Ferguson, Steven P

From: Blakley, Glen C
Sent: Thursday, September 06, 2007 2:54 PM
To: Ferguson, Steven P
Cc: McCleary, Terry L
Subject: 045-0063/047-0038 Soil Borings

Follow Up Flag: Follow up
Flag Status: Yellow

Attachments: 0470038.pdf; 0450063.pdf

Attached are the borings for 045-0063 & 047-0038. As we discussed before, we couldn't get pier borings on these structures, but it is a safe assumption that the material under the piers will be similar to the material in our borings. Please let me know if there are any problems with the files.

0470038.pdf (157 KB) 0450063.pdf (149 KB)

Thanks,
Chris

Chris Blakley
Geologist

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Illinois Department of Transportation
Division of Highways
District #3, Ottawa

SOIL BORING LOG

Date 1/24/07

BNSF RR over (SBI-47) IL

ROUTE 47 **DESCRIPTION** BNSF RR over IL 47 **LOGGED BY** Larry Myers

SECTION 108-SB NRH **LOCATION** SW 1/4, **SEC.** 16, **TWP.** 37N, **RNG.** 07E

COUNTY Kendall **DRILLING METHOD** Hollow Stem Auger **HAMMER TYPE** CME Automatic

STRUCT. NO. 047-0038
Station 823+16.07

BORING NO. #1: NE Quad
Station 822+80.07
Offset 82.00ft Lt.
Ground Surface Elev. 644.26 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 623.3 ft ▼
Upon Completion 634.3 ft ▽
After Hrs. ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Augered, brown, Silty Clay Loam-fill					
	642.76				
Very stiff, brown, Silty Clay Loam-fill and black, Loam to Sandy Loam- fill			4		
			9	3.0	21.1
			14	P	
			4		
		-5	3	2.5	23.5
			4	P	
	638.26				
Stiff, gray brown, Sandy Loam to Clay Loam with heavy, Gravel-potential fill			2		
			2	1.5	20.0
			4	P	
	635.26				
Medium, brown, fine to coarse, Sand with minor fine, Gravel and layers of fine, Sand			4		
		▽-10	5		7.8
			5		
			5		
	631.76		4		
Stiff, gray, Silty Clay with Silt pockets and Sand and Gravel pockets			5	2.0	21.2
				P	
Varved Clay layer at 20'			3		
		-15	6	2.0	15.5
			6	P	
			3		
			4	2.0	22.4
			4	P	
			3		
		-20	4	2.3	25.1
			5	P	
	623.26 ▼				
Medium, gray, fine to coarse, Sand with layers of Silt and Silty Loam to Loam			4		
			8		19.5
Free water at 21'			10		
			7		
		-25	11		16.1
			11		
	618.26				
Very stiff, gray, Sandy Clay Loam Till with layers of Sand and Gravel			7		
			4	3.0	14.5
	616.26		5	P	
Loose, gray, fine to coarse, Sand with some coarse, Gravel and layers of Sandy Clay Loam Till			3		
		-30	4		23.3
			5		
	613.26				
Medium, gray, fine to coarse, Sand with minor layers of Sandy Clay Loam and layers of Sandy Gravel			7		
			7		19.9
36.5' and 39' sample intervals-washed			9		
			10		
		-35	8		19.0
			7		
			10		
			10		15.3
			8		
			7		
		-40	7		19.8

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Illinois Department of Transportation
Division of Highways
District #3, Ottawa

SOIL BORING LOG

Date 1/24/07

ROUTE BNSF RR over (SBI-47) IL 47 DESCRIPTION BNSF RR over IL 47 LOGGED BY Larry Myers

SECTION 108-SB NRH LOCATION SW 1/4, SEC. 16, TWP. 37N, RNG. 07E

COUNTY Kendall DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 047-0038
Station 823+16.07

BORING NO. #1: NE Quad
Station 822+80.07
Offset 82.00ft Lt.
Ground Surface Elev. 644.26 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 623.3 ft ▼
Upon Completion 634.3 ft ▽
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
	10		
603.26			
Medium, gray, fine to coarse Sand with pockets of fine, Sand at 70'			
	6		
44', 46.5' and 54' sample intervals-washed	7		19.7
	8		
	5		
-45	5		24.5
	10		
	5		
	6		21.3
	9		
	8		
-50	8		18.9
	12		
	5		
-55	5		18.7
	10		
	6		
-60	8		17.6

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
	12		
Medium, gray, fine to coarse Sand with pockets of fine, Sand at 70'			
44', 46.5' and 54' sample intervals-washed *(continued)*			
	5		
-65	8		20.5
	12		
	6		
-70	8		22.2
	14		
571.26			
Medium, gray, fine, Sand to coarse, Gravel with minor layers of gray, Sandy Clay Loam Till	8		
Hole collapsed at 13' AAR -75	10		17.3
	12		
	10		
-80	8		10.3

