

Bar	А	В
1600(E)	40'-2"	3'-0"
:1600(E)	2'-6"	4′-11″
:1601(E)	2'-6"	6′-1″
:1602(E)	3′-8″	6′-3″
:1603(E)	2'-6"	4′-3″
1601(E)	21'-0"	3'-0"
1602(E)	21'-0"	2'-6"
1600(E)	3′-6″	4'-0"
1601(E)	7'-0"	4'-0"
1602(E)	3′-8″	1'-0"



# FIELD CUTTING DIAGRAM

Order h1605(E) bars Full Length. Cut as shown and use remainder of bars.

## BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1600(E)	6	#7	52'-4"	
h1601(E)	12	#7	40'-2"	
h1602(E)	14	#11	21'-0"	
h1603(E)	20	#5	6'-6"	
h1604(E)	10	#5	4'-10"	
h1605(E)	6	#7	33'-0"	
n1600(E)	72	#11	18′-6″	
p1600(E)	7	#11	46'-2"	
p1601(E)	14	#11	39′-6″	
p1602(E)	6	#8	24'-2"	
p1603(E)	6	#8	24'-10"	
s1600(E)	44	#6	12′-4″	
s1601(E)	84	#6	14'-8"	
s1602(E)	28	#6	16′-2″	
s1603(E)	60	#6	11'-0"	
s1604(E)	28	#6	34′-8″	
s1605(E)	168	#6	4'-10"	
sp1600	2	#6	69′-0″	
†1600(E)	43	#6	17'-6"	പ
†1601(E)	10	#11	27'-0"	
†1602(E)	10	#11	26'-0"	
†1603(E)	43	#6	8'-8"	
u1600(E)	12	#6	11'-6"	
u1601(E)	14	#6	15'-0"	
u1602(E)	42	#6	5′-8″	
v1600(E)	72	#11	35′-5″	
v1601	24	#14	23'-4"	
v1602	24	#14	33′-4″	
v1603	24	#14	40'-0"	
v1604	24	#14	50'-0"	
Concrete :	Structures		Cu. Yd.	140.2
Reinforcement Bars,			Deved	40.050
Epoxy Coated			Pound	42,250
Reinforcement Bars			Pound	33,140
Drilled Shaft in Soil			Cu. Yd.	112.2
Drilled Shaft in Rock			Cu. Yd.	5.9
Concrete Sealer			Sq. Ft.	2,004
Structure	Excavation	1	Cu. Yd.	63
Crosshole	Sonic Log	ging	Each	1
** Loogth	ic height (	of coiral		·J

TION         – S.N. 016–1505         F.A.I. RTE.         SECTION         COUNTY SHEETS         TOTAL SHEETS         SHEETS NO.           NGE         (OUTBOUND STRUCTURES)         55         2010-080-B         COOK         886         701           -248 SHEETS         ILLIN0IS/FED. ALD PROJECT         ILLIN0IS/FED. ALD PROJECT         NO.         60L 70						
NGE (OUTBOUND STRUCTURES)         55         2010-080-B         COOK         886         701           -248 SHEETS         ILLINOIS/FED. AID PROJECT	10N – S.N. 016–1505	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-248 SHEETS CONTRACT NO. 60L70		55	2010-080-B	СООК	886	701
248 SHEETS ILLINOIS FED. AID PROJECT				CONTRACT	NO. 6	0L70
	248 SHEETS		ILLINOIS FED. AI	D PROJECT		



- 1) Provide 1<sup>1</sup><sub>2</sub> extra turns top and bottom. Extend spiral 3" into pile cap. Provide 4-#4 spacers or
- the spirals shall be provided with  $1_2^l$  extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4,
- 3. Contractor shall use Mechanical Splicers in drilled shaft that will fit between spirals. Contractor shall field adjust spiral pitch to 12" maximum at Mechanical
- Special Provisions for Crosshole Sonic Logging.

- S.N. 016–1505	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	2010-080-B	соок	886	702
			CONTRACT	NO. 6	0L70
-248 SHEETS		ILLINOIS FED. AI	D PROJECT		



Bar	А	В
51700(E)	40'-2"	3′-0″
s1700(E)	4′-6″	5′-1″
s1701(E)	4′-6″	6′-3″
s1702(E)	6′-2″	6′-3″
s1703(E)	4′-6″	4′-3″
1701(E)	21'-0"	3'-0"
1702(E)	21'-0"	2'-6"
1700(E)	6′-0″	4'-0"
1701(E)	7'-0"	4'-0"
1702(E)	6′-2″	1'-0"



# Order h1705(E) bars Full Length. Cut

as shown and use remainder of bars.

## BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1700(E)	6	#7	52'-4"	
h1701(E)	12	#7	40'-2"	
h1702(E)	14	#6	21'-0"	
h1703(E)	32	#5	6'-6"	
h1704(E)	16	#5	4'-10"	
h1705(E)	6	#7	33'-0"	
n1700(E)	52	#11	18'-6"	
р1700(E)	9	#11	46'-2"	
p1701(E)	9	#11	39'-6"	
p1702(E)	9	#8	24'-2"	
p170.3(F)	.9	#8	24'-10"	
p1/00(2)			2.1.10	
s1700(F)	32	#6	14'-8"	
s1701(F)	44	#6	17'-0"	
s1702(F)	26	#6	18'-8"	
s1703(F)	36	#6	13'-0"	
s1704(F)	24	#6	34'-8"	
s1705(E)	144	#6	4'-10"	
5110J(L)	177	"0	4 10	
sp.1700	2	#6	63'-0"	٨٨٨٨
301100	2	#0	05 0	////
+1700(E)	13	#6	17'-6"	<u>ر</u> ا
+1701(E)	4J 8	#0	27'=0"	
+1702(E)	0 9	#11	26'-0"	
+1703(E)	13	#11 #C	20-0	
TTTUJ(L)	45	#0	0-0	
11700(E)	10	#6	14'- 0"	
u1701(E)	12	#6	15'-0"	
UTTORE)	14	#6	15 0	
UTIOZ(L)	42	#0	0-2	
1700(E)	50	#11	301 0"	
V1700(E)	- JZ - 04	#11	JU-0	
V1/01	24	#14	20 - 4	
V170Z	24	#14	JD -4	
V1/05	24	#14	35-0	
V1704	24	#14	45'-0"	
Const t	Charles		0	150.0
Concrete Structures			CU, rd,	159.2
Reinforcement Bars,			Pound	32,210
Epoxy Codfed			Pound	Z1 000
Reinforcement Bars			Pound	J1,00U
Drilled Shaft in Soil				100.1
Drilled Shaft in Rock			CU. rd.	5.9
concrete !	sealer		Sq. Ft.	2,044
Structure	Excavation	<u>.</u>	Cu. Yd.	53
crosshole	Sonic Log	ging	Each	1
** Length	is height a	of spiral.		

ION – S.N. 016–1505	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	2010-080-B	СООК	886	703
NAL (COTBOOND STRUCTURES)			CONTRACT	NO. 6	0L70
-248 SHEETS		ILLINOIS FED. AI	D PROJECT		





SHEET NO. S-213 OF S

Bar	А	В
1800(E)	40'-2"	3'-0"
51800(E)	2'-6"	4'-10"
51801(E)	2'-6"	6'-0"
51802(E)	3′-8″	6′-0″
51803(E)	2'-6"	4′-5″
1801(E)	21'-0"	3'-0"
1802(E)	21'-0"	2'-6"
1800(E)	3′-6″	4'-0"
1801(E)	7'-0"	4'-0"
1802(E)	3′-8″	1'-0"

\*\*



# FIELD CUTTING DIAGRAM

Order h1800(E) bars Full Length, Cut as shown and use remainder of bars.

## BILL OF MATERIAL

Par	No	Cizo	Longth	Chana
DUI NROO(E)	NO.	3120	Lengin E 4 / Z"	Shape
11000(E)	10	#7	54 - J 407 - 211	
11001(E)	12	#/	40-2	
11802(E)	14	#6	21-0	
n1803(E)	20	#5	6-6	
n1804(E)	10	#5	4'-10"	
h1805(E)	2	#/	25'-7"	
h1806(E)	2	#/	14'-0"	
h1807(E)	2	#7	3'-4"	
n1800(E)	52	#11	18'-6"	
p1800(E)	7	#11	46'-2"	
p1801(E)	14	#11	39′-6″	
p1802(E)	6	#8	24'-2"	
p1803(E)	6	#8	24'-5"	
s1800(E)	44	#6	12′-2″	
s1801(E)	84	#6	14′-6″	
s1802(E)	28	#6	15′-8″	
s1803(E)	56	#6	11'-4"	
s1804(E)	20	#6	34′-8″	
s1805(E)	120	#6	4'-10"	
sp1800	2	#6	68′-0″	
†1800(E)	43	#6	17'-6"	ല
†1801(E)	10	#11	27'-0"	
†1802(E)	10	#11	26'-0"	
†1803(E)	43	#6	8′-8"	
u1800(E)	12	#6	11'-6"	
u1801(F)	14	#6	15'-0"	
u1802(F)	42	#6	5'-8"	
v1800(E)	52	#11	25'-9"	<u> </u>
v1801	24	#14	27'-4"	
v1802	24	#14	37'-4"	
v1803	24	#14	35'-0"	
v1804	24	#14	45'-0"	
1007	<u> </u>		13 0	
Concrete	Structures	I	Cu Yd	118.9
Reinforcement Bars			00. 70.	110.5
Epoxy Coated			Pound	31,660
Reinforcement Bars			Pound	32 600
Reinforcement Bars				110 5
Drilled Sh	aft in Pool	Cu. 10.	5.0	
Conorata	un III πOCI Sodor	1	CU. 10.	1627
Ctrueture	Sealer Eusevetica		SU, FI,	1,03/
STRUCTURE	r x c a v a v a v a v a v a v a v a v a v a	,	1 1 11 10	1 5/
0	Custo	. •	CU. 70.	51

\*\* Length is height of spiral.

[ION – S.N. 016–1505		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		55 2010-080-В СООК		886	705
			CONTRACT	NO. 6	0L70
-248 SHEETS	ILLINOIS FED. AID PROJECT				







## BENT BAR A & B DIMENSIONS

Bar	А	В
1900(E)	40'-2"	3'-0"
:1900(E)	4′-6″	4′-10″
:1901(E)	4′-6″	5′- <i>1</i> 0″
:1902(E)	6′-2″	5′- <i>1</i> 0″
:1903(E)	4′-6″	4'-4"
1901(E)	21'-0"	3'-0"
1902(E)	21'-0"	2'-6"
1900(E)	6′-0″	4'-0"
1901(E)	7'-0"	4'-0"
1902(E)	6′-2″	1'-0"



BAR p1902(E)

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BAR s1905(E)







# FIELD CUTTING DIAGRAM

Order h1900(E) bars Full Length. Cut as shown and use remainder of bars.

### BILL OF MATERIAL

		~		<u></u>
Bar	No.	Size	Length	Shape
h1900(E)	6	#7	57'-2"	
h1901(E)	14	#7	40'-2"	
h1902(E)	14	#6	21'-0"	
h1903(E)	32	#5	6'-6"	
h1904(E)	16	#5	4'-10"	
n1900(E)	52	#11	18'-6"	
n1900(F)	9	#11	46'-2"	
n1901(E)	9	#11	39'-6"	· · · ·
01902(E)	18	#8	24'-2"	/
<i>p1302(L)</i>	10	"0	272	
~1000(E)	04	#6	14/ 0"	
51900(E)	24	#0	14 - 2	
\$1901(E)	52	#6	16'-2"	
\$1902(E)	26	#6	17'-10"	
s1903(E)	32	#6	13'-2"	
s1904(E)	16	#6	34′-8″	
s1905(E)	96	#6	4'-10"	
sp1900	2	#6	64'-0"	~~~~
†1900(E)	43	#6	17'-6"	ല
† 1901(E)	8	#11	27'-0"	
†1902(E)	8	#11	26'-0"	
t1903(F)	43	#6	8'-8"	
11900(F)	14	#6	14'-0"	
11900(E)	14	#6	15'-0"	
U1002(E)	17	#6	81-2"	
U1902(L)	42	#0	0-2	
	50	<i>#11</i>	01/ 5/	
V1900(E)	52	#11	21-5	
V1901	24	#14	30'-4"	
v1902	24	#14	40'-4"	
v1903	24	#14	30'-0"	
v1904	24	#14	40'-0"	
Structure	Excavation	n	Cu. Yd.	48
Concrete Structures			Cu. Yd.	135.6
Reinforcement Bars,			David	00.500
Epoxy Coated			round	20,500
Reinforcement Bars			Pound	31.600
Drilled St	naft in Soil		Cu. Yd.	107.0
Drilled Shaft in Rock			Cu. Yd	5.9
Concrete	Sealer		Sa Et	1662
Crosshole	Sonic Log	aina	Each	1
Crosshole Sonic Logging			LUCH	1

\*\* Length is height of spiral.

TION - S.N. 016-1505 INGE (OUTBOUND STRUCTURES) 248 SHEETS		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		2010-080-B	СООК	886	707
			CONTRACT	NO. 6	0L70
		ILLINOIS FED. AI	D PROJECT		



- 1. Space reinforcement in cap to miss anchor bolts.
- 1) Provide  $I_2'$  extra turns top and bottom. Extend spiral 3" into pile cap. Provide 4-#4 spacers or
- 2) When splicing spiral reinforcement is necessary, the spirals shall be provided with  $1_2^l$  extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.
- 3. Contractor shall use Mechanical Splicers in drilled shaft that will fit between spirals. Contractor shall field adjust spiral pitch to 12" maximum at Mechanical
- 4. A Drilled Shaft shall be tested in accordance with Special Provisions for Crosshole Sonic Logging.

- S.N. 016–1505 NGE (OUTBOUND STRUCTURES)	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	2010-080-B	СООК	886	708
NGE (COTBOOND STRUCTORES)			CONTRACT	NO. 6	0L70
-248 SHEETS		ILLINOIS FED. A	ID PROJECT		



SHEET NO. S-217 OF



## BENT BAR A & B DIMENSIONS

Bar	А	В
2000(E)	40'-2"	3'-0"
2000(E)	2'-6"	4′-9″
2001(E)	2'-6"	5′-10″
2002(E)	3′-8″	5′-10″
2003(E)	2'-6"	4'-4"
2001(E)	21'-0"	3'-0"
2002(E)	21'-0"	2'-6"
2000(E)	3′-6″	4'-0"
2001(E)	7'-0"	4'-0"
2002(E)	3′-8″	1'-0"



BAR p2002(E)

\*\*



BAR s2005(E)







# FIELD CUTTING DIAGRAM

Order h2000(E) bars Full Length. Cut as shown and use remainder of bars.

## BILL OF MATERIAL

· · · · · ·				
Bar	No.	Size	Length	Shape
h2000(E)	6	#7	57'-2"	
h2001(E)	14	#7	40'-2"	
h2002(E)	14	#6	21'-0"	
h2003(E)	20	#5	6′-6″	
h2004(E)	10	#5	4'-10"	
p2000(E)	7	#11	46'-2"	
p2001(E)	14	#11	39′-6″	
p2002(E)	6	#8	24'-2"	
s2000(E)	48	#6	12'-0"	
s2001(E)	92	#6	14'-2"	
s2002(E)	28	#6	15'-4"	
s2003(E)	44	#6	11'-2"	
s2004(F)	9	#6	34'-8"	
s2005(E)	54	#6	4'-10"	
02000.27	0.			
sn2000	2	#6	65'-9"	
002000	2		0000	
†2000(E)	43	#6	17'-6"	
†2001(E)	10	#11	27'-0"	
†2002(E)	10	#11	26'-0"	
†2003(E)	43	#6	8'-8"	
u2000(E)	14	#6	11'-6"	
u2001(E)	14	#6	15'-0"	
u2002(E)	42	#6	5′-8″	
v2000(E)	52	#11	21'-6"	
v2001	24	#14	26'-1"	
v2002	24	#14	36′-1″	
v2003	24	#14	35'-0"	
v2004	24	#14	45'-0"	
Structure	Excavation	1	Cu, Yd.	49
Concrete S	Structures		Cu. Yd.	95.5
Reinforcen	nent Bars.			
Ероху Соа	ted		Pound	23,950
Reinforcen	nent Bars		Pound	32,030
Drilled Sho	oft in Soil		Cu. Yd.	108.3
Drilled Sho	oft in Rock	k	Cu. Yd.	5.9
Concrete S	Sealer		Sq. Ft.	1,150
Crosshole	Sonic Log	ging	Each	1

\*\* Length is height of spiral.

FION – S.N. 016–1505		SECTION	COUNTY	TOTAL SHEE SHEETS NO.	
	55	2010-080-B	СООК	886	709
			CONTRACT	NO. 6	0L70
-248 SHEETS		ILLINOIS FED. A	D PROJECT		



- 1. Space reinforcement in cap to miss anchor bolts.
- 1) Provide 1<sup>1</sup><sub>2</sub> extra turns top and bottom. Extend spiral 3" into pile cap. Provide 4-#4 spacers or
- 2) When splicing spiral reinforcement is necessary, the spirals shall be provided with  $1_2^l$  extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.
- 3. Contractor shall use Mechanical Splicers in drilled shaft that will fit between spirals. Contractor shall field adjust spiral pitch to 12" maximum at Mechanical
- 4. A Drilled Shaft shall be tested in accordance with Special Provisions for Crosshole Sonic Logging.

- S.N. 016–1505	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	2010-080-B	COOK	886	710
NGE (DOTBOOND STRUCTURES)			CONTRACT	NO. 6	0L70
-248 SHEETS		ILLINOIS FED. AI	D PROJECT		





AECOM I-55 & LAKE SHORE DRIVE INTERCHA PLOT SCALE = DRAWN MR REVISED **DEPARTMENT OF TRANSPORTATION** PLOT DATE = 11/20/2014 SHEET NO. S-220 OF S CHECKED - ATB REVISED



PIER 17W Structure No. 016-1505



PIER 19W Structure No. 016-1505



	-				
DETAILS II NGE (OUTBOUND STRUCTURES)	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NGE (OUTBOUND STRUCTURES)		2010-080-B	СООК	886	712
			CONTRACT	NO. 6	0L70
-248 SHEETS	ILLINOIS FED. AID PROJECT				



PLOT DATE = 12/05/2014

CHECKED - ATB

REVISED

SHEET NO. S-221 OF S

Pier	Formliner Quantity (Sq.Ft.)	Rubbed Finish Quantity (Sq.Ft.)
9W	740	1,230
10W	650	1,040
12W	778	1,096
13W	876	1,345
14W	896	1,140
15W	1,133	1,220
16 W	838	1,115
17W	737	1,290
18W	645	1,036
19W	520	1,185
20W	350	835

ITEM	UNIT	QUANTITY
orm Liner Textured Surface	Sq. Ft.	8,163
ubbed Finish	Sq. Ft.	12,532

DETAILS III	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NGE (OUTBOUND STRUCTURES)		2010-080-B	СООК	886	713
		CONTRACT NO. 60L70			
-248 SHEETS	ILLINOIS FED. AID PROJECT				



		Mecho Coupl	anical ler (E)	
0////				
(111)			<u> </u>	///0
Reinforcement	bar _		Reinf	orcement ha
rienn or eennem				orcement Dur
	STANDARD ME	CHANICA	<u>AL SPLICER</u>	
1		Bar	No assemblies	
	Location	size	required	
	Pier 1W	#5	32	
		#6	14	
	D: 011/	#11	81	
	Pier 2W	#5	34	
		#11	81	
	Pier 3W	#5	18	
		#11	24	
		#14	48	
	Pier 4W	#5	18	
		#11	24	
	Pior EW	#14	48	
	Fiel SW	#5	12	
ion of the		#8	40	
closure		#11	101	
the entire		#14	48	
•	W. Abutment	#14	70	
	Pier 6W	#5	60	
		#6	28	
		#11	155	
		#14	100	
	Pier /W	#5	60	
		#6	28	
ge Ib construction		#14	100	
je na construction	Pier 8W	#5	46	
		#6	14	
		#11	80	
		#14	90	
	Pier 9W	#7	26	
		#8	6	
		#1/	30	
	Pier 10W	#14	40	
	1101 1011	#8	6	
		#11	30	
		#14	48	
	Pier 11W	#14	36	
	N. Abutment	#14	30	
	Pier 12W	#14	48	
	Pier 13W	#14	48	
	Pier 14W	#14 #11	48	
	Pier 16W	#14	48	
	Pier 17W	#14	48	
	Pier 18W	#14	48	
	Pier 19W	#14	48	
	Pier 20W	#14	48	
	S. Abutment	#14	42	

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

<b>NBLY DETAILS</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
016_1501 016_1504 8 016_1505	55	2010-080-B	СООК	886	714
010-1501, 010-1504 & 010-1505			CONTRACT	NO. 6	0L70
-248 SHEETS		ILLINOIS FED. AI	D PROJECT		







STRUCTURE SOIL BORING LOG

AECOM

AECOM PROJ NO. 60225454

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

Page 2 of 3 Date <u>3/7/13</u>



ROUTE FAI 55 SECT. 2010-080-E COUNTY COOK



Surface Elev. \_5



BORING LOGS I – I-55 & LAKE SHORE DRIVE INTERCHA

#### STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>3/7/13</u>

	STRUCT. NO. 016-1501	_ D	RILLED E	3Y _5	STRAT	A - MALO	UF
(							
STR-01 5+73.92 .79ft RT 94.97 ft	Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>14.1</u> ft			R E C O V E	R Q D	CORE T I M F	COMP. S T R N G
Coring	Notes and Rock Description		Core Run (#)	R Y (%)	(%)	(Min/ ft)	T H (tsf)
ard, horizonally f ss, slighty vuggy t DLOMITE	ractured, occasional dipping and vertical o vuggy, moderately weathered, very poor to	- <u>60.0</u>	1	100	23	2	
		- <u>-</u> - <u>65.0</u> - <u>-</u> - <u>-</u> - <u>70.0</u>	2	99	57	2	
Boring B-61 drill rig used atic Mobile hamm used: 30 ft of 4 in converted to rotar diameter PVC we aveloped on 4/3/1	I for drilling er used for SPT v diameter y wash drilling at 15 ft depth II installed with screen interval - 48.5'-58.5' 3	  - <u></u> - <u></u>					

Yes - See Appendix

S.N. 016–1501	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	2010-080-B	COOK	886	716
INGE (COTBOOND STRUCTURES)			CONTRACT	NO. 6	0L70
-248 SHEETS		ILLINOIS FED. AI	D PROJECT		

AECOM		S	TRUC	TUF	RE SO	DIL BORING LOG			Page	1 of 3
AECOM PROJ NO. 602254	54							Date	3/	1/13
ROUTE FAI 55	DESCR	IPTIC	DN <u>1-9</u>	4 (DA	N RYA	N EXPRESSWAY) TO US 41 (LAKE	SHOR		/E)	
SECT. 2010-080-B		STR	UCT. NO	Э. <u>01</u>	6-150	1 DRILLED BY	STR/	ATA - U	ILLRICH	1
COUNTY COOK	LOCA		<u>сн</u>	ICAGO	D, ILLIN	IOIS_			_	
Boring No.         STR-03           Station         86+87.94           Offset         31.90ft RT		D E P T	B L O W	Qu	w	Surface Water Elev. <u>None</u> Groundwater Elev.: when drilling <u>586.0</u> at Completion <u>Not Meas.</u>	D E P T	B L O W	Qu	w
Surface Elev. <u>594.04</u> f	ť	н	S	tsf	%	after Hrs. Not Meas	н	S	tsf	%
ASPHALT FILL: ASPHALT, GRAVEL, BRICK AND GRAVEL	_593.29		50/1"		1.4	Gray, hard SIL⊺Y CLAY		5 7 13	4.0B	22.3
FILL: Brown, dry to moist, medium dense to loose, fine SAND	_591.54		6 6 4		10.3	Gray, very stiff to stiff SILTY CLAY				
		-5	3 2 3		15.9		30	5 8 11	2.2B	21.1
FILL: Brown to brown and gray, saturated, loose to very loose fine SAND	_586.04		2 3 2		29.8					
Very loose, line SAND		-10	1 2 1		24.6		35	7 7 8		25.6
			WOH WOH 1		26.0					
FILL: Gray, saturated,	_577_74	-15	2 3 3		24.9 14.5		40 	4 5 8	1.4B	19.3
loose, fine to coarse GRAVEL			3 2 2		15.3					
Gray, saturated, medium	_573.04	-20	2 2 3		15.6 24.6		45	3 3 6	1.1B	21.0
Gray, hard SILTY CLAY	_571.54									
CDT (N) = Cum of lost ture b	low yelli-	-25	ample	(0)	D-D-1	544.04	-50			

AECOM AECOM PROJ NO. 60225454

D E P T H

\_\_\_\_

\_\_\_\_\_543.34 \_\_\_

542.04

в

8

50/2"

