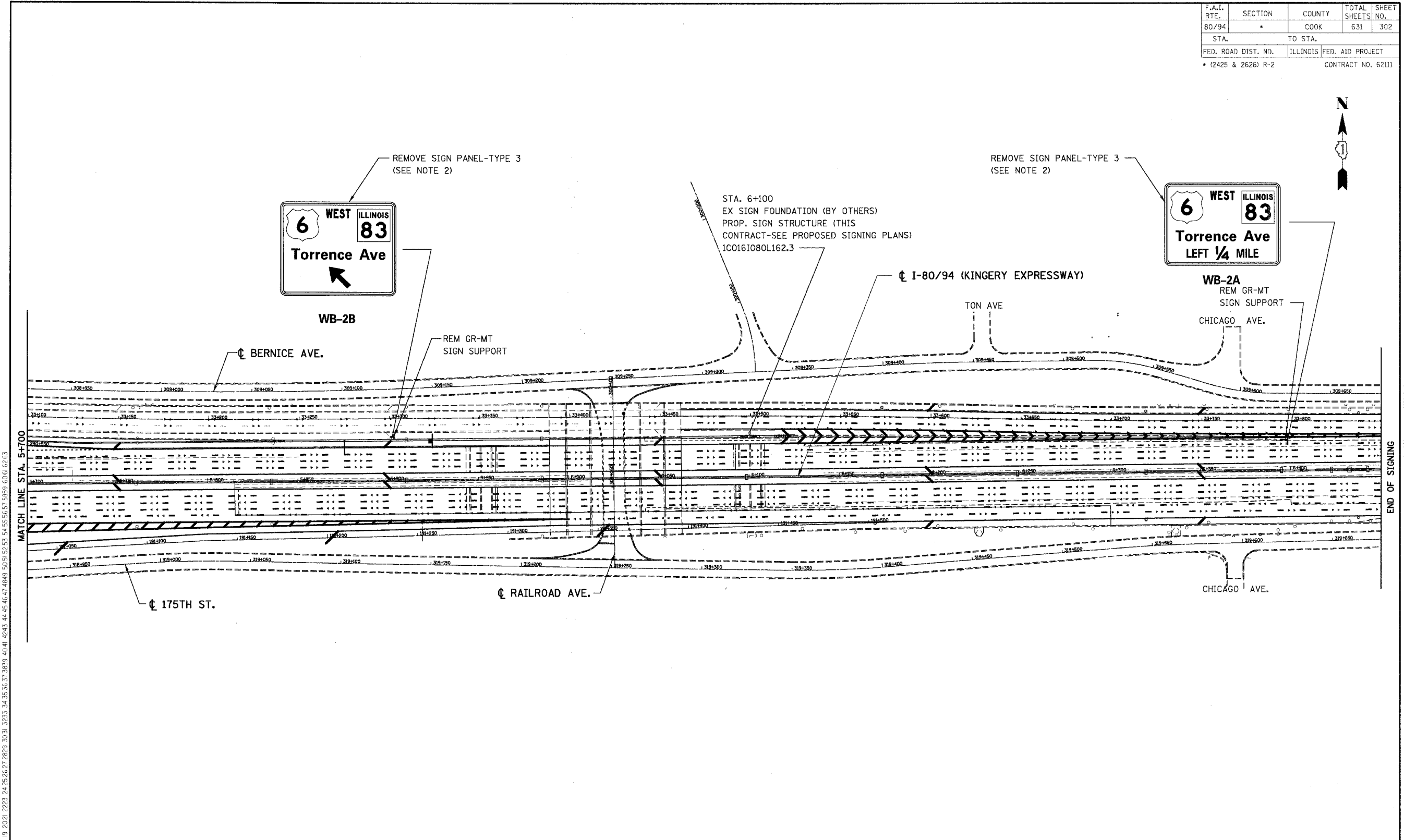


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	302
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2		CONTRACT NO. 62111		



\\PRIT002A.DGN, \\SRT0002A.DGN, \\MR7002A.DGN, \\AB99002A.DGN, \\PRIT002A.DGN, \\NPMIA002A.DGN
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 T:\DOCUMENT\931750\CIVIL\VDG\N\SS1702A.DGN

- NOTES:
- SEE DETAILS SHEETS 303 AND SHEET 304 FOR DETAILS OF EXISTING TEMPORARY INFORMATION SIGNING.
 - SIGN PANELS TO BE REMOVED SHALL BE MAINTAINED IN PLACE UNTIL TRAFFIC STAGING PERMITS THEIR REMOVAL AS DIRECTED BY THE ENGINEER.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

EXISTING SIGNING
FAI 80/94
STA. 5+700 TO STA. 6+450

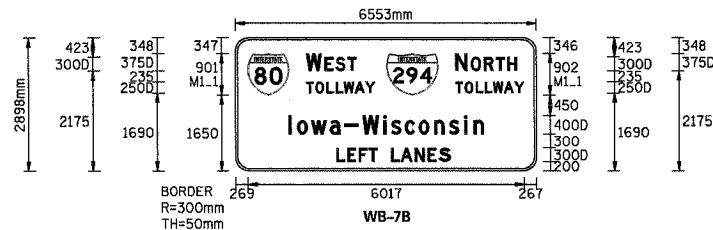
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 DATE: 8/22/05

DRAWN BY: FS
 CHECKED BY: RJM

TENG ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	303
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS		FED. AID PROJECT	
* (2425 & 2626) R-2			CONTRACT NO. 62111	

SIGN DETAIL



SIGN NUMBER	name
WIDTH x HGHT.	6553mm x 2898mm
BORDER WIDTH	50mm
CORNER RADIUS	300mm
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective COLOR: Green
LEGENDBORDER	TYPE: Reflective COLOR: Pure White

SYMBOL	X	Y	WID	HT
MI 1	269	1650	900	901
MI 1	3289	1650	1125	902

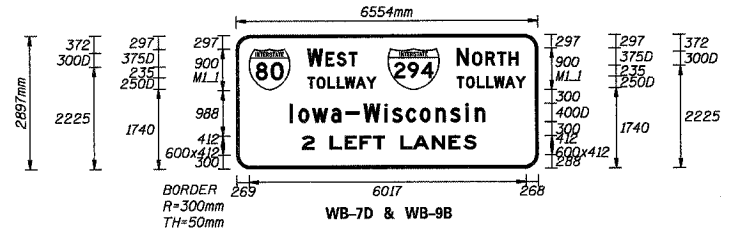
Dimensions are in mm

Letter locations are string start to lower left corner

LETTER POSITIONS (X)

	W	E	S	T								LENGTH	SERIESIZE				
1544	0	0	243	505								1089	D375,D300				
		N	O	R	T	H							D375,D300				
4790	0	0	286	549	792							1335					
		T	O	L	L	W	A	Y					D250				
1544	0	202	441	644	815	1054	1282					1496					
		T	O	L	L	W	A	Y					D250				
4790	0	202	441	644	815	1054	1282					1496					
		I	o	w	a	-	W	i	s	c	o	n	s	i	n		D400,300
1153	0	191	492	903	1216	1611	2062	2234	2531	2834	3173	3495	3821	4031		4249	
		L	E	F	T												D300
2190	0	243	486	710	896	1196	1401	1713	1990							2176	

SIGN DETAIL



SIGN NUMBER	name
WIDTH x HGHT.	6554mm x 2898mm
BORDER WIDTH	50mm
CORNER RADIUS	300mm
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective COLOR: Green
LEGENDBORDER	TYPE: Reflective COLOR: Pure White

SYMBOL	X	Y	WID	HT
MI 1	270	1700	900	901
MI 1	3290	1700	1125	901
ARDOWN	1168	300	600	412
ARDOWN	4805	288	600	412

Dimensions are in mm

Letter locations are string start to lower left corner

LETTER POSITIONS (X)

	W	E	S	T								LENGTH	SERIESIZE				
1544	0	0	243	505								1089	D375,D300				
		N	O	R	T	H							D375,D300				
4790	0	0	285	548	791							1335					
		T	O	L	L	W	A	Y					D250				
1544	0	203	441	644	815	1054	1282					1496					
		T	O	L	L	W	A	Y					D250				
4790	0	203	441	644	815	1054	1282					1496					
		I	o	w	a	-	W	i	s	c	o	n	s	i	n		D400,300
1153	0	192	492	904	1216	1611	2063	2234	2532	2835	3173	3495	3822	4031		4250	

NOT IN CONTRACT
FOR INFORMATION ONLY

HANSARD
9-13-2005 18:28:28
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
COOK COUNTY

**EXISTING SIGNING
FAI 80/94 TEMPORARY INFORMATION
SIGNING DETAILS I**

SCALE: NTS
DATE: 9/13/05

DRAWN BY: JFS
CHECKED BY: RJM

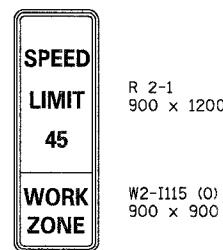
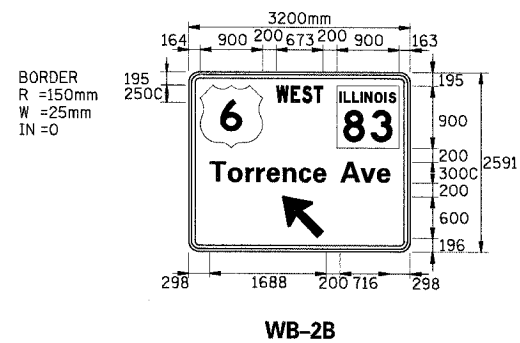
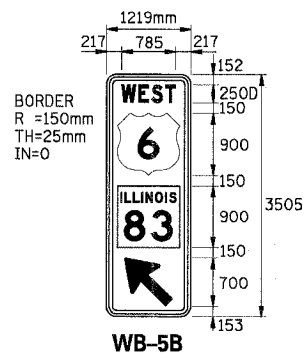
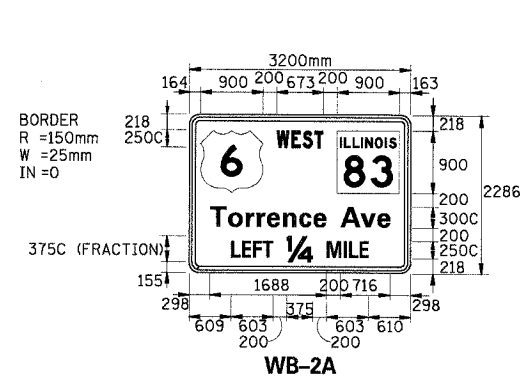
TENG

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

REVISIONS	
NAME	DATE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	304
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

• (2425 & 2625) R-2 CONTRACT NO. 62111



WORK ZONE SPEED LIMIT SIGNS

- STA. 4+700 - 4 SIGNS (2 SIGNS FOR EACH DIRECTION - TYPICAL)
 - STA. 5+550 - 4 SIGNS
 - STA. 6+400 - 4 SIGNS
- 12 SIGNS TOTAL - ALL STAGES

NOT IN CONTRACT FOR INFORMATION ONLY

- NOTES:**
- LOCATIONS OF EXISTING TEMPORARY INFORMATION SIGNS SHOWN ON THIS SHEET MAY BE VARIED SLIGHTLY AS DIRECTED BY THE ENGINEER TO FACILITATE OPERATIONS IN THE FIELD.
 - ALL SIGNS ON THIS SHEET SHALL BE MOUNTED IN ACCORDANCE WITH THE SPECIFICATIONS. HOWEVER, SKID MOUNTS MAY BE SUBSTITUTED FOR GROUND MOUNTS WHERE APPROVED BY THE ENGINEER.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

**EXISTING SIGNING
 FAI 80/94 TEMPORARY INFORMATION
 SIGNING DETAILS II**

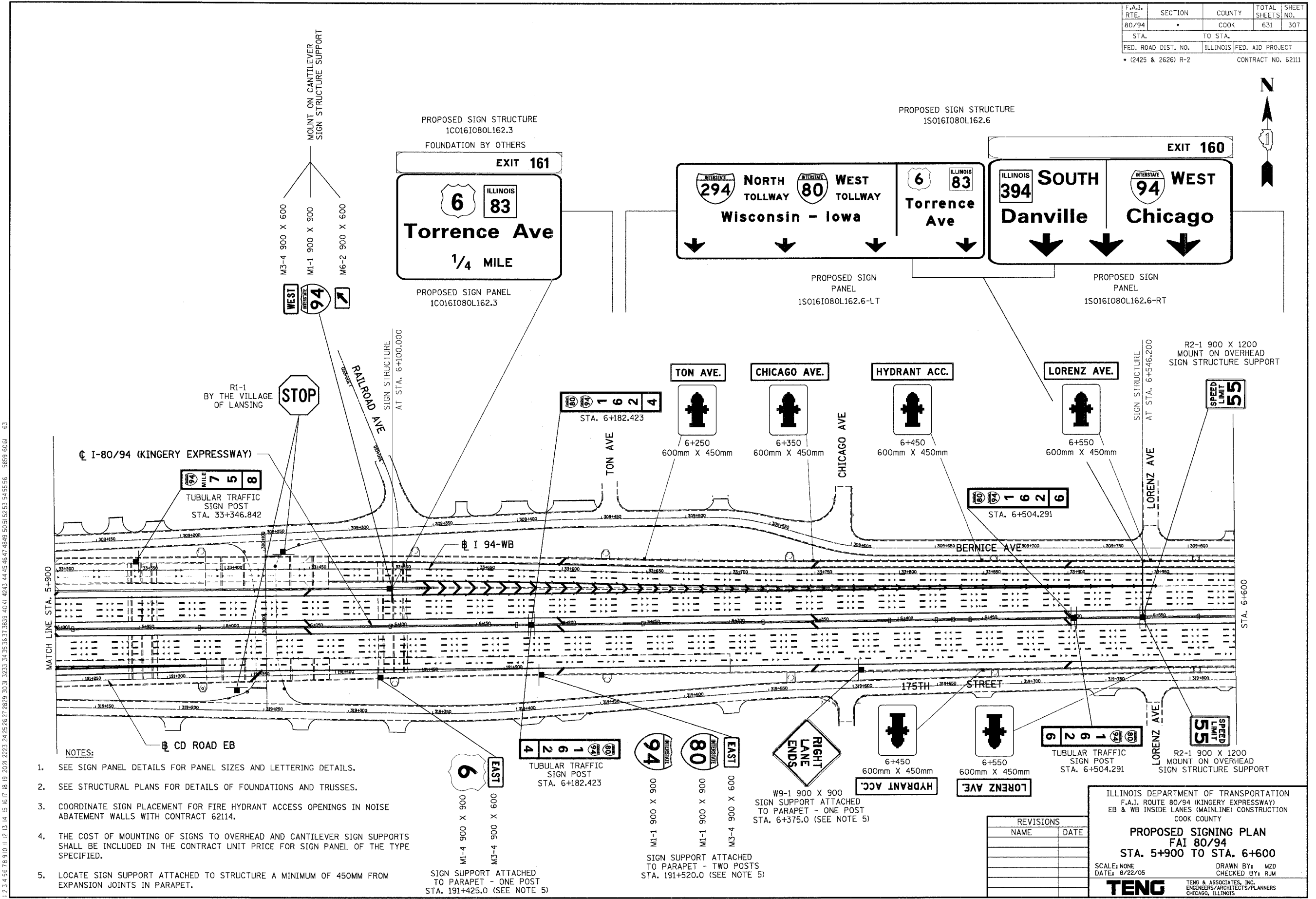
SCALE: NTS
 DATE: 8/22/05

DRAWN BY: JFS
 CHECKED BY: RJM

TENG TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

I:\DOCUMENTS\150\ACVIL\DON\SHOTO72A.DGN
 8-18-2005, 10:18:32
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	.	COOK	631	307
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
			CONTRACT NO. 62111	



SECONDARY_SIGN.DGN, \NRT0022A.DGN, \P99002A.DGN, \SRT002A.DGN, \SST002A.DGN, \VAB9002A.DGN, \WRY002A.DGN
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- NOTES:
- SEE SIGN PANEL DETAILS FOR PANEL SIZES AND LETTERING DETAILS.
 - SEE STRUCTURAL PLANS FOR DETAILS OF FOUNDATIONS AND TRUSSES.
 - COORDINATE SIGN PLACEMENT FOR FIRE HYDRANT ACCESS OPENINGS IN NOISE ABATEMENT WALLS WITH CONTRACT 62114.
 - THE COST OF MOUNTING OF SIGNS TO OVERHEAD AND CANTILEVER SIGN SUPPORTS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR SIGN PANEL OF THE TYPE SPECIFIED.
 - LOCATE SIGN SUPPORT ATTACHED TO STRUCTURE A MINIMUM OF 450MM FROM EXPANSION JOINTS IN PARAPET.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY
PROPOSED SIGNING PLAN
 FAI 80/94
 STA. 5+900 TO STA. 6+600
 SCALE: NONE
 DATE: 8/22/05
 DRAWN BY: MZD
 CHECKED BY: RJM
TENG TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	309
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
• (2425 & 2626) R-2		CONTRACT NO. 62111		

SIGN DETAIL

SIGN NUMBER	1S016I094L075.0-CN			
WIDTH x HGHT.	4269mm x 3659mm			
BORDER WIDTH	50mm			
CORNER RADIUS	226mm			
MOUNTING	Overhead			
BACKGROUND	TYPE:	Reflective		
	COLOR:	Green		
LEGEND/BORDER	TYPE:	Reflective		
	COLOR:	Pure White		

SYMBOL	X	Y	WID	HT
MI_1	494	2458	900	900
MI_1	382	1144	1125	900
ARDBOWN	1759	301	750	516

Panel Style:
Dimensions are in mm

Letter locations are panel edge to lower left corner

STA. 4+667

LETTER POSITIONS (X)								LENGTH	SERIES/SIZE
W	E	S	T						EM375,EM300
1812	2228	2515	2821					1232	
T	O	L	L	W	A	Y			EM250
1812	2056	2326	2564	2768	3052	3324		1766	
N	O	R	T	H					EM375,EM300
1812	2140	2468	2774	3060				1491	
T	O	L	L	W	A	Y			EM250
1812	2054	2326	2564	2768	3052	3322		1784	

SIGN DETAIL

SIGN NUMBER	See Below			
WIDTH x HGHT.	4269mm x 3659mm			
BORDER WIDTH	50mm			
CORNER RADIUS	226mm			
MOUNTING	Overhead			
BACKGROUND	TYPE:	Reflective		
	COLOR:	Green		
LEGEND/BORDER	TYPE:	Reflective		
	COLOR:	Pure White		

SYMBOL	X	Y	WID	HT
SRMT_3	472	2457	1276	900
ARDBOWN	1761	300	750	516

Panel Style:
Dimensions are in mm

Letter locations are panel edge to lower left corner

4+667 1S016I094L075.0-LT
5+405 1S016I094L075.5-LT

LETTER POSITIONS (X)								LENGTH	SERIES/SIZE
S	O	U	T	H					EM375,EM300
2039	2355	2684	2990	3276				1480	
D	a	n	v	i	l	l	e		EM400300
870	1301	1713	2087	2502	2785	2967	3169	2559	

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

SIGN PANEL DETAILS
I

SCALE: N.T.S. DRAWN BY: MZD
 DATE: 8/22/05 CHECKED BY: RuM

TENG TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	310
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
• (2425 & 2626) R-2		CONTRACT NO. 62111		

SIGN DETAIL

SIGN NUMBER	1C0161080L162.1
WIDTH x HGHT.	6251mm x 2901mm
BORDER WIDTH	50mm
CORNER RADIUS	226mm
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective COLOR: Green
LEGENDBORDER	TYPE: Reflective COLOR: Pure White

SYMBOL	X	Y	WID	HT
M1_4	1462	1644	900	900
M1_4	1462	1644	900	900
SRMT_2	2662	1643	900	900
SRMT_2	2662	1643	900	900
ARSHRT	5292	800	500	563
ARSHRT	5292	800	500	563

Panel Style:
Dimensions are in mm

Letter locations are panel edge to lower left corner

5+658

LETTER POSITIONS (X)													LENGTH	SERIES/SIZE
E	X	I	T	1	6	1							2059	EM300,EM376
3896	4183	4508	4631	5229	5441	5842								
T	o	r	r	e	n	c	e		A	v	e		4215	EM400/300
506	881	1273	1566	1824	2211	2596	2949	3208	3608	4078	4461			

SIGN DETAIL

SIGN NUMBER	1C0161080L162.3
WIDTH x HGHT.	4878mm x 3058mm
BORDER WIDTH	50mm
CORNER RADIUS	226mm
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective COLOR: Green
LEGENDBORDER	TYPE: Reflective COLOR: Pure White

SYMBOL	X	Y	WID	HT
M1_4	1387	1765	901	900
SRMT_2	2588	1765	900	900

Panel Style:
Dimensions are in mm

Letter locations are panel edge to lower left corner

STA. 6+100

LETTER POSITIONS (X)													LENGTH	SERIES/SIZE
E	X	I	T	1	6	1							2060	EM300,EM376
2518	2804	3130	3252	3852	4062	4464								
T	o	r	r	e	n	c	e		A	v	e		4157	EM400/300
359	728	1114	1402	1667	2038	2417	2765	3020	3420	3884	4260			
14	M	I	L	E									1936	EM382,EM300
1558	2488	2846	2984	3271										

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

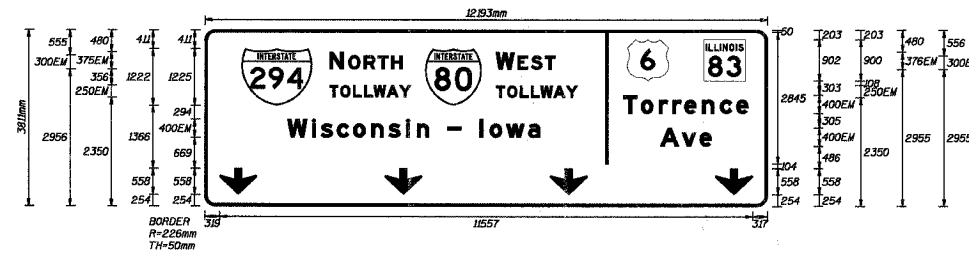
SIGN PANEL DETAILS II

SCALE: N.T.S. DATE: 8/22/05
 DRAWN BY: MZD
 CHECKED BY: RJM

TENG TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	311
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
• (2425 & 2626) R-2		CONTRACT NO. 62111		

SIGN DETAIL



6+546.200

Panel Style: i83.asm
Dimensions are in mm

Letter locations are panel edge to lower left corner

SIGN NUMBER	1S01610801162.6
WIDTH x HGHT.	12193mm x 3812mm
BORDER WIDTH	50mm
CORNER RADIUS	226mm
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: Pure White

SYMBOL	X	Y	WID	HT
M1_4	9154	2707	901	900
SRMT_2	10816	2707	900	900
M1_1	4778	2177	1220	1224
M1_1	797	2174	1525	1227
ARDDOWN	319	253	812	558
ARDDOWN	3900	253	813	558
ARDDOWN	7481	253	813	558
ARDDOWN	11063	253	813	558

LETTER POSITIONS (X)

LETTER	X	Y	WID	HT	SERIES/SIZE
N	3113	3443	3749	4036	EM375,EM300
O	3113	3443	3749	4036	EM375,EM300
R	3113	3443	3749	4036	EM375,EM300
T	3113	3443	3749	4036	EM375,EM300
H	3113	3443	3749	4036	EM375,EM300
W	6777	7064	7370		EM376,EM300
E	6777	7064	7370		EM376,EM300
S	6777	7064	7370		EM376,EM300
T	6777	7064	7370		EM376,EM300
T	2941	3216	3455	3658	EM250
O	2941	3216	3455	3658	EM250
L	2941	3216	3455	3658	EM250
L	2941	3216	3455	3658	EM250
W	2941	3216	3455	3658	EM250
A	2941	3216	3455	3658	EM250
Y	2941	3216	3455	3658	EM250
T	6587	6832	7071	7274	EM250
O	6587	6832	7071	7274	EM250
L	6587	6832	7071	7274	EM250
L	6587	6832	7071	7274	EM250
W	6587	6832	7071	7274	EM250
A	6587	6832	7071	7274	EM250
Y	6587	6832	7071	7274	EM250
T	9452	9844	10137	10395	EM400/300
o	9452	9844	10137	10395	EM400/300
r	9452	9844	10137	10395	EM400/300
r	9452	9844	10137	10395	EM400/300
e	9452	9844	10137	10395	EM400/300
n	9452	9844	10137	10395	EM400/300
c	9452	9844	10137	10395	EM400/300
e	9452	9844	10137	10395	EM400/300
W	2325	2517	2864	3217	EM400/300
i	2325	2517	2864	3217	EM400/300
s	2325	2517	2864	3217	EM400/300
c	2325	2517	2864	3217	EM400/300
o	2325	2517	2864	3217	EM400/300
n	2325	2517	2864	3217	EM400/300
s	2325	2517	2864	3217	EM400/300
i	2325	2517	2864	3217	EM400/300
n	2325	2517	2864	3217	EM400/300
-	2325	2517	2864	3217	EM400/300
I	4597	4687	5257	5557	EM400/300
o	4597	4687	5257	5557	EM400/300
w	4597	4687	5257	5557	EM400/300
a	4597	4687	5257	5557	EM400/300
A	10342	10725			EM400/300
v	10342	10725			EM400/300
e	10342	10725			EM400/300

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REVISIONS	
NAME	DATE

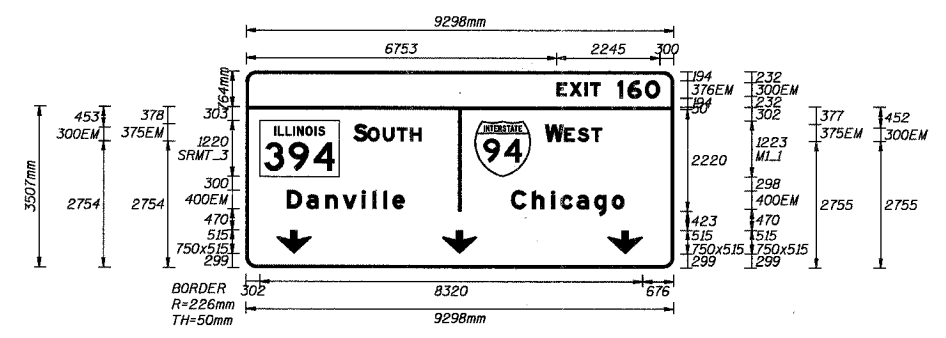
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY
SIGN PANEL DETAILS III

SCALE: N.T.S. DRAWN BY: MZD
 DATE: 8/22/05 CHECKED BY: RJM

TENG TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	312
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
		• (2425 & 2626) R-2		
		CONTRACT NO. 62111		

SIGN DETAIL



SIGN NUMBER	1S0161080L162.6-RT
WIDTH x HGHT.	9298mm x 3507mm
BORDER WIDTH	50mm
CORNER RADIUS	226mm
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: Pure White

SYMBOL	X	Y	WID	HT
SRMT_3	302	1984	1728	1220
MI_1	4974	1982	1220	1223
ARDOWN	669	299	750	515
ARDOWN	4271	299	750	515
ARDOWN	7872	299	750	515

Panel Style:
Dimensions are in mm

6+546.200

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)							LENGTH	SERIF SIZE
E	X	I	T	I	G	O		EM300,EM376
6753	7040	7365	7488	8066	8297	8681	2245	
S	O	U	T	H				EM375,EM300
2335	2648	2978	3284	3570			1478	
W	E	S	T					EM375,EM300
6503	6924	7211	7517				1237	
D	a	n	v	i	l	l	e	EM400300
890	1319	1733	2107	2520	2755	2987	3188	2558
C	h	i	c	a	g	o		EM400300
5768	6225	6638	6842	7194	7577	7961	2461	

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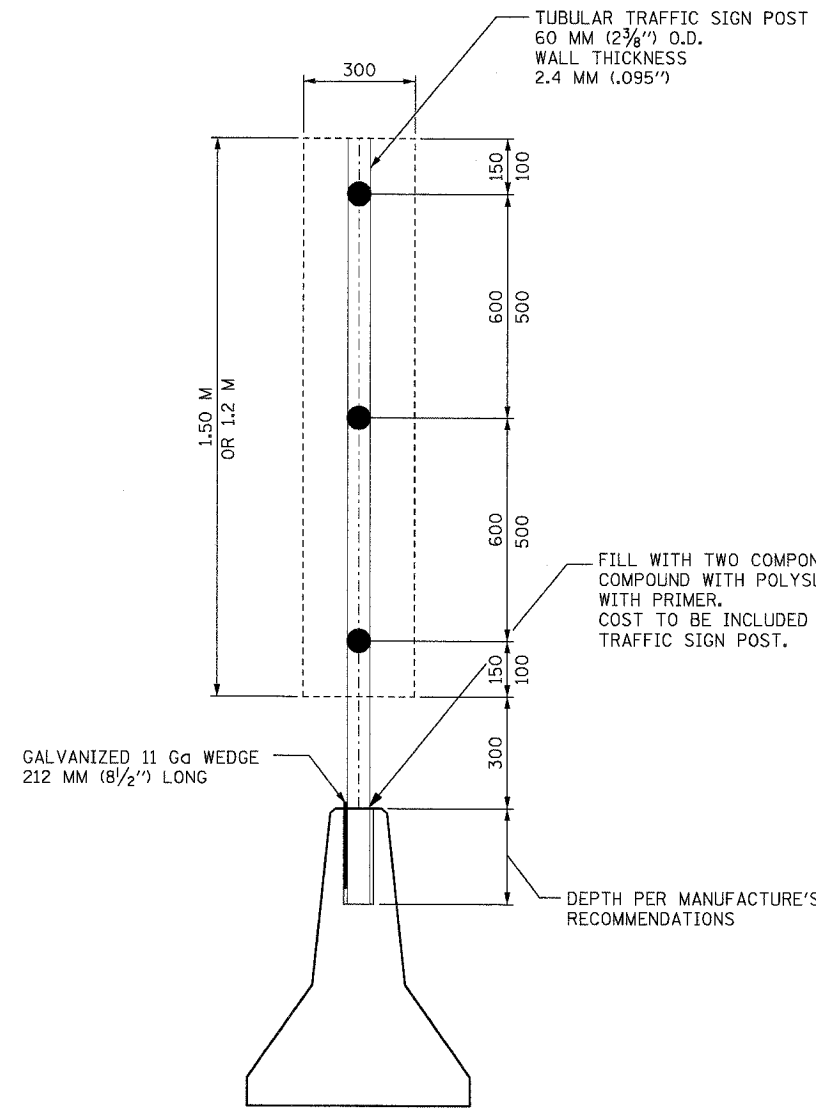
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY
SIGN PANEL DETAILS IV

SCALE: N.T.S. DRAWN BY: MZD
 DATE: 8/22/05 CHECKED BY: RJM

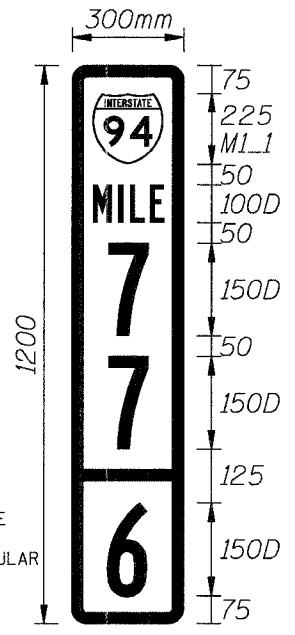
TENG TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	313
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		• (2425 & 2626) R-2		
		CONTRACT NO. 62111		

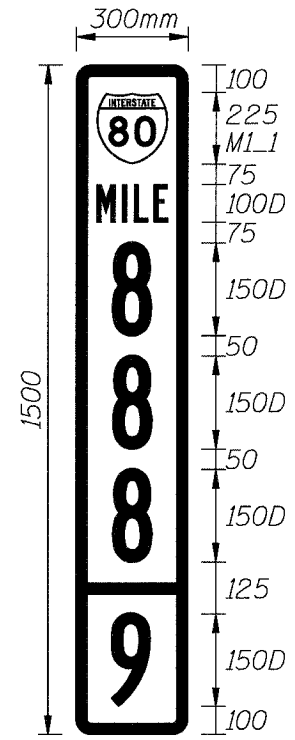


SIGN PANEL MOUNTING TO BARRIER WALL PARAPET DETAIL

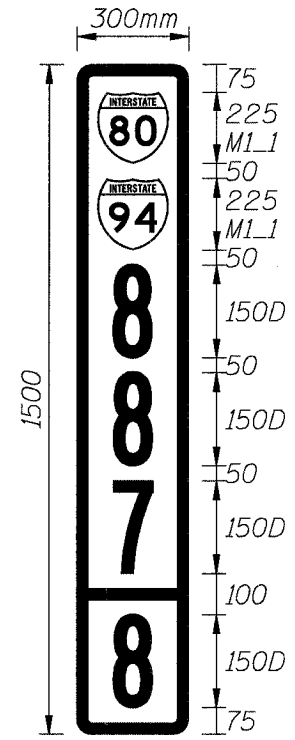
NOTE
 1. CONCRETE BARRIER, DOUBLE FACE IS SHOWN. DETAIL ALSO APPLIES TO MOUNTING OF SIGN PANELS TO CONCRETE BARRIER, SINGLE FACE AND PARAPETS.



BORDER
 R=40mm
 TH=30mm
 SIGN: WHITE/GREEN

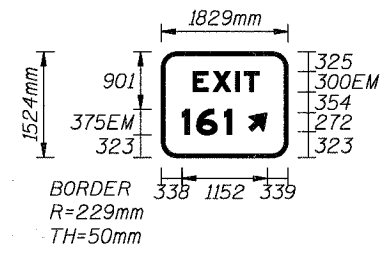


BORDER
 R=40mm
 TH=30mm
 SIGN: WHITE/GREEN



BORDER
 R=40mm
 TH=30mm
 SIGN: WHITE/GREEN

MILE MARKER SIGN DETAILS



BORDER
 R=229mm
 TH=50mm

**SIGN PANEL
 STA. 5+502 1G016I080L162.0**

V:\AS9002A.DGN, \SRIY02A.DGN, \SIB000A.DGN, \SIB000A.DGN
 B:\B-2005, 04857
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REVISIONS	
NAME	DATE

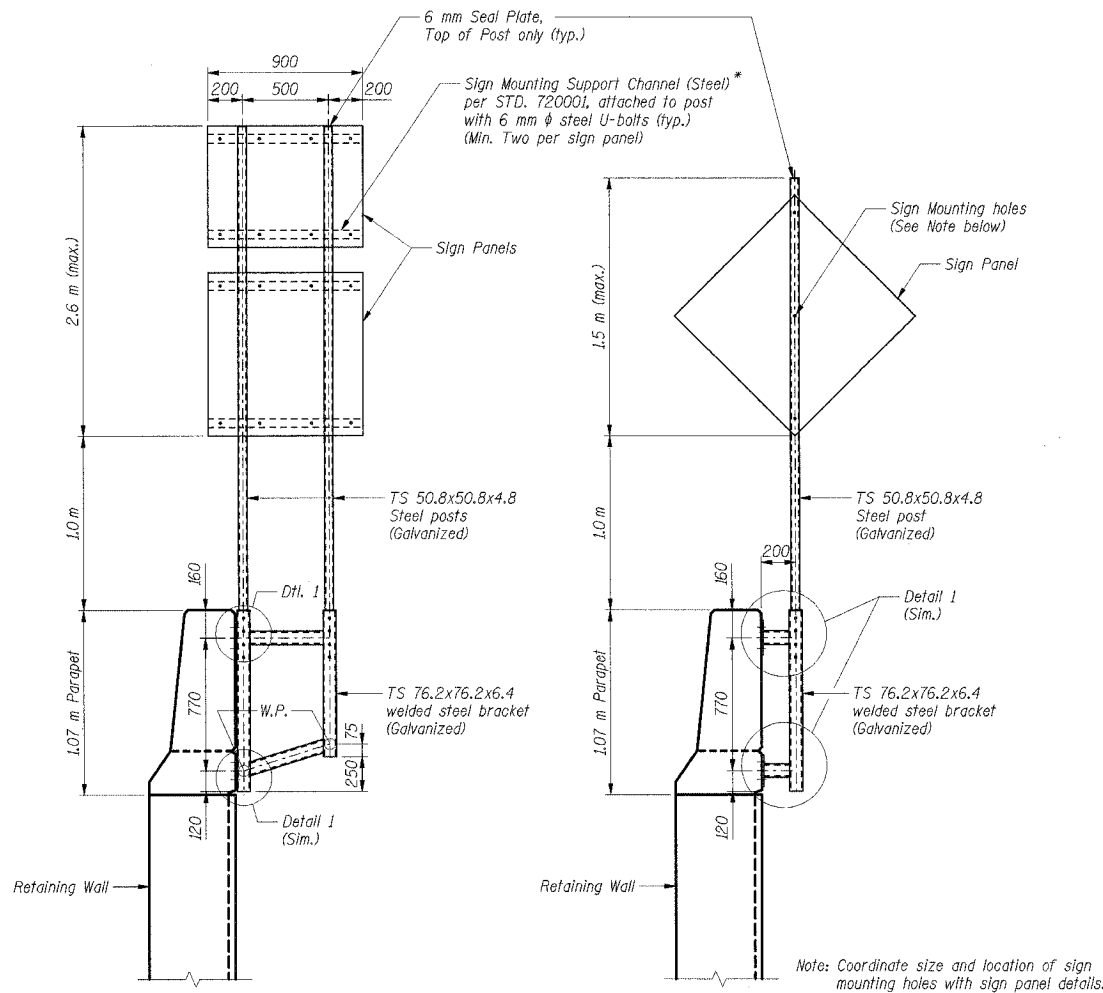
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

**SIGN PANEL DETAILS
 V**

SCALE: N.T.S. DATE: 8/22/05
 DRAWN BY: MZD
 CHECKED BY: RJM

TENG TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	313A
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2			CONTRACT NO. 62111	



SIGN SUPPORT ATTACHED TO PARAPET - TWO POSTS

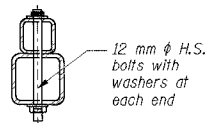
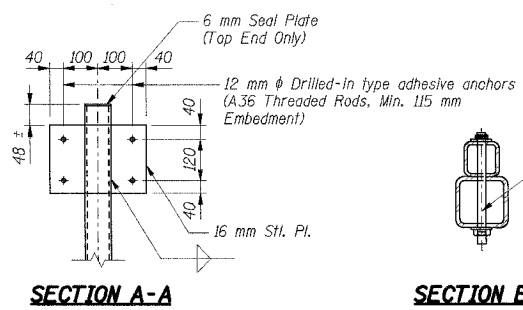
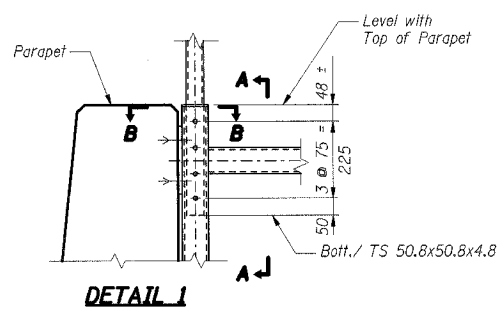
SIGN SUPPORT ATTACHED TO PARAPET - ONE POST

* Cost to be included in the Contract Unit Price for Sign Panels



BORDER
R=65mm
TH=15mm
IN=15mm

GARCIAAZ
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 9/14/2005, 8:36:39
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REVISIONS	
NAME	DATE

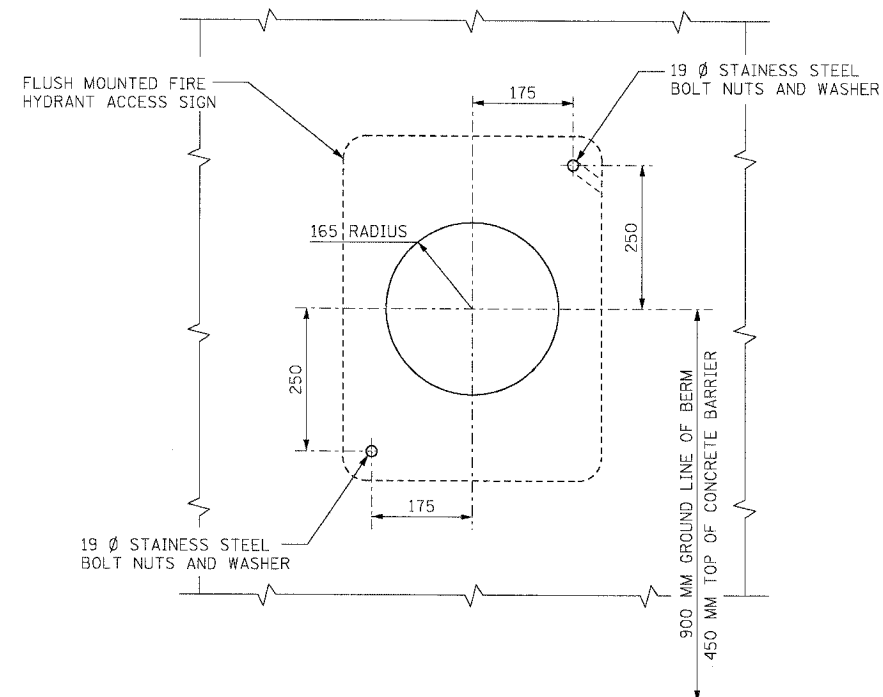
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

SIGN PANEL DETAILS VI

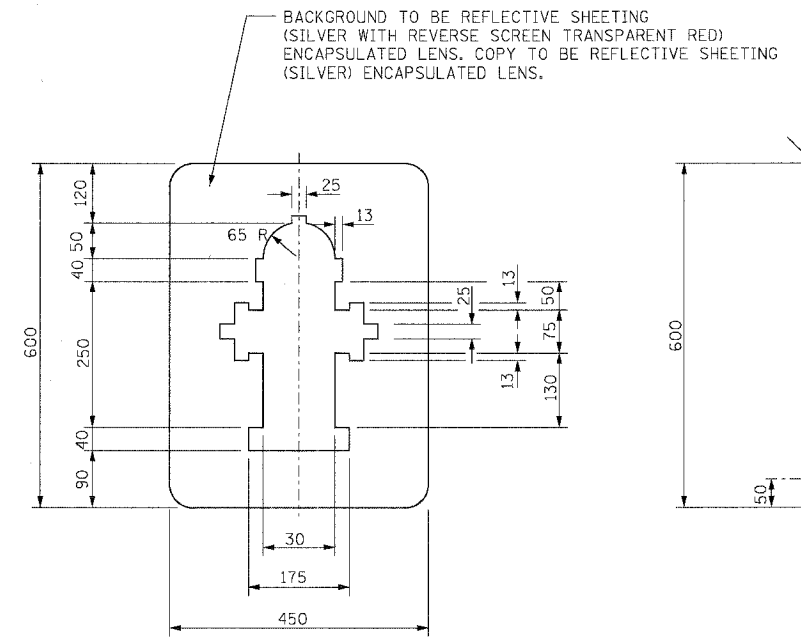
SCALE: DATE: 9/13/05
 DRAWN BY: MZD
 CHECKED BY: RJM

TENG TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

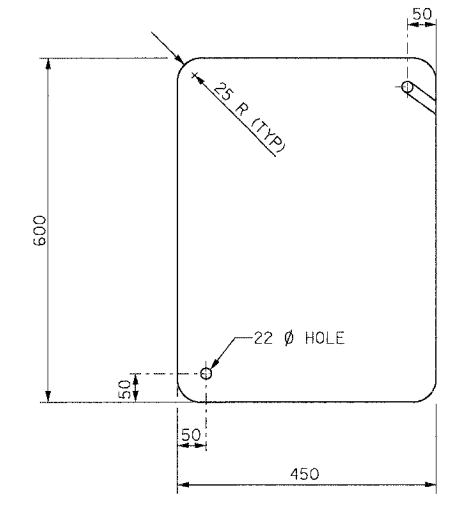
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK/LAKE	631	314
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO.		CONTRACT NO. 62111		
* (2425 & 2626) R-2				



FIRE HYDRANT ACCESS HOLE DETAIL



FIRE HYDRANT ACCESS SIGN DETAIL



FIRE HYDRANT ACCESS SIGN DETAIL

BACKGROUND TO BE REFLECTIVE SHEETING (SILVER WITH REVERSE SCREEN TRANSPARENT RED) ENCAPSULATED LENS, COPY TO BE REFLECTIVE SHEETING (SILVER) ENCAPSULATED LENS.

ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.

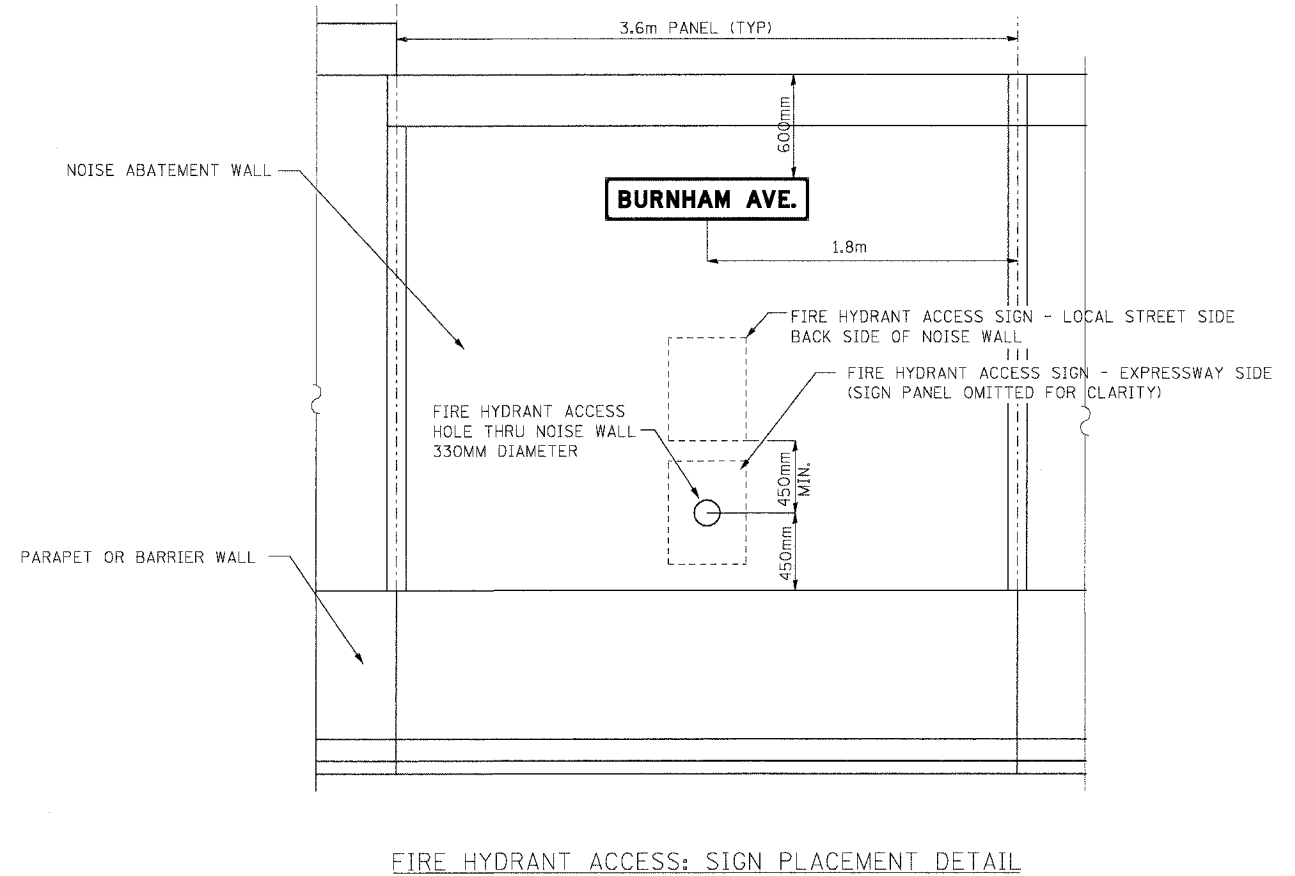
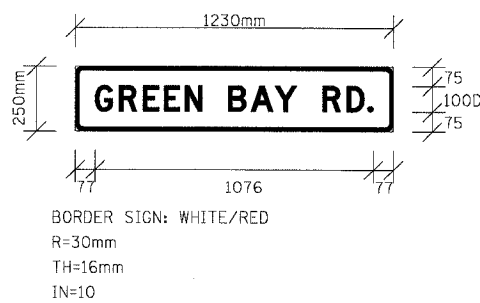
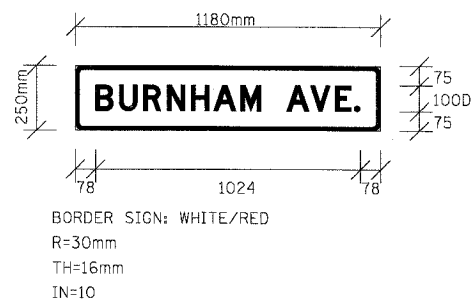
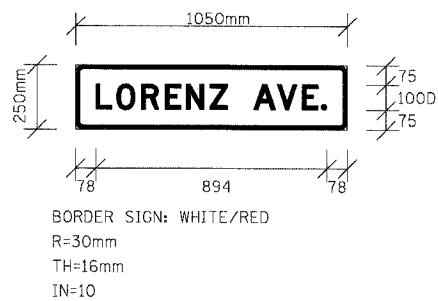
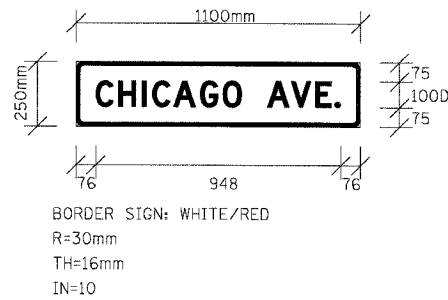
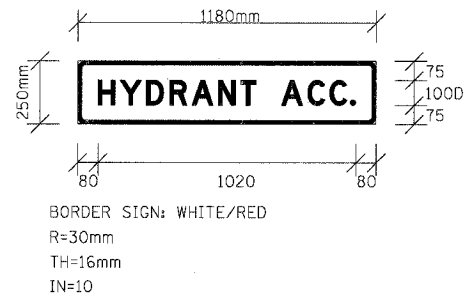
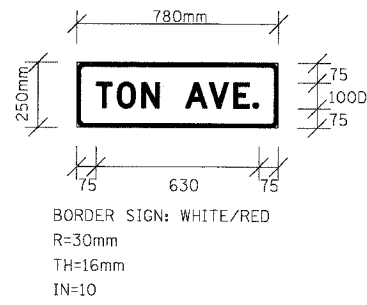
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 I-80/94/US 6
 KINGERY-BORMAN EXPRESSWAY
 BURNHAM ROAD TO US 41
FIRE HYDRANT ACCESS

SCALE NONE DRAWN BY ACE/CAD
 DATE 03/05 CHECKED BY

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	315
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2		CONTRACT NO. 62111		



NOTE:
 ALL STREET NAME SIGNS SHALL BE MOUNTED TO THE NOISE ABATEMENT WALL WITH A MINIMUM OF 4 BOLTS, SELF-LOCKING NUTS AND WASHERS, UNLESS OTHERWISE NOTED ON THE PLAN DETAILS. ALL 600MM X 450MM FIRE ACCESS SIGNS SHALL BE MOUNTED TO THE WALL WITH 2 BOLTS, SELF-LOCKING NUTS, AND WASHERS. ALL BOLTS SHALL BE OF SUFFICIENT LENGTH TO EXTEND THROUGH THE WALL AND BE A MINIMUM OF 6MM BEYOND THE NUT. ALL BOLTS, SELF-LOCKING NUTS AND WASHERS SHALL MEET THE REQUIREMENTS FOR MOUNTING SIGNS TO POSTS AS LISTED IN THE SPECIAL PROVISIONS AND IN THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST PER SQUARE METER FOR THE TYPE OF SIGN PANEL SPECIFIED.

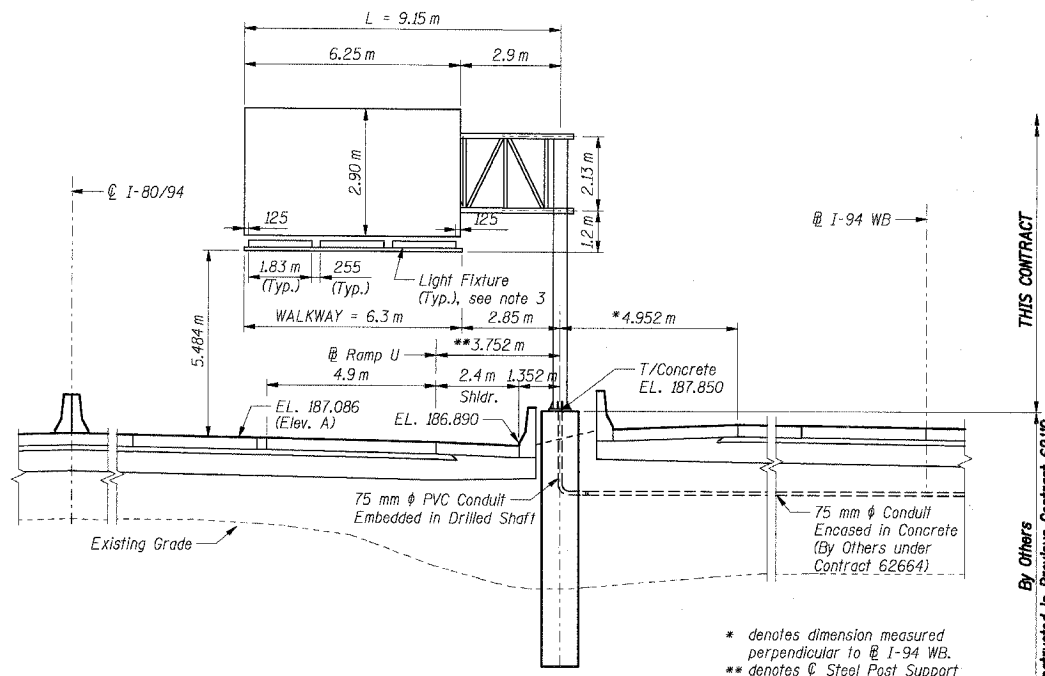
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY
**SIGN PANEL DETAILS
 HYDRANT ACCESS SIGN LAYOUT
 AND LOCATION DETAILS**

SCALE: DATE: 8/22/05
 DRAWN BY: OP
 CHECKED BY: DH
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

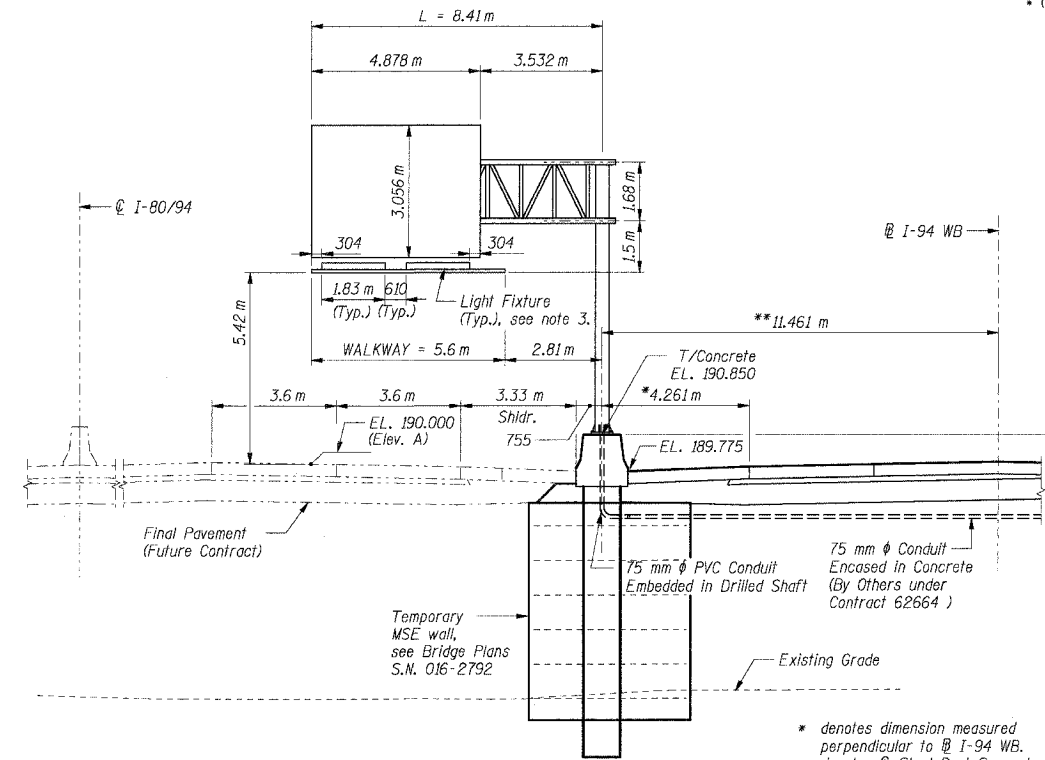
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 BAIZEKJ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	316
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
(2425 & 2626) R-2	CONTRACT NO. 62110			



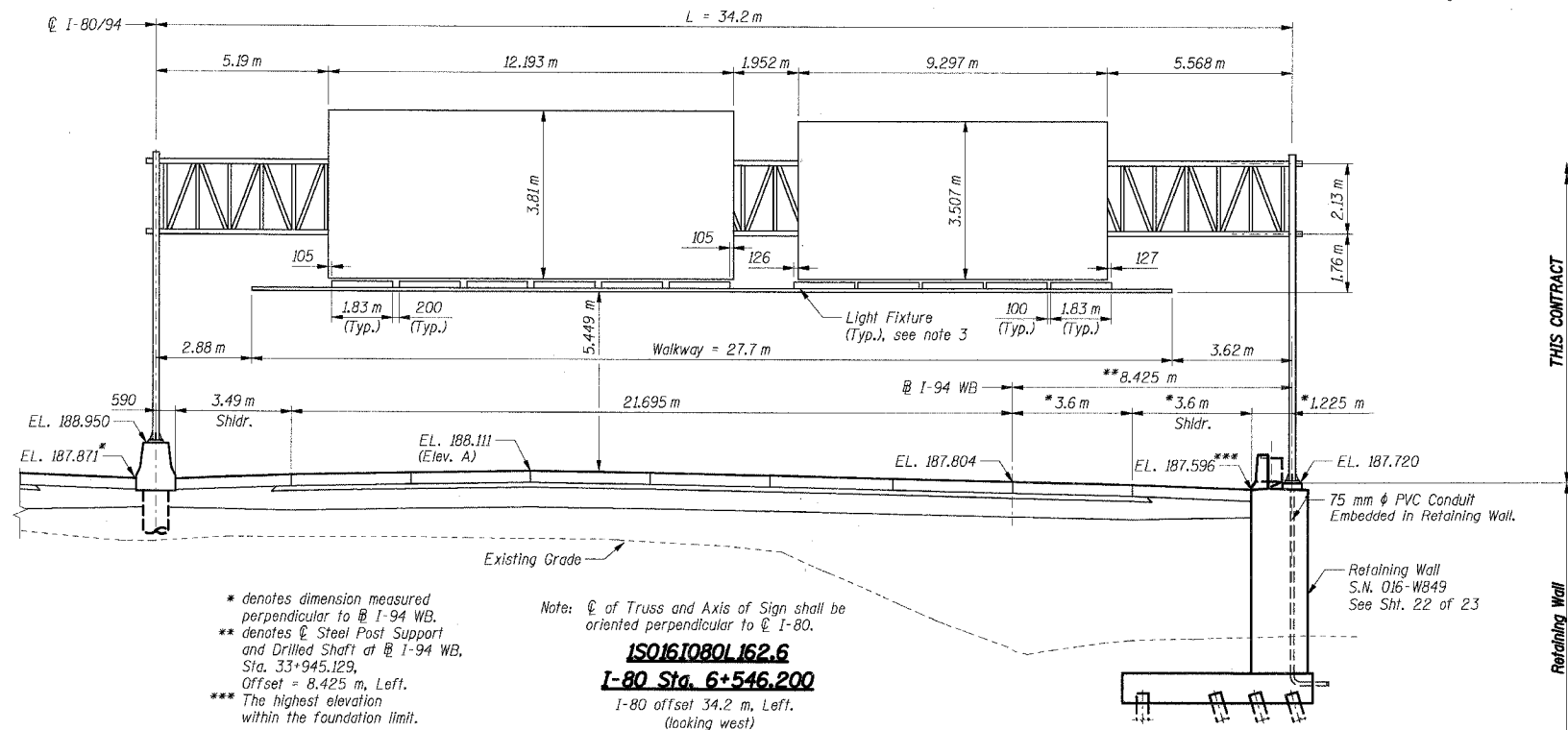
Note: ϕ of Truss and Axis of Sign shall be oriented perpendicular to ϕ Ramp U.
1001610801162.1
I-80 Sta. 5+658.000
 I-80 offset 27.254 m, Left.
 (looking west)

- * denotes dimension measured perpendicular to ϕ I-94 WB.
- ** denotes ϕ Steel Post Support and Drilled Shaft at ϕ Ramp U, Sta. 240+507.231, Offset = 3.752 m, Left.



Note: ϕ of Truss and Axis of Sign shall be oriented perpendicular to ϕ I-80/94.
1001610801162.3
I-80 Sta. 6+100.000
 I-80 offset 22.56 m, Left.
 (looking west)

- * denotes dimension measured perpendicular to ϕ I-94 WB.
- ** denotes ϕ Steel Post Support and Drilled Shaft at ϕ I-94 WB, Sta. 33+499.070, Offset = 11.461 m, Right.



Note: ϕ of Truss and Axis of Sign shall be oriented perpendicular to ϕ I-80.
1001610801162.6
I-80 Sta. 6+546.200
 I-80 offset 34.2 m, Left.
 (looking west)

- * denotes dimension measured perpendicular to ϕ I-94 WB.
- ** denotes ϕ Steel Post Support and Drilled Shaft at ϕ I-94 WB, Sta. 33+945.129, Offset = 8.425 m, Left.
- *** The highest elevation within the foundation limit.

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - All horizontal dimensions are along center line of truss, unless noted otherwise.
 - Light Fixtures are not included in this contract. They may be furnished and installed in future by others under a Separate Contract. Light Fixture mounts shall be provided with sign Structures.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

**SIGN STRUCTURE
 GENERAL ELEVATION**

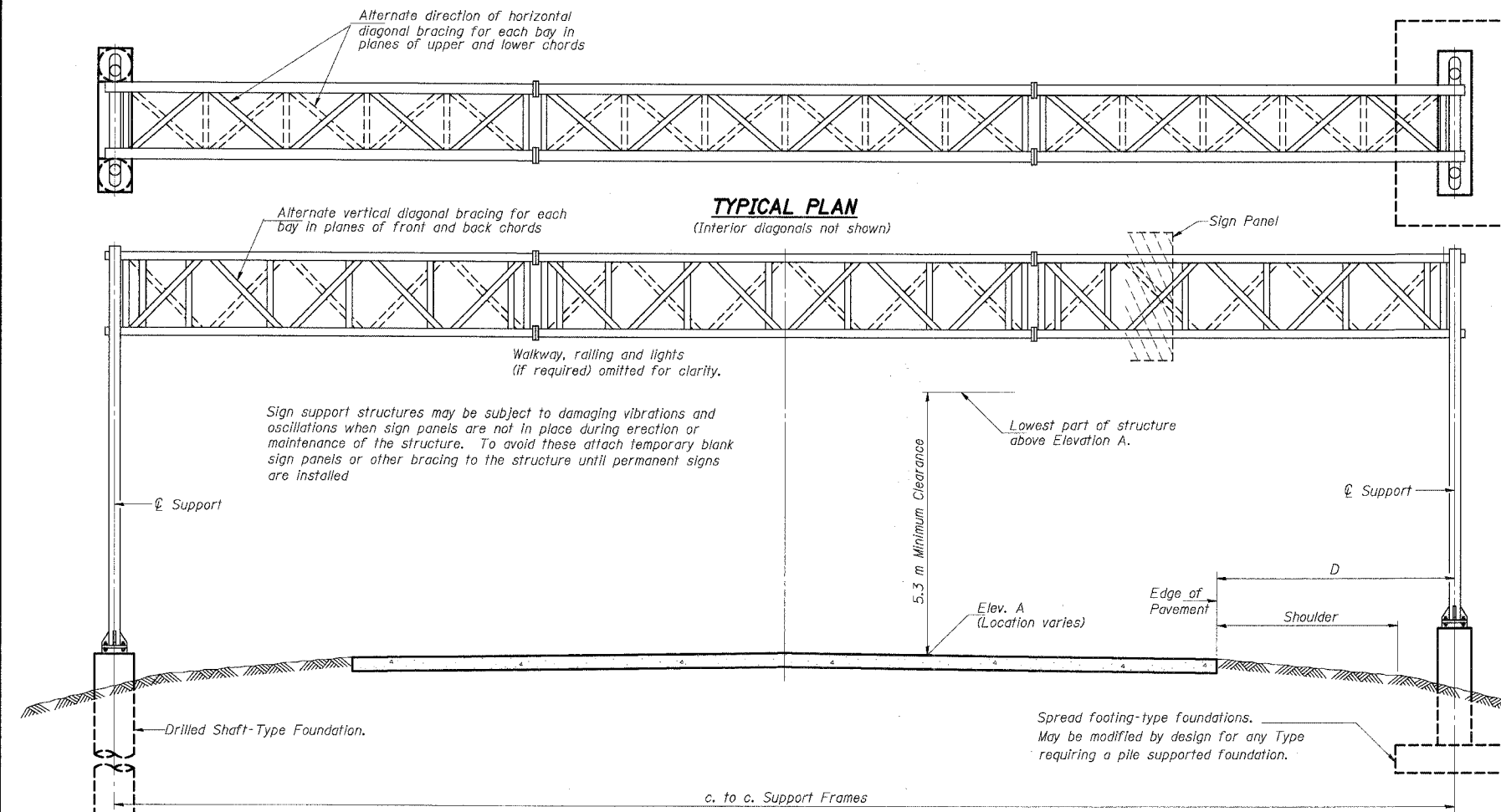
SCALE: 1/8" = 1'-0"
 DATE: 7/18/2005

DRAWN BY: NK
 CHECKED BY: VCP

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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 2-23-05, 10:30:10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	317
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		



GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

MEASUREMENTS: All dimensions are in millimeters (mm) except as noted.

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 145 km/h WIND VELOCITY

WIND LOADING: 1.44 kPa normal to Sign Panel Area and truss elements not behind sign Loading Diagram.

WALKWAY LOADING: Dead load plus 2.2 kN concentrated live load.

DESIGN STRESSES:

FIELD UNITS
 $f'_c = 24 \text{ MPa}$
 $f_y = 400 \text{ MPa}$ (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 241 MPa, or A500 Grade B or C with a minimum yield of 319 MPa. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270M Gr. 250, Gr. 345 or Gr. 345W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer. The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 20 J. at 4° C. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" (HS) must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if members interfere) must satisfy the requirements of ASTM A449, ASTM A193M, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04(f) of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts, and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

STEEL PIPE: DN indicates nominal diameter.

ANCHOR RODS: Shall conform to AASHTO M314 Gr. 250 or 380 (36 or 55) with a minimum Charpy V-Notch (CVN) energy of 20 J at 5° C.

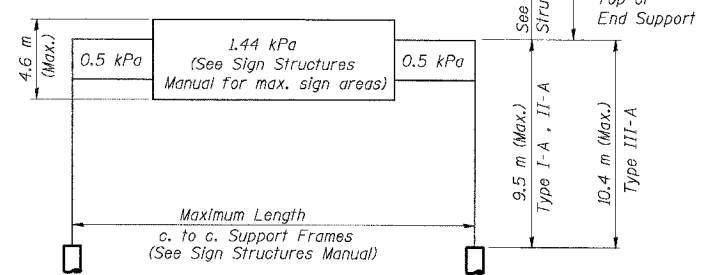
CONCRETE SURFACES: All concrete surfaces above an elevation 150 mm below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seat Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

*If M270M Gr. 345W steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

TYPICAL ELEVATION
(Looking at Face of Signs)**

Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
150161080L162.6	6+546.200	III-A	34.20 m	188.111	4.825 m	4.878 m	95.542 sq m



DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards and Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE - SPAN TYPE I-A (1.22 x 1.37)	m	---
OVERHEAD SIGN STRUCTURE - SPAN TYPE II-A (1.37 x 1.6)	m	---
OVERHEAD SIGN STRUCTURE - SPAN TYPE III-A (1.53m x 2.14m)	m	34.20
OVERHEAD SIGN STRUCTURE WALKWAY	m	27.70
CONCRETE FOUNDATIONS	m ³	---
DRILLED SHAFT CONCRETE FOUNDATIONS	m ³	16.4

*** Truss size: T = 1.52 m, R = 2.13 m

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

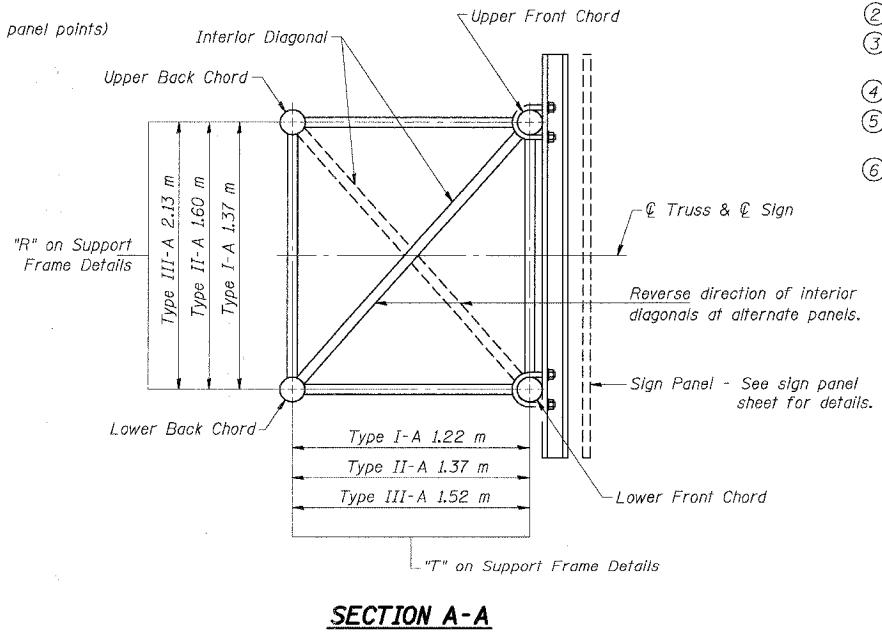
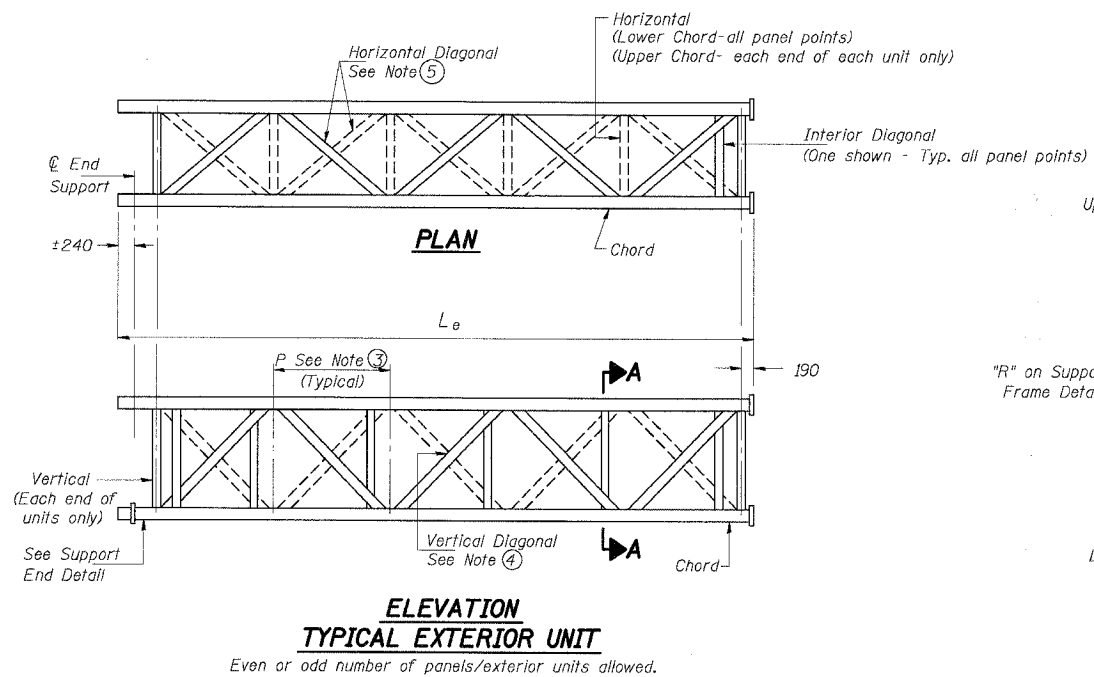
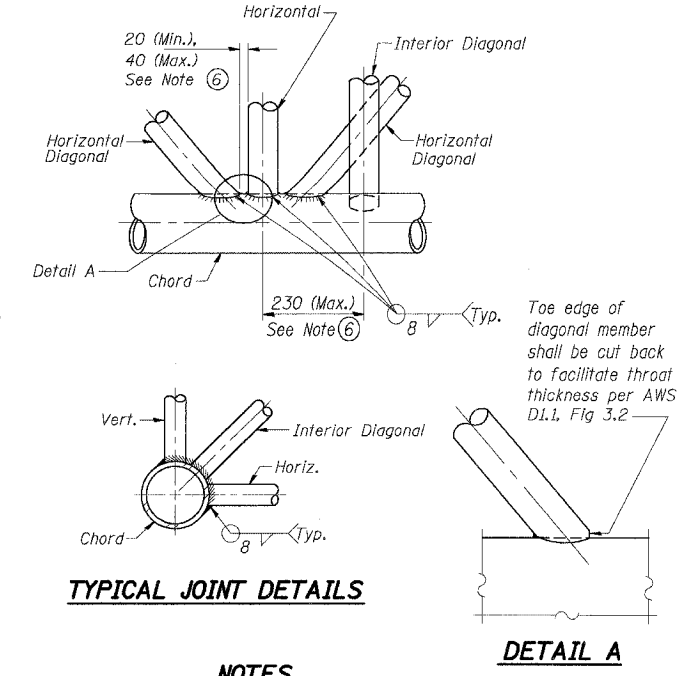
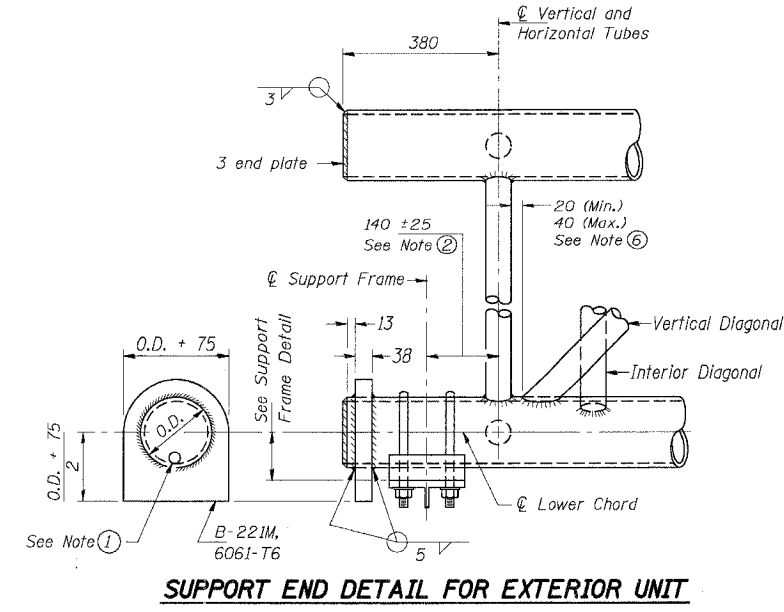
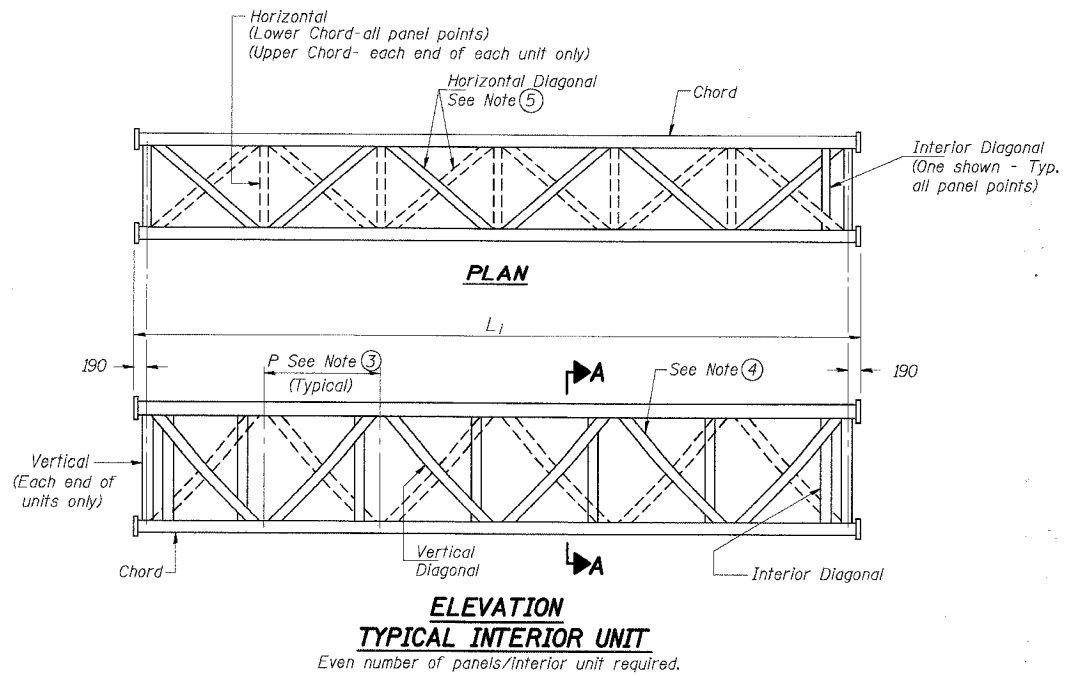
**OVERHEAD SIGN STRUCTURES
 GENERAL PLAN & ELEVATION
 ALUMINUM TRUSS & STEEL SUPPORTS**

SCALE: DATE: 1/18/2005
 DRAWN BY: NK
 CHECKED BY: VCP

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	318
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2		CONTRACT NO. 62111		



- NOTES**
- Contractor may alternatively use standard aluminum drive-fit cap to close end. 13 mm ϕ drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
 - 140 mm end dimension may vary by ± 25 mm to provide uniform panel spacing (P).
 - Panel spacing (P) shall be uniform for entire truss and between 1.20 m and 1.50 m for Type I-A or 1.20 m and 1.65 m for Types II-A and III-A.
 - Vertical Diagonals in front and back face shall alternate.
 - Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
 - All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a 20 mm minimum to 40 mm maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.

