



NCDOT GEOTECHNICAL ENGINEERING UNIT

BORELOG REPORT

PROJECT NO. 36597.1.1	ID. I-4744	COUNTY Wake	GEOLOGIST D. Racey
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.			GROUND WTR (ft)
BORING NO. B-10	STATION 180+00	OFFSET 30ft RT	ALIGNMENT -LREV-
COLLAR ELEV. 459.0 ft	TOTAL DEPTH 10.0 ft	NORTHING 741,800	EASTING 2,074,648
DRILL MACHINE CME 550	DRILL METHOD 2.25" ID HSA	HAMMER TYPE Automatic	
START DATE 05/21/09	COMP. DATE 05/21/09	SURFACE WATER DEPTH N/A	DEPTH TO ROCK N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)
460	459.0	0.0											GROUND SURFACE	0.0
	457.0	2.0	1	2	3	5					M		ROADWAY EMBANKMENT	2.0
455	455.5	3.5	2	2	3	5					M		Brown, fine sandy silty CLAY (A-7-5), with trace mica & roots.	
	454.0	5.0	2	2	2	4					M/W		RESIDUAL	
	452.5	6.5	2	2	3	5					M/W		Maroon & tan, clayey SILT (A-5), with mica, saprolitic.	
450	450.5	8.5	2	2	3	5					M/W			8.5
			3	3	4	7					M/W		Orange, red, light gray & brown, fine sandy SILT (A-4), with rock fragments, micaceous, saprolitic.	10.0
445													Boring Terminated at Elevation 449.0 ft in SAND (RESIDUAL)	
440													NOTES:	
435													1) Elevation interpolated from cross sections.	
430														
425														
420														
415														
410														
405														
400														
395														
390														
385														
380														

NCDOT BORE SINGLE 66L-0104.GPJ NC_DOT.GDT 5/25/09



NCDOT GEOTECHNICAL ENGINEERING UNIT

BORELOG REPORT

PROJECT NO. 36597.1.1	ID. I-4744	COUNTY Wake	GEOLOGIST D. Racey
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.			GROUND WTR (ft)
BORING NO. B-11	STATION 205+00	OFFSET 20ft LT	ALIGNMENT -LREV-
COLLAR ELEV. 430.4 ft	TOTAL DEPTH 13.5 ft	NORTHING 739,348	EASTING 2,074,492
DRILL MACHINE CME 550	DRILL METHOD 2.25" ID HSA	HAMMER TYPE Automatic	
START DATE 05/21/09	COMP. DATE 05/21/09	SURFACE WATER DEPTH N/A	DEPTH TO ROCK N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)
435														
430	430.4	0.0											430.4	GROUND SURFACE 0.0
425	428.4	2.0	2	3	4	7						M	RESIDUAL Tan & orange, clayey SILT (A-5), with trace roots @ surface, micaceous, saprolitic.	
	426.9	3.5	3	3	3	6						M		
	425.4	5.0	3	2	2	4						M/W		
	423.9	6.5	3	3	2	5						M/W		
420	421.9	8.5	WOH		2	3						M/W	420.4	10.0
	420.4	10.0	1	1	2	3						M/W		
	418.4	12.0	2	2	3	5						W		
			3	3	3	6						W	416.9	13.5
415														Boring Terminated at Elevation 416.9 ft in SILT (RESIDUAL)
410														NOTES:
405														1) Elevation interpolated from cross sections.
400														
395														
390														
385														
380														
375														
370														
365														
360														
355														

NCDOT BORE SINGLE 66L-0104.GPJ NC_DOT.GDT 5/25/09



NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

PROJECT NO. 36597.1.1	ID. I-4744	COUNTY Wake	GEOLOGIST D. Racey
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.			GROUND WTR (ft)
BORING NO. B-12	STATION 210+00	OFFSET 30ft LT	ALIGNMENT -LREV-
COLLAR ELEV. 421.6 ft	TOTAL DEPTH 10.0 ft	NORTHING 738,879	EASTING 2,074,652
DRILL MACHINE CME 550	DRILL METHOD 2.25" ID HSA	HAMMER TYPE Automatic	
START DATE 05/21/09	COMP. DATE 05/21/09	SURFACE WATER DEPTH N/A	DEPTH TO ROCK N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	LOG	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)	
425																
	421.6	0.0												421.6	0.0	GROUND SURFACE
420	419.6	2.0	2	5	5	10						M		419.6	2.0	ROADWAY EMBANKMENT Tan & red, fine sandy silty CLAY (A-7-5), micaceous, with gravel & trace roots.
	418.1	3.5	3	4	4	10						M				RESIDUAL Tan-yellow, orange & black, fine sandy SILT (A-4), micaceous, saprolitic.
	416.6	5.0	3	3	4	10						M				
415	415.1	6.5	3	3	4	10						M				
	413.1	8.5	3	3	5	10						M				
			3	4	6	10						M		411.6	10.0	Boring Terminated at Elevation 411.6 ft in SILT (RESIDUAL)
410																
405																
400																
395																
390																
385																
380																
375																
370																
365																
360																
355																
350																
345																