L O W Qu S tsf

W %

15.5

STRUCTURE NO. 016-1501 ROUTE <u>FAI 55</u> SECTION <u>2010-080-B</u> COUNTY <u>COOK</u>

 Boring No.
 STR-03

 Station
 86+87.94

 Offset
 31.90ft RT

Elevation <u>544.04</u> ft

Gray, moist, extremely dense LOAM Apparent weathered BEDROCK

STRUCTURE SOIL BORING LOG

Page 2 of 3 Date <u>3/11/13</u>

AECOM

SECT. 2010-080-B COUNTY COOK



Surface Elev. <u>594.04</u> ft



-75 SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BOBING LOGS II - S.N. 016-1501	F.A.I.	SECTION	COUNTY	TOTAL	SHEET
AECOM		CHECKED - ATB	REVISED -	STATE OF ILLINOIS		55	2010-080-B	СООК	886	717
	PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	I-JJ & LAKE SHORE DRIVE INTERCHANGE (DOTDOOND STRUCTORES)	-		CONTRAC	T NO. 6	JL70
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. S-225 OF S-248 SHEETS		ILLINOIS FED. AI	ID PROJECT		

### Page 3 of 3 Date <u>3/11/13</u> ROUTE FAI 55 DESCRIPTION 1-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE) Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15.3</u> ft R CORE COMP. R E C O V S à т T R G T H (tsf) . D . М Е Core Run (#) R Y (Min/ ft) 2 Coring Notes and Rock Description (%) (%) 87 69 542.04 Gray, hard, occasional horizonal and dipping fractures, slighty vuggy to vuggy, slightly weathered, fair to excellent, DOLOMITE -55.0 \_\_\_\_ \_ \_ -60.0 100 95 2 2 -65.0 \_\_\_\_ 4 End of Boring Mobile B-57 dril rig used for drilling Automatic Mobile hammer used for SPT Casing used: 25 ft of 4 in diameter Driller converted to rotary wash drilling at 12.5 ft depth Borchole grouted upon completion \_ \_ -70.0

STRUCTURE ROCK CORING LOG

Yes - See Appendix

Cores will be stored for examination until

AECOM		S	TRUC	CTUR	RE SC	DIL BORING LOG			Page	1 of
ECOM PROJ NO. 602254	54							Date	3/ 1	1/13
ROUTE FAI 55	DESCR	IPTIC	N <u></u>	94 (DA	N RYA	N EXPRESSWAY) TO US 41 (LAKE S	SHOR	EDRIV	E)	
SECT. 2010-080-B		STR	UCT. N	0. <u>01</u>	6-150	1 DRILLED BY	STR/	ATA - BA	KER	
COUNTY COOK	LOCA	TION	CH	ICAGO	), ILLIN	IOIS	_			
Boring No.         STR-04           Station         89+00.23           Offset         26.80ft RT		D E P T	B L O W	Qu	w	Surface Water Elev. <u>None</u> Groundwater Elev.: when drilling <u>586.4</u> at Completion <u>Not Meas</u> .	D E P T	B L O W	Qu	w
Surface Elev. <u>595.35</u>	ft	н	S	tsf	%	after Hrs. Not Meas.	н	S	tst	%
ASPHALI noted at ground surface, not measured FILL: GRAVEL, STONE FRAGMENTS, CINDER, BRICK and CLAY	595.25		6 6 10 5		13.5	Gray, hard to very stiff SILTY CLAY		4 7 11	3.18	22.5
		_	5 6 6 5			Grav stiff SILTY CLAY		5 8 11	3.1B	21.1
Cill Drawn and dark	_ 590.35	-5	2		10.7	Cray, suit Cleff Cleff	-30	4	1 00	22.6
brown, moist, loose, fine		_	3 2 3 4		13.7	Pressuremeter Test		4 11 15	1.0D	23.0
			2		19.7	performed at 31.75 ft po = $2.5$ tsf / pf = $8.0$ tsf /	_			
FILL: Brown and dark	_586.35	_	1 2 1			pl = 16.7  tsf Ed = 201 tsf / E+ = 349 tsf	_			
loose to medium dense, fine SAND, trace gravel		-10	1 0 1 1		20.1			3 5 5	1.3B	19.0
		_	3 3 1		19.1	Gray, medium SILTY CLAY				
Large gravel noted.		-15	11 3 1		24.3		40	3 3 4	.8B	29.5
			5 4		21.4		_			
	_576.35	_	10				_			
GRAVEL		-20	21 20 9		11.7		45	WOH WOH 3	.5B	28.6
Gray, saturated SILTY	573.35	$\neg$	6		24.9		_			
Gray, hard to very stiff SILTY CLAY	_012.00	=	6	4.4B	21.3		_			

AECOM AECOM PROJ NO. 60225454

> D E P в

T H

-55

\_ 2 4

\_\_-60

\_

-65

-70

-75

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

\_ 537.35

L O W Qu S tsf

WOH .6B 27.7

WOH .6B 26.9

W %

STRUCTURE NO. 016-1501 ROUTE <u>FAI 55</u> SECTION <u>2010-080-B</u> COUNTY <u>COOK</u>

 Boring No.
 STR-04

 Station
 89+00.23

 Offset
 26.80ft RT

Gray, medium SILTY CLAY

Elevation <u>545.35</u> ft

Apparent weathered BEDROCK

STRUCTURE SOIL BORING LOG

Page 2 of 3 Date <u>3/11/13</u>

AECOM

SECT. 2010-080-B COUNTY COOK



Surface Elev. 595.35 ft



<b>MO</b>	USER NAME = kritzm	DESIGNED - CLS CHECKED - ATB DRAWN - MRK	REVISED - REVISED - REVISED -	STATE OF ILLINOIS	BORING LOGS III – I–55 & Lake Shore Drive Intercha
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -	DEFAILMENT OF THANSPORTATION	SHEET NO. S-226 OF S

#### Page 3 of 3 Date <u>3/11/13</u> STRUCTURE ROCK CORING LOG ROUTE FAI 55 DESCRIPTION 1-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE) STRUCT. NO. 016-1501 \_\_\_\_\_ DRILLED BY \_\_\_\_\_\_ STRATA - BAKER Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>16</u> ft R R CORE COMP. E S т c o v Q Т -R N G T Ď M E Core Run (#) R (Min/ ft) H (tsf) Coring Notes and Rock Description Y (%) (%) 534.35 Gray, hard, horizonally fractured, vuggy, slightly weathered, fair to poor, DOLOMITE 96 72 2 -65.0 \_ 2 34 2 75 -70.0 \_ -75.0 5) End of Boring Mobile B-61 drill rig used for drilling Automatic Mobile hammer used for SPT Casing used: 25 ft of 4 in diameter Driller converted to rotary wash drilling at 10 ft depth \_ \_ Borehole grouted upon completion -80.0 Yes - See Appendix

Cores will be stored for examination until

<u>Minimum 60 day</u>s

TOTAL SHEE SHEETS NO. F.A.I. RTE. SECTION COUNTY S.N. 016–1501 COOK 886 718 55 2010-080-B ANGE (OUTBOUND STRUCTURES) CONTRACT NO. 60L70 -248 SHEETS ILLINOIS FED. AID PROJECT

AECOM		S	TRUC	TUR	RE SO	DIL BORING LOG		Date	Page 3/	1 of 7/13
AECOM PROJ NO. 6022545	54							Date		
ROUTE FAI 55	DESCR	IPTIC	DN <u>1-9</u>	94 (DA	N RYA	N EXPRESSWAY) TO US 41 (LAKE S	SHOR	E DRIV	<u>(E)</u>	
SECT. 2010-080-B		STR	UCT. N	0. <u>01</u>	6-150	1 DRILLED BY	STRA	TA - U	LLRICH	ł
COUNTY COOK	LOCA	TION	CH	ICAGO	D, ILLIN	IOIS_				
Boring No.         STR-05           Station         90+61.03           Offset         31.07ft RT           Surface Elev         596.13		D E P T H	B L O W S	Qu	W %	Surface Water Elev. <u>None</u> Groundwater Elev.: <u>585.4</u> at Completion <u>Not Meas.</u> after <u>Hrs</u> Not Meas.	D E P T H	В L O W S	Qu	W %
Asnhalt	505.62			101	70	Grav very stiff to hard		6	2.4B	48.5
FILL: CRUSHED STONE, SAND and GRAVEL base course	595.13	_	16 14 11		2.9	SILTY CLAY	_	9 13	2.10	-10.0
FILL: Dark brown, dry, medium dense to loose,		_	6		12.0		_	5	4B	21.4
fine to coarse SAND, trace to little silt		_	4 4				_	10 12		
Prown dry to maint	591.13	-5	5		20	566.13	-30	6	2 00	21.1
medium dense, fine to medium SAND, trace silt		_	6 6		3.0	stifff SILTY CLAY	_	7 12	2.00	21.1
		_	5		12					
		Ξ	5 7 8		4.5		_			
Duranne internet and and and a	586.13	-10			01.0		-35		0.70	40.0
to saturated, loose to medium dense, fine to medium SAND, trace to		_	5 7 6		21.9		_	8 8 11	2.75	13.0
little silt										
		_	4 4 5		27.9		_			
		-15					-40			
	-	_	15 8 9		24.5		_	8 8 8	1.7B	23.7
	578.63	_				553.63	_			
Gray, wet to saturated, loose, fine to medium SANDY LOAM, trace clay,	-	_	6 4 4		20.6	Gray, medium to stiff SILTY CLAY	_			
little to some silt	576 13	-20					-45			
Gray, wet to saturated, medium dense, fine to coarse SAND, trace to little	010.10		5 7 10		23.9			5 5 7	.7B	20.2
silt	573.63	$\neg$					_			
Gray, saturated, loose, SILTY LOAM, little to some fine sand	0.00	-	4 4 5		27.1		_			
	571 12	-					_			

AECOM AECOM PROJ NO. 60225454

D E P T H

-55

-60

-65 \_

-70

\_ 533.63

15

20 29

в

L O W Qu S tsf

W %

1B 22.1

3.4S 26.4

20.5

STRUCTURE NO. 016-1501 ROUTE <u>FAI 55</u> SECTION <u>2010-080-B</u> COUNTY <u>COOK</u>

 Boring No.
 STR-05

 Station
 90+61.03

 Offset
 31.07ft RT

Elevation <u>546.13</u> ft

Gray, medium to stiff SILTY CLAY

Gray, very stiff SILTY CLAY

Gray, moist, dense LOAM

Apparent weathered BEDROCK or boulders 532.63

STRUCTURE SOIL BORING LOG

Page 2 of 3 Date 3/7/13



SECT. 2010-080-B COUNTY COOK



Surface Elev. 596.13 ft



-75 SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BORING LOGS IV - S.N. 016-1501	F.A.I. RTE.	SECTION	COUNTY	TOTAL S'	HEET NO.
AECOM		CHECKED - ATB	REVISED -	STATE OF ILLINOIS		55	2010-080-B	соок	886	719
	PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	1-55 & LARE SHORE DRIVE INTERCHANGE (OUTDOOND STRUCTORES)	_		CONTRACT	NO. 601	_70
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. S-227 OF S-248 SHEETS		ILLINOIS FED. AI	ID PROJECT		

### ROUTE FAI 55 DESCRIPTION 1-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE) STRUCT. NO. 016-1501 DRILLED BY STRATA - ULLRICH Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15.5</u> ft R R CORE COMP. E C O V S т Q T R G T H (tsf) D . М Е Core Run (#) R Y (Min/ ft) 2 Coring Notes and Rock Description (%) (%) 95 63 532.63 Gray, hard, horizonally fractured, vuggy to slightly vuggy, slightly weathered, fair to good, DOLOMITE -65.0 \_ \_ -70.0 3 End of Boring Diedrich D-50 drill rig used for drilling Automatic Diedrich hammer used for SPT Casing used: 25 ft of 4 in diameter Driller converted to rotary wash drilling at 12.5 ft depth Borehole grouted upon completion 100 82 2 2 \_ \_ -75.0 -80.0

STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>3/7/13</u>

Yes - See Appendix

Cores will be stored for examination until



AECOM

AECOM PROJ NO. 60225454 STRUCTURE NO. 016-1501 ROUTE \_FAI 55 SECTION \_2010-080-B COUNTY \_COOK STR-07 Boring No. D E в 92+10.85 32.43ft RT Station \_\_\_\_\_ Offset \_\_\_\_\_ 0 W S Qu tsf W % T H Elevation <u>546.85</u> ft Brown and gray, very stiff SILTY CLAY 2.6B 21.8 10 13 Pressuremeter Test performed at 51.75 ft po = 3.5 tsf / pf = 8.0 tsf / pl = 14.2 tsf Ed = 121 tsf / E+ = 207 tsf 544.35 Brown and gray to gray, stiff to medium SILTY -55 1B 27.2 CLAY 10 Pressuremeter Test performed at 56.75 ft po = 3.5 tsf / pf = 8.0 tsf / pl = 14.1 tsf Ed = 127 tsf / E+ = 191 tsf -60 .8B 23.6 Pressuremeter Test performed at 61.75 ft po = 3.5 tsf / pf = 8.0 tsf / pl = 12.7 tsf Ed = 137 tsf / E+ = 168 tsf 15 2.9S 21.2 20 45 530.85 Gray and dark gray, wet, very dense LOAM Pressuremeter Test performed at 67.25 ft po = 4.0 tsf / pf = 25.0 tsf / pl = \*tsf Ed = 636 tsf / E+ = 2250 526.85 \_-70 \*Burst membrane pressurizing to 32 bars Apparent weathered BEDROCK -75

STRUCTURE SOIL BORING LOG

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

Page 2 of 3 Date \_\_\_\_\_\_2/27/13



ROUTE FAI 55 SECT. 2010-080-B COUNTY COOK



Surface Elev. \_59



USER NAME = kritzm	DESIGNED - CLS	REVISED -		BORING LOGS V – S.N. 016–1501	F.A.I. RTE.	SECTION	COUNTY	TOTAL S SHEETS	HEET NO.
	CHECKED - ATB	REVISED -	STATE OF ILLINOIS	1-55 & LAKE SHORE DRIVE INTERCHANGE (OUTROUND STRUCTURES)	55	2010-080-B	COOK	886	720
PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION		-		CONTRAC	T NO. 60	L70
PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. S-228 OF S-248 SHEETS		ILLINOIS FED.	AID PROJECT		

### STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>2/27/13</u>

DESCRIPTION \_\_I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

	STRUCT. NO. 016-1501	D	RILLED E	BY _S	STRAT	A - KOME	N
<u> </u>							
STR-07 2+10.85 43ft RT 96.85 ft	Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15</u> ft			R E C V E	R Q D	CORE T I M E	COMP. S T R N G
Coring	Notes and Rock Description		Core Run (#)	R Y (%)	(%)	(Min/ ft)	T H (tsf)
ard, horizonally f ruggy, slightly we	ractured, occasional vertical fractures, athered to fresh, poor to fair, DOLOMITE		1	97	42	2	
			2	100	71	2	
Boring h D-50 drill rig us atic Diedrich ham used: 32 ft of 4 ir converted to rotar le grouted upon o	ed for drilling mer used for SPT n diameter y wash drilling at 15 ft depth completion	-90.0					

Yes - See Appendix

Cores will be stored for examination until



STRUCTURE NO. 016-1501 ROUTE \_FAL55 SECTION \_2010-080-B COUNTY \_COOK STR-09 93+26.97 31.15ft RT Boring No. D E в Station \_\_\_\_\_ Offset 0 Ŵ S Qu tsf W % T H Elevation <u>546.77</u> ft Brown and gray, wet, loose SILTY LOAM - trace shells 74.7 .8B 65.4 and organics noted \_542.77 Dark gray, stiff SILTY CLAY LOAM 1B 26.3 539.27 Brownish gray to gray, stiff SILTY CLAY -6 1.4B 25.8 -65 1.2B 24.7 529.27 Apparent weathered BEDROCK 526.77

-75

Stations, Depths, Offset, and Elevations are in Feet

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test

STRUCTURE SOIL BORING LOG

AECOM

AECOM PROJ NO. 60225454

Page 2 of 3 

AECOM

ROUTE FAI 55 SECT. 2010-080-E COUNTY COOK

Boring No. Station Offset

Surface Elev. \_5

Top Elev. ft 526.77 Gray, h vuggy t fair to v 511.27 End of Diedricl Automa Casing Driller c Borehol Color pictures of the cores

ΑΞ

USER NAME = kritzm	DESIGNED - CLS CHECKED - ATB	REVISED - REVISED -	STATE OF ILLINOIS	BORING LOGS VI –
PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	I-55 & LAKE SHORE DRIVE INTERCHA
PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. S-229 OF S

STRUCTURE ROCK CORING LOG	

Page 3 of 3 Date <u>4/4/13</u>

3	STRUCT. NO. 016-1501	D	RILLED I	BY 🗳	STRAT	<u>A - ULLR</u>	ICH
κ							
STR-09 3+26.97 .15ft RT 96.77 ft	Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15.5</u> ft			R E C O V E	R Q D	CORE T I M F	COMP. S T R N
Coring	Notes and Rock Description		Core Run (#)	R Y (%)	(%)	(Min/ ft)	T H (tsf)
aard, horizonally f to trace vuggs, sli very poor, DOLOf	ractured to completely fractured, slighty ghtty weathered to moderately weathered, MTE	- <u>-75.0</u> - <u>-75.0</u>	2	65	64	3.1	
		- <u>80.0</u> - <u>80.0</u> 					
Boring h D-50 drill rig us atic Diedrich ham used: 35 ft of 4 i converted to rotar ole grouted upon	ed for drilling mer used for SPT n diameter ry wash drilling at 12.5 ft depth completion	-90.0					

Yes - See Appendix

<u>Minimum 60 day</u>s

Cores will be stored for examination until

TOTAL SHEE SHEETS NO. F.A.I. RTE. SECTION COUNTY S.N. 016-1501 55 2010-080-B COOK 886 721 ANGE (OUTBOUND STRUCTURES) CONTRACT NO. 60L70 -248 SHEETS ILLINOIS FED. AID PROJECT



Stations, Depths, Offset, and Elevations are in Feet



AECOM

STRUCTURE SOIL BORING LOG Date 3/26/13

Page 2 of 3

AECOM

ROUTE FAI 55 SECT. 2010-080-E COUNTY COOK



Surface Elev. \_5



515.53 -75 SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BORING LOGS VIL - S.N. 016-1504	F.A.I. SECTI	ON	COUNTY	TOTAL	SHEET
ΛΞΟΟΜ		CHECKED - ATB	REVISED -	STATE OF ILLINOIS		55 2010-0	80-В	СООК	886	722
AECOM	PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	I-33 & LAKE SHURE DRIVE INTERCHANGE (UUTBUUND STRUCTURES)			CONTRACT	NO. 6	0L70
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. S-230 OF S-248 SHEETS	I	LINOIS FED. AID	PROJECT		

#### STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>3/26/13</u>

DESCRIPTION \_\_I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

}	STRUCT. NO. 016-1504	D	RILLED E	BY _S	STRAT	A - KOME	N
(							
STR-18 5+88.77 .25ft RT 90.53 ft	Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15</u> ft			R E C O V E	R Q D	CORE T I M F	COMP. S T R N G
Coring	Notes and Rock Description		Core Run (#)	R Y (%)	(%)	(Min/ ft)	T H (tsf)
hard, horizontally ared to slightly we ately fractured to	fractured, trace vuggs, moderately athered, very poor to fair, DOLOMITE - 77.5 ft		1	80	0		
			2	100	33		
		- <u>80.0</u> 					
		- <u>85.0</u> 	3	100	30		
		-90.0					
Boring ave in at 85.0 ft h D-50 drill rig us atic Diedrich ham used: 30 ft of 4 i converted to rotar ole grouted upon	ed for drilling mer used for SPT n diameter ry wash drilling at 12.5 ft depth completion						

Yes - See Appendix



SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

AECOM STRUCTURE SOIL BORING LOG AECOM PROJ NO. 60225454

 
 STRUCTURE NO.
 016-1504

 ROUTE
 FAI 55

 SECTION
 2010-080-B

 COUNTY
 COOK
 STR-19 96+93.64 75.33ft RT D E P T Boring No. в Station \_\_\_\_ L L O W S Offset Qu tsf W % Elevation <u>540.60</u> ft Ĥ Gray, stiff to soft SILTY WOH WOH .4B 24.8 -55 .7B 23.6 4 -60 1B 23.2 17 527.60 Gray, moist, extremely dense CLAY LOAM to LOAM - gravel noted Pressuremeter Test performed at 64.75 ft po = 6.0 tsf / pf = 50 tsf / 90/5" 9.3 pl = \* tsfEd = 1204 tsf / E+ = 3542 tsf \*Apparent hardpan with highly weathered bedrock or large gravel -70 520.10 81 7.9 Apparent highly weathered or fractured BEDROCK Pressuremeter Test performed at 71.75 ft po = 6.0 tsf / pf = \* tsf / pl = tsf Ed = 2002 tsf / E+ = tsf

Page 2 of 3 Date 3/12/13

### AECOM

ROUTE FAI 55 SECT. 2010-080-B COUNTY COOK



Surface Elev. 5



	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BORING LOGS VIII - S.N. 016-1504	F.A.I. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
ΔΞϹΟΜ		CHECKED - ATB	REVISED -	STATE OF ILLINOIS		55	2010-080-B	СООК	886	723
	PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	1-33 & LARE SHORE DRIVE INTERCHANGE (COTBOOND STRUCTORES)	_		CONTRACT	NO. 6	JL70
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. S-231 OF S-248 SHEETS		ILLINOIS FED. AI	D PROJECT		

#### STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>3/12/13</u>

	STRUCT. NO. 016-1504	D	RILLED	BY _S	STRAT	A - BAKE	R
STR-19 3+93.64 33ft RT 90.60ft	Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15</u> ft			R E C O V E	R Q D	CORE T I M F	COMP. S T R N
Coring	Notes and Rock Description		Core Run (#)	R Y (%)	(%)	(Min/ ft)	T H (tsf)
ard, horizontally , vuggy to slighti /ITE	and vertically fractured, occasional dipping y vuggy, moderately weathered, very poor,		1	76	16		
		- <u>85.0</u> - <u>85.0</u> 	2	80	17		
Boring B-61 drill rig use atic Mobile hamm used: 30 ft of 4 i converted to rota le grouted upon	d for drilling ler used for SPT n diameter y wash drilling at 10 ft depth completion	-95.0					

Yes - See Appendix

Cores will be stored for examination until



STRUCTURE SOIL BORING LOG AECOM PROJ NO. 60225454

DE

T H

-55

\_\_\_\_60

-70

514.98 -75

\_527.48

\_537.48

в

0

W S Qu tsf W %

4

3

40

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

100/3" 27.9

2.1B 23.4

WOH .7B 27.7

2B 24.1

10.2

AECOM

Boring No. \_\_\_\_ Station \_\_\_\_\_ Offset \_\_\_\_\_

STRUCTURE NO. 016-1504

STR-20 97+93.00 23.20ft RT

ROUTE <u>FAI 55</u> SECTION <u>2010-080-B</u> COUNTY <u>COOK</u>

Elevation <u>539.98</u> ft

Gray and brown, very stiff SILTY CLAY

Gray, medium to very stiff SILTY CLAY

Gray, moist, very dense to extremely dense CLAY LOAM to LOAM - gravel noted

Page 2 of 3 Date \_\_\_\_\_\_\_3/12/13



ROUTE FAI 55 SECT. 2010-080-E COUNTY COOP



Surface Elev. \_5



Color pictures of the cores

	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BORING LOGS IX - S.N. 016-1504	F.A.I. SECTIO	N	COUNTY	TOTAL	SHEET NO.
COM		CHECKED - ATB	REVISED -	STATE OF ILLINOIS		55 2010-080	)-В	СООК	886	724
	PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	I-35 & LAKE SHORE DRIVE INTERCHANGE (COTDOOND STRUCTURES)			CONTRACT	NO. 60	JL70
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. S-232 OF S-248 SHEETS	ILL	INOIS FED. AID	PROJECT		

AE

### STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>3/12/13</u>

DESCRIPTION \_\_I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

3	STRUCT. NO. 016-1504	D	RILLED I	BY 🔮	STRAT	A - MALO	UF
κ							
STR-20 7+93.00 .20ft RT 89.98 ft	Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>5.5</u> ft			R E C O V E	R Q D	CORE T I M F	COMP. S T R N
Coring	Notes and Rock Description		Core Run (#)	R Y (%)	. (%)	(Min/ ft)	T H (tsf)
hard, completely f	ractured, trace vuggs, highly weathered		1	60	15		
Boring nd bit sheared do ned borehole B-57 drill rig usea atic Mobile hamm used: 30 ft of 4 i converted to rotal ble grouted upon	wn hole - unable to advance core, d for drilling ner used for SPT n diameter ry wash drilling at 15 ft depth completion						

Yes - See Appendix

Cores will be stored for examination until



AECOM AECOM PROJ NO. 60225454

STR-21 98+82.76 41.62ft RT

DE

T H

-55

-6

-65

-70

-75

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test

520.92

515.92

Stations, Depths, Offset, and Elevations are in Feet

527.92

в

0

W S Qu tsf W %

WOH

WOH 4

WOH WOH WOH

130

1.7B 24.4

.4B 27.3

.3B 28.8

9.1

STRUCTURE NO. 016-1504

ROUTE \_FAI 55 SECTION \_2010-080-B COUNTY \_COOK

Elevation \_539.92 ft

Gray, moist, extremely dense CLAY LOAM to LOAM

Pressuremeter Test performed at 66.75 ft po = 6.0 tsf / pf = >64 tsf / pl = \* tsf Ed = 3606 tsf / E+ = 12224 tsf

\* Apparent hardpan or broken and weathered bedrock. Pressurized test zone to 64 tsf and did not reach Pf.

