STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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Geotechnical, Environmental & Civil Engineering
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SOIL BORING LOG

PAGE 1 of 2
DATE 9/18/2008
LOGGED BY DR

JOB NUMBER P-91-186-08 GSI JOB No. 08015

ROUTE I-294 & I-57 DESCRIPTION I-57 & I-294 Interchange Improvements (PTB 146, Item 1)
SECTION – LOCATION I-57 Over I-294
COUNTY Cook DRILLING METHOD Straight Flight Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. 016-1096 & 016-1097
Station –
BORING NO. I57-I294 B-1
Station: 256+70
Offset: 66.0' Left
Ground Surface Elev. 635.2

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After ___ Hrs. ___

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
18.0" ASPHALT	633.7		7 / 8 / 6	NP	8
CLAY with Crushed Stone- medium dense (Fill)	632.2		3 / 5 / 6	3.5B	20
CLAY-very stiff to hard (A-6) Fill		–5	3 / 4 / 5	2.8B	19
		–10	4 / 4 / 5	4.6B	19
		–15	3 / 4 / 8	4.4B	19
		–20	4 / 6 / 8	4.1B	18
			3 / 5 / 7	3.25B	20
			4 / 5 / 8	4.0B	19

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-very stiff to hard (A-6) Fill			3 / 5 / 7		105
			8 / 11 / 13	2.5B	22
			7 / 8 / 8		113
		–25	11	4.4B	18
			8 / 10 / 13		112
			13	4.4B	19
			4 / 4 / 8		106
	605.7	–30	4 / 8	3.6B	22
CLAY-brown & gray- medium stiff (A-6) Wet			2 / 3 / 4		112
		–35	3 / 3	0.75P	31
Silt seams from –33.5' to –35.0'			2 / 3 / 5		109
	598.2		1 / 2 / 2		111
SAND & GRAVEL-gray-loose (A-1)		–40	2	NP	16

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SOIL BORING LOG

PAGE 2 of 2
DATE 9/18/2008
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JOB NUMBER P-91-186-08 GSI JOB No. 08015

ROUTE I-294 & I-57 DESCRIPTION I-57 & I-294 Interchange Improvements (PTB 146, Item 1)
SECTION – LOCATION I-57 Over I-294
COUNTY Cook DRILLING METHOD Straight Flight Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. 016-1096 & 016-1097
Station –
BORING NO. I57-I294 B-1
Station: 256+70
Offset: 66.0' Left
Ground Surface Elev. 635.2

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After ___ Hrs. ___

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND & GRAVEL-gray-loose (A-1)	593.2				
SILT-gray-very dense (A-4)			37 / 38 / 50/4"	NP	14
		–45			
			19 / 35 / 50/3"	NP	20
		–50			
	583.2				
SILTY LOAM with Fractured Rock- gray-dense to very dense (A-4)			25 / 24 / 26	NP	10
		–55			
	575.7		37 / 50/4"		
Drillers Observation: Fractured rock.		–60		NP	12

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Drillers Observation: Fractured rock.	573.2				
Drillers Observation: Apparent Bedrock.	571.7				
Run 1 (–63.5' to –73.5') Silurian System Niagaran Series Dolomite. Light gray to gray with horizontal bedding. Fine grained with some varving. Horizontal fractures @ –68.4', –71.6' & –71.9'. Recovery=100.0% R.Q.D.=97.5% Core Time=3.0 minutes/foot. 50.0% Water Loss.		–65			
		–70			
	561.7				
End Of Boring @ –73.5' Straight Flight Augers To –10.0' Rotary Drilling To Completion CME Automatic Hammer 10.0' 4.0"* Casing Used		–75			
		–80			

RUN 1

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

ROCK CORE LOG

PAGE 1 of 1
DATE 9/18/2008
LOGGED BY DR

JOB NUMBER P-91-186-08 GSI JOB No. 08015

ROUTE I-294 & I-57 DESCRIPTION I-57 & I-294 Interchange Improvements (PTB 146, Item 1)
SECTION – LOCATION I-57 Over I-294
COUNTY Cook CORING METHOD Rotary Wash

STRUCT. NO. 016-1096 & 016-1097
Station –
BORING NO. I57-I294 B-1
Station: 256+70
Offset: 66.0' Left
Ground Surface Elev. 635.2

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 573.2
Begin Core Elev. 571.7

Description	Elev.	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Run1 (–63.5' to –73.5') Silurian System Niagaran Series Dolomite. Light gray to gray with horizontal bedding. Fine grained with some varving. Horizontal fractures @ –68.4', –71.6' & –71.9'. 50.0% Water Loss.	571.7	–68.5	1	100.0	97.5	3.0	1135@ -63.5'
		–73.5					

Color pictures of the cores Yes Cores will be stored for examination for –
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

P:\60J25401(57-294)\STRUCTURAL\I-57 OVER I294\016125I-60J27-057-BORING1.dgn

BORING LOGS 1
STRUCTURE NO. 016-1251

T·Y·LIN INTERNATIONAL

DESIGNED - JMA	REVISIONS	
CHECKED - SP,	NAME	DATE
DRAWN - JMA		
CHECKED - SP,PDF		
DATE - 03/18/10		

SHEET NO. 57
68 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1414.2B	COOK	516	302
		CONTRACT NO. 60J27		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

3/17/2010