BAJZEKJ
 11/1/2002 10:23:47
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OS-A-2(M) 11/1/2002

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

**OVERHEAD SIGN STRUCTURES
 ALUMINUM TRUSS DETAILS
 TRUSS TYPES I-A, II-A & III-A**

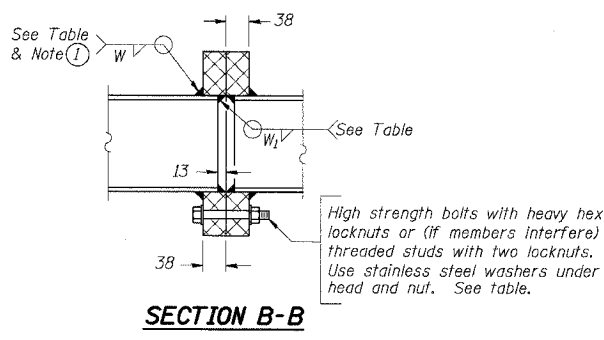
SCALE: DATE: 7/18/2005
 DRAWN BY: NK
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 ENGINEERS/ARCHITECTS/PLANNERS
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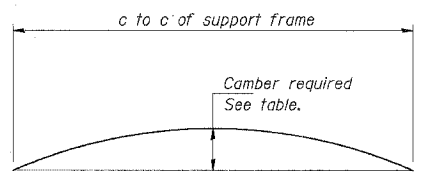
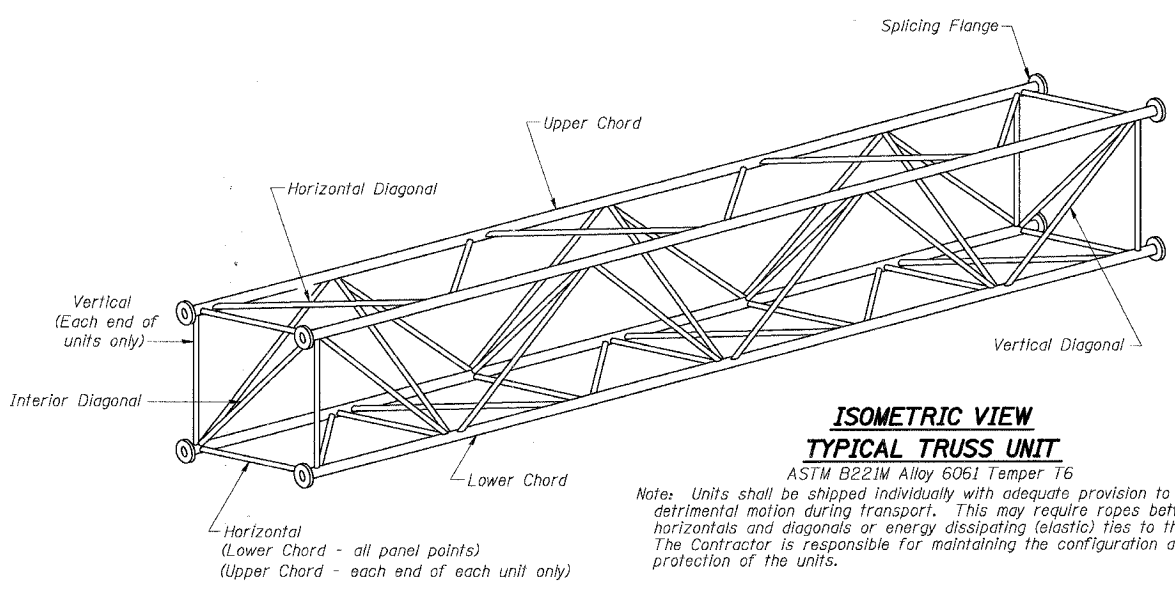
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	•	COOK	631	319
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2		CONTRACT NO. 62111		

TRUSS UNIT TABLE

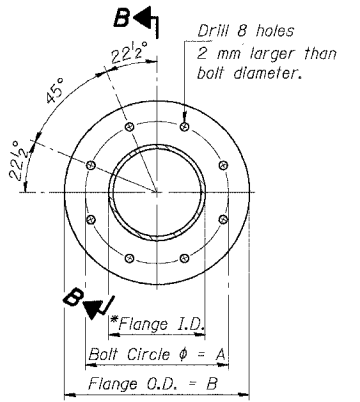
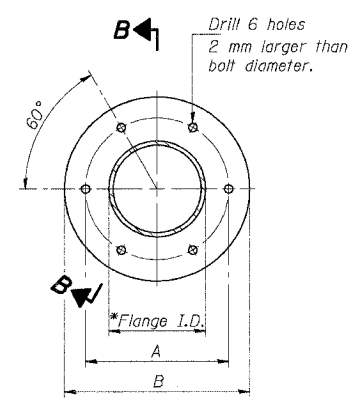
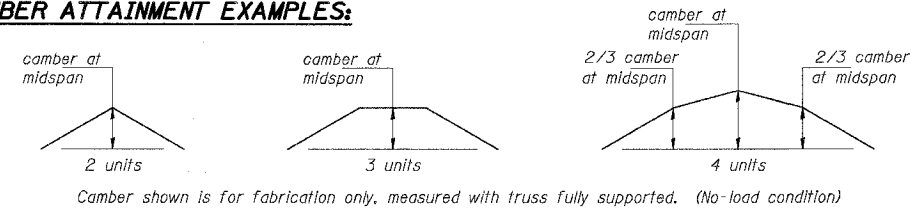
Structure Number	Station	Design Truss Type	Exterior Units (2)			Interior Unit				Upper & Lower Chord		Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals		Camber at Midspan	Splicing Flange					
			No. Panels per Unit	Unit Lgth.(L _e) (m)	Panel Lgth.(P) (m)	No. Req'd.	No. Panels per Unit	Unit Lgth.(L _i) (m)	Panel Lgth.(P) (m)	O.D.	Wall	O.D.	Wall		Bolts		Weld Sizes		A	B
															No./Splice	Dia.	W	W _i		
ISO161080L162.6	6+546.200	III-A	7	12.170	1.660	1	6	10.340	1.660	178	13	83	8	75	8	25	14	11	292	381



① Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to insure proper field assembly.



CAMBER ATTAINMENT EXAMPLES:



SPLICING FLANGES

ASTM B221M, Alloy 6061-T6 or ASTM B209M, Alloy 6061-T6S1
*To fit O.D. of Chord with maximum gap of 2 mm.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
COOK COUNTY

OVERHEAD SIGN STRUCTURES ALUMINUM TRUSS DETAILS
TRUSS TYPES I-A, II-A & III-A II

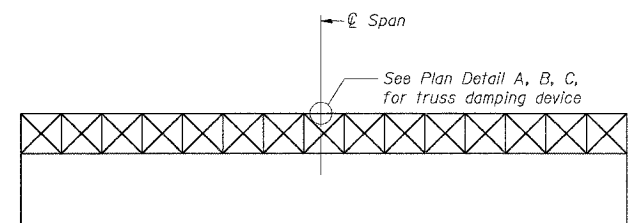
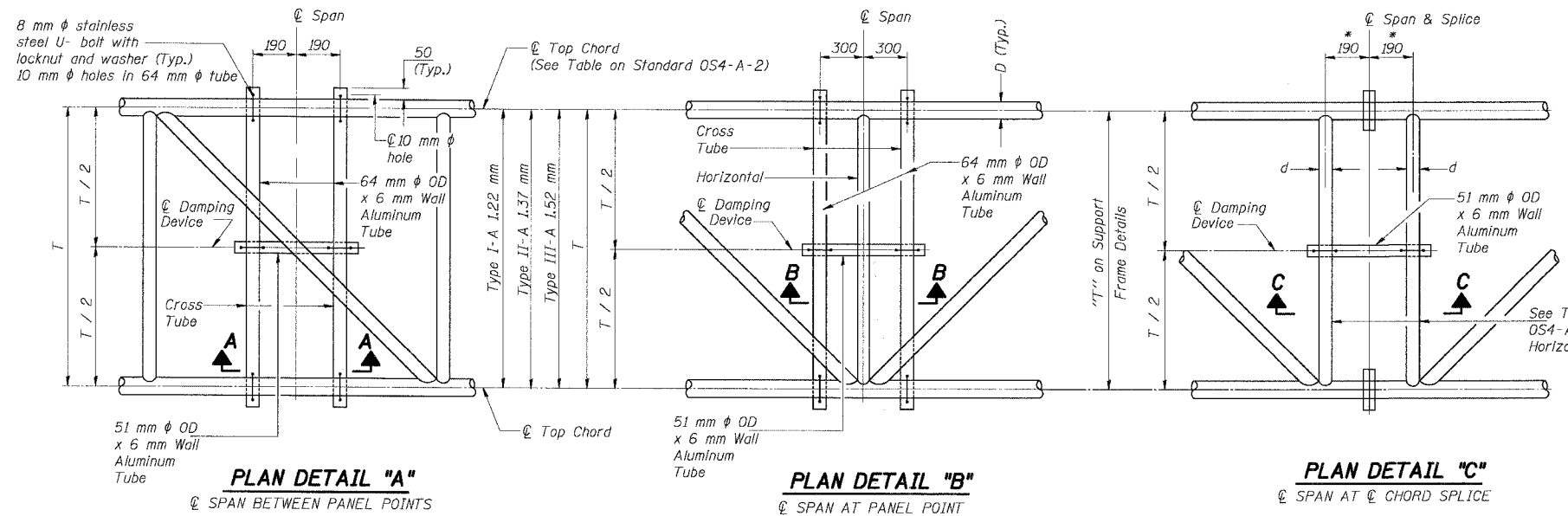
SCALE: DATE: 7/18/2005
DRAWN BY: NK
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\\MS17R02A.D0N...LAB99002ADON 7-12-2005, 10:23:48 F:\DOCUMENT\EST\TRUSS\STRUCT\UDN\M570952A.D0N 12/3/04 5:57:18 PM 2021 2223 2425 2627 2829 3031 3233 34 35 36 37 3839 40 41 4243 44 45 46 47 4849 50 51 52 53 54 55 56 57 5955 60 61 62 63

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	320
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2			CONTRACT NO. 62111	

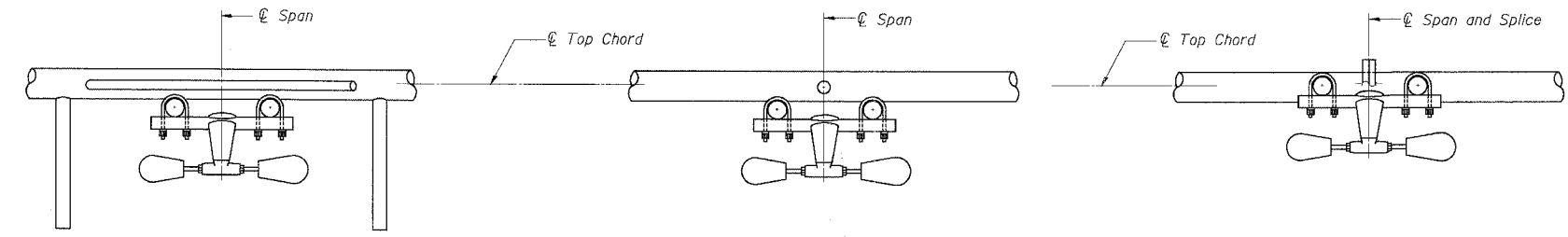
* Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.



ELEVATION
Aluminum Overhead Sign Truss

NOTES

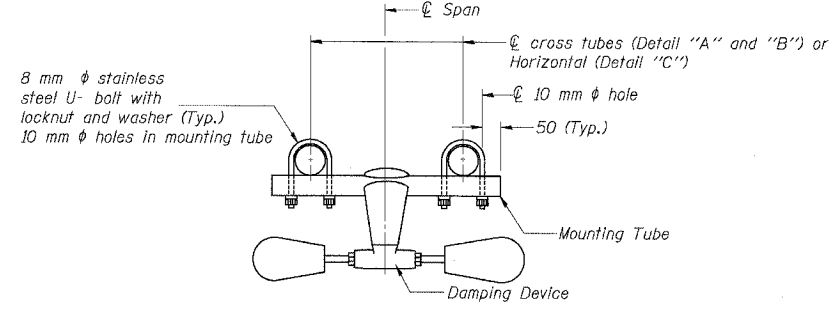
Damper: One damper per truss.
(14 Kg Stockbridge-Type Aluminum)
Cost Included in "Overhead Sign Structure..."
Materials: Aluminum tubes shall be ASTM B221M alloy 6061 Temper T6. Cost included in "Overhead Sign Structure..."
All dimensions are in millimeters (mm) except as noted



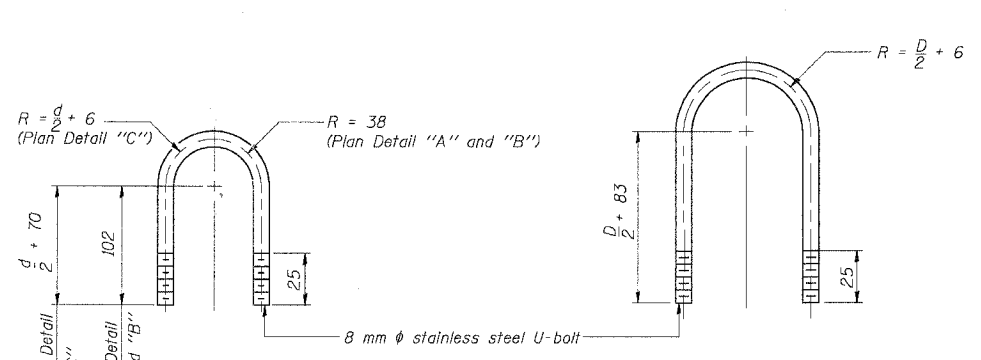
SECTION A-A

SECTION B-B

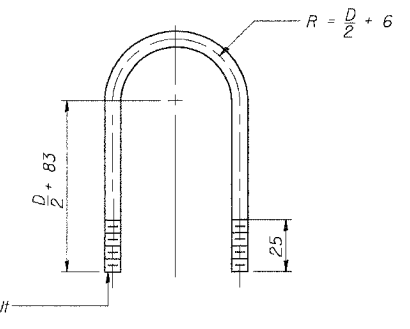
SECTION C-C



TRUSS DAMPING DEVICE CONNECTION DETAIL
(Typical)



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL
(Typical - Detail "A" and "B")

BALZERKJ
 6061 62 63
 54 55 56 57 58 59
 40 41 42 43 44 45 46 47 48 49 50 51 52 53
 30 31 32 33 34 35 36 37 38 39
 20 21 22 23 24 25 26 27 28 29
 10 11 12 13 14 15 16 17 18 19
 001
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 12 23 4 56 78 9 10 11

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

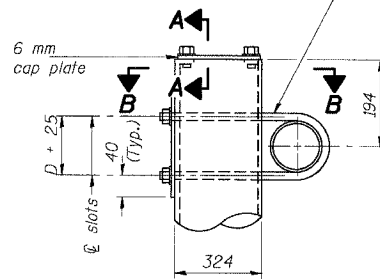
OVERHEAD SIGN STRUCTURES DAMPING DEVICE

SCALE: DATE: 7/18/2005
 DRAWN BY: NK
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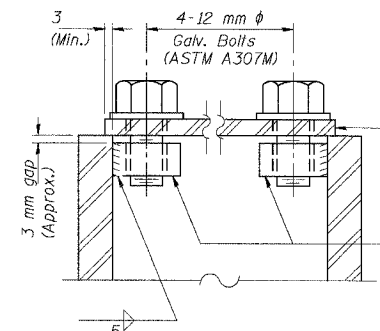
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	321
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2		CONTRACT NO. 62111		

19 mm ϕ stainless steel U-bolt
Provide two washers and two hexagon locknuts. (4)
21 mm x 51 mm slots on ϕ DN 300 pipe.
(4 slots required per pipe)

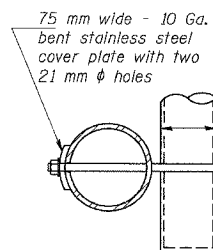


DETAIL A

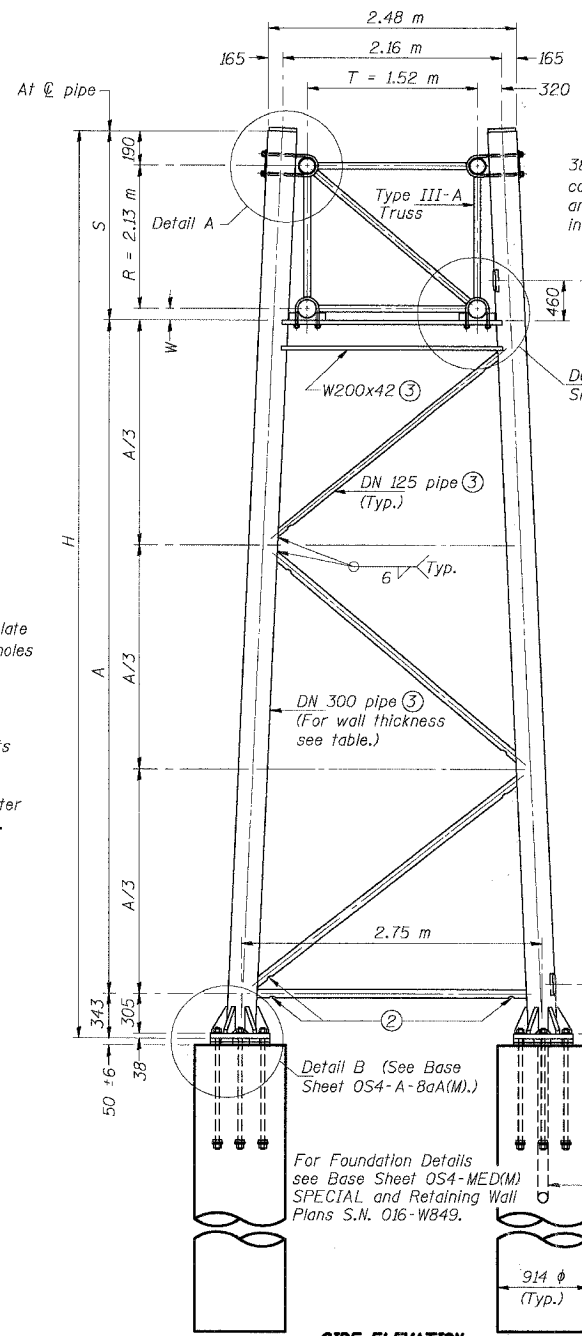


SECTION A-A

As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.

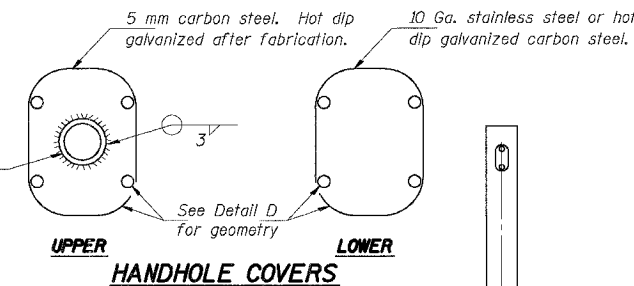


SECTION B-B

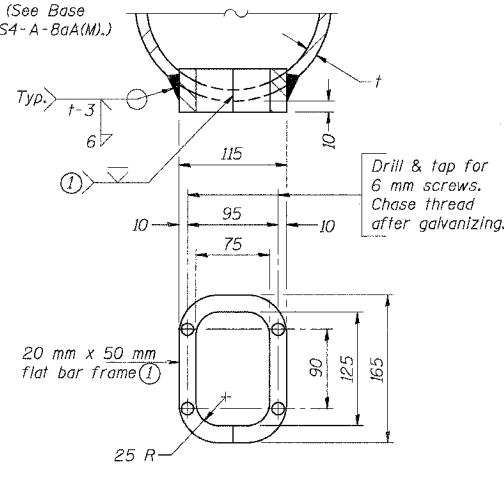


SIDE ELEVATION

* Provide Handholes in east leg of Right Support Frame.



HANDHOLE COVERS

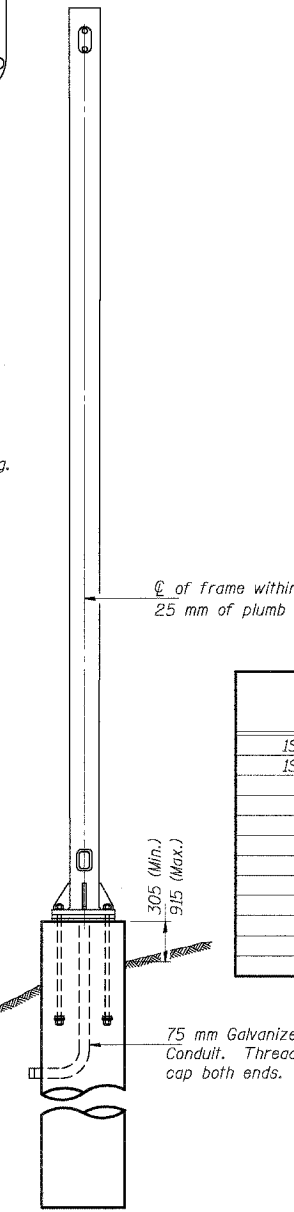


DETAIL D

Provide 165 mm x 115 mm cover. Provide 4-8 mm ϕ holes in cover for 6 mm round head hot dip galvanized or stainless steel machine screws. (See cover details)

Dimensions		
Truss Chord Nominal Dia.	W (mm)	S (m)
178	120	2.44
216	140	2.46
229	146	2.47

TRUSS SUPPORT DETAILS
(DN 300 Pipe-Type III-A Truss)



END ELEVATION

Support Design Loads: See Base Sheet OS-A-1(M) for design and loading criteria.
Load combinations checked include deadload plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

- In lieu of fabricated handhole frame as shown, may cut from 50 mm plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 12.7 μ m or less.
- Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred. (Typ.)
- Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet OS-A-1(M).
- See General Notes for fasteners.
- Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.

Structure Number	Station	Support		Pipe Wall Thickness	H (m)	A (m)
		Left	Right			
ISO161080L162.6	6+546.200	X		10	8.640	5.857
ISO161080L162.6	6+546.200		X	10	9.870	7.087

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

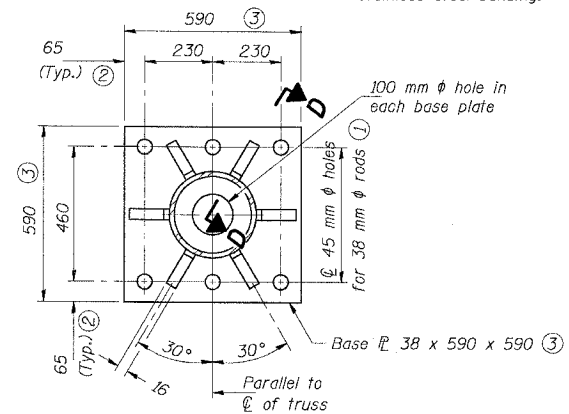
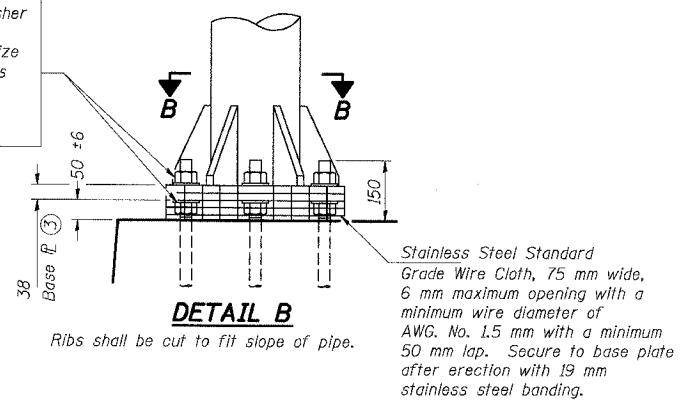
OVERHEAD SIGN STRUCTURES
DN300 PIPE SUPPORT FRAME FOR
TYPE III-A ALUMINUM TRUSS

SCALE: DATE: 7/18/2005
 DRAWN BY: NK
 CHECKED BY: VCP

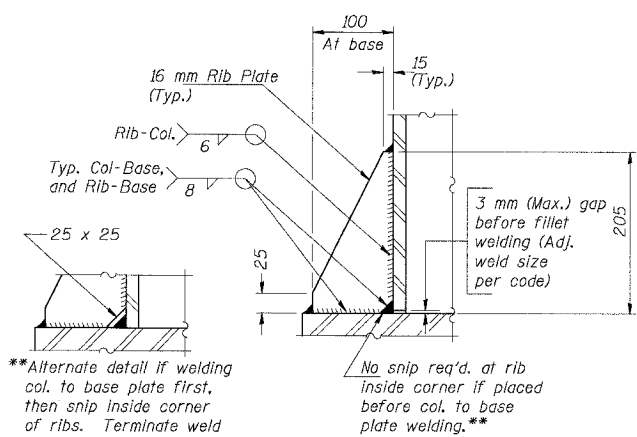
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	322
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
(2425 & 2626) R-2	CONTRACT NO. 62111			

Hexagon locknut and washer (top), leveling nut and washer (bottom). Galvanize per AASHTO M232. Nuts shall each be tightened against base plate with 270N-m minimum torque.

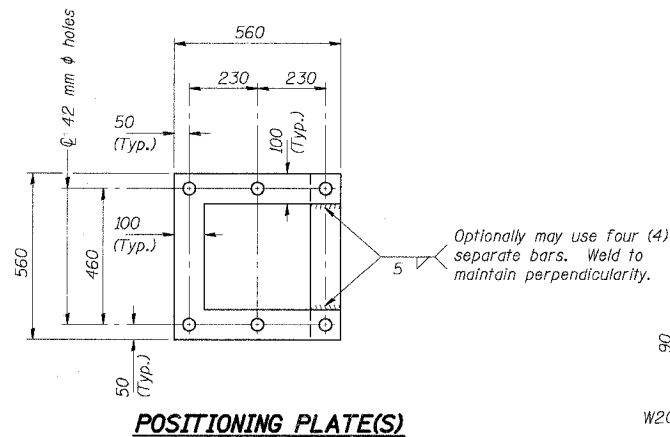


SECTION B-B



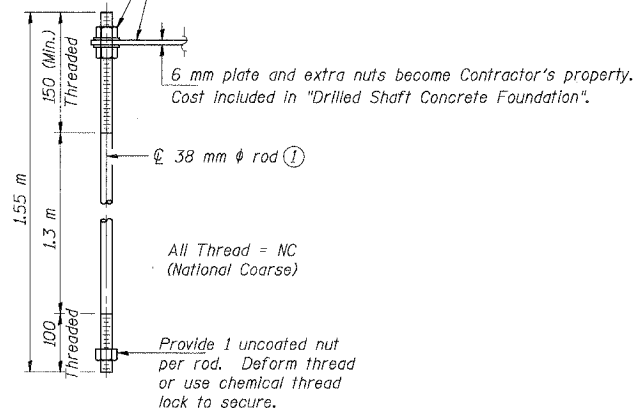
SECTION D-D

**Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib 5 mm from snip.



POSITIONING PLATE(S)

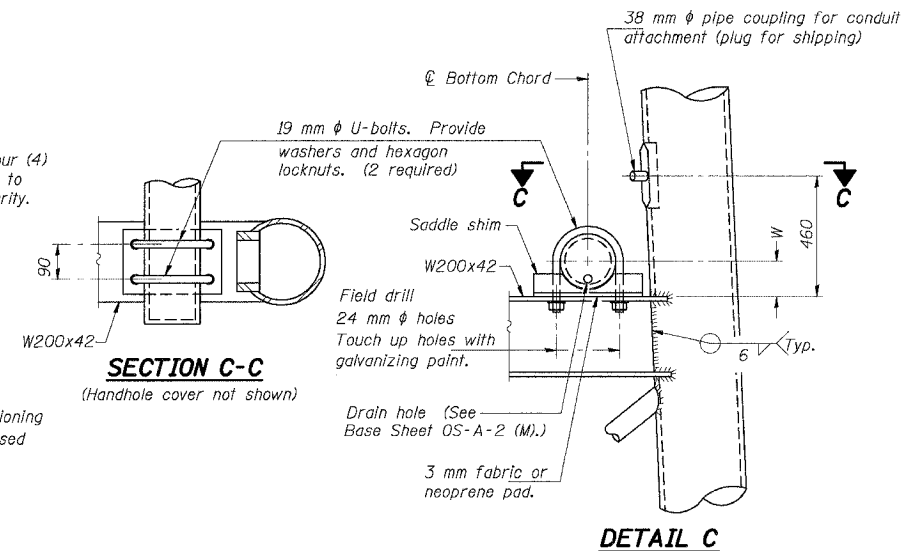
At each location, provide 6 mm thick positioning plate(s) and six (6) additional nuts to be used with leveling nuts to maintain anchor bolts position during concrete placement.



ANCHOR ROD DETAIL***

Anchor rods shall conform to AASHTO M314 Grade 380 (55) and meet Charpy V-Notch (CVN) energy of 20 J at 5° C. Galvanize upper 305 mm per AASHTO M232. No welding shall be permitted on rods.

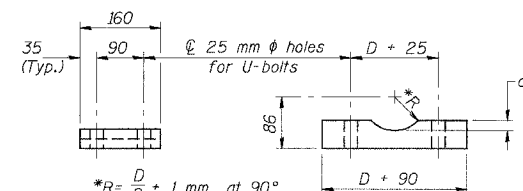
*** Anchor Rods and Positioning Plates for the right support frame will be furnished and installed by others under a separate contract 62350. This Contractor shall field verify dimensions and locations of Anchor Rods prior to fabricating pipe support base plates. The holes for Anchor Rods shall be adjusted if necessary.



SECTION C-C

(Handhole cover not shown)

DETAIL C



SADDLE SHIM DETAIL

ASTM B26M Alloy 356-F
or
ASTM B209M Alloy 6061-T651
(4 required per sign truss)

Truss Chord Nominal Dia.	a
178	25
216	32
229	35

Notes: For Type III-A Truss spans greater than 45.7 m, and up to 48.8 m:

- 44 mm diameter rod, 51 mm diameter holes
- 70 mm edge distance
- Base plate 41 x 600 x 600

**TYPE III-A TRUSS
DN 300 PIPE SUPPORT FRAME DETAILS**

REVISIONS	
NAME	DATE

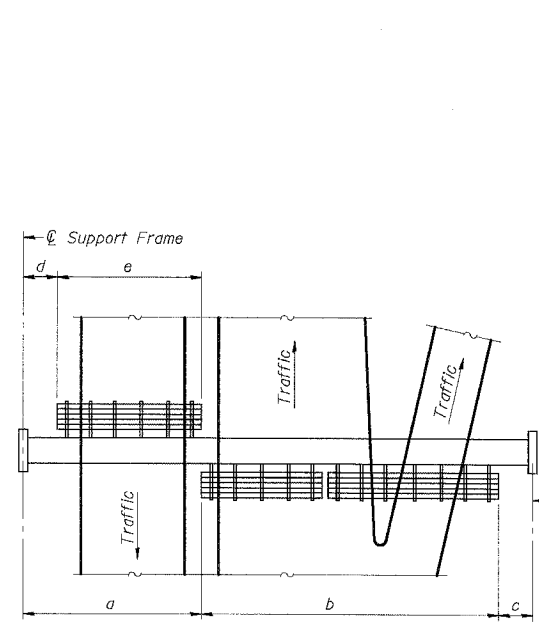
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
COOK COUNTY

**OVERHEAD SIGN STRUCTURES
DN 300 PIPE SUPPORT FRAME FOR
TYPE III-A ALUMINUM TRUSS II**

SCALE: DATE: 7/18/2005 DRAWN BY: NK CHECKED BY: VCP

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	323
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		



PLAN WALKWAY AND HANDRAIL SKETCH
(Road plan beneath truss varies)

BRACKET TABLE

WF(A-N)102x2.66 or WF(A-N)102x4.55
ASTM B308M, Alloy 6061-T6

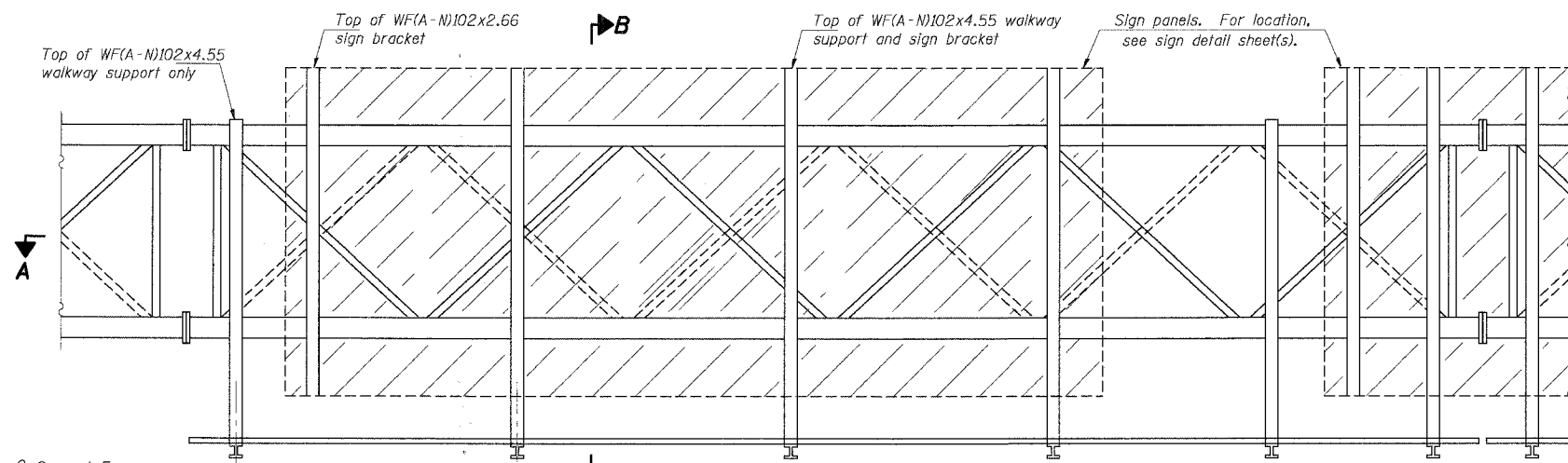
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	2.45	2
2.45	4.3	3
4.3	6.15	4
6.15	8.0	5
8.0	9.85	6

Notes: *Space walkway brackets WF(A-N)102x4.55 and sign brackets WF(A-N)102x2.66 for efficiency and within limits shown:

- f = 300 mm maximum, 100 mm minimum (End of sign to \mathcal{C} of nearest bracket)
- g = 300 mm maximum, 100 mm minimum (End of walkway grating to \mathcal{C} of nearest support bracket)
- h = 1.85 m maximum (\mathcal{C} to \mathcal{C} sign and/or walkway support brackets, WF(A-N)102x2.66 or WF(A-N)102x4.55)
- k = 50 mm maximum gap between adjacent walkway grating sections and handrail ends

**If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet OS-A-1(KM).

For Details T and W, Section B-B and Grating Splice Details, see Base Sheet OS-A-1(KM).
For Details D, F, G and P and Handrail Splice Details, see Base Sheet OS-A-1(KM).

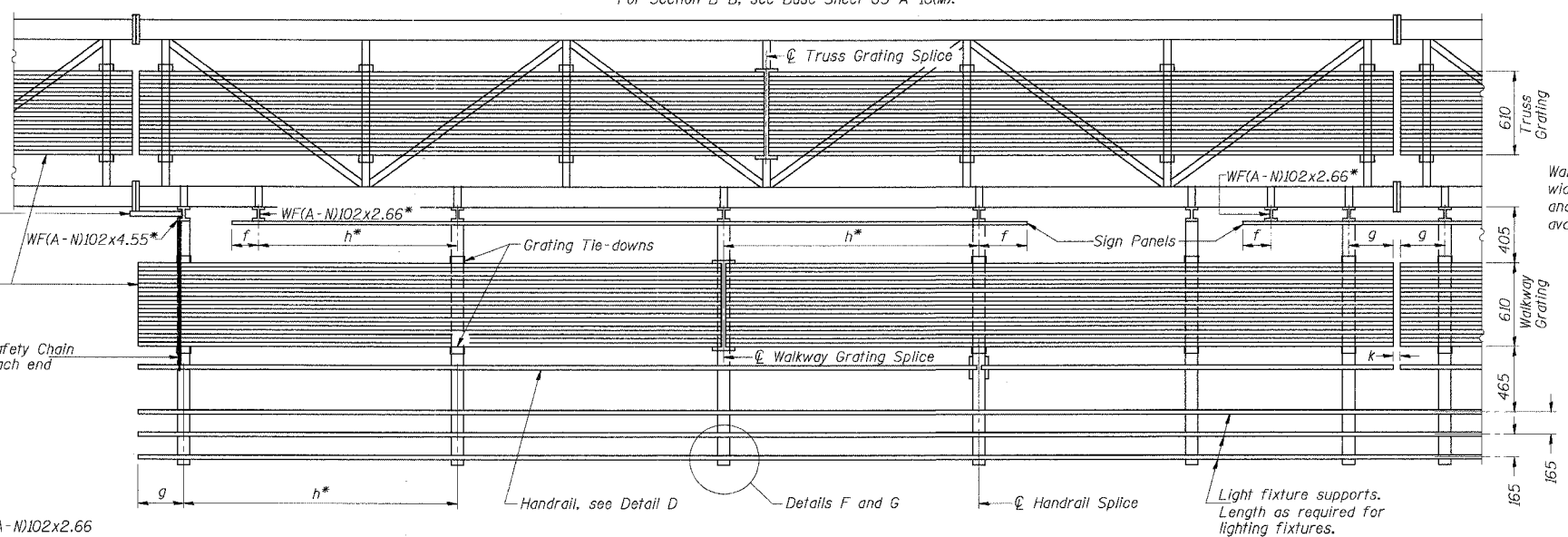


TYPICAL FRONT ELEVATION
With lights and handrail omitted for clarity.
For Section B-B, see Base Sheet OS-A-1(KM).

**Alternate angle for safety chain attachment

Standard Aluminum Grating, see Details T and W

Safety Chain Each end



SECTION A-A

Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints. Place all sign and walkway brackets as close to panel points as practical. Grating, handrail and light support splices placed as needed.

Truss grating to facilitate inspection shall run full length (center to center of support frames) ± 305 mm on overhead trusses. Cost of truss grating is included in "Overhead Sign Structure".

Structure Number	Station	a (m)	b (m)	c (m)	d (m)	e (m)	Walkway Grating and Handrail Lengths
ISO161080L162.6	6+546.200	2.88	27.70	3.62	—	—	27.7 m

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REVISIONS	
NAME	DATE

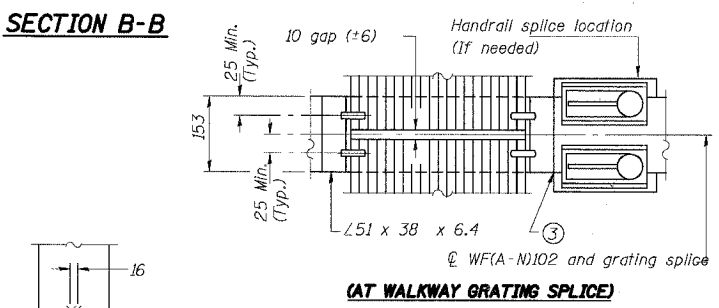
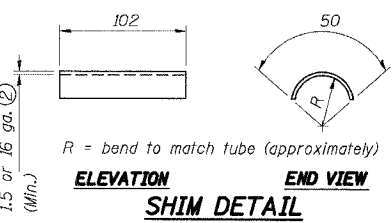
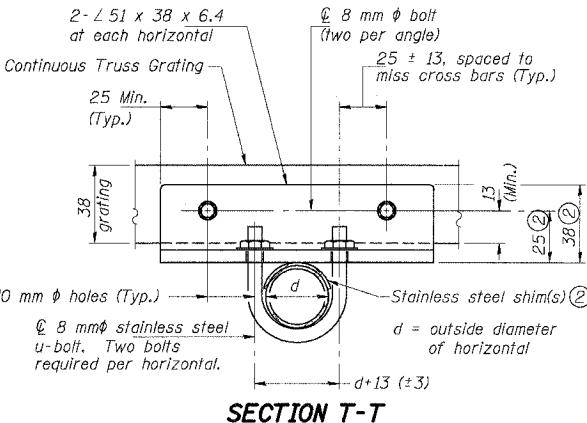
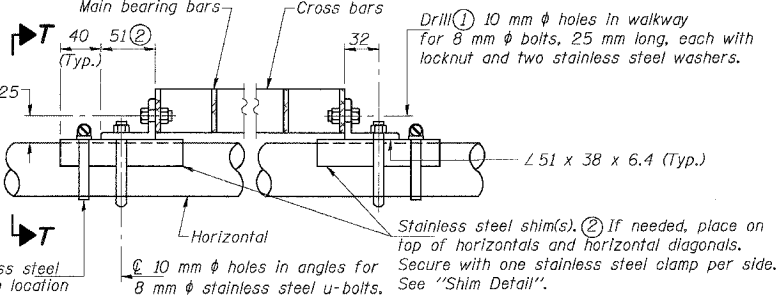
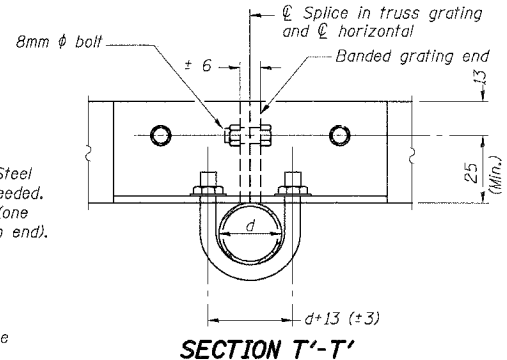
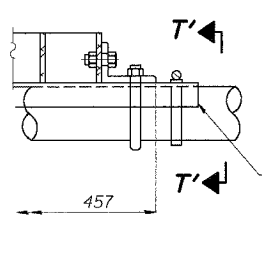
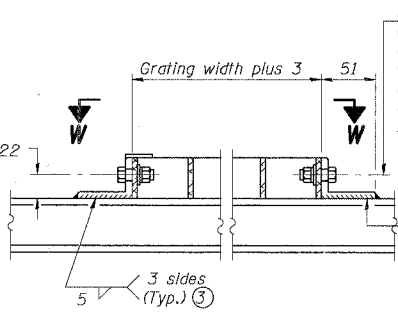
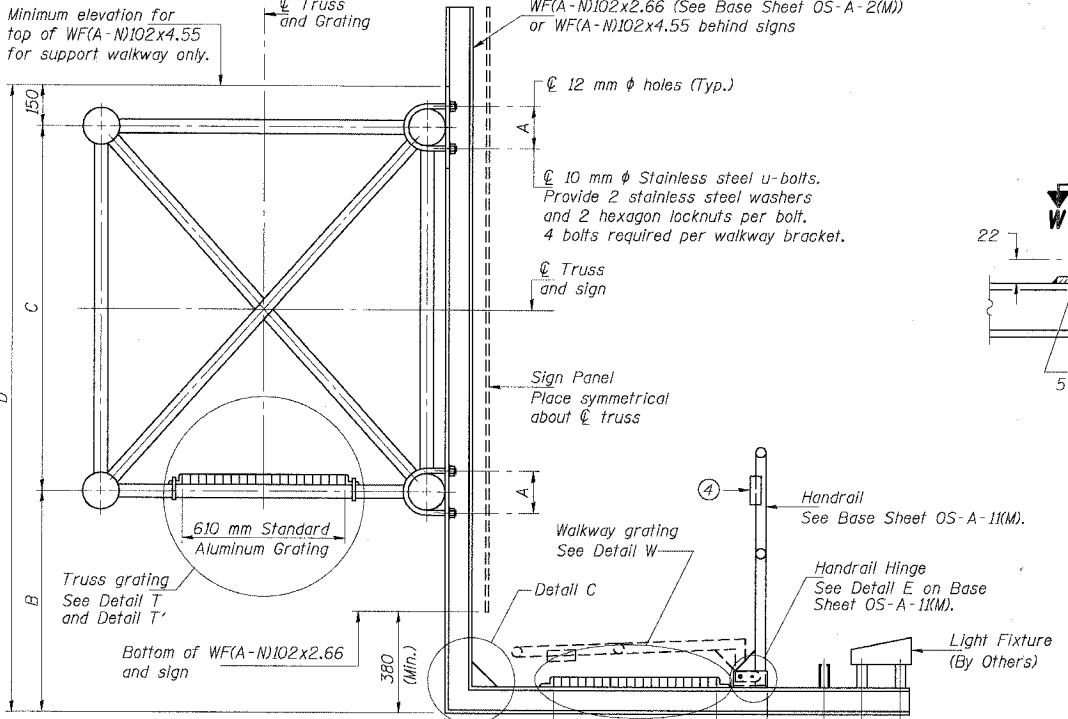
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
COOK COUNTY

OVERHEAD SIGN STRUCTURES ALUMINUM WALKWAY DETAILS

SCALE: DATE: 7/18/2005

DRAWN BY: NK
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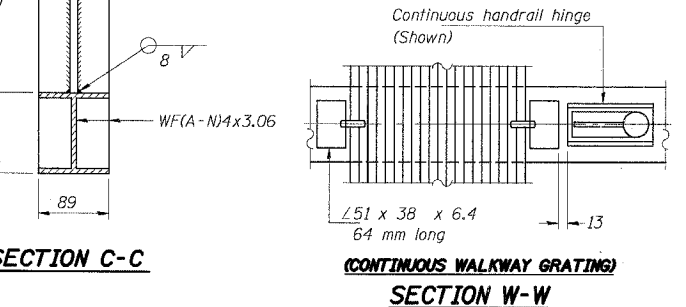
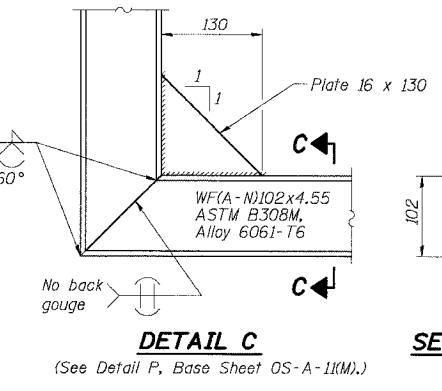
SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars shall be 5 mm x 38 mm on 30 mm centers and conform to ASTM B221M Alloy 6061-T6.
Cross bars shall be 5 mm x 38 mm on 102 mm centers and conform to ASTM B221M Alloy 6063-T5 or 6061-T6

OR

Aluminum Grating with modified "4" sections for main bearing bars shall meet the following requirements:
Main bars shall conform to ASTM B221M Alloy 6061-T6 and have a minimum section modulus equal to 1.16 x 10⁻³ mm³ per bar, a depth of 38 mm, spaced on 30 mm centers.
Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 100 mm centers.

- 1 Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- 2 Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.
- 3 If Handrail Joint present, weld angle to WFA-N102 and 6 mm extension bars. (See Base Sheet OS-A-11(M).)
- 4 Ø 3 mm x 13 mm x 50 mm welded to handrail posts to protect locations that contact grating.



Structure Number	Station	A	B	C	D
IS0161080L162.6	6+546.200	191	1.76 m	2.13 m	4.04 m

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60616263
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F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
COOK COUNTY

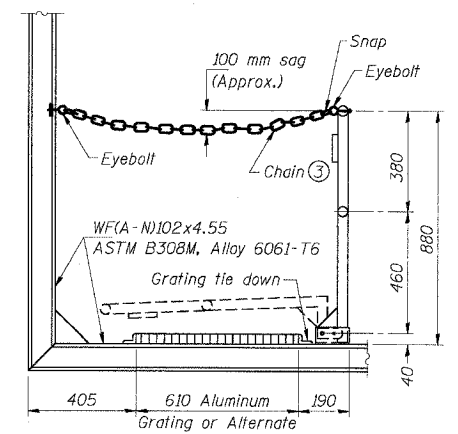
**OVERHEAD SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS II**

SCALE: DATE: 7/18/2005

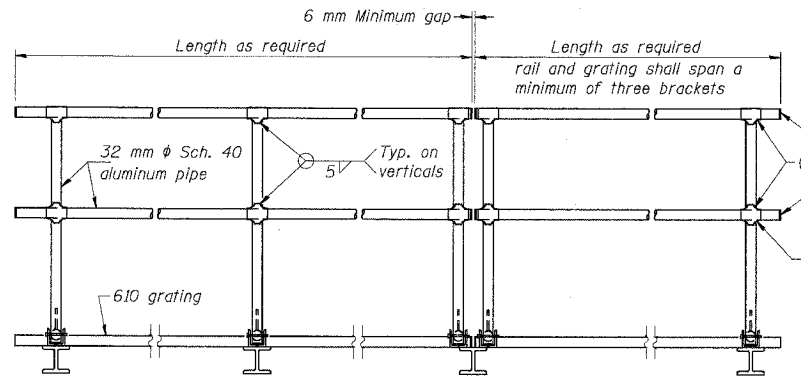
DRAWN BY: NK
CHECKED BY: VCP

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TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	325
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		



SIDE ELEVATION
(Showing safety chain w/o sign)

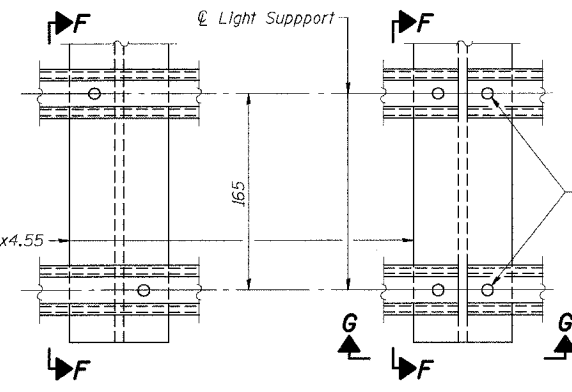


FRONT ELEVATION

HANDRAIL DETAILS

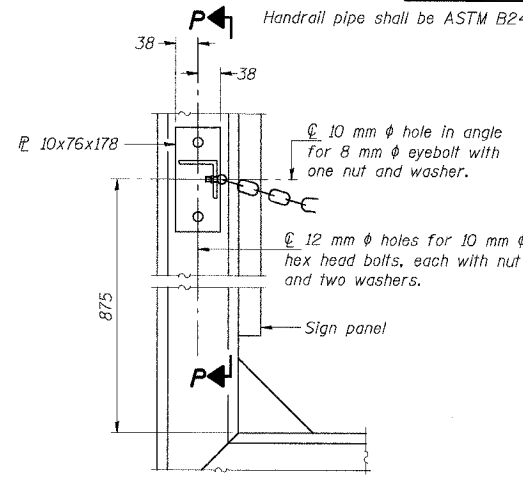
① Install standard force-fit end caps or weld 3 mm end plates with 3 mm c.f.w. and grind smooth. (All rail ends)

② Horizontal handrail member shall be continuous thru fitting. Provide 12 mm ϕ hole in fitting for 10 mm ϕ bolt. Field drill 12 mm ϕ hole in horizontal rail member. Provide locknut and two stainless steel washers for bolt. (Use 8 mm eyebolts in 12 mm ϕ holes on top rail at ends only.)

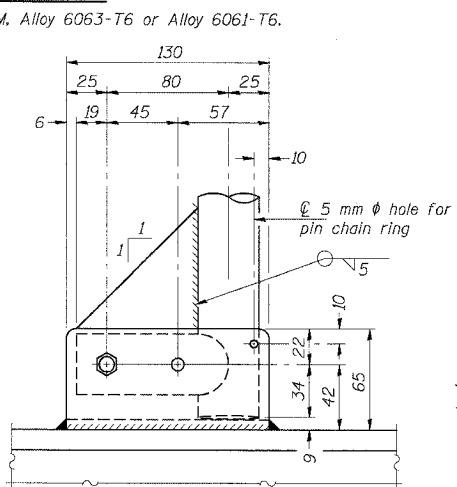


DETAIL F

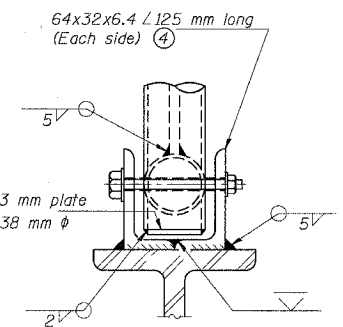
DETAIL G



ALTERNATE SAFETY CHAIN ATTACHMENT
(With Sign Present)
Items not shown same as "Side Elevation" of "Handrail Details"

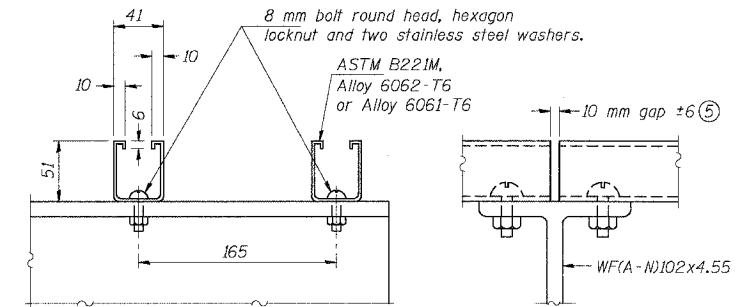


SIDE ELEVATION



FRONT ELEVATION

ELEVATION AT HANDRAIL JOINT ④
Details not shown same as "FRONT ELEVATION"

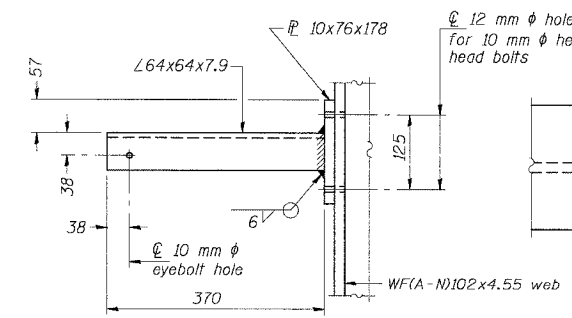


SECTION F-F

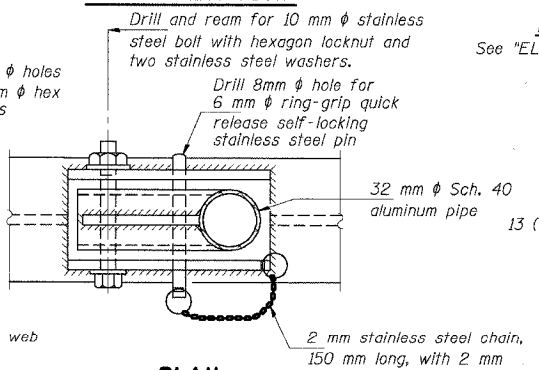
SECTION G-G

LIGHTING FIXTURE MOUNTS

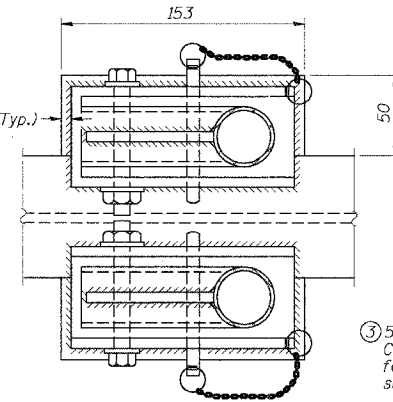
⑤ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.



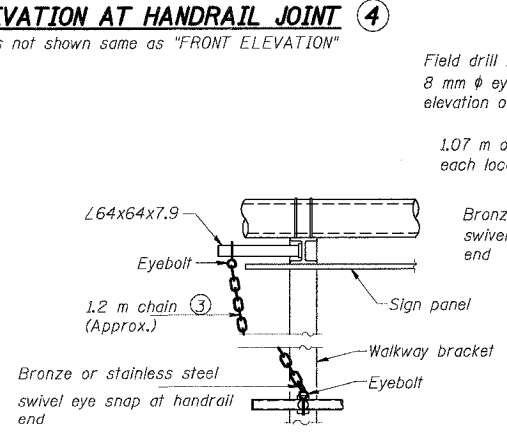
SECTION P-P



PLAN DETAIL E HANDRAIL HINGE



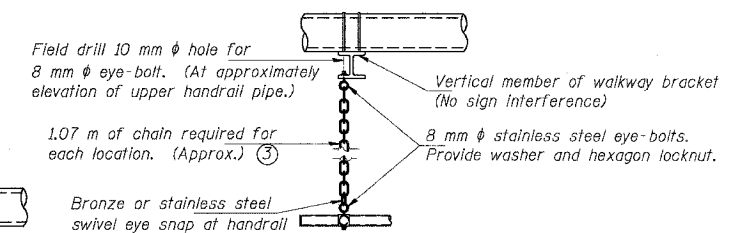
PLAN AT HANDRAIL JOINT
Details not shown same as "PLAN"



ALTERNATE SAFETY CHAIN ATTACHMENT
Details not shown similar to "Safety Chain" Details (Walkway omitted for clarity)

③ 5 mm galvanized steel chain, approximately 40 links per meter. Chain to be hot dip galvanized after manufacture and suitable for prolonged exterior exposure. Alternate materials may be substituted with the Engineer's approval.

④ Extrusions may be used in lieu of the details shown, with approval of the Engineer.



SAFETY CHAIN

One required for each end of each walkway.

Note: All eyebolts, bolts, nuts and washers shall be stainless steel. For material, see General Notes.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
COOK COUNTY

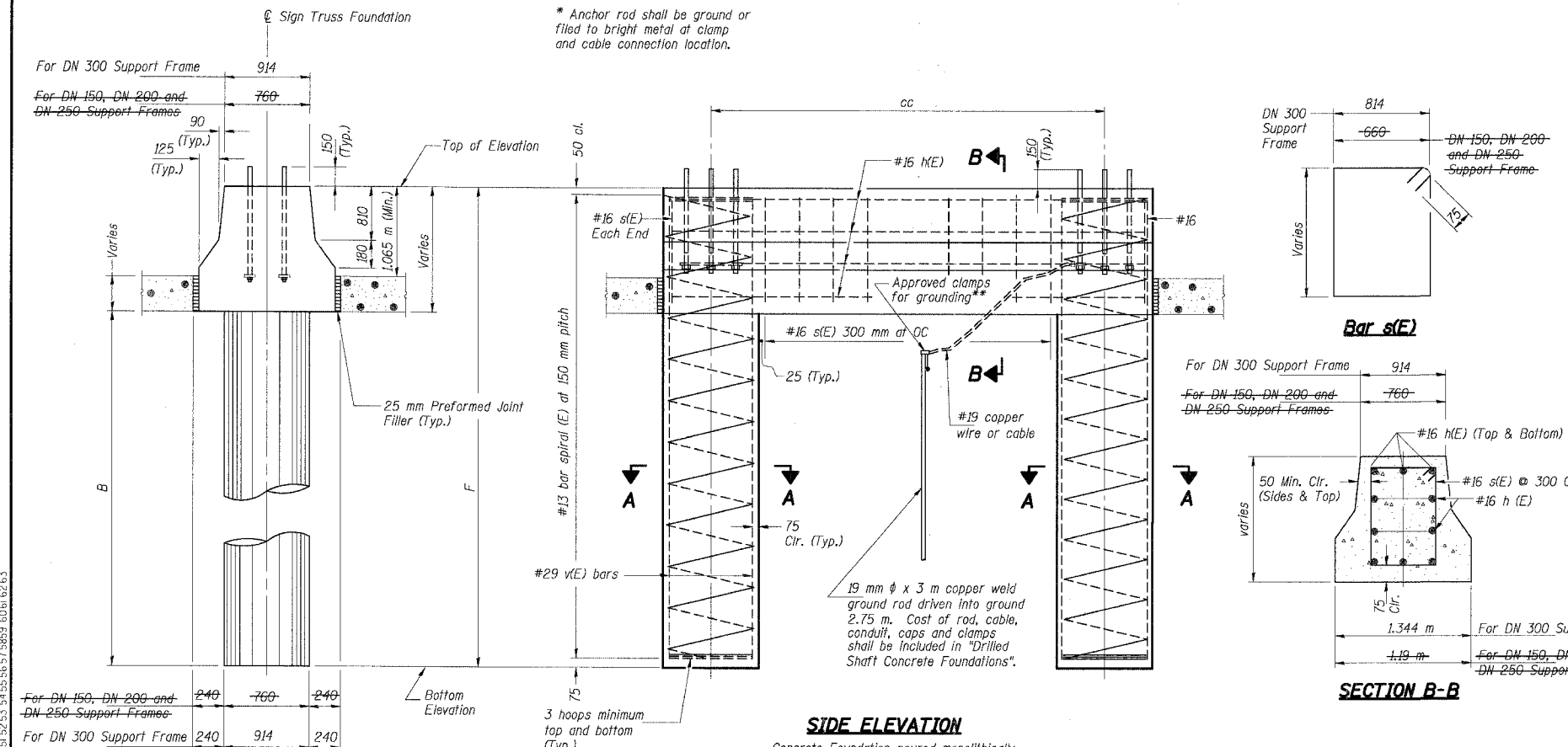
**OVERHEAD SIGN STRUCTURES
ALUMINUM HANDRAIL DETAILS**

SCALE: DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: VCP

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TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	326
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
* (2425 & 2626) R-2		CONTRACT NO. 62111		



NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Q_u) of at least 120 kPa, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 300 mm by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance.

Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

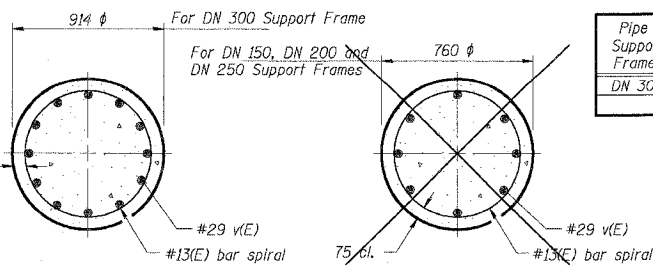
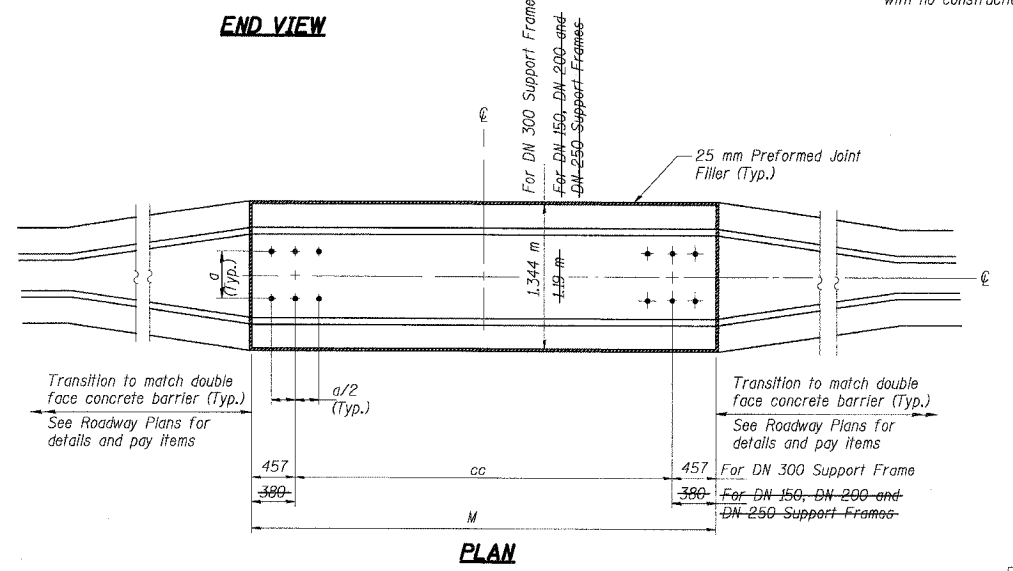
Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Bridge Seal Sealer application will be required on concrete surfaces above the lowest elevation 150 mm below finished ground line. Cost included in "Drilled Shaft Concrete Foundation".

BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
h(E)	10	#16	M less 100 mm	
s(E)	Varies	#16	Varies	□
v(E)	24	#29	D less 125 mm	
v(E)	16	#29	D less 125 mm	
#13(E) bar spiral - see Side Elevation				

Structure Number	Station	Left Foundation				Right Foundation				Class S1 Concrete (Cu. m.)
		Elevation Top	Elevation Bottom	B	F	Elevation Top	Elevation Bottom	B	F	
1S0161094L075.5	6+546.200	188.950	180.000	7.5 m	8.95 m					16.4



Pipe Support Frames	cc	M	a	a/2
DN 300	2.75 m	3.664 m	460	230

REVISIONS	
NAME	DATE

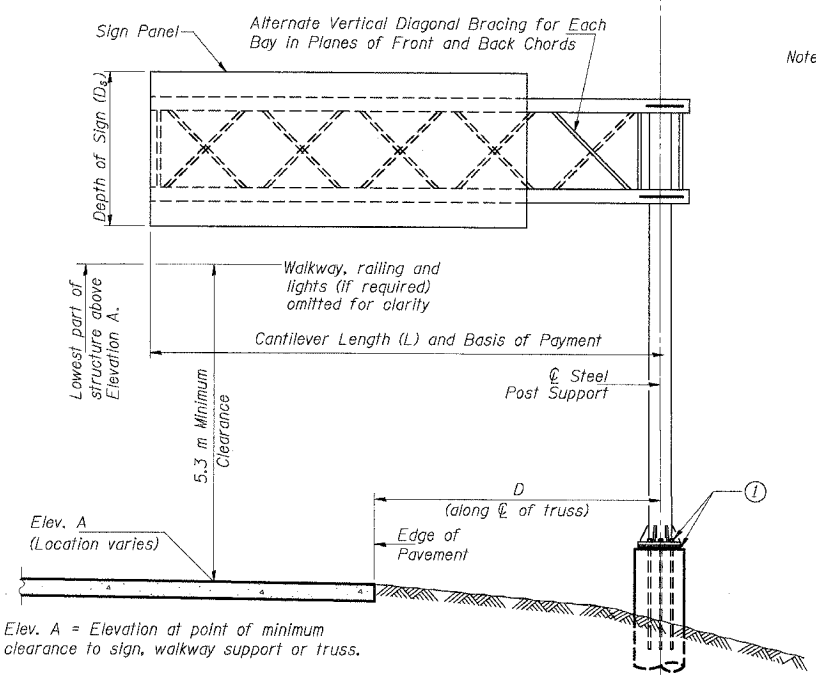
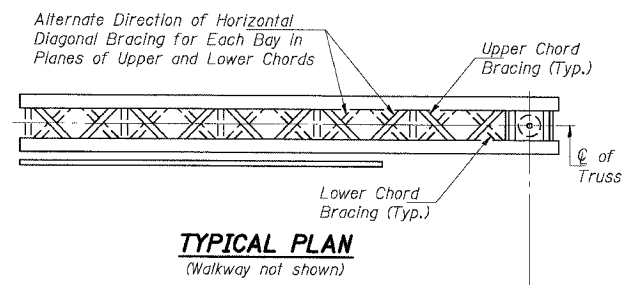
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

**OVERHEAD SIGN STRUCTURES
 FOUNDATION DETAILS
 MEDIAN SUPPORT**

SCALE: DATE: 7/18/2005
 DRAWN BY: NK
 CHECKED BY: VCP

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 CHICAGO, ILLINOIS

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Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

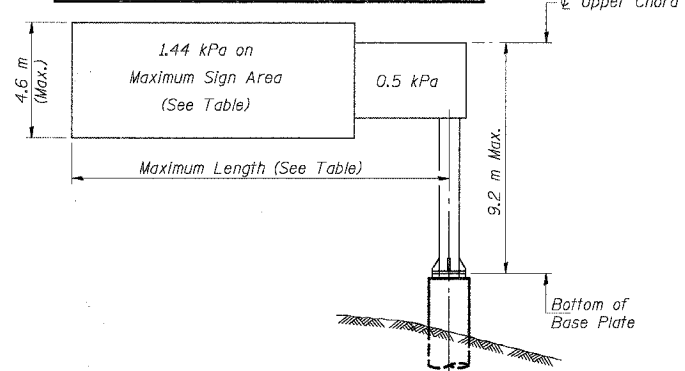
TYPICAL ELEVATION
Looking in Direction of Traffic

Sign support structures may be subject to damaging vibrations and oscillations when sign panels are not in place during erection or maintenance of the structure. To avoid these vibrations and oscillations, consideration should be given to attaching temporary blank sign panels to the structure.

Structure Number	Station	Design Truss Type	Cantilever Length (L)	Elev. A	Dim. D	D _s	Total Sign Area
1C0161080L162.1	5+658.000	III-C-A	9.15 m	187.086	See Note 1 below	3.659 m	22.87 sq m
1C0161080L162.3	6+100.000	II-C-A	8.41 m	190.000	See Note 1 below	3.820 m	18.63 sq m

Note 1: See Sht. 1 of 23 for Steel Post location w.r.t. I-80, I-94 and Ramp U base lines, and edge of pavements.

Truss Type	Maximum Sign Area	Maximum Length
I-C-A	15.8 m ²	7.6 m
II-C-A	31.6 m ²	9.2 m
III-C-A	37.2 m ²	12.2 m



DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards. Installations not within dimensional limits shown require special analysis for all components.

① After adjustments to level truss and insure adequate vertical clearance, all top and leveling nuts shall be tightened against the base plate with a minimum torque of 270 N·m. Stainless steel mesh shall then be placed around the perimeter of the base plate. Secure to base plate with stainless steel banding.

Note: Trusses shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The contractor is responsible for maintaining the configuration and protection of the trusses.

GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

MEASUREMENTS: All dimensions are in millimeters (mm) except as noted.

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 145 km/h WIND VELOCITY

WIND LOADING: 1.44 kPa normal to Sign Panel Area and truss elements not behind sign Loading Diagram.

WALKWAY LOADING: Dead load plus 2.2 kN concentrated live load.

DESIGN STRESSES:

FIELD UNITS
f_c = 24 MPa
f_y = 400 MPa (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 241 MPa, or A500 Grade B or C with a minimum yield of 319 MPa. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270M Gr. 250, Gr. 345 or Gr. 345W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer. The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 20 J, at 4° C. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" (HS) must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if members interfere) must satisfy the requirements of ASTM A449, ASTM A193M, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04(f) of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts, and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

STEEL PIPE: DN indicates nominal diameter.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to AASHTO M314 Gr. 250 or 380 (36 or 55) with a minimum Charpy V-Notch (CVN) energy of 20 J at 5° C.

CONCRETE SURFACES: All concrete surfaces above an elevation 150 mm below the lowest final ground line of each foundation shall be cleaned and coated with Bridge Seat Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

*If M270M Gr. 345W steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE - CANTILEVER TYPE I-C-A	m	—
OVERHEAD SIGN STRUCTURE - CANTILEVER TYPE II-C-A (0.9m x 1.68m)	m	8.41
OVERHEAD SIGN STRUCTURE - CANTILEVER TYPE III-C-A (0.9m x 2.14m)	m	9.15
OVERHEAD SIGN STRUCTURE WALKWAY	m	11.9
DRILLED SHAFT CONCRETE FOUNDATIONS	m ³	—

** Truss Size: a = 915 mm, b = 1.68
*** Truss Size: a = 915 mm, b = 2.13 m

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NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
COOK COUNTY

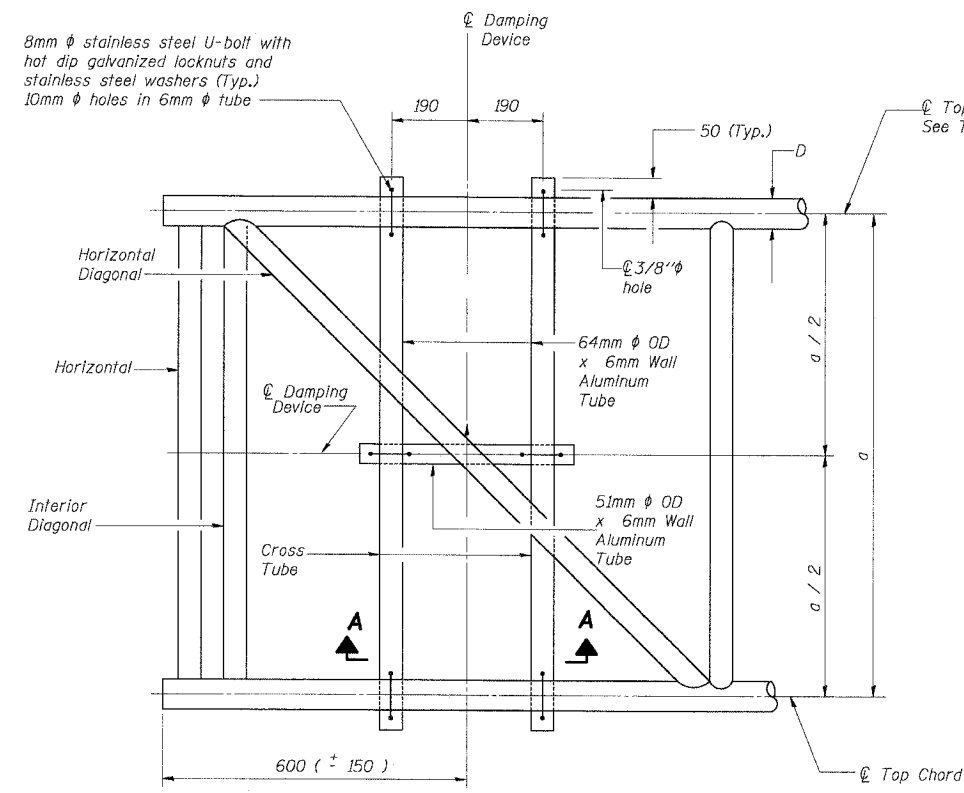
**CANTILEVER SIGN STRUCTURES
GENERAL PLAN & ELEVATION
ALUMINUM TRUSS & STEEL POST**

SCALE: DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: VCP

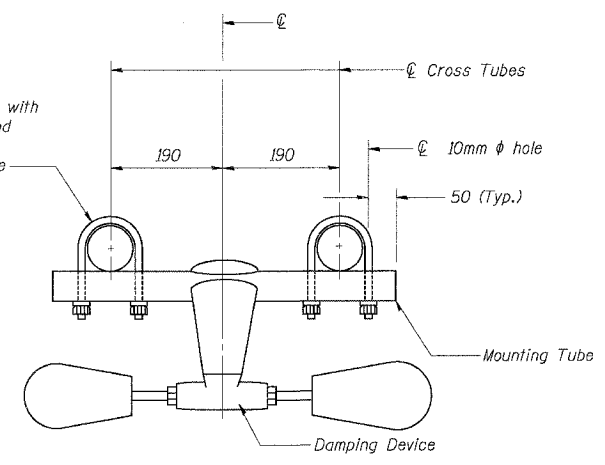
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TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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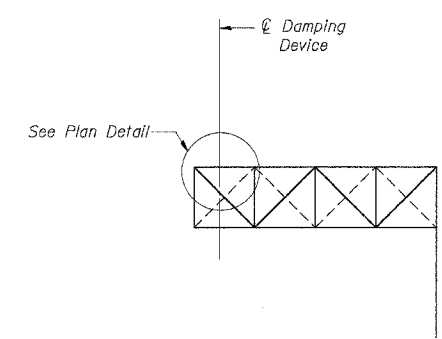
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80/94		COOK	631	329
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
(2425 & 2626) R-2			CONTRACT NO. 62111	



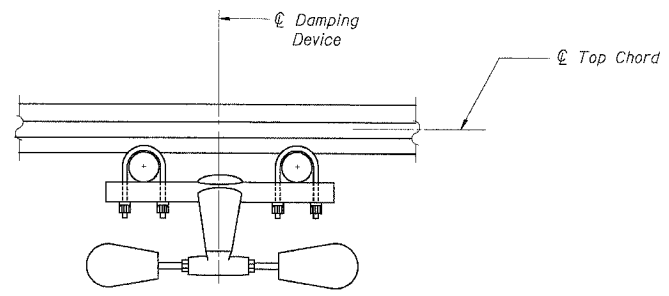
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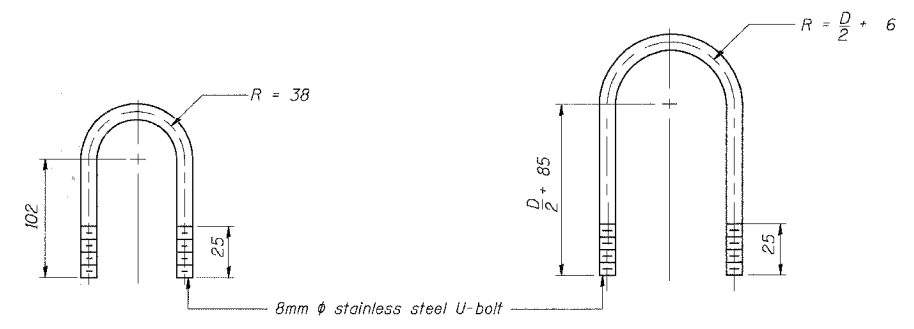
TRUSS DAMPING DEVICE CONNECTION DETAIL



ELEVATION
Aluminum Cantilever Sign Structure



SECTION A-A



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)

TOP CHORD TO CROSS TUBE U-BOLT DETAIL
(Typical)

GENERAL NOTES

- Damper: One damper per truss. (14 Kg Stockbridge-Type Aluminum)
- Materials: Aluminum tubes shall be ASTM B221(M) alloy 6061 temper T6
- All dimensions are in millimeters (mm) except as noted.

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REVISIONS	
NAME	DATE

14 of 23

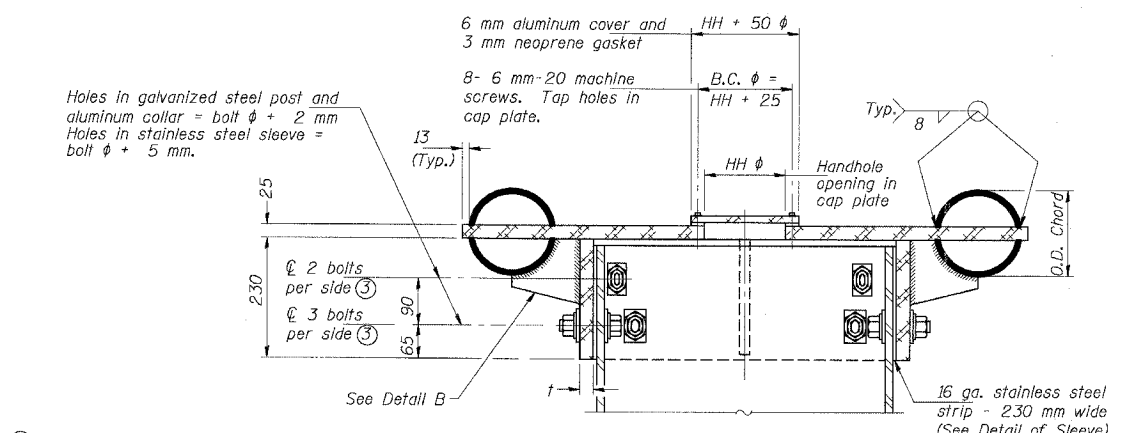
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

CANTILEVER SIGN STRUCTURES DAMPING DEVICE

SCALE: DATE: 7/18/2005

DRAWN BY: NK
 CHECKED BY: VCP

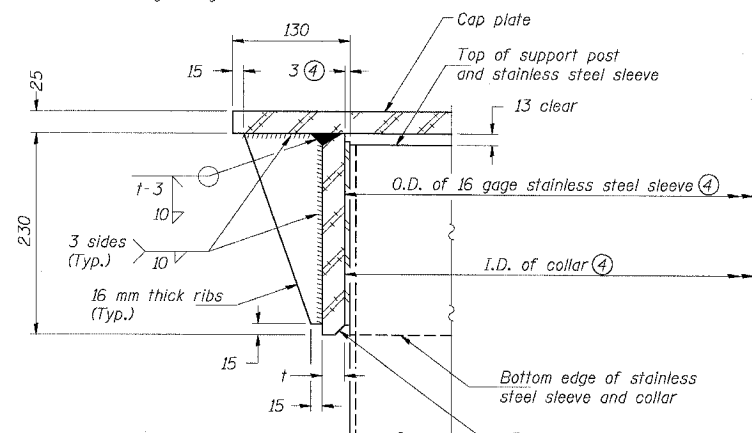
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④ Collar I.D. shall be manufactured to correspond to O.D. of actual galvanized post and stainless steel sleeve plus 3 mm (+2 mm). Maximum gap between post and collar at any location equals 3 mm before tightening bolts.