Apparent highly weathered or completely fractured BEDROCK

Pressuremeter Test performed at 71.75 ft po = 6.0 tsf / pf = >64 tsf

Gray, stiff to medium SILTY CLAY

Boring No.

Station \_\_\_\_\_

Offset

STRUCTURE SOIL BORING LOG

Page 2 of 3 

AECOM

ROUTE FAI 55 SECT. 2010-080-E COUNTY COOK

Boring N	lo
Station	
Offset	4

Surface Elev. \_5



Cores will be stored for examination until

	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BORING LOGS X - S.N. 016-1504	F.A.I. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
Δ=COM		CHECKED - ATB	REVISED -	STATE OF ILLINUIS	I-55 & LAKE SHORE DRIVE INTERCHANGE (OUTBOUND STRUCTURES)	55	2010-080-B	СООК	886	725
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -	DEPARTMENT OF TRANSPORTATION	SHEET NO. S-233 OF S-248 SHEETS		ILLINOIS FED	AID PROJECT	NO. 6	,0L70

#### STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>3/13/13</u>

DESCRIPTION \_\_I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

	STRUCT. NO. 016-1504	DI	RILLED I	BY 🗳	STRAT	A - BAKE	R
(							
STR-21 3+82.76 .62ft RT 89.92 ft	Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15.7</u> ft			R E C O V E	R Q D	CORE T I M E	COMP. S T R N G
Coring	Notes and Rock Description		Core Run (#)	R Y (%)	(%)	(Min/ ft)	T H (tsf)
ard, horizontally slightly weathere MITE	ractured, occasional dipping fracture, s d to fresh, very poor to excellent,	lighty - <u>75.0</u> 	1	86	27		
		- <u>-</u> 	2	88	0		
			3	70	33		
		- <u>85.0</u> - <u>85.0</u> 	4	97	90		
Boring B-61 drill rig used atic Mobile hamm used: 30 ft of 4 in converted to rotar le grouted upon o	I for drilling er used for SPT diameter y wash drilling at 10 ft depth completion	<u>-90.0</u> 					

Yes - See Appendix



AECOM STRUCTURE SOIL BORING LOG AECOM PROJ NO. 60225454



SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

Page 2 of 3 Date <u>3/19/13</u>



ROUTE FAI 55 SECT. 2010-080-B COUNTY COOK



Surface Elev. \_5



#### STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>3/19/13</u>

DESCRIPTION \_\_\_\_\_\_ I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

	STRUCT. NO. 016-1504	D	RILLED I	BY 🔮	STRAT	A - ULLR	СН
STR-22 0+15.26 31ft RT 89.16ft	Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15.5</u> ft			R E C O V E	R Q D	CORE T I M F	COMP. S T R N G
Coring	Notes and Rock Description		Core Run (#)	R Y (%)	· (%)	(Min/ ft)	T H (tsf)
ard, horizontally	fractured, slightly vuggy, slightly weathered od, DOLOMITE	-75.0 -75.0 - - - - - - - - - - - - - - - - - - -	2	87	75		
Boring B-57 drill rig usee atic Mobile hamm used: 30 ft of 4 in converted to rotar le grouted upon	d for drilling ler used for SPT n diameter y wash drilling at 12.5 ft depth completion						

Yes - See Appendix

S.N. 016–1504	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NGE (OUTROUND STRUCTURES)		2010-080-B	COOK	886	726
NGE (COTBOOND STRUCTURES)			CONTRACT	NO. 6	0L70
-248 SHEETS		ILLINOIS FED. AI	D PROJECT		





SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BOBING LOGS XII – S.N. 016–1504	F.A.I. SE	ECTION	COUNTY	TOTAL	SHEET NO.
		CHECKED - ATB	<evised -<="" th=""><th>STATE OF ILLINOIS</th><th></th><th>55 2010</th><th>2010-080-B</th><th colspan="2">COOK E</th><th>727</th></evised>	STATE OF ILLINOIS		55 2010	2010-080-B	COOK E		727
	PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	I-35 & LAKE SHORE DRIVE INTERCHANGE (DUIDOUND STRUCTURES)			CONTRACT	NO. 6	JL70
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. S-235 OF S-248 SHEETS		ILLINOIS FED. AID	PROJECT		

#### STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>4/4/13</u>

#### DESCRIPTION \_\_I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

СТ. <u>201</u>	0-080-B	STRUCT. NO.	016-1504	D	RILLED B	BY _S	STRAT	A - ULLR	СН
DUNTY	СООК								
ring No. ation fset rface Ele	STR-23 101+89.61 47.13ft RT w. 600.05 ft	Core Type Core Diameter Core Length _	NX 2.16 in 13 ft			R E C V	R Q D	CORE T I M	COMP. S T R N
Top Elev. ft	Coring	Notes and Rock I	Description		Core Run (#)	E R Y (%)	(%)	E (Min/ ft)	G T H (tsf)
515.55	Gray, hard, horizontally highly weathered to mor DOLOMITE - completely	fractured, slighty Jerately weathere y fractured to 94 f	vuggy to trace vuggs, d, very poor to fair, t	-85.0 — — — — —	1	39	11		
				- <u>90.0</u>	2	95	0		
					3	53	0		
				_	4	0	0		
501.95				- <u>95.0</u> - <u>95.0</u> 	5	100	68		
	End of Boring Mobile B-57 drill rig used Automatic Mobile hamm Casing used: 30 ft of 4 in Driller converted to rotan Borehole grouted upon of	d for drilling ler used for SPT n diameter y wash drilling at completion	12.5 ft depth	-100.0					

Color pictures of the cores

Top Elev. ft

Yes - See Appendix

Cores will be stored for examination until







Color pictures of the cores

 USER NAME = kritzm	DESIGNED - CLS	REVISED -		BORING LOGS XIII – S.N. 016–1504	F.A.I. RTE.	SECTION	COUNTY	TOTAL S SHEETS	SHEET NO.
	CHECKED - ATB	REVISED -	STATE OF ILLINOIS		55	2010-080-B	СООК	886	728
PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	I-35 & LAKE SHUNE DRIVE INTERCHAINGE (DUTDUDIND STRUCTURES)	_		CONTRAC	JT NO. 60	JL70
PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. S-236 OF S-248 SHEETS		ILLINOIS FED.	AID PROJECT		

## STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>4/11/13</u>

#### DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

STR-24         Core Type         NX         R         CORE           103+11.84         Core Diameter         2.16         in         R         CORE           39.02ft RT         Core Length         15         ft         R         CORE           ev.         _601.19         ft         V         D         M           Coring Notes and Rock Description         Run         Y         D         M           Care Length ractures, trace vuggs, fresh, fair to         1         97         72           excellent DOLOMITE         -95.0         -95.0         -100.0         -100.0           -100.00         -100.00         -100.0         -100.0         -100.0         -100.0           -105.0         -100.0         -10.0         -10.0         -10.0         -10.0	0-080-B	STRUCT. NO. 016-1504	DF	RILLED E	3Y _	STRAT	A - McCA	RTHY
STR-24         Core Type         NX	СООК	-						
Coring Notes and Rock Description       Core Run (#)       R Y (%)       I (Min/ (%)         Orray, hard, steep angled fractures, trace vuggs, fresh, fair to excellent DOLOMITE       1       97       72         -950       -1       97       72         -950       -1       97       72         -1000       -1       97       72         -1000       -1       -1       97         -1000       -1       -1       97         -1000       -1       -1       -1         -1050       -1       -1       -1         -1050       -1       -1       -1         -1050       -1       -1       -1         -1050       -1       -1       -1         -1050       -1       -1       -1         -1050       -1       -1       -1         -1050       -1       -1       -1         -1050       -1       -1       -1         -1050       -1       -1       -1         -1050       -1       -1       -1         -1       -1       -1       -1         -1050       -1       -1       -1         -1	STR-24 103+11.84 39.02ft RT ev. <u>601.19</u> ft	. Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15</u> ft			R E C O V E	R Q D	CORE T I M F	COMP. S T R N G
Orray, hard, steep angled fractures, trace vuggs, fresh, fair to excellent DOLOMITE       1       97       72         -95.0	Coring	Notes and Rock Description		Core Run (#)	R Y (%)	. (%)	(Min/ ft)	T H (tsf)
-105.0 	Gray, hard,steep angle excellent DOLOMITE	d fractures, trace vuggs, fresh, fair to	- <u>95.0</u> - <u>1</u> -1 -100.0	1	97	72		
Automatic CME hammer used for SPT Casing used: 30 ft of 4 in diameter Driller contary wash drilling at 15.0 ft depth 2-inch diameter PVC well installed with screen interval 80.0'-90.0'	End of Boring CME-75 drill rig used fo Automatic CME hamm Casing used: 30 ft of 4 Driller converted to rota 2-inch diameter PVC w	or drilling ar used for SPT in diameter iry wash drilling at 15.0 ft depth ell installed with screen interval 80.0'-90.0'	-105.0 -105.0 	2	100	98		

Yes - See Appendix

Cores will be stored for examination until



STRUCTURE NO. 016-1505 ROUTE \_FAI 55 SECTION \_2010-080-B COUNTY \_COOK STR-27 100+90.61 44.98ft RT Boring No. \_\_\_\_ Station \_\_\_\_\_ Offset \_\_\_\_\_ D E в L O W S Qu tsf W % T H Elevation <u>543.84</u> ft Brown and gray, very stiff SILTY CLAY 9 3.1B 20.2 14 20 541.34 Gray, very stiff to hard SILTY CLAY -55 10 3.3B 21.8 14 18 \_\_\_\_60 4.8B 21.8 14 18 19.9 527.84 17 54 Gray, moist, extremely dense CLAY LOAM to LOAM - large gravel noted -70 50/4.5" 523.34 9.6 Apparent weathered and fractured BEDROCK

STRUCTURE SOIL BORING LOG

AECOM

AECOM PROJ NO. 60225454

Page 2 of 3 Date 3/25/13



ROUTE FAI 55 SECT. 2010-080-B COUNTY COOK



Surface Elev. \_59



518.84 -75 SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BOBING LOGS XIV - S.N. 016-1505	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - ATB	REVISED -	STATE OF ILLINOIS		55	2010-080-B	СООК	886	729
	PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	I=35 & LAKE SHORE DRIVE INTERCHANGE (DUIDOUND STRUCTURES)	_		CONTRACT	NO. 6	0L70
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. S-237 OF S-248 SHEETS		ILLINOIS FED. AID	) PROJECT		

#### STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>3/25/13</u>

DESCRIPTION \_I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

	STRUCT. NO. 016-1505	D	RILLED I	3Y _	STRAT	A - KOME	N
<u> </u>							
STR-27 0+90.61 98ft RT 93.84ft	Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15</u> ft			R E C O V E	R Q D	CORE T I M F	COMP. S T R N G
Coring	Notes and Rock Description		Core Run (#)	R Y (%)	· (%)	(Min/ ft)	T H (tsf)
ard, horizontally f red, fair to good,	fractured, vuggy to slightly vuggy, slightly DOLOMITE	-80.0	1	95	61	2	
		-00.0	2	100	79	2	
Boring h D-50 drill rig us atic Diedrich ham used: 30 ft of 4 ir converted to rotar le grouted upon o	ed for drilling mer used for SPT n diameter y wash drilling at 10 ft depth completion	-95.0					

Yes - See Appendix





-75 SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

Color pictures of the cores

499 14

AECOM

Boring No.

Station

Offset

Top Elev. ft

	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BORING LOGS XV – S.N. 016–1505	F.A.I. RTE.	SECTION	COUNTY	TOTAL	SHEET
COM	PLOT SCALE =	CHECKED - ATB DRAWN - MRK	REVISED -	STATE OF ILLINUIS DEPARTMENT OF TRANSPORTATION	I-55 & LAKE SHORE DRIVE INTERCHANGE (OUTBOUND STRUCTURES)	55	2010-080-B	СООК	886	730
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. S-238 OF S-248 SHEETS		ILLINOIS FED. A	ID PROJECT	I NU. 6	30L 70

-100

#### Page 3 of 3 Date <u>4/9/13</u> ROUTE FAI 55 \_\_\_\_\_DESCRIPTION \_\_\_\_\_I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE) SECT. 2010-080-B STRUCT. NO. 016-1505 DRILLED BY STRATA - BAKER COUNTY COOK Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15.75</u> ft R R CORE COMP. STR-3 98+05.0 6.76ft R C 0 V Q т Ŕ Surface Elev. \_590.89 ft N G T D M E Core Run (#) Coring Notes and Rock Description (Min/ н (tsf) (%) (%) `ft) 92 54 -80.0 100 0 3 99 79 4 -85.0 -90.0 End of Boring Mobile B-61 dril rig used for drilling Automatic Mobile hammer used for SPT Casing used: 30 ft of 4 in diameter Driller converted to rotary wash drilling at 15.0 ft depth Borehole grouted upon completion -95.0

STRUCTURE ROCK CORING LOG

Yes - See Appendix

Cores will be stored for examination until



AECOM AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1505

STR-33

99+47.67 30.76ft RT

DE

T H

-55

532.41

528.41

521.41

518.91

-70

в

0

1

W S Qu tsf W %

1B 24.4

.75P 26.6

2.4B 16.8

7.9

11 16

113

ROUTE \_FAI 55 SECTION \_2010-080-B COUNTY \_COOK

Elevation \_540.41\_ ft

Gray, stiff, SILTY CLAY

Gray, very stiff, SILTY CLAY

Gray, moist, extremely dense CLAY LOAM to LOAM - large gravel noted

Pressuremeter Test performed at 66.25 ft po = 6.0 tsf / pf = 45.0 tsf

/ pl = \* tsf Ed = 1174 tsf / E+ = 6510

\*Hardpan with layers of weathered or broken rock

BEDROCK Pressuremeter Test performed at 71.25 ft po = 6.0 tsf / pf = > 64 tsf/ pl = tsf Ed = \$9669 tsf / E+ = 24083 tsf Prosecutized the test area to be

Pressurized the test area to

Apparent weathered BEDROCK

Boring No.

Station \_\_\_\_\_ Offset \_\_\_\_\_

STRUCTURE SOIL BORING LOG

Page 2 of 3 



ROUTE FAI 55 SECT. 2010-080-B COUNTY COOK



Surface Elev. \_59



64 tsf and did not reach the -75 SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BORING LOGS XVI – S.N. 016–1505	F.A.I. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
		CHECKED - ATB	REVISED -	STATE OF ILLINOIS	L55 & LAKE SHORE DRIVE INTERCHANGE (OUTROUND STRUCTURES)	55	2010-080-B	СООК	886	731
	PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	INSPORTATION			CONTRACT	F NO. 6	0L70
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -	- SHEET NO. S-239 OF S-248 SHEETS		ILLINOIS FED. AI	D PROJECT			

# STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>4/8/13</u>

DESCRIPTION \_I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

	STRUCT. NO. 016-1505	D	RILLED I	BY _S	STRAT	A - ULLR	СН
<u> </u>							
STR-33 9+47.67 76ft RT 90.41 ft	Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15</u> ft			R E C O V E	R Q D	CORE T I M E	COMP. S T R N G
Coring	Notes and Rock Description		Core Run (#)	R Y (%)	(%)	(Min/ ft)	T H (tsf)
ard, horizontally t red to slightly we	ractured, vuggy to slightly, moderately athered, very poor to excellent DOLOMITE		1	83	17		
		- <u>75.0</u> 	2	100	50		
		- <u>85.0</u>	3	100	95		
Boring B-57 drill rig used atic Mobile hamm used: 30 ft of 4 ir converted to rotar le grouted upon o	I for drilling er used for SPT diameter y wash drilling at 10.0 ft depth completion	- <u>-90.0</u>					

Yes - See Appendix

Cores will be stored for examination until



AECOM PROJ NO. 60225454

AECOM



STRUCTURE SOIL BORING LOG

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

Page 2 of 3 



ROUTE FAI 55 SECT. 2010-080-B COUNTY COOK





I-55 & LAKE SHORE DRIVE INTERCHA SHEET NO. S-240 OF S

### Page 3 of 3 Date <u>4/22/13</u> STRUCTURE ROCK CORING LOG DESCRIPTION \_\_ I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE) STRUCT. NO. 016-1505 DRILLED BY STRATA - ULLRICH STR-34 102+29.72 0.63ft RT Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15</u> ft R R CORE COMP. C 0 V Q N G T Surface Elev. \_588.72\_ft D M E Core Run (#) Coring Notes and Rock Description (Min/ н (%) (%) 100 94 `ft) (tsf) 523.72 Gray, hard, horizonally fractured, vuggy , slightly weathered to moderately weathered, excellent to fair DOLOMITE -70.0 100 64 2 -75.0 -80.0 End of Boring Mobile B-57 dril rig used for drilling Automatic Mobile hammer used for SPT Casing used: 25 ft of 4 in diameter Driller converted to rotary wash drilling at 12.5 ft depth Borehole grouted upon completion 85.0

Yes - See Appendix

Cores will be stored for examination until

S.N. 016–1505		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NGE (OUTROUND STRUCTURES)					732
INGE (OUTBOOND STRUCTURES)			CONTRACT	NO. 6	0L70
-248 SHEETS		ILLINOIS FED. AI	D PROJECT		



Stations, Depths, Offset, and Elevations are in Feet

AECOM AECOM PROJ NO. 60225454

D E P

T H

-55

\_528.52 \_-60

-65

3 4

в

0

Ŵ Qu tsf W %

1.1B 20.3

WOH .6B 26.9

STRUCTURE NO. 016-1505

STR-35 103+63.26 14.05ft LT

ROUTE <u>FAI 55</u> SECTION <u>2010-080-B</u> COUNTY <u>COOK</u>

Elevation \_538.52\_ ft

Gray, stiff to medium SILTY CLAY

Apparent solid BEDROCK

tsf and did not reach Pf

Pressuremeter Test performed at 61.75 ft po = 6.0 tsf / pf = > 64 tsf f = 8690 tsf / Et = 34166 tsf Pressurized test area to 64 tsf and did pot reach Pf

Boring No. \_\_\_\_ Station \_\_\_\_\_ Offset \_\_\_\_

STRUCTURE SOIL BORING LOG

Page 2 of 3 

AECOM

ROUTE FAI 55 SECT. 2010-080-B COUNTY COOK



Surface Elev. \_58



-75 SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BORING LOGS XVIII – S.N. 016–1505	F.A.I. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
		CHECKED - ATB	REVISED -	STATE OF ILLINOIS		55	2010-080-B	СООК	886	733
	PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION			CONTRACT	NO. 6	0L70	
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. S-241 OF S-248 SHEETS		ILLINOIS FED. AID	) PROJECT		

# STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>4/11/13</u>

DESCRIPTION \_I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

	STRUCT. NO. 016-1505	D	RILLED I	BY _S	STRAT	A - ULLR	СН
STR-35 3+63.26 .05ft LT 88.52ft	Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15</u> ft			R E C O V F	R Q D	CORE T I M F	COMP. S T R N G
Coring	Notes and Rock Description		Core Run (#)	R Y (%)	(%)	(Min/ ft)	T H (tsf)
ard, horizontally weathered to fre	fractured, slightly vuggy to trace vuggs, sh, excellent, DOLOMITE	- <u>-65.0</u> 	1	100	93		
Boring B-57 drill rig used atic Mobile hamm used: 40 ft of 4 ii	d for drilling ler used for SPT n diameter	- <u>-75.0</u> - <u>-</u> - <u>-</u> - <u>-</u> - <u>-</u> - <u>-</u> - <u>-</u> - <u>-</u> - <u></u>	2	100	100		
converted to rotar le grouted upon	y wash drilling at 12.5 ft depth completion	- <u>ou.u</u> 					

Yes - See Appendix

Cores will be stored for examination until



ROUTE <u>FAI 55</u> SECTION <u>2010-080-B</u> COUNTY <u>COOK</u> STR-36 104+74.20 4.01ft LT Boring No. \_\_\_\_ Station \_\_\_\_\_ Offset \_\_\_\_ D E P в 0 W S Qu tsf W % T H Elevation \_542.29\_ ft Gray, stiff to medium SILTY CLAY 1.2B 19.1 -55 .4B 25.9 \_\_-60 WOH 0.5B 27.5 2 -65 WOH WOH WOH -70 \_521.79 <sup>-</sup> 521.29 17.1 Apparent weathered 521.79 BEDROCK or Hardpan 521.29 Apparent solid BEDROCK 520.29 50/3" -75

STRUCTURE SOIL BORING LOG

AECOM

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1505

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

Page 2 of 3 



ROUTE FAI 55 SECT. 2010-080-E COUNTY COOP



Surface Elev. \_5



OM	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BORING LOGS XIX – S.N. 016–1505	F.A.I. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
		CHECKED - ATB	REVISED -	STATE OF ILLINOIS		55	2010-080-B	СООК	886	734
	PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION				CONTRAC	T NO. 6	0L70ذ
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO.S-242 OF S-248 SHEETS		ILLINOIS FED.	AID PROJECT		

STRUCTURE ROCK CORING		Paç Date	ge 3 of 3 4/15/13				
DESCRIPTION	) TO	US 41 (L	AKE S	HORE	DRIVE)		
3 STRUCT. NO. 016-1505	_ D	RILLED I	3Y _S	STRAT	A - ULLRI	СН	
К							
STR-36         Core Type         NX           04+74.20         Core Diameter         2.16         in           .01ft LT         Core Length         15         ft           592.29         ft         ft         15         ft		R E C O V E	R Q D	CORE T I M E	COMP. S T R N G		
Coring Notes and Rock Description		Core Run (#)	R Y (%)	(%)	(Min/ ft)	T H (tsf)	
hard, horizonally fractured, occasional dipping fracture, slightly to trace vuggs, slightly weathered to fresh, fair to good MITE	-75.0	1	100	68			
f Boring b-57 dril rig used for drilling atic Mobile hammer used for SPT g used: 30 ft of 4 in diameter converted to rotary wash drilling at 12.5 ft depth ole grouted upon completion	-85.0	2	100	83			

Yes - See Appendix

Cores will be stored for examination until



AECOM STRUCTURE SOIL BORING LOG AECOM PROJ NO. 60225454



Page 2 of 3

AECOM

ROUTE FAI 55 SECT. 2010-080-B COUNTY COOK

Boring No. Station Offset

Surface Elev. \_59



SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

AECOM	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BORING LOGS XX - S.N. 016-1505		SECTION	COUNTY	TOTAL	SHEET
		CHECKED - ATB	REVISED -	STATE OF ILLINOIS		55	2010-080-B	СООК	886	735
	PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	1-33 & LAKE SHORE DRIVE INTERCHANGE (DOTDOOND STRUCTORES)	_		CONTRACT	T NO. 6	0L70
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. S-243 OF S-248 SHEETS		ILLINOIS FED. AID PROJE			

### STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>4/15/13</u>

DESCRIPTION \_\_I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

	STRUCT. NO. 016-1505	D	RILLED I	BY _S	STRAT	A - BAKE	R
STR-37 6+01.17 42ft RT 91.29 ft	Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15</u> ft			R E C O V F	R Q D	CORE T I M F	COMP. S T R N G
Coring	Notes and Rock Description		Core Run (#)	R Y (%)	(%)	(Min/ ft)	T H (tsf)
ard, horizontally t	fractured, occasional dipping fractures, ggs, slightly weathered, fair DOLOMITE	- <u>70.0</u> - <u>-</u> 	1	100	58		
		- <u>-75.0</u> 	2	100	45		
		-80.0	3	100	90		
			4	100	30		
Boring B-61 drill rig usec atic Mobile hamm used: 30 ft of 4 ir converted to rotar le grouted upon o	d for drilling ler used for SPT n diameter y wash drilling at 10.0 ft depth completion	-85.0					

Yes - See Appendix

Cores will be stored for examination until



AECOM PROJ NO. 60225454 STRUCTURE NO. 016-1505

STRUCTURE SOIL BORING LOG

AECOM



Stations, Depths, Offset, and Elevations are in Feet

Page 2 of 3 



SECT. 2010-080-B COUNTY COOK



Surface Elev. \_591.77 ft



MO	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BORING LOGS XXI – S.N. 016–1505	F.A.I. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
		CHECKED - ATB	REVISED -	STATE OF ILLINOIS	1-55 & LAKE SHORE DRIVE INTERCHANGE (OUTROUND STRUCTURES)	55	2010-080-B	СООК	886	736
	PLOT SCALE =	DRAWN - MRK	REVISED - DEPARTMENT OF TRANSPORTATION				CONTRACT	NO. 6	0L70	
	PLOT DATE = 11/20/2014 CHECKED - CLS REVISED -		REVISED -		SHEET NO. S-244 OF S-248 SHEETS		ILLINOIS FED. AI	D PROJECT		

### Page 3 of 3 Date <u>4/10/13</u> ROUTE FAI 55 DESCRIPTION 1-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE) DRILLED BY STRATA - ULLRICH STRUCT. NO. 016-1505 STR-38 107+47.39 30.54ft LT Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15</u> ft R R CORE COMP. C 0 V Q т Ŕ N G T D M E Core Run (#) Coring Notes and Rock Description (Min/ Ĥ (tsf) (%) (%) `ft) 518.77 Gray, hard, occasional horizontal or dipping fracture, slightly vuggy to trace vuggs, slightly weathered to fresh, good DOLOMITE 97 86 -75.0 -80.0 2 100 75 -85.0 End of Boring Mobile B-57 dril rig used for drilling Automatic Mobile hammer used for SPT Casing used: 30 ft of 4 in diameter Driller converted to rotary wash drilling at 10.0 ft depth Borehole grouted upon completion -90.0

STRUCTURE ROCK CORING LOG

Yes - See Appendix

Cores will be stored for examination until


AECOM

D E

T H

-55

\_\_\_\_60

-65

-70

524.27

523.27

19 39

в

0

W S Qu tsf W %

0.6B 24.5

0.5P 25.7

0.75P 24.8

28.6

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1505

STR-39 108+54.97 34.48ft RT

ROUTE \_FAI 55 SECTION \_2010-080-B COUNTY \_COOK

Elevation \_540.77\_ ft

Gray, stiff to medium SILTY CLAY

Apparent solid BEDROCK

Boring No.