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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SOIL BORING LOG

Date 1/24/07

ROUTE BNSF RR over (SBI-47) IL 47 DESCRIPTION BNSF RR over IL 47 LOGGED BY Larry Myers

SECTION 108-SB NRH LOCATION SW 1/4, SEC. 16, TWP. 37N, RNG. 07E

COUNTY Kendall DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 047-0038
Station 823+16.07

BORING NO. #1: NE Quad
Station 822+80.07
Offset 82.00ft Lt.
Ground Surface Elev. 644.26 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 623.3 ft ▼
Upon Completion 634.3 ft ▽
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium, gray, fine, Sand to coarse, Gravel with minor layers of gray, Sandy Clay Loam Till		12		
Hole collapsed at 13' AAR *(continued)*		10		
	-85	10		15.6
558.76		12		
End of Boring				
	-90			
	-95			
	-100			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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Illinois Department of Transportation
Division of Highways
District #3, Ottawa

SOIL BORING LOG

Date 3/13/07

ROUTE BNSF RR over (SBI-47) IL 47 DESCRIPTION BNSF RR over IL 47 LOGGED BY Larry Myers

SECTION 108-SB NRH LOCATION SW 1/4, SEC. 16, TWP. 37N, RNG. 07E

COUNTY Kendall DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 047-0038
Station 823+16.07

BORING NO. #2: SW Quad
Station 823+56.07
Offset 75.00ft Rt.
Ground Surface Elev. 641.08 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 608.1 ft ▼
Upon Completion 628.1 ft ▽
After Hrs. ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Augered, black, Silty Clay Loam- fill					
	638.58				
Very stiff, black, Silty Clay Loam- fill with Gravel pieces			5		
			6	2.0	18.4
			7	P	
	636.08	-5			
Stiff, gray black, Silty Clay Loam and Sand and Gravel- fill			3		
			3	1.5	6.6
			3	P	
	634.08				
Medium, brown, fine, Sand and Silt, interbedded up to 6" thick			5		
			6		17.1
			7		
	631.58				
Medium, brown, medium to coarse, clean, Sand		-10			
			3		
			5		6.5
			6		
		▽	3		
			5		23.5
			5		
		-15			
	625.58		2		
Stiff, gray, variable graded, Silty Clay, Silty Clay Loam and Silty Loam			2		
			3	1.8	21.9
				P	
			2		
			3	2.0	20.2
			5	P	
		-20			
Stiff, gray, variable graded, Silty Clay, Silty Clay Loam and Silty Loam *(continued)*			2		
			3	1.5	21.0
			3	P	
	619.08				
Very stiff, gray, Silty Clay Loam to Silty Clay with some minor varved Clay at 30'			2		
			4	2.2	21.8
wh- weight of the hammer			5	B	
		-25			
			1		
			2	2.1	21.5
			3	B	
			1		
			3	2.1	23.6
			3	B	
		-30			
			wh		
			3	2.3	26.4
			4	B	
	608.08 ▼		1		
Loose, gray, coarse, Sand to medium, Gravel			3		
			5		15.6
Free water at 33'	606.58				
Medium, gray, fine, Sand to medium, Gravel with pockets of gray, Sandy Loam to Sandy Clay Loam Till at 36'		-35			
			3		
			7		11.6
			8		
35' sample interval- washed					
	603.08				
Medium, gray, fine to coarse, Sand with minor fine to medium, Gravel					
		-40			

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SOIL BORING LOG

Date 3/13/07

ROUTE BNSF RR over (SBI-47) IL 47 DESCRIPTION BNSF RR over IL 47 LOGGED BY Larry Myers

SECTION 108-SB NRH LOCATION SW 1/4, SEC. 16, TWP. 37N, RNG. 07E

COUNTY Kendall DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 047-0038
Station 823+16.07

BORING NO. #2: SW Quad
Station 823+56.07
Offset 75.00ft Rt.
Ground Surface Elev. 641.08 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 608.1 ft ▼
Upon Completion 628.1 ft ▽
After ____ Hrs. ft

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium, gray, fine to coarse, Sand with minor fine to medium, Gravel *(continued)*		8		
		9		18.9
		11		
	-45	9		
		11		15.8
		10		
	-50	7		
		11		17.0
		12		
	-55	10		
		10		17.8
		10		
	-60			
Medium, gray, fine to coarse, Sand with minor fine to medium, Gravel *(continued)*		6		
		10		19.9
		10		
	-65	7		
		10		12.5
		10		
573.08				
Medium, gray, sandy, fine to coarse, Gravel with layers of fine to coarse, Sand 70' sample interval- washed sample	-70	9		
		14		8.4
		15		
569.08				
Very dense, gray, sandy, fine to coarse, Gravel with layers of fine to coarse, Sand Hole collapsed at 21' AAR	-75	21		
		31		12.2
		42		
564.58				
End of Boring	-80			

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