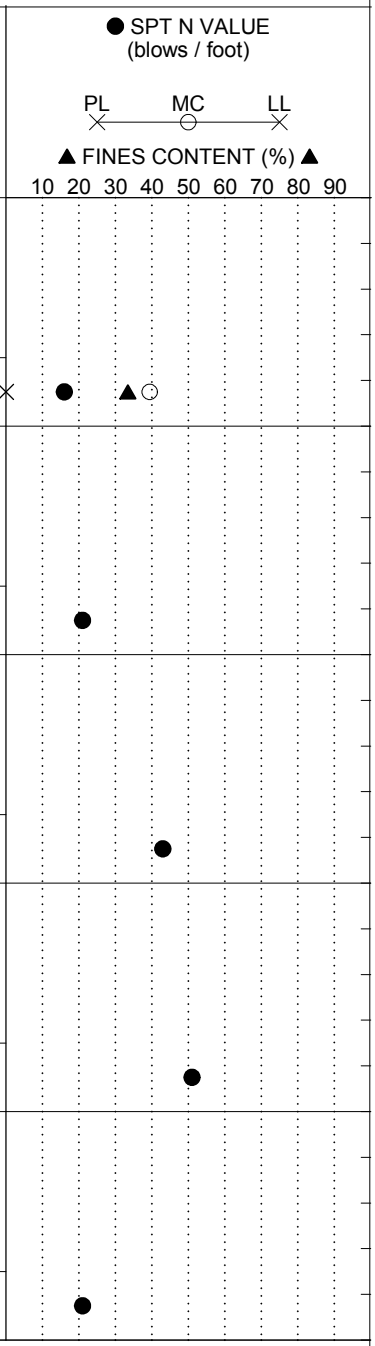
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-04	**Boring Location:**	54+04	**Offset:**	LT 18	**Alignment:**	Ramp 4
Elev.:	987.7 ft.	**Latitude:**	34.83277293	**Longitude:**	-82.29486284	**Date Started:**	6/10/2015
Total Depth:	90.0 ft.	**Soil Depth:**	90.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 28.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
50.0									
	935.0								
55.0		Medium dense, moist, brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=39.4 %#200=33.4		53.5	SS-15	4	6	10	16
	930.0								
60.0		Medium dense, brown and white, with mica, RESIDUUM		58.5	SS-16	6	10	11	21
	925.0								
65.0		Dense, white and light brown, with mica, RESIDUUM		63.5	SS-17	12	23	20	43
	920.0								
70.0		Very dense, with mica, RESIDUUM		68.5	SS-18	14	24	27	51
	915.0								
75.0		Medium dense, light brown, with mica, RESIDUUM		73.5	SS-19	6	9	12	21



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

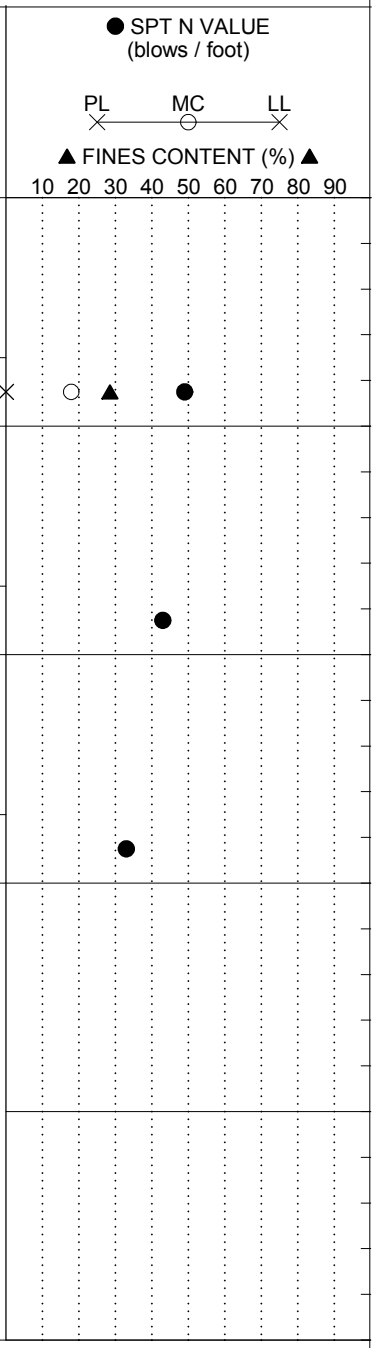
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-04	**Boring Location:**	54+04	**Offset:**	LT 18	**Alignment:**	Ramp 4
Elev.:	987.7 ft.	**Latitude:**	34.83277293	**Longitude:**	-82.29486284	**Date Started:**	6/10/2015
Total Depth:	90.0 ft.	**Soil Depth:**	90.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 28.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
75.0									
	910.0								
80.0		Dense, moist, white and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=17.9 %#200=28.5		78.5	SS-20	14	24	25	49
	905.0								
85.0		Dense, with mica, RESIDUUM		83.5	SS-21	28	21	22	43
	900.0								
90.0		Dense, with mica, RESIDUUM		88.5	SS-22	3	12	21	33
		Boring Terminated at 90.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
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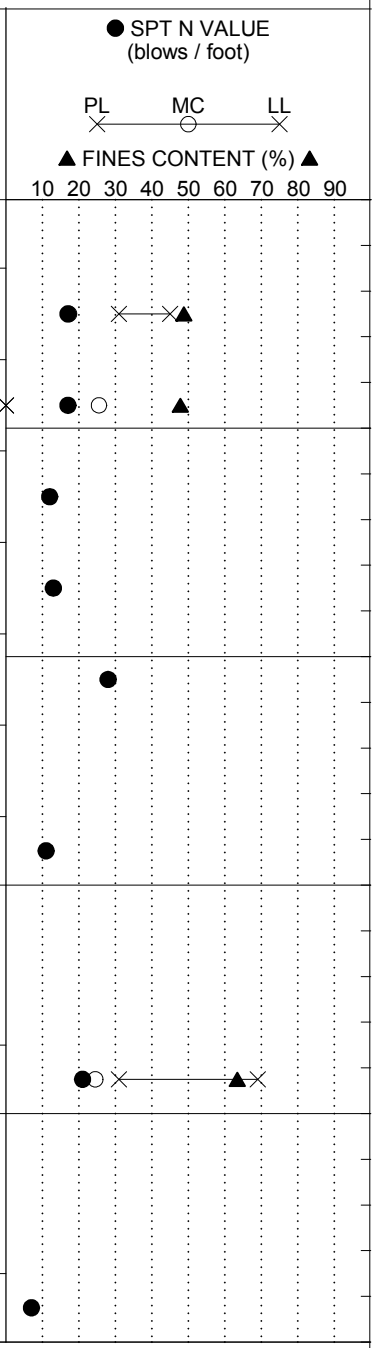
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-05	**Boring Location:**	52+04	**Offset:**	LT 34	**Alignment:**	Ramp 4
Elev.:	993.4 ft.	**Latitude:**	34.83220569	**Longitude:**	-82.29490898	**Date Started:**	6/12/2015
Total Depth:	90.0 ft.	**Soil Depth:**	90.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/13/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 33.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 16 inches of asphalt.						
	990.0	Medium dense, moist, red, fine to medium grained, SILTY SAND (SM, A-7-5(5)), FILL, LL=45 PL=31 PI=14 NMC=17.3 %#200=48.8	1.5	SS-1	5	8	9	17
5.0		Medium dense, moist, red and brown, non reactive, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=25.5 %#200=47.8	3.5	SS-2	3	5	12	17
		Medium dense, light brown, FILL	5.5	SS-3	3	6	6	12
	985.0	Medium dense, brown, FILL	7.5	SS-4	5	5	8	13
10.0		Medium dense, FILL	9.5	SS-5	10	16	12	28
	980.0	Stiff, moist, red and light brown, SANDY FAT CLAY (CH, A-7), RESIDUUM	13.5	SS-6	9	5	6	11
15.0								
	975.0	Very stiff, moist, red, SANDY FAT CLAY (CH, A-7-5(23)), RESIDUUM, LL=69 PL=31 PI=38 NMC=24.5 %#200=63.4	18.5	SS-7	7	9	12	21
20.0								
	970.0	Firm, red and light brown, RESIDUUM	23.5	SS-8	3	3	4	7
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

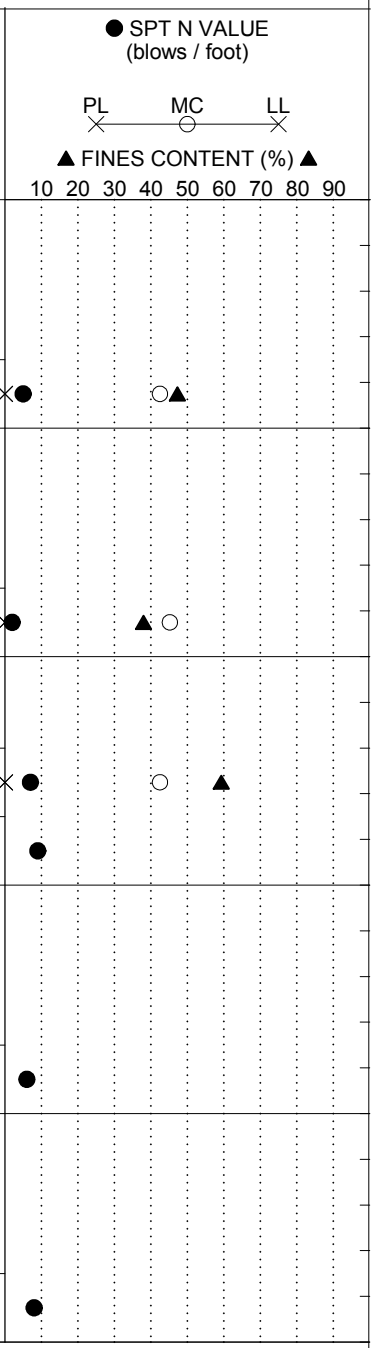
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-05	**Boring Location:**	52+04	**Offset:**	LT 34	**Alignment:**	Ramp 4
Elev.:	993.4 ft.	**Latitude:**	34.83220569	**Longitude:**	-82.29490898	**Date Started:**	6/12/2015
Total Depth:	90.0 ft.	**Soil Depth:**	90.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/13/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 33.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0								
	965.0	Very loose, moist, red and light brown, fine grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=42.5 %#200=47.3	28.5	SS-9	1	2	3	5
30.0								
	960.0	Very loose, wet, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=45.2 %#200=38.0	33.5	SS-10	2	1	1	2
35.0		Undisturbed sample obtained from 35.0 to 37.0 feet. Approximately 24 inches of recovery.	35.0	ST-1				
	955.0	Firm, moist, red and light brown, with mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=42.5 %#200=59.3	37.0	SS-11	2	3	4	7
		Stiff, brown, RESIDUUM	38.5	SS-12	2	4	5	9
40.0								
	950.0	Loose, wet, white, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	43.5	SS-13	3	3	3	6
45.0								
	945.0	Loose, moist, brown, fine grained, with mica, RESIDUUM	48.5	SS-14	2	3	5	8
50.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

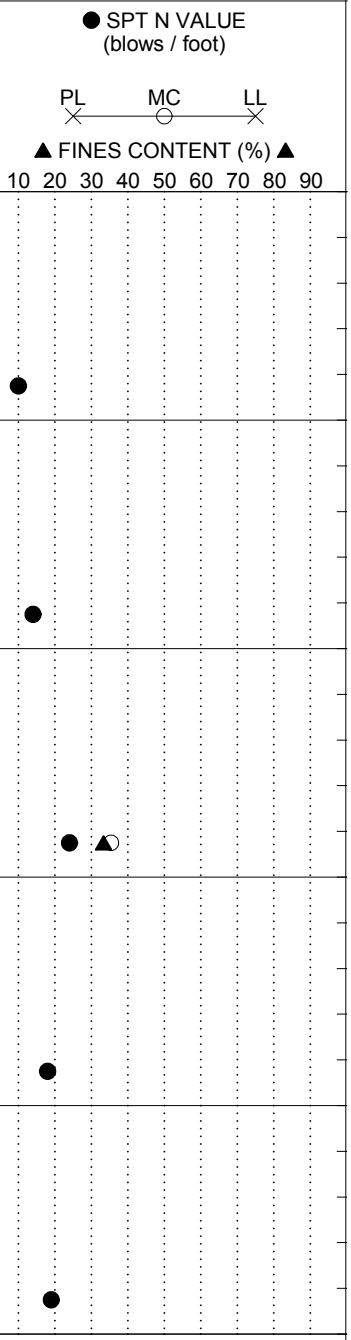
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-05	**Boring Location:**	52+04	**Offset:**	LT 34	**Alignment:**	Ramp 4
Elev.:	993.4 ft.	**Latitude:**	34.83220569	**Longitude:**	-82.29490898	**Date Started:**	6/12/2015
Total Depth:	90.0 ft.	**Soil Depth:**	90.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/13/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 33.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
50.0								
	940.0	Loose, RESIDUUM	53.5	SS-15	3	4	6	10
55.0								
	935.0	Medium dense, RESIDUUM	58.5	SS-16	3	5	9	14
60.0								
	930.0	Medium dense, moist, brown and white, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=35.4 %#200=33.3	63.5	SS-17	5	11	13	24
65.0								
	925.0	Medium dense, with mica, RESIDUUM	68.5	SS-18	4	6	12	18
70.0								
	920.0	Medium dense, moist to wet, brown, with mica, RESIDUUM	73.5	SS-19	5	8	11	19
75.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
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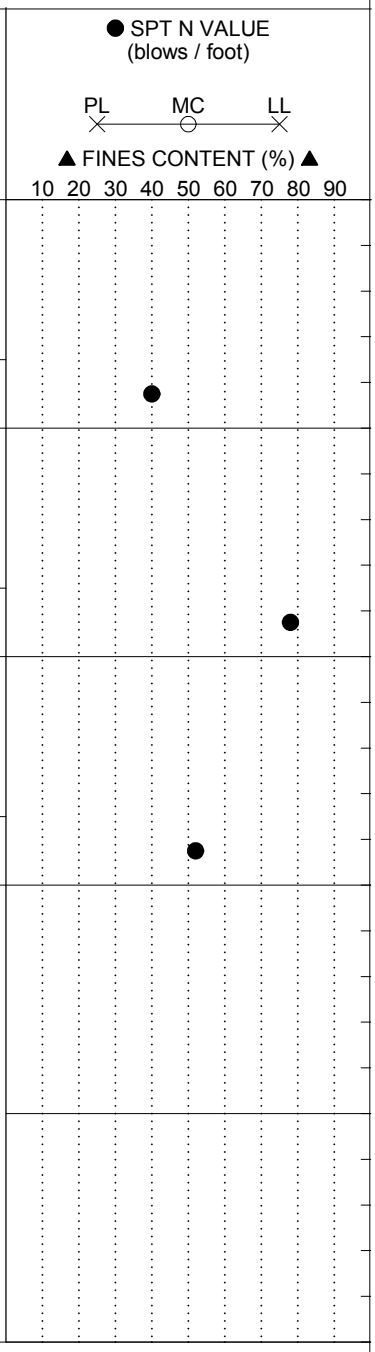
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-05	**Boring Location:**	52+04	**Offset:**	LT 34	**Alignment:**	Ramp 4
Elev.:	993.4 ft.	**Latitude:**	34.83220569	**Longitude:**	-82.29490898	**Date Started:**	6/12/2015
Total Depth:	90.0 ft.	**Soil Depth:**	90.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/13/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 33.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
75.0									
	915.0	Dense, brown and white, with mica, RESIDUUM		78.5	SS-20	20	24	16	40
80.0									
	910.0	Very dense, white, brown and gray, with mica, PARTIALLY WEATHERED ROCK		83.5	SS-21	21	28	50	78
85.0									
	905.0	Dense, brown and white, with mica, RESIDUUM		88.5	SS-22	12	22	30	52
90.0									
		Boring Terminated at 90.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

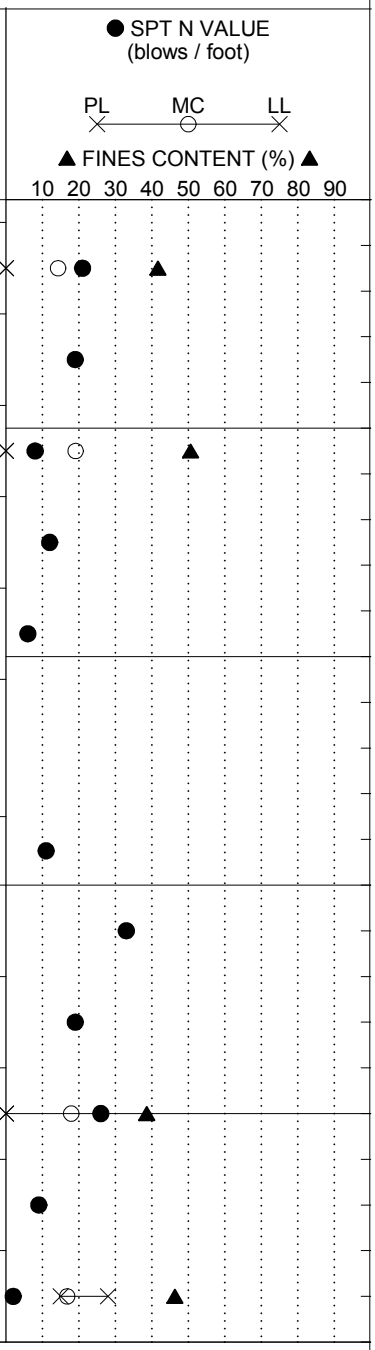
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-06	**Boring Location:**	50+08	**Offset:**	LT 46	**Alignment:**	Ramp 4
Elev.:	999.9 ft.	**Latitude:**	34.831652	**Longitude:**	-82.29476306	**Date Started:**	6/10/2015
Total Depth:	100.0 ft.	**Soil Depth:**	100.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 38.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 6 inches of asphalt.						
		Dense, moist, red, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=14.3 %#200=41.7	0.5	SS-1	4	7	14	21
		Medium dense, light brown, FILL	2.5	SS-2	10	10	9	19
5.0	995.0	Firm, moist, reddish brown, non reactive, SANDY SILT (ML, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=19.1 %#200=50.6	4.5	SS-3	1	4	4	8
		Stiff, brown, with mica, FILL	6.5	SS-4	6	8	4	12
		Firm, with mica, FILL	8.5	SS-5	1	2	4	6
10.0	990.0							
		Medium dense, moist, light brown and white, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	13.5	SS-6	3	3	8	11
15.0	985.0	Dense, light brown and reddish brown, with mica, RESIDUUM	15.0	SS-7	8	17	16	33
		Medium dense, light brown, fine grained, with mica, RESIDUUM	17.0	SS-8	3	9	10	19
20.0	980.0	Medium dense, moist, light brown and white, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=17.9 %#200=38.6	19.0	SS-9	10	11	15	26
		Loose, brown, with mica, RESIDUUM	21.0	SS-10	2	3	6	9
		Very loose, moist, brown, fine to medium grained, CLAYEY SAND (SC, A-6(2)), RESIDUUM, LL=28 PL=15 PI=13 NMC=16.8 %#200=46.3	23.0	SS-11	2	1	1	2
25.0	975.0							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

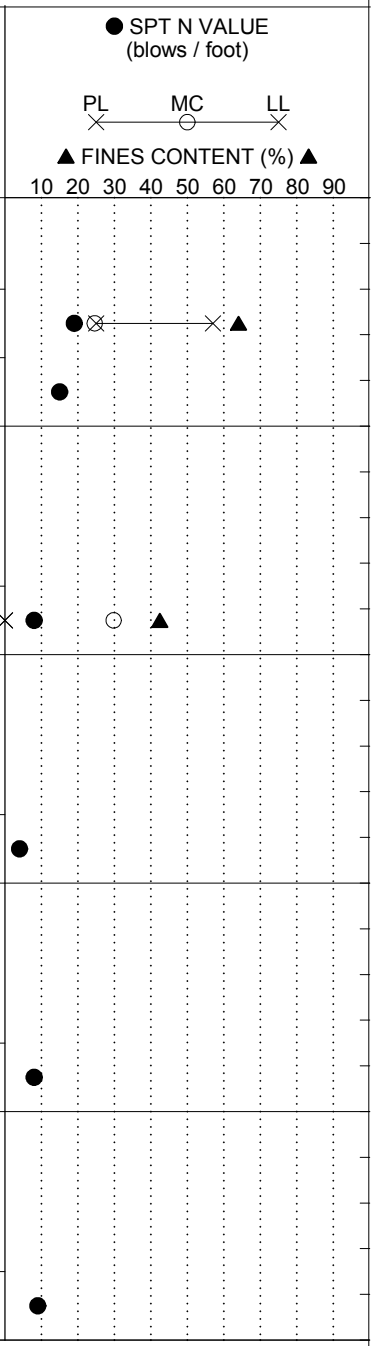
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-06	**Boring Location:**	50+08	**Offset:**	LT 46	**Alignment:**	Ramp 4
Elev.:	999.9 ft.	**Latitude:**	34.831652	**Longitude:**	-82.29476306	**Date Started:**	6/10/2015
Total Depth:	100.0 ft.	**Soil Depth:**	100.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 38.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0		Undisturbed sample obtained from 25.0 to 27.0 feet.	25.0	ST-1				
		Very stiff, moist, red, non reactive, SANDY FAT CLAY (CH, A-7-6(19)), RESIDUUM, LL=57 PL=25 PI=32 NMC=24.6 %#200=64.0 Stiff, RESIDUUM	27.0	SS-12	5	8	11	19
30.0	970.0		28.5	SS-13	5	6	9	15
35.0	965.0	Loose, moist, red and light brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=29.8 %#200=42.5	33.5	SS-14	3	3	5	8
40.0	960.0	Very loose, wet, white and light brown, fine to medium grained, with mica, RESIDUUM	38.5	SS-15	2	1	3	4
45.0	955.0	Loose, brown, fine grained, with mica, RESIDUUM	43.5	SS-16	2	3	5	8
50.0	950.0	Loose, brown and gray, with mica, RESIDUUM	48.5	SS-17	3	3	6	9



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

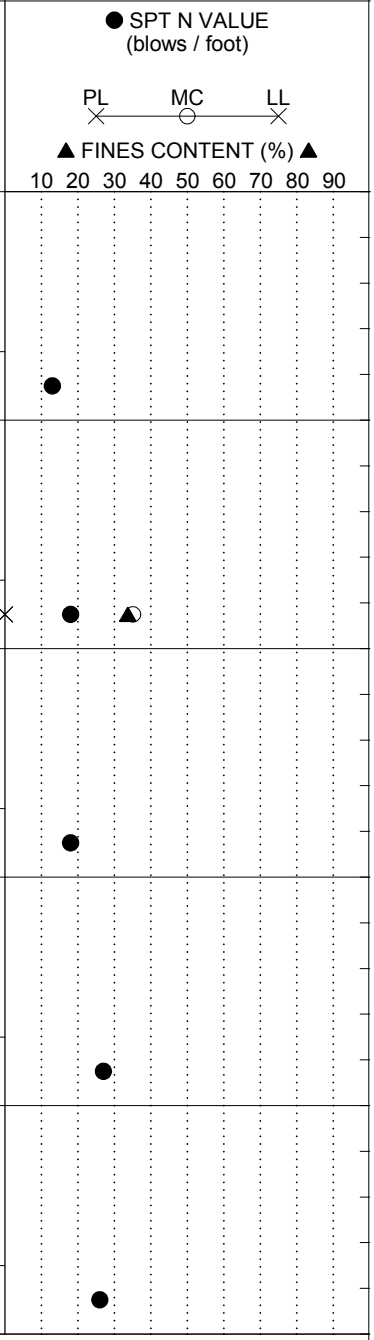
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-06	**Boring Location:**	50+08	**Offset:**	LT 46	**Alignment:**	Ramp 4
Elev.:	999.9 ft.	**Latitude:**	34.831652	**Longitude:**	-82.29476306	**Date Started:**	6/10/2015
Total Depth:	100.0 ft.	**Soil Depth:**	100.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 38.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
50.0								
55.0	945.0	Medium dense, gray, brown and white, with mica, RESIDUUM	53.5	SS-18	3	4	9	13
60.0	940.0	Medium dense, moist, gray and white, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=35.1 %#200=33.7	58.5	SS-19	3	6	12	18
65.0	935.0	Medium dense, gray and light brown, with mica, RESIDUUM	63.5	SS-20	5	7	11	18
70.0	930.0	Medium dense, gray and white, with mica, RESIDUUM	68.5	SS-21	5	11	16	27
75.0	925.0	Medium dense, gray, white and light brown, with mica, RESIDUUM	73.5	SS-22	7	11	15	26



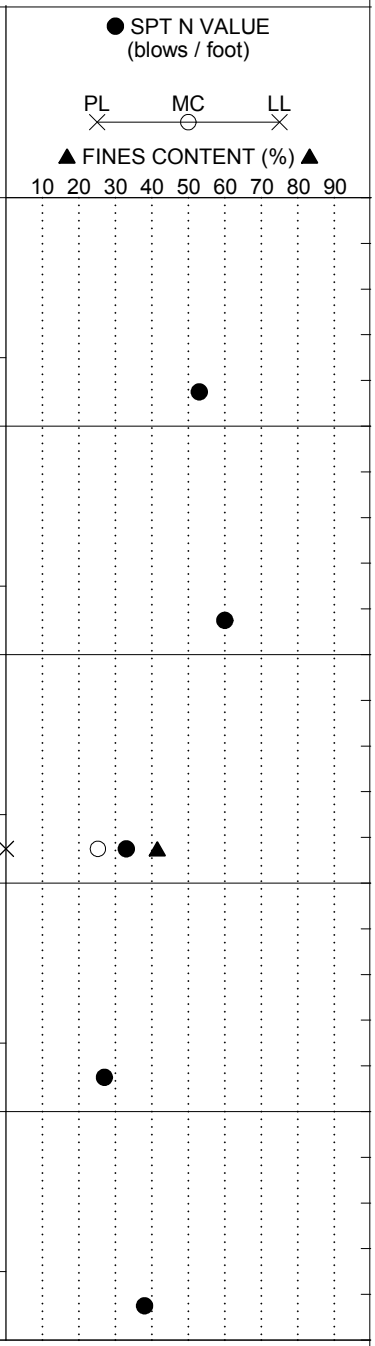
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-06	**Boring Location:**	50+08	**Offset:**	LT 46	**Alignment:**	Ramp 4
Elev.:	999.9 ft.	**Latitude:**	34.831652	**Longitude:**	-82.29476306	**Date Started:**	6/10/2015
Total Depth:	100.0 ft.	**Soil Depth:**	100.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 38.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
75.0									
80.0	920.0	Very dense, white, fine to medium grained, with mica, RESIDUUM		78.5	SS-23	11	22	31	53
85.0	915.0	Very dense, RESIDUUM		83.5	SS-24	16	27	33	60
90.0	910.0	Dense, moist, gray and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=25.2 %#200=41.5		88.5	SS-25	8	10	23	33
95.0	905.0	Medium dense, with mica, RESIDUUM		93.5	SS-26	7	10	17	27
100.0	900.0	Dense, RESIDUUM		98.5	SS-27	9	15	23	38



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-06	**Boring Location:**	50+08	**Offset:**	LT 46	**Alignment:**	Ramp 4
Elev.:	999.9 ft.	**Latitude:**	34.831652	**Longitude:**	-82.29476306	**Date Started:**	6/10/2015
Total Depth:	100.0 ft.	**Soil Depth:**	100.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 38.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
		Boring Terminated at 100.0 feet.								

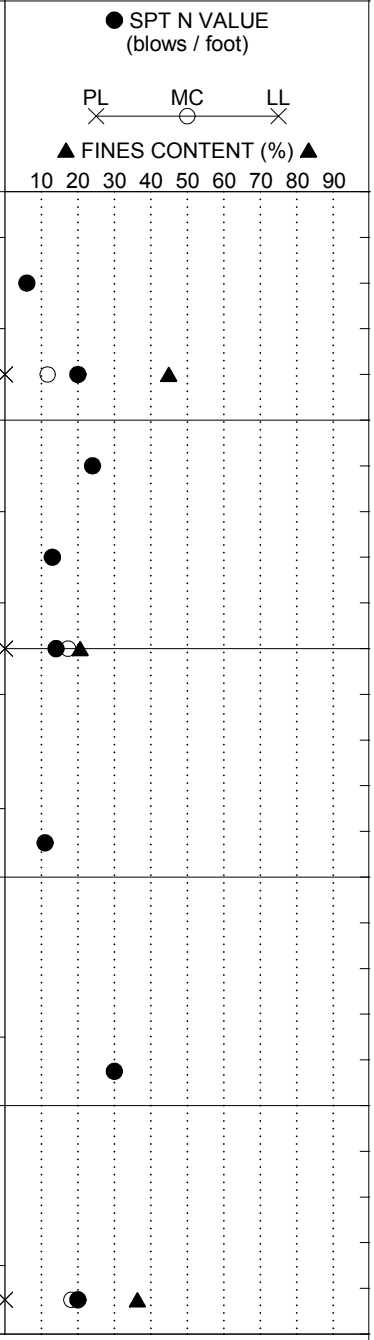
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-07	**Boring Location:**	48+04	**Offset:**	LT 38	**Alignment:**	Ramp 4
Elev.:	1005.9 ft.	**Latitude:**	34.83114307	**Longitude:**	-82.2944799	**Date Started:**	6/12/2015
Total Depth:	60.0 ft.	**Soil Depth:**	60.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 28.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	1005.0	Approximately 12 inches of asphalt.						
		Loose, moist, red, fine to medium grained, SILTY SAND (SM, A-2), FILL	1.0	SS-1	4	4	2	6
		Medium dense, moist, red and light brown, non reactive, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=11.7 %#200=44.9	3.0	S-2	4	11	9	20
5.0	1000.0	Medium dense, light brown, with mica, FILL	5.0	SS-3	6	14	10	24
		Medium dense, with mica and some gravel, FILL	7.0	SS-4	6	8	5	13
10.0	995.0	Medium dense, moist, red and brown, fine to medium grained, with mica, SILTY SAND with GRAVEL (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=17.3 %#200=20.6	9.0	SS-5	3	4	10	14
15.0	990.0	Medium dense, light brown, with mica, FILL	13.5	SS-6	7	7	4	11
20.0	985.0	Medium dense, with mica, FILL	18.5	SS-7	4	11	19	30
25.0		Medium dense, moist, brown, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=18.2 %#200=36.3	23.5	SS-8	5	6	14	20



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

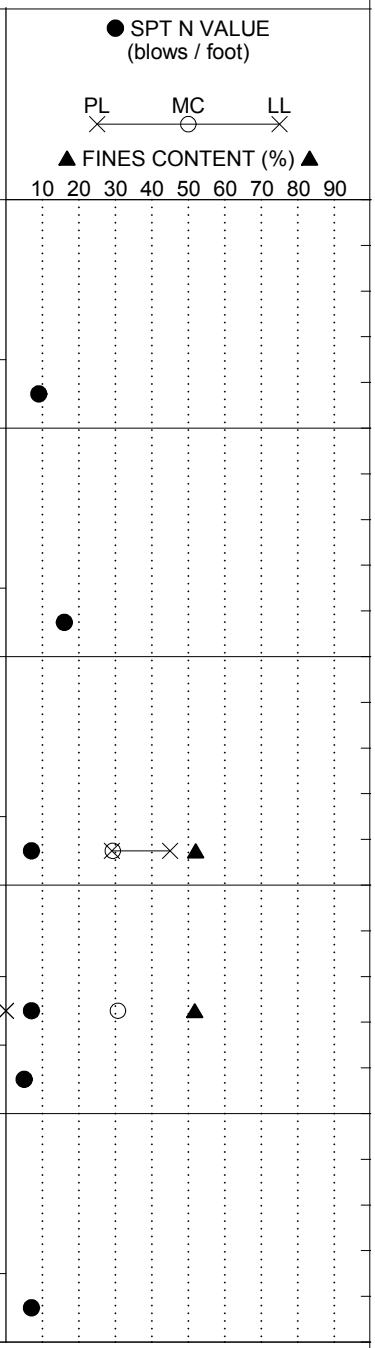
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-07	**Boring Location:**	48+04	**Offset:**	LT 38	**Alignment:**	Ramp 4
Elev.:	1005.9 ft.	**Latitude:**	34.83114307	**Longitude:**	-82.2944799	**Date Started:**	6/12/2015
Total Depth:	60.0 ft.	**Soil Depth:**	60.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 28.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0								
	980.0							
30.0		Loose, wet, brown, FILL	28.5	SS-9	5	5	4	9
	975.0							
35.0		Medium dense, red and light brown, non reactive, fine grained, with mica, FILL	33.5	SS-10	3	6	10	16
	970.0							
40.0		Firm, moist, red, SANDY SILT (ML, A-7-6(6)), RESIDUUM, LL=45 PL=29 PI=16 NMC=29.3 %#200=52.0	38.5	SS-11	3	2	5	7
	965.0	Undisturbed sample obtained from 40.0 to 42.0 feet. Approximately 19 inches of recovery.	40.0	ST-1				
		Firm, moist, red and light brown, with mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=30.7 %#200=51.8	42.0	SS-12	3	2	5	7
45.0		Firm, RESIDUUM	43.5	SS-13	3	2	3	5
	960.0							
50.0		Loose, wet, white and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	48.5	SS-14	2	3	4	7



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

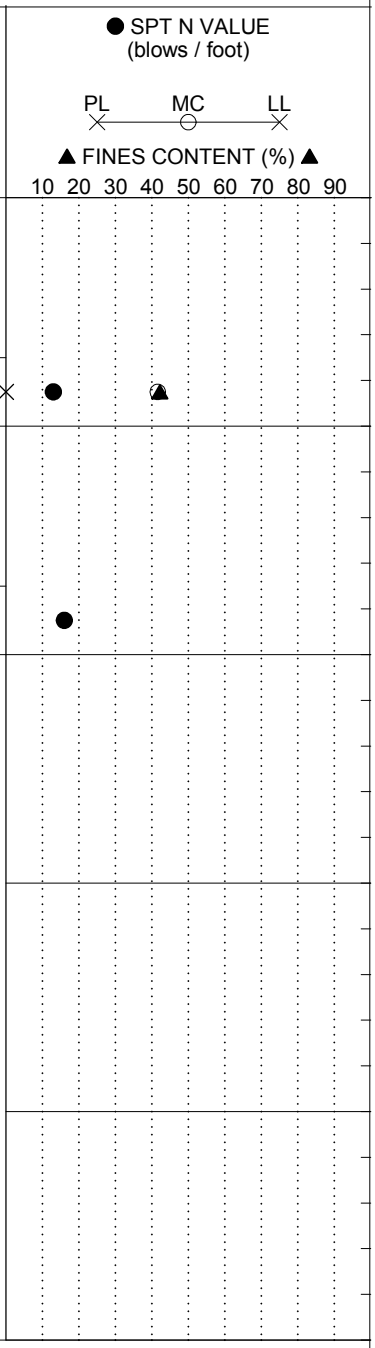
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-07	**Boring Location:**	48+04	**Offset:**	LT 38	**Alignment:**	Ramp 4
Elev.:	1005.9 ft.	**Latitude:**	34.83114307	**Longitude:**	-82.2944799	**Date Started:**	6/12/2015
Total Depth:	60.0 ft.	**Soil Depth:**	60.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 28.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
50.0									
	955.0								
55.0		Medium dense, moist, gray and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=41.6 %#200=42.2		53.5	SS-15	2	5	8	13
	950.0								
60.0		Medium dense, gray and brown, with mica, RESIDUUM		58.5	SS-16	3	5	11	16
		Boring Terminated at 60.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

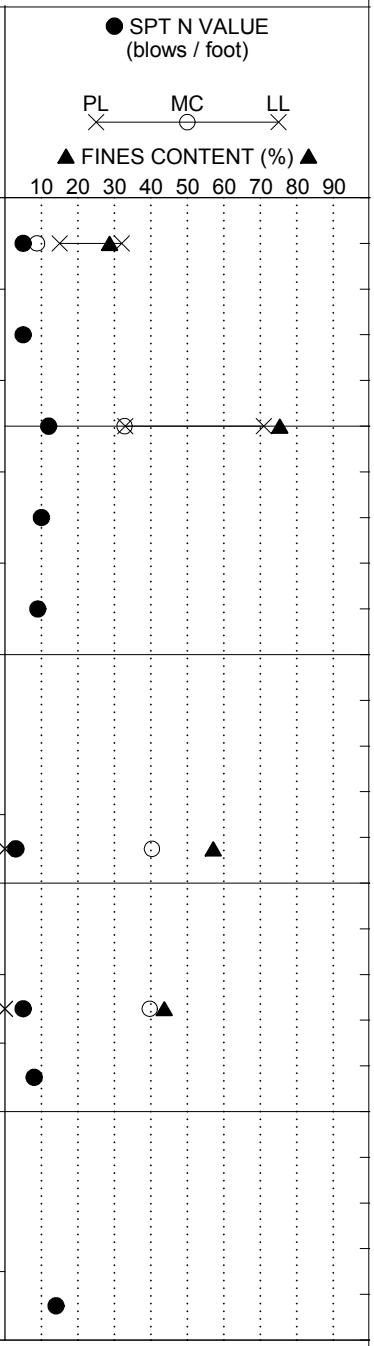
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-08	**Boring Location:**	45+99	**Offset:**	RT 46	**Alignment:**	Ramp 4
Elev.:	973.4 ft.	**Latitude:**	34.83070788	**Longitude:**	-82.29396202	**Date Started:**	6/13/2015
Total Depth:	53.6 ft.	**Soil Depth:**	53.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/13/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 28.5 ft.	**24 HR**	15.8 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 4 inches of topsoil. Loose, moist, brown, fine to medium grained, CLAYEY SAND (SC, A-2-6(1)), ALLUVIUM, LL=32 PL=15 PI=17 NMC=8.8 %#200=28.7	0.0	SS-1	2	3	2	5
	970.0	Firm, moist, red and light brown, FAT CLAY with SAND (CH, A-7), RESIDUUM	2.0	SS-2	1	2	3	5
5.0		Stiff, moist, red and light brown, FAT CLAY with SAND (CH, A-7-5(31)), RESIDUUM, LL=71 PL=33 PI=38 NMC=32.8 %#200=75.4	4.0	SS-3	2	4	8	12
		Stiff, RESIDUUM	6.0	SS-4	2	4	6	10
	965.0	Stiff, RESIDUUM	8.0	SS-5	2	3	6	9
10.0								
	960.0		13.5	SS-6	1	2	1	3
15.0		Soft, moist, red and light brown, non reactive, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=40.3 %#200=57.1 Undisturbed sample obtained from 15.0 to 17.0 feet. Approximately 24 inches of recovery.	15.0	ST-1				
	955.0	Loose, moist, light brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=39.7 %#200=43.7 Loose, with mica, RESIDUUM	17.0	SS-7	2	2	3	5
			18.5	SS-8	2	3	5	8
20.0								
	950.0	Medium dense, white and gray, RESIDUUM	23.5	SS-9	3	6	8	14
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

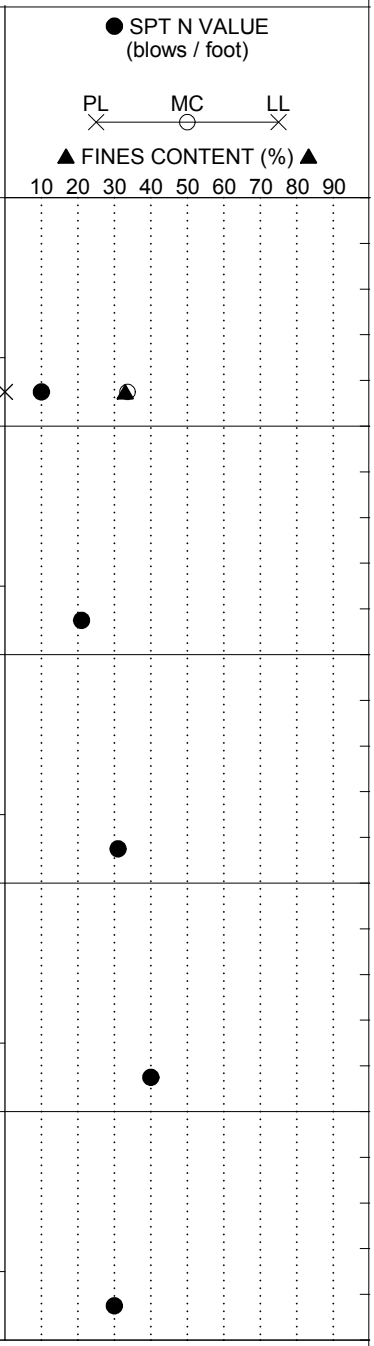
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-08	**Boring Location:**	45+99	**Offset:**	RT 46	**Alignment:**	Ramp 4
Elev.:	973.4 ft.	**Latitude:**	34.83070788	**Longitude:**	-82.29396202	**Date Started:**	6/13/2015
Total Depth:	53.6 ft.	**Soil Depth:**	53.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/13/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 28.5 ft.	**24 HR**	15.8 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0								
30.0	945.0	Loose, wet, white and gray, fine to coarse grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=33.6 %#200=33.0	28.5	SS-10	3	4	6	10
35.0	940.0	Medium dense, moist, white, with mica, RESIDUUM	33.5	SS-11	4	9	12	21
40.0	935.0	Dense, with mica, RESIDUUM	38.5	SS-12	10	14	17	31
45.0	930.0	Dense, with mica, RESIDUUM	43.5	SS-13	11	15	25	40
50.0	925.0	Medium dense, black and white, with mica, RESIDUUM	48.5	SS-14	3	9	21	30



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-08	**Boring Location:**	45+99	**Offset:**	RT 46	**Alignment:**	Ramp 4
Elev.:	973.4 ft.	**Latitude:**	34.83070788	**Longitude:**	-82.29396202	**Date Started:**	6/13/2015
Total Depth:	53.6 ft.	**Soil Depth:**	53.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	6/13/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 28.5 ft.	**24 HR**	15.8 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
50.0										
	920.0									
		Very dense, with mica, ROCK		53.5						
		Boring Terminated at 53.6 feet.			SS-15	50/1	X	X	50/1	>>●

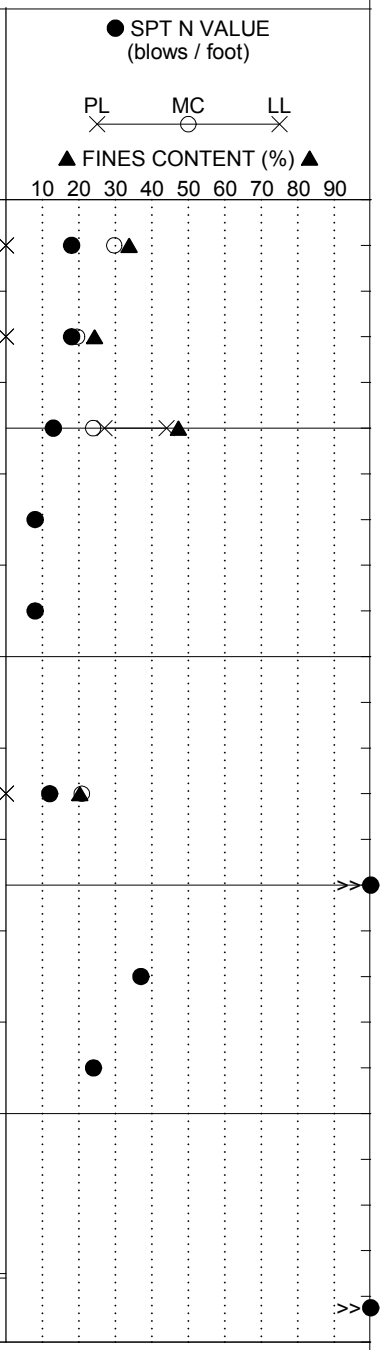
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-09	**Boring Location:**	39+45	**Offset:**	RT 61	**Alignment:**	Ramp 4
Elev.:	958.4 ft.	**Latitude:**	34.82901344	**Longitude:**	-82.2931672	**Date Started:**	1/26/2015
Total Depth:	23.6 ft.	**Soil Depth:**	23.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/26/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 8.0 ft.	**24 HR**	6.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Medium dense, moist, brown, fine to medium grained, with trace gravel, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=29.7 %#200=33.8	0.0	SS-1	4	14	4	18
	955.0	Medium dense, moist, brown, fine to medium grained, with some asphalt, SILTY SAND with GRAVEL (SM, A-1-b(0)), FILL, LL=NP PL=NP PI=NP NMC=19.5 %#200=24.3	2.0	SS-2	3	12	6	18
5.0		Medium dense, moist, gray and light brown, fine to medium grained, SILTY SAND (SM, A-7-6(5)), RESIDUUM, LL=44 PL=27 PI=17 NMC=23.9 %#200=47.3	4.0	SS-3	4	6	7	13
		Loose, gray, RESIDUUM	6.0	SS-4	2	3	5	8
	950.0	Loose, gray and brown, RESIDUUM	8.0	SS-5	3	3	5	8
10.0		Undisturbed sample attempted at 10.0 to 12.0 feet. Pushed tube approximately 6 inches. No recovery.	10.0	ST-1				
	945.0	Medium dense, wet, brown, fine to medium grained, with mica, and trace gravel, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=20.8 %#200=20.3	12.0	SS-6	4	3	9	12
15.0		Very dense, light brown and black, with mica, PARTIALLY WEATHERED ROCK	14.0	SS-7	10	19	50/5	100
		Dense, brown, with mica, RESIDUUM	16.0	SS-8	16	19	18	37
	940.0	Medium dense, reddish brown, with mica, RESIDUUM	18.0	SS-9	5	15	9	24
20.0								
	935.0	Very dense, brown, fine to coarse grained, with mica, RESIDUUM	23.5	SS-10	50/1	X	X	50/1
		Boring Terminated at 23.6 feet.						



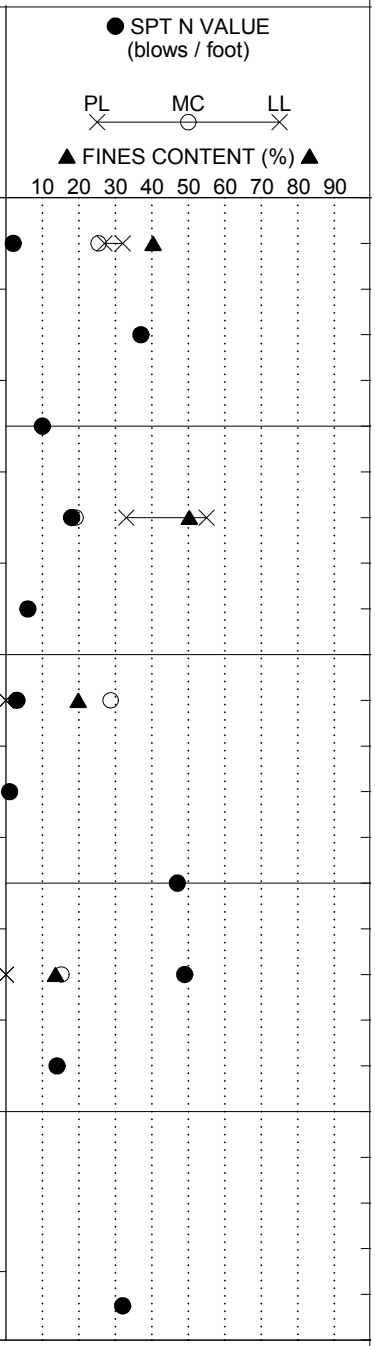
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-10	**Boring Location:**	38+67	**Offset:**	RT 49	**Alignment:**	Ramp 4
Elev.:	961.5 ft.	**Latitude:**	34.82874365	**Longitude:**	-82.29308154	**Date Started:**	1/26/2015
Total Depth:	43.6 ft.	**Soil Depth:**	43.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/26/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 10.0 ft.	**24 HR**	25.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 3 inches of topsoil.	0.0	SS-1	1	1	1	2
	960.0	Very loose, moist, light brown, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=32 PL=27 PI=5 NMC=25.4 %#200=40.4						
		Very loose, light brown, fine to medium grained, with mica, FILL	2.0	SS-2	19	20	17	37
5.0		Stiff, moist, red and brown, with trace gravel, SANDY ELASTIC SILT (MH, A-7), FILL	4.0	SS-3	2	3	7	10
	955.0	Very stiff, moist, red and brown, SANDY ELASTIC SILT (MH, A-7-5(8)), FILL, LL=55 PL=33 PI=22 NMC=19.1 %#200=50.3	6.0	SS-4	3	8	10	18
		Firm, FILL	8.0	SS-5	1	3	3	6
10.0		Very loose, wet, brown, fine to medium grained, SILTY SAND (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=28.7 %#200=19.8	10.0	SS-6	1	1	2	3
	950.0	Very loose, reddish brown, RESIDUUM	12.0	SS-7	0	0	1	1
15.0		Dense, moist, light brown, with mica, RESIDUUM	14.0	SS-8	2	10	37	47
	945.0	Dense, wet, reddish brown, fine to coarse grained, with mica and trace gravel, SILTY SAND with GRAVEL (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=15.2 %#200=13.6	16.0	SS-9	7	27	22	49
		Medium dense, RESIDUUM	18.0	SS-10	2	6	8	14
20.0								
	940.0							
		Dense, fine to coarse grained, RESIDUUM	23.5	SS-11	1	7	25	32
25.0								



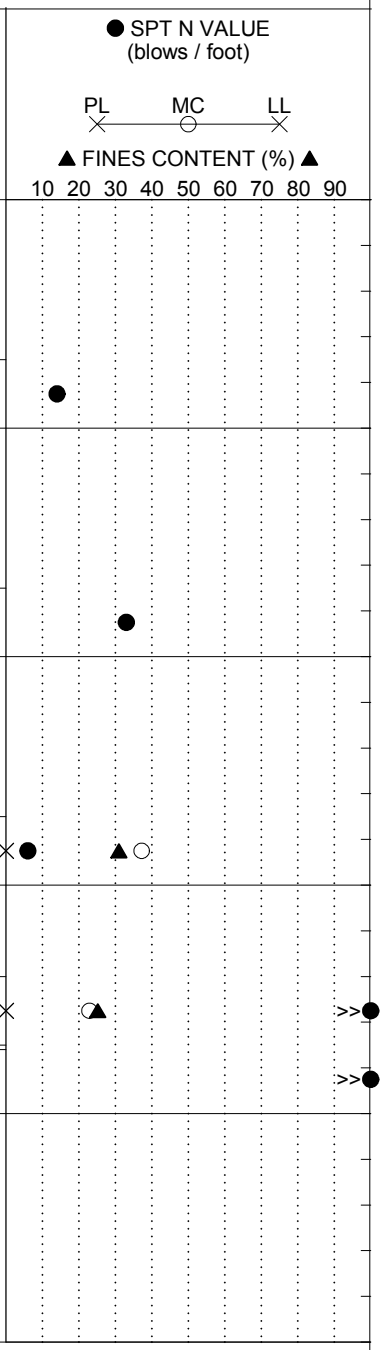
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-10	**Boring Location:**	38+67	**Offset:**	RT 49	**Alignment:**	Ramp 4
Elev.:	961.5 ft.	**Latitude:**	34.82874365	**Longitude:**	-82.29308154	**Date Started:**	1/26/2015
Total Depth:	43.6 ft.	**Soil Depth:**	43.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/26/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 10.0 ft.	**24 HR**	25.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0								
	935.0							
		Medium dense, RESIDUUM	28.5	SS-12	5	3	11	14
30.0								
	930.0							
		Dense, with mica, RESIDUUM	33.5	SS-13	12	19	14	33
35.0								
	925.0							
		Loose, moist, brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=37.2 %#200=31.0 Undisturbed sample obtained from 40.0 to 42.0 feet. Approximately 19 inches of recovery.	38.5	SS-14	1	2	4	6
40.0			40.0	ST-1				
	920.0							
		Very dense, moist, brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), PARTIALLY WEATHERED ROCK, LL=NP PL=NP PI=NP NMC=22.9 %#200=25.2	42.0	SS-15	3	5	50/3	100
		Very dense, No recovery, ROCK	43.5	SS-16	50/1	X	X	50/1
		Boring Terminated at 43.6 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

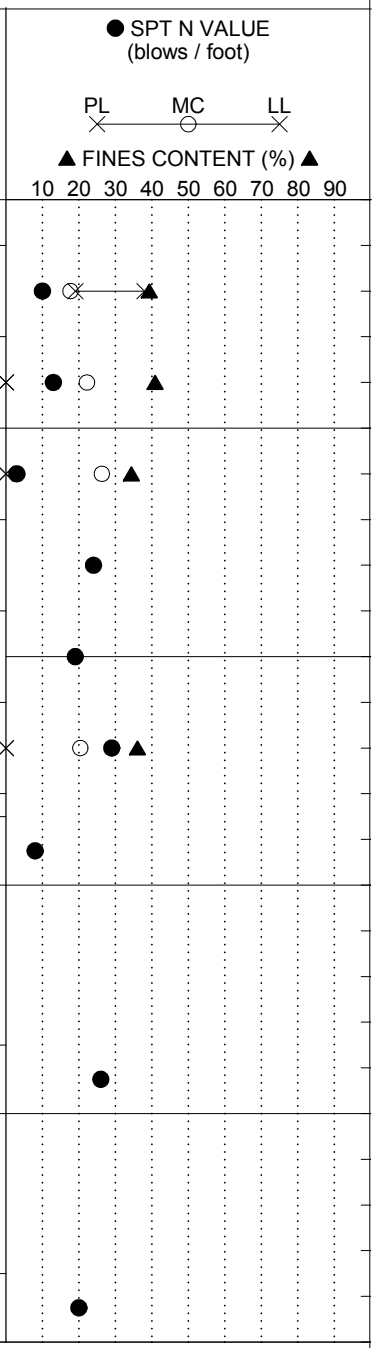
HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-11	**Boring Location:**	42+14	**Offset:**	LT 70	**Alignment:**	Ramp 4
Elev.:	1005.7 ft.	**Latitude:**	34.82960504	**Longitude:**	-82.29388114	**Date Started:**	5/11/2015
Total Depth:	53.5 ft.	**Soil Depth:**	53.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 7.0 ft.*	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION
0.0	1005.0	Approximately 12 inches of asphalt.
		Loose, moist, reddish brown, fine to medium grained, CLAYEY SAND (SC, A-6(3)), FILL, LL=38 PL=19 PI=19 NMC=17.7 %#200=39.3
		Medium dense, moist, brown, dark brown and tan, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=22.2 %#200=40.9
5.0	1000.0	Very loose, moist, brown, tan and white, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=26.3 %#200=34.4
		Medium dense, with trace gravel, RESIDUUM
		Medium dense, RESIDUUM
10.0	995.0	
		Medium dense, moist, brown and dark brown, fine to medium grained, with trace gravel, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=20.4 %#200=36.1
		Loose, RESIDUUM
15.0	990.0	
		Medium dense, brown, tan, white, and black, with gravel, RESIDUUM
20.0	985.0	
		Medium dense, brown and tan, RESIDUUM
25.0		

Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
1.0	SS-1	5	5	5	10
3.0	SS-2	4	7	6	13
5.0	SS-3	1	1	2	3
7.0	SS-4	4	6	18	24
9.0	SS-5	2	4	15	19
11.0	SS-6	6	10	19	29
13.5	SS-7	4	3	5	8
18.5	SS-8	3	8	18	26
23.5	SS-9	5	8	12	20



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

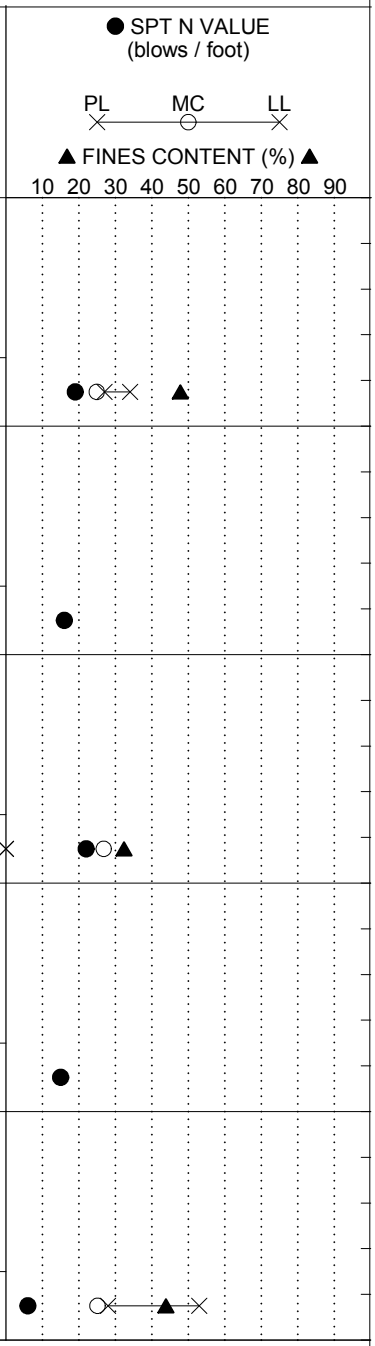
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-11	**Boring Location:**	42+14	**Offset:**	LT 70	**Alignment:**	Ramp 4
Elev.:	1005.7 ft.	**Latitude:**	34.82960504	**Longitude:**	-82.29388114	**Date Started:**	5/11/2015
Total Depth:	53.5 ft.	**Soil Depth:**	53.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 7.0 ft.*	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0								
	980.0							
		Medium dense, moist, brown, white, tan and black, fine to medium grained, SILTY SAND (SM, A-4(1)), RESIDUUM, LL=34 PL=27 PI=7 NMC=24.9 %#200=47.8	28.5	SS-10	4	6	13	19
30.0	975.0							
		Medium dense, brown, with trace gravel, RESIDUUM	33.5	SS-11	3	4	12	16
35.0	970.0							
		Medium dense, moist, brown, white and black, fine to medium grained, with trace gravel, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=26.8 %#200=32.4	38.5	SS-12	5	6	16	22
40.0	965.0							
		Medium dense, brown, tan, white and black, fine grained, RESIDUUM	43.5	SS-13	7	7	8	15
45.0	960.0							
		Loose, moist, brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(7)), RESIDUUM, LL=53 PL=28 PI=25 NMC=25.1 %#200=43.9	48.5	SS-14	1	3	3	6
50.0								



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4-1R-11	**Boring Location:**	42+14	**Offset:**	LT 70	**Alignment:**	Ramp 4
Elev.:	1005.7 ft.	**Latitude:**	34.82960504	**Longitude:**	-82.29388114	**Date Started:**	5/11/2015
Total Depth:	53.5 ft.	**Soil Depth:**	53.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 7.0 ft.*	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
50.0	955.0									
		Very dense, No recovery, ROCK		53.5						
		Boring Terminated at 53.5 feet.			SS-15	50/0	X	X	50/0	>>●
		*Observed at time of borehole completion.								

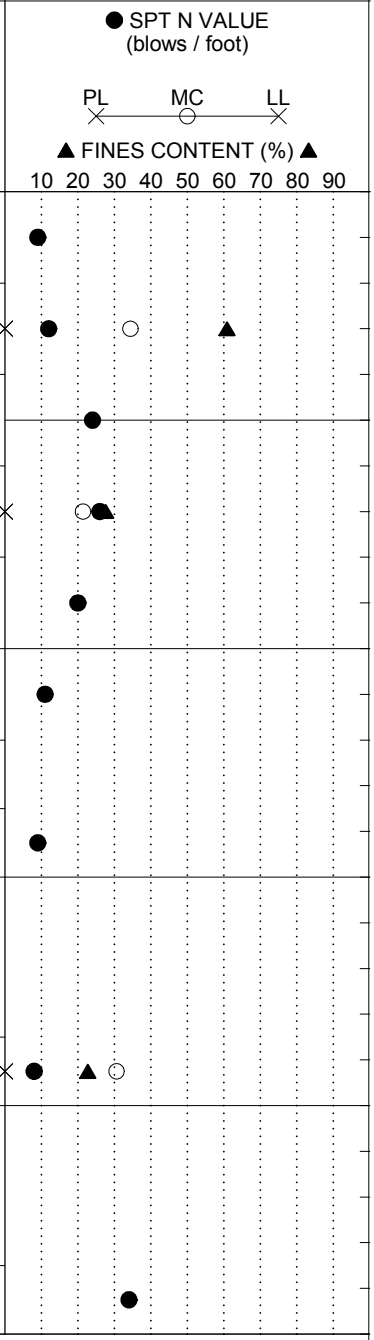
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4B-1L-01	**Boring Location:**	416+71	**Offset:**	LT 23	**Alignment:**	Ramp 4B
Elev.:	999.1 ft.	**Latitude:**	34.83108079	**Longitude:**	-82.30076866	**Date Started:**	1/3/2015
Total Depth:	38.6 ft.	**Soil Depth:**	38.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/3/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	4.4 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Stiff, moist, reddish brown, SANDY SILT (ML, A-4), FILL	0.0	SS-1	2	3	6	9
		Stiff, moist, reddish brown and tan, non reactive, SANDY SILT (ML, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=34.4 %#200=60.9	2.0	SS-2	5	6	6	12
	995.0	Very stiff, moist, white, gray and brown, FILL	4.0	SS-3	3	8	16	24
5.0		Medium dense, moist, white, tan and brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM LL=NP PL=NP PI=NP NMC=21.4 %#200=27.6	6.0	SS-4	12	12	14	26
	990.0	Medium dense, RESIDUUM	8.0	SS-5	3	8	12	20
10.0		Medium dense, white, tan, light brown and gray, RESIDUUM	10.0	SS-6	6	6	5	11
	985.0	Loose, brown, white and tan, RESIDUUM	13.5	SS-7	4	3	6	9
15.0								
	980.0	Loose, moist, light brown, white and tan, non reactive, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=30.6 %#200=22.7	18.5	SS-8	5	5	3	8
20.0								
	975.0	Dense, brown, white, black and tan, RESIDUUM	23.5	SS-9	10	12	22	34
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4B-1L-01	**Boring Location:**	416+71	**Offset:**	LT 23	**Alignment:**	Ramp 4B
Elev.:	999.1 ft.	**Latitude:**	34.83108079	**Longitude:**	-82.30076866	**Date Started:**	1/3/2015
Total Depth:	38.6 ft.	**Soil Depth:**	38.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/3/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	4.4 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
30.0	970.0	Very dense, moist, white, black and tan, fine to coarse grained, SILTY SAND with GRAVEL (SM, A-1-b(0)), PARTIALLY WEATHERED ROCK, LL=NP PL=NP PI=NP NMC=22.1 %#200=17.0		28.5	SS-10	50/3	X	X	100	>>●
35.0	965.0	Very dense, white and light brown, fine grained, PARTIALLY WEATHERED ROCK		33.5	SS-11	50/2	X	X	100	>>●
		Very dense, No Recovery, ROCK Boring Terminated at 38.6 feet.		38.5	SS-12	50/.5	X	X	50/.5	>>●

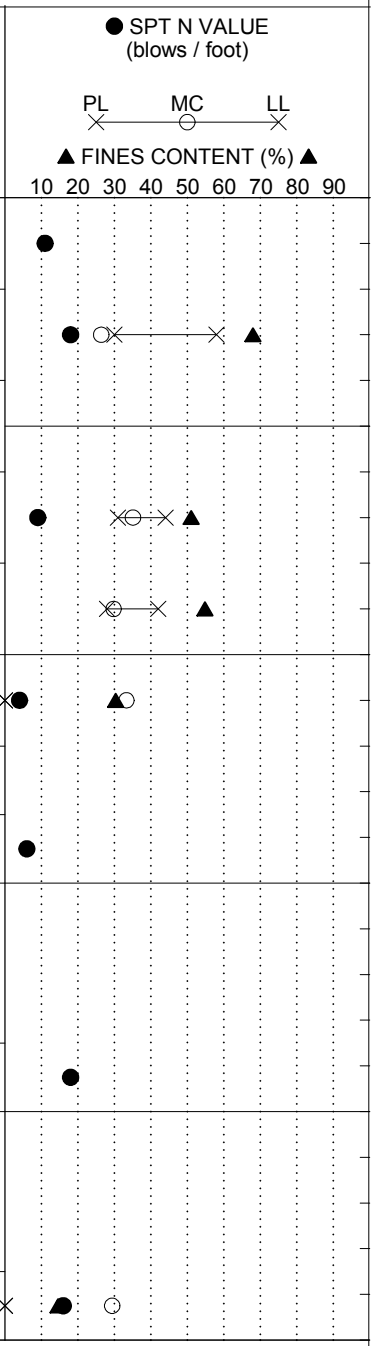
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4B-1L-02	**Boring Location:**	415+12	**Offset:**	LT 37	**Alignment:**	Ramp 4B
Elev.:	1001.7 ft.	**Latitude:**	34.83145251	**Longitude:**	-82.3004558	**Date Started:**	12/5/2014
Total Depth:	33.8 ft.	**Soil Depth:**	33.8 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	12/5/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	10.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	1000.0	Approximately 3 inches of topsoil. Stiff, moist, reddish brown, SANDY FAT CLAY (CH, A-7), FILL	0.0	SS-1	1	5	6	11
		Very stiff, moist, reddish brown and yellowish brown, SANDY FAT CLAY (CH, A-7-5(19)), FILL, LL=58 PL=30 PI=28 NMC=26.4 %#200=68.0	2.0	SS-2	2	8	10	18
5.0		Undisturbed sample obtained from 4.0 to 6.0 feet. Approximately 21 inches of recovery. FILL	4.0	ST-1				
	995.0	Stiff, moist, reddish brown, SANDY SILT (ML, A-7-5(5)), FILL, LL=44 PL=31 PI=13 NMC=35.1 %#200=51.1	6.0	SS-3	3	4	5	9
		Undisturbed sample obtained from 8.0 to 10.0 feet. Approximately 19 inches of recovery.	8.0	ST-2				
10.0		Moist, reddish brown, SANDY SILT (ML, A-7-6(6)), RESIDUUM, LL=42 PL=28 PI=14 NMC=29.8 %#200=54.8	10.0	SS-4	2	2	2	4
	990.0	Loose, moist, light reddish brown, yellowish brown, black and white, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=33.3 %#200=30.4						
15.0		Loose, reddish brown, black, tan and white, RESIDUUM	13.5	SS-5	4	2	4	6
	985.0							
20.0		Medium dense, gray, tan and white, with rock fragments, RESIDUUM	18.5	SS-6	4	5	13	18
	980.0							
25.0		Medium dense, moist, dark gray, white and tan, fine to medium grained, with rock fragments, SILTY SAND (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP	23.5	SS-7	6	6	10	16



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W4B-1L-02	**Boring Location:**	415+12	**Offset:**	LT 37	**Alignment:**	Ramp 4B
Elev.:	1001.7 ft.	**Latitude:**	34.83145251	**Longitude:**	-82.3004558	**Date Started:**	12/5/2014
Total Depth:	33.8 ft.	**Soil Depth:**	33.8 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	12/5/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	10.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0		NMC=29.4 %#200=14.6								
	975.0									
		Medium dense, with rock fragments, RESIDUUM		28.5	SS-8	2	7	8	15	●
30.0										
	970.0									
		Very dense, white and gray, with rock fragments, PARTIALLY WEATHERED ROCK		33.5	SS-9	50/4	X	X	100	>>●
		Boring Terminated at 33.8 feet.								

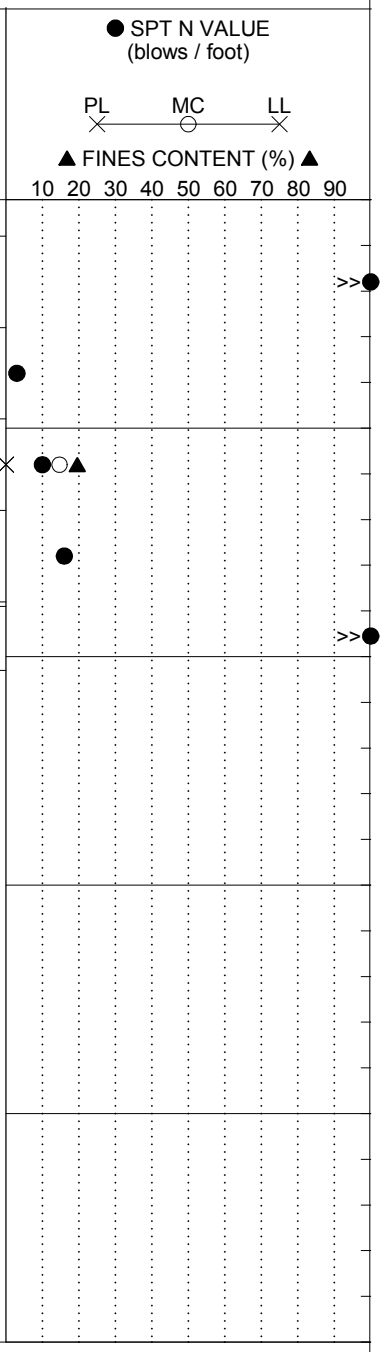
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-1L-01	**Boring Location:**	267+85	**Offset:**	LT 84	**Alignment:**	I-85
Elev.:	1005.4 ft.	**Latitude:**	34.82952186	**Longitude:**	-82.30303921	**Date Started:**	2/6/2015
Total Depth:	8.9 ft.	**Soil Depth:**	8.9 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D50	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	101%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	1005.0	Approximately 10 inches of asphalt.						
		No recovery. FILL	0.8	SS-1	50/2	X	X	100
		Very loose, moist, brown and gray, fine grained, SILTY SAND (SM, A-2), FILL	2.8	SS-2	3	2	1	3
5.0	1000.0	Loose, moist, brown and gray, fine to medium grained, SILTY SAND with GRAVEL (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=14.7 %#200=19.6	4.8	SS-3	1	3	7	10
		Medium dense, moist, brown, gray and black, fine to coarse grained, POORLY GRADED GRAVEL with SILT (GP-GM, A-1), RESIDUUM	6.8	SS-4	7	10	6	16
		Very dense, No recovery, ROCK	8.8	SS-5	50/1	X	X	50/1
		Boring Terminated at 8.9 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

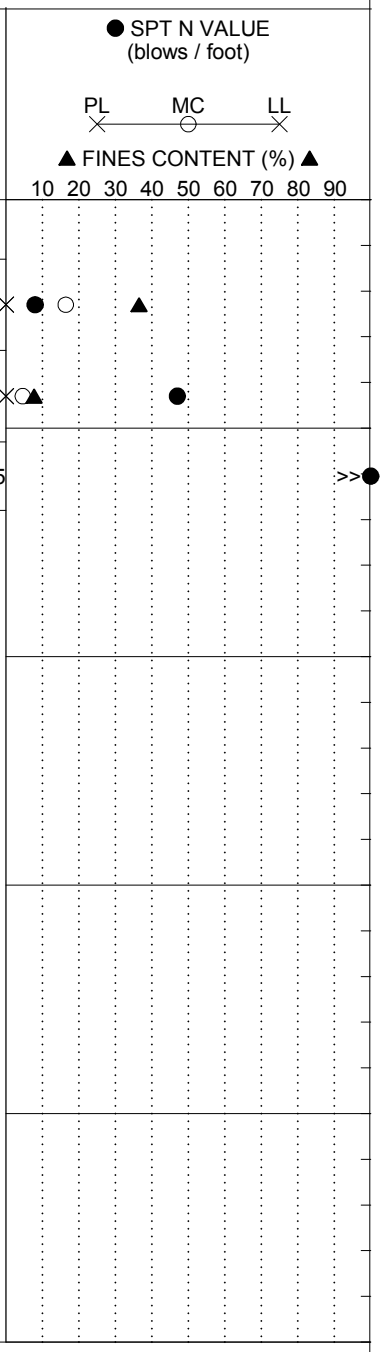
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-1L-02	**Boring Location:**	269+85	**Offset:**	LT 87	**Alignment:**	I-85
Elev.:	1004.3 ft.	**Latitude:**	34.82985733	**Longitude:**	-82.30251223	**Date Started:**	2/6/2015
Total Depth:	5.3 ft.	**Soil Depth:**	5.3 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 15 inches of asphalt.							
		Loose, moist, reddish brown, black, and tan, fine to medium grained, with trace mica and gravel, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=16.4 %#200=36.5		1.3	SS-1	5	6	2	8
5.0	1000.0	Dense, moist, gray and black, fine to coarse grained, POORLY GRADED GRAVEL with SILT and SAND (GP-GM, A-1-a(0)), LL=NP PL=NP PI=NP NMC=4.6 %#200=7.7		3.3	SS-2	11	21	26	47
		Very dense, No Recovery, ROCK		5.3	SS-3	50/.5	X	X	50/.5
		Boring Terminated at 5.3 feet.							