Station \_\_\_\_

Offset

STRUCTURE SOIL BORING LOG

Page 2 of 3 



ROUTE FAI 55 SECT. 2010-080-B COUNTY COOK



Surface Elev. \_590.77 ft



-75 SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BORING LOGS XXII – S.N. 016–1505	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
$\Delta = COM$		CHECKED - ATB	REVISED -	STATE OF ILLINUIS	L55 & LAKE SHORE DRIVE INTERCHANGE (DUTROUND STRUCTURES)	55	2010-080-B	СООК	886	737
	PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	I-55 & LARE SHORE DRIVE INTERCHANGE (COTDOOND STRUCTORES)	_		CONTRACT	T NO. C	,0L70
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. S-245 OF S-248 SHEETS		ILLINOIS FED. A	ID PROJECT		-

### STRUCT. NO. 016-1505 DRILLED BY STRATA - MALOUF Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15</u> ft R R CORE COMP. STR-39 108+54.97 34.48ft R C 0 V Q т Ŕ N G T D M E Core Run (#) Coring Notes and Rock Description (Min/ Ĥ (%) (%) 100 66 (tsf) `ft) 523.27 Gray, hard, horizonally fractured, vuggy, slightly weathered, fair DOLOMITE -70.0 -75.0 End of Boring Mobile B-61 drill rig used for drilling Automatic Mobile hammer used for SPT Casing used: 30 ft of 4 in diameter Driller converted to rotary wash drilling at 20 ft depth Borehole abandoned at 77.5 ft due to remnants of sampling device at bottom of hole -80.0 2-inch diameter PVC well installed with screen interval 62.5'-72.5' -85.0

STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>4/12/13</u>

Yes - See Appendix

Cores will be stored for examination until



AECOM AECOM PROJ NO. 60225454

STR-40

109+90.60 27.59ft RT

D E P

T H

-55

\_\_-60

\_527.71

523.61

520.21

-70

-75

8 12

13 16

в

0

W S Qu tsf W %

1.5B 23.0

.9B 24.2

.7B 25.1

1.9B 21.5

STRUCTURE NO. 016-1505

ROUTE <u>FAI 55</u> SECTION <u>2010-080-B</u> COUNTY <u>COOK</u>

Elevation \_540.71\_ ft

Gray, stiff SILTY CLAY

Pressuremeter Test performed at 66.08 ft po = 3.0 tsf / pf = 8.0 tsf / pl = 17.2 tsf Ed = 149 tsf / E+ = 397 tsf

po = 6.0 tsf / pf = > 64 tsf/ pl = tsf Ed = tsf / E+ = tsf

Pressurized test area to 64 tsf and did not reach Pf

Apparent weathered BEDROCK

Pressuremeter Test performed at 69.25 ft

Gray, stiff to medium SILTY CLAY

Borina No.

Station \_\_\_\_\_ Offset \_\_\_\_\_

STRUCTURE SOIL BORING LOG

Page 2 of 3 

AECOM

ROUTE FAI 55 SECT. 2010-080-COUNTY COO



Surface Elev.



SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BORING LOGS XXIII – S.N. 016–1505	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEE SHEETS NO.
AECOM	CHECKED - ATB REVISED - STATE OF ILLINOIS		55	2010-080-B	СООК	886 738			
	PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	1-55 & LAKE SHORE DRIVE INTERCHANGE (DOTBOOND STRUCTURES)	_		CONTRACT	NO. 60L7C
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. S-246 OF S-248 SHEETS		ILLINOIS FED. A	ID PROJECT	

STRUCTURE ROCK CORIN	IG LOO	G			Pag Date	ge 3 of 3 4/10/13	}
DESCRIPTION 1-94 (DAN RYAN EXPRESSW	ΆΥ) ΤΟ Ι	US 41 (L	AKE S	HORE	DRIVE)		_
B STRUCT. NO. 016-1505	DF	RILLED I	3Y _S	STRAT	A - BAKE	R	_
ЭК							
STR-40         Core Type         NX           .09+90.60         Core Diameter         2.16         in           7.59ft RT         Core Length         14         ft           590.71         ft         590.71         ft			R E C O V F	R Q D	CORE T I M F	COMP. S T R N G	
Coring Notes and Rock Description		Core Run (#)	R Y (%)	(%)	(Min/ ft)	T H (tsf)	
hard, horizontally fractured, vuggy to slightly vuggy, slightly ered to moderately weathered, good to poor DOLOMITE	- <u>-75.0</u> - <u>-75.0</u> - <u>-</u>	2	98	38			
of Boring e B-61 drill rig used for drilling natic Mobile hammer used for SPT g used: 30 tf of 4 in diameter r converted to rotary wash drilling at 10.0 ft depth nole grouted upon completion							-

Yes - See Appendix



AECOM STRUCTURE SOIL BORING LOG AECOM PROJ NO. 60225454



SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

Page 2 of 3 



ROUTE FAI 55 SECT. 2010-080-B COUNTY COOK



Surface Elev. \_591.47 ft



Α

	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BORING LOGS XXIV – S.N. 016–1505	F.A.I. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
<b>ECOM</b>		CHECKED - ATB	REVISED -	STATE OF ILLINOIS	I-55 & LAKE SHORE DRIVE INTERCHANGE (OUTBOUND STRUCTURES)	55	2010-080-B	СООК	886	739
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -	DEPARTMENT OF TRANSPORTATION	SHEET NO. S-247 OF S-248 SHEETS		ILLINOIS FED. AI	CONTRACT PROJECT	i NO. 6	<u> 0L70</u>

### \_\_\_\_ DESCRIPTION \_\_\_\_\_\_\_ I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE) STRUCT. NO. 016-1505 DRILLED BY STRATA - KOMEN Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15</u> ft R R CORE COMP. STR-41 111+61.59 39.99ft LT C 0 V Q т R N G T D M E Core Run (#) Coring Notes and Rock Description (Min/ Ĥ (tsf) (%) (%) `ft) 516.97 Gray, hard, horizontally fractured, slightly vuggy, slightly weathered, -<u>75.0</u> fair DOLOMITE 96 52 -80.0 2 90 0 3 100 63 -85.0 Find of Boring Diedrich D-50 drill rig used for drilling Automatic Diedrich hammer used for SPT Driller converted to rotary wash drilling at 12.5 ft depth -90.0 Borehole grouted upon completion

STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>4/8/13</u>

Yes - See Appendix

Cores will be stored for examination until



AECOM

D E

T H

-55

\_\_\_\_60

-65

16 31

\_ 528.08

522.58

520.58

в

0

W S Qu tsf W %

Λ

DIST 59.2

1.75P 23.9

.7B 25.1

20.1

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1505

STR-42 112+91.33 16.27ft RT

ROUTE \_FAI 55 SECTION \_2010-080-B COUNTY \_COOK

Elevation <u>540.58</u> ft

Gray, hard SILTY CLAY -

Apparent weathered BEDROCK

gravel noted

Gray, soft to medium SILTY CLAY

Boring No.

Station \_\_\_\_\_ Offset \_\_\_\_\_

STRUCTURE SOIL BORING LOG

Page 2 of 3 



ROUTE FAI 55 SECT. 2010-080-B COUNTY COOK



Surface Elev. \_590.58 ft



-75 SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

	USER NAME = kritzm	DESIGNED - CLS	REVISED -		BOBING LOGS XXV - S.N. 016-1505	F.A.I. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
ΔΞϹΟΜ		CHECKED - ATB	REVISED -	STATE OF ILLINOIS	L55 & LAKE SHORE DRIVE INTERCHANGE (OUTROUND STRUCTURES)	55	2010-080-B	СООК	886	740
	PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION		_		CONTRACT	í NO. 6	0L70
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. S-248 OF S-248 SHEETS		ILLINOIS FED. AI	ID PROJECT		

### \_\_\_\_ DESCRIPTION \_\_\_\_\_I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE) STRUCT. NO. 016-1505 DRILLED BY STRATA - FRANKS Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15</u> ft R R CORE COMP. STR-42 112+91.33 16.27ft RT т C 0 V Q R N G T D M E Core Run (#) R Y ft) н Coring Notes and Rock Description (%) (%) 93 45 (tsf) 520.58 Gray, hard, horizontally fractured, occasional dipping fracture, vuggy, slightly weathered, poor, DOLOMITE -75.0 -80.0 2 86 43 -85.0 <sup>3</sup> End of Boring Diedrich D-50 drill rig used for drilling Automatic Diedrich hammer used for SPT Driller converted to rotary wash drilling at 12.5 ft depth Borehole grouted upon completion 90.0

STRUCTURE ROCK CORING LOG

Page 3 of 3 Date <u>4/3/13</u>

Yes - See Appendix





### GENERAL NOTES:

1. Reinforcement bars designated (E) shall be epoxy coated.

- 2. Slip forming of the barrier rails is not allowed.
- 3. Protective Coat shall be applied to the designated areas of Anchor Slabs & Barrier Rails & MSE Wrap Around Coping.
- 4. Stations & Offsets are measured from the Baseline of SB I-55 to the Front Face of MSE wall panels.
- MSE Supplier to design load transfer systems within reinforced fill mass to accommodate drainage structures & abutment drilled shafts.
- 6. MSE wall supplier shall design MSE Wall, Special & Temporary MSE Wall, Special using granular reinforced mass with minimum effective internal friction angle of 34 degrees & unit weight of 120 lbs/cu. ft. For embankment behind granular reinforced mass; an embankment unit weight of 120 lbs/cu. ft & an effective friction angle of 30 degrees shall be used in the wall system design.
- 7. MSE Wall lengths measured along front face of precast panels unless noted otherwise.
- 8. Contractor shall field verify location of existing footings & underground utilities & shall take all precautions to protect them during construction of the wall & final condition of the ramp. Any damages to the existing structures and/or utilities shall be the responsibility of the Contractor.
- 9. Quantity for Lightweight Cellular Concrete Fill includes reinforced fill mass & fill area beneath roadway. Lightweight Cellular Concrete Fill shall meet Class II requirements (see Special Provisions).
- See Special Provision for Mechanically Stabilized Earth Retaining Wall, Special & Temporary Mechanically Stabilized Earth Retaining Wall, Special for design & construction requirements.
- 11. For drainage structure location, type, & size, see Drainage Sheets.



Paid as Concrete Superstructure



- RW1-1 General Plan & Elevation
- RW1-2 East Wall & Temporary Wall Elevations
- RW1-3 Total Bill of Material, Index of Sheets
- & General Notes RW1-4 Stage Construction I
- RW1-4 Stage Construction I RW1-5 Stage Construction II
- RW1-6 Typical Section
- RW1-7 Existing Structural Removal
- RW1-8 North Barrier Rail & Anchorage Slab
- RW1-9 South Barrier Rail & Anchorage Slab
- RW1-10 Details
- RW1-11 MSE Wrap Around Details
- RW1-12 Architectural Details
- RW1-13 Boring Logs 1
- RW1-14 Boring Logs II
- RW1-15 Boring Logs III
- RW1-16 Boring Logs IV

### TOTAL BILL OF MATERIAL

11011	
Temporary Shoring for Existing SB I-55 Vaulted Terminal Structure	L.
Protective Coat	Sq
Structure Excavation	Cu
Concrete Superstructure	CL
Reinforcement Bars, Epoxy Coated	P
Bridge Deck Grooving (Longitudinal)	Sq
Name Plates	E
Lightweight Cellular Concrete Fill	CL
Mechanically Stabilized Earth Retaining Wall, Special	Sq
Temporary Mechanically Stabilized Earth Retaining Wall, Special	Sc



RIMEE Rubinos & Mesia 200 S. Michigan Avenue, Sulle 1500, Cheago, Le 60604-2482	SER NAME = PHOding	DESIGNED         -         PH           CHECKED         -         BG           DRAWN         -         AMV	REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOTAL BILL OF MAT'L, INDEX OF SHEETS I-55 & LAKE SHORE DRIVE INTERCHAI
PL	LOT DATE = 11/20/2014	CHECKED - BG	REVISED -		SHEET NO. RW1-3 OF RW



# SUGGESTED SEQUENCE OF CONSTRUCTION:

- *1.* Remove portions of existing structure as directed (Stage Ib).
- 2. Install drilled shafts (Stage Ib) for West Abutment of Tangent Structure (S.N. 016-1501).
- 3. Construct south portion of West Abutment (Stage Ib) of Tangent Structure (S.N. 016-1501).
- Construct Temp. MSE Wall Ib-1 & Ib-2 elevations (S.N. 016-0741) simultaneously. Fill between wall faces. Construct South Anchorage Slab & Barrier Rail & south portion of West Approach slab.
- 5. Construct Temp. MSE Wall IIa elevation. Fill between Wall IIa & Wall Ib-2.
- 6. Remove remaining portions of existing structure as directed (Stage IIb).
- 7. Install remaining drilled shafts (Stage IIb) for West Abutment of Tangent Structure (S.N. 016-1501).
- 8. Construct remaining portion of West Abutment (Stage IIb) of Tangent Structure (S.N. 016-1501).
- 9. Construct North MSE Wall Elevation (S.N. 016-0741). Fill between North Wall & Wall IIa. Construct North Anchorage Slab & Barrier Rail & remaining portion of West Approach Slab.





	CHECKED - BG	REVISED -	STATE OF ILLINOIS	
SCALE =	DRAWN - PH	REVISED -	DEPARTMENT OF TRANSPORTATION	I-55 & LAKE SHURE DRIVE INTERCHANG
DATE = 11/20/2014	CHECKED - BG	REVISED -		SHEET NO. RW1-4 OF RW1-
S	CALE = 11/20/2014	CHECKED         -         BG           CALE =         DRAWN         -         PH           ATE =         11/20/2014         CHECKED         -         BG	CHECKED         -         BG         REVISED         -           CALE =         DRAWN         -         PH         REVISED         -           ATE =         11/20/2014         CHECKED         -         BG         REVISED         -	CHECKED     -     BG     REVISED       CALE     DRAWN     -     PH     REVISED       ATE     11/20/2014     CHECKED     -     BG



<b>I</b> –55	&	LAKE	SHORE	DRIV	ΕI	NTE	R	CH
				CUEET	NO	Dur	-	0



= &	user name = PHodina	DESIGNED - PH	REVISED -		TYPICAL SECTION - S.N. 016-0741	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - BG	REVISED -	STATE OF ILLINUIS		55	2010-080-B	СООК	886	746
ers, Inc. 304-2482	PLOT SCALE =	DRAWN - AMV	REVISED -	DEPARTMENT OF TRANSPORTATION	1-55 & LARE SHORE DRIVE INTERCHANGE (DOTBOOND STRUCTORES)			CONTRACT	NO. 6	JL70
	PLOT DATE = 11/20/2014	CHECKED - BG	REVISED -		SHEET NO. RW1-6 OF RW1-16 SHEETS		ILLINOIS FED. AI	D PROJECT		

		<u> </u>	<u>dlc i</u>				
Elev. A	Elev. B	Elev. C	Elev. D	Elev. E	Elev. F	Elev. G	Elev. H
596.10	596.11	596.90	596.15	597.19	595.72	596.34	594.97
597.17	596.16	597.97	596.40	598.31	595.85	598.00	595.18
597.47	596.16	598.27	596.44	598.63	595.89	598.31	595.23
598.16	596.19	598.94	596.51	599.31	595.99	599.01	595.37
598.55	596.22	599.38	596.35	599.70	595.89	599.40	595.36
599.17	596.35	599.97	596.47	600.33	595.97	600.03	595.41
599.58	596.47	600.37	596.50	600.73	596.01	600.44	595.44
601.21	596.52	602.14	596.38	602.38	596.06	602.08	595.53
602.87	596.00	603.79	596.46	604.03	596.19	603.73	595.54
603.60	596.03	604.53	596.42	604.76	596.19	604.46	595.54
604.34	596.04	605.26	596.23	605.50	595.98	605.19	595.43
604.98	596.01	605.91	595.68	606.14	595.34	605.84	595.70
605.15	596.00	606.07	595.51	606.31	595.17	606.01	595.63
605.64	595.98	606.56	594.99	606.80	594.69	606.49	595.29
606.61	596.03	607.53	594.81	607.77	594.89	607.47	595.22
607.59	596.02	608.50	594.77	608,75	594.74	608,44	595.13
608.15	596.01	609.07	594.83	609.31	594.78	609.01	595.12
608,48	596,00	609,40	594.87	609.64	594,77	609,34	595.13
609.13	596.00	610.04	594.77	610.29	594.77	609.99	595.16
610.57	596.01	611.39	595.15	611.73	595.12	611.43	595.22
610.84	596.01	N/A	595.16	611.89	595,12	611.69	595.29
611.55	595.81	N/A	595.26	612.60	595.21	612.40	595.49
603.13	595.75	N/A	595.28	603.30	595.28	612.64	595.45

T,	4,	ΒL	.Ε	- 1



OVAL – S.N. 016–0741		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	2010-080-B	COOK	886	747
NGE (UUTBUUND STRUCTURES)			CONTRACT	NO. 6	0L70
N1-16 SHEETS		ILLINOIS FED. AI	D PROJECT		





160741\_60L70\_MSE\_SBarrierRail.dgr



016–0741		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	2010-080-B	СООК	886	750
			CONTRACT	NO. 6	0L70
1-16 SHEETS	ILLINOIS FED. AID PROJECT				



DUL OF MATERIAL

	BILL	UF	MAIERI	AL
Bar	No.	Size	Length	Shape
a4101(E)	1290	#7	12'-6"	
a4102(E)	484	#4	11'-4"	
a4103(E)	484	#4	11'-4"	
a4104(E)	396	#8	2'-6"	
a4105(E)	24	#5	4'-0"	
b4101(E)	28	#4	29'-8"	
b4102(E)	84	#4	34'-11"	
b4103(E)	252	#4	31'-5"	
b4104(E)	84	#4	29'-4"	
b4105(E)	22	#4	29'-8"	
b4106(E)	88	#4	26'-10"	
b4107(E)	264	#4	24'-5"	
b4108(E)	88	#4	22'-8"	
d4101(E)	1296	#6	6'-10"	]
d4102(E)	1296	#6	6'-10"	
d4103(E)	9	#6	5'-1"	
d4104(E)	18	#6	8'-11"	
d4105(E)	9	#6	5'-6"	
e4101(E)	32	#4	15'-5"	
e4102(E)	96	#4	16'-4"	
e4103(E)	368	#4	14'-8"	
e4104(E)	16	#4	7'-8"	
e4105(E)	4	#8	15'-5"	
e4106(E)	12	#8	16'-4"	
e4107(E)	46	#8	14'-8"	
e4108(E)	2	#8	7'-8"	
Bridge	Deck Gr	ooving	Sa. Yd.	967
Droto	unal)			1 5 0 0
Protecti	ve Coat	Dara	Sq. rd.	1,590
Reintor	cement i Coated	Bars,	Pound	94,720
Concret				
Superct	ructure		Cu. Yd.	675.5
Supersi	i uciui e			



- coping at their own expense, the details of which must be included in the shop plans &
- 5. Overexcavation beyond limits of Structure Excavation shall not be measured for payment. Additional Lightweight Fill in overexcavation area also shall not be measured for payment.

** <u>MSE</u>	WAL	L COPING
BILL	OF .	MATERIAL

Bar	No.	Size	Length	Shape
h410(E)	5	#4	44'-9"	
h411(E)	5	#4	30′-10″	
h412(E)	5	#4	5′-0″	$\langle$
h413(E)	5	#4	6′-2″	
u410(E)	42	#4	3'-4"	

AILS – S.N. 016–0741		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	2010-080-B	СООК	886	751
			CONTRACT	NO. 6	0L70
W1-16 SHEETS	ILLINOIS FED. AID PROJECT				



ECOM	USER NAME = PHodina PLOT SCALE =	DESIGNED - MR CHECKED - DB DRAWN - MR	REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL DETAILS I–55 & LAKE SHORE DRIVE INTERCHAN
	PLOT DATE = 11/20/2014	CHECKED -	REVISED -		SHEET NO. RW1-12 OF RW1

Α

55 2010-080-B IGE (OUTBOUND STRUCTURES) 1-16 SHEETS ILLINOIS FED. AID PROJECT

COOK

886 752

CONTRACT NO. 60L70



AECOM	

_	USER NAME = PHodina	DESIGNED - CLS	REVISED -		BORING LOGS I – S.N. 016–0741	F.A.I. RTE. SI	ECTION COUNTY	TOTA SHEE7	L SHEET
И		CHECKED - ATB	REVISED -	STATE OF ILLINUIS	I–55 & LAKE SHORE DRIVE INTERCHANGE (OUTBOUND STRUCTURES)	55 201	0-080-В СООК	886	753
	FLUT SCALE -	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION			CONTRA	CT NO.	60L70
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO.RW1-13 OF RW1-16 SHEETS		ILLINOIS FED. AID PROJECT		

Page 2 of 2 Date <u>3/4/13</u>



 USER NAME = PHodina	DESIGNED - CLS	REVISED -		BORING LOGS II - S.N. 016-0741	F.A.I. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
	CHECKED - ATB	REVISED -	STATE OF ILLINOIS		55	2010-080-B	СООК	886	754
PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	1-55 & LARE SHORE DRIVE INTERCHANGE (OUTBOOND STRUCTURES)			CONTRACT	Γ NO. F	,0L70
PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO. RW1-14 OF RW1-16 SHEETS		ILLINOIS FED. A	ID PROJECT		

Page 2 of 2 Date <u>3/4/13</u>



### AECOM

### STRUCTURE SOIL BORING LOG

AECOM

Boring No.

Top Elev.

ft

Station

Offset



Color pictures of the cores

524.37

### Page 3 of 3 Date <u>3/7/13</u> STRUCTURE ROCK CORING LOG DESCRIPTION 1-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE) ROUTE FAI 55 DRILLED BY STRATA - MALOUF SECT. 2010-080-B STRUCT. NO. 016-0741 COUNTY COOK STR-01 85+74.19 28.79ft RT Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>14.1</u> ft R R CORE COMP. s Q т C 0 V R N G T D Surface Elev. \_594.97\_ft Ň Е Core Run R (Min/ ft) Coring Notes and Rock Description Ĥ (%) (%) 100 23 (tsf) (#) 538.47 Gray, hard, horizontally fractured, occasional dipping and vertical fractures, slighty vuggy to vuggy, moderately weathered, very poor to fair, DOLOMITE 2 -60.0 99 57 2 2 \_ -65.0 -70.0 7 End of Boring Mobile B-61 drill rig used for drilling Automatic Mobile hammer used for SPT Casing used: 30 ft of 4 in diameter Driller converted to rotary wash drilling at 15 ft depth 2-inch diameter PVC well installed with screen interval - 48.5'-58.5' Well developed on 4/3/13 -75.0

Yes - See Appendix

Cores will be stored for examination until

S.N. 016–0741	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	2010-080-B	COOK	886	755
NGE (UUTBUUND STRUCTURES)			CONTRACT	NO. 6	0L70
N1-16 SHEETS		ILLINOIS FED. AI	D PROJECT		

# FOR INFORMATION ONLY



200

	USER NAME = PHoding	DESIGNED - PAH	REVISED -		BORING LOGS IV - S.N. 016-0741	F.A.I. RTF.	SECTION	COUNTY	TOTAL	SHEET
RIME Mesia		CHECKED - BG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		55	2010-080-B	СООК	886	756
Engineers, Inc. S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482	PLOT SCALE =	DRAWN - PAH	REVISED -		I-55 & LAKE SHORE DRIVE INTERCHANGE (DUIDDOIND STRUCTURES)	_		CONTRACT	NO. 6	0L70
• • • • •	PLOT DATE = 11/20/2014	CHECKED - BG	REVISED -		SHEET NO.RW1-16 OF RW1-16 SHEETS		ILLINOIS FED. AI	D PROJECT		

Bench Mark: BM-4, chiseled square on NE corner of crashwall 👁 existing Pier E20, just East of Moe Drive, on existing S.N. 016-1075 carrying NB 1-55 to NB L.S.D., Elev. 594.65 (NAVD BB).

