

F.A. ROUTE	SECTION
999	82-1B-2
FED. AID PROJECT	ILLINOIS
COUNTY	ST. CLAIR
USER NAME = jjo11fff	
PLOT SCALE = #SCALE#	
PLOT DATE = 4/14/2010	
DESIGNED -	HNTB
CHECKED -	CMT
DRAWN -	CMT / HNTB
REVISED -	
REVISED -	
REVISED -	
REVISED -	

ILLINOIS APPROACH STRUCTURE FOR NEW I-70 MISSISSIPPI RIVER BRIDGE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

HNTB
715 KIRK DRIVE
KANSAS CITY, MO 64105
TELEPHONE (816) 472-1201
CERTIFICATE OF AUTHORITY NO. 001270

CMT
CRAWFORD, MURPHY & TILLY, INC.
2750 WEST WASHINGTON STREET
SPRINGFIELD, IL 62702
TELEPHONE (217) 787-8050
ENGINEERING CORPORATION - 000631

QU(TSF)	STANDARD			
P-Penet.	PENETRATION TEST			
L-Labor.	DEPTH	BLOWS/6"	Elev.	
	3	2-3-5	Elev. 412.1	Dark Gray, Soft, Lean Clay, Moist, (FILL)
			Elev. 410.1	
1.25P	8	1-2-4	Elev. 403.8	Dark Gray to Black, Loose, Cinders, Moist, (FILL), Little to Few Silt, Gravel, Organics
	13	2-5-6	Elev. 402.9	Dark Brown to Gray, Stiff, Lean CLAY, Moist, (CL)
	18	1-3-4	Elev. 395.1	Brown, Loose to Medium Dense, Fine SAND, Moist, (SP)
	23	4-6-6	Elev. 390.1	Brown, Loose, Silty SAND, Wet, (SM)
	28	6-8-11	Elev. 374.1	Dark Brown, Medium Dense, Fine to Medium SAND, Wet, (SP)
	33	10-11-13	Elev. 369.1	- Few Fine Gravel below 33.0 ft.
	38	6-6-6	Elev. 345.1	Dark Brown, Medium Dense, Fine to Coarse SAND, Wet, (SW), Little Fine Gravel
	43	14-19-21	Elev. 338.5	Dark Gray, Dense to Medium Dense, Fine to Medium SAND, Wet, (SP)
	48	10-12-14	Elev. 333.9	Black, Loose, Decayed ORGANICS, Wet
	53	10-11-9	Elev. 314.1	Gray, Medium Dense Dense, Fine to Coarse SAND, Wet, (SW), Few to Little Fine to Coarse Gravel
	58	5-10-11	Elev. 298.1	Dark Gray, Very Dense to Loose, Fine to Coarse SAND, Wet, (SW), Trace Fine Gravel
	63	13-17-12	Elev. 297.4	- 4.0" Gray, Decayed Wood at 73.3 ft.
	68	17-33-24	Elev. 294.9	Black, Loose, Decayed ORGANICS, Wet
	73	8-5-5	Elev. 294.9	Gray, Medium Dense Dense, Fine to Coarse SAND, Wet, (SW), Few to Little Fine to Coarse Gravel
	78	10-10-11	Elev. 294.9	
	83	28-20-17	Elev. 294.9	
	88	18-19-19	Elev. 294.9	
	93	13-19-21	Elev. 294.9	
	98	42-50/2"	Elev. 294.9	
	103	15-42-33	Elev. 294.9	
	108	25-37-21	Elev. 294.9	
	113	38-65	Elev. 294.9	
	ROCK CORE			
	DEPTH	REC%	RQD%	
812.5L	114.5	100	0	Limestone BOULDER, dark gray
	119	100	89	Elev. 294.9
	124	100	92	LIMESTONE, gray to dark gray, moderately hard to hard, finely to very finely crystalline, medium bedded, slightly weathered
612.8L	129	100	88	- thick bedded below 144.3 ft.
	134	100	78	- medium bedded below 149.3 ft.
579.7L	139.3	100	90	- finely crystalline, thick bedded below 154.3 ft.
	144.3	100	87	- vuggy at 144.3 and 144.9 ft.
555.6L	149.3	100	100	- cemented vertical fracture from 136.2 to 137.1 and 153.7 to 154.3 ft.
252.1L	154.3	98	77	- 45 degree fracture, trace gray, soft, clay at 131.8 ft.
283.3L	156.5	100	85	- 0.25" gray, soft, clay seam at 128.1 ft.
				- 0.75" gray, soft, shale seam at 130.9 and 132.8 ft.
630.5L				- 0.12" gray, soft, shale seams at 136.2, 137.4 and 141.8 ft.
				- chert nodules at 142.0, 142.4, 142.9, 145.3, 145.6, 147.2 and 149.9 ft.
				Elev. 264.7

Boring Number IL-10
Pier 22
Sta. 125+58.98, 42.42' Rt.

Note: For Typical Boring and General Notes, see Sheet No. 9.