NOTES:
1) Elevation interpolated from cross sections.

NCDOT BORE SINGLE 66L-0104.GPJ NC_DOT.GDT 5/25/09



NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

PROJECT NO. 36597.1.1	ID. I-4744	COUNTY Wake	GEOLOGIST D. Racey
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.			GROUND WTR (ft)
BORING NO. B-13	STATION 220+00	OFFSET 20ft LT	ALIGNMENT -LREV-
COLLAR ELEV. 405.2 ft	TOTAL DEPTH 6.6 ft	NORTHING 737,998	EASTING 2,075,106
DRILL MACHINE CME 550	DRILL METHOD 2.25" ID HSA	HAMMER TYPE Automatic	
START DATE 05/21/09	COMP. DATE 05/21/09	SURFACE WATER DEPTH N/A	DEPTH TO ROCK 6.5 ft

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
410																
405	405.2	0.0												405.2	GROUND SURFACE	0.0
														404.2	ROADWAY EMBANKMENT	1.0
	403.2	2.0	3	4	9									401.2	Red-brown with white, fine sandy SILT (A-4), with some clay, trace mica & roots, gravel.	4.0
	401.7	3.5	9	17	28											
400	400.2	5.0	20	33	67/0.3'										RESIDUAL	
	398.7	6.5	100/0.4'											398.7	Tan, gray & light orange, silty fine to coarse SAND (A-2-4), with mica.	6.5
			60/0.1'											398.6	WEATHERED ROCK	6.6
															Light gray, light orange & pink, MICA GNEISS.	
395															CRYSTALLINE ROCK	
															Tan, light gray, light orange & pink, MICA GNEISS.	
390															Boring Terminated at Elevation 398.6 ft in CRYSTALLINE ROCK (MICA GNEISS)	
385																
380																
375																
370																
365																
360																
355																
350																
345																
340																
335																
330																

- NOTES:
- 1) Geologist indicates strata break in split spoon at a depth of 1.0'.
 - 2) Elevation interpolated from cross sections.

NCDOT BORE SINGLE 66L-0104.GPJ NC_DOT.GDT 5/25/09



NCDOT GEOTECHNICAL ENGINEERING UNIT

BORELOG REPORT

PROJECT NO. 36597.1.1	ID. I-4744	COUNTY Wake	GEOLOGIST D. Racey
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.			GROUND WTR (ft)
BORING NO. B-14	STATION 240+00	OFFSET 30ft RT	ALIGNMENT -LREV-
COLLAR ELEV. 394.7 ft	TOTAL DEPTH 10.0 ft	NORTHING 736,433	EASTING 2,076,343
DRILL MACHINE CME 550	DRILL METHOD 2.25" ID HSA	HAMMER TYPE Automatic	
START DATE 05/21/09	COMP. DATE 05/21/09	SURFACE WATER DEPTH N/A	DEPTH TO ROCK N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					
395	394.7	0.0	1	3	4									GROUND SURFACE	0.0
	392.7	2.0	5	5	6									ROADWAY EMBANKMENT	
	391.2	3.5	4	5	6									Red with black & tan, fine sandy silty CLAY (A-7-5), with trace roots, micaceous.	3.2
390	389.7	5.0	4	5	6									Gray, tan & red, fine sandy CLAY (A-7-5), micaceous, with gravel.	
	388.2	6.5	4	5	7										
385	386.2	8.5	3	5	6									Boring Terminated at Elevation 384.7 ft in CLAY (ROADWAY EMBANKMENT)	10.0
380															
375															
370															
365															
360															
355															
350															
345															
340															
335															
330															
325															
320															
315															

NOTES:
 1) Geologist indicates strata break in split spoon at a depth of 3.2'.
 2) Elevation interpolated from cross sections.