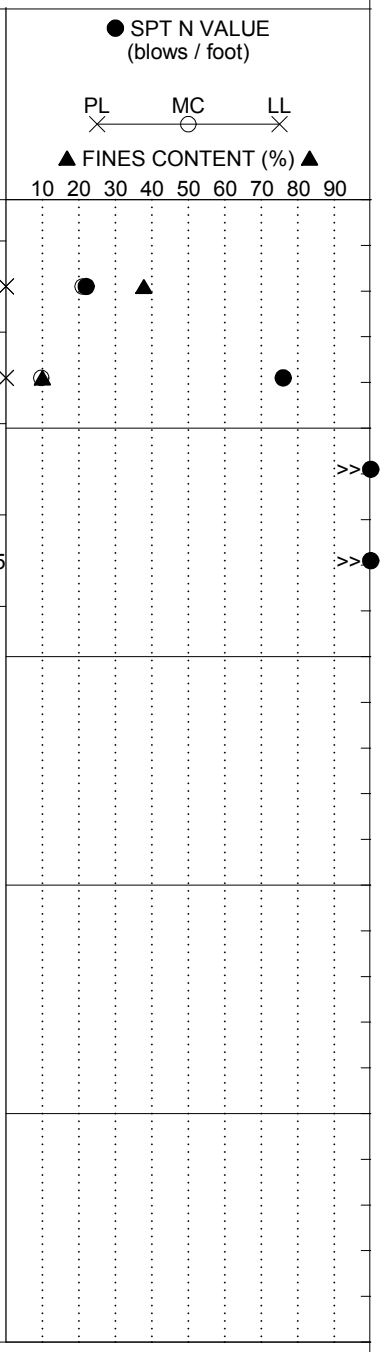
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-1L-03	**Boring Location:**	421+62	**Offset:**	RT 36	**Alignment:**	Ramp 4B
Elev.:	1003.4 ft.	**Latitude:**	34.83019733	**Longitude:**	-82.30200769	**Date Started:**	2/5/2015
Total Depth:	6.9 ft.	**Soil Depth:**	6.9 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/5/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 11 inches of asphalt.							
		Medium dense, moist, reddish brown, brown, gray and black, fine to medium grained, with trace mica, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=21.0 %#200=37.8		0.9	SS-1	15	12	10	22
	1000.0	Very dense, moist, brown, gray, white and black, fine to medium grained, with trace mica, POORLY GRADED SAND with SILT and GRAVEL (SP-SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=9.7 %#200=10.0		2.9	SS-2	14	44	32	76
5.0		Very dense, brown, white and black, with trace mica, PARTIALLY WEATHERED ROCK		4.9	SS-3	50/2	X	X	100
		Very dense, ROCK		6.9	SS-4	50/.5	X	X	50/.5
		Boring Terminated at 6.9 feet.							



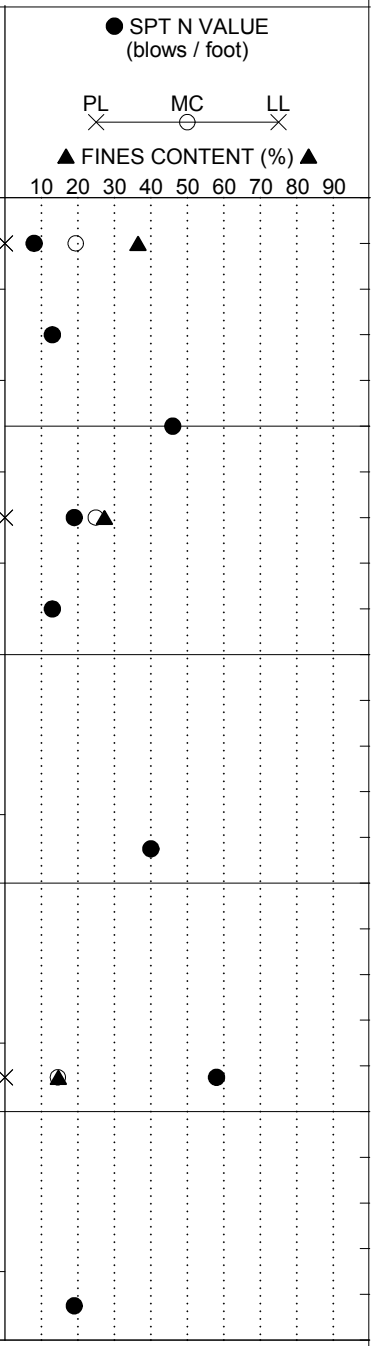
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-1L-04	**Boring Location:**	419+82	**Offset:**	RT 51	**Alignment:**	Ramp 4B
Elev.:	1001.6 ft.	**Latitude:**	34.83055791	**Longitude:**	-82.30161346	**Date Started:**	1/25/2015
Total Depth:	28.4 ft.	**Soil Depth:**	28.4 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/25/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D120	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	85%
Core Size:	NA	**Driller:**	F and R	**Groundwater:**	**TOB** 8.0 ft.	**24 HR**	8.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	1000.0	Approximately 5 inches of topsoil. Loose, moist, brown and tan, fine to medium grained, with trace organics, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=19.4 %#200=36.5	0.0	SS-1	2	2	6	8
		Medium dense, moist, brown, gray and tan, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	2.0	SS-2	5	8	5	13
5.0		Dense, brown, gray, white, black and tan, with weathered rock and trace mica, RESIDUUM	4.0	SS-3	29	37	9	46
	995.0	Medium dense, moist, brown, gray, black and tan, weakly reactive, fine to medium grained, with weathered rock and trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=24.9 %#200=27.3	6.0	SS-4	5	9	10	19
10.0		Medium dense, wet, with weathered rock and trace mica, RESIDUUM	8.0	SS-5	7	8	5	13
	990.0							
15.0		Dense, medium to coarse grained, with weathered rock and trace mica, RESIDUUM	13.5	SS-6	3	16	24	40
	985.0							
20.0		Very dense, moist, brown, white, black and tan, fine to medium grained, with weathered rock and trace mica, SILTY SAND with GRAVEL (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=14.5 %#200=14.7	18.5	SS-7	9	37	21	58
	980.0							
25.0		Medium dense, brown, black, white and gray, with trace mica, RESIDUUM	23.5	SS-8	2	11	8	19



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-1L-04	**Boring Location:**	419+82	**Offset:**	RT 51	**Alignment:**	Ramp 4B
Elev.:	1001.6 ft.	**Latitude:**	34.83055791	**Longitude:**	-82.30161346	**Date Started:**	1/25/2015
Total Depth:	28.4 ft.	**Soil Depth:**	28.4 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/25/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D120	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	85%
Core Size:	NA	**Driller:**	F and R	**Groundwater:**	**TOB** 8.0 ft.	**24 HR**	8.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
	975.0									
		Very dense, No recovery, ROCK		28.3						
		Boring Terminated at 28.4 feet.			SS-9	50/1	X	X	50/1	>>●

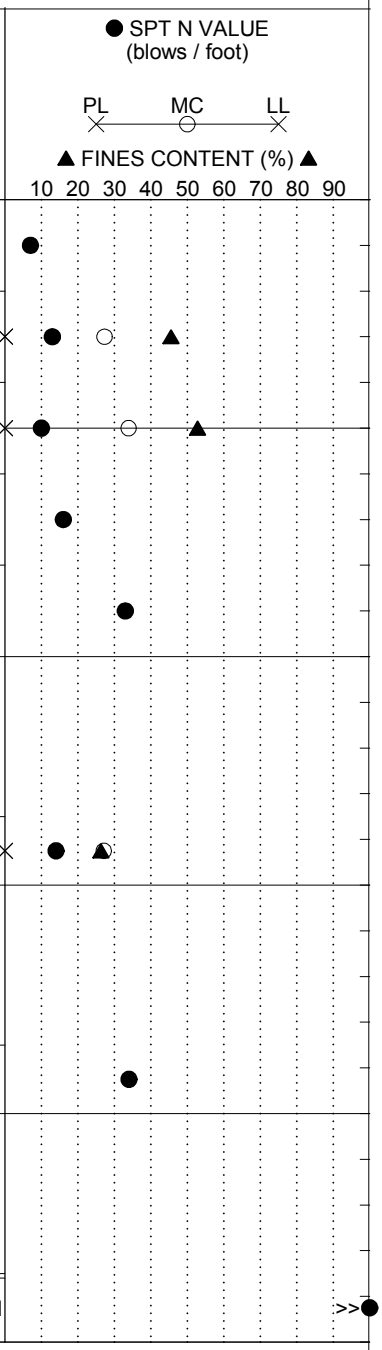
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-1L-05	**Boring Location:**	418+84	**Offset:**	RT 32	**Alignment:**	Ramp 4B
Elev.:	1001.8 ft.	**Latitude:**	34.83071585	**Longitude:**	-82.30135181	**Date Started:**	1/25/2015
Total Depth:	23.6 ft.	**Soil Depth:**	23.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/25/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D120	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	85%
Core Size:	NA	**Driller:**	F and R	**Groundwater:**	**TOB** 8.0 ft.	**24 HR**	8.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 4 inches of topsoil.	0.0					
	1000.0	Loose, moist, brown and reddish brown, fine grained, with trace organics and trace mica, SILTY SAND (SM, A-2), FILL		SS-1	3	4	3	7
		Medium dense, moist, brown, tan and black, fine to medium grained, with trace mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=27.3 %#200=45.5	2.0	SS-2	5	7	6	13
5.0		Stiff, moist, tan and brown, weakly reactive, with mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=33.9 %#200=52.8	4.0	SS-3	5	5	5	10
	995.0	Medium dense, moist, brown, tan, white and black, fine grained, with trace mica, SILTY SAND (SM, A-2), RESIDUUM	6.0	SS-4	6	7	9	16
		Medium dense, wet, with trace mica, RESIDUUM	8.0	SS-5	22	18	15	33
10.0								
	990.0							
		Medium dense, wet, brown, tan and white, fine to medium grained, with trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=27.1 %#200=26.3	13.5	SS-6	7	6	8	14
15.0								
	985.0							
		Dense, moist, with trace mica and weathered rock, RESIDUUM	18.5	SS-7	12	12	22	34
20.0								
	980.0							
		Very dense, No recovery, ROCK	23.5	SS-8	50/.1	X	X	50/.1
		Boring Terminated at 23.6 feet.						



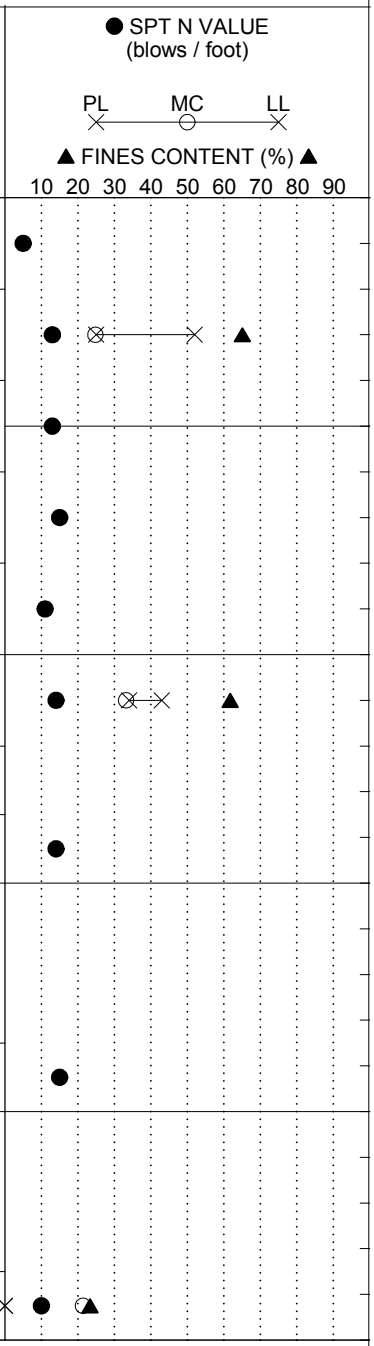
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-1L-06	**Boring Location:**	67+48	**Offset:**	RT 11	**Alignment:**	Ramp 2
Elev.:	1007.4 ft.	**Latitude:**	34.83131328	**Longitude:**	-82.30078429	**Date Started:**	12/10/2014
Total Depth:	34.0 ft.	**Soil Depth:**	34.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	12/10/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	15.4 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 4 inches of topsoil. Firm, moist, reddish brown, SANDY FAT CLAY (CH, A-7), FILL	0.0	SS-1	1	2	3	5
	1005.0	Stiff, moist, reddish brown, SANDY FAT CLAY (CH, A-7-6(16)), FILL, LL=52 PL=25 PI=27 NMC=24.8 %#200=65.1	2.0	SS-2	2	5	8	13
5.0		Stiff, FILL	4.0	SS-3	1	5	8	13
	1000.0	Stiff, moist, reddish brown and yellowish brown, SANDY FAT CLAY (CH, A-7), RESIDUUM	6.0	SS-4	3	6	9	15
10.0		Stiff, moist, yellowish brown and tan, SANDY SILT (ML, A-4), RESIDUUM	8.0	SS-5	3	5	6	11
		Stiff, moist, yellowish brown and tan, SANDY SILT (ML, A-5(5)), RESIDUUM, LL=43 PL=34 PI=9 NMC=33.2 %#200=61.8	10.0	SS-6	3	6	8	14
	995.0							
15.0		Medium dense, moist, reddish brown, gray, tan and white, fine to coarse grained, SILTY SAND (SM, A-2), RESIDUUM	13.5	SS-7	4	5	9	14
	990.0							
20.0		Medium dense, white, gray and black, with rock fragments, RESIDUUM	18.5	SS-8	5	7	8	15
	985.0							
25.0		Medium dense, moist, white, gray and black, fine to medium grained, SILTY SAND with GRAVEL (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP	23.5	SS-9	5	7	3	10



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-1L-06	**Boring Location:**	67+48	**Offset:**	RT 11	**Alignment:**	Ramp 2
Elev.:	1007.4 ft.	**Latitude:**	34.83131328	**Longitude:**	-82.30078429	**Date Started:**	12/10/2014
Total Depth:	34.0 ft.	**Soil Depth:**	34.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	12/10/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	15.4 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0		NMC=21.4 %#200=23.3								
	980.0									
		Very dense, white and black, PARTIALLY WEATHERED ROCK		28.5	SS-10	50	X	X	100	>>●
30.0										
	975.0									
		Very dense, white, gray and black, fine to coarse grained, PARTIALLY WEATHERED ROCK		33.5	SS-11	50	X	X	100	>>●
		Boring Terminated at 34.0 feet.								

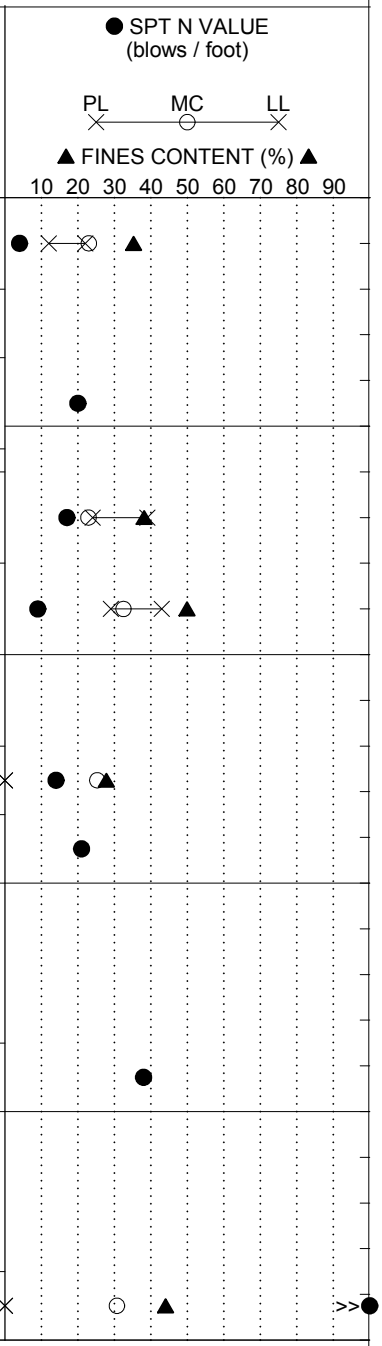
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-1L-07	**Boring Location:**	66+67	**Offset:**	RT 3	**Alignment:**	Ramp 2
Elev.:	1005.8 ft.	**Latitude:**	34.83150328	**Longitude:**	-82.30065305	**Date Started:**	12/10/2014
Total Depth:	34.0 ft.	**Soil Depth:**	34.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	12/10/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	14.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	1005.0	Approximately 5 inches of topsoil. Loose, moist, reddish brown, fine to medium grained, CLAYEY SAND (SC, A-2-4(0)), FILL, LL=22 PL=12 PI=10 NMC=23.0 %#200=35.3	0.0	SS-1	1	2	2	4
		Undisturbed sample obtained from 2.0 to 4.0 feet. Approximately 16 inches of recovery. FILL	2.0	ST-1				
		Medium dense, reddish brown with layers of light tan, FILL	3.5	SS-2	5	9	11	20
5.0	1000.0	Medium dense, moist, reddish brown and yellowish brown, fine to medium grained, CLAYEY SAND (SC, A-6(2)), FILL, LL=39 PL=24 PI=15 NMC=22.9 %#200=38.2	6.0	SS-3	3	9	8	17
		Stiff, moist, reddish brown, tan, fine to medium grained, SILTY SAND (SM, A-7-6(5)), RESIDUUM, LL=43 PL=29 PI=14 NMC=32.5 %#200=49.9	8.0	SS-4	3	4	5	9
10.0	995.0	Undisturbed sample obtained from 10.0 to 12.0 feet. Approximately 17 inches of recovery. RESIDUUM	10.0	ST-2				
		Medium dense, moist, reddish brown and tan, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=25.3 %#200=27.8	12.0	SS-5	4	6	8	14
▽ 15.0	990.0	Medium dense, reddish brown, tan, gray and white, RESIDUUM	13.5	SS-6	5	7	14	21
		Dense, brown, white and gray, fine to coarse grained, RESIDUUM	18.5	SS-7	12	25	13	38
20.0	985.0	Very dense, moist, white and black, fine to medium grained, SILTY SAND (SM, A-4(0)), PARTIALLY WEATHERED ROCK, LL=NP PL=NP PI=NP	23.5	SS-8	3	8	50/5	100
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-1L-07	**Boring Location:**	66+67	**Offset:**	RT 3	**Alignment:**	Ramp 2
Elev.:	1005.8 ft.	**Latitude:**	34.83150328	**Longitude:**	-82.30065305	**Date Started:**	12/10/2014
Total Depth:	34.0 ft.	**Soil Depth:**	34.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	12/10/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	14.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
	980.0	NMC=30.7 %#200=44.0								
		Medium dense, brown, white, black and tan, fine to coarse grained, RESIDUUM		28.5	SS-9	2	2	13	15	●
30.0	975.0									
		Very dense, PARTIALLY WEATHERED ROCK		33.5	SS-10	50	X	X	100	>>●
		Boring Terminated at 34.0 feet.								

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

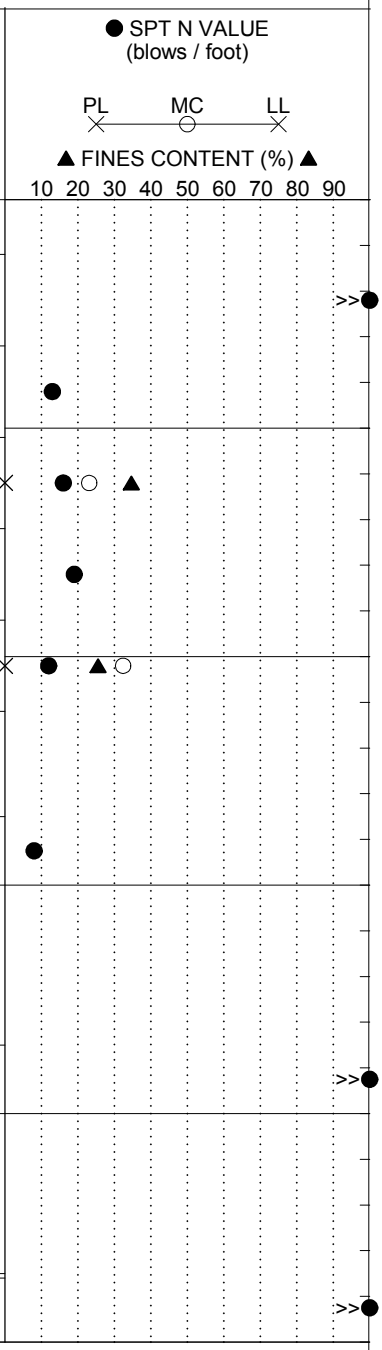
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-2L-01	**Boring Location:**	277+30	**Offset:**	LT 49	**Alignment:**	I-85
Elev.:	1000.1 ft.	**Latitude:**	34.83101325	**Longitude:**	-82.30046314	**Date Started:**	2/6/2015
Total Depth:	23.6 ft.	**Soil Depth:**	23.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D50	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	101%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	1000.0	Approximately 14 inches of asphalt.						
		Very dense, No Recovery, FILL (2 inch piece of asphalt)	1.2	SS-1	50/2	X	X	100
		Medium dense, moist, gray and brown, fine grained, CLAYEY SAND (SC, A-2), FILL	3.2	SS-2	5	4	9	13
5.0	995.0	Medium dense, moist, brown, tan and white, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	5.2	SS-3	7	7	9	16
		Medium dense, moist, brown, tan, white and black, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=23.1 %#200=34.7	7.2	SS-4	3	9	10	19
		Medium dense, with trace mica, RESIDUUM	9.2	SS-5	4	4	8	12
10.0	990.0	Medium dense, moist, brown, tan, white and black, fine to medium grained, with trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.4 %#200=25.5						
		Loose, with trace mica, RESIDUUM	13.5	SS-6	11	5	3	8
15.0	985.0							
		Very dense, PARTIALLY WEATHERED ROCK	18.5	SS-7	50/2	X	X	100
20.0	980.0							
		Very dense, No recovery, ROCK	23.5	SS-8	50/1	X	X	50/1
		Boring Terminated at 23.6 feet.						



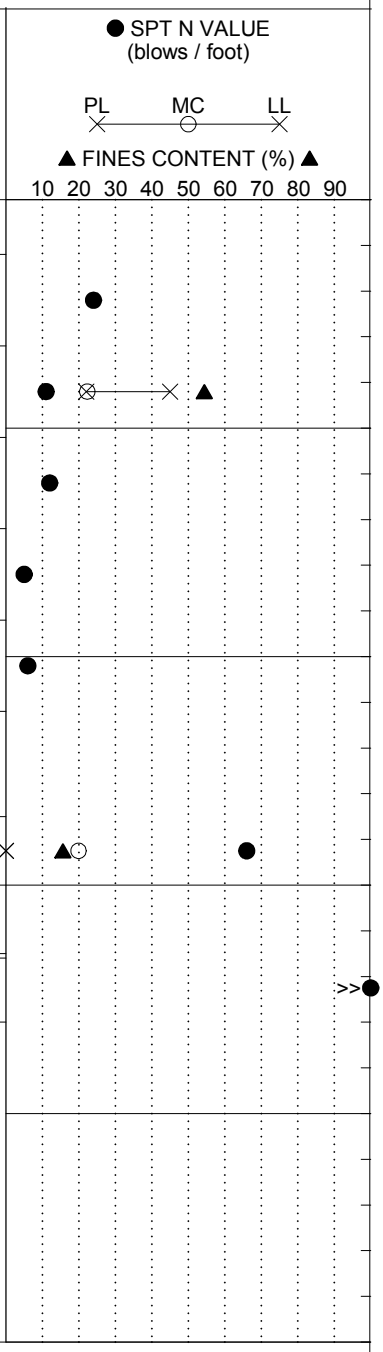
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-2L-02	**Boring Location:**	279+29	**Offset:**	LT 50	**Alignment:**	I-85
Elev.:	998.7 ft.	**Latitude:**	34.83134736	**Longitude:**	-82.29993905	**Date Started:**	2/6/2015
Total Depth:	16.6 ft.	**Soil Depth:**	16.6 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D50	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	101%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 14 inches of asphalt.						
		Medium dense, moist, brown and gray, fine grained, SILTY SAND (SM, A-2), FILL	1.2	SS-1	41	16	8	24
	995.0	Very stiff, moist, brown, gray and reddish brown, SANDY LEAN CLAY (CL, A-6), FILL	3.2	SS-2	5	5	6	11
5.0		Stiff, moist, brown, SANDY LEAN CLAY (CL, A-7-6(19)), FILL, LL=45 PL=22 PI=23 NMC=22.3 %#200=54.4	5.2	SS-3	3	5	7	12
		Stiff, with trace gravel, FILL	7.2	SS-4	5	3	2	5
	990.0	Loose, moist, brown, fine grained, CLAYEY SAND (SC, A-2), FILL	9.2	SS-5	2	3	3	6
10.0		Loose, moist, brown and tan, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM						
	985.0	Very dense, moist, brown, gray and tan, fine to meidum grained, SILTY SAND with GRAVEL (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=19.9 %#200=15.6	13.5	SS-6	12	16	50	66
15.0		Very dense, No recovery, ROCK	16.5	SS-7	50/1	X	X	50/1
		Boring Terminated at 16.6 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

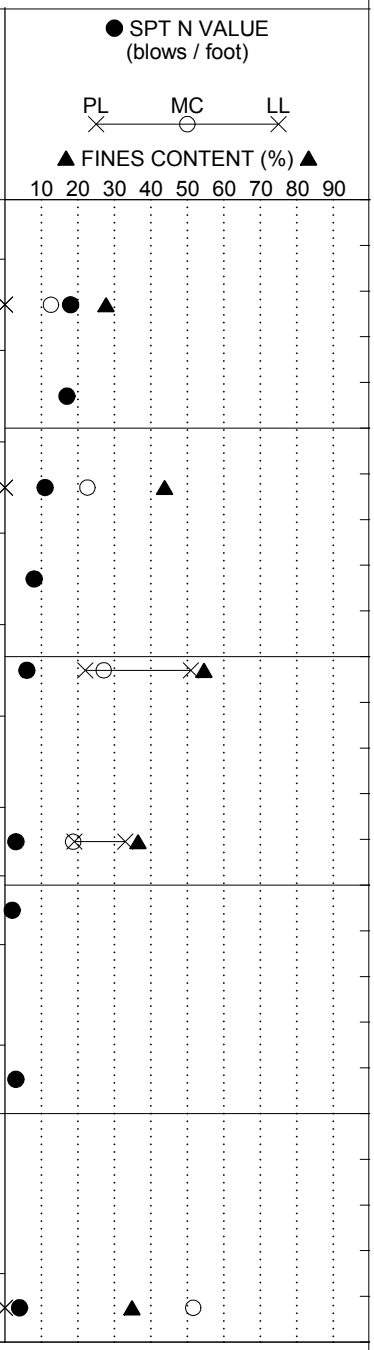
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-2L-03	**Boring Location:**	281+19	**Offset:**	LT 41	**Alignment:**	I-85
Elev.:	997.9 ft.	**Latitude:**	34.83164608	**Longitude:**	-82.29941845	**Date Started:**	2/6/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 16 inches of asphalt.						
	995.0	Medium dense, moist, brown, gray, white, tan, fine to medium grained, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=12.6 %#200=27.7	1.3	SS-1	19	11	7	18
5.0		Medium dense, gray and tan	3.3	SS-2	6	6	11	17
		Medium dense, brown and tan, fine grained, LL=NP PL=NP PI=NP NMC=22.6 %#200=43.8	5.3	SS-3	3	5	6	11
	990.0	Firm, moist, brown, SANDY FAT CLAY (CH, A-7), FILL	7.3	SS-4	3	4	4	8
10.0		Firm, moist, brown and gray, SANDY FAT CLAY (CH, A-7-6(13)), RESIDUUM, LL=51 PL=22 PI=29 NMC=27.1 %#200=54.6	9.3	SS-5	1	3	3	6
		Undisturbed sample obtained from 11.3 to 13.3 feet. Approximately 24 inches of recovery.	11.3	ST-1				
	985.0	Very loose, moist, brown, gray and tan, fine to medium grained, CLAYEY SAND (SC, A-6(1)), RESIDUUM, LL=33 PL=19 PI=14 NMC=18.7 %#200=36.5	13.3	SS-6	2	1	2	3
15.0		Very loose, wet, brown and tan, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	14.8	SS-7	2	1	1	2
	980.0	Very loose, moist, brown, tan, white and black, with trace mica, RESIDUUM	18.5	SS-8	2	1	2	3
20.0								
	975.0	Very loose, moist, brown, tan and white, fine to medium grained, with trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP	23.5	SS-9	1	2	2	4
25.0								



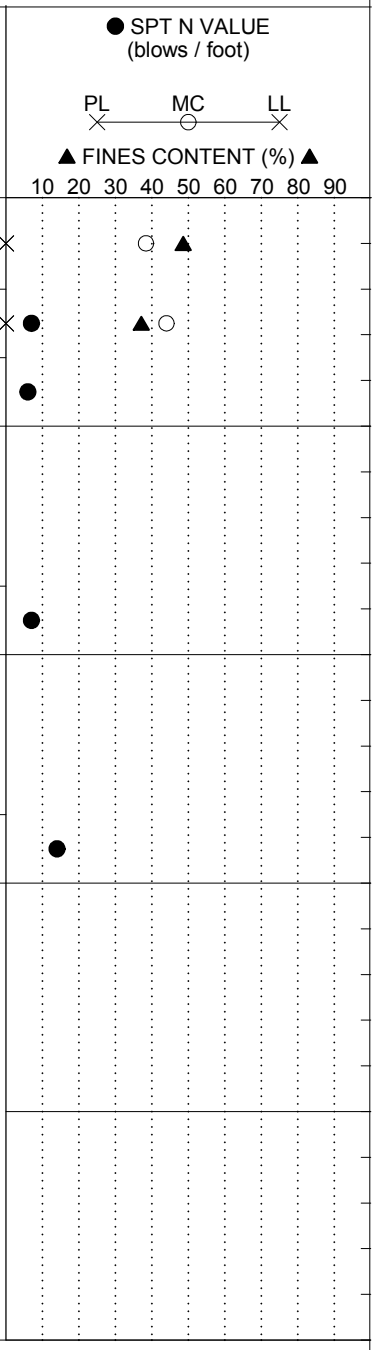
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-2L-03	**Boring Location:**	281+19	**Offset:**	LT 41	**Alignment:**	I-85
Elev.:	997.9 ft.	**Latitude:**	34.83164608	**Longitude:**	-82.29941845	**Date Started:**	2/6/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	2/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0		NMC=51.6 %#200=34.8 Undisturbed sample obtained from 25.0 to 27.0 feet. Approximately 24 inches of recovery. Brown, tan, white and black, fine grained, with trace mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=38.4 %#200=48.6		25.0	ST-2				
	970.0	Loose, moist, brown, tan, white and black, fine to medium grained, with trace mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=44.0 %#200=37.1		27.0	SS-10	1	3	4	7
30.0		Loose, with trace mica, RESIDUUM		28.5	SS-11	1	2	4	6
	965.0								
35.0		Loose, with trace mica, RESIDUUM		33.5	SS-12	2	3	4	7
	960.0								
40.0		Medium dense, with trace mica, RESIDUUM		38.5	SS-13	3	5	9	14



Boring Terminated at 40.0 feet.

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

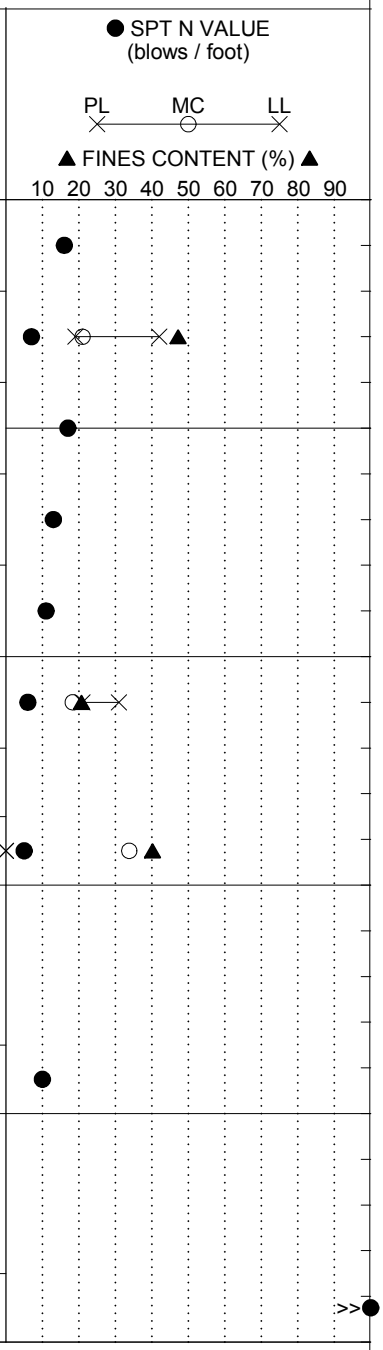
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-2L-03A	**Boring Location:**	65+17	**Offset:**	RT 23	**Alignment:**	Ramp 1B
Elev.:	995.9 ft.	**Latitude:**	34.83184398	**Longitude:**	-82.29951024	**Date Started:**	5/9/2015
Total Depth:	26.1 ft.	**Soil Depth:**	26.1 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/9/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 10.0 ft.	**24 HR**	5.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	995.0	Approximately 4 inches of topsoil. Medium dense, dry, brown, fine to medium grained, CLAYEY SAND (SC, A-2), FILL	0.0	SS-1	5	8	8	16
		Loose, moist, red and light brown, non reactive, fine to medium grained, CLAYEY SAND (SC, A-7-6(7)), ALLUVIUM, LL=42 PL=19 PI=23 NMC=21.0 %#200=47.2	2.0	SS-2	3	3	4	7
5.0		Very stiff, red, light brown and gray, ALLUVIUM	4.0	SS-3	3	6	11	17
	990.0	Stiff, ALLUVIUM	6.0	SS-4	2	5	8	13
		Stiff, ALLUVIUM	8.0	SS-5	4	5	6	11
10.0	985.0	Loose, wet, light gray and light brown, fine to medium grained, CLAYEY SAND (SC, A-2-4(0)), ALLUVIUM, LL=31 PL=21 PI=10 NMC=18.3 %#200=20.7	10.0	SS-6	4	4	2	6
15.0	980.0	Loose, moist, white and brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), with mica, RESIDUUM, LL=NP PL=NP PI=NP NMC=33.8 %#200=40.2	13.5	SS-7	2	2	3	5
20.0	975.0	Loose, wet, black and white, with mica, RESIDUUM	18.5	SS-8	8	7	3	10
25.0		Very dense, fine to coarse grained, with mica, PARTIALLY WEATHERED ROCK	23.5	SS-9	50	X	X	100



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-2L-03A	**Boring Location:**	65+17	**Offset:**	RT 23	**Alignment:**	Ramp 1B
Elev.:	995.9 ft.	**Latitude:**	34.83184398	**Longitude:**	-82.29951024	**Date Started:**	5/9/2015
Total Depth:	26.1 ft.	**Soil Depth:**	26.1 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/9/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 10.0 ft.	**24 HR**	5.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
	970.0									
		Very dense, No recovery, ROCK		26.0						
		Boring Terminated at 26.1 feet.			SS-10	50/.5	X	X	50/.5	>>●

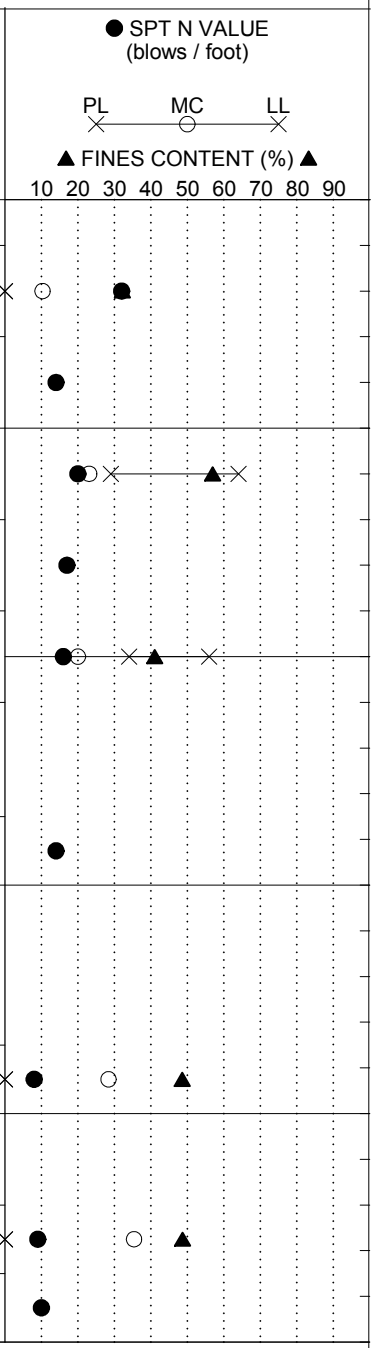
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-3R-01	**Boring Location:**	296+03	**Offset:**	LT 3	**Alignment:**	I-85 NB C/D
Elev.:	988.9 ft.	**Latitude:**	34.8338915	**Longitude:**	-82.29529217	**Date Started:**	3/26/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/26/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 12 inches of asphalt.						
		Medium dense, moist, brown, red, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=10.3 %#200=32.2	1.0	SS-1	26	19	13	32
	985.0	Stiff, moist, red, SANDY FAT CLAY (CH, A-7), ALLUVIUM	3.0	SS-2	3	6	8	14
5.0		Very stiff, moist, red, with mica, SANDY FAT CLAY (CH, A-7-6(18)), ALLUVIUM, LL=64 PL=29 PI=35 NMC=23.1 %#200=56.9	5.0	SS-3	6	9	11	20
		Medium dense, with mica, ALLUVIUM	7.0	SS-4	3	8	9	17
	980.0							
10.0		Medium dense, red and light brown, medium to coarse grained, with mica, SILTY SAND (SM, A-7-5(5)), RESIDUUM, LL=56 PL=34 PI=22 NMC=20.0 %#200=41.1	9.0	SS-5	6	6	10	16
	975.0	Medium dense, black, RESIDUUM	13.5	SS-6	3	4	10	14
15.0								
	970.0	Loose, moist, red and light brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=28.4 %#200=48.6	18.5	SS-7	2	3	5	8
20.0		Undisturbed sample obtained from 20.0 to 22.0 feet. Approximately 20 inches of recovery.	20.0	ST-1				
	965.0	Loose, moist, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=35.4 %#200=48.7	22.0	SS-8	3	4	5	9
25.0		Loose, red, fine grained, with mica, RESIDUUM	23.5	SS-9	3	3	7	10



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

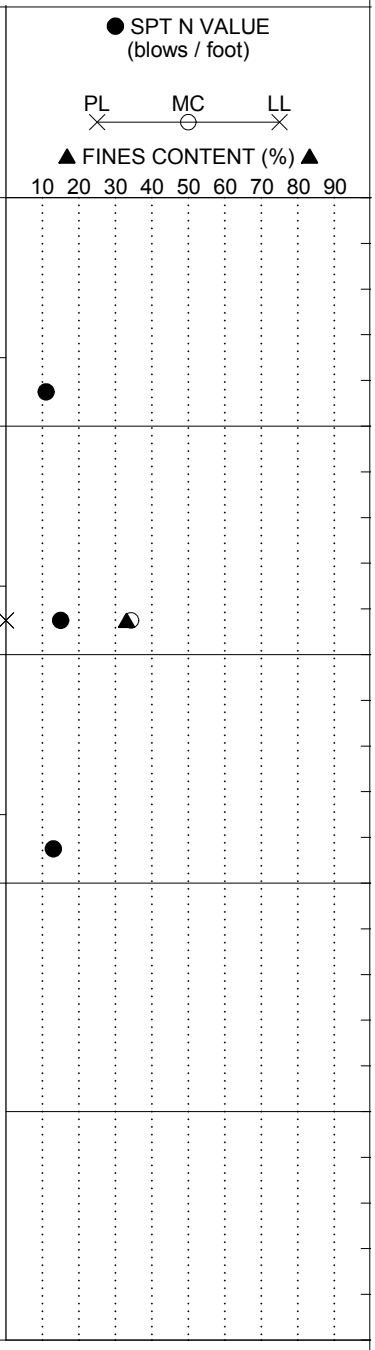
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-3R-01	**Boring Location:**	296+03	**Offset:**	LT 3	**Alignment:**	I-85 NB C/D
Elev.:	988.9 ft.	**Latitude:**	34.8338915	**Longitude:**	-82.29529217	**Date Started:**	3/26/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/26/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
30.0	960.0	Medium dense, white, with mica, RESIDUUM		28.5	SS-10	3	4	7	11
35.0	955.0	Medium dense, moist, light brown and white, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=34.3 %#200=33.1		33.5	SS-11	4	5	10	15
40.0	950.0	Medium dense, with mica, RESIDUUM		38.5	SS-12	5	5	8	13
		Boring Terminated at 40.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

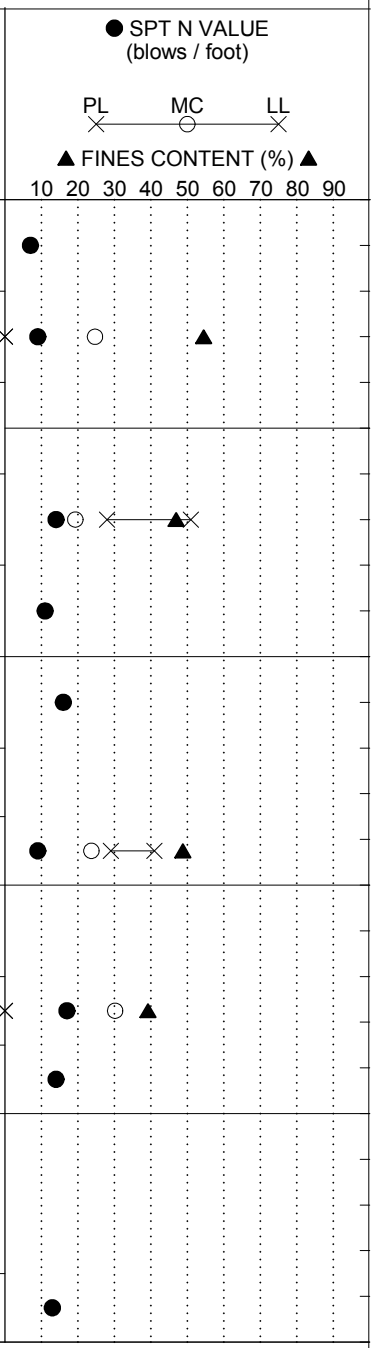
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-3R-02	**Boring Location:**	297+95	**Offset:**	RT 28	**Alignment:**	I-85 NB C/D
Elev.:	984.9 ft.	**Latitude:**	34.83416274	**Longitude:**	-82.29474043	**Date Started:**	1/27/2015
Total Depth:	60.0 ft.	**Soil Depth:**	60.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/27/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	42.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Firm, moist, brown and red, SANDY SILT (ML, A-6), FILL	0.0	SS-1	2	3	4	7
		Stiff, moist, red and brown, SANDY SILT (ML, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=24.7 %#200=54.5	2.0	SS-2	4	4	5	9
5.0	980.0	Undisturbed sample obtained from 4.0 to 6.0 feet. Approximately 24 inches of recovery.	4.0	ST-1				
		Medium dense, moist, red and light brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(7)), RESIDUUM, LL=51 PL=28 PI=23 NMC=19.3 %#200=46.9	6.0	SS-3	4	6	8	14
		Medium dense, red, RESIDUUM	8.0	SS-4	3	4	7	11
10.0	975.0	Medium dense, RESIDUUM	10.0	SS-5	2	6	10	16
15.0	970.0	Loose, moist, red, fine to medium grained, SILTY SAND (SM, A-7-6(4)), RESIDUUM, LL=41 PL=29 PI=12 NMC=23.7 %#200=48.8 Undisturbed sample obtained from 15.0 to 17.0 feet. Approximately 19 inches of recovery.	13.5	SS-6	2	4	5	9
			15.0	ST-2				
		Medium dense, moist, red, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=30.2 %#200=39.2	17.0	SS-7	7	8	9	17
		Medium dense, RESIDUUM	18.5	SS-8	2	4	10	14
20.0	965.0							
25.0	960.0	Medium dense, light brown, fine grained, with mica, RESIDUUM	23.5	SS-9	5	6	7	13



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

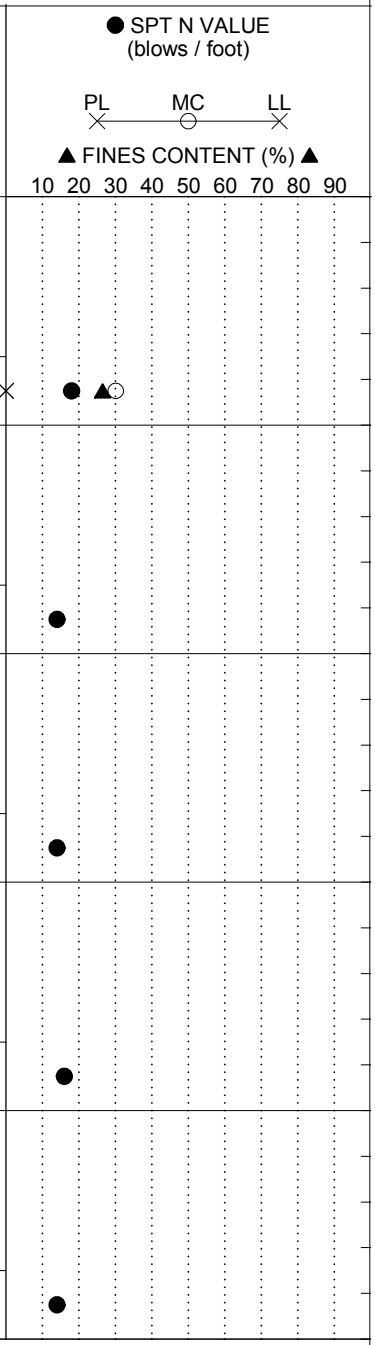
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-3R-02	**Boring Location:**	297+95	**Offset:**	RT 28	**Alignment:**	I-85 NB C/D
Elev.:	984.9 ft.	**Latitude:**	34.83416274	**Longitude:**	-82.29474043	**Date Started:**	1/27/2015
Total Depth:	60.0 ft.	**Soil Depth:**	60.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/27/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	42.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0								
30.0	955.0	Medium dense, moist, reddish brown and gray, fine to medium grained with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=30.1 %#200=26.5	28.5	SS-10	4	7	11	18
35.0	950.0	Medium dense, gray, with mica, RESIDUUM	33.5	SS-11	3	5	9	14
40.0	945.0	Medium dense, with mica, RESIDUUM	38.5	SS-12	2	5	9	14
45.0	940.0	Medium dense, gray and white, with mica, RESIDUUM	43.5	SS-13	3	7	9	16
50.0	935.0	Medium dense, white and black, with mica, RESIDUUM	48.5	SS-14	3	4	10	14



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

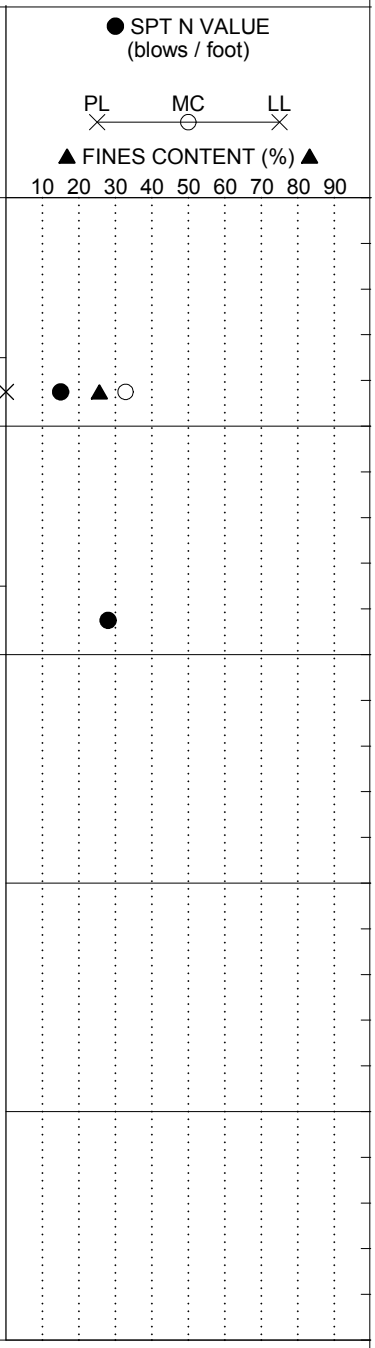
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W85-3R-02	**Boring Location:**	297+95	**Offset:**	RT 28	**Alignment:**	I-85 NB C/D
Elev.:	984.9 ft.	**Latitude:**	34.83416274	**Longitude:**	-82.29474043	**Date Started:**	1/27/2015
Total Depth:	60.0 ft.	**Soil Depth:**	60.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/27/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	42.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
50.0									
55.0	930.0	Medium dense, moist, white and black, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.8 %#200=25.6		53.5	SS-15	4	6	9	15
60.0	925.0	Medium dense, gray and light brown, with mica, RESIDUUM		58.5	SS-16	5	8	20	28
		Boring Terminated at 60.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

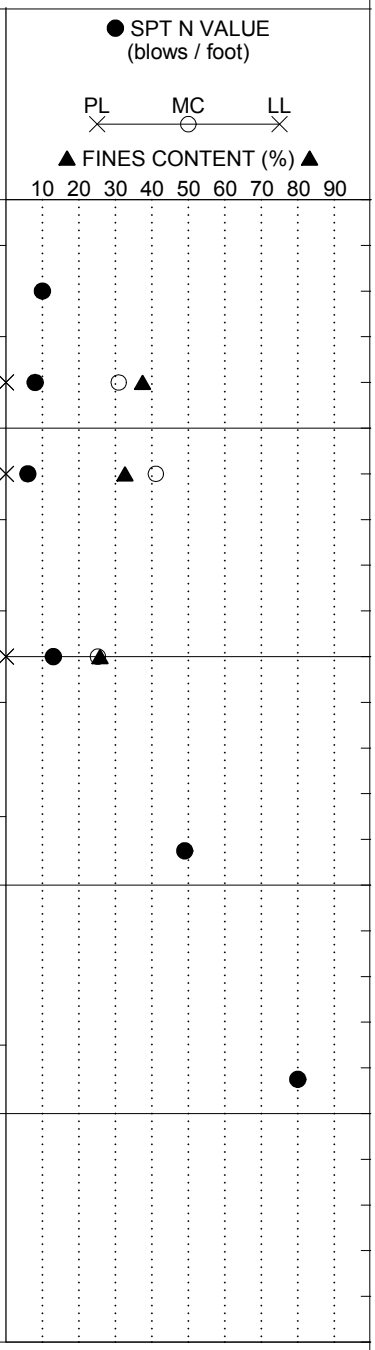
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-1R-01	**Boring Location:**	344+16	**Offset:**	LT 4	**Alignment:**	I-385 NB / CD
Elev.:	933.5 ft.	**Latitude:**	34.81926527	**Longitude:**	-82.29066497	**Date Started:**	4/21/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/21/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 5 inches of asphalt and 7 inches of base.						
		Loose, moist, red and brown, fine to medium grained, with mica, SILTY SAND (SM, A-2), FILL	1.0	SS-1	6	5	5	10
	930.0	Loose, moist, red and brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=30.9 %#200=37.5	3.0	SS-2	3	3	5	8
5.0		Loose, moist, red and brown, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=41.1 %#200=32.6	5.0	SS-3	2	3	3	6
	925.0	Undisturbed sample obtained from 7.0 to 9.0 feet. Approximately 22 inches of recovery.	7.0	ST-1				
10.0		Medium dense, moist, red and brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=25.2 %#200=25.8	9.0	SS-4	4	6	7	13
	920.0	Dense, red and white, fine to medium grained, with mica, RESIDUUM	13.5	SS-5	22	22	27	49
15.0								
	915.0	Very dense, black and white, fine grained, RESIDUUM	18.5	SS-6	33	35	45	80
20.0		Boring Terminated at 20.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

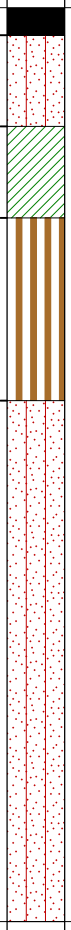
HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

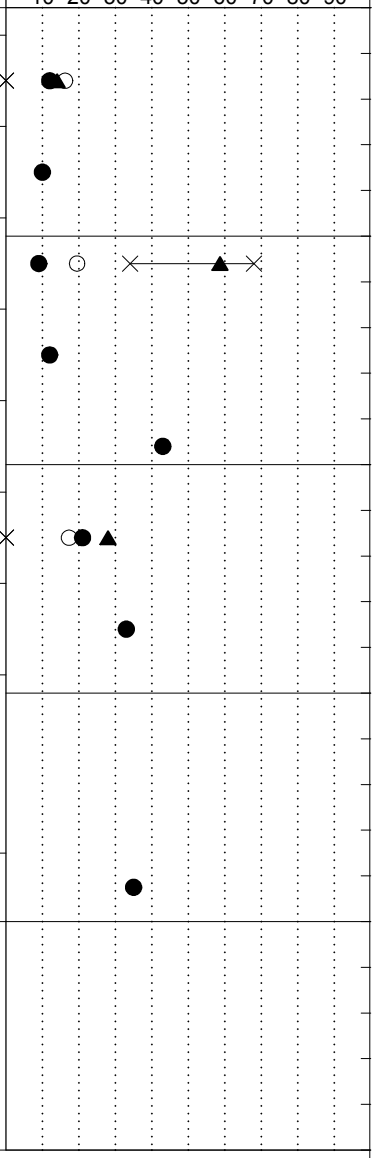
Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-1R-02	**Boring Location:**	346+08	**Offset:**	RT 8	**Alignment:**	I-385 NB / CD
Elev.:	934.2 ft.	**Latitude:**	34.81979429	**Longitude:**	-82.29070385	**Date Started:**	4/21/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/21/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 7 inches of asphalt.						
		Medium dense, moist, brown, fine to coarse grained, SILTY SAND with GRAVEL (SM, A-1-b(0)), FILL, LL=NP PL=NP PI=NP NMC=16.2 %#200=14.0	0.6	SS-1	20	7	5	12
		Stiff, moist, red and light brown, SANDY LEAN CLAY (CL, A-6), FILL	2.6	SS-2	1	4	6	10
5.0	930.0	Stiff, moist, light gray, light brown and red, non reactive, SANDY ELASTIC SILT (MH, A-7-5(19)), ALLUVIUM, LL=68 PL=34 PI=34 NMC=19.5 %#200=58.7	4.6	SS-3	1	4	5	9
		Stiff, light gray and light brown, ALLUVIUM	6.6	SS-4	1	5	7	12
10.0	925.0	Dense, moist, light brown and red, fine to medium grained, SILTY SAND (SM, A-2), with mica, RESIDUUM	8.6	SS-5	4	15	28	43
		Medium dense, moist, light brown and red, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=17.3 %#200=28.0	10.6	SS-6	12	8	13	21
15.0	920.0	Dense, red, brown and white, fine grained, with mica, RESIDUUM	12.6	SS-7	10	14	19	33
20.0	915.0	Dense, reddish brown and white, fine to medium grained, with mica, RESIDUUM	18.5	SS-8	8	16	19	35

Graphic Log





Boring Terminated at 20.0 feet.

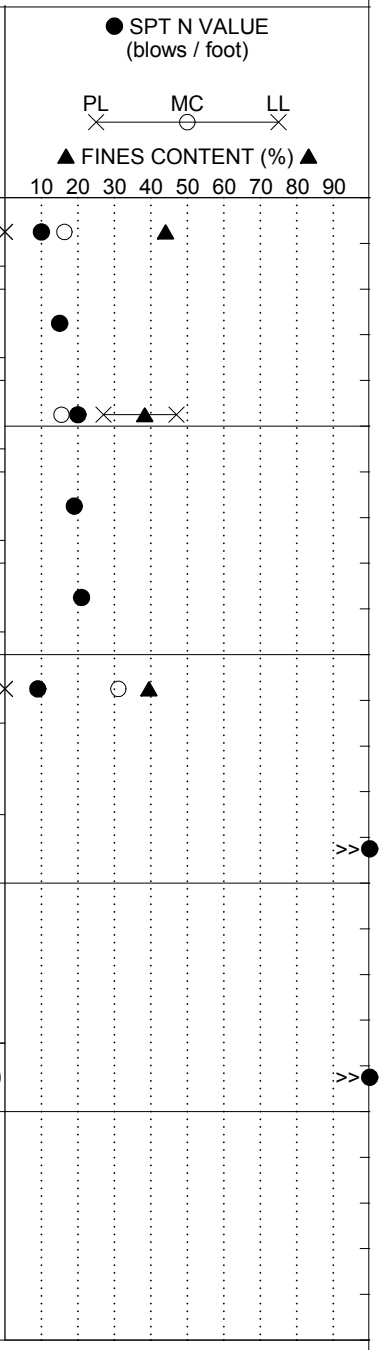
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-2L-01	**Boring Location:**	365+24	**Offset:**	LT 26	**Alignment:**	I-385 NB / CD
Elev.:	965.4 ft.	**Latitude:**	34.82501558	**Longitude:**	-82.29151277	**Date Started:**	11/11/2014
Total Depth:	18.5 ft.	**Soil Depth:**	18.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	11/11/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	17.3 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	965.0	Approximately 3 inches of topsoil. Loose, reddish brown, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=16.3 %#200=44.0		0.0	SS-1	4	4	6	10
		Medium dense, moist, red and brown, CLAYEY SAND (SC), FILL		2.0	SS-2	5	6	9	15
5.0	960.0	Medium dense, moist, reddish brown, weakly reactive, fine to medium grained, CLAYEY SAND (SC, A-7-6(3)), FILL, LL=47 PL=27 PI=20 NMC=15.5 %#200=38.3		4.0	SS-3	3	10	10	20
		Medium dense, moist, red, brown, tan and white, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM		6.0	SS-4	3	5	14	19
		Medium dense, RESIDUUM		8.0	SS-5	3	5	16	21
10.0	955.0	Loose, moist, tan, white and reddish brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=31.1 %#200=39.5		10.0	SS-6	6	4	5	9
		Very dense, No Recovery, ROCK		13.5	SS-7	50/1	X	X	50/1
15.0	950.0	Very dense, No Recovery, ROCK		18.5	SS-8	50/0	X	X	50/0
		Boring Terminated at 18.5 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

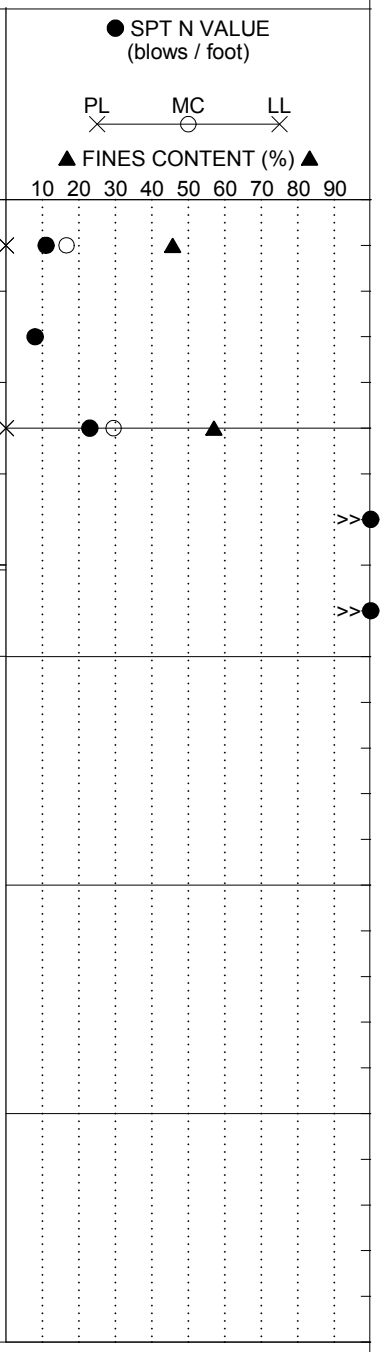
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-2L-02	**Boring Location:**	367+21	**Offset:**	LT 21	**Alignment:**	I-385 NB / CD
Elev.:	967.0 ft.	**Latitude:**	34.82554048	**Longitude:**	-82.29157832	**Date Started:**	1/10/2015
Total Depth:	8.1 ft.	**Soil Depth:**	8.1 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	5.4 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Medium dense, moist, brownish red, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=16.6 %#200=45.7		0.0	SS-1	3	5	6	11
	965.0	Loose, light brown and red, FILL		2.0	SS-2	2	3	5	8
5.0 ▽		Very stiff, moist, red, brown and black, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=29.5 %#200=57.0		4.0	SS-3	4	11	12	23
	960.0	Very dense, moist, red, brown, black, fine to medium grained, SILTY SAND (SM, A-2), PARTIALLY WEATHERED ROCK		6.0	SS-4	8	50	X	100
		Very Dense, No Recovery, ROCK		8.0					
		Boring Terminated at 8.1 feet.			SS-5	50/1	X	X	50/1



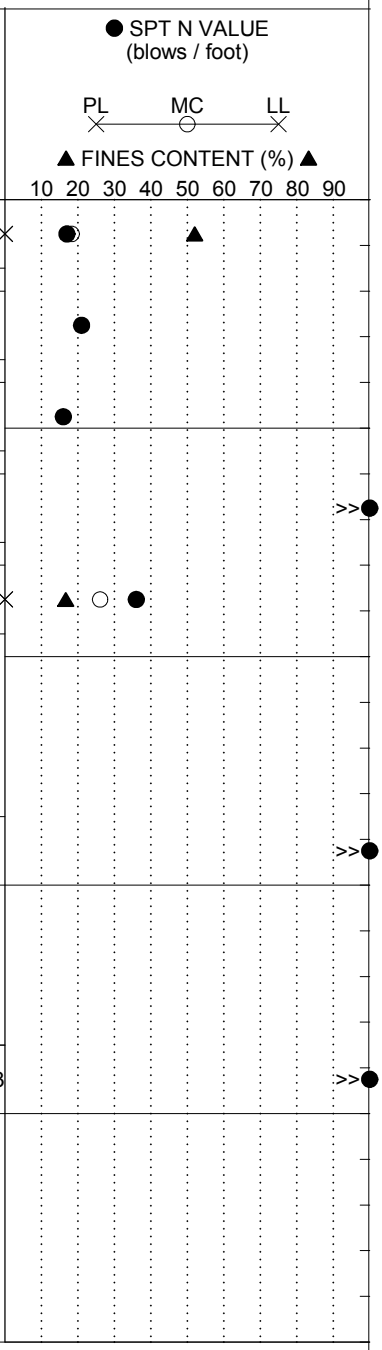
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-2L-03	**Boring Location:**	368+06	**Offset:**	LT 39	**Alignment:**	I-385 NB / CD
Elev.:	969.4 ft.	**Latitude:**	34.82574695	**Longitude:**	-82.29170582	**Date Started:**	11/14/2014
Total Depth:	18.5 ft.	**Soil Depth:**	18.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	11/14/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	11.2 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Stiff, dry, reddish brown, SANDY SILT (ML, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=18.3 %#200=52.0	0.0	SS-1	9	11	6	17
		Very stiff, moist, FILL	2.0	SS-2	5	10	11	21
	965.0	Medium dense, moist, reddish brown, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	4.0	SS-3	7	8	8	16
5.0		Very dense, tan, reddish brown and black, with rock fragments, RESIDUUM	6.0	SS-4	21	15	50/5	100
	960.0	Dense, moist, reddish brown, tan and black, non reactive, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=26.1 %#200=16.7	8.0	SS-5	12	17	19	36
10.0								
	955.0	Very dense, black, yellow and white, with rock fragment, ROCK	13.5	SS-6	50/1	X	X	50/1
15.0								
		Very dense, No Recovery, ROCK	18.5					
		Boring Terminated at 18.5 feet.		SS-7	50/.3	X	X	50/.3



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

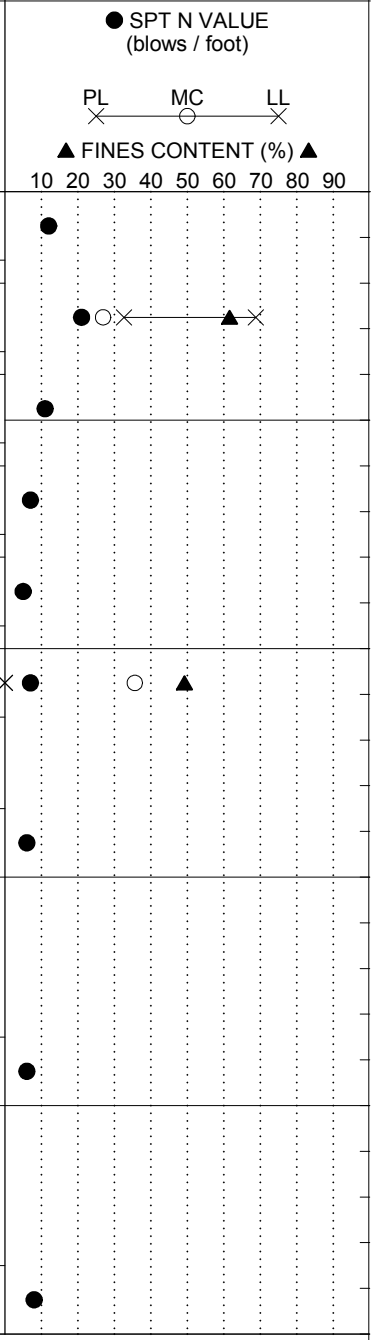
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-2R-01	**Boring Location:**	364+35	**Offset:**	RT 27	**Alignment:**	I-385 NB / CD
Elev.:	962.8 ft.	**Latitude:**	34.82477403	**Longitude:**	-82.29132862	**Date Started:**	11/11/2014
Total Depth:	43.5 ft.	**Soil Depth:**	43.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	11/11/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	23.1 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 3 inches of topsoil. Stiff, moist, reddish brown, SANDY ELASTIC SILT (MH, A-5), FILL	0.0	SS-1	2	5	7	12
	960.0	Very stiff, moist, reddish brown, SANDY ELASTIC SILT (MH, A-7-5(21)), FILL, LL=69 PL=33 PI=36 NMC=26.9 %#200=61.6	2.0	SS-2	2	7	14	21
5.0		Stiff, reddish brown, tan and light gray, RESIDUUM	4.0	SS-3	5	4	7	11
	955.0	Loose, moist, reddish brown and light gray, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	6.0	SS-4	1	3	4	7
10.0		Loose, reddish brown and tan, RESIDUUM	8.0	SS-5	2	2	3	5
	950.0	Loose, moist, tan, yellowish brown and black, non reactive, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=35.6 %#200=49.2	10.0	SS-6	2	3	4	7
15.0		Loose, yellowish brown and black, RESIDUUM	13.5	SS-7	2	2	4	6
	945.0	Loose, dark gray, white, black, tan and green, fine to coarse grained, RESIDUUM	18.5	SS-8	5	4	2	6
20.0	940.0	Loose, moist, yellowish brown, white and black, RESIDUUM	23.5	SS-9	2	3	5	8
25.0								



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-2R-01	**Boring Location:**	364+35	**Offset:**	RT 27	**Alignment:**	I-385 NB / CD
Elev.:	962.8 ft.	**Latitude:**	34.82477403	**Longitude:**	-82.29132862	**Date Started:**	11/11/2014
Total Depth:	43.5 ft.	**Soil Depth:**	43.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	11/11/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	23.1 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
	935.0									
		Loose, yellowish brown, black and tan, RESIDUUM		28.5	SS-10	4	4	6	10	
30.0										
	930.0									
		Medium dense, moist, yellowish brown, white and black, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=34.0 %#200=36.2		33.5	SS-11	3	5	6	11	
35.0										
	925.0									
		Medium dense, fine to coarse grained, with some gravel, RESIDUUM		38.5	SS-12	7	7	21	28	
40.0										
	920.0									
		Very Dense, No Recovery, ROCK		43.5						
		Boring Terminated at 43.5 feet.			SS-13	50/0	X	X	50/0	>>

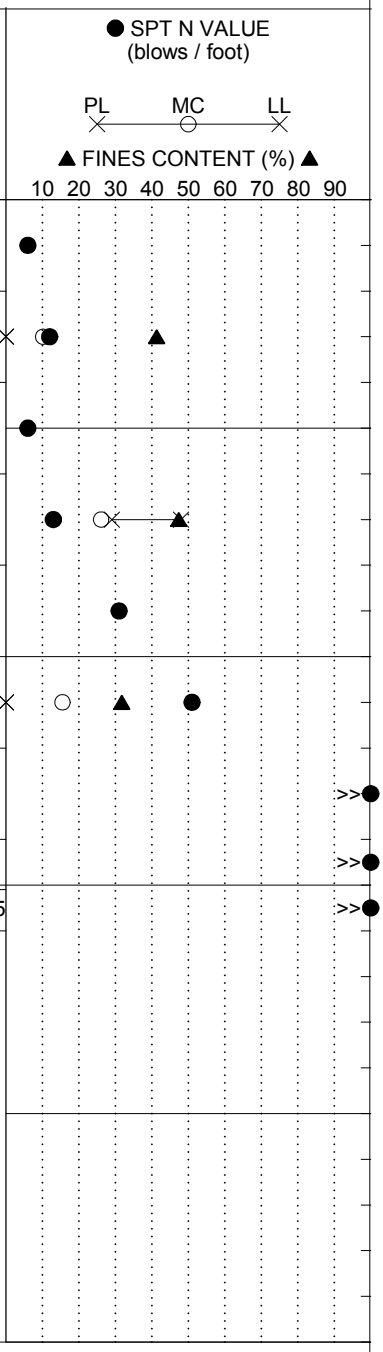
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-2R-02	**Boring Location:**	366+31	**Offset:**	RT 8	**Alignment:**	I-385 NB / CD
Elev.:	966.2 ft.	**Latitude:**	34.82531286	**Longitude:**	-82.29142756	**Date Started:**	1/12/2015
Total Depth:	15.1 ft.	**Soil Depth:**	15.1 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	8.6 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 3 inches of topsoil.		0.0					
	965.0	Loose, moist, red, non reactive, fine to medium grained, SILTY SAND (SM, A-2), FILL			SS-1	2	2	4	6
		Medium dense, moist, red and brown, weakly reactive, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=10.2 %#200=41.3		2.0	SS-2	4	5	7	12
5.0		Loose, red, FILL		4.0	SS-3	1	3	3	6
	960.0	Medium dense, moist, red and light brown, fine to medium grained, SILTY SAND (SM, A-7-6(6)), FILL, LL=48 PL=29 PI=19 NMC=26.1 %#200=47.4		6.0	SS-4	4	6	7	13
		Dense, red, light brown and white, RESIDUUM		8.0	SS-5	1	11	20	31
10.0				10.0					
	955.0	Very dense, moist, red, light brown and white, non reactive, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=15.5 %#200=31.8			SS-6	22	25	26	51
		Very dense, red and white, PARTIALLY WEATHERED ROCK		12.0	SS-7	7	50/6	X	100
15.0		Very dense, light brown and white, PARTIALLY WEATHERED ROCK		14.0	SS-8	50/6	X	X	100
		Very dense, No Recovery, ROCK		15.0	SS-9	50/.5	X	X	50/.5
		Boring Terminated at 15.1 feet.							