Exist. Structure: The East & West Wall & Wall "H" & "I" were built in 1965 & carry SB Lake Shore Drive traffic to S.N. 016-1052 which continues over Moe Drive, Mines Drive, ICRR, Metra Electric RR & McCormick Place Busway. The East & West (No salvage) Walls are a concrete vaulted terminal structure 249'-10" in length with a 2 span, monolithically built, concrete deck measuring 12'<sub>2</sub>" thick, supported on each side wall of the vault & one longitudinal support girder  $\phi$  the deck's center line. Wall "H" & "I" are cast in place "T" type wall supported on concrete drilled shafts.

Traffic Control: For Stage Ib, maintain 2-lanes of SW traffic on existing S.N. 016-1052 during construction of North Abutment of proposed S.N. 016-1504. For Stage IIa, reduce to 1-lane of SW traffic on northwest half of existing S.N. 016-1052 during construction of East, South, & 8'-0" portion of West MSE Wall of proposed S.N. 016-0745. For Stage IIb, shift SW traffic & increase to 2-lanes on east half of proposed S.N. 016-0745 during construction of remaining West MSE Wall of proposed S.N. 016-0745. Temporary lane closures may be required for SB Lake Shore Drive.



REVISED

CHECKED - BG

160745\_60L70\_GPE

PLOT DATE + 12/05/2014

APPROVED For Siructural Adequacy Only no Engineer of Bridges & Structures 251'-7" Permanent Steel Sheet Piling (Stage 11b Construction) End Barrier Rail Sta. 109+86.08 Elev. 604.52 Permanent Steel Sheet Piling 23rd St. (Min. Section Modulus = 16.0 in.3/ft.) Bridge Kink Barrier Rall Sta. 109+64.23 r≯A Elev. 604.63 111 Elev. 599.40 1011111 1010101 11 **L**▶ ∆ -Elev. 576.40 OF ILLI, Molyn M Farels EN M. FAR Mohsen M. Farahany 81-5131 12/05/2014 Submittal Date 11/30/2015 Exist. BK. Abut. W3,-Expiration Date 23rd St. Bridge 23rd St Bridge 110+00 Kink Perm. Sheet Piling End Temp. Soil Retention Sta. 109+64.23 Sta. 108+25.00 Offset 23.25' Lt. Offset 12.00' Lt. End Perm. Sheet Piling. Anchorage Slab & -Barrier Rail-Sta. 109+86.08 Offset 24.47' Lt. Ranae 14E - 3rd, PM GENERAL PLAN & ELEVATION SB LAKE SHORE DRIVE TO SB 1-55 F.A.I. RTE. 55 - SEC. 2010-080-B COOK COUNTY STA. 103+48.83 TO STA. 107+35.00 STRUCTURE NO. 016-0745 LOCATION SKETCH TOTAL SHEE SHEETS NO. F.A.I. RTÉ, SECTION COUNTY COOK 757 2010-080-6 886 55 CONTRACT NO. 60L70 SHEET NO. RW2-1 OF RW2-15 SHEETS ILLINOIS FED. ALD PROJECT



### GENERAL NOTES:

Reinforcement bars designated (E) shall be epoxy coated.

- 2. Slip forming of the barrier rails is not allowed.
- 3. The Contractor shall exercise extreme caution during construction to make certain that construction activities, live load surcharge & other loads applied to the structures will not have detrimental effects on the RW2-6 adiacent buildina & crib wall.
- 4. Protective Coat shall be applied to the designated areas of Anchorage RW2-9 East Barrier Rail & Anchorage Slab Slabs & Barrier Rails & MSE Wrap Around Coping.
- 5. Stations & Offsets are measured from the Baseline of Ramp SW to the Front Face of MSE wall panels.
- 6. MSE wall supplier shall design MSE Wall, Special & Temporary MSE Wall, Special using granular reinforced mass with minimum effective internal friction angle of 34 degrees & unit weight of 120 lbs/cu. ft. For embankment behind granular reinforced mass; an embankment unit weight of 120 lbs/cu. ft & an effective friction angle of 30 degrees shall be used in the wall system design.
- 7. MSE Supplier to design load transfer systems within reinforced fill mass to accommodate drainage structures & abutment drilled shafts.
- 8. MSE Wall lengths measured along front face of precast panels unless noted otherwise.
- 9. Contractor shall field verify location of existing footings & underground utilities & shall take all precautions to protect them during construction of the wall & final condition of the ramp. Any damages to the existing structures shall be the responsibility of the Contractor.
- 10. Quantity for Lightweight Cellular Concrete Fill includes reinforced fill mass & fill area beneath roadway. Type is specified as Class II Liahtweiaht Fill.
- 11. See Special Provision for Mechanically Stabilized Earth Retaining Wall, Special & Temporary Mechanically Stabilized Earth Retaining Wall. Special for design & construction requirements.
- 12. Anchorage Slabs & Barrier Rails shall be paid for as Concrete Superstructure.
- 13. For drainage structure location, type, & size, see Drainage Sheets.

# Protective Coat l imits nta ant -1'-0'Bridge Deck Grooving 10'-0" West side, 6'-0" East side Anchorage Slab PROTECTIVE COAT & BRIDGE DECK GROOVING LIMITS

# ANCHORAGE SLAB PAY ITEM LEGEND



# INDEX OF SHEETS:

- RW2-1 General Plan & Elevation
- RW2-2 South Wall, East Wall & Temporary Wall Elevation
- RW2-3 Total Bill of Material, Index of Sheets and General Notes
- Stage Construction RW2-4
- RW2-5 Typical Sections
- Existing Structural Removal
- West Barrier Rail & Anchoraae Slab I RW2-7
- RW2-8 West Barrier Rail & Anchorage Slab II
- RW2-10 Details
- RW2-11 MSE Wrap Around Details
- RW2-12 Architectural Details
- RW2-13 Boring Logs I
- RW2-14 Boring Logs II
- RW2-15 Boring Logs III

### TOTAL BILL OF MATERIAL

Item	Unit	Total
Protective Coat	Sq. Yd.	<i>1,4</i> 65
Structure Excavation	Cu, Yd,	3,517
Concrete Superstructure	Cu. Yd.	632.8
Reinforcement Bars, Epoxy Coated	Pound	92,200
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	842
Name Plates	Each	1
Temporary Soil Retention System	Sq. Ft.	1,032
Permanent Steel Sheet Piling	Sq. Ft.	6,171
Lightweight Cellular Concrete Fill	Cu. Yd.	4,173
Mechanically Stabilized Earth Retaining Wall, Special	Sq. Ft.	6,211
Temporary Mechanically Stabilized Earth Retaining Wall, Special	Sq. Ft.	2,334



	user name = PHoding	DESIGNED - PH	REVISED -		TOTAL BULL OF MAT'L INDEX OF SHEETS & GEN NOTES - S.N. 016-0745	F.A.I.	SECTION	COUNTY	SHEETS	SHEET NO.
		CHECKED - BG	REVISED -	STATE OF ILLINOIS		55	2010-080-B	СООК	886	759
Engineers, Inc. 200 S. Michigan Avenue, Sulle 1500, Chicago, IL 60604-2482	PLOT SCALE =	DRAWN - PH	REVISED -	DEPARTMENT OF TRANSPORTATION	1-55 & LAKE SHUKE DRIVE INTERCHANGE (UUTBUUND STRUCTURES)				T NO. 6	601.70
	PLOT DATE = 11/20/2014	CHECKED - BG	REVISED -		SHEET NO. RW2-3 OF RW2-15 SHEETS	ILLINOIS FED. AID PRO		AID PROJECT	PROJECT	



# SUGGESTED SEQUENCE OF CONSTRUCTION:

- 1. Remove portions (Stage Ib) of existing structure (S.N. 016-1052) as directed.
- 2. Install all drilled shafts (Stage Ib) for North Abutment of Ramp SW Structure (S.N. 016-1504) & construct North Abutment (Stage Ib) of Ramp SW Structure (S.N. 016-1504).
- 3. Remove portion of existing structure (S.N. 016-1052) as directed (Stage IIa).
- 4. Construct East, South, south-west portion of West MSE Wall & Temp. MSE Wall elevations (S.N. 016-0745) & install Temp. Soil Retention System simultaneously (Stage IIa). Fill between South, East & Temp, MSE Wall faces, Construct East Anchorage Slab & Barrier Rail (S.N. 016-0745) & North Approach Slab (S.N. 016 - 1504).
- 5. Remove remaining portion of existing structure (S.N. 016-1052) as directed (Stage IIb).
- 6. Construct remainder of West MSE Wall & Permanent Steel Sheet Pile Wall (S.N. 016-0745) (Stage IIb). Fill between West MSE Wall & Stage IIa Temp. MSE Wall face. Construct West Anchorage Slab & Barrier Rail (S.N. 016-0745).





SHEET NO. RW2-4 OF RW2-15 SHEETS



Station	Elev. A	Elev. B	Elev. C				
103+48.83	601.33	601.64	603.35				
103+56.30	611.06	601.81	603,58				
104+25.12	609.00	602,37	603,13				
104+62.62	607.83	602.82	602.33				
104+75.12	607.39	602.96	602.20				
105+00.12	606.56	603.23	601.91				
105+25.12	605.78	603.50	601.69				
105+50.12	605.04	603.53	601.44				
105+87.62	604.04	603.51	601.11				
106+00.12	603.74	603.88	601.00				
107+35.00	601.11	604.75	599.25				

Station	Elev. D	Elev. E	Elev. F	Elev. G
103+49.13	N/A	<i>601.95</i>	601.48	601.35
103+56.07	611.98	<i>601.95</i>	613.23	601.42
103+57.08	611.95	601.94	613.20	601.43
103+59.50	611.86	601.94	613.12	601.46
104 + 17.00	610.08	602.44	610.94	<i>601.85</i>
104+97.00	607.49	603.04	607.80	602.18
105+94.50	604.71	603.55	604.99	602.79
106+54.50	N/A	N/A	603.65	602.99
106+92.00	N/A	N/A	602.97	603.27
107+35.00	N/A	N/A	602.29	603.37



UVAL - 3.N. 010-0745	RIC.				SHEET.	5 100.
NGE (OUTBOUND STRUCTURES)		5 2010-080-B		СООК	886	762
				CONTRACT	NO.	60L7(
W2-15 SHEETS		ILLINOIS	FED. AI	D PROJECT		





NOTES: 1. For Barrier Rail & Anchorage Slab Joint Details & Section C-C see Sheet RW2-10.

- 2. Bars noted thus, 3x3-#4 indicates 3 line of #4 bars with 3 lengths per line.
- 3. 2" min. clear cover typical unless noted otherwise.

GE SLAB II – S.N. 016–0745	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NGE (OUTROUND STRUCTURES)	55	2010-080-B	COOK 886		764
NGE (DOTBOOND STRUCTORES)			CONTRACT	NO. 6	0L70
N2-15 SHEETS		ILLINOIS FED. AI	D PROJECT		

# MIN. BAR LAPS

#4	bars	=	2'-7"
#6	bars	=	3'-10'
#7	bars	=	5'-2"
#8	bars	=	6′-9″



R IVI F. Rubinos & Mesia	user name = PHodina	DESIGNED - PH CHECKED - BG	REVISED - REVISED -	STATE OF ILLINOIS	EAST BARRIER RAIL & ANCHORAG
Engineers, Inc. 200 S. Michigan Avenue, Sulte 1500, Chicago, IL 60604-2482	PLOT SCALE =	DRAWN - AMV	REVISED -	DEPARTMENT OF TRANSPORTATION	I-55 & LAKE SHURE DRIVE INTERCHAN
	PLOT DATE = 11/20/2014	CHECKED - BG	REVISED -		SHEET NO.RW2-9 OF RW2



SHEET NO.RW2-100FRW

	1'-2"
11'- 4 "	a4501(E
7'-4"	' a4502(E
BARS a4501(E) & a450	)2(E)
2'-4"	
	<u> </u>
9'-0" a4503	$\frac{E}{E}$
5'-0" 04504	(E)
<u>BARS a4503(E) &amp; a450</u>	04(E)

# RILL OF MATERIAL

<u> </u>				
Bar	No.	Size	Length	Shape
a4501(E)	837	#7	12'-6"	
a4502(E)	509	#7	8′-6″	
a4503(E)	629	#4	11'-4"	
a4504(E)	382	#4	7′-4″	
a4505(E)	414	#8	2′-6″	
a4506(E)	18	#5	4'-0"	
a4507(E)	30	#7	6′-5″	
a4508(E)	23	#4	3′-10″	
			101.01	
64501(E)	84	#4	16'-2"	
64502(E)	102	#4	35'-9"	
64503(E)	186	#4	31'-8"	
64504(E)	12	#4	24'-8"	
64505(E)	84	#4	28'-8"	
64506(E)	12	#4	27'-6"	
64507(E)	188	#4	24'-5"	
64508(E)	12	#4	19'-2"	
64509(E)	88	#4	22'-2"	
d4501(E)	1306	#6	6'-10"	Λ
d4502(E)	1306	#6	6'-10"	<u> </u>
$\frac{d4503(E)}{d4503(E)}$	9	#6	5'-1"	
d4504(E)	18	#6	8'-11"	
$\frac{d4505(E)}{d4505(E)}$	9	#6	5'-6"	
0.000(L)				
e4501(E)	32	#4	15′-5″	
e4502(E)	48	#4	9′-4″	
e4503(E)	48	#4	16′-4″	
e4504(E)	384	#4	14′-8″	
e4505(E)	16	#4	8′-8″	
e4506(E)	16	#4	5′-8″	
e4507(E)	48	#4	10'-4"	
e4508(E)	4	#8	15′-5″	
e4509(E)	6	#8	11'-5"	
e4510(E)	6	#8	16′-4″	
e4511(E)	48	#8	14′-8″	
e4512(E)	2	#8	8′-8″	
e4513(E)	2	#8	5′-8″	
e4514(E)	6	#8	12'-5"	
Bridge D	leck	udinal)	Sq. Yd.	842
Protectiv	e Cont	Julliul)	Sa Ya	1465
Reinforc	ement F	Rars		1, 100
Epoxy Co	oated	, ui 0 <b>,</b>	Pound	92,200
Concrete				670.0
Superstr	ucture		l Cu. Yd.	632.8

### NOTES:

- 1. See Sheet S-98 & S-99 for North Approach Slab details & civil plans for raodway details.
- 2. See Sheet RW2-3 for limits of Bridge Deck Grooving (Longitudinal) & Protective Coat. Apply after Bridge Deck Grooving is complete.

016–0745	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NGE (OUTROUND STRUCTURES)	55	2010-080-B	СООК	886	766
			CONTRACT	NO. 6	0L70
2-15 SHEETS		ILLINOIS FED. AI	D PROJECT		



Bar	No.	Size	Length	Shape
h4500(E)	5	#4	34'-0"	
h4501(E)	5	#4	11'-0"	
h4502(E)	10	#4	5′-0″	$\sim$
h4503(E)	10	#4	6′-2″	
u4500(E)	30	#4	3′-4″	

NLS – S.N. 016–0745		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
NGE (OUTROUND STRUCTURES)	55	2010-080-B	COOK	886	767		
NGE (COTBOOND STRUCTORES)			CONTRACT NO. 60L70				
N2-15 SHEETS		ILLINOIS FED. AI	D PROJECT				



1. Formliner for precast panels will not be paid separately and will be included in the cost of the pay item "Mechanically Stabilized Earth RetainingWall, Special".

2. Typical layout of precast panels and formliner details are shown on this drawing. For retaining walls dimensions see structural drawings.

	USER NAME = PHodina	DESIGNED - MR	REVISED -		ARCHITECTURAL DETAILS - S.N. 016-0745	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET S NO.
A=COM		CHECKED - ME	REVISED -	STATE OF ILLINOIS	1-55 & LAKE SHORE DRIVE INTERCHANGE (OUTROUND STRUCTURES)		2010-080-B	СООК	886	768
	PLOT SCALE =	DRAWN - MR	REVISED -	DEPARTMENT OF TRANSPORTATION				CONTRACT	[ NO. F	60L70
	PLOT DATE = 11/20/2014	CHECKED - ME	REVISED -		SHEET NO.RW2-12 OF RW2-15 SHEETS		ILLINOIS FED. AI	D PROJECT		



### Page 3 of 3 Date <u>4/11/13</u> STRUCTURE ROCK CORING LOG DESCRIPTION \_\_ I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE) STRUCT. NO. 016-0743 & 016-0745 DRILLED BY STRATA - McCARTHY STR-24 303+64.88 6.58ft RT Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15</u> ft R CORE COMP. Q т 0 V R Ď Μ N Е G T Core Run Coring Notes and Rock Description (Min/ (%) `ft) (#) (%) (tsf) 508.19 Gray, hard, steep angled fractures, trace vuggs, fresh, fair to excellent DOLOMITE -95.0 -1<u>00.0</u> \_ \_ 2 100 98 -105.0 End of Boring CME-75 drill rig used for drilling Automatic CME hammer used for SPT Casing used: 30 ft of 4 in diameter Driller converted to rotary wash drilling at 15.0 ft depth 2-inch diameter PVC well installed with screen interval 80.0'-90.0' -110.0

Yes - See Appendix

Minimum 60 days

TOTAL SHEE SHEETS NO. SECTION COUNTY 55 2010-080-B COOK 886 769 CONTRACT NO. 60L70 ILLINOIS FED. AID PROJECT

# AECOM

### STRUCTURE SOIL BORING LOG

### Page 1 of 2

# AECOM

Boring No.

Station \_\_\_\_

Offset

AECOM PROJ NO. 60225454

 STRUCTURE NO.
 016-0743 & 016-0745

 ROUTE
 FAI 55

 SECTION
 2010-080-B

 COUNTY
 COOK

MSE-11

304+92.42 8.80ft RT

### STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION 1-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

STRUCT. NO. 016-0743 & 016-0745 DRILLED BY STRATA - McCARTHY SECT. 2010-080-B COUNTY COOK LOCATION CHICAGO, ILLINOIS





D E P

В

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetr: Stations, Depths, Offset, and Elevations are in Feet

	user name = PHodina	DESIGNED - PAH	REVISED -		BORING LOGS II - S.N. 016-0745		SECTION	COUNTY	TOTAL	SHEET NO.
RIME Mesia		CHECKED - MR	REVISED -	STATE OF ILLINOIS		55	2010-080-B	СООК	886	770
Engineers, Inc. 100 S. Michigan Avenue, Sulte 1500, Chicago, IL 60604-2482	PLOT SCALE =	DRAWN - PAH	REVISED -	DEPARTMENT OF TRANSPORTATION				CONTRAC	T NO. 6	JL70
	PLOT DATE = 11/20/2014	CHECKED - MR	REVISED -		SHEET NO.RW2-14 OF RW2-15 SHEETS		ILLINOIS FED. A	ID PROJECT		

Page 2 of 2 Date 4/17/13

	STRUCTURE NO. <u>016-0743 &amp; 016</u> ROUTE <u>FAI 55</u> SECTION <u>2010-080-B</u> COUNTY <u>COOK</u>	6-074	5	_	
	Elevation <u>527.52</u> ft	D E P T H	B L O W S	Qu tsf	W %
7	Gray, hard SILTY CLAY 526.02 End of Boring CME-75 drill rig used for drilling Automatic CME hammer used tor SP1 Casing used: 20 ft of 4 in diameter Driller converted to rotary wash drilling at 12.5 ft depth Borehole grouted upon completion				
ılg	je S=Shear P=Penetration Test	 			

# AECOM

### STRUCTURE SOIL BORING LOG

Page 1 of 2 

# AECOM

AECOM PROJ NO. 60225454

STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION 1-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

STRUCT. NO. 016-0743 & 016-0745 DRILLED BY STRATA - McCARTHY SECT. 2010-080-B LOCATION CHICAGO, ILLINOIS COUNTY COOK



 
 STRUCTURE NO.
 016-0743 & 016-0745

 ROUTE
 FAI 55

 SECTION
 2010-080-B

 COUNTY
 COOK
 MSE-12 D E P Boring No. В 305+97.11 12.12ft RT L O W S Station \_\_\_\_ Offset Qu tsf . Т Н W % Elevation <u>553.32</u> ft Gray, very stiff to medium SILTY CLAY 0.7B 19.9 551.82 End of Boring CME-75 drill rig used for CME-75 drill rig used for drilling Automatic CME hammer used for SP1 Casing used: 30 ft of 4 in diameter Driller converted to rotary wash drilling at 17.5 ft depth Borehole grouted upon completion -55 completion \_\_\_\_ -75

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

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Bubinos &	USER NAME = PHodina	DESIGNED - PAH	REVISED -	BORING LOGS III - S.N. 016-0745		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - MR	REVISED -	STATE OF ILLINOIS	I-55 & LAKE SHORE DRIVE INTERCHANGE (OUTBOUND STRUCTURES)		2010-080-B	СООК	886	771
Engineers, Inc.	PLOT SCALE =	DRAWN - PAH	REVISED -	DEPARTMENT OF TRANSPORTATION				CONTRACT	NO. 6	0L70
	PLOT DATE = 11/20/2014 CHECKED - MR REVISED -	REVISED -		SHEET NO.RW2-15 OF RW2-15 SHEETS		ILLINOIS FED. AI	PROJECT	ROJECT		

Page 2 of 2 Date 4/15/13

Bench Mark: BM-4, chiseled square on NE corner of crashwall @ existing Pier E20, just East of Moe Drive, on existing S.N. 016-1075 carrying NB 1-55 to NB L.S.D., Elev. 594.65 (NAVD 88). Exist. Structure: The West & East Walls were built in 1965 & carry NB Lake Shore Drive traffic to S.N. 016-1048 which continues over Moe Drive, Mines Drive, ICRR, Metra Electric RR & McCormick Place Busway. Both walls, 147'-0" in length, are part of a concrete vaulted terminal structure with a single span, monolithically built, concrete deck measuring 1212" thick, supported on each side wall of the vault & running (No salvage) parallel to the deck's center line. Traffic Control: For Stage Ia, maintain 1-lane of NW traffic on northeast half of existing S.N. 016-1048 during construction of west half proposed S.N. 016-0746 & west half Spans 21W-22W (Unit 4) of proposed S.N. 016-1505. For Stage Ib, continue to maintain I-lane of NW traffic on northeast half of existing S.N. 016-1048. For Stage IIa, shift NW traffic to I-lane on southwest half of proposed S.N. 016-0746 & proposed S.N. 016-1505 during construction of east half of S.N. 016-0746 & east half Spans 21W-22W of proposed S.N. 016-1505 (Unit 4). For Stage 11b, continue to maintain 2-lane of NW traffic on proposed S.N. 016-0746 & S.N. 016-1505 & merge them before proposed S.N. 016-1504. Temporary lane closures may be required for Lake Shore Drive, Fort Dearborn Drive, & existing S.N. 016-1075. 307'-07<sub>8</sub>" Measured along Front Face of Precast Panels Begin Barrier Rail Sta. 411+45.93 -End Approach Slab Prop. S.N. 016-1505 Elev. 611.76 Sto. 411+77.43 Elev. A \*For a typical precast concrete panels layout Kink Wall (See Note 1) and architectural treatment see Sheet RW3-11. EI. 615 Sta. 411+47.43 End Barrier Rail Proposed Light Pole Elev. A Top of Proposed Light Pole Sto. 414+47.43 Elev. B. Exist. (See Note I) Barrier AD4: Sta. 412+53.00 AC5: Sta. 414+80.00 Elev. A, Top Grade 👁 FF Elev. 600.32 EI. 610 of exp. Panel (See Note 1) Begin MSE Wall - Top of Coping (See Note 1) -Elev. C. Finish Sta, 414+47,43 Name Plate, see Grade 👁 FF Sheet RW3-3 Elev. A EI. 605 (See Note 1) (See Note I) EI. 600 Precast concrete EI, 595 panels\* EI. 590 Turn MSE Wall \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Sto. 411+40.43 EI. 585 Elev. A -- Kink Wall Theoretical Top Sta. 411+47.60 -- Sta. 411+47.43 of Leveling Pod Sto. 413+27.43 Elev. 596.31 -Step Leveling Pad Elev, B EI. 580 Sta. 412+10.00 EAST WALL REFLECTED ELEVATION Conc. Drilled Shaft Prop. Bridge Turn Wall S.N. 016-1505 Sta. 411.40.43 ÷. Lightweight Cellular Proposed Light Pole Offset 19.25' Lt. 5.5.< 2. ⊂.STR - 41 -Stage Const. Line Concrete Fill AD4: Sta. 412+53.00 Kink Wall 12 Temp. MSE Woll, Special Front Face (FF) of Sto. 411+47.43 Kink Wall MSE Wall Precast Panels 6'-0" Shidr Offset 19.25' Lt. MSE-09 Sta. 413+27.43 05 • Existing Proposed Light Pole Offset 14.25' Lt. East Wall o AC5: Sta. 414+80.00 A M DO NO D D D D D D 1 .\_\_.411 N -4147 B Romp NW --4 STR-42 Begin Wol Sto. 414+47.43 Prop. Bridge -Bari 0 \$ 22 Appr. Pov'l Offsel 14.25' LI. Kink Wall 84" Storm Sewer Sto. 411+47.43 End Temp. MSE Wall Kick Woll Offset 23.25' Rt. Name Plate, see Begin Temp. Soil Ret. System Sta. 413+27.43 Sheet RW3-3 Sta. 414+47.43, Offset 2.00' Lt Turn Wall Offset 14.25' Rt. (Stage Ia) Begin Temp, MSE Wall Sta. 411+40,43 Approx. Limits of Sta. 411+41.06 Offset 23.25' Rt. <u><u><u>É</u>nd Wall</u></u> Reinf, FIII Mass Offset 2.00' Lt. Sta. 414+47.43 (Stage Ia) - Offset 14.25' Rt. PLAN DESIGN SPECIFICATIONS LEGEND: NOTES: 2012 AASHTO LRFD I. For Stations & Elevations of Elev. A, B, & C see Sheet RW3-5, Table I. Prop. Storm Sewer Limits of Reinforced Fill Mass Bridge Design Specifications, 6th Edition with 2013 Interim Revisions 2. Horizontal dimensions measured along front face of precast panels. ----- E ------ E ------Prop. Light Pole Exist. Underground Electrical DESIGN STRESSES ----- X ----- X -----Exist. Fence Prop. Calch Basin 3. Stations & Offsets are given to front face of precast panels relative to FIELD UNITS & Ramp NW.  $(\bullet)$ Prop. Manhole Exist. Water Line f'c = 3,500 psi fy = 60,000 psi (Reinforcement) 4. For existing Vaulted Terminal Structure removal limits, see Sheet RW3-6. Exist. Storm Sewer ♠ MSE - 09 Soil Boring Location PRECAST UNITS \_\_\_\_\_ Exist. Guardrail 5. For Soil Boring Logs, see Sheets RW3-12 thru RW3-14. f'c = 4,500 psi (Precast Panels) DESIGNED REVISED SER NAME + PH Phodina R M E Rubino Rubinos & STATE OF ILLINOIS CHECKED BG REVISED

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### GENERAL NOTES:

Reinforcement bars designated (E) shall be epoxy coated.