NCDOT BORE SINGLE 66L-0104.GPJ NC_DOT.GDT 5/25/09



NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

PROJECT NO. 36597.1.1	ID. I-4744	COUNTY Wake	GEOLOGIST D. Racey
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.			GROUND WTR (ft)
BORING NO. B-15	STATION 245+00	OFFSET 30ft LT	ALIGNMENT -LREV-
COLLAR ELEV. 392.7 ft	TOTAL DEPTH 10.0 ft	NORTHING 736,147	EASTING 2,076,760
DRILL MACHINE CME 550	DRILL METHOD 2.25" ID HSA	HAMMER TYPE Automatic	
START DATE 05/21/09	COMP. DATE 05/21/09	SURFACE WATER DEPTH N/A	DEPTH TO ROCK N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
395																
	392.7	0.0														GROUND SURFACE 0.0
	390.7	2.0	3	4	4											ROADWAY EMBANKMENT Red, tan & white, silty CLAY (A-7-5), with mica, gravel & trace roots.
390	389.2	3.5	6	9	11											
	387.7	5.0	4	8	14											
	386.2	6.5	7	7	9											
385	384.2	8.5	4	5	7											
			5	4	6											
380																
375																
370																
365																
360																
355																
350																
345																
340																
335																
330																
325																
320																
315																

NOTES:

- 1) Geologist indicates strata break in split spoon at a depth of 4.3'.
- 2) Elevation interpolated from cross sections.

NCDOT BORE SINGLE 66L-0104.GPJ NC_DOT.GDT 5/25/09



NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

PROJECT NO. 36597.1.1	ID. I-4744	COUNTY Wake	GEOLOGIST D. Racey
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.			GROUND WTR (ft)
BORING NO. B-16	STATION 250+00	OFFSET 20ft RT	ALIGNMENT -LREV-
COLLAR ELEV. 395.6 ft	TOTAL DEPTH 10.0 ft	NORTHING 735,768	EASTING 2,077,091
DRILL MACHINE CME 550	DRILL METHOD 2.25" ID HSA	HAMMER TYPE Automatic	
START DATE 05/21/09	COMP. DATE 05/21/09	SURFACE WATER DEPTH N/A	DEPTH TO ROCK N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						ELEV. (ft)
400																
395	395.6	0.0												395.6	GROUND SURFACE	0.0
	393.6	2.0	2	2	4								M		RESIDUAL Brown, white, pink & gray, fine sandy SILT (A-4), micaceous, with quartz layers, saprolitic.	
	392.1	3.5	7	10	16								M			
390	390.6	5.0	12	17	20								M			
	389.1	6.5	23	23	24								D			
	387.1	8.5	9	14	14								M			
385	387.1	8.5	9	11	13								M	385.6		Boring Terminated at Elevation 385.6 ft in SILT (RESIDUAL)
380																
375																
370																
365																
360																
355																
350																
345																
340																
335																
330																
325																
320																

NCDOT BORE SINGLE 66L-0104.GPJ NC_DOT.GDT 5/25/09

NOTES:
1) Elevation interpolated from cross sections.



NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

PROJECT NO. 36597.1.1		ID. I-4744		COUNTY Wake		GEOLOGIST D. Racey	
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.							GROUND WTR (ft)
BORING NO. B-17		STATION 280+00		OFFSET 20ft RT		ALIGNMENT -LREV-	
COLLAR ELEV. 461.1 ft		TOTAL DEPTH 10.0 ft		NORTHING 733,294		EASTING 2,078,710	
DRILL MACHINE CME 550		DRILL METHOD 2.25" ID HSA				HAMMER TYPE Automatic	
START DATE 05/21/09		COMP. DATE 05/21/09		SURFACE WATER DEPTH N/A		DEPTH TO ROCK N/A	

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					ELEV. (ft)
465															
461.1	461.1	0.0												GROUND SURFACE	0.0
460	459.1	2.0	2	2	5							M	ROADWAY EMBANKMENT	2.0	
	457.6	3.5	3	5	6							M	Red & tan with black, highly silty CLAY (A-7-5), with mica.		
	456.1	5.0	3	4	6							M	RESIDUAL		
455	454.6	6.5	4	3	5							M	Maroon, red, tan & tan-yellow, silty CLAY (A-7-5), saprolitic.	5.0	
	452.6	8.5	3	3	3							M/W	Red & tan, clayey SILT (A-5), with trace rock fragments, micaceous, saprolitic.		
			3	3	5							M/W			
450														Boring Terminated at Elevation 451.1 ft in SILT (RESIDUAL)	10.0
445															
440														NOTES:	
														1) Elevation interpolated from cross sections.	
435															
430															
425															
420															
415															
410															
405															
400															
395															
390															
385															