QU(TSF)	STANDARD			
P-Penet.	PENETRATION TEST			
L-Labor.	DEPTH	BLOWS/6"	Elev.	
			Elev. 421.2	Brown, Lean CLAY, Moist, (FILL), Few Sand and Cinders, Trace Brick and Steel pieces
			Elev. 418.2	
			Elev. 413.7	Black, SAND, Moist, (FILL), Few Cinders
			Elev. 396.2	Brown, Fine, SAND, Moist, (SP) (Note: The stratigraphy described on this boring log is based on the drill cuttings observed at the ground surface and the action of the drilling tools and is only approximate)
			Elev. 386.2	Gray, Fat CLAY, (CH)
			Elev. 386.2	
			Elev. 384.7	Gray, Medium SAND, (SP) - occasional clay layers from 35.0 to 60.0 ft.
			Elev. 379.7	
			Elev. 374.7	
			Elev. 359.7	
			Elev. 354.7	
			Elev. 349.7	
			Elev. 344.7	
			Elev. 329.7	
			Elev. 316.7	
			Elev. 295.2	
			Elev. 294.9	
			Elev. 294.9	LIMESTONE, gray, moderately hard, medium to finely crystalline, medium to thick bedded, slightly weathered
			Elev. 294.9	- thick bedded below 144.3 ft.
			Elev. 294.9	- medium bedded below 149.3 ft.
			Elev. 294.9	- finely crystalline, thick bedded below 154.3 ft.
			Elev. 294.9	- vuggy at 144.3 and 144.9 ft.
			Elev. 294.9	- cemented vertical fracture from 136.2 to 137.1 and 153.7 to 154.3 ft.
			Elev. 294.9	- 45 degree fracture, trace gray, soft, clay at 131.8 ft.
			Elev. 294.9	- 0.25" gray, soft, clay seam at 128.1 ft.
			Elev. 294.9	- 0.75" gray, soft, shale seam at 130.9 and 132.8 ft.
			Elev. 294.9	- 0.12" gray, soft, shale seams at 136.2, 137.4 and 141.8 ft.
			Elev. 294.9	- chert nodules at 142.0, 142.4, 142.9, 145.3, 145.6, 147.2 and 149.9 ft.
			Elev. 264.7	

Boring Number ILC-8A
Pier 20
Sta. 119+19.20, 55.60' Rt.

QU(TSF)	STANDARD			
P-Penet.	PENETRATION TEST			
L-Labor.	DEPTH	BLOWS/6"	Elev.	
			Elev. 421.2	Brown to Gray, Loose, Fine SAND, Moist, (SP)
			Elev. 414.7	
			Elev. 404.7	Brown, Medium Dense, Fine to Coarse SAND, Moist, (SW)
0.5P	18.5	1-2-1	Elev. 399.7	Dark Gray, Soft, Lean CLAY, Moist, (CL)
0.5P	23		Elev. 394.7	Gray, Soft, Sandy Fat CLAY, Moist, (CH)
	28.5	3-5-5	Elev. 389.7	Gray, Loose, Fine SAND, Wet, (SP), Trace Silt
	33.5	1-2-8	Elev. 386.4	Gray, Stiff, Fat CLAY, Moist, (CH)
	38.5	1-3-3	Elev. 384.7	Gray, Loose, Fine SAND, Wet, (SP)
	43.5	4-4-1	Elev. 379.7	Gray, Firm, Lean CLAY, Moist, (CL)
	48.5	10-6-9	Elev. 374.7	Gray, Loose, Fine SAND, Wet, (SP), Trace Silt
	53.5	9-8-6	Elev. 359.7	Gray to Brown, Medium Dense to Dense, Fine to Coarse SAND, Wet, (SW), Trace Gravel
	58.5	16-17-17	Elev. 354.7	Gray, Medium Dense, Coarse SAND, Wet, (SP), Trace Gravel
	63.5	8-6-7	Elev. 349.7	Gray, Medium Dense, Fine to Coarse SAND, Wet, (SW)
	68.5	11-8-9	Elev. 344.7	Gray, Very Dense, Medium SAND, Wet, (SP)
	73.5	19-29-33	Elev. 329.7	Gray, Medium Dense, Fine to Coarse SAND, Wet, (SW), Trace Gravel
	78.5	6-7-10	Elev. 316.7	Gray, Very Dense, Medium SAND, Wet, (SP), Trace Gravel
	83.5	11-9-9	Elev. 316.7	- rough drilling from 100.0 to 105.0 ft.
	88.5	9-8-9	Elev. 316.7	
	93.5	19-35-36	Elev. 316.7	
	98.5	36-50/0"	Elev. 316.7	
	108.5	19-27-30	Elev. 316.7	
	118.5	50/1"	Elev. 295.2	Gray, Very Dense, Fine to Coarse SAND, Wet, (SW), Trace Gravel, Cobbles
			Elev. 294.9	- rough drilling from 110.0 to 126.0 ft.
			Elev. 294.9	
			Elev. 294.9	LIMESTONE, gray, hard, finely crystalline, thin bedded, slightly weathered
			Elev. 294.9	- 1.0" void at 133.8 ft.
			Elev. 294.9	- dolomite from 142.9 to 144.7, 149.0 to 154.3, 154.7 to 157.5, 167.1 to 170.7 and 171.5 to 173.1 ft.
			Elev. 294.9	- 0.25" gray, soft, clay seam at 128.4, 129.1, 138.3, 138.5 and 142.9 ft.
			Elev. 294.9	- cemented horizontal fractures at 131.2, 132.4, 136.1, 137.2, 153.5, 154.7, 160.4, 161.5, 163.9, and 164.6 ft.
			Elev. 294.9	- cemented fracture at 174.5 ft.
			Elev. 294.9	- 45 degree fracture from 133.0 to 133.8, 140.9 to 141.2, at 147.9, 161.3 and from 165.0 to 165.7 ft.
			Elev. 294.9	- cemented vertical calcite vein from 135.0 to 137.0 ft.
			Elev. 294.9	- 0.5" chert lense at 158.0, 159.0, 164.9, from 166.0 to 167.1 ft.
			Elev. 294.9	- 0.5 to 1.0" chert lenses from 160.3 to 164.7 ft.
			Elev. 246.5	

Boring Number ILC-8
Pier 20
Sta. 119+22.87, 45.27' Rt.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 14 of 152