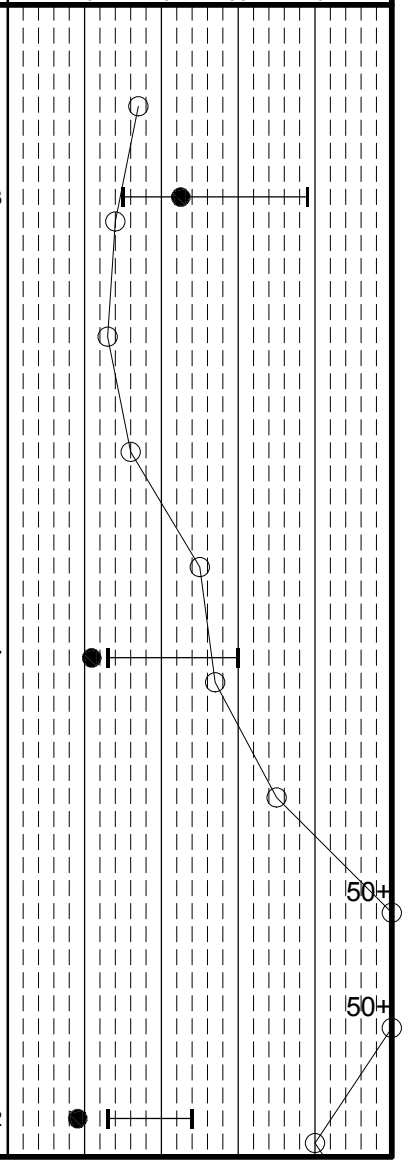
DLZ Ohio, Inc. * 6121 Huntley Road, Columbus, Ohio 43229 * (614) 888-0040

Client: ms consultants | *Project:* FRA-70-8.93 | *Job No.* 0221-1004.01

LOG OF: Boring B-032-0-08 | *Location:* Sta. 196+22.20, 79.7' RT., BL I-70 EB | *Date Drilled:* 7/8/2008 to 7/15/2008

WATER OBSERVATIONS:
Water seepage at: 47.0'
Water level at completion: 25.7' (includes drilling water)

FIELD NOTES:
3.25" diameter hollowstem augers to 120.5';
4.0" diameter flush joint casing from 120.5' to 128.5'.

Depth (ft)	Elev. (ft)	Blows per 6"	Recovery	Sample No. Drive	Sample No. Press / Core	Hand Penetrometer (tsf)	DESCRIPTION	Graphic Log	GRADATION % Aggregate	% C. Sand	% M. Sand	% F. Sand	% Silt	% Clay
	751.4													
1.1	750.3						Asphalt Concrete - 5" Portland Cement Concrete - 3"							
2.0	749.4	5 10 6	9	1		4.5+	Aggregate Base - 5"							
							FILL: Medium dense brown COARSE AND FINE SAND (A-3a), little silt, little gravel; moist.							
5		5 7 6	18	2		2.0	FILL: Very stiff to hard brown SILTY CLAY (A-6b), little to some fine to coarse sand, trace gravel; contains few brick fragments; damp to moist.		8	7	---	13	29	43
6.0	745.4													
		3 4 8	3	3		2.5	Very stiff brown SILT AND CLAY (A-6a), little fine to coarse sand, trace gravel; moist.							
8.5	742.9													
10		4 7 8	3	4			Medium dense gray COARSE AND FINE SAND (A-3a), little silt, little gravel; damp. (POSSIBLE FOUNDRY SAND)							
11.0	740.4													
		5 8 16	18	5		4.5+	Hard gray SILTY CLAY (A-6b), little to some fine to coarse sand, trace to little gravel; damp. @ 11.0'-12.5', brown and gray.							
15		12 12 14	18	6		4.5+	@ 13.0'-35.0', difficult drilling; possible cobbles and boulders.		12	8	---	15	38	27
		5 16 17	1	7		--								
20		50/1	0	8		--	@ 18.5'-20.0', only gravel recovered in auger cuttings sample.							
		50/3	0	9		--								
23.5	727.9													
25	726.4	34 17 21	18	10		4.5+	Hard gray SILT AND CLAY (A-6a), some fine to coarse sand, trace gravel; damp.		7	14	---	20	37	22

STANDARD PENETRATION (N60)
Natural Moisture Content, % - ●
PL ⊢ LL
Blows per foot - ○ / Non-Plastic - NP
10 20 30 40