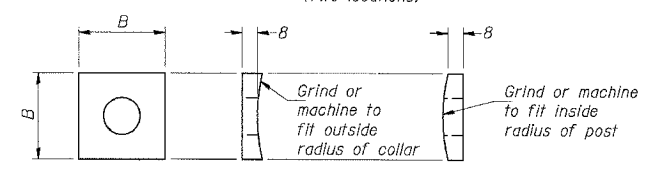
SECTION B-B

Bolts, washers (including contoured washers), and locknuts shall be stainless steel.



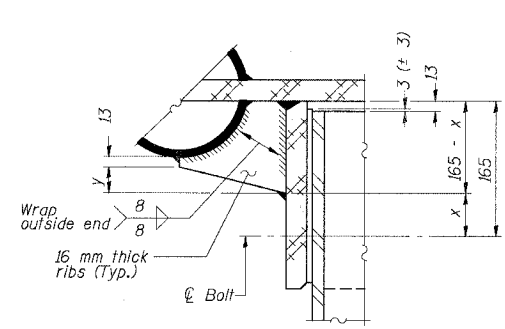
DETAIL A

(Two locations)



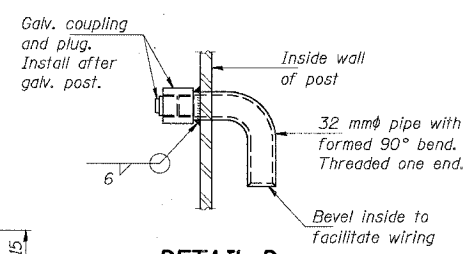
CONTOURED WASHERS

Bolt Dia.	Contoured Washers Hole Dia.	B
22	25	64
25	29	75
32	35	83



DETAIL B

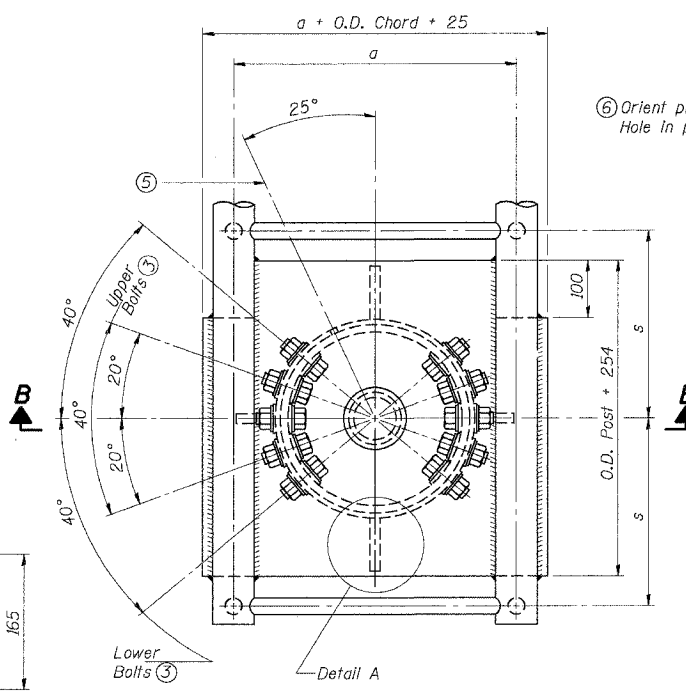
Two locations (For details not shown, see Detail C)



DETAIL D

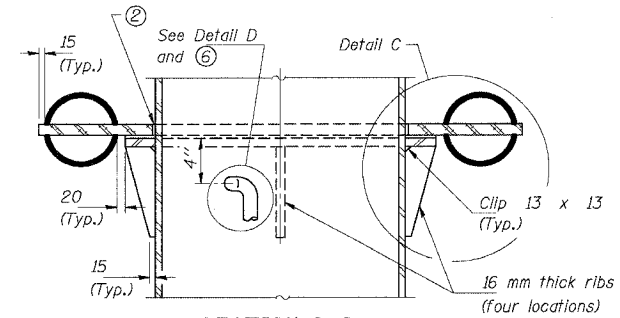
DETAIL OF STAINLESS STEEL SLEEVE

Weld to post after galvanizing. (Prepare post surface to insure tight, uniform fit and allow welding.) Welds to be 40 mm long at 150 mm cts. along top edge and at 6 mm opening.

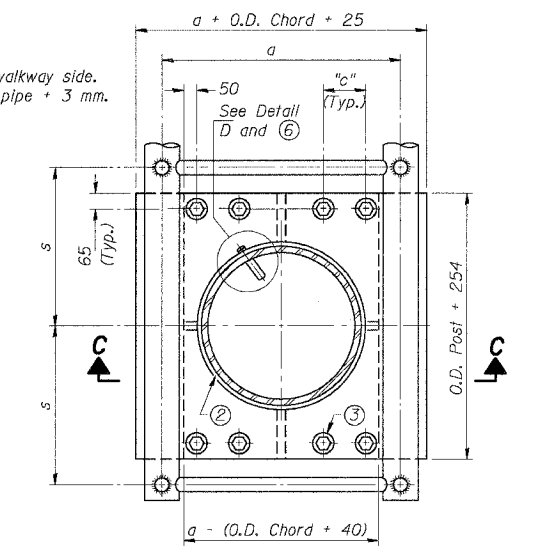


PLAN VIEW - TOP OF COLUMN

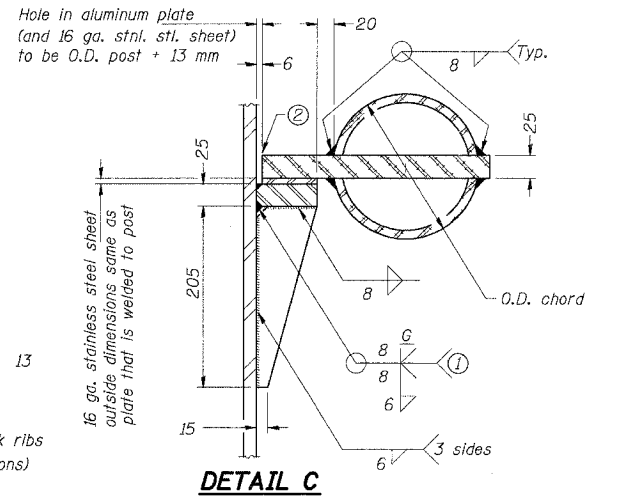
⑤ Optional full penetration weld in collar. (Two locations maximum... (180° apart)... X-ray or UT 100%)



SECTION C-C



SECTION THRU POST ABOVE LOWER CHORDS



DETAIL C

- ① Grind top if required to fully seat aluminum plate and stainless steel sheet.
- ② After tightening lower connection bolts, fill gap with non-hardening, silicone caulk suitable for exterior exposure and acceptable to the Engineer. Cost is included in "Overhead Sign Structure Cantilever".

Truss Type	Post Size	Upper & Lower Connection Bolt Diameter ③	Lower Juncture Bolt Spacing Dimension "c" ③	Opening in Cap Plate "HH"	Collar Thickness (t)	Side Ribs	
						x	y
I-C-A	406 phi (124 kg/m)	22	85	205	16	45	56
II-C-A	610 phi (152 kg/m)	25	90	305	22	50	32
III-C-A (10.7 Max.)	610 phi (186 kg/m)	32	90	305	22	50	25
III-C-A (>10.7 to 12.2)	610 phi (254 kg/m)	32	90	305	22	50	25

③ Upper and lower connection bolts in collar and bolts at lower chord connection must be high strength with matching locknuts. Connection bolts shall have two stainless steel flat washers each.

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REVISIONS	
NAME	DATE

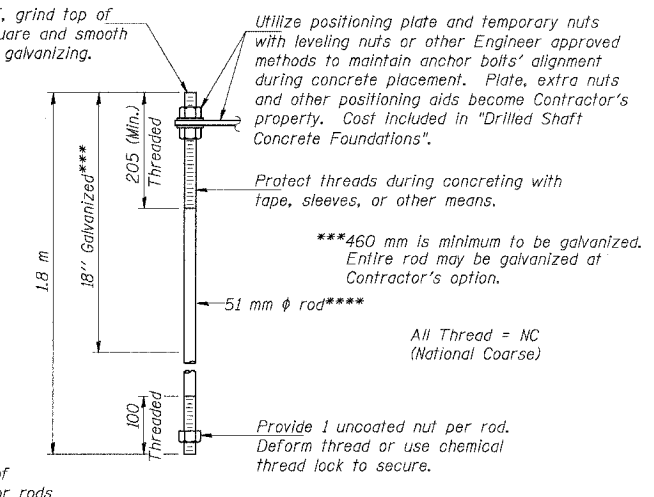
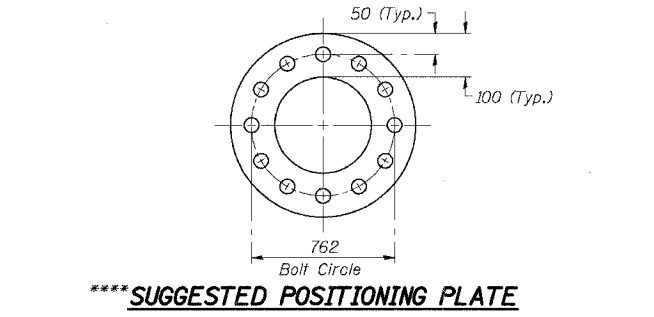
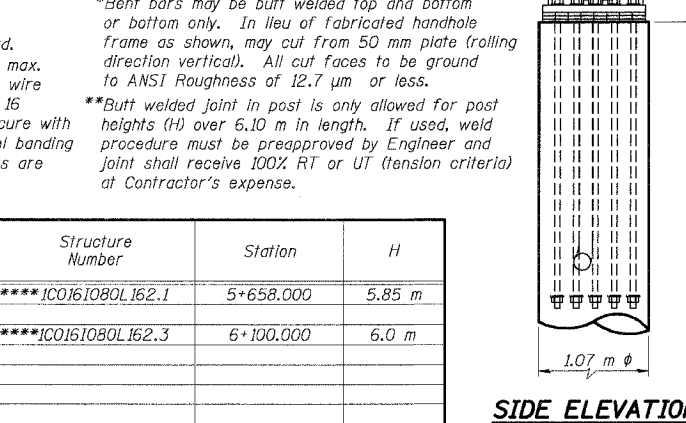
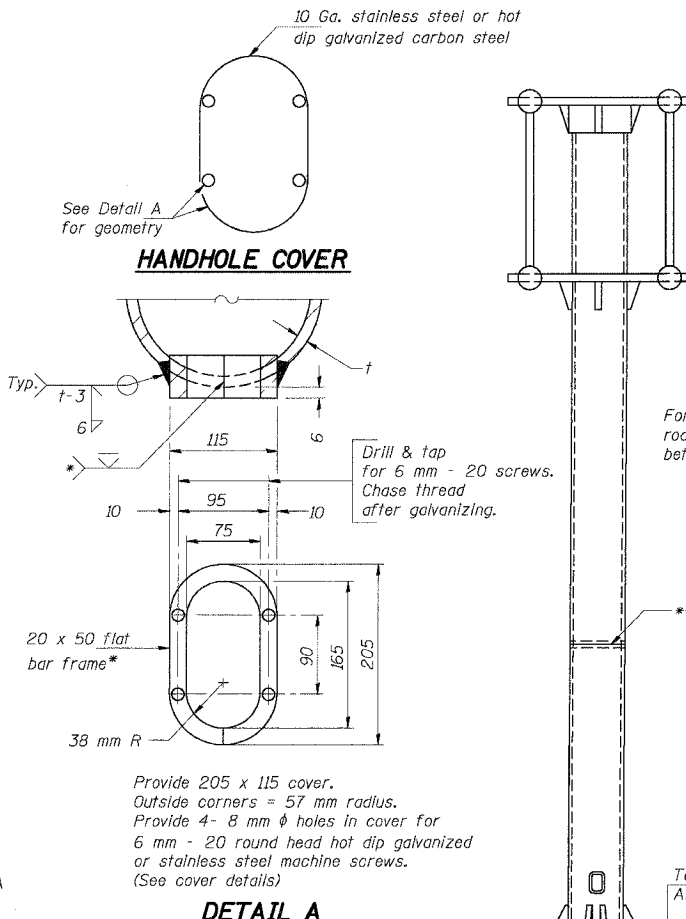
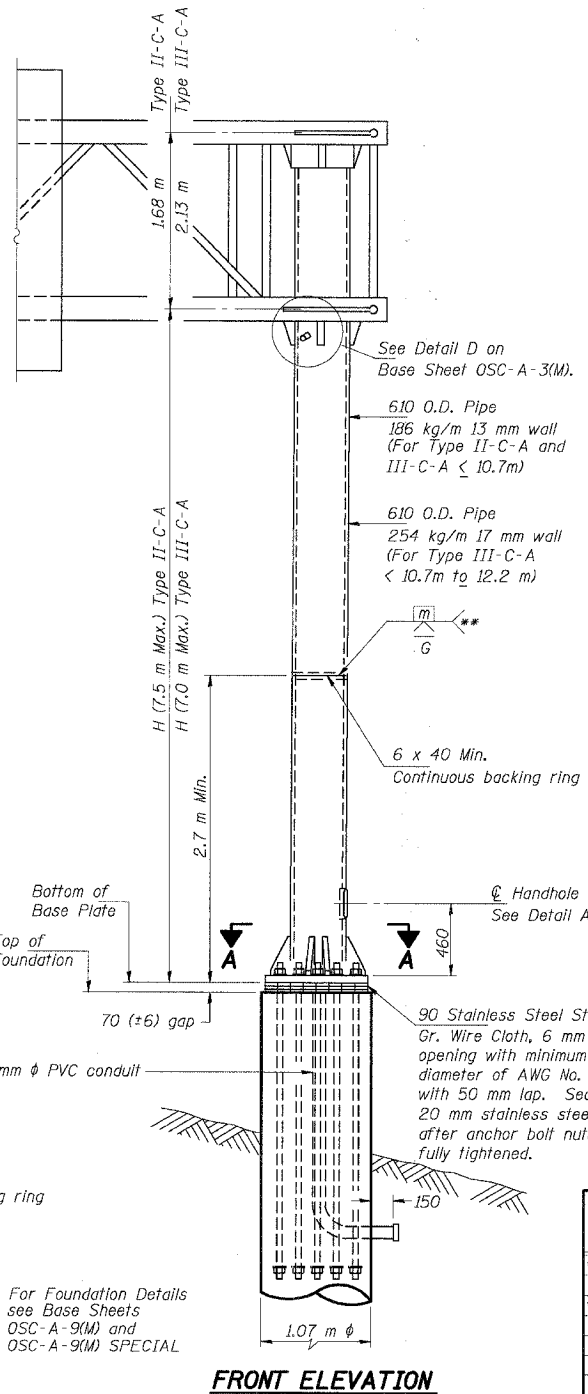
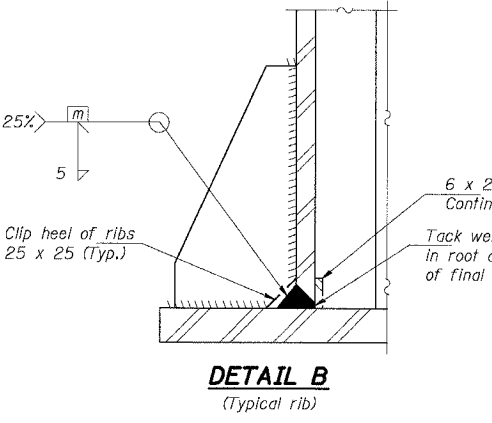
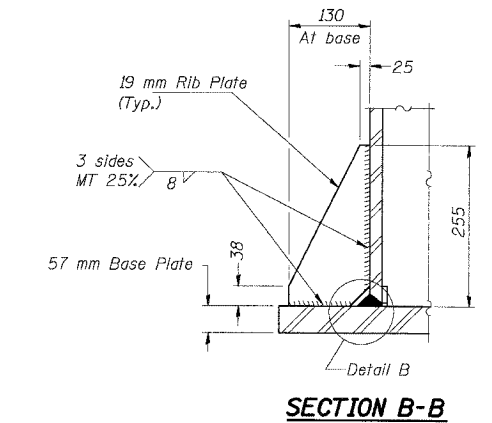
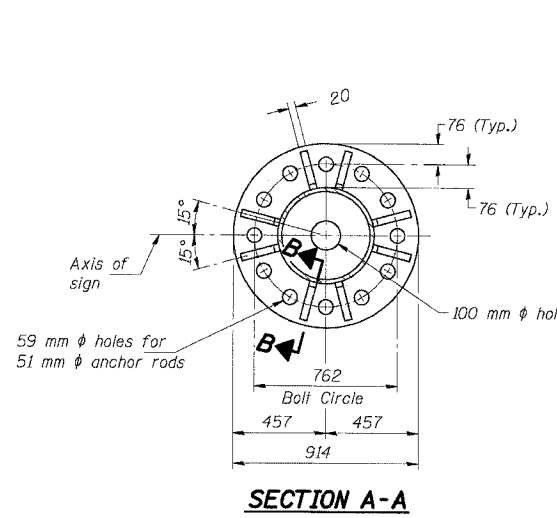
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

**CANTILEVER SIGN STRUCTURES
 JUNCTURE DETAILS
 ALUMINUM TRUSS & STEEL POST**

SCALE: DATE: 7/18/2005
 DRAWN BY: NK
 CHECKED BY: VCP

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	331
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2		CONTRACT NO. 62111		



Structure Number	Station	H
****1C0161080L162.1	5+658.000	5.85 m
****1C0161080L162.3	6+100.000	6.0 m

****Anchor rods, positioning plate, and PVC conduit for Structure Numbers 1C0161080L162.1 and 1C0161080L162.3 to be furnished and installed by others in a previous contract 62110.

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OSC-A-5(M) SPECIAL 11/1/2002

REVISIONS	
NAME	DATE

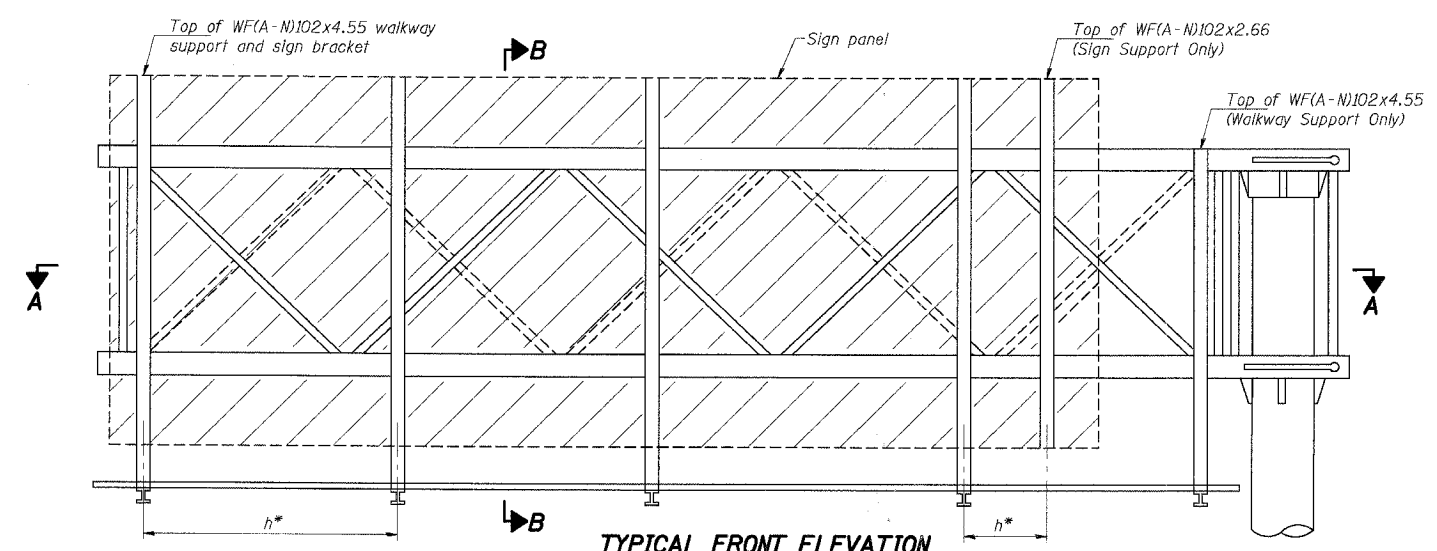
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

**CANTILEVER SIGN STRUCTURES
 TYPE II-C-A & III-C-A TRUSS SUPPORT
 ALUMINUM TRUSS & STEEL POST**

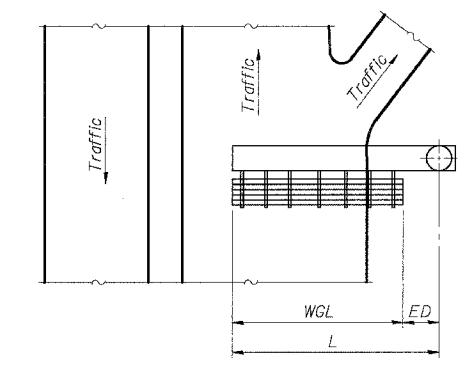
SCALE: DATE: 7/18/2005
 DRAWN BY: NK
 CHECKED BY: VCP

TENG
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	332
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		

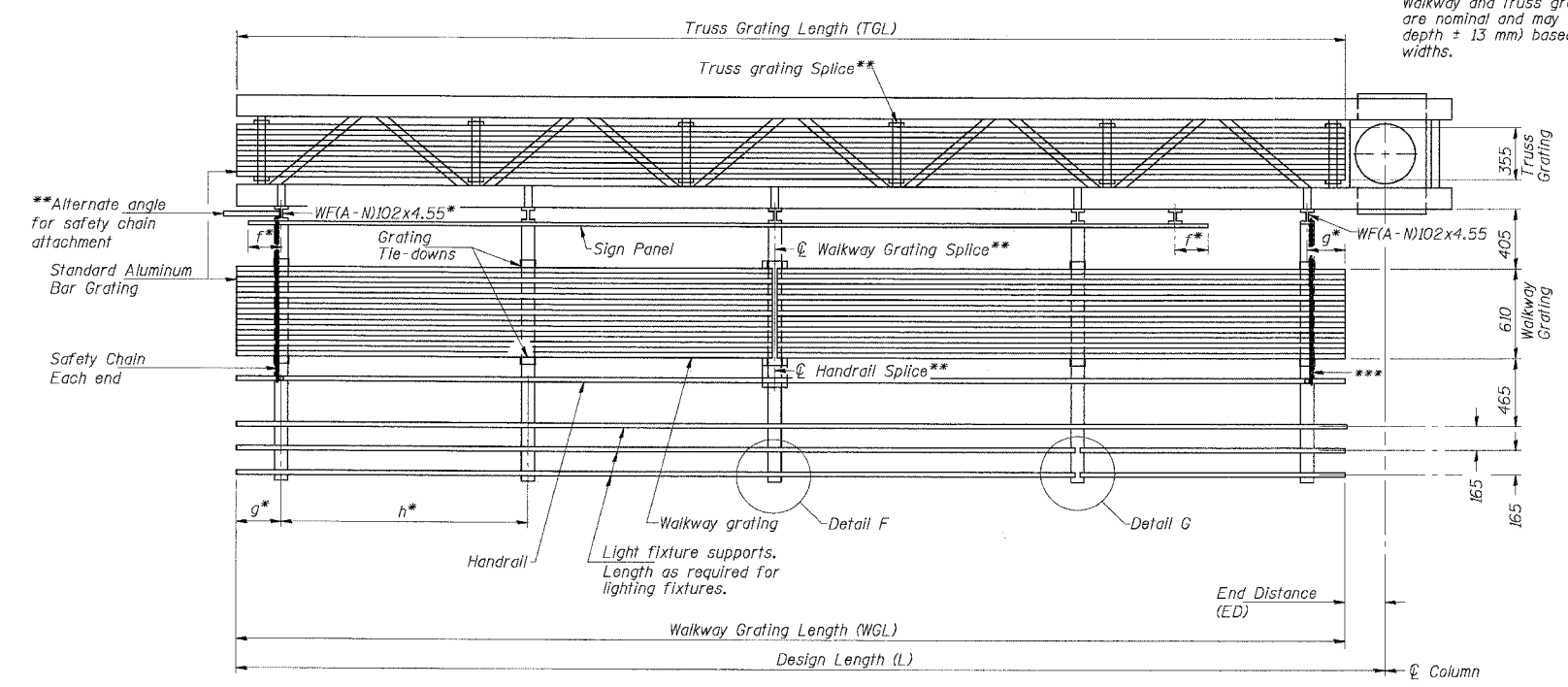


TYPICAL FRONT ELEVATION
With lights and handrail omitted for clarity.



PLAN WALKWAY AND HANDRAIL SKETCH
(Road plan beneath truss varies)

Walkway and truss grating dimensions are nominal and may vary (width ± 13 mm, depth ± 13 mm) based on available standard widths.



SECTION A-A

Truss grating to facilitate inspection shall run full length of cantilevers. Cost of truss grating is included in "Overhead Sign Structure Cantilever".

Handrail and walkway grating shall span a minimum of three brackets between splices.
**Use and location of handrail or grating splices are optional, based on lengths needed and material availability.

$$TGL = L - \left(\frac{\text{Post O.D.}}{2} + 150 \right)$$

Structure Number	Station	WGL	ED	TGL
1C0161080L162.1	5+658.000	6.3 m	2.85 m	8.695 m
1C0161080L162.3	6+100.000	5.6 m	2.81 m	7.955 m

Notes: *Space walkway brackets WF(A-N)102x4.55 and sign brackets WF(A-N)102x2.66 for efficiency and within limits shown:
f = 300 maximum, 100 minimum (End of sign to center of nearest bracket)
g = 300 maximum, 100 minimum (End of walkway to center of nearest bracket)
h = 1.85 m maximum (center to center sign and/or walkway support brackets, WF(A-N)102x2.66 or WF(A-N)102x4.55)
***If walkway bracket at safety chain location is behind sign, add angle to bracket.
For details of sign placement, sign/walkway brackets, truss and walkway gratings, grating splices and Section B-B, see Base Sheet OSC-A-7(M).
For details of handrail, handrail splice, safety chain and Details F and G, see Base Sheet OSC-A-8(M).

BRACKET TABLE

Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
2.45	4.3	3
4.3	6.15	4
6.15	8.0	5
8.0	9.85	6

REVISIONS	
NAME	DATE

17 of 23

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
COOK COUNTY

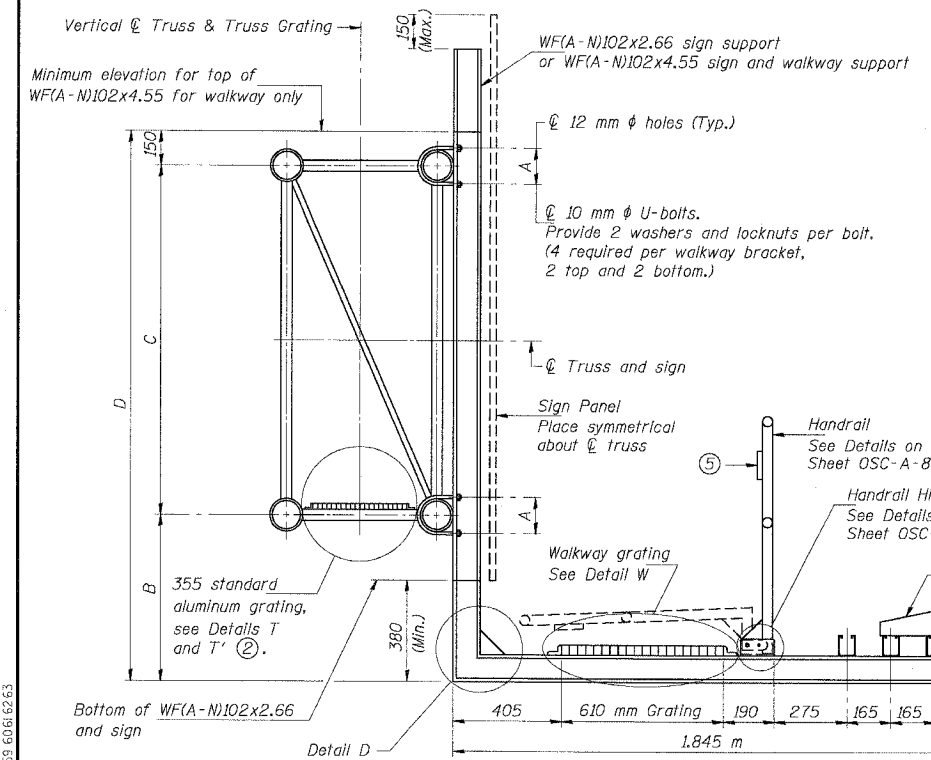
**CANTILEVER SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS
ALUMINUM TRUSS & STEEL POST**

SCALE: DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: VCP

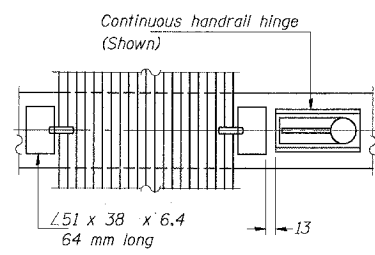
TENG TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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 OSC-A-6(M)

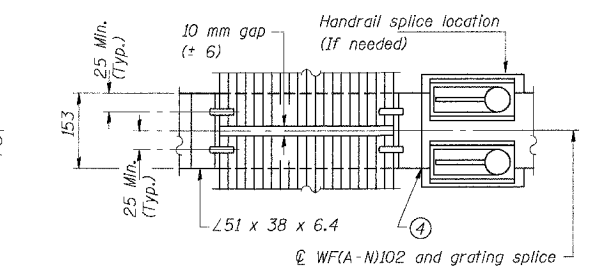
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	333
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		



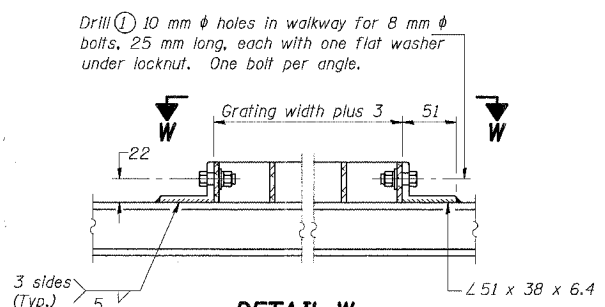
SECTION B-B



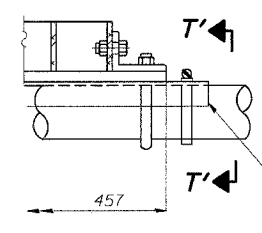
CONTINUOUS WALKWAY GRATING



SECTION W-W

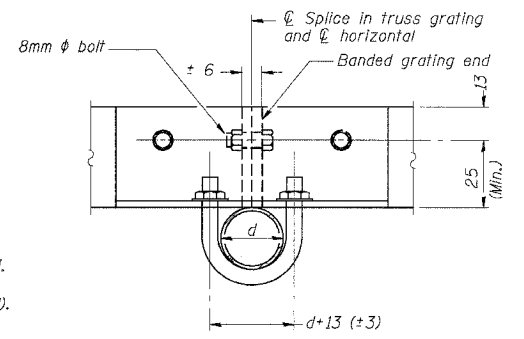


DETAIL W
(Walkway grating)

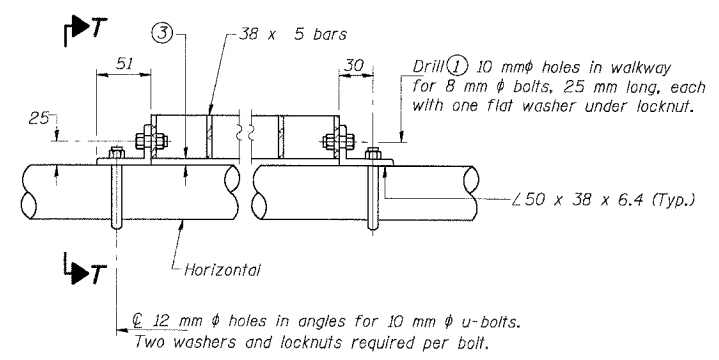


DETAIL T\'
(Truss grating splice)

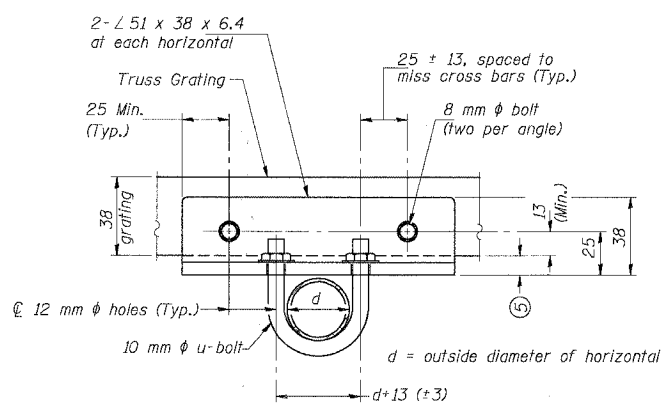
Details not shown same as Detail T. Alternate materials may be used subject to the Engineer's review and approval.



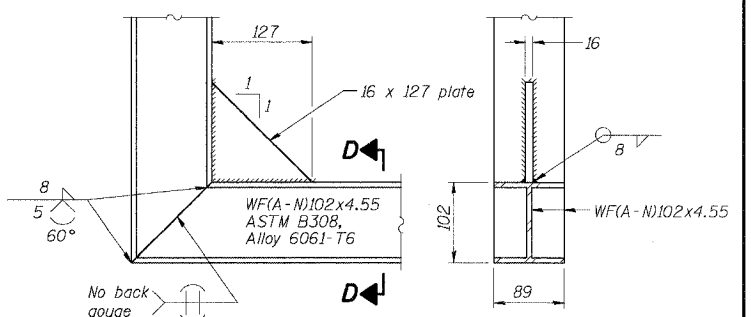
SECTION T-T



DETAIL T
(Truss grating at horizontal)



SECTION T-T



DETAIL D

SECTION D-D

(See Detail P, Base Sheet OSC-A-8(M).)

- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- When truss grating must be spliced, use suggested detail or other methods subject to the Engineer's review and approval. Locate splice to avoid interference between cross bars and bolt locations.
- If Handrail Joint present, weld angle to WF(A-N)102 and 6 mm extension bars. (See Base Sheet OSC-A-8(M).)
- 3 mm x 13 mm x 50 mm welded to handrail posts to protect locations that contact grating.
- Tube to grating gap may vary from 0 to 13mm (Max.) to align walkway, allow for camber, etc. Continuous Truss Grating

Structure Number	Station	A	B	C	D
1C0161080L162.1	5+658.000	191	1.20 m	2.13 m	3.48 m
1C0161080L162.3	6+100.000	178	1.50 m	1.68 m	3.33 m

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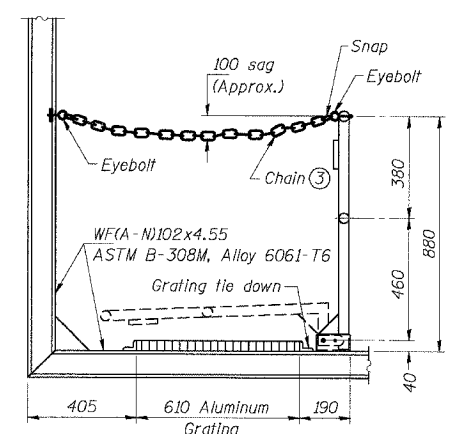
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

**CANTILEVER SIGN STRUCTURES
 ALUMINUM WALKWAY DETAILS II
 ALUMINUM TRUSS & STEEL POST**

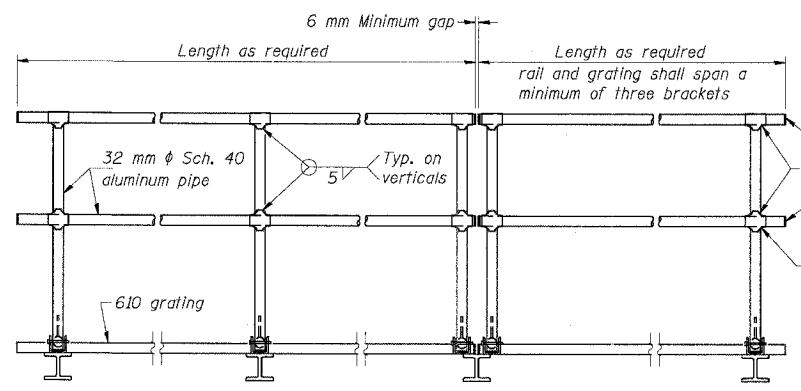
SCALE: DATE: 7/18/2005
 DRAWN BY: NK
 CHECKED BY: VCP

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 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	334
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		



SIDE ELEVATION
(Showing Safety Chain W/O Sign)

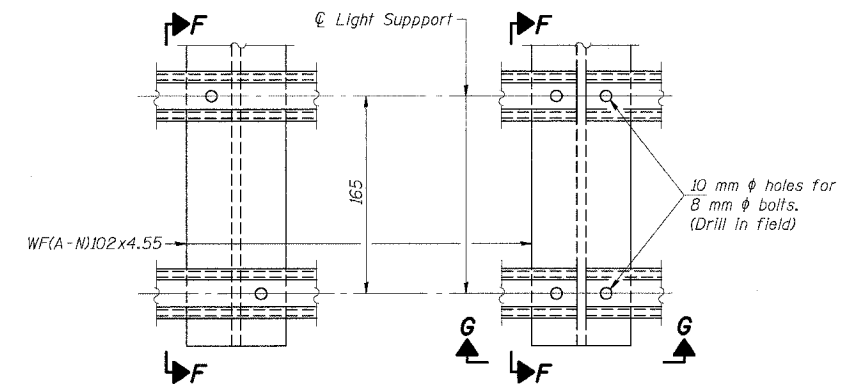


FRONT ELEVATION

HANDRAIL DETAILS
Handrail pipe shall be ASTM B241M, Alloy 6063-T6 or Alloy 6061-T6.

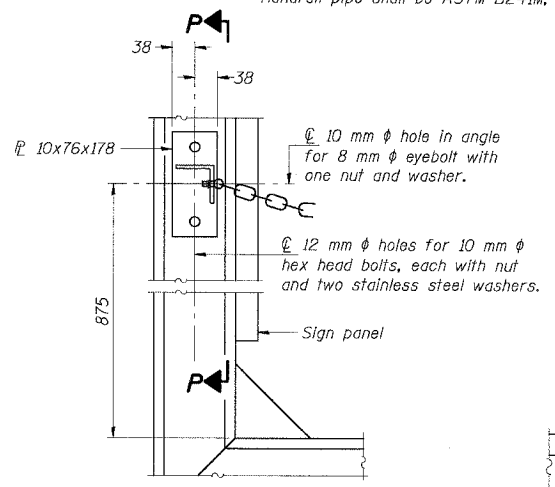
① Install standard force-fit end caps or weld 3 mm end plates with 3 mm c.f.w. and grind smooth. (All rail ends)
Fittings-ASTM B-26M, Alloy 356-T7

② Horizontal handrail member shall be continuous thru fitting. Provide 12 mm ϕ hole in fitting for 10 mm ϕ bolt. Field drill 12 mm ϕ hole in horizontal rail member. Provide locknut and two stainless steel washers for bolt. (Use 8 mm eyebolts in 12 mm ϕ holes on top rail at ends only.)



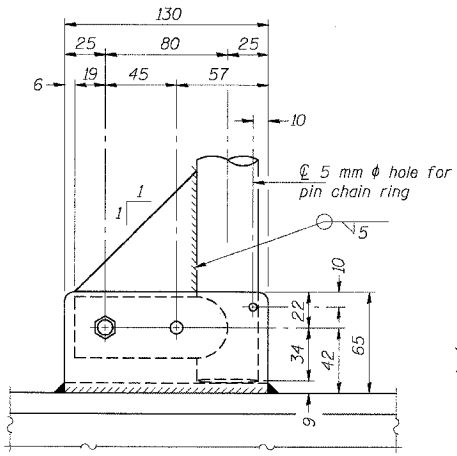
DETAIL F

DETAIL G

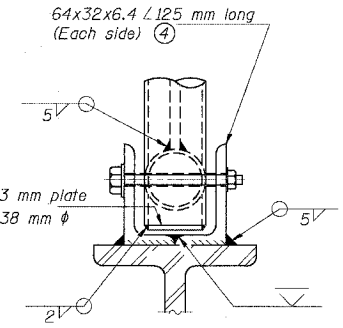


ALTERNATE SAFETY CHAIN ATTACHMENT
(With Sign Present)

Items not shown same as "Side Elevation" of "Handrail Details"

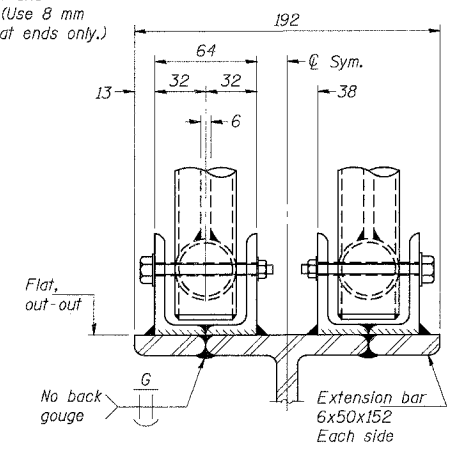


SIDE ELEVATION

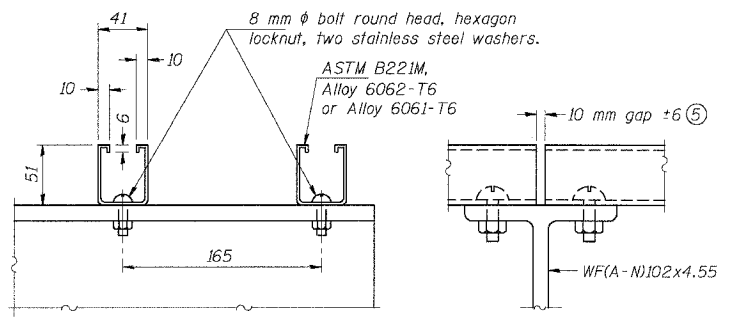


FRONT ELEVATION

See "ELEVATION" at right for dimensions.



ELEVATION AT HANDRAIL JOINT ④
Details not shown same as "FRONT ELEVATION"

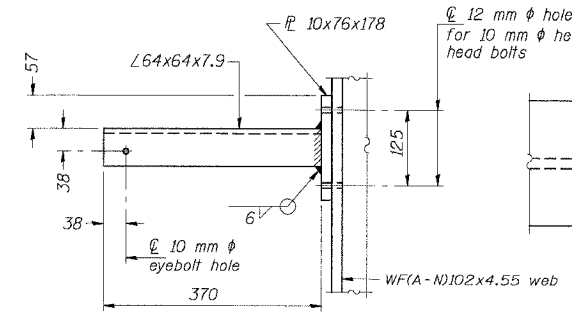


SECTION F-F

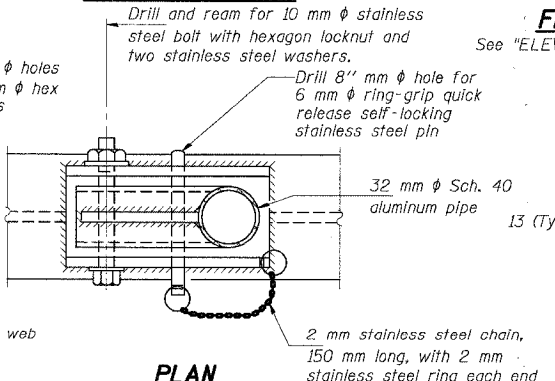
SECTION G-G

LIGHTING FIXTURE MOUNTS

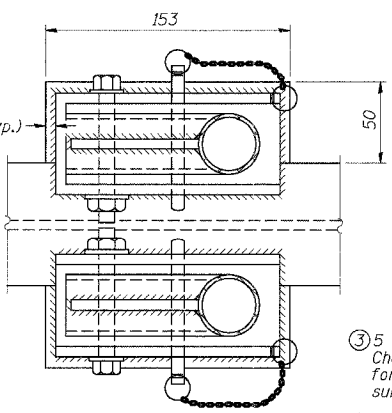
⑤ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.



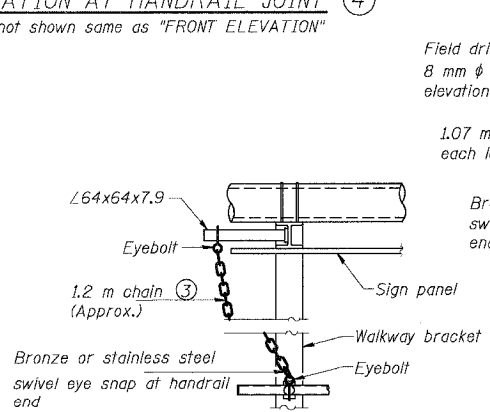
SECTION P-P



PLAN DETAIL E HANDRAIL HINGE



PLAN AT HANDRAIL JOINT
Details not shown same as "PLAN"

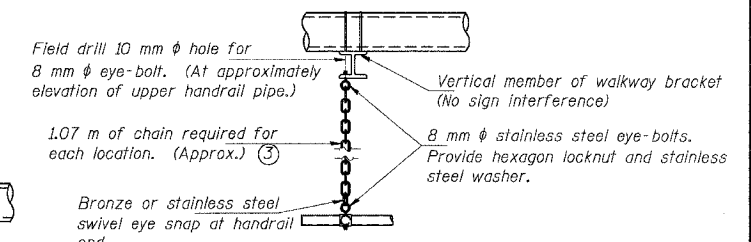


ALTERNATE SAFETY CHAIN ATTACHMENT

Details not shown similar to "Safety Chain" Details (Walkway omitted for clarity)

③ 5 mm galvanized steel chain, approximately 40 links per meter. Chain to be hot dip galvanized after manufacture and suitable for prolonged exterior exposure. Alternate materials may be substituted with the Engineer's approval.

④ Extrusions may be used in lieu of the details shown, with approval of the Engineer.



SAFETY CHAIN

One required for each end of each walkway.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
COOK COUNTY

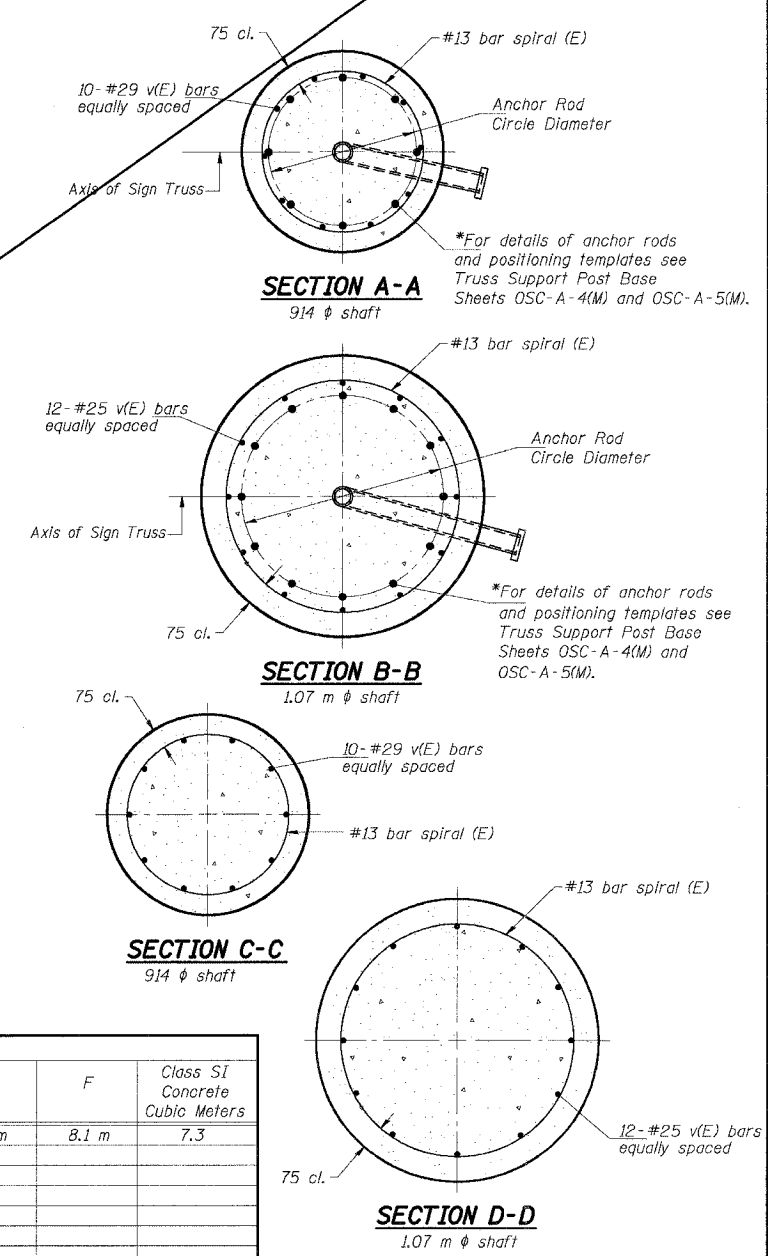
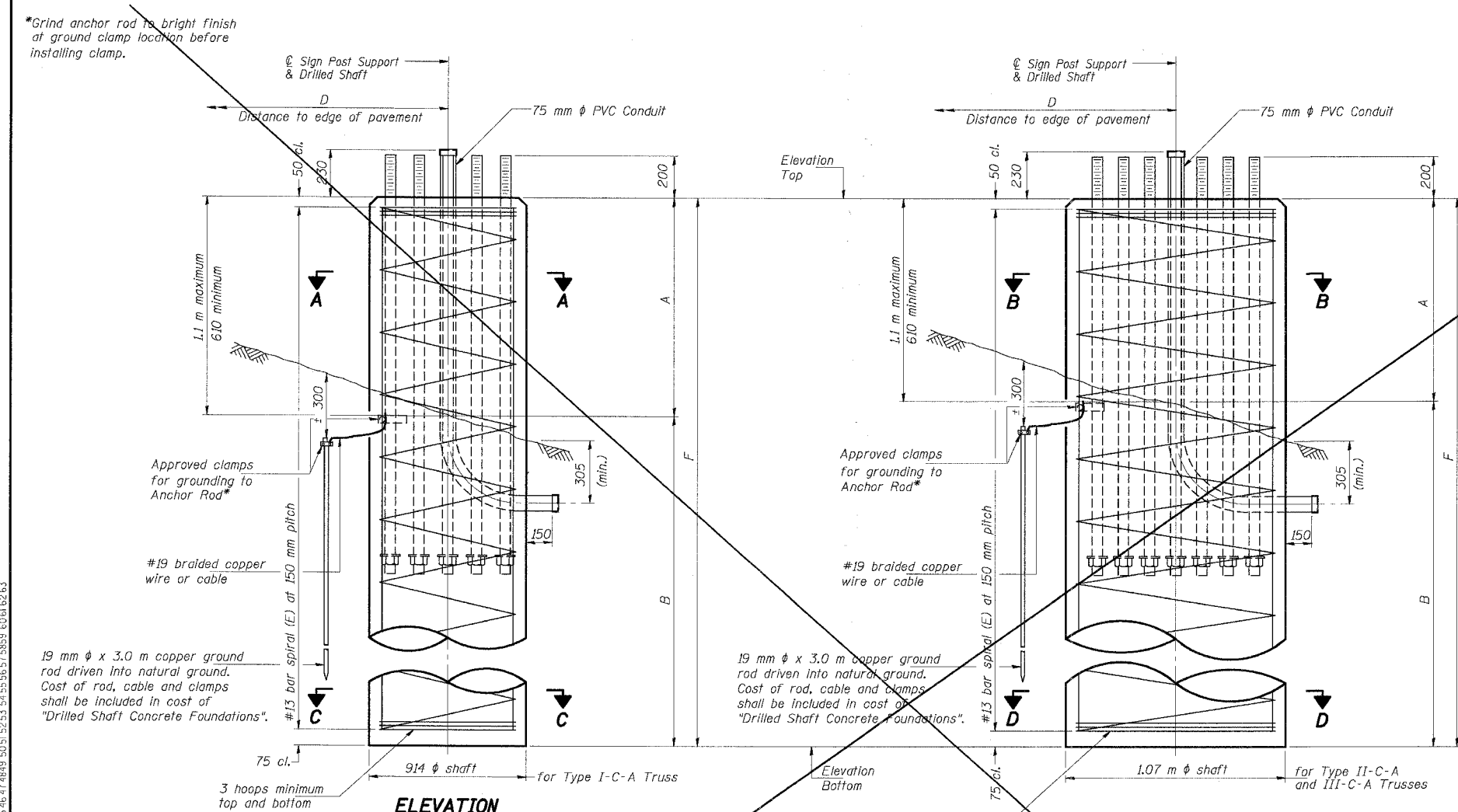
**CANTILEVER SIGN STRUCTURES
HANDRAIL DETAILS
ALUMINUM TRUSS & STEEL POST**

SCALE: DATE: 1/18/2005
DRAWN BY: NK
CHECKED BY: VCP

TENG
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

OSC-A-8(M) 11/1/2002
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	335
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* 12425 & 26261 R-2			CONTRACT NO. 62111	



NOTES:

The foundation dimensions shown in the Foundation Design Table are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Q_u) of at least 120 kPa, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown in the Foundation Data Table will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 300 mm by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sandtubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Bridge Seal Sealer application will be required on concrete surfaces above the lowest elevation 150 mm below finished ground line. Cost included in "Drilled Shaft Concrete Foundation".

Structure Number	Station	Truss Type	Shaft Diameter	Elevation Top	Elevation Bottom	A	B	F	Class SI Concrete Cubic Meters
100161080L162.1	5+658.000	III-C-A	1.07 m	187.850	179.750	0.8 m	7.3 m	8.1 m	7.3

Truss Type	Post Base Sheet	Maximum Cantilever Length (m)	Maximum Total Sign Area (sq m)	Shaft Diameter (m)	"B" Depth (m)	Anchor Rods No.	Anchor Rod Diameter (mm)	Anchor Rod Circle Diameter (mm)
III-C-A	OSC-A-5(M)	9.15	23.0	1.07	7.3	12	51	762

THIS SHEET FOR INFORMATION ONLY

7-2-2005, 10:23:56
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 OSC-A-9(M)

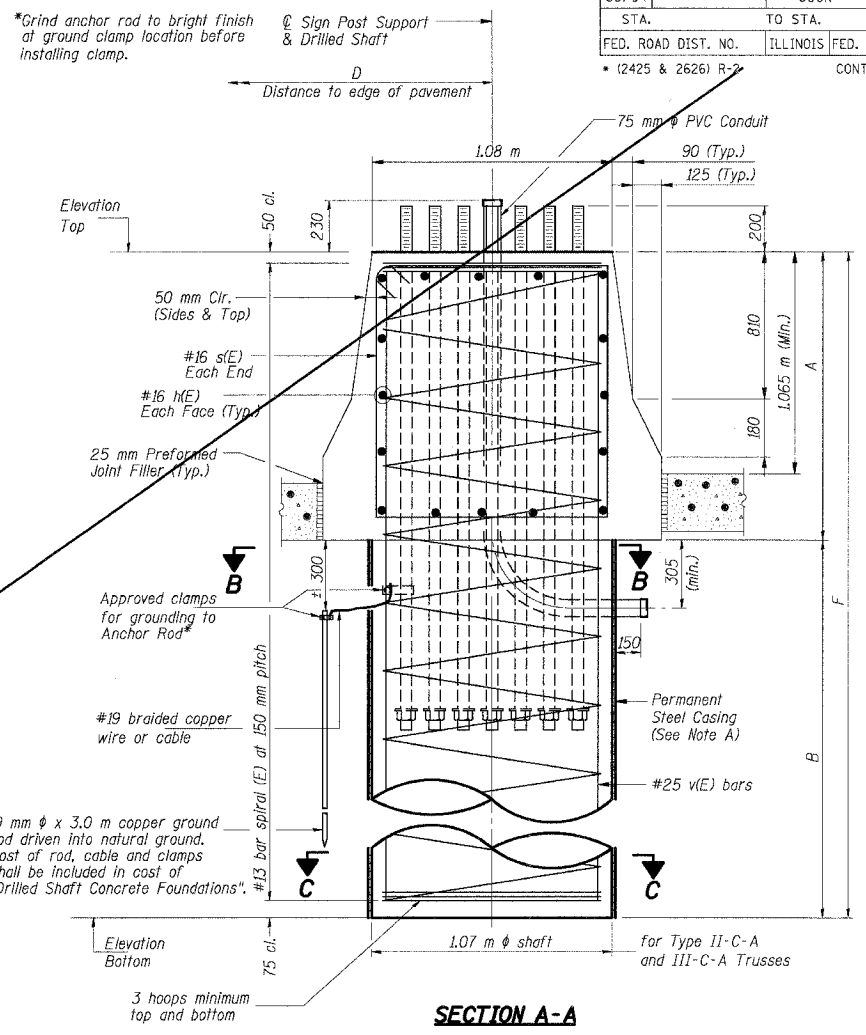
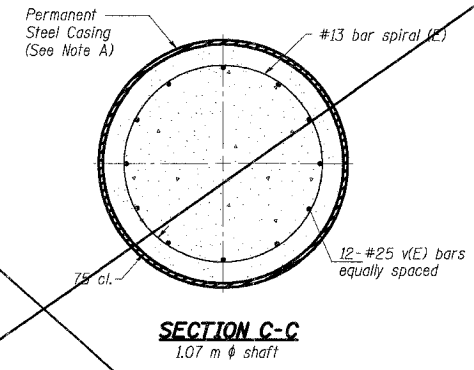
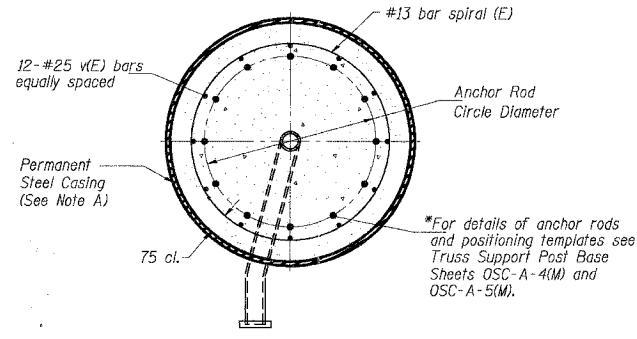
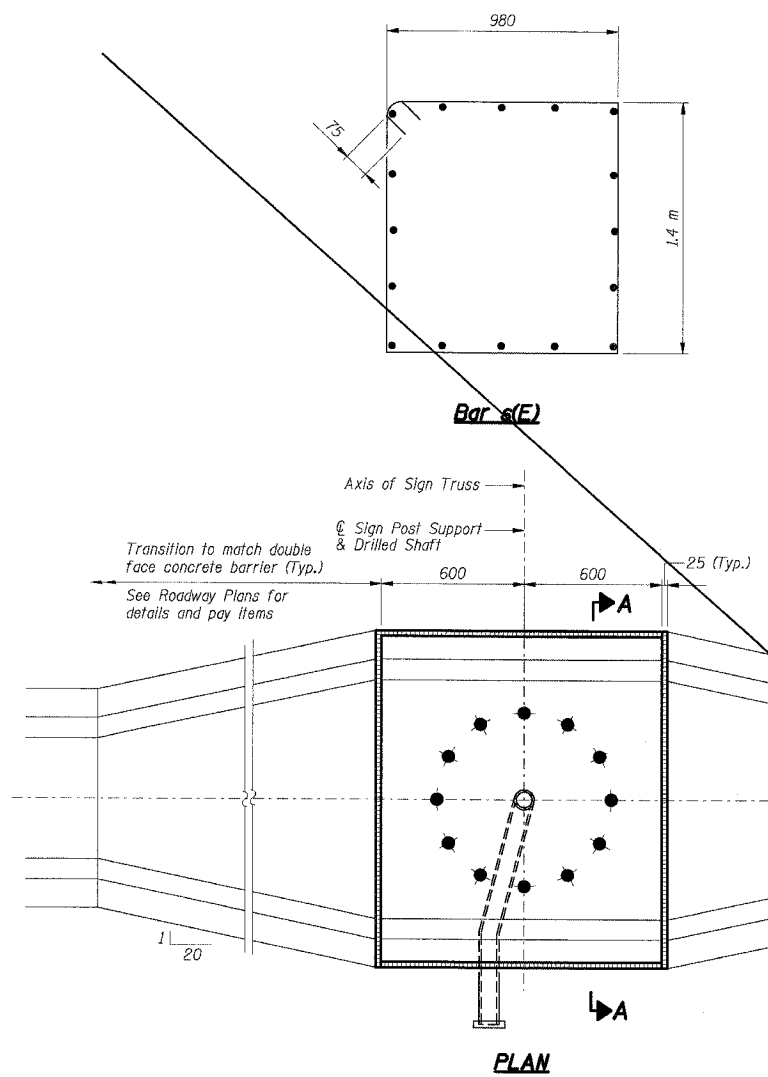
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

**CANTILEVER SIGN STRUCTURES
 DRILLED SHAFT FOUNDATION DETAILS
 ALUMINUM TRUSS & STEEL POST**

SCALE: DATE: 1/18/2005
 DRAWN BY: NK
 CHECKED BY: VCP

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 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	336
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
	(2425 & 2626) R-2	CONTRACT NO. 62110		



NOTES:

The foundation dimensions shown in the Foundation Design Table are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Q_u) of at least 120 kPa, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown in the Foundation Data Table will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 300 mm by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Bridge Seal application will be required on concrete surfaces above the lowest elevation 150 mm below finished ground line. Cost included in "Drilled Shaft Concrete Foundation".

BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
v(E)	12	#25	1.1 m	□
s(E)	2	#16	Varies	□
v(E)	12	#25	F less 125 mm	□
#13(E) bar spiral - see Side Elevation				

Structure Number	Station	Truss Type	Shaft Diameter	Elevation Top	Elevation Bottom	A	B	F	Class SI Concrete Cubic Meters
100161080L162.3	6+100.000	II-C-A	1.07 m	196.850	181.500	1.5 m	7.8 m	9.3 m	9.4

$F = A + B$

FOUNDATION DATA								
Truss Type	Post Base Sheet	Maximum Cantilever Length (m)	Maximum Total Sign Area (sq m)	Shaft Diameter (m)	"B" Depth (m)	Anchor Rods		Anchor Rod Circle Diameter (mm)
						No.	Diameter (mm)	
II-C-A	OSC-A-5(M)	8.45	19.0	1.07	6.5	12	51	762

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 COOK COUNTY

**CANTILEVER SIGN STRUCTURES
 FOUNDATION DETAILS
 MEDIAN SUPPORT**

SCALE: DATE: 7/18/2005
 DRAWN BY: NK
 CHECKED BY: VCP

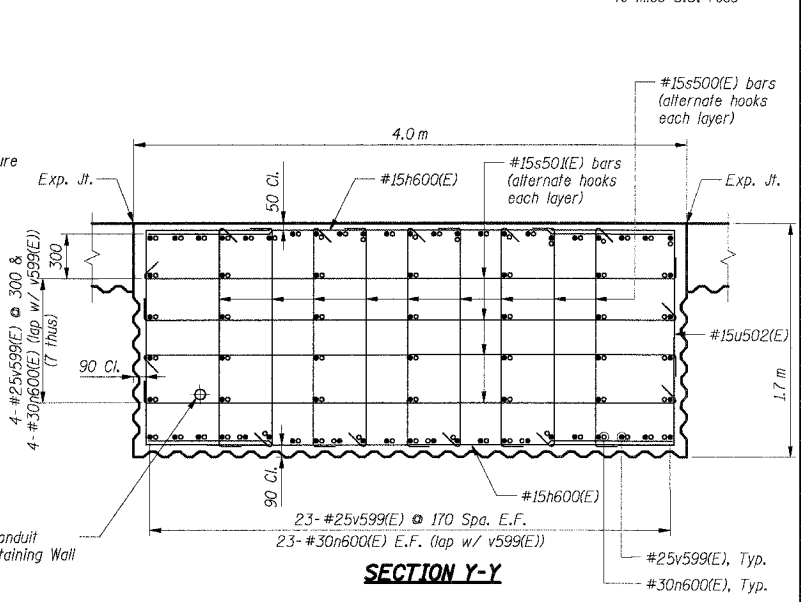
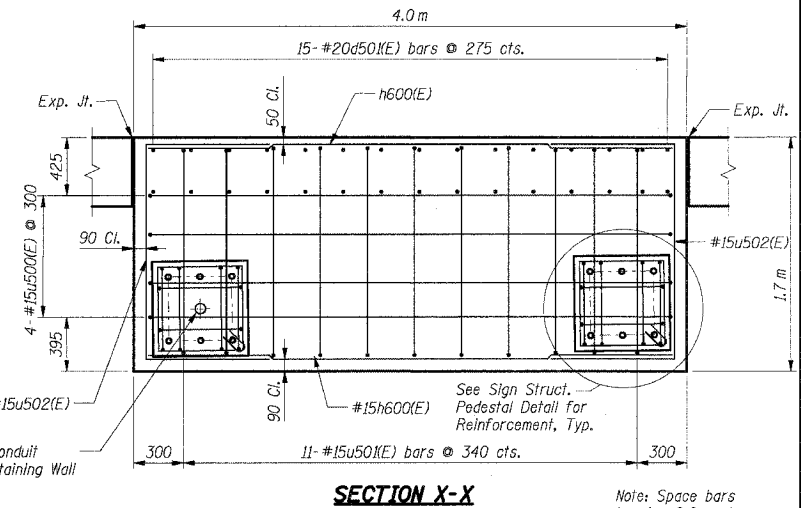
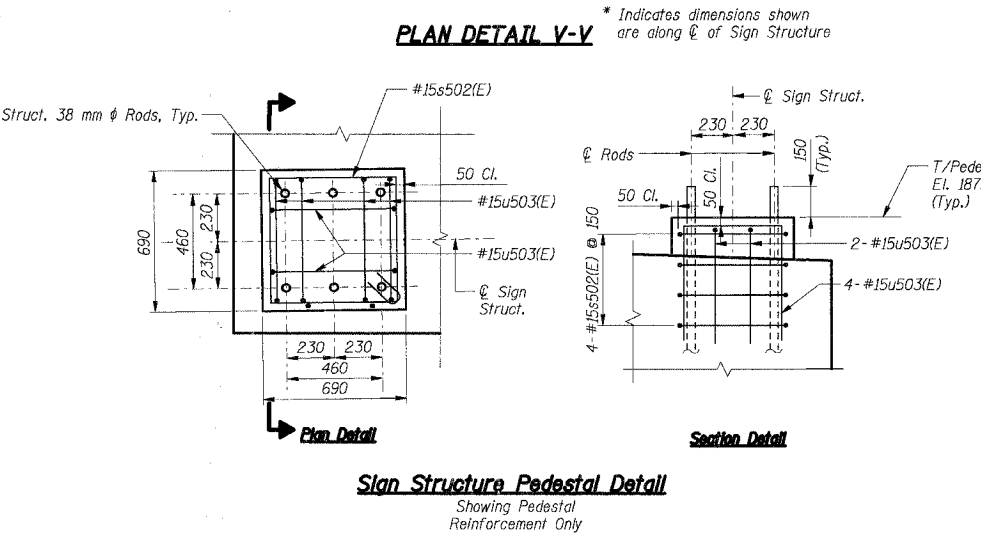
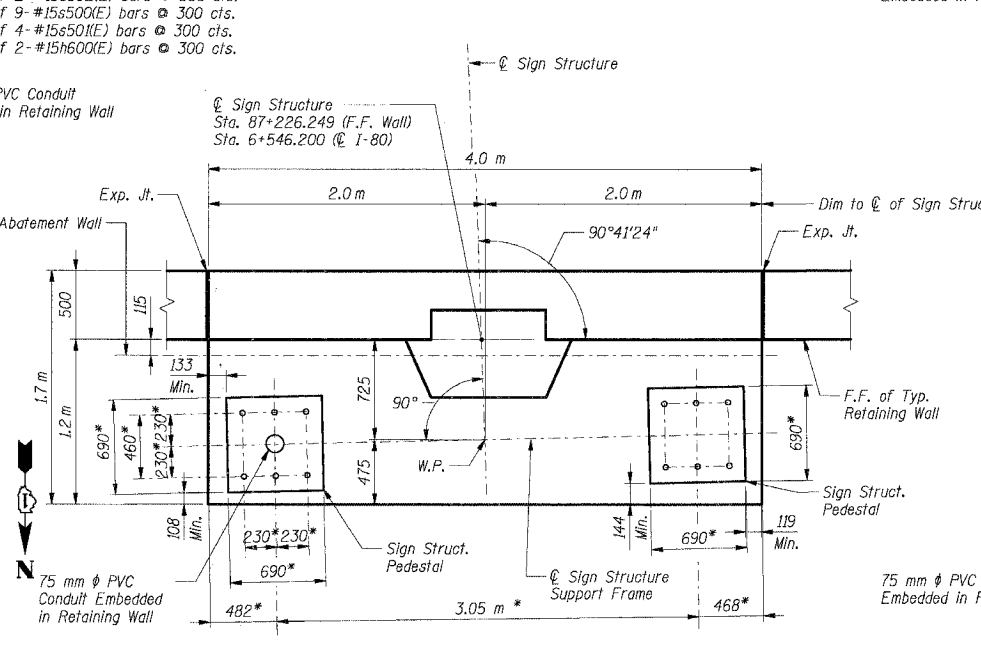
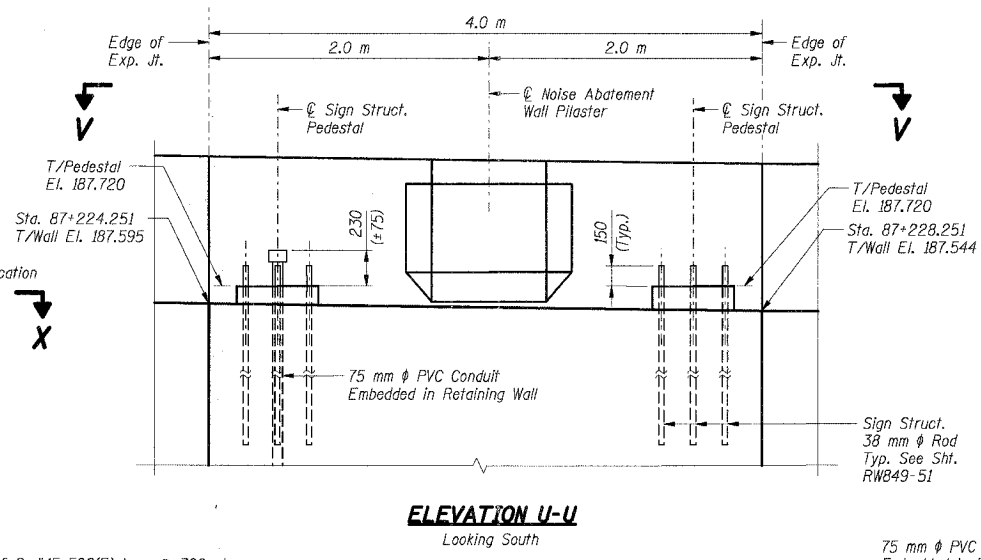
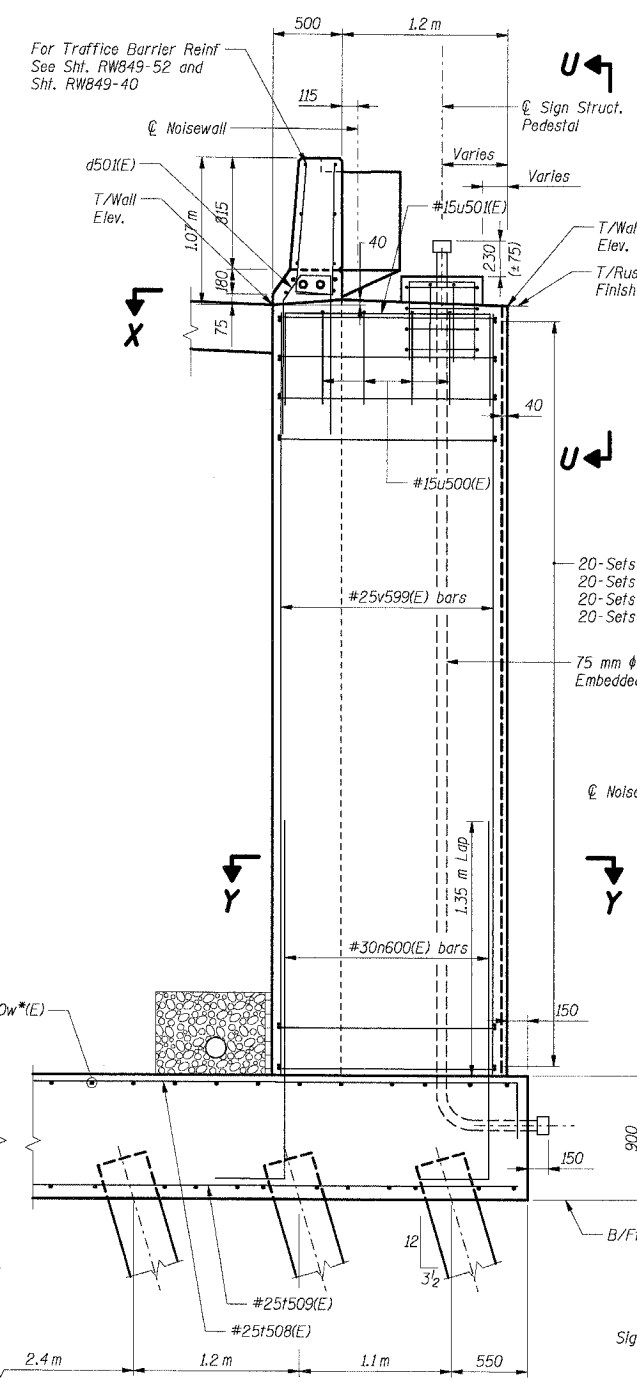
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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 BALZEKJ

**THIS SHEET FOR
 INFORMATION ONLY**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	337
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
(2425 & 2626) R-2		CONTRACT NO. 62111		

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 BALZEK.J.



- Notes:
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - All edges shall have a 20 mm chamfer unless noted otherwise.
 - E.F. indicates each face.
 - B.F. indicates back face.
 - F.F. indicates front face.
 - For Traffic Barrier details see Sht. RW849-52.
 - For Rustication Finish & joint details see Sht. RW849-54.
 - For Concrete Pile details see Sht. RW849-56.

THIS SHEET FOR INFORMATION ONLY

SHT. RW849-50 OF 61

REVISIONS	
NAME	DATE

22 of 23

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 LOCAL ROADS RECONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W849
 SECTIONS 2001-167R AND (2425 & 2626) R-1
 COOK COUNTY

DATE: 3/10/2004

DRAWN BY: MJK
 CHECKED BY: MJK

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

PAV. DIST.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
8964	*	COOK	881	388

FIXTURE NOTES

LIGHTING FIXTURE SHALL BE FABRICATED OF 0.064" ALUMINUM SHEET AS PER SPECIFICATION A.S.T.M. B-209-59T-1/4"-1/4". THIS INCLUDES SUPPORT CLIPS, REFLECTOR TABS, NINGES AND LOCKING LATCH.

MACHINE SCREWS SHALL BE #8-32 WITH NUTS AND LOCK WASHER MADE OF ALUMINUM OR STAINLESS STEEL UNLESS NOTED.

OTHER METAL PARTS SHALL BE MADE OF BRONZE, BRASS, COPPER BERYLLIUM WITH MIN CORROSION FINISH WHEN NECESSARY.

REFLECTOR SHALL BE MADE OF .020" (MIN) ALUMINUM LIGHTING SHEET WITH SPECULAR FINISH AND SHALL BE 63" LONG.

REFLECTOR SHALL BE EASILY REMOVED FOR CLEANING, WITHOUT NEED FOR PERMANENT DISTORTION OF REFLECTOR SHAPE. THE REFLECTING SURFACE SHALL BE PERMANENTLY TREATED AND SEALED TO OBTAIN A REFLECTING VALUE OF 90% OR BETTER. THE TREATMENT SHALL CONTINUOUSLY OPERATE AT A SERVICE TEMPERATURE OF 250°F WITHOUT LOSS OF PERFORMANCE OR PHYSICAL PROPERTIES. AFTER A FOR SALT SPRAY TEST OF 100 HOURS AT 122°F WITH A 20% SALT SOLUTION REFLECTANCE AND SURFACE FINISH WILL BE UNCHANGED. TEST WITH 3 MINUTES OF SALT SPRAY 3 MINUTES OF AIR, REPEAT 100 THROUGHOUT THE 100 HOUR DURATION.

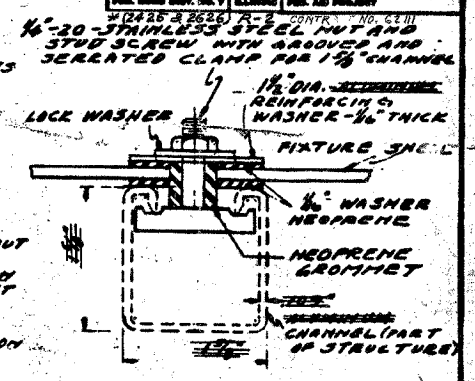
BALLAST SHALL BE RATED AT 200 MA, 240 VOLT AND DESIGNED FOR COLD WEATHER RELIABLE STAR 4MG. AT 40" IN CONNECTION WITH RAPID START FLUORESCENT LAMPS 78 TIE-NO. (REF. (A) BELOW)

LAMPS TO BE MOUNTED IN FIXTURE WITHIN 1" OF GROUNDED METAL REFLECTOR WHICH IS FULL LENGTH OF LAMPS.