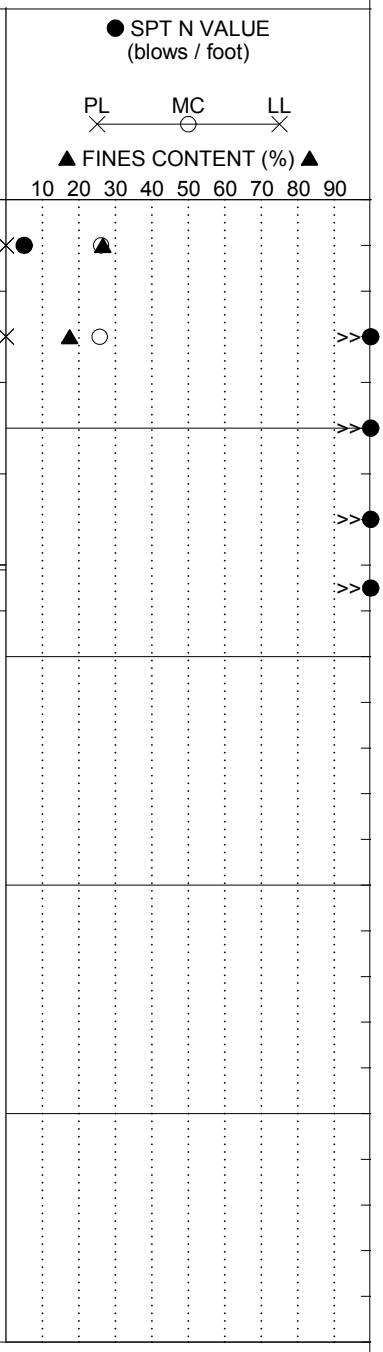
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-2R-03	**Boring Location:**	367+15	**Offset:**	RT 17	**Alignment:**	I-385 NB / CD
Elev.:	966.2 ft.	**Latitude:**	34.8255481	**Longitude:**	-82.29144848	**Date Started:**	1/30/2015
Total Depth:	8.1 ft.	**Soil Depth:**	8.1 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/30/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	5.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 8 inches of topsoil.		0.0					
	965.0	Loose, moist, brown and red, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=26.1 %#200=26.6			SS-1	2	3	2	5
		Very dense, white and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=25.7 %#200=17.5		2.0	SS-2	20	50/4	X	100
5.0		Very dense, light brown, with mica, PARTIALLY WEATHERED ROCK		4.0	SS-3	13	17	50/3	100
	960.0	Very dense, with mica and gravel, PARTIALLY WEATHERED ROCK		6.0	SS-4	50/4	X	X	100
		Very dense, black and white, ROCK		8.0	SS-5	50/1	X	X	50/1
		Boring Terminated at 8.1 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

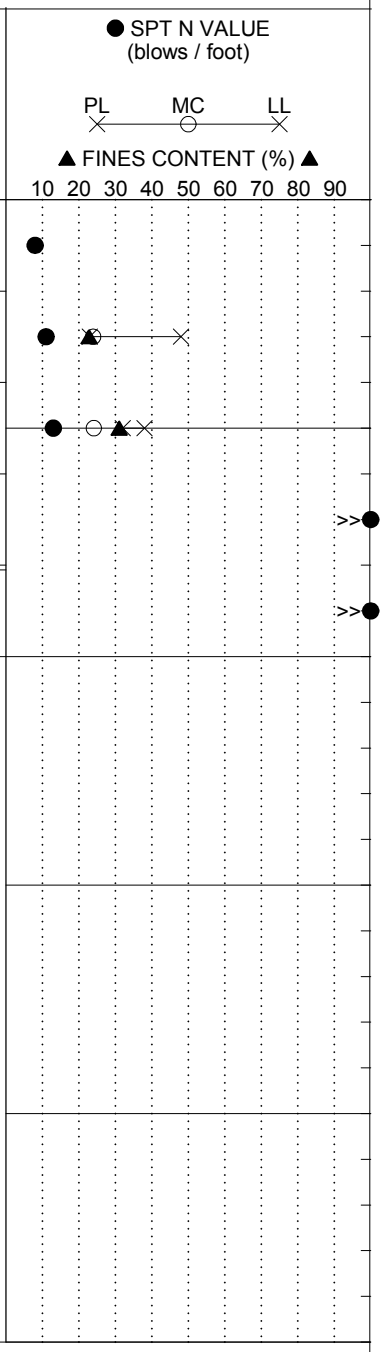
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-2R-04	**Boring Location:**	368+00	**Offset:**	RT 26	**Alignment:**	I-385 NB / CD
Elev.:	968.1 ft.	**Latitude:**	34.8257852	**Longitude:**	-82.29149473	**Date Started:**	1/30/2015
Total Depth:	8.1 ft.	**Soil Depth:**	8.1 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/30/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 4 inches of topsoil. Loose, moist, brown and red, fine to medium grained, CLAYEY SAND (SC, A-2), RESIDUUM		0.0	SS-1	1	5	3	8
	965.0	Medium dense, moist, red, fine to medium grained, SANDY CLAY (SC, A-2-7(1)), RESIDUUM, LL=48 PL=23 PI=25 NMC=23.9 %#200=22.8		2.0	SS-2	1	4	7	11
5.0		Medium dense, moist, red, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=38 PL=32 PI=6 NMC=24.1 %#200=31.1		4.0	SS-3	3	6	7	13
		Very dense, brown, with mica, PARTIALLY WEATHERED ROCK		6.0	SS-4	50/4	X	X	100
	960.0	Very dense, black and white, ROCK		8.0	SS-5	50/1	X	X	50/1
		Boring Terminated at 8.1 feet.							



LEGEND

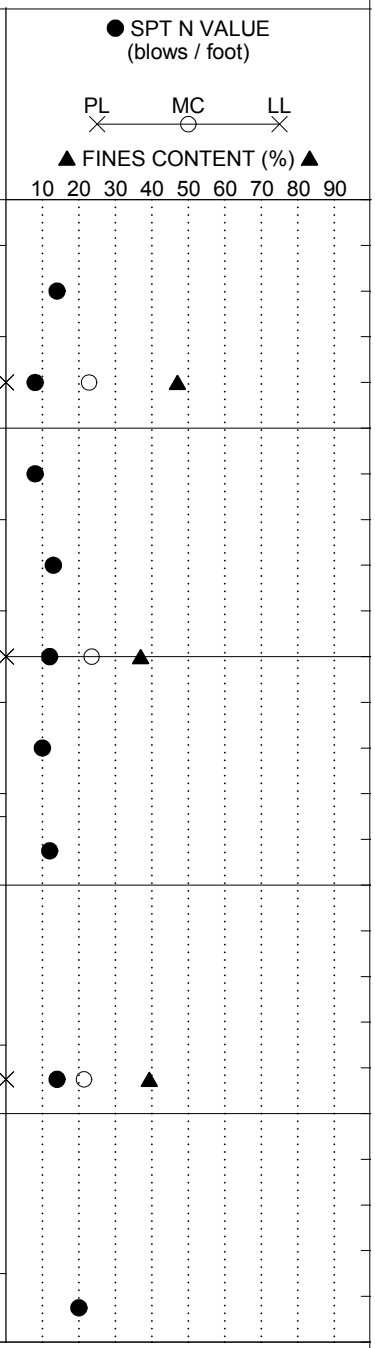
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-4R-01	**Boring Location:**	428+97	**Offset:**	RT 112	**Alignment:**	I-385
Elev.:	1046.8 ft.	**Latitude:**	34.83601463	**Longitude:**	-82.30611679	**Date Started:**	4/18/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/18/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION
0.0		Approximately 12 inches of asphalt.
	1045.0	Stiff, moist, red, with mica, SANDY LEAN CLAY (CL, A-6), FILL
5.0		Loose, moist, white and red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=22.8 %#200=47.0
		Loose, white, fine grained, with mica, RESIDUUM
	1040.0	
		Medium dense, white and black, with mica, RESIDUUM
10.0		Medium dense, moist, white, light brown and red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=23.5 %#200=36.9
	1035.0	Loose, moist, white and light brown, fine grained, SILTY SAND (SM), with mica, RESIDUUM
		Medium dense, with mica, RESIDUUM
15.0		
	1030.0	
20.0		Medium dense, moist, white and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=21.4 %#200=39.3
	1025.0	
25.0		Medium dense, fine grained, with mica, RESIDUUM

Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
1.0	SS-1	10	7	7	14
3.0	SS-2	1	4	4	8
5.0	SS-3	2	4	4	8
7.0	SS-4	1	6	7	13
9.0	SS-5	4	5	7	12
11.0	SS-6	3	4	6	10
13.5	SS-7	3	5	7	12
18.5	SS-8	5	5	9	14
23.5	SS-9	6	9	11	20



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

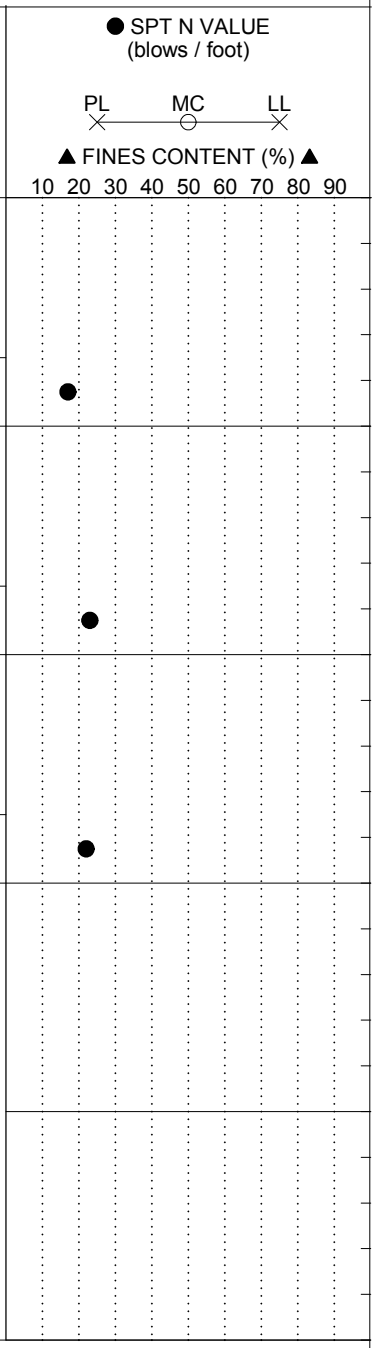
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-4R-01	**Boring Location:**	428+97	**Offset:**	RT 112	**Alignment:**	I-385
Elev.:	1046.8 ft.	**Latitude:**	34.83601463	**Longitude:**	-82.30611679	**Date Started:**	4/18/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/18/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	1020.0								
30.0		Medium dense, fine to medium grained, with mica, RESIDUUM		28.5	SS-10	6	7	10	17
	1015.0								
35.0		Medium dense, white and black, with mica, RESIDUUM		33.5	SS-11	6	10	13	23
	1010.0								
40.0		Medium dense, white, with mica, RESIDUUM		38.5	SS-12	9	10	12	22
		Boring Terminated at 40.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

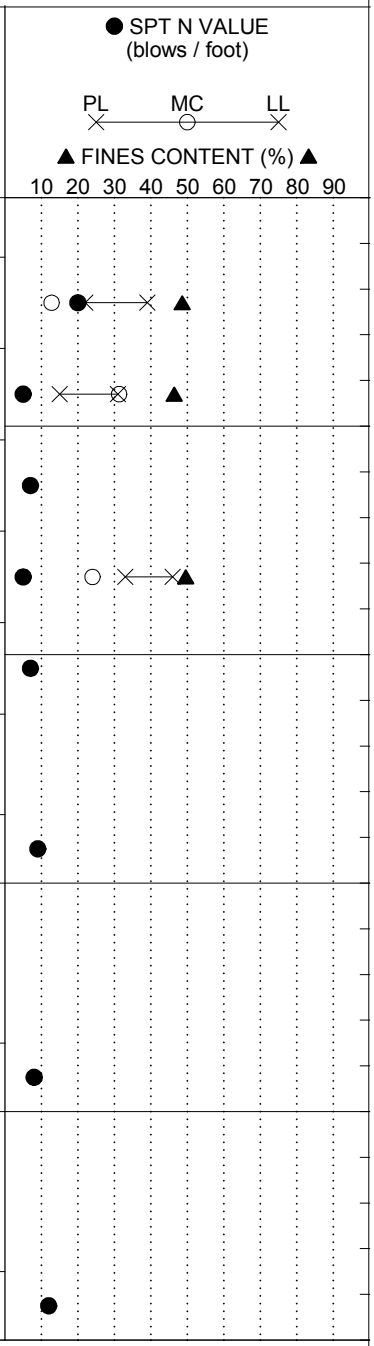
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-4R-02	**Boring Location:**	431+06	**Offset:**	RT 112	**Alignment:**	I-385
Elev.:	1052.8 ft.	**Latitude:**	34.83627259	**Longitude:**	-82.30674075	**Date Started:**	4/18/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/18/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 20.0 ft.*	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 15 inches of asphalt.						
	1050.0	Medium dense, moist, red and brown, fine to medium grained, CLAYEY SAND (SC, A-6(5)), FILL, LL=39 PL=22 PI=17 NMC=12.8 %#200=48.6	1.3	SS-1	3	8	12	20
5.0		Loose, moist, brown, fine to medium grained, CLAYEY SAND (SC, A-6(4)), FILL, LL=31 PL=15 PI=16 NMC=31.3 %#200=46.4	3.3	SS-2	3	3	2	5
	1045.0	Loose, moist, red and light brown, fine to medium grained, SILTY SAND (SM, A-2), FILL	5.3	SS-3	2	4	3	7
		Loose, moist, red and light brown, fine to medium grained, SILTY SAND (SM, A-7-5(5)), FILL, LL=46 PL=33 PI=13 NMC=24.0 %#200=49.6	7.3	SS-4	2	2	3	5
10.0		Loose, moist, ligh brown and red, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	9.3	SS-5	2	3	4	7
	1040.0							
15.0		Loose, with mica, RESIDUUM	13.5	SS-6	3	4	5	9
	1035.0							
20.0		Loose, light brown, white and red, with mica, RESIDUUM	18.5	SS-7	2	3	5	8
	1030.0							
25.0		Medium dense, white and light brown, with mica, RESIDUUM	23.5	SS-8	4	5	7	12



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

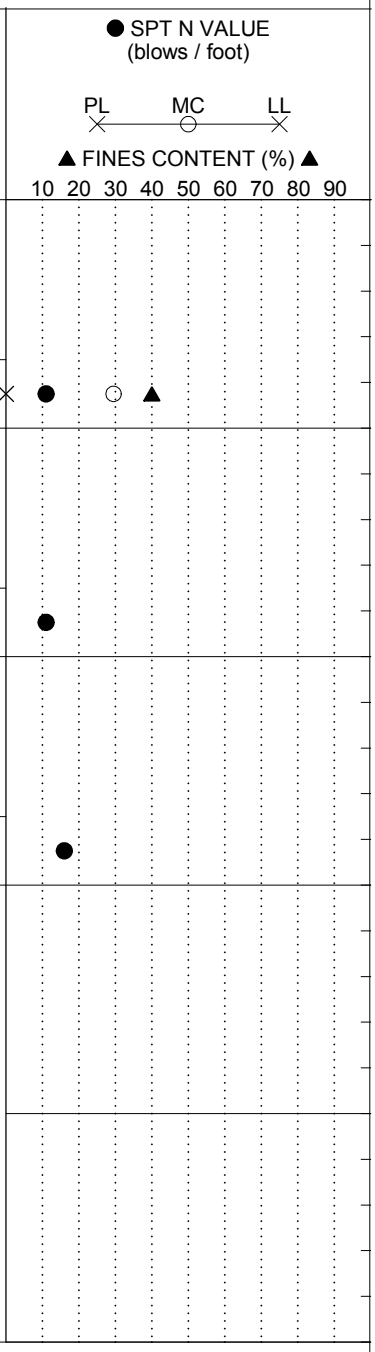
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-4R-02	**Boring Location:**	431+06	**Offset:**	RT 112	**Alignment:**	I-385
Elev.:	1052.8 ft.	**Latitude:**	34.83627259	**Longitude:**	-82.30674075	**Date Started:**	4/18/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/18/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 20.0 ft.*	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	1025.0								
30.0		Medium dense, moist, white and light brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=29.5 %#200=40.0		28.5	SS-9	3	5	6	11
	1020.0								
35.0		Medium dense, fine to medium grained, with mica, RESIDUUM		33.5	SS-10	3	5	6	11
	1015.0								
40.0		Medium dense, fine grained, with mica, RESIDUUM		38.5	SS-11	4	7	9	16



Boring Terminated at 40.0 feet.

*Observed at time of borehole completion.

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

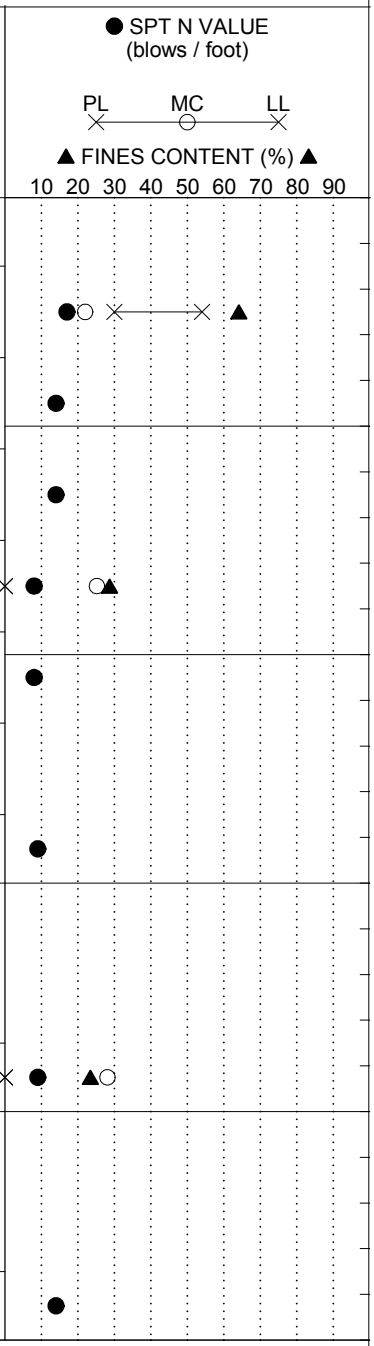
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-4R-03	**Boring Location:**	434+61	**Offset:**	RT 112	**Alignment:**	I-385
Elev.:	1062.3 ft.	**Latitude:**	34.83670954	**Longitude:**	-82.30779841	**Date Started:**	4/18/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/18/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 10.0 ft.*	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 18 inches of asphalt.						
	1060.0	Very stiff, moist, red and brown, SANDY ELASTIC SILT (MH, A-7-5(15)), FILL, LL=54 PL=30 PI=24 NMC=22.0 %#200=64.1	1.5	SS-1	6	9	8	17
5.0		Stiff, moist, red and brown, SANDY ELASTIC SILT (MH, A-5), ALLUVIUM	3.5	SS-2	3	5	9	14
	1055.0	Stiff, ALLUVIUM	5.5	SS-3	5	6	8	14
10.0		Loose, moist, red and white, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=25.2 %#200=28.7	7.5	SS-4	4	5	3	8
	1050.0	Loose, brown and white, with mica, RESIDUUM	9.5	SS-5	3	3	5	8
15.0	1045.0	Loose, red and light brown, with mica, RESIDUUM	13.5	SS-6	3	4	5	9
20.0	1040.0	Loose, moist, red, white and black, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=28.1 %#200=23.4	18.5	SS-7	4	4	5	9
25.0		Medium dense, black and white, with mica, RESIDUUM	23.5	SS-8	4	6	8	14



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

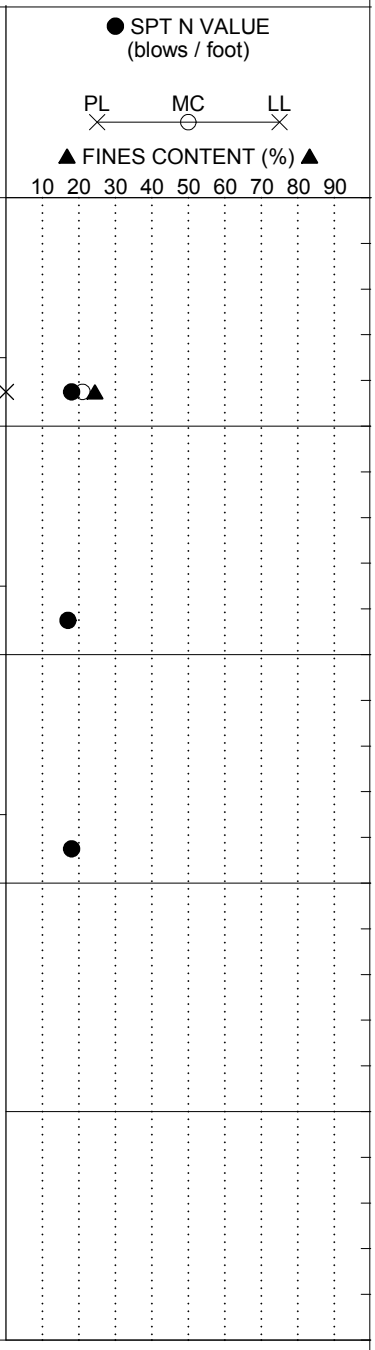
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-4R-03	**Boring Location:**	434+61	**Offset:**	RT 112	**Alignment:**	I-385
Elev.:	1062.3 ft.	**Latitude:**	34.83670954	**Longitude:**	-82.30779841	**Date Started:**	4/18/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/18/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 10.0 ft.*	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	1035.0								
30.0		Medium dense, moist, black and white, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=21.0 %#200=24.4		28.5	SS-9	5	9	9	18
	1030.0								
35.0		Medium dense, white, fine to coarse grained, with mica, RESIDUUM		33.5	SS-10	8	8	9	17
	1025.0								
40.0		Medium dense, black, fine to medium grained, with mica, RESIDUUM		38.5	SS-11	7	10	8	18



Boring Terminated at 40.0 feet.

*Observed at time of borehole completion.

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

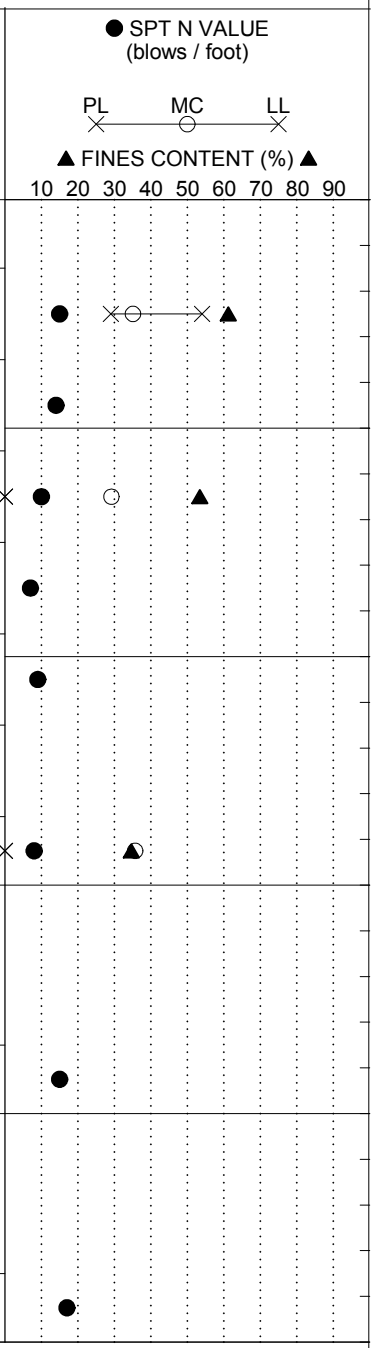
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-4R-04	**Boring Location:**	436+60	**Offset:**	RT 112	**Alignment:**	I-385
Elev.:	1066.6 ft.	**Latitude:**	34.8369541	**Longitude:**	-82.30839091	**Date Started:**	4/16/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/16/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 18 inches of asphalt.						
	1065.0	Stiff, moist, red and brown, SANDY FAT CLAY (CH, A-7-6(14)), FILL, LL=54 PL=29 PI=25 NMC=35.1 %#200=61.2	1.5	SS-1	7	7	8	15
5.0		Stiff, moist, red, with mica, SANDY SILT (ML, A-4)), FILL	3.5	SS-2	5	7	7	14
	1060.0	Stiff, moist, red, with mica, SANDY SILT (ML, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=29.2 %#200=53.4	5.5	SS-3	3	5	5	10
10.0		Loose, moist, red, fine grained, with mica, SILTY SAND (SM, A-2), FILL	7.5	SS-4	2	4	3	7
	1055.0	Loose, red and brown, with mica, FILL	9.5	SS-5	2	4	5	9
15.0		Loose, moist, brown and red, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=35.7 %#200=34.7	13.5	SS-6	2	3	5	8
	1050.0							
20.0		Medium dense, brown, fine to medium grained, RESIDUUM	18.5	SS-7	5	6	9	15
	1045.0							
25.0		Medium dense, fine grained, with mica, RESIDUUM	23.5	SS-8	5	8	9	17



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

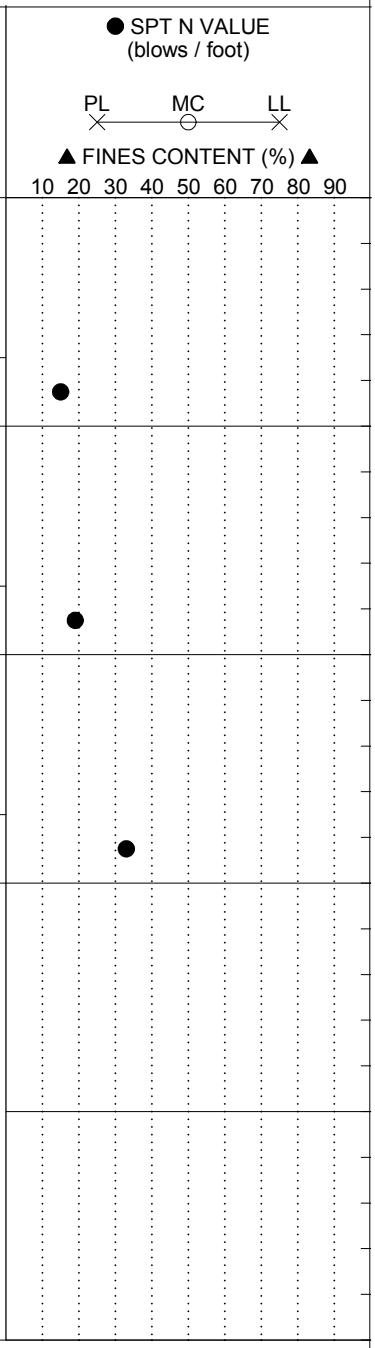
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-4R-04	**Boring Location:**	436+60	**Offset:**	RT 112	**Alignment:**	I-385
Elev.:	1066.6 ft.	**Latitude:**	34.8369541	**Longitude:**	-82.30839091	**Date Started:**	4/16/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/16/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	1040.0								
30.0		Medium dense, white and light brown, fine to medium grained, with mica, RESIDUUM		28.5	SS-9	6	7	8	15
	1035.0								
35.0		Medium dense, white and brown, with mica, RESIDUUM		33.5	SS-10	7	9	10	19
	1030.0								
40.0		Dense, white and black, with mica, RESIDUUM		38.5	SS-11	13	16	17	33
		Boring Terminated at 40.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
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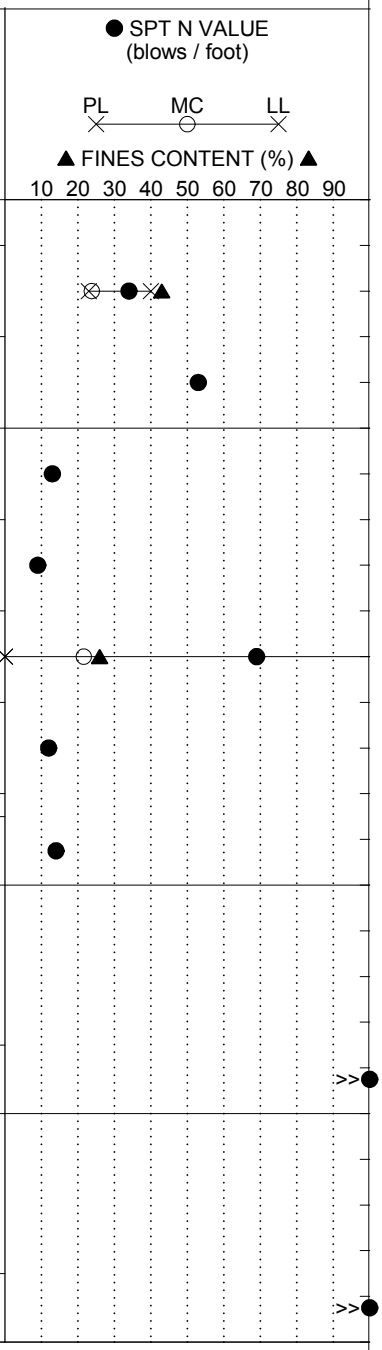
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-4R-05A	**Boring Location:**	438+60	**Offset:**	RT 113	**Alignment:**	I-385
Elev.:	1069.9 ft.	**Latitude:**	34.83720249	**Longitude:**	-82.30898565	**Date Started:**	5/10/2015
Total Depth:	38.5 ft.	**Soil Depth:**	38.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 8.2 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 12 inches of asphalt.						
		Dense, moist, reddish brown, tan, white, black, fine to medium grained, CLAYEY SAND (SC, A-6(4)), FILL, LL=40 PL=23 PI=17 NMC=23.8 %#200=43.0	1.0	SS-1	5	15	19	34
		Very dense, moist, brown, tan, white and black, fine grained, SILTY SAND (SM, A-2), RESIDUUM	3.0	SS-2	9	20	33	53
5.0	1065.0	Medium dense, brown, tan and white, fine to medium grained, RESIDUUM	5.0	SS-3	3	6	7	13
		Loose, brown and tan, fine grained, RESIDUUM	7.0	SS-4	3	4	5	9
10.0	1060.0	Very dense, moist, brown, tan, white and black, non reactive, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=21.6 %#200=26.0	9.0	SS-5	17	38	31	69
		Medium dense, RESIDUUM	11.0	SS-6	6	6	6	12
		Medium dense, RESIDUUM	13.5	SS-7	14	6	8	14
15.0	1055.0							
		Very dense, PARTIALLY WEATHERED ROCK	18.5	SS-8	2	8	50/1	50/1
20.0	1050.0							
		Very dense, fine grained, PARTIALLY WEATHERED ROCK	23.5	SS-9	50/5	X	X	100
25.0	1045.0							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-4R-05A	**Boring Location:**	438+60	**Offset:**	RT 113	**Alignment:**	I-385
Elev.:	1069.9 ft.	**Latitude:**	34.83720249	**Longitude:**	-82.30898565	**Date Started:**	5/10/2015
Total Depth:	38.5 ft.	**Soil Depth:**	38.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 8.2 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
30.0	1040.0	Very dense, moist, brown, tan, white and black, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=20.0 %#200=27.8		28.5	SS-10	25	30	27	57	
35.0	1035.0	Very dense, fine grained, PARTIALLY WEATHERED ROCK		33.5	SS-11	27	16	50/4	100	>>●
		Very dense, No Recovery, ROCK		38.5	SS-12	50/0	X	X	50/0	>>●
		Boring Terminated at 38.5 feet.								

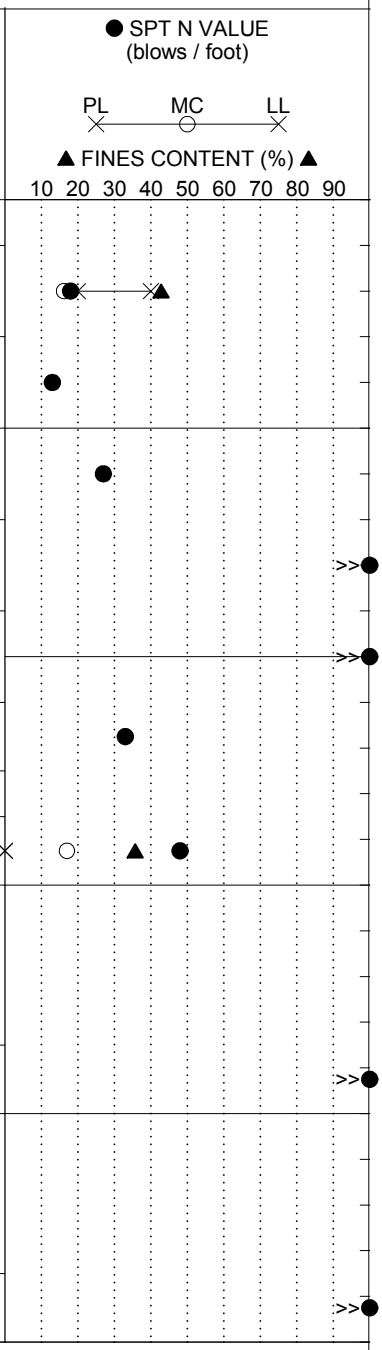
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-4R-06A	**Boring Location:**	442+16	**Offset:**	RT 113	**Alignment:**	I-385
Elev.:	1068.0 ft.	**Latitude:**	34.83764041	**Longitude:**	-82.3100441	**Date Started:**	5/10/2015
Total Depth:	28.5 ft.	**Soil Depth:**	28.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 13.9 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 12 inches of asphalt.						
	1065.0	Medium dense, moist, reddish brown, non reactive, fine to medium grained, CLAYEY SAND (SC, A-6(4)), FILL, LL=40 PL=20 PI=20 NMC=16.2 %#200=42.8	1.0	SS-1	5	7	11	18
		Medium dense, moist, brown, fine grained, SILTY SAND (SM, A-2), RESIDUUM	3.0	SS-2	4	5	8	13
5.0		Very dense, brown, tan, white and black, fine to medium grained, PARTIALLY WEATHERED ROCK	5.0	SS-3	6	9	18	27
	1060.0	Very dense, fine grained, with trace gravel, PARTIALLY WEATHERED ROCK	7.0	SS-4	50	X	X	100
10.0		Very dense, brown, tan and white, fine to medium grained, PARTIALLY WEATHERED ROCK	9.0	SS-5	50/2	X	X	100
		Dense, brown, tan, white and black, fine grained, RESIDUUM	11.0	SS-6	16	17	16	33
	1055.0							
15.0		Dense, moist, brown, tan, white and black, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=17.0 %#200=35.7	13.5	SS-7	17	27	21	48
	1050.0							
20.0		Very dense, fine to medium grained, PARTIALLY WEATHERED ROCK	18.5	SS-8	6	12	50/4	100
	1045.0							
25.0		Very dense, PARTIALLY WEATHERED ROCK	23.5	SS-9	50/2	X	X	100



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-4R-06A	**Boring Location:**	442+16	**Offset:**	RT 113	**Alignment:**	I-385
Elev.:	1068.0 ft.	**Latitude:**	34.83764041	**Longitude:**	-82.3100441	**Date Started:**	5/10/2015
Total Depth:	28.5 ft.	**Soil Depth:**	28.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 13.9 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
	1040.0									
		Very dense, No recovery, ROCK		28.5						
		Boring Terminated at 28.5 feet.			SS-10	50/0	X	X	50/0	>>●

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

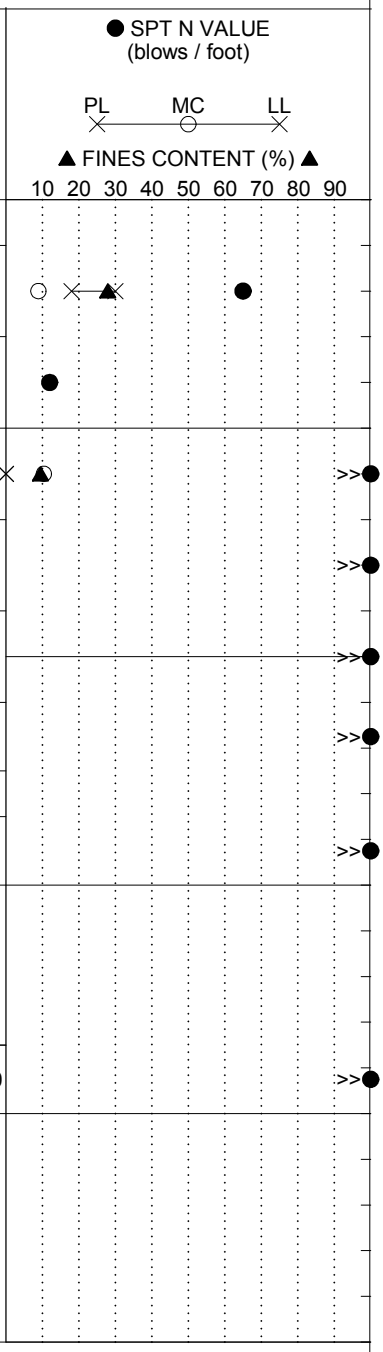
Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Michael Davis
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-4R-07A	**Boring Location:**	444+19	**Offset:**	RT 111	**Alignment:**	I-385
Elev.:	1063.7 ft.	**Latitude:**	34.83788802	**Longitude:**	-82.31063465	**Date Started:**	5/10/2015
Total Depth:	18.5 ft.	**Soil Depth:**	18.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	5/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 0.8 ft.*	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 12 inches of asphalt.						
		Very dense, moist, reddish brown, brown, tan and white, fine to medium grained, CLAYEY SAND (SC, A-2-6(0)), FILL, LL=30 PL=18 PI=12 NMC=8.9 %#200=27.9	1.0	SS-1	8	20	45	65
	1060.0	Medium dense, moist, brown, tan, white and black, non reactive, fine to coarse grained, POORLY GRADED SAND with SILT and GRAVEL (SP-SM, A-2), RESIDUUM	3.0	SS-2	2	4	8	12
5.0		Very dense, moist, brown, tan, black and white, fine to medium grained, POORLY GRADED SAND with SILT and GRAVEL (SP-SM, A-1-b(0)), PARTIALLY WEATHERED ROCK, LL=NP PL=NP PI=NP NMC=10.4 %#200=9.5	5.0	SS-3	1	5	50/2	100
	1055.0	Very dense, PARTIALLY WEATHERED ROCK	7.0	SS-4	50	X	X	100
10.0		Very dense, PARTIALLY WEATHERED ROCK	9.0	SS-5	50	X	X	100
		Very dense, moist, brown and tan, fine to coarse grained, SILTY SAND (SM, A-2), PARTIALLY WEATHERED ROCK	11.0	SS-6	50/2	X	X	100
	1050.0	Very dense, brown, tan, white, and black, fine grained, PARTIALLY WEATHERED ROCK	13.5	SS-7	50/2	X	X	100
15.0								
		Very dense, No recovery, ROCK	18.5	SS-8	50/0	X	X	50/0

Boring Terminated at 18.5 feet.

*Observed at time of borehole completion.



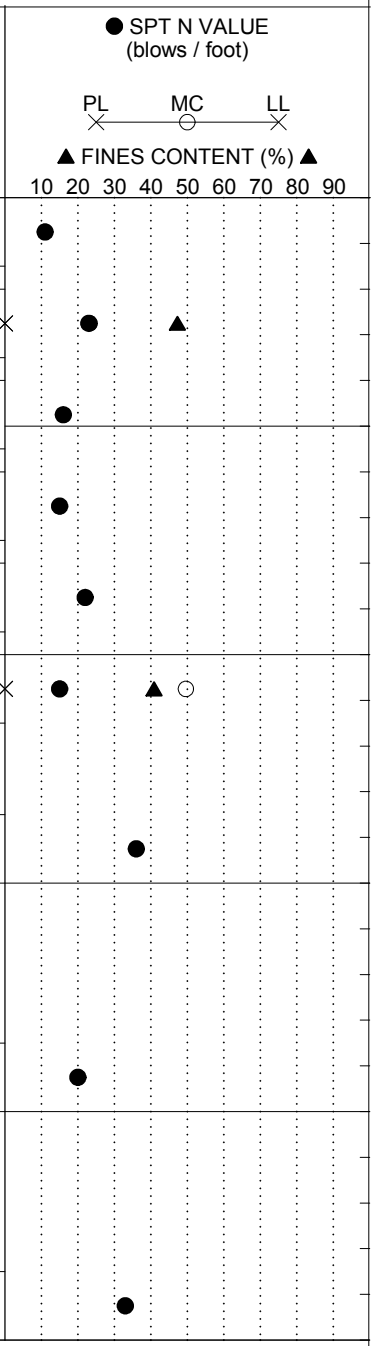
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-01	**Boring Location:**	350+76	**Offset:**	RT 15	**Alignment:**	I-385 NB C/D
Elev.:	938.7 ft.	**Latitude:**	34.82107272	**Longitude:**	-82.29086716	**Date Started:**	11/18/2014
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	11/18/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	19.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Medium dense, moist, reddish brown and yellowish brown, SILTY SAND (SM, A-2), FILL	0.0	SS-1	2	5	6	11
	935.0	Medium dense, moist, yellowish brown, gray, reddish brown and tan, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=23.2 %#200=47.3	2.0	SS-2	5	11	12	23
5.0		Medium dense, moist, reddish brown, brown, tan and white, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	4.0	SS-3	6	8	8	16
		Medium dense, yellowish brown, tan and white, RESIDUUM	6.0	SS-4	3	6	9	15
	930.0	Medium dense, reddish brown and tan, RESIDUUM	8.0	SS-5	6	9	13	22
10.0		Medium dense, moist, reddish brown, light gray, white and black, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=49.6 %#200=40.9	10.0	SS-6	3	4	11	15
	925.0	Dense, tan, fine to coarse grained, RESIDUUM	13.5	SS-7	5	17	19	36
15.0								
	920.0	Medium dense, brown, tan and white, RESIDUUM	18.5	SS-8	3	8	12	20
20.0								
	915.0	Dense, reddish brown and white, RESIDUUM	23.5	SS-9	10	18	15	33
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
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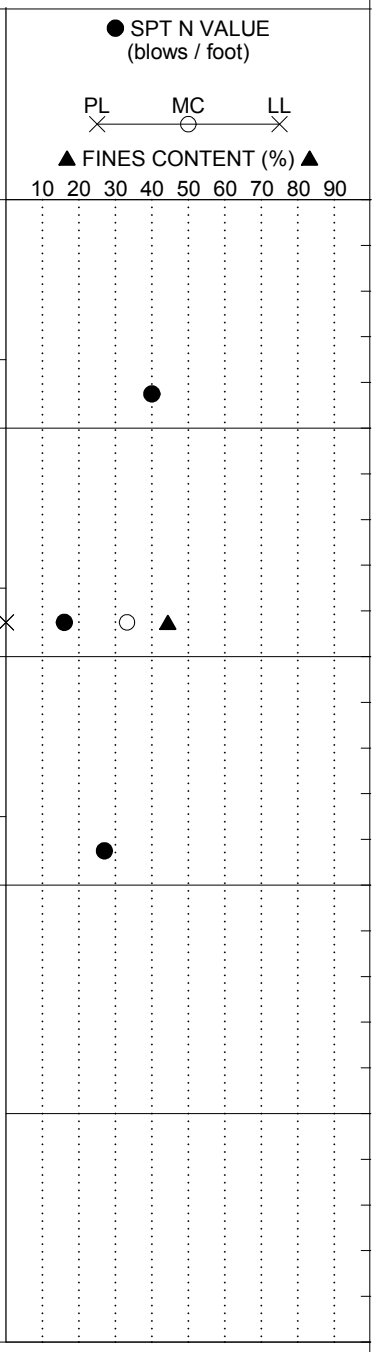
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-01	**Boring Location:**	350+76	**Offset:**	RT 15	**Alignment:**	I-385 NB C/D
Elev.:	938.7 ft.	**Latitude:**	34.82107272	**Longitude:**	-82.29086716	**Date Started:**	11/18/2014
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	11/18/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	19.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
30.0	910.0	Dense, yellowish brown, white and tan, RESIDUUM		28.5	SS-10	8	18	22	40
35.0	905.0	Medium dense, moist, yellowish brown, tan, black and white, non reactive, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=33.2 %#200=44.4		33.5	SS-11	3	6	10	16
40.0	900.0	Medium dense, yellowish brown, tan and light gray, RESIDUUM		38.5	SS-12	9	12	15	27
		Boring Terminated at 40.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

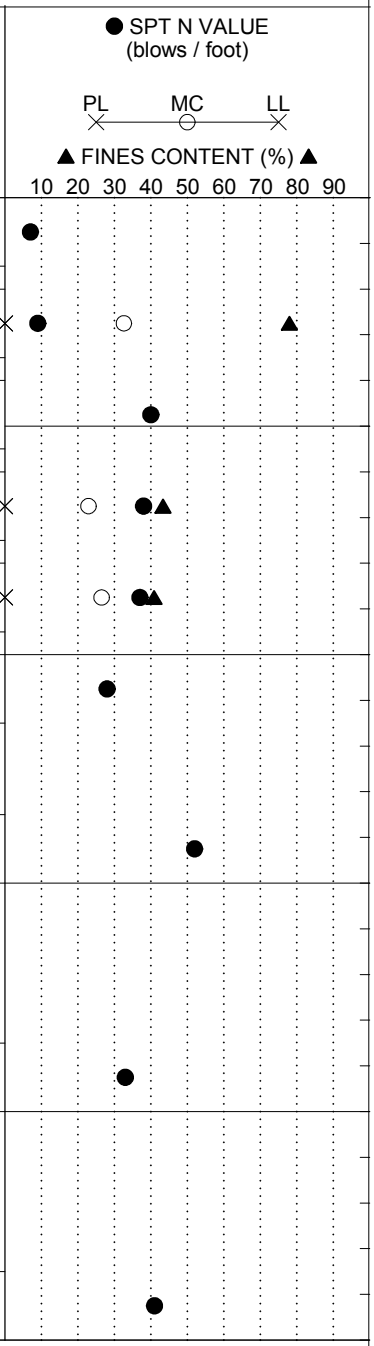
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-02	**Boring Location:**	352+77	**Offset:**	RT 25	**Alignment:**	I-385 NB C/D
Elev.:	943.4 ft.	**Latitude:**	34.82162335	**Longitude:**	-82.29089743	**Date Started:**	11/19/2014
Total Depth:	38.8 ft.	**Soil Depth:**	38.8 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	11/19/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 3 inches of topsoil. Firm, moist, brown and yellowish brown, SANDY SILT (ML, A-4), RESIDUUM	0.0	SS-1	2	3	4	7
	940.0	Stiff, moist, yellowish brown and greenish gray, SILT with SAND (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.6 %#200=78.0	2.0	SS-2	2	4	5	9
5.0		Medium dense, moist, gray and tan, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	4.0	SS-3	5	14	26	40
	935.0	Dense, moist, yellowish brown, tan and greenish gray, non reactive, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=22.9 %#200=43.3	6.0	SS-4	9	12	26	38
10.0		Dense, moist, yellowish brown, gray, tan and white, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=26.5 %#200=40.9	8.0	SS-5	3	15	22	37
	930.0	Medium dense, tan, white and greenish gray, RESIDUUM	10.0	SS-6	6	10	18	28
15.0		Very dense, yellowish brown, tan, white and greenish gray, fine to coarse grained, RESIDUUM	13.5	SS-7	10	22	30	52
20.0	925.0	Dense, reddish brown, yellowish brown, tan, white and black, RESIDUUM	18.5	SS-8	8	14	19	33
25.0	920.0	Dense, yellowish brown, tan and white, RESIDUUM	23.5	SS-9	10	16	25	41



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-02	**Boring Location:**	352+77	**Offset:**	RT 25	**Alignment:**	I-385 NB C/D
Elev.:	943.4 ft.	**Latitude:**	34.82162335	**Longitude:**	-82.29089743	**Date Started:**	11/19/2014
Total Depth:	38.8 ft.	**Soil Depth:**	38.8 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	11/19/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
	915.0			28.5						
30.0		Dense, moist, white and black, non reactive, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=16.2 %#200=27.9			SS-10	11	13	32	45	
	910.0			33.5						
35.0		Very dense, fine grained, PARTIALLY WEATHERED ROCK			SS-11	31	50/4	X	100	>>●
	905.0			38.5						
		Very dense, fine to coarse grained, PARTIALLY WEATHERED ROCK Boring Terminated at 38.8 feet.			SS-12	50/3	X	X	100	>>●

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

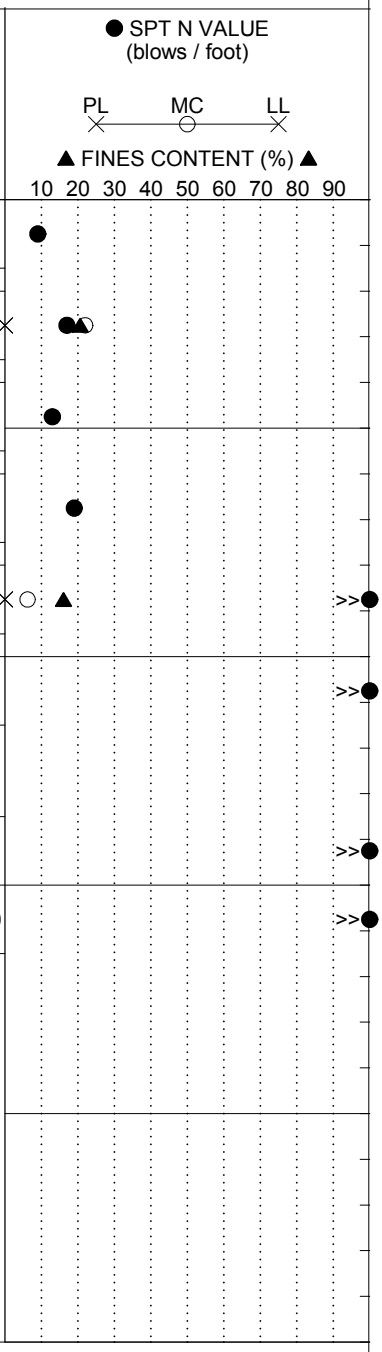
HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-03	**Boring Location:**	356+70	**Offset:**	RT 24	**Alignment:**	I-385 NB C/D
Elev.:	948.8 ft.	**Latitude:**	34.82269981	**Longitude:**	-82.29101689	**Date Started:**	11/19/2014
Total Depth:	15.0 ft.	**Soil Depth:**	15.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	11/19/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	12.4 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Loose, moist, brown, yellowish brown and tan, fine to medium grained, CLAYEY SAND (SC, A-2), RESIDUUM	0.0	SS-1	2	3	6	9
	945.0	Medium dense, moist, black, white, and greenish gray, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=22.0 %#200=20.6	2.0	SS-2	5	9	8	17
5.0		Medium dense, gray, white and black, with occassional rock fragments, RESIDUUM	4.0	SS-3	4	5	8	13
		Medium dense, greenish gray and white, fine to coarse grained, RESIDUUM	6.0	SS-4	15	11	8	19
	940.0	Very dense, moist, greenish gray, white and black, weakly reactive, fine to coarse grained, SILTY SAND with GRAVEL (SM, A-1-b(0)), PARTIALLY WEATHERED ROCK, LL=NP PL=NP PI=NP NMC=6.2 %#200=16.1	8.0	SS-5	28	33	50/4	100
10.0		Very dense, black, greenish gray and white, PARTIALLY WEATHERED ROCK	10.0	SS-6	5	50/2	X	100
	935.0	Very dense, with rock fragments, PARTIALLY WEATHERED ROCK	13.5	SS-7	50/3	X	X	100
15.0		Very dense, No Recovery, ROCK	15.0	SS-8	50/0	X	X	50/0

Boring Terminated at 15.0 feet.



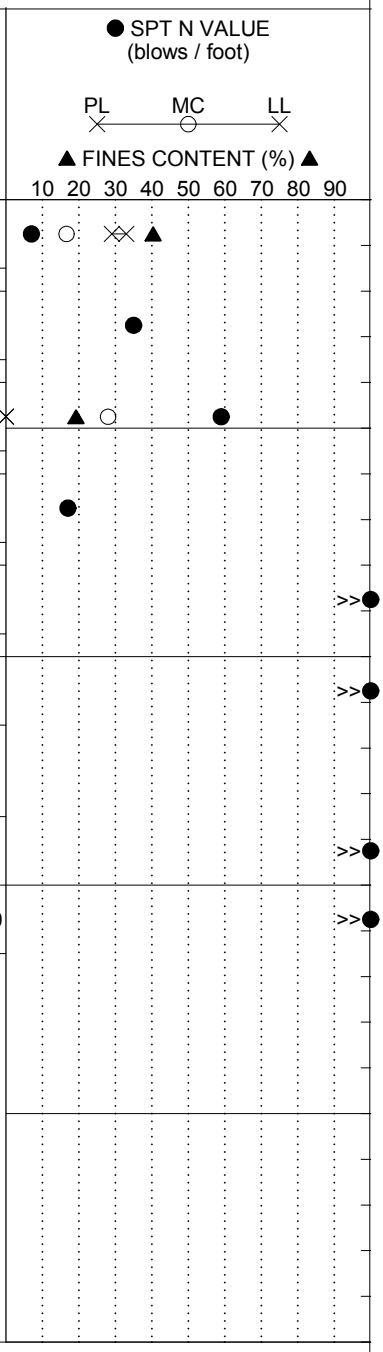
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-04	**Boring Location:**	358+74	**Offset:**	RT 26	**Alignment:**	I-385 NB C/D
Elev.:	952.0 ft.	**Latitude:**	34.82325864	**Longitude:**	-82.29111873	**Date Started:**	11/19/2014
Total Depth:	15.0 ft.	**Soil Depth:**	15.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	11/19/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 1 inch of topsoil. Loose, moist, brown and gray-brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=33 PL=29 PI=4 NMC=16.6 %#200=40.4		0.0	SS-1	1	2	5	7
	950.0	Dense, black, RESIDUUM		2.0	SS-2	5	14	21	35
5.0		Very dense, moist, greenish gray, tan and black, non reactive, fine to medium grained, with gravel, SILTY SAND (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=28.0 %#200=19.2		4.0	SS-3	10	16	43	59
	945.0	Medium dense, brown, RESIDUUM		6.0	SS-4	5	8	9	17
10.0		Very dense, reddish brown and tan, PARTIALLY WEATHERED ROCK		8.0	SS-5	18	50/1	X	50/1
	940.0	Very dense, brown, tan and black, fine to coarse grained, PARTIALLY WEATHERED ROCK		10.0	SS-6	50/3	X	X	100
15.0		Very dense, wet, brown and dark gray, with rock fragments, ROCK		13.5	SS-7	50/1	X	X	50/1
		Very dense, No Recovery, ROCK		15.0	SS-8	50/0	X	X	50/0
		Boring Terminated at 15.0 feet							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

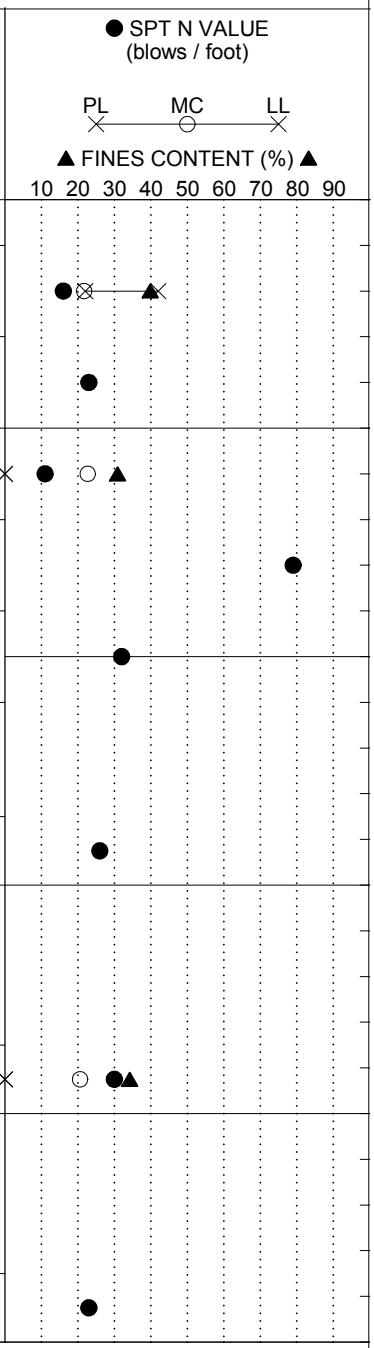
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-05	**Boring Location:**	359+69	**Offset:**	RT 50	**Alignment:**	I-385 NB C/D
Elev.:	970.0 ft.	**Latitude:**	34.82352785	**Longitude:**	-82.2911005	**Date Started:**	4/20/2015
Total Depth:	43.8 ft.	**Soil Depth:**	43.8 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/21/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	970.0	Approximately 12 inches of asphalt.						
		Medium dense, moist, red, fine to medium grained, CLAYEY SAND (SC, A-7-6(4)), FILL, LL=42 PL=22 PI=20 NMC=21.7 %#200=39.8	1.0	SS-1	3	6	10	16
		Medium dense, moist, red and white, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	3.0	SS-2	10	12	11	23
5.0	965.0	Medium dense, moist, red, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=22.7 %#200=30.9	5.0	SS-3	4	5	6	11
		Very dense, with mica, RESIDUUM	7.0	SS-4	4	38	41	79
10.0	960.0	Dense, dry, white and brown, with mica, RESIDUUM	9.0	SS-5	21	18	14	32
15.0	955.0	Medium dense, red and brown, fine grained, with mica, RESIDUUM	13.5	SS-6	6	8	18	26
20.0	950.0	Medium dense, dry, light brown and white, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=20.6 %#200=34.2	18.5	SS-7	6	10	20	30
25.0	945.0	Medium dense, fine grained, RESIDUUM	23.5	SS-8	10	11	12	23



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-05	**Boring Location:**	359+69	**Offset:**	RT 50	**Alignment:**	I-385 NB C/D
Elev.:	970.0 ft.	**Latitude:**	34.82352785	**Longitude:**	-82.2911005	**Date Started:**	4/20/2015
Total Depth:	43.8 ft.	**Soil Depth:**	43.8 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/21/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0	945.0									
30.0	940.0	Medium dense, moist, brown and white, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=33.0 %#200=25.7		28.5	SS-9	6	9	9	18	
35.0	935.0	Medium dense, with mica and trace gravel, RESIDUUM		33.5	SS-10	7	7	8	15	
40.0	930.0	Medium dense, light brown and white, with mica, RESIDUUM		38.5	SS-11	5	6	11	17	
		Very dense, with mica, PARTIALLY WEATHERED ROCK Boring Terminated at 43.8 feet.		43.5	SS-12	50/4	X	X	100	>>

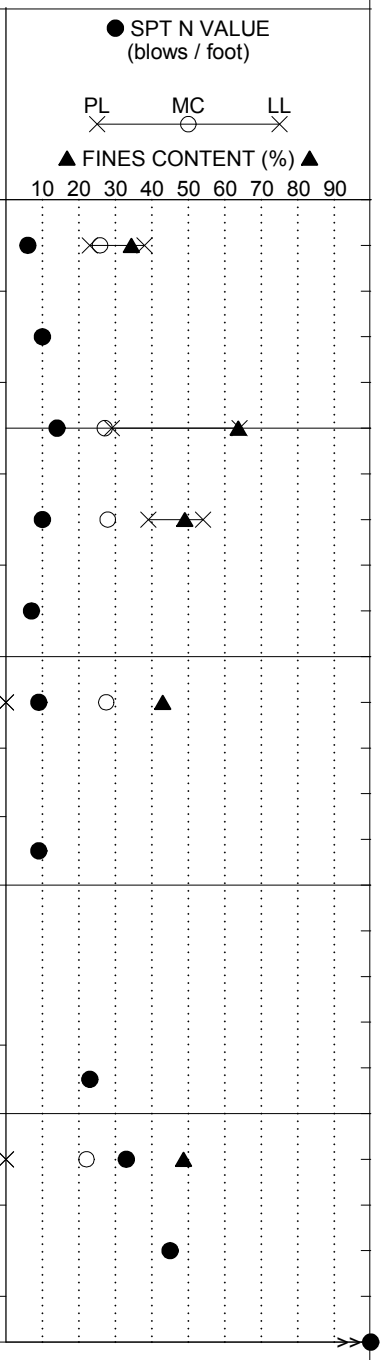
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-06	**Boring Location:**	360+56	**Offset:**	RT 39	**Alignment:**	I-385 NB C/D
Elev.:	971.0 ft.	**Latitude:**	34.82375746	**Longitude:**	-82.291195	**Date Started:**	4/9/2015
Total Depth:	44.0 ft.	**Soil Depth:**	44.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/9/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	970.0	Approximately 2 inches of topsoil. Loose, moist, red, fine to medium grained, with mica, CLAYEY SAND with GRAVEL (SC, A-2-6(1)), FILL, LL=38 PL=23 PI=15 NMC=25.8 %#200=34.4 Loose, with mica, FILL	0.0	SS-1	2	2	4	6
			2.0	SS-2	4	4	6	10
5.0	965.0	Stiff, moist, red, non reactive, SANDY FAT CLAY (CH, A-7-6(22)), FILL, LL=64 PL=29 PI=35 NMC=27.1 %#200=63.7	4.0	SS-3	4	5	9	14
		Loose, moist, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-7-5(5)), FILL, LL=54 PL=39 PI=15 NMC=27.9 %#200=49.0	6.0	SS-4	3	4	6	10
		Loose, with mica, FILL	8.0	SS-5	2	3	4	7
10.0	960.0	Loose, moist, red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=27.5 %#200=43.0	10.0	SS-6	3	3	6	9
		Loose, red and white, FILL	13.5	SS-7	3	3	6	9
15.0	955.0							
		Medium dense, moist, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	18.5	SS-8	8	12	11	23
20.0	950.0	Dense, dry, dark red, non reactive, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=22.1 %#200=48.7	20.0	SS-9	9	13	20	33
		Dense, dark red and light brown, with mica, RESIDUUM	22.0	SS-10	4	18	27	45
25.0		Very dense, brown and red, fine grained, PARTIALLY WEATHERED ROCK	24.0					



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

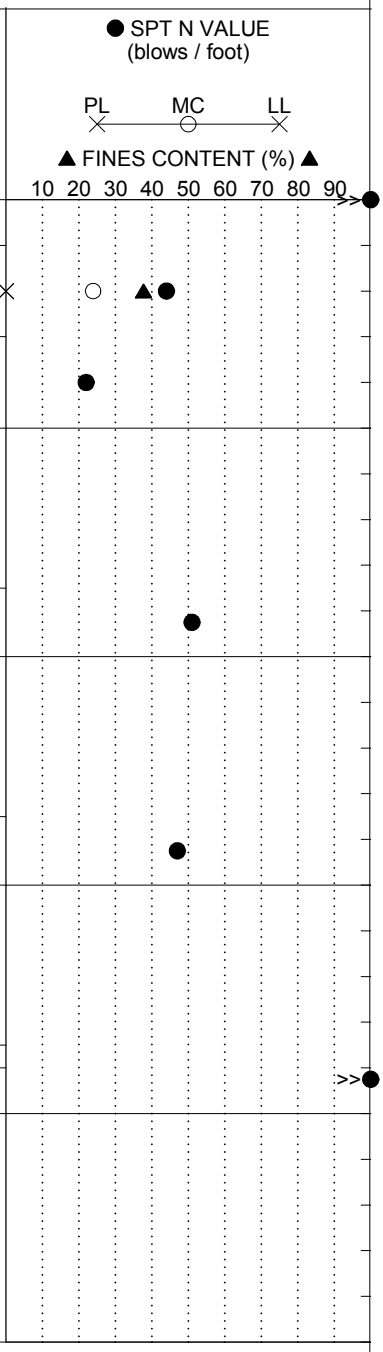
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-06	**Boring Location:**	360+56	**Offset:**	RT 39	**Alignment:**	I-385 NB C/D
Elev.:	971.0 ft.	**Latitude:**	34.82375746	**Longitude:**	-82.291195	**Date Started:**	4/9/2015
Total Depth:	44.0 ft.	**Soil Depth:**	44.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/9/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0				SS-11	20	50	X	100
	945.0	Dense, moist, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=23.9 %#200=37.7	26.0	SS-12	18	22	22	44
		Medium dense, reddish brown, with mica, RESIDUUM	28.0	SS-13	8	10	12	22
30.0	940.0							
		Very dense, with mica, RESIDUUM	33.5	SS-14	9	18	33	51
35.0	935.0							
		Dense, white, brown and red, with mica, RESIDUUM	38.5	SS-15	15	21	26	47
40.0	930.0							
		Very dense, brown, red and gray, with mica, PARTIALLY WEATHERED ROCK	43.5	SS-16	50/5	X	X	100
		Boring Terminated at 44.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

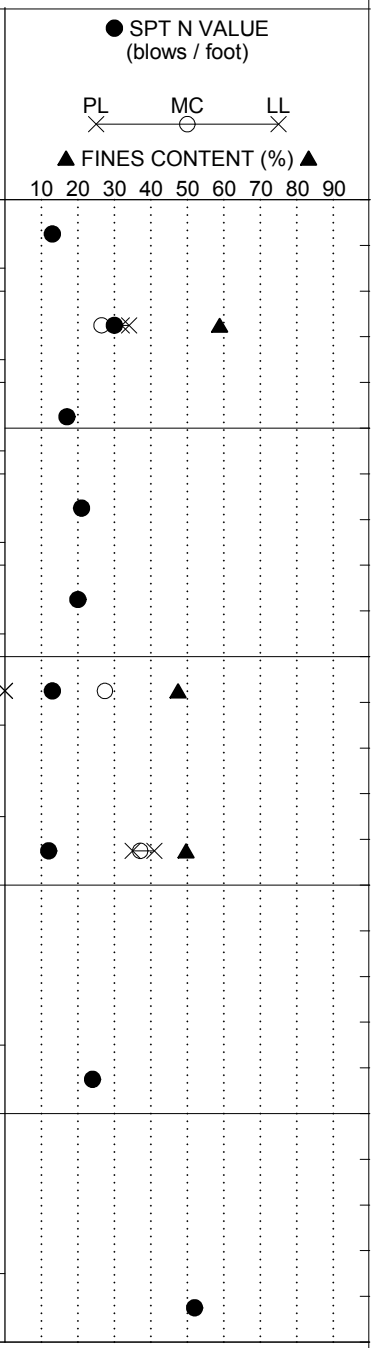
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-07	**Boring Location:**	361+02	**Offset:**	RT 50	**Alignment:**	I-385 NB C/D
Elev.:	956.6 ft.	**Latitude:**	34.82388311	**Longitude:**	-82.2911871	**Date Started:**	11/17/2014
Total Depth:	58.9 ft.	**Soil Depth:**	58.9 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	11/18/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	31.6 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	955.0	Approximately 2 inches of topsoil. Stiff, moist, red-brown, yellow-brown and reddish gray, SANDY SILT (ML, A-4), FILL	0.0	SS-1	3	5	8	13
		Very stiff, moist, red-gray and yellow-brown, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=34 PL=32 PI=2 NMC=26.5 %#200=58.9	2.0	SS-2	4	12	18	30
5.0		Very stiff, yellowish brown, white and tan, RESIDUUM	4.0	SS-3	5	7	10	17
	950.0	Very stiff, yellowish and red-brown, RESIDUUM	6.0	SS-4	6	8	13	21
10.0		Medium dense, moist, yellowish brown and white, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	8.0	SS-5	6	8	12	20
	945.0	Medium dense, moist, yellowish brown and white, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=27.4 %#200=47.5	10.0	SS-6	5	6	7	13
		Undisturbed sample obtained from 11.5 to 13.5 feet. Approximately 19 inches of recovery.	11.5	ST-1				
15.0		Medium dense, moist, yellowish brown, reddish brown and white, non reactive, fine to medium grained, SILTY SAND (SM, A-5(2)), RESIDUUM, LL=41 PL=35 PI=6 NMC=37.1 %#200=49.7	13.5	SS-7	3	4	8	12
	940.0							
20.0		Medium dense, red-gray, yellowish brown and tan, RESIDUUM	18.5	SS-8	7	11	13	24
	935.0							
25.0		Very dense, yellowish brown, red-gray, tan and white, RESIDUUM	23.5	SS-9	12	22	30	52



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

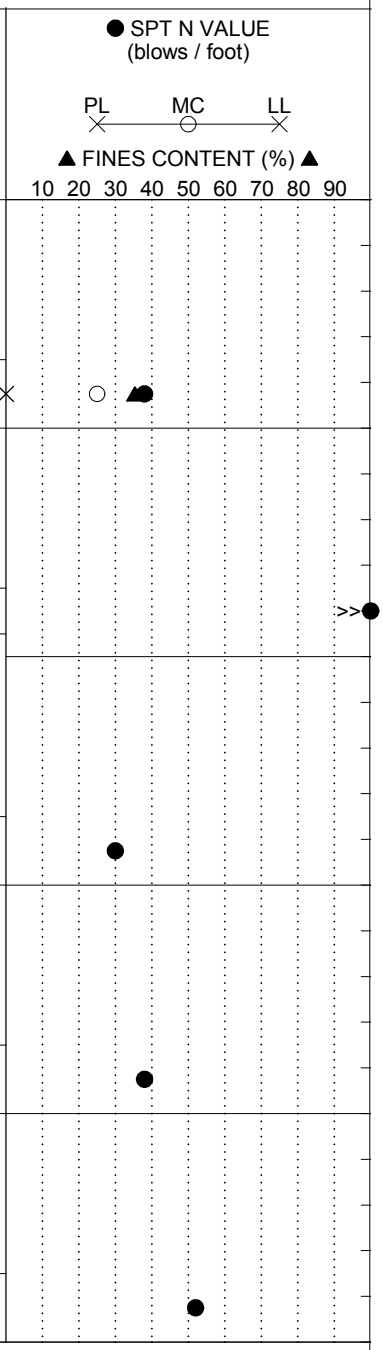
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-07	**Boring Location:**	361+02	**Offset:**	RT 50	**Alignment:**	I-385 NB C/D
Elev.:	956.6 ft.	**Latitude:**	34.82388311	**Longitude:**	-82.2911871	**Date Started:**	11/17/2014
Total Depth:	58.9 ft.	**Soil Depth:**	58.9 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	11/18/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	31.6 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0								
	930.0							
		Dense, moist, fine to medium grained, white, light gray and tan, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=25.0 %#200=35.4	28.5	SS-10	10	14	24	38
30.0								
	925.0							
		Very dense, moist, yellowish brown, tan, reddish brown, black and white, PARTIALLY WEATHERED ROCK	33.5	SS-11	21	50	X	100
35.0								
	920.0							
		Dense, yellowish brown, gray, white and black, RESIDUUM	38.5	SS-12	5	15	15	30
40.0								
	915.0							
		Dense, moist, reddish brown, tan and white, RESIDUUM	43.5	SS-13	3	11	27	38
45.0								
	910.0							
		Very dense, brown, yellowish brown, black and white, fine grained, RESIDUUM	48.5	SS-14	16	21	31	52
50.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-07	**Boring Location:**	361+02	**Offset:**	RT 50	**Alignment:**	I-385 NB C/D
Elev.:	956.6 ft.	**Latitude:**	34.82388311	**Longitude:**	-82.2911871	**Date Started:**	11/17/2014
Total Depth:	58.9 ft.	**Soil Depth:**	58.9 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	11/18/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	31.6 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
50.0										
	905.0									
55.0		Dense, gray, red brown, tan, black and white, fine to medium grained, RESIDUUM		53.5	SS-15	6	14	28	42	
	900.0									
		Very dense, gray, brown, black, white and tan, PARTIALLY WEATHERED ROCK		58.5	SS-16	50/5	X	X	100	>>●
		Boring Terminated at 58.9 feet.								