- 2. Slip forming of the barrier rails is not allowed.
- 3. Protective Coat shall be applied to the designated areas of Anchorage Slabs & Barrier Rails & MSE Wrap Around Coping.
- 4. Stations & Offsets are measured from the Baseline of Ramp NW to the Front Face of MSE wall panels.
- 5. MSE Supplier to design load transfer systems within reinforced fill mass to accommodate drainage structures & abutment drilled shafts.
- 6. MSE wall supplier shall design MSE Wall, Special & Temporary MSE Wall, Special using aranular reinforced mass with minimum effective internal friction anale of 34 degrees & unit weight of 120 lbs/cu. ft. For embankment behind granular reinforced mass; an embankment unit weight of 120 lbs/cu. ft & an effective friction angle of 30 degrees shall be used in the wall system design.
- 7. MSE Wall lengths measured along front face of precast panels unless noted otherwise.
- 8. Contractor shall field verify location of existing footings & underground utilities & shall take all precautions to protect them during construction of the wall & final condition of the ramp. Any damages to the existing structures and/or utilities shall be the responsibility of the Contractor.
- 9. Quantity for Lightweight Cellular Concrete Fill includes reinforced fill mass & fill area beneath roadway. Lightweight Cellular Concrete Fill shall meet Class II requirements (see Special Provisions).
- 10. See Special Provision for Mechanically Stabilized Earth Retaining Wall, Special & Temporary Mechanically Stabilized Earth Retaining Wall, Special for design & construction requirements.
- 11. For drainage structure location, type, & size, see Drainage Sheets.

### TOTAL BILL OF MATERIAL

Item	Unit	Total
Temporary Shoring for Existing Ramp NW Vaulted Terminal Structure	L. Sum	1
Protective Coat	Sq. Yd.	890
Structure Excavation	Cu. Yd.	1,638
Concrete Superstructure	Cu. Yd.	383,4
Reinforcement Bars, Epoxy Coated	Pound	54,990
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	520
Name Plates	Each	1
Temporary Soil Retention System	Sq. Ft.	454
Lightweight Cellular Concrete Fill	Cu. Yd.	4,866
Mechanically Stabilized Earth Retaining Wall, Special	Sq. Ft.	6,234
Temporary Mechanically Stabilized Earth Retaining Wall, Special	Sq. Ft.	4.069



RWJ-I	General Plan d
RW3-2	North Wall, We
	Wall Elevatio
RW3-3	Total Bill of M
	& General No
RW3-4	Stage Constru
RW3-5	Typical Sectio
RW3-6	Existing Struc
RW3-7	East Barrier
RW3-8	West Barrier
RW3-9	Details
RW3-10	MSE Wrap Are
RW3-11	Architectrual
RW3-12	Boring Logs i
RW3-13	Boring Logs i
DWZ 14	Daring Lago





- Light Pole, see Light Thread / cap end of Table Sheet RW3-3 conduit. When ready 1'- 7" 6'-0" E. & W. Anchorage Slabs, from Sta. 411+47.43 to Sta. 413+27.43 for wiring, replace 11'-0" E. Anchorage Slab, 15'-0" W. Anchorage Slab, cap with bushing. - 2' from Sta. 413+27.43 to Sta. 414+47.43 Reveal, typ. Stainless Steel Standard Gr. 330 see Detail Wire Cloth-Type 304, 4 x 4 mesh 0.047" wire diameter 52' Anchor rods (Dia. as specified for light Protective Coat pole) Provide 3 flat € Reveal l imits washers, 1 regular nut & *€* Reveal 1 locknut for each rod Preferred location for 2-2"\$ std. weight galv. steel - 1'-0' Bridge Deck Grooving or PVC conduit (east Barrier Rail Base only) Longitudinal -€\_ Reveal Const. Jt. Construction Optional Joint Ш Varies Const J Mandatory 6'-0" E. & W. Anchorage Slabs, from Sta. 411+47.43 to Sta. 413+27.43 → Agaregate Subarade PCC Pavement -11'-0" E. Anchorage Slab, 15'-0" W. Anchorage Slab, from Sta. 413+27.43 to Sta. 414+47.43 (See Roadway Plans) (See Roadway Plans) Detail A 8" Stabilized Subbase PROTECTIVE COAT & (See Roadway Plans) Front Face of BRIDGE DECK GROOVING LIMITS Precast Panels \*MSE wall supplier's internal stability design Fill Reinforcement\* shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf & ANCHORAGE SLAB horizontal sliding force of 0.50 k/ft (6'-0" wide Anchor Slab), PAY ITEM LEGEND 0.92 k/ft (11'-0" wide Anchor Slab), Lightweight Cellular 1.25 k/ft (15'-0" wide Anchor Slab) Concrete Fill Paid as Concrete Superstructure of wall. TYPICAL MSE BARRIER RAIL SECTION (Looking Upstation,

	USER NAME = PHodina	DESIGNED - PH	REVISED -		TOTAL BULL OF MAT'L INDEX OF CHEETS & GEN NOTES - S.N. 016-074
RIVIE Rubinos & Mesia		CHECKED - PK	REVISED -	STATE OF ILLINOIS	TOTAL BILL OF MATL, INDEX OF SHEETS & GEN. NOTES = 3.N. 010-074
Engineers, Inc.	PLOT SCALE =	DRAWN - AMV	REVISED -	DEPARTMENT OF TRANSPORTATION	I-55 & LAKE SHORE DRIVE INTERCHANGE (OUTBOUND STRUCTURES)
200 C. Michigan Michild, Colle 1000, Childge, & 00004 2402	PLOT DATE = 11/20/2014	CHECKED - PH	REVISED -		SHEET NO. RW3-3 OF RW3-14 SHEETS

2010-080-В

55

COOK

886 774

CONTRACT NO. 60L70



**DEPARTMENT OF TRANSPORTATION** 

LOT SCALE =

PLOT DATE = 11/20/2014

DRAWN

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- BG

REVISED

REVISED

SHEET NO. RW3-4 OF R

– S.N. 016–0746	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	2010-080-В	соок	886	775
			CONTRACT	NO. 6	0L70
N3-14SHEETS		ILLINOIS FED. AI	D PROJECT		



	user name = PHodina	DESIGNED - PH	REVISED -		
R W F Rubinos & Mesia		CHECKED - PK	REVISED -	STATE OF ILLINOIS	
Engineers, Inc.	PLOT SCALE =	DRAWN - AMV	REVISED -	DEPARTMENT OF TRANSPORTATION	I-55 & LAKE SHURE DRIVE INTERCHA
oo a, wichigan wende, aane rado, chicago, it oodov-avoz	PLOT DATE = 11/20/2014	CHECKED - PK	REVISED -		SHEET NO.RW3-5 OFR

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SHEET NO. RW3-6 OF RW

DVAL – S.N. 016–0746	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	2010-080-B	СООК	886	777
NGE (COTBOOND STRUCTURES)			CONTRACT	NO. 6	0L70
3-14 SHEETS		ILLINOIS FED. AI	D PROJECT		



\*Provide conduit expansion/deflection

### TOTAL SHEE SHEETS NO. SECTION COUNTY 55 2010-080-B COOK 886 778 CONTRACT NO. 60L70

### NOTES:

- 1. For Barrier Rail and Anchorage Slab Joint Details, Drainage Structure Opening details, & Section C-C see Sheet RW3-9.
- 2. For South Approach Slab Preformed Joint Seal details see Sheet S-100
- 3. Bars noted thus, 3x3-#4 indicates 3 lines of #4 bars with 3 lengths per line.
- 4. 2" min. clear cover typical unless noted otherwise.
- 5. Preformed Joint Seal and 2" Expansion Joint shall align with joints in Bridge Approach Slab (Sta. 411+77.43) and Bridge Approach Pavement Connector (PCC) (Sta. 412+77.43).
- 6. For South Abutment Plans see Sheets S-174 & S-175.
- 7. For lighting details see Electrical Plans.

MIN. BAR LAPS #4 bars = 2′-7" #6 bars = 3'-10"

#8 bars = 6'-9"



End of Barrier Rail

(Outside Face of Slab)

### NOTES:

- 1. For Barrier Rail and Anchorage Slab Joint Details, Drainage Structure Opening details, & Section C-C see Sheet RW3-9.
- 2. For South Approach Slab Preformed Joint Seal details see Sheet S-100
- 3. Bars noted thus, 3x3-#4 indicates 3 lines of #4 bars with 3 lengths per line.
- 4. 2" min. clear cover typical unless noted otherwise.
- 5. Preformed Joint Seal and 2" Expansion Joint shall align with joints in Bridge Approach Slab (Sta. 411+77.43) and Bridge Approach Pavement Connector (PCC) (Sta. 412+77.43).
- 6. For South Abutment Plans see Sheets S-174 & S-175.
- 7. For catch basin size & type see Drainage Plans

MIN. BAR LAPS #4 bars = 2'-7

#6 bars = 3'-10" #8 bars = 6'-9"

AGE SLAB – S.N. 016–0746	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NGE (OUTBOUND STRUCTURES)	55	2010-080-B	СООК	886	779
INGE (UUTBUUND STRUCTURES)			CONTRACT	NO. 6	0L70
N3-14 SHEETS		ILLINOIS FED. A	ID PROJECT		



Bar	No.	Size	Length	Shape		
a4601(E)	482	#7	8′-6″			
a4602(E)	161	#7	13′-6″			
a4603(E)	161	#7	17′-6″			
a4604(E)	362	#4	7'-4"			
a4605(E)	121	#4	12′-4″			
a4606(E)	121	#4	16′-4″			
a4607(E)	203	#8	2'-6"			
a4608(E)	6	#5	4'-0"			
b4601(E)	96	#4	29′-8″			
b4602(E)	60	#4	34′-11″			
b4603(E)	40	#4	26'-2"			
b4604(E)	102	#4	31′-7″			
b4605(E)	56	#4	26′-11″			
b4606(E)	42	#4	18′-4″			
b4607(E)	112	#4	24'-5"			
d4601(E)	808	#6	6′-10″	<u> </u>		
d4602(E)	808	#6	6′-10″			
d4603(E)	3	#6	5′-1″			
d4604(E)	6	#6	8′-11″			
d4605(E)	3	#6	5′-6″			
e4601(E)	32	#4	15′-5″			
e4602(E)	96	#4	16′-4″			
e4603(E)	16	#4	4'-8"			
e4604(E)	176	#4	14′-8″			
e4605(E)	4	#8	15′-5″			
e4606(E)	12	#8	16′-4″			
e4607(E)	2	#8	4'-8"			
e4608(E)	22	#8	14′-8″			
Bridge D	eck		Sa Ya	520		
Grooving (Longitudinal)			54.70.	520		
Protective Coat			Sq. Yd.	890		
Reinforcement Bars,			Pound	54 990		
Epoxy Coated				04,990		
Concrete			CU Ya	3834		
Superstru	ucture			505.4		

016–0746	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NGE (OUTROUND STRUCTURES)	55	2010-080-B	СООК	886	780
NGE (DUIBDOIND STRUCTURES)			CONTRACT	NO. 6	0L70
V3-14 SHEETS		ILLINOIS FED. AI	D PROJECT		



Bar	No.	Size	Length	Shape
h460(E)	5	#4	28'-0"	
h461(E)	5	#4	17'-0"	
h462(E)	10	#4	5′-0″	$\mathbf{>}$
h463(E)	10	#4	6′-2″	
u460(E)	30	#4	3′-4″	

NLS – S.N. 016–0746	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NGE (OUTBOUND STRUCTURES)		2010-080-B	СООК	886	781
			CONTRACT	NO. 6	0L70
V3-14 SHEETS	ILLINOIS FED. AID PROJECT				



LECOM PLOT SCALE = DRAWN - MR REVISED - DEPARTMENT OF TRANSPORTATION I-55 & LAKE SHORE D	RIVE INTERCH
PLOT DATE = 11/20/2014 CHECKED - ME REVISED -	EET NO.RW3-11 OF



SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

### AECOM

### STRUCTURE SOIL BORING LOG

Page 2 of 3 Date 4/8/13

AECOM

AECOM PROJ NO. 60225454 STRUCTURE NO. <u>016-0746 & 016-0749</u> ROUTE <u>FAI 55</u> SECTION <u>2010-080-B</u> COUNTY <u>COOK</u> STR-41 411+09.98 53.78ft LT Boring No. D E в Station \_\_\_\_ L o W S Offset Р Qu tsf W % т Н Elevation <u>541.47</u> ft Brown and gray to gray, hard to very stiff SILTY CLAY 10 16 3.4S 19.9 20 -55 1.9B 20.9 6 \_ -60 2.1B 20.8 12 -65 21.7 18 30 523.97 Gray, moist, extremely dense CLAY LOAM to LOAM - large gravel noted -70 50/3" 17.5 \_519.47 Apparent weathered BEDROCK 516.97 SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet





# Color pictures of the cores

	USER NAME = PHodina	DESIGNED - CLS	REVISED -		BORING LOGS I – S.N. 016–0746	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - ATB	REVISED -	STATE OF ILLINOIS		55	2010-080-B	СООК	886	783
	PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	I-33 & LAKE SHURE DRIVE INTERCHAINGE (UUTBUUND STRUCTURES)			CONTRACT	NO. 6	JL70
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO.RW3-12 OF RW3-14 SHEETS		ILLINOIS FED. A	ID PROJECT		-

	STRUCTURE ROCK CORIN	IG LO	G			Pag Date	ge 3 of 3 4/8/13
ROUTE FAI 55 DESC	CRIPTION I-94 (DAN RYAN EXPRESSW	AY) TO	US 41 (L	AKE S	HORE	DRIVE)	
SECT. 2010-080-B	_ STRUCT. NO. <u>016-0746 &amp; 016-0749</u>	D	RILLED	BY _	STRAT	A - KOME	N
COUNTY COOK	-						
Boring No.         STR-41           Station         411+09.98           Offset         53.78ft LT	_ Core Type <u>NX</u> _ Core Diameter <u>2.16</u> in _ Core Length <u>15</u> ft			R E C O	R Q	CORE T I	COMP. S T R
Surface Elev591.47 ft				V E	D	ME	N G
Top Elev. Coring ft	g Notes and Rock Description	1 75 0	Core Run (#)	R Y (%)	(%)	(Min/ ft)	T H (tsf)
fair DOLOMITE	y fractured, slightly vuggy, slightly weathered	ı, <u>-75.0</u> —	1	96	52		
		_					
		_					
		_					
		-80.0					
		_					
		_					
		_	2	90	0		
		-85.0	3	100	63	·	
		_					
		_					
		_					
501.97		_					
End of Boring Diedrich D-50 drill rig u	ised for drilling	-90.0					
Automatic Diedrich har Driller converted to rot	mmer used for SPT ary wash drilling at 12.5 ft depth						
Borenole grouted upor	n completion						

Yes - See Appendix

Cores will be stored for examination until

<u>Minimum 60 day</u>s



SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

### AECOM

### STRUCTURE SOIL BORING LOG

Page 2 of 3 Date 4/3/13

AECOM

Boring No.

Top Elev.

ft

505.58

Station

Offset

AECOM PROJ NO. 60225454 STRUCTURE NO. <u>016-0746 & 016-0749</u> ROUTE <u>FAI 55</u> SECTION <u>2010-080-B</u> COUNTY <u>COOK</u> STR-42 412+37.23 7.91ft RT Boring No. D В Station \_\_\_\_ Е L Ō W S Offset \_\_\_\_\_ Qu tsf W % т Н Elevation <u>540.58</u> ft Gray, soft to medium SILTY CLAY DIST 59.2 -55 1.75P 23.9 -60 .7B 25.1 528.08 Gray, hard SILTY CLAY gravel noted -6 20.1 16 31 \_ 522.58 Apparent weathered BEDROCK 520.58

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



	USER NAME = PHodina	DESIGNED - CLS	REVISED -		BORING LOGS II – S.N. 016–0746	F.A.I. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
ΔΞϹΟΜ		CHECKED - ATB	REVISED -	STATE OF ILLINOIS		55	2010-080-B	СООК	886	784A
	PLOT SCALE = DRAWN - MRK	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	I-55 & LAKE SHORE DHIVE INTERCHANGE (COTDOOND STRUCTORES)	_		CONTRAC	T NO. 6	JL70
	PLOT DATE = 11/20/2014	CHECKED - CLS REVISED -		SHEET NO.RW3-13 OF RW3-14 SHEETS		ILLINOIS FED.	AID PROJECT	-		

### Page 3 of 3 Date <u>4/3/13</u> STRUCTURE ROCK CORING LOG ROUTE FAI 55 \_\_\_\_ DESCRIPTION \_\_\_\_\_\_\_ I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE) STRUCT. NO. 016-0746 & 016-0749 DRILLED BY STRATA - FRANKS SECT, 2010-080-B COUNTY COOK STR-42 412+37.23 7.91ft RT Core Type <u>NX</u> Core Diameter <u>2.16</u> in Core Length <u>15</u> ft R CORE COMP. s Q т C 0 V т R N G T D Surface Elev. \_590.58\_ ft Ň Е Core Run (#) R Coring Notes and Rock Description (Min/ Ĥ (%) (%) `ft) (tsf) 520.58 Gray, hard, horizontally fractured, occasional dipping fracture, vuggy, slightly weathered, poor, DOLOMITE 93 45 -75.0 -80.0 86 43 2 \_ -85.0 End of Boring Diedrich D-50 drill rig used for drilling Automatic Diedrich hammer used for SPT Driller converted to rotary wash drilling at 12.5 ft depth \_ Borehole grouted upon completion \_ \_ -90 0

Color pictures of the cores

Yes - See Appendix

Cores will be stored for examination until

<u>Minimum 60 day</u>s



	USER NAME = PHodina	DESIGNED - CLS CHECKED - ATB	REVISED - REVISED -	STATE OF ILLINOIS	BORING LOGS III -
AECONI	PLOT SCALE =	DRAWN - MRK	REVISED -	DEPARTMENT OF TRANSPORTATION	I-55 & LAKE SHURE DRIVE INTERCHA
	PLOT DATE = 11/20/2014	CHECKED - CLS	REVISED -		SHEET NO.RW3-14 OF R

Page 2 of 2 Date 4/19/13

_ ft	DUPTI	B L O W S	Qu tsf	W %
ammer				
of 4 in	_			
rotary ft	_			
pon				
	-80			
	_			
	_			
	_			
	-85			
	_			
	_			
	_			
	-90			
	_			
	_			
	_			
	<u>-95</u> —			
	_			
	_			
ration Test	-100			

S.N. 016–0746	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		2010-080-B	COOK	886	784B
			CONTRACT	NO. 6	0L70
W3-14 SHEETS		ILLINOIS FED. AI	D PROJECT		



REVISED **DEPARTMENT OF TRANSPORTATION** REVISED

PLOT SCALE

PLOT DATE = 12/19/14

DRAWN

CHECKED

RG

SHEET NO. ET-1 OF ET-26 SHEETS

TO -IC TRACK #2 EXISTING CATENARY -IC RR TRACK #1 SUPPORT STRUCTURE (NO. 2-95) adaily and and and and and and and METRA TRACK #4 METRA TRACK #3 METRA TRACK #2 METRA TRACK #1 METRA ACCESS ROAD EXISTING POWER ..... METRA CABLES 12 1914 DIPAL P DIPAL P. VIMAWALA, S.E. DATE MAWALA LICENSE EXPIRES <u>11 /30 /2016</u> SHEET RANGE <u>785A,785B,785K-785M</u>, 081-005766 7850,785T-785X hun 12/19/20 w € 062-060936 °C WILLIAM D. STERMER, P.E. DATE LICENSED LICENSE EXPIRES 11 /30 /2015 SHEET RANGE 785A,785B,785C-785J, PROFESSIONAL ENGINEER 785N-785P, 785R, 785S, 785Y, 785Z TOTAL SHEE SHEETS NO. SECTION COUNTY COOK 886 785A 2010-080-B 55 I-55 & LAKE SHORE DRIVE INTERCHANGE (OUTBOUND STRUCTURES) CONTRACT NO. 60L70 ILLINOIS FED. AID PROJECT



	USER NAME = edwardsjo	DESIGNED - MM	REVISED -		METRA CATENARY – PROPOSED PLAN	F.A.I. RTE.	SECTION	COUNTY SH	OTAL SI HEETS	HEET NO.
ECOM	PLOT SCALE =	CHECKED - RG DRAWN - JE	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-55 & LAKE SHORE DRIVE INTERCHANGE (OUTBOUND STRUCTURES)	55	2010-080-B		886 7	85B
	PLOT DATE = 12/19/14	CHECKED - RG	REVISED -		SHEET NO. ET-2 OF ET-26 SHEETS		ILLINOIS FED. AI	D PROJECT	10. 601	.70



### EXISTING CATENARY WIRE PROFILE - METRA TRACK #1



	USER NAME = edwardsjo	DESIGNED - MM	REVISED -		METRA CATENARY PROFILE WIRE #1 – EXISTING	F.A.I. RTE. SECTION	COUNTY	TOTAL	SHEET NO,
ΔΞϹΟΜ		CHECKED - RG	REVISED -	STATE OF ILLINOIS	LEE & LAKE SHORE DRIVE INTERCHANCE (DUTROUND STRUCTURES)	55 2010-080-B	СООК	886	785C
AECOM	PLOT SCALE =	DRAWN - JE	REVISED -	DEPARTMENT OF TRANSPORTATION	I-JJ & LAKE SHORE DRIVE INTERCHANGE (COTBOOND STRUCTURES)		CONTRACT	NO. 6	JL70
	PLOT DATE = 11/20/2014	CHECKED - RG	REVISED -		SHEET NO. ET-3 OF ET-26 SHEETS	ILLINOIS FED. 4	AID PROJECT		





### PROPOSED CATENARY WIRE PROFILE - METRA TRACK #1



		HANGER SPACING ALONG SPAN (FT) AND LENGTHS (FT-IN)												
STR 1	STR 2													
			H1	H2	НЗ	H4	H5	Н6	H7	H8	Н9	H10	H11	Н12
		DISTANCE	9.99	29.97	49.96	69.94	89.92	109.90	129.89	149.87	169.85	189.84	209.82	229.80
TRUSS 2-95	P-1	TYPE												
		LENGTH	4'-11/4"	3'-2 1/2"	2'-5 1/2"	1'-10 3/4"	1'-5 3/4"	1'-3"	1'-2 1/4"	1'-3 1/2"	1'-6 1/2"	1'-11 3/4"	2'-7"	3'-4 1/4"

			HANGER SPACING ALONG SPAN (FT) AND LENGTHS (FT-IN)												
STR 1	STR 2														
			H1	H2	НЗ	H4	Н5	H6	H7	нв	Н9	H10	H11	H12	
		DISTANCE	9.29	27.87	46.44	65.02	83.60	102.18	120.75						
P-1	P-2	TYPE													
		LENGTH	3'-61/2"	3'-11/4"	2'-93/4"	2'-8"	2'-8"	2'-93/4"	3'-1 1/4"						

			HANGER SPACING ALONG SPAN (FT) AND LENGTHS (FT-IN)											
STR 1	STR 2													
			H1	H2	НЗ	H4	H5	H6	H7	H8	H9	H10	H11	H12
		DISTANCE	9.74	29.21	48.68	68.16	87.63	107.10	126.58	146.05	165.52	185.00	204.47	
P-2	TRUSS 2-83	TYPE												
		LENGTH	2'-11 1/2"	2'-5"	2'-01/4"	1'-9 1/4"	1'-8 1/2"	1'-9 1/2"	2'-0 1/4"	2'-5 1/4"	3'-0"	3'-8 1/2"	4'-7"	

 AECON

USER NAME = edwardsjo	DESIGNED - MM	REVISED -		METRA CATENARY PROFILE
	CHECKED - RG	REVISED -	STATE OF ILLINOIS	
PLOT SCALE =	DRAWN - JE	REVISED -	DEPARTMENT OF TRANSPORTATION	I-55 & LAKE SHUKE DRIVE INTERCH
PLOT DATE = 12/5/14	CHECKED - RG	REVISED -		SHEET NO. ET-4 OF



 HANGE (OUTBOUND STRUCTURES)
 55
 2010-080-B
 COOK
 886
 785D

 F ET-26 SHEETS
 CONTRACT NO. 60L70
 ILLINOIS FED. AID PROJECT



## EXISTING CATENARY WIRE PROFILE - METRA TRACK #2



	USER NAME = edwardsjo	DESIGNED - MM	REVISED -		METRA CATENARY PROFILE WIRE #2 – EXISTING	F.A.I. SECTION	COUNTY TOTAL SHEET SHEETS NO.
ΛΞΟΟΜ		CHECKED - RG	REVISED -	STATE OF ILLINOIS		55 2010-080-B	COOK 886 785E
	PLOT SCALE =	DRAWN - JE	REVISED -	DEPARTMENT OF TRANSPORTATION	1-55 & LAKE SHORE DRIVE INTERCHANGE (DUIDDOND STRUCTORES)		CONTRACT NO. 60L70
	PLOT DATE = 11/20/2014	CHECKED - RG	REVISED -		SHEET NO. ET-5 OF ET-26 SHEETS	ILLINOIS FED.	AID PROJECT

- 1. ATTACHMENTS AND WIRE HEIGHTS SHOWN ARE MEASURED FROM TOP OF RAIL.
- 2. METRA TO PERFORM WORK SHOWN ON THIS SHEET REGARDING THE REPROFILING OF CATENARY WIRES.