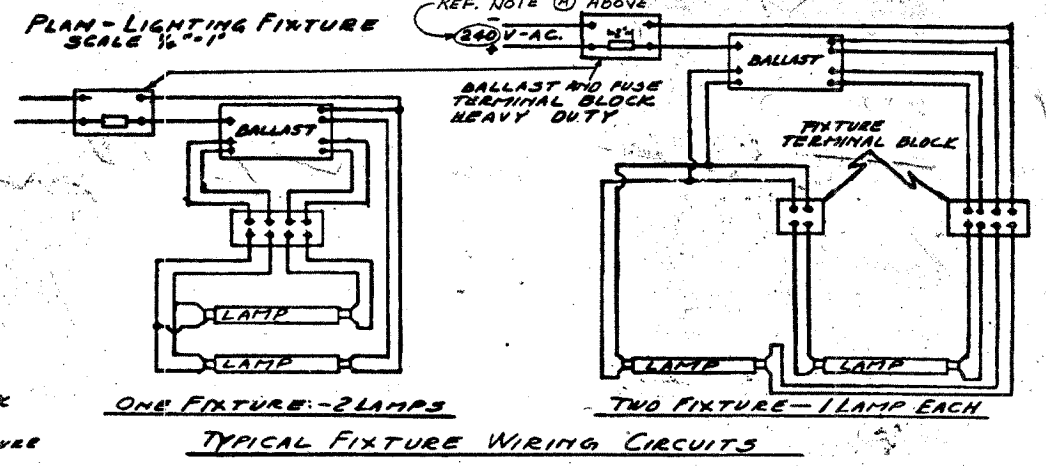
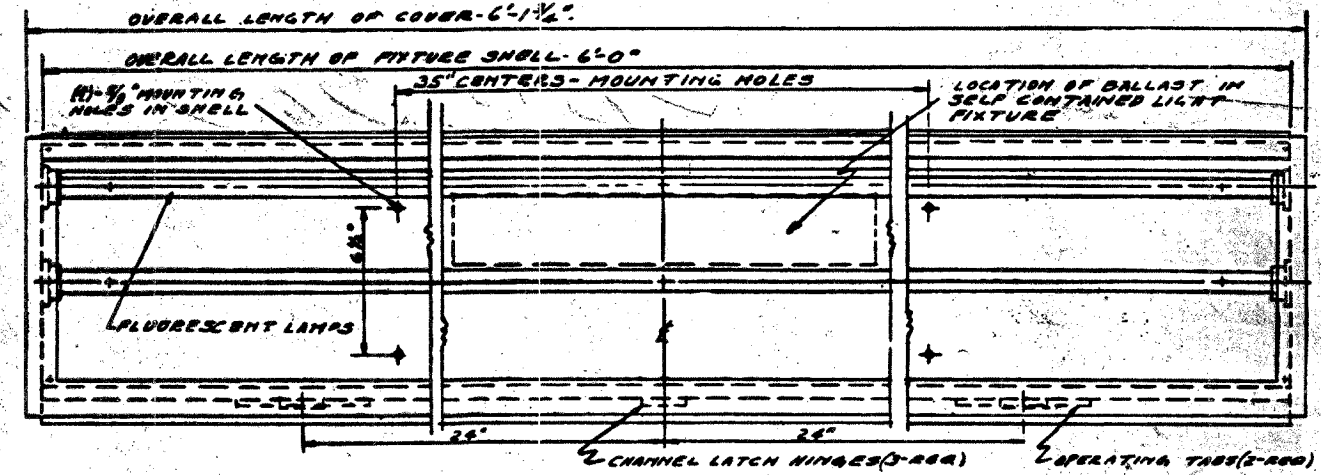
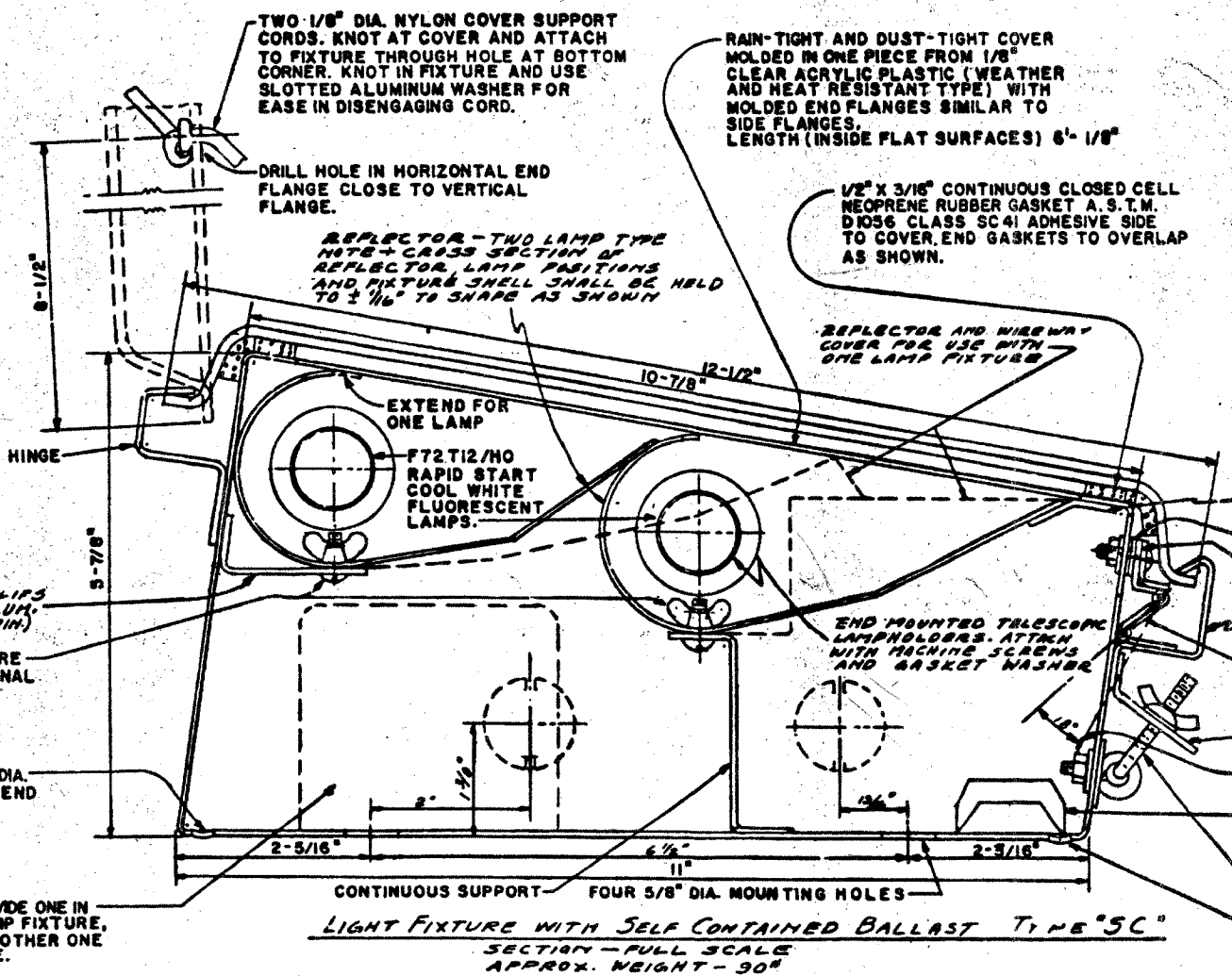
BALLAST AND TERMINAL BLOCKS SHALL BE MARKED WITH LEGIBLE SYMBOLS, CONDUCTORS SHALL BE TAGGED AND THEIR CORRESPONDING IDENTIFICATION MARKED ON THE TERMINAL BOARD.

THE CONTRACTOR SHALL AIM AND SPACE THE LIGHTING FIXTURE UNDER NIGHT CONDITIONS TO PROVIDE THE MOST ADVANTAGEOUS LIGHT DISTRIBUTION OVER THE SIGN SURFACE TO BE ILLUMINATED. FINAL AIMING OF THE FIXTURE SHALL BE APPROVED BY THE ENGINEER.

(A) THE CONTRACTOR SHALL VERIFY SYSTEM VOLTAGE.



FIXTURE MOUNT DETAIL
SCALE - FULL
FURNISH FOUR SETS OF MOUNTING HARDWARE AS SHOWN. ATTACH TO FIXTURE.



REVISIONS	
NAME	DATE
427	8-18-64
WGD	3-13-63

ILLINOIS DIVISION OF HIGHWAYS
FLUORESCENT SIGN LIGHTING FIXTURES
OS-6A
SCALE: HORIZ. VERT. DATE 3-8-60 DRAWN BY 427 CHECKED BY

FOR INFORMATION ONLY

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	339
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
(2425 & 2626) R-2		CONTRACT NO. 62111		

Boring No. 108, Page 1 of 1

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 1
Date 2/4/02

ROUTE FAI 80/94 DESCRIPTION KINGERY EXPRESSWAY

SECT. WEST OF IL 83 TO EAST OF BURHAM AVE STRUCT. NO. 016-WB49 DRILLED BY PATRICK DRILLING INC

COUNTY COOK LOCATION I-94 WB S. , TWP. 36 N. , RNG. 14E/15 E

Boring No.	Station	Offset	Surface Elev.	D E P T H			Qu	W	Surface Water Elev.	Groundwater Elev. when drilling at Completion	D E P T H			Qu	W
				1	2	3					1	2	3		
108	6+103 (CL I-80/94)	39.00m LT.	183.00 m												
ASPHALT															
CRUSHED STONE															
Medium Stiff to Very Stiff, Brown, Gray, and Black SILTY CLAY trace - gravel															
Brown and Gray after 0.9 m															
Gray after 3.15 m															
Medium Dense, Gray SILTY LOAM															
Stiff to Very Stiff, Gray SILTY CLAY LOAM trace - gravel															
END OF BORING															

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 Meters

Boring No. 130, Page 1 of 1

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 1
Date 12/27/01

ROUTE FAI 80/94 DESCRIPTION KINGERY EXPRESSWAY

SECT. WEST OF IL 83 TO EAST OF BURHAM AVE STRUCT. NO. 016-WB49 DRILLED BY PATRICK DRILLING INC

COUNTY COOK LOCATION I-94 WB S. , TWP. 36 N. , RNG. 14E/15 E

Boring No.	Station	Offset	Surface Elev.	D E P T H			Qu	W	Surface Water Elev.	Groundwater Elev. when drilling at Completion	D E P T H			Qu	W
				1	2	3					1	2	3		
130	6+558 (CL I-80/94)	33.00m LT.	183.00 m												
ASPHALT															
CRUSHED STONE															
Medium Dense, Gray SILTY LOAM trace to little - gravel															
Stiff to Very Stiff, Brown and Gray SILTY CLAY trace - gravel															
Dense, Gray SILTY LOAM															
Stiff to Very Stiff, Gray SILTY CLAY LOAM trace - gravel															
END OF BORING															

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 Meters

Boring No. 603, Page 1 of 1

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 1
Date 3/14/02

ROUTE FAI 80/94 DESCRIPTION KINGERY EXPRESSWAY

SECT. WEST OF IL 83 TO EAST OF BURHAM AVE STRUCT. NO. DRILLED BY PATRICK DRILLING INC

COUNTY COOK LOCATION WB 194 S. , TWP. 36 N. , RNG. 14E/15 E

Boring No.	Station	Offset	Surface Elev.	D E P T H			Qu	W	Surface Water Elev.	Groundwater Elev. when drilling at Completion	D E P T H			Qu	W
				1	2	3					1	2	3		
603	4+678 (CL I-80/94)	23.0m LT. (CL I-80/94)	183.20 m												
ASPHALT															
CRUSHED AGGREGATE															
Very Stiff to Hard, Brown, Gray and Black SILTY CLAY trace - gravel															
Brown and Gray after 0.9 m															
Medium Dense, Gray SILTY LOAM															
Medium Dense, Gray SILTY															
Loose, Gray SILTY LOAM															
Medium Stiff, Gray SILTY CLAY LOAM trace - gravel															
END OF BORING															

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 Meters

BORING CORRELATION TABLE

Sign Structure No.	Station	Drilled Shaft Location	Corresponding Boring No.
** 1001610801162.1	5+658.000	27.254 m LT.	603
** 1001610801162.3	6+100.000	22.56 m LT.	108
1001610801162.6	6+546.200	0.0 m	130

* See 1 of 23 for Sign Structure elevations.
** For Information Only.

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
COOK COUNTY

BORING LOGS

SCALE: DATE: 7/18/2005 DRAWN BY: NK CHECKED BY: VCP

TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	343
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2			CONTRACT NO. 62111	

INDEX OF SHEETS

- RW850-1 GENERAL PLAN & ELEVATION I
- RW850-2 GENERAL PLAN & ELEVATION II
- RW850-3 GENERAL PLAN & ELEVATION III
- RW850-4 INDEX OF SHEETS & TOTAL BILL OF MATERIAL
- N.A. RW850-5 TEMPORARY SOIL RETENTION SYSTEM
- RW850-6 TYPICAL WALL SECTIONS
- N.A. RW850-7 FOOTING PLAN & WALL ELEVATION 1
- N.A. RW850-8 FOOTING PLAN & WALL ELEVATION 2
- N.A. RW850-9 FOOTING PLAN & WALL ELEVATION 3
- N.A. RW850-10 FOOTING PLAN & WALL ELEVATION 4
- N.A. RW850-11 FOOTING PLAN & WALL ELEVATION 5
- N.A. RW850-12 FOOTING PLAN & WALL ELEVATION 6
- N.A. RW850-13 FOOTING PLAN & WALL ELEVATION 7
- N.A. RW850-14 FOOTING PLAN & WALL ELEVATION 8
- N.A. RW850-15 FOOTING PLAN & WALL ELEVATION 9
- N.A. RW850-16 FOOTING PLAN & WALL ELEVATION 10
- N.A. RW850-17 FOOTING PLAN & WALL ELEVATION 11
- N.A. RW850-18 FOOTING PLAN & WALL ELEVATION 12
- N.A. RW850-19 FOOTING PLAN & WALL ELEVATION 13
- N.A. RW850-20 FOOTING PLAN & WALL ELEVATION 14
- N.A. RW850-21 FOOTING PLAN & WALL ELEVATION 15
- N.A. RW850-22 FOOTING PLAN & WALL ELEVATION 16
- N.A. RW850-23 FOOTING PLAN & WALL ELEVATION 17
- N.A. RW850-24 FOOTING PLAN & WALL ELEVATION 18
- N.A. RW850-25 FOOTING PLAN & WALL ELEVATION 19
- N.A. RW850-26 FOOTING PLAN & WALL ELEVATION 20
- N.A. RW850-27 FOOTING PLAN & WALL ELEVATION 21
- N.A. RW850-28 FOOTING PLAN & WALL ELEVATION 22
- N.A. RW850-29 FOOTING PLAN & WALL ELEVATION 23
- N.A. RW850-30 FOOTING PLAN & WALL ELEVATION 24
- N.A. RW850-31 FOOTING PLAN & WALL ELEVATION 25
- N.A. RW850-32 FOOTING PLAN & WALL ELEVATION 26
- N.A. RW850-33 FOOTING PLAN & WALL ELEVATION 27
- F.I.O. RW850-34 FOOTING PLAN & WALL ELEVATION 28
- RW850-35 FOOTING PLAN & WALL ELEVATION 29
- RW850-36 FOOTING PLAN & WALL ELEVATION 30
- N.A. RW850-37 TRAFFIC BARRIER ELEVATION I
- N.A. RW850-38 TRAFFIC BARRIER ELEVATION II
- N.A. RW850-39 TRAFFIC BARRIER ELEVATION III
- N.A. RW850-40 TRAFFIC BARRIER ELEVATION IV
- RW850-41 TRAFFIC BARRIER ELEVATION V
- RW850-42 WALL SECTIONS & DETAILS I
- RW850-43 WALL SECTIONS & DETAILS II
- N.A. RW850-44 WALL SECTIONS & DETAILS III
- N.A. RW850-45 WALL SECTIONS & DETAILS IV
- RW850-46 WALL SECTIONS & DETAILS V
- RW850-47 TRAFFIC BARRIER SECTIONS & DETAILS
- RW850-48 DRAINAGE DETAILS & WALL REINFORCEMENT DETAILS
- RW850-49 RUSTICATION FINISH & JOINT DETAILS
- RW850-50 BAR SPICER DETAILS
- RW850-51 PILE DETAILS
- N.A. RW850-52 BORING LOGS I
- N.A. RW850-53 BORING LOGS II
- N.A. RW850-54 BORING LOGS III
- N.A. RW850-55 BORING LOGS IV
- N.A. RW850-56 BORING LOGS V
- RW850-57 BORING LOGS VI
- RW850-58 BORING LOGS VII

N.A. Sheet not applicable to this Contract and Not Included. Included in Contract 62350 and/or 62110.

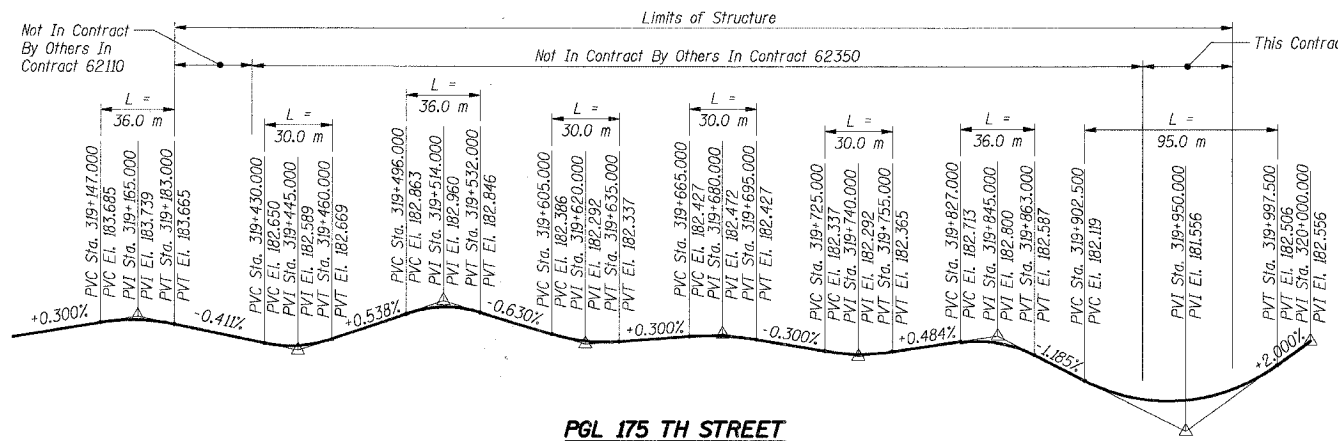
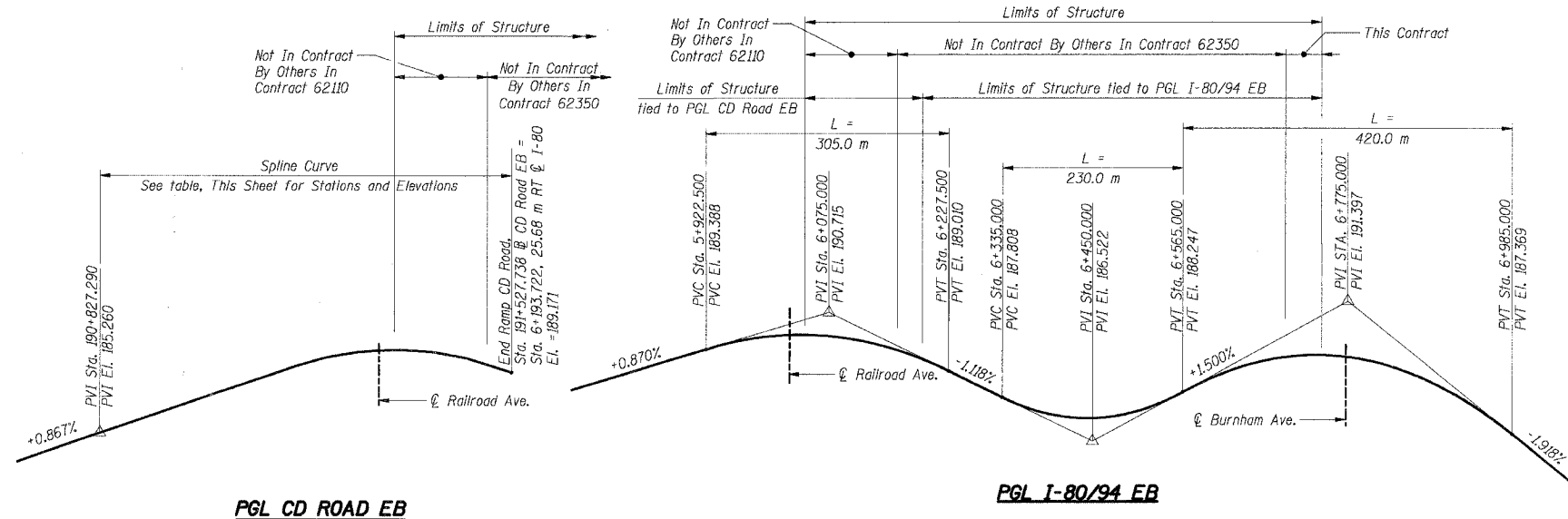
F.I.O. Included For Information Only

General Notes:

1. Reinforcement Bars shall conform to the requirements of AASHTO M 31M or M 32.2M, Grade 400.
2. The Contractor shall drive metal shell test piles in permanent locations as directed by the Engineer before ordering the remainder of the piles.
3. All construction joints shall be bonded.
4. All dimensions are in millimeters except as noted.
5. The Contractor shall locate all utilities (existing and new) prior to driving piles, by exploratory test pits and/or probes. The cost of locating utilities shall be included with Driving and Filling Shells. Any conflicts between the utilities and the proposed piles shall be reported to the Bureau of Bridges and Structures for further disposition. Piles within 3 meters horizontally of actual utility location shall be preaugered/precored to the greater of bottom of the utility or 3 meter depth to maintain utility in original vertical and horizontal position. The diameter of preaugered/precored hole shall be the same diameter as outside diameter of pile. The cost of the preaugering/precored shall be included with Driving and Filling Shells.
6. Conduits, Junction Boxes and Expansion/ Deflection Conduit Couplers are shown in retaining wall plans for locations and installation purposes only. Refer to Electrical Raceway Plans for details, pay items and quantities.
7. Coarse Aggregate in Retaining Wall concrete mixture must conform to the requirements of Superstructure Concrete in accordance with Section 1004.01(b), paragraph 2.

PGL CD ROAD EB

SPLINE CURVE DATA	
Station	Elevation
191+375.000	189.715
191+380.000	189.721
191+385.000	189.726
191+390.000	189.729
191+395.000	189.730
191+400.000	189.730
191+405.000	189.728
191+410.000	189.724
191+415.000	189.719
191+420.000	189.713
191+425.000	189.704
191+428.131	189.698
191+430.000	189.694
191+435.000	189.682
191+440.000	189.669
191+445.000	189.654
191+450.000	189.638
191+455.000	189.620
191+459.005	189.604
191+460.000	189.600
191+465.000	189.578
191+470.000	189.555
191+475.000	189.531
191+480.000	189.504
191+485.000	189.476
191+490.000	189.447
191+495.000	189.416
191+500.000	189.383
191+505.000	189.348
191+510.000	189.312
191+515.000	189.274
191+520.000	189.235
191+525.000	189.194
191+527.738	189.171



TOTAL BILL OF MATERIAL

Item	Unit	Total
Structure Excavation	Cu m	834
Test Pile Metal Shells	Each	1
Furnishing Metal Pile Shells 356mm	meter	1,924.5
Driving and Filling Shells	meter	1,924.5
Concrete Structures	Cu m	485.7
Reinforcement Bars, Epoxy Coated	kg	40,060
Protective Coat **	Sq m	401
Rustication Finish	Sq m	303
Geocomposite Wall Drain	Sq m	257
Pipe Underdrains for Structures 150mm	meter	46.5
Noise Abatement Wall Anchor Rod Assembly	Each	11

**Note: See Sht. RW850-48 for limits of Protective Coat.

SHT. RW850-4 OF 58

REVISIONS	
NAME	DATE

*** 2001-167R, (2425 & 2626) R-1 AND (2425 & 2626) R-2
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W850
 SECTIONS ***
 COOK COUNTY

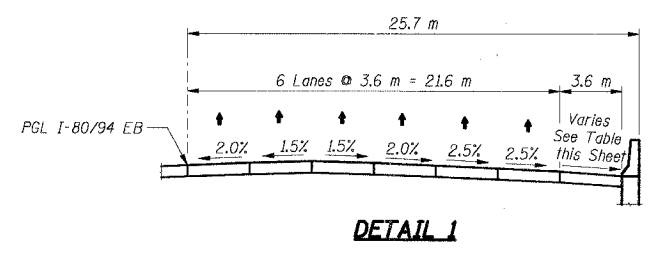
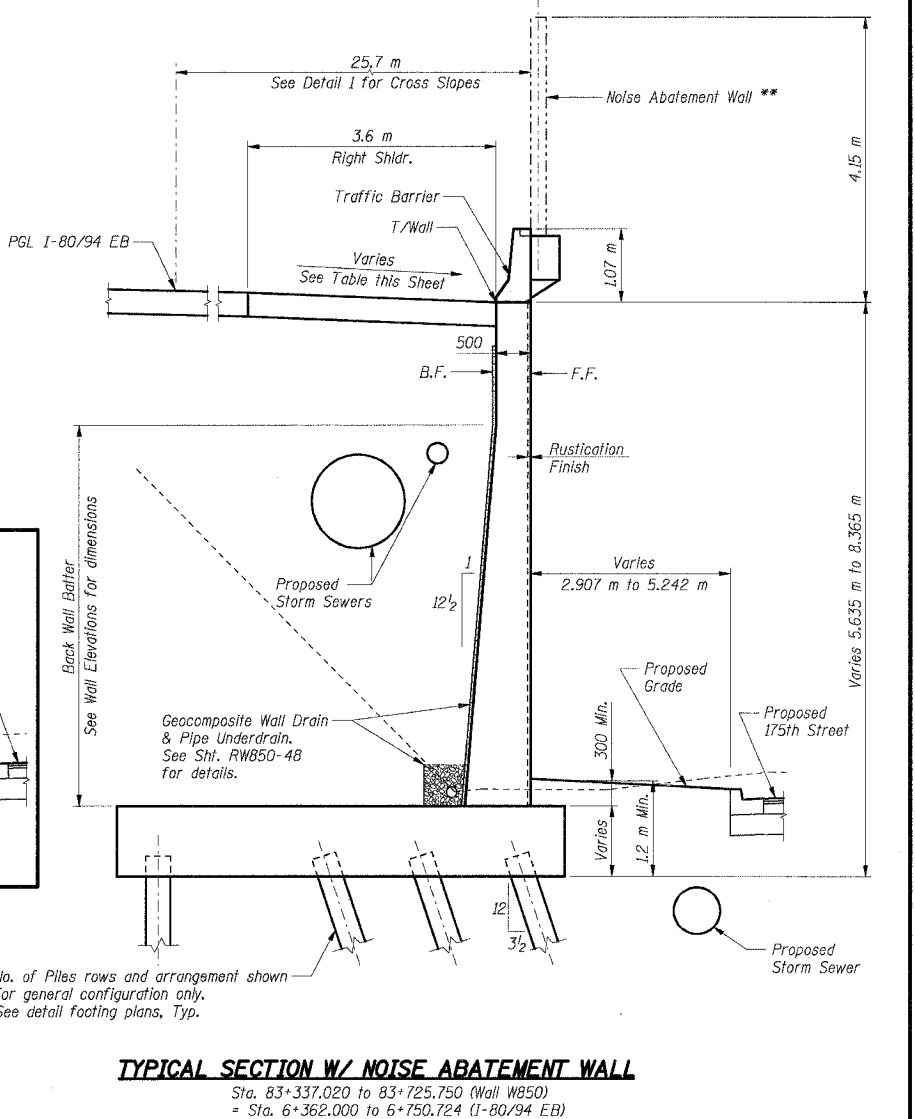
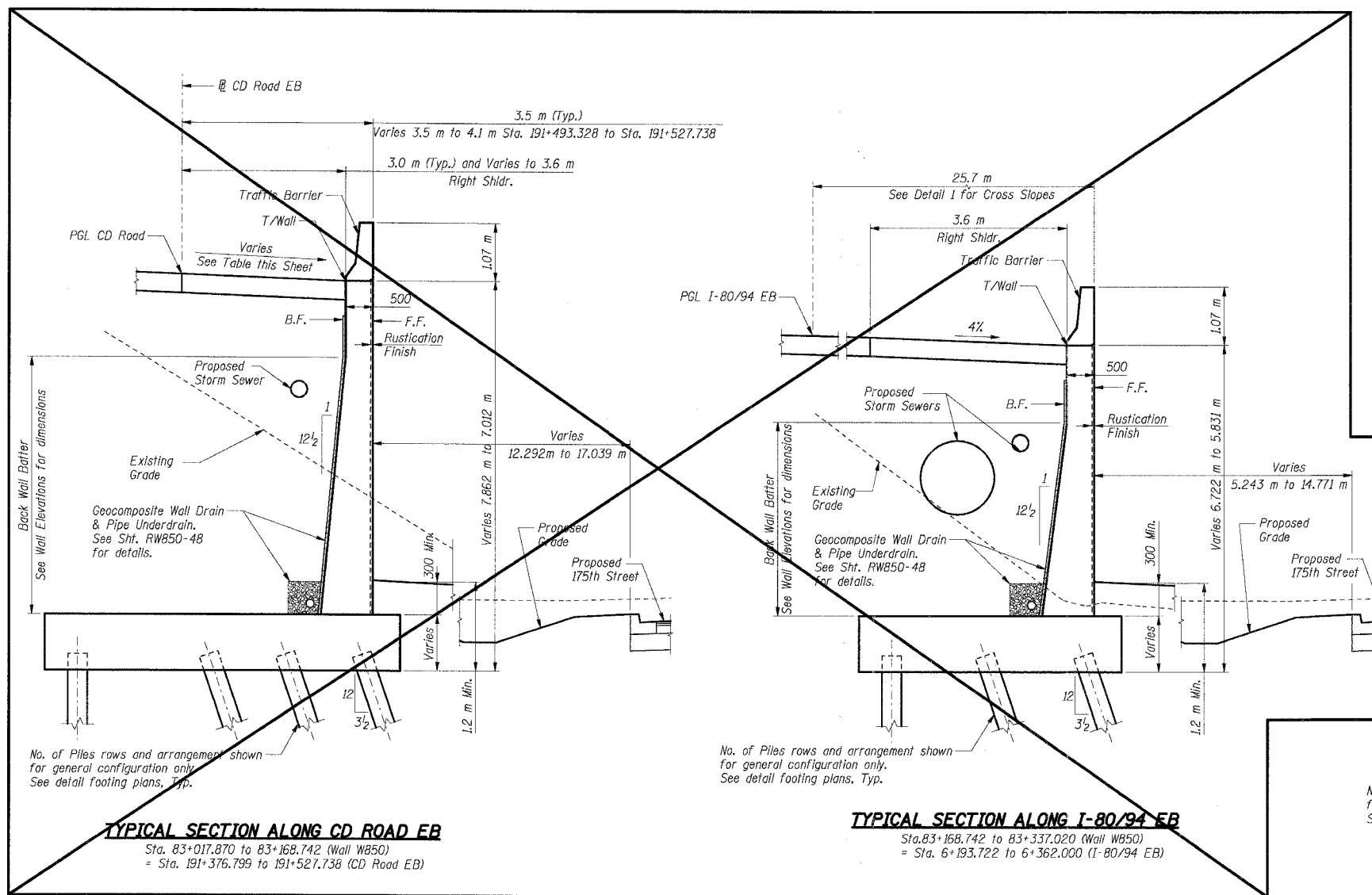
INDEX OF SHEETS & TOTAL BILL OF MATERIAL

DATE: 7/18/2005 DRAWN BY: MJK
 CHECKED BY: MJK

TENG
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	344
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2		CONTRACT NO. 62111		



CD ROAD EB

CROSS SLOPE DATA	
Station	Right Shoulder
191+323.485	2.5%
191+396.496	2.5%
191+409.496	4.0%
191+527.738	4.0%

I-80/94 EB

CROSS SLOPE DATA	
Station	Right Shoulder
6+193.722	4.0%
6+716.961	4.0%
6+730.461	2.5%
6+814.721	2.5%

Note: CD Road EB Sta. 191+527.738 equals I-80/94 EB Sta. 6+193.722

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - F.F. denotes front face of wall.
 - B.F. denotes back face of wall.

** Noise abatement wall will be constructed under a separate contract, by Others.

*** 2001-167R, (2425 & 2626) R-1 AND (2425 & 2626) R-2
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
RETAINING WALL - STRUCTURE NO. 016-W850
SECTIONS ***
COOK COUNTY

SHT. RW850-6 OF 58

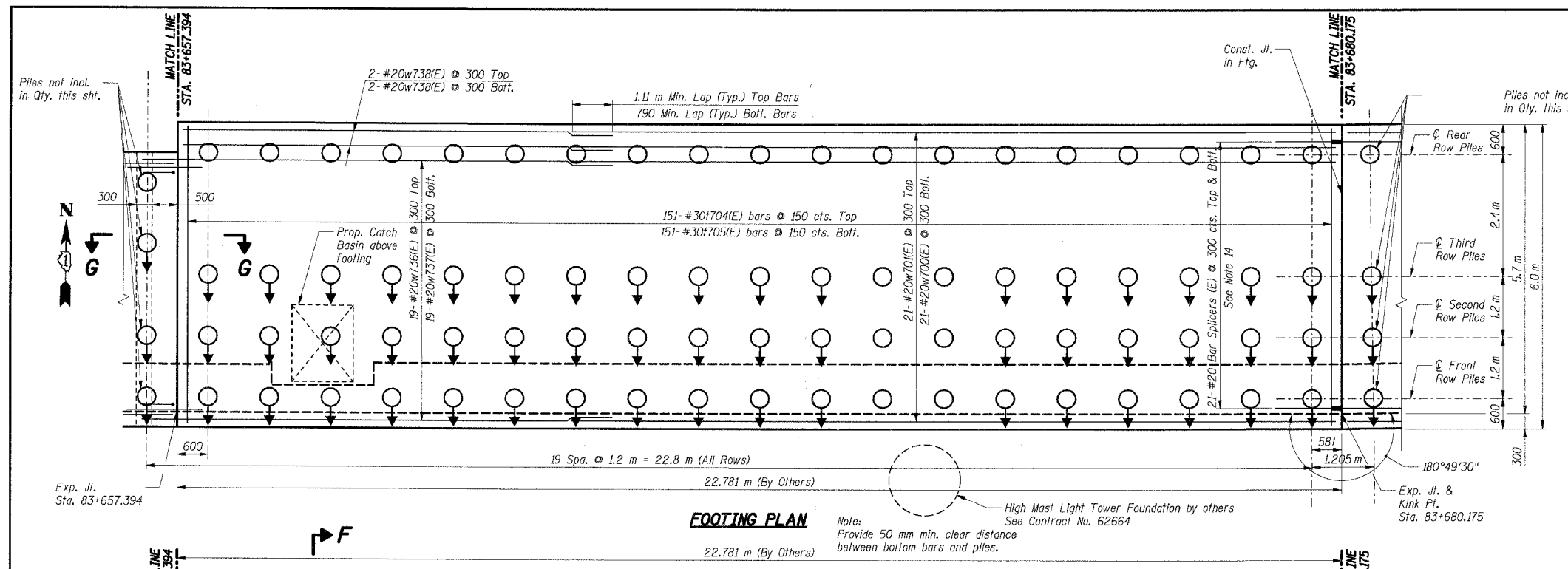
REVISIONS	
NAME	DATE

TYPICAL WALL SECTIONS

DATE: 7/18/2005
DRAWN BY: MJK
CHECKED BY: MJK
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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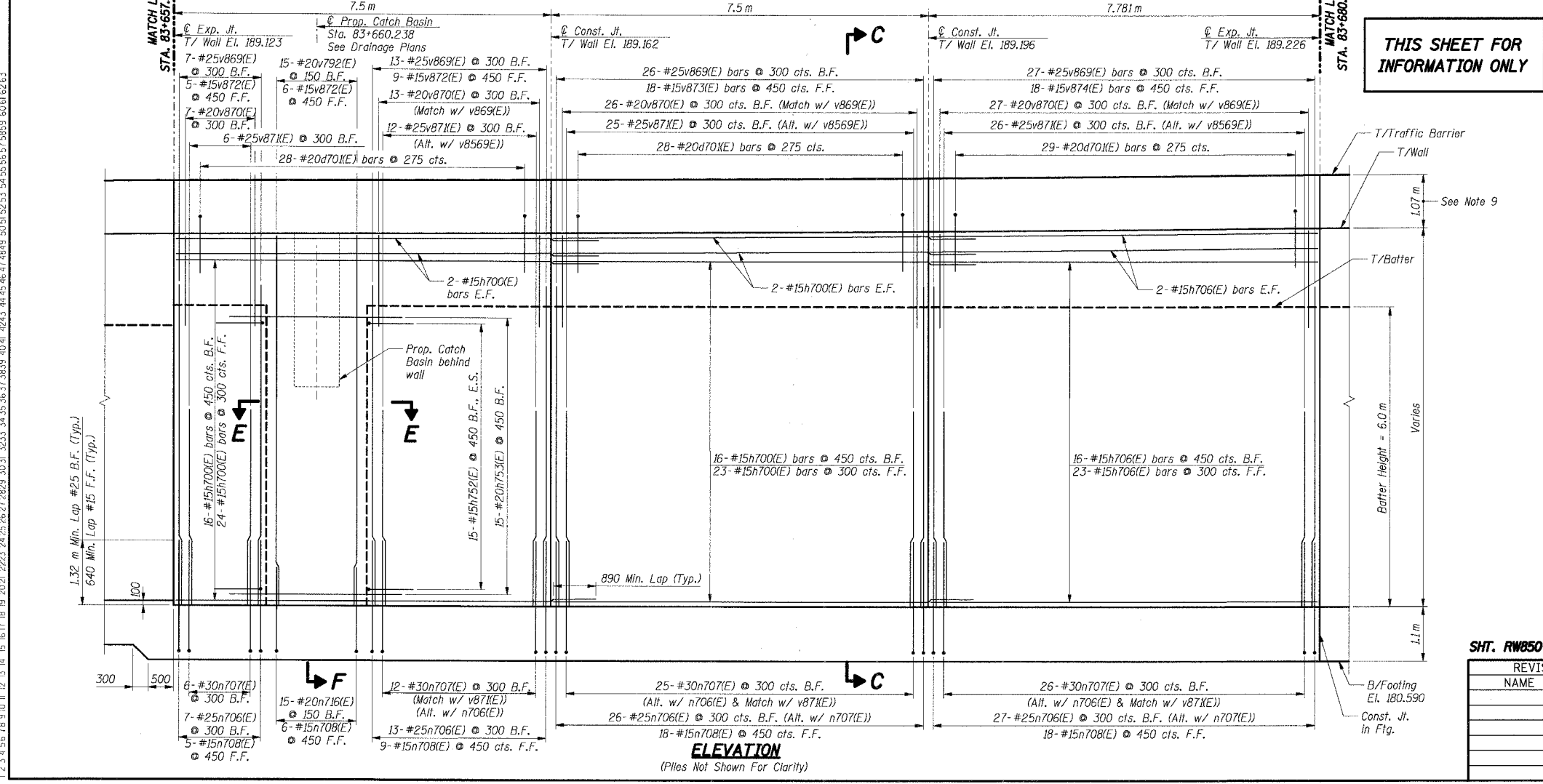
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	345
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
(2425 & 2626) R-2		CONTRACT NO. 6211		



BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
h70(E)	85	#20	2.59	
h70(E)	88	#15	8.39	
h706(E)	44	#15	7.68	
h752(E)	30	#15	1.49	
h753(E)	15	#20	3.42	
n706(E)	73	#25	2.75	
n707(E)	69	#30	2.85	
n708(E)	56	#15	1.93	
n716(E)	15	#20	2.14	
t704(E)	151	#30	6.40	
t705(E)	151	#30	5.90	
v792(E)	15	#20	7.40	
v869(E)	73	#25	6.88	
v870(E)	73	#20	2.05	
v871(E)	69	#25	4.79	
v872(E)	25	#15	7.40	
v873(E)	18	#15	7.43	
v874(E)	18	#15	7.47	
w700(E)	21	#20	15.00	
w701(E)	21	#20	15.32	
w736(E)	19	#20	9.67	
w737(E)	19	#20	9.02	
w738(E)	4	#20	8.46	
Item	Unit	Total		
Concrete Structures	Cu m	262.1		
Reinforcement Bars, Epoxy Coated	kg	21,680		

THIS SHEET FOR INFORMATION ONLY



PILE DATA

Type : 356 mm ϕ Metal Shell Concrete Pile
 Required Bearing : 500 kN
 Vertical Piles:
 Design Capacity : 260 kN
 Est. Length : 13.5 m
 No. Required : 24
 Battered Piles:
 Design Capacity : 500 kN
 Est. Length : 14.5 m
 No. Required : 51
 Test Pile : 1

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - All dimensions shown are along the front face of the retaining wall.
 - All vertical bars in wall stem and traffic barrier start at 50 mm from construction and expansion joint, U.N.O.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - All edges shall have a 20 mm chamfer unless noted otherwise.
 - For Section C-C, see Sht. RW850-43.
 - For Section G-G, see Sht. RW850-44.
 - E.F. indicates each face, B.F. indicates back face, F.F. indicates front face, E.S. indicates each side.
 - See Sht. RW850-47 for Traffic Barrier reinforcement & Noise Abatement Wall pilaster locations.
 - For Traffic Barrier details see Sht. RW850-47.
 - For Rustication Finish & joint details see Sht. RW850-49.
 - For Concrete Pile details see Sht. RW850-51.
 - Q indicates Battered Pile 3 1/2:12.
 - For Bar Splicer Details, See Sht. RW850-50.

*** 2001-167R, (2425 & 2626) R-1 AND (2425 & 2626) R-2

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W850
 SECTIONS ***
 COOK COUNTY

SHT. RW850-34 OF 58

REVISIONS	
NAME	DATE

FOOTING PLAN & WALL ELEVATION 28

DATE: 7/18/2005
 DRAWN BY: J.M.K.
 CHECKED BY: J.M.K.
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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 BAUZEKJ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	346
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
(2425 & 2626) R-2		CONTRACT NO. 62111		

BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
d70(E)	84	#20	2.59	
h700(E)	88	#15	8.39	
h70(E)	44	#15	7.40	
n706(E)	78	#25	2.75	
n707(E)	75	#30	2.85	
n708(E)	54	#15	1.93	
1704(E)	151	#30	6.40	
1705(E)	151	#30	5.90	
v875(E)	78	#25	6.96	
v876(E)	78	#20	2.13	
v87(E)	75	#25	4.79	
v877(E)	18	#15	7.54	
v878(E)	18	#15	7.58	
v879(E)	18	#15	7.60	
w700(E)	21	#20	15.00	
w70(E)	21	#20	15.32	
w739(E)	42	#20	6.62	

Item	Unit	Total
Concrete Structures	Cu m	262.9
Reinforcement Bars, Epoxy Coated	kg	21,300

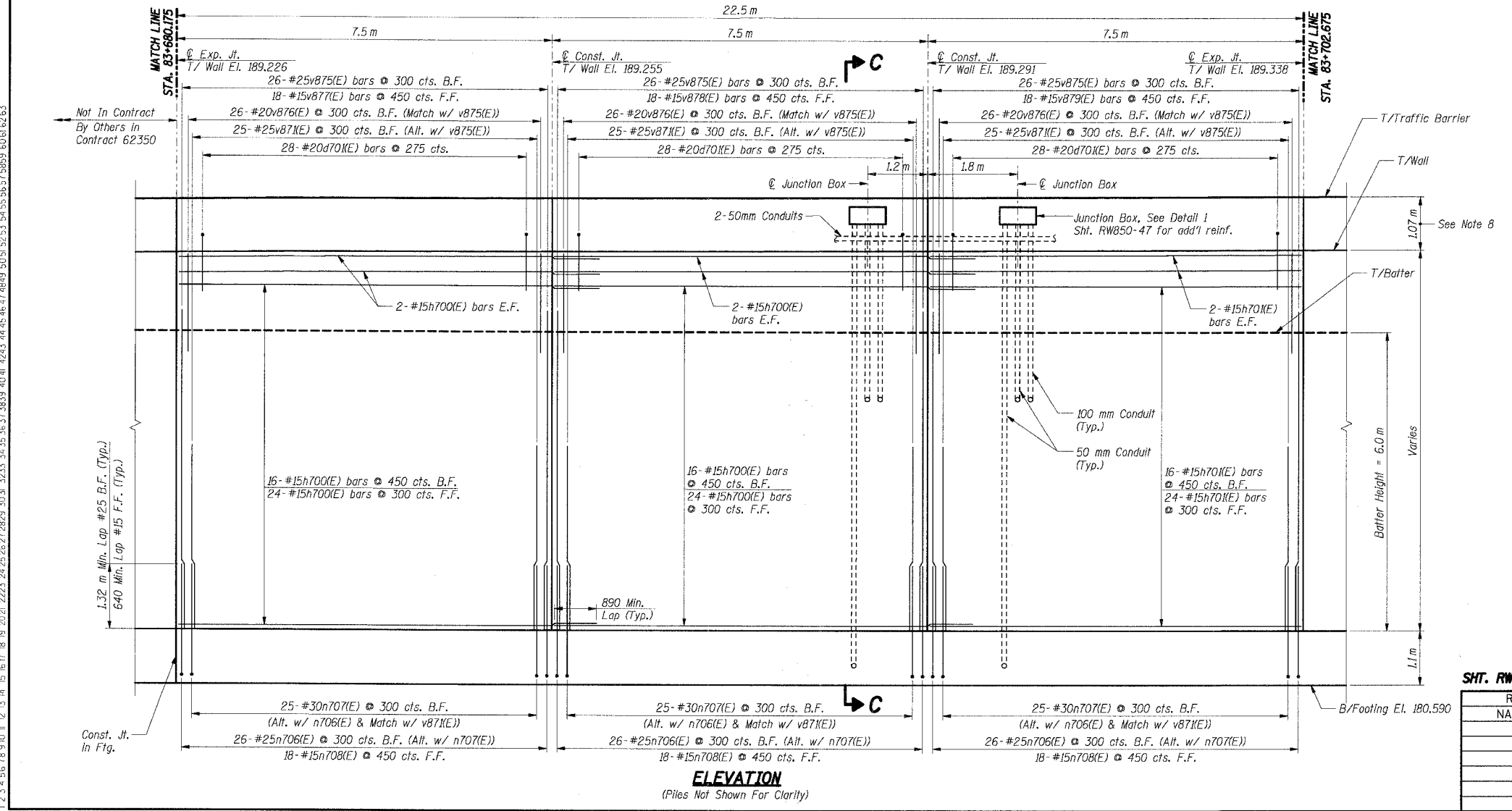
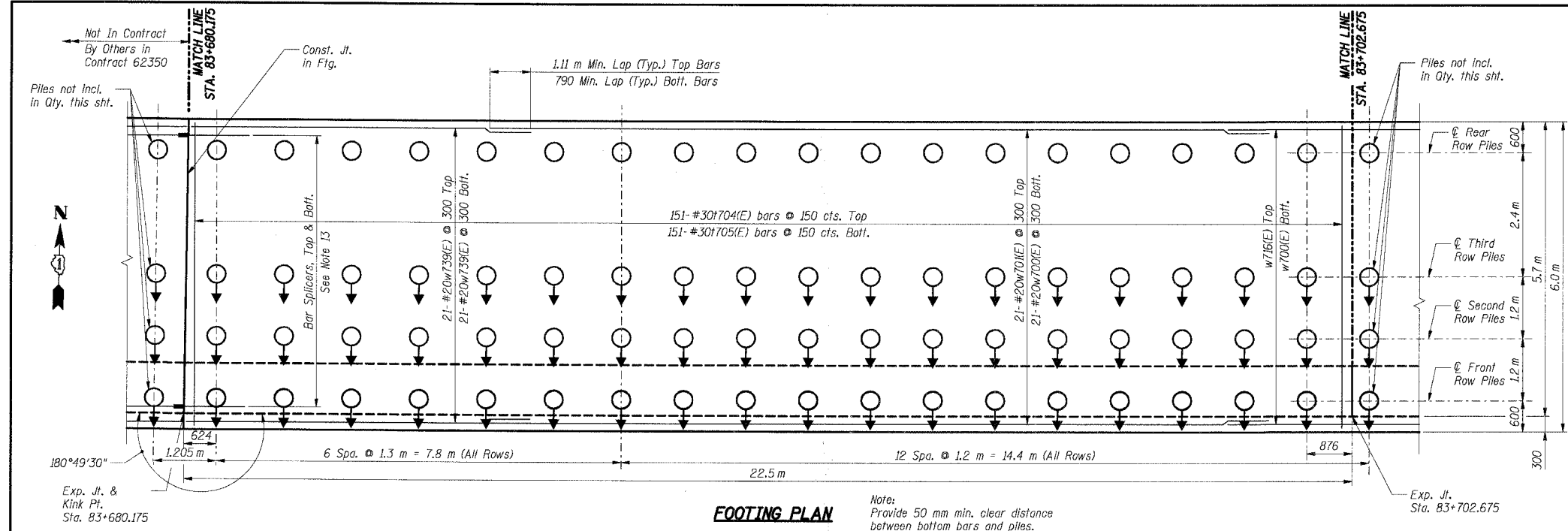
For Bending Diagrams see Sheets RW850-47 & RW850-48.

PILE DATA

Type : 356 mm ϕ Metal Shell
Concrete Pile
Required Bearing : 500 kN
Vertical Piles:
Design Capacity : 260 kN
Est. Length : 13.5 m
No. Required : 18
Battered Piles:
Design Capacity : 500 kN
Est. Length : 14.5 m
No. Required : 54

Notes:

- All dimensions are in millimeters (mm) except as noted.
- All dimensions shown are along the front face of the retaining wall.
- All vertical bars in wall stem and traffic barrier start at 50 mm from construction and expansion joint, U.N.O.
- Reinforcement bars designated (E) shall be epoxy coated.
- All edges shall have a 20 mm chamfer unless noted otherwise.
- For Section C-C, see Sht. RW850-43.
- E.F. indicates each face, B.F. indicates back face, F.F. indicates front face.
- See Sht. RW850-41 for Traffic Barrier reinforcement & Noise Abatement Wall pilaster locations.
- For Traffic Barrier details see Sht. RW850-47.
- For Rustication Finish & Joint details see Sht. RW850-49.
- For Concrete Pile details see Sht. RW850-51.
- \downarrow Indicates Battered Pile 3 1/2:1:2.
- See Bar Splicer detail Sheet RW850-50 for additional information.



SHT. RW850-35 OF 58

REVISIONS	
NAME	DATE

*** 2001-167R, (2425 & 2626) R-1 AND (2425 & 2626) R-2

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
RETAINING WALL - STRUCTURE NO. 016-W850
SECTIONS ***
COOK COUNTY

FOOTING PLAN & WALL ELEVATION 29

DATE: 7/18/2005
DRAWN BY: MJK
CHECKED BY: MJK

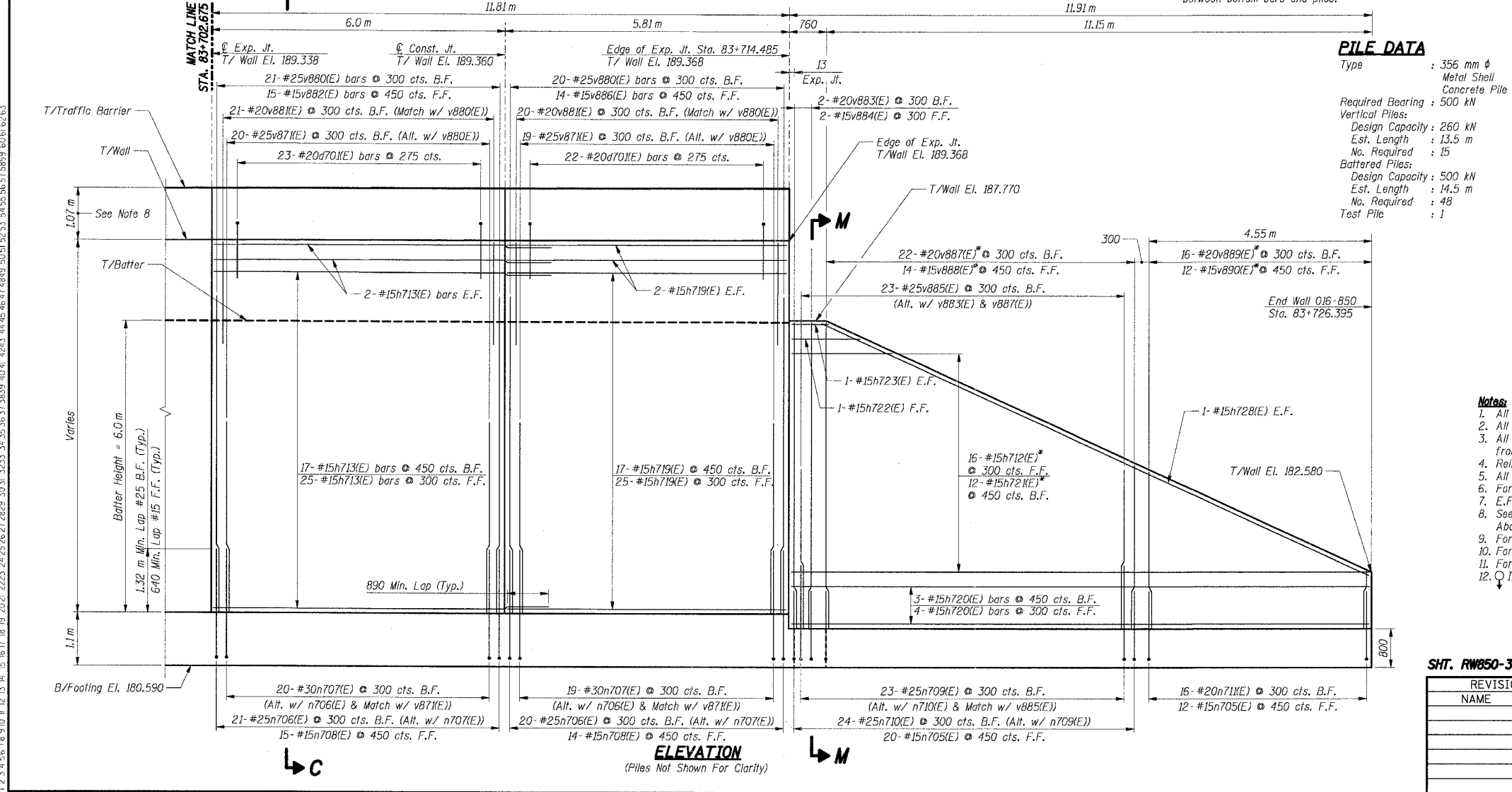
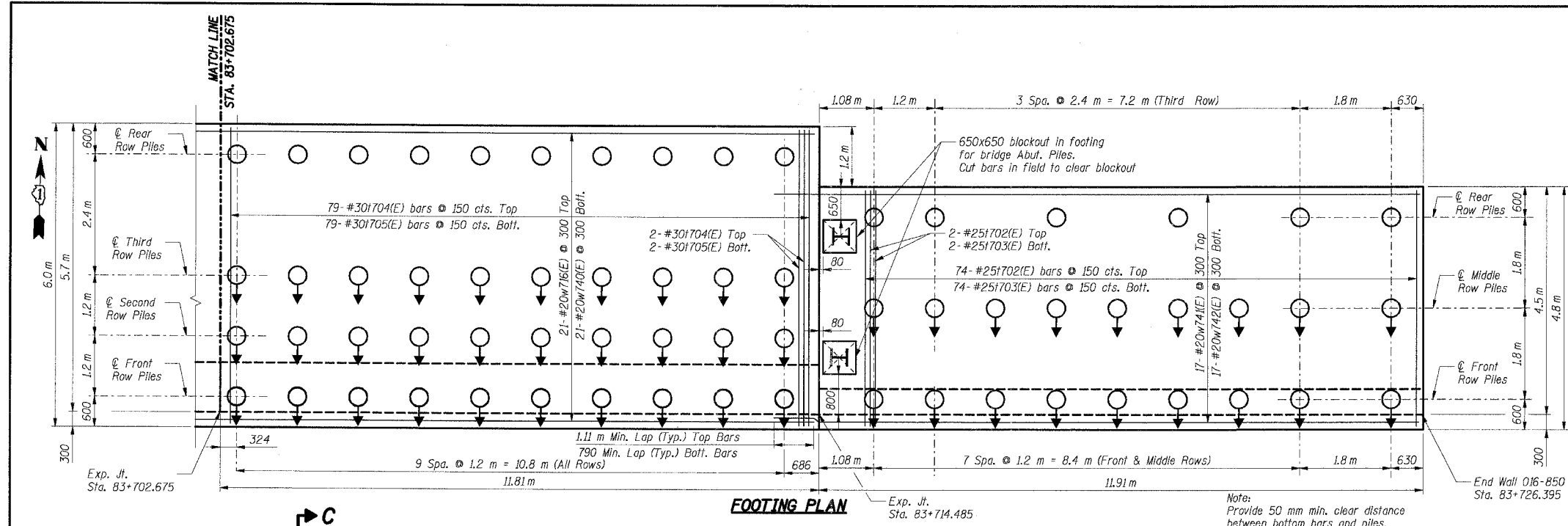
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ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	347
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
(2425 & 2626) R-2	CONTRACT NO. 62111			

BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
d70(E)	37	#20	2.59	□
h712(E)	8	#15	13.92	—
h713(E)	46	#15	6.89	—
h719(E)	46	#15	5.71	—
h720(E)	7	#15	11.83	—
h721(E)	6	#15	12.94	—
h722(E)	1	#15	1.44	—
h723(E)	2	#15	0.68	—
h728(E)	2	#15	12.28	—
n705(E)	32	#15	1.63	—
n706(E)	41	#25	2.75	—
n707(E)	39	#30	2.85	—
n708(E)	29	#15	1.93	—
n709(E)	23	#25	2.45	—
n710(E)	24	#25	1.92	—
n711(E)	16	#20	1.84	—
t702(E)	76	#25	5.10	—
t703(E)	76	#25	4.70	—
t704(E)	81	#30	6.40	—
t705(E)	81	#30	5.90	—
v880(E)	21	#25	6.98	—
v881(E)	21	#20	2.15	—
v871(E)	39	#25	4.79	—
v882(E)	15	#15	7.62	—
v883(E)	2	#20	6.34	—
v884(E)	2	#15	6.34	—
v885(E)	23	#25	3.28	—
v886(E)	14	#15	7.63	—
v887(E)	11	#20	9.77	—
v888(E)	7	#15	9.98	—
v889(E)	8	#20	4.50	—
v890(E)	6	#15	4.71	—
w716(E)	21	#20	14.48	—
w740(E)	21	#20	14.16	—
w741(E)	17	#20	13.02	—
w742(E)	17	#20	12.70	—
Item	Unit	Total		
Concrete Structures	Cu m	206.2		
Reinforcement Bars, Epoxy Coated	kg	16,750		



PILE DATA

Type : 356 mm ϕ Metal Shell Concrete Pile

Required Bearing : 500 kN

Vertical Piles:

- Design Capacity : 260 kN
- Est. Length : 13.5 m
- No. Required : 15

Battered Piles:

- Design Capacity : 500 kN
- Est. Length : 14.5 m
- No. Required : 48
- Test Pile : 1

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - All dimensions shown are along the front face of the retaining wall.
 - All vertical bars in wall stem and traffic barrier start at 50 mm from construction and expansion joint, U.N.O.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - All edges shall have a 20 mm chamfer unless noted otherwise.
 - For Section C-C, see Sht. RW850-43; For Section M-M, see Sht. RW850-16.
 - E.F. indicates each face, B.F. indicates back face, F.F. indicates front face.
 - See Sht. RW850-41 for Traffic Barrier reinforcement & Noise Abatement Wall pilaster locations.
 - For Traffic Barrier details see Sht. RW850-47.
 - For Rustication Finish & joint details see Sht. RW850-48.
 - For Concrete Pile details see Sht. RW850-51.
 - Q Indicates Battered Pile 3 1/2:12.

SHT. RW850-36 OF 58

REVISIONS	
NAME	DATE

*** 2001-167R, (2425 & 2626) R-1 AND (2425 & 2626) R-2

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
RETAINING WALL - STRUCTURE NO. 016-W850
SECTIONS ***
COOK COUNTY

FOOTING PLAN & WALL ELEVATION 30

DATE: 7/18/2005
DRAWN BY: MJK
CHECKED BY: MJK

TENG
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ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

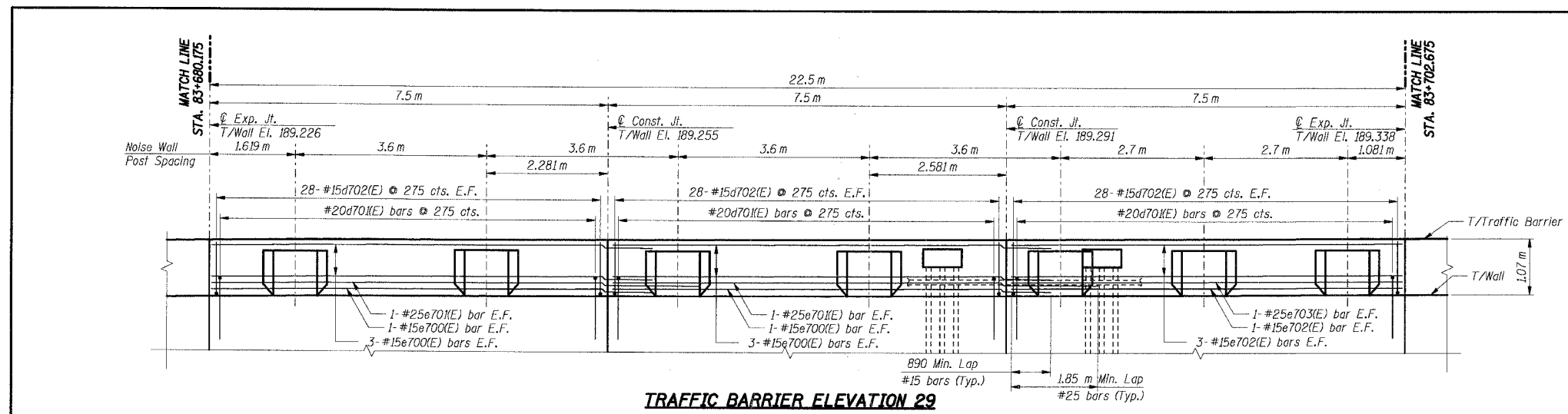
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	348
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		

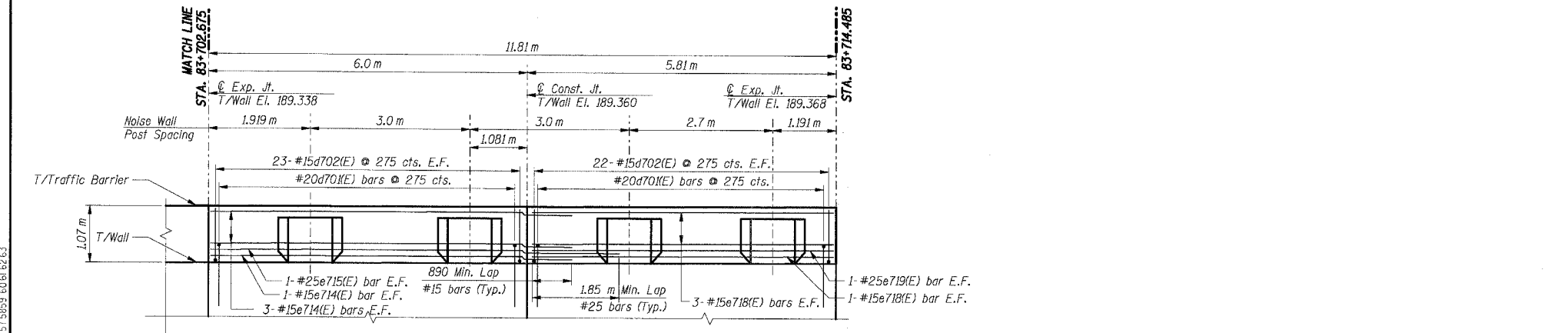
BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
d702(E)	258	#15	1.22	┌
d804(E)	77	#15	1.30	┌
e700(E)	16	#15	8.39	—
e701(E)	4	#25	9.35	—
e702(E)	8	#15	7.40	—
e703(E)	2	#25	7.40	—
e714(E)	8	#15	5.90	—
e715(E)	2	#25	5.90	—
e718(E)	8	#15	5.71	—
e719(E)	2	#25	5.71	—
e808(E)	33	#15	2.56	—
e812(E)	33	#15	2.20	—
u803(E)	77	#20	2.00	┌
Item			Unit	Total
Concrete Structures			Cu m	16.6
Reinforcement Bars, Epoxy Coated			kg	2,010

For Bending Diagrams see Sht. RW850-47.



TRAFFIC BARRIER ELEVATION 29



TRAFFIC BARRIER ELEVATION 30

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - All dimensions shown are along the front face of the retaining wall.
 - All vertical bars in wall stem and traffic barrier start at 50 mm from construction and expansion joint, U.M.O.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - All edges shall have a 20 mm chamfer unless noted otherwise.
 - E.F. Indicates each face, B.F. Indicates back face, F.F. Indicates front face.
 - For Traffic Barrier details and Noise Wall Plaster details see Sht. RW850-47.

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SHT. RW850-41 OF 58

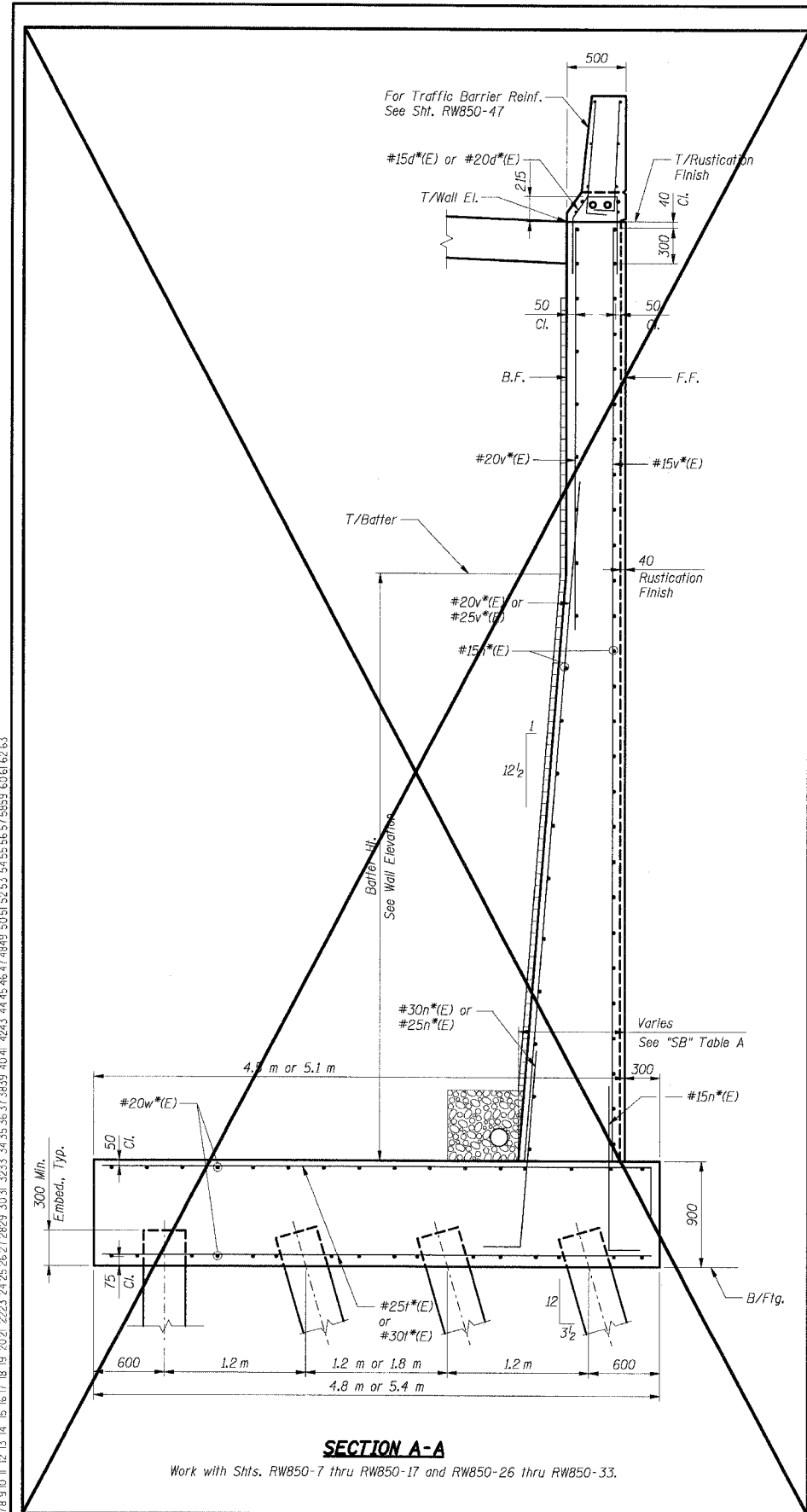
REVISIONS	
NAME	DATE

*** 2001-167R, (2425 & 2626) R-1 AND (2425 & 2626) R-2
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W850
 SECTIONS ***
 COOK COUNTY

TRAFFIC BARRIER ELEVATION V

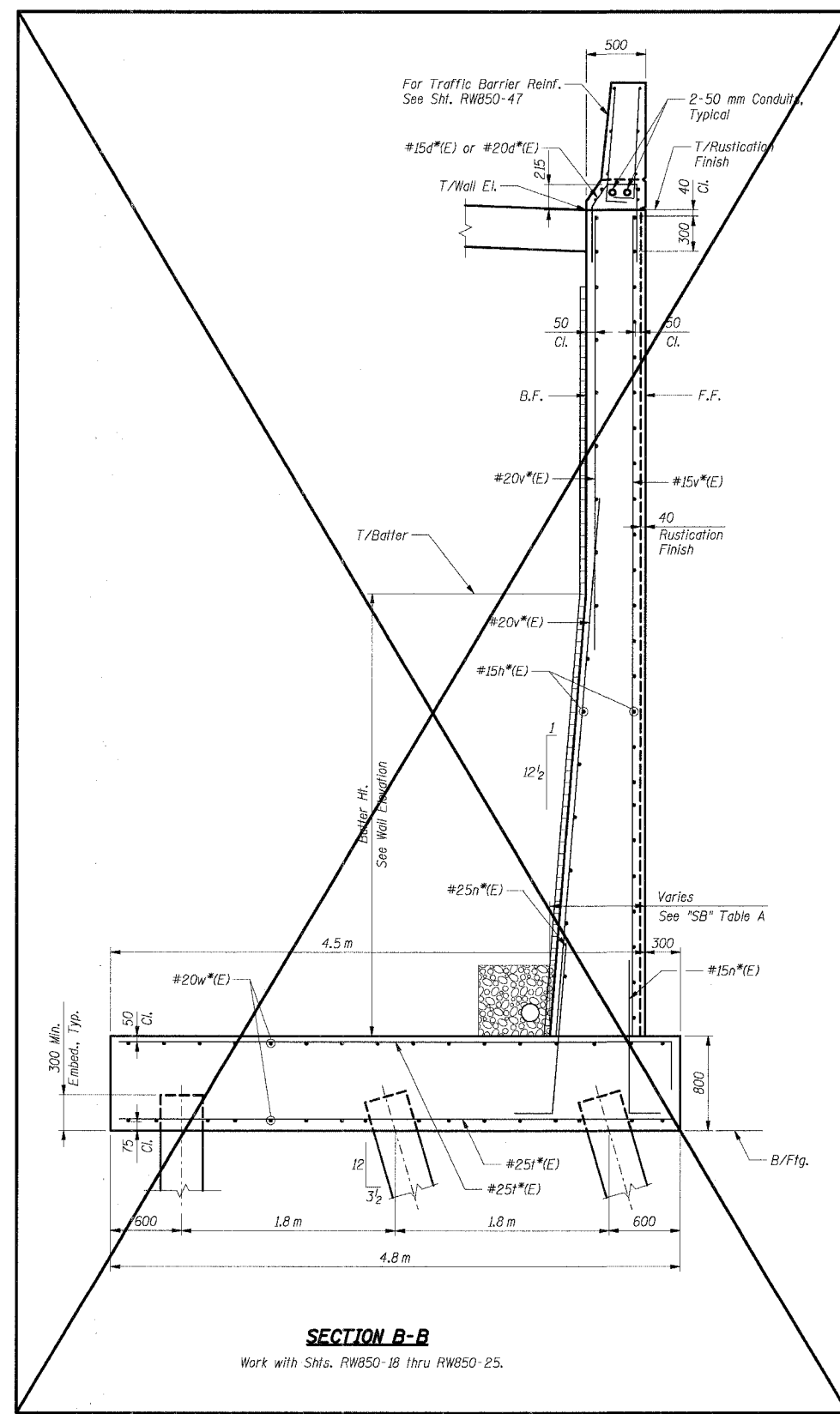
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 CHECKED BY: MK
TENG
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 ENGINEERS, ARCHITECTS, PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	349
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		



SECTION A-A

Work with Shts. RW850-7 thru RW850-17 and RW850-26 thru RW850-33.



SECTION B-B

Work with Shts. RW850-18 thru RW850-25.

TABLE A

Batter Ht. (m)	SB (mm)
2.5	700
3.0	740
3.75	800
4.0	820
4.5	860
5.0	900
5.5	940
6.0	980
6.25	1000

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - All edges shall have a 20 mm chamfer unless noted otherwise.
 - E.F. indicates each face.
 - B.F. indicates back face.
 - F.F. indicates front face.
 - For Traffic Barrier details see Sht. RW850-47.
 - For Rustification Finish & joint details see Sht. RW850-49.
 - For Concrete Pile details see Sht. RW850-51.
 - For Drainage details see Sht. RW850-48.
 - *Indicates for location of bars, identification and quantity, see Footing Plans & Wall Elevations.
 - See Wall Elevation Details for walls with Noise Abatement Wall Pileaster.

*** 2001-167R, (2425 & 2626) R-1 AND (2425 & 2626) R-2

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W850
 SECTIONS ***
 COOK COUNTY

WALL SECTIONS & DETAILS I

SHT. RW850-42 OF 58

REVISIONS	
NAME	DATE

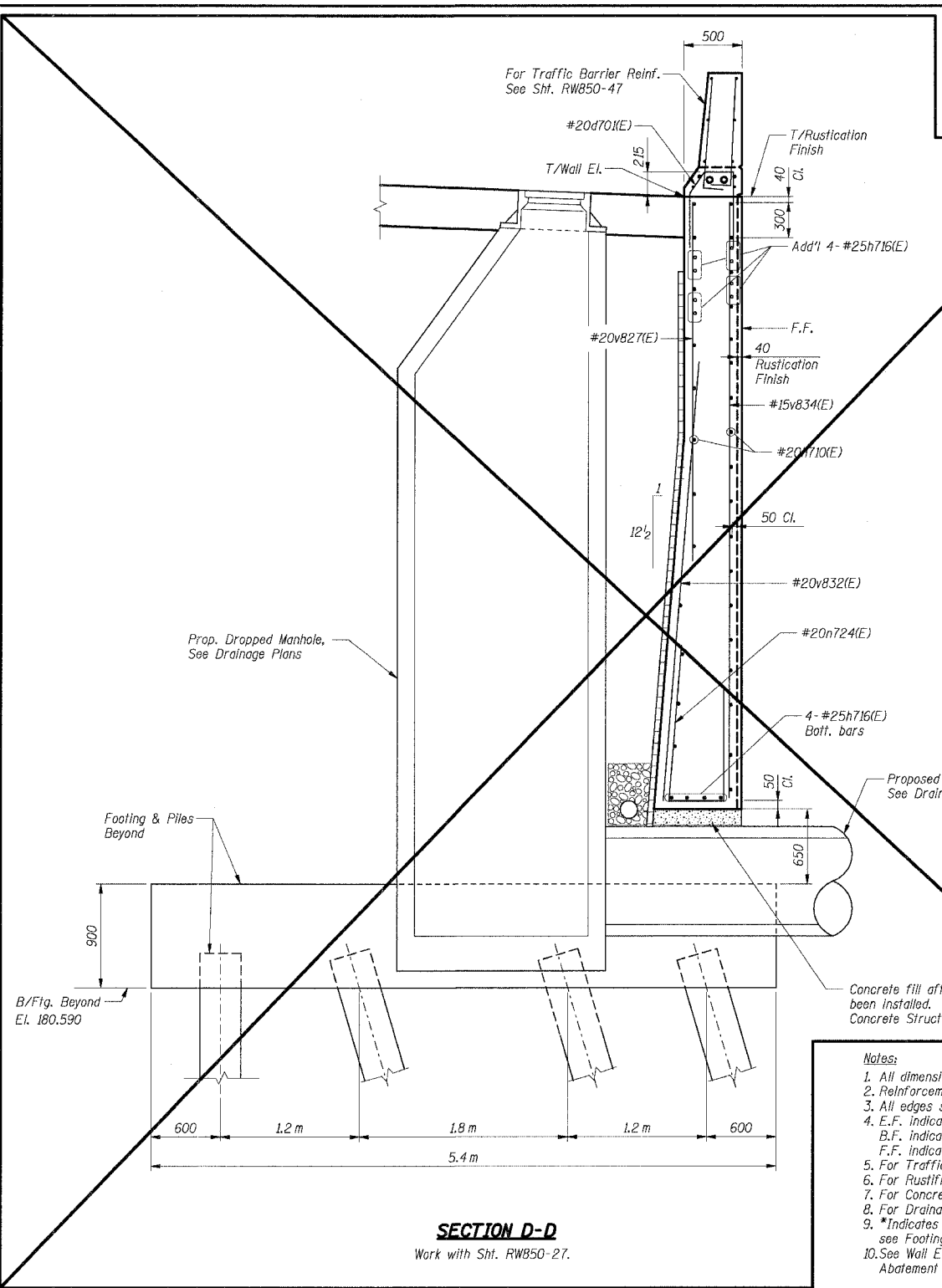
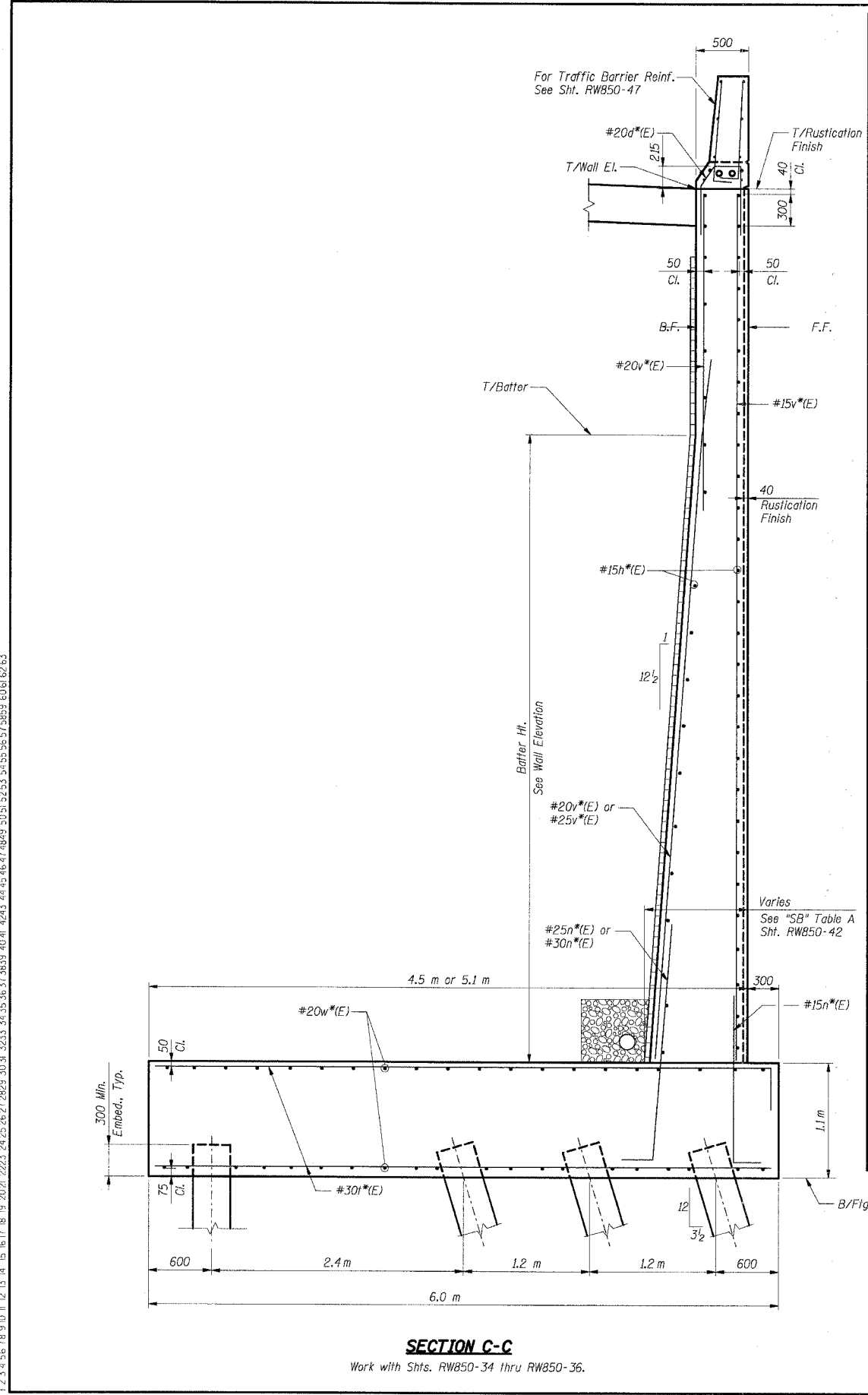
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DRAWN BY: MJK
 CHECKED BY: MJK
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	350
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2		CONTRACT NO. 62111		



- Notes:**
1. All dimensions are in millimeters (mm) except as noted.
 2. Reinforcement bars designated (E) shall be epoxy coated.
 3. All edges shall have a 20 mm chamfer unless noted otherwise.
 4. E.F. indicates each face.
 5. B.F. indicates back face.
 6. F.F. indicates front face.
 7. For Traffic Barrier details see Sht. RW850-47.
 8. For Rustication Finish & joint details see Sht. RW850-49.
 9. For Concrete Pile details see Sht. RW850-51.
 10. For Drainage details see Sht. RW850-48.
 11. *Indicates for location of bars, identification and quantity, see Footing Plans & Wall Elevations.
 12. See Wall Elevation Details for walls with Noise Abatement Wall Pilaster.