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

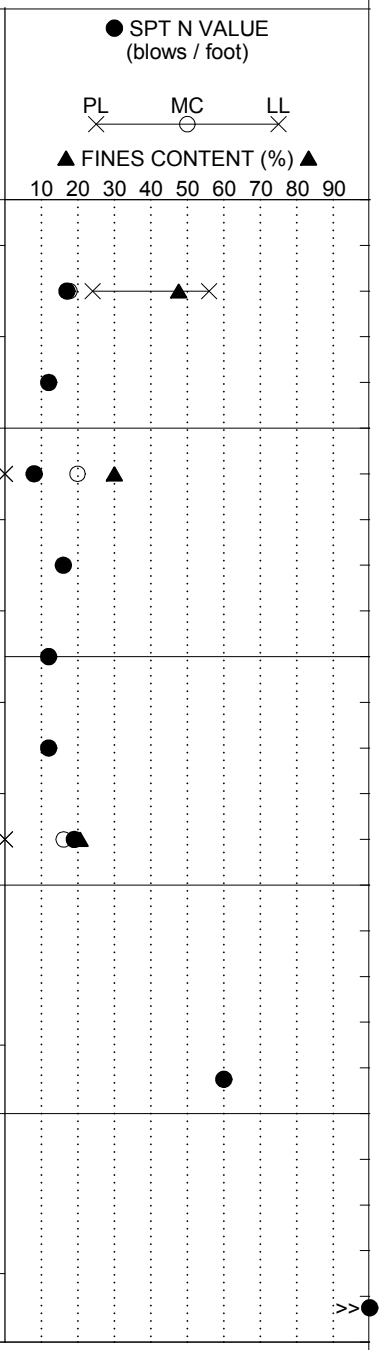
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-08	**Boring Location:**	359+52	**Offset:**	RT 72	**Alignment:**	I-385 NB C/D
Elev.:	970.1 ft.	**Latitude:**	34.82349628	**Longitude:**	-82.29101855	**Date Started:**	4/21/2015
Total Depth:	43.8 ft.	**Soil Depth:**	43.8 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/21/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	970.0	Approximately 12 inches of asphalt.						
		Medium dense, moist, red, fine to medium grained, CLAYEY SAND (SC, A-7-6(11)), FILL, LL=56 PL=24 PI=32 NMC=17.7 %#200=47.6	1.0	SS-1	6	8	9	17
		Medium dense, FILL	3.0	SS-2	4	6	6	12
5.0	965.0	Loose, moist, red and black, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=19.9 %#200=30.0	5.0	SS-3	4	5	3	8
		Medium dense, black and white, RESIDUUM	7.0	SS-4	3	8	8	16
10.0	960.0	Medium dense, with mica, RESIDUUM	9.0	SS-5	2	6	6	12
		Medium dense, with mica, RESIDUUM	11.0	SS-6	3	5	7	12
15.0	955.0	Medium dense, moist, white and black, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=16.1 %#200=20.6	13.0	SS-7	6	9	10	19
20.0	950.0	Very dense, with mica, RESIDUUM	18.5	SS-8	23	33	27	60
25.0		Very dense, with mica, PARTIALLY WEATHERED ROCK	23.5	SS-9	12	36	50/5	100



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-08	**Boring Location:**	359+52	**Offset:**	RT 72	**Alignment:**	I-385 NB C/D
Elev.:	970.1 ft.	**Latitude:**	34.82349628	**Longitude:**	-82.29101855	**Date Started:**	4/21/2015
Total Depth:	43.8 ft.	**Soil Depth:**	43.8 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/21/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0	945.0									
30.0	940.0	Very dense, white, black and brown, with mica, PARTIALLY WEATHERED ROCK		28.5	SS-10	43	50/4	X	100	>>●
35.0	935.0	Medium dense, black and brown, with trace gravel and mica, RESIDUUM		33.5	SS-11	16	10	8	18	●
40.0	930.0	Very dense, brown, fine grained, with mica, PARTIALLY WEATHERED ROCK		38.5	SS-12	35	50/3	X	100	>>●
		Very dense, brown and black, fine to medium grained, with mica, PARTIALLY WEATHERED ROCK Boring Terminated at 43.8 feet.		43.5	SS-13	50/3	X	X	100	>>●

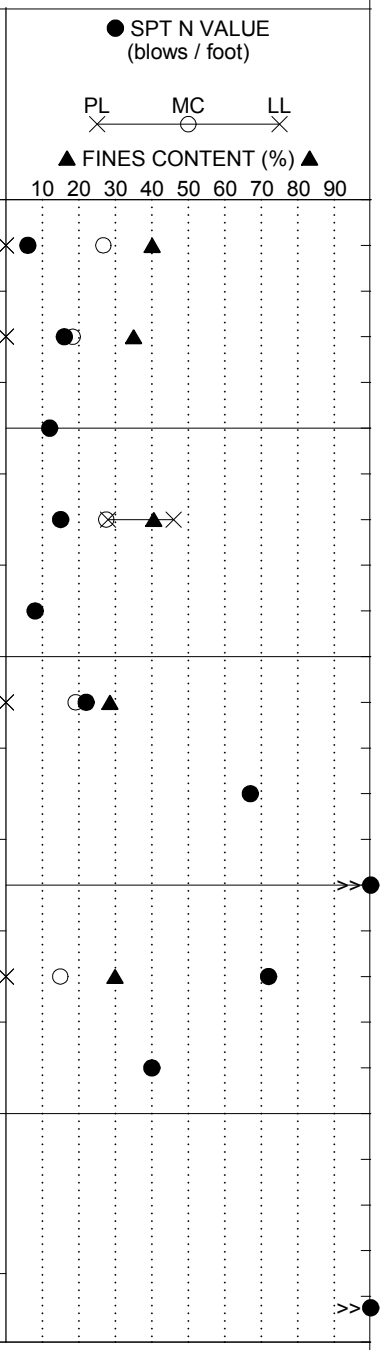
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-09	**Boring Location:**	360+26	**Offset:**	RT 79	**Alignment:**	I-385 NB C/D
Elev.:	970.8 ft.	**Latitude:**	34.82369828	**Longitude:**	-82.29104432	**Date Started:**	4/10/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	970.0	Loose, moist, red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=26.7 %#200=40.1	0.0	SS-1	2	2	4	6
		Medium dense, moist, red, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=18.3 %#200=35.0	2.0	SS-2	8	8	8	16
5.0		Medium dense, with mica, FILL	4.0	SS-3	5	6	6	12
	965.0	Medium dense, moist, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-7-6(3)), FILL, LL=46 PL=28 PI=18 NMC=27.5 %#200=40.5	6.0	SS-4	3	7	8	15
		Loose, red and brown, with mica, FILL	8.0	SS-5	3	3	5	8
10.0	960.0	Medium dense, white and brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=19.1 %#200=28.5	10.0	SS-6	4	7	15	22
		Very dense, dry, white and black, with mica, RESIDUUM	12.0	SS-7	12	23	44	67
15.0	955.0	Very dense, moist, white, black and light brown, with mica, PARTIALLY WEATHERED ROCK	14.0	SS-8	31	50/5	X	100
		Very dense, moist, white, light brown and black, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=14.9 %#200=29.9	16.0	SS-9	27	43	29	72
		Dense, light brown, black and red, with mica, RESIDUUM	18.0	SS-10	10	20	20	40
20.0	950.0							
25.0		Very dense, light brown, white and black, with mica, PWR	23.5	SS-11	43	50/3	X	100



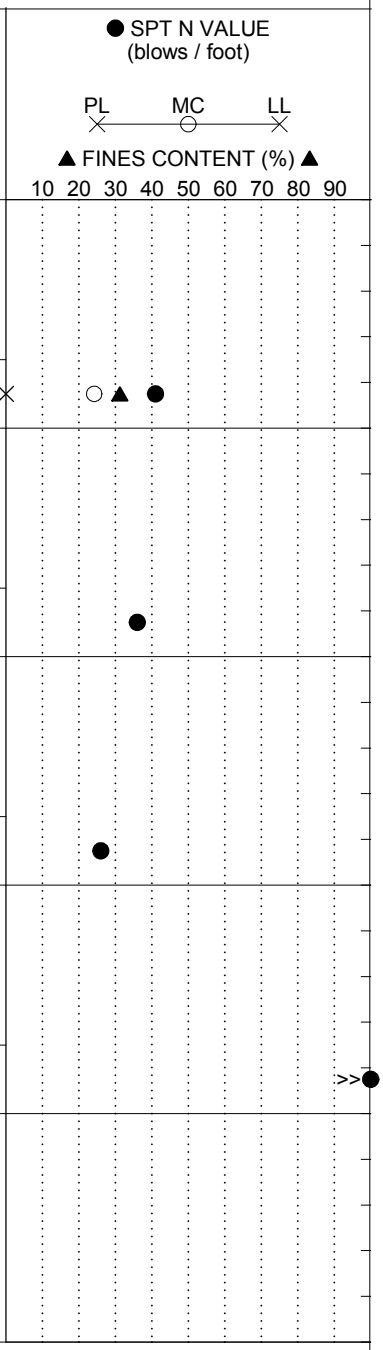
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RN-09	**Boring Location:**	360+26	**Offset:**	RT 79	**Alignment:**	I-385 NB C/D
Elev.:	970.8 ft.	**Latitude:**	34.82369828	**Longitude:**	-82.29104432	**Date Started:**	4/10/2015
Total Depth:	45.0 ft.	**Soil Depth:**	45.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0								
	945.0							
		Dense, moist, white, light brown and red, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=24.2 %#200=31.2	28.5	SS-12	18	16	25	41
30.0	940.0							
		Dense, white and light brown, with mica, RESIDUUM	33.5	SS-13	12	13	23	36
35.0	935.0							
		Medium dense, brown and light brown, with mica, RESIDUUM	38.5	SS-14	8	11	15	26
40.0	930.0							
		Very dense, white and light brown, with mica, PARTIALLY WEATHERED ROCK	43.5	SS-15	9	14	50/5	100
45.0								
		Boring Terminated at 45.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

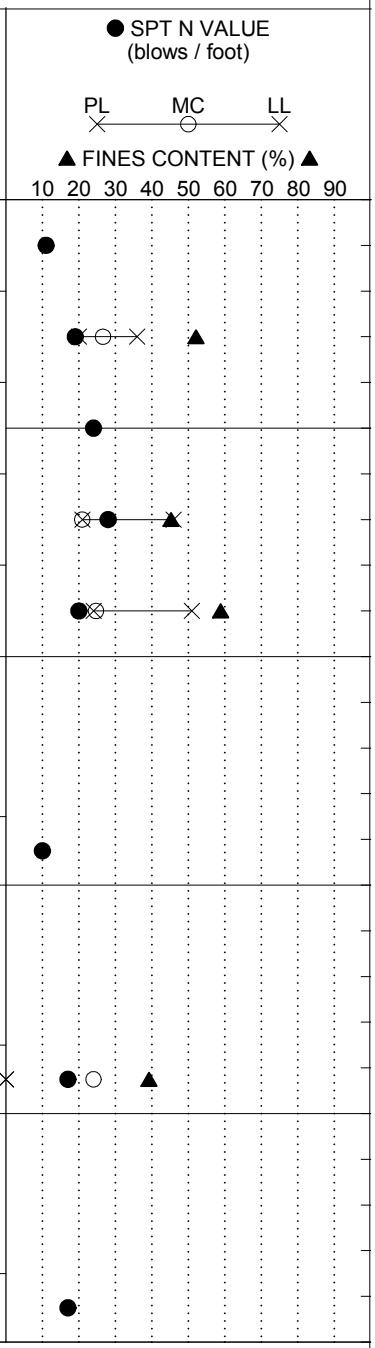
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RS-01	**Boring Location:**	26+46	**Offset:**	LT 24	**Alignment:**	Ramp 10
Elev.:	955.8 ft.	**Latitude:**	34.82248866	**Longitude:**	-82.29199767	**Date Started:**	1/28/2015
Total Depth:	60.0 ft.	**Soil Depth:**	60.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/28/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D120	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	85%
Core Size:	NA	**Driller:**	F and R	**Groundwater:**	**TOB** N.E.	**24 HR**	18.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	955.0	Approximately 4 inches of topsoil. Stiff, moist, brown, tan, white, reddish brown, with trace mica, SANDY LEAN CLAY (CL, A-6), RESIDUUM	0.0	SS-1	1	5	6	11
		Very stiff, moist, reddish gray, tan and yellowish brown, with mica, SANDY LEAN CLAY (CL, A-6(5)), RESIDUUM, LL=36 PL=20 PI=16 NMC=26.6 %#200=52.1	2.0	SS-2	6	9	10	19
5.0	950.0	Very stiff, reddish gray, yellowish brown, tan and white, RESIDUUM	4.0	SS-3	7	11	13	24
		Medium dense, moist, reddish brown, yellowish brown, reddish gray and white, fine to medium grained, with mica, CLAYEY SAND (SC, A-7-6(7)), RESIDUUM, LL=46 PL=21 PI=25 NMC=20.9 %#200=45.3	6.0	SS-4	6	8	20	28
10.0	945.0	Very stiff, moist, yellowish brown, reddish gray and black, with mica, SANDY FAT CLAY (CH, A-7-6(14)), RESIDUUM, LL=51 PL=24 PI=27 NMC=24.7 %#200=58.9	8.0	SS-5	6	8	12	20
15.0	940.0	Loose, moist, yellowish brown, white and gray, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	13.5	SS-6	2	3	7	10
20.0	935.0	Medium dense, moist, yellowish brown, gray, white, reddish brown and black, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=24.0 %#200=39.2	18.5	SS-7	3	7	10	17
25.0		Medium dense, yellowish brown, dark brown, light gray and white, RESIDUUM	23.5	SS-8	7	8	9	17



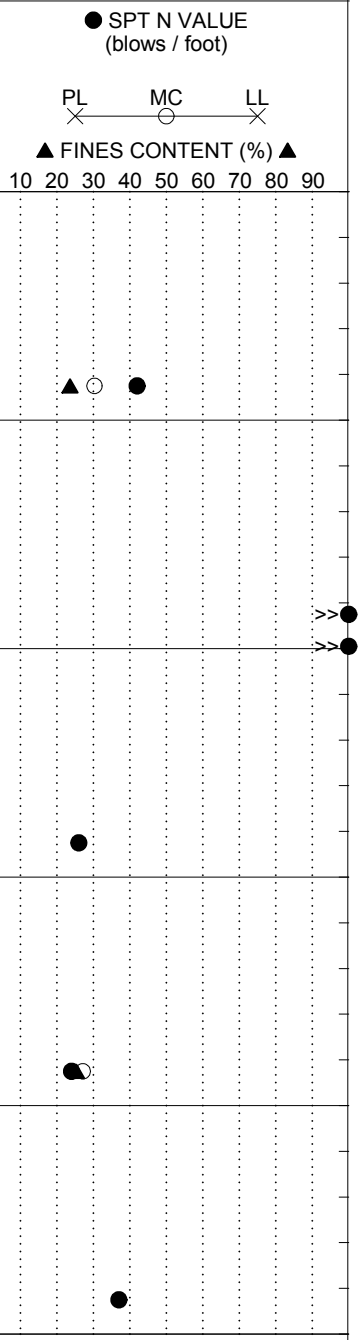
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RS-01	**Boring Location:**	26+46	**Offset:**	LT 24	**Alignment:**	Ramp 10
Elev.:	955.8 ft.	**Latitude:**	34.82248866	**Longitude:**	-82.29199767	**Date Started:**	1/28/2015
Total Depth:	60.0 ft.	**Soil Depth:**	60.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/28/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D120	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	85%
Core Size:	NA	**Driller:**	F and R	**Groundwater:**	**TOB** N.E.	**24 HR**	18.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0								
	930.0							
		Dense, moist, dark brown, black, tan and white, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=30.3 %#200=23.6	28.5	SS-9	10	19	23	42
30.0	925.0							
		Very dense, tan, brown, black, RESIDUUM	33.5					
		Very dense, brown and black, RESIDUUM	34.2	SS-10	50/3	X	X	100
35.0				SS-11	50/4	X	X	100
	920.0							
		Medium dense, white, dark brown, tan, and reddish brown, RESIDUUM	38.5	SS-12	6	10	16	26
40.0	915.0							
		Medium dense, moist, gray, yellowish brown and white, fine to medium grained, with trace of mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=27.1 %#200=25.4	43.5	SS-13	8	9	15	24
45.0	910.0							
		Dense, gray, white, dark brown and tan, RESIDUUM	48.5	SS-14	14	15	22	37
50.0								



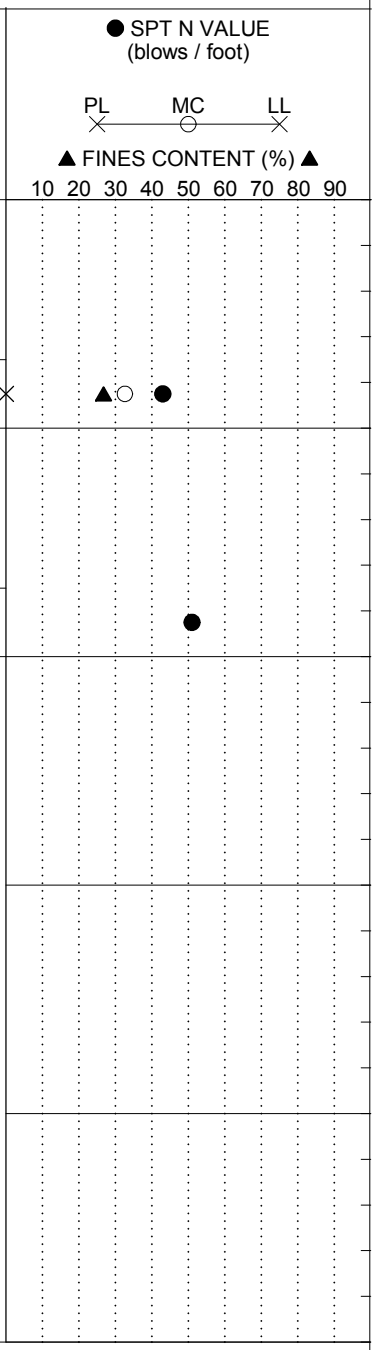
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RS-01	**Boring Location:**	26+46	**Offset:**	LT 24	**Alignment:**	Ramp 10
Elev.:	955.8 ft.	**Latitude:**	34.82248866	**Longitude:**	-82.29199767	**Date Started:**	1/28/2015
Total Depth:	60.0 ft.	**Soil Depth:**	60.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/28/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D120	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	85%
Core Size:	NA	**Driller:**	F and R	**Groundwater:**	**TOB** N.E.	**24 HR**	18.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
50.0									
	905.0								
55.0		Dense, moist, gray, black and white, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.6 %#200=26.8		53.5	SS-15	13	18	25	43
	900.0								
60.0		Hard, gray, white and yellowish brown, RESIDUUM		58.5	SS-16	9	16	35	51
		Boring Terminated at 60.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

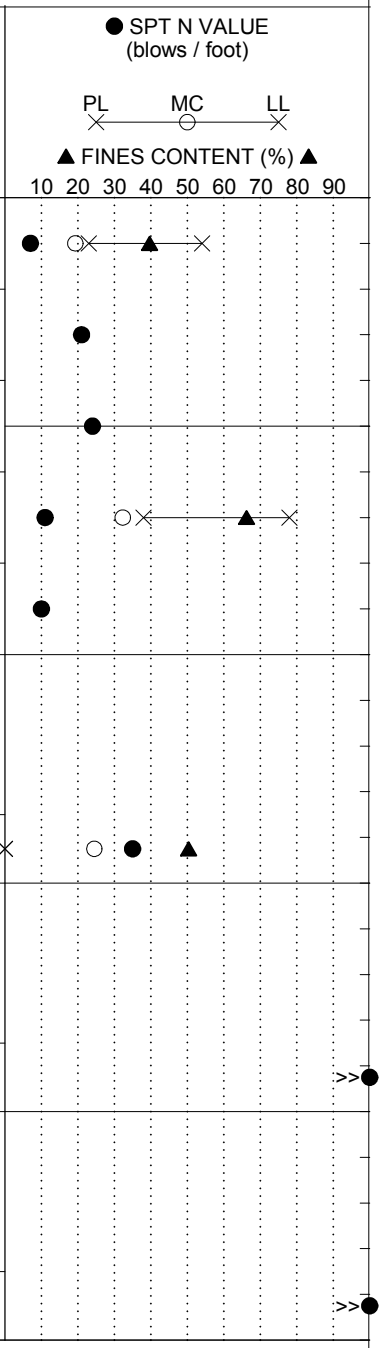
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RS-02	**Boring Location:**	24+40	**Offset:**	LT 25	**Alignment:**	Ramp 10
Elev.:	963.3 ft.	**Latitude:**	34.82303425	**Longitude:**	-82.2921836	**Date Started:**	1/29/2015
Total Depth:	65.0 ft.	**Soil Depth:**	65.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/29/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D120	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	85%
Core Size:	NA	**Driller:**	F and R	**Groundwater:**	**TOB** N.E.	**24 HR**	21.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 7 inches of topsoil. Loose, moist, reddish brown, yellowish brown and brown, fine to medium grained, CLAYEY SAND with GRAVEL (SC, A-7-6(7)), FILL, LL=54 PL=23 PI=31 NMC=19.3 %#200=39.7	0.0	SS-1	2	2	5	7
	960.0	Medium dense, reddish brown, yellowish brown and gray, FILL	2.0	SS-2	5	9	12	21
5.0		Medium dense, reddish brown and light gray, FILL	4.0	SS-3	6	10	14	24
		Stiff, reddish brown, tan, light gray, with trace mica, SANDY ELASTIC SILT (MH, A-7-5(27)), RESIDUUM, LL=78 PL=38 PI=40 NMC=32.3 %#200=66.2	6.0	SS-4	4	5	6	11
	955.0	Stiff, moist, reddish brown, yellowish brown and light gray, SANDY SILT (ML, A-4), RESIDUUM	8.0	SS-5	2	3	7	10
10.0								
	950.0		13.5	SS-6	11	20	15	35
15.0		Hard, moist, reddish brown, yellowish brown, tan and light gray, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=24.5 %#200=50.4						
	945.0		18.5	SS-7	27	50/5	X	100
20.0		Hard, dark reddish brown, black, tan, yellowish brown and white, PARTIALLY WEATHERED ROCK						
	940.0		23.5	SS-8	7	50	X	100
25.0		Hard, dark brown, reddish brown, tan, reddish gray and white, PARTIALLY WEATHERED ROCK						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

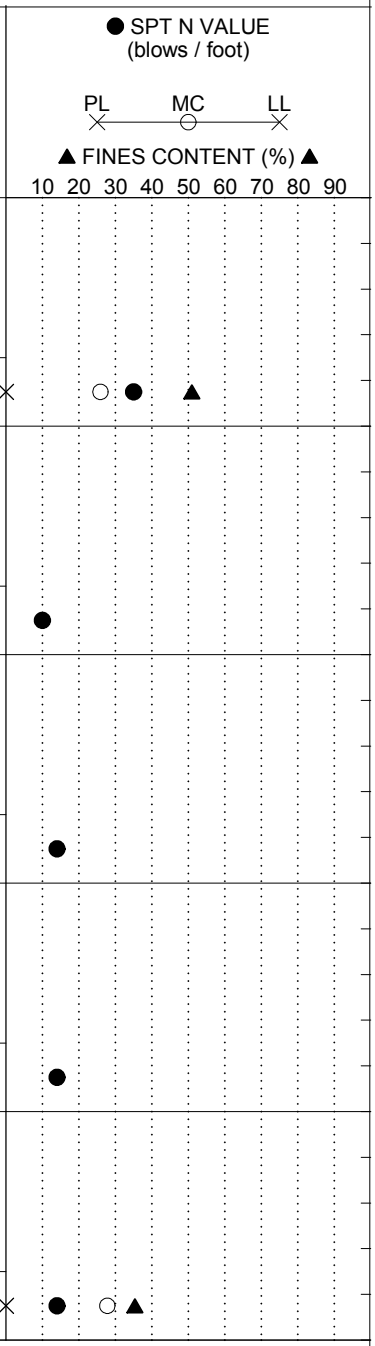
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RS-02	**Boring Location:**	24+40	**Offset:**	LT 25	**Alignment:**	Ramp 10
Elev.:	963.3 ft.	**Latitude:**	34.82303425	**Longitude:**	-82.2921836	**Date Started:**	1/29/2015
Total Depth:	65.0 ft.	**Soil Depth:**	65.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/29/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D120	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	85%
Core Size:	NA	**Driller:**	F and R	**Groundwater:**	**TOB** N.E.	**24 HR**	21.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0								
	935.0	Hard, moist, reddish gray, tan, white and black, fine to coarse grained, with mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=25.9 %#200=51.0	28.5	SS-9	13	15	20	35
30.0								
	930.0	Stiff, moist, orange, tan, black, reddish brown and white, RESIDUUM	33.5	SS-10	2	3	7	10
35.0								
	925.0	Stiff, reddish gray, white and black, with trace mica, RESIDUUM	38.5	SS-11	3	5	9	14
40.0								
	920.0	Medium dense, moist, gray, brown, tan, black and white, fine to medium grained, with trace mica, SILTY SAND (SM, A-2), RESIDUUM	43.5	SS-12	4	7	7	14
45.0								
	915.0	Medium dense, moist, gray, white, black, yellowish brown and brown, fine to medium dense, trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP	48.5	SS-13	4	5	9	14
50.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

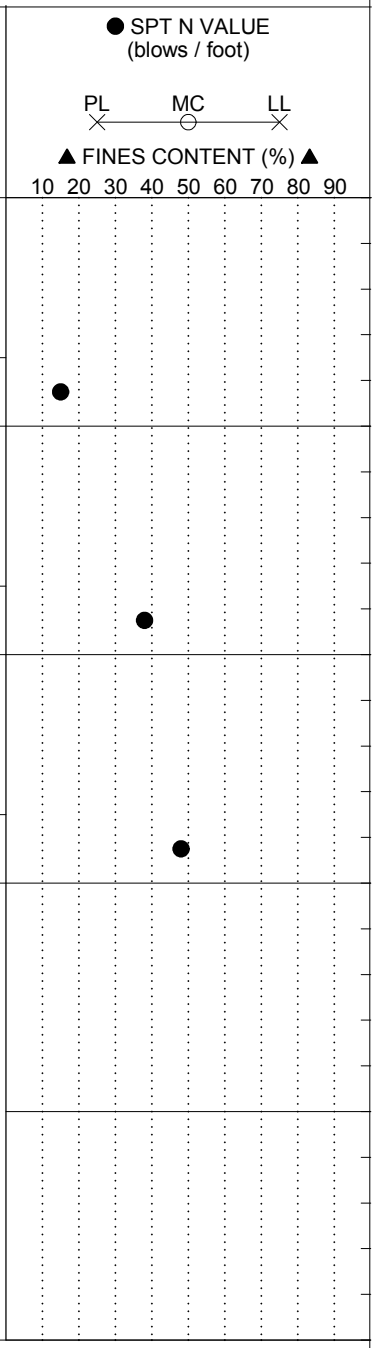
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RS-02	**Boring Location:**	24+40	**Offset:**	LT 25	**Alignment:**	Ramp 10
Elev.:	963.3 ft.	**Latitude:**	34.82303425	**Longitude:**	-82.2921836	**Date Started:**	1/29/2015
Total Depth:	65.0 ft.	**Soil Depth:**	65.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/29/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D120	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	85%
Core Size:	NA	**Driller:**	F and R	**Groundwater:**	**TOB** N.E.	**24 HR**	21.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
50.0		PL=NP PI=NP NMC=27.8 %#200=35.4							
	910.0			53.5					
55.0		Medium dense, dark brown, gray-brown, tan and white, with trace mica, RESIDUUM			SS-14	4	5	10	15
	905.0			58.5					
60.0		Medium dense, white, dark gray, tan and brown, with trace mica, RESIDUUM			SS-15	12	18	20	38
	900.0			63.5					
65.0		Medium dense, brown, white and tan, with trace mica, RESIDUUM			SS-16	12	25	23	48
		Boring Terminated at 65.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

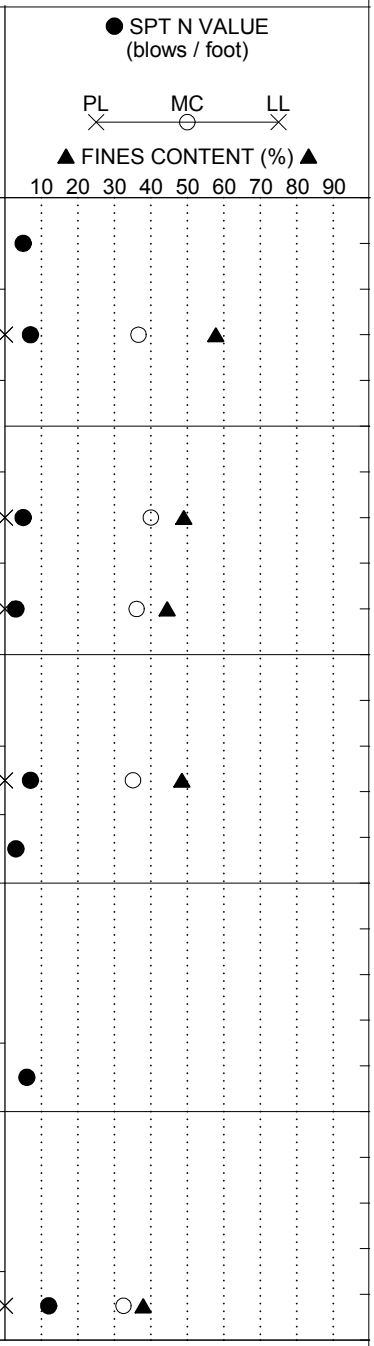
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RS-03	**Boring Location:**	122+07	**Offset:**	RT 21	**Alignment:**	I-385 SB C/D
Elev.:	951.8 ft.	**Latitude:**	34.82360298	**Longitude:**	-82.29209759	**Date Started:**	1/27/2015
Total Depth:	39.1 ft.	**Soil Depth:**	39.1 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/27/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D120	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	85%
Core Size:	NA	**Driller:**	F and R	**Groundwater:**	**TOB** N.E.	**24 HR**	8.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 4 inches of topsoil.	0.0					
	950.0	Firm, moist, reddish brown, light reddish brown, tan and white, SANDY SILT (ML, A-4), RESIDUUM		SS-1	1	2	3	5
		Firm, reddish brown, black and tan, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=36.6 %#200=57.8	2.0	SS-2	2	3	4	7
5.0		Undisturbed sample obtained from 4.0 to 6.0 feet. Approximately 24 inches of recovery.	4.0	SS-3				
	945.0	Loose, moist, light reddish brown, white, tan and black, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=40.0 %#200=49.0	6.0	SS-4	2	2	3	5
10.0		Very loose, moist, light brown, white, black and tan, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=36.1 %#200=44.5	8.0	SS-5	1	1	2	3
		Undisturbed sample obtained from 10.0 to 12.0 feet. Approximately 24 inches of recovery.	10.0	ST-2				
	940.0	Loose, moist, white, tan and yellowish brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=35.1 %#200=48.5	12.0	SS-5	2	3	4	7
15.0		Very loose, white, light brown, tan and black, RESIDUUM	13.5	SS-6	1	1	2	3
	935.0							
		Loose, white and light brown, RESIDUUM	18.5	SS-7	2	3	3	6
20.0								
	930.0							
		Medium dense, moist, white, tan and black, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.5	23.5	SS-8	3	5	7	12
25.0								



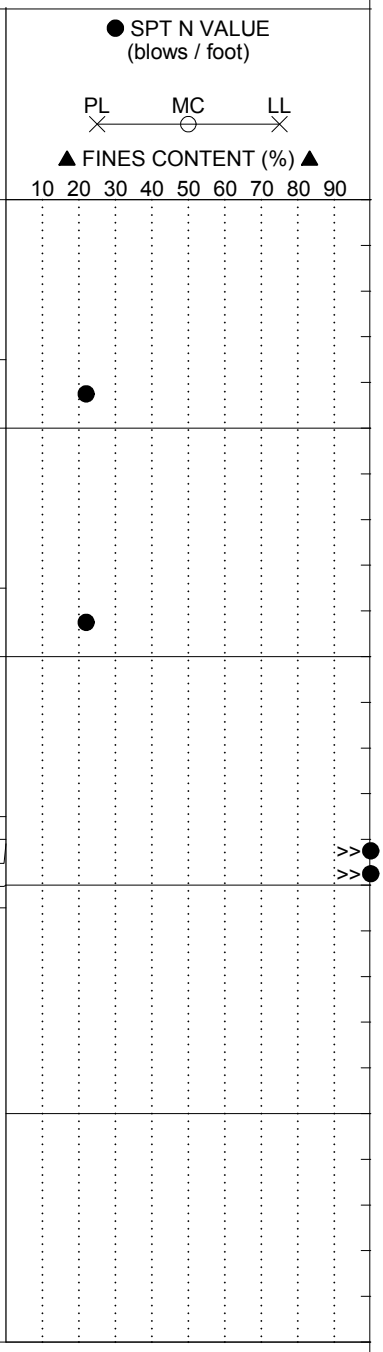
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RS-03	**Boring Location:**	122+07	**Offset:**	RT 21	**Alignment:**	I-385 SB C/D
Elev.:	951.8 ft.	**Latitude:**	34.82360298	**Longitude:**	-82.29209759	**Date Started:**	1/27/2015
Total Depth:	39.1 ft.	**Soil Depth:**	39.1 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/27/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	D120	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	85%
Core Size:	NA	**Driller:**	F and R	**Groundwater:**	**TOB** N.E.	**24 HR**	8.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0		%#200=37.9							
	925.0								
		Medium dense, white, brown and black, RESIDUUM		28.5	SS-9	6	10	12	22
30.0									
	920.0								
		Medium dense, white, light brown, black and tan, RESIDUUM		33.5	SS-10	6	8	14	22
35.0									
	915.0								
		Very dense, white, dark brown and black, fine to coarse grained, with trace mica and rock fragments, PARTIALLY WEATHERED ROCK		38.5	SS-11	50/3	X	X	100
		Very dense, No recovery, ROCK		39.0	SS-12	50/1	X	X	50/1
		Boring Terminated at 39.1 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

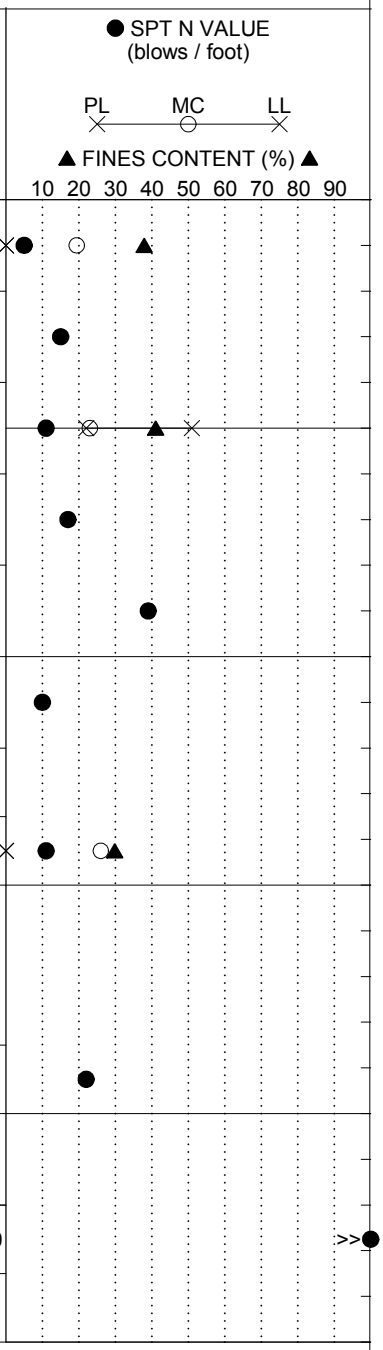
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RS-05	**Boring Location:**	21+52	**Offset:**	LT 61	**Alignment:**	Ramp 10
Elev.:	966.4 ft.	**Latitude:**	34.8238237	**Longitude:**	-82.29233277	**Date Started:**	3/10/2015
Total Depth:	22.0 ft.	**Soil Depth:**	22.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** 12.0 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	965.0	Loose, moist, brown, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=19.4 %#200=37.9	0.0	SS-1	1	2	3	5
		Medium dense, red and brown, FILL	2.0	SS-2	3	7	8	15
5.0	960.0	Medium dense, moist, white and brown, non reactive, fine to medium grained, CLAYEY SAND (SC, A-7-6(6)), RESIDUUM, LL=51 PL=22 PI=29 NMC=23.0 %#200=41.1	4.0	SS-3	2	6	5	11
		Medium dense, white and red, fine to medium grained, RESIDUUM	6.0	SS-4	2	4	13	17
		Dense, RESIDUUM	8.0	SS-5	4	17	22	39
10.0	955.0	Loose, fine to coarse grained, RESIDUUM	10.0	SS-6	5	4	6	10
15.0	950.0	Medium dense, moist, red, brown and gray, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=26.0 %#200=29.8	13.5	SS-7	3	3	8	11
20.0	945.0	Medium dense, brown and white, fine to coarse grained, RESIDUUM	18.5	SS-8	7	7	15	22
		Very dense, No Recovery, ROCK Boring Terminated at 22.0 feet.	22.0	SS-9	50/0	X	X	50/0



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

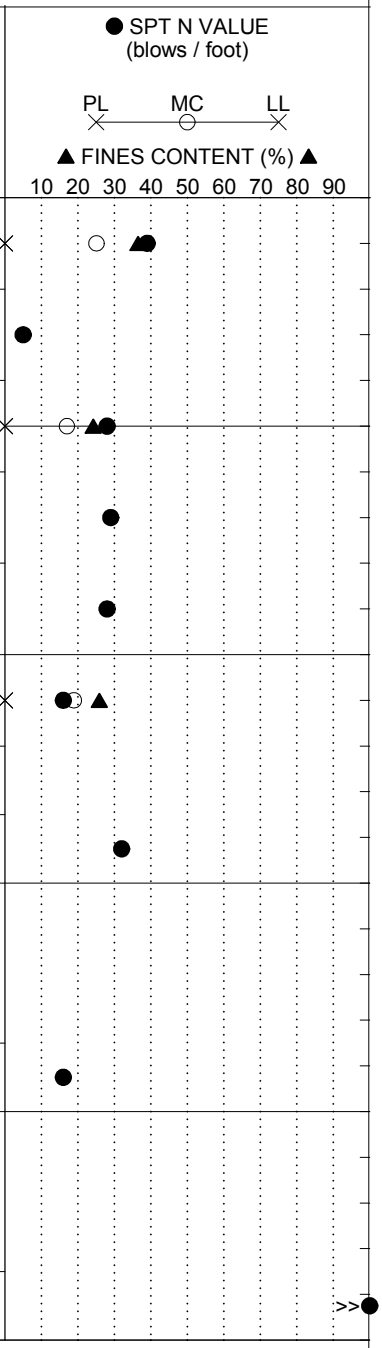
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RS-06	**Boring Location:**	61+38	**Offset:**	LT 42	**Alignment:**	Ramp 9
Elev.:	972.3 ft.	**Latitude:**	34.82425535	**Longitude:**	-82.29235213	**Date Started:**	3/11/2015
Total Depth:	25.5 ft.	**Soil Depth:**	25.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	13.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Dense, moist, reddish brown, fine to medium grained, with trace gravel, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=25.1 %#200=36.5	0.0	SS-1	2	29	10	39
	970.0	Loose, moist, reddish brown, fine to medium grained, with gravel, SILTY SAND (SM, A-2), RESIDUUM	2.0	SS-2	3	2	3	5
5.0		Medium dense, moist, black and brown, fine to medium grained, with mica and trace gravel, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=17.0 %#200=24.2	4.0	SS-3	7	12	16	28
	965.0	Medium dense, brown, red and white, with mica, RESIDUUM	6.0	SS-4	8	11	18	29
10.0		Medium dense, white, black and reddish brown, with mica, RESIDUUM	8.0	SS-5	13	16	12	28
	960.0	Medium dense, moist, gray and reddish brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=18.9 %#200=25.9	10.0	SS-6	5	8	8	16
15.0		Dense, gray, with mica, RESIDUUM	13.5	SS-7	3	17	15	32
	955.0							
20.0		Medium dense, white and black, with mica, RESIDUUM	18.5	SS-8	5	6	10	16
	950.0							
25.0		Very dense, black and brown, with mica, ROCK	23.5	SS-9	2	22	50/1	50/1



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RS-06	**Boring Location:**	61+38	**Offset:**	LT 42	**Alignment:**	Ramp 9
Elev.:	972.3 ft.	**Latitude:**	34.82425535	**Longitude:**	-82.29235213	**Date Started:**	3/11/2015
Total Depth:	25.5 ft.	**Soil Depth:**	25.5 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	3/11/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	13.0 ft.

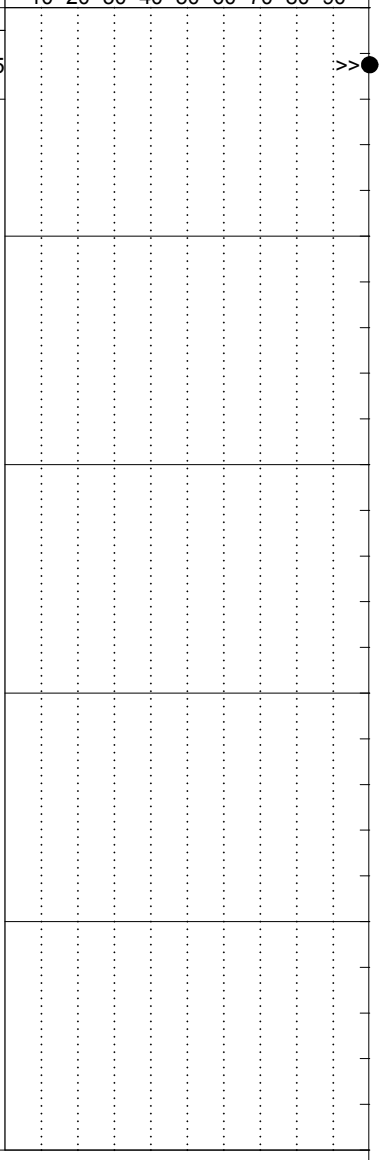
Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
		Very dense, No Recovery, ROCK		25.5					
		Boring Terminated at 25.5 feet.			SS-10	50/.5	X	X	50/.5

● SPT N VALUE (blows / foot)

PL ✕ — ○ — ✕ LL

▲ FINES CONTENT (%) ▲

10 20 30 40 50 60 70 80 90



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

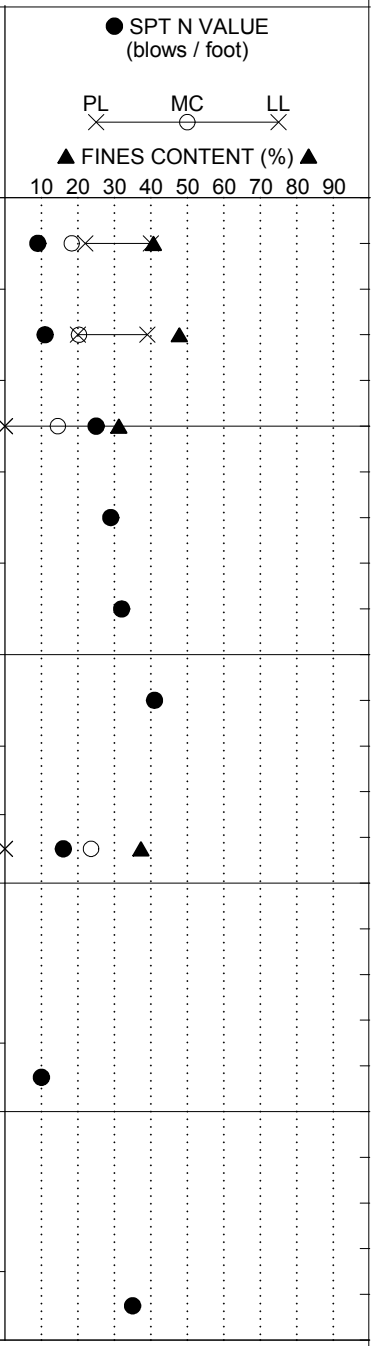
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RS-07	**Boring Location:**	61+65	**Offset:**	LT 31	**Alignment:**	Ramp 9
Elev.:	974.0 ft.	**Latitude:**	34.82417761	**Longitude:**	-82.29237	**Date Started:**	4/10/2015
Total Depth:	30.0 ft.	**Soil Depth:**	30.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil. Loose, moist, red, fine to medium grained, with mica, CLAYEY SAND (SC, A-6(3)), FILL, LL=40 PL=22 PI=18 NMC=18.3 %#200=40.7	0.0	SS-1	2	5	4	9
		Medium dense, moist, red, fine to medium grained, with mica, CLAYEY SAND (SC, A-6(6)), FILL, LL=39 PL=20 PI=19 NMC=20.3 %#200=47.8	2.0	SS-2	6	4	7	11
	970.0	Medium dense, moist, light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), FILL, LL=NP PL=NP PI=NP NMC=14.5 %#200=31.2	4.0	SS-3	6	13	12	25
5.0		Medium dense, moist, white and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	6.0	SS-4	6	11	18	29
		Dense, white, fine grained, with mica, RESIDUUM	8.0	SS-5	7	14	18	32
	965.0							
10.0		Dense, white and red, fine to medium grained, with mica, RESIDUUM	10.0	SS-6	15	21	20	41
	960.0	Medium dense, moist, reddish brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=23.6 %#200=37.3	13.5	SS-7	4	6	10	16
15.0								
	955.0	Loose, light brown, with mica, RESIDUUM	18.5	SS-8	5	5	5	10
20.0								
	950.0	Dense, white and light brown, fine to medium grained, with mica, RESIDUUM	23.5	SS-9	6	12	23	35
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	W385-RS-07	**Boring Location:**	61+65	**Offset:**	LT 31	**Alignment:**	Ramp 9
Elev.:	974.0 ft.	**Latitude:**	34.82417761	**Longitude:**	-82.29237	**Date Started:**	4/10/2015
Total Depth:	30.0 ft.	**Soil Depth:**	30.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	4/10/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
25.0										
30.0	945.0	Very dense, white, with mica, PARTIALLY WEATHERED ROCK		28.5	SS-10	50/2	X	X	100	>>●
		Very dense, No recovery, ROCK Boring Terminated at 30.0 feet.		30.0	SS-11	50/0	X	X	50/0	>>●

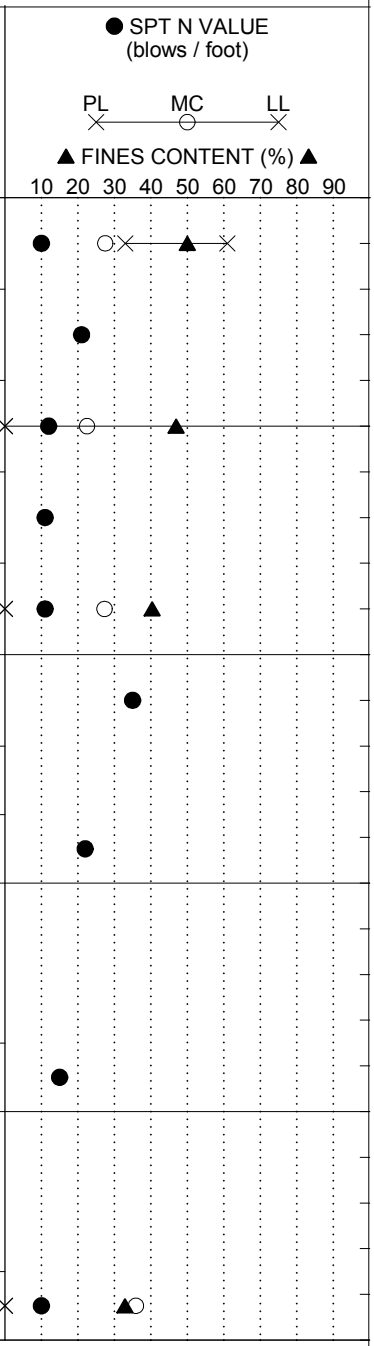
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	WCR-1L-01	**Boring Location:**	22+03	**Offset:**	LT 13	**Alignment:**	Chrome
Elev.:	956.0 ft.	**Latitude:**	34.83439797	**Longitude:**	-82.2913285	**Date Started:**	1/25/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/25/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	19.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	955.0	Stiff, moist, red, SANDY ELASTIC SILT (MH, A-7-5(11), RESIDUUM, LL=61 PL=33 PI=28 NMC=27.5 %#200=50.0	0.0	SS-1	3	5	5	10
		Very stiff, RESIDUUM	2.0	SS-2	8	9	12	21
5.0	950.0	Medium dense, moist, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=22.5 %#200=46.9	4.0	SS-3	2	5	7	12
		Medium dense, with mica, RESIDUUM	6.0	SS-4	3	5	6	11
10.0	945.0	Medium dense, moist, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=27.3 %#200=40.4	8.0	SS-5	2	5	6	11
		Dense, with mica, RESIDUUM	10.0	SS-6	8	14	21	35
15.0	940.0	Medium dense, light brown, with mica, RESIDUUM	13.5	SS-7	8	12	10	22
20.0	935.0	Medium dense, reddish brown, with mica, RESIDUUM	18.5	SS-8	2	5	10	15
25.0		Medium dense, moist, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP	23.5	SS-9	2	4	6	10



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

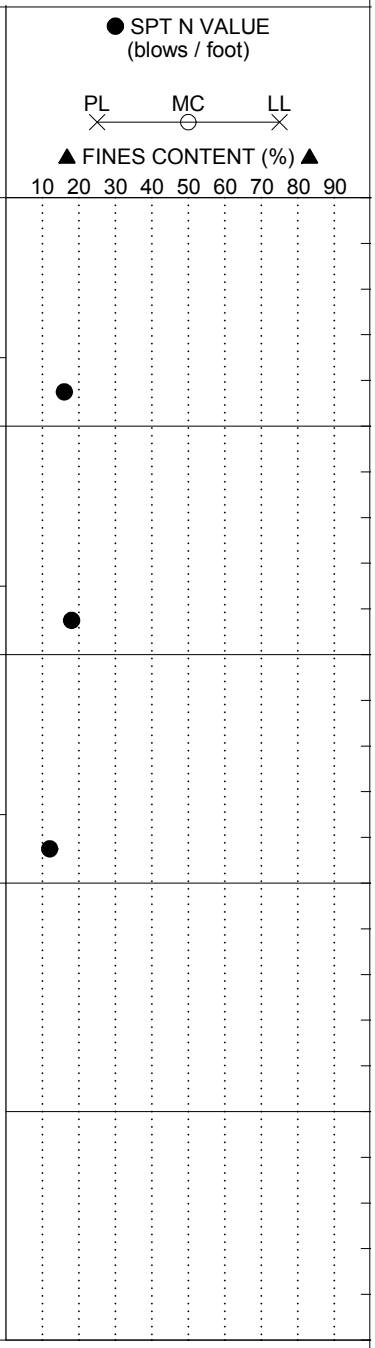
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	WCR-1L-01	**Boring Location:**	22+03	**Offset:**	LT 13	**Alignment:**	Chrome
Elev.:	956.0 ft.	**Latitude:**	34.83439797	**Longitude:**	-82.2913285	**Date Started:**	1/25/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/25/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	19.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	930.0	NMC=35.9 %#200=32.9							
		Medium dense, with mica, RESIDUUM		28.5	SS-10	5	6	10	16
30.0									
	925.0								
		Medium dense, light brown, with mica, RESIDUUM		33.5	SS-11	2	8	10	18
35.0									
	920.0								
		Medium dense, brown, with mica, RESIDUUM		38.5	SS-12	2	5	7	12
40.0									
		Boring Terminated at 40.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

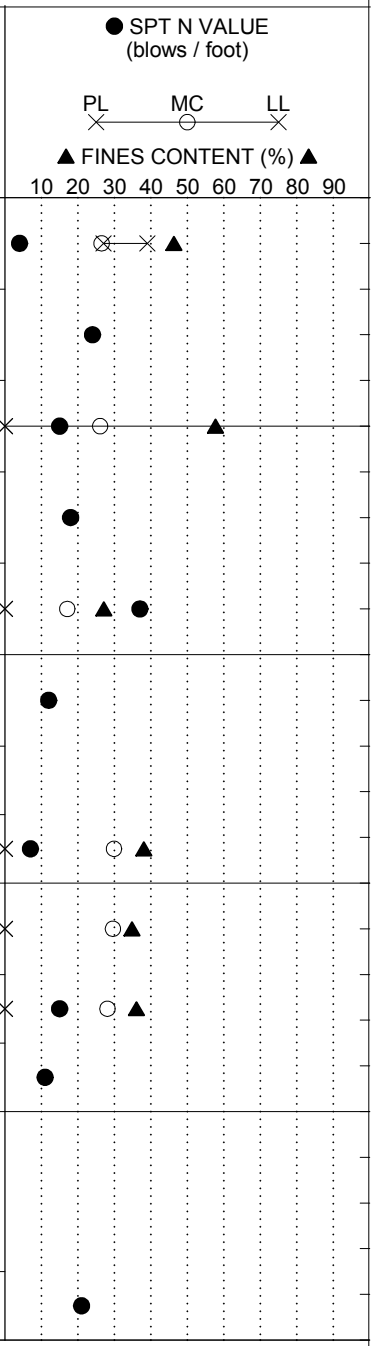
HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	WCR-1L-02	**Boring Location:**	24+06	**Offset:**	LT 16	**Alignment:**	Chrome
Elev.:	958.3 ft.	**Latitude:**	34.83493061	**Longitude:**	-82.29154015	**Date Started:**	1/24/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/24/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	13.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 1 inch of topsoil. Very loose, moist, red, fine to medium grained, with mica, SILTY SAND (SM, A-6(3)), RESIDUUM, LL=39 PL=27 PI=12 NMC=26.5 %#200=46.3	0.0	SS-1	1	2	2	4
	955.0	Very stiff, moist, red, SANDY SILT (ML, A-4), RESIDUUM	2.0	SS-2	3	10	14	24
5.0		Stiff, moist, red and light brown, fine grained, with mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=26.1 %#200=57.7	4.0	SS-3	4	7	8	15
		Very stiff, with mica	6.0	SS-4	2	8	10	18
	950.0	Dense, moist, red and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=17.1 %#200=27.1	8.0	SS-5	3	13	24	37
10.0		Medium dense, light brown and white, with mica	10.0	SS-6	3	5	7	12
	945.0							
15.0		Loose, moist, red, white and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=29.9 %#200=38.1	13.5	SS-7	1	2	5	7
		Moist, light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=29.6 %#200=34.8	15.0	ST-1				
	940.0	Medium dense, moist, white and red, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=28.1 %#200=36.1	17.0	SS-8	2	7	8	15
20.0		Medium dense, white and light brown, fine grained, with mica	18.5	SS-9	3	3	8	11
	935.0							
25.0		Medium dense, red and light brown, with mica	23.5	SS-10	2	7	14	21

Graphic Log



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

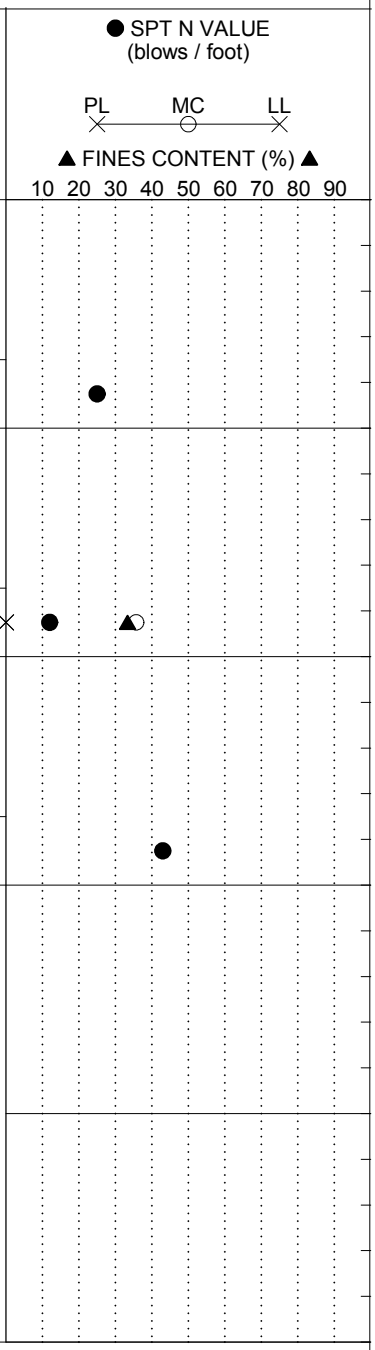
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	WCR-1L-02	**Boring Location:**	24+06	**Offset:**	LT 16	**Alignment:**	Chrome
Elev.:	958.3 ft.	**Latitude:**	34.83493061	**Longitude:**	-82.29154015	**Date Started:**	1/24/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/24/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	13.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	930.0	Medium dense, reddish brown, with mica, RESIDUUM		28.5	SS-11	5	8	17	25
30.0									
	925.0	Medium dense, moist, white and reddish brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=35.7 %#200=33.3		33.5	SS-12	2	4	8	12
35.0									
	920.0	Dense, red and light brown, with mica		38.5	SS-13	15	19	24	43
40.0									
		Boring Terminated at 40.0 feet.							



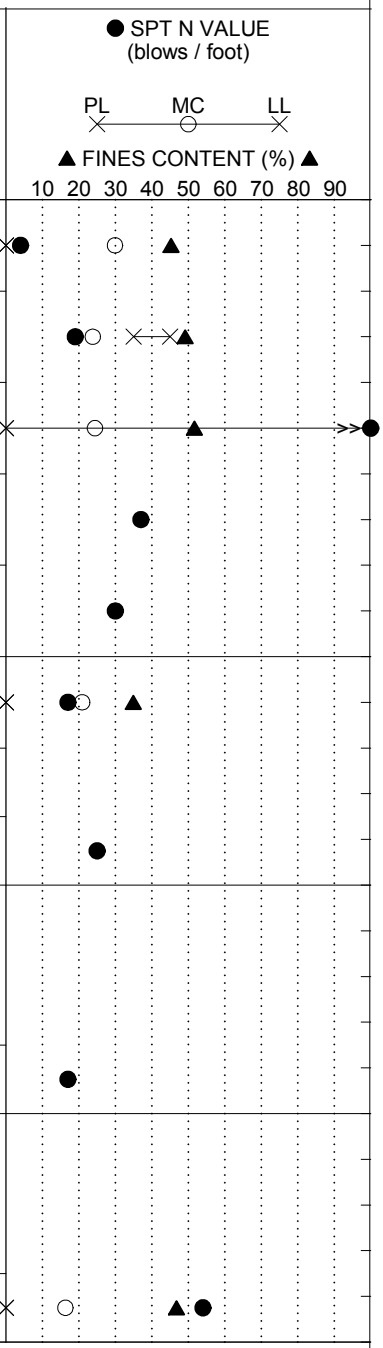
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	WCR-2R-01	**Boring Location:**	21+99	**Offset:**	RT 19	**Alignment:**	Chrome
Elev.:	958.6 ft.	**Latitude:**	34.83441848	**Longitude:**	-82.29122601	**Date Started:**	1/26/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/26/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	17.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 8 inches of topsoil. Very loose, moist, brown and red, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=29.9 %#200=45.3	0.0	SS-1	1	2	2	4
	955.0	Medium dense, moist, red, fine to medium grained, SILTY SAND (SM, A-5(3)), RESIDUUM, LL=45 PL=35 PI=10 NMC=23.8 %#200=49.1	2.0	SS-2	4	9	10	19
5.0		Hard, moist, red and brown, with mica, SANDY SILT (ML, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=24.4 %#200=51.7	4.0	SS-3	2	28	50/5	100
		Dense, moist, brown, fine grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	6.0	SS-4	14	20	17	37
	950.0	Medium dense, black and reddish brown, with mica	8.0	SS-5	5	12	18	30
10.0		Medium dense, moist, reddish brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=20.9 %#200=34.9	10.0	SS-6	6	8	9	17
	945.0	Medium dense, brown, with mica, RESIDUUM	13.5	SS-7	7	8	17	25
15.0								
	940.0	Medium dense, with mica, RESIDUUM	18.5	SS-8	5	9	8	17
20.0								
	935.0	Very dense, reddish brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=16.3 %#200=46.8	23.5	SS-9	21	27	27	54
25.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

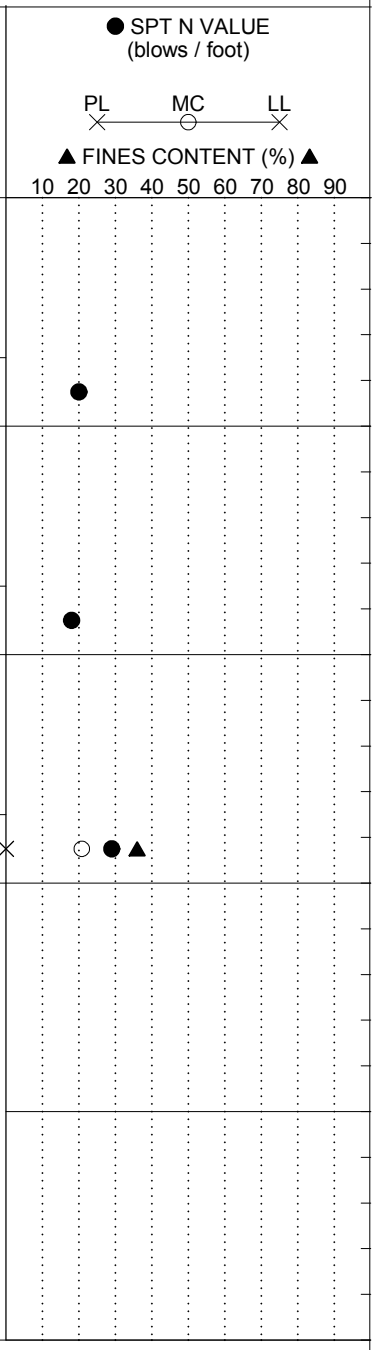
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	WCR-2R-01	**Boring Location:**	21+99	**Offset:**	RT 19	**Alignment:**	Chrome
Elev.:	958.6 ft.	**Latitude:**	34.83441848	**Longitude:**	-82.29122601	**Date Started:**	1/26/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/26/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	17.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	930.0	Medium dense, light brown and reddish brown, with mica, RESIDUUM		28.5	SS-10	6	8	12	20
30.0									
	925.0	Medium dense, white and brown, mica, RESIDUUM		33.5	SS-11	7	8	10	18
35.0									
	920.0	Medium dense, moist, reddish brown, fine to medium grained, with mica, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=20.8 %#200=36.0		38.5	SS-12	10	12	17	29
40.0		Boring Terminated at 40.0 feet.							



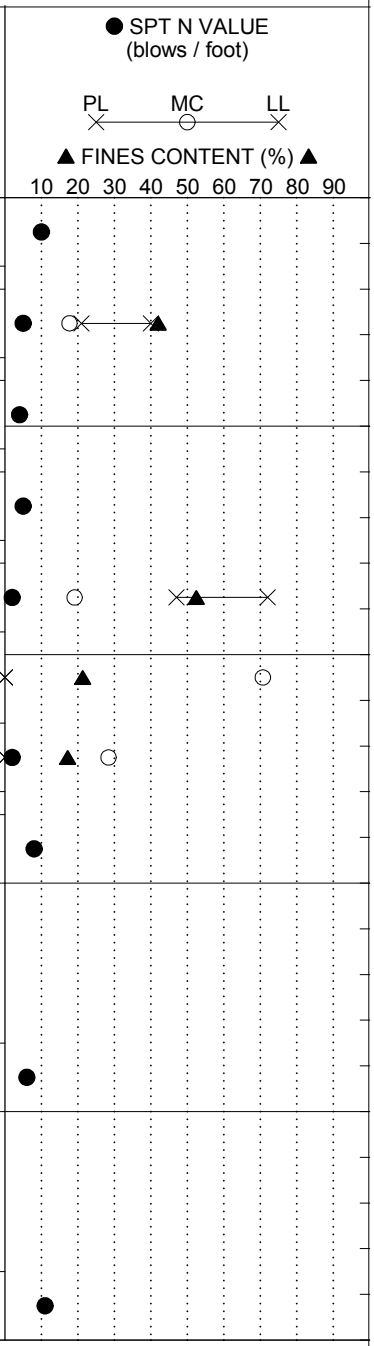
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	WCR-2R-02	**Boring Location:**	22+81	**Offset:**	LT 1	**Alignment:**	Chrome
Elev.:	947.8 ft.	**Latitude:**	34.83461334	**Longitude:**	-82.29137191	**Date Started:**	11/11/2014
Total Depth:	59.0 ft.	**Soil Depth:**	59.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	11/12/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 13.0 ft.	**24 HR**	6.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 3 inches of topsoil. Medium dense, moist, brown, fine to medium grained, CLAYEY SAND (SC, A-2), FILL	0.0	SS-1	4	6	4	10
	945.0	Loose, yellow and brown, fine to medium grained, with occasional gravel, CLAYEY SAND (SC, A-6(4)), RESIDUUM, LL=40 PL=21 PI=19 NMC=17.7 %#200=42.0	2.0	SS-2	2	2	3	5
5.0		Loose, light reddish brown, with occasional gravel, RESIDUUM	4.0	SS-3	2	2	2	4
		Loose, RESIDUUM	6.0	SS-4	2	2	3	5
	940.0							
		Very loose, moist, gray, weakly reactive, SANDY ELASTIC SILT (MH, A-7-5(12)), RESIDUUM, LL=72 PL=47 PI=25 NMC=19.1 %#200=52.5	8.0	SS-5	2	1	1	2
10.0		Loose, moist, brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=70.7 %#200=21.3	9.5	ST-1				
	935.0	Very loose, wet, gray, fine to medium grained, with occassional layers of clayey sand and pieces of wood, SILTY SAND (SM, A-1-b(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=28.4 %#200=17.2	11.5	SS-6	1	1	1	2
15.0		Loose, coarse grained, with rock fragments, RESIDUUM	13.5	SS-7	6	4	4	8
	930.0							
20.0		Loose, moist, yellowish brown, white and black, RESIDUUM	18.5	SS-8	2	2	4	6
	925.0							
25.0		Medium dense, reddish brown, tan and white, RESIDUUM	23.5	SS-9	2	3	8	11



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

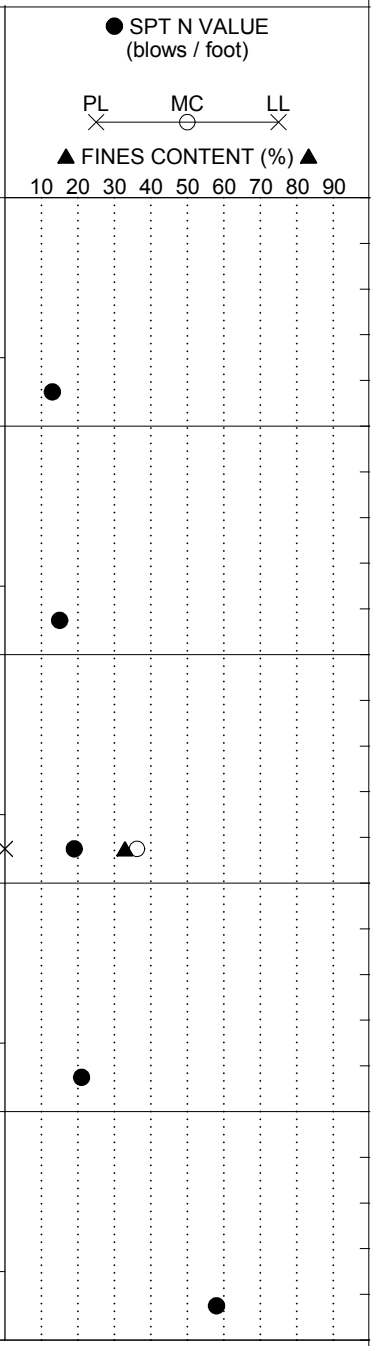
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	WCR-2R-02	**Boring Location:**	22+81	**Offset:**	LT 1	**Alignment:**	Chrome
Elev.:	947.8 ft.	**Latitude:**	34.83461334	**Longitude:**	-82.29137191	**Date Started:**	11/11/2014
Total Depth:	59.0 ft.	**Soil Depth:**	59.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	11/12/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 13.0 ft.	**24 HR**	6.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0									
	920.0								
		Medium dense, RESIDUUM		28.5	SS-10	2	6	7	13
30.0									
	915.0								
		Medium dense, RESIDUUM		33.5	SS-11	3	5	10	15
35.0									
	910.0								
		Medium dense, moist, reddish brown and black, non reactive, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=36.2 %#200=32.9		38.5	SS-12	5	8	11	19
40.0									
	905.0								
		Medium dense, reddish brown, tan, white and black, RESIDUUM		43.5	SS-13	5	8	13	21
45.0									
	900.0								
		Very dense, dark gray, brown, tan, white and black, fine to coarse grained, RESIDUUM		48.5	SS-14	21	29	29	58
50.0									



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

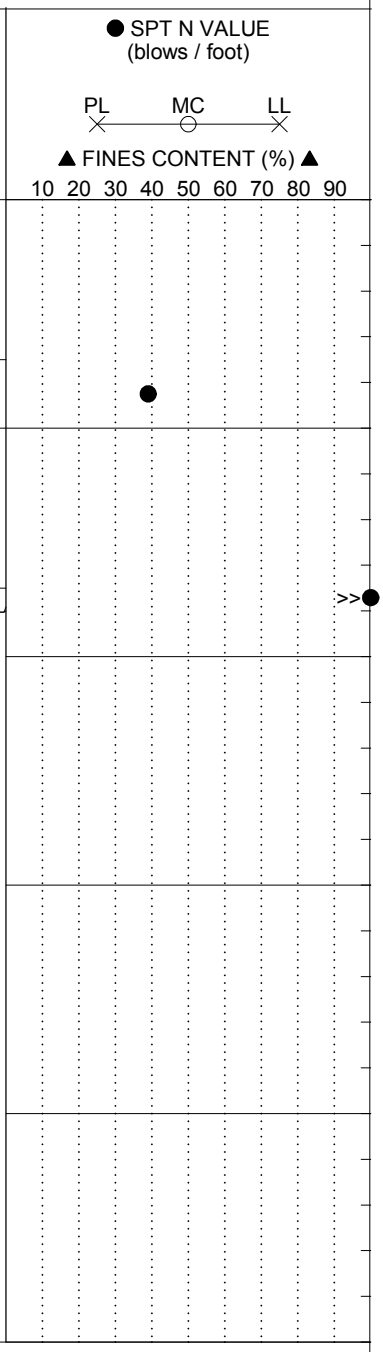
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	WCR-2R-02	**Boring Location:**	22+81	**Offset:**	LT 1	**Alignment:**	Chrome
Elev.:	947.8 ft.	**Latitude:**	34.83461334	**Longitude:**	-82.29137191	**Date Started:**	11/11/2014
Total Depth:	59.0 ft.	**Soil Depth:**	59.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	11/12/2014
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	88%
Core Size:	NA	**Driller:**	TE	**Groundwater:**	**TOB** 13.0 ft.	**24 HR**	6.5 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
50.0									
	895.0								
55.0		Dense, reddish brown, tan, black and white, RESIDUUM		53.5	SS-15	11	21	18	39
	890.0								
		Very dense, reddish brown, tan and black, with weathered rock fragments, RESIDUUM		58.5	SS-16	50/5	X	X	100
		Boring Terminated at 59.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

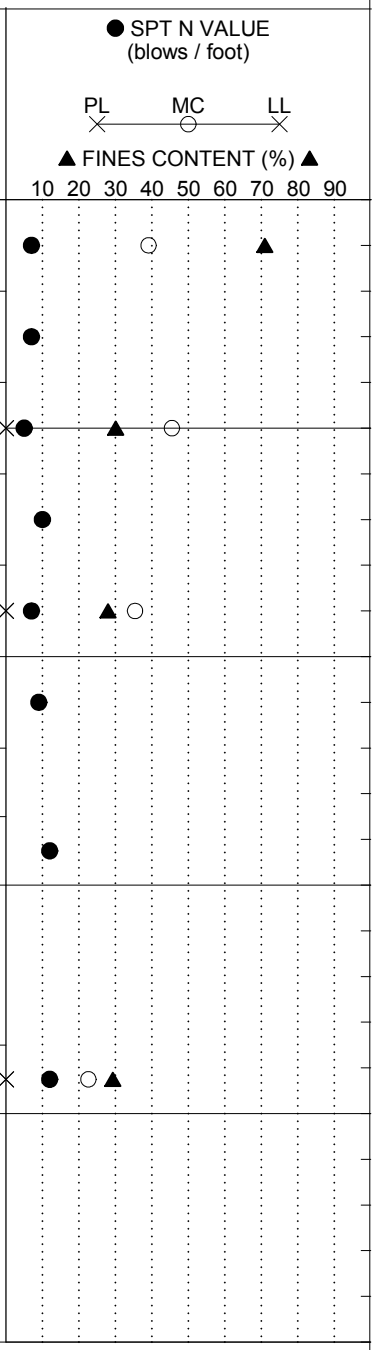
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	WRM-1L-01	**Boring Location:**	35+60	**Offset:**	LT 32	**Alignment:**	Roper
Elev.:	935.2 ft.	**Latitude:**	34.83763434	**Longitude:**	-82.28827794	**Date Started:**	1/8/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/8/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	935.0	Approximately 3 inches of topsoil. Firm, moist, reddish brown, SANDY LEAN CLAY (CL, A-6), FILL, NMC=39.1 %#200=71.0	0.0	SS-1	2	4	3	7
		Firm, with trace mica, FILL	2.0	SS-2	2	2	5	7
5.0	930.0	Loose, moist, reddish brown, fine to medium grained, with trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=45.5 %#200=30.1	4.0	SS-3	1	2	3	5
		Medium dense, fine grained, RESIDUUM	6.0	SS-4	2	5	5	10
		Loose, moist, reddish brown, fine to medium grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=35.4 %#200=28.0	8.0	SS-5	1	3	4	7
10.0	925.0	Loose, RESIDUUM	10.0	SS-6	2	4	5	9
		Medium dense, light brown and white, with trace mica, RESIDUUM	13.5	SS-7	2	5	7	12
15.0	920.0							
		Medium dense, moist, light brown and white, fine to medium grained, with trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=22.6 %#200=29.3	18.5	SS-8	3	6	6	12
20.0		Boring Terminated at 20.0 feet.						