NCDOT BORE SINGLE 66L-0104.GPJ NC_DOT.GDT 5/25/09



NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

PROJECT NO. 36597.1.1	ID. I-4744	COUNTY Wake	GEOLOGIST D. Racey
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.			GROUND WTR (ft)
BORING NO. B-18	STATION 290+00	OFFSET 20ft RT	ALIGNMENT -LREV-
COLLAR ELEV. 457.4 ft	TOTAL DEPTH 10.0 ft	NORTHING 732,347	EASTING 2,079,032
DRILL MACHINE CME 550	DRILL METHOD 2.25" ID HSA	HAMMER TYPE Automatic	
START DATE 05/21/09	COMP. DATE 05/21/09	SURFACE WATER DEPTH N/A	DEPTH TO ROCK N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	LOG	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)	
460																
	457.4	0.0												457.4		GROUND SURFACE 0.0
455	455.4	2.0	2	2	4	6						M		455.4		ROADWAY EMBANKMENT Red & tan, highly silty CLAY (A-7-5), with mica, trace roots. 2.0
	453.9	3.5	3	4	5	9						M				RESIDUAL Red & tan with black, clayey SILT (A-5), micaceous.
	452.4	5.0	2	4	4	8						M				
450	450.9	6.5	3	4	5	9						M				
	448.9	8.5	2	4	4	8						M				
			3	3	4	7						M		447.4		Boring Terminated at Elevation 447.4 ft in SILT (RESIDUAL) 10.0
445																
440																
435																
430																
425																
420																
415																
410																
405																
400																
395																
390																
385																
380																

NCDOT BORE SINGLE 66L-0104.GPJ NC_DOT.GDT 5/25/09

NOTES:
1) Elevation interpolated from cross sections.



NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

PROJECT NO. 36597.1.1	ID. I-4744	COUNTY Wake	GEOLOGIST D. Racey
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.			GROUND WTR (ft)
BORING NO. B-20	STATION 305+00	OFFSET 20ft LT	ALIGNMENT -LREV-
COLLAR ELEV. 443.5 ft	TOTAL DEPTH 10.0 ft	NORTHING 731,196	EASTING 2,079,949
DRILL MACHINE CME 550	DRILL METHOD 2.25" ID HSA	HAMMER TYPE Automatic	
START DATE 05/21/09	COMP. DATE 05/21/09	SURFACE WATER DEPTH N/A	DEPTH TO ROCK N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
445	443.5	0.0												GROUND SURFACE	0.0	
	441.5	2.0	3	3	4	7						M		ROADWAY EMBANKMENT Red, tan-gray & black, clayey SILT (A-5), with gravel, trace roots.	2.0	
440	440.0	3.5	3	3	4	7						M		RESIDUAL Maroon, tan-yellow & black, SILT (A-4), saprolitic, with trace rock fragments, trace to little fine sand & clay, highly micaceous.		
	438.5	5.0	2	3	5	8						M				
	437.0	6.5	3	3	5	8						M				
435	435.0	8.5	3	4	5	9						M				
			3	4	6	10						M			Boring Terminated at Elevation 433.5 ft in SILT (RESIDUAL)	10.0
430																
425																
420																
415																
410																
405																
400																
395																
390																
385																
380																
375																
370																
365																

NOTES:
1) Elevation interpolated from cross sections.