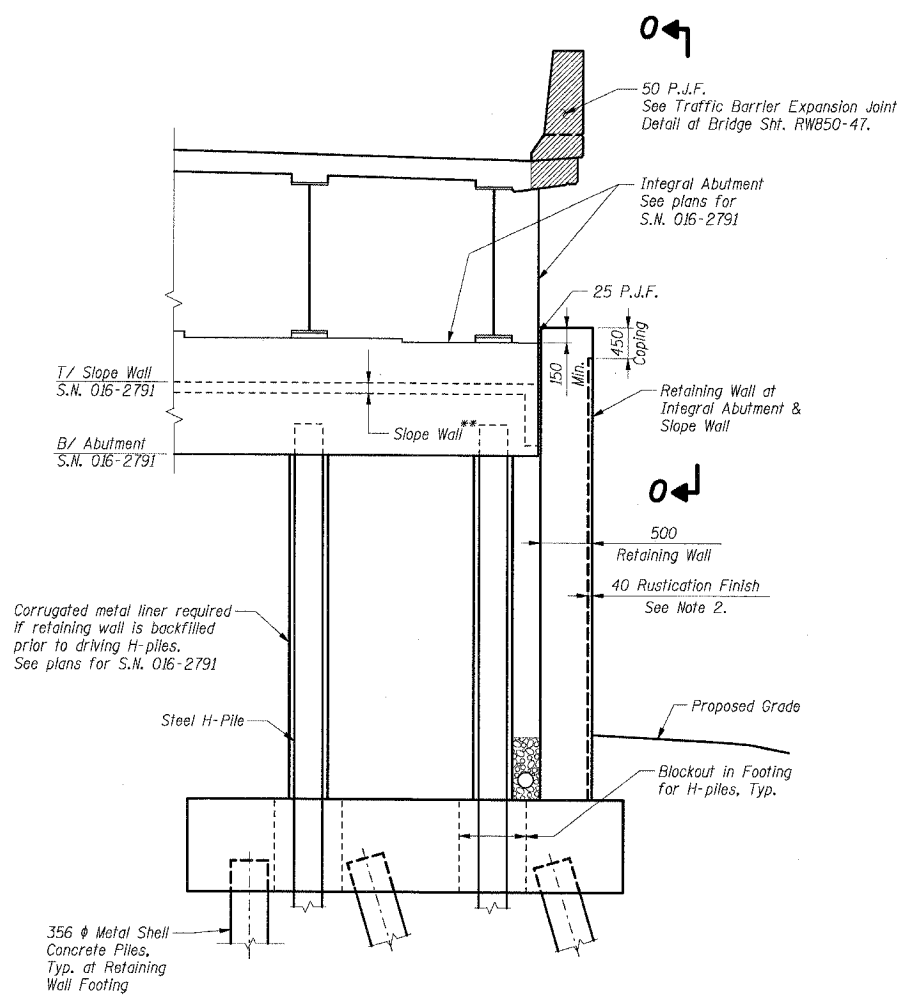
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SHT. RW850-43 OF 58

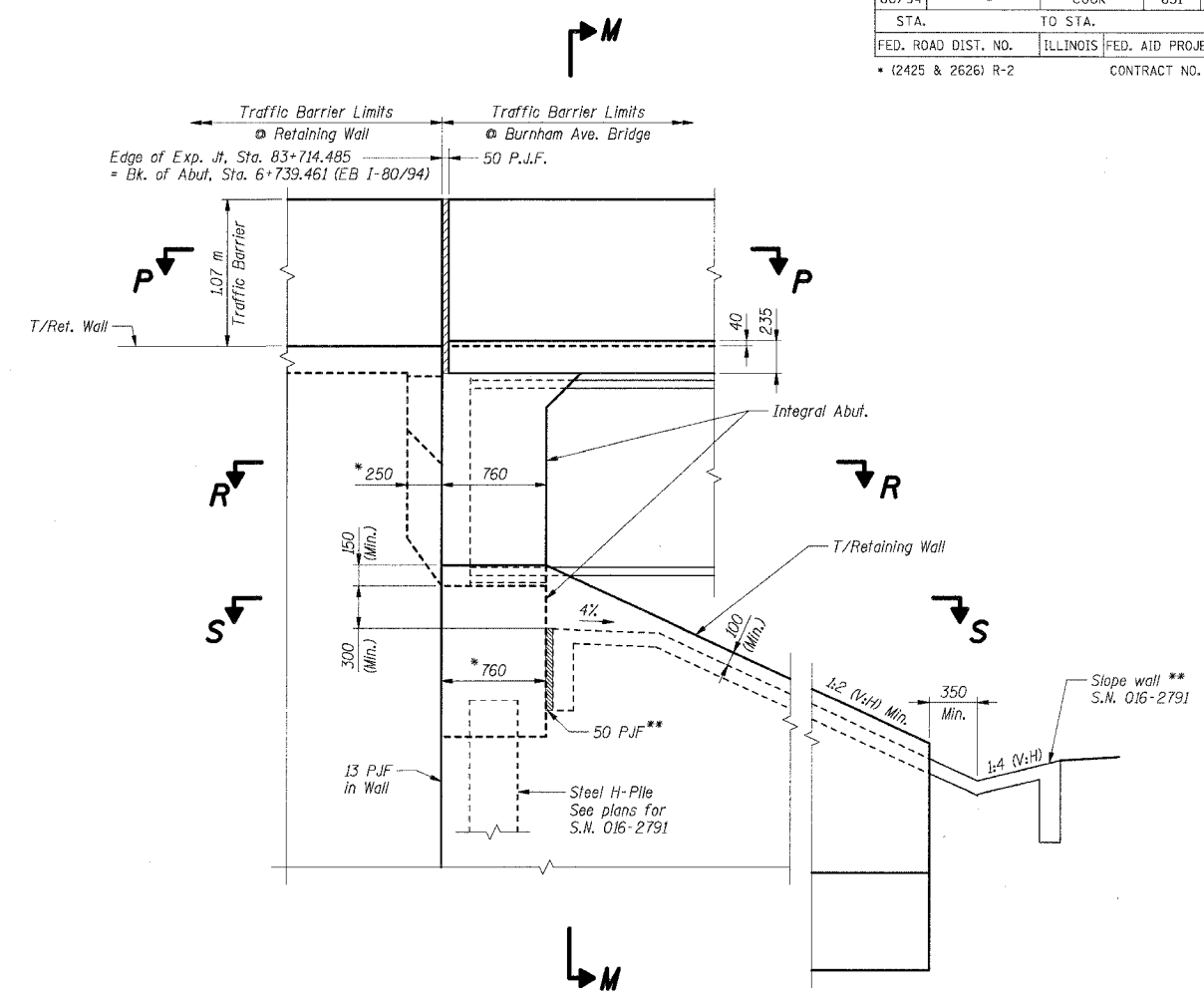
REVISIONS	
NAME	DATE

*** 2001-16TR, (2425 & 2626) R-1 AND (2425 & 2626) R-2
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W850
 SECTIONS ***
 COOK COUNTY
WALL SECTIONS & DETAILS II
 DATE: 7/18/2005
 DRAWN BY: CHECKED BY: MJK
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

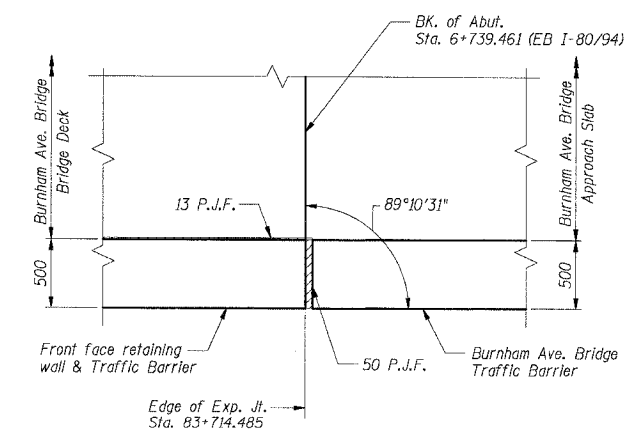
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80/94	*	COOK	631	351
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2			CONTRACT NO. 62111	



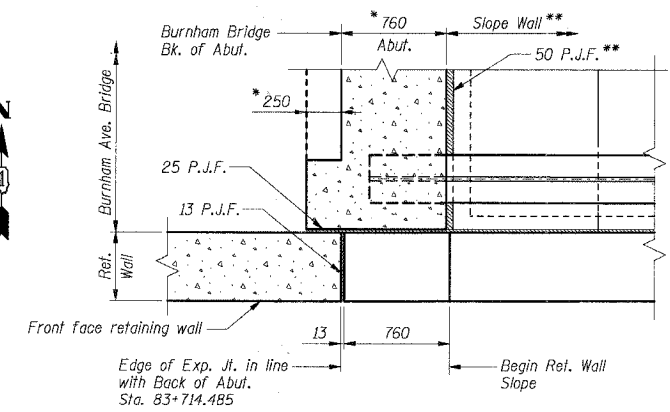
SECTION M-M
Work with Sht. RW850-36.



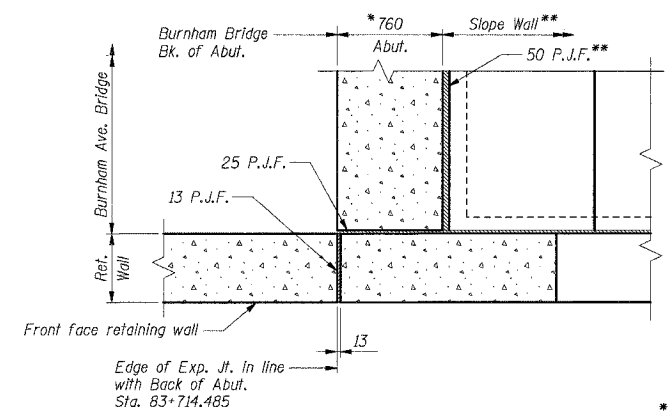
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PLAN DETAIL P-P



SECTION R-R



SECTION S-S

- Notes:
- All dimensions are in millimeters (mm) except as noted.
 - For Rustication Finish and joint details see Sht. RW850-49.
 - * denotes See plans for S.N. 016-2791 for final dimensions.
 - ** denotes See Bridge Plans S.N. 016-2791

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*** 2001-167R, (2425 & 2626) R-1 AND (2425 & 2626) R-2

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W850
 SECTIONS ***
 COOK COUNTY

WALL SECTIONS & DETAILS V

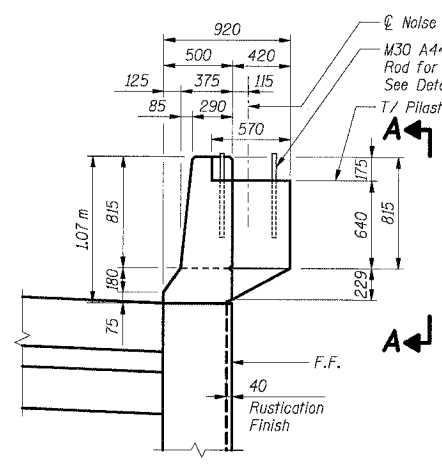
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 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

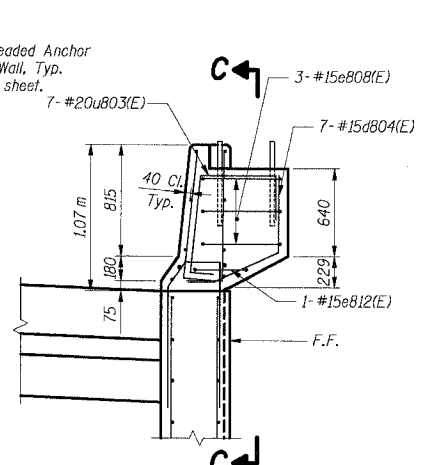
SHT. RW850-46 OF 58

REVISIONS	
NAME	DATE

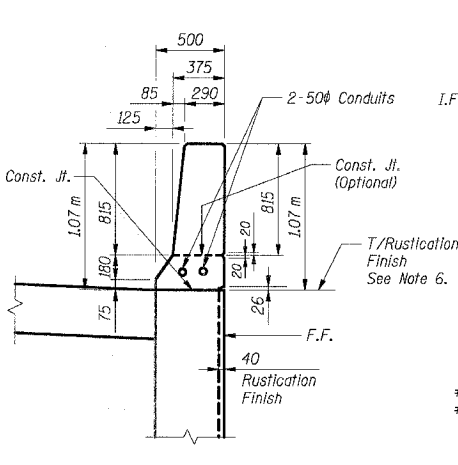
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	352
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		



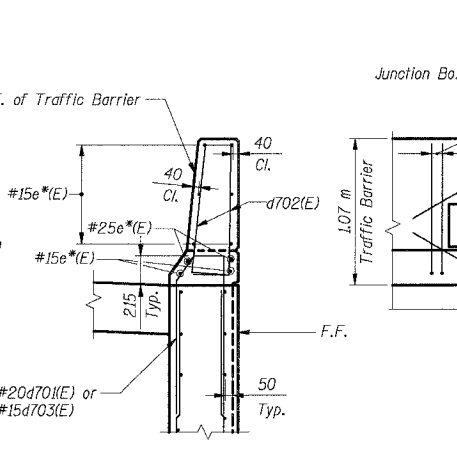
TRAFFIC BARRIER W/PILASTER



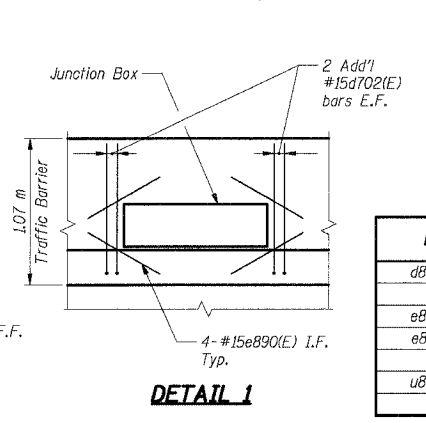
TRAFFIC BARRIER W/PILASTER (Showing Reinforcement)



TYPICAL TRAFFIC BARRIER SECTION



TYPICAL TRAFFIC BARRIER SECTION (Showing Reinforcement)



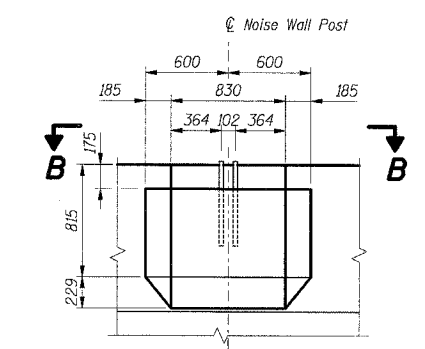
DETAIL 1

BAR LIST FOR EACH PILASTER (FOR INFORMATION ONLY)

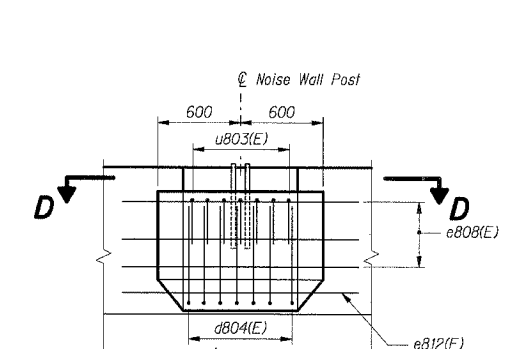
Bar	No.	Size	Length (m)	Shape
d804(E)	7	#15	1.30	U
e808(E)	3	#15	2.56	W
e812(E)	1	#15	2.20	W
u803(E)	7	#20	2.00	L

BILL OF MATERIAL

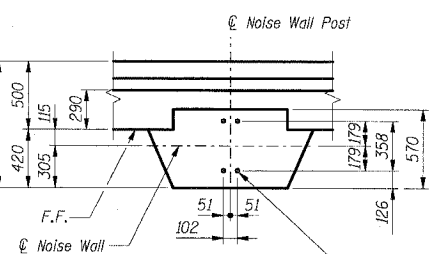
Item	Unit	Total
Noise Abatement Wall Anchor Rod Assembly	Ea	11



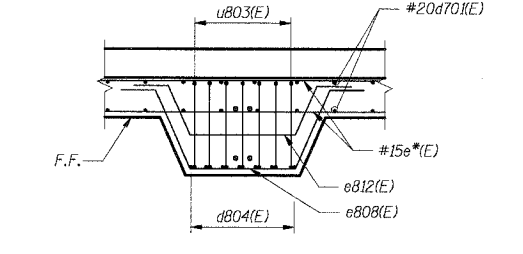
ELEVATION A-A



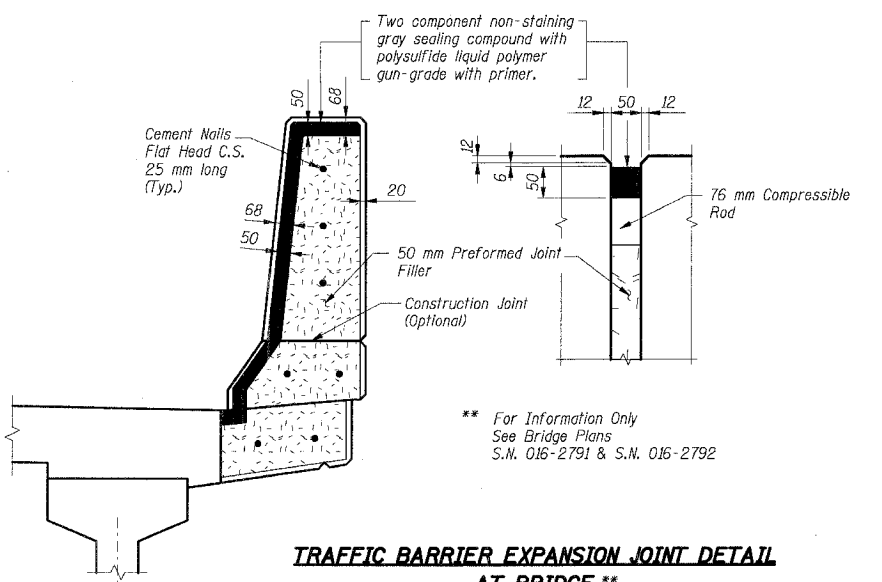
SECTION C-C



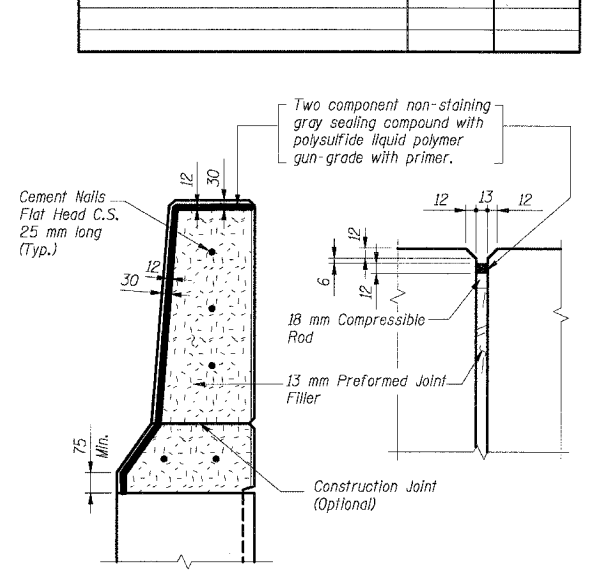
PLAN B-B



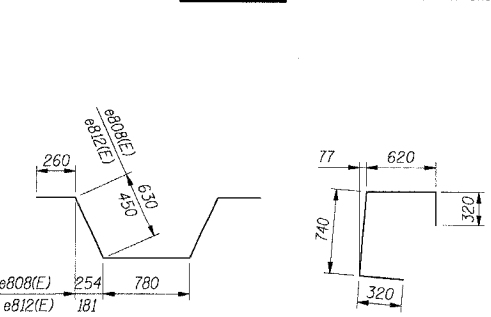
SECTION D-D



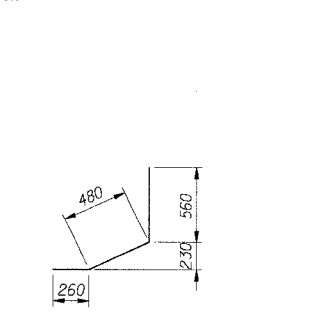
TRAFFIC BARRIER EXPANSION JOINT DETAIL AT BRIDGE



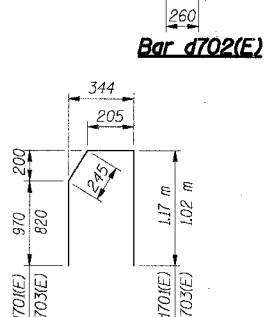
TYPICAL TRAFFIC BARRIER EXPANSION JOINT DETAIL



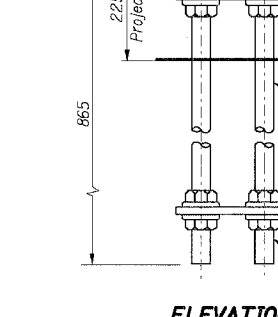
Bars e808(E) & e812(E)



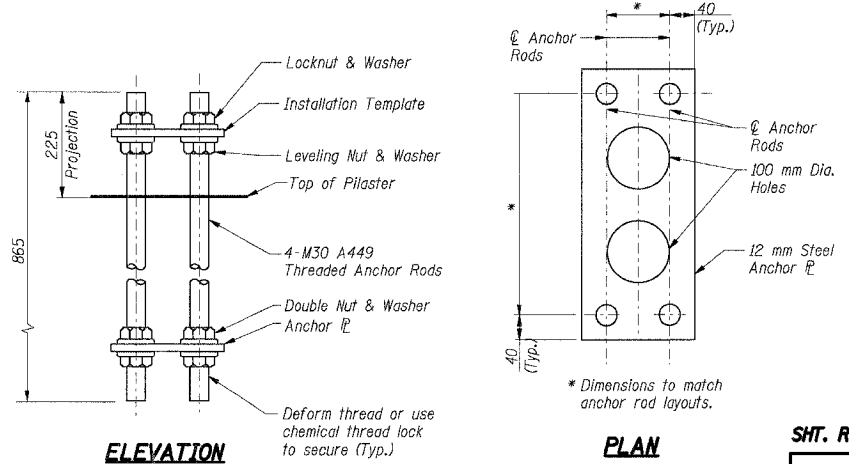
Bar u803(E)



Bar d804(E)



Bars d701(E) & d703(E)



NOISE ABATEMENT WALL ANCHOR ROD ASSEMBLY (11 Required)

- Notes:
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - All edges shall have a 20 mm chamfer unless noted otherwise.
 - E.F. indicates each face.
 - B.F. indicates back face.
 - F.F. indicates front face.
 - *Indicates for location of bars, identification and quantity, see Footing Plans & Wall Elevations.
 - For Rustication Finish details, see Sht. RW850-49.

SHT. RW850-47 OF 58

REVISIONS	
NAME	DATE

*** 2001-16TR, (2425 & 2626) R-1 AND (2425 & 2626) R-2

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W850
 SECTIONS ***
 COOK COUNTY

TRAFFIC BARRIER SECTIONS & DETAILS

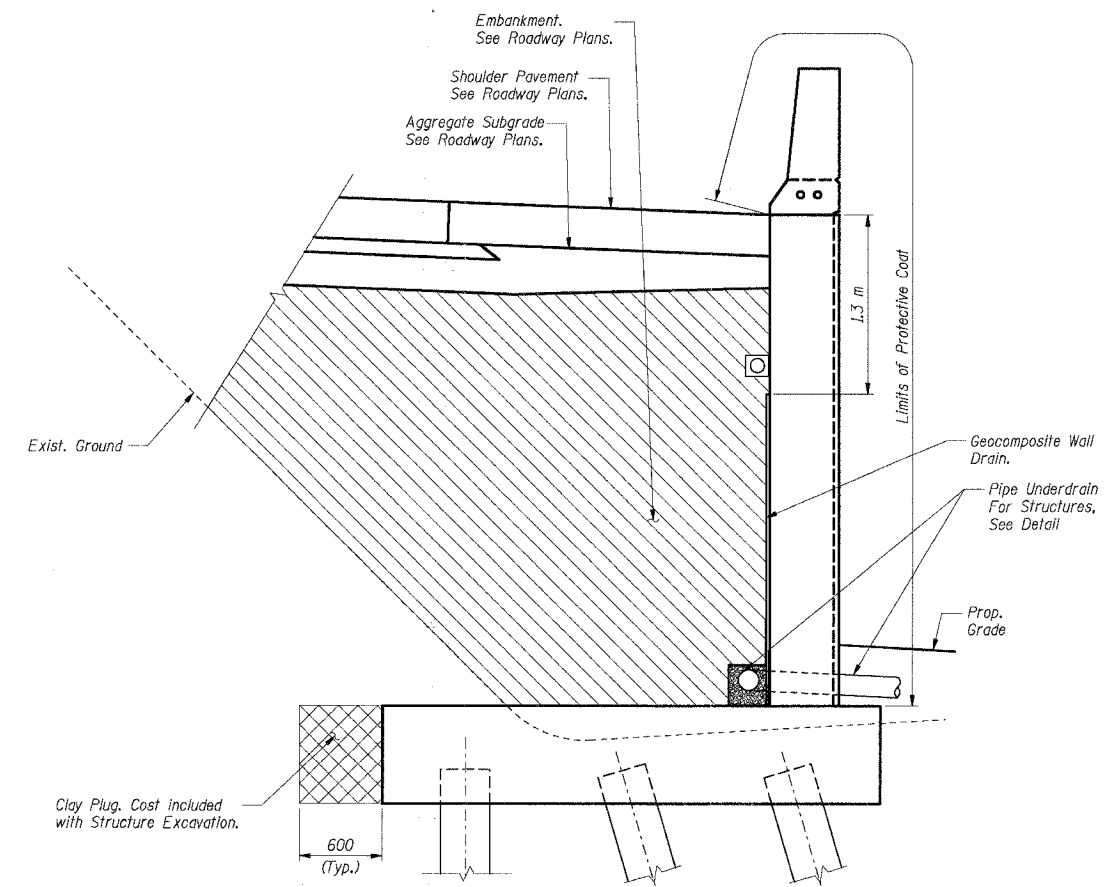
DATE: 7/18/2005

DRAWN BY: MJK
 CHECKED BY: MJK

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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 BAJ/ZEK/J

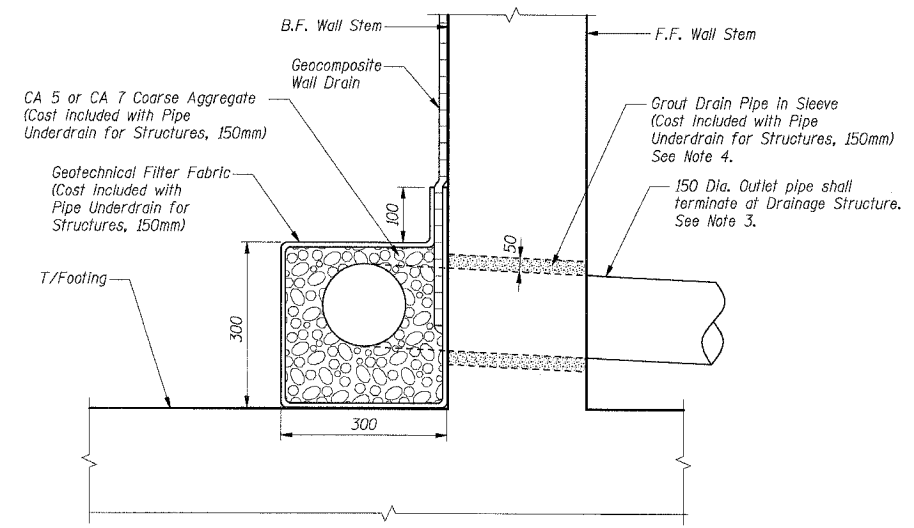
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	353
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2			CONTRACT NO. 62111	



Bar	A	B
n705(E)	260	1.37 m
n708(E)	260	1.67 m
n709(E)	400	2.05 m
n710(E)	400	1.52 m
n711(E)	320	1.52 m
1702(E)	400	4.70 m
1704(E)	500	5.90 m

Bar	A	B	C
n706(E)	400	2.35 m	190
n707(E)	500	2.35 m	190

TYPICAL WALL DRAINAGE SECTION AT TEMPORARY SOIL RETENTION SYSTEM



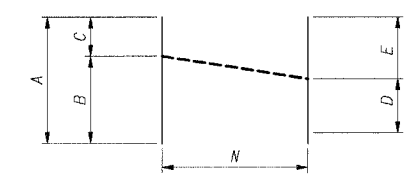
PIPE UNDERDRAIN FOR STRUCTURES DETAIL

PIPE UNDERDRAIN/DRAINAGE STRUCTURE CONNECTION TABLE

Pipe Underdrain Connection No.	Connection at Station	Drainage Structure No.
*** 1	83+028.00	3257
*** 2	83+081.50	3258
*** 3	83+133.50	3259
** 4	83+161.00	3260
** 5	83+214.00	3261
** 6	83+265.00	3262
** 7	83+317.00	3263
** 8	83+377.00	3264
** 9	83+438.50	3265
** 10	83+500.50	3266
** 11	83+544.00	3267
** 12	83+599.00	3268
** 13	83+658.00	3269
** 14	83+718.00	3270

** Not in Contract, By Others in Contract 62350
 *** Not in Contract, By Others in Contract 62110

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - Outlet pipe and fittings shall be Extra Heavy Ductile Iron Pipe conforming to the requirements of ASTM A746 with plain end. (Cost included with Pipe Underdrain for Structures, 150mm).
 - Prior to the placement of the pipe underdrain sleeve, the Engineer shall determine the slope and fittings required for the pipe underdrain to enter the drainage structure.



Bar Cutting Diagram

Bar	N Bars	A	B	C	D	E
v887(E)	11	9.77 m	6.34 m	3.43 m	4.82 m	4.95 m
v888(E)	7	9.98 m	6.34 m	3.64 m	4.89 m	5.09 m
v889(E)	8	4.50 m	3.29 m	1.21 m	2.18 m	2.32 m
v890(E)	6	4.71 m	3.50 m	1.21 m	2.25 m	2.46 m
h712(E)	8	13.92 m	11.83 m	2.09 m	6.64 m	7.28 m
h721(E)	6	12.94 m	11.83 m	1.11 m	5.98 m	6.96 m

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SHT. RW850-48 OF 58

REVISIONS	
NAME	DATE

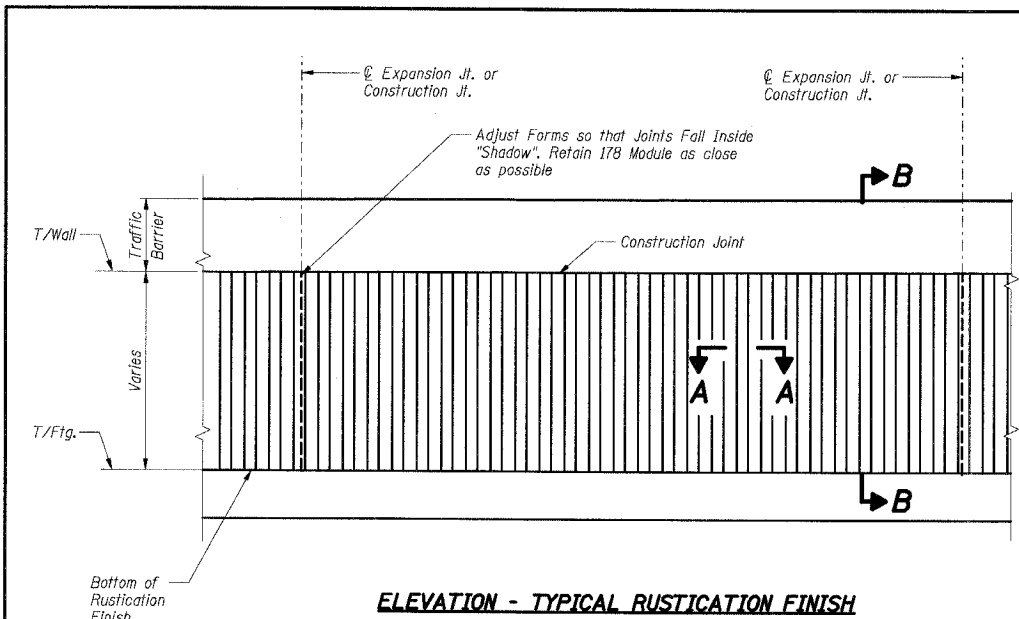
*** 2001-167R, (2425 & 2626) R-1 AND (2425 & 2626) R-2

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W850
 SECTIONS ***
 COOK COUNTY

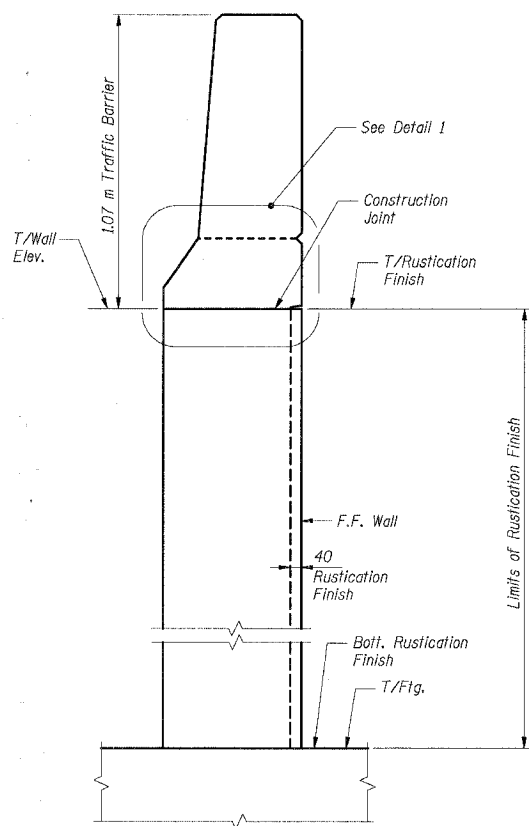
DRAINAGE DETAILS & WALL REINFORCEMENT DETAILS

DATE: 7/18/2005
 DRAWN BY: CHECKED BY: MJK
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

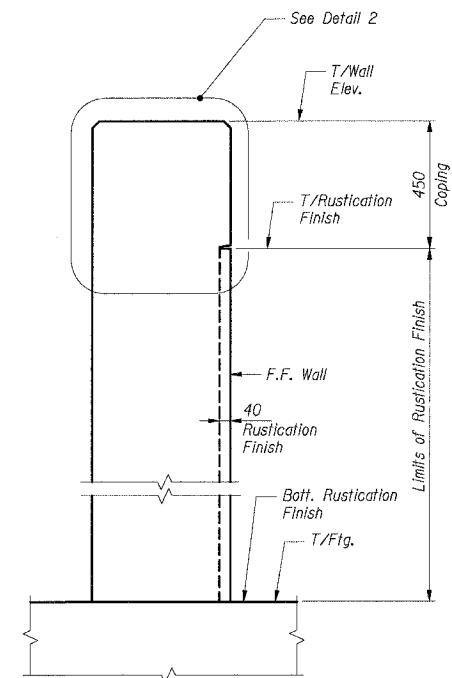
F.A.I. RTE. 80/94	SECTION	COUNTY COOK	TOTAL SHEETS 631	SHEET NO. 354
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2		CONTRACT NO. 62111		



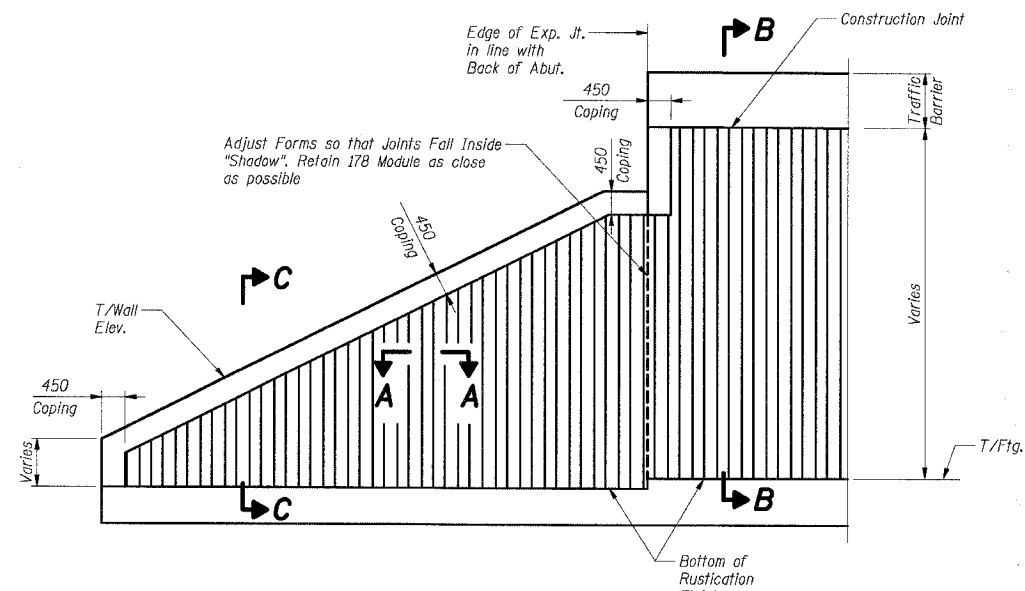
ELEVATION - TYPICAL RUSTICATION FINISH



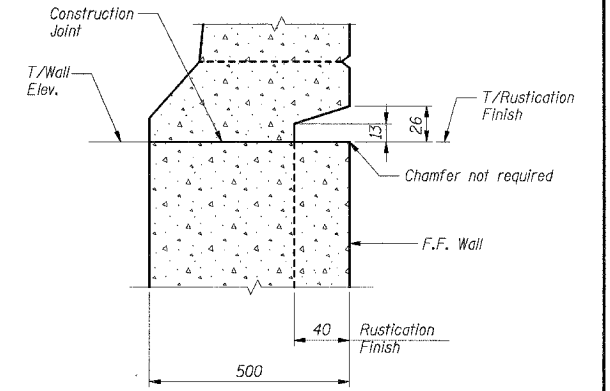
SECTION B-B



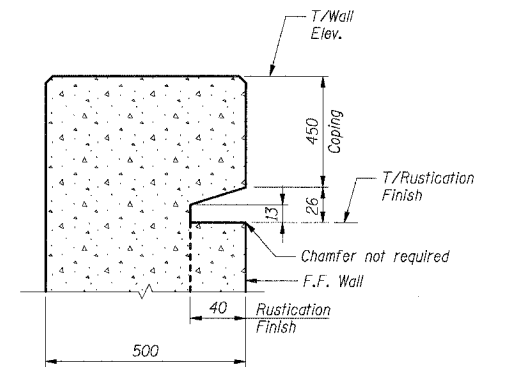
SECTION C-C



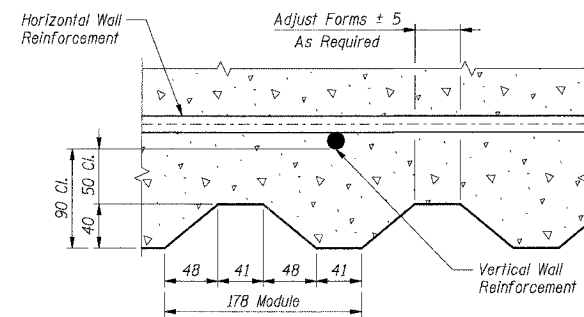
ELEVATION - RUSTICATION FINISH AT ABUTMENT



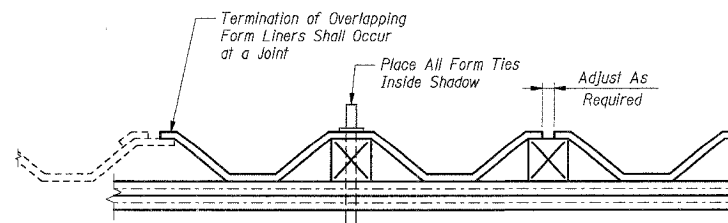
DETAIL 1
Not to Scale



DETAIL 2
Not to Scale

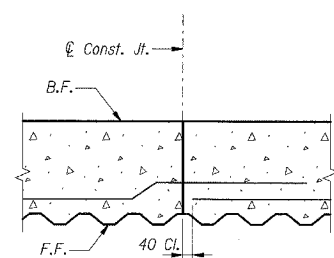


SECTION A-A

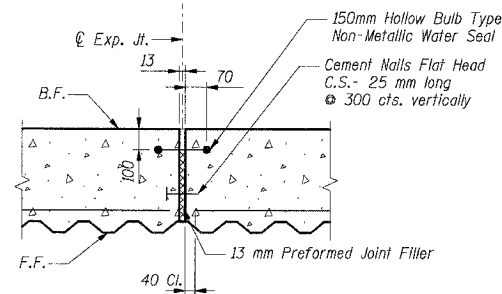


SUGGESTED FORMWORK DETAIL

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CONSTRUCTION JOINT DETAIL



EXPANSION JOINT DETAIL

Cost of joint sealant, non-metallic water seal, P.J.F. and cement nails are included with Concrete Structures.

BILL OF MATERIAL

Item	Unit	Total
Rustication Finish	Sq m	303

- Notes:
 1. All dimensions are in millimeters (mm) except as noted.
 2. All edges shall have a 20 mm chamfer unless noted otherwise.

*** 2001-167R, (2425 & 2626) R-1 AND (2425 & 2626) R-2

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W850
 SECTIONS ***
 COOK COUNTY

SHT. RW850-49 OF 58

REVISIONS	
NAME	DATE

RUSTICATION FINISH & JOINT DETAILS

DATE: 7/18/2005

DRAWN BY: MJK
 CHECKED BY: MJK

TENG TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	355
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 400 MPa yield strength, threaded or coiled full length.
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

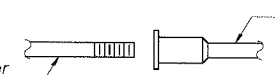
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- Minimum Capacity = $1.25 \times f_y \times A_t$
(Tension in kN)
 - Minimum *Pull-out Strength = $1.25 \times f_{s_{allow}} \times A_t$
(Tension in kN)
- Where f_y = Yield strength of lapped reinforcement bars in MPa.
 $f_{s_{allow}}$ = Allowable tensile stress in lapped reinforcement bars in MPa (Service Load)
 A_t = Tensile stress area of lapped reinforcement bars (mm²).
 * = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kN - tension	Min. Pull-Out Strength kN - tension
#15	640 mm	100	40
#20	790 mm	150	60
#25	1.32 m	250	100
#30	1.85 m	350	140

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."
 All dimensions in millimeters (mm) except as noted.

The diameter of this part is the same as the diameter of the bar spliced.



ROLLED THREAD DOWEL BAR



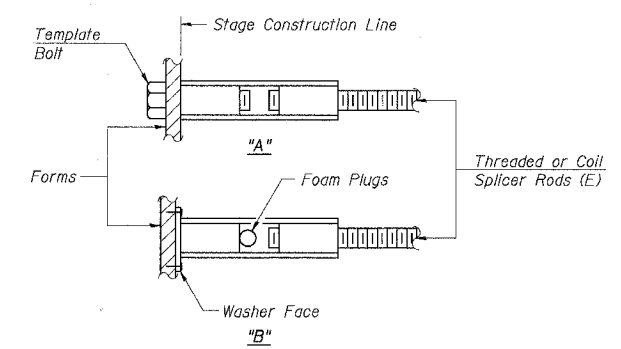
** ONE PIECE Wire Connector



WELDED SECTIONS

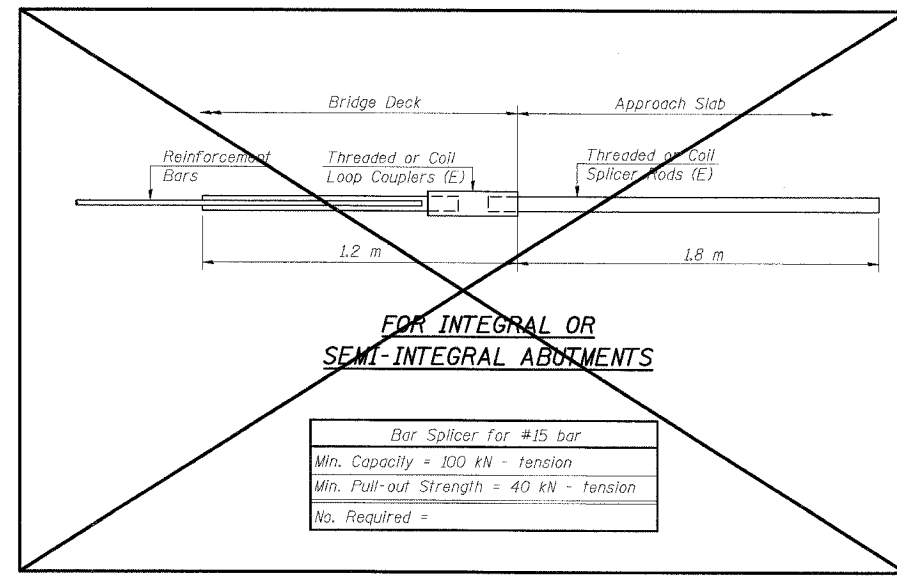
BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563M, Grade C, D or DH may be used.



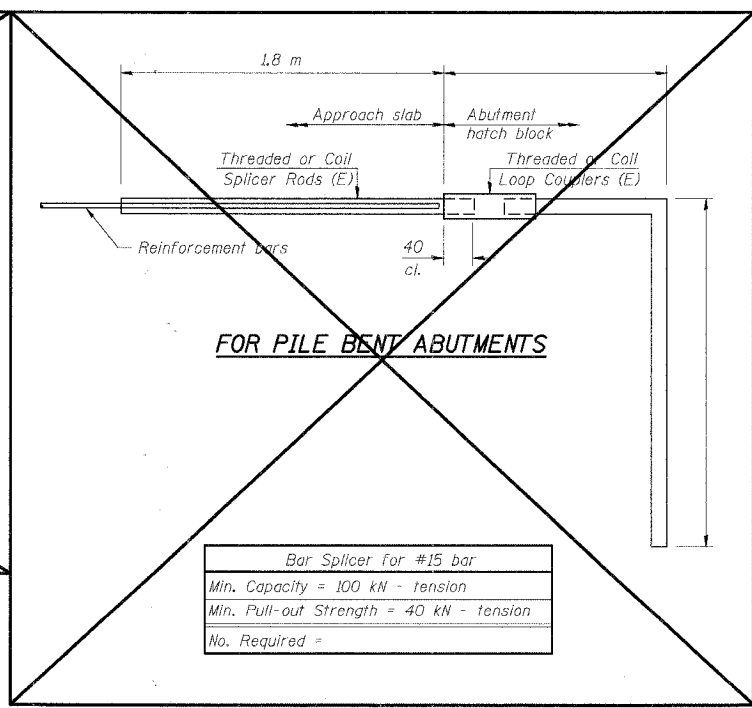
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.



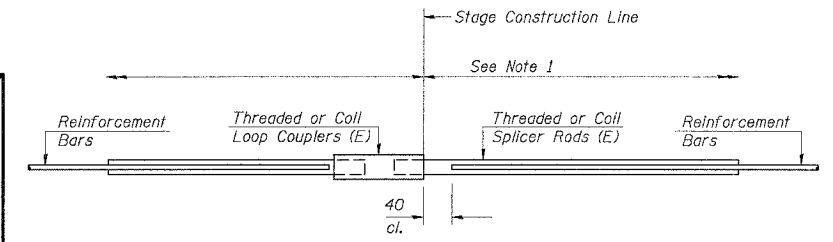
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #15 bar
Min. Capacity = 100 kN - tension
Min. Pull-out Strength = 40 kN - tension
No. Required =



FOR PILE BENT ABUTMENTS

Bar Splicer for #15 bar
Min. Capacity = 100 kN - tension
Min. Pull-out Strength = 40 kN - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location
#20	34*	Wall Footing Sta. 83+134.394
#20	42**	Wall Footing Sta. 83+680.175

* For Information Only
 ** See Note 1

FOR INFORMATION ONLY

Note 1. Bar Splicers were paid for and the coupler ends installed during a previous contract. The splicer rods are in storage under ownership of the Department. The Contractor shall obtain the splicer rods from the Engineer and install them under this contract. Installation of the splicer rods including cleaning of coupler ends and splicer rods shall be included with Concrete Structures.

*** 2001-167R, (2425 & 2626) R-1 AND (2425 & 2626) R-2

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W850
 SECTIONS ***
 COOK COUNTY

SHT. RW850-50 OF 58

REVISIONS	
NAME	DATE

BAR SPLICER DETAILS

DATE: 7/18/2005

DRAWN BY: CHECKED BY: MJK

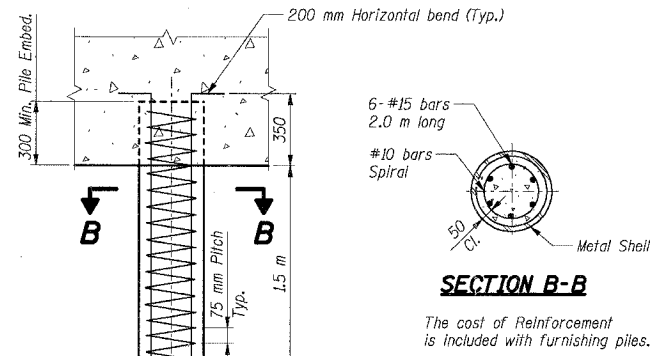
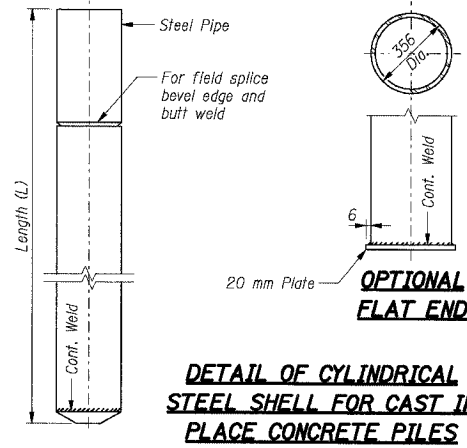
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

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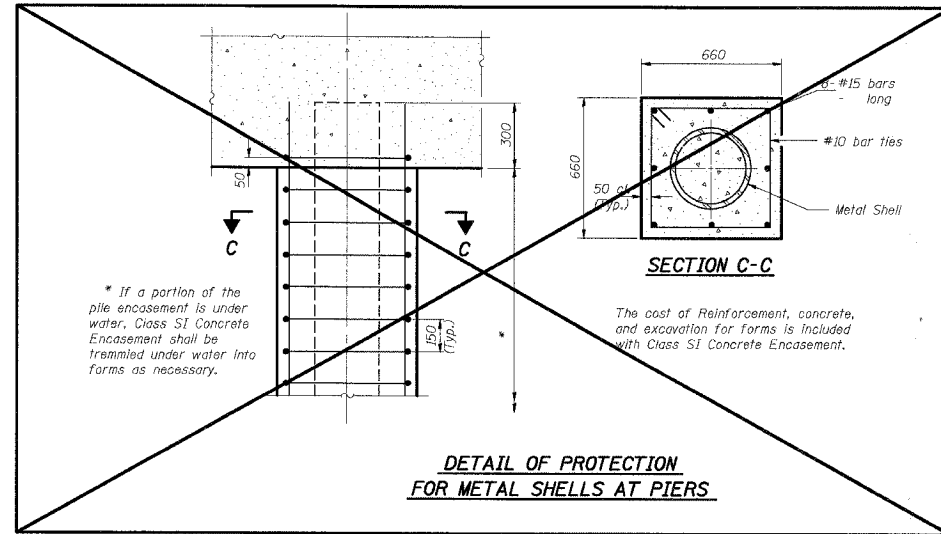
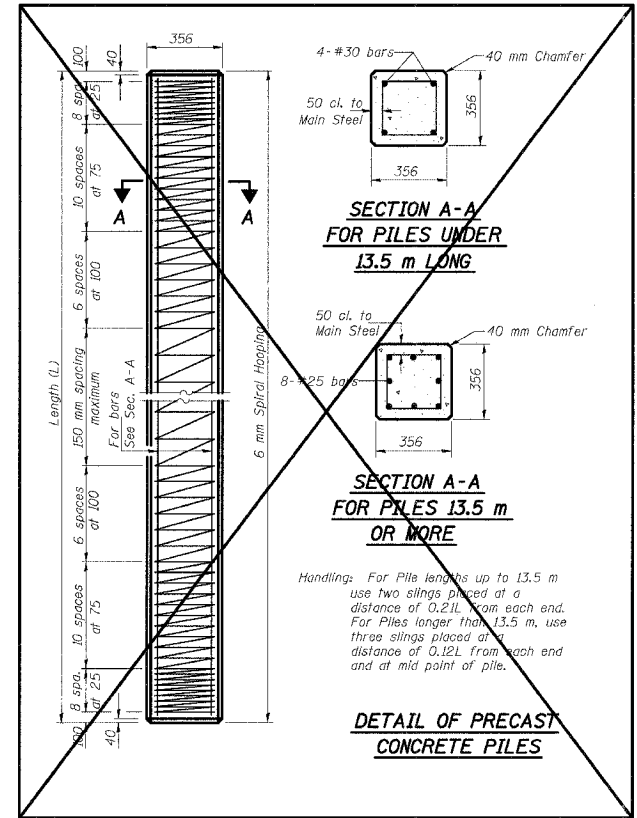
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	356
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2			CONTRACT NO. 62111	

Notes: Driving and bearing ends shall be cut square. The thickness of the shell shall be 6.35 mm with a tolerance of 5%. The shell shall be according to Article 1006.05(a) of the Standard Specifications.



DETAIL OF REINFORCEMENT FOR METAL SHELLS AT ABUTMENTS



- Notes:
1. All dimensions are in millimeters (mm) except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.

*** 2001-167R, (2425 & 2626) R-1 AND (2425 & 2626) R-2

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
RETAINING WALL - STRUCTURE NO. 016-W850
SECTIONS ***
COOK COUNTY

PILE DETAILS

SHT. RW850-51 OF 58

REVISIONS	
NAME	DATE

DATE: 7/18/2005

TENG

DRAWN BY:
CHECKED BY: MJK
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	357
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2			CONTRACT NO. 62111	

Boring No. 233, Page 1 of 1

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 1
Date 12/13/01

ROUTE: FAI 8094 DESCRIPTION: KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EAST OF BURHAM AVE. STRUCT. NO. 016-W850 DRILLED BY: PATRICK DRILLING INC.
COUNTY: COOK LOCATION: CD ROAD-8094 S. TWP. 36 N. R. 14 W. 14E15 E.

Boring No.	Station	Offset	Surface Elev.	Soils			SPT (N)			Surface Water Elev. Groundwater Elev. when drilling at Completion after	Hrs.	D	B	L	O	P	T	W	Qu	W	MPa	%	
				1	2	3	1	2	3														
233	6+524 (CL 18094)	33.00m RT	192.75 m	2	354	20	1	220	21														
TOPSOIL																							
Very Stiff to Hard, Gray SILTY CLAY trace - gravel and roots																							
Brown and Gray after 0.9 m																							
Medium Dense, Gray SILTY LOAM																							
Soft to Very Soft, Gray SILTY CLAY LOAM trace - gravel																							
END OF BORING																							

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 Meters

Boring No. 235, Page 1 of 1

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 1
Date 12/14/01

ROUTE: FAI 8094 DESCRIPTION: KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EAST OF BURHAM AVE. STRUCT. NO. 016-W850 DRILLED BY: PATRICK DRILLING INC.
COUNTY: COOK LOCATION: CD ROAD-8094 S. TWP. 36 N. R. 14 W. 14E15 E.

Boring No.	Station	Offset	Surface Elev.	Soils			SPT (N)			Surface Water Elev. Groundwater Elev. when drilling at Completion after	Hrs.	D	B	L	O	P	T	W	Qu	W	MPa	%	
				1	2	3	1	2	3														
235	6+555 (CL 18094)	26.50m RT	192.40 m	2	296	20	3	240	21														
TOPSOIL																							
Stiff to Hard, Brown and Gray SILTY CLAY trace - gravel and roots																							
Gray after 1.65 m																							
Loose, Gray SILTY LOAM																							
Medium Stiff to Very Stiff, Hard, Gray CLAY LOAM (Hardpan) trace to little - gravel																							
END OF BORING																							

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 Meters

Boring No. 237, Page 1 of 1

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 1
Date 12/17/01

ROUTE: FAI 8094 DESCRIPTION: KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EAST OF BURHAM AVE. STRUCT. NO. 016-W850 DRILLED BY: PATRICK DRILLING INC.
COUNTY: COOK LOCATION: CD ROAD-8094 S. TWP. 36 N. R. 14 W. 14E15 E.

Boring No.	Station	Offset	Surface Elev.	Soils			SPT (N)			Surface Water Elev. Groundwater Elev. when drilling at Completion after	Hrs.	D	B	L	O	P	T	W	Qu	W	MPa	%	
				1	2	3	1	2	3														
237	6+593 (CL 18094)	33.50m RT	191.90 m	2	479	17	3	201	20														
TOPSOIL																							
Stiff to Hard, Brown and Gray SILTY CLAY trace - gravel and roots																							
Gray after 1.65 m																							
Medium Dense, Gray SILTY LOAM																							
Stiff to Very Stiff, Gray SILTY CLAY LOAM trace - gravel																							
Medium Dense, Gray SILTY LOAM																							
Very Soft, Gray SILTY CLAY LOAM trace - gravel																							
END OF BORING																							

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 Meters

Boring No. 234, Page 1 of 1

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 1
Date 12/14/01

ROUTE: FAI 8094 DESCRIPTION: KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EAST OF BURHAM AVE. STRUCT. NO. 016-W850 DRILLED BY: PATRICK DRILLING INC.
COUNTY: COOK LOCATION: CD ROAD-8094 S. TWP. 36 N. R. 14 W. 14E15 E.

Boring No.	Station	Offset	Surface Elev.	Soils			SPT (N)			Surface Water Elev. Groundwater Elev. when drilling at Completion after	Hrs.	D	B	L	O	P	T	W	Qu	W	MPa	%	
				1	2	3	1	2	3														
234	6+530 (CL 18094)	29.00m RT	192.50 m	2	296	19	3	201	21														
TOPSOIL																							
Very Stiff to Hard, Brown and Gray SILTY CLAY trace - gravel and roots																							
Brown after 1.65 m																							
Gray after 2.4 m																							
Loose, Gray SILTY LOAM trace - gravel																							
Hard, Gray CLAY LOAM (Hardpan) trace to little - gravel																							
END OF BORING																							

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 Meters

Boring No. 236, Page 1 of 1

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 1
Date 12/17/01

ROUTE: FAI 8094 DESCRIPTION: KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EAST OF BURHAM AVE. STRUCT. NO. 016-W850 DRILLED BY: PATRICK DRILLING INC.
COUNTY: COOK LOCATION: CD ROAD-8094 S. TWP. 36 N. R. 14 W. 14E15 E.

Boring No.	Station	Offset	Surface Elev.	Soils			SPT (N)			Surface Water Elev. Groundwater Elev. when drilling at Completion after	Hrs.	D	B	L	O	P	T	W	Qu	W	MPa	%	
				1	2	3	1	2	3														
236	6+570 (CL 18094)	35.00m RT	192.30 m	2	172	21	2	240	20														
TOPSOIL																							
Stiff to Hard, Brown and Gray SILTY CLAY trace - gravel and roots																							
Brown after 1.65 m																							
Gray after 2.4 m																							
Medium Dense, Gray SILTY LOAM																							
Hard, Gray SILTY CLAY LOAM trace - gravel																							
END OF BORING																							

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 Meters

Boring No. 238, Page 1 of 1

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 1
Date 1/20/02

ROUTE: FAI 8094 DESCRIPTION: KINGERY EXPRESSWAY
SECT. WEST OF IL 83 TO EAST OF BURHAM AVE. STRUCT. NO. 016-W850 DRILLED BY: PATRICK DRILLING INC.
COUNTY: COOK LOCATION: CD ROAD-8094 S. TWP. 36 N. R. 14 W. 14E15 E.

Boring No.	Station	Offset	Surface Elev.	Soils			SPT (N)			Surface Water Elev. Groundwater Elev. when drilling at Completion after	Hrs.	D	B	L	O	P	T	W	Qu	W	MPa	%	
				1	2	3	1	2	3														
238	6+700 (CL 18094)	32.50m RT	191.70 m	2	201	20	3	192	21														
TOPSOIL																							
Stiff to Very Stiff, Brown and Gray SILTY CLAY trace - gravel																							
Gray after 2.4 m																							
Medium Dense, Brown SANDY LOAM trace - gravel																							
Stiff, Gray SILTY CLAY LOAM trace - gravel																							
Loose to Medium Dense, Gray SILTY LOAM																							
Hard, Gray CLAY LOAM (Hardpan)																							
END OF BORING																							

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 Meters

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*** 2001-167R, (2425 & 2626) R-1 AND (2425 & 2626) R-2
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W850
 SECTIONS ***
 COOK COUNTY

SHT. RW850-57 OF 58

REVISIONS	
NAME	DATE

BORING LOGS VI

DATE: 7/18/2005
 DRAWN BY: J.M.K.
 CHECKED BY: J.M.K.
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS-PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	358
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2			CONTRACT NO. 62111	

Boring No. 239, Page 1 of 1

Everest Engineering Company STRUCTURE BORING LOG			Date: 2/19/02		
ROUTE: IAL 8094	DESCRIPTION: KINGERY EXPRESSWAY	DRILLED BY: PATRICK DRILLING INC.			
SECT: WEST OF ILL. 83 TO EAST OF BURHAM AVE	STRUCT. NO: 016-W850				
COUNTY: COOK	LOCATION: CD ROAD-8094	S. TWP: 36 N. R. 14 E. S. 15 E.			
Boring No: 239 Station: 8-715 (CL 18594) Offset: 31.00m RT	Surface Elev: 182.10 m	Groundwater Elev. when drilling: --- at Completion after: --- SPT (N) = --- Q(u) = --- B-Bulge = --- S-Shear = --- P-Penetration Test = ---	D 4 E 3 L 4 O 3 P 3 T 3 W 3 Qu 4 W 3	D 3 E 4 L 4 O 4 P 5 T 5 W 5 Qu 5 W 5	
TOPSOIL					
Silt to Very SH. Brown and Gray SILTY CLAY trace - gravel and roots					
	181.00	4 297 25		3 182 20	
		2 144 25		3 201 20	
		3 115 22		4 182 20	
Gray after 1.65 m					
		2 183 20		2 182 20	
		3 115 22		4 182 20	
Medium Dense, Gray SILTY LOAM					
	178.95	4 200 20			
Silt to Very SH. Gray SILTY CLAY LOAM trace - gravel					
	178.20	1 80 28		5 488 12	
		2 2 2		10 14	
		3 2 2			
		4 2 2			
		5 2 2			
		6 2 2			
		7 2 2			
		8 2 2			
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		25 2 2			
		26 2 2			
		27 2 2			
		28 2 2			
		29 2 2			
		30 2 2			
END OF BORING					

Boring No. 358, Page 1 of 2

Everest Engineering Company STRUCTURE BORING LOG			Date: 2/19/02		
ROUTE: IAL 8094	DESCRIPTION: KINGERY EXPRESSWAY	DRILLED BY: PATRICK DRILLING INC.			
SECT: WEST OF ILL. 83 TO EAST OF BURHAM AVE	STRUCT. NO: 016-W850				
COUNTY: COOK	LOCATION: I 8094	S. TWP: 36 N. R. 14 E. S. 15 E.			
Boring No: 358 Station: 8-754 (CL 18394) Offset: 32.00m RT	Surface Elev: 183.30 m	Groundwater Elev. when drilling: --- at Completion after: --- SPT (N) = --- Q(u) = --- B-Bulge = --- S-Shear = --- P-Penetration Test = ---	D 4 E 3 L 4 O 3 P 3 T 3 W 3 Qu 4 W 3	D 3 E 4 L 4 O 4 P 5 T 5 W 5 Qu 5 W 5	
CRUSHED STONE					
Silt to Hard, Brown and Gray SILTY CLAY trace - gravel					
	182.85	4 383 20		3 20	
		5 355 21		2 19	
		6 183 22		4 28	
Silt to Very SH. Gray SILTY CLAY LOAM trace - gravel					
	180.90	4 182 21		4 144 25	
		5 316 14		10 14	
		6 183 21		4 11	
		7 240 22		4 220 20	
		8 201 21		4 7	
		9 201 21		4 220 19	
		10 10			
Loose to Medium Dense, Gray SILTY LOAM trace - gravel					
	177.90	4 220 20			
Very SH. Gray SILTY CLAY LOAM trace - gravel					
	177.15	3 201 21			
		4 220 19			
		5 10			
END OF BORING					

Boring No. 240, Page 1 of 1

Everest Engineering Company STRUCTURE BORING LOG			Date: 2/19/02		
ROUTE: IAL 8094	DESCRIPTION: KINGERY EXPRESSWAY	DRILLED BY: PATRICK DRILLING INC.			
SECT: WEST OF ILL. 83 TO EAST OF BURHAM AVE	STRUCT. NO: 016-W850				
COUNTY: COOK	LOCATION: CD ROAD-8094	S. TWP: 36 N. R. 14 E. S. 15 E.			
Boring No: 240 Station: 8-730 (CL 18594) Offset: 31.00m RT	Surface Elev: 182.65 m	Groundwater Elev. when drilling: --- at Completion after: --- SPT (N) = --- Q(u) = --- B-Bulge = --- S-Shear = --- P-Penetration Test = ---	D 4 E 3 L 4 O 3 P 3 T 3 W 3 Qu 4 W 3	D 3 E 4 L 4 O 4 P 5 T 5 W 5 Qu 5 W 5	
TOPSOIL					
Silt Brown and Gray SILTY CLAY trace - gravel and roots					
	182.30	1 172 20		2 154 20	
		2 182 20		3 135 21	
		3 115 22		4 182 20	
Gray after 1.65 m					
		2 115 19		4 183 20	
		3 115 19		7 7	
Loose to Medium Dense, Gray SILTY LOAM					
	176.45	4 18 18		4 220 18	
		5 19 19		7 7	
		6 17 12		11 11	
		7 21 21			
		8 18 18		5 316 15	
		9 15 15		12 12	
Medium SH. to Very SH. Gray SILTY CLAY LOAM trace - gravel					
	176.45	2 115 25		4 201 15	
		3 77 20		7 9	
		4 220 18			
END OF BORING					

Boring No. 358, Page 2 of 2

Everest Engineering Company STRUCTURE BORING LOG			Date: 2/19/02		
ROUTE: IAL 8094	DESCRIPTION: KINGERY EXPRESSWAY	DRILLED BY: PATRICK DRILLING INC.			
SECT: WEST OF ILL. 83 TO EAST OF BURHAM AVE	STRUCT. NO: 016-W850				
COUNTY: COOK	LOCATION: I 8094	S. TWP: 36 N. R. 14 E. S. 15 E.			
Boring No: 358 Station: 8-754 (CL 18394) Offset: 32.00m RT	Surface Elev: 183.30 m	Groundwater Elev. when drilling: --- at Completion after: --- SPT (N) = --- Q(u) = --- B-Bulge = --- S-Shear = --- P-Penetration Test = ---	D 4 E 3 L 4 O 3 P 3 T 3 W 3 Qu 4 W 3	D 3 E 4 L 4 O 4 P 5 T 5 W 5 Qu 5 W 5	
Loose to Medium Dense, Gray SILTY LOAM (hardens) trace to little - gravel					
	183.35	4 220 18			
		5 15 15		50/100 mm	
		6 17 12		50/100 mm	
END OF BORING					

12.3 4 36 78 9 10 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REVISIONS	
NAME	DATE

*** 2001-167R, (2425 & 2626) R-1 AND (2425 & 2626) R-2

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
RETAINING WALL - STRUCTURE NO. 016-W850
SECTIONS ***
COOK COUNTY

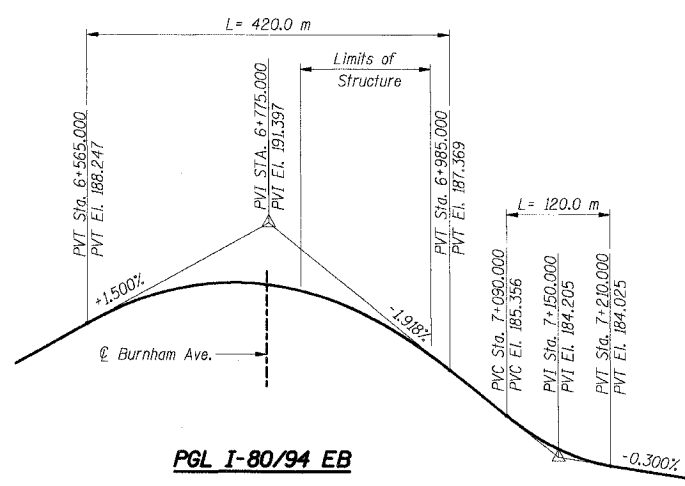
BORING LOGS VII

DATE: 7/18/2005

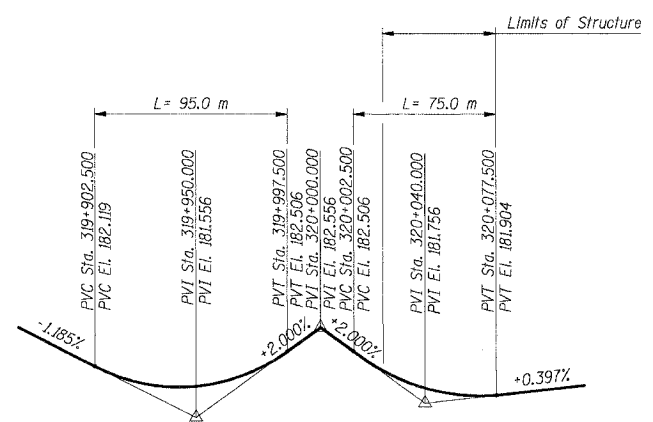
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CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

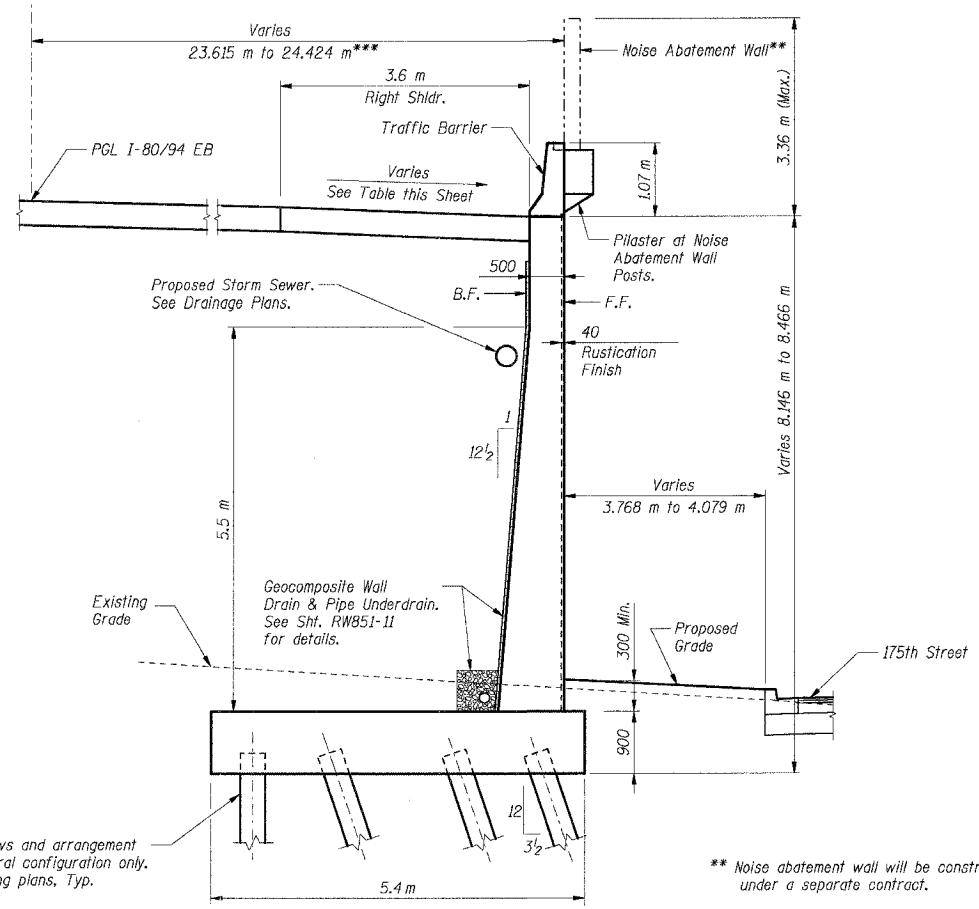
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	360
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		



PGL I-80/94 EB



PGL 175th STREET

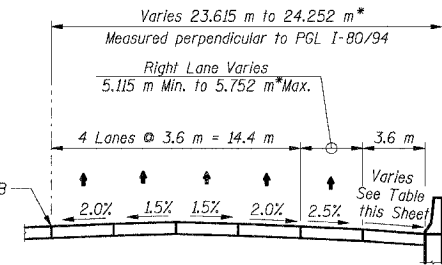


**TYPICAL SECTION W/ 3.36 M NOISE ABATEMENT WALL
LOOKING EAST**

Sta. 84+032.985 to 84+077.269 (Wall)
= Sta. 6+805.721 to 6+850.000 @ I-80/94
*** Measured at west end of wall

No. of piles, rows and arrangement shown for general configuration only. See detail footing plans, Typ.

** Noise abatement wall will be constructed by others under a separate contract.



DETAIL 1

* Measured at back of abutment

I-80/94 EB

CROSS SLOPE DATA	
Station	Right Shoulder
6+730.461	2.5%
6+814.721	2.5%
6+834.721	4.0%
6+850.000	4.0%

General Notes

1. Reinforcement Bars shall conform to the requirements of AASHTO M 31M or M 322M, Grade 400.
2. The Contractor shall drive one metal shell test pile in permanent locations as directed by the Engineer before ordering the remainder of the piles.
3. All construction joints shall be bonded.
4. All dimensions are in millimeters except as noted.
5. The Contractor shall locate all utilities (existing and new) prior to driving piles, by exploratory test pits and/or probes. The cost of locating utilities shall be included with Driving and Filling Shells. Any conflicts between the utilities and the proposed piles shall be reported to the Bureau of Bridges and Structures for further disposition.
6. Conduits, Junction Boxes and Expansion/ Deflection Conduit Couplers are shown in retaining wall plans for locations and installation purposes only. Refer to Electrical Raceway Plans for details, pay items and quantities.
7. Coarse Aggregate in Retaining Wall concrete mixture must conform to the requirements of Superstructure Concrete in accordance with Section 1004.01(b), paragraph 2.

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. F.F. denotes front face of wall.
B.F. denotes back face of wall.

SHT. RW851-2 OF 14

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
RETAINING WALL - STRUCTURE NO. 016-W851
SECTION (2425 & 2626) R-2
COOK COUNTY

**TYPICAL WALL SECTION
& GENERAL NOTES**

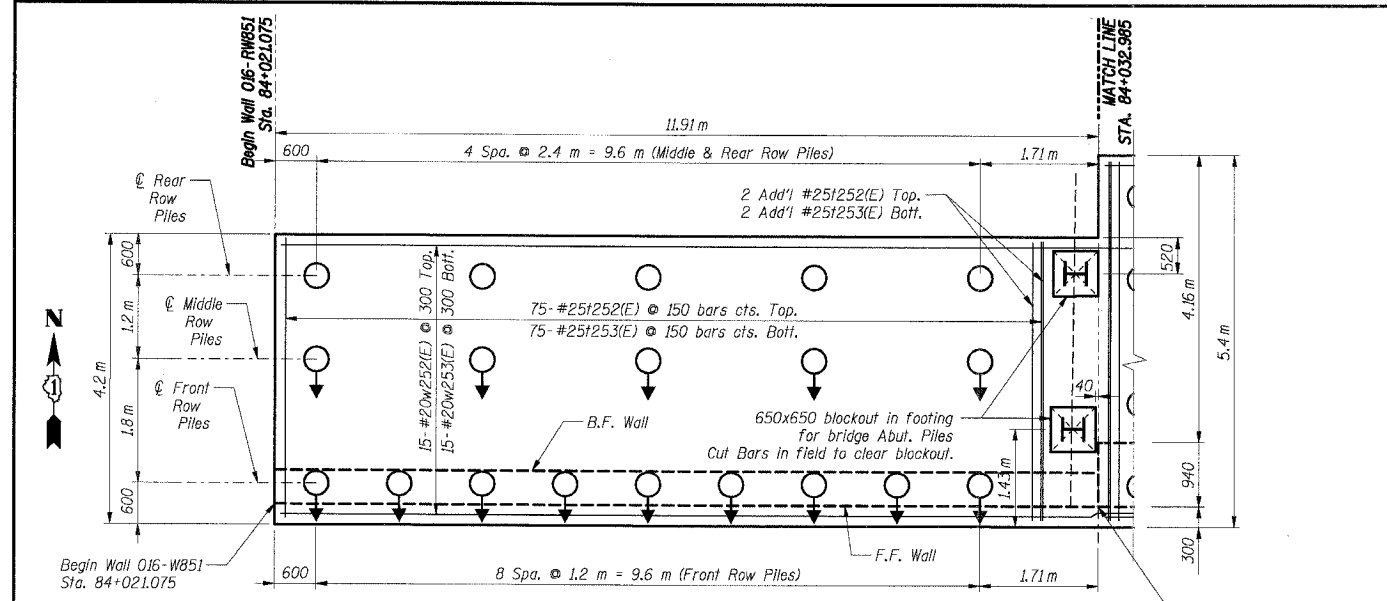
DATE: 7/18/2005
DRAWN BY: MJK
CHECKED BY: MJK

TENG
TENGG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS



T:\DOCUMENT\191750\STRUCT\1\016\RW851\02A.DGN
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 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	361
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
(2425 & 2626) R-2		CONTRACT NO. 62111		



FOOTING PLAN

Note:
Provide 50 mm min. clear distance
between bottom bars and piles.

BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape	
n256(E)	7	#15	11.81	—	
n257(E)	17	#15	11.94	—	
n250(E)	28	#15	1.73	—	
n253(E)	22	#25	2.55	—	
n254(E)	25	#25	1.92	—	
n255(E)	15	#20	1.84	—	
t252(E)	77	#25	4.50	—	
t253(E)	77	#25	4.10	—	
v260(E)	13	#15	6.75	—	
v261(E)	12	#20	8.80	—	
v262(E)	22	#25	3.28	—	
v263(E)	8	#20	3.65	—	
v264(E)	2	#20	5.93	—	
v265(E)	2	#15	5.93	—	
w252(E)	15	#20	13.02	—	
w253(E)	15	#20	12.70	—	
Item				Unit	Total
Concrete Structures				Cu m	65.6
Reinforcement Bars, Epoxy Coated				kg	5,300

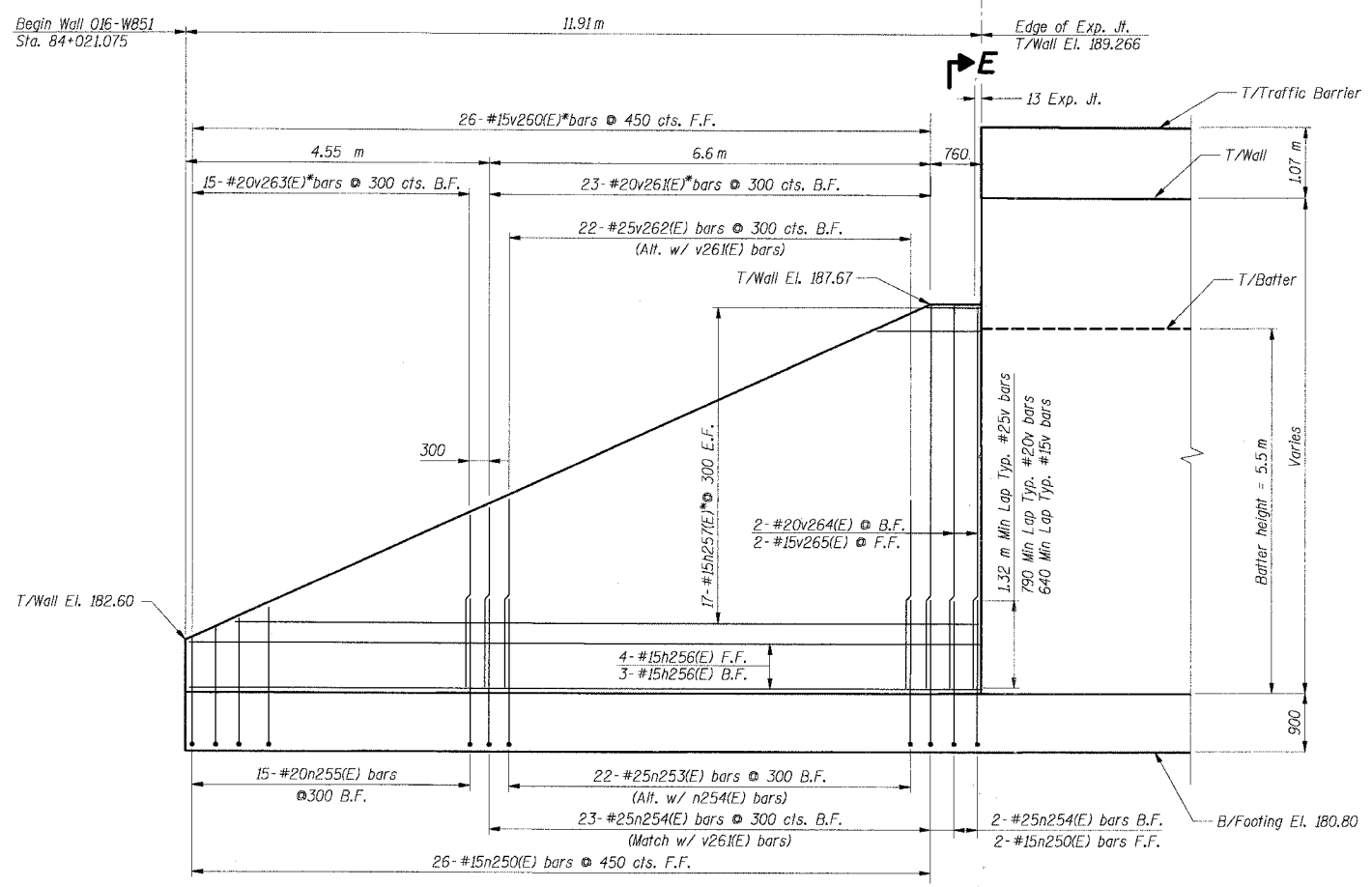
* Cut bars according to cutting diagram, Sheet RW851-7.
For Bending Diagrams see Sheet RW851-7.

PILE DATA

Type : 356 mm ϕ Metal Shell
Concrete Pile
Required Bearing : 500 kN
Vertical Piles:
Design Capacity : 260 kN
Est. Length : 14.5 m
No. Required : 5
Battered Piles:
Design Capacity : 500 kN
Est. Length : 15.5 m
No. Required : 14

Notes:

- All dimensions are in millimeters (mm) except as noted.
- All dimensions shown are along the front face of the retaining wall.
- All vertical bars in wall stem and traffic barrier start at 50 mm from construction and expansion joint, U.N.O.
- Reinforcement bars designated (E) shall be epoxy coated.
- All edges shall have a 20 mm chamfer unless noted otherwise.
- For Section E-E, see Sht. RW851-9.
- E.F. indicates each face, B.F. indicates back face, F.F. indicates front face.
- See Sht. RW851-6 for Traffic Barrier reinforcement & Noise Abatement Wall pilaster locations.
- For Traffic Barrier details see Sht. RW851-10.
- For Rustication Finish & joint details see Sht. RW851-12.
- For Concrete Pile details see Sht. RW851-13.
- ϕ Indicates Battered Pile 3 1/2:12.



ELEVATION - LOOKING NORTH
(Piles Not Shown For Clarity)

SHT. RW851-3 OF 14

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
RETAINING WALL - STRUCTURE NO. 016-W851
SECTION (2425 & 2626) R-2
COOK COUNTY

**FOOTING PLAN
& WALL ELEVATION 1**

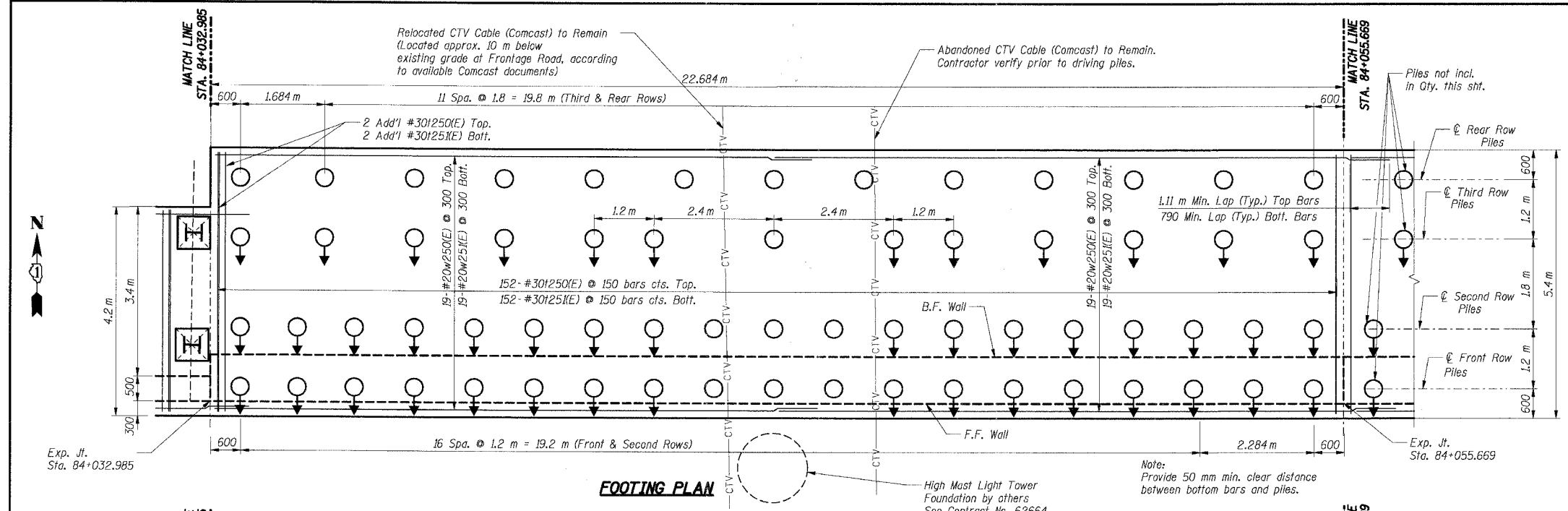
DATE: 7/18/2005

DRAWN BY: MJK
CHECKED BY: MJK

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TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS



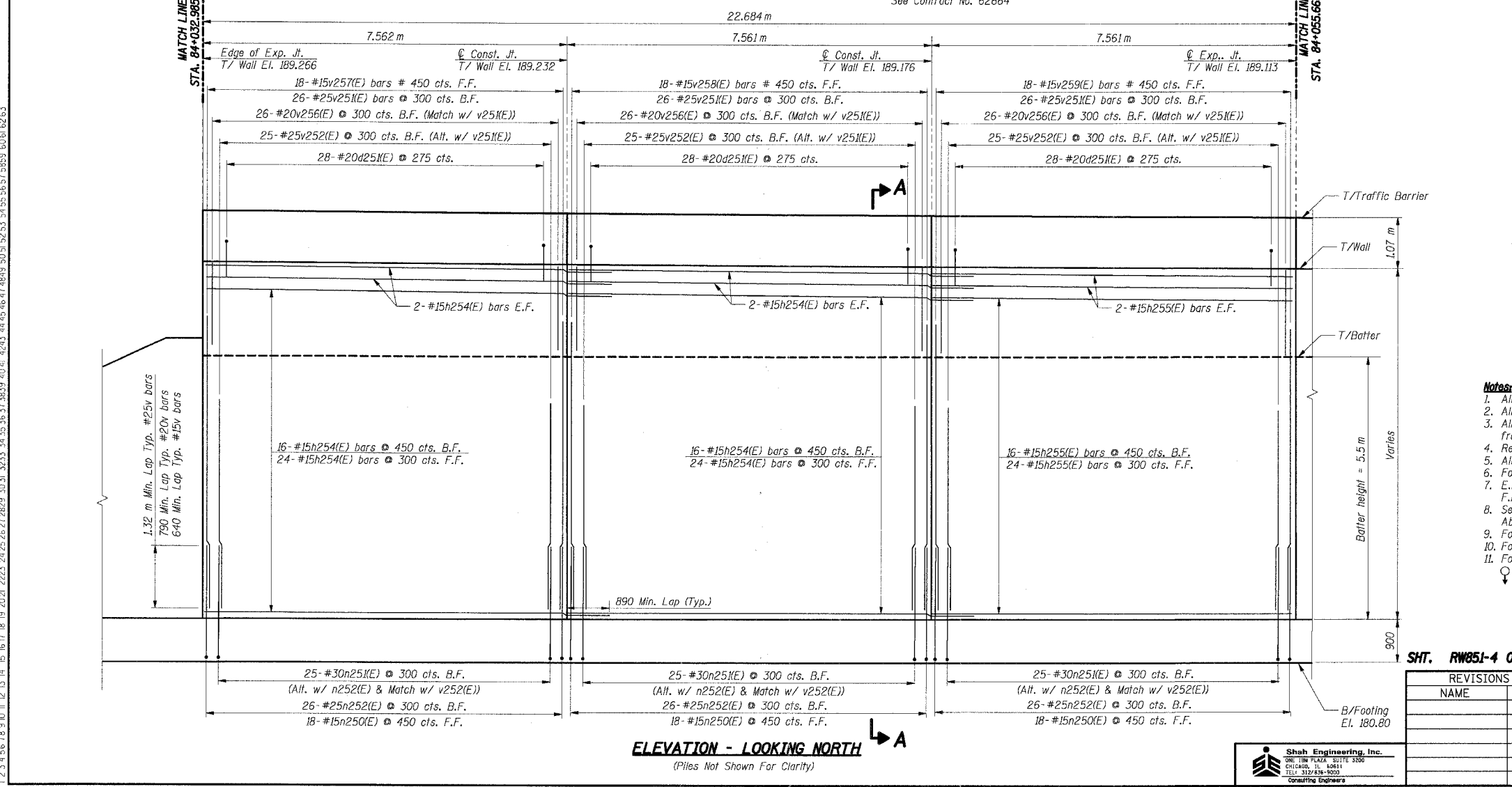
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	362
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
(2425 & 2626) R-2		CONTRACT NO. 62111		



BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
d25(E)	84	#20	2.59	U
h254(E)	88	#15	8.45	—
h255(E)	44	#15	7.46	—
n250(E)	54	#15	1.73	—
n251(E)	75	#30	2.65	—
n252(E)	78	#25	2.55	—
t250(E)	154	#30	5.80	—
t251(E)	154	#30	5.30	—
v251(E)	78	#25	6.80	—
v252(E)	75	#25	3.79	—
v256(E)	78	#25	2.82	—
v257(E)	18	#15	7.49	—
v258(E)	18	#15	7.45	—
v259(E)	18	#15	7.41	—
w250(E)	38	#20	11.90	—
w251(E)	38	#20	11.66	—
Item			Unit	Total
Concrete Structures			Cu m	219.5
Reinforcement Bars, Epoxy Coated			kg	20,410

* Cut bars according to cutting diagram, Sheet RW851-7.
For Bending Diagrams see Sheet RW851-7.



PILE DATA

Type : 356 mm ϕ Metal Shell Concrete Pile
 Required Bearing : 500 kN
 Vertical Piles:
 Design Capacity : 260 kN
 Est. Length : 14.5 m
 No. Required : 20
 Battered Piles:
 Design Capacity : 500 kN
 Est. Length : 15.5 m
 No. Required : 44

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - All dimensions shown are along the front face of the retaining wall.
 - All vertical bars in wall stem and traffic barrier start at 50 mm from construction and expansion joint, U.N.O.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - All edges shall have a 20 mm chamfer unless noted otherwise.
 - For Section A-A, see Sht. RW851-7.
 - E.F. indicates each face, B.F. indicates back face, F.F. indicates front face.
 - See Sht. RW851-6 for Traffic Barrier Reinforcement & Noise Abatement Wall pilaster locations.
 - For Traffic Barrier details see Sht. RW851-10.
 - For Rustication Finish & joint details see Sht. RW851-12.
 - For Concrete Pile details see Sht. RW851-13.
 - ϕ Indicates Battered Pile 3 1/2:12.

SHT. RW851-4 OF 14

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W851
 SECTION (2425 & 2626) R-2
 COOK COUNTY

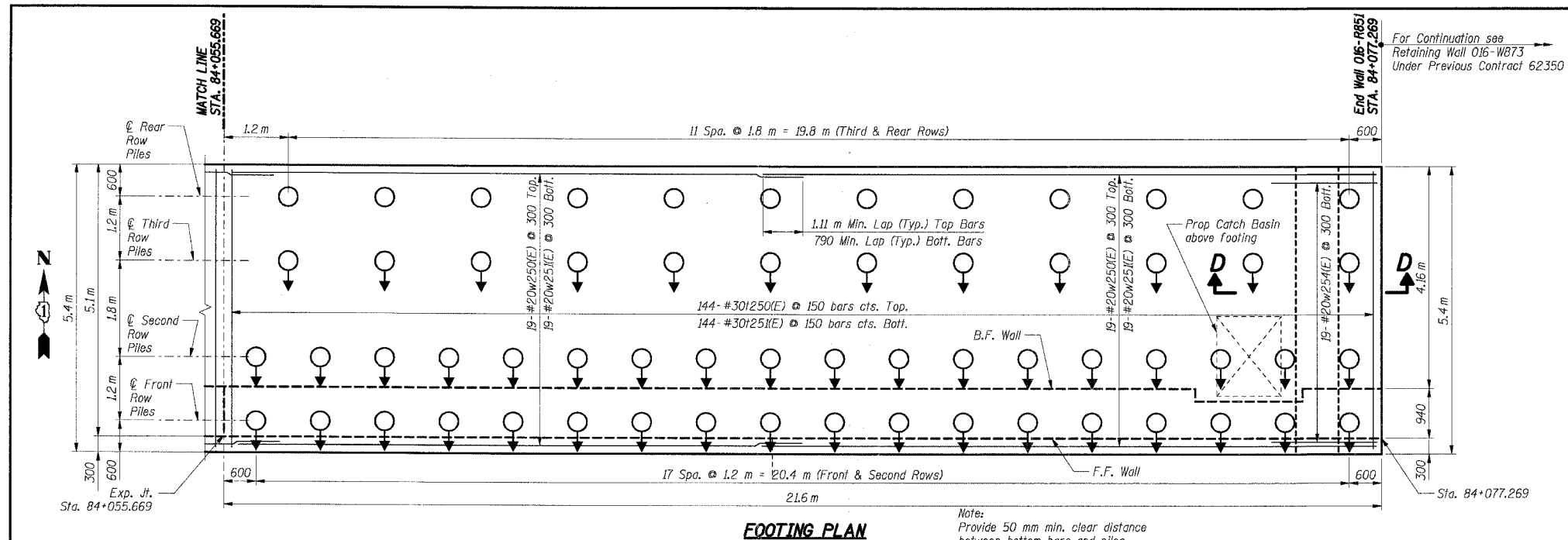
FOOTING PLAN & WALL ELEVATION 2

DATE: 7/18/2005
 DRAWN BY: CHECKED BY: MJK
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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 BAJZFKJ



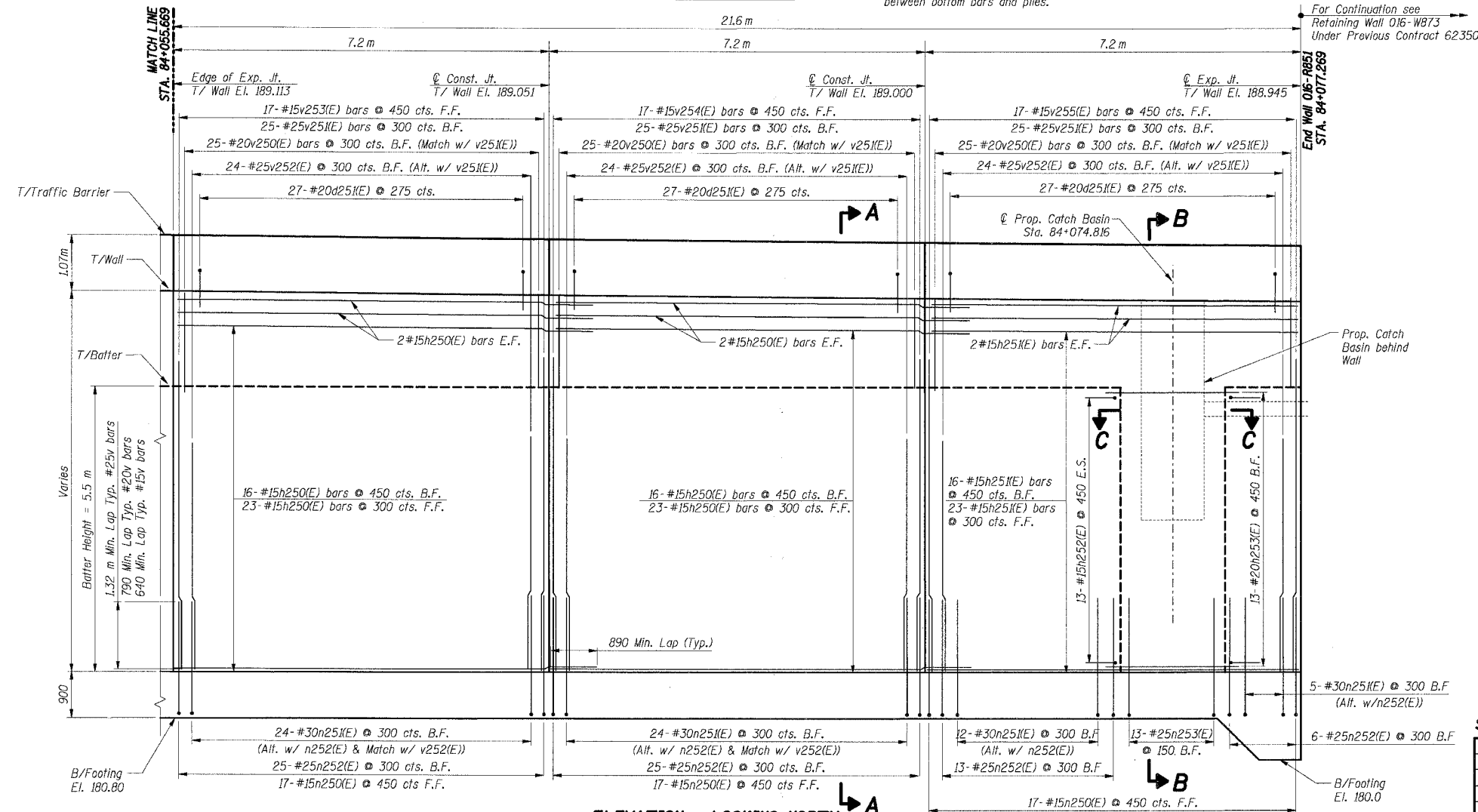
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	363
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
(2425 & 2626) R-2	CONTRACT NO. 62111			



FOOTING PLAN

Note: Provide 50 mm min. clear distance between bottom bars and piles.

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ELEVATION - LOOKING NORTH

(Piles Not Shown For Clarity)

BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
d25(E)	81	#20	2.59	U
h250(E)	86	#15	8.09	—
h25(E)	43	#15	7.10	—
h252(E)	26	#15	1.29	—
h253(E)	13	#20	3.80	—
n250(E)	51	#15	1.73	—
n25(E)	65	#30	2.65	—
n252(E)	69	#25	2.55	—
n253(E)	13	#25	2.55	—
t250(E)	144	#30	5.80	—
t25(E)	144	#30	5.30	—
v250(E)	75	#20	2.70	—
v25(E)	75	#25	6.80	—
v252(E)	72	#25	3.79	—
v253(E)	17	#15	7.36	—
v254(E)	17	#15	7.29	—
v255(E)	17	#15	7.21	—
w250(E)	38	#20	11.90	—
w25(E)	38	#20	11.66	—
w254(E)	19	#20	3.41	—
Item	Unit	Total		
Concrete Structures	Cu m	210.1		
Reinforcement Bars, Epoxy Coated	kg	19,320		

* Cut bars according to cutting diagram, Sheet RW851-7. For Bending Diagrams see Sheet RW851-7.

PILE DATA

- Type : 356 mm ϕ Metal Shell Concrete Pile
- Required Bearing : 500 kN
- Vertical Piles:
 - Design Capacity : 260 kN
 - Est. Length : 14.5 m
 - No. Required : 11
- Battered Piles:
 - Design Capacity : 500 kN
 - Est. Length : 15.5 m
 - No. Required : 48
 - Test Pile : 1

Notes:

1. All dimensions are in millimeters (mm) except as noted.
2. All dimensions shown are along the front face of the retaining wall.
3. All vertical bars in wall stem and traffic barrier start at 50 mm from construction and expansion joint, U.N.O.
4. Reinforcement bars designated (E) shall be epoxy coated.
5. All edges shall have a 20 mm chamfer unless noted otherwise.
6. For Section A-A see Sht. RW851-7.
7. For Sections B-B, C-C & D-D see Sht. RW851-8.
8. E.F. indicates each face, B.F. indicates back face, F.F. indicates front face, E.S. indicates Each Side.
9. See Sht. RW851-6 for Traffic Barrier reinforcement & Noise Abatement wall plaster locations.
10. For Traffic Barrier details see Sht. RW851-10.
11. For Rustication Finish & joint details see Sht. RW851-12.
12. For Concrete Pile details see Sht. RW851-13.

SHT. RW851-5 OF 14

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W851
 SECTION (2425 & 2626) R-2
 COOK COUNTY

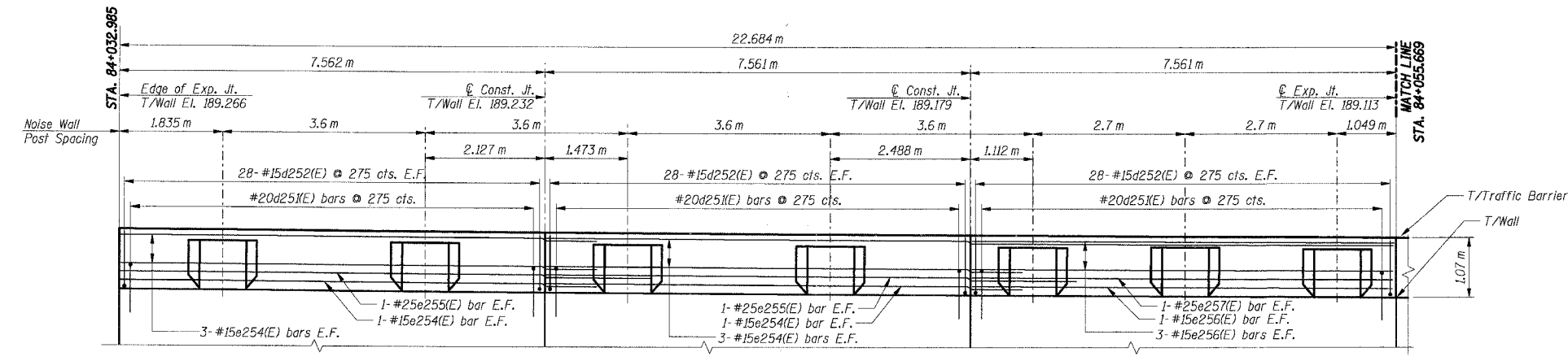
FOOTING PLAN & WALL ELEVATION 3

DATE: 7/18/2005
 DRAWN BY: CMJ
 CHECKED BY: MJK

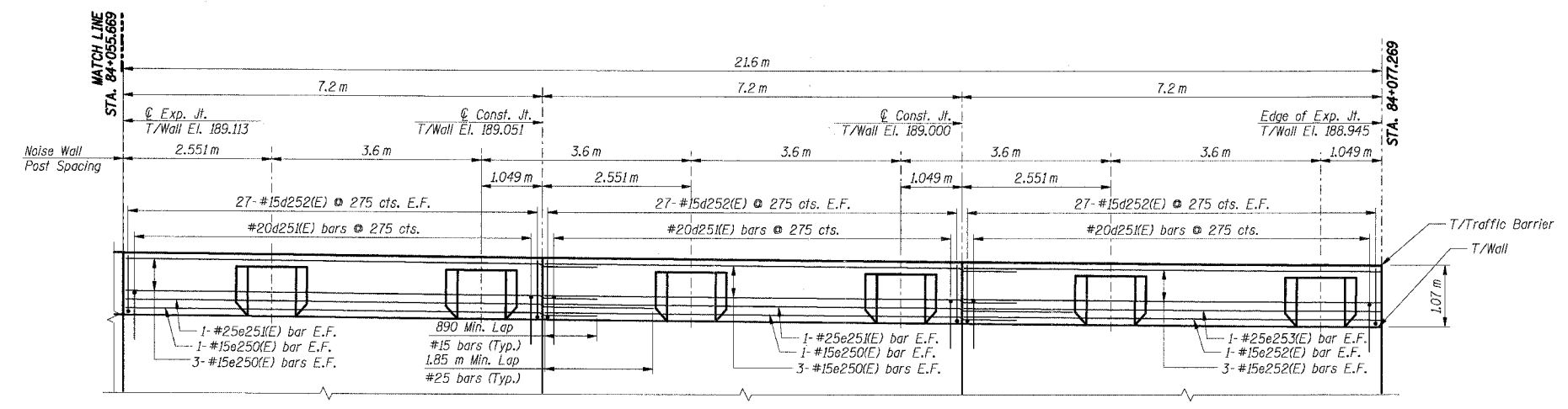
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	364
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2		CONTRACT NO. 62111		



TRAFFIC BARRIER ELEVATION 1 - LOOKING NORTH



TRAFFIC BARRIER ELEVATION 2 - LOOKING NORTH

BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
d252(E)	330	#15	1.22	U
d253(E)	91	#15	1.30	U
e250(E)	16	#15	8.09	—
e251(E)	4	#25	9.05	—
e252(E)	8	#15	7.10	—
e253(E)	2	#25	7.10	—
e254(E)	16	#15	8.45	—
e255(E)	4	#25	9.41	—
e256(E)	8	#15	7.46	—
e257(E)	2	#25	7.46	—
e258(E)	39	#15	2.56	U
e259(E)	13	#15	2.20	U
u250(E)	91	#20	2.00	U
Item		Unit	Total	
Concrete Structures		Cu m	20.9	
Reinforcement Bars, Epoxy Coated		kg	2,460	

For Bending Diagrams see Sht. RW851-10.

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - All dimensions shown are along the front face of the retaining wall.
 - All vertical bars in wall stem and traffic barrier start at 50 mm from construction and expansion joint, U.N.O.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - All edges shall have a 20 mm chamfer unless noted otherwise.
 - E.F. indicates each face, B.F. indicates back face, F.F. indicates front face.
 - For Traffic Barrier details and Noise Wall Pilaster details see Sht. RW851-10.

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SHT. RW851-6 OF 14

REVISIONS	
NAME	DATE

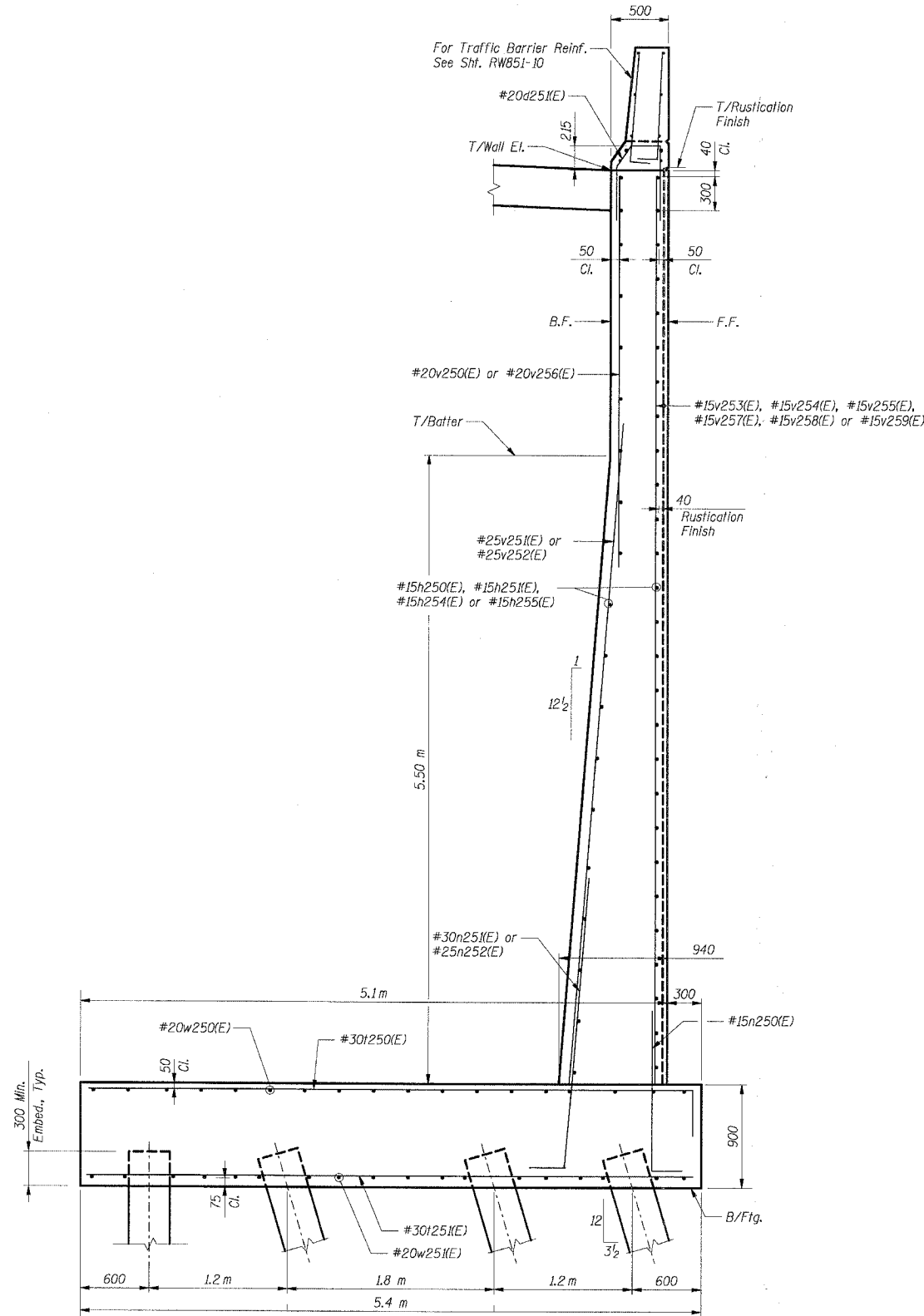
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W851
 SECTION (2425 & 2626) R-2
 COOK COUNTY

TRAFFIC BARRIER ELEVATION

DATE: 7/18/2005
 DRAWN BY: LS
 CHECKED BY: MJK

TENG TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	365
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2		CONTRACT NO. 62111		



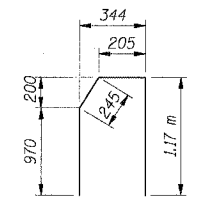
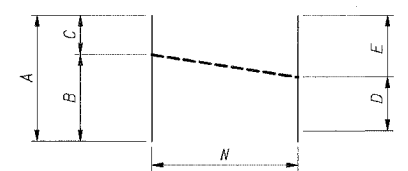
SECTION A-A

Bar	A	B
n252(E)	400	890
n250(E)	260	1.47 m
n253(E)	400	2.15 m
n254(E)	400	1.52 m
n255(E)	320	1.52 m
l250(E)	500	5.30 m
l252(E)	400	4.10 m

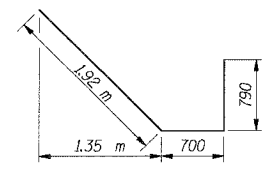
Bar	A	B	C
n25(E)	500	2.15 m	170
n252(E)	400	2.15 m	170

Bar Cutting Diagram

Bar	N Bars	A	B	C	D	E
v260(E)	13	6.75 m	5.88 m	870	3.48 m	3.27 m
v26(E)	12	8.8 m	5.88 m	2,92 m	4.4 m	4.4 m
v263(E)	8	3.65 m	2.78 m	870	1.9 m	1.75 m
n257(E)	17	11.94 m	11.25 m	690	690	11.25 m



Bars #25(E)



Bar #254(E)

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - All edges shall have a 20 mm chamfer unless noted otherwise.
 - E.F. indicates each face.
B.F. indicates back face.
F.F. indicates front face.
 - For Traffic Barrier details see Sht. RW851-10.
 - For Rustication Finish & joint details see Sht. RW851-12.
 - For Concrete Pile details see Sht. RW851-13.
 - For location of bars and quantity see Footing Plans & Wall Elevations.

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 BA, ZERKJ

Shah Engineering, Inc.
 ONE TIM PLAZA SUITE 300
 CHICAGO, IL 60611
 TEL: 312-678-9000
 Consulting Engineers

SHT. RW851-7 OF 14

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W851
 SECTION (2425 & 2626) R-2
 COOK COUNTY

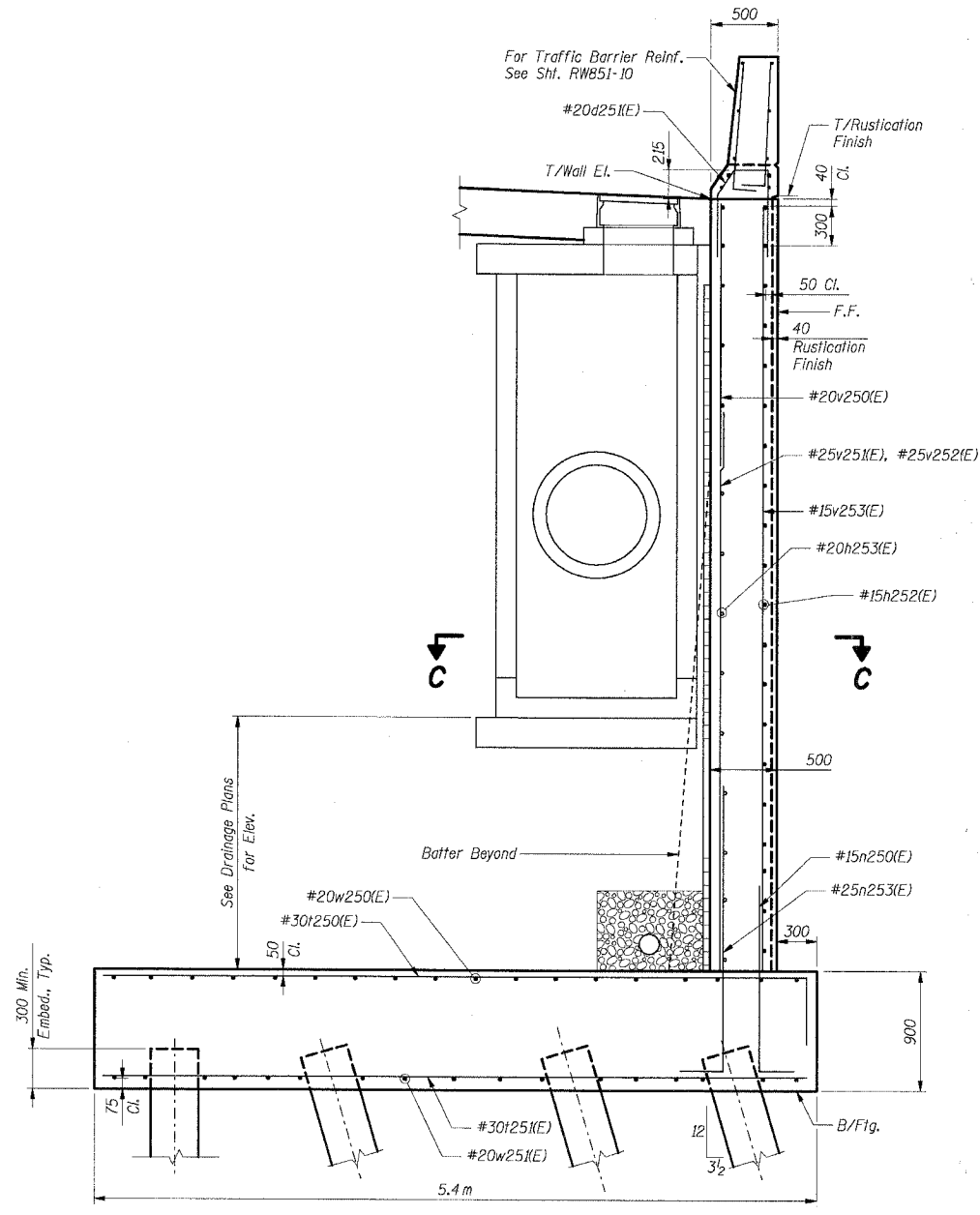
WALL SECTIONS & DETAILS I

DATE: 7/18/2005
 DRAWN BY: MJK
 CHECKED BY: MJK

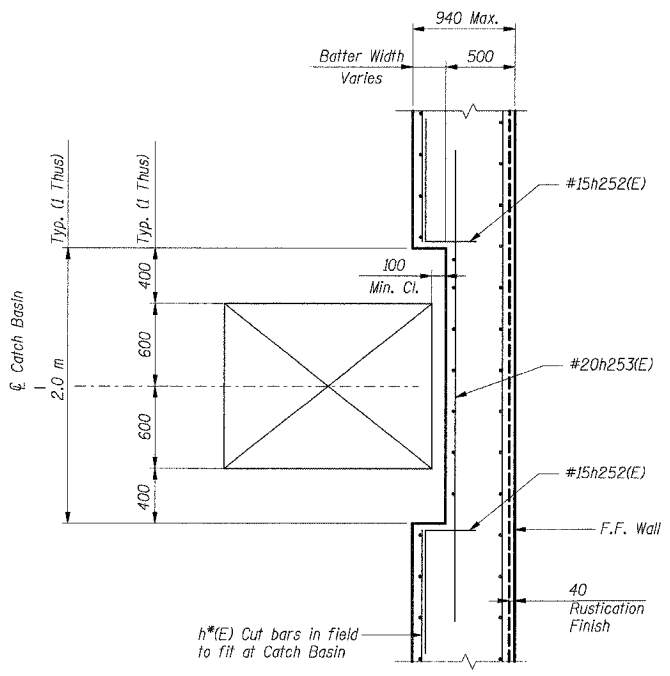
TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	366
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2		CONTRACT NO. 62111		

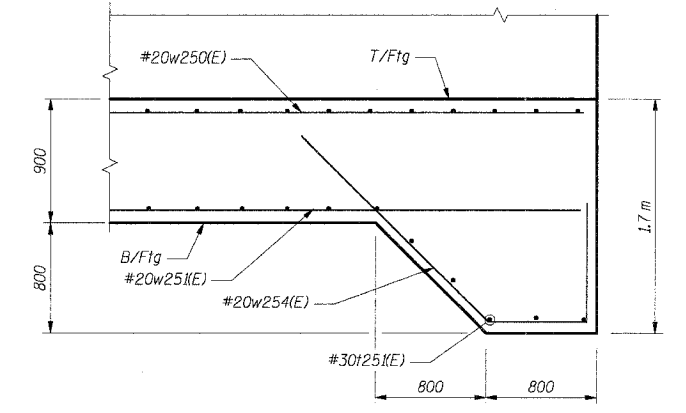
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 BAJZEK.J
 06/16/2005



SECTION B-B
(1 Thus)
Work with Shts. RW851-5



SECTION C-C



SECTION D-D

- Notes:
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - All edges shall have a 20 mm chamfer unless noted otherwise.
 - E.F. Indicates each face.
B.F. Indicates back face.
F.F. Indicates front face.
 - For Traffic Barrier details see Sht. RW851-10.
 - For Rustification Finish & joint details see Sht. RW851-12.
 - For Concrete Pile details see Sht. RW851-13.
 - For location of bars and quantity see Footing Plans & Wall Elevations.

SHT. RW851-B OF 14

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W851
 SECTION (2425 & 2626) R-2
 COOK COUNTY

WALL SECTIONS & DETAILS II

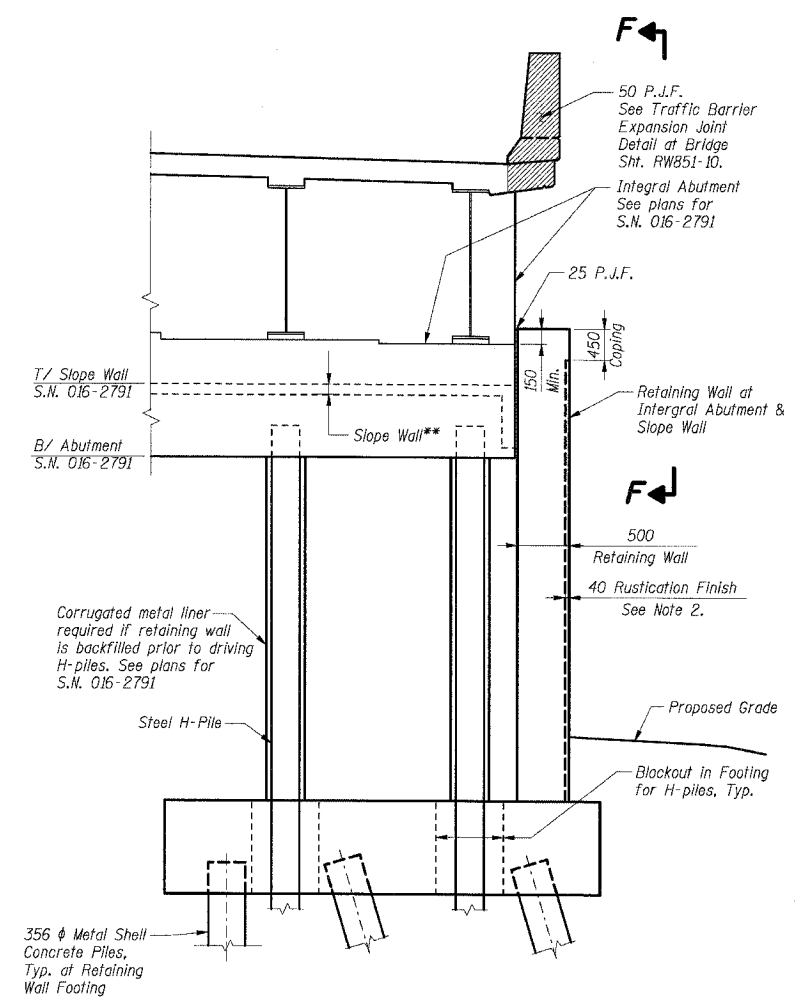
DATE: 7/18/2005

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 CHECKED BY: MJK

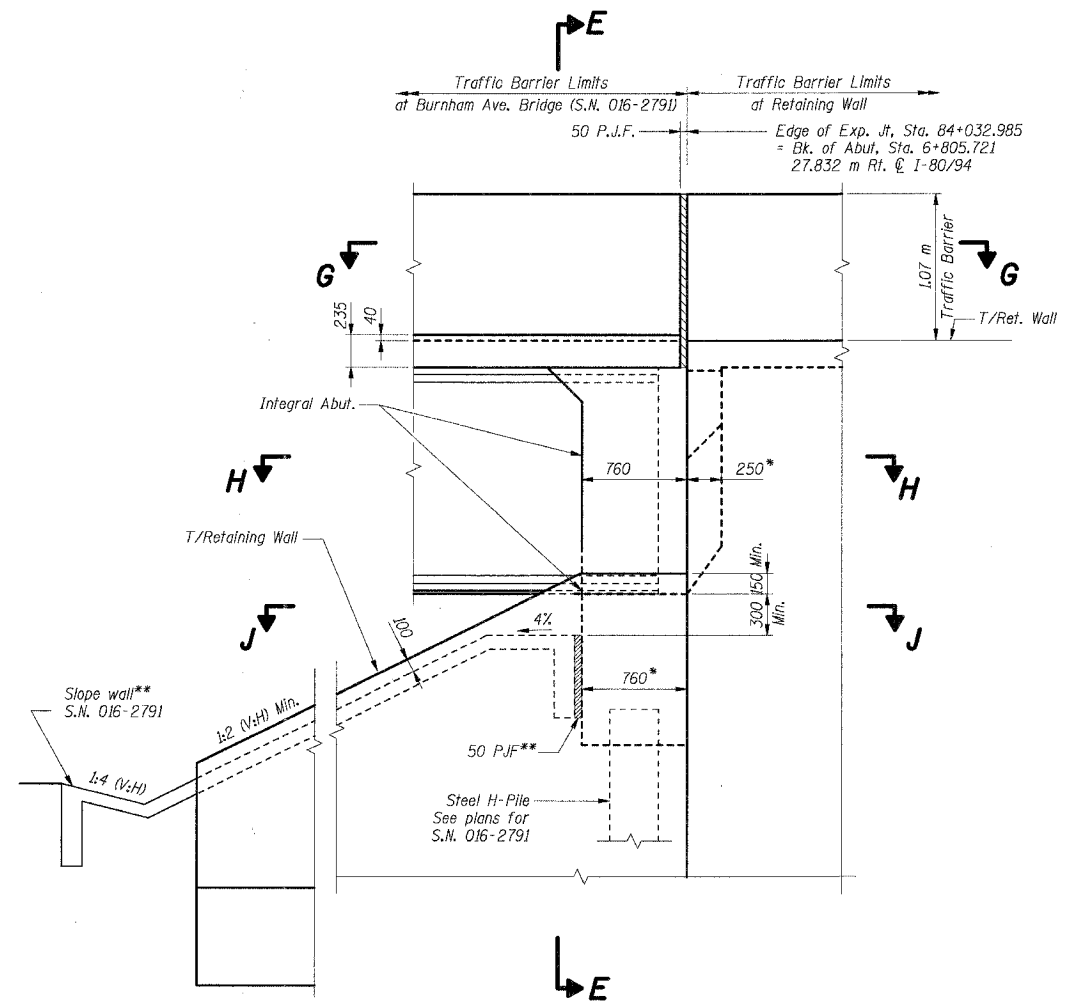
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS



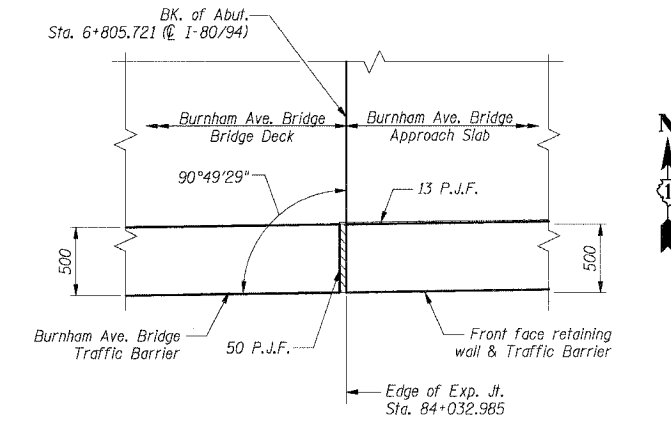
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80/94		COOK	631	367
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FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
(2425 & 2626) R-2		CONTRACT NO. 62111		



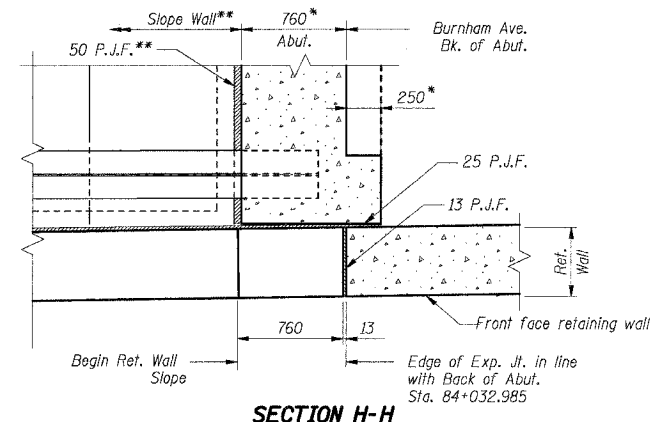
SECTION E-E
Work with Sht. RW851-3.



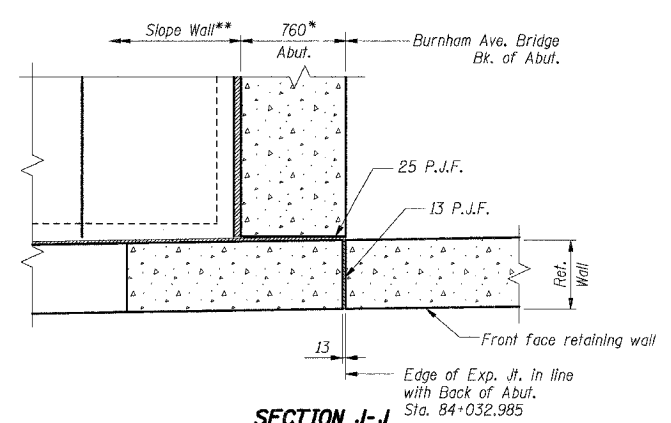
ELEVATION F-F
LOOKING NORTH



PLAN DETAIL G-G



SECTION H-H



SECTION J-J

- Notes:
- All dimensions are in millimeters (mm) except as noted.
 - For Rustication Finish and joint details see Sht. RW851-12.
 - * denotes See plans for S.N. 016-2791 for dimensions.
 - ** denotes: See Bridge Plans S.N. 016-2791

SHT. RW851-9 OF 14

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
RETAINING WALL - STRUCTURE NO. 016-W851
SECTION (2425 & 2626) R-2
COOK COUNTY

WALL SECTIONS & DETAILS III

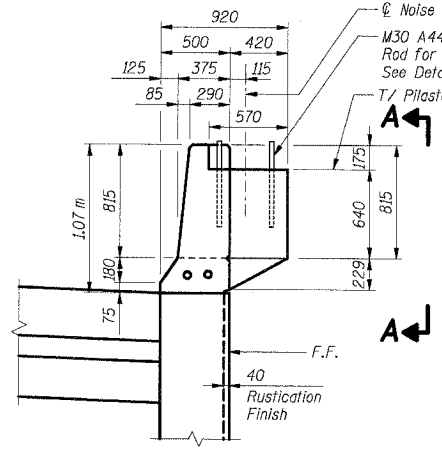
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CHECKED BY: MJK

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

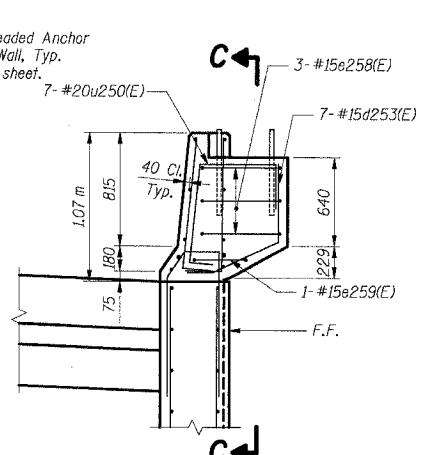
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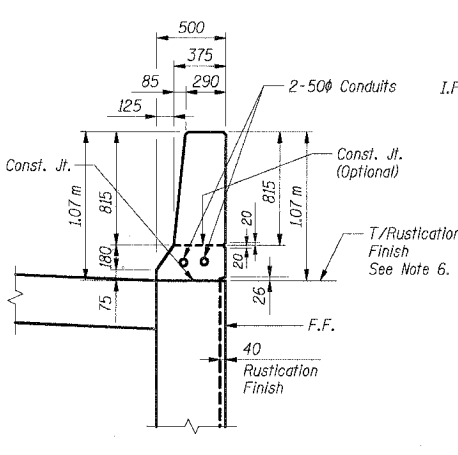
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	368
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
(2425 & 2626) R-2	CONTRACT NO. 62111			



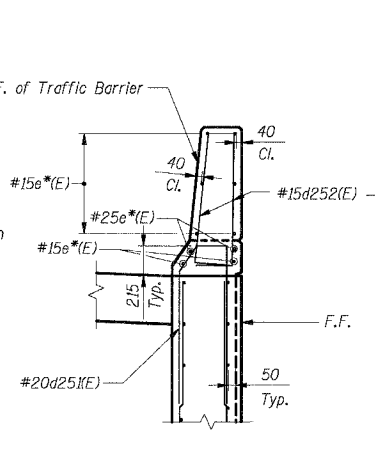
TRAFFIC BARRIER W/PILASTER



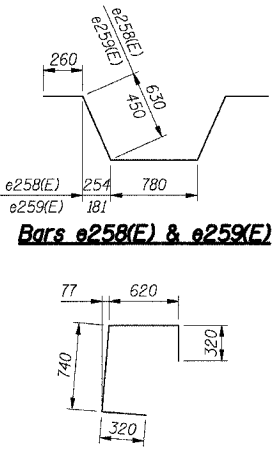
TRAFFIC BARRIER W/PILASTER (Showing Reinforcement)



TYPICAL TRAFFIC BARRIER SECTION



TYPICAL TRAFFIC BARRIER SECTION (Showing Reinforcement)



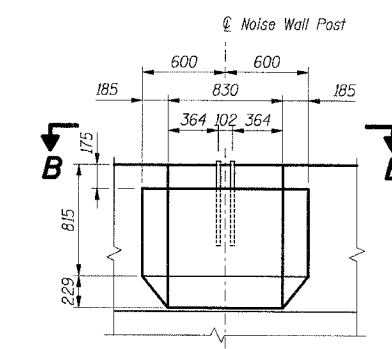
Bar u250(E)

BAR LIST FOR EACH PILASTER (FOR INFORMATION ONLY)

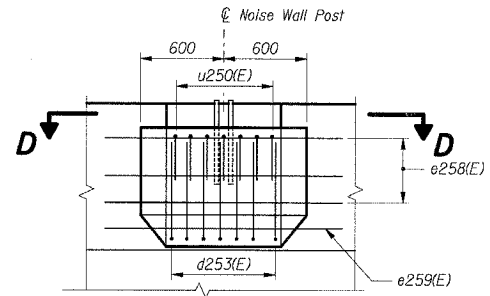
Bar	No.	Size	Length (m)	Shape
d253(E)	7	#15	1.30	U
e258(E)	3	#15	2.56	W
e259(E)	1	#15	2.20	W
u250(E)	7	#20	2.00	C

BILL OF MATERIAL

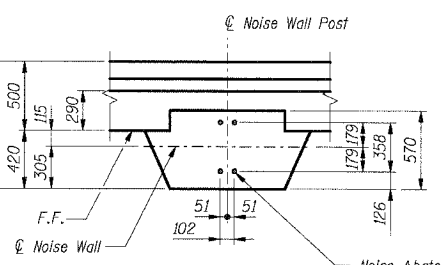
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Noise Abatement Wall Anchor Rod Assembly	Ea	13



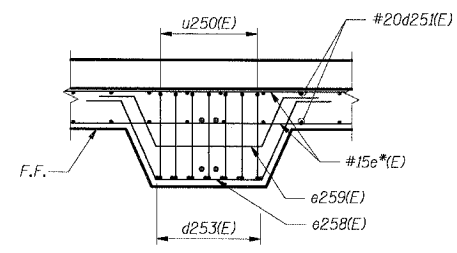
ELEVATION A-A



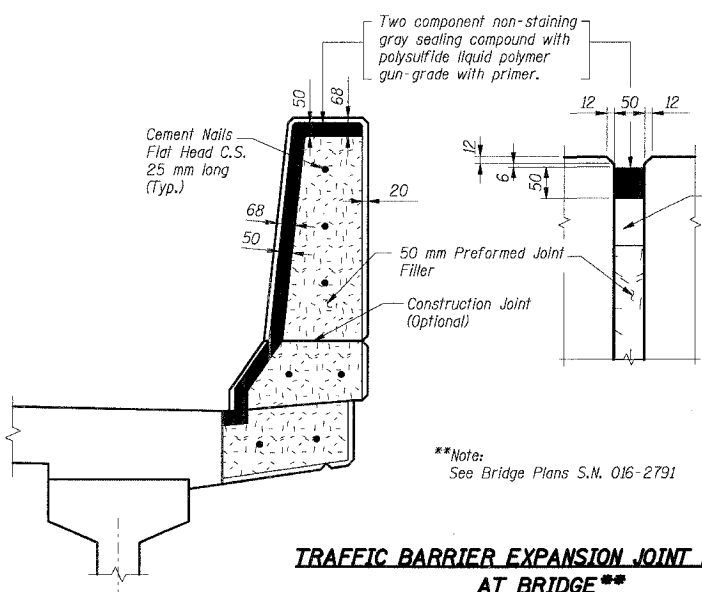
SECTION C-C



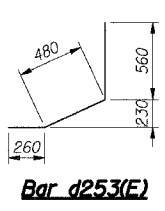
PLAN B-B



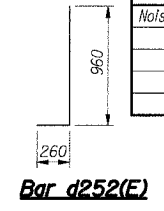
SECTION D-D



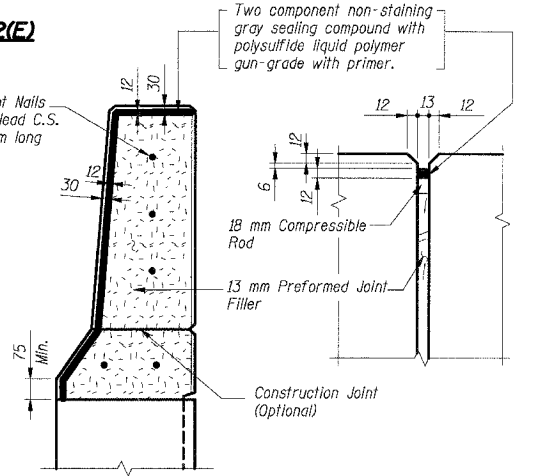
TRAFFIC BARRIER EXPANSION JOINT DETAIL AT BRIDGE**



Bar d253(E)

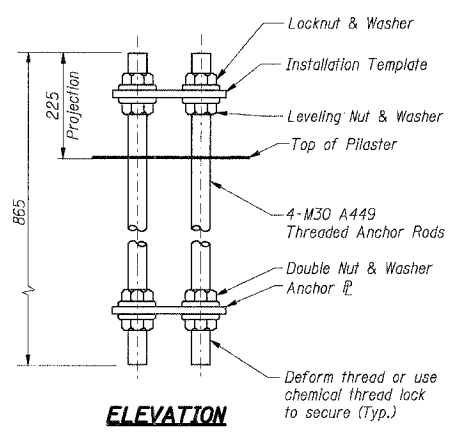


Bar d252(E)



TYPICAL TRAFFIC BARRIER EXPANSION JOINT DETAIL

Cost of joint sealant, P.J.F. and cement nails are included with Concrete Structures.

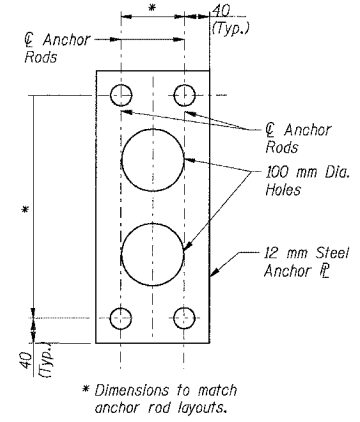


ELEVATION

Note: Entire anchor rod assembly shall be hot dip galvanized.

NOISE ABATEMENT WALL ANCHOR ROD ASSEMBLY

(13 Required)



PLAN

- Notes:
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - All edges shall have a 20 mm chamfer unless noted otherwise.
 - E.F. indicates each face.
 - B.F. indicates back face.
 - F.F. indicates front face.
 - *Indicates location of bars, identification and quantity, see Footing Plans & Wall Elevations.
 - For Rustication Finish details, see Sht. RW851-12.

SHT. RW851-10 OF 14

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W851
 SECTION (2425 & 2626) R-2
 COOK COUNTY

TRAFFIC BARRIER SECTIONS & DETAILS

DATE: 7/18/2005

DRAWN BY: MJK
 CHECKED BY: MJK

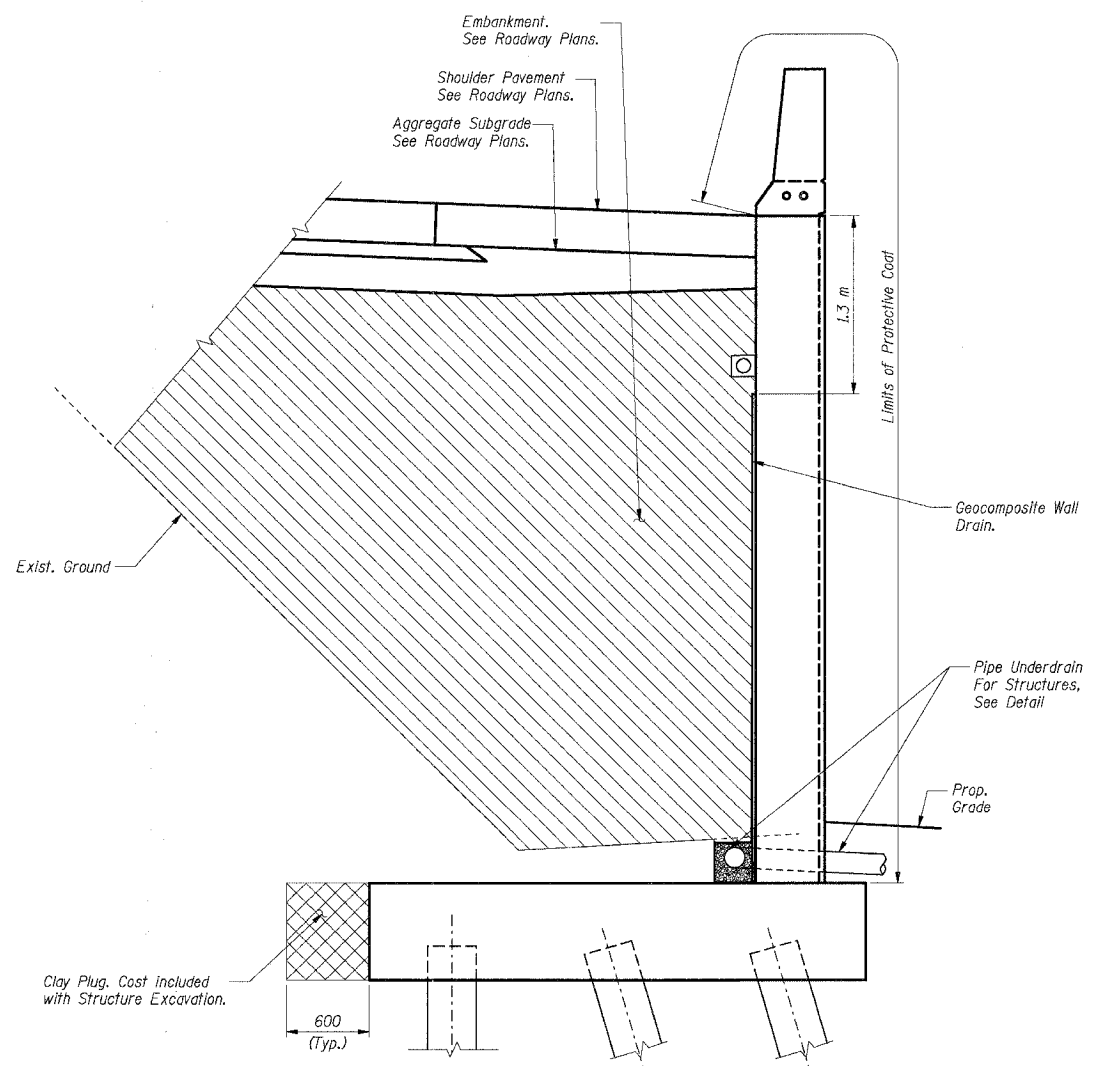


TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

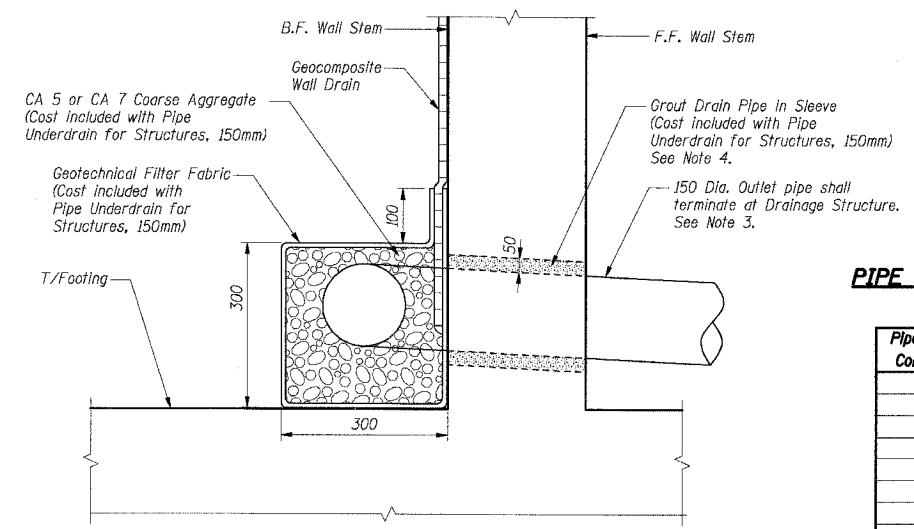


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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	369
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2			CONTRACT NO. 62111	



TYPICAL WALL DRAINAGE SECTION



PIPE UNDERDRAIN FOR STRUCTURES DETAIL

PIPE UNDERDRAIN/DRAINAGE STRUCTURE CONNECTION TABLE

Pipe Underdrain Connection No.	Connection at Station	Drainage Structure No.
1	84+065.91	1513

- Notes:
1. All dimensions are in millimeters (mm) except as noted.
 2. Reinforcement bars designated (E) shall be epoxy coated.
 3. Outlet pipe and fittings shall be Extra Heavy Ductile Iron Pipe conforming to the requirements of ASTM A746 with plain end. (Cost included with Pipe Underdrain For Structures, 150mm).
 4. Prior to the placement of the pipe underdrain sleeve, the Engineer shall determine the slope required for the pipe underdrain to enter the drainage structure.

1:1 DOCUMENT\93817501\STRUCT\ADON\85174422\AJDN
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 *A899002AJDN

Shah Engineering, Inc.
 ONE IBM PLAZA SUITE 3300
 CHICAGO, IL 60611
 TEL: 312-436-8600
 Consulting Engineers

SHT. RW851-11 OF 14

REVISIONS	
NAME	DATE

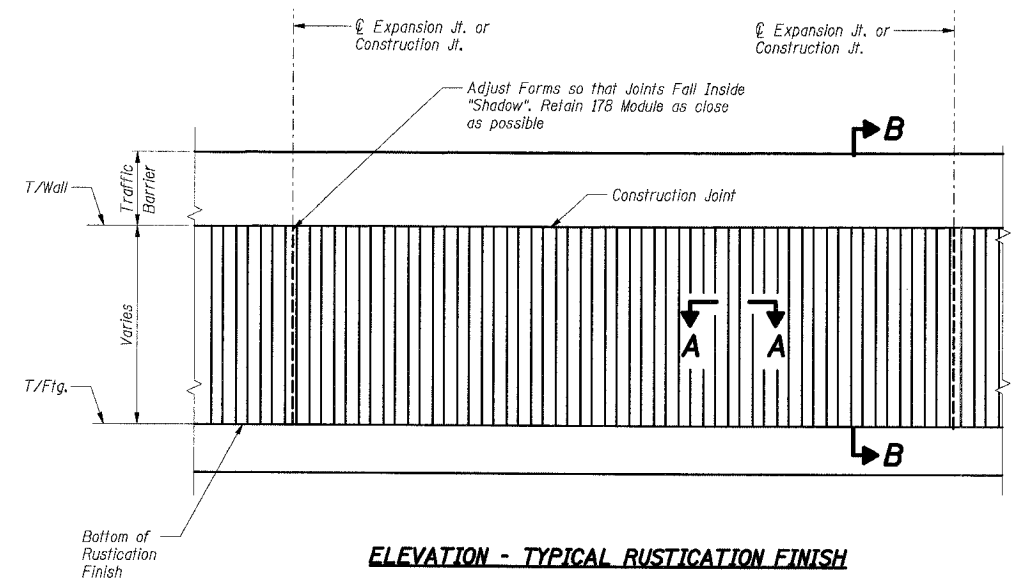
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W851
 SECTION (2425 & 2626) R-2
 COOK COUNTY

DRAINAGE DETAILS & WALL REINFORCEMENT DETAILS

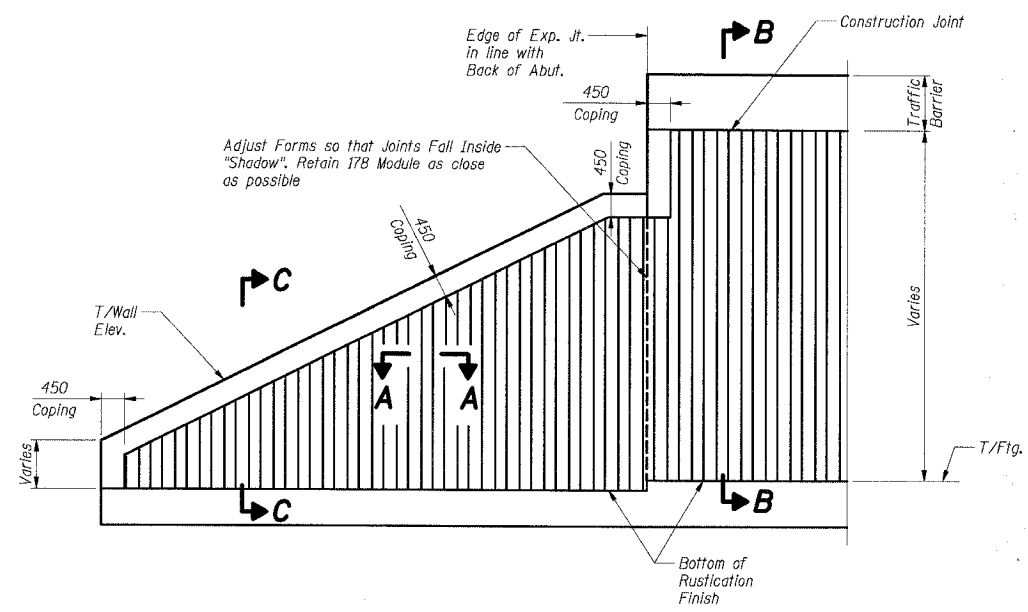
DATE: 7/18/2005
 DRAWN BY: MJK
 CHECKED BY: MJK

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

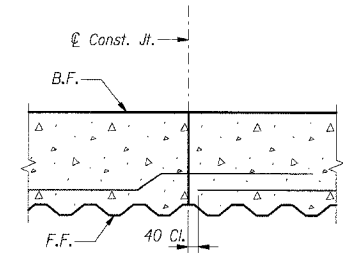
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	370
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
(2425 & 2626) R-2		CONTRACT NO. 62111		



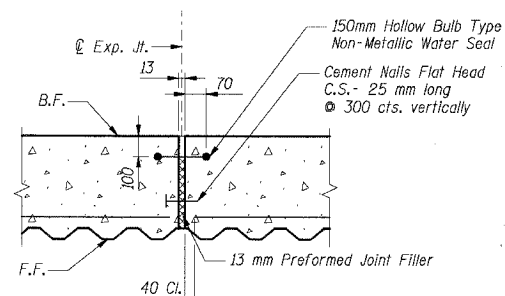
ELEVATION - TYPICAL RUSTICATION FINISH



ELEVATION - RUSTICATION FINISH AT ABUTMENT

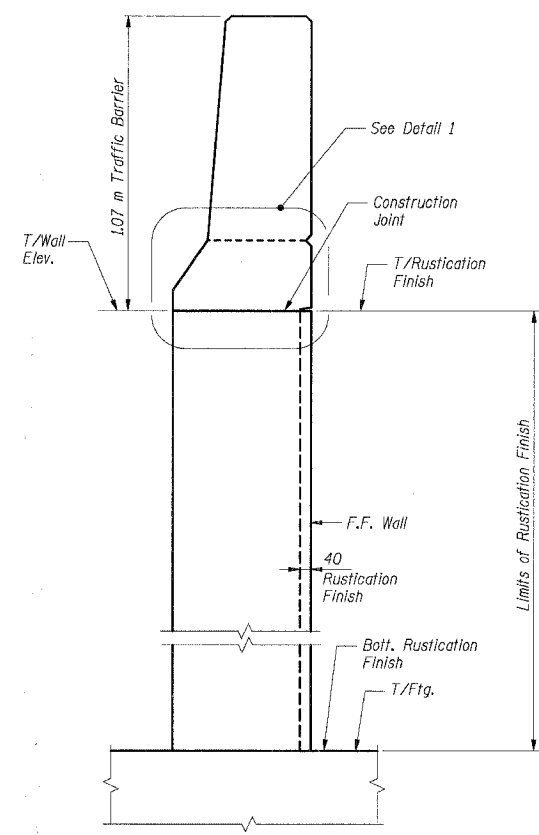


CONSTRUCTION JOINT DETAIL

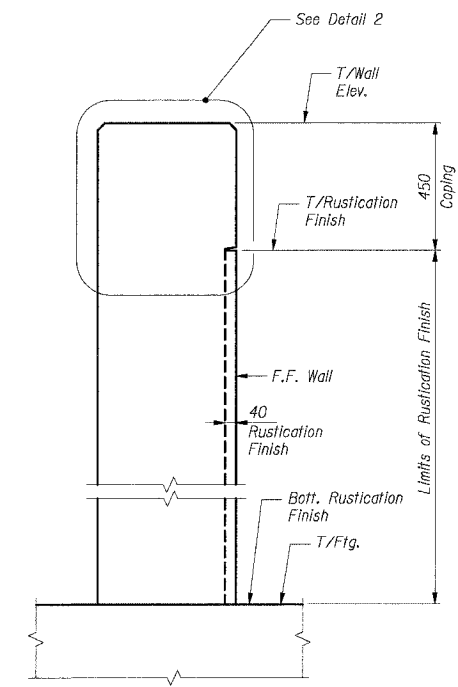


EXPANSION JOINT DETAIL

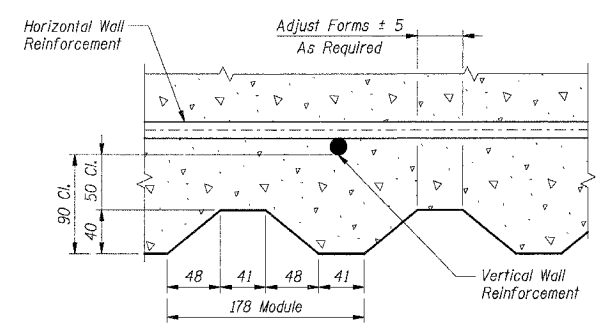
Cost of joint sealant, non-metallic water seal, P.J.F. and cement nails are included with Concrete Structures.



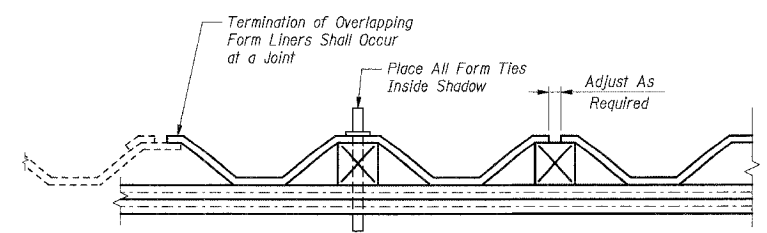
SECTION B-B



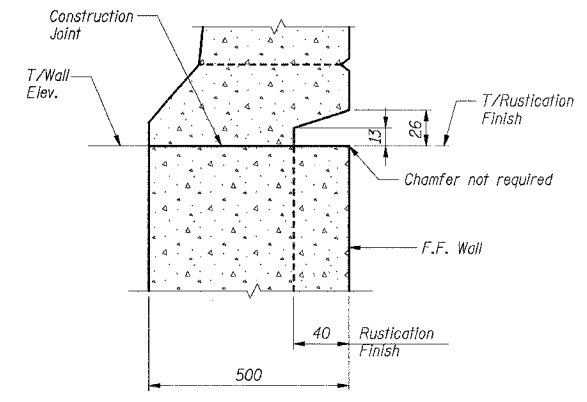
SECTION C-C



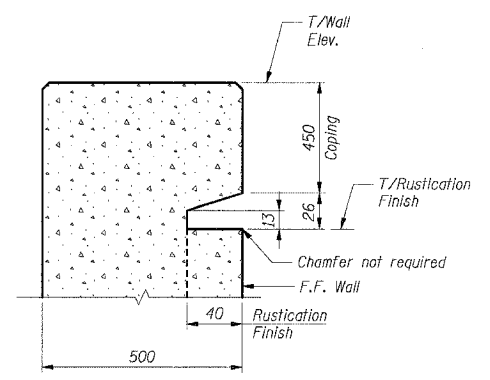
SECTION A-A



SUGGESTED FORMWORK DETAIL



DETAIL 1
Not to Scale



DETAIL 2
Not to Scale

BILL OF MATERIAL

Item	Unit	Total
Rustication Finish	Sq m	365

- Notes:
 1. All dimensions are in millimeters (mm) except as noted.
 2. All edges shall have a 20 mm chamfer unless noted otherwise.