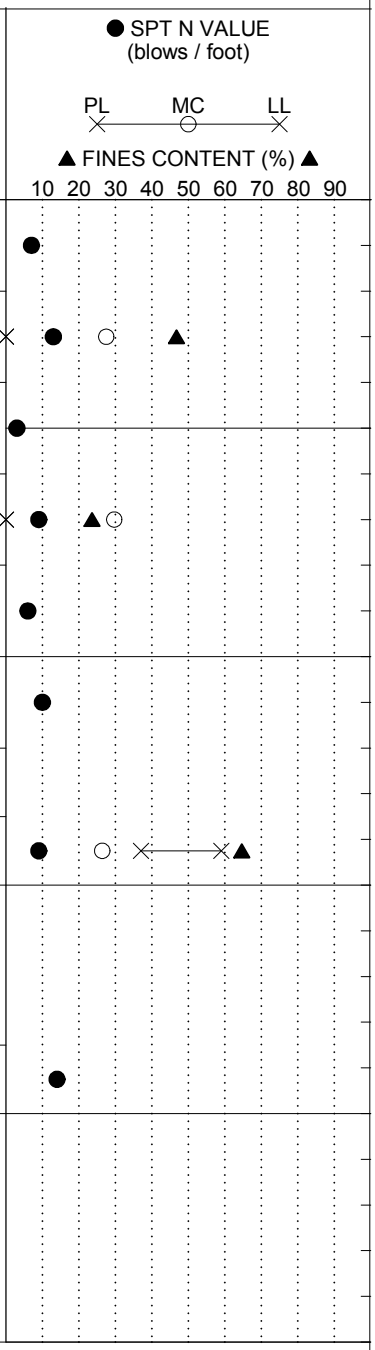
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	WRM-2L-01	**Boring Location:**	41+39	**Offset:**	LT 27	**Alignment:**	Roper
Elev.:	947.0 ft.	**Latitude:**	34.83853742	**Longitude:**	-82.28989101	**Date Started:**	1/8/2015
Total Depth:	20.0 ft.	**Soil Depth:**	20.0 ft.	**Core Depth:**	0.0 ft.	**Date Completed:**	1/8/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NA	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.E.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 2 inches of topsoil Loose, moist, reddish brown, fine to medium grained, SILTY SAND (SM, A-2), FILL	0.0	SS-1	2	3	4	7
	945.0	Medium dense, red and brown, fine to medium grained, with trace organics, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=27.5 %#200=46.8	2.0	SS-2	5	7	6	13
5.0		Very loose, brownish, with trace mica, FILL	4.0	SS-3	2	1	2	3
	940.0	Medium dense, moist, white, black and brown, fine to medium grained, with trace mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=29.7 %#200=23.6	6.0	SS-4	3	3	6	9
		Firm, moist, reddish brown, with trace mica, SANDY ELASTIC SILT (MH, A-7), RESIDUUM	8.0	SS-5	3	3	3	6
10.0		Stiff, red, with trace mica, RESIDUUM	10.0	SS-6	3	4	6	10
	935.0							
15.0		Stiff, moist, reddish brown, fine to medium grained, with trace mica, SANDY ELASTIC SILT (MH, A-7-5(15)), RESIDUUM, LL=59 PL=37 PI=22 NMC=26.4 %#200=64.7	13.5	SS-7	1	4	5	9
	930.0							
20.0		Medium dense, moist, brown and white, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	18.5	SS-8	8	8	6	14
		Boring Terminated at 20.0 feet.						



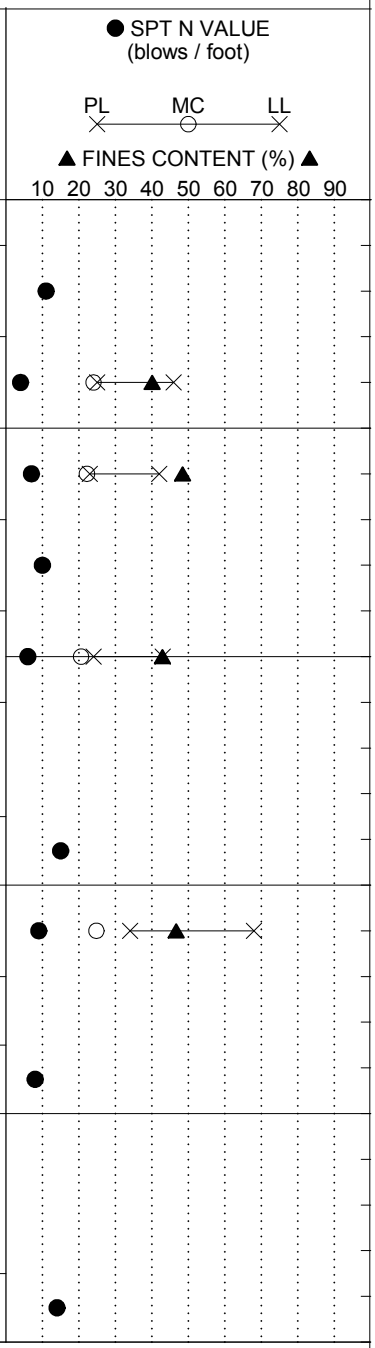
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	B01-SPT-01	**Boring Location:**	110+78	**Offset:**	RT 33	**Alignment:**	I-385 SB C/D
Elev.:	997.7 ft.	**Latitude:**	34.82658782	**Longitude:**	-82.29306191	**Date Started:**	3/27/2015
Total Depth:	53.5 ft.	**Soil Depth:**	37.0 ft.	**Core Depth:**	16.5 ft.	**Date Completed:**	3/28/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR / RC	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NQ Wireline	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 12 inches of asphalt.						
	995.0	Medium dense, moist, red and light brown, fine to medium grained, CLAYEY SAND (SC, A-2), FILL	1.0	SS-1	3	5	6	11
5.0		Very loose, moist, reddish brown, fine to medium grained, with mica, CLAYEY SAND (SC, A-7-6(4)), FILL, LL=46 PL=25 PI=21 NMC=24.0 %#200=40.1	3.0	SS-2	3	1	3	4
		Loose, moist, red and brown, non reactive, fine to medium grained, with mica, CLAYEY SAND (SC, A-7-6(6)), FILL, LL=42 PL=23 PI=19 NMC=22.2 %#200=48.4	5.0	SS-3	3	3	4	7
	990.0	Loose, red and light brown, FILL	7.0	SS-4	2	5	5	10
10.0		Loose, moist, red and light brown, fine to medium grained, with mica, CLAYEY SAND (SC, A-7-6(4)), FILL, LL=43 PL=24 PI=19 NMC=20.6 %#200=42.9	9.0	SS-5	1	2	4	6
	985.0							
15.0		Medium dense, brown, FILL	13.5	SS-6	2	5	10	15
		Loose, moist, brown and red, fine to medium grained, with mica, SILTY SAND (SM, A-7-5(12)), FILL, LL=68 PL=34 PI=34 NMC=24.8 %#200=46.7	15.0	SS-7	2	4	5	9
	980.0							
20.0		Loose, moist, brown, fine to medium grained, CLAYEY SAND (SC, A-2), FILL	18.5	SS-8	3	3	5	8
	975.0							
25.0		Medium dense, red and brown, with mica, FILL	23.5	SS-9	4	5	9	14



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	B01-SPT-01	**Boring Location:**	110+78	**Offset:**	RT 33	**Alignment:**	I-385 SB C/D
Elev.:	997.7 ft.	**Latitude:**	34.82658782	**Longitude:**	-82.29306191	**Date Started:**	3/27/2015
Total Depth:	53.5 ft.	**Soil Depth:**	37.0 ft.	**Core Depth:**	16.5 ft.	**Date Completed:**	3/28/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR / RC	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NQ Wireline	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0								
	970.0							
30.0		Very dense, moist, red to white and black, fine to medium grained, SILTY SAND (SM, A-2), PARTIALLY WEATHERED ROCK	28.5	SS-10	4	33	50/1	50/1
	965.0							
35.0		Very dense, red and light brown, with mica, PARTIALLY WEATHERED ROCK	33.5	SS-11	7	30	50/2	100
	960.0	Very dense, No recovery, ROCK Began rock coring at 37.0 feet.	37.0	RC-1				
40.0		Igneous, GRANITE, grayish black to grayish orange pink, quartz, feldspar, and mica, fresh to slightly weathered, strong to very strong with close to moderately spaced joints RQD(%)=44.4 Rec(%)=58.3 RMR=47 Horizontal joints, moerately open to wide, planar, slightly rough to smooth	38.5	RC-2				
	955.0	Igneous, GRANITE, grayish black to grayish orange pink, quartz, feldspar and mica, fresh to slightly weathered, strong to very strong with close to moderately spaced joints RQD(%)=100.0 Rec(%)=100.0 RMR=62 Horizontal joints, moderately open to wide, planar, slightly rough to smooth	43.5					
45.0		Igneous, GRANITE, grayish black to grayish orange pink, quartz, feldspar and mica, fresh to slightly weathered, strong to very strong with close to moderately spaced joints RQD(%)=95.0 Rec(%)=100.0 RMR=62 Horizontal joints, moderately open to wide, planar, slightly rough to smooth		RC-3				
	950.0		48.5					
50.0		Igneous, GRANITE, grayish black to grayish orange pink, quartz, feldspar and mica, fresh to slightly						

● SPT N VALUE (blows / foot)

PL — MC — LL

▲ FINES CONTENT (%) ▲

10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	B01-SPT-01	**Boring Location:**	110+78	**Offset:**	RT 33	**Alignment:**	I-385 SB C/D
Elev.:	997.7 ft.	**Latitude:**	34.82658782	**Longitude:**	-82.29306191	**Date Started:**	3/27/2015
Total Depth:	53.5 ft.	**Soil Depth:**	37.0 ft.	**Core Depth:**	16.5 ft.	**Date Completed:**	3/28/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR / RC	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NQ Wireline	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
50.0	945.0	weathered, strong to very strong with close to moderately spaced joints RQD(%)=88.0 Rec(%)=88.0 RMR=56 Horizontal joints, moderately open to wide, planar, slightly rough to smooth			RC-4					
		Boring Terminated at 53.5 feet.								

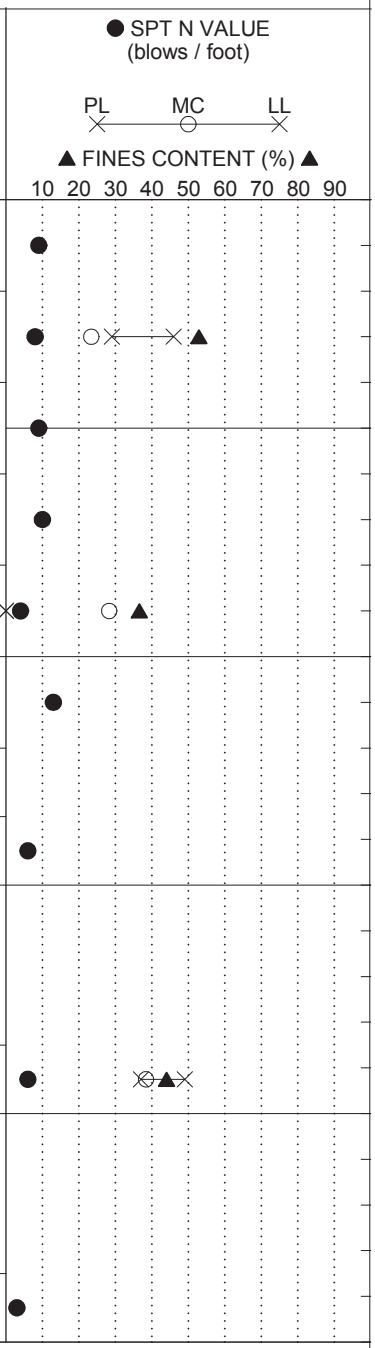
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	B12-SPT-03	**Boring Location:**	396+69	**Offset:**	LT 104	**Alignment:**	I-385
Elev.:	989.6 ft.	**Latitude:**	34.83244877	**Longitude:**	-82.29664701	**Date Started:**	1/13/2015
Total Depth:	123.0 ft.	**Soil Depth:**	110.0 ft.	**Core Depth:**	13.0 ft.	**Date Completed:**	1/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR / RC	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NQ Wireline	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	50.3 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 4 inches of topsoil. Stiff, moist, light brown and reddish brown, SANDY SILT (ML, A-4), FILL	0.0	SS-1	2	4	5	9
		Firm, moist, light brown and reddish brown, SANDY SILT, (ML, A-7-6(7)), FILL, LL=46 PL=29 PI=17 NMC=23.4 %#200=52.9	2.0	SS-2	3	3	5	8
5.0	985.0	Stiff, brown and reddish brown, FILL	4.0	SS-3	2	4	5	9
		Stiff, light reddish brown, FILL	6.0	SS-4	2	3	7	10
10.0	980.0	Loose, moist, brown, tan and black, fine to medium grained, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=28.3 %#200=36.6	8.0	SS-5	2	2	2	4
		Medium dense, moist, brown, gray brown and reddish brown, fine to medium grained, SILTY SAND (SM, A-2), RESIDUUM	10.0	SS-6	3	6	7	13
15.0	975.0	Loose, light brown, red, with a trace of mica, RESIDUUM	13.5	SS-7	2	3	3	6
20.0	970.0	Loose, red, white and light brown, fine to medium grained, SILTY SAND (SM, A-7-5(3)), RESIDUUM, LL=49 PL=37 PI=12 NMC=38.4 %#200=44.0	18.5	SS-8	2	3	3	6
25.0	965.0	Very loose, light brown and white, RESIDUUM	23.5	SS-9	1	2	1	3



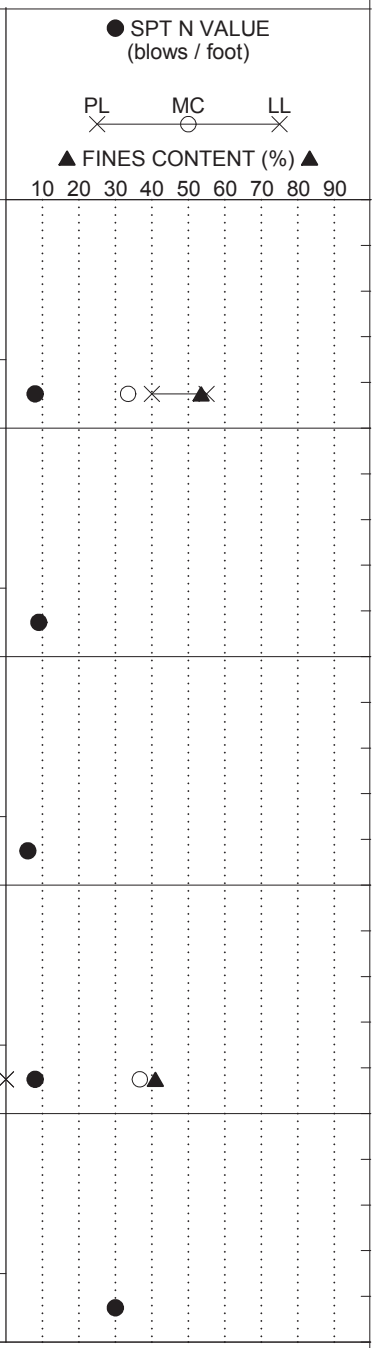
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	B12-SPT-03	**Boring Location:**	396+69	**Offset:**	LT 104	**Alignment:**	I-385
Elev.:	989.6 ft.	**Latitude:**	34.83244877	**Longitude:**	-82.29664701	**Date Started:**	1/13/2015
Total Depth:	123.0 ft.	**Soil Depth:**	110.0 ft.	**Core Depth:**	13.0 ft.	**Date Completed:**	1/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR / RC	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NQ Wireline	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	50.3 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0								
30.0	960.0	Firm, moist, light brown and red, with mica, SANDY ELASTIC SILT (MH, A-7-5(7)), RESIDUUM, LL=55 PL=40 PI=15 NMC=33.5 %#200=53.5	28.5	SS-10	2	3	5	8
35.0	955.0	Loose, moist, white, fine grained, with mica, SILTY SAND (SM, A-2), RESIDUUM	33.5	SS-11	2	4	5	9
40.0	950.0	Loose, white and light brown, RESIDUUM	38.5	SS-12	2	2	4	6
45.0	945.0	Loose, moist, white and light brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=36.7 %#200=41.0	43.5	SS-13	2	3	5	8
50.0	940.0	Medium dense, moist, red and brown, with mica, RESIDUUM	48.5	SS-14	8	15	15	30



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

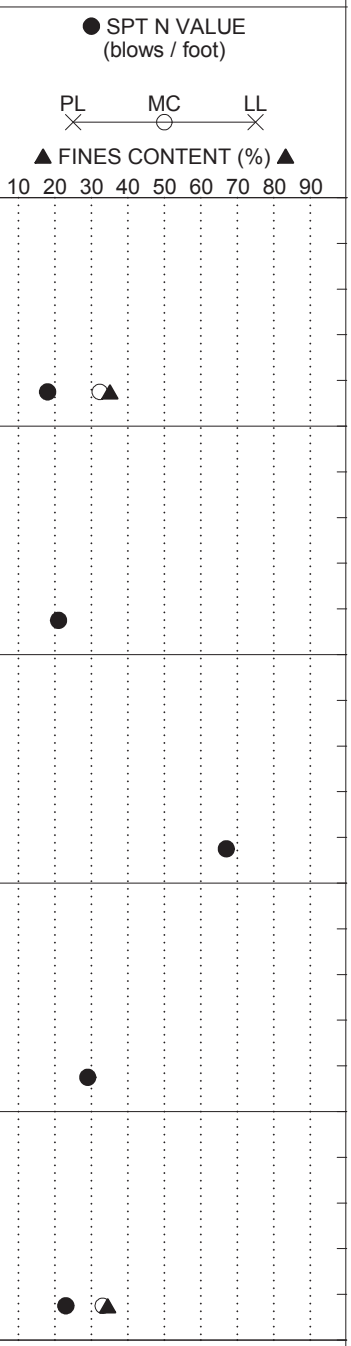
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	B12-SPT-03	**Boring Location:**	396+69	**Offset:**	LT 104	**Alignment:**	I-385
Elev.:	989.6 ft.	**Latitude:**	34.83244877	**Longitude:**	-82.29664701	**Date Started:**	1/13/2015
Total Depth:	123.0 ft.	**Soil Depth:**	110.0 ft.	**Core Depth:**	13.0 ft.	**Date Completed:**	1/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR / RC	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NQ Wireline	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	50.3 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
50.0									
55.0	935.0	Medium dense, moist, brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.3 %#200=35.1		53.5	SS-15	3	6	12	18
60.0	930.0	Medium dense, white and light brown, fine grained, with mica, RESIDUUM		58.5	SS-16	5	9	12	21
65.0	925.0	Very dense, light reddish brown, fine to medium grained, RESIDUUM		63.5	SS-17	19	34	33	67
70.0	920.0	Medium dense, white, fine grained, with mica, RESIDUUM		68.5	SS-18	9	13	16	29
75.0	915.0	Medium dense, moist, brown and reddish brown, fine grained, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=33.1 %#200=34.5		73.5	SS-19	5	9	14	23



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	B12-SPT-03	**Boring Location:**	396+69	**Offset:**	LT 104	**Alignment:**	I-385
Elev.:	989.6 ft.	**Latitude:**	34.83244877	**Longitude:**	-82.29664701	**Date Started:**	1/13/2015
Total Depth:	123.0 ft.	**Soil Depth:**	110.0 ft.	**Core Depth:**	13.0 ft.	**Date Completed:**	1/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR / RC	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NQ Wireline	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	50.3 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
75.0										
80.0	910.0	Dense, white, fine to medium grained, RESIDUUM		78.5	SS-20	6	16	19	35	
85.0	905.0	Very dense, white, RESIDUUM		83.5	SS-21	13	25	26	51	
90.0	900.0	Very dense, reddish brown, with mica, PARTIALLY WEATHERED ROCK		88.5	SS-22	11	35	50/4	100	>>
95.0	895.0	Very dense, brown and reddish brown, with mica, PARTIALLY WEATHERED ROCK		93.5	SS-23	30	50/6	X	100	>>
100.0	890.0	Very dense, brown and black, with mica, PARTIALLY WEATHERED ROCK		98.5	SS-24	50/6	X	X	100	>>

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	B12-SPT-03	**Boring Location:**	396+69	**Offset:**	LT 104	**Alignment:**	I-385
Elev.:	989.6 ft.	**Latitude:**	34.83244877	**Longitude:**	-82.29664701	**Date Started:**	1/13/2015
Total Depth:	123.0 ft.	**Soil Depth:**	110.0 ft.	**Core Depth:**	13.0 ft.	**Date Completed:**	1/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR / RC	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NQ Wireline	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	50.3 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
100.0									
105.0	885.0	Very dense, brown, fine grained, with mica, PARTIALLY WEATHERED ROCK		103.5	SS-25	20	50/3	X	100
110.0	880.0	Very dense, white and grayish green, ROCK		108.5	SS-26	50/1	X	X	50/1
		Igneous, GRANITE, white and gray, feldspar, quartz and mica, fresh to slightly weathered, strong to very strong RQD(%)=86.1 Rec(%)=86.1 RMR=74		110.0	RC-1				
115.0	875.0	Igneous, GRANITE, white and gray, feldspar, quartz and mica, fresh to slightly weathered, strong to very strong RQD(%)=98.3 Rec(%)=100.0 RMR=77		113.0	RC-2				
120.0	870.0	Igneous, GRANITE, white and gray, feldspar, quartz and mica, fresh to slightly weathered, strong to very strong RQD(%)=68.3 Rec(%)=91.7 RMR=65 30 degree joint, moderately open to wide, planar, slightly rough to smooth 30 degree joint, moderately open to wide, planar, slightly rough to smooth 30 degree joint, moderately open to wide, planar, slightly rough to smooth 30 degree joint, moderately open to wide, planar, slightly rough to smooth Highly fractured zone approximately 1.5 inches in		118.0	RC-3				

● SPT N VALUE (blows / foot)

PL — MC — LL

▲ FINES CONTENT (%) ▲

10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Phillip Mabry
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	B12-SPT-03	**Boring Location:**	396+69	**Offset:**	LT 104	**Alignment:**	I-385
Elev.:	989.6 ft.	**Latitude:**	34.83244877	**Longitude:**	-82.29664701	**Date Started:**	1/13/2015
Total Depth:	123.0 ft.	**Soil Depth:**	110.0 ft.	**Core Depth:**	13.0 ft.	**Date Completed:**	1/15/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR / RC	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NQ Wireline	**Driller:**	SCI	**Groundwater:**	**TOB** N.E.	**24 HR**	50.3 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
		length Boring Terminated at 123.0 feet.								

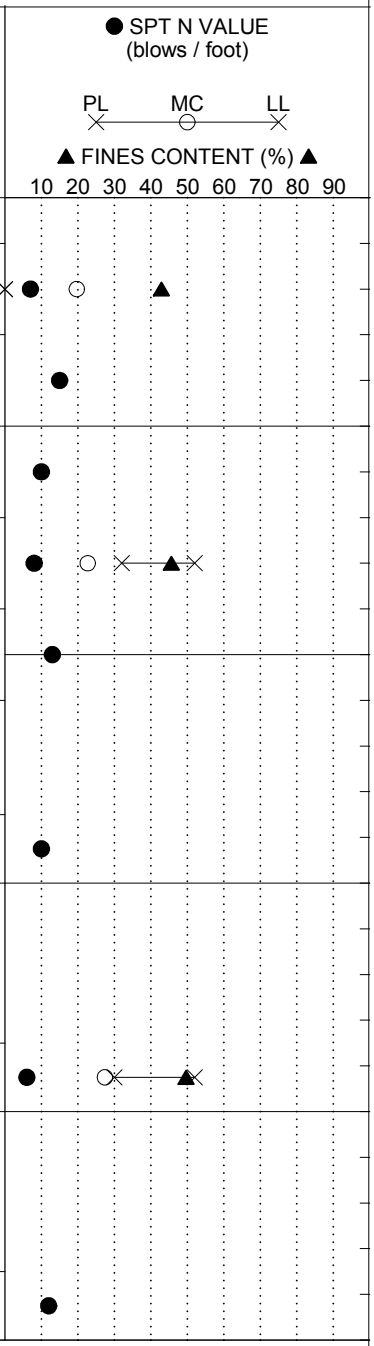
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**	IM23(009)	**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	B01-SPT-06	**Boring Location:**	373+73	**Offset:**	RT 11	**Alignment:**	I-385
Elev.:	1004.8 ft.	**Latitude:**	34.82713841	**Longitude:**	-82.29285111	**Date Started:**	3/30/2015
Total Depth:	92.0 ft.	**Soil Depth:**	67.0 ft.	**Core Depth:**	25.0 ft.	**Date Completed:**	5/3/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR / RC	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NQ Wireline	**Driller:**	SCI / TE	**Groundwater:**	**TOB** 63.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Approximately 12 inches of asphalt.						
		Loose, moist, red, fine to medium grained, with trace of mica, SILTY SAND (SM, A-4(0)), FILL, LL=NP PL=NP PI=NP NMC=19.7 %#200=42.9	1.0	SS S-1	4	4	3	5
		Loose, brown and red, FILL	3.0	SS S-2	4	7	8	8
5.0	1000.0	Loose, FILL	5.0	SS S-3	1	4	6	8
		Loose, moist, red and light brown, fine to medium grained, SILTY SAND (SM, A-7-5(6)), FILL, LL=52 PL=32 PI=20 NMC=22.7 %#200=45.6	7.0	SS S-4	3	3	5	8
10.0	995.0	Loose, FILL	9.0	SS S-5	7	5	8	9
15.0	990.0	Loose, red and light brown, trace of mica, FILL	13.5	SS S-6	3	5	5	10
20.0	985.0	Loose, moist, red and light brown, non reactive, fine to medium grained, with mica, SILTY SAND (SM, A-7-5(8)), FILL, LL=52 PL=30 PI=22 NMC=27.4 %#200=49.7	18.5	SS S-7	3	3	3	6
25.0	980.0	Medium dense, red and brown, with trace mica, FILL	23.5	SS S-8	2	4	8	12



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

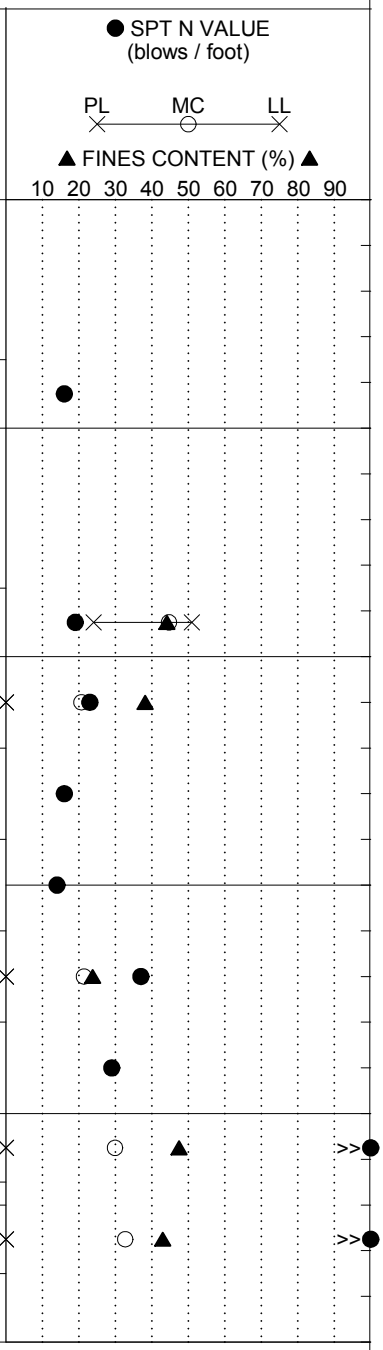
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**	IM23(009)	**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	B01-SPT-06	**Boring Location:**	373+73	**Offset:**	RT 11	**Alignment:**	I-385
Elev.:	1004.8 ft.	**Latitude:**	34.82713841	**Longitude:**	-82.29285111	**Date Started:**	3/30/2015
Total Depth:	92.0 ft.	**Soil Depth:**	67.0 ft.	**Core Depth:**	25.0 ft.	**Date Completed:**	5/3/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR / RC	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NQ Wireline	**Driller:**	SCI / TE	**Groundwater:**	**TOB** 63.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
25.0								
30.0	975.0	Medium dense, with trace mica, FILL	28.5	SS S-9	7	7	9	16
35.0	970.0	Medium dense, moist, red and brown, fine to medium grained, CLAYEY SAND (SC, A-7-6(7)), ALLUVIUM, LL=51 PL=24 PI=27 NMC=44.7 %#200=44.1	33.5	SS S-10	2	8	11	19
		Medium dense, moist, red and brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=20.7 %#200=38.2	35.0	SS S-11	9	12	11	12
		Medium dense, red and light brown, RESIDUUM	37.0	SS S-12	7	7	9	11
40.0	965.0	Medium dense, RESIDUUM	39.0	SS S-13	2	6	8	13
		Medium dense, moist, white and gray, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=21.4 %#200=23.8	41.0	SS S-14	1	13	24	18
		Medium dense, reddish brown and white, with mica, RESIDUUM	43.0	SS S-15	8	10	19	17
45.0	960.0	Medium dense, moist, brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=29.9 %#200=47.5	45.0	SS S-16	6	7	11	12
		Loose, moist, red and light brown, fine to medium grained, SILTY SAND (SM, A-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=32.7 %#200=43.0	47.0	SS S-17	4	4	6	8
50.0	955.0							



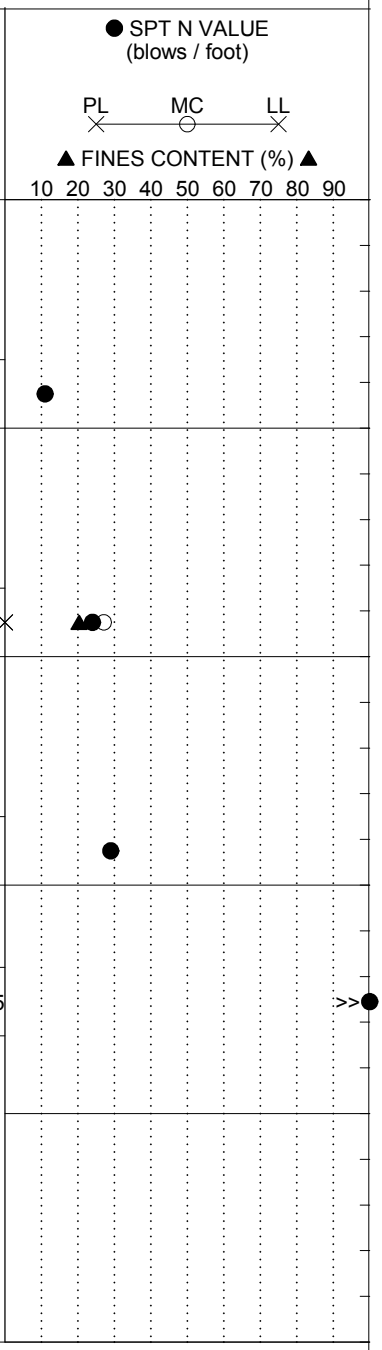
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**	IM23(009)	**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	B01-SPT-06	**Boring Location:**	373+73	**Offset:**	RT 11	**Alignment:**	I-385
Elev.:	1004.8 ft.	**Latitude:**	34.82713841	**Longitude:**	-82.29285111	**Date Started:**	3/30/2015
Total Depth:	92.0 ft.	**Soil Depth:**	67.0 ft.	**Core Depth:**	25.0 ft.	**Date Completed:**	5/3/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR / RC	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NQ Wireline	**Driller:**	SCI / TE	**Groundwater:**	**TOB** 63.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
50.0								
55.0	950.0	Medium dense, white and light brown, fine grained, with mica, RESIDUUM	53.5	SS S-18	5	8	3	11
60.0	945.0	Medium dense, moist, white and light brown, fine to medium grained, with mica, SILTY SAND (SM, A-2-4(0)), RESIDUUM, LL=NP PL=NP PI=NP NMC=27.1 %#200=20.4	58.5	SS S-19	7	12	12	24
65.0	940.0	Medium dense, wet, white, black and brown, with mica, RESIDUUM	63.5	SS S-20	5	9	20	29
		Very dense, No recovery, ROCK Began rock coring at 67.0 feet.	66.8	SS S-21	50/.5	X	X	50/.5
70.0	935.0	Igneous, GRANITE, grayish black to grayish orange pink, quartz, feldspar and mica, fresh to slightly weathered, strong to very strong with close to moderately spaced joints RQD(%)=66.3 Rec(%)=80.0 Upper 1 inch is highly fractured Horizontal joint, moderately open to wide, planar, slightly rough to smooth	67.0	RC C-1				
75.0	930.0	Igneous, GRANITE, grayish black to grayish orange pink, quartz, feldspar and mica, fresh to slightly weathered, strong to very strong with close to moderately spaced joints RQD(%)=100.0 Rec(%)=100.0 Horizontal joint, moderately open to wide, planar,	72.0	RC C-2				



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**	IM23(009)	**County:**	Greenville	**Eng./Geo.:**	Justin Fancher
Site Description:	I-85 and I-385 Interchange Design					**Route:**	I-85 / I-385
Boring No.:	B01-SPT-06	**Boring Location:**	373+73	**Offset:**	RT 11	**Alignment:**	I-385
Elev.:	1004.8 ft.	**Latitude:**	34.82713841	**Longitude:**	-82.29285111	**Date Started:**	3/30/2015
Total Depth:	92.0 ft.	**Soil Depth:**	67.0 ft.	**Core Depth:**	25.0 ft.	**Date Completed:**	5/3/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	No	**Liner Used:**	NA
Drill Machine:	CME 550X	**Drill Method:**	MR / RC	**Hammer Type:**	Automatic	**Energy Ratio:**	79%
Core Size:	NQ Wireline	**Driller:**	SCI / TE	**Groundwater:**	**TOB** 63.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
75.0		slightly rough to smooth							
80.0	925.0	Igneous, GRANITE, grayish black to grayish orange pink, quartz, feldspar and mica, fresh to slightly weathered, strong to very strong with close to moderately spaced joints RQD(%)=86.3 Rec(%)=96.3 Horizontal joint, moderately open to wide, planar, slightly rough to smooth		77.0	RC C-3				
85.0	920.0	Igneous, GRANITE, grayish black to grayish orange pink, quartz, feldspar and mica, fresh to slightly weathered, strong to very strong with close to moderately spaced joints RQD(%)=93.8 Rec(%)=100.0 Horizontal joint, moderately open to wide, planar, slightly rough to smooth		82.0	RC C-4				
90.0	915.0	Igneous, GRANITE, grayish black to grayish orange pink, quartz, feldspar and mica, fresh to slightly weathered, strong to very strong with close to moderately spaced joints RQD(%)=95.0 Rec(%)=96.7 Horizontal joint, moderately open to wide, planar, slightly rough to smooth		87.0	RC C-5				
		Boring Terminated at 92.0 feet.							

● SPT N VALUE (blows / foot)

PL ✕ — MC ○ — LL ✕

▲ FINES CONTENT (%) ▲

10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

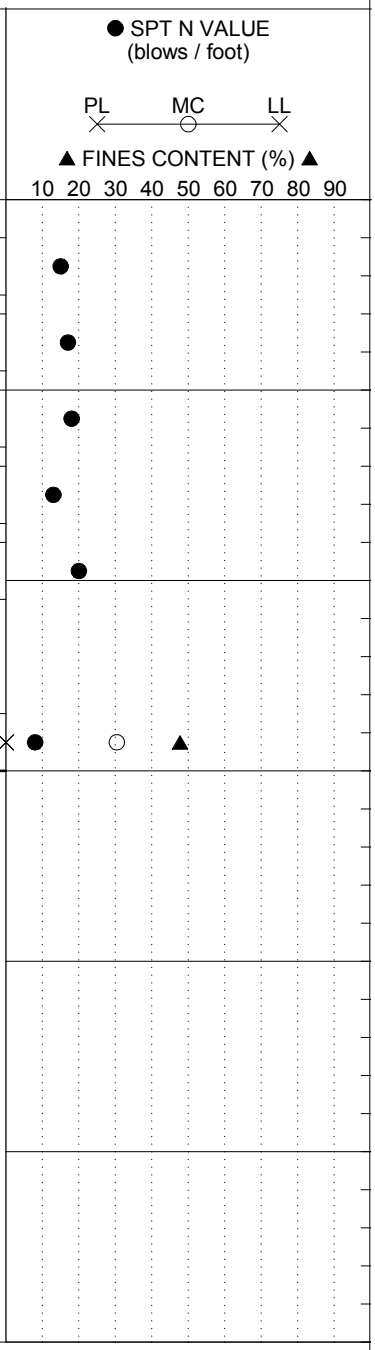
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	Ramp 1
Boring No.:	BX-1-01	**Boring Location:**	108+05	**Offset:**	12 LT	**Alignment:**	I-85
Elev.:	992.4 ft.	**Latitude:**	34.83401311	**Longitude:**	-82.2964007	**Date Started:**	10/1/2015
Total Depth:	15.0 ft.	**Soil Depth:**	15 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/1/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** Dry	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Stiff, red-brown, moist, SANDY SILT (ML), RESIDUUM		1.0	SS-1	4	6	9	15
	990.0	Very stiff, red-brown, moist, RESIDUUM		3.0	SS-2	5	7	10	17
5.0		Very stiff, red-brown, moist, RESIDUUM		5.0	SS-3	6	8	10	18
	985.0	Stiff, red-brown to light brown, moist, RESIDUUM		7.0	SS-4	4	5	8	13
10.0		Very stiff, red-brown to light brown, moist, RESIDUUM		9.0	SS-5	9	10	10	20
	980.0								
15.0		Loose, light brown and white, moist, fine to medium grained SILTY SAND (SM), LL=NP PL=NP PI=NP NMC=30.4 %#200=47.7		13.5	SS-6	3	4	4	8
		Boring Terminated at 15.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

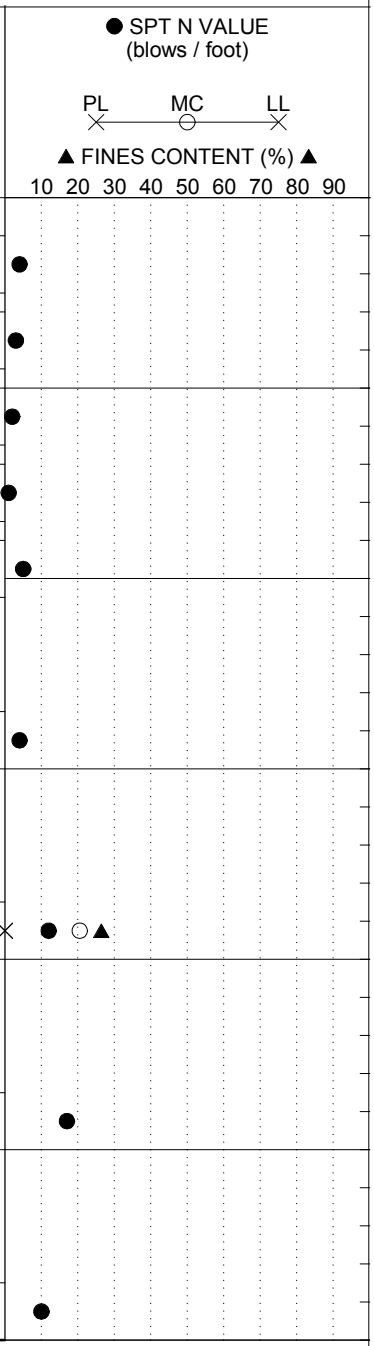
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	Ramp 1
Boring No.:	BX-1-02	**Boring Location:**	74+14	**Offset:**	7 RT	**Alignment:**	I-85
Elev.:	905.0 ft.	**Latitude:**	34.83905776	**Longitude:**	-82.28780888	**Date Started:**	10/1/2015
Total Depth:	30.0 ft.	**Soil Depth:**	30 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/1/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** 4 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	905.0	Soft, dark red-brown, moist, SANDY SILT (ML), FILL	1.0	SS-1	2	2	2	4
		Soft, dark red-brown, moist, FILL	3.0	SS-2	2	1	2	3
5.0	900.0	Very soft, dark red-brown to black, wet, FILL	5.0	SS-3	1	1	1	2
		Very soft, dark red-brown to black, wet, FILL	7.0	SS-4	1	0	1	1
10.0	895.0	Medium stiff, red-brown, moist, SANDY SILT (ML), RESIDUUM	9.0	SS-5	1	1	4	5
15.0	890.0	Very loose, yellow-brown and white, moist to wet, fine to medium grained SILTY SAND (SM), RESIDUUM	13.5	SS-6	2	2	2	4
20.0	885.0	Medium dense, yellow-brown and white, moist to wet, RESIDUUM, LL=NP PL=NP PI=NP NMC=20.5 %#200=26.4	18.5	SS-7	3	5	7	12
25.0	880.0	Very stiff, black and brown, moist, trace mica, SANDY SILT (ML), RESIDUUM	23.5	SS-8	5	8	9	17
30.0		Stiff, black and brown, moist, trace mica, RESIDUUM	28.5	SS-9	3	5	5	10



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	Ramp 1
Boring No.:	BX-1-02	**Boring Location:**	74+14	**Offset:**	7 RT	**Alignment:**	I-85
Elev.:	905.0 ft.	**Latitude:**	34.83905776	**Longitude:**	-82.28780888	**Date Started:**	10/1/2015
Total Depth:	30.0 ft.	**Soil Depth:**	30 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/1/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** 4 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
		Boring Terminated at 30.0 feet.								

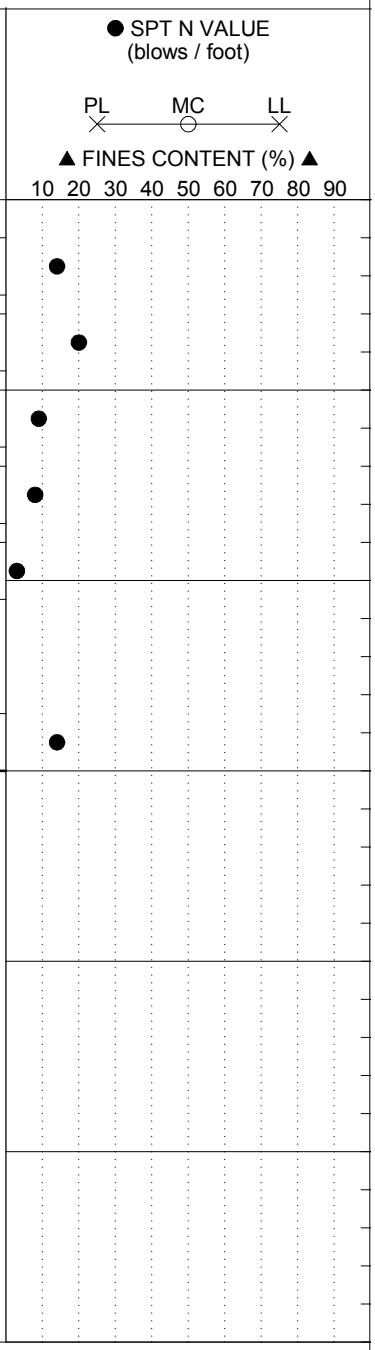
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	Ramp 1B
Boring No.:	BX-1B-01	**Boring Location:**	55+73	**Offset:**	33 RT	**Alignment:**	I-85
Elev.:	992.0 ft.	**Latitude:**	34.83348515	**Longitude:**	-82.2969297	**Date Started:**	10/1/2015
Total Depth:	15.0 ft.	**Soil Depth:**	15 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/1/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** Dry	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Stiff, dark red-brown to dark brown, moist, ELASTIC SILT (MH), FILL		1.0	SS-1	5	7	7	14
	990.0	Very stiff, dark red-brown to dark brown, moist, FILL		3.0	SS-2	6	9	11	20
5.0		Stiff, red-brown, moist, with clay, SANDY SILT (ML), RESIDUUM		5.0	SS-3	3	5	4	9
	985.0	Medium stiff, red-brown, moist, RESIDUUM		7.0	SS-4	3	4	4	8
10.0		Soft, gray and brown, moist, with mica, RESIDUUM		9.0	SS-5	1	2	1	3
	980.0								
15.0		Stiff, gray and brown, moist, RESIDUUM		13.5	SS-6	7	9	5	14
		Boring Terminated at 15.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

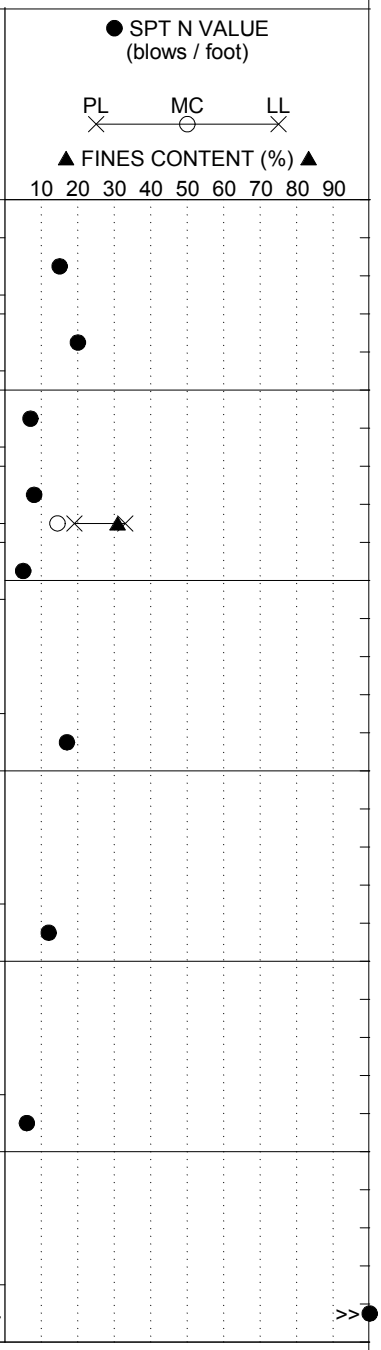
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	Ramp 2B
Boring No.:	BX-2B-01	**Boring Location:**	33+00	**Offset:**	8 LT	**Alignment:**	I-85
Elev.:	995.3 ft.	**Latitude:**	34.83287173	**Longitude:**	-82.29838486	**Date Started:**	10/6/2015
Total Depth:	34.0 ft.	**Soil Depth:**	34 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** 14 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	995.0	Stiff, gray and brown, moist, SANDY SILT (ML), RESIDUUM	1.0	SS-1	3	6	9	15
		Very stiff, gray and brown, moist, RESIDUUM	3.0	SS-2	8	10	10	20
5.0	990.0	Loose, gray, moist, fine grained CLAYEY SAND (SC), RESIDUUM	5.0	SS-3	3	4	3	7
		Medium stiff, gray, moist, RESIDUUM	7.0	SS-4	3	3	5	8
10.0	985.0	Medium stiff, gray, moist, RESIDUUM, LL=33 PL=19 PI=14 NMC=14.4 %#200=30.9	9.0	SS-5	2	3	2	5
15.0	980.0	Medium dense, gray, wet, fine to medium grained SILTY SAND (SM), RESIDUUM	13.5	SS-6	3	7	10	17
20.0	975.0	Medium dense, gray, wet, with rock fragments, RESIDUUM	18.5	SS-7	5	6	6	12
25.0	970.0	Loose, orange-brown, wet, RESIDUUM	23.5	SS-8	3	3	3	6
30.0		Very dense, brown, wet, fine to medium grained SILTY SAND (SM), PARTIALLY WEATHERED ROCK	28.5	SS-9	50/4	X	X	50/4



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	Ramp 2B
Boring No.:	BX-2B-01	**Boring Location:**	33+00	**Offset:**	8 LT	**Alignment:**	I-85
Elev.:	995.3 ft.	**Latitude:**	34.83287173	**Longitude:**	-82.29838486	**Date Started:**	10/6/2015
Total Depth:	34.0 ft.	**Soil Depth:**	34 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** 14 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
30.0	965.0									
		NO RECOVERY		33.5	SS-10	50/1	X	X	50/1	>>●
		Boring Terminated at 34.0 feet.								

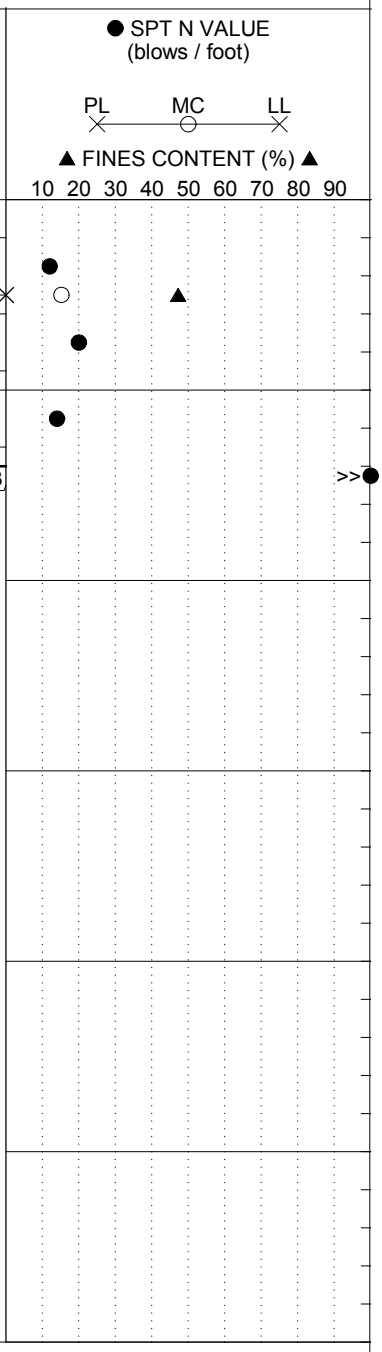
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	Ramp 3
Boring No.:	BX-3-01	**Boring Location:**	39+68	**Offset:**	7 LT	**Alignment:**	I-85
Elev.:	997.9 ft.	**Latitude:**	34.83174403	**Longitude:**	-82.29659355	**Date Started:**	10/1/2015
Total Depth:	7.0 ft.	**Soil Depth:**	7 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/1/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** Dry	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Medium dense, moist, brown, SILTY SAND (SM), FILL		1.0	SS-1	3	5	7	12
	995.0	Medium dense, brown, moist, FILL, LL=NP PL=NP PI=NP NMC=15.2 %#200=47.2		3.0	SS-2	4	9	11	20
5.0		Medium dense, brown, moist, FILL							
		Very dense, moist, brown, fine to medium grained SILTY SAND (SM), PARTIALLY WEATHERED ROCK		5.0	SS-3	5	6	8	14
		Boring Terminated at 7 feet.		7.0	SS-4	50/3	X	X	50/3



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

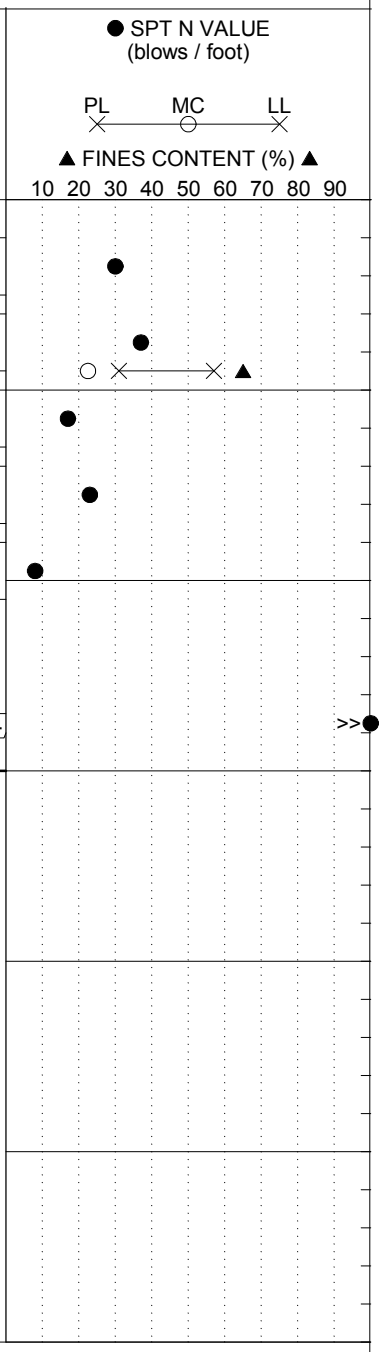
HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	Ramp 4
Boring No.:	BX-4-01	**Boring Location:**	61+16	**Offset:**	4 RT	**Alignment:**	I-85
Elev.:	979.4 ft.	**Latitude:**	34.83435858	**Longitude:**	-82.29378384	**Date Started:**	10/1/2015
Total Depth:	15.0 ft.	**Soil Depth:**	15 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/1/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** Dry	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Very stiff, red-brown, moist, SILTY CLAY (CL), RESIDUUM	1.0	SS-1	9	14	16	30
		Hard, red-brown, moist, RESIDUUM	3.0	SS-2	10	16	21	37
5.0	975.0	Very stiff, red-brown, moist, ELASTIC SILT (MH), RESIDUUM, LL=57 PL=31 PI=26 NMC=22.5 %#200=65.0	5.0	SS-3	5	9	8	17
		Very stiff, red-brown, moist, RESIDUUM	7.0	SS-4	8	10	13	23
10.0	970.0	Medium stiff, red-brown, moist, trace mica SANDY SILT (ML), RESIDUUM	9.0	SS-5	3	4	4	8
15.0	965.0	Very hard, red-brown, moist SANDY SILT (ML), PARTIALLY WEATHERED ROCK	13.5	SS-6	50/4	X	X	50/4

Boring Terminated at 15.0 feet.



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

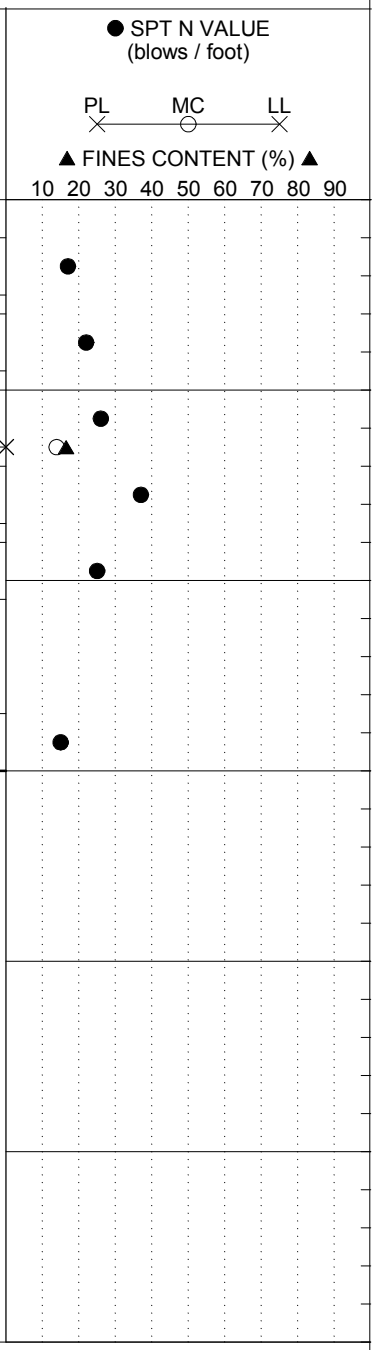
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	Ramp 8
Boring No.:	BX-8-01	**Boring Location:**	54+27	**Offset:**	CL	**Alignment:**	I-85
Elev.:	965.6 ft.	**Latitude:**	34.82432679	**Longitude:**	-82.29068634	**Date Started:**	10/6/2015
Total Depth:	15.0 ft.	**Soil Depth:**	15 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** Dry	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	965.0	Very stiff, red-brown, moist, SILTY CLAY (CL), RESIDUUM		1.0	SS-1	5	7	10	17
		Very stiff, red-brown, moist, RESIDUUM		3.0	SS-2	8	10	12	22
5.0	960.0	Medium dense, yellow-brown, moist, SILTY SAND (SM), RESIDUUM		5.0	SS-3	9	12	14	26
		Dense, yellow-brown, moist, RESIDUUM, LL=NP PL=NP PI=NP NMC=13.9 %#200=16.5		7.0	SS-4	13	17	20	37
10.0	955.0	Medium dense, gray and white, moist, fine to medium grained SILTY SAND (SM), RESIDUUM		9.0	SS-5	9	12	13	25
15.0		Medium dense, gray and white, moist, RESIDUUM		13.5	SS-6	10	8	7	15
		Boring Terminated at 15.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

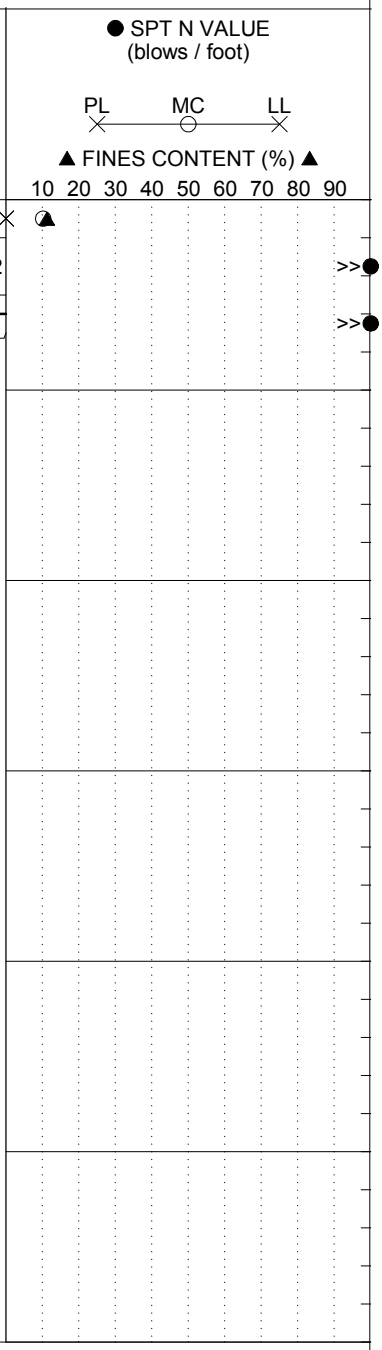
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	Ramp 10
Boring No.:	BX-10-01	**Boring Location:**	31+76	**Offset:**	26 LT	**Alignment:**	I-85
Elev.:	937.6 ft.	**Latitude:**	34.82162656	**Longitude:**	-82.29162614	**Date Started:**	10/6/2015
Total Depth:	3.0 ft.	**Soil Depth:**	3 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** Dry	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0									
	935.0	Very dense brown, moist, SILTY SAND (SM), PARTIALLY WEATHERED ROCK, LL=NP PL=NP PI=NP NMC=10.2 %#200=11.2		1.0	SS-1	6	50/2	X	50/2
		NO RECOVERY		3.0	SS-2	50/1	X	X	50/1
		Boring Terminated at 3.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

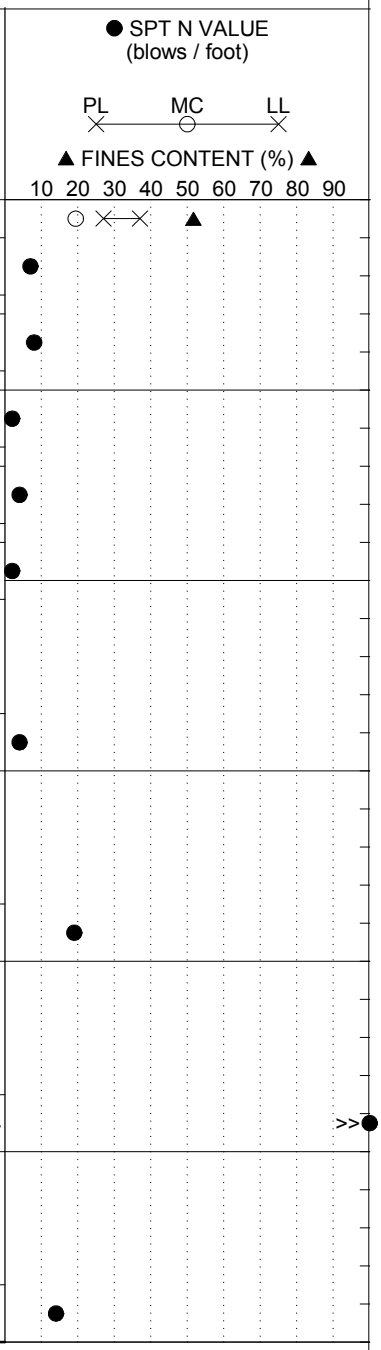
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	I-385
Boring No.:	BX-385-01	**Boring Location:**	345+28	**Offset:**	95 LT	**Alignment:**	I-385
Elev.:	931.2 ft.	**Latitude:**	34.81971517	**Longitude:**	-82.29142927	**Date Started:**	10/6/2015
Total Depth:	30.0 ft.	**Soil Depth:**	30 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** 18 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	930.0	Medium stiff, red-brown, moist, SANDY SILT (ML), FILL, LL=37 PL=27 PI=10 NMC=19.4 %#200=51.7	1.0	SS-1	2	3	4	7
		Medium stiff, red-brown, moist, FILL	3.0	SS-2	4	5	3	8
5.0	925.0	Very soft, gray, moist to wet, SILTY CLAY (CL), FILL	5.0	SS-3	1	1	1	2
		Soft, gray, moist to wet, FILL	7.0	SS-4	2	2	2	4
10.0	920.0	Very soft, tan and brown, moist to wet, trace clay, mica and roots, SANDY SILT (ML), FILL	9.0	SS-5	2	1	1	2
15.0	915.0	Soft, tan and brown, moist to wet, trace clay, mica and roots, FILL	13.5	SS-6	2	2	2	4
20.0	910.0	Very stiff, brown, moist, trace mica, SANDY SILT (ML), RESIDUUM	18.5	SS-7	5	7	12	19
25.0	905.0	Very hard, red-brown and white, moist, micaceous SANDY SILT (ML), PARTIALLY WEATHERED ROCK	23.5	SS-8	16	27	50/4	50/4
30.0		Stiff, dark brown and white, moist, trace mica, SANDY SILT (ML), RESIDUUM	28.5	SS-9	4	5	9	14



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	I-385
Boring No.:	BX-385-01	**Boring Location:**	345+28	**Offset:**	95 LT	**Alignment:**	I-385
Elev.:	931.2 ft.	**Latitude:**	34.81971517	**Longitude:**	-82.29142927	**Date Started:**	10/6/2015
Total Depth:	30.0 ft.	**Soil Depth:**	30 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** 18 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
		Boring Terminated at 30.0 feet.								