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NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

PROJECT NO. 36597.1.1	ID. I-4744	COUNTY Wake	GEOLOGIST D. Racey
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.			GROUND WTR (ft)
BORING NO. B-6	STATION 115+00	OFFSET 30ft LT	ALIGNMENT -LREV-
COLLAR ELEV. 401.0 ft	TOTAL DEPTH 11.5 ft	NORTHING 747,787	EASTING 2,077,078
DRILL MACHINE CME 550	DRILL METHOD 2.25" ID HSA	HAMMER TYPE Automatic	
START DATE 05/21/09	COMP. DATE 05/21/09	SURFACE WATER DEPTH N/A	DEPTH TO ROCK N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)
405														
400	401.0	0.0												401.0 GROUND SURFACE 0.0
	399.0	2.0	3	4	4	8						D	399.8 ROADWAY EMBANKMENT 1.2	
	397.5	3.5	6	6	7	13						D	397.5 Tan-brown, fine sandy SILT (A-4), with some clay, roots & gravel, micaceous. 2.0	
	396.0	5.0	4	5	6	11						M	397.5 Red & tan with white specks, silty CLAY (A-7-5), with some fine sand, mica & gravel. 3.5	
	394.5	6.5	4	7	8	15						M	396.0 Tan with red & white, fine sandy SILT (A-4), with some clay, mica & gravel. 8.5	
	392.5	8.5	3	5	6	11						M	392.5 Tan with red & white, fine sandy SILT (A-4), with some clay, mica & gravel. 8.5	
	391.0	10.0	3	3	3	6						W	391.0 Orange with tan & gray, silty CLAY (A-7-5), with mica. 10.0	
			3	6	8	14						M/W	389.5 Orange & dark gray, fine sandy silty CLAY (A-7-5), with gray fine sand layers, mica, gravel & trace organics. 11.5	
385														
380														
375														
370														
365														
360														
355														
350														
345														
340														
335														
330														
325														

NOTES:
 1) Geologist indicates strata break in split spoon at a depth of 1.2'.
 2) Elevation interpolated from cross sections.

NCDOT BORE SINGLE 66L-0104.GPJ NC_DOT.GDT 5/25/09



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PROJECT NO. 36597.1.1	ID. I-4744	COUNTY Wake	GEOLOGIST D. Racey
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.			GROUND WTR (ft)
BORING NO. B-7	STATION 125+00	OFFSET 30ft RT	ALIGNMENT -LREV-
COLLAR ELEV. 405.2 ft	TOTAL DEPTH 10.0 ft	NORTHING 746,824	EASTING 2,076,800
DRILL MACHINE CME 550	DRILL METHOD 2.25" ID HSA	HAMMER TYPE Automatic	
START DATE 05/21/09	COMP. DATE 05/21/09	SURFACE WATER DEPTH N/A	DEPTH TO ROCK N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	LOG G	SOIL AND ROCK DESCRIPTION	DEPTH (ft)
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					
410															
405	405.2	0.0												GROUND SURFACE	0.0
	403.2	2.0	2	4	5	9						D		ROADWAY EMBANKMENT	2.0
	401.7	3.5	3	5	6	11						M		Dark brown with orange, fine sandy SILT (A-4), with roots & mica.	
400	400.2	5.0	3	3	4	7						M		Red with tan & black, fine sandy silty CLAY (A-7-5), with mica & gravel.	
	398.7	6.5	2	4	4	8						M		RESIDUAL	
	396.7	8.5	2	3	4	7						M		Tan, gray, orange & black, SILT (A-4), micaceous, saprolitic, with some fine sand, quartz fragments.	
395			5	4	4	8						M		Boring Terminated at Elevation 395.2 ft in SILT (RESIDUAL)	10.0
390															
385															
380															
375															
370															
365															
360															
355															
350															
345															
340															
335															
330															

NOTES:
 1) Geologist indicates strata break in split spoon at a depth of 0.3'.
 2) Elevation interpolated from cross sections.

NCDOT BORE SINGLE 66L-0104.GPJ NC_DOT.GDT 5/25/09



NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

PROJECT NO. 36597.1.1	ID. I-4744	COUNTY Wake	GEOLOGIST D. Racey
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.			GROUND WTR (ft)
BORING NO. B-8	STATION 130+00	OFFSET 20ft RT	ALIGNMENT -LREV-
COLLAR ELEV. 406.3 ft	TOTAL DEPTH 10.0 ft	NORTHING 746,335	EASTING 2,076,700
DRILL MACHINE CME 550	DRILL METHOD 2.25" ID HSA	HAMMER TYPE Automatic	
START DATE 05/21/09	COMP. DATE 05/21/09	SURFACE WATER DEPTH N/A	DEPTH TO ROCK N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	LOG	SOIL AND ROCK DESCRIPTION			
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)		
410																	
406.3	406.3	0.0													406.3	GROUND SURFACE	0.0
405			2	4	4									D	405.2	ROADWAY EMBANKMENT	1.1
404.3	404.3	2.0												M		Brown & red with white, silty CLAY (A-7-5), with roots, trace gravel.	
402.8	402.8	3.5	5	6	8									M		RESIDUAL	
401.3	401.3	5.0	4	6	8									M	401.3	Orange, tan & white, silty CLAY (A-7-5).	5.0
400	399.8	6.5	7	9	9									M	399.3	Orange with tan, SILT (A-4), with little clay, micaceous, saprolitic.	7.0
	397.8	8.5	4	7	8									M		Tan, pink & red to tan-gray, silty fine SAND (A-2-4), micaceous, with quartz fragments, saprolitic.	10.0
395			5	7	9									M	396.3	Boring Terminated at Elevation 396.3 ft in SAND (RESIDUAL)	
390																	
385																	
380																	
375																	
370																	
365																	
360																	
355																	
350																	
345																	
340																	
335																	
330																	