SHT. RW851-12 OF 14

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W851
 SECTION (2425 & 2626) R-2
 COOK COUNTY

RUSTICATION FINISH & JOINT DETAILS

DATE: 7/18/2005

DRAWN BY: LG
 CHECKED BY: MJK

TENG

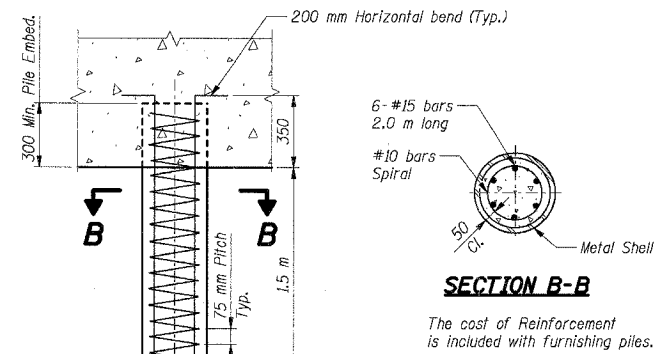
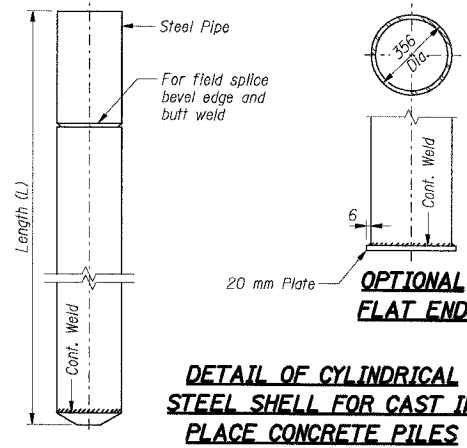
TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

Shah Engineering Inc.
 ONE IOWA PLAZA, SUITE 3300
 CHICAGO, IL 60611
 TEL: 312.626.3000
 Consulting Engineers

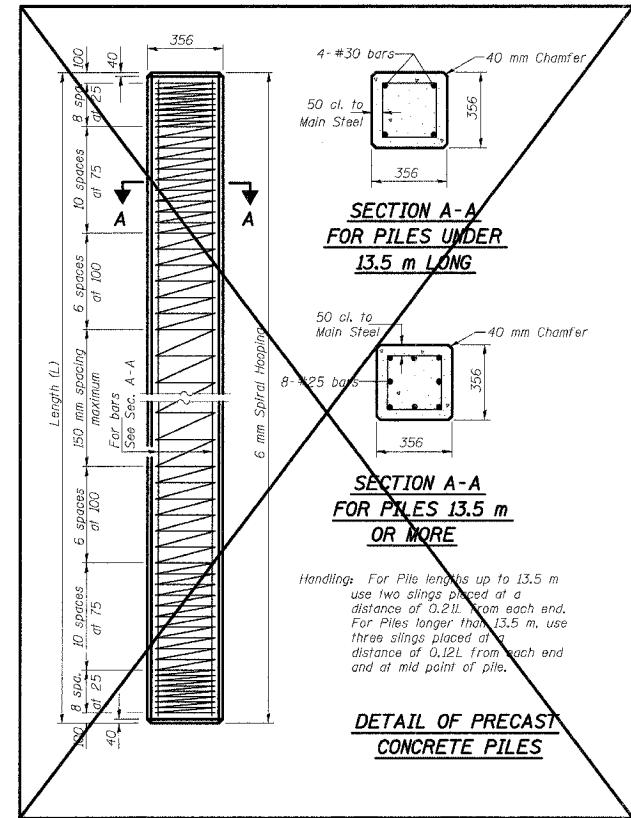
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	371
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		

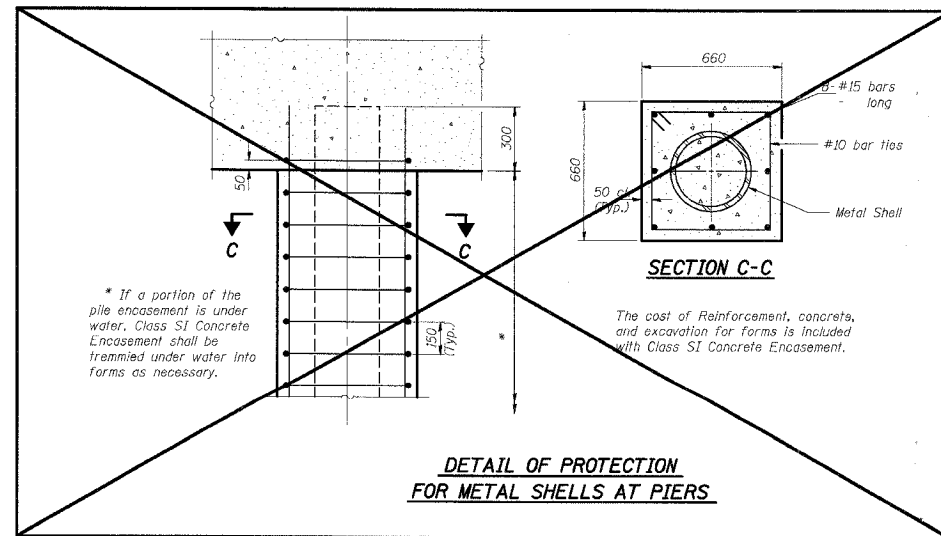
Notes: Driving and bearing ends shall be cut square. The thickness of the shell shall be 6.35 mm with a tolerance of 5%. The shell shall be according to Article 1006.05(a) of the Standard Specifications.



DETAIL OF REINFORCEMENT FOR METAL SHELLS AT ABUTMENTS



DETAIL OF PRECAST CONCRETE PILES



DETAIL OF PROTECTION FOR METAL SHELLS AT PIERS

- Notes:
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.

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SHT. RW851-13 OF 14

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 RETAINING WALL - STRUCTURE NO. 016-W851
 SECTION (2425 & 2626) R-2
 COOK COUNTY

PILE DETAILS

DATE: 7/18/2005
 DRAWN BY: MJK
 CHECKED BY: MJK

TENG
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

Shah Engineering, Inc.
 ONE W. 142nd STREET 3000
 CHICAGO, IL 60611
 TEL: 312/336-9990
 Consulting Engineers

Boring No. 241, Page 1 of 1

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 1
Date: 12/28/01

ROUTE: FAI 80/94 DESCRIPTION: KINGERY EXPRESSWAY

SECT: WEST OF ILLINOIS TO EAST OF BURHAM AVE

COUNTY: COOK LOCATION: 14054 S. TWP: 36 N. RANG: 14E/16 E.

Boring No: 241 Station: 6817 CL 15054 Offset: 30.00m RT

Surface Elev. (m)	D	B	Surface Water Elev. (m)		D	B	L	E	L	P	O	Groundwater Elev. (m)	
			Qu	W								T	W
	H	S	kPa	%	H	S	kPa	%	H	S	kPa	%	
192.20													
TOPSOIL													174.55
Very Stiff Brown and Gray SILTY CLAY trace - gravel and roots FILL		2	354	18		2	105	21					
		3	B			2	B						
		4	B			4	B						
Very Stiff to Hard Brown and Gray SILTY CLAY trace - gravel		2	383	18		3	182	20					
		3	B			3	B						
		5	B			5	B						
		6	B			6	B						
		7	B			7	B						
		8	B			8	B						
		9	B			9	B						
		10	B			10	B						
		11	B			11	B						
		12	B			12	B						
		13	B			13	B						
		14	B			14	B						
		15	B			15	B						
		16	B			16	B						
		17	B			17	B						
		18	B			18	B						
		19	B			19	B						
		20	B			20	B						
		21	B			21	B						
		22	B			22	B						
		23	B			23	B						
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		28	B			28	B						
		29	B			29	B						
		30	B			30	B						
		31	B			31	B						
		32	B			32	B						
		33	B			33	B						
		34	B			34	B						
		35	B			35	B						
		36	B			36	B						
		37	B			37	B						
		38	B			38	B						
		39	B			39	B						
		40	B			40	B						
		41	B			41	B						
		42	B			42	B						
		43	B			43	B						
		44	B			44	B						
		45	B			45	B						
		46	B			46	B						
		47	B			47	B						
		48	B			48	B						
		49	B			49	B						
		50	B			50	B						

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

Boring No. 243, Page 1 of 1

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 1
Date: 12/19/01

ROUTE: FAI 80/94 DESCRIPTION: KINGERY EXPRESSWAY

SECT: WEST OF ILLINOIS TO EAST OF BURHAM AVE

COUNTY: COOK LOCATION: 14094 S. TWP: 36 N. RANG: 14E/16 E.

Boring No: 243 Station: 6850 CL 15054 Offset: 30.00m RT

Surface Elev. (m)	D	B	Surface Water Elev. (m)		D	B	L	E	L	P	O	Groundwater Elev. (m)	
			Qu	W								T	W
	H	S	kPa	%	H	S	kPa	%	H	S	kPa	%	
182.05													
TOPSOIL													
Very Stiff Brown and Gray SILTY CLAY trace - gravel and roots FILL		3	354	20		3	201	19					
		4	B			4	B						
		5	B			5	B						
		6	B			6	B						
		7	B			7	B						
Very Stiff Brown and Gray SILTY CLAY trace - gravel		3	278	21		3	192	19					
		4	B			4	B						
		5	B			5	B						
		6	B			6	B						
		7	B			7	B						
		8	B			8	B						
		9	B			9	B						
		10	B			10	B						
		11	B			11	B						
		12	B			12	B						
		13	B			13	B						
		14	B			14	B						
		15	B			15	B						
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		42	B			42	B						
		43	B			43	B						
		44	B			44	B						
		45	B			45	B						
		46	B			46	B						
		47	B			47	B						
		48	B			48	B						
		49	B			49	B						
		50	B			50	B						

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

Boring No. 242, Page 1 of 1

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 1
Date: 12/19/01

ROUTE: FAI 80/94 DESCRIPTION: KINGERY EXPRESSWAY

SECT: WEST OF ILLINOIS TO EAST OF BURHAM AVE

COUNTY: COOK LOCATION: 19094 S. TWP: 36 N. RANG: 14E/16 E.

Boring No: 242 Station: 6805 CL 15054 Offset: 30.00m RT

Surface Elev. (m)	D	B	Surface Water Elev. (m)		D	B	L	E	L	P	O	Groundwater Elev. (m)	
			Qu	W								T	W
	H	S	kPa	%	H	S	kPa	%	H	S	kPa	%	
191.77													
TOPSOIL													
Very Stiff Brown and Gray SILTY CLAY trace - gravel and roots FILL		2	338	20		2	172	20					
		3	B			3	B						
		4	B			4	B						
		5	B			5	B						
Very Stiff to Hard Brown and Gray SILTY CLAY trace - gravel and roots FILL		2	317	18		2	183	20					
		4	B			4	B						
		5	B			5	B						
		6	B			6	B						
		7	B			7	B						
		8	B			8	B						
		9	B			9	B						
		10	B			10	B						
		11	B			11	B						
		12	B			12	B						
		13	B			13	B						

BENCHMARKS:
TBM "5E" Square cut in southeast corner of the southwest crashwall of I-80 Bridge over Abandoned Railroad. El. 192.219

EXISTING STRUCTURE:
Structure No. 016-0080 Built in 1947. Five span, 136.94 m long, continuous composite steel multi-beam bridge on multi-column concrete piers and open abutments. 16.98 m between barriers (Each Direction). (Partial Removal in this Contract)

SALVAGE: None
STAGING: See Shts. RS-4 and RS-5.

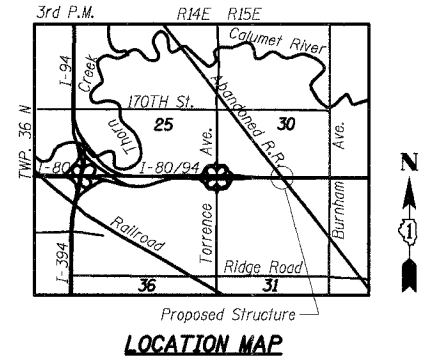
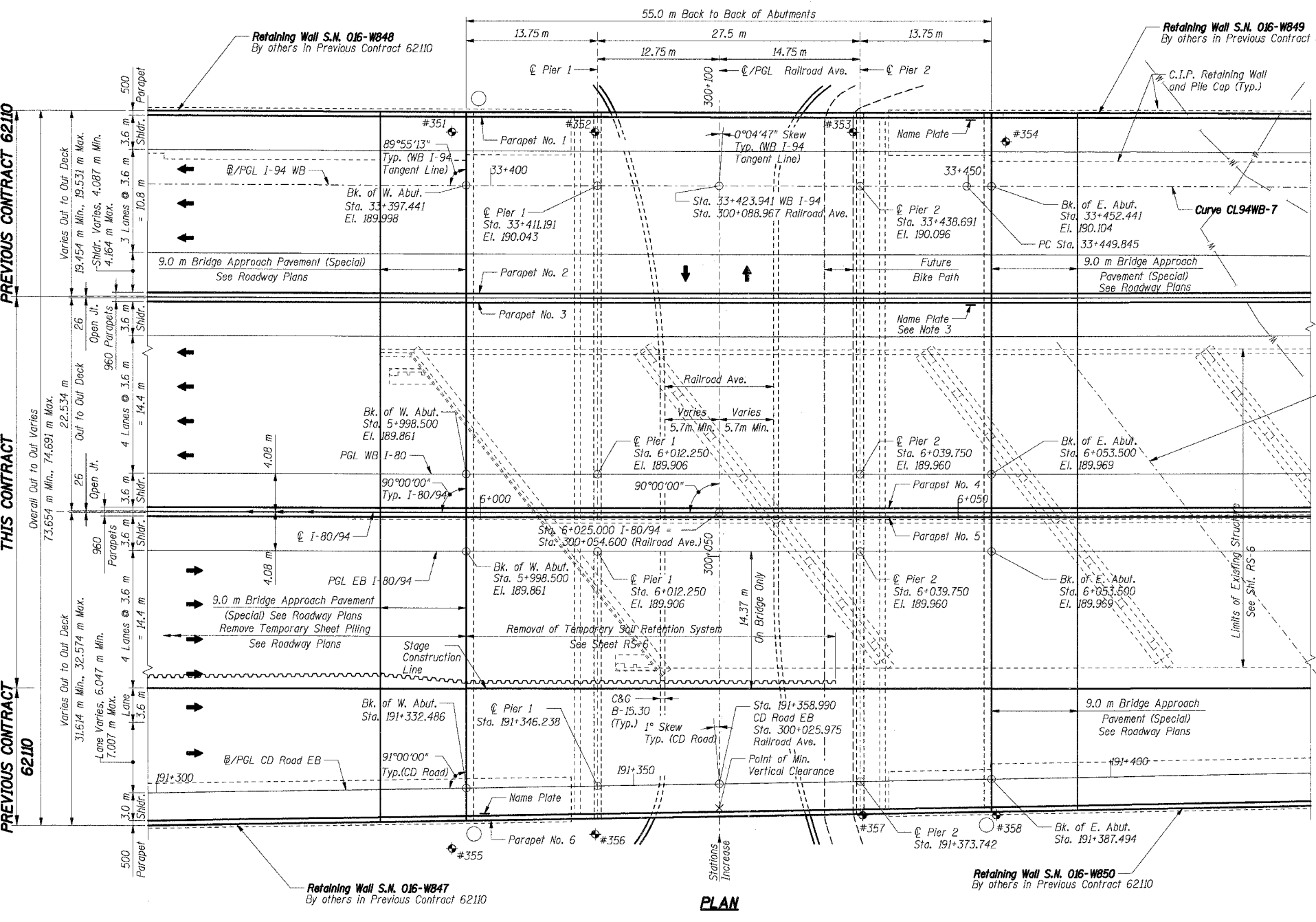
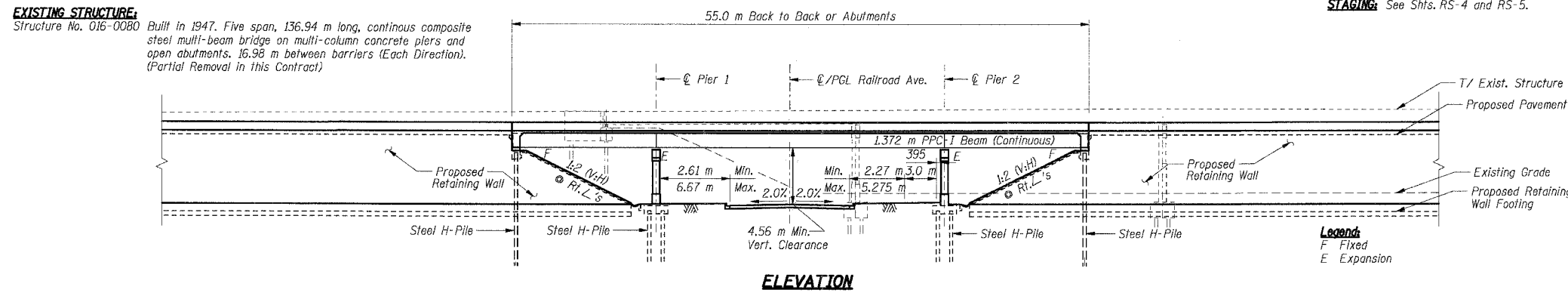
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	373
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
(2425 & 2626) R-2		CONTRACT NO. 62111		

DESIGN SPECIFICATIONS:
2002 AASHTO Standard Specifications for Highway Bridges.

DESIGN LOADING:
Roadway Live Load: MS-18 & Alt.
Future Wearing Surface: 2.4 kN/sq. m.

DESIGN STRESSES:
FIELD UNITS
f'c: 24 MPa
fy: 400 MPa
PRECAST PRESTRESSED UNITS:
f'c: 41.4 MPa
f'cl: 34.5 MPa
f's: 1860 MPa
f'si: 1390 MPa
fy: 400 MPa

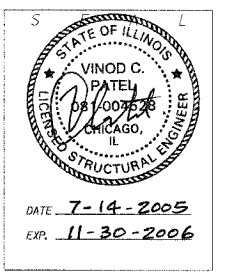
SEISMIC DATA:
Seismic Performance Category (SPC): A
Bedrock Acceleration Coefficient (A): 0.04g
Site Coefficient (S): 1.0



Notes:
1. All dimensions are in millimeters (mm) except as noted.
2. Minimum and maximum dimensions are measured along the back of the abutments perpendicular to the I-80/94.
3. For name plate detail, see Sht. RS-3.

LEGEND:
 - Soil Boring
 - Existing Water Main (Relocated in previous Contract 62350)
 - Existing Storm Sewer (See Drainage Plans)
 - Existing Catch Basin (See Drainage Plans)
 - Existing Drainage Structure (See Drainage Plans)
 - Proposed Storm Sewer (See Drainage Plans)
 - Proposed Drainage Structure (See Drainage Plans)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson (TSP)
ENGINEER OF BRIDGES AND STRUCTURES



ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

SHT. RS-1 OF 70

REVISIONS	
NAME	DATE

GENERAL PLAN & ELEVATION
DATE: 7/18/2005
DRAWN BY: LG
CHECKED BY: MJK
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	374
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
			CONTRACT NO. 62111	

INDEX OF SHEETS

- RS-1 GENERAL PLAN & ELEVATION
- RS-2 GENERAL NOTES, INDEX OF SHEETS & TOTAL BILL OF MATERIAL
- RS-3 MISCELLANEOUS DETAILS
- RS-4 CONSTRUCTION STAGING - I
- RS-5 CONSTRUCTION STAGING - II
- RS-6 EXISTING STRUCTURE REMOVAL PLAN
- RS-7 EXISTING STRUCTURE REMOVAL ELEVATIONS STAGE 2
- RS-8 EXISTING STRUCTURE REMOVAL SECTIONS & DETAILS STAGE 2
- RS-9 EXISTING STRUCTURE REMOVAL ELEVATIONS STAGE 3
- RS-10 EXISTING STRUCTURE REMOVAL SECTIONS & DETAILS STAGE 3
- RS-11 TEMPORARY SOIL RETENTION SYSTEM ELEVATION & DETAILS
- RS-12 TEMPORARY MSE WALL #212 PROFILE & SECTIONS
- F.I.O. RS-13 SUBSTRUCTURE LAYOUT - I
- RS-14 SUBSTRUCTURE LAYOUT - II
- RS-15 SUBSTRUCTURE LAYOUT - III
- F.I.O. RS-16 SUBSTRUCTURE LAYOUT - IV
- RS-17 SCREED PLAN & DEAD LOAD DEFLECTIONS
- RS-18 TOP OF SLAB ELEVATIONS - I
- RS-19 TOP OF SLAB ELEVATIONS - II
- RS-20 TOP OF SLAB ELEVATIONS - III
- RS-21 TOP OF SLAB ELEVATIONS - IV
- F.I.O. RS-22 TOP OF SLAB ELEVATIONS - V
- RS-23 TOP OF SLAB ELEVATIONS - VI
- F.I.O. RS-24 DECK PLAN DECK CROSS SECTION - I
- RS-25 DECK PLAN DECK CROSS SECTION - II
- RS-26 DECK PLAN DECK CROSS SECTION - III
- F.I.O. RS-27 DECK PLAN DECK CROSS SECTION - IV
- RS-28 WEST INTEGRAL BACKWALL ELEVATIONS & SECTIONS - I & II
- RS-29 WEST INTEGRAL BACKWALL ELEVATIONS & SECTIONS - III & IV
- RS-30 EAST INTEGRAL BACKWALL ELEVATIONS & SECTIONS - I & II
- RS-31 EAST INTEGRAL BACKWALL ELEVATIONS & SECTIONS - III & IV
- RS-32 PIER DIAPHRAGM ELEVATIONS & SECTIONS - I
- RS-33 PIER DIAPHRAGM ELEVATIONS & SECTIONS - II
- RS-34 DECK BAR LIST & BILL OF MATERIAL
- F.I.O. RS-35 NORTH & SOUTH PARAPET ELEVATIONS & DETAILS
- RS-36 MEDIAN PARAPET ELEVATION & DETAILS - I
- RS-37 MEDIAN PARAPET ELEVATION & DETAILS - II
- F.I.O. RS-38 FRAMING PLAN - I
- RS-39 FRAMING PLAN - II
- RS-40 FRAMING PLAN - III
- F.I.O. RS-41 FRAMING PLAN - IV
- RS-42 1.372 M PPC I-BEAM ELEVATION - I & DETAILS
- RS-43 1.372 M PPC I-BEAM ELEVATION - II & DETAILS
- RS-44 BEARING DETAILS
- RS-45 ANCHOR BOLT DETAILS
- F.I.O. RS-46 WEST ABUTMENT PLAN, ELEVATION & SECTION - I
- RS-47 WEST ABUTMENT PLAN, ELEVATION & SECTION - II
- RS-48 WEST ABUTMENT PLAN, ELEVATION & SECTION - III
- F.I.O. RS-49 WEST ABUTMENT PLAN, ELEVATION & SECTION - IV
- F.I.O. RS-50 EAST ABUTMENT PLAN, ELEVATION & SECTION - I
- RS-51 EAST ABUTMENT PLAN, ELEVATION & SECTION - II
- RS-52 EAST ABUTMENT PLAN, ELEVATION & SECTION - III
- F.I.O. RS-53 EAST ABUTMENT PLAN, ELEVATION & SECTION - IV
- F.I.O. RS-54 ABUTMENT & RETAINING WALL COORDINATION DETAILS
- RS-55 SLOPEWALL DETAILS
- F.I.O. RS-56 PIER 1 PLAN, ELEVATION & SECTION - I
- RS-57 PIER 1 PLAN, ELEVATION & SECTION - II
- RS-58 PIER 1 PLAN, ELEVATION & SECTION - III
- F.I.O. RS-59 PIER 1 PLAN, ELEVATION & SECTION - IV
- F.I.O. RS-60 PIER 2 PLAN, ELEVATION & SECTION - I
- RS-61 PIER 2 PLAN, ELEVATION & SECTION - II
- RS-62 PIER 2 PLAN, ELEVATION & SECTION - III
- F.I.O. RS-63 PIER 2 PLAN, ELEVATION & SECTION - IV
- F.I.O. RS-64 PIER 1 & 2 BAR LIST & BILL OF MATERIAL - I & IV
- RS-65 PIER 1 & 2 BAR LIST & BILL OF MATERIAL - II & III
- RS-66 BAR SPLICER DETAILS
- RS-67 TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
- RS-68 BORING LOGS - I
- RS-69 BORING LOGS - II
- RS-70 BORING LOGS - III

F.I.O. Included For Information Only.

GENERAL NOTES

1. The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M270M Grade 345.
2. Reinforcement Bars shall conform to the requirements of AASHTO M 31M or M 322M, Grade 400.
3. Slope wall shall be reinforced with welded wire fabric, 152 x 152 - MN25.8 x MN 25.8 with a mass of 2.91 kg/m²
4. The Embankment Configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.
5. Plan dimensions and details relative to existing structures have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.
6. The Contractor shall drive two test piles in a permanent location, one each at west abutment and pier 2, as directed by the Engineer before ordering the remainder of piles.
7. All dimensions are in millimeters (mm) except as noted.
8. The existing structural steel coating contains lead based paint. The Contractor should take appropriate precautions to deal with the presence of lead on this project.
9. Construction joints shall be bonded.
10. Piles at east abutment shall not be driven until embankment has been in place for durations noted on Substructure Layout and Abutment drawings.
11. Conduits are shown in the bridge plans for location and installation purposes only. Refer to Electrical Raceway plans for details, pay items and quantities.
12. All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M 300, Type I.

PGL I-94 WB

SPLINE CURVE DATA	
Station	Elevation
33+390.000	189.923
33+395.000	189.947
33+400.000	189.969
33+405.000	189.989
33+410.000	190.008
33+415.000	190.024
33+420.000	190.040
33+425.000	190.053
33+430.000	190.066
33+435.000	190.076
33+440.000	190.085
33+445.000	190.092
33+450.000	190.098
33+455.000	190.104
33+460.000	190.103

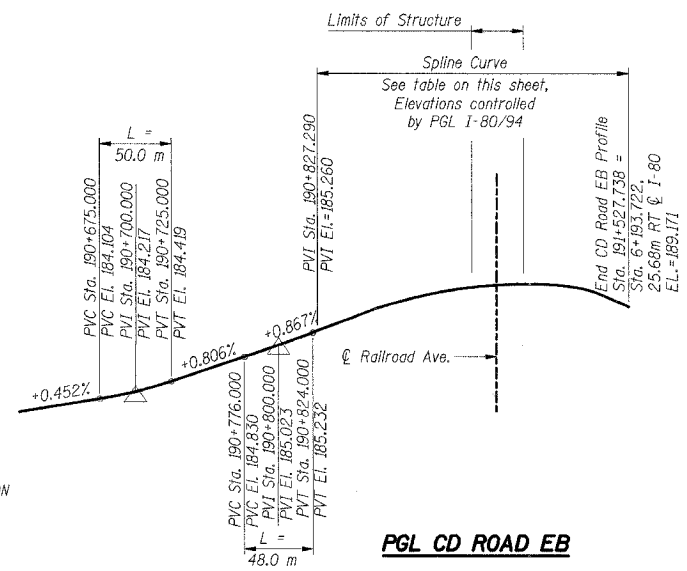
PGL CD ROAD EB

SPLINE CURVE DATA	
Station	Elevation
191+290.000	189.358
191+300.000	189.425
191+310.000	189.484
191+320.000	189.538
191+330.000	189.585
191+340.000	189.625
191+350.000	189.659
191+360.000	189.686
191+370.000	189.707
191+380.000	189.721
191+390.000	189.729
191+400.000	189.730
191+410.000	189.724
191+420.000	189.713
191+430.000	189.694
191+440.000	189.669

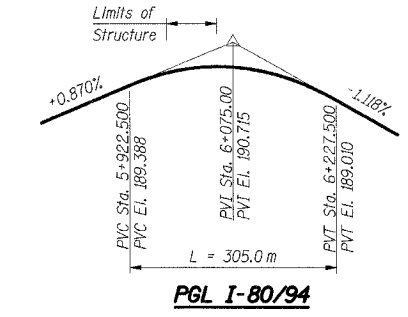
TOTAL BILL OF MATERIAL

ITEM	UNITS	SUBSTRUCTURE	SUPERSTRUCTURE	TOTAL
Removal Of Existing Structures No. 1	Each			1
Removal Of Temporary Soil Retention System	Sq M	345		345
Porous Granular Embankment (SPECIAL)	Cu M	593		593
Structure Excavation	Cu M	1,379		1,379
Concrete Structures	Cu M	504.8		504.8
Concrete Superstructure	Cu M		664.0	664.0
Elastomeric Bearing Assembly, Type I	Each		64	64
Bridge Deck Grooving	Sq M		2,176	2,176
Protective Coat ****	Sq M		2,392	2,392
Furnishing And Erecting Precast Prestressed Concrete I-Beams, 1372Mm	Meter		870.4	870.4
Furnishing And Erecting Structural Steel	Kg	1,600		1,600
Reinforcement Bars, Epoxy Coated	Kg	59,730	92,010	151,740
Furnishing Steel Piles HP310X79	Meter	2594.0		2594.0
Driving Steel Piles	Meter	2594.0		2,594.0
Test Pile Steel HP310X79	Each	2		2
Temporary Soil Retention System	Sq M	124		124
Temporary Mechanically Stabilized Earth Retaining Wall	Sq M	510		510
Preformed Joint Seal 64mm	Meter		110	110
Bar Splicers	Each		264	264
Name Plates	Each		1	1
Slope Wall 100 mm	Sq M	1,016		1,016

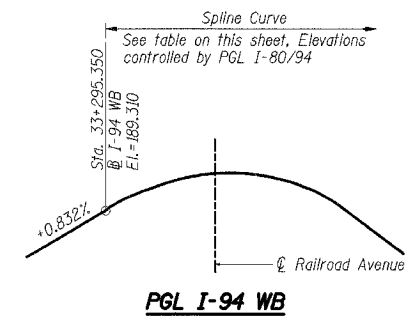
**** Quantity includes top and inside surfaces of parapets and top surface of bridge deck.



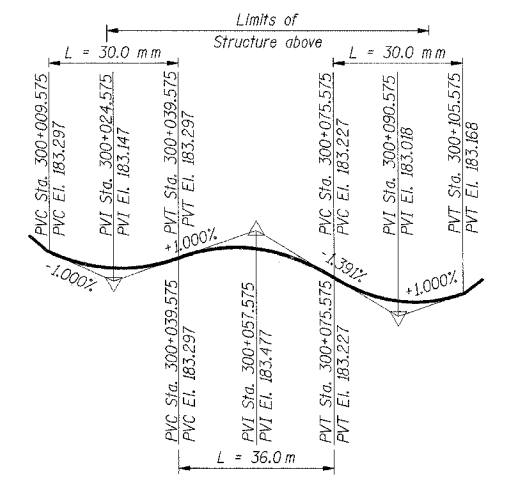
PGL CD ROAD EB



PGL I-80/94

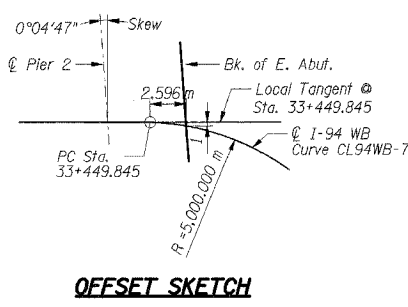


PGL I-94 WB



PGL RAILROAD AVE

(Along Railroad Avenue)



OFFSET SKETCH

CURVE DATA CL94WB-7

Δ = 1° 59' 08" (RT)
 T = 86.648 m
 L = 173.278 m
 E = 0.751 m
 R = 5,000.000 m
 S.E. Run. = 0.0 %
 P.C. Sta. = 33+449.845
 P.T. Sta. = 33+623.122
 PI Sta. = 33+536.492

SHT. RS-2 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 197-121-R
 COOK COUNTY

GENERAL NOTES, INDEX OF SHEETS & TOTAL BILL OF MATERIAL

DATE: 9/13/05
 DRAWN BY: LG
 CHECKED BY: MJK

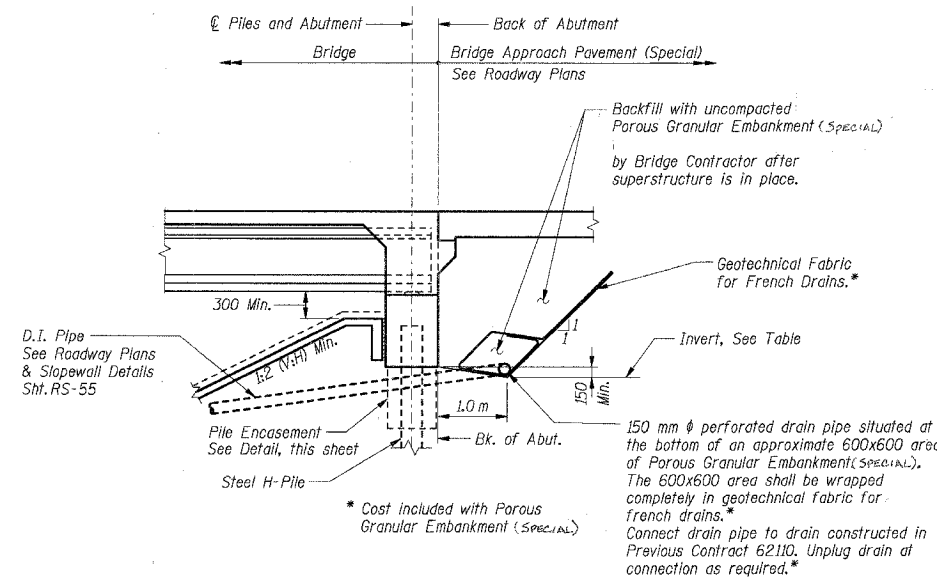
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	375
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		

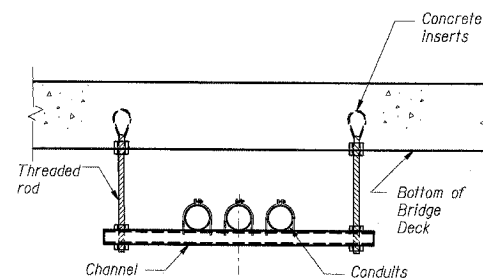
**150 mm ϕ Perforated Drain
Pipe Invert Elevation Table**

Location & Station @ I-80/94	Offset (m)	Invert Elev.
West Abut. Sta. 5+997.500		
At Wall W848	41.578 LT	186.607
Lowpoint	25.06 LT	186.525
Const. Joint	22.56 LT	186.537
CenterLine I-80/94	0.00	186.650
Const. Joint	18.93 RT	186.555
Lowpoint	22.43 RT	186.538
At Wall W847	32.048 RT	186.586
East Abut. Sta. 6+054.500		
At Wall W849	41.503 LT	186.707
Lowpoint	25.06 LT	186.625
Const. Joint	22.56 LT	186.637
CenterLine I-80/94	0.00	186.750
Const. Joint	18.93 RT	186.655
Lowpoint	22.43 RT	186.638
At Wall W850	31.117 RT	186.681

* D.I. Pipe constructed in Contract 62110 by Others

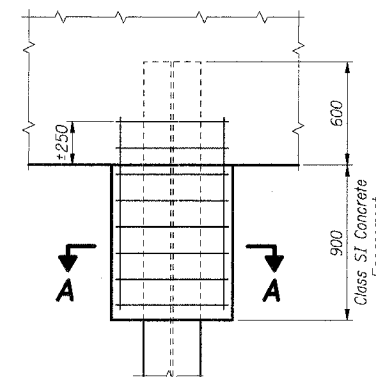


ABUTMENT BACKFILL SECTION

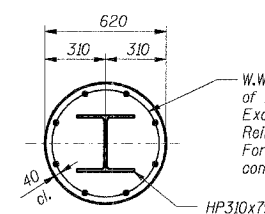


Note: The hanger assemblies including concrete inserts for fiber optic conduits shall be provided as part of the conduit pay items included in Electrical Raceway plans. The cost of installing inserts in the bridge deck shall be included with Concrete Superstructure. Refer to Electrical Raceway plans for limits, numbers and locations of conduits.

HANGER ASSEMBLIES FOR FIBER OPTIC CONDUITS ATTACHED TO BRIDGE DECK



ELEVATION



SECTION A-A

PILE ENCASEMENT AT ABUTMENTS

**STATION 6+025.000
BUILT 200_ BY
STATE OF ILLINOIS
F.A.I. RT. 80/94 SEC. 1977-121-R
LOADING MS-18 & ALT.
STR. NO. 016-2792**

NAME PLATE
See Standard 515001
See Sht. RS-36 for location
(1 Thus)

Notes:
1. All dimensions are in millimeters (mm) except as noted.

SHT. RS-3 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

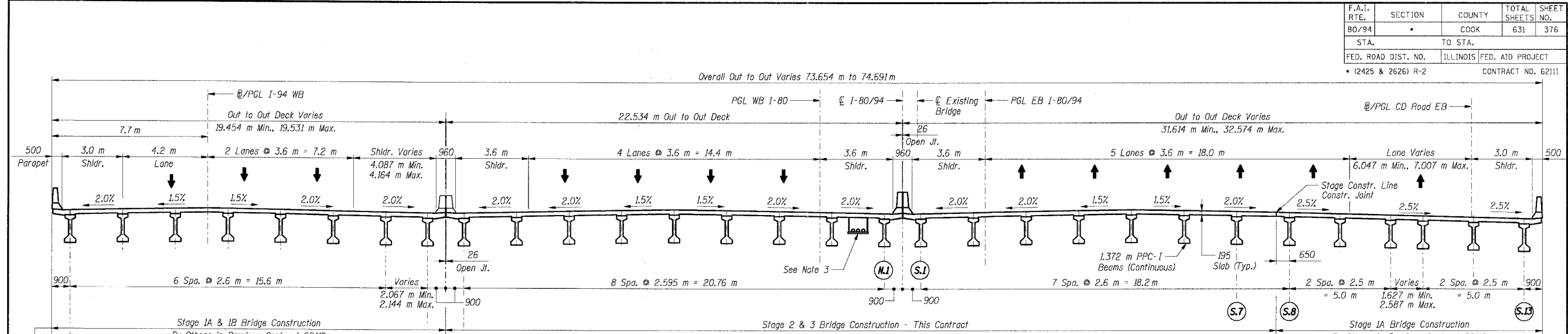
MISCELLANEOUS DETAILS

DATE: 7/18/2005
DRAWN BY: LS
CHECKED BY: TCJ

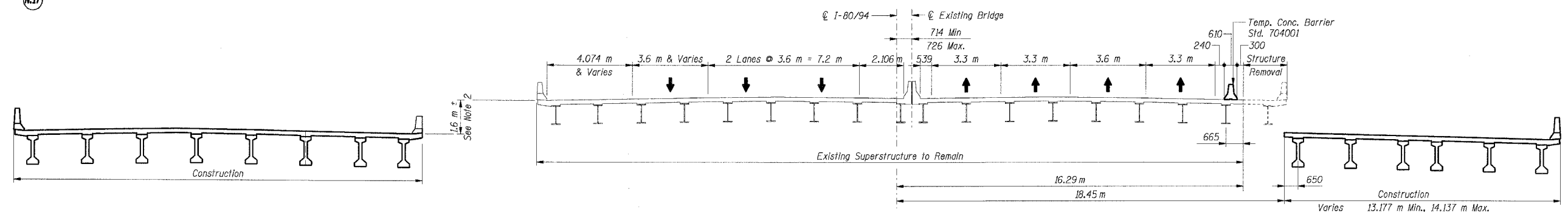
TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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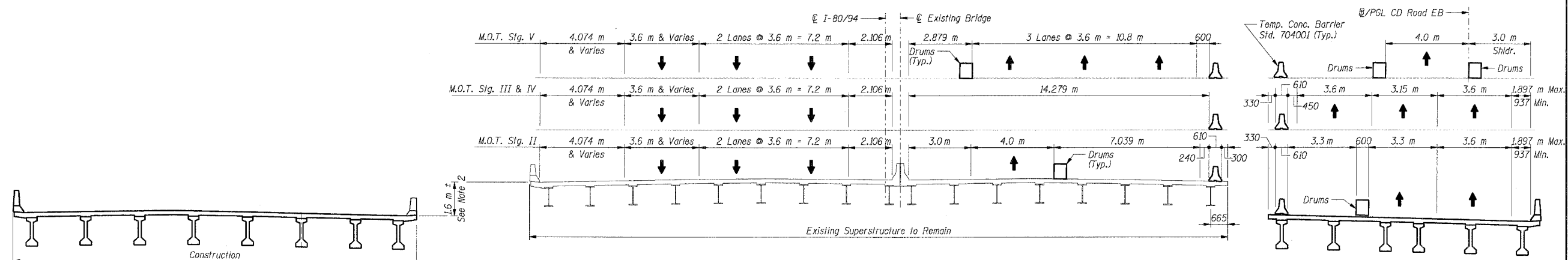
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	376
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2			CONTRACT NO. 62111	



PROPOSED CROSS SECTION
(Looking up-station)



STAGE IA (M.O.T. Phase II, Stage I)
(BY OTHERS IN PREVIOUS CONTRACT 62110)
(Looking up-station)



STAGE IB (M.O.T. Phase II, Stages II thru V)
(BY OTHERS IN PREVIOUS CONTRACT 62110)
(Looking up-station)

CORRELATION BETWEEN BRIDGE CONSTRUCTION STAGES AND M.O.T. STAGES

BRIDGE CONSTRUCTION	MAINTENANCE OF TRAFFIC
Stage IA	Phase II, Stage I
Stage IB	Phase II, Stages II through V
Stage 2	Phase III, Stage I
Stage 3	Phase III, Stages II and III

- Notes**
- All dimensions are in millimeters (mm) except as noted.
 - 1.6 m is approximate vertical distance between existing bridge super structure and proposed bridge superstructure.
 - Conduits and Hanger Assembly for Fiber Optics. See General Note on Sht. RS-2 and detail on Sht. RS-3.

SHT. RS-4 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

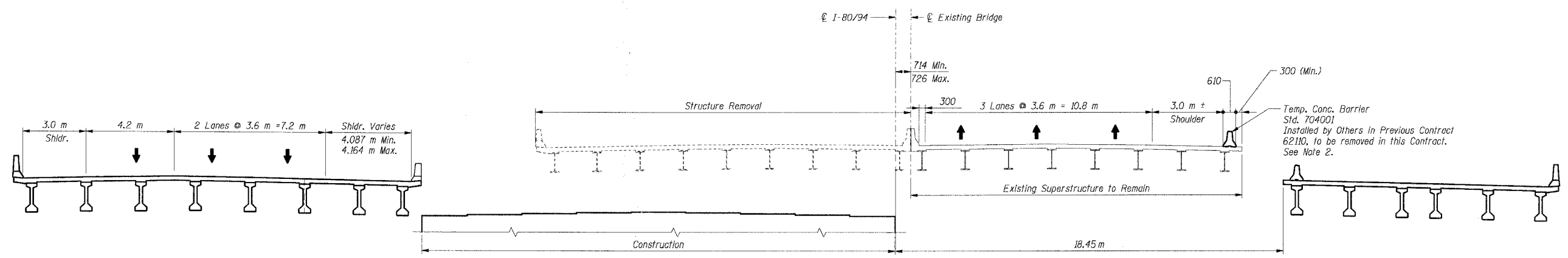
CONSTRUCTION STAGING - I

DATE: 7/18/2005
DRAWN BY: LG
CHECKED BY: MJK

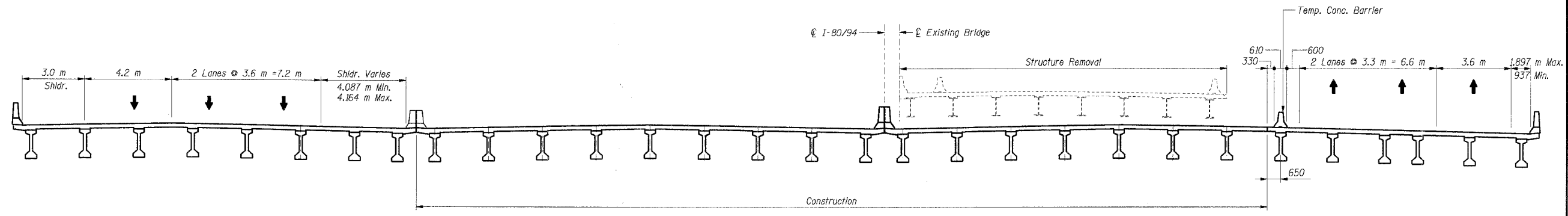
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TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	377
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2			CONTRACT NO. 62111	



STAGE 2 (M.O.T. Phase III, Stage I)
(THIS CONTRACT)
 (Looking up-station)



STAGE 3 (M.O.T. Phase III, Stages II and III)
(THIS CONTRACT)
 (Looking up-station)

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - See Sht. RS-67 For Temporary Concrete Barrier Installation details. See Roadway Plans for pay items and quantities.

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SHT. RS-5 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 1977-121-R
 COOK COUNTY

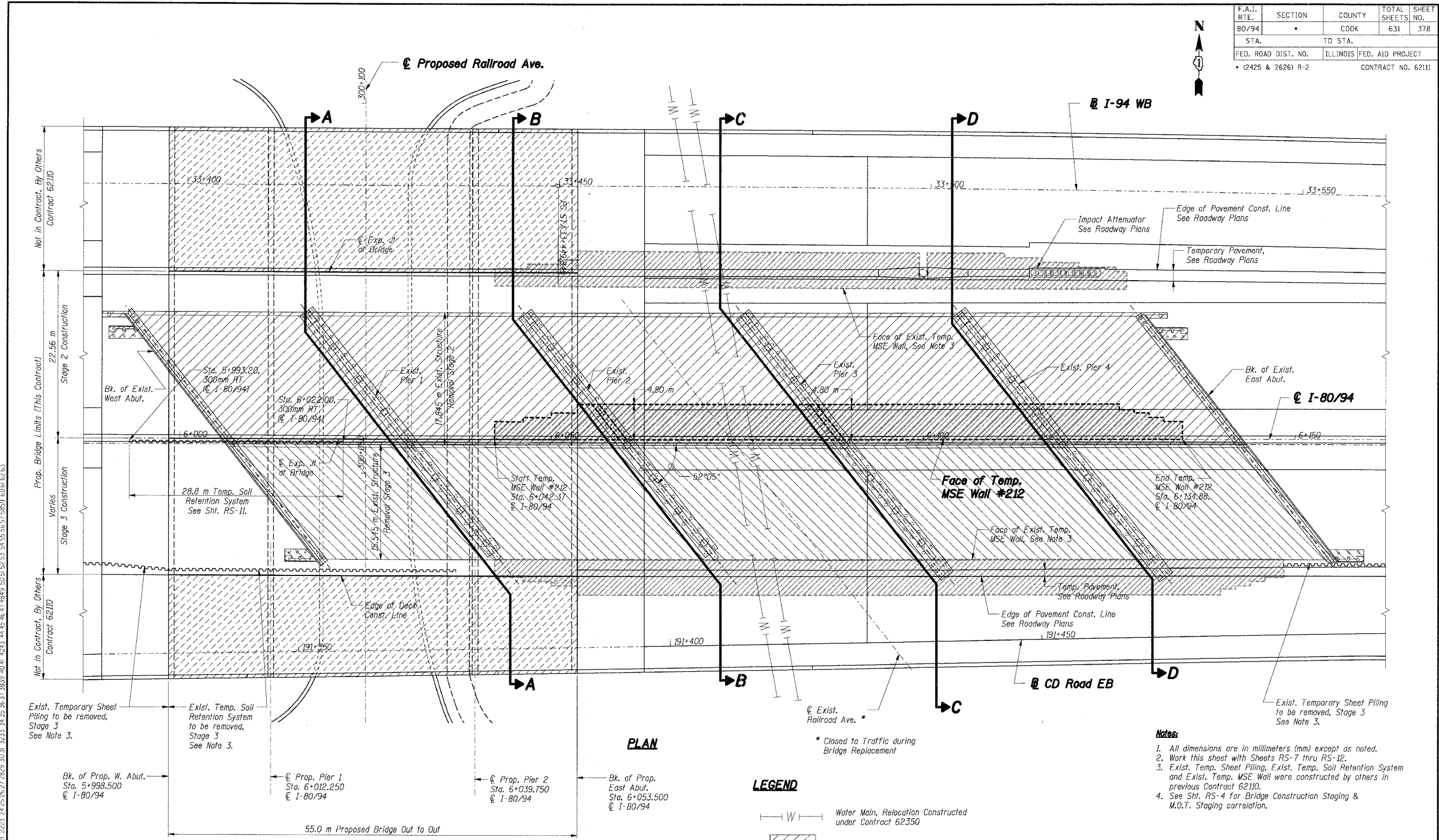
CONSTRUCTION STAGING - II

DATE: 7/18/2005

DRAWN BY: LG
 CHECKED BY: MJK

TENG TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE. 80/94	SECTION	COUNTY COOK	TOTAL SHEETS 631	SHEET NO. 378
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2		CONTRACT NO. 62111		



- Notes:**
1. All dimensions are in millimeters (mm) except as noted.
 2. Work this sheet with Sheets RS-7 thru RS-12.
 3. Exist. Temp. Sheet Piling, Exist. Temp. Soil Retention System and Exist. Temp. MSE Wall were constructed by others in previous Contract 62110.
 4. See Sht. RS-4 for Bridge Construction Staging & M.O.T. Staging correlation.

SHT. RS-6 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 1977-121-R
 COOK COUNTY

EXISTING STRUCTURE REMOVAL PLAN

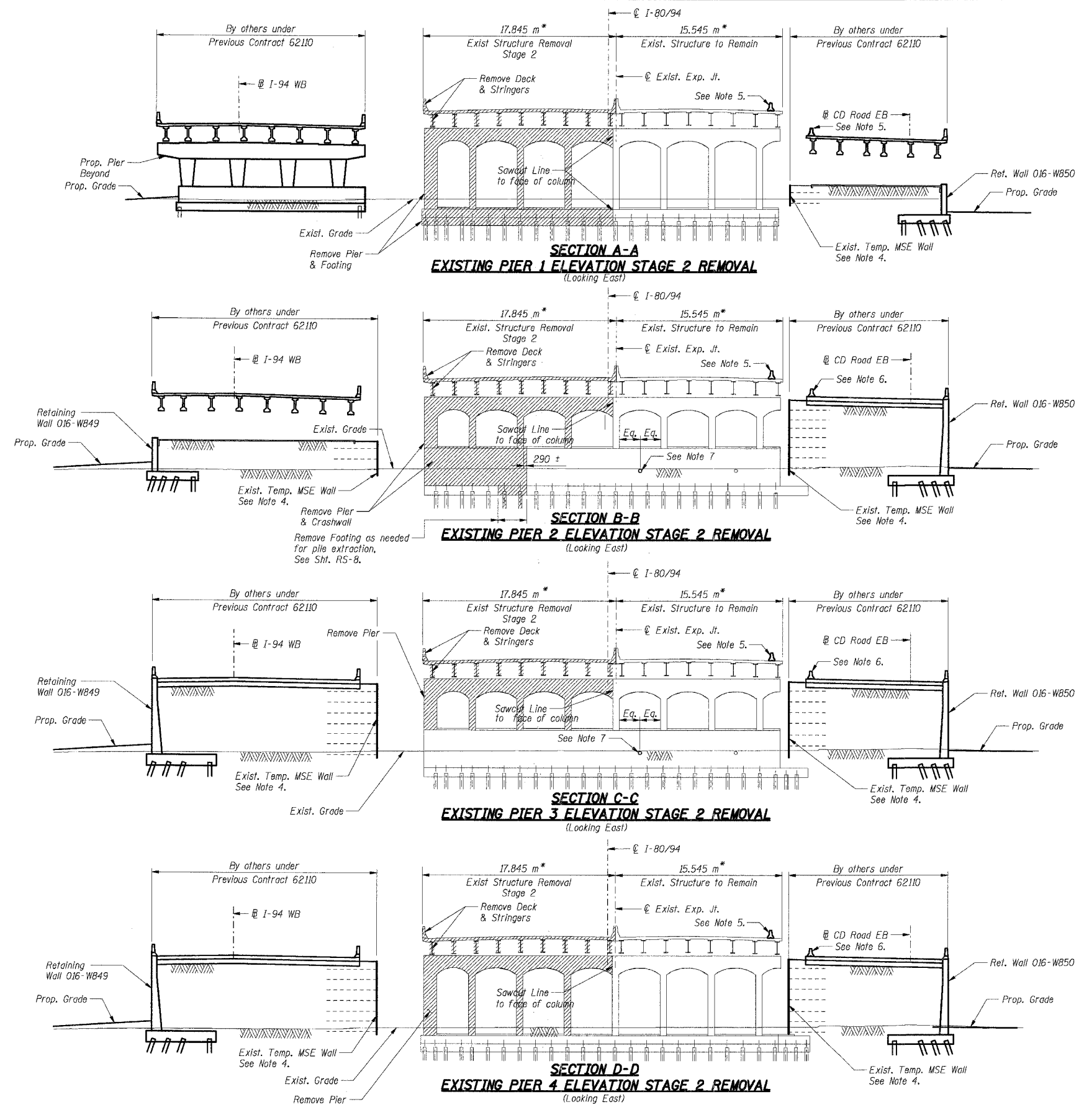
DATE: 7/18/2005

DRAWN BY: LG
 CHECKED BY: MJK

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	379
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
• (2425 & 2626) R-2		CONTRACT NO. 62111		



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LEGEND:

Existing Structure Removal

Notes:

- * Denotes Dimension shown perpendicular to @ I-80/94 U.N.O.
- All dimensions are in millimeters (mm) except as noted.
- Work this sheet with Sht. RS-6 thru RS-12.
- Temp. MSE Walls #210 & #211 were constructed by others in Previous Contract 62110.
- Temporary Traffic Barrier on Bridge, see Sht. RS-4 & RS-5 for installation details. See Roadway Plans for pay items and quantities.
- Temporary Traffic Barrier on Roadway, see Roadway Plans.
- Core drill pier base 100mm dia. to provide for horizontal wick drain outlets. Coordinate with wick drain installation, see Roadway Plans. Cost included with Removal of Existing Structures.

SHT. RS-7 OF 70

REVISIONS	
NAME	DATE

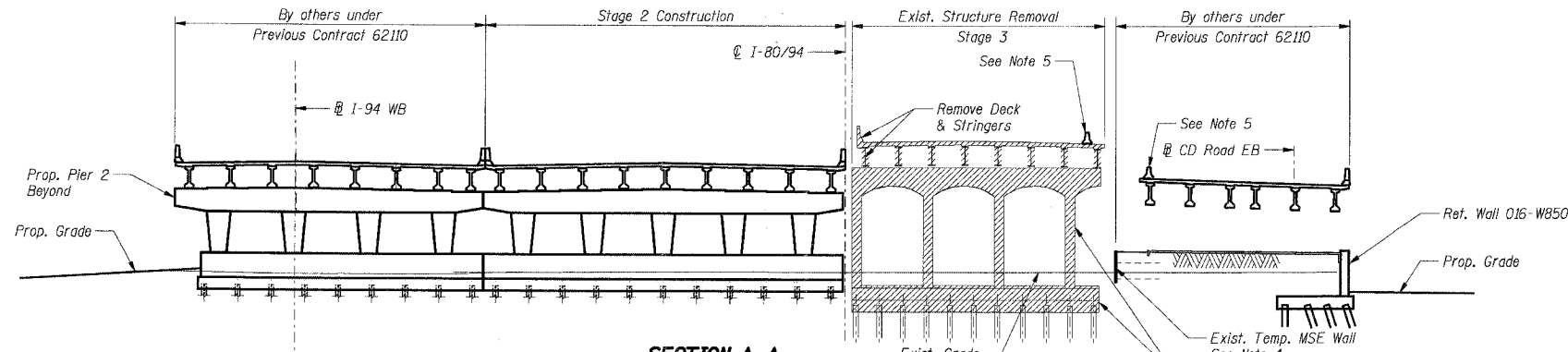
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 1977-121-R
 COOK COUNTY

EXISTING STRUCTURE REMOVAL ELEVATIONS STAGE 2

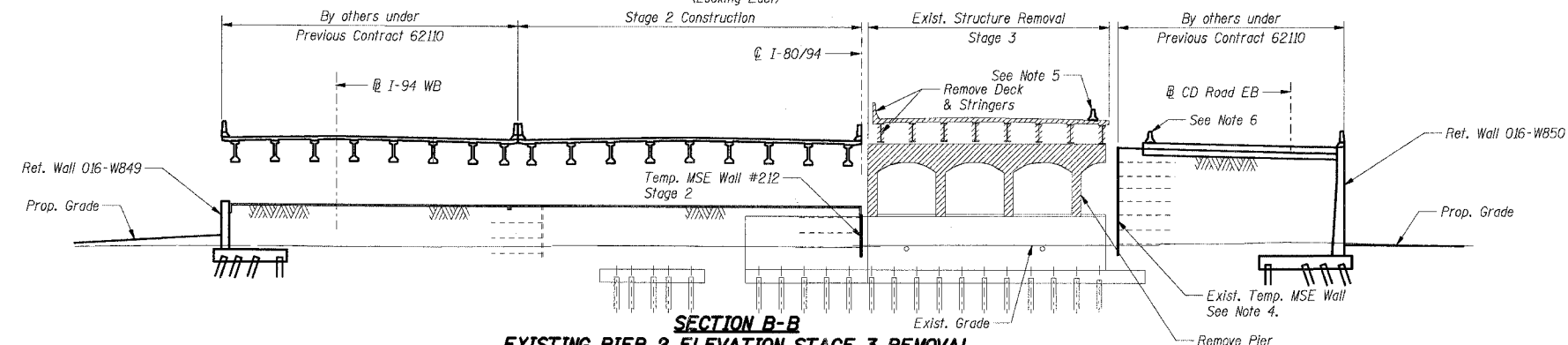
DATE: 7/18/2005
 DRAWN BY: LG
 CHECKED BY: MJR

TENGO
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

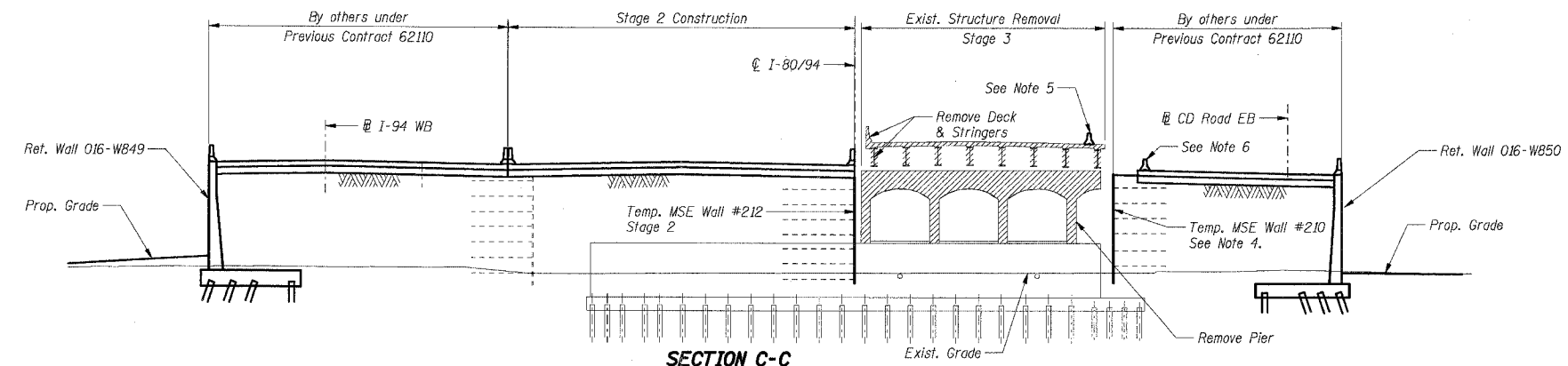
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	381
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2			CONTRACT NO. 62110	



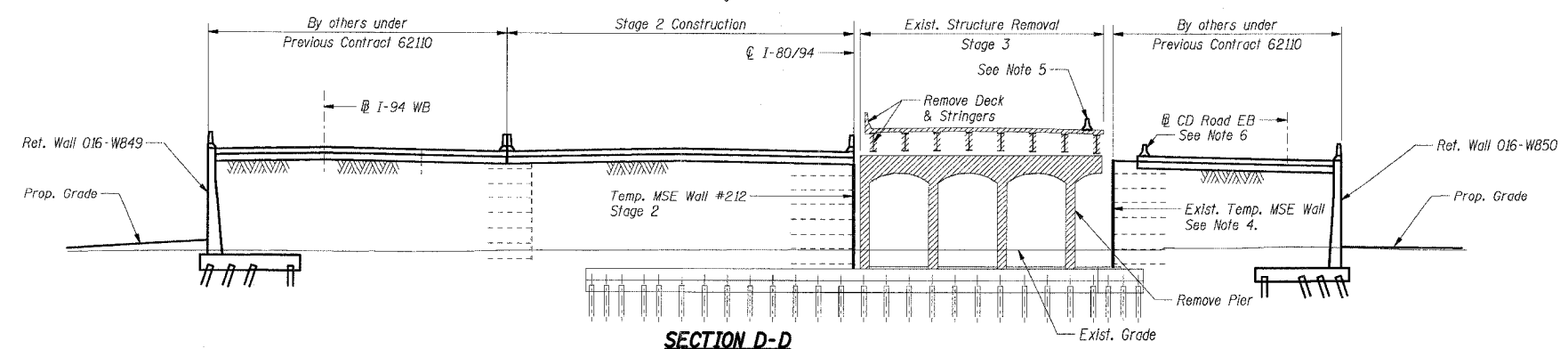
SECTION A-A
EXISTING PIER 1 ELEVATION STAGE 3 REMOVAL
 (Looking East)



SECTION B-B
EXISTING PIER 2 ELEVATION STAGE 3 REMOVAL
 (Looking East)



SECTION C-C
EXISTING PIER 3 ELEVATION STAGE 3 REMOVAL
 (Looking East)



SECTION D-D
EXISTING PIER 4 ELEVATION STAGE 3 REMOVAL
 (Looking East)

LEGEND:
 Existing Structure Removal

- Notes:**
- * Denotes Dimension shown perpendicular to CL I-80/94
 - All dimensions are in millimeters (mm) except as noted.
 - Work this sheet with Sht. RS-6 thru RS-12.
 - Exist. Temp. MSE Wall was constructed by others in previous Contract 62110.
 - Temporary Traffic Barrier on Bridge, See Sht RS-4 & RS-5 for installation details. See Roadway Plans for pay items and quantities.
 - Temporary Traffic Barrier on Roadway, See Roadway Plans.

SHT. RS-9 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 1977-121-R
 COOK COUNTY

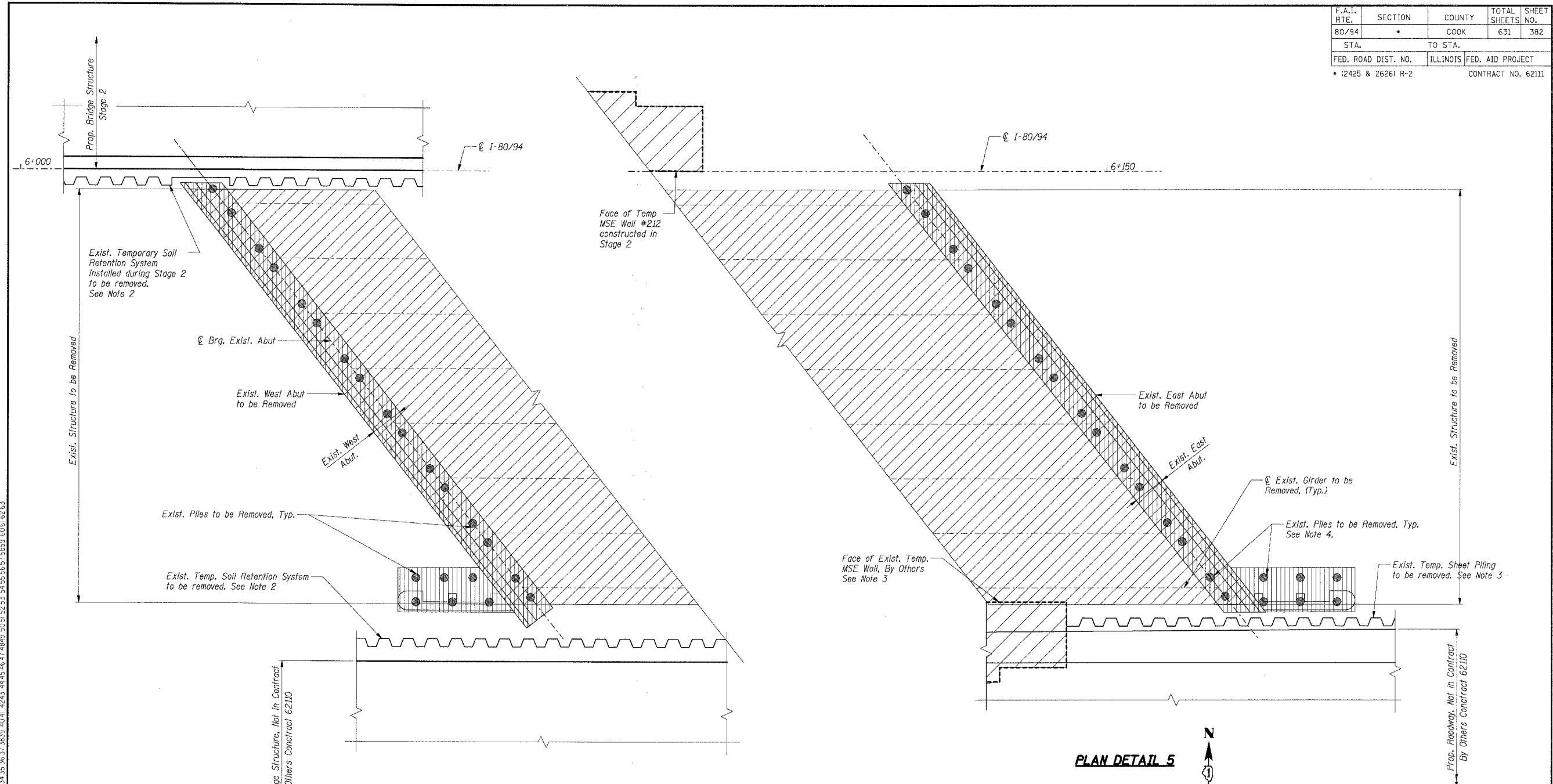
EXISTING STRUCTURE REMOVAL ELEVATIONS STAGE 3

DATE: 7/18/2005
 DRAWN BY: LG
 CHECKED BY: MJK

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	382
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2			CONTRACT NO. 62111	



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PLAN DETAIL 4

PLAN DETAIL 5

LEGEND

- Exist. Bridge Structure to be Removed
- Exist. Abutment to be Removed
- Pile Removal, Cost Included with Removal of Existing Structures. See Note 4.

Notes

1. All dimensions are in millimeters (mm) except as noted.
2. The Exist. Temporary Soil Retention System shall be removed by means which will not significantly affect the capacity of the friction piles to remain at the proposed west abutment.
3. Exist. Temp. Sheet Piling and Exist. Temp. MSE Wall were constructed by others in previous Contract 62110.
4. Piles at the existing east abutment may be partially removed to El. 188.5, minimum of 300mm below the proposed Roadway subgrade. Cost Included with Removal of Existing Structures.

SHT. RS-10 OF 70

REVISIONS	
NAME	DATE

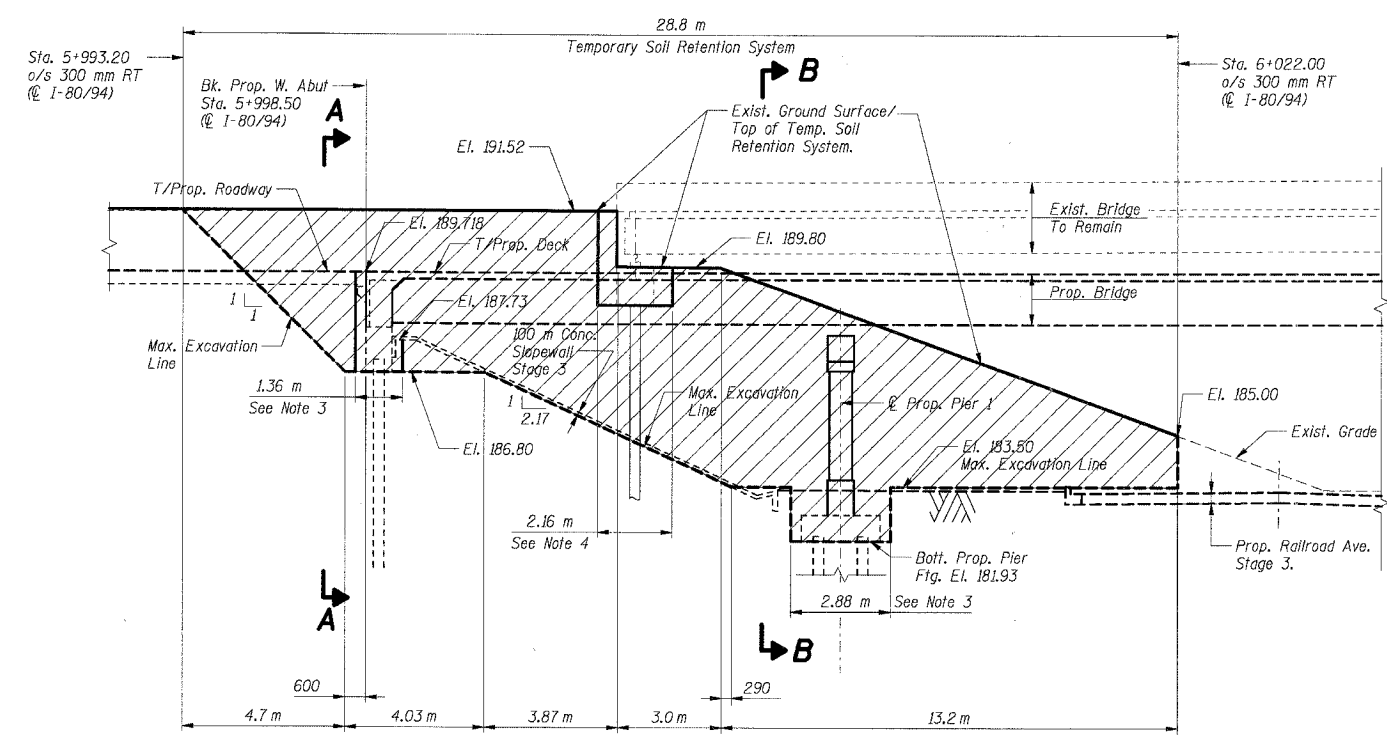
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINCERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 1977-121-R
 COOK COUNTY

EXISTING STRUCTURE REMOVAL SECTIONS & DETAILS STAGE 3

DATE: 7/18/2005
 DRAWN BY: LG
 CHECKED BY: MJK

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 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

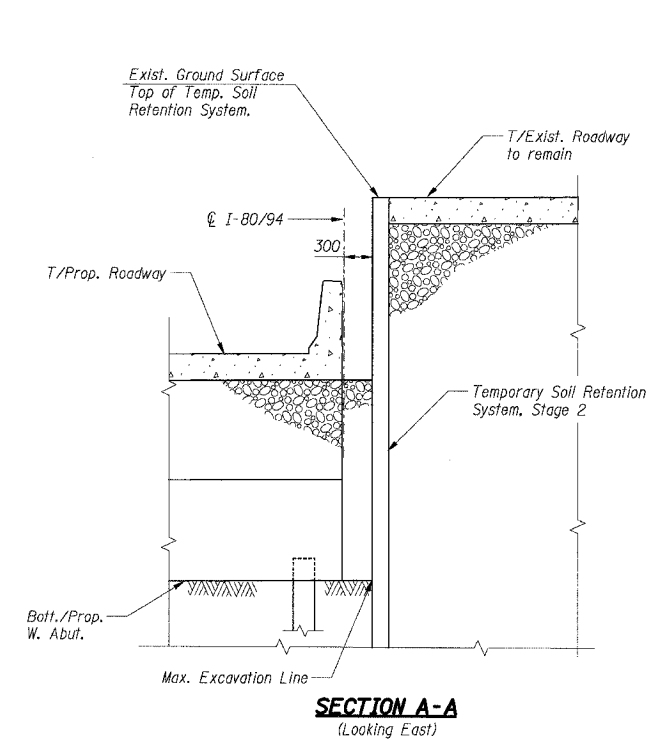
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80/94	*	COOK	631	383
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		



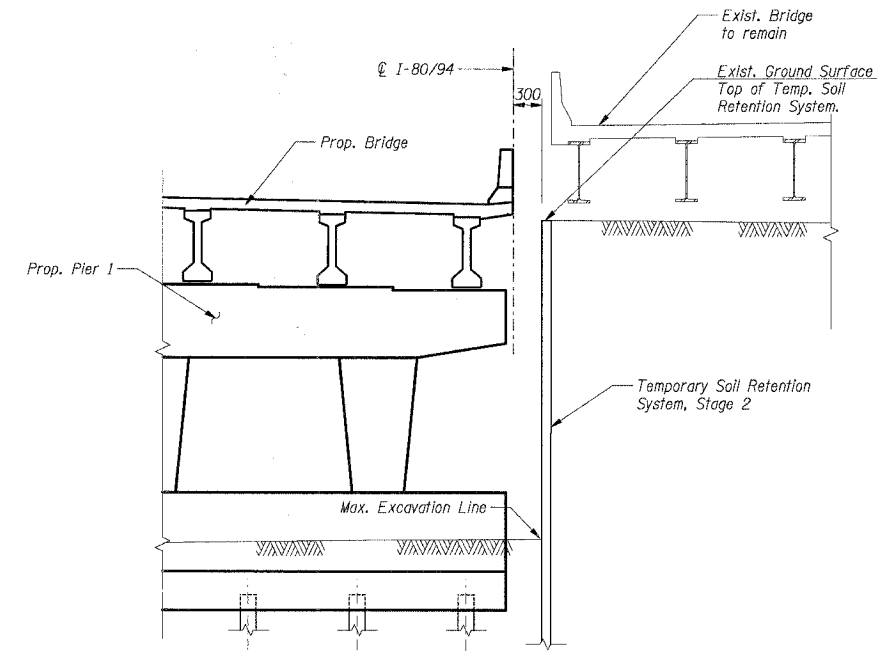
**ELEVATION - TEMPORARY SOIL RETENTION SYSTEM
STAGE 2**
(Looking North)

BILL OF MATERIAL

Item	Unit	Total
Temporary Soil Retention System	Sq m	124



SECTION A-A
(Looking East)



SECTION B-B
(Looking East)

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a Temporary soil retention system design including plan details and calculation for review and acceptance by the Engineer.
 - The Temporary Soil Retention System design shall accommodate Stage 3 pile driving and footing construction for the extension of the West Abutment and Pier 1 through these limits. The design shall be installed and removed by means which will not significantly affect the capacity of the proposed friction piles.
 - The Temporary Soil Retention System Design shall be installed by means which will not significantly affect the capacity of the existing friction piles to remain at the existing abutment.
 - Work this sheet with Shts. RS-6 thru RS-12.

SHT. RS-11 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2752 STA. 6+025.000
 SECTION 1977-121-R
 COOK COUNTY

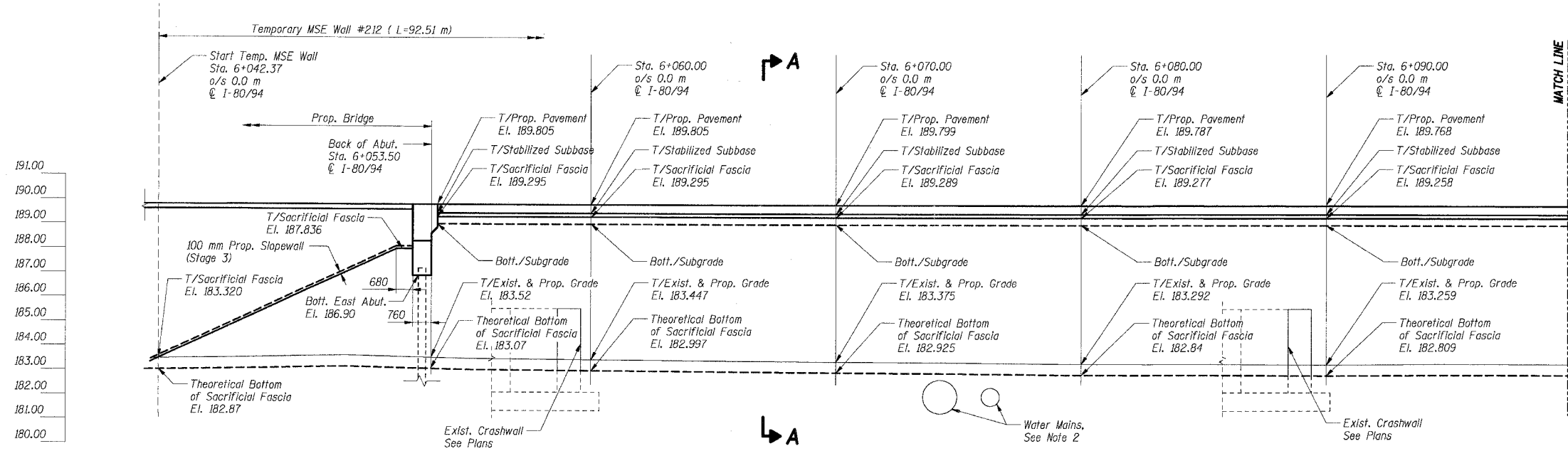
**TEMPORARY SOIL RETENTION SYSTEM
ELEVATION & DETAILS**

DATE: 7/18/2005
 DRAWN BY: LG
 CHECKED BY: MJK

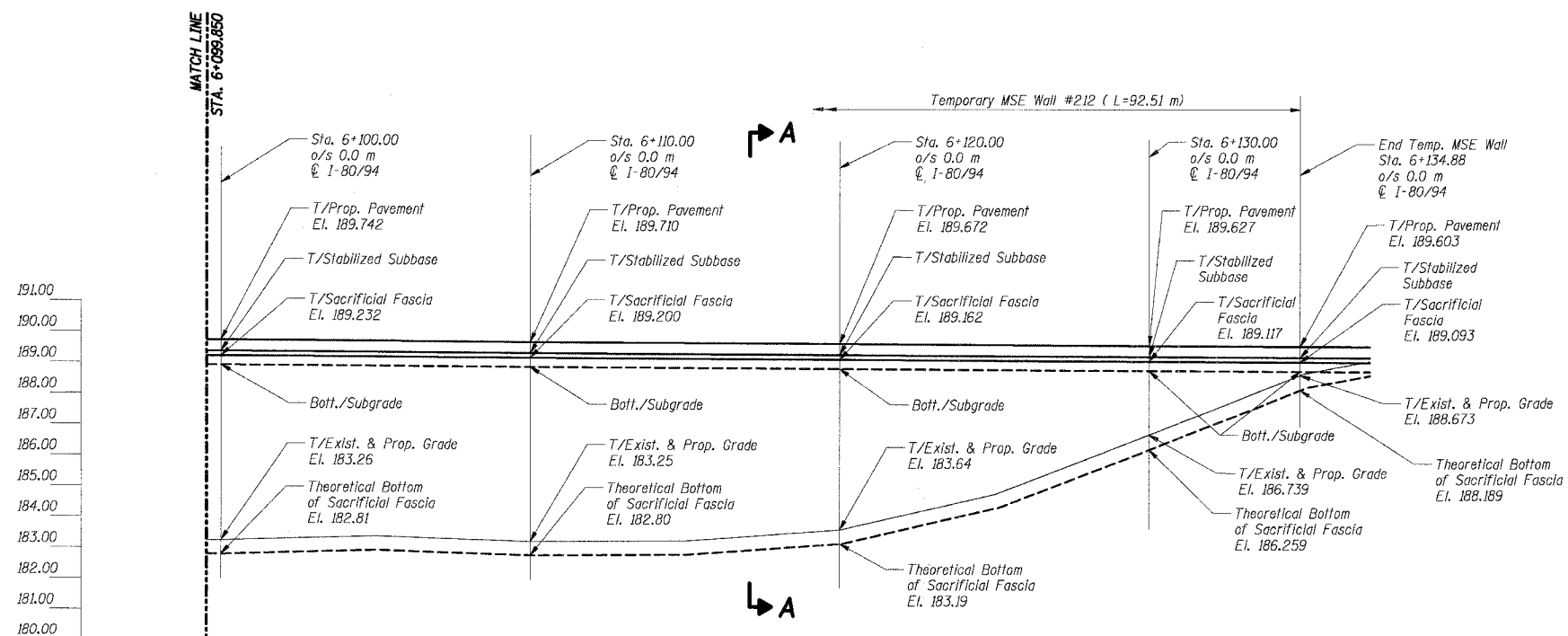
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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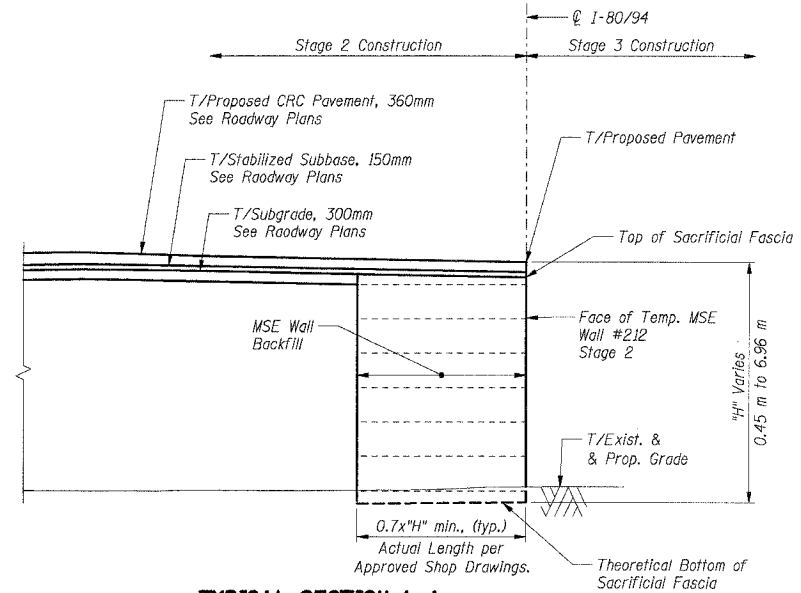
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	384
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		



PROFILE - TEMPORARY MSE WALL #212
(Looking North)



PROFILE - TEMPORARY MSE WALL #212
(Looking North)



TYPICAL SECTION A-A
(Looking East)

- Notes:
- All dimensions are in millimeters (mm) except as noted.
 - Water Main relocation constructed by others under Contract 62350.
 - Work this sheet with Shts. RS-6 thru RS-11.