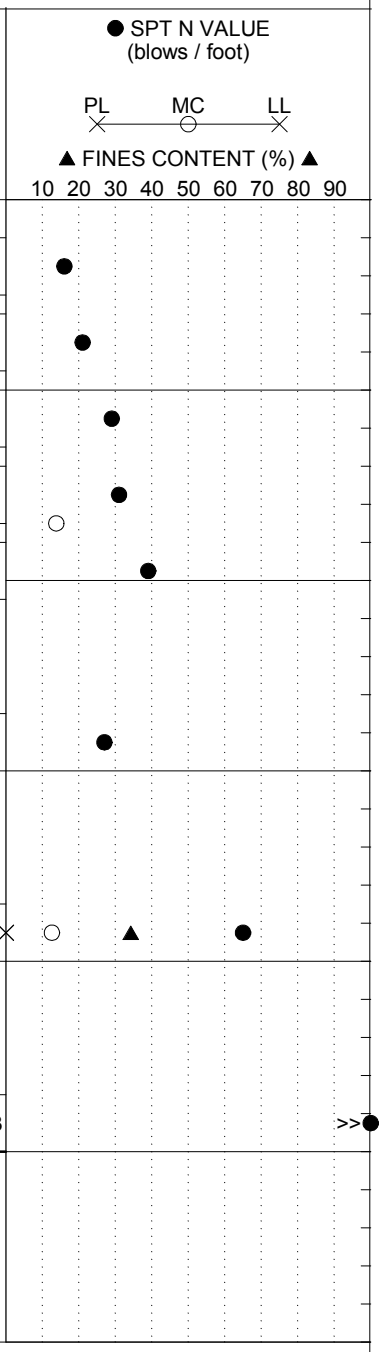
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	NBCD
Boring No.:	BX-I385NBCD-03	**Boring Location:**	351+73	**Offset:**	2 RT	**Alignment:**	I-385
Elev.:	938.7 ft.	**Latitude:**	34.82130507	**Longitude:**	-82.29092856	**Date Started:**	10/1/2015
Total Depth:	25.0 ft.	**Soil Depth:**	25 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/1/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** Dry	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Stiff, brown and grayish-brown, moist, SANDY SILT (ML), RESIDUUM	1.0	SS-1	5	7	9	16
	935.0	Very stiff, brown and grayish-brown, moist, RESIDUUM	3.0	SS-2	8	10	11	21
5.0		Very stiff, brown and grayish-brown, moist, RESIDUUM	5.0	SS-3	10	13	16	29
		Hard, brown and grayish-brown, moist, RESIDUUM	7.0	SS-4	12	16	15	31
	930.0	Hard, brown and grayish-brown, moist, RESIDUUM, NMC=13.8	9.0	SS-5	15	19	20	39
10.0								
	925.0	Very hard, grayish-brown and red-brown, moist, RESIDUUM	13.5	SS-6	7	11	16	27
15.0								
	920.0	Very dense, grayish-brown and red-brown, moist, fine grained SILTY SAND (SM), RESIDUUM, LL=NP PL=NP PI=NP NMC=12.6 %#200=34.2	18.5	SS-7	15	29	36	65
20.0								
	915.0	Very dense, orangish-brown and white, moist, fine to medium grained SILTY SAND (SM), PARTIALLY WEATHERED ROCK	23.5	SS-8	41	50/3	X	50/3
25.0		Boring Terminated at 25.0 feet.						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

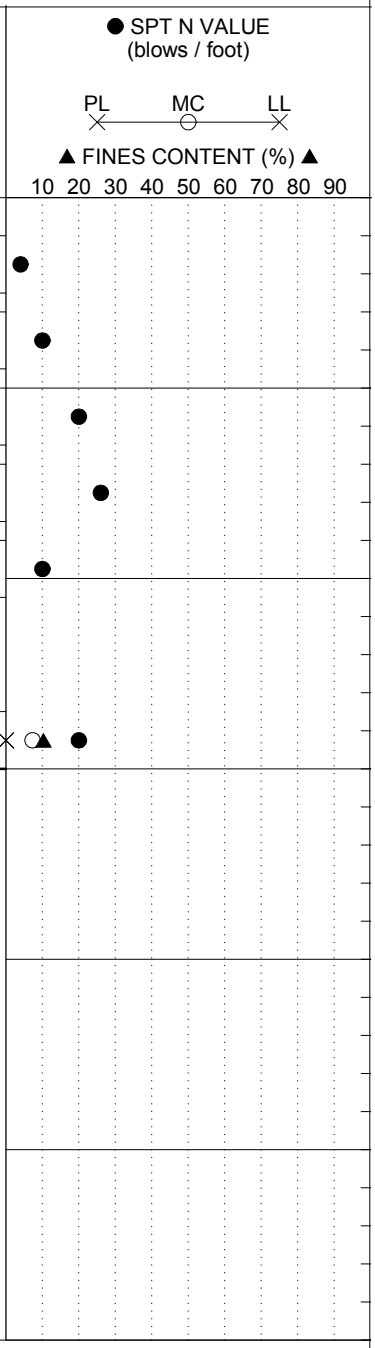
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	NBCD
Boring No.:	BX-I385NBCD-02	**Boring Location:**	368+95	**Offset:**	19 LT	**Alignment:**	I-385
Elev.:	968.1 ft.	**Latitude:**	34.82604104	**Longitude:**	-82.29189249	**Date Started:**	10/6/2015
Total Depth:	15.0 ft.	**Soil Depth:**	15 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** Dry	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Soft, gray-brown, moist, ELASTIC SILT (MH), FILL	1.0	SS-1	3	2	2	4
	965.0	Stiff, red-brown, moist, SILTY CLAY (CL), RESIDUUM	3.0	SS-2	2	4	6	10
5.0		Very stiff, red-brown, moist, RESIDUUM	5.0	SS-3	5	9	11	20
		Very stiff, red-brown, moist, RESIDUUM	7.0	SS-4	13	16	10	26
	960.0	Stiff, brown, moist, trace mica, SANDY SILT (ML), RESIDUUM	9.0	SS-5	4	5	5	10
10.0								
	955.0	LL=NP PL=NP PI=NP NMC=7.3 %#200=10.3	13.5	SS-6	15	12	8	20
15.0		Medium dense, brown, moist, trace mica, SILTY SAND (SM), RESIDUUM						



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

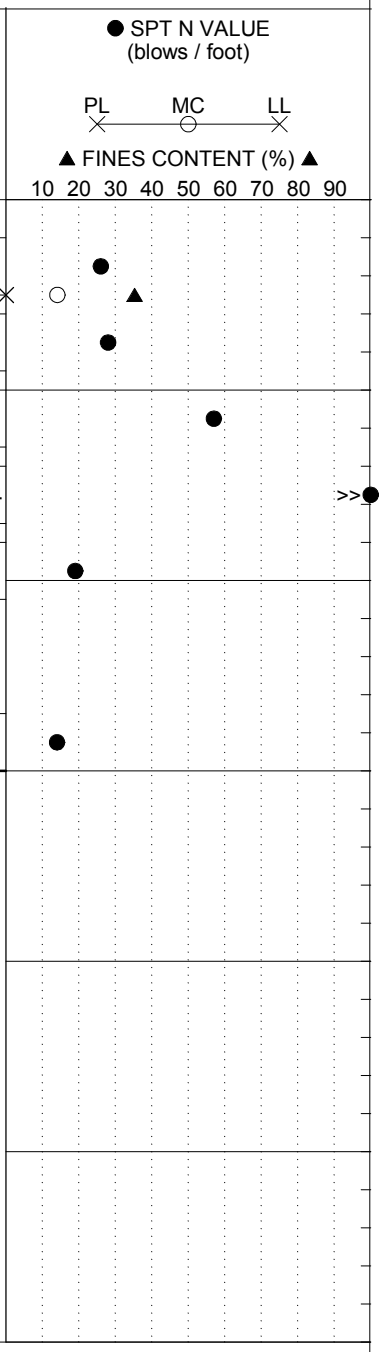
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	SBCD
Boring No.:	BX-I385SBCD-03	**Boring Location:**	127+95	**Offset:**	7 LT	**Alignment:**	I-385
Elev.:	941.0 ft.	**Latitude:**	34.82204075	**Longitude:**	-82.29172142	**Date Started:**	10/6/2015
Total Depth:	15.0 ft.	**Soil Depth:**	15 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/6/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** 12.5 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	940.0	Medium dense, brown, moist, SILTY SAND (SM), RESIDUUM		1.0	SS-1	8	10	16	26
		Medium dense, brown, moist, RESIDUUM, LL=NP PL=NP PI=NP NMC=14.1 %#200=35.3		3.0	SS-2	10	13	15	28
5.0		Very dense, brown, moist, RESIDUUM							
	935.0			5.0	SS-3	19	26	31	57
		Very hard, brown, moist, SANDY SILT (ML), PARTIALLY WEATHERED ROCK		7.0	SS-4	31	42	50/4	50/4
10.0		Very stiff, brown, moist to wet, SANDY SILT (ML), RESIDUUM		9.0	SS-5	5	7	12	19
	930.0								
15.0		Stiff, brown, moist to wet, RESIDUUM		13.5	SS-6	4	6	8	14
		Boring Terminated at 15.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

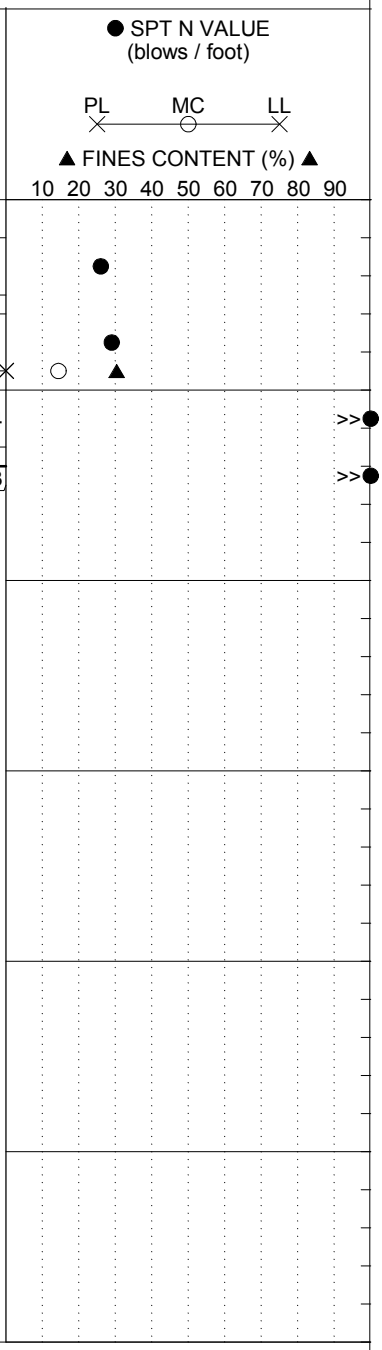
HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	SBCD
Boring No.:	BX-I385SBCD-02	**Boring Location:**	116+46	**Offset:**	36 RT	**Alignment:**	I-385
Elev.:	971.4 ft.	**Latitude:**	34.82512126	**Longitude:**	-82.29249477	**Date Started:**	10/1/2015
Total Depth:	7.0 ft.	**Soil Depth:**	7 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/1/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** Dry	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	970.0	Very stiff, light red-brown, moist, ELASTIC SILT (MH), RESIDUUM		1.0	SS-1	5	10	16	26
		Very stiff, light red-brown, moist, RESIDUUM		3.0	SS-2	9	11	18	29
5.0	965.0	Very dense, yellow-brown, moist, SILTY SAND (SM), PARTIALLY WEATHERED ROCK, LL=NP PL=NP PI=NP NMC=14.4 %#200=30.4		5.0	SS-3	35	50/4	X	50/4
		Very dense, yellow-brown, moist, PARTIALLY WEATHERED ROCK		7.0	SS-4	50/3	X	X	50/3

Boring Terminated at 7.0 feet.



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
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NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	I-85
Boring No.:	I85-100	**Boring Location:**	206+98	**Offset:**	142 RT	**Alignment:**	I-85
Elev.:	975.7 ft.	**Latitude:**	34.81924391	**Longitude:**	82.31903116	**Date Started:**	9/12/2015
Total Depth:	42.0 ft.	**Soil Depth:**	42 ft.	**Core Depth:**	0 ft.	**Date Completed:**	9/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** 33.0 ft.	**24 HR**	34.6 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	975.0	Dense, moist, dark brown, fine grained SILTY SAND (SM), RESIDUUM							
		Very dense, moist, dark brown, fine to coarse grained SILTY SAND (SM), PARTIALLY WEATHERED ROCK		1.0	SS-1	7	12	32	44
				3.0	SS-2	50/4	X	X	50/4
5.0	970.0			5.0	SS-3	50/3	X	X	50/3
				7.0	SS-4	50/3	X	X	50/3
10.0	965.0			9.0	SS-5	50/4	X	X	50/4
15.0	960.0			13.5	SS-6	50/5	X	X	50/5
		Very dense, moist, light red brown, fine grained SILTY SAND (SM), PARTIALLY WEATHERED ROCK LL=NP PL=NP PI=NP NMC=17.7 %#200=21.4		18.5	SS-7	50/5.5	X	X	50/5.5
20.0	955.0								
25.0	950.0			23.5	SS-8	50/5	X	X	50/5
30.0				28.5	SS-9	50/3	X	X	50/3

● SPT N VALUE (blows / foot)

PL ✕ — MC ○ — LL ✕

▲ FINES CONTENT (%) ▲

10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	I-85
Boring No.:	I85-100	**Boring Location:**	206+98	**Offset:**	142 RT	**Alignment:**	I-85
Elev.:	975.7 ft.	**Latitude:**	34.81924391	**Longitude:**	82.31903116	**Date Started:**	9/12/2015
Total Depth:	42.0 ft.	**Soil Depth:**	42 ft.	**Core Depth:**	0 ft.	**Date Completed:**	9/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** 33.0 ft.	**24 HR**	34.6 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) ▲ FINES CONTENT (%) ▲ PL MC LL 10 20 30 40 50 60 70 80 90
30.0	945.0									
		Very dense, moist, brown, fine to medium grained SILTY SAND (SM), PARTIALLY WEATHERED ROCK								
35.0	940.0			33.5	SS-10	19	37	50/5	50/5	>>●
40.0	935.0			38.5	SS-11	50/5	X	X	50/5	>>●
		Auger refusal at 42.0 feet.								

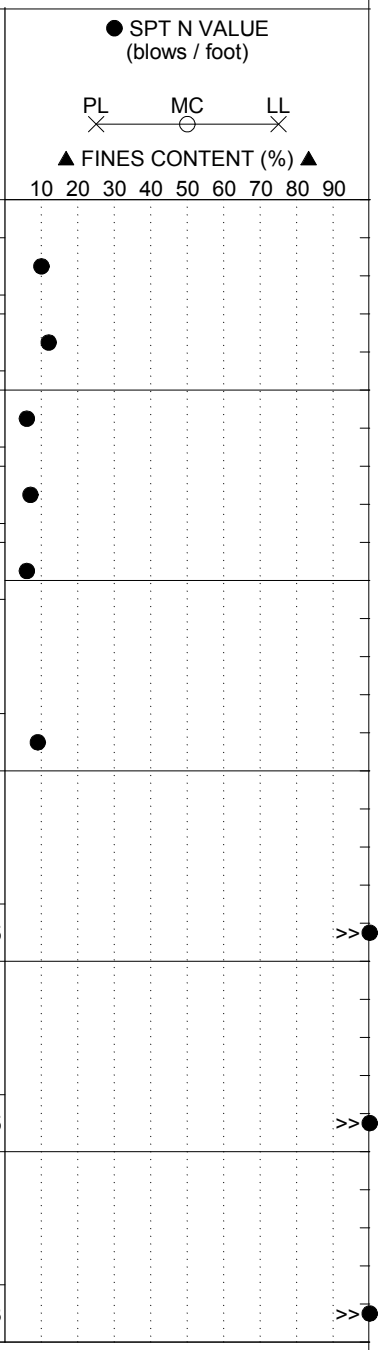
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	I-85
Boring No.:	I85-101	**Boring Location:**	209+91	**Offset:**	141 RT	**Alignment:**	I-85
Elev.:	971.5 ft.	**Latitude:**	34.81971677	**Longitude:**	82.31824287	**Date Started:**	9/12/2015
Total Depth:	37.0 ft.	**Soil Depth:**	37 ft.	**Core Depth:**	0 ft.	**Date Completed:**	9/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** Dry	**24 HR**	33.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	970.0	Medium stiff to stiff, moist, red brown to brown, with mica, fine grained SANDY SILT (ML), RESIDUUM	1.0	SS-1	3	5	5	10
			3.0	SS-2	4	5	7	12
5.0	965.0		5.0	SS-3	3	3	3	6
			7.0	SS-4	3	4	3	7
10.0	960.0		9.0	SS-5	2	3	3	6
		Loose, moist, dark brown, fine grained CLAYEY SAND (SC), RESIDUUM	13.5	SS-6	3	4	5	9
15.0	955.0	Very dense, moist, dark brown, fine to medium grained SANDY SILT (ML), PARTIALLY WEATHERED ROCK	18.5	SS-7	50/5	X	X	50/5
20.0	950.0	Very dense, moist, light brown, fine to coarse grained SILTY SAND (SM), PARTIALLY WEATHERED ROCK	23.5	SS-8	50/5	X	X	50/5
25.0	945.0		28.5	SS-9	50/3	X	X	50/3
30.0								



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	I-85
Boring No.:	I85-101	**Boring Location:**	209+91	**Offset:**	141 RT	**Alignment:**	I-85
Elev.:	971.5 ft.	**Latitude:**	34.81971677	**Longitude:**	82.31824287	**Date Started:**	9/12/2015
Total Depth:	37.0 ft.	**Soil Depth:**	37 ft.	**Core Depth:**	0 ft.	**Date Completed:**	9/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** Dry	**24 HR**	33.0 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
30.0										
	940.0									
35.0				33.5	SS-10	50/2	X	X	50/2	>>●
	935.0									
		Auger refusal at 37.0 feet.								

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

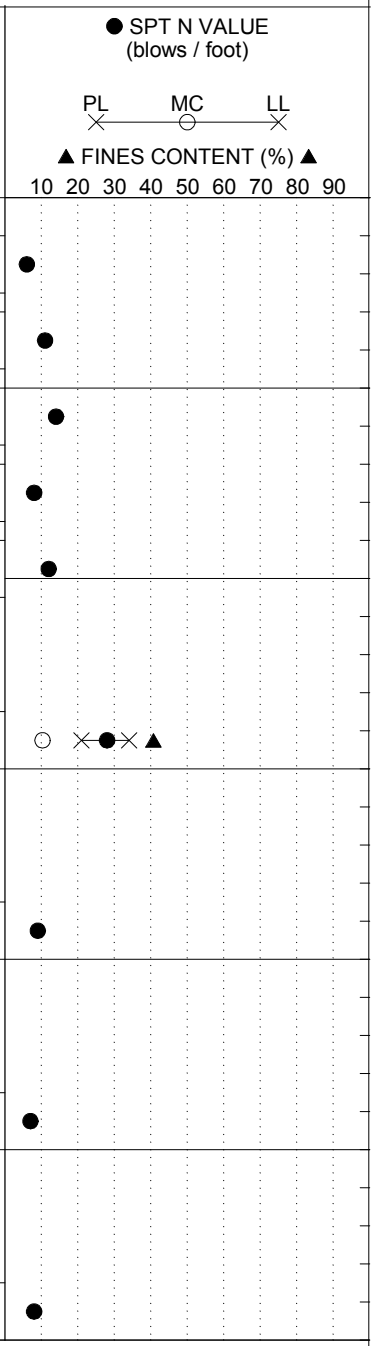
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	I-85
Boring No.:	I85-102	**Boring Location:**	213+00	**Offset:**	209 RT	**Alignment:**	I-85
Elev.:	980.1 ft.	**Latitude:**	34.82006286	**Longitude:**	82.31727536	**Date Started:**	9/12/2015
Total Depth:	50.0 ft.	**Soil Depth:**	50 ft.	**Core Depth:**	0 ft.	**Date Completed:**	9/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** Dry	**24 HR**	47.3 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	980.0	Medium stiff to stiff, moist, light red brown, ELASTIC SILT (MH), FILL						
			1.0	SS-1	3	3	3	6
			3.0	SS-2	3	5	6	11
5.0	975.0							
			5.0	SS-3	5	6	8	14
			7.0	SS-4	3	3	5	8
10.0	970.0		9.0	SS-5	2	3	9	12
		Loose to medium dense, moist, red brown, CLAYEY SAND (SC), RESIDUUM LL=34 PL=21 PI=13 NMC=10.3 %#200=40.7						
15.0	965.0		13.5	SS-6	9	12	16	28
		Medium stiff to stiff, moist, red brown and light brown, fine grained SANDY SILT (ML), RESIDUUM						
20.0	960.0		18.5	SS-7	3	4	5	9
25.0	955.0		23.5	SS-8	3	3	4	7
30.0			28.5	SS-9	3	4	4	8



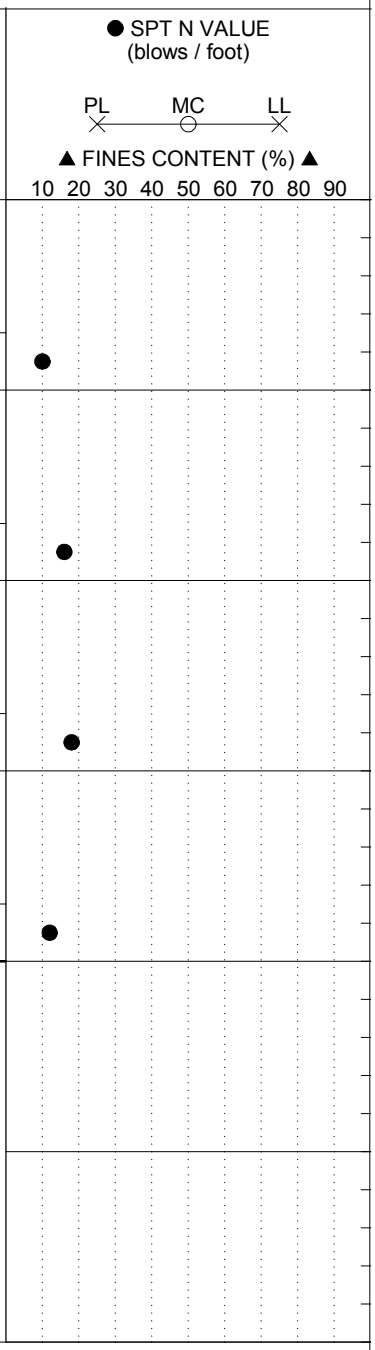
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	I-85
Boring No.:	I85-102	**Boring Location:**	213+00	**Offset:**	209 RT	**Alignment:**	I-85
Elev.:	980.1 ft.	**Latitude:**	34.82006286	**Longitude:**	82.31727536	**Date Started:**	9/12/2015
Total Depth:	50.0 ft.	**Soil Depth:**	50 ft.	**Core Depth:**	0 ft.	**Date Completed:**	9/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** Dry	**24 HR**	47.3 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
30.0	950.0								
		Stiff, moist, brown, fine grained SANDY SILT (ML), RESIDUUM							
35.0	945.0			33.5	SS-10	3	4	6	10
		Stiff to very stiff, moist, brown and white, fine grained SANDY SILT (ML), RESIDUUM							
40.0	940.0			38.5	SS-11	5	7	9	16
45.0	935.0			43.5	SS-12	6	8	10	18
50.0				48.5	SS-13	5	6	6	12
		Boring terminated at 50.0 feet.							



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

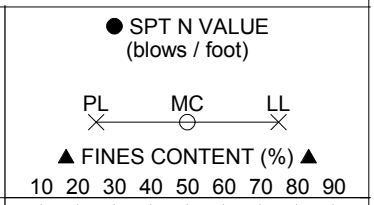
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	I85
Boring No.:	I85-103	**Boring Location:**	217+05.72	**Offset:**	81.60 RT	**Alignment:**	I85
Elev.:	962.9 ft.	**Latitude:**	34.82099699	**Longitude:**	-82.31642747	**Date Started:**	9/16/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35 ft.	**Core Depth:**	0 ft.	**Date Completed:**	9/16/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** 27 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Medium stiff, moist, dark red brown, SANDY CLAY (RESIDUUM)						
			1.0	SS-1	2	3	2	5
	960.0	Very stiff, moist, red brown, PLASTIC SILT (RESIDUUM)						
			3.0	SS-2	5	6	9	15
5.0			5.0	SS-3	8	10	11	21
		Stiff, moist, green and red brown, trace mica, SANDY SILT (RESIDUUM)						
	955.0		7.0	SS-4	3	5	5	10
10.0			9.0	SS-5	3	4	7	11
	950.0							
15.0			13.5	SS-6	5	5	9	14
	945.0	Very stiff to stiff, moist, white and brown, SANDY SILT (RESIDUUM)						
20.0			18.5	SS-7	8	10	16	26
	940.0							
25.0			23.5	SS-8	7	7	8	15
▼	935.0	Very stiff, moist, dark green to red brown and white, trace mica, SANDY SILT (RESIDUUM)						
30.0			28.5	SS-9	5	6	6	12



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	I85
Boring No.:	I85-103	**Boring Location:**	217+05.72	**Offset:**	81.60 RT	**Alignment:**	I85
Elev.:	962.9 ft.	**Latitude:**	34.82099699	**Longitude:**	-82.31642747	**Date Started:**	9/16/2015
Total Depth:	35.0 ft.	**Soil Depth:**	35 ft.	**Core Depth:**	0 ft.	**Date Completed:**	9/16/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** 27 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
30.0										
	930.0									
35.0				33.5	SS-10	5	6	9	15	●
		Boring terminated at 35.0 feet.								

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	I85
Boring No.:	I85-105	**Boring Location:**	368+95.39	**Offset:**	107.36 RT	**Alignment:**	I85
Elev.:	915.3 ft.	**Latitude:**	34.84840103	**Longitude:**	-82.27921891	**Date Started:**	9/16/2015
Total Depth:	15.0 ft.	**Soil Depth:**	15 ft.	**Core Depth:**	0 ft.	**Date Completed:**	9/16/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** Dry	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	915.0	Very dense, moist, brown, fine to medium grained SILTY SAND (SM), PARTIALLY WEATHERED ROCK		1.0	SS-1	50/5	X	X	50/5
				3.0	SS-2	50/2	X	X	50/2
5.0	910.0	NO RECOVERY		5.0	SS-3	50/1	X	X	50/1
		Very dense, moist, white and orangish brown, fine to medium grained SILTY SAND (SM), PARTIALLY WEATHERED ROCK		7.0	SS-4	50/1	X	X	50/1
10.0	905.0			9.0	SS-5	50/2	X	X	50/2
15.0				13.5	SS-6	50/5	X	X	50/5
		Auger refusal at 15.0 feet.							

● SPT N VALUE (blows / foot)

PL — MC — LL

▲ FINES CONTENT (%) ▲

10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

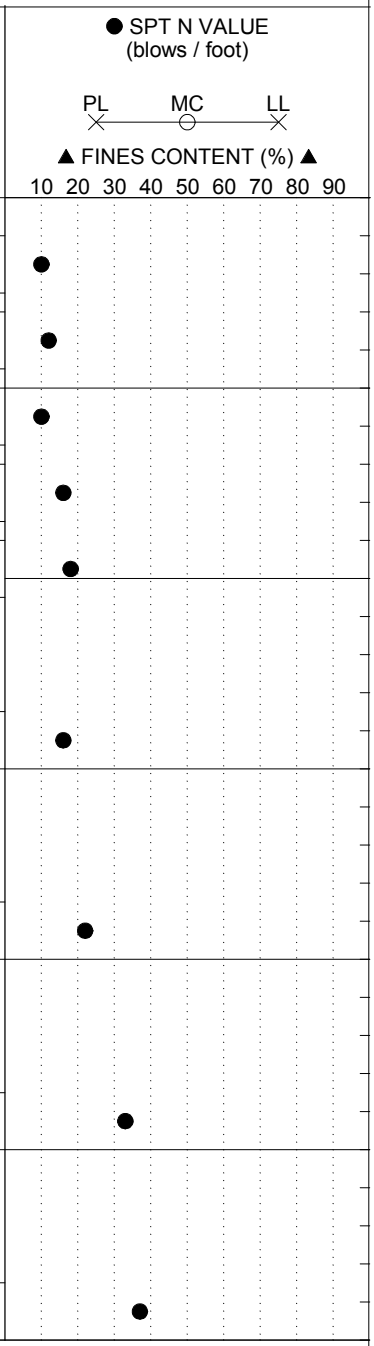
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	I85
Boring No.:	I85-106	**Boring Location:**	404+97.31	**Offset:**	65.68 RT	**Alignment:**	I85
Elev.:	865.2 ft.	**Latitude:**	34.85463047	**Longitude:**	-82.27081137	**Date Started:**	9/16/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40 ft.	**Core Depth:**	0 ft.	**Date Completed:**	9/16/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** 32 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	865.0	Stiff to very stiff, moist, light brown to yellow brown, SANDY SILT (RESIDUUM)						
			1.0	SS-1	3	4	6	10
			3.0	SS-2	4	5	7	12
5.0	860.0		5.0	SS-3	3	4	6	10
			7.0	SS-4	5	7	9	16
		Medium dense, moist, white and light brown, fine grained SILTY SAND (RESIDUUM)						
10.0	855.0		9.0	SS-5	6	8	10	18
		Very stiff, moist, light orangish brown, SANDY SILT (RESIDUUM)						
15.0	850.0		13.5	SS-6	5	8	8	16
20.0	845.0		18.5	SS-7	7	10	12	22
		Dense, moist, red brown and brown, fine grained SILTY SAND (RESIDUUM)						
25.0	840.0		23.5	SS-8	8	13	20	33
30.0			28.5	SS-9	10	16	21	37



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	I85
Boring No.:	I85-106	**Boring Location:**	404+97.31	**Offset:**	65.68 RT	**Alignment:**	I85
Elev.:	865.2 ft.	**Latitude:**	34.85463047	**Longitude:**	-82.27081137	**Date Started:**	9/16/2015
Total Depth:	40.0 ft.	**Soil Depth:**	40 ft.	**Core Depth:**	0 ft.	**Date Completed:**	9/16/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** 32 ft.	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
30.0	835.0								
		Very stiff to stiff, moist, dark brown, SANDY SILT (RESIDUUM)							
35.0	830.0			33.5	SS-10	9	10	9	19
40.0				38.5	SS-11	4	7	6	13
		Boring terminated at 40.0 feet.							

● SPT N VALUE (blows / foot)

PL ✕ — MC ○ — LL ✕

▲ FINES CONTENT (%) ▲

10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	Ramp 2A
Boring No.:	R2A-104	**Boring Location:**	123+00	**Offset:**	50 RT	**Alignment:**	Ramp 2A
Elev.:	938.0 ft.	**Latitude:**	34.84002681	**Longitude:**	-82.28490152	**Date Started:**	10/1/2015
Total Depth:	21.0 ft.	**Soil Depth:**	21 ft.	**Core Depth:**	0 ft.	**Date Completed:**	10/1/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** Dry	**24 HR**	N.O.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Stiff, dark red-brown, moist, ELASTIC SILT (MH), FILL	1.0	SS-1	5	6	8	14
	935.0	Medium stiff, dark red-brown, moist, FILL	3.0	SS-2	2	3	2	5
5.0		Very loose, yellow-brown, moist, fine to medium grained SILTY SAND (SM), FILL	5.0	SS-3	1	0	1	1
	930.0	Soft, red-brown and white, moist, with organics and trace quartz, SANDY SILT (ML), FILL	7.0	SS-4	2	2	2	4
10.0		Quartz Fragments, FILL	9.0	SS-5	2	5	9	14
	925.0							
15.0		Very hard, red-brown and white, moist SANDY SILT (ML), PARTIALLY WEATHERED ROCK	13.5	SS-6	50/3	X	X	50/3
	920.0							
20.0			18.5	SS-7	50/0	X	X	50/0
		Boring Terminated at 21.0 feet.						

Graphic Log

● SPT N VALUE (blows / foot)

PL MC LL

▲ FINES CONTENT (%) ▲

10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

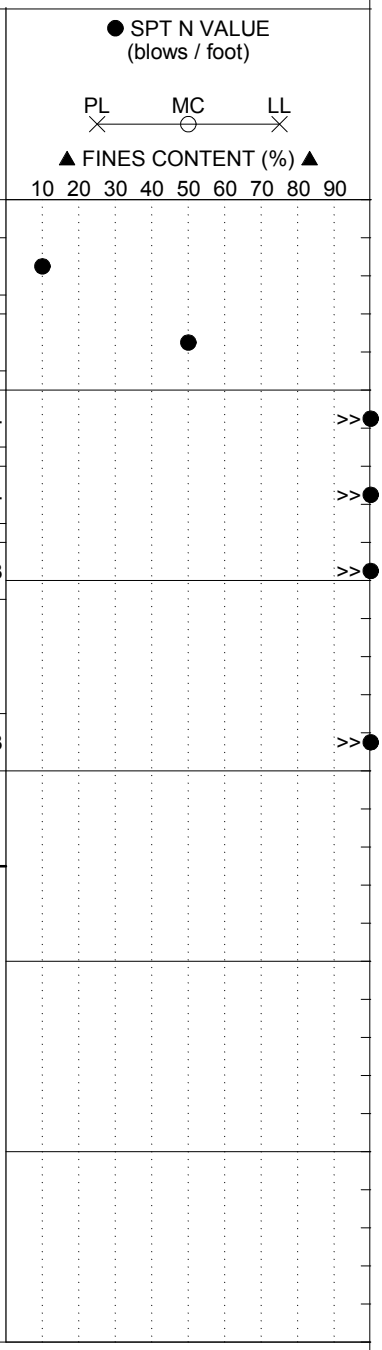
DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	I-385 NBCD
Boring No.:	R385-107	**Boring Location:**	328+80	**Offset:**	72 RT	**Alignment:**	I-385 NBCD
Elev.:	921.7 ft.	**Latitude:**	34.8152229	**Longitude:**	82.28936763	**Date Started:**	9/12/2015
Total Depth:	17.5 ft.	**Soil Depth:**	17.5 ft.	**Core Depth:**	0 ft.	**Date Completed:**	9/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** 15.0 ft.	**24 HR**	11.1 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0	920.0	Loose to dense, moist, red brown to black and white, fine grained SILTY SAND (SM), RESIDUUM		1.0	SS-1	3	4	6	10
				3.0	SS-2	7	9	41	50
5.0	915.0	Very dense, moist, black and white, fine to medium grained SILTY SAND (SM), PARTIALLY WEATHERED ROCK		5.0	SS-3	50/4	X	X	50/4
				7.0	SS-4	50/4	X	X	50/4
10.0	910.0			9.0	SS-5	50/3	X	X	50/3
15.0	905.0			13.5	SS-6	50/3	X	X	50/3
		Auger refusal at 17.5 feet.							



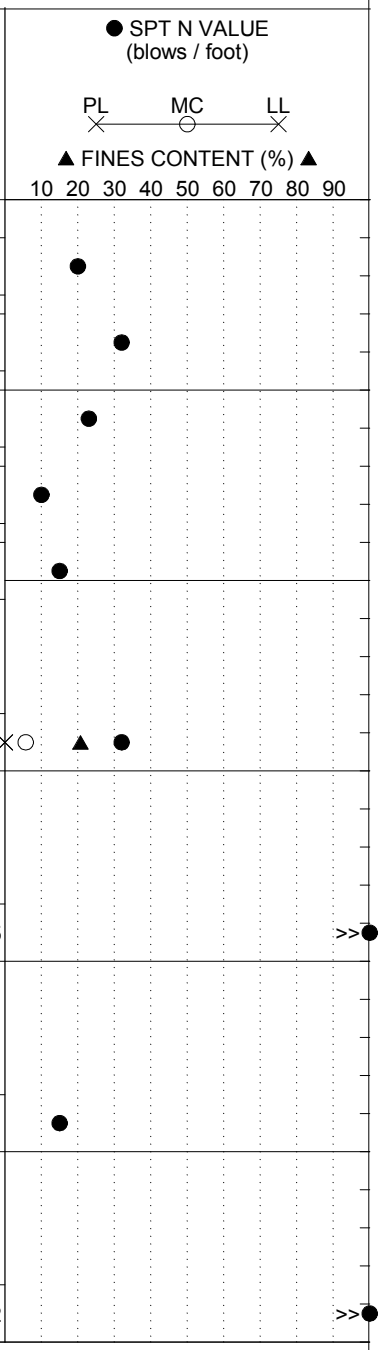
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	AC - Auger Cuttings	HSA - Hollow Stem Augers	MR - Mud Rotary Wash
ST - Shelby Tube	GB - Grab Bag	SSA - Solid Stem Augers	RC - Rock Coring
DCP - Dynamic Cone Penetrometer	NQ - Rock Core	HA - Hand Auger	

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	I-385 NBCD
Boring No.:	R385-108	**Boring Location:**	329+44	**Offset:**	150 RT	**Alignment:**	I-385 NBCD
Elev.:	944.4 ft.	**Latitude:**	34.81546507	**Longitude:**	82.28920802	**Date Started:**	9/12/2015
Total Depth:	43.0 ft.	**Soil Depth:**	43 ft.	**Core Depth:**	0 ft.	**Date Completed:**	9/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** 32.0 ft.	**24 HR**	31.4 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value
0.0		Very stiff to hard, moist, light red brown and white, ELASTIC SILT (MH), RESIDUUM	1.0	SS-1	7	8	12	20
			3.0	SS-2	9	15	17	32
5.0	940.0	Loose to medium dense, moist, light yellowish brown, fine grained SILTY SAND (SM), RESIDUUM	5.0	SS-3	7	10	13	23
			7.0	SS-4	4	5	5	10
10.0	935.0	Medium dense to dense, moist, white and grey, POORLY GRADED SAND (SP), RESIDUUM	9.0	SS-5	5	7	8	15
15.0	930.0	LL=NP PL=NP PI=NP NMC=5.7 %#200=20.7	13.5	SS-6	8	12	20	32
20.0	925.0	Very dense, moist, white and grey, fine grained SILTY SAND (SM), PARTIALLY WEATHERED ROCK	18.5	SS-7	50/5	X	X	50/5
25.0	920.0	Medium dense, moist, brown and white, fine grained SILTY SAND (SM), RESIDUUM	23.5	SS-8	7	7	8	15
30.0	915.0	Very dense, moist, grey and white, fine grained SILTY SAND (SM), PARTIALLY WEATHERED ROCK	28.5	SS-9	50/2	X	X	50/2



LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Soil Test Boring Log

File No.:	23.038111	**Project No. (PIN):**		**County:**	Greenville	**Eng./Geo.:**	Stephen Wright
Site Description:	Group 2 Borings					**Route:**	I-385 NBCD
Boring No.:	R385-108	**Boring Location:**	329+44	**Offset:**	150 RT	**Alignment:**	I-385 NBCD
Elev.:	944.4 ft.	**Latitude:**	34.81546507	**Longitude:**	82.28920802	**Date Started:**	9/12/2015
Total Depth:	43.0 ft.	**Soil Depth:**	43 ft.	**Core Depth:**	0 ft.	**Date Completed:**	9/12/2015
Bore Hole Diameter (in):	3-7/8	**Sampler Configuration**		**Liner Required:**	N/A	**Liner Used:**	N/A
Drill Machine:	CME 550	**Drill Method:**	HSA	**Hammer Type:**	Automatic	**Energy Ratio:**	83%
Core Size:	N/A	**Driller:**	Southern Drill	**Groundwater:**	**TOB** 32.0 ft.	**24 HR**	31.4 ft.

Depth (ft)	Elevation (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft.)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	● SPT N VALUE (blows / foot) PL MC LL ▲ FINES CONTENT (%) ▲ 10 20 30 40 50 60 70 80 90
30.0										
35.0	910.0			33.5	SS-10	50/2	X	X	50/2	>>●
40.0	905.0			38.5	SS-11	50/5	X	X	50/5	>>●
		Auger refusal at 43.0 feet.								

LEGEND

SAMPLER TYPE

SS - Split Spoon
ST - Shelby Tube
DCP - Dynamic Cone Penetrometer
AC - Auger Cuttings
GB - Grab Bag
NQ - Rock Core

DRILLING METHOD

HSA - Hollow Stem Augers
SSA - Solid Stem Augers
HA - Hand Auger
MR - Mud Rotary Wash
RC - Rock Coring

Appendix D

Advanced Laboratory Test Data

LAB SUMMARY TABLE

Consolidated Undrained Triaxial Summary						
Boring Number	Depth (ft)	ASTM Classification	C (psi)	Φ	C' (psi)	Φ'
B-49	0-21.5	SM	1.0	29.0	2.1	25.2
B-51	0-36	SM	1.9	28.0	0.8	31.1
B-54	0-41	SM	2.5	24.0	1.2	28.0
B-56	0-10	CL	1.0	26.0	0.7	29.4
B-56	10-35	SM	1.8	26.0	1.2	29.0
B-59	0-40	SM	1.4	28.2	1.1	30.3
B-65	0-15	SM	1.0	31.0	0.1	36.6
B-68	0-16	MH	0.5	33.0	0.6	32.8
B01-SPT-09	19-21	SC	1.0	19.0	0.6	34.0
B01-SPT-14	25-27	CL	1.0	16.0	0.9	31.0
B06-SPT-12	35-37	ML	0.8	18.5	2.0	28.0
RRM-47	25-27	ML	4.5	15.7	1.8	30.5
W1B-2R-02	8-10	SM	2.0	23.0	2.0	34.0
W1B-2R-03	4-6	CL	2.0	28.0	2.0	34.0
W1B-2R-03	15-17	CM	3.0	23.0	3.3	32.9
W2A-MB2-01	10-12	CL	1.5	23.5	2.4	35.0

Consolidation Summary										
Boring Number	Depth (ft)	ASTM Classification	C_c	C_r	e_o	P_c (tsf)	C_{vt90} (ft^2/yr)	C_{vt50} (ft^2/yr)	$C_c/(1+e_0)$	$C_r/(1+e_0)$
B-39	8-9.2	CL	0.15	0.01	0.641	3.4	267	112	0.09	0.006
B-65	10-11.4	SM	0.47	0.04	1.2238	1.9	147	62	0.21	0.018
B-40	6-7.5	SM	0.2	0.01	0.916	4.5	195	82	0.10	0.005
B-67	4-4.7	SM	0.13	0.01	0.7971	3.2	229	96	0.07	0.006
B-74	4-5.3	ML	0.34	0.02	1.1323	0.69	45	19	0.16	0.009
B-61	2-3.3	SM	0.11	0.01	0.6389	3.6	241	101	0.07	0.006
R2B-42	10-12	ML	0.408	0.034	1.1026	2.25	163	474	0.19	0.016
W85-2L-03	25-27	ML	0.395	0.04	1.0438	1.5	594	365	0.19	0.020
B07-SPT-01	25-27	ML	0.224	0.026	0.7774	2.0	801	575	0.13	0.015
B09-SPT-05	6-8	MH	0.218	0.019	0.9300	1.0	619	461	0.11	0.010

Florence & Hutcheson

An ICA Company

Project Name : I-85/I-385 Interchange
Location : Greenville County, South Carolina
Job Number : 08195-01
Project Job No. : 08195-01

Unconfined Compressive Strength Summary

Boring Number	Sample Number	Depth (ft)	Natural Moisture (%)	ASTM Classification	Wet Density (pcf)	Dry Density (pcf)	q_u (ksf)	Cohesion (psf)
B-39	ST-1	4-4.5	10.7	SC	138.7	125.3	1.09	545
B-40	ST-2	8.5-9.0	26	SM	119.1	94.5	2.23	1115
B-43	ST-1	2-2.5	17.5	SC	132.4	112.7	2.48	1240
B-46	ST-1	4-4.5	26.2	SM	117.3	93.0	1.81	905
B-46	ST-2	8-8.5	28.7	SM	111.8	86.9	1.15	575
B-53	ST-2	8-8.5	34.6	SM	54.6	40.6	0.03	15
B-54	ST-1	5-5.5	22.2	SM	121.8	99.6	1.96	980
B-54	ST-2	9-9.5	22.8	ML	121.6	99.0	1.47	735
B-65	ST-2	10-10.5	39.1	SM	110.0	79.1	0.47	235
B-68	ST-2	6-6.5	33.2	SM	117.6	88.3	1.92	960
B-70	ST-1	6-6.5	30.8	SM	126.4	96.6	0.46	230

Florence & Hutcheson

An ICA Company

Project Name : I-85/I-385 Interchange
Location : Greenville County, South Carolina
Job Number : 08195-01
Project Job No. : 08195-01

Triaxial Compression Summary

Boring Number	Sample Number	Depth (ft)	Natural Moisture (%)	ASTM Classification	Wet Density (pcf)	Dry Density (pcf)	q_u (psf)	Cohesion (psf)
B-13	ST-1	20.3-20.8	28.4	SM	116.7	90.9	1152	576
B-39	ST-2	8-8.5	19.4	CL	126.9	106.3	1232	616
B-40	ST-1	6.5-7	30.4	SM	118.9	91.2	2610	1305
B-40	ST-3	10.5-11	25.5	SM	123.9	98.7	2406	1203
B-44	ST-1	4-4.5	26.9	SM	120.2	94.8	1833	917
B-44	ST-2	8-8.5	21.6	SM	115.0	94.6	2128	1064
B-49	ST-1	4-4.5	37.1	SM	113.7	82.9	1655	828
B-49	ST-2	8.5-9	24.1	SM	119.3	96.2	882	441
B-51	ST-2	6.5-7	17.2	SM	123.1	105.0	3276	1638
B-61	ST-1	2-2.5	20.9	SM	125.1	103.5	2071	1035
B-64	ST-1	4.5-5	23.9	SM	114.9	92.7	2765	1383
B-64	ST-2	9-9.5	29.7	SM	108.2	83.4	1855	928
B-67	ST-1	4-4.5	21.5	SM	122.1	100.5	3532	1766
B-68	ST-1	2-2.5	23.7	SP-SM	124.7	100.8	1834	917
B-74	ST-1	4-4.5	33.1	ML	114.7	86.2	396	198

Florence & Hutcheson

An ICA Company

Project Name : I-85/I-385 Interchange
Location : Greenville County, South Carolina
Job Number : 08195-01
Project Job No. : 08195-01

Unconfined Compression (Rock Core) Summary

Boring Number	Sample Number	Depth	Air-Dry Density (pcf)	Max Stress (psi)
B-1	RS-20	29.5-29.9	160.0	4597.7
B-2	RS-21	92.5-92.9	164.0	7391.1
B-3	RS-12	85.2-85.6	164.1	314.2
B-4	RS-15	28.2-28.6	160.2	8599.6
B-5	RS-16	17.2-17.6	166.7	9481.7
B-6	RS-13	48.4-48.7	165.8	8658.2
B-6	RS-14	55.5-55.9	163.1	11348.9
B-7	RS-18	47.2-47.5	161.5	9554.9
B-8	RS-4	29.1-29.4	158.8	8094.2
B-9	RS-3	57.2-57.6	161.4	7720.8
B-10	RS-2	81.3-81.7	159.4	1069.5
B-14	RS-6	104.6-104.9	168.5	1535.5
B-14	RS-7	90.9-91.3	165.0	5312.3
B-15	RS-5	30.3-30.7	165.7	10548.8
B-16	RS-1	113.6-113.9	116.9	3050.8
B-20	RS-8	52.4-52.8	170.8	4720.3
B-21	RS-11	72.2-72.6	157.5	2353.8
B-27	RS-10	101.3-101.7	164.2	1517.1
B-28	RS-17	35.8-36.1	162.6	7111.2
B-30	RS-9	72.4-72.7	161.4	7352.8
B-31	RS-19	77-77.4	174.4	6448.8
B-45	RS-24	19.5-19.9	157.4	2157.4
B-45	RS-25	28.4-28.7	163.4	5337.9
B-45	RS-26	32.7-33	165.4	4408.8
B-65	RS-23	20.9-21.2	166.1	5751.6
B-67	RS-22	33.5-33.8	163.8	3377.1

Florence & Hutcheson
An ICA Company

Project Name : I-85/I-385 Interchange
Location : Greenville County, South Carolina
Job Number : 08195-01
Project Job No. : 08195-01

Consolidated Undrained Triaxial Summary

Boring Number	Sample Number	Depth (ft)	Natural Moisture (%)	ASTM Classification	LL	PL	PI	C (psi)	ϕ (°)	C' (psi)	ϕ' (°)
B-49	Bag-1	0-21.5	23.0	SM	45	34	11	5.5	9.1	2.1	25.2
B-51	Bag-1	0-36	25.0	SM	33	24	9	3.9	14.6	0.8	31.1
B-54	Bag-1	0-41	18.1	SM	46	30	16	3	14.6	1.2	28
B-56	Bag-1	0-10	16.5	CL	40	24	16	2.2	13.5	0.7	29.4
B-56	Bag-2	10-35	17.0	SM	34	24	10	0	28.9	1.2	29
B-59	Bag-1	0-40	4.3	SM	32	27	5	1.4	28.2	1.1	30.3
B-65	Bag-1	0-15	25.3	SM	36	26	10	0	31.6	0.1	36.6
B-68	Bag-1	0-16	29.9	MH	52	33	19	2.8	16.4	0.6	32.8

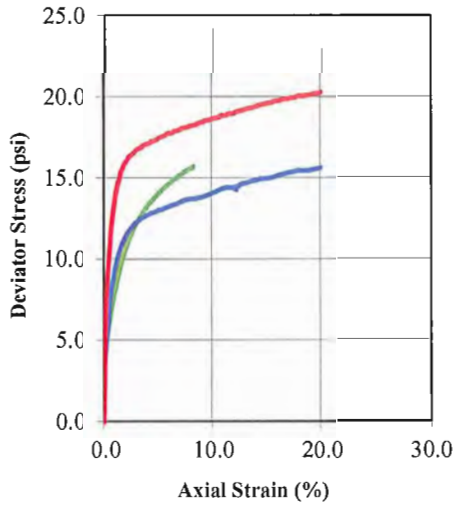
Florence & Hutcheson

CONSULTING ENGINEERS

Consolidated Undrained Triaxial Test (ASTM D4767)

PROJECT NAME :	I-85/I-385 Interchange	SAMPLE NO. :	Bag #1
PROJECT NO. :	08195-01	SAMPLE DEPTH :	0.0' to 21.5'
PROJECT LOCATION :	B-49	SAMPLE TYPE :	Remolded
BORING NUMBER :	B-49	DESCRIPTION :	Red Brown & Gray Silty Sand
REMARKS :		TEST TYPE :	Consolidated Undrained

Deviator Stress Vs. Axial Strain

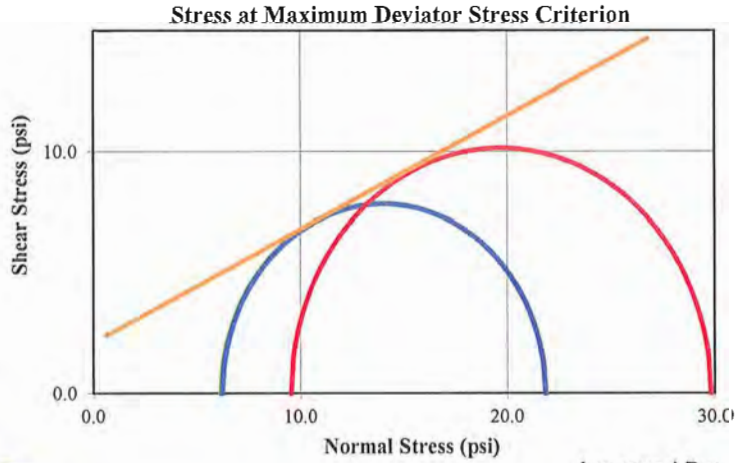


Initial	Specimen A	B	C	D
Water Content (%)	22.2	22.8	22.1	
Dry Density (pcf)	88.6	88.3	89.5	
Saturation (%)	67.83	69.13	69.08	
Void Ratio	0.863	0.869	0:845	
Diameter (in)	2.807	2.808	2.807	
Height (in)	5.733	5.742	5.684	
Specific Gravity	2.65	2.65	2.65	
Liquid Limit	45	45	45	
Plastic Limit	34	34	34	
After Consolidation	**A**	**B**	**C**	**D**
B-Value	0.96	0.99	0.96	
Water Content (%)	32.7	34.1	31.7	
Dry Density (pcf)	89.41	88.35	89.46	
Saturation (%)	100.00	100.00	100.00	
Void Ratio	0.850	0.872	0.849	
Effective Stress (psi)	5.0	10.0	20.0	
Back Press. (psi)	63.0	88.0	54.4	
Rate of Strain	0.002	0.002	0.002	

Maximium Deviator Stress Criterion	
C (psi)	5.5
Ø (deg)	9.1
C' (psi)	2.1
Ø' (deg)	25.2

After Shear	A	B	C	D
σ'1 at Failure (psi)	21.85	21.84	29.83	
σ'3 at Failure (psi)	6.14	6.19	9.53	

Stress at Maximum Deviator Stress Criterion



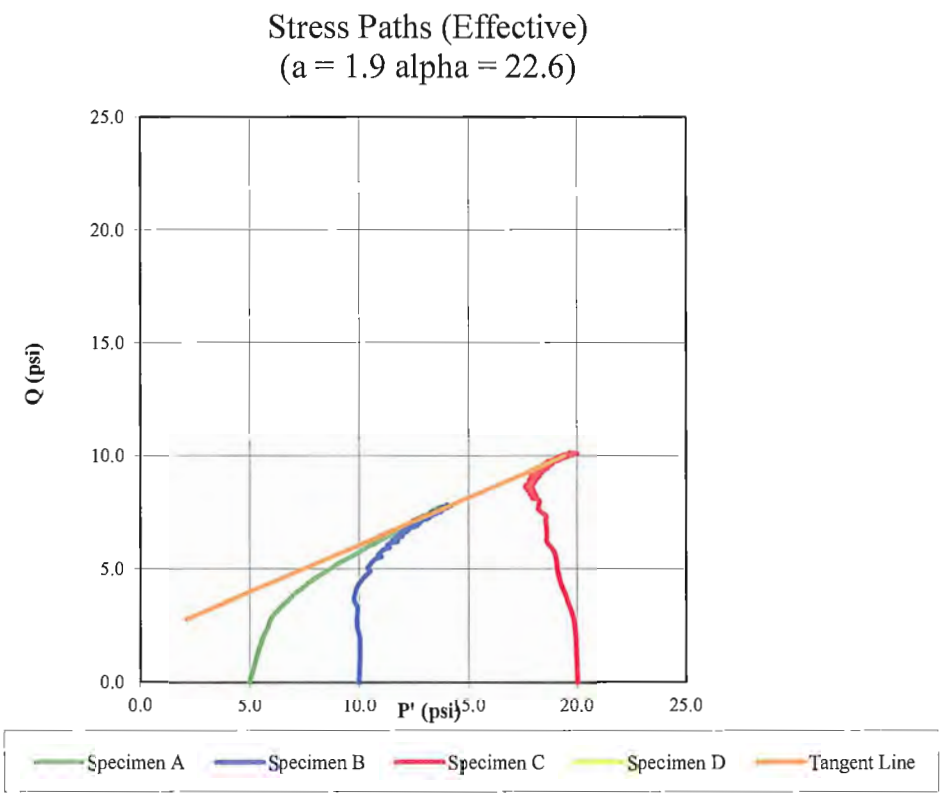
Tested By: [signature]

Date: 12-11-12

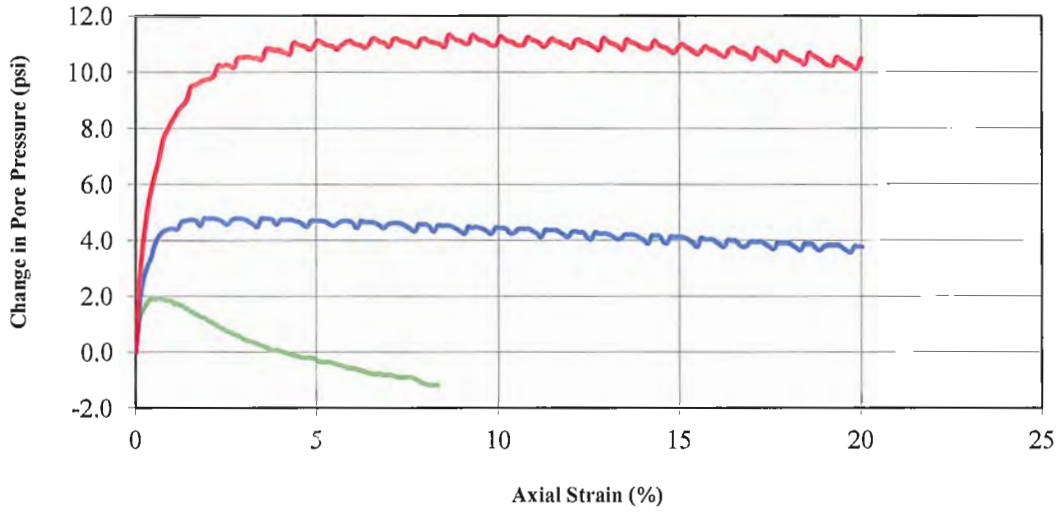
Approved By: SKB

Date: 12-11-12

Consolidated Undrained Triaxial Test (ASTM D4767)



Change in Pore Pressure vs. Axial Strain



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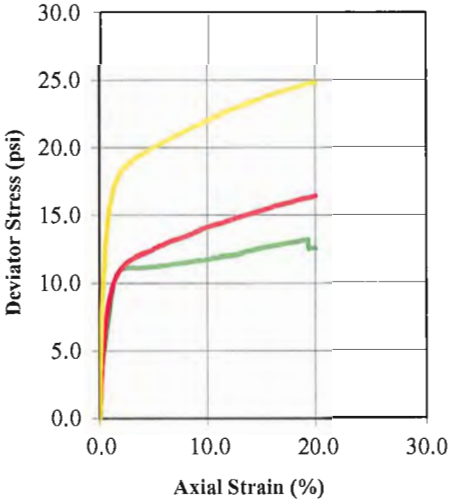
Consolidated Undrained Triaxial Test (ASTM D4767)

PROJECT NAME :	I-85/I-385 Interchange	SAMPLE NO. :	Bag #1
PROJECT NO. :	08195-01	SAMPLE DEPTH :	0.0' to 36.0'
PROJECT LOCATION :	B-51	SAMPLE TYPE :	Remolded
BORING NUMBER :	B-51	DESCRIPTION :	Brown & Red Silty Sand
REMARKS :		TEST TYPE :	Consolidated Undrained

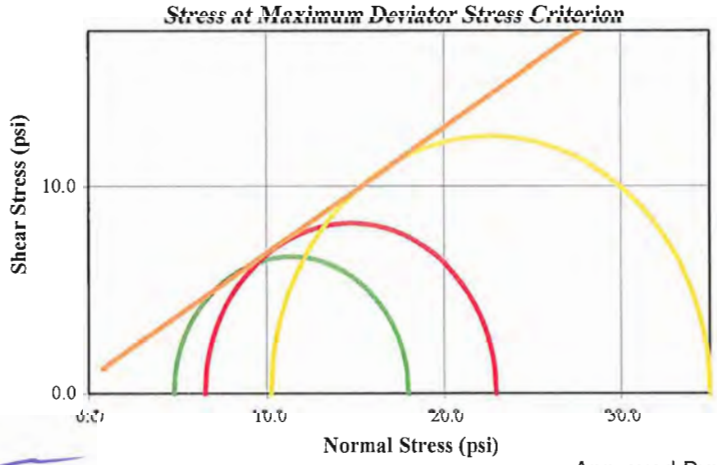
Deviator Stress Vs. Axial Strain



Initial	Specimen A	D	C	B
Water Content (%)	15.6	16.6	15.6	
Dry Density (pcf)	101.1	101.9	101.5	
Saturation (%)	64.93	70.50	65.86	
Void Ratio	0.633	0.619	0.626	
Diameter (in)	2.808	0.619	2.810	
Height (in)	5.647	5.634	5.650	
Specific Gravity	2.65	2.65	2.65	
Liquid Limit	33	33	33	
Plastic Limit	24	24	24	
After Consolidation	**A**	**D**	**C**	
B-Value	0.95	0.97	0.95	
Water Content (%)	23.9	20.9	23.1	
Dry Density (pcf)	102.18	102.88	109.04	
Saturation (%)	100.00	100.00	100.00	
Void Ratio	0.619	0.608	0.517	
Effective Stress (psi)	5.0	20.0	10.0	
Back Press. (psi)	69.7	63.9	57.3	
Rate of Strain	0.002	0.002	0.002	

Maximium Deviator Stress Criterion		After Shear	A	D	C	
C (psi)	3.9	σ'1 at Failure (psi)	17.97	35.04	22.95	
Ø (deg)	14.6	σ'3 at Failure (psi)	4.77	10.22	6.50	
C' (psi)	0.8					
Ø' (deg)	31.1					

Stress at Maximum Deviator Stress Criterion

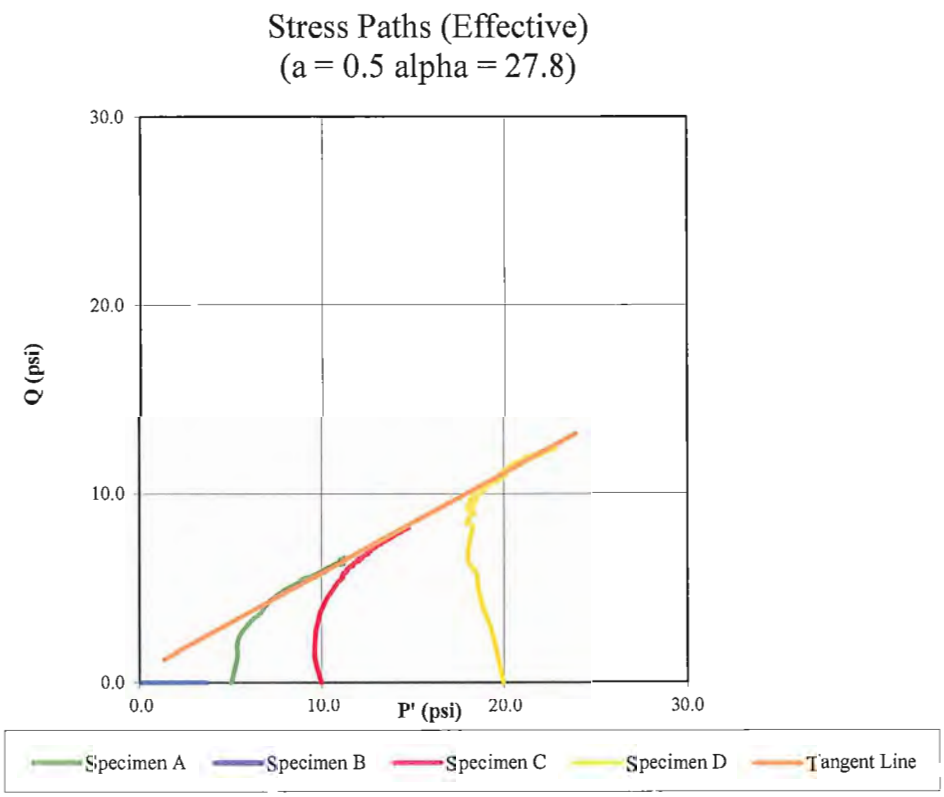


Tested By: _____

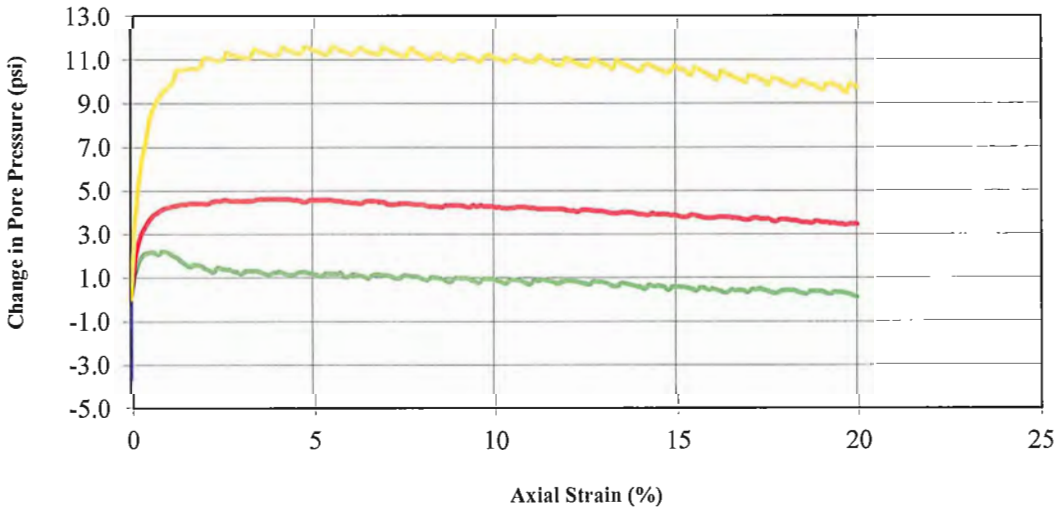
Date: 12-11-12

Approved By: SKB

Date: 12-11-12



Change in Pore Pressure vs. Axial Strain



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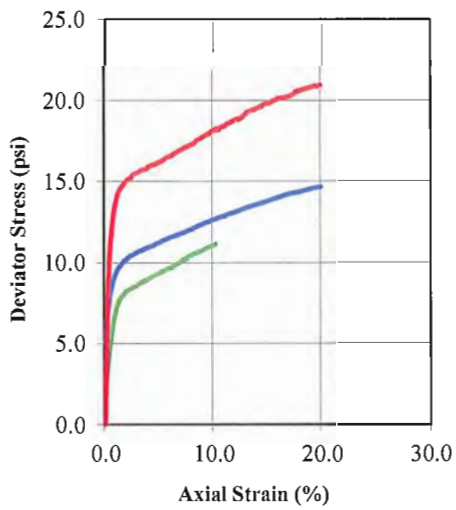
Consolidated Undrained Triaxial Test (ASTM D4767)

PROJECT NAME :	I-85/I-385 Interchange	SAMPLE NO. :	Bag #1
PROJECT NO. :	08195-01	SAMPLE DEPTH :	0.0' to 41.0'
PROJECT LOCATION :	B-54	SAMPLE TYPE :	Remolded
BORING NUMBER :	B-54	DESCRIPTION :	Red, Brown & Gray Silty Sand
REMARKS :		TEST TYPE :	Consolidated Undrained

Deviator Stress Vs. Axial Strain

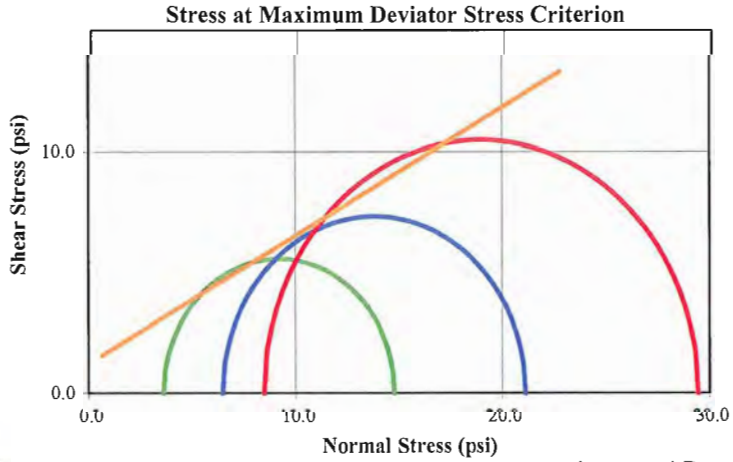


Initial	Specimen A	B	C	D
Water Content (%)	18.6	18.1	17.8	
Dry Density (pcf)	100.2	99.5	100.0	
Saturation (%)	75.71	72.62	72.02	
Void Ratio	0.647	0.659	0.650	
Diameter (in)	2.801	2.800	2.803	
Height (in)	5.616	5.645	5.643	
Specific Gravity	2.65	2.65	2.65	
Liquid Limit	46	46	46	
Plastic Limit	30	30	30	
After Consolidation	**A**	**B**	**C**	**D**
B-Value	1.00	0.95	0.95	
Water Content (%)	25.1	24.6	23.4	
Dry Density (pcf)	100.76	99.78	100.13	
Saturation (%)	100.00	100.00	100.00	
Void Ratio	0.642	0.658	0.652	
Effective Stress (psi)	5.0	10.0	20.0	
Back Press. (psi)	51.2	63.7	72.4	
Rate of Strain	0.002	0.0020	0.002	

Maximium Deviator Stress Criterion	
C (psi)	3.0
Ø (deg)	14.6
C' (psi)	1.2
Ø' (deg)	28.0

After Shear	A	B	C	D
σ'1 at Failure (psi)	14.76	21.13	29.44	
σ'3 at Failure (psi)	3.62	6.47	8.46	

Stress at Maximum Deviator Stress Criterion



Tested By: [signature]

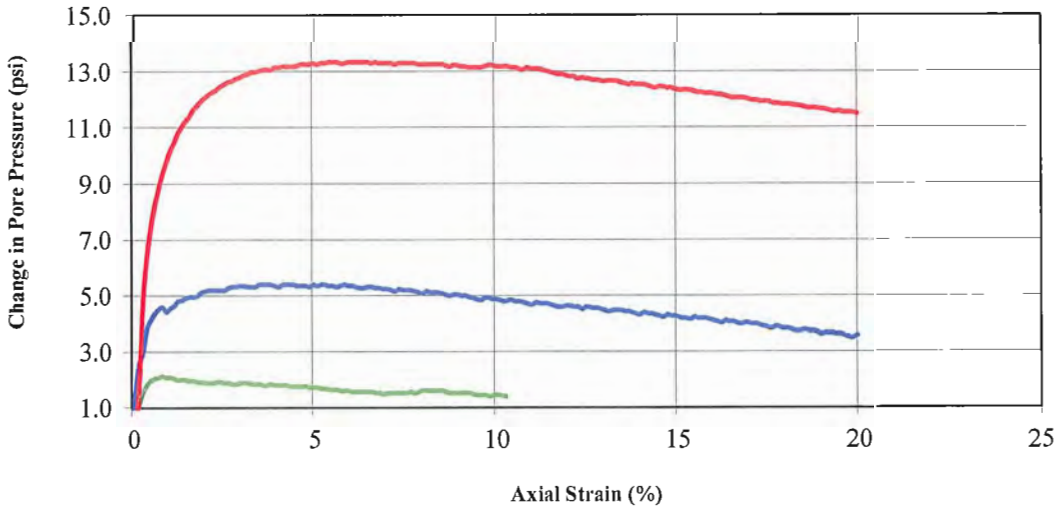
Date: 12-11-12

Approved By: SKB

Date: 12-11-12

Consolidated Undrained Triaxial Test (ASTM D4767)

Change in Pore Pressure vs. Axial Strain



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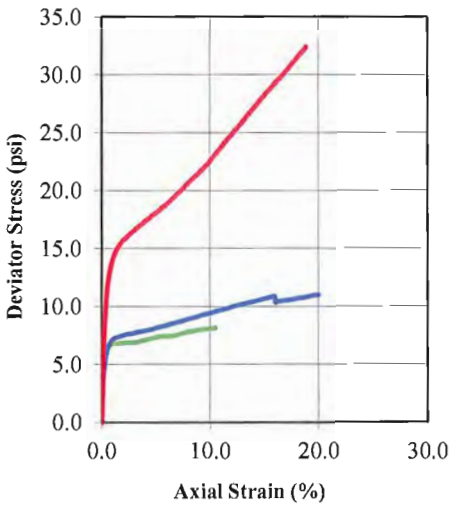
Consolidated Undrained Triaxial Test (ASTM D4767)

PROJECT NAME :	I-85/I-385 Interchange	SAMPLE NO. :	Bag #1
PROJECT NO. :	08195-01	SAMPLE DEPTH :	0.0' to 10.0'
PROJECT LOCATION :	B-56	SAMPLE TYPE :	Remolded
BORING NUMBER :	B-56	DESCRIPTION :	Red, Tan & White Sandy Lean Clay
REMARKS :		TEST TYPE :	Consolidated Undrained

Deviator Stress Vs. Axial Strain

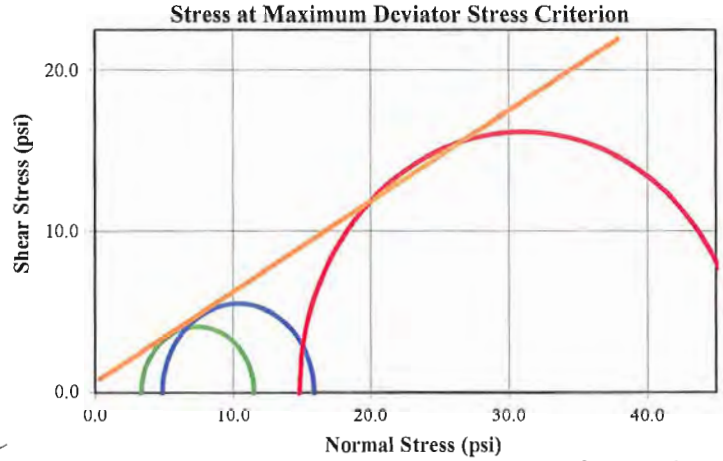


Initial	Specimen A	B	C	D
Water Content (%)	15.7	15.9	15.5	
Dry Density (pcf)	101.5	100.6	102.6	
Saturation (%)	66.19	65.61	67.19	
Void Ratio	0.626	0.640	0.610	
Diameter (in)	2.802	2.810	2.805	
Height (in)	5.610	5.612	5.547	
Specific Gravity	2.65	2.65	2.65	
Liquid Limit	40	40	40	
Plastic Limit	24	24	24	
After Consolidation	**A**	**B**	**C**	**D**
B-Value	0.98	0.95	0.95	
Water Content (%)	23.4	22.6	18.9	
Dry Density (pcf)	101.51	100.64	114.54	
Saturation (%)	100.00	100.00	100.00	
Void Ratio	0.630	0.644	0.444	
Effective Stress (psi)	5.0	10.0	20.0	
Back Press. (psi)	87.4	76.5	65.2	
Rate of Strain	0.002	0.002	0.002	