NOTES:
 1) Geologist indicates strata breaks in split spoon at depths of 1.1' & 7.0'.
 2) Elevation interpolated from cross sections.

NCDOT BORE SINGLE 66L-0104.GPJ NC_DOT.GDT 5/25/09



NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

PROJECT NO. 36597.1.1	ID. I-4744	COUNTY Wake	GEOLOGIST D. Racey
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.			GROUND WTR (ft)
BORING NO. B-9	STATION 150+00	OFFSET 30ft LT	ALIGNMENT -LREV-
COLLAR ELEV. 416.5 ft	TOTAL DEPTH 10.0 ft	NORTHING 744,422	EASTING 2,076,114
DRILL MACHINE CME 550	DRILL METHOD 2.25" ID HSA	HAMMER TYPE Automatic	
START DATE 05/21/09	COMP. DATE 05/21/09	SURFACE WATER DEPTH N/A	DEPTH TO ROCK N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	LOG	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)	
420																
	416.5	0.0												416.5	0.0	GROUND SURFACE
415	414.5	2.0	3	4	3	7							D	414.5	2.0	ROADWAY EMBANKMENT Brown & gray, fine sandy SILT (A-4), with some clay, roots, gravel & trace mica.
	413.0	3.5	5	6	8	14							M			RESIDUAL Tan, dark gray & red, SILT (A-4), with mica, trace to little fine sand, saprolitic.
	411.5	5.0	5	7	10	17							M			
410	410.0	6.5	6	11	14	25							M			
	408.0	8.5	8	13	17	30							M			
	406.5		8	12	14	26							M	406.5	10.0	Boring Terminated at Elevation 406.5 ft in SILT (RESIDUAL)
405																
400																
395																
390																
385																
380																
375																
370																
365																
360																
355																
350																
345																
340																

NOTES:
1) Elevation interpolated from cross sections.

NCDOT BORE SINGLE 66L-0104.GPJ NC_DOT.GDT 5/25/09



NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

PROJECT NO. 36597.1.1	ID. I-4744	COUNTY Wake	GEOLOGIST D. Racey
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.			GROUND WTR (ft)
BORING NO. B-31	STATION 127+93	OFFSET 200ft RT	ALIGNMENT -LREV-
COLLAR ELEV. 419.0 ft	TOTAL DEPTH 24.5 ft	NORTHING 746,575	EASTING 2,076,571
DRILL MACHINE CME 550	DRILL METHOD 2.25" ID HSA	HAMMER TYPE Automatic	
START DATE 05/22/09	COMP. DATE 05/22/09	SURFACE WATER DEPTH N/A	DEPTH TO ROCK 23.5 ft

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	LOG	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)	
420	419.0	0.0												419.0	0.0	GROUND SURFACE
415	415.5	3.5	1	2	4	6	7	9				M		417.0	2.0	RESIDUAL Red, silty CLAY (A-7-5), micaceous, with trace roots & fine sand.
410	410.5	8.5	6	7	9							M				Tan, gray & orange, silty fine SAND (A-2-4), with mica, saprolitic, rock fragments @ 13.5'.
405	405.5	13.5	11	15	18							M				
400	400.5	18.5	16	48	49							D				
395	395.5	23.5	90	10/0.0'								D		400.5	18.5	WEATHERED ROCK Gray with brown, MICA GNEISS.
	394.5	24.5	60/0.1'									D		395.5	23.5	CRYSTALLINE ROCK Light gray, MICA GNEISS.
			50/0.0'											394.5	24.5	Boring Terminated with Standard Penetration Test Refusal at Elevation 394.5 ft in CRYSTALLINE ROCK (MICA GNEISS)
390																
385																
380																
375																
370																
365																
360																
355																
350																
345																
340																

NOTES:
 1) Elevation interpolated from cross sections.
 2) Auger refusal at a depth of 24.5'.

