Form 610014wd
03-00
U.S.

Iowa Department of Transportation

Office of Design
Soils Design Section

SUPPLEMENTAL REPORT OF BRIDGE SOUNDINGS

Design No. 309 File No 30316 Date Reported 8-4-08

Project HSIPX-218-8(121)--3L-09

Type and Size of Bridge TWIN 12' X 6' X 256' RCB CULVERT Road No US 218 County BREMER

Bridge over LOCAL DRAINAGE at Sta 118+48

Test Hole No.	Layer	*Core Type	Depth From	Depth To	Blows .5' Seat	Blows 1st .5'	Blows 2nd .5'	Blows Per Foot	PSF Cohesion	Friction	**Test	Density Pct.	Moisture %	AASHTO Class	Remarks
A-3304	A	SH	2.0	3.8					175	0.002	CU	95.8	27.3	A-4(1)	
A-3310	A	SH	2.0	3.6					128	0.001	CU	108.7	16.9	A-2-4(0)	

Station RCB at Sta 118+48 estimated consolidation of up to 0.1 feet in 1-2 * feet thick

compressible layers under the Up to 20 feet embankment at the following rate:

* Total Layer is 4-4.5' thick. Thickness under RCB is only 1-2'

Percent	10	30	50	70	90
Days	0	1	4	8	16

Recommendations:

No apparent stability or settlement problems. Recommend a 1 foot thick Working Blanket under RCB because of Black-Brown Sandy Silty Clay under RCB, and also anticipated wet and potentially unstable soil conditions.

*SH – Shelby Tube Core
ST – Split Tube Core
DC – Diamond Core

*UU – Unconsolidated Undrained (Triaxial)
CU – Consolidated Undrained (Triaxial)
UC – Unconfined Compression (Cohesion = ½ U C. Strength)

Robert Stanley
Reporting Engineer

Form 610010Ewd
04-08
ENGLISH

Iowa Department of Transportation

DATE MO / DA / YR 06 / 24 / 08

Office of Road Design (Soils)
Report of Bridge Soundings

COUNTY BREMER ROUTE NO US 218 TOWNSHIP I-91 N RANGE R-14 W SECTION 36 PROJECT HSIPX-218-8(121)--3L-09
TYPE AND SIZE OF BRIDGE TWIN 12'X6'X256' RCB CULVERT BRIDGE OVER LOCAL DRAINAGE AT STATION 118+48.00

TEST HOLE NUMBER	STATION	+	C ORDINATE L LT CL RT	DIST	SURFACE ELEVATION	.	DEPTH TO WATER FEET	LOG OF HOLE TO FEET	.		DESCRIPTION OF MATERIAL
A-3304	118	14	LT	126	884	60	1.0	4	00	A	STIFF BLACK BROWN SA SL CLAY
DRILL								11	00	B	FIRM BROWN CLAYEY SAND
								25	00	C	BROWN SAND
A-3310	119	20	RT	140	885	20	2.1	4	50	A	STIFF BLACK BROWN SA SL CLAY
DRILL								10	00	B	BROWN SANDY CLAY
								25	00	C	BROWN CLAYEY SAND
											BM #512 = 891.09
											HI = 9.85
											A-3304 = 15.1
											A-3310 = 13.90

ED SOUCEK
CHIEF OF PARTY