Maximum Deviator Stress Criterion	
C (psi)	2.2
Ø (deg)	13.5
C' (psi)	0.7
Ø' (deg)	29.4

After Shear	A	B	C	D
σ'1 at Failure (psi)	11.51	15.89	47.18	
σ'3 at Failure (psi)	3.32	4.84	14.78	

Stress at Maximum Deviator Stress Criterion

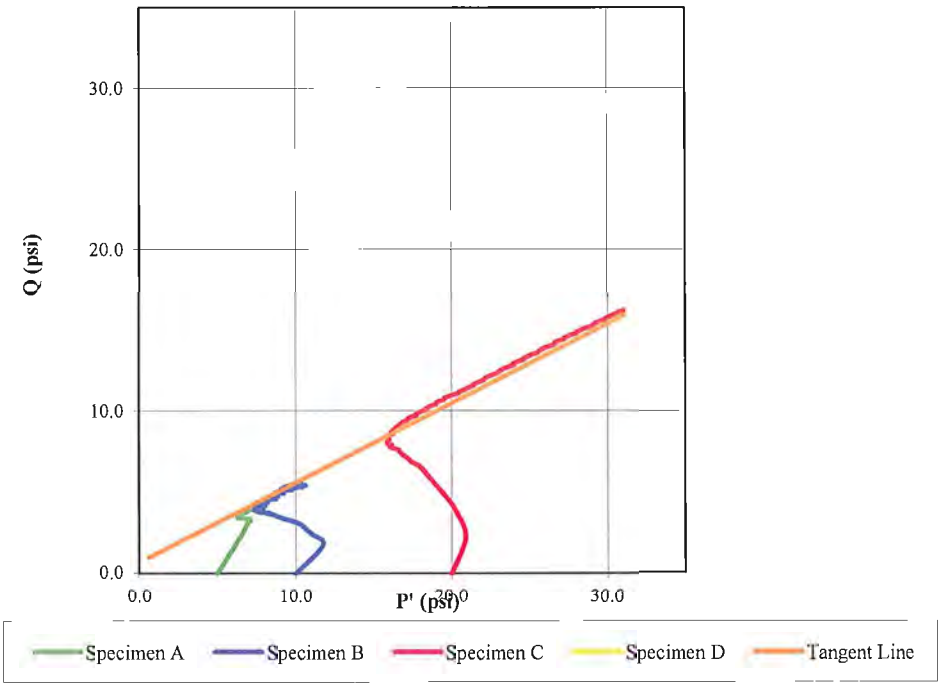


Tested By: [signature]
Date: 12-19-12

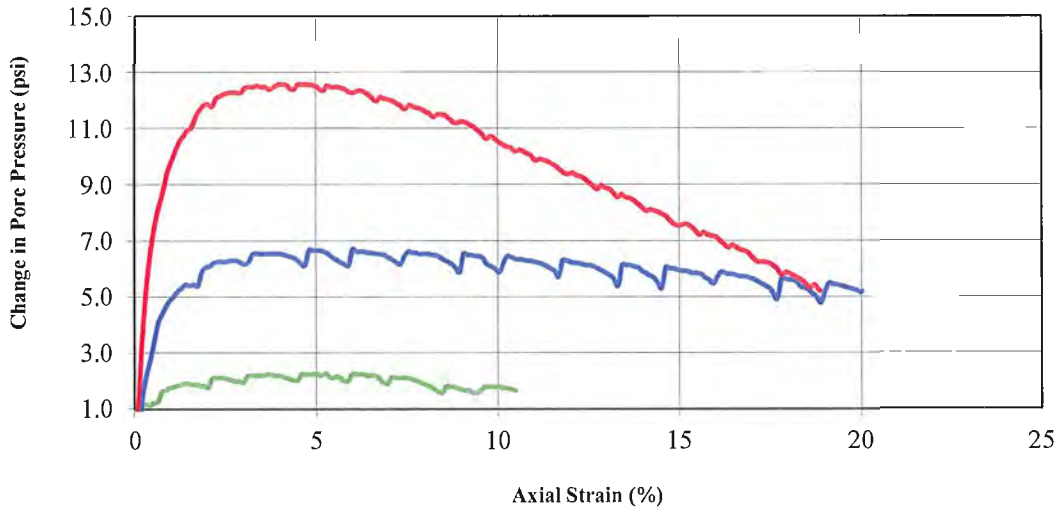
Approved By: SKB
Date: 12/19/12

Consolidated Undrained Triaxial Test (ASTM D4767)

Stress Paths (Effective)
(a = 0.7 alpha = 26.2)



Change in Pore Pressure vs. Axial Strain



TRIAXIAL SHEAR TEST REPORT

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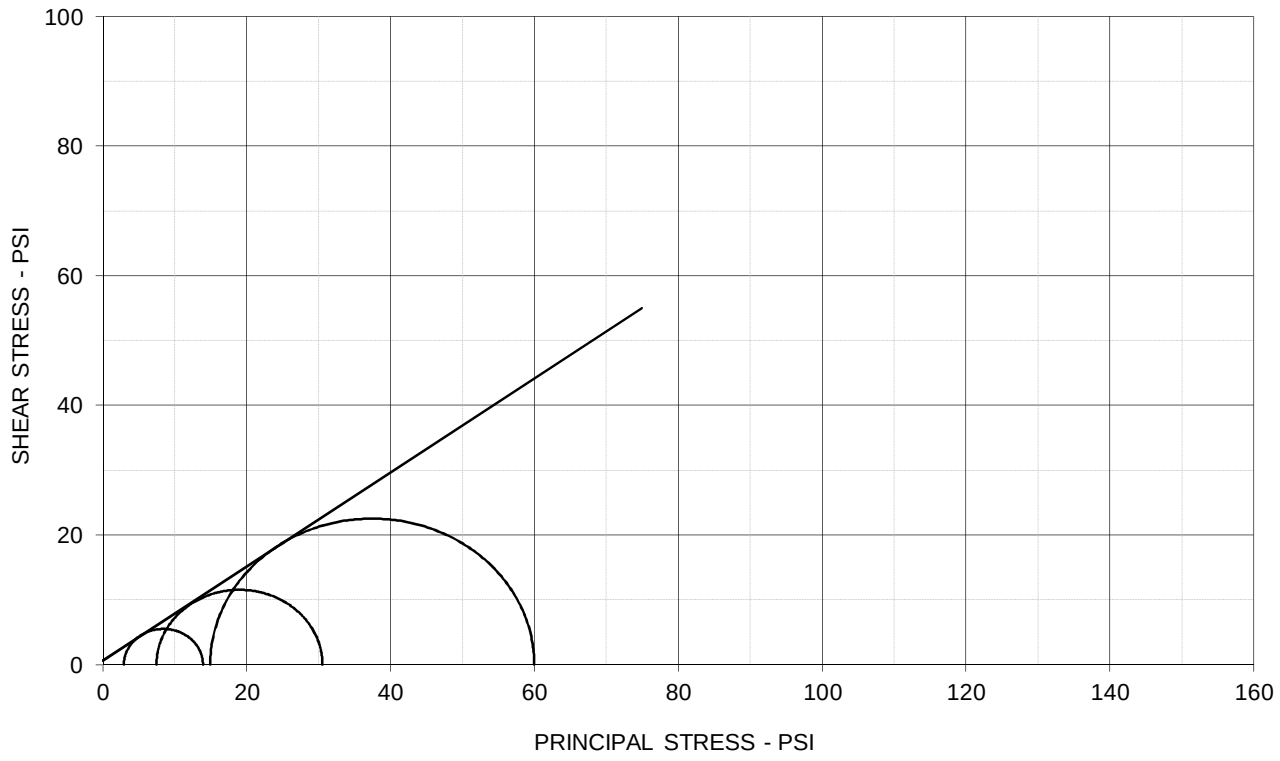
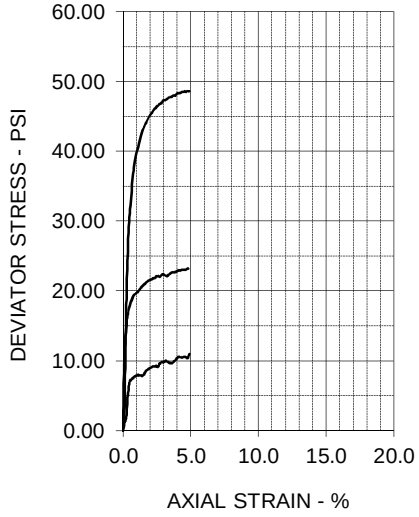


EFFECTIVE STRESS PARAMETERS	ϕ' = 36.0 deg	c' = 0.6 psi



SPECIMEN NO.	1	2	3	4
INITIAL				
Moisture Content - %	25.2	25.2	25.2	
Dry Density - pcf	98.1	98.1	98.1	
Diameter - inches	2.88	2.88	2.88	
Height - inches	5.71	5.71	5.71	
AT TEST				
Final Moisture - %			23.7	
Dry Density - pcf	99.4	100.5	102.6	
Calculated Diameter (in.)	2.87	2.88	2.88	
Height - inches	5.67	5.71	5.70	
Effect. Cell Pressure - psi	10.0	20.0	40.0	
Failure Stress - psi	10.99	23.06	45.04	
Total Pore Pressure - psi	57.1	62.5	75.1	
Strain Rate - inches/min.	0.00060	0.00060	0.00060	
Failure Strain - %	4.9	4.7	2.0	
σ_1' Failure - psi	13.93	30.54	59.98	
σ_3' Failure - psi	2.94	7.48	14.94	

TEST DESCRIPTION

TYPE OF TEST & NO: CU with Pore Pressure
SAMPLE TYPE: Shelby Tube
DESCRIPTION: Yellowish Red Sandy Clay
SAMPLE LOCATION: B-01-SPT-09, T-1, 19.0-21.0ft
SPECIFIC GRAVITY: 2.719
LL: PL: PI: Percent -200:
REMARKS: Multistage Triaxial

PROJECT INFORMATION

PROJECT: I-85/I-385 Interchange Modifications
LOCATION: I-85/I-385 Interchange
PROJECT NO: E2156301
CLIENT: Thompson Engineering
DATE: 5/14/15

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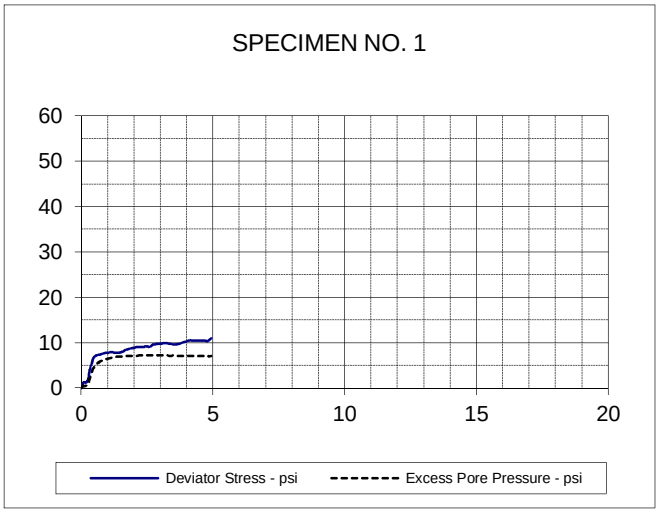

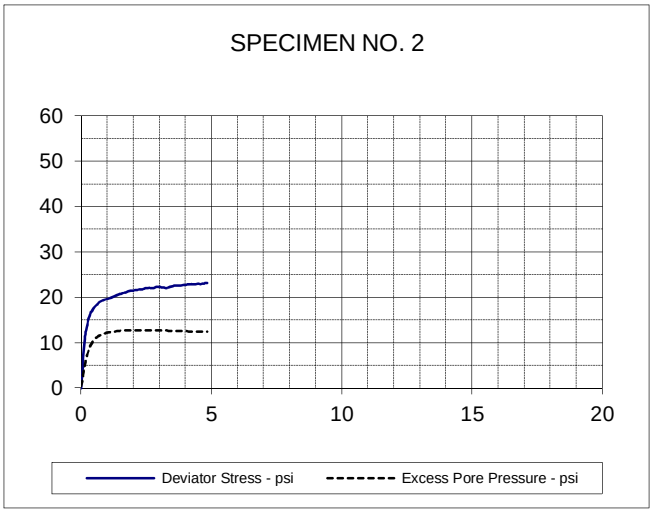

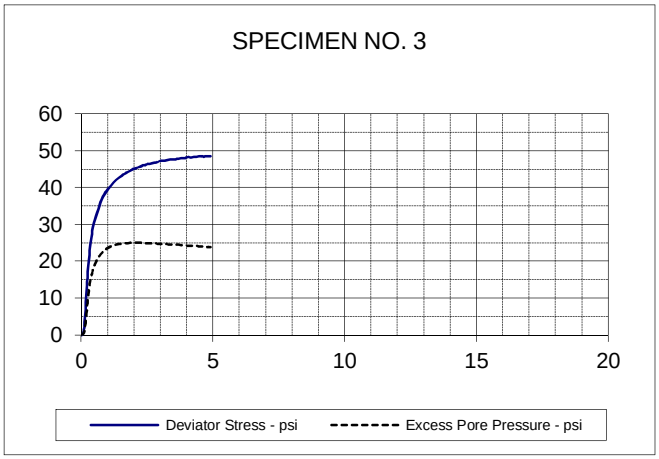

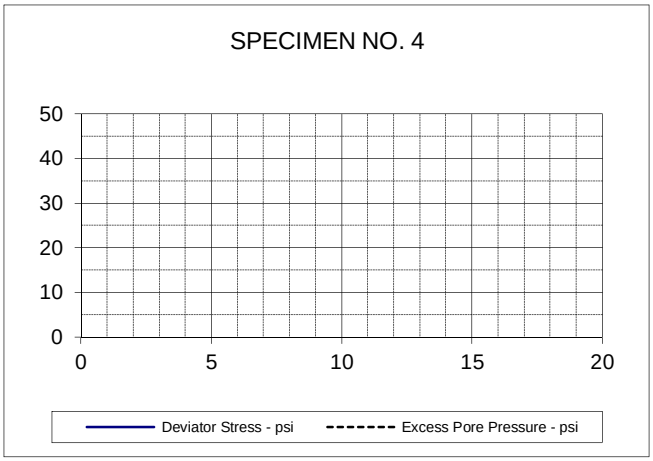

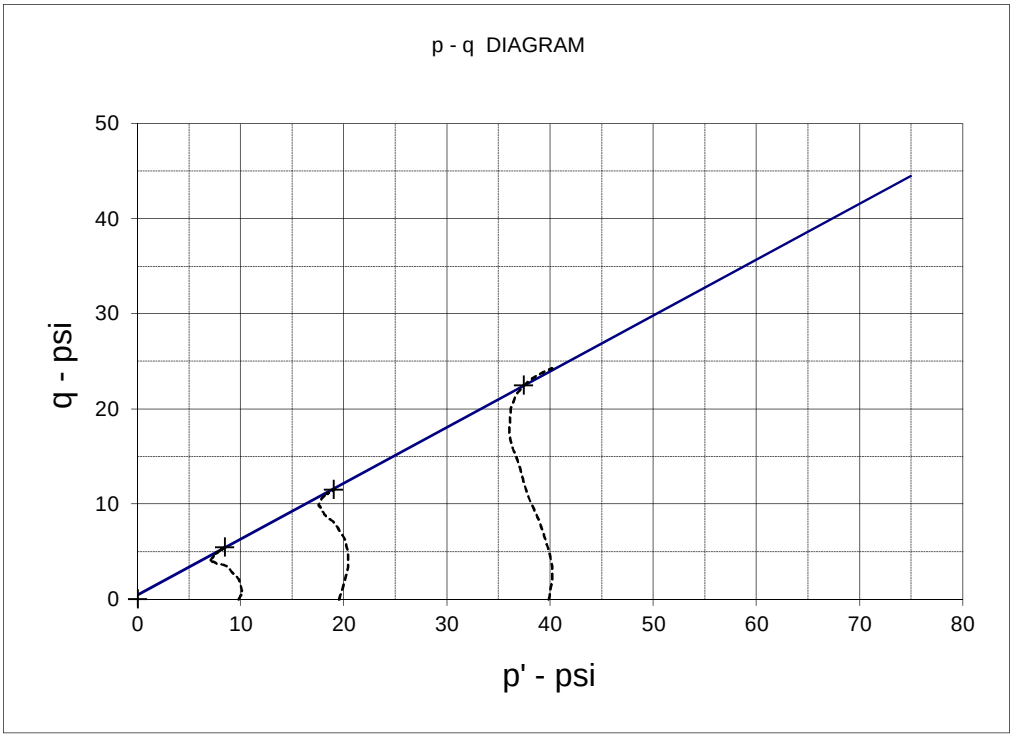

EFFECTIVE STRESS PARAMETERS	R^2 = 1.00	α (deg) = 30.4	a (psi) = 0.5
PROJECT: I-85/I-385 Interchange Modifications		TYPE OF TEST & NO: CU with Pore Pressure	
PROJECT NO: E2156301		**TERRACON**	
DESCRIPTION: Yellowish Red Sandy Clay			

TRIAX_B-01-SPT-09.xls

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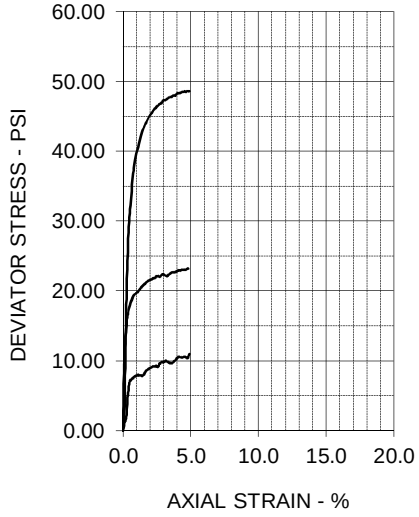
TOTAL STRESS PARAMETERS	ϕ = 21.2 deg	c = 0.0 psi



SPECIMEN NO.	1	2	3	4
INITIAL				
Moisture Content - %	25.2	25.2	25.2	
Dry Density - pcf	98.1	98.1	98.1	
Diameter - inches	2.88	2.88	2.88	
Height - inches	5.71	5.71	5.71	
AT TEST				
Final Moisture - %			23.7	
Dry Density - pcf	99.4	100.5	102.6	
Calculated Diameter (in.)	2.87	2.88	2.88	
Height - inches	5.67	5.71	5.70	
Effect. Cell Pressure - psi	10.0	20.0	40.0	
Failure Stress - psi	10.99	23.06	45.04	
Total Pore Pressure - psi	57.1	62.5	75.1	
Strain Rate - inches/min.	0.00060	0.00060	0.00060	
Failure Strain - %	4.9	4.7	2.0	
σ_1 Failure - psi	20.99	43.06	85.04	
σ_3 Failure - psi	10.00	20.00	40.00	

TEST DESCRIPTION

TYPE OF TEST & NO: CU with Pore Pressure
SAMPLE TYPE: Shelby Tube
DESCRIPTION: Yellowish Red Sandy Clay
SAMPLE LOCATION: B-01-SPT-09, T-1, 19.0-21.0ft
SPECIFIC GRAVITY: 2.719
LL: PL: PI: Percent -200:
REMARKS: Multistage Triaxial

PROJECT INFORMATION

PROJECT: I-85/I-385 Interchange Modifications
LOCATION: I-85/I-385 Interchange
PROJECT NO: E2156301
CLIENT: Thompson Engineering
DATE: 5/14/15

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TRIAXIAL SHEAR TEST REPORT

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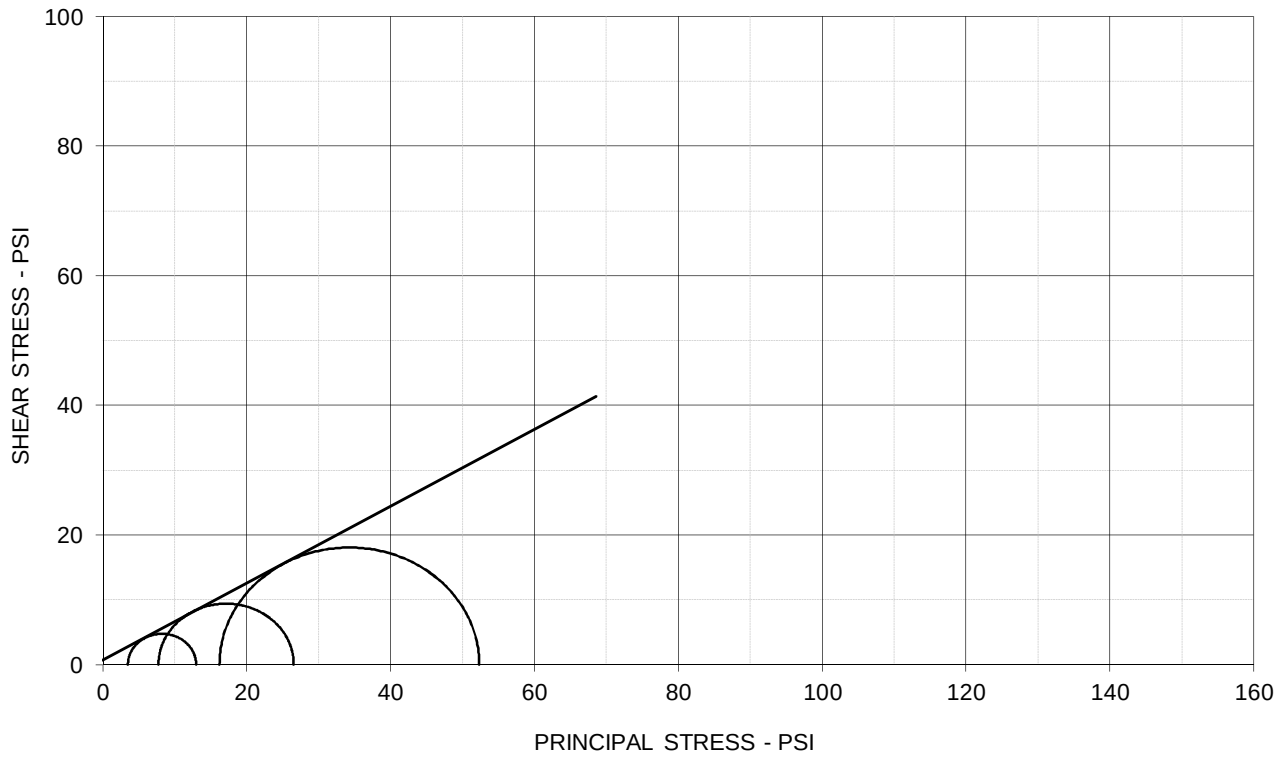
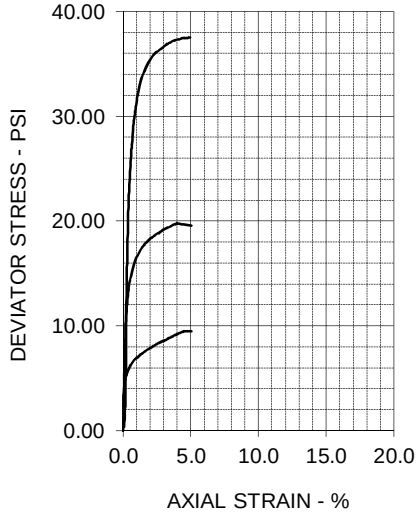


EFFECTIVE STRESS PARAMETERS	ϕ' = 30.7 deg	c' = 0.7 psi



SPECIMEN NO.	1	2	3	4
INITIAL				
Moisture Content - %	28.2	28.2	28.2	
Dry Density - pcf	99.7	99.7	99.7	
Diameter - inches	2.87	2.87	2.87	
Height - inches	5.55	5.55	5.55	
AT TEST				
Final Moisture - %			20.6	
Dry Density - pcf	101.4	103.9	106.5	
Calculated Diameter (in.)	2.85	2.87	2.86	
Height - inches	5.50	5.55	5.53	
Effect. Cell Pressure - psi	10.0	20.0	40.0	
Failure Stress - psi	9.48	18.80	36.12	
Total Pore Pressure - psi	56.5	62.3	73.8	
Strain Rate - inches/min.	0.00060	0.00060	0.00060	
Failure Strain - %	4.5	2.5	2.5	
σ_1' Failure - psi	12.98	26.55	52.35	
σ_3' Failure - psi	3.50	7.75	16.23	

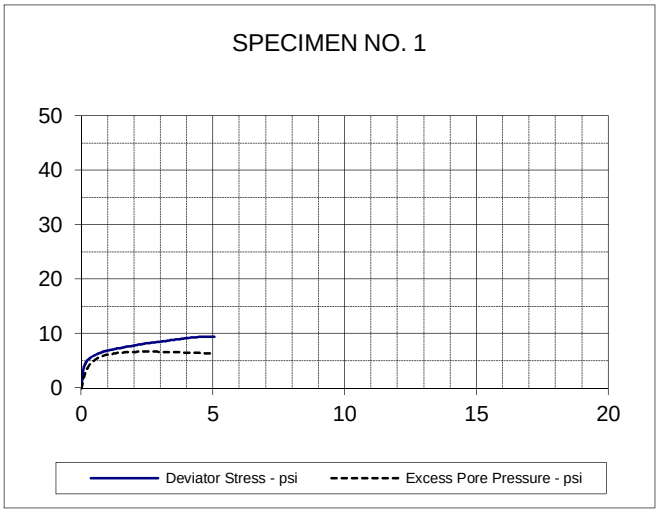
TEST DESCRIPTION

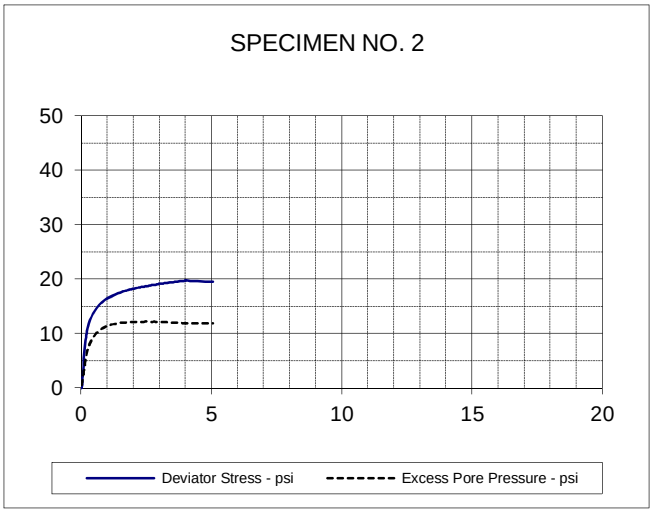
TYPE OF TEST & NO: CU with Pore Pressure
SAMPLE TYPE: Shelby Tube
DESCRIPTION: White Sandy Clay
SAMPLE LOCATION: B-01-SPT-14, T-1, 25.0-27.0ft
SPECIFIC GRAVITY: 2.654
LL: PL: PI: Percent -200:
REMARKS: Multistage Triaxial

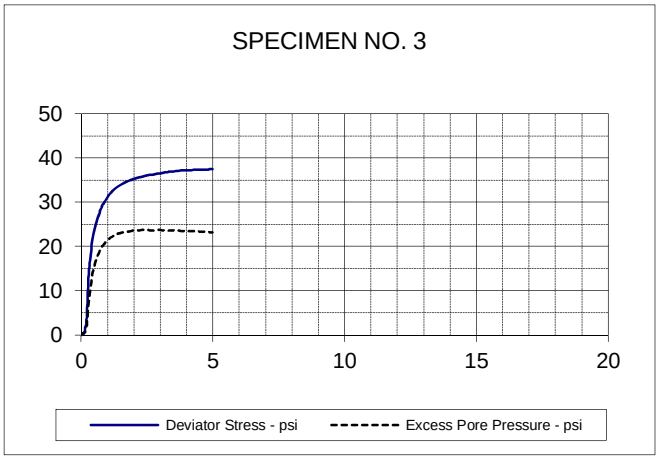
PROJECT INFORMATION

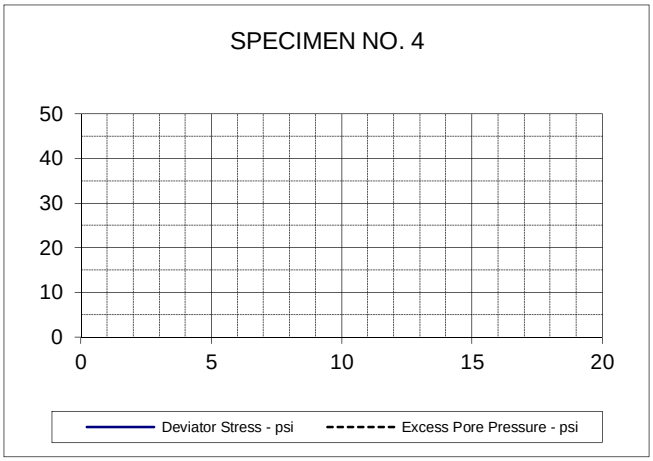
PROJECT: I-85/I-385 Interchange Modifications
LOCATION: I-85/I-385 Interchange
PROJECT NO: E2156301
CLIENT: Thompson Engineering
DATE: 5/14/15

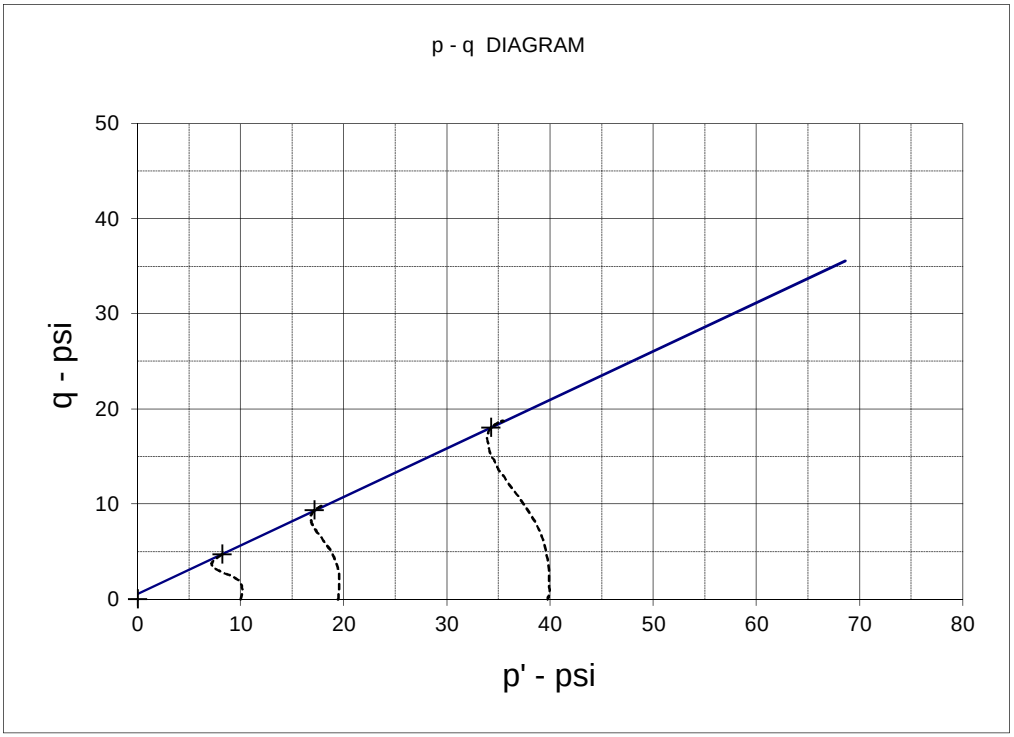
TERRACON











EFFECTIVE STRESS PARAMETERS	R^2 = 1.00	α (deg) = 27.0	a (psi) = 0.6
PROJECT: I-85/I-385 Interchange Modifications		TYPE OF TEST & NO: CU with Pore Pressure	
PROJECT NO: E2156301		**TERRACON**	
DESCRIPTION: White Sandy Clay			

TRIAX_B-01-SPT-14.xls

TRIAXIAL SHEAR TEST REPORT

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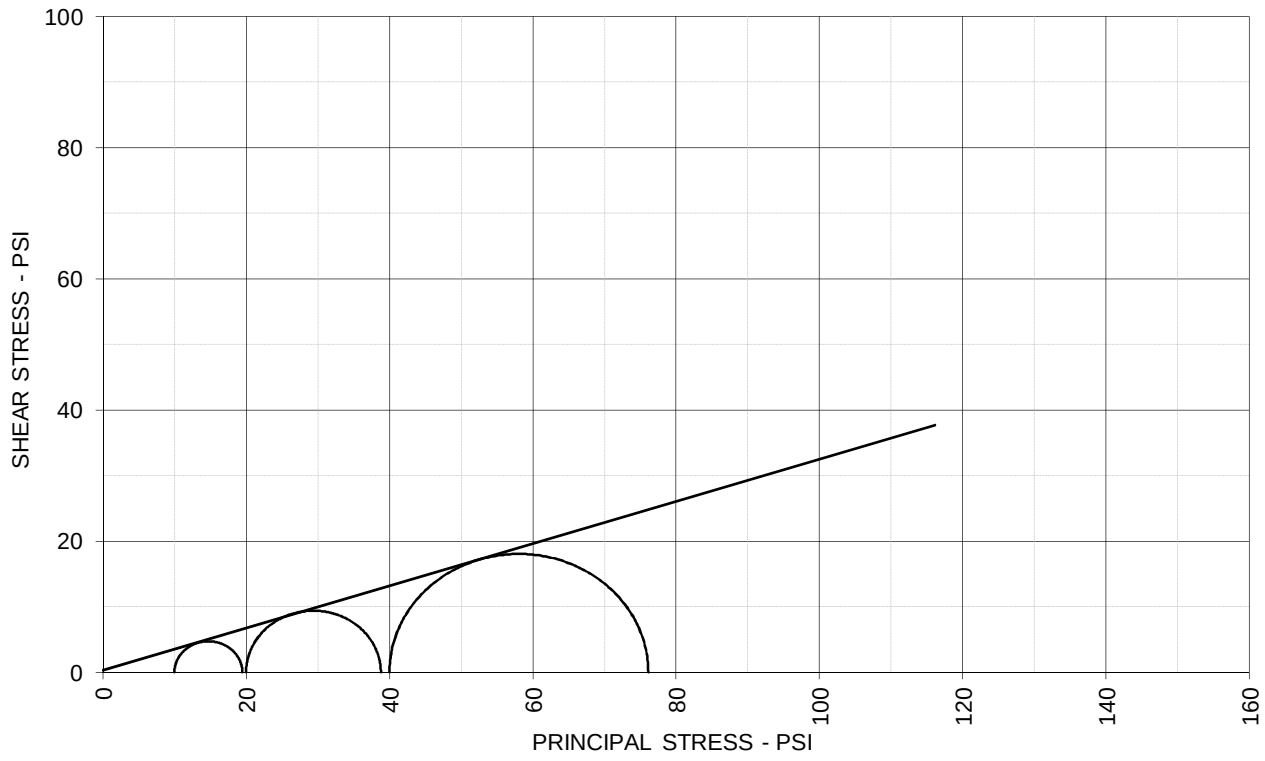
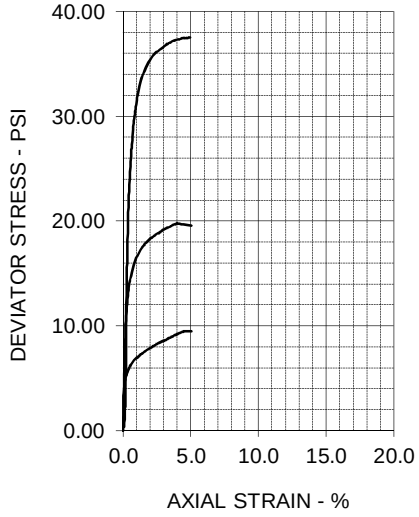


TOTAL STRESS PARAMETERS	ϕ = 17.9 deg	c = 0.3 psi



SPECIMEN NO.	1	2	3	4
INITIAL				
Moisture Content - %	28.2	28.2	28.2	
Dry Density - pcf	99.7	99.7	99.7	
Diameter - inches	2.87	2.87	2.87	
Height - inches	5.55	5.55	5.55	
AT TEST				
Final Moisture - %			20.6	
Dry Density - pcf	101.4	103.9	106.5	
Calculated Diameter (in.)	2.85	2.87	2.86	
Height - inches	5.50	5.55	5.53	
Effect. Cell Pressure - psi	10.0	20.0	40.0	
Failure Stress - psi	9.48	18.80	36.12	
Total Pore Pressure - psi	56.5	62.3	73.8	
Strain Rate - inches/min.	0.00060	0.00060	0.00060	
Failure Strain - %	4.5	2.5	2.5	
σ_1 Failure - psi	19.48	38.80	76.12	
σ_3 Failure - psi	10.00	20.00	40.00	

TEST DESCRIPTION

TYPE OF TEST & NO: CU with Pore Pressure
SAMPLE TYPE: Shelby Tube
DESCRIPTION: White Sandy Clay
SAMPLE LOCATION: B-01-SPT-14, T-1, 25.0-27.0ft
SPECIFIC GRAVITY: 2.654
LL: PL: PI: Percent -200:
REMARKS: Multistage Triaxial

PROJECT INFORMATION

PROJECT: I-85/I-385 Interchange Modifications
LOCATION: I-85/I-385 Interchange
PROJECT NO: E2156301
CLIENT: Thompson Engineering
DATE: 5/14/15

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TRIAXIAL SHEAR TEST REPORT

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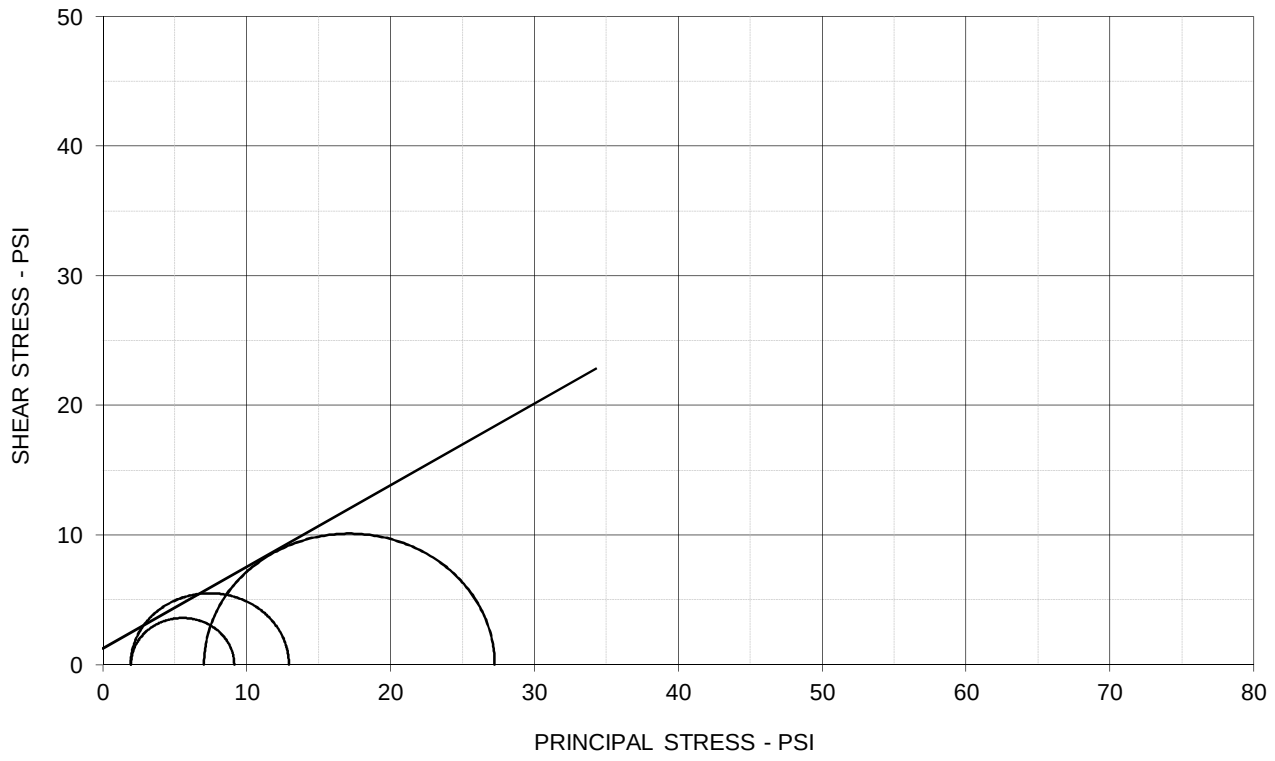
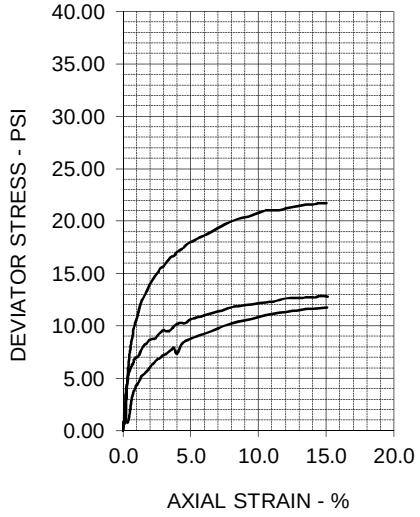


EFFECTIVE STRESS PARAMETERS	ϕ' = 32.2 deg	c' = 1.2 psi



SPECIMEN NO.	1	2	3	4
INITIAL				
Moisture Content - %	34.7	37.8	37.8	
Dry Density - pcf	87.1	82.8	82.8	
Diameter - inches	1.99	1.98	1.99	
Height - inches	3.98	3.97	3.98	
AT TEST				
Final Moisture - %	34.2	35.9	33.7	
Dry Density - pcf	87.1	84.5	87.6	
Calculated Diameter (in.)	1.97	1.95	1.95	
Height - inches	3.93	3.89	3.87	
Effect. Cell Pressure - psi	5.0	10.0	20.0	
Failure Stress - psi	7.18	11.00	20.20	
Total Pore Pressure - psi	53.0	58.1	63.0	
Strain Rate - inches/min.	0.00040	0.00040	0.00040	
Failure Strain - %	2.9	6.0	8.5	
σ_1' Failure - psi	9.14	12.94	27.24	
σ_3' Failure - psi	1.96	1.94	7.04	

TEST DESCRIPTION

TYPE OF TEST & NO: CU with Pore Pressure
SAMPLE TYPE: Shelby Tube
DESCRIPTION: Silty Sand (SM)
SAMPLE LOCATION: B06-SPT-12, T3, 35.0-37.0ft
ASSUMED SPECIFIC GRAVITY: 2.7
LL: 42 PL: 34 PI: 8 Percent -200: 44.0
REMARKS: Specimens trimmed to 2.0" in diameter.

PROJECT INFORMATION

PROJECT: I-85/I-385 Interchange Modifications
LOCATION: I-85/I-385 Interchange
PROJECT NO: E2156301
CLIENT: Thompson Engineering
DATE: 1/22/15

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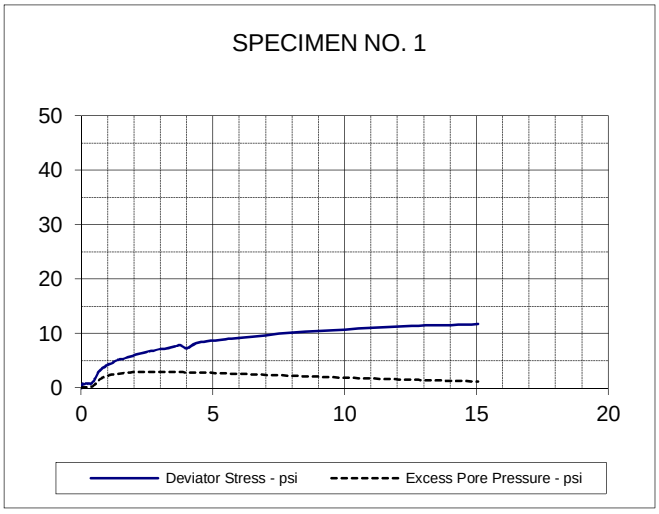

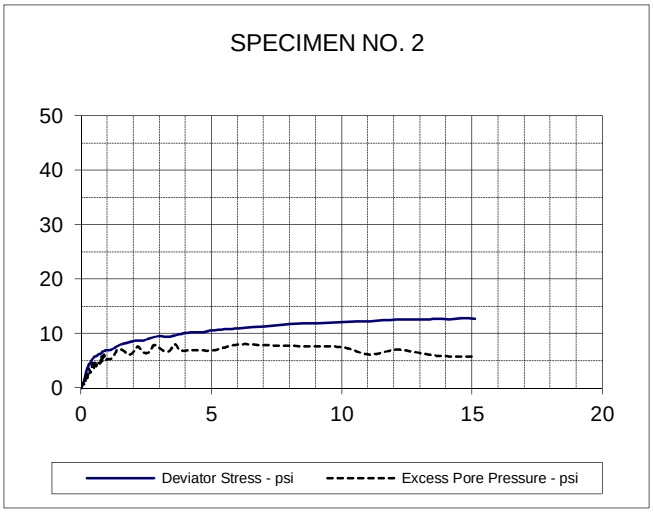

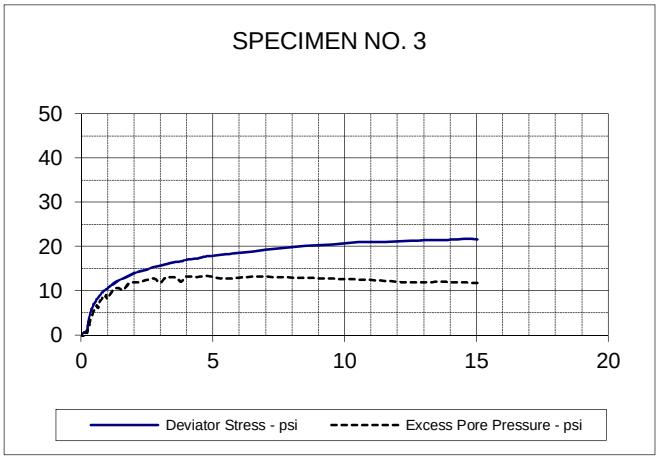

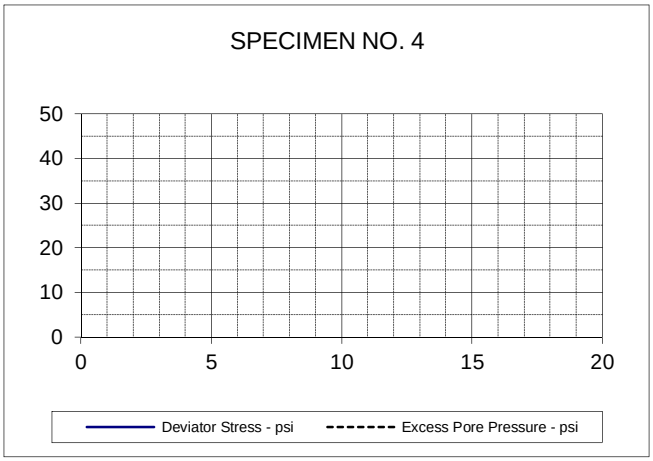

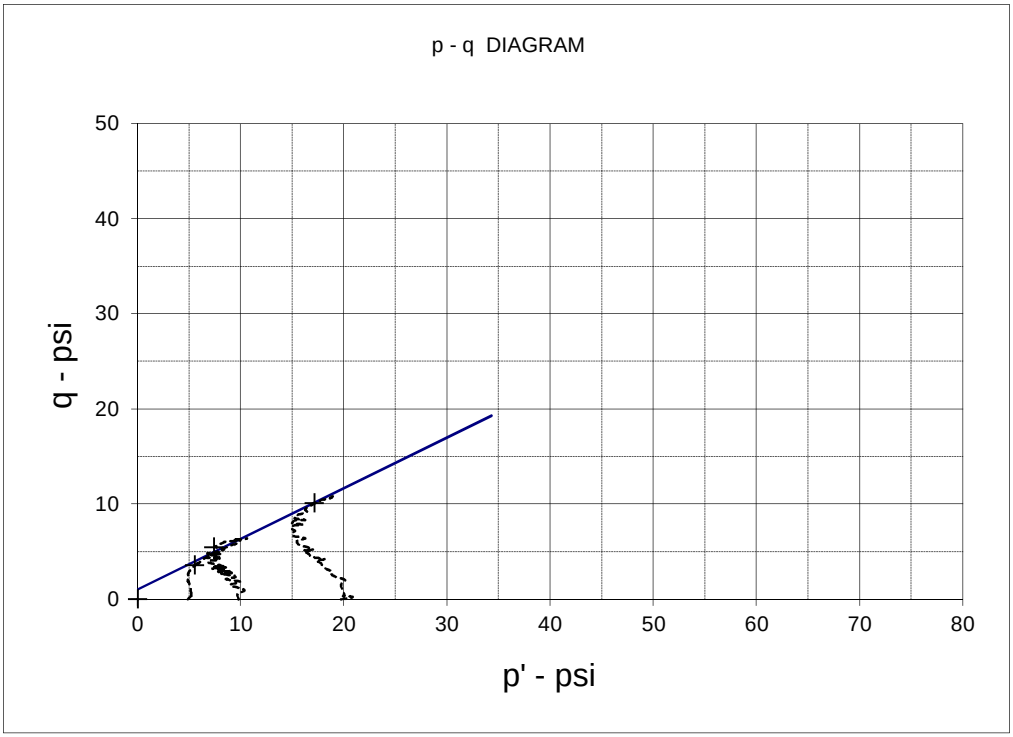

EFFECTIVE STRESS PARAMETERS	R^2 = 0.99	α (deg) = 28.1	a (psi) = 1.0
PROJECT: I-85/I-385 Interchange Modifications		TYPE OF TEST & NO: CU with Pore Pressure	
PROJECT NO: E2156301		**TERRACON**	
DESCRIPTION: Silty Sand (SM)			

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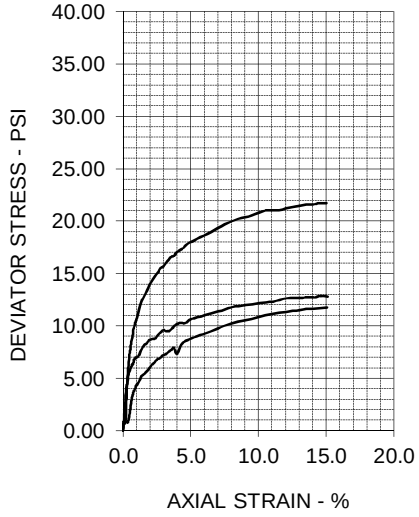
TOTAL STRESS PARAMETERS	ϕ = 17.7 deg	c = 0.9 psi



SPECIMEN NO.	1	2	3	4
INITIAL				
Moisture Content - %	34.7	37.8	37.8	
Dry Density - pcf	87.1	82.8	82.8	
Diameter - inches	1.99	1.98	1.99	
Height - inches	3.98	3.97	3.98	
AT TEST				
Final Moisture - %	34.2	35.9	33.7	
Dry Density - pcf	87.1	84.5	87.6	
Calculated Diameter (in.)	1.97	1.95	1.95	
Height - inches	3.93	3.89	3.87	
Effect. Cell Pressure - psi	5.0	10.0	20.0	
Failure Stress - psi	7.18	11.00	20.20	
Total Pore Pressure - psi	53.0	58.1	63.0	
Strain Rate - inches/min.	0.00040	0.00040	0.00040	
Failure Strain - %	2.9	6.0	8.5	
σ_1 Failure - psi	12.18	21.00	40.20	
σ_3 Failure - psi	5.00	10.00	20.00	

TEST DESCRIPTION

TYPE OF TEST & NO: CU with Pore Pressure
SAMPLE TYPE: Shelby Tube
DESCRIPTION: Silty Sand (SM)
SAMPLE LOCATION: B06-SPT-12, T3, 35.0-37.0ft
ASSUMED SPECIFIC GRAVITY: 2.7
LL: 42 PL: 34 PI: 8 Percent -200: 44.0
REMARKS: Specimens trimmed to 2.0" in diameter.

PROJECT INFORMATION

PROJECT: I-85/I-385 Interchange Modifications
LOCATION: I-85/I-385 Interchange
PROJECT NO: E2156301
CLIENT: Thompson Engineering
DATE: 1/22/15

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TRIAXIAL SHEAR TEST REPORT

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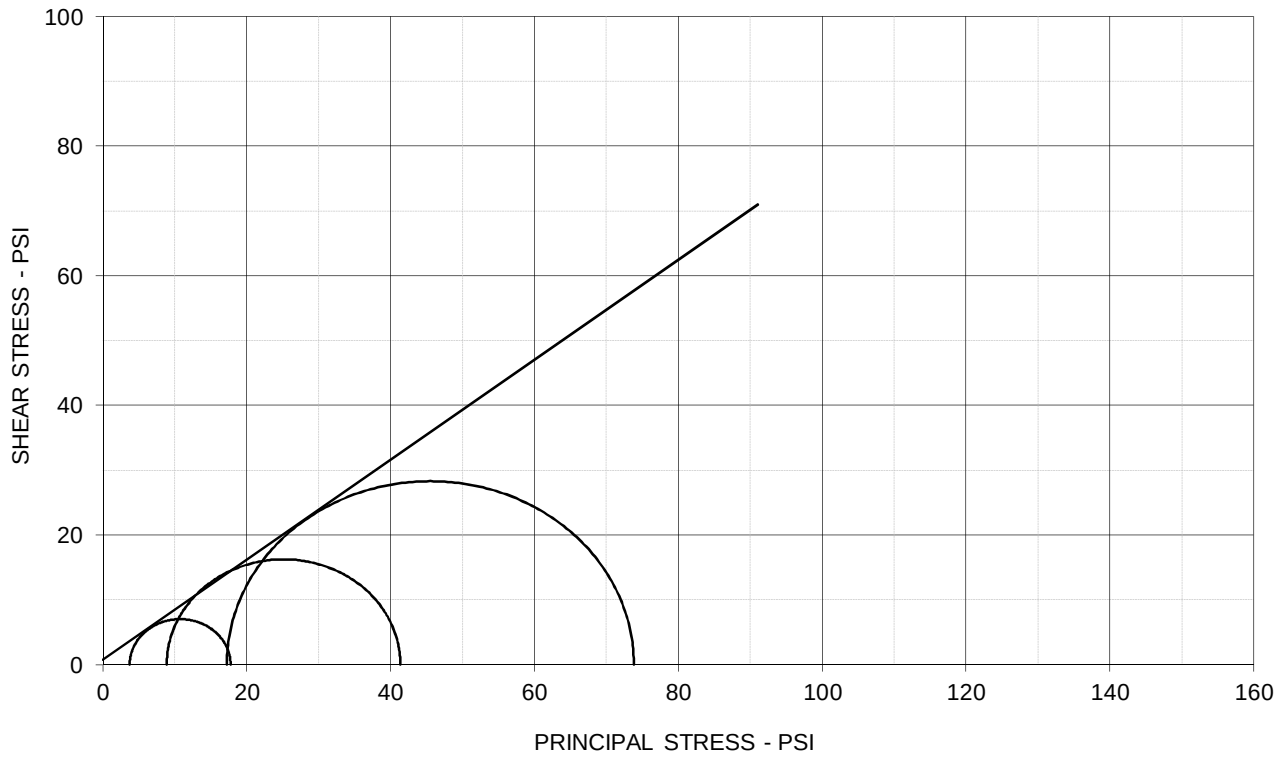
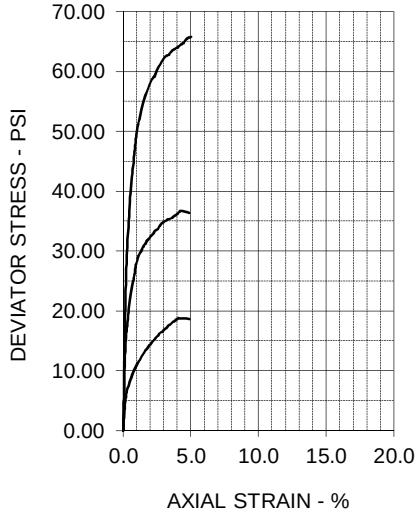


EFFECTIVE STRESS PARAMETERS	ϕ' = 37.6 deg	c' = 0.8 psi



SPECIMEN NO.	1	2	3	4
INITIAL				
Moisture Content - %	27.2	27.2	27.2	
Dry Density - pcf	101.4	101.4	101.4	
Diameter - inches	2.82	2.82	2.82	
Height - inches	5.72	5.72	5.72	
AT TEST				
Final Moisture - %			21.9	
Dry Density - pcf	102.2	103.8	105.5	
Calculated Diameter (in.)	2.80	2.82	2.82	
Height - inches	5.66	5.71	5.72	
Effect. Cell Pressure - psi	10.0	20.0	40.0	
Failure Stress - psi	14.02	32.48	56.59	
Total Pore Pressure - psi	56.3	61.1	72.8	
Strain Rate - inches/min.	0.00060	0.00060	0.00060	
Failure Strain - %	1.9	2.1	1.8	
σ_1' Failure - psi	17.77	41.38	73.83	
σ_3' Failure - psi	3.75	8.90	17.24	

TEST DESCRIPTION

TYPE OF TEST & NO: CU with Pore Pressure
SAMPLE TYPE: Shelby Tube
DESCRIPTION: Brown Sandy Clay
SAMPLE LOCATION: W2A-MB2-01, T-1, 10.0-12.0ft
SPECIFIC GRAVITY: 2.701
LL: PL: PI: Percent -200:
REMARKS: Multistage Triaxial

PROJECT INFORMATION

PROJECT: I-85/I-385 Interchange Modifications
LOCATION: I-85/I-385 Interchange
PROJECT NO: E2156301
CLIENT: Thompson Engineering
DATE: 5/14/15

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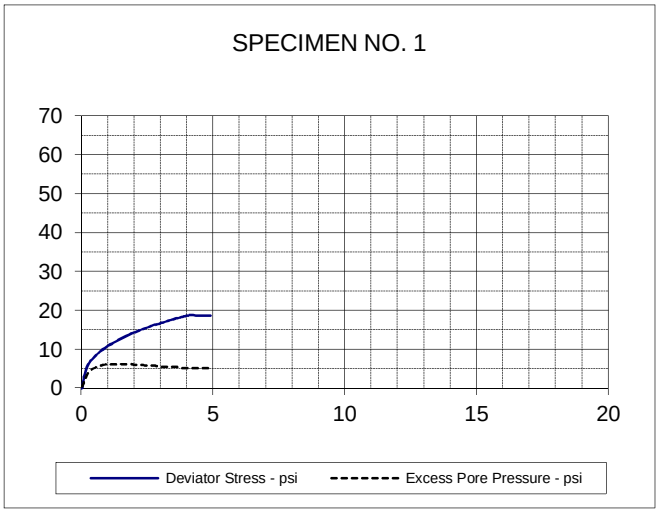

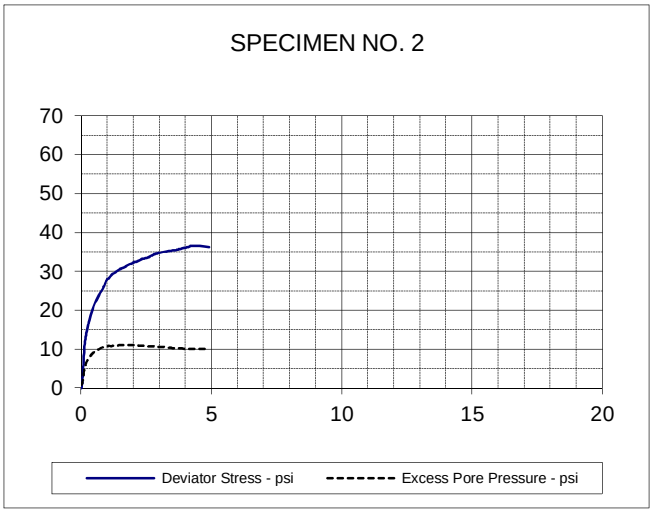

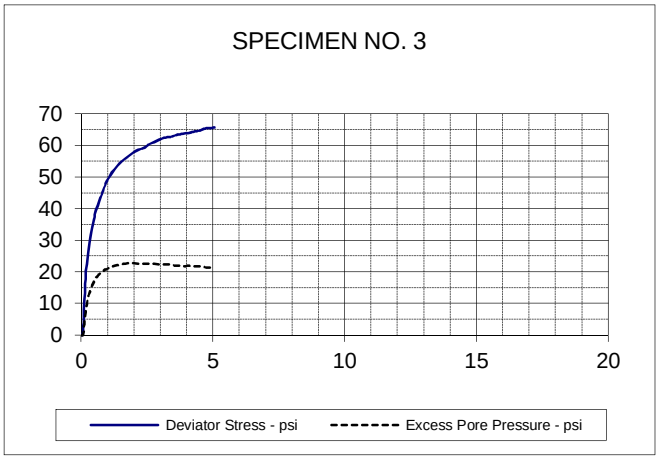

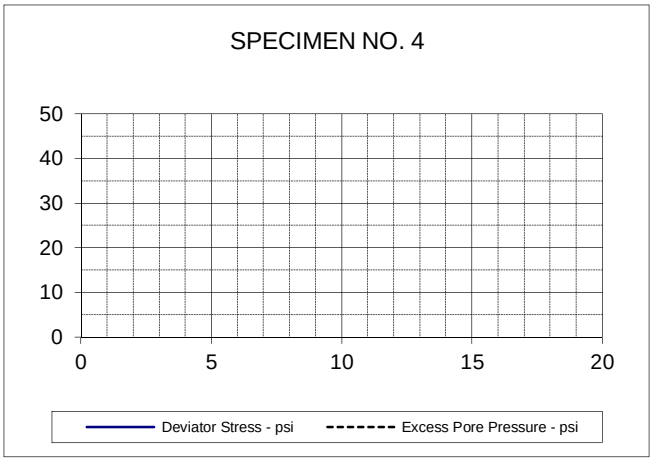

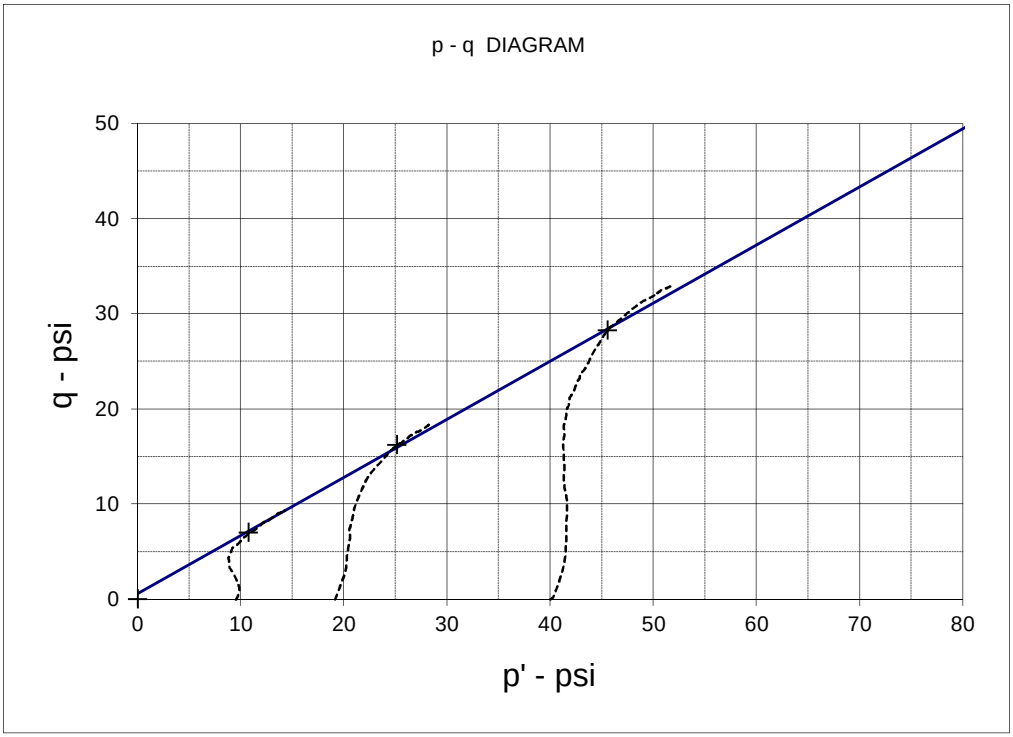

EFFECTIVE STRESS PARAMETERS	R^2 = 1.00	α (deg) = 31.4	a (psi) = 0.6
PROJECT: I-85/I-385 Interchange Modifications		TYPE OF TEST & NO: CU with Pore Pressure	
PROJECT NO: E2156301		**TERRACON**	
DESCRIPTION: Brown Sandy Clay			

TRIAXIAL SHEAR TEST REPORT

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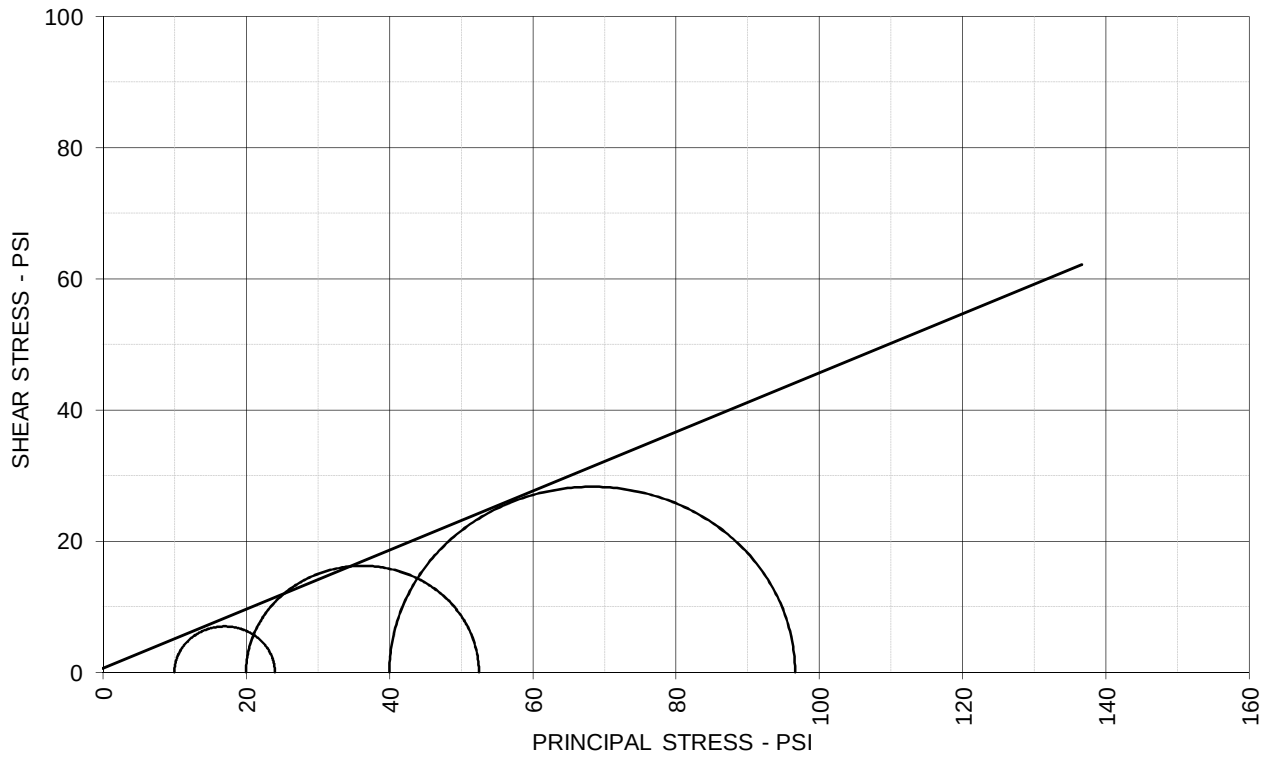
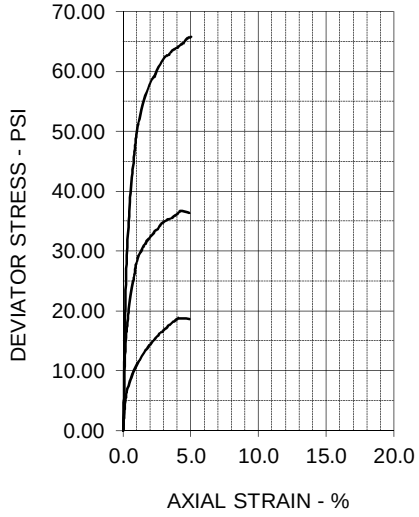


TOTAL STRESS PARAMETERS	ϕ = 24.3 deg	c = 0.6 psi



SPECIMEN NO.	1	2	3	4
INITIAL				
Moisture Content - %	27.2	27.2	27.2	
Dry Density - pcf	101.4	101.4	101.4	
Diameter - inches	2.82	2.82	2.82	
Height - inches	5.72	5.72	5.72	
AT TEST				
Final Moisture - %			21.9	
Dry Density - pcf	102.2	103.8	105.5	
Calculated Diameter (in.)	2.80	2.82	2.82	
Height - inches	5.66	5.71	5.72	
Effect. Cell Pressure - psi	10.0	20.0	40.0	
Failure Stress - psi	14.02	32.48	56.59	
Total Pore Pressure - psi	56.3	61.1	72.8	
Strain Rate - inches/min.	0.00060	0.00060	0.00060	
Failure Strain - %	1.9	2.1	1.8	
σ_1 Failure - psi	24.02	52.48	96.59	
σ_3 Failure - psi	10.00	20.00	40.00	

TEST DESCRIPTION

TYPE OF TEST & NO: CU with Pore Pressure
SAMPLE TYPE: Shelby Tube
DESCRIPTION: Brown Sandy Clay
SAMPLE LOCATION: W2A-MB2-01, T-1, 10.0-12.0ft
SPECIFIC GRAVITY: 2.701
LL: PL: PI: Percent -200:
REMARKS: Multistage Triaxial

PROJECT INFORMATION

PROJECT: I-85/I-385 Interchange Modifications
LOCATION: I-85/I-385 Interchange
PROJECT NO: E2156301
CLIENT: Thompson Engineering
DATE: 5/14/15