NCDOT BORE SINGLE 66L-0104.GPJ NC_DOT.GDT 5/26/09



NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

PROJECT NO. 36597.1.1	ID. I-4744	COUNTY Wake	GEOLOGIST D. Racey
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.			GROUND WTR (ft)
BORING NO. EB1-B WBL	STATION 270+25	OFFSET 18ft LT	ALIGNMENT -LREV-
COLLAR ELEV. 397.1 ft	TOTAL DEPTH 99.9 ft	NORTHING 734,205	EASTING 2,078,362
DRILL MACHINE CME 550	DRILL METHOD 2.25" ID HSA	HAMMER TYPE Automatic	
START DATE 05/22/09	COMP. DATE 05/22/09	SURFACE WATER DEPTH N/A	DEPTH TO ROCK N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	L O G	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)	
400														397.1	0.0	GROUND SURFACE
395														389.1	8.0	ROADWAY EMBANKMENT Red-brown, silty CLAY (A-7-5).
390														385.1	12.0	Tan & red-brown, highly silty CLAY (A-7-5).
385														377.1	20.0	Red-brown, highly plastic, silty CLAY (A-7-6), with gravel, becomes micaceous @ 16.0'.
380														375.1	22.0	Tan-brown, silty CLAY (A-7-5), with gravel.
375														365.1	32.0	Red-brown, highly plastic, silty CLAY (A-7-6), with gravel.
370																RESIDUAL Tan-brown, clayey SILT (A-5), with some mica & gravel.
365																
360																
355																
350																
345																
340																
335																
330	333.6	63.5	10	11	16								M	333.6	63.5	Brown, gray, white & orange, clayey SILT (A-5), micaceous, saprolitic.
325	328.6	68.5	9	15	22								M	325.1	72.0	Brown, fine sandy SILT (A-4), with rock fragments, micaceous, saprolitic.
320	323.6	73.5	12	18	25								M			

NCDOT BORE SINGLE 66L-0104.GPJ NC_DOT.GDT 5/26/09



NCDOT GEOTECHNICAL ENGINEERING UNIT

BORELOG REPORT

PROJECT NO. 36597.1.1	ID. I-4744	COUNTY Wake	GEOLOGIST D. Racey
SITE DESCRIPTION I-40 Widening from W. of Wade Ave. to E. of Jones Franklin Rd.			GROUND WTR (ft)
BORING NO. EB1-B WBL	STATION 270+25	OFFSET 18ft LT	ALIGNMENT -LREV-
COLLAR ELEV. 397.1 ft	TOTAL DEPTH 99.9 ft	NORTHING 734,205	EASTING 2,078,362
DRILL MACHINE CME 550	DRILL METHOD 2.25" ID HSA	HAMMER TYPE Automatic	
START DATE 05/22/09	COMP. DATE 05/22/09	SURFACE WATER DEPTH N/A	DEPTH TO ROCK N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)
320	318.6	78.5	13	15	25	Match Line						M	Brown, fine sandy SILT (A-4), with rock fragments, micaceous, saprolitic. (continued)		
315	313.6	83.5	21	45	55	100/1.0'						M	313.1 312.1	84.0 85.0	WEATHERED ROCK Brown, gray, orange & black, MICA GNEISS.
310	308.6	88.5	20	35	45	100/0.7'						M	RESIDUAL Brown, gray, white & orange, fine sandy SILT (A-4), micaceous, with rock fragments.		
305	303.6	93.5	42	58/0.2'		100/0.7'						M	303.6	93.5	WEATHERED ROCK Brown, gray, white & orange, MICA GNEISS.
300	298.6	98.5	37	33	67/0.4'	100/0.9'						M	297.2	99.9	Boring Terminated at Elevation 297.2 ft in WEATHERED ROCK (MICA GNEISS)
295															NOTES:
290															1) Augered to 63.5', began split spoon sampling.
285															2) Elevation obtained from original boring.
280															
275															
270															
265															
260															
255															
250															
245															
240															

NCDOT BORE SINGLE 66L-0104.GPJ NC_DOT.GDT 5/26/09