



Illinois Department of Transportation

Memorandum

To: Becky Marruffo Attn: Michael Kuehn
From: Dave von Kaenel By: Amy Harms
Subject: Structure Borings *Amy Harms*
Date: January 24, 2023

Route: I-39
Section: (201-3)K
County: Winnebago
Job No.: P92-111-06
Description: Overhead sign structures located about 0.5 miles south of Linden Road and also 300 feet west of Mulford Road

Attached are the boring logs for the overhead sign structure.

The elevation datum was taken from the pavement crown at the center of the structure, which has been arbitrarily assigned an elevation of 100.0. This datum should be converted to USGS datum, and calculations for structural design adjusted accordingly.

If you have any questions or require additional information, please contact Byron Wetzell at extension 45439.

BW01-24-23 1
Attachment
c: Consultant
Soils File



SOIL BORING LOG

ROUTE I-39 DESCRIPTION P92-111-06 - Overhead sign truss LOGGED BY W. Garza

SECTION (201-3)K LOCATION Cherry Valley, SW 1/4 9, SEC. , TWP. 43N, RNG. 2E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. _____ Latitude 42° 12' 36.50" Northing 2,021,219.5841
 Station _____ Longitude -89° 00' 40.65" Easting 2,609,585.0514

BORING NO. B-2
 Station 335+00
 Offset 50.00ft Rt of NB CL
 Ground Surface Elev. 100.60 ft

DEPTH TH (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST T (%)	Surface Water Elev.	ft	DEPTH TH (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST T (%)
				Stream Bed Elev.	ft				
				Groundwater Elev.:					
				First Encounter	None				
				Upon Completion	Dry				
				After _____ Hrs.					

Northing and Easting were calculated using the ILHP-WF coordinate system

VERY SOFT brown SILTY CLAY LOAM			0.2 P	17.0	LIMESTONE				
	98.60				Auger refusal @ 20'				
					End of Boring				
MEDIUM brown SILTY CLAY LOAM		11							
	97.10	10	0.5	22.0					
		8	B						
STIFF light brown SANDY CLAY TILL		4							
	-5	3	1.1	14.0		-25			
	94.60	6	B						
VERY STIFF tan SANDY LOAM with GRAVEL		7							
	92.10	9	2.5	10.0					
		6	P						
HARD gray CLAY LOAM TILL		4							
	-10	6	5.0	17.0		-30			
	89.60	8	B						
No Recovery		5							
		5							
		8							
	86.10								
MEDIUM tan VERY FINE SILTY SAND		3							
	-15	5		12.0		-35			
	84.60	7							
DENSE tan DIRTY SAND with MEDIUM GRAVEL		12							
	82.10	20							
		29							
VERY DENSE tan WEATHERED		100							
	80.60	-20				-40			

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)



SOIL BORING LOG

ROUTE US Byp 20 DESCRIPTION P92-111-06 - Overhead sign truss LOGGED BY W. Garza

SECTION (201-3)K LOCATION Cherry Valley, NE 1/4 9, SEC. , TWP. 43N, RNG. 2E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. _____ Latitude 42° 13' 12.56" Northing 2,024,911.9173
Station _____ Longitude -88° 59' 58.86" Easting 2,612,680.2244

BORING NO. B-1
Station 2603+00
Offset 0.00ft CL
Ground Surface Elev. 97.10 ft

DEPTH TH S (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST T (%)	Surface Water Elev.	ft	DEPTH TH S (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST T (%)
				Stream Bed Elev.	ft				
				Groundwater Elev.:					
				First Encounter	75.1	ft ▼			
				Upon Completion	84.1	ft ▼			
				After _____ Hrs.		ft			
MEDIUM brown SILTY CLAY LOAM		0.6 P	16.0	DENSE tan MOIST SANDY GRAVEL (continued)	76.10		18 20		
STIFF light gray SILTY CLAY LOAM	95.10	4 4 5	1.0 27.0	STIFF tan SANDY GRAVEL bottom 4" SILTY LOAM		▼	12 15 28	1.8 P	15.0
VERY SOFT tan SANDY LOAM with LIMESTONE FRAGMENTS	91.10	3 5 6	0.2 15.0	HARD tan/light gray FINE SAND with SILTY CLAY LENS		-25	20 24 29	4.2 S	15.0
SOFT tan MOIST SANDY LOAM with GRAVEL	88.60	3 4 6	0.3 12.0	DENSE tan FINE SAND			10 18 28		
VERY STIFF tan SANDY LOAM	86.10	6 8 9	2.2 10.0	DENSE tan FINE SAND		-30	20 17 18		
STIFF tan SANDY LOAM with GRAVEL	83.60	6 10 12	1.1 8.0	End of Boring					
VERY STIFF tan SANDY LOAM with GRAVEL	81.10	9 11 11	2.4 8.0			-35			
SOFT tan SANDY LOAM with GRAVEL	77.60	5 8 11	0.3 10.0						
		13				-40			

Northing and Easting were calculated using the ILHP-WF coordinate system

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)