### PROPOSED CATENARY WIRE PROFILE - METRA TRACK #2



					HAI	NGER SPAC	ING ALON	IG SPAN (F	T) AND LEN	IGTHS (FT-	IN)			
STR 1	STR 2													
			H1	H2	НЗ	H4	H5	Н6	H7	H8	H9	H10	H11	H12
		DISTANCE	9.96	29.89	49.82	69.74	89.67	109.60	129.53	149.45	169.38	189.31	209.23	229.16
RUSS 2-95	P-1	TYPE												
		LENGTH	4'-5 1/4"	3'-5 3/4"	2'-8 1/4"	2'-0 1/2"	1'-7"	1'-3 1/2"	1'-2"	1'-2 1/4"	1'-4 3/4"	1'-9 1/4"	2'-3 3/4"	3'-0 1/4"

					HA	NGER SPA	CING ALON	IG SPAN (F	T) AND LEN	IGTHS (FT-	IN)			
STR 1	STR 2													
			H1	H2	НЗ	H4	Н5	н6	H7	Н8	Н9	H10	H11	H12
		DISTANCE	9.34	28.01	46.68	65.35	84.03	102.70	121.37					
P-1	P-2	TYPE												
		LENGTH	3'-2"	2'-9 1/4"	2'-6"	2'-4 3/4"	2'-5 1/4"	2'-7 1/4"	2'-11 1/4"					

					HAI	NGER SPAC	CING ALON	G SPAN (F	T) AND LEN	IGTHS (FT-	IN)			
STR 1	STR 2													
			H1	H2	НЗ	H4	H5	H6	H7	H8	Н9	H10	H11	H12
		DISTANCE	9.74	29.21	48.68	68.16	87.63	107.10	126.58	146.05	165.52	185.00	204.47	
P-2	TRUSS 2-83	TYPE												
		LENGTH	2'-10"	2'-3 3/4"	1'-11 1/2"	1'-9"	1'-8 1/2"	1'-9 3/4"	2'-1"	2'-6 1/4"	3'-1 1/2"	3'-10 1/2"	4'-9 1/2"	

	AECON
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 USER NAME = edwardsjo	DESIGNED - MM	REVISED -		METRA CATENARY PROFILE WIRE #2 – PROPOSED	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	HEET NO.
	CHECKED - RG	REVISED -	STATE OF ILLINOIS		55	2010-080-B	COOK	886	785F
PLOT SCALE =	DRAWN - JE	REVISED -	DEPARTMENT OF TRANSPORTATION	I-JJ & LAKE SHORE DRIVE INTERCIANCE (OUTBOOND STRUCTURES)			CONTRAC	T NO. 60	L70
PLOT DATE = 12/5/14	CHECKED - RG	REVISED -		SHEET NO. ET-6 OF ET-26 SHEETS		ILLINOIS FED.	AID PROJECT		

- 1. ATTACHMENTS AND WIRE HEIGHTS SHOWN ARE MEASURED FROM TOP OF RAIL.
- 2. METRA TO PERFORM WORK SHOWN ON THIS SHEET REGARDING THE REPROFILING OF CATENARY WIRES.





	USER NAME = edwardsjo	DESIGNED - MM	REVISED -		METRA CATENARY PROFILE WIRE #3 – EXISTING	F.A.I. SECTION	COUNTY TOTAL SHEET SHEETS NO.
ΔΞϹΟΜ	21.07.00415	CHECKED - RG	REVISED -		I-55 & LAKE SHORE DRIVE INTERCHANGE (OUTBOUND STRUCTURES)	55 2010-080-B	СООК 886 785G
	PLOT DATE = 11/20/2014	CHECKED - RG	REVISED - REVISED -	DEPARTMENT OF TRANSPORTATION	SHEET NO. ET-7 OF ET-26 SHEETS	ILLINOIS FED. /	CONTRACT NO. 60L70

μL

- 1. ATTACHMENTS AND WIRE HEIGHTS SHOWN ARE MEASURED FROM TOP OF RAIL.
- 2. METRA TO PERFORM WORK SHOWN ON THIS SHEET REGARDING THE REPROFILING OF CATENARY WIRES.





					HAI	NGER SPAC	ING ALON	G SPAN (F	T) AND LEN	IGTHS (FT-	IN)			
STR 1	STR 2													
			H1	H2	НЗ	H4	H5	H6	H7	Н8	Н9	H10	H11	H12
		DISTANCE	9.93	29.79	49.65	69.51	89.37	109.24	129.10	148.96	168.82	188.68	208.54	228.40
TRUSS 2-95	P-1	TYPE												
		LENGTH	4'-73/4"	3'-81/4"	2'-10 1/2"	2'-3"	1'-9 1/4"	1'-5 3/4"	1'-4"	1'-4 1/4"	1'-6 3/4"	1'-11"	2'-5 1/4"	3'-1 1/2"

					HA	NGER SPA	CING ALON	IG SPAN (F	T) AND LEN	IGTHS (FT-	IN)			
STR 1	STR 2													
			H1	H2	НЗ	H4	Н5	H6	H7	Н8	Н9	H10	H11	H12
		DISTANCE	9.41	28.22	47.04	65.85	84.67	103.48	122.30					
P-1	P-2	TYPE												
		LENGTH	3'-31/4"	2'-10 1/2"	2'-71/4"	2'-5 3/4"	2'-6 1/4"	2'-8 1/2"	3'-0 1/4"					

					HAI	NGER SPAC	ING ALON	G SPAN (F	T) AND LEN	IGTHS (FT-	IN)			
STR 1	STR 2													
			H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12
		DISTANCE	9.73	29.18	48.63	68.08	87.53	106.98	126.43	145.88	165.33	184.78	204.23	
P-2	TRUSS 2-83	TYPE												
		LENGTH	2'-11"	2'-4 3/4"	2'-01/4"	1'-9 3/4"	1'-9"	1'-10 1/4"	2'-1 1/2"	2'-6 3/4"	3'-1 3/4"	3'-10 1/2"	4'-9 1/4"	

- Infin*o - I -	AECON
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 USER NAME = edwardsjo	DESIGNED - MM	REVISED -		METRA CATENARY PROFILE WIRE #3 – PROPOSED	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - RG	REVISED -	STATE OF ILLINOIS	LES & LAKE SHORE DRIVE INTERCHANCE (DUTROUND STRUCTURES)	55	2010-080-B	СООК	886	785H
PLOT SCALE =	DRAWN - JE	REVISED -	DEPARTMENT OF TRANSPORTATION	I-JJ & LAKE SHORE DRIVE INTERCHANGE (DOTDOOND STRUCTURES)			CONTRACT	NO. 6	JL70
PLOT DATE = 12/5/14	CHECKED - RG	REVISED -		SHEET NO. ET-8 OF ET-26 SHEETS		ILLINOIS FED.	AID PROJECT		

- 1. ATTACHMENTS AND WIRE HEIGHTS SHOWN ARE MEASURED FROM TOP OF RAIL.
- 2. METRA TO PERFORM WORK SHOWN ON THIS SHEET REGARDING THE REPROFILING OF CATENARY WIRES.



### EXISTING CATENARY WIRE PROFILE - METRA TRACK #4



	USER NAME = edwardsjo	DESIGNED - MM	REVISED -		METRA CATENARY PROFILE WIRE #4 - EXISTING	F.A.I. RTE. SECTION	COUNTY TOTAL SHEET SHEETS NO.
AECOM		CHECKED - RG	REVISED -	STATE OF ILLINOIS		55 2010-080-B	СООК 886 7851
	PLOT SCALE =	DRAWN - JE	REVISED -	DEPARTMENT OF TRANSPORTATION	I-55 & LARE SHORE DRIVE INTERCHANGE (COTDOORD STRUCTORES)	-	CONTRACT NO. 60L70
	PLOT DATE = 11/20/2014	CHECKED - RG	REVISED -		SHEET NO. ET-9 OF ET-26 SHEETS	ILLINOIS	FED. AID PROJECT



- 1. ATTACHMENTS AND WIRE HEIGHTS SHOWN ARE MEASURED FROM TOP OF RAIL.
- 2. METRA TO PERFORM WORK SHOWN ON THIS SHEET REGARDING THE REPROFILING OF CATENARY WIRES.





			HANGER SPACING ALONG SPAN (FT) AND LENGTHS (FT-IN)												
STR 1	STR 2														
			H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	
		DISTANCE	9.90	29.71	49.52	69.33	89.14	108.95	128.76	148.57	168.38	188.19	207.99	227.80	
RUSS 2-95	P-1	TYPE													
		LENGTH	4'-91/4"	3'-91/4"	2'-11 1/2"	2'-3 1/2"	1'-9 1/2"	1'-5 1/2"	1'-3 1/2"	1'-3 1/2"	1'-5 1/2"	1'-9 1/2"	2'-3 1/2"	2'-11 1/2"	

					НА	NGER SPA	CING ALON	IG SPAN (F	T) AND LEN	IGTHS (FT-	IN)			
STR 1	STR 2													
			H1	H2	НЗ	H4	H5	H6	H7	H8	Н9	H10	H11	H12
		DISTANCE	9.45	28.36	47.26	66.17	85.07	103.98	122.88					
P-1	P-2	TYPE												
		LENGTH	3'-1"	2'-8 1/4"	2'-5"	2'-3 3/4"	2'-4 1/4"	2'-6 3/4"	2'-10 3/4"					

			HANGER SPACING ALONG SPAN (FT) AND LENGTHS (FT-IN)											
STR 1	STR 2													
			H1	H2	H3	H4	H5	H6	H7	H8	Н9	H10	H11	H12
		DISTANCE	9.73	29.18	48.63	68.08	87.53	106.98	126.43	145.88	165.33	184.78	204.23	
P-2	TRUSS 2-83	TYPE												
		LENGTH	2'-93/4"	2'-3 1/4"	1'-10 1/2"	1'-8"	1'-7 1/4"	1'-8 1/4"	1'-11 1/4"	2'-4 1/4"	2'-11 1/4"	3'-8"	4'-6 3/4"	

100.01	AECON
5.1	

	USER NAME = edwardsjo	DESIGNED - MM	REVISED -		METRA CATENARY PROFILE WIRE #4 – PROPOSED	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
M		CHECKED - RG	REVISED -	STATE OF ILLINUIS	1-55 & LAKE SHORE DRIVE INTERCHANGE (OUTROUND STRUCTURES)	55	2010-080-B	COOK	886	785J
	PLOT SCALE =	DRAWN - JE	REVISED -	DEPARTMENT OF TRANSPORTATION	1-33 & LARE SHORE DRIVE INTERCHANGE (OUTDOOND STRUCTURES)			CONTRACT	NO. 6	0L70
	PLOT DATE = 12/5/14	CHECKED - RG	REVISED -		SHEET NO. ET-10 OF ET-26 SHEETS		ILLINOIS FED. A	AID PROJECT		

- 1. ATTACHMENTS AND WIRE HEIGHTS SHOWN ARE MEASURED FROM TOP OF RAIL.
- 2. METRA TO PERFORM WORK SHOWN ON THIS SHEET REGARDING THE REPROFILING OF CATENARY WIRES.





## LOADING DIAGRAM

(UNITS: LB, U.N.O.) NOTES:

1. FORCES SHOWN ARE IN DIRECTION PARALLEL OR PERPENDICULAR TO TRACK.

2. WIRE TENSION AND WIRE BREAK LOAD NOT SHOWN.

	USER NAME = edwardsjo	DESIGNED - MM	REVISED -		CATENARY STRUCTURE P-1 ERECTION DIAGRAM	F.A.I. RTE.	SECTION	COUNTY	TOTAL SI SHEETS	HEET NO.
<b>NECOM</b>		CHECKED - RG	REVISED -	STATE OF ILLINUIS		55	2010-080-B	СООК	886 7	85K
	PLOT SCALE =	DRAWN - JE	REVISED -	DEPARTMENT OF TRANSPORTATION	I-JJ & LAKE SHORE DRIVE INTERCHANGE (DUIDOUND STRUCTURES)			CONTRAC	T NO. 601	70
	PLOT DATE = 12/19/14	CHECKED - RG	REVISED -		SHEET NO. ET-11 OF ET-26 SHEETS		ILLINOIS FED. A	ID PROJECT		

	CATENARY SUPPORT STRUCTUR	'Е, Р-1		
REF. DWG.	DESCRIPTION	QTY.	UNIT	MARK
ET-22	PORTAL COLUMNS - W14X90	2	EA.	C-1
ET-23	PORTAL BEAM - W14X74	1	EA.	СВ-1
ET-24	PORTAL SAG BRACE	2	EA.	SB-1
ET-24	PORTAL SAG BRACE VERTICAL	2	EA.	SB-2
ET-20	ANCHOR BOLT ASSEMBLY	2	EA.	-
ET-21	DOWN GUY ASSEMBLY	1	EA.	DG-1
ET-17	NOSE BRACKET	4	EA.	NB-1
ET-16	STEADY ARM ASSEMBLY (BY METRA)	4	EA.	SA-1
ET-16	MESSENGER PULL-OFF ASSEMBLY (BY METRA)	4	EA.	MPO-1
ET-16	MESSENGER SUPPORT ASSEMBLY (BY METRA)	4	EA.	MSA-2
ET-17	BEAM SLIDING CONNECTION	4	EA.	BSC-1
ET-18	FEEDER TERMINATION ASSEMBLY	10	EA.	NA 75
ET-18	CONDUIT MOUNTING BRACKET DETAIL	4	EA.	CMB1
ET-18	COLUMN DEAD END ASSEMBLY DETAIL	1	EA.	CDE1
ET-19	CONDUIT RISER ASSEMBLY	1	EA.	CR1
	DRILLED SHAFT IN SOIL			
REF. DWG.	DESCRIPTION	QTY.	UNIT	MARK
ET-20	PORTAL FOUNDATIONS - 42" DRILLED CAISSONS	16	CU YD	FND-1
ET-21	DOWNGUY FOUNDATION - 42" DRILLED CAISSON	5	CU YD	FND-2
	PERMANENT CASING			
REF. DWG.	DESCRIPTION	QTY.	UNIT	MARK
ET-20	PERMANENT CASING	52	FOOT	-
	REINFORCEMENT BARS			
REF. DWG.	DESCRIPTION	QTY.	UNIT	MARK
ET-20	PORTAL FOUNDATIONS - 42" DRILLED CAISSONS	2228	POUND	-
ET-21	DOWNGUY FOUNDATION - 42" DRILLED CAISSON	594	POUND	-
	CONDUIT ATTACHED TO STRUC	TURE		
REF. DWG.	DESCRIPTION	QTY.	UNIT	MARK
ET-18	6" DIA., PVC COATED GALVANIZED STEEL	150	FOOT	-

WORK STATEMENT (FINAL)
1. INSTALL FOUNDATIONS AND STEEL FOR NEW PORTAL STRUCTURE AS SHOWN.
2. INSTALL SLIDING CONNECTIONS, DROP BRACKETS AND CATENARY ASSEMBLIES AS SHOWN.

### NOTES:

- 1. FOR GENERAL NOTES, SEE DRAWING ET-1.
- 2. FOR WIRING PLANS AND PROFILES SEE DRAWINGS ET-3 THRU ET-10.
- 3. FOR STRUCTURAL DETAILS SEE DRAWINGS ET-20 THRU ET-24.
- 4. METRA TO RELOCATE EXISTING LINE PRIOR TO FOUNDATION CONSTRUCTION.
- 5. ALL COORDINATES CORRESPOND TO THE CENTER OF EACH FOUNDATION.
- 6. CONTRACTOR TO RECONFIGURE AC POWER CABLES AND TERMINATE TO P-1 STRUCTURE.



PLOT DATE = 12/19/14

CHECKED - RG

REVISED

	CATENARY SUPPORT STRUCTUR	E, P-2		
. DWG.	DESCRIPTION	QTY.	UNIT	MARK
T-22	PORTAL COLUMNS - W14X90	2	EA.	C-1
T-23	PORTAL BEAM - W14X74	1	EA.	CB-1
T-24	PORTAL SAG BRACE	2	EA.	SB-1
T-24	PORTAL SAG BRACE VERTICAL	2	EA.	SB-2
T-20	ANCHOR BOLT ASSEMBLY	2	EA.	-
T-17	NOSE BRACKET	4	EA.	NB-1
T-16	STEADY ARM ASSEMBLY (BY METRA)	4	EA.	SA-1
T-16	MESSENGER PULL-OFF ASSEMBLY (BY METRA)	4	EA.	MPO-1
T-16	MESSENGER SUPPORT ASSEMBLY (BY METRA)	4	EA.	MSA-2
T-17	BEAM SLIDING CONNECTION	4	EA.	BSC-1
	DRILLED SHAFT IN SOIL			
. DWG.	DESCRIPTION	QTY.	UNIT	MARK
T-20	PORTAL FOUNDATIONS - 42" DRILLED CAISSONS	16	CU YD	FND-1
	PERMANENT CASING			
. DWG.	DESCRIPTION	QTY.	UNIT	MARK
T-20	PERMANENT CASING	38	FOOT	-
	REINFORCEMENT BARS			
. DWG.	DESCRIPTION	QTY.	UNIT	MARK
T-20	PORTAL FOUNDATIONS - 42" DRILLED CAISSONS	2228	POUND	-

WORK STATEMENT (FINAL)

1. INSTALL FOUNDATIONS AND STEEL FOR NEW PORTAL STRUCTURE AS SHOWN.

2. INSTALL SLIDING CONNECTIONS, DROP BRACKETS, AND CATENARY ASSEMBLIES AS SHOWN.

MOMENT 96 K.FT.

### NOTES:

- 1. FOR GENERAL NOTES, SEE DRAWING ET-1.
- 2. FOR WIRING PLANS AND PROFILES SEE DRAWINGS ET-3 THRU ET-10.
- 3. FOR STRUCTURAL DETAILS SEE DRAWINGS ET-20 THRU ET-24.
- 4. METRA TO RELOCATE EXISTING LINE PRIOR TO FOUNDATION CONSTRUCTION.
- 5. ALL COORDINATES CORRESPOND TO THE CENTER OF EACH FOUNDATION.

				-	-
ERECTION DIAGRAM NGE (OUTBOUND STRUCTURES)		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		2010-080-B	СООК	886	785L
			CONTRACT	NO. 6	0L70
T-26 SHEETS		ILLINOIS FED. AI	D PROJECT		



**CATENARY STRUCTURE P-3** STATE OF ILLINOIS REVISED I-55 & LAKE SHORE DRIVE INTERCHA JE REVISED **DEPARTMENT OF TRANSPORTATION** SHEET NO. ET-13 OF E CHECKED - RG REVISED



PLOT SCALE =

PLOT DATE = 12/19/14

ORAWN

CATENARY SUPPORT STRUCTURE, P-3							
REF. DWG.	DESCRIPTION	QTY.	UNIT	MARK			
ET-22	COLUMNS - HSS12.75X0.5"	1	EA.	С-2			
ET-20	ANCHOR BOLT ASSEMBLY	2	EA.	-			
ET-18	FEEDER TERMINATION ASSEMBLY	10	EA.	NA 76			
ET-18	CONDUIT MOUNTING BRACKET DETAIL	4	EA.	CMB1			
ET-18	COLUMN DEAD END ASSEMBLY DETAIL	1	EA.	CDE1			
ET-19	CONDUIT RISER ASSEMBLY	1	EA.	CR1			
	DRILLED SHAFT IN SOIL						
REF. DWG.	DESCRIPTION	QTY.	UNIT	MARK			
ET-20	PORTAL FOUNDATIONS - 42" DRILLED CAISSONS	6	CU YD	FND-1			
	PERMANENT CASING						
REF. DWG.	DESCRIPTION	QTY.	UNIT	MARK			
ET-20	PERMANENT CASING	14	FOOT	-			
	REINFORCEMENT BARS						
REF. DWG.	DESCRIPTION	QTY.	UNIT	MARK			
ET-20	PORTAL FOUNDATIONS - 42" DRILLED CAISSONS	875	POUND	-			
	CONDUIT ATTACHED TO STRUC	TURE					
REF. DWG.	DESCRIPTION	QTY.	UNIT	MARK			
ET-18	6" DIA., PVC COATED GALVANIZED STEEL	120	FOOT	-			

WORK STATEMENT (FINAL)
1. INSTALL FOUNDATIONS AND STEEL POLE AS SHOWN.
2. INSTALL TERMINATION CONNECTIONS AND ASSEMBLIES AS SHOWN.

### NOTES:

1. FOR GENERAL NOTES, SEE DRAWING ET-1.

- 2. FOR WIRING PLANS AND PROFILES SEE DRAWINGS ET-3 THRU ET-10.
- 3. FOR STRUCTURAL DETAILS SEE DRAWINGS ET-20 THRU ET-24.
- 4. ALL COORDINATES CORRESPOND TO THE CENTER OF EACH FOUNDATION.
- 5. CONTRACTOR TO RECONFIGURE AC POWER CABLES AND TERMINATE TO P-3 STRUCTURE.
- 6. UPON INSTALLATION OF CATENARY STRUCTURE P-3, THE CONTRACTOR SHALL INSTALL TEMPORARY BARRIER WALL ALONG MCCORMICK PLACE BUSWAY FOR PROTECTION MAINTAINING A 15'-3" F-F CLEAR ROADWAY WIDTH.
- 7. CONTRACTOR TO VERIFY TOP OF FOUNDATION AND BOTTOM OF BRIDGE STEEL PRIOR TO P-3 FABRICATION TO ENSURE PROPER FIT UP.

ERECTION DIAGRAM		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	2010-080-B	СООК	886	785M
NGE (DUIDDUND STRUCTURES)			CONTRACT	NO. 6	0L70
T-26 SHEETS		ILLINOIS FED. AI	D PROJECT		



HANGER ARRANGEMENT NGE (OUTBOUND STRUCTURES)		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		2010-080-B	COOK	886	785N
			CONTRACT	NO. 6	0L70
T-26 SHEETS	ILLINOIS FED. AID PROJECT				



## NOTES:

- 1. FOR GENERAL NOTES, SEE DRAWING ET-1.
- 2. FOR WIRING PLANS AND PROFILES SEE DRAWINGS ET-3 THRU ET-10.
- 3. FOR ERECTION DIAGRAMS, SEE DRAWINGS ET-11 THRU ET-13.
- 4. METRA TO PERFORM WORK SHOWN ON THIS SHEET REGARDING THE REPROFILING OF CATENARY WIRES.