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TRIAXIAL SHEAR TEST REPORT

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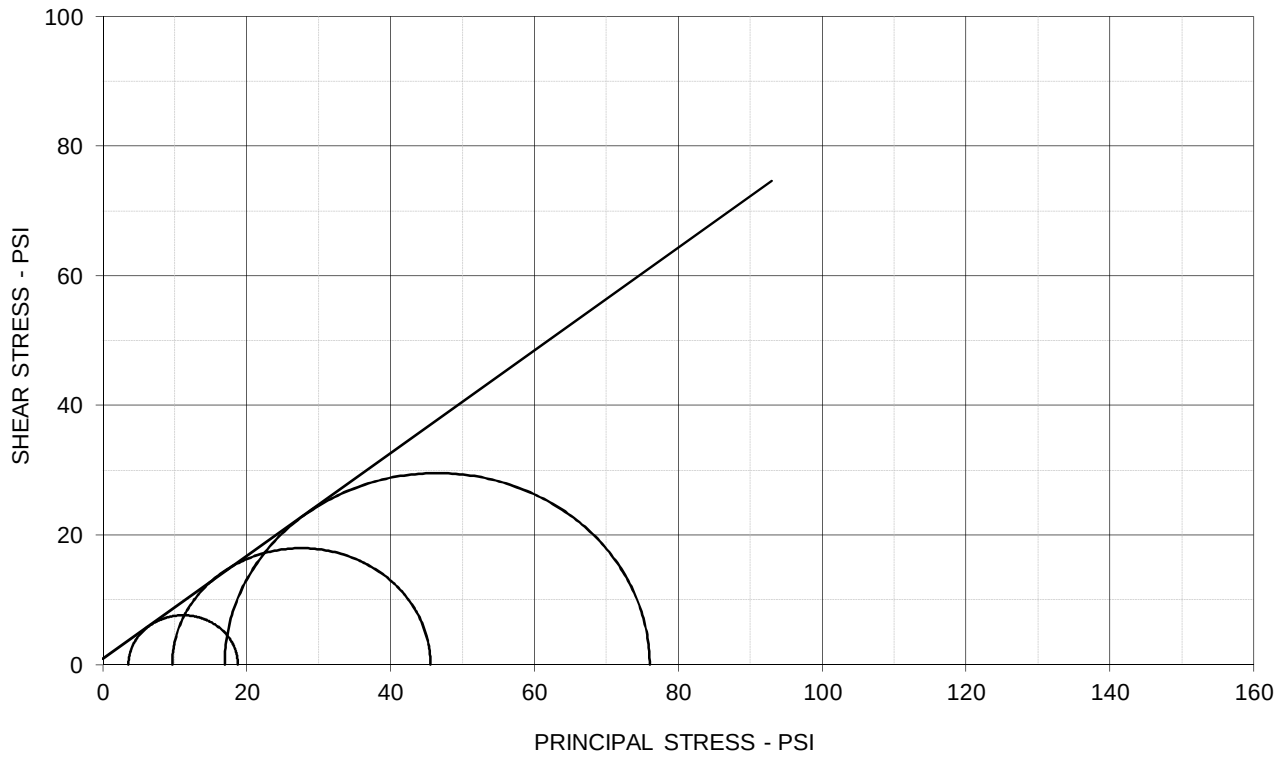
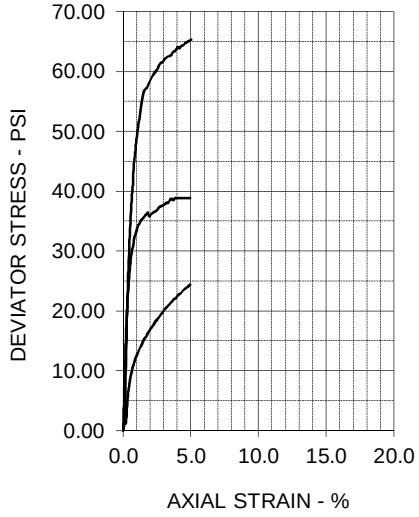


EFFECTIVE STRESS PARAMETERS	ϕ' = 38.4 deg	c' = 0.9 psi



SPECIMEN NO.	1	2	3	4
INITIAL				
Moisture Content - %	23.5	23.5	23.5	
Dry Density - pcf	103.2	103.2	103.2	
Diameter - inches	2.85	2.85	2.85	
Height - inches	5.64	5.64	5.64	
AT TEST				
Final Moisture - %			21.3	
Dry Density - pcf	103.7	104.9	106.2	
Calculated Diameter (in.)	2.84	2.86	2.85	
Height - inches	5.61	5.65	5.64	
Effect. Cell Pressure - psi	10.0	20.0	40.0	
Failure Stress - psi	15.20	35.90	59.08	
Total Pore Pressure - psi	56.4	60.3	73.1	
Strain Rate - inches/min.	0.00060	0.00060	0.00060	
Failure Strain - %	1.6	1.6	2.2	
σ_1' Failure - psi	18.78	45.56	76.03	
σ_3' Failure - psi	3.58	9.66	16.95	

TEST DESCRIPTION

TYPE OF TEST & NO: CU with Pore Pressure
SAMPLE TYPE: Shelby Tube
DESCRIPTION: Grayish Brown Silty Sand
SAMPLE LOCATION: W1B-2R-02, T-1, 8.0-10.0ft
SPECIFIC GRAVITY: 2.624
LL: PL: PI: Percent -200:
REMARKS: Multistage Triaxial

PROJECT INFORMATION

PROJECT: I-85/I-385 Interchange Modifications
LOCATION: I-85/I-385 Interchange
PROJECT NO: E2156301
CLIENT: Thompson Engineering
DATE: 5/14/15

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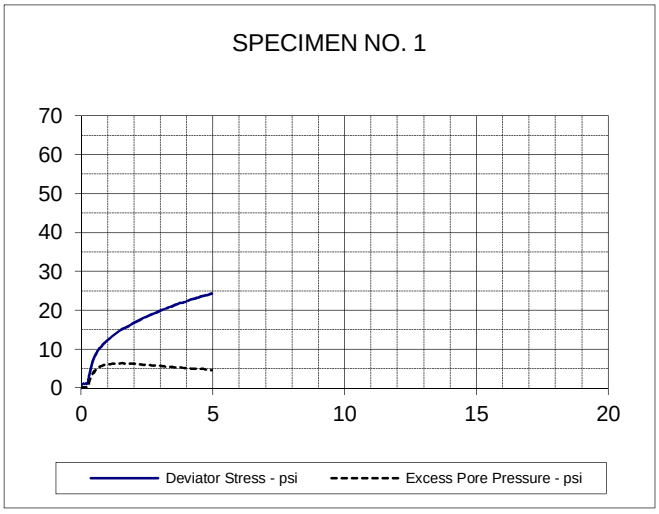

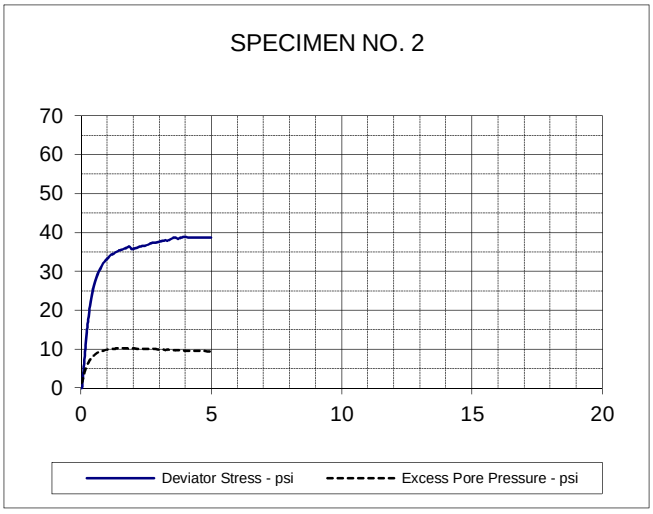

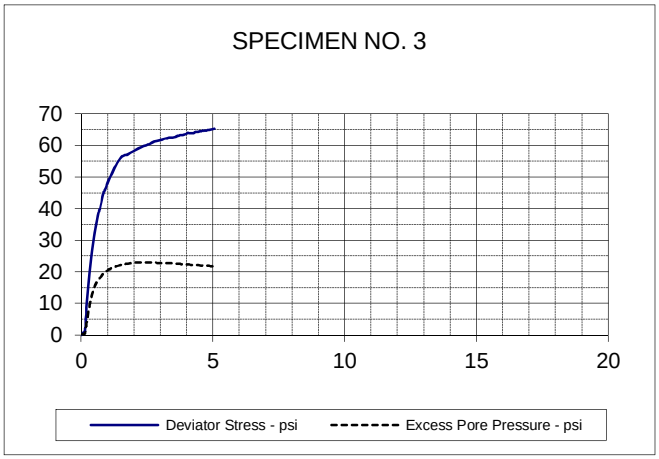

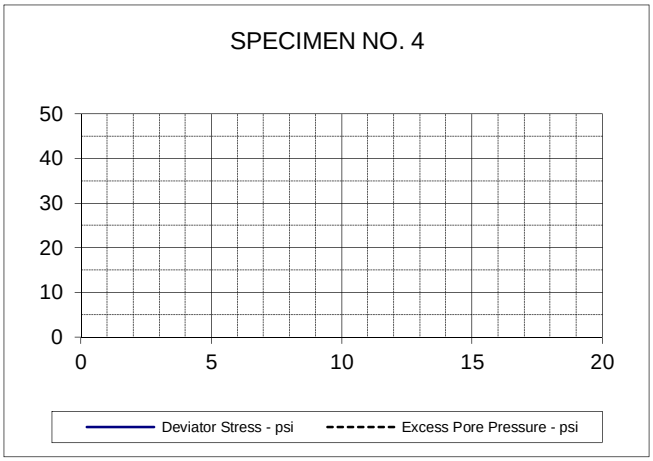

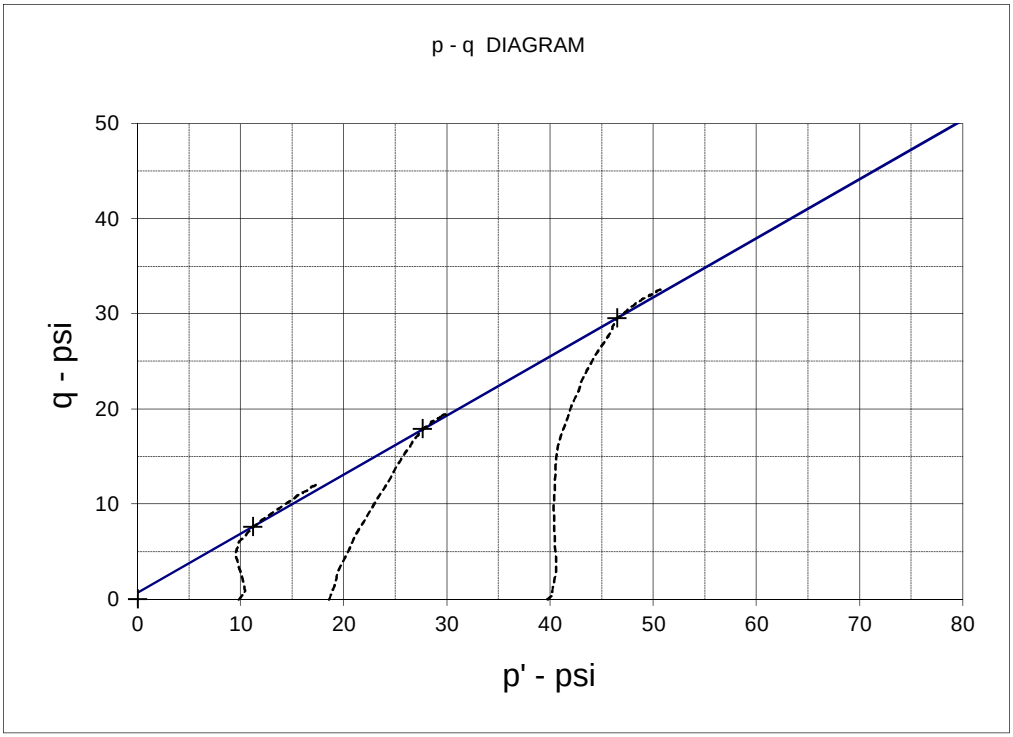

EFFECTIVE STRESS PARAMETERS	R^2 = 1.00	α (deg) = 31.8	a (psi) = 0.7
PROJECT: I-85/I-385 Interchange Modifications		TYPE OF TEST & NO: CU with Pore Pressure	
PROJECT NO: E2156301		**TERRACON**	
DESCRIPTION: Grayish Brown Silty Sand			

TRIAX_W1B-2R-02.xls

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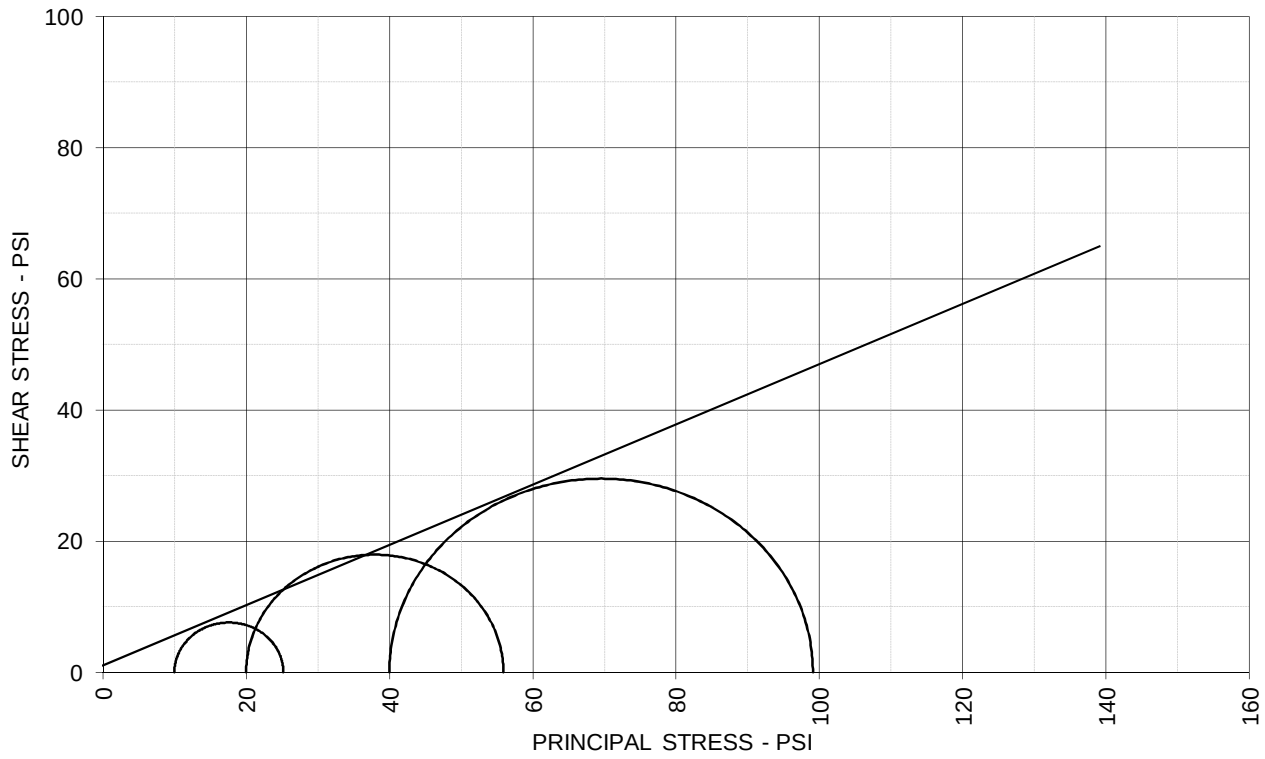
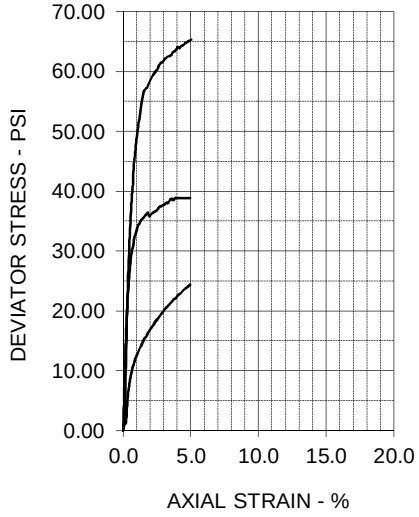


TOTAL STRESS PARAMETERS	ϕ = 24.7 deg	c = 1.0 psi



SPECIMEN NO.	1	2	3	4
INITIAL				
Moisture Content - %	23.5	23.5	23.5	
Dry Density - pcf	103.2	103.2	103.2	
Diameter - inches	2.85	2.85	2.85	
Height - inches	5.64	5.64	5.64	
AT TEST				
Final Moisture - %			21.3	
Dry Density - pcf	103.7	104.9	106.2	
Calculated Diameter (in.)	2.84	2.86	2.85	
Height - inches	5.61	5.65	5.64	
Effect. Cell Pressure - psi	10.0	20.0	40.0	
Failure Stress - psi	15.20	35.90	59.08	
Total Pore Pressure - psi	56.4	60.3	73.1	
Strain Rate - inches/min.	0.00060	0.00060	0.00060	
Failure Strain - %	1.6	1.6	2.2	
σ_1 Failure - psi	25.20	55.90	99.08	
σ_3 Failure - psi	10.00	20.00	40.00	

TEST DESCRIPTION

TYPE OF TEST & NO: CU with Pore Pressure
SAMPLE TYPE: Shelby Tube
DESCRIPTION: Grayish Brown Silty Sand
SAMPLE LOCATION: W1B-2R-02, T-1, 8.0-10.0ft
SPECIFIC GRAVITY: 2.624
LL: PL: PI: Percent -200:
REMARKS: Multistage Triaxial

PROJECT INFORMATION

PROJECT: I-85/I-385 Interchange Modifications
LOCATION: I-85/I-385 Interchange
PROJECT NO: E2156301
CLIENT: Thompson Engineering
DATE: 5/14/15

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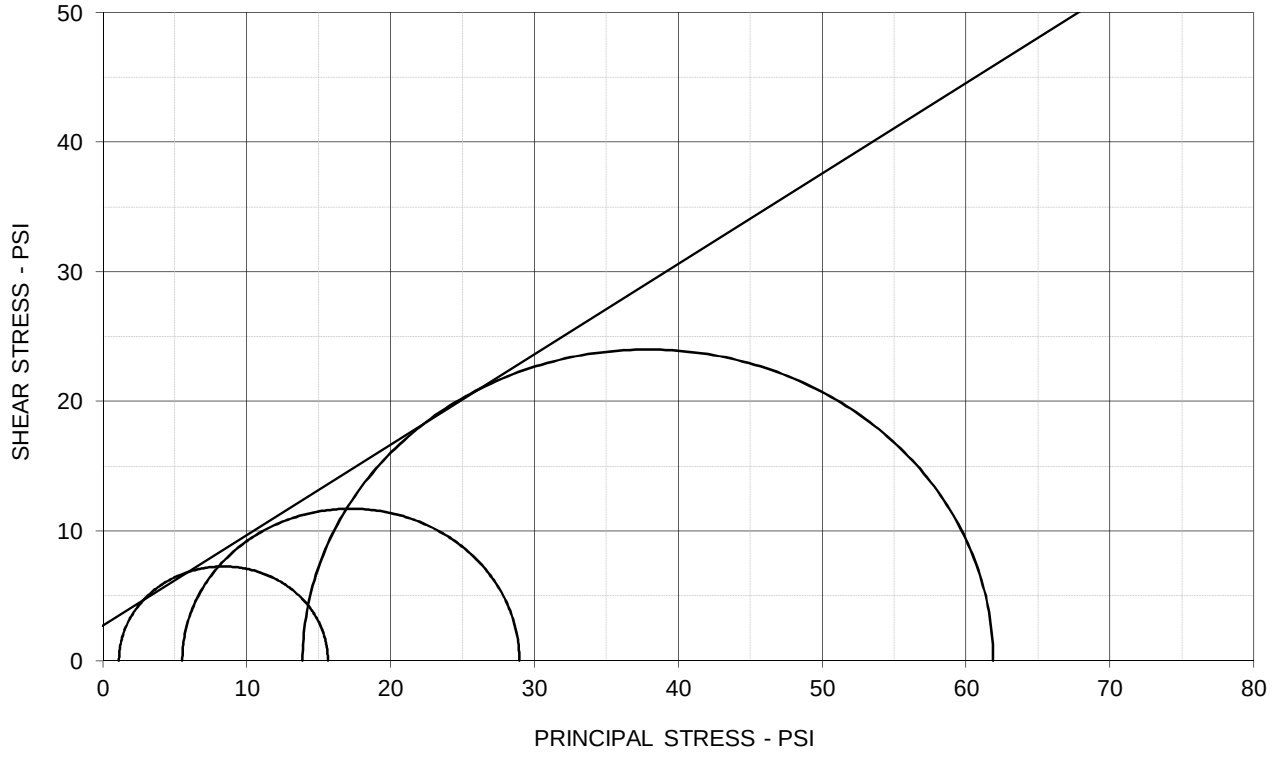
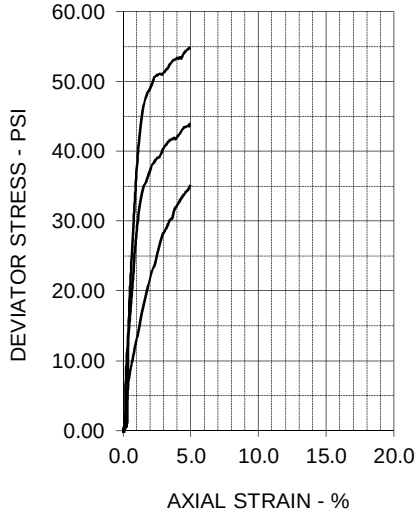


EFFECTIVE STRESS PARAMETERS	ϕ' = 34.9 deg	c' = 2.7 psi



SPECIMEN NO.	1	2	3	4
INITIAL				
Moisture Content - %	20.1	20.1	20.1	
Dry Density - pcf	101.0	101.0	101.0	
Diameter - inches	2.02	2.02	2.02	
Height - inches	4.01	4.01	4.01	
AT TEST				
Final Moisture - %			23.5	
Dry Density - pcf	101.0	101.4	102.4	
Calculated Diameter (in.)	2.02	2.02	2.02	
Height - inches	4.01	4.01	4.02	
Effect. Cell Pressure - psi	5.0	10.0	20.0	
Failure Stress - psi	14.52	23.43	48.00	
Total Pore Pressure - psi	53.9	54.5	56.1	
Strain Rate - inches/min.	0.00040	0.00040	0.00040	
Failure Strain - %	1.2	0.8	1.7	
σ_1' Failure - psi	15.65	28.96	61.89	
σ_3' Failure - psi	1.13	5.53	13.89	

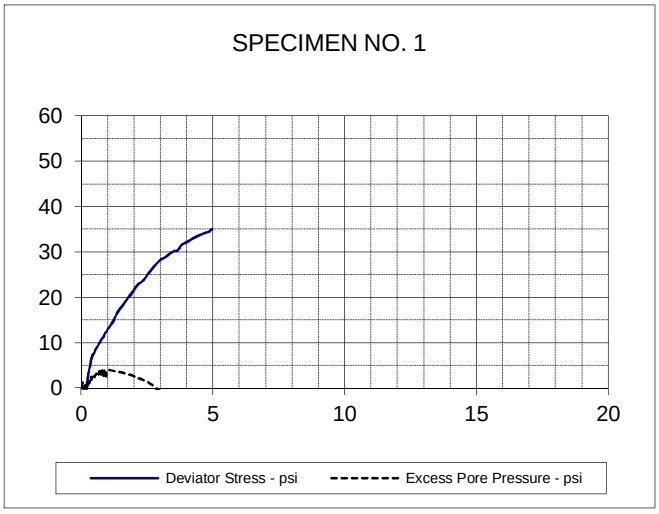
TEST DESCRIPTION

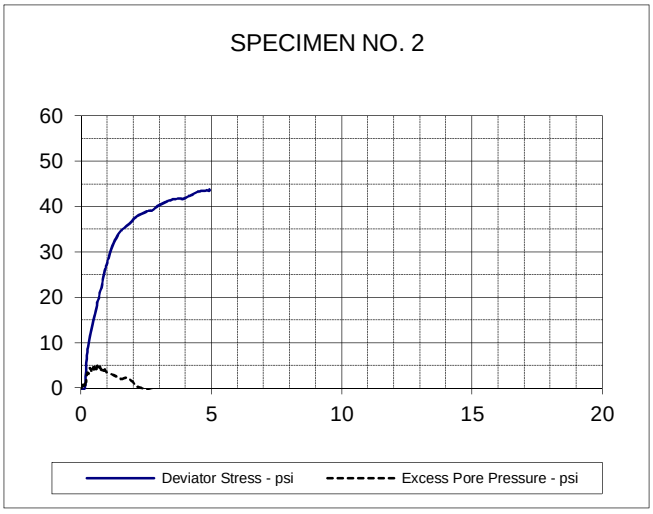
TYPE OF TEST & NO: CU with Pore Pressure
SAMPLE TYPE: Shelby Tube
DESCRIPTION: Sandy Lean Clay (CL)
SAMPLE LOCATION: W1B-2R-03, T-1, 4.0-6.0ft
ASSUMED SPECIFIC GRAVITY: 2.7
LL: 43 PL: 23 PI: 20 Percent -200: 56.3
REMARKS: Multistage Triaxial

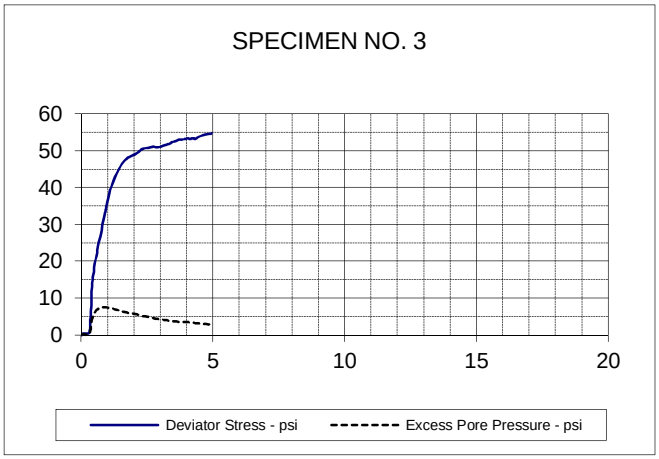
PROJECT INFORMATION

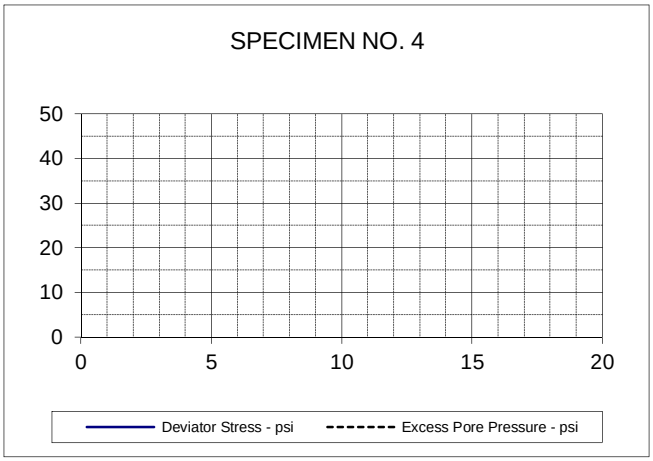
PROJECT: I-85/I-385 Interchange Modifications
LOCATION: I-85/I-385 Interchange
PROJECT NO: E2156301
CLIENT: Thompson Engineering
DATE: 1/22/15

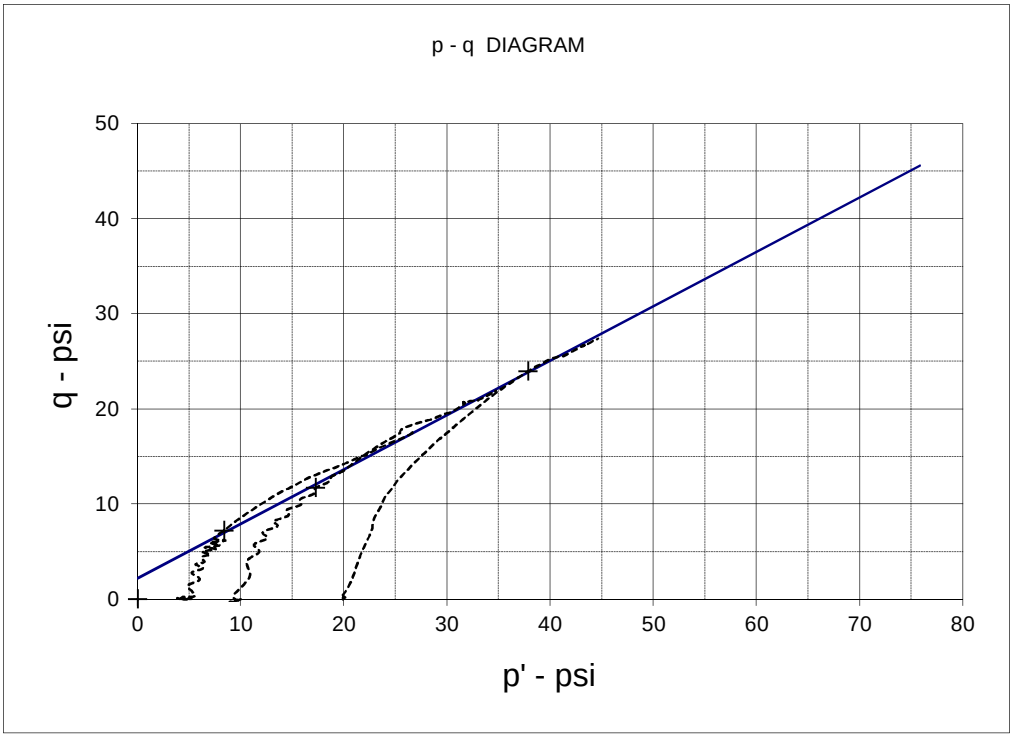
TERRACON











EFFECTIVE STRESS PARAMETERS	R^2 = 1.00	α (deg) = 29.8	a (psi) = 2.2
PROJECT: I-85/I-385 Interchange Modifications		TYPE OF TEST & NO: CU with Pore Pressure	
PROJECT NO: E2156301		**TERRACON**	
DESCRIPTION: Sandy Lean Clay (CL)			

TRIAX_W1B-2R-03@6.xls

TRIAXIAL SHEAR TEST REPORT

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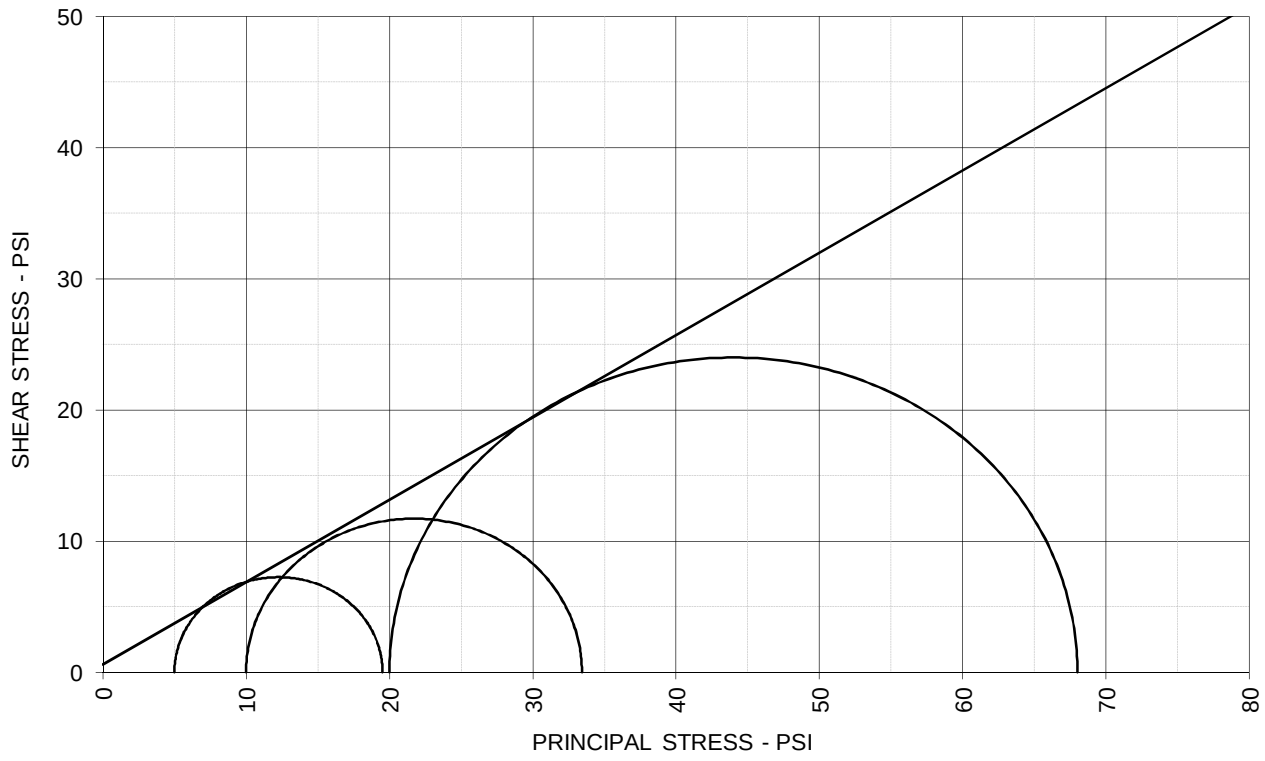
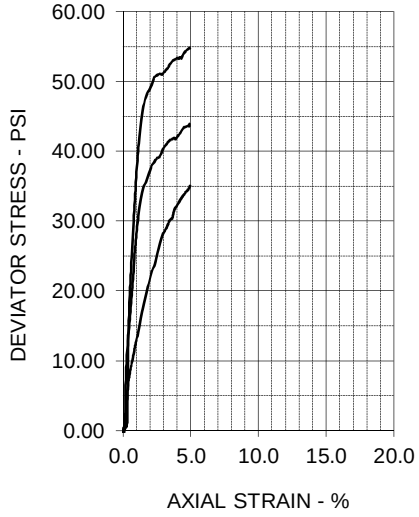


TOTAL STRESS PARAMETERS	ϕ = 32.1 deg	c = 0.6 psi



SPECIMEN NO.	1	2	3	4
INITIAL				
Moisture Content - %	20.1	20.1	20.1	
Dry Density - pcf	101.0	101.0	101.0	
Diameter - inches	2.02	2.02	2.02	
Height - inches	4.01	4.01	4.01	
AT TEST				
Final Moisture - %			23.5	
Dry Density - pcf	101.0	101.4	102.4	
Calculated Diameter (in.)	2.02	2.02	2.02	
Height - inches	4.01	4.01	4.02	
Effect. Cell Pressure - psi	5.0	10.0	20.0	
Failure Stress - psi	14.52	23.43	48.00	
Total Pore Pressure - psi	53.9	54.5	56.1	
Strain Rate - inches/min.	0.00040	0.00040	0.00040	
Failure Strain - %	1.2	0.8	1.7	
σ_1 Failure - psi	19.52	33.43	68.00	
σ_3 Failure - psi	5.00	10.00	20.00	

TEST DESCRIPTION

TYPE OF TEST & NO: CU with Pore Pressure
SAMPLE TYPE: Shelby Tube
DESCRIPTION: Sandy Lean Clay (CL)
SAMPLE LOCATION: W1B-2R-03, T-1, 4.0-6.0ft
ASSUMED SPECIFIC GRAVITY: 2.7
LL: 43 PL: 23 PI: 20 Percent -200: 56.3
REMARKS: Multistage Triaxial

PROJECT INFORMATION

PROJECT: I-85/I-385 Interchange Modifications
LOCATION: I-85/I-385 Interchange
PROJECT NO: E2156301
CLIENT: Thompson Engineering
DATE: 1/22/15

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TRIAXIAL SHEAR TEST REPORT

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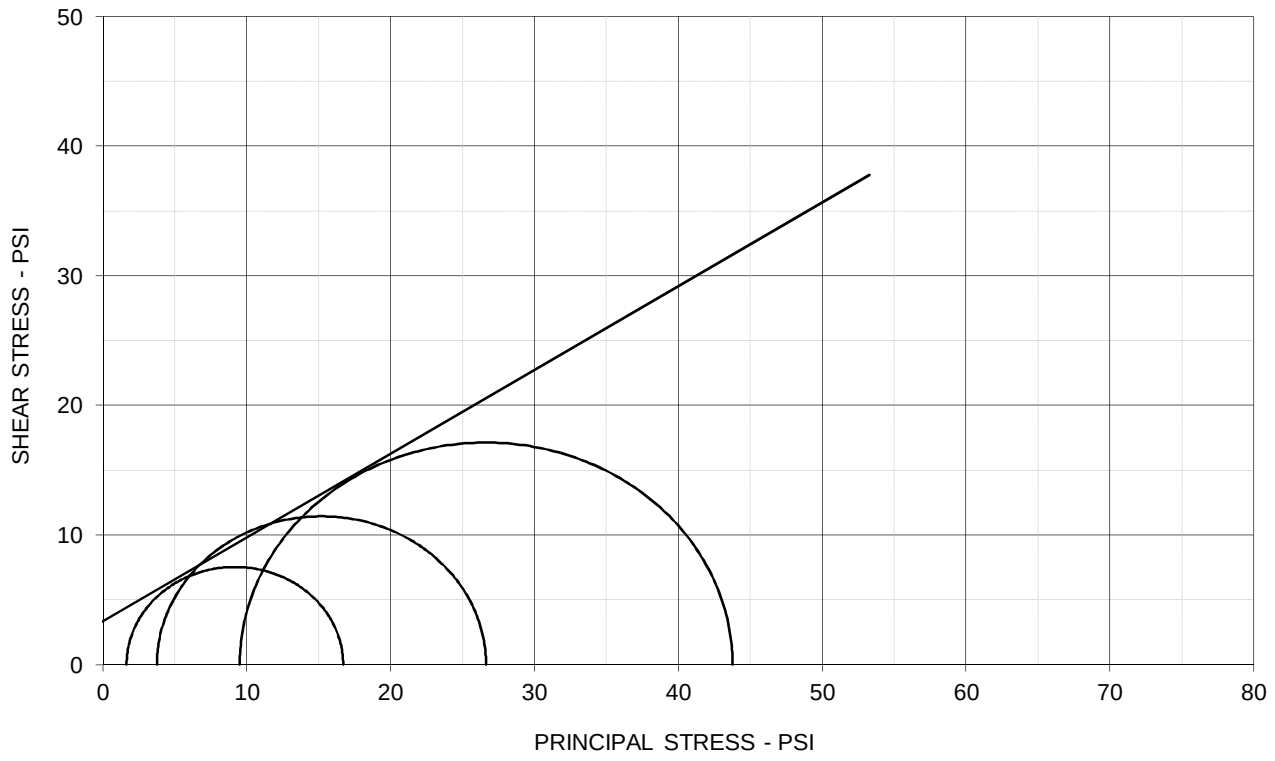
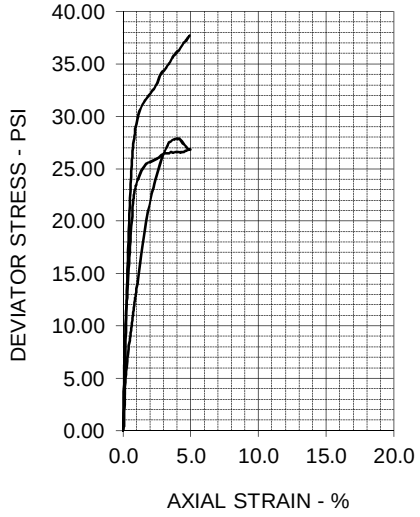


EFFECTIVE STRESS PARAMETERS	ϕ' = 32.9 deg	c' = 3.3 psi



SPECIMEN NO.	1	2	3	4
INITIAL				
Moisture Content - %	22.1	22.1	22.1	
Dry Density - pcf	106.4	106.4	106.4	
Diameter - inches	2.86	2.86	2.86	
Height - inches	5.72	5.72	5.72	
AT TEST				
Final Moisture - %			20.7	
Dry Density - pcf	106.4	107.0	107.9	
Calculated Diameter (in.)	2.84	2.86	2.85	
Height - inches	5.67	5.72	5.71	
Effect. Cell Pressure - psi	5.0	10.0	20.0	
Failure Stress - psi	15.05	22.87	34.25	
Total Pore Pressure - psi	53.3	56.2	60.5	
Strain Rate - inches/min.	0.00060	0.00060	0.00060	
Failure Strain - %	1.2	0.9	2.7	
σ_1' Failure - psi	16.71	26.64	43.77	
σ_3' Failure - psi	1.66	3.77	9.52	

TEST DESCRIPTION

TYPE OF TEST & NO: CU with Pore Pressure
SAMPLE TYPE: Shelby Tube
DESCRIPTION: Silty Sand (SM)
SAMPLE LOCATION: W1B-2R-03, T-2, 15.0-17.0ft
ASSUMED SPECIFIC GRAVITY: 2.7
LL: 43 PL: 35 PI: 8 Percent -200: 21.9
REMARKS: Multistage Triaxial

PROJECT INFORMATION

PROJECT: I-85/I-385 Interchange Modifications
LOCATION: I-85/I-385 Interchange
PROJECT NO: E2156301
CLIENT: Thompson Engineering
DATE: 1/22/15

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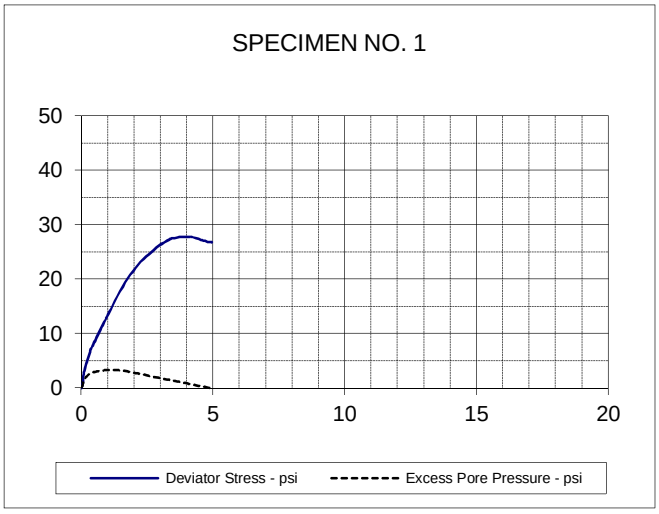

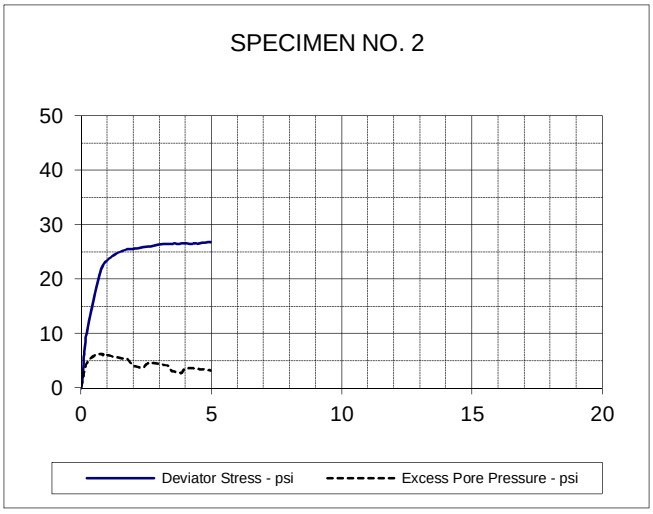

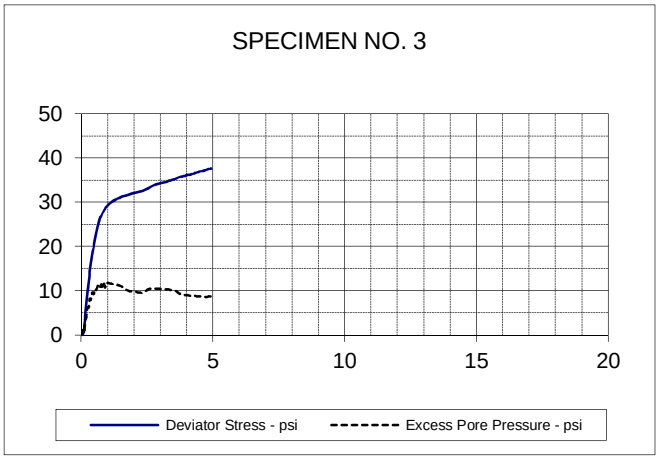

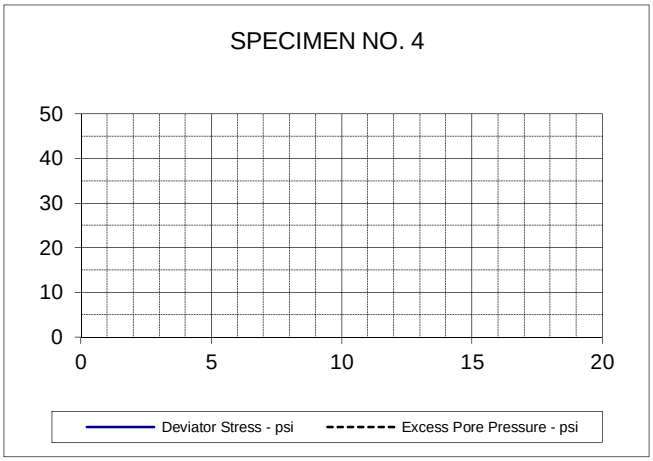

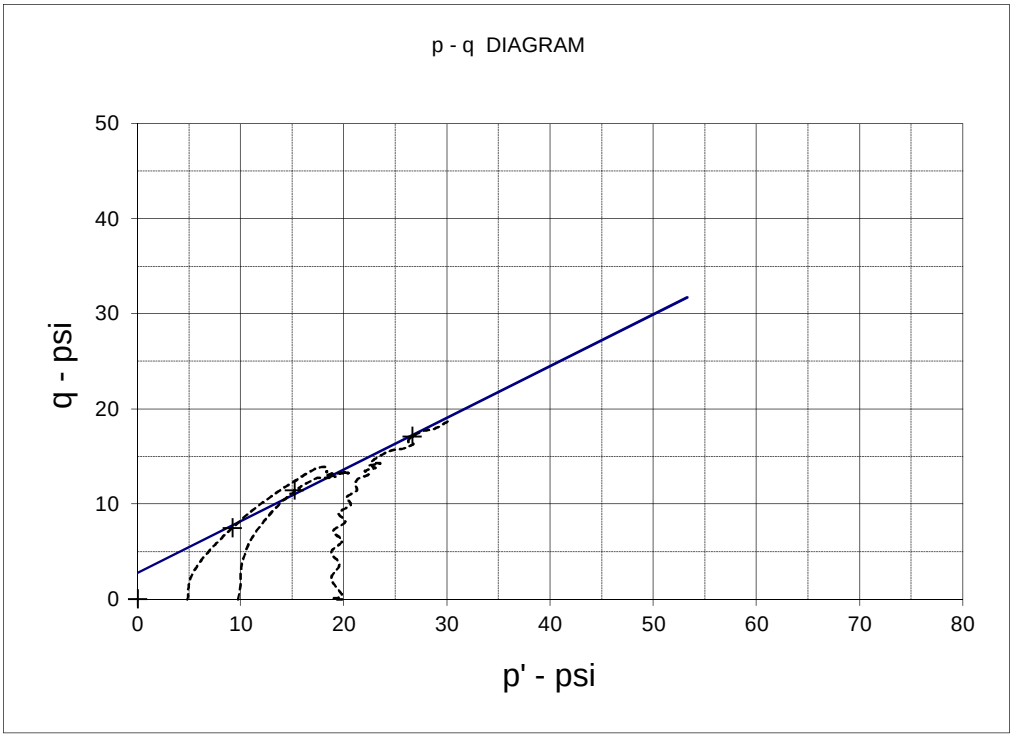

EFFECTIVE STRESS PARAMETERS	R^2 = 1.00	α (deg) = 28.5	a (psi) = 2.8
PROJECT: I-85/I-385 Interchange Modifications		TYPE OF TEST & NO: CU with Pore Pressure	
PROJECT NO: E2156301		**TERRACON**	
DESCRIPTION: Silty Sand (SM)			

TRIAXIAL SHEAR TEST REPORT

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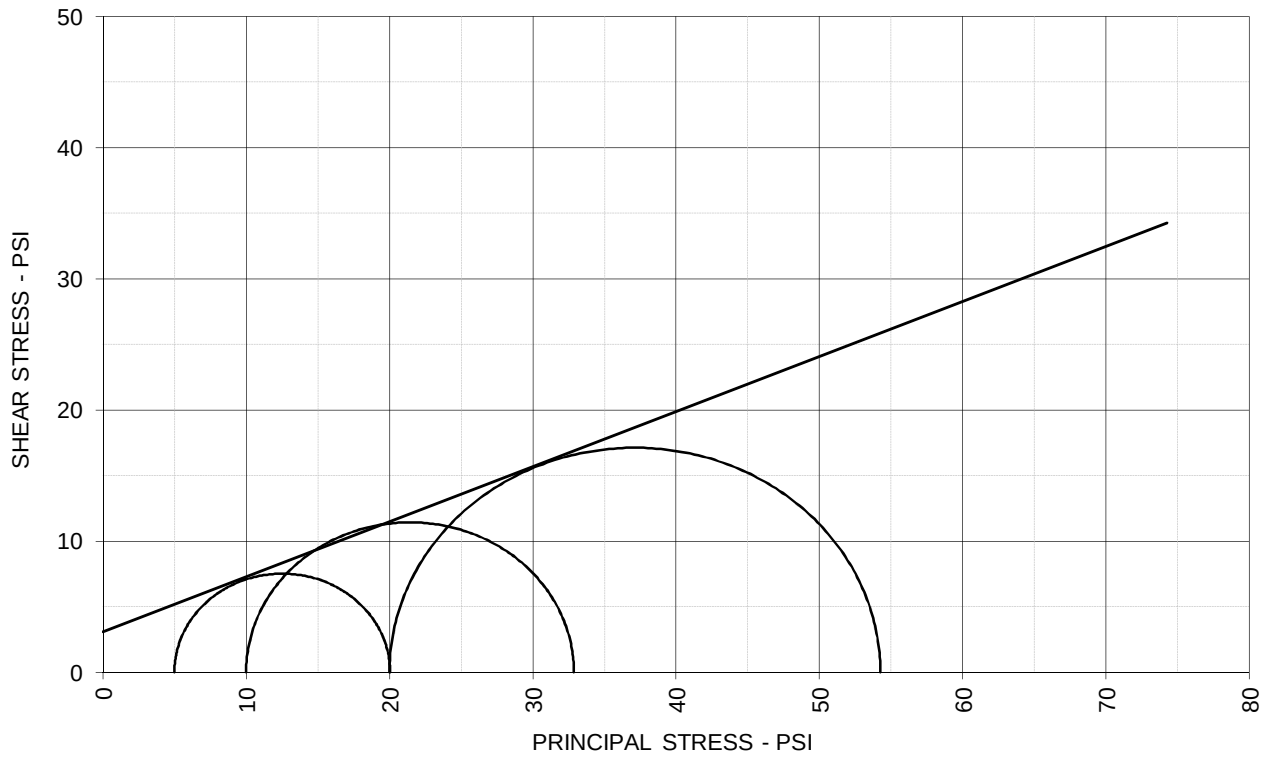
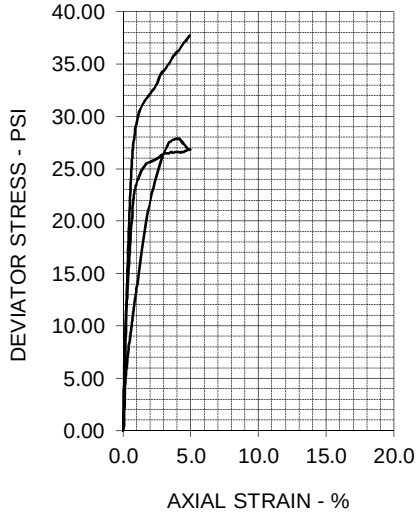


TOTAL STRESS PARAMETERS	ϕ = 22.8 deg	c = 3.1 psi



SPECIMEN NO.	1	2	3	4
INITIAL				
Moisture Content - %	22.1	22.1	22.1	
Dry Density - pcf	106.4	106.4	106.4	
Diameter - inches	2.86	2.86	2.86	
Height - inches	5.72	5.72	5.72	
AT TEST				
Final Moisture - %			20.7	
Dry Density - pcf	106.4	107.0	107.9	
Calculated Diameter (in.)	2.84	2.86	2.85	
Height - inches	5.67	5.72	5.71	
Effect. Cell Pressure - psi	5.0	10.0	20.0	
Failure Stress - psi	15.05	22.87	34.25	
Total Pore Pressure - psi	53.3	56.2	60.5	
Strain Rate - inches/min.	0.00060	0.00060	0.00060	
Failure Strain - %	1.2	0.9	2.7	
σ_1 Failure - psi	20.05	32.87	54.25	
σ_3 Failure - psi	5.00	10.00	20.00	

TEST DESCRIPTION

TYPE OF TEST & NO: CU with Pore Pressure
SAMPLE TYPE: Shelby Tube
DESCRIPTION: Silty Sand (SM)
SAMPLE LOCATION: W1B-2R-03, T-2, 15.0-17.0ft
ASSUMED SPECIFIC GRAVITY: 2.7
LL: 43 PL: 35 PI: 8 Percent -200: 21.9
REMARKS: Multistage Triaxial

PROJECT INFORMATION

PROJECT: I-85/I-385 Interchange Modifications
LOCATION: I-85/I-385 Interchange
PROJECT NO: E2156301
CLIENT: Thompson Engineering
DATE: 1/22/15

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TRIAXIAL SHEAR TEST REPORT

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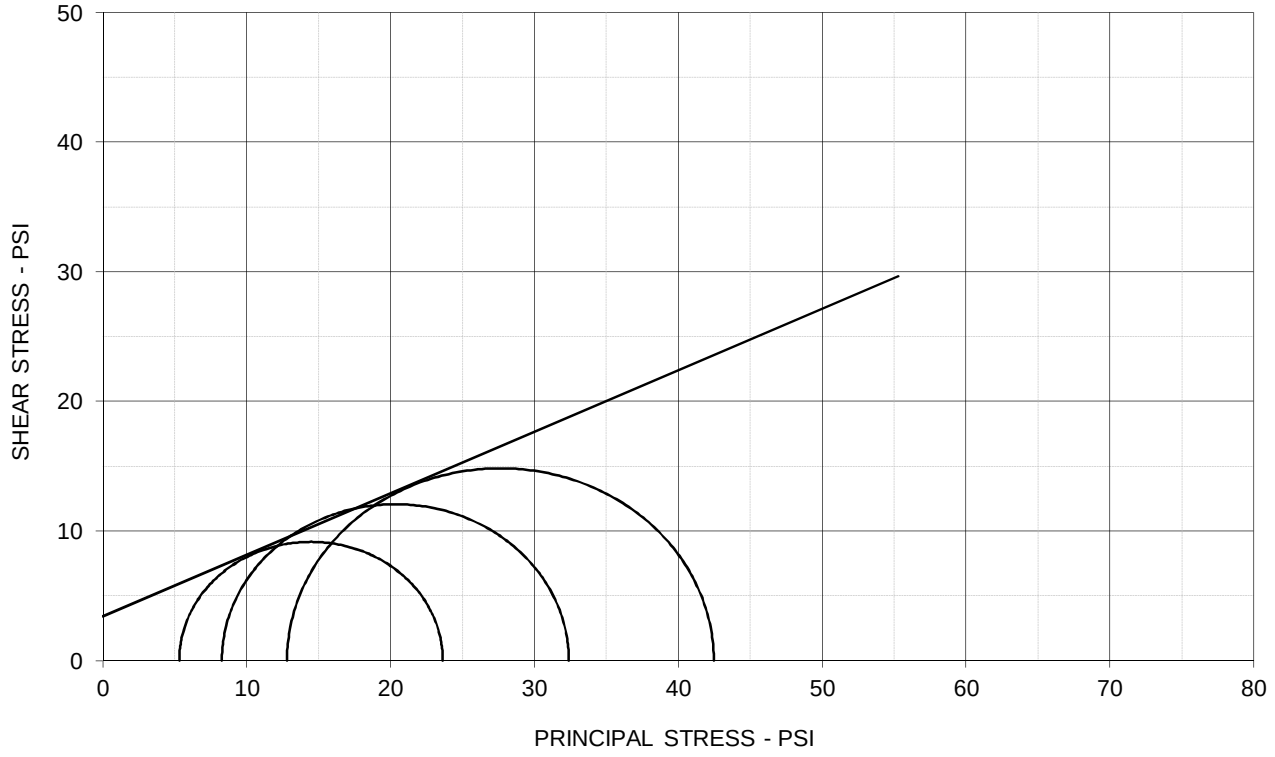
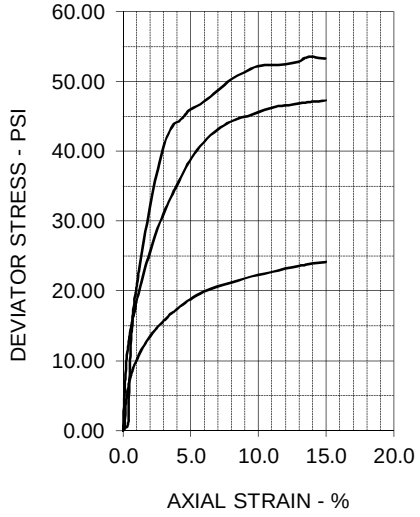


EFFECTIVE STRESS PARAMETERS	ϕ' = 25.4 deg	c' = 3.4 psi



SPECIMEN NO.	1	2	3	4
INITIAL				
Moisture Content - %	35.9	27.2	24.2	
Dry Density - pcf	88.5	95.3	97.1	
Diameter - inches	2.82	2.84	2.86	
Height - inches	5.67	5.68	5.69	
AT TEST				
Final Moisture - %	32.4	26.5	21.7	
Dry Density - pcf	89.4	97.0	104.6	
Calculated Diameter (in.)	2.80	2.83	2.83	
Height - inches	5.61	5.63	5.60	
Effect. Cell Pressure - psi	10.0	20.0	40.0	
Failure Stress - psi	18.32	24.12	29.66	
Total Pore Pressure - psi	54.7	61.7	77.2	
Strain Rate - inches/min.	0.00060	0.00060	0.00060	
Failure Strain - %	4.6	1.8	1.8	
σ_1' Failure - psi	23.64	32.40	42.47	
σ_3' Failure - psi	5.32	8.28	12.81	

TEST DESCRIPTION

TYPE OF TEST & NO: CU with Pore Pressure
SAMPLE TYPE: Shelby Tube
DESCRIPTION: Yellowish Orange Sandy Clay
SAMPLE LOCATION: W2A-MB2-01, T-1, 10.0-12.0ft
SPECIFIC GRAVITY: 2.684
LL: PL: PI: Percent -200:
REMARKS: Three specimen series.

PROJECT INFORMATION

PROJECT: I-85/I-385 Interchange Modifications
LOCATION: I-85/I-385 Interchange
PROJECT NO: E2156301
CLIENT: Thompson Engineering
DATE: 5/14/15

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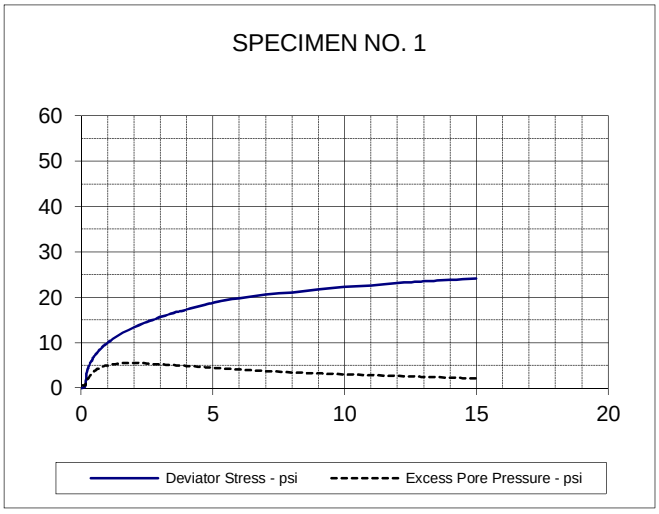

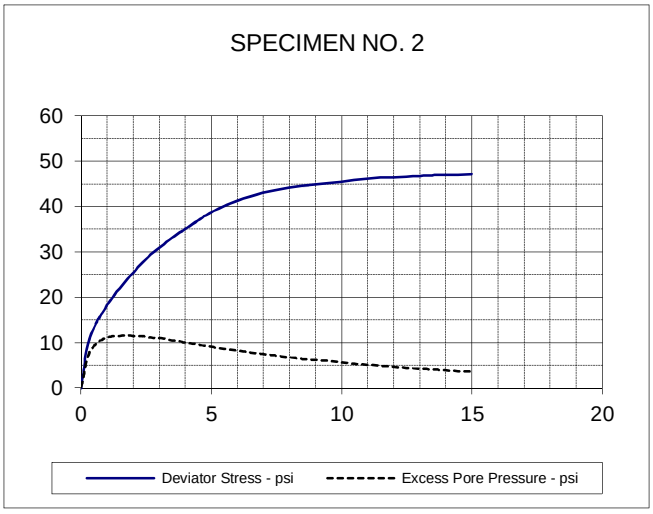

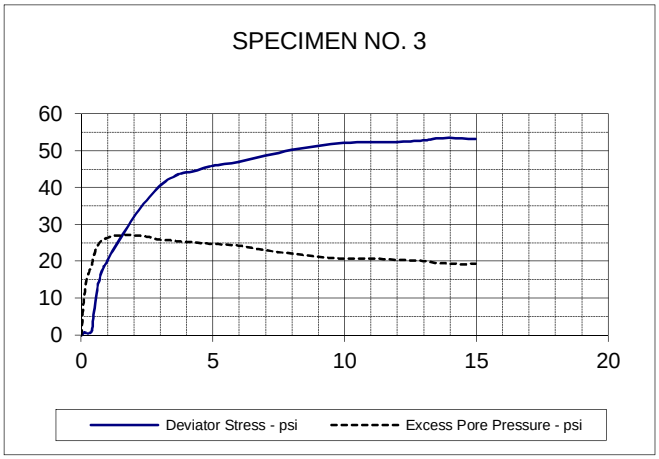

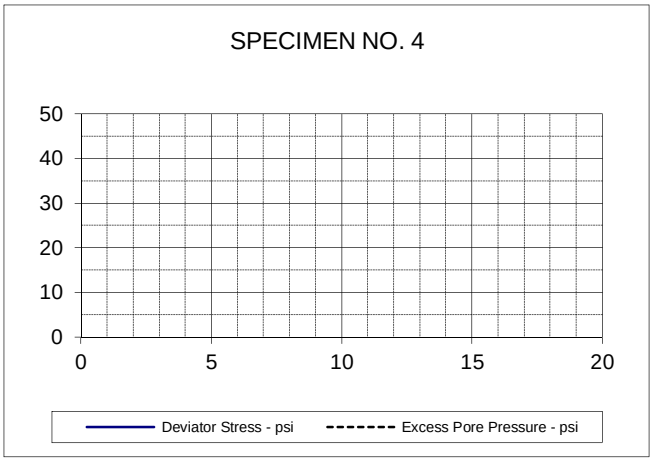

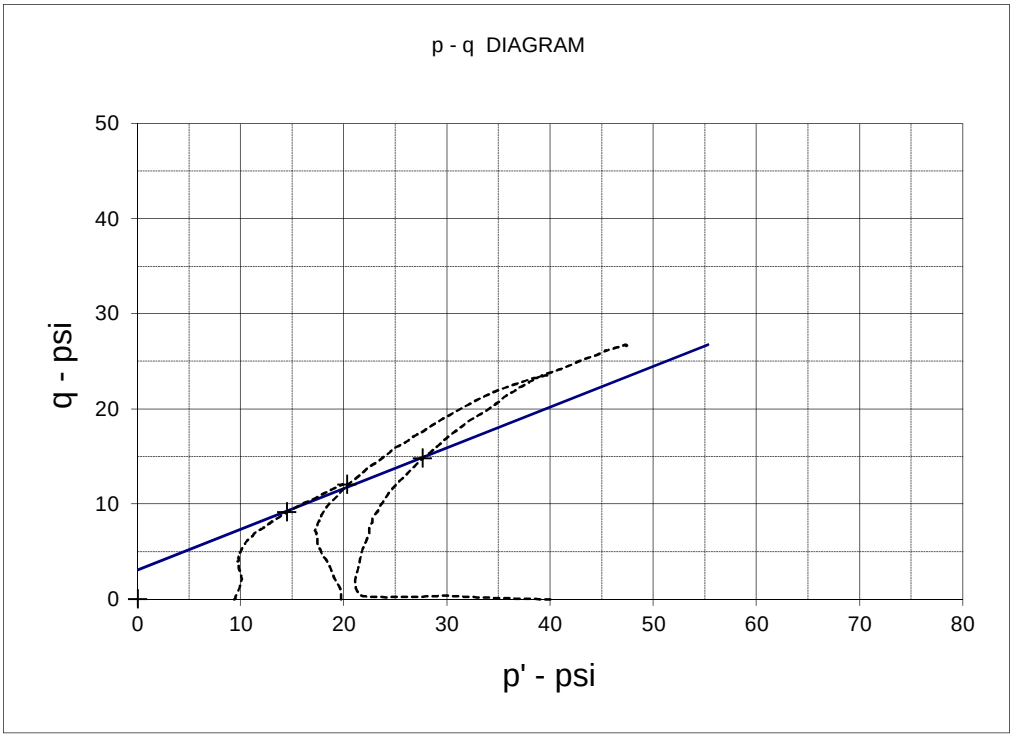

EFFECTIVE STRESS PARAMETERS	R^2 = 1.00	α (deg) = 23.2	a (psi) = 3.1
PROJECT: I-85/I-385 Interchange Modifications		TYPE OF TEST & NO: CU with Pore Pressure	
PROJECT NO: E2156301		**TERRACON**	
DESCRIPTION: Yellowish Orange Sandy Clay			

TRIAX_W2A-MB2-01.xls

TRIAXIAL SHEAR TEST REPORT

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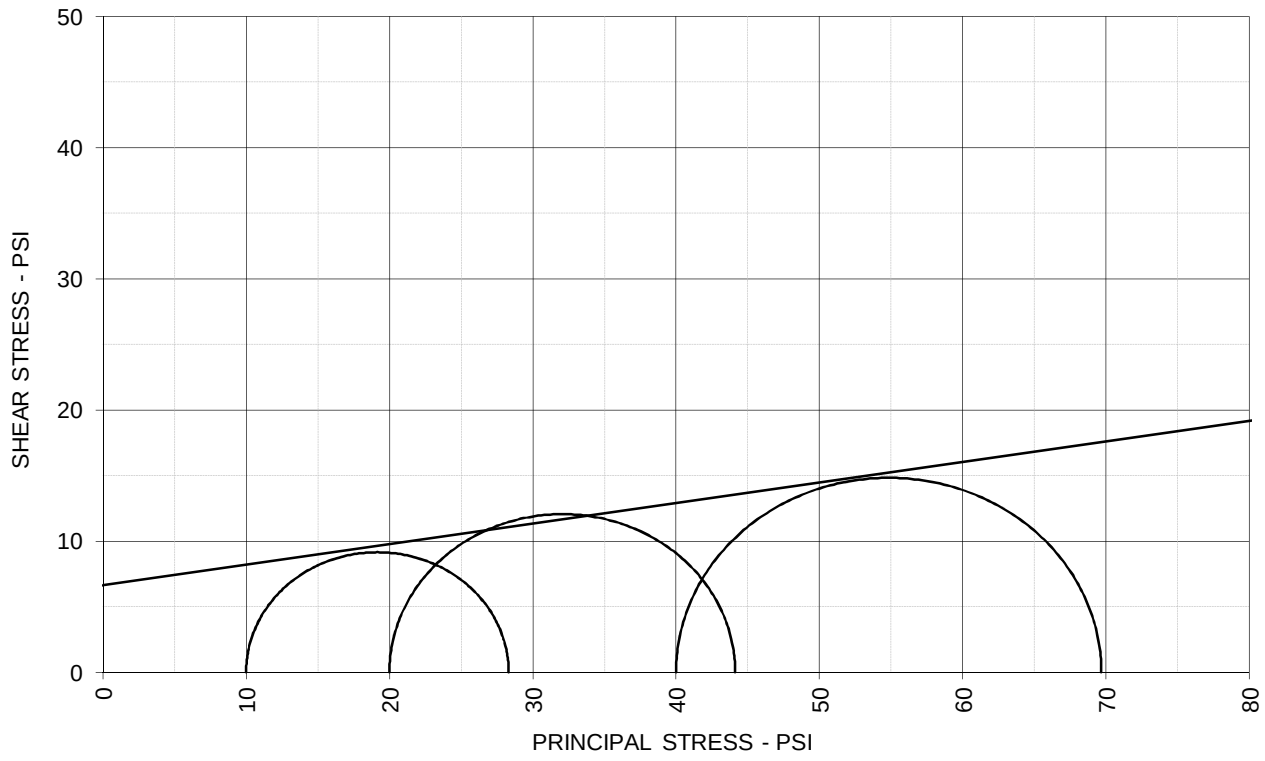
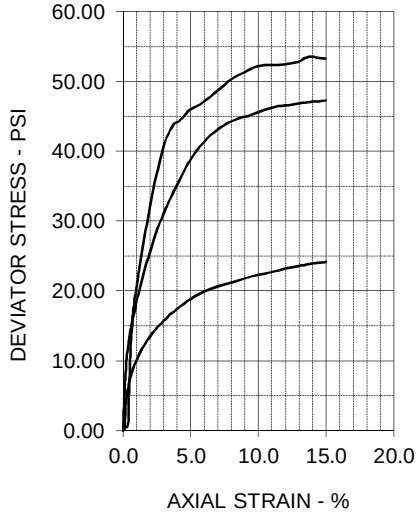


TOTAL STRESS PARAMETERS	ϕ = 8.9 deg	c = 6.6 psi



SPECIMEN NO.	1	2	3	4
INITIAL				
Moisture Content - %	35.9	27.2	24.2	
Dry Density - pcf	88.5	95.3	97.1	
Diameter - inches	2.82	2.84	2.86	
Height - inches	5.67	5.68	5.69	
AT TEST				
Final Moisture - %	32.4	26.5	21.7	
Dry Density - pcf	89.4	97.0	104.6	
Calculated Diameter (in.)	2.80	2.83	2.83	
Height - inches	5.61	5.63	5.60	
Effect. Cell Pressure - psi	10.0	20.0	40.0	
Failure Stress - psi	18.32	24.12	29.66	
Total Pore Pressure - psi	54.7	61.7	77.2	
Strain Rate - inches/min.	0.00060	0.00060	0.00060	
Failure Strain - %	4.6	1.8	1.8	
σ_1 Failure - psi	28.32	44.12	69.66	
σ_3 Failure - psi	10.00	20.00	40.00	

TEST DESCRIPTION

TYPE OF TEST & NO: CU with Pore Pressure
SAMPLE TYPE: Shelby Tube
DESCRIPTION: Yellowish Orange Sandy Clay
SAMPLE LOCATION: W2A-MB2-01, T-1, 10.0-12.0ft
SPECIFIC GRAVITY: 2.684
LL: PL: PI: Percent -200:
REMARKS: Three specimen series.

PROJECT INFORMATION

PROJECT: I-85/I-385 Interchange Modifications
LOCATION: I-85/I-385 Interchange
PROJECT NO: E2156301
CLIENT: Thompson Engineering
DATE: 5/14/15

TERRACON