R DETAILS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NGE (OUTBOUND STRUCTURES)		2010-080-B	СООК	886	7850
			CONTRACT	NO. 6	0L70
T-26 SHEETS		ILLINOIS FED. A	ID PROJECT		



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	USER NAME = edwardsjo	DESIGNED - MM	REVISED -		CATENARY SUPPORT ASSEMBLIES – SHEET 1 OF 2	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
M		CHECKED - RG	REVISED -	STATE OF ILLINUIS	1-55 & LAKE SHORE DRIVE INTERCHANGE (OUTROUND STRUCTURES)	55	2010-080-B	СООК	886	785P
VI	PLOT SCALE =	DRAWN - JE	REVISED -	DEPARTMENT OF TRANSPORTATION	1-55 & LAKE SHORE DRIVE INTERONANCE (COTDOOND STRUCTORES)			CONTRACT	T NO. 6	JL70
	PLOT DATE = 12/19/14	CHECKED - RG	REVISED -		SHEET NO. ET-16 OF ET-26 SHEETS		ILLINOIS FED. AI	D PROJECT		-

- CATENARY STRUCTURE

-SEE ERECTION DIAGRAM

## NOTES:

- 1. FOR GENERAL NOTES, SEE DRAWING ET-1.
- 2. FOR WIRING PLANS AND PROFILES SEE DRAWINGS ET-3 THRU ET-10.
- 3. FOR ERECTION DIAGRAMS, SEE DRAWINGS ET-11 THRU ET-13.
- 4. METRA TO PERFORM WORK SHOWN ON THIS SHEET REGARDING THE REPROFILING OF CATENARY WIRES, UNLESS NOTED OTHERWISE.





# CONNECTOR PLATE A

	NOSE BRAC
STRUCTURE	TRACK
P-1	METRA 1,2,3,4
P-2	METRA 1234

AECOM

_	USER NAME = edwardsjo	DESIGNED - MM	REVISED -		CATENARY SUPPORT ASSEMBLIES - SHEET 2 OF 2	F.A.I. RTE.	SECTION	COUNTY	TOTAL '	SHEET
		CHECKED - RG	REVISED -	STATE OF ILLINOIS		55	2010-080-B	СООК	886	7850
7	PLOT SCALE =	DRAWN - JE	REVISED -	DEPARTMENT OF TRANSPORTATION	I-JJ & LARE SHORE DRIVE INTERCHANGE (COTDOOND STRUCTURES)			CONTRACT	Γ NO. 6	60L70
	PLOT DATE = 12/19/14	CHECKED - RG	REVISED -		SHEET NO. ET-17 OF ET-26 SHEETS		ILLINOIS FED.	AID PROJECT		

## <u>NOTES:</u>

1. FOR GENERAL NOTES, SEE DRAWING ET-1.

2. FOR WIRING PLANS AND PROFILES SEE DRAWINGS ET-3 THRU ET-10.

3. FOR ERECTION DIAGRAMS, SEE DRAWINGS ET-11 THRU ET-13.





## POWER CABLE MESSENGER DEAD END ASSEMBLY - NA75

NOT TO SCALE

	LIST OF EQUIPMENT								
ITEM	MARK	ARK DESCRIPTION							
A	S-20	SHACKLE, CHAIN, GALV. $W/_8^{"}$ DIA BOLT, NUT $\&_{16}^{"}$ BRONZE COTTER PIN	-						
В	TB18A	TURNBUCKLE W/1" CLEVIS AND 1" EYE, 1" X 12", CROSBY CAT. NO. HG-227	-						
С	-	AUTOMATIC DEAD END FOR <sup>3</sup> 8" DIA STEEL MESSENGER, FARGO CAT. NO. GDE-702	-						
D	-	LASHING WIRE	-						
E	-	LASHING WIRE CLAMP FOR <sup>3</sup> 8" DIA STEEL MESSENGER	-						



	USER NAME = edwardsjo	DESIGNED -	MM	REVISED -		AERIAL FEEDER CONDUIT DETAILS	F.A.I. SECTION	COUNTY TOTAL SHEET SHEETS NO.
AECOM		CHECKED -	RG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	1-55 & LAKE SHORE DRIVE INTERCHANGE (OUTROUND STRUCTURES)	55 2010-080-B	СООК 886 7855
	PLOT SCALE =	DRAWN -	JE	REVISED -		SHEET NO ET-19 OF ET-26 SHEETS		CONTRACT NO. 60L70
	1201 8/12 - 12/13/14	CHECKED	110	NE FISED			ILLINOI3 PE	D. ALD FROJECT



CONDUIT RISER ASSEMBLY- CRI

NOT TO SCALE

POWER CABLE MESSENGER DEAD END ASSEMBLY - NA76 NOT TO SCALE



VDATION SCHEDULE					
OFFSET FROM TRACK #1	OFFSET FROM TRACK #4	TOP OF RAIL AT TRACK #1			
9'-3"	9′-3″	592.62			
9'-3"	9′-3″	592.38			
28'-6"	NZA	N/A			

- 3. CAISSONS AND REBAR CAGES SHALL BE MARKED WITH
- THREAD PROTECTORS AND ON SEPERATE SKIDS FOR EACH
- ATTACHED HARDWARE SHALL BE COMPLETELY GALVANIZED.
- REINFORCING AND 2 ADDITIONAL #4 TIES, EVENLY SPACED, IN THE MIDDLE OF THE REBAR CAGE, TO ENSURE THE REBAR CAGE REMAINS CIRCULAR. THE REMAINDER OF THE ASSEMBLY SHALL BE TIE WIRED AT A MINIMUM OF TWO WRAPS PER CONNECTION BY MECHANIZED TIE WIRE DEVICE.

FION DETAILS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NGE (OUTROUND STRUCTURES)	55	2010-080-B	СООК	886	785T
NGE (COTBOOND STRUCTURES)			CONTRACT	NO. 6	0L70
T-26 SHEETS		ILLINOIS FED. AI	D PROJECT		



GUY DETAILS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NGE (OUTBOUND STRUCTURES)	55	2010-080-B	COOK	886	785U
			CONTRACT	NO. 6	0L70
T-26 SHEETS	ILLINOIS FED. AID PROJECT				



PLOT DATE = 12/19/14

CHECKED - RG

REVISED

SHEET NO. ET-22 OF E

## NOTES:

1. PROVIDE DOMED GALVANIZED STEEL CAP OR SIMILAR. CAP IS FASTENED TO POLE USING STAINLESS STEEL SET SCREWS (3 MIN).

ILS – P–1, P–2, P–3	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NGE (OUTBOUND STRUCTURES)	55	2010-080-B	СООК	886	785V
			CONTRACT	NO. 6	0L70
T-26 SHEETS	ILLINOIS FED. AID PROJECT				




SAG BRACE - SB-1 SCALE: NONE



ACE DETAILS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	2010-080-B	COOK	886	785X
			CONTRACT	NO. 6	0L70
T-26 SHEETS		ILLINOIS FED. A	ID PROJECT		



LAYOUT PLAN	RTE.	SECTION		COUNTY	SHEETS	NO.
NGE (OUTBOUND STRUCTURES)		2010-080-B		COOK	886	785Y
				CONTRACT	NO. 6	0L70
T-26 SHEETS		ILLINOIS F	FED. AI	D PROJECT		



AECOM
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_	USER NAME = edwardsjo	DESIGNED - MM	REVISED -		MANHOLE & DUCTBANK DETAILS	F.A.I. RTF.	SECTION	COUNTY	TOTAL	SHEET NO.
		CHECKED - RG	REVISED -	STATE OF ILLINOIS		55	2010-080-B	СООК	886	785Z
	PLOT SCALE =	DRAWN - JE	REVISED -	DEPARTMENT OF TRANSPORTATION	I-33 & LAKE SHURE DRIVE INTERCHANGE (DUTBOUND STRUCTURES)	i		CONTRAC	T NO. 6	0L70
	PLOT DATE = 12/19/14	/14 CHECKED - RG REVISED -			SHEET NO. ET-26 OF ET-26 SHEETS	ILLINOIS FED. AID PROJECT				

	CONDUIT ENCASED, REINFORCED CONCRETE, 6" DIA., PVC 4 WIDE X 2 HIGH									
. DWG.	DESCRIPTION	QTY.	UNIT	MARK						
T-26	4X2 DUCT BANK	210	FOOT	-						
	MANHOLE, METRA SPECIAL									
. DWG.	DESCRIPTION	QTY.	UNIT	MARK						
T-26	MANHOLE, METRAL SPECIAL	2	EA.	-						

## LEGEND:

- P LIGHT AND POWER CABLES
- S SIGNAL CABLES
- F. FIBER OPTIC CABLES
- X SPARE CONDUITS

- 1. TOP OF MANHOLE BOX SHALL BE INSTALLED 40" MINIMUM BELOW TOP OF RAIL UNLESS OTHERWISE
- 2. PROVIDE EXTENSIONS TO BRING COVER TO 1" ABOVE FINISHED GRADE IN BALLASTED AREAS. FLUSH WITH FINISHED GRADE IN STREETS, WALKWAYS AND BICYCLE PATHS.
- 3. MANHOLE COVERS SHALL BE IMPRINTED FOR METRA REQUIREMENTS.
- 4. LONGITUDINAL SEPARATION OF PLASTIC CONDUIT SPACERS NOT TO EXCEED 10 FEET.
- 5. CONDUIT SPACING AS SHOWN UNLESS DUCTBANK PLANS INDICATE OTHERWISE.
- 6. POWER CABLES TO BE INSTALLED AND ARRANGED BY THE CONTRACTOR IN THE DUCTBANK PER METRA'S DESIGN.



### NOTES

### MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

### CONSTRUCTION METHODS

- THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- II. CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS: A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE
  - DETAIL "A" AND "B". B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE
  - DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING. THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

### GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST

BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

### BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

FILE NAME =	USER NAME = gaglianobt	DESIGNED - M. DE YONG	REVISED - M. DE YONG 05-08-92		STATE OF ILLINOIS DETAIL OF STORM SEWER		F.A.	• SECTION	COUNTY TOTAL SHEET
W:\diststd\22x34\bd07.dgn		DRAWN -	REVISED - R. SHAH 09-09-94	STATE OF ILLINOIS					886 786
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - R. SHAH 10-25-94	DEPARTMENT OF TRANSPORTATION	CUNNECTION TO EXISTING SEWER			BD500-01 (BD-7)	CONTRACT NO. 60L70
	PLOT DATE = 1/4/2008	DATE - 07-25-90	REVISED - R. SHAH 06-12-96		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED.	ROAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT



## DETAIL "C" PROPOSED LATERAL CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



### NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

## DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

FILE NAME =	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - R. WIEDEMAN 05-14-04				F.A RTE	SECTION	COUNTY TOTAL	L SHEET
c:\pw_work\pwidot\bauerdl\d0108315\bd08.	dgn	DRAWN -	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS				886	787	
	PLOT SCALE = 1968.5000 '/ m	CHECKED -	REVISED - R. BORO 03-09-11	DEPARTMENT OF TRANSPORTATION	FRAMES AND LIDS ADJUSIMENT WITH MILLING			BD600-03 (BD-8)	CONTRACT NO. 6	60L70
	PLOT DATE = 12/6/2011	DATE - 10-25-94	REVISED - R. BORO 12-06-11		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. F	OAD DIST. NO. 1 ILLINOIS FED. AI	) PROJECT	

### CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE. B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE. D) BACKFILL WITH CRUSHED STONE AND A MINIMUM  $1^{\prime}_{2}$  (40)
- THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.
- STAGE 2 (AFTER PAVEMENT MILLING)
  - A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
  - B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
  - C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1\* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.
  - \* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

LEGEND

1	SUB-BASE GRANULAR MATERIAL	6 FRAME AND LID (SEE NOTES)
2	EXISTING PAVEMENT	CLASS PP-1* CONCRETE
3	36 (900) DIAMETER METAL PLATE	(8) PROPOSED HMA SURFACE COURSE
4	PROPOSED CRUSHED STONE AND HMA SURFACE MIX	C THE OLD THE SUM ACE COUNSE
(5)	EXISTING STRUCTURE	9 proposed hma binder course

# LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

### BASIS OF PAYMENT:

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

	ALL	DIMENSIONS	ARE	IN	INCHES	(MILLIMETERS)	UNLESS	OTHERWISE	SHOWN
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SECTION A-A

SECTION C-C

STATION	MANHOLE DIAMETER	FRAME AND GRATE	RESTRICTOR TYPE	INSIDE RESTRICTOR TYPE DIAMETER in. (mm) (d)	INVERT OF RESTRICTOR TYPE	ELEVATION OF TOP OF PLATE OVERFLOW





PLATE TO THE BUTTOM OF THE RESTRICTOR PLATE TO THE TOP. 3. HORIZONTIAL ANGLES SHOULD EXTEND FROM VERTICAL ANGLE TO VERTICAL ANGLE.

STEEL ANGLE BOLTING DETAILS



NOTES:

FILE NAME = DESIGNED - R. SHAH REVISED - R. SHAH 10-25-94 USER NAME = gaglianobt MANHOLE W STATE OF ILLINOIS W:\diststd\22x34\bdl2.dqr DRAWN REVISED - E. GOMEZ 08-28-00 RESTRICTOR PLOT SCALE = 50.000 '/ IN. CHECKED REVISED M. GOMEZ 01-08-01 **DEPARTMENT OF TRANSPORTATION** SCALE: NONE SHEET NO. 1 OF 1 SHEETS PLOT DATE = 1/4/2008 DATE 09-09-94 REVISED







3. BASIS OF PAYMENT: "MANHOLES .TYPE A. 6 FT. (1.8 m)-DIAMETER, TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE" EACH



INLET TUBE DETAIL

		RESTRICTOR	TYPE							
	2	3	4	5	6					
IT	SHARP EDGED	SOUARE EDGED	RE-ENTRANT TUBE	SQUARE EDGED	ROUNDED					
1 DIA.		STREAM CLEARS SIDES	LENGTH: 2-1/2 DIA.	LENGTH: 2-1/2 DIA.						
	C=.61	C=.61	C=.73	C=.82	C=.98					
	VALUES OF "C" FOR CIRCULAR AND SOUARE ORIFICES									

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

/ITH		F.A RTE.	SECT	ION	COUNTY	TOTAL SHEETS	SHEET NO.	
						886	788	
			B	D600-04	(BD-12)	CONTRACT	NO. 60	L70
	STA.	TO STA.	FED. R	DAD DIST. NO. 1	ILLINOIS FED. AI	D PROJECT		



C	AGO			F.A RTE.	SECT	LION		COUNTY	TOTAL SHEETS	SHEET NO.
							886	789		
<i>, '</i>	ALLEY RETURN AND SIDEWALK			B	D400-03	(BD-17	7)	CONTRACT	NO. 60	)L70
	STA.	TO	STA.	FED. RO	DAD DIST. NO. 1	ILL INOIS	FED. AI	D PROJECT		



FILE NAME =	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98				F	SECTION	COUNTY TOTAL SHEET
c:\projects\diststd22x34\bd22.dgn		DRAWN -	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS		FAVEMENT FATURING FUR			886 790
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION	HMA SURFACED PAVEMENT			BD400-04 (BD-22)	CONTRACT NO. 60L70
	PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	F	FED. ROAD DIST. NO. 1 ILLINOIS FED.	AID PROJECT

OVERLAY, TYPICAL (INCLUDED IN THE COST OF HMA REMOVAL OVER PATCHES FOR PATCHING FIRST CONSTRUCTION OR IN THE COST OF PAVEMENT PATCHING FOR MILL FIRST CONSTRUCTION).

PROPOSED UNSUITABLE SUBGRADE REMOVAL AND REPLACEMENT

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST  $4\frac{1}{2}$  INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN

2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

> ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN



SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE, SOD OR GROUND.

SURFACE OR SODDING SALT TOLERANT WITH TOP SOIL, 4" (100)

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

W	ND GUTTER PLACEMENT		F.A. RTE.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.		
								886	791
				BD600-06 (B	3D-24)		CONTRACT	NO. 60	L70
	STA.	TO STA.	FED. R	DAD DIST. NO. 1	ILLINOIS	FED. AI	D PROJECT		



FILE NAME =	USER NAME = gaglianobt	DESIGNED - FORD	REVISED - FORD 12-06-88			CONCRETE DADRIED TRANSITION 9.	F.A RTE	SECTION	COUNTY S	TOTAL	SHEE'
W:\diststd\22x34\bd27.dgn		DRAWN -	REVISED -	STATE OF ILLINOIS	GENERAL DETAILS, CONCRETE BARRIER BASE				1	886	792
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				BD-27	CONTRACT	NO. 60	L70
	PLOT DATE = 1/4/2008	DATE - 09-09-88	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIS	ST. NO. 1 ILLINOIS FED.	AID PROJECT		





A	AND			SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ETAILS						886	794
				BD40005 BD32	CONTRACT	NO. 60	L70
	STA.	TO STA.	FED. RC	DAD DIST. NO. 1 ILLINOIS FED. AI	D PROJECT		

### NOTES :

- 1. THE ROUNDOUT AND ADDED REINFORCEMENT WILL NOT BE PAID SEPARATELY. BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE PAVEMENT.
- TO EDGE OF PAVEMENT.
- 4. ALL REINFORCED BARS SHALL BE EPOXY COATED.
- FRAMES FILLED WITH NON SHRINK GROUT.
- 7. HOOP REINFORCEMENT SHALL BE ONE PIECE CONSTRUCTION.
- 8. CIRCULAR FRAMES AND GRATES MAY BE SUBSTITUTED.
- 9. CURB DOWELS MUST BE PLACED LEVEL & TRUE TO ALLOW CONTRACTION MOVEMENT.

FRAME EXTENSION INTO PAVEMENT	INNER HOOP REINFORCEMENT DIAMETER	SEMI CIRCULAR FORM DIAMETER	OUTER HOOP REINFORCEMENT DIAMETER
UP TO 8" (200)	3'-6" (1.1 m)	4'-0'' (1 <b>.</b> 2 m)	5'-0'' (1.5 m)
> 8" (200) T0 14" (360)	4'-0'' (1.2 m)	4'-6'' (1.4 m)	5'-0" (1.5 m)

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THIS DETAIL IS TO BE USED WHEN THE GUTTER FLAG IS

DESIGNER NOTE:

LESS THAN 24"



FILE NAME = W:\diststd\22x34\bd48.dgn	USER NAME = gaglianobt	DESIGNED - A. ABBAS DRAWN - TOM MATOUSEK	REVISED - T. MATOUSEK 08-28-00 REVISED - T. MATOUSEK 10-02-00	STATE OF ILLINOIS		PCC PAVEMENT ROU	NDOUT
	PLOT SCALE = 50.0000 '/ IN.	CHECKED - A. ABBAS	REVISED - T. MATOUSEK 04-25-02	DEPARTMENT OF TRANSPORTATION		CURB AND GU	JTTER
	PLOT DATE = 1/4/2008	DATE - 01-04-99	REVISED - P. LAFLEUR 08-27-02		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.

2. TRANSVERSE JOINTS MAY BE MOVED TO ACCOMMODATE ROUNDOUT, EDGE OF CIRCULAR JOINT SHALL BE MINIMUM 12" (300) FROM TRANSVERSE JOINT. RELOCATED TRANSVERSE JOINT SHALL BE CONTINUOUS FROM EDGE OF PAVEMENT

3. SEMI-CIRCULAR FORM SHALL BE REMOVED PRIOR TO DRILL AND GROUT OF TIE BARS.

5. DRILL AND GROUT IS PREFERRED, HOWEVER TIE BARS CAN BE POURED IN PLACE IF CLEARANCE IS PROVIDED TO OUTER EDGE OF FRAME. MINIMUM 2" (50) CLEARANCE.

BD-48

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

TO STA.

CONTRACT NO. 60L70

6. WOOD SHIMS SHALL BE USED TO ADJUST ALL FRAMES. AFTER ADJUSTING MORTAR HAS CURED, THE WOOD SHIMS SHALL BE REMOVED AND THE VOIDS UNDER THE



1	CUT 16' (4	4.9 m) AND	F.A RTE.	SEC	TION	COUNTY	TOTAL SHEETS	SHEET NO.
^	EMENT FOR RAMPS						886	796
EMENT FUR RAMPS				BD49		CONTRACT	NO. 60	)L70
	STA.	TO STA.	FED. R	OAD DIST. NO. 1	ILLINOIS FED. AI	D PROJECT		



FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED -					F.A. · SECTION	COUNTY TOTAL SHEET
W:\diststd\22x34\bd51.dgn		DRAWN - CADD	REVISED -	STATE OF ILLINOIS					886 797
	PLOT SCALE = 50.0000 '/ IN.	CHECKED - S.E.B.	REVISED -	DEPARTMENT OF TRANSPORTATION	FOR EMBANKMENT WIDENING			BD51	CONTRACT NO. 60L70
	PLOT DATE = 1/4/2008	DATE - 06-16-04	REVISED -		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.		TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED - R. TOMSONS 08-19-04				
w_work\pwidot\drivakosgn\d0108315\be	205.dgn	DRAWN -	REVISED - R. TOMSONS 05-11-09	STATE OF ILLINOIS	LIGHTING CONT	ROLLER, BASE MOUNTED,	480
	PLOT SCALE = 50.000 '/ in.	CHECKED -	REVISED - R. TOMSONS 03-10-10	DEPARTMENT OF TRANSPORTATION			
	PLOT DATE = 3/29/2012	DATE -	REVISED - R. TOMSONS 03-29-12		SCALE: NONE	SHEET NO. 1 OF 4 SHEF	.ETS

		BILL OF MATERIALS
ITEM	QTY	DESCRI PITION
А	2	MAIN CIRCUIT BREAKERS 2 POLE 200 AMP WITH AUX CONTACT
В	1	ACKNOWLEDGE SWITCH, PUSH BUTTON WITH YELLOW INSERT
C1,C2*	2	CONTACTOR 2 POLE 200 AMP 240V COIL WITH AUX CONTACTS
D	1	FINGERSAFE FUSE HOLDER WITH KTK-20 FUSE
D1	2	FINGERSAFE FUSE HOLDER WITH KTK- $1/_2$ FUSE
D2	1	FINGERSAFE FUSE HOLDER WITH KTK-2A FUSE
E	1	2.0 KVA 277V-240/120 TRANSFORMER
E1	1	0.25 KVA 240/120 - 24 VAC TRANSFORMER
F	1	VOLTAGE TRANSDUCER WITH COVERED TERMINALS
G	1	20 AMP GFCI DUPLEX OUTLET W/COVER
н	2	DOOR SWITCH
Ι	1	LIGHT FIXTURE
J	1	METER FITTING 1 PHASE 3 WIRE 200 AMP
к	1	SURGE ARRESTER
L	2	PANEL BOARD 480/240V 1 PHASE, 250 AMP COPPER BUS
М	1	2 CHANNEL DIGITAL TIME CLOCK
N	1	MOMENTARY SWITCH ON - OFF
0	1	SQUARE D, 9001KS11BH13, 2 POSITION SWITCH IN 9001KY1 ENCLOSURE OR APPROVED EQUAL
Ρ	2	BREAKER 1P 15A
۵	2	COPPER GROUND AND NEUTRAL BUS $1 \times 16 \times 1/4$
01	1	COPPER NEUTRAL BUS WITH 1 #6 AND 8 #12 CONDUCTOR POINTS
R	1	CURRENT TRANSDUCER
S	1	MOTOROLA MOSCAD-L RADIO, 240 V
Т ж	1	CONTROL RELAY ASSEMBLEY 240V COILS WITH 4 3 PDT 25A RELAYS (W389ACX-15) (R1,R2,R3,R4). QTY 32 TERMINAL BLOCKS
v	20	TERMINAL BLOCKS
X *	1	620 AMP SLPICE BLOCK
Y	1	40-80 DEG THERMOSTAT
Z	1	375 WATT HEATER

\* TERMINALS SHALL BE COVERED WITH CLEAR PLEXIGLASS SHEET

, 480VOLT, 200AMP (DUAL) RADIO SCADA			F.A. RTE.	A TE. SECTION					COUNTY	TOTAL SHEETS	SHEET NO.		
		SCADA									886	798	
						B	3E-20	5			CONTRACT	NO. 60	L70
EETS	STA.	TO STA.		FED.	ROAD	DIST.	NO. 1	ILLINOIS	FED.	AID	PROJECT		



			F.A RTE.	SECTION				COUNTY		TOTAL SHEETS	SHEET NO.	
VULI, 200AMP (DUAL) RADIO SCADA										886	799	
				BE-205					CONTRACT NO. 60L70			
	STA.	TO STA.	FED. R	OAD DIST. N	10.1	ILLINOIS	FED.	4ID	PROJECT			