BILL OF MATERIAL

Item	Unit	Total
Temporary Mechanically Stabilized Earth Retaining Walls	Sq m	510
Structure Excavation	Cu m	404

SHT. RS-12 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

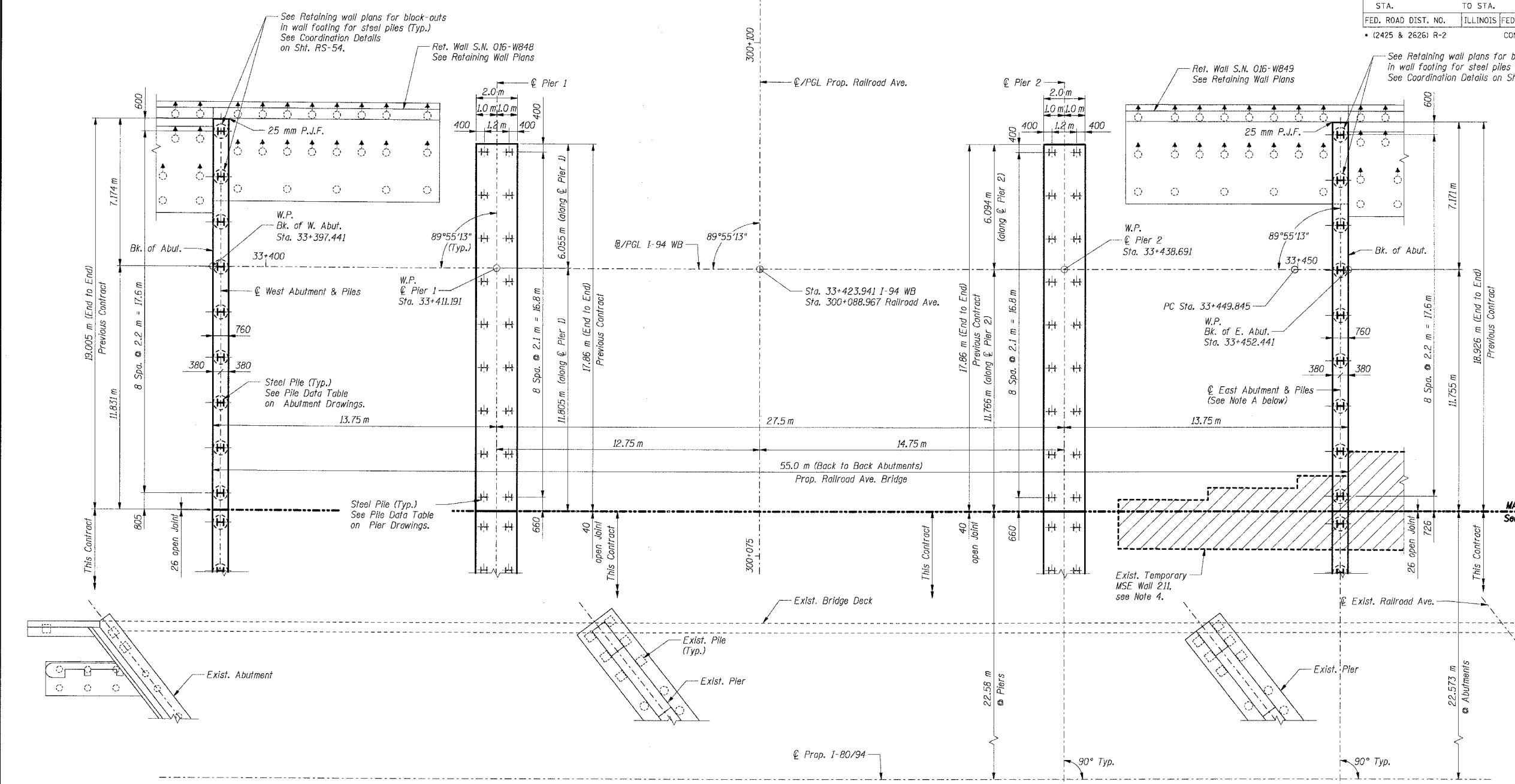
**TEMPORARY MSE WALL #212
PROFILE & SECTIONS**

DATE: 7/18/2005
DRAWN BY: LG
CHECKED BY: MJK

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ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	385
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS		FED. AID PROJECT	
* (2425 & 2626) R-2		CONTRACT NO. 62111		



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**PLAN
SUBSTRUCTURE LAYOUT-1**

- Notes**
- All dimensions are in millimeters (mm) except as noted.
 - Work this sheet with Shts. RS-56, RS-60, RS-46, RS-50 and Removal Drawings.
 - For buried drainage lines & structures, see civil drainage plans.
 - Existing Temporary MSE Wall #211 was constructed by others in previous Contract 62110.

NOTE A:
Pile driving at east abutment shall not begin until full embankment has been in place for at least 60 days

**THIS SHEET FOR
INFORMATION ONLY**

SHT. RS-13 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 1977-121-R
 COOK COUNTY

DATE: 7/18/2005

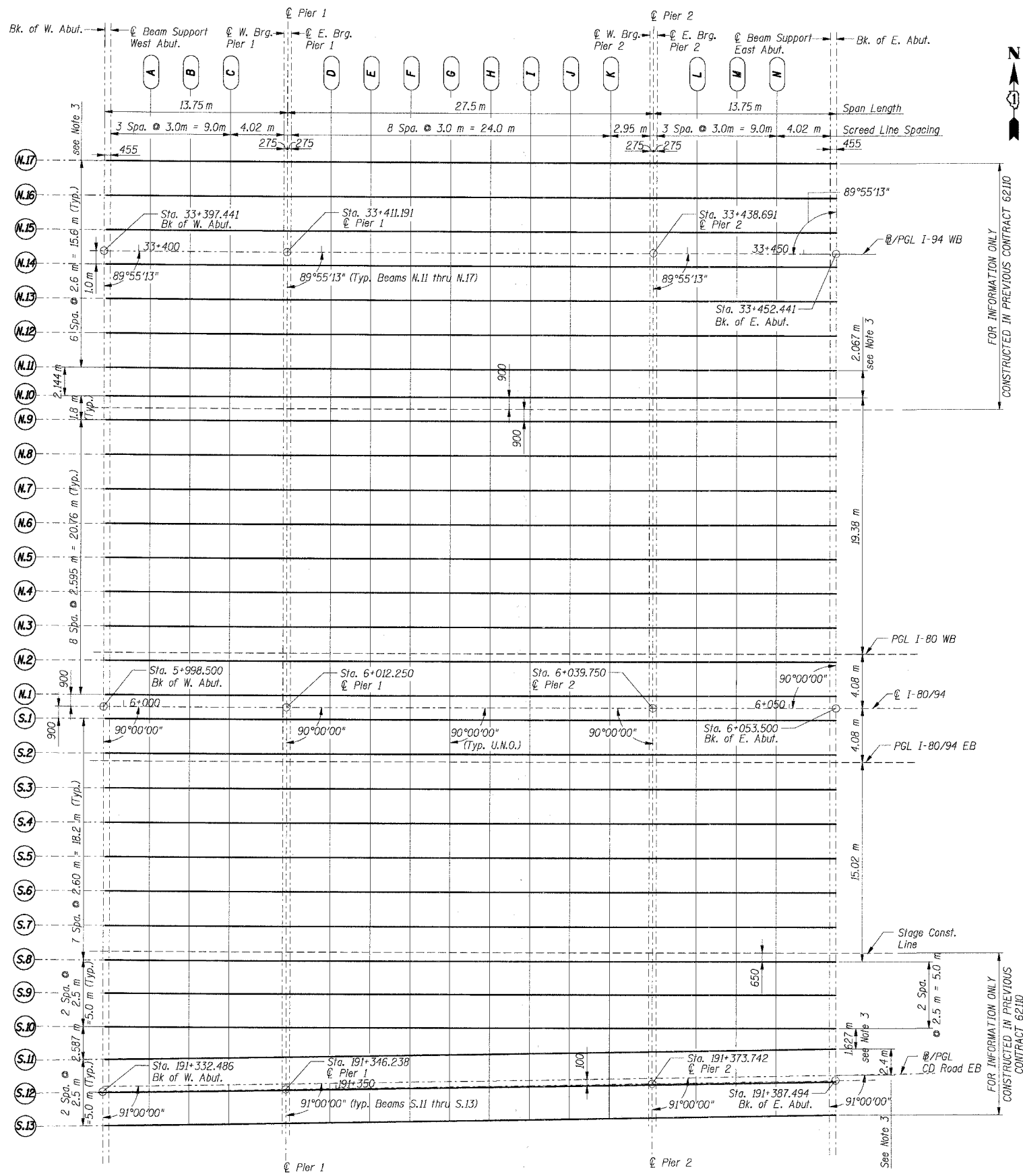
SUBSTRUCTURE LAYOUT - I

DRAWN BY: FD
 CHECKED BY: TCU

TENG

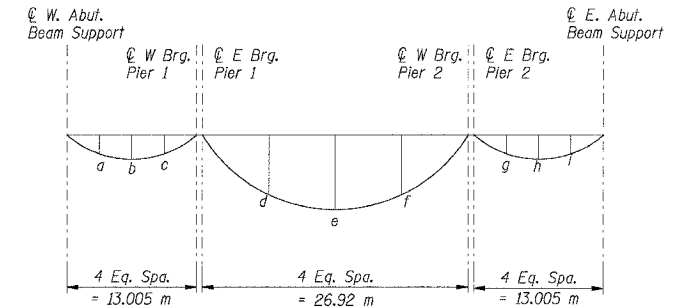
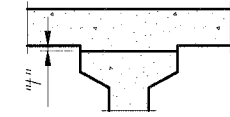
TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	389
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62110		



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of deck concrete only)

DEAD LOAD DEFLECTION TABLE

(Positive deflections are downward)

BEAMS	DEAD LOAD DEFLECTIONS (mm)								
	a	b	c	d	e	f	g	h	i
* N.10 thru N.17 & S.8 thru S.13	1	2	1	23	32	23	1	2	1
* N.1 thru N.9 & S.1 thru S.7	1	2	1	23	32	23	1	2	1

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load as shown in the Top of Deck Elevation Tables, Shts. RS-18 thru RS-23.

* For Information Only.

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - Work this sheet with Shts. RS-18 thru RS-23.
 - Dimensions are measured along back of abutments perpendicular to ϕ I-80/94.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 1977-121-R
 COOK COUNTY

SHT. RS-17 OF 70

REVISIONS	
NAME	DATE

SCREED PLAN & DEAD LOAD DEFLECTIONS

DATE: 7/18/2005
 DRAWN BY: NK
 CHECKED BY: SC
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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SCREED PLAN

BEAM N.1

LINE	☉ I-80/94 STATION	☉ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	-0.9	189.797	189.797
CL W Abut Beam Support	5+998.955	-0.9	189.799	189.799
A	6+001.955	-0.9	189.810	189.811
B	6+004.955	-0.9	189.820	189.822
C	6+007.955	-0.9	189.830	189.831
CL W Brg Pier 1	6+011.975	-0.9	189.842	189.842
CL E Brg Pier 1	6+012.525	-0.9	189.844	189.844
D	6+015.525	-0.9	189.852	189.862
E	6+018.525	-0.9	189.859	189.878
F	6+021.525	-0.9	189.866	189.890
G	6+024.525	-0.9	189.873	189.899
H	6+027.525	-0.9	189.879	189.905
I	6+030.525	-0.9	189.884	189.908
J	6+033.525	-0.9	189.889	189.907
K	6+036.525	-0.9	189.893	189.903
CL W Brg Pier 2	6+039.475	-0.9	189.896	189.896
CL E Brg Pier 2	6+040.025	-0.9	189.897	189.897
L	6+043.025	-0.9	189.900	189.901
M	6+046.025	-0.9	189.902	189.903
N	6+049.025	-0.9	189.904	189.905
CL E Abut Beam Support	6+053.045	-0.9	189.905	189.905
Bk E Abut	6+053.500	-0.9	189.905	189.905

BEAM N.2

LINE	☉ I-80/94 STATION	☉ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	-3.495	189.849	189.849
CL W Abut Beam Support	5+998.955	-3.495	189.851	189.851
A	6+001.955	-3.495	189.862	189.863
B	6+004.955	-3.495	189.872	189.874
C	6+007.955	-3.495	189.882	189.884
CL W Brg Pier 1	6+011.975	-3.495	189.894	189.894
CL E Brg Pier 1	6+012.525	-3.495	189.895	189.895
D	6+015.525	-3.495	189.904	189.916
E	6+018.525	-3.495	189.911	189.933
F	6+021.525	-3.495	189.918	189.946
G	6+024.525	-3.495	189.925	189.956
H	6+027.525	-3.495	189.931	189.962
I	6+030.525	-3.495	189.936	189.964
J	6+033.525	-3.495	189.941	189.962
K	6+036.525	-3.495	189.945	189.957
CL W Brg Pier 2	6+039.475	-3.495	189.948	189.948
CL E Brg Pier 2	6+040.025	-3.495	189.949	189.949
L	6+043.025	-3.495	189.952	189.953
M	6+046.025	-3.495	189.954	189.956
N	6+049.025	-3.495	189.955	189.957
CL E Abut Beam Support	6+053.045	-3.495	189.957	189.957
Bk E Abut	6+053.500	-3.495	189.957	189.957

BEAM N.3

LINE	☉ I-80/94 STATION	☉ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	-6.09	189.901	189.901
CL W Abut Beam Support	5+998.955	-6.09	189.903	189.903
A	6+001.955	-6.09	189.914	189.915
B	6+004.955	-6.09	189.924	189.926
C	6+007.955	-6.09	189.934	189.935
CL W Brg Pier 1	6+011.975	-6.09	189.946	189.946
CL E Brg Pier 1	6+012.525	-6.09	189.947	189.947
D	6+015.525	-6.09	189.956	189.968
E	6+018.525	-6.09	189.963	189.985
F	6+021.525	-6.09	189.970	189.998
G	6+024.525	-6.09	189.977	190.008
H	6+027.525	-6.09	189.983	190.014
I	6+030.525	-6.09	189.988	190.016
J	6+033.525	-6.09	189.992	190.014
K	6+036.525	-6.09	189.997	190.009
CL W Brg Pier 2	6+039.475	-6.09	190.000	190.000
CL E Brg Pier 2	6+040.025	-6.09	190.001	190.001
L	6+043.025	-6.09	190.003	190.005
M	6+046.025	-6.09	190.006	190.008
N	6+049.025	-6.09	190.007	190.009
CL E Abut Beam Support	6+053.045	-6.09	190.009	190.009
Bk E Abut	6+053.500	-6.09	190.009	190.009

BEAM N.4

LINE	☉ I-80/94 STATION	☉ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	-8.685	189.948	189.948
CL W Abut Beam Support	5+998.955	-8.685	189.950	189.950
A	6+001.955	-8.685	189.961	189.962
B	6+004.955	-8.685	189.971	189.973
C	6+007.955	-8.685	189.981	189.982
CL W Brg Pier 1	6+011.975	-8.685	189.993	189.993
CL E Brg Pier 1	6+012.525	-8.685	189.994	189.994
D	6+015.525	-8.685	190.002	190.015
E	6+018.525	-8.685	190.010	190.032
F	6+021.525	-8.685	190.017	190.045
G	6+024.525	-8.685	190.024	190.055
H	6+027.525	-8.685	190.029	190.061
I	6+030.525	-8.685	190.035	190.063
J	6+033.525	-8.685	190.039	190.061
K	6+036.525	-8.685	190.043	190.056
CL W Brg Pier 2	6+039.475	-8.685	190.047	190.047
CL E Brg Pier 2	6+040.025	-8.685	190.047	190.047
L	6+043.025	-8.685	190.050	190.052
M	6+046.025	-8.685	190.053	190.054
N	6+049.025	-8.685	190.054	190.056
CL E Abut Beam Support	6+053.045	-8.685	190.056	190.056
Bk E Abut	6+053.500	-8.685	190.056	190.056

BEAM N.5

LINE	☉ I-80/94 STATION	☉ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	-11.28	189.987	189.987
CL W Abut Beam Support	5+998.955	-11.28	189.989	189.989
A	6+001.955	-11.28	190.000	190.001
B	6+004.955	-11.28	190.010	190.012
C	6+007.955	-11.28	190.020	190.021
CL W Brg Pier 1	6+011.975	-11.28	190.032	190.032
CL E Brg Pier 1	6+012.525	-11.28	190.033	190.033
D	6+015.525	-11.28	190.041	190.054
E	6+018.525	-11.28	190.049	190.071
F	6+021.525	-11.28	190.056	190.084
G	6+024.525	-11.28	190.062	190.094
H	6+027.525	-11.28	190.068	190.100
I	6+030.525	-11.28	190.074	190.102
J	6+033.525	-11.28	190.078	190.100
K	6+036.525	-11.28	190.082	190.095
CL W Brg Pier 2	6+039.475	-11.28	190.086	190.086
CL E Brg Pier 2	6+040.025	-11.28	190.086	190.086
L	6+043.025	-11.28	190.089	190.091
M	6+046.025	-11.28	190.091	190.093
N	6+049.025	-11.28	190.093	190.095
CL E Abut Beam Support	6+053.045	-11.28	190.094	190.094
Bk E Abut	6+053.500	-11.28	190.095	190.095

BEAM N.6

LINE	☉ I-80/94 STATION	☉ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	-13.875	189.948	189.948
CL W Abut Beam Support	5+998.955	-13.875	189.950	189.950
A	6+001.955	-13.875	189.961	189.962
B	6+004.955	-13.875	189.971	189.973
C	6+007.955	-13.875	189.981	189.982
CL W Brg Pier 1	6+011.975	-13.875	189.993	189.993
CL E Brg Pier 1	6+012.525	-13.875	189.994	189.994
D	6+015.525	-13.875	190.002	190.015
E	6+018.525	-13.875	190.010	190.032
F	6+021.525	-13.875	190.017	190.045
G	6+024.525	-13.875	190.024	190.055
H	6+027.525	-13.875	190.029	190.061
I	6+030.525	-13.875	190.035	190.063
J	6+033.525	-13.875	190.039	190.061
K	6+036.525	-13.875	190.043	190.056
CL W Brg Pier 2	6+039.475	-13.875	190.047	190.047
CL E Brg Pier 2	6+040.025	-13.875	190.047	190.047
L	6+043.025	-13.875	190.050	190.052
M	6+046.025	-13.875	190.053	190.054
N	6+049.025	-13.875	190.054	190.056
CL E Abut Beam Support	6+053.045	-13.875	190.056	190.056
Bk E Abut	6+053.500	-13.875	190.056	190.056

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Notes:
1. Work this sheet with Sht. RS-17.

SHT. RS-18 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 1971-121-R
 COOK COUNTY

TOP OF SLAB ELEVATIONS - I

DATE: 7/18/2005
 DRAWN BY: NK
 CHECKED BY: SC

TENG TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

BEAM N.7

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	-16.47	189.901	189.901
CL W Abut Beam Support	5+998.955	-16.47	189.903	189.903
A	6+001.955	-16.47	189.914	189.915
B	6+004.955	-16.47	189.924	189.926
C	6+007.955	-16.47	189.934	189.935
CL W Brg Pier 1	6+011.975	-16.47	189.946	189.946
CL E Brg Pier 1	6+012.525	-16.47	189.947	189.947
D	6+015.525	-16.47	189.956	189.968
E	6+018.525	-16.47	189.963	189.985
F	6+021.525	-16.47	189.970	189.998
G	6+024.525	-16.47	189.977	190.008
H	6+027.525	-16.47	189.983	190.014
I	6+030.525	-16.47	189.988	190.016
J	6+033.525	-16.47	189.992	190.014
K	6+036.525	-16.47	189.997	190.009
CL W Brg Pier 2	6+039.475	-16.47	190.000	190.000
CL E Brg Pier 2	6+040.025	-16.47	190.001	190.001
L	6+043.025	-16.47	190.003	190.005
M	6+046.025	-16.47	190.006	190.008
N	6+049.025	-16.47	190.007	190.009
CL E Abut Beam Support	6+053.045	-16.47	190.009	190.009
Bk E Abut	6+053.500	-16.47	190.009	190.009

BEAM N.8

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	-19.065	189.849	189.849
CL W Abut Beam Support	5+998.955	-19.065	189.851	189.851
A	6+001.955	-19.065	189.862	189.863
B	6+004.955	-19.065	189.872	189.874
C	6+007.955	-19.065	189.882	189.884
CL W Brg Pier 1	6+011.975	-19.065	189.894	189.894
CL E Brg Pier 1	6+012.525	-19.065	189.895	189.895
D	6+015.525	-19.065	189.904	189.916
E	6+018.525	-19.065	189.911	189.933
F	6+021.525	-19.065	189.918	189.946
G	6+024.525	-19.065	189.925	189.956
H	6+027.525	-19.065	189.931	189.962
I	6+030.525	-19.065	189.936	189.964
J	6+033.525	-19.065	189.941	189.962
K	6+036.525	-19.065	189.945	189.957
CL W Brg Pier 2	6+039.475	-19.065	189.948	189.948
CL E Brg Pier 2	6+040.025	-19.065	189.949	189.949
L	6+043.025	-19.065	189.952	189.953
M	6+046.025	-19.065	189.954	189.956
N	6+049.025	-19.065	189.955	189.957
CL E Abut Beam Support	6+053.045	-19.065	189.957	189.957
Bk E Abut	6+053.500	-19.065	189.957	189.957

BEAM N.9

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	-21.66	189.797	189.797
CL W Abut Beam Support	5+998.955	-21.66	189.799	189.799
A	6+001.955	-21.66	189.810	189.811
B	6+004.955	-21.66	189.820	189.822
C	6+007.955	-21.66	189.830	189.831
CL W Brg Pier 1	6+011.975	-21.66	189.842	189.842
CL E Brg Pier 1	6+012.525	-21.66	189.844	189.844
D	6+015.525	-21.66	189.852	189.862
E	6+018.525	-21.66	189.859	189.878
F	6+021.525	-21.66	189.866	189.890
G	6+024.525	-21.66	189.873	189.899
H	6+027.525	-21.66	189.879	189.905
I	6+030.525	-21.66	189.884	189.908
J	6+033.525	-21.66	189.889	189.907
K	6+036.525	-21.66	189.893	189.903
CL W Brg Pier 2	6+039.475	-21.66	189.896	189.896
CL E Brg Pier 2	6+040.025	-21.66	189.897	189.897
L	6+043.025	-21.66	189.900	189.901
M	6+046.025	-21.66	189.902	189.903
N	6+049.025	-21.66	189.904	189.905
CL E Abut Beam Support	6+053.045	-21.66	189.905	189.905
Bk E Abut	6+053.500	-21.66	189.905	189.905

BEAM N.10

LINE	℄ I-94 WB STATION	℄ I-94 WB OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	33+397.456	10.944	189.797	189.797
CL W Abut Beam Support	33+397.911	10.943	189.799	189.799
A	33+400.911	10.939	189.840	189.811
B	33+403.911	10.935	189.820	189.822
C	33+406.911	10.931	189.830	189.831
CL W Brg Pier 1	33+410.931	10.925	189.842	189.842
CL E Brg Pier 1	33+411.481	10.925	189.843	189.843
D	33+414.481	10.920	189.852	189.862
E	33+417.481	10.916	189.859	189.878
F	33+420.481	10.912	189.866	189.890
G	33+423.481	10.908	189.873	189.899
H	33+426.481	10.904	189.879	189.905
I	33+429.481	10.900	189.884	189.908
J	33+432.481	10.896	189.888	189.907
K	33+435.481	10.891	189.893	189.903
CL W Brg Pier 2	33+438.431	10.887	189.896	189.896
CL E Brg Pier 2	33+438.981	10.887	189.897	189.897
L	33+441.981	10.882	189.899	189.901
M	33+444.981	10.878	189.902	189.903
N	33+447.981	10.874	189.903	189.905
CL E Abut Beam Support	33+452.001	10.869	189.905	189.905
Bk E Abut	33+452.456	10.868	189.905	189.905

BEAM N.11

LINE	℄ I-94 WB STATION	℄ I-94 WB OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	33+397.453	8.8	189.840	189.840
CL W Abut Beam Support	33+397.908	8.8	189.842	189.842
A	33+400.908	8.8	189.863	189.854
B	33+403.908	8.8	189.863	189.865
C	33+406.908	8.8	189.872	189.874
CL W Brg Pier 1	33+410.928	8.8	189.884	189.884
CL E Brg Pier 1	33+411.478	8.8	189.886	189.886
D	33+414.478	8.8	189.894	189.907
E	33+417.478	8.8	189.901	189.923
F	33+420.478	8.8	189.909	189.937
G	33+423.478	8.8	189.915	189.946
H	33+426.478	8.8	189.921	189.952
I	33+429.478	8.8	189.926	189.954
J	33+432.478	8.8	189.930	189.952
K	33+435.478	8.8	189.935	189.947
CL W Brg Pier 2	33+438.428	8.8	189.938	189.938
CL E Brg Pier 2	33+438.978	8.8	189.938	189.938
L	33+441.978	8.8	189.941	189.942
M	33+444.978	8.8	189.943	189.945
N	33+447.978	8.8	189.945	189.946
CL E Abut Beam Support	33+451.998	8.8	189.946	189.946
Bk E Abut	33+452.453	8.8	189.946	189.946

BEAM N.12

LINE	℄ I-94 WB STATION	℄ I-94 WB OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	33+397.450	6.2	189.892	189.892
CL W Abut Beam Support	33+397.905	6.2	189.894	189.894
A	33+400.905	6.2	189.905	189.906
B	33+403.905	6.2	189.915	189.917
C	33+406.905	6.2	189.924	189.926
CL W Brg Pier 1	33+410.925	6.2	189.936	189.936
CL E Brg Pier 1	33+411.475	6.2	189.938	189.938
D	33+414.475	6.2	189.946	189.959
E	33+417.475	6.2	189.953	189.975
F	33+420.475	6.2	189.961	189.989
G	33+423.475	6.2	189.967	189.998
H	33+426.475	6.2	189.973	190.004
I	33+429.475	6.2	189.978	190.006
J	33+432.475	6.2	189.982	190.004
K	33+435.475	6.2	189.987	189.999
CL W Brg Pier 2	33+438.425	6.2	189.990	189.990
CL E Brg Pier 2	33+438.975	6.2	189.990	189.990
L	33+441.975	6.2	189.993	189.994
M	33+444.975	6.2	189.995	189.997
N	33+447.975	6.2	189.997	189.998
CL E Abut Beam Support	33+451.995	6.2	189.998	189.998
Bk E Abut	33+452.450	6.2	189.998	189.998

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Note:
 1. Work this sheet with Sht. RS-17.

SH. RS-19 OF 70	
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 1977-121-R
 COOK COUNTY

TOP OF SLAB ELEVATIONS - II

DATE: 7/18/2005
 DRAWN BY: NK
 CHECKED BY: SC

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

BEAM N.13

LINE	@ I-94 WB STATION	@ I-94 WB OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	33+397.446	3.6	189.944	189.944
CL W Abut Beam Support	33+397.901	3.6	189.946	189.946
A	33+400.901	3.6	189.947	189.958
B	33+403.901	3.6	189.967	189.969
C	33+406.901	3.6	189.976	189.978
CL W Brg Pier 1	33+410.921	3.6	189.988	189.988
CL E Brg Pier 1	33+411.471	3.6	189.990	189.990
D	33+414.471	3.6	189.998	190.011
E	33+417.471	3.6	190.005	190.027
F	33+420.471	3.6	190.013	190.041
G	33+423.471	3.6	190.019	190.050
H	33+426.471	3.6	190.025	190.056
I	33+429.471	3.6	190.030	190.058
J	33+432.471	3.6	190.034	190.056
K	33+435.471	3.6	190.039	190.051
CL W Brg Pier 2	33+438.421	3.6	190.042	190.042
CL E Brg Pier 2	33+438.971	3.6	190.042	190.042
L	33+441.971	3.6	190.045	190.046
M	33+444.971	3.6	190.047	190.049
N	33+447.971	3.6	190.049	190.050
CL E Abut Beam Support	33+451.991	3.6	190.050	190.050
Bk E Abut	33+452.446	3.6	190.050	190.050

BEAM N.14

LINE	@ I-94 WB STATION	@ I-94 WB OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	33+397.441	1.0	189.983	189.983
CL W Abut Beam Support	33+397.896	1.0	189.985	189.985
A	33+400.896	1.0	189.986	189.997
B	33+403.896	1.0	190.006	190.008
C	33+406.896	1.0	190.015	190.017
CL W Brg Pier 1	33+410.916	1.0	190.027	190.027
CL E Brg Pier 1	33+411.466	1.0	190.029	190.029
D	33+414.466	1.0	190.037	190.050
E	33+417.466	1.0	190.044	190.066
F	33+420.466	1.0	190.052	190.080
G	33+423.466	1.0	190.058	190.089
H	33+426.466	1.0	190.064	190.095
I	33+429.466	1.0	190.069	190.097
J	33+432.466	1.0	190.073	190.095
K	33+435.466	1.0	190.078	190.090
CL W Brg Pier 2	33+438.416	1.0	190.081	190.081
CL E Brg Pier 2	33+438.966	1.0	190.081	190.081
L	33+441.966	1.0	190.084	190.085
M	33+444.966	1.0	190.086	190.088
N	33+447.966	1.0	190.088	190.089
CL E Abut Beam Support	33+451.986	1.0	190.089	190.089
Bk E Abut	33+452.441	1.0	190.089	190.089

BEAM N.15

LINE	@ I-94 WB STATION	@ I-94 WB OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	33+397.439	-1.6	189.974	189.974
CL W Abut Beam Support	33+397.894	-1.6	189.976	189.976
A	33+400.894	-1.6	189.987	189.988
B	33+403.894	-1.6	189.997	189.999
C	33+406.894	-1.6	190.006	190.008
CL W Brg Pier 1	33+410.914	-1.6	190.018	190.018
CL E Brg Pier 1	33+411.464	-1.6	190.020	190.020
D	33+414.464	-1.6	190.028	190.041
E	33+417.464	-1.6	190.035	190.057
F	33+420.464	-1.6	190.043	190.071
G	33+423.464	-1.6	190.049	190.080
H	33+426.464	-1.6	190.055	190.086
I	33+429.464	-1.6	190.060	190.088
J	33+432.464	-1.6	190.064	190.086
K	33+435.464	-1.6	190.069	190.081
CL W Brg Pier 2	33+438.414	-1.6	190.072	190.072
CL E Brg Pier 2	33+438.964	-1.6	190.072	190.072
L	33+441.964	-1.6	190.075	190.076
M	33+444.964	-1.6	190.077	190.079
N	33+447.964	-1.6	190.079	190.080
CL E Abut Beam Support	33+451.984	-1.6	190.080	190.080
Bk E Abut	33+452.439	-1.6	190.080	190.080

BEAM N.16

LINE	@ I-94 WB STATION	@ I-94 WB OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	33+397.435	-4.2	189.935	189.935
CL W Abut Beam Support	33+397.890	-4.2	189.937	189.937
A	33+400.890	-4.2	189.948	189.949
B	33+403.890	-4.2	189.958	189.960
C	33+406.890	-4.2	189.967	189.969
CL W Brg Pier 1	33+410.910	-4.2	189.979	189.979
CL E Brg Pier 1	33+411.460	-4.2	189.981	189.981
D	33+414.460	-4.2	189.989	190.002
E	33+417.460	-4.2	189.996	190.018
F	33+420.460	-4.2	190.004	190.032
G	33+423.460	-4.2	190.010	190.041
H	33+426.460	-4.2	190.016	190.047
I	33+429.460	-4.2	190.021	190.049
J	33+432.460	-4.2	190.025	190.047
K	33+435.460	-4.2	190.030	190.042
CL W Brg Pier 2	33+438.410	-4.2	190.033	190.033
CL E Brg Pier 2	33+438.960	-4.2	190.033	190.033
L	33+441.960	-4.2	190.036	190.037
M	33+444.960	-4.2	190.038	190.040
N	33+447.960	-4.2	190.040	190.041
CL E Abut Beam Support	33+451.980	-4.2	190.041	190.041
Bk E Abut	33+452.435	-4.2	190.041	190.041

BEAM N.17

LINE	@ I-94 WB STATION	@ I-94 WB OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	33+397.432	-6.8	189.883	189.883
CL W Abut Beam Support	33+397.887	-6.8	189.885	189.885
A	33+400.887	-6.8	189.896	189.897
B	33+403.887	-6.8	189.906	189.907
C	33+406.887	-6.8	189.915	189.917
CL W Brg Pier 1	33+410.907	-6.8	189.927	189.927
CL E Brg Pier 1	33+411.457	-6.8	189.929	189.929
D	33+414.457	-6.8	189.937	189.948
E	33+417.457	-6.8	189.944	189.963
F	33+420.457	-6.8	189.952	189.975
G	33+423.457	-6.8	189.958	189.984
H	33+426.457	-6.8	189.964	189.990
I	33+429.457	-6.8	189.969	189.993
J	33+432.457	-6.8	189.973	189.992
K	33+435.457	-6.8	189.978	189.988
CL W Brg Pier 2	33+438.407	-6.8	189.981	189.981
CL E Brg Pier 2	33+438.957	-6.8	189.981	189.981
L	33+441.957	-6.8	189.984	189.985
M	33+444.957	-6.8	189.986	189.988
N	33+447.957	-6.8	189.988	189.989
CL E Abut Beam Support	33+451.977	-6.8	189.989	189.989
Bk E Abut	33+452.432	-6.8	189.989	189.989

BEAM S.1

LINE	@ I-80/94 STATION	@ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	0.9	189.797	189.797
CL W Abut Beam Support	5+998.955	0.9	189.799	189.799
A	6+001.955	0.9	189.810	189.811
B	6+004.955	0.9	189.820	189.822
C	6+007.955	0.9	189.830	189.831
CL W Brg Pier 1	6+011.975	0.9	189.842	189.842
CL E Brg Pier 1	6+012.525	0.9	189.844	189.844
D	6+015.525	0.9	189.852	189.862
E	6+018.525	0.9	189.859	189.878
F	6+021.525	0.9	189.866	189.890
G	6+024.525	0.9	189.873	189.899
H	6+027.525	0.9	189.879	189.905
I	6+030.525	0.9	189.884	189.908
J	6+033.525	0.9	189.889	189.907
K	6+036.525	0.9	189.893	189.903
CL W Brg Pier 2	6+039.475	0.9	189.896	189.896
CL E Brg Pier 2	6+040.025	0.9	189.897	189.897
L	6+043.025	0.9	189.900	189.901
M	6+046.025	0.9	189.902	189.903
N	6+049.025	0.9	189.904	189.905
CL E Abut Beam Support	6+053.045	0.9	189.905	189.905
Bk E Abut	6+053.500	0.9	189.905	189.905

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SHT. RS-20 OF 70

REVISIONS	
NAME	DATE

Note:
1. Work this sheet with Sht. RS-17.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 1977-121-R
 COOK COUNTY

TOP OF SLAB ELEVATIONS - III

DATE: 7/18/2005
 DRAWN BY: NK
 CHECKED BY: SC

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	393
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		

BEAM S.2

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	3.5	189.849	189.849
CL W Abut Beam Support	5+998.955	3.5	189.851	189.851
A	6+001.955	3.5	189.862	189.863
B	6+004.955	3.5	189.872	189.874
C	6+007.955	3.5	189.882	189.884
CL W Brg Pier 1	6+011.975	3.5	189.894	189.894
CL E Brg Pier 1	6+012.525	3.5	189.896	189.896
D	6+015.525	3.5	189.904	189.916
E	6+018.525	3.5	189.911	189.933
F	6+021.525	3.5	189.918	189.947
G	6+024.525	3.5	189.925	189.956
H	6+027.525	3.5	189.931	189.962
I	6+030.525	3.5	189.936	189.964
J	6+033.525	3.5	189.941	189.962
K	6+036.525	3.5	189.945	189.957
CL W Brg Pier 2	6+039.475	3.5	189.948	189.948
CL E Brg Pier 2	6+040.025	3.5	189.949	189.949
L	6+043.025	3.5	189.952	189.953
M	6+046.025	3.5	189.954	189.956
N	6+049.025	3.5	189.956	189.957
CL E Abut Beam Support	6+053.045	3.5	189.957	189.957
Bk E Abut	6+053.500	3.5	189.957	189.957

BEAM S.3

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	6.1	189.901	189.901
CL W Abut Beam Support	5+998.955	6.1	189.903	189.903
A	6+001.955	6.1	189.914	189.915
B	6+004.955	6.1	189.924	189.926
C	6+007.955	6.1	189.934	189.936
CL W Brg Pier 1	6+011.975	6.1	189.946	189.946
CL E Brg Pier 1	6+012.525	6.1	189.948	189.948
D	6+015.525	6.1	189.956	189.968
E	6+018.525	6.1	189.963	189.985
F	6+021.525	6.1	189.970	189.999
G	6+024.525	6.1	189.977	190.008
H	6+027.525	6.1	189.983	190.014
I	6+030.525	6.1	189.988	190.016
J	6+033.525	6.1	189.993	190.014
K	6+036.525	6.1	189.997	190.009
CL W Brg Pier 2	6+039.475	6.1	190.000	190.000
CL E Brg Pier 2	6+040.025	6.1	190.001	190.001
L	6+043.025	6.1	190.004	190.005
M	6+046.025	6.1	190.006	190.008
N	6+049.025	6.1	190.008	190.009
CL E Abut Beam Support	6+053.045	6.1	190.009	190.009
Bk E Abut	6+053.500	6.1	190.009	190.009

BEAM S.4

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	8.7	189.948	189.948
CL W Abut Beam Support	5+998.955	8.7	189.950	189.950
A	6+001.955	8.7	189.961	189.962
B	6+004.955	8.7	189.971	189.973
C	6+007.955	8.7	189.981	189.983
CL W Brg Pier 1	6+011.975	8.7	189.993	189.993
CL E Brg Pier 1	6+012.525	8.7	189.994	189.994
D	6+015.525	8.7	190.003	190.015
E	6+018.525	8.7	190.010	190.032
F	6+021.525	8.7	190.017	190.045
G	6+024.525	8.7	190.024	190.055
H	6+027.525	8.7	190.030	190.061
I	6+030.525	8.7	190.035	190.063
J	6+033.525	8.7	190.040	190.061
K	6+036.525	8.7	190.044	190.056
CL W Brg Pier 2	6+039.475	8.7	190.047	190.047
CL E Brg Pier 2	6+040.025	8.7	190.048	190.048
L	6+043.025	8.7	190.051	190.052
M	6+046.025	8.7	190.053	190.055
N	6+049.025	8.7	190.054	190.056
CL E Abut Beam Support	6+053.045	8.7	190.056	190.056
Bk E Abut	6+053.500	8.7	190.056	190.056

BEAM S.5

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	11.3	189.987	189.987
CL W Abut Beam Support	5+998.955	11.3	189.988	189.988
A	6+001.955	11.3	189.999	190.001
B	6+004.955	11.3	190.010	190.012
C	6+007.955	11.3	190.019	190.021
CL W Brg Pier 1	6+011.975	11.3	190.031	190.031
CL E Brg Pier 1	6+012.525	11.3	190.033	190.033
D	6+015.525	11.3	190.041	190.054
E	6+018.525	11.3	190.049	190.071
F	6+021.525	11.3	190.056	190.084
G	6+024.525	11.3	190.062	190.093
H	6+027.525	11.3	190.068	190.099
I	6+030.525	11.3	190.073	190.101
J	6+033.525	11.3	190.078	190.100
K	6+036.525	11.3	190.082	190.094
CL W Brg Pier 2	6+039.475	11.3	190.086	190.086
CL E Brg Pier 2	6+040.025	11.3	190.086	190.086
L	6+043.025	11.3	190.089	190.090
M	6+046.025	11.3	190.091	190.093
N	6+049.025	11.3	190.093	190.094
CL E Abut Beam Support	6+053.045	11.3	190.094	190.094
Bk E Abut	6+053.500	11.3	190.094	190.094

BEAM S.6

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	13.9	189.948	189.948
CL W Abut Beam Support	5+998.955	13.9	189.949	189.949
A	6+001.955	13.9	189.960	189.962
B	6+004.955	13.9	189.971	189.973
C	6+007.955	13.9	189.980	189.982
CL W Brg Pier 1	6+011.975	13.9	189.992	189.992
CL E Brg Pier 1	6+012.525	13.9	189.994	189.994
D	6+015.525	13.9	190.002	190.015
E	6+018.525	13.9	190.010	190.032
F	6+021.525	13.9	190.017	190.045
G	6+024.525	13.9	190.023	190.054
H	6+027.525	13.9	190.029	190.060
I	6+030.525	13.9	190.034	190.062
J	6+033.525	13.9	190.039	190.061
K	6+036.525	13.9	190.043	190.055
CL W Brg Pier 2	6+039.475	13.9	190.047	190.047
CL E Brg Pier 2	6+040.025	13.9	190.047	190.047
L	6+043.025	13.9	190.050	190.051
M	6+046.025	13.9	190.052	190.054
N	6+049.025	13.9	190.054	190.055
CL E Abut Beam Support	6+053.045	13.9	190.055	190.055
Bk E Abut	6+053.500	13.9	190.055	190.055

BEAM S.7

LINE	℄ I-80/94 STATION	℄ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	16.5	189.901	189.901
CL W Abut Beam Support	5+998.955	16.5	189.902	189.902
A	6+001.955	16.5	189.913	189.915
B	6+004.955	16.5	189.923	189.925
C	6+007.955	16.5	189.933	189.935
CL W Brg Pier 1	6+011.975	16.5	189.945	189.945
CL E Brg Pier 1	6+012.525	16.5	189.947	189.947
D	6+015.525	16.5	189.955	189.967
E	6+018.525	16.5	189.963	189.984
F	6+021.525	16.5	189.970	189.998
G	6+024.525	16.5	189.976	190.007
H	6+027.525	16.5	189.982	190.013
I	6+030.525	16.5	189.987	190.015
J	6+033.525	16.5	189.992	190.014
K	6+036.525	16.5	189.996	190.008
CL W Brg Pier 2	6+039.475	16.5	189.999	189.999
CL E Brg Pier 2	6+040.025	16.5	190.000	190.000
L	6+043.025	16.5	190.003	190.004
M	6+046.025	16.5	190.005	190.007
N	6+049.025	16.5	190.007	190.008
CL E Abut Beam Support	6+053.045	16.5	190.008	190.008
Bk E Abut	6+053.500	16.5	190.008	190.008

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Note:
1. Work this sheet with Sht. RS-17.

SHT. RS-21 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 1977-121-R
 COOK COUNTY

TOP OF SLAB ELEVATIONS - IV

DATE: 7/18/2005
 DRAWN BY: NK
 CHECKED BY: SC
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

BEAM S.8

LINE	@ CD ROAD STATION	@ CD ROAD OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	191+332.660	-9.987	189.846	189.846
CL W Abut Beam Support	191+333.115	-9.979	189.847	189.847
A	191+336.115	-9.927	189.868	189.859
B	191+339.115	-9.874	189.868	189.870
C	191+342.115	-9.822	189.878	189.880
CL W Brg Pier 1	191+346.135	-9.752	189.890	189.890
CL E Brg Pier 1	191+346.685	-9.742	189.892	189.892
D	191+349.685	-9.690	189.900	189.912
E	191+352.685	-9.637	189.907	189.929
F	191+355.685	-9.585	189.915	189.943
G	191+358.685	-9.533	189.921	189.952
H	191+361.685	-9.480	189.927	189.958
I	191+364.685	-9.428	189.932	189.960
J	191+367.685	-9.376	189.937	189.959
K	191+370.685	-9.323	189.941	189.953
CL W Brg Pier 2	191+373.635	-9.272	189.944	189.944
CL E Brg Pier 2	191+374.185	-9.262	189.945	189.945
L	191+377.185	-9.210	189.948	189.949
M	191+380.185	-9.157	189.950	189.952
N	191+383.185	-9.105	189.952	189.953
CL E Abut Beam Support	191+387.205	-9.035	189.953	189.953
Bk E Abut	191+387.660	-9.027	189.953	189.953

BEAM S.9

LINE	@ CD ROAD STATION	@ CD ROAD OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	191+332.616	-7.487	189.783	189.783
CL W Abut Beam Support	191+333.071	-7.479	189.785	189.785
A	191+336.071	-7.427	189.786	189.797
B	191+339.071	-7.374	189.806	189.808
C	191+342.071	-7.322	189.816	189.817
CL W Brg Pier 1	191+346.091	-7.252	189.828	189.828
CL E Brg Pier 1	191+346.641	-7.242	189.829	189.829
D	191+349.641	-7.190	189.837	189.850
E	191+352.641	-7.137	189.845	189.867
F	191+355.641	-7.085	189.852	189.880
G	191+358.641	-7.033	189.858	189.890
H	191+361.641	-6.980	189.864	189.896
I	191+364.641	-6.928	189.870	189.898
J	191+367.641	-6.876	189.874	189.896
K	191+370.641	-6.823	189.878	189.891
CL W Brg Pier 2	191+373.591	-6.772	189.882	189.882
CL E Brg Pier 2	191+374.141	-6.762	189.882	189.882
L	191+377.141	-6.710	189.885	189.887
M	191+380.141	-6.657	189.887	189.889
N	191+383.141	-6.605	189.889	189.891
CL E Abut Beam Support	191+387.161	-6.535	189.890	189.890
Bk E Abut	191+387.616	-6.527	189.891	189.891

BEAM S.10

LINE	@ CD ROAD STATION	@ CD ROAD OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	191+332.573	-4.987	189.721	189.721
CL W Abut Beam Support	191+333.028	-4.979	189.722	189.722
A	191+336.028	-4.927	189.723	189.734
B	191+339.028	-4.874	189.743	189.745
C	191+342.028	-4.822	189.753	189.755
CL W Brg Pier 1	191+346.048	-4.752	189.765	189.765
CL E Brg Pier 1	191+346.598	-4.742	189.767	189.767
D	191+349.598	-4.690	189.775	189.787
E	191+352.598	-4.637	189.782	189.804
F	191+355.598	-4.585	189.790	189.818
G	191+358.598	-4.533	189.796	189.827
H	191+361.598	-4.480	189.802	189.833
I	191+364.598	-4.428	189.807	189.835
J	191+367.598	-4.376	189.812	189.834
K	191+370.598	-4.323	189.816	189.828
CL W Brg Pier 2	191+373.548	-4.272	189.819	189.819
CL E Brg Pier 2	191+374.098	-4.262	189.820	189.820
L	191+377.098	-4.210	189.823	189.824
M	191+380.098	-4.157	189.825	189.827
N	191+383.098	-4.105	189.827	189.828
CL E Abut Beam Support	191+387.118	-4.035	189.828	189.828
Bk E Abut	191+387.573	-4.027	189.828	189.828

BEAM S.11

LINE	@ CD ROAD STATION	@ CD ROAD OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	191+332.528	-2.400	189.656	189.656
CL W Abut Beam Support	191+332.983	-2.400	189.658	189.658
A	191+335.983	-2.400	189.670	189.671
B	191+338.983	-2.400	189.681	189.683
C	191+341.983	-2.400	189.692	189.694
CL W Brg Pier 1	191+345.003	-2.400	189.706	189.706
CL E Brg Pier 1	191+346.553	-2.400	189.708	189.708
D	191+349.553	-2.400	189.718	189.730
E	191+352.553	-2.400	189.727	189.748
F	191+355.553	-2.400	189.735	189.763
G	191+358.553	-2.400	189.743	189.774
H	191+361.553	-2.400	189.750	189.781
I	191+364.553	-2.400	189.756	189.784
J	191+367.553	-2.400	189.762	189.784
K	191+370.553	-2.400	189.768	189.780
CL W Brg Pier 2	191+373.503	-2.400	189.773	189.773
CL E Brg Pier 2	191+374.053	-2.400	189.773	189.773
L	191+377.053	-2.400	189.778	189.779
M	191+380.053	-2.400	189.781	189.783
N	191+383.053	-2.400	189.784	189.786
CL E Abut Beam Support	191+387.073	-2.400	189.787	189.787
Bk E Abut	191+387.528	-2.400	189.787	189.787

BEAM S.12

LINE	@ CD ROAD STATION	@ CD ROAD OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	191+332.486	0.100	189.593	189.593
CL W Abut Beam Support	191+332.941	0.100	189.595	189.595
A	191+335.941	0.100	189.607	189.609
B	191+338.941	0.100	189.619	189.621
C	191+341.941	0.100	189.630	189.632
CL W Brg Pier 1	191+345.061	0.100	189.644	189.644
CL E Brg Pier 1	191+346.511	0.100	189.646	189.646
D	191+349.511	0.100	189.655	189.668
E	191+352.511	0.100	189.664	189.686
F	191+355.511	0.100	189.672	189.701
G	191+358.511	0.100	189.680	189.711
H	191+361.511	0.100	189.687	189.719
I	191+364.511	0.100	189.694	189.722
J	191+367.511	0.100	189.700	189.722
K	191+370.511	0.100	189.705	189.718
CL W Brg Pier 2	191+373.461	0.100	189.710	189.710
CL E Brg Pier 2	191+374.011	0.100	189.711	189.711
L	191+377.011	0.100	189.715	189.716
M	191+380.011	0.100	189.719	189.720
N	191+383.011	0.100	189.722	189.723
CL E Abut Beam Support	191+387.031	0.100	189.725	189.725
Bk E Abut	191+387.486	0.100	189.725	189.725

BEAM S.13

LINE	@ CD ROAD STATION	@ CD ROAD OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	191+332.441	2.600	189.531	189.531
CL W Abut Beam Support	191+332.896	2.600	189.533	189.533
A	191+335.896	2.600	189.545	189.546
B	191+338.896	2.600	189.556	189.558
C	191+341.896	2.600	189.567	189.569
CL W Brg Pier 1	191+345.916	2.600	189.581	189.581
CL E Brg Pier 1	191+346.466	2.600	189.583	189.583
D	191+349.466	2.600	189.593	189.603
E	191+352.466	2.600	189.602	189.620
F	191+355.466	2.600	189.610	189.634
G	191+358.466	2.600	189.618	189.644
H	191+361.466	2.600	189.625	189.651
I	191+364.466	2.600	189.631	189.655
J	191+367.466	2.600	189.637	189.656
K	191+370.466	2.600	189.643	189.653
CL W Brg Pier 2	191+373.416	2.600	189.648	189.648
CL E Brg Pier 2	191+373.966	2.600	189.648	189.648
L	191+376.966	2.600	189.653	189.654
M	191+379.966	2.600	189.656	189.658
N	191+382.966	2.600	189.659	189.660
CL E Abut Beam Support	191+386.986	2.600	189.662	189.662
Bk E Abut	191+387.441	2.600	189.662	189.662

THIS SHEET FOR INFORMATION ONLY

Note:
1. Work this sheet with Sht. RS-17.

SHT. RS-22 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

TOP OF SLAB ELEVATIONS - V

DATE: 7/18/2005

TENG

DRAWN BY: NK
CHECKED BY: SC
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	395
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
(2425 & 2626) R-2	CONTRACT NO. 62111			

PGL I-80 WB

LINE	@ I-80/94 STATION	@ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	-4.08	189.861	189.861
CL W Abut Beam Support	5+998.955	-4.08	189.863	189.863
A	6+001.955	-4.08	189.874	189.875
B	6+004.955	-4.08	189.884	189.886
C	6+007.955	-4.08	189.894	189.895
CL W Brg Pier 1	6+011.975	-4.08	189.906	189.906
CL E Brg Pier 1	6+012.525	-4.08	189.907	189.907
D	6+015.525	-4.08	189.915	189.928
E	6+018.525	-4.08	189.923	189.945
F	6+021.525	-4.08	189.930	189.958
G	6+024.525	-4.08	189.936	189.968
H	6+027.525	-4.08	189.942	189.974
I	6+030.525	-4.08	189.948	189.976
J	6+033.525	-4.08	189.952	189.974
K	6+036.525	-4.08	189.956	189.969
CL W Brg Pier 2	6+039.475	-4.08	189.960	189.960
CL E Brg Pier 2	6+040.025	-4.08	189.960	189.960
L	6+043.025	-4.08	189.963	189.965
M	6+046.025	-4.08	189.965	189.967
N	6+049.025	-4.08	189.967	189.969
CL E Abut Beam Support	6+053.045	-4.08	189.968	189.968
Bk E Abut	6+053.500	-4.08	189.969	189.969

PGL I-80/94 EB

LINE	@ I-80/94 STATION	@ I-80/94 OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	4.08	189.861	189.861
CL W Abut Beam Support	5+998.955	4.08	189.863	189.863
A	6+001.955	4.08	189.874	189.875
B	6+004.955	4.08	189.884	189.886
C	6+007.955	4.08	189.894	189.895
CL W Brg Pier 1	6+011.975	4.08	189.906	189.906
CL E Brg Pier 1	6+012.525	4.08	189.907	189.907
D	6+015.525	4.08	189.915	189.928
E	6+018.525	4.08	189.923	189.945
F	6+021.525	4.08	189.930	189.958
G	6+024.525	4.08	189.936	189.968
H	6+027.525	4.08	189.942	189.974
I	6+030.525	4.08	189.948	189.976
J	6+033.525	4.08	189.952	189.974
K	6+036.525	4.08	189.956	189.969
CL W Brg Pier 2	6+039.475	4.08	189.960	189.960
CL E Brg Pier 2	6+040.025	4.08	189.960	189.960
L	6+043.025	4.08	189.963	189.965
M	6+046.025	4.08	189.965	189.967
N	6+049.025	4.08	189.967	189.969
CL E Abut Beam Support	6+053.045	4.08	189.968	189.968
Bk E Abut	6+053.500	4.08	189.969	189.969

B / PGL I-94 WB

LINE	@ I-94 WB STATION	@ I-94 WB OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	33+397.441	0.0	189.998	189.998
CL W Abut Beam Support	33+397.896	0.0	190.000	190.000
A	33+400.896	0.0	190.011	190.012
B	33+403.896	0.0	190.021	190.023
C	33+406.896	0.0	190.030	190.032
CL W Brg Pier 1	33+410.916	0.0	190.042	190.042
CL E Brg Pier 1	33+411.466	0.0	190.044	190.044
D	33+414.466	0.0	190.052	190.065
E	33+417.466	0.0	190.059	190.081
F	33+420.466	0.0	190.067	190.095
G	33+423.466	0.0	190.073	190.104
H	33+426.466	0.0	190.079	190.110
I	33+429.466	0.0	190.084	190.112
J	33+432.466	0.0	190.088	190.110
K	33+435.466	0.0	190.093	190.105
CL W Brg Pier 2	33+438.416	0.0	190.096	190.096
CL E Brg Pier 2	33+438.966	0.0	190.096	190.096
L	33+441.966	0.0	190.099	190.100
M	33+444.966	0.0	190.101	190.103
N	33+447.966	0.0	190.103	190.104
CL E Abut Beam Support	33+451.986	0.0	190.104	190.104
Bk E Abut	33+452.441	0.0	190.104	190.104

PGL CD ROAD

LINE	@ CD ROAD STATION	@ CD ROAD OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	191+332.486	0.0	189.595	189.595
CL W Abut Beam Support	191+332.941	0.0	189.597	189.597
A	191+335.941	0.0	189.610	189.611
B	191+338.941	0.0	189.621	189.623
C	191+341.941	0.0	189.632	189.634
CL W Brg Pier 1	191+345.961	0.0	189.646	189.646
CL E Brg Pier 1	191+346.511	0.0	189.648	189.648
D	191+349.511	0.0	189.657	189.670
E	191+352.511	0.0	189.666	189.688
F	191+355.511	0.0	189.674	189.703
G	191+358.511	0.0	189.682	189.713
H	191+361.511	0.0	189.689	189.721
I	191+364.511	0.0	189.696	189.724
J	191+367.511	0.0	189.702	189.724
K	191+370.511	0.0	189.708	189.720
CL W Brg Pier 2	191+373.461	0.0	189.713	189.713
CL E Brg Pier 2	191+374.011	0.0	189.713	189.713
L	191+377.011	0.0	189.717	189.719
M	191+380.011	0.0	189.721	189.723
N	191+383.011	0.0	189.724	189.726
CL E Abut Beam Support	191+387.031	0.0	189.727	189.727
Bk E Abut	191+387.486	0.0	189.727	189.727

STAGE CONSTRUCTION LINE

LINE	@ I-80/94 STATION	@ I-80/94 OFFSET (m)	@ CD ROAD STATION	@ CD ROAD OFFSET (m)	THEORETICAL GRADE ELEVATIONS (m)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (m)
Bk W Abut	5+998.500	18.45	191+332.671	-10.637	189.862	189.862
CL W Abut Beam Support	5+998.955	18.45	191+333.126	-10.629	189.863	189.863
A	6+001.955	18.45	191+336.126	-10.577	189.874	189.876
B	6+004.955	18.45	191+339.126	-10.524	189.884	189.886
C	6+007.955	18.45	191+342.126	-10.472	189.894	189.896
CL W Brg Pier 1	6+011.975	18.45	191+346.146	-10.402	189.906	189.906
CL E Brg Pier 1	6+012.525	18.45	191+346.696	-10.392	189.908	189.908
D	6+015.525	18.45	191+349.696	-10.340	189.916	189.928
E	6+018.525	18.45	191+352.696	-10.287	189.924	189.945
F	6+021.525	18.45	191+355.696	-10.235	189.931	189.959
G	6+024.525	18.45	191+358.696	-10.183	189.937	189.968
H	6+027.525	18.45	191+361.696	-10.130	189.943	189.974
I	6+030.525	18.45	191+364.696	-10.078	189.948	189.976
J	6+033.525	18.45	191+367.696	-10.026	189.953	189.975
K	6+036.525	18.45	191+370.696	-9.973	189.957	189.969
CL W Brg Pier 2	6+039.475	18.45	191+373.646	-9.922	189.960	189.960
CL E Brg Pier 2	6+040.025	18.45	191+374.196	-9.912	189.961	189.961
L	6+043.025	18.45	191+377.196	-9.860	189.964	189.965
M	6+046.025	18.45	191+380.196	-9.807	189.966	189.968
N	6+049.025	18.45	191+383.196	-9.755	189.968	189.969
CL E Abut Beam Support	6+053.045	18.45	191+387.216	-9.685	189.969	189.969
Bk E Abut	6+053.500	18.45	191+387.671	-9.677	189.969	189.969

Note:
1. Work this sheet with Sht. RS-17.

SHT. RS-23 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
I-80/94 OVER RAILROAD AVENUE
STRUCTURE NO. 016-2792 STA. 6+025.000
SECTION 1977-121-R
COOK COUNTY

TOP OF SLAB ELEVATIONS - VI

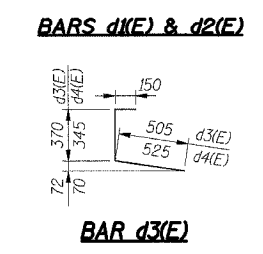
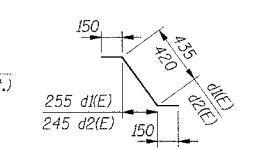
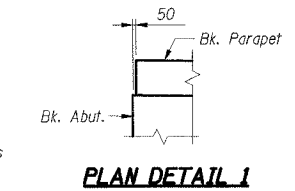
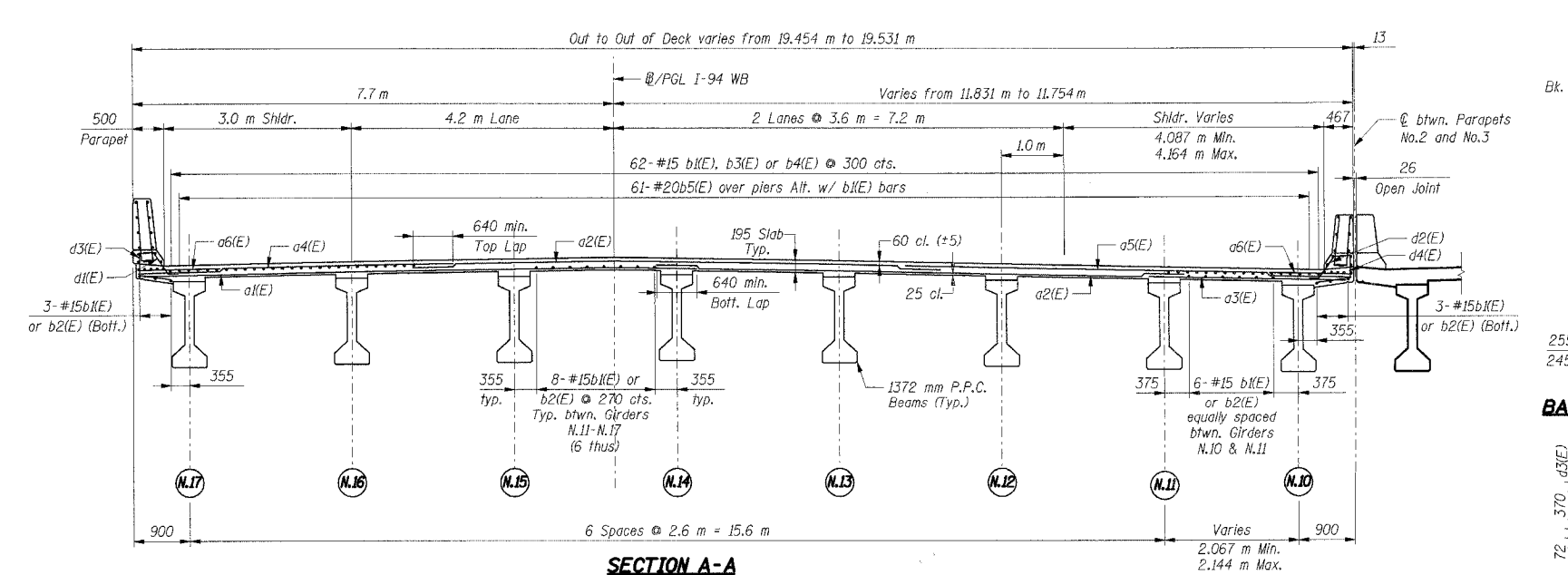
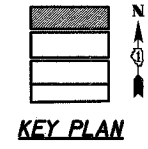
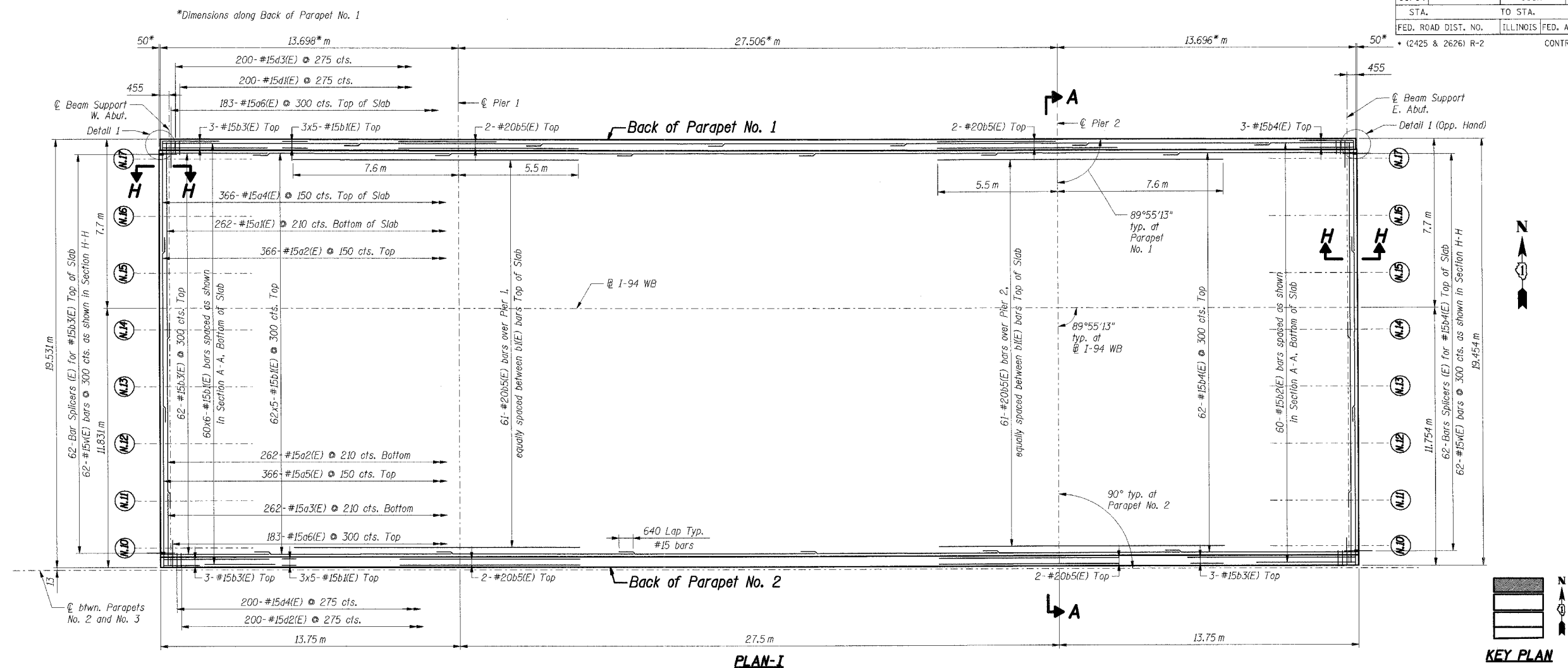
DATE: 7/18/2005
DRAWN BY: NK
CHECKED BY: SC

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	396
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2		CONTRACT NO. 62111		

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- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line.
 - For Parapet 1 Elevation, see Sht. RS-35.
 - For Parapet 2 Elevation, see Sht. RS-36.
 - For Section H-H, see Sht. RS-28.
 - For Reinforcement Bar List & Bill of Material, see Sht. RS-34.
 - Work this Sheet with Shts. RS-25 thru RS-34.
 - I.F. Denotes Inside Face.
 - O.F. Denotes Outside Face.
 - All edges shall have a 20 mm chamfer unless noted otherwise.

THIS SHEET FOR INFORMATION ONLY

SHT. RS-24 OF 70

REVISIONS	
NAME	DATE

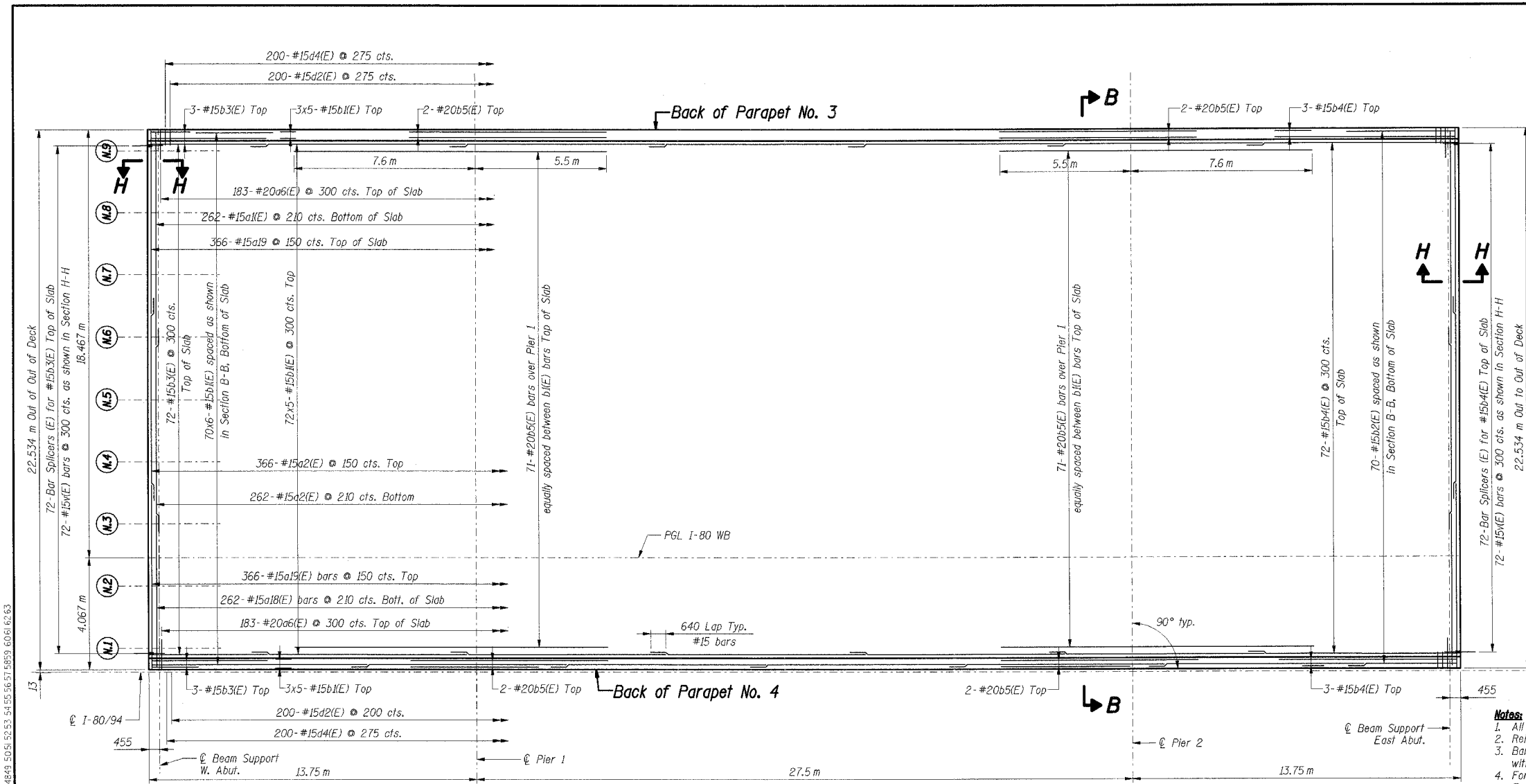
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 1-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 1977-121-R
 COOK COUNTY

**DECK PLAN
 DECK CROSS SECTION - I**

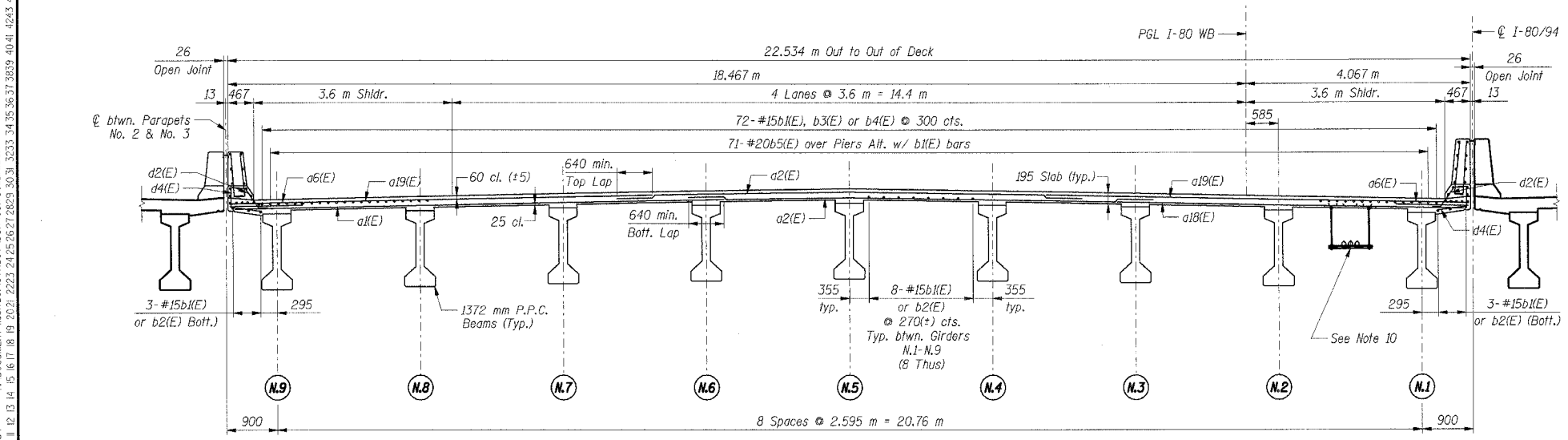
DATE: 9/13/05
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 CHECKED BY: MJK

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	397
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2			CONTRACT NO. 62111	

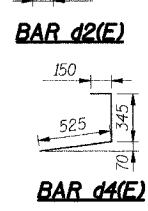


PLAN-II



SECTION B-B

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line.
 - For Parapet 3 Elevation, see Sht. RS-36.
For Parapet 4 Elevation, see Sht. RS-37.
 - For Section H-H, see Sht. RS-28.
 - For Reinforcement Bar List & Bill of Material, see Sht. RS-34.
 - Work this Sheet with Shts. RS-24, RS-26 thru RS-34.
 - I.F. Denotes Inside Face
O.F. Denotes Outside Face.
 - All edges shall have a 20 mm chamfer unless noted otherwise.
 - Conduits and Hanger Assembly for Fiber Optics. See General Note on Sht. RS-2 and detail on Sht. RS-3.



SHT. RS-25 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 1977-121-R
 COOK COUNTY

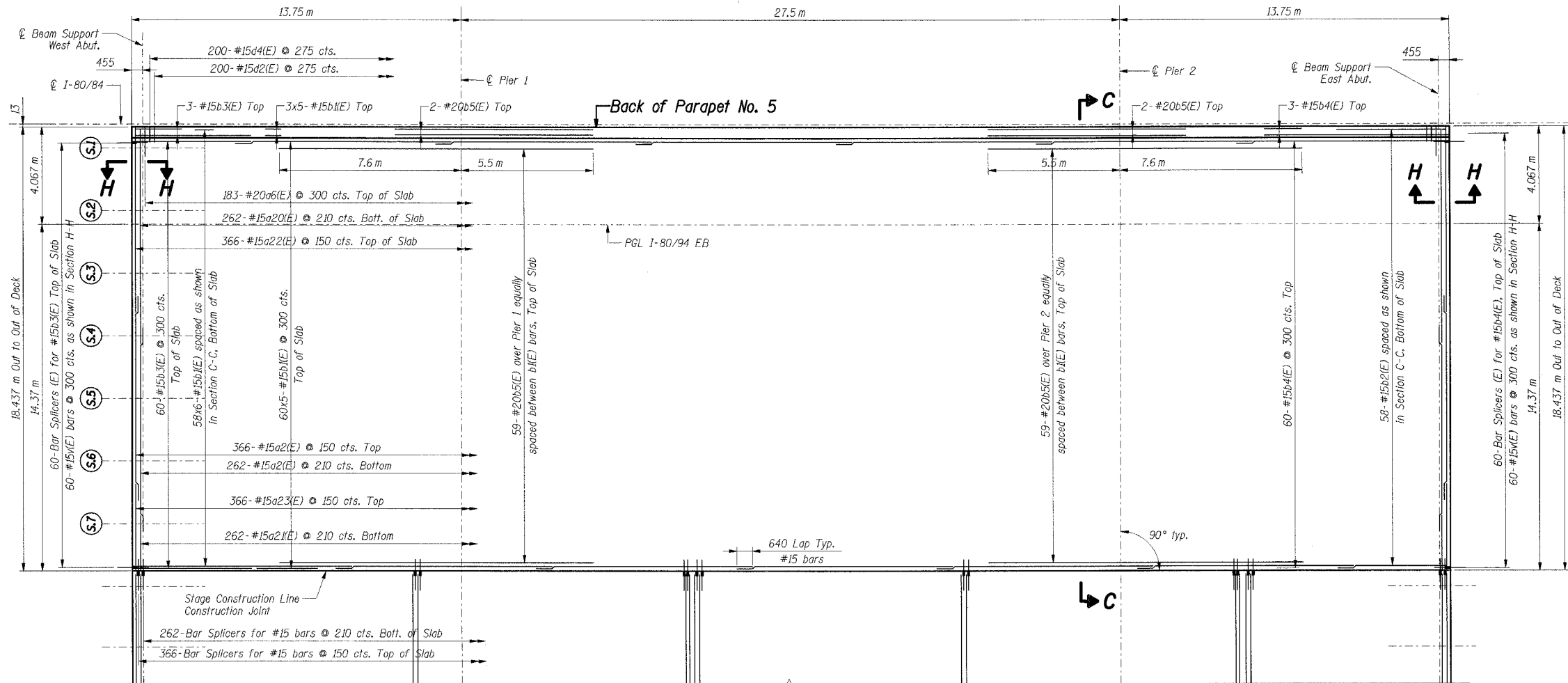
**DECK PLAN
 DECK CROSS SECTION - II**

DATE: 9/13/05 DRAWN BY: LAR
 CHECKED BY: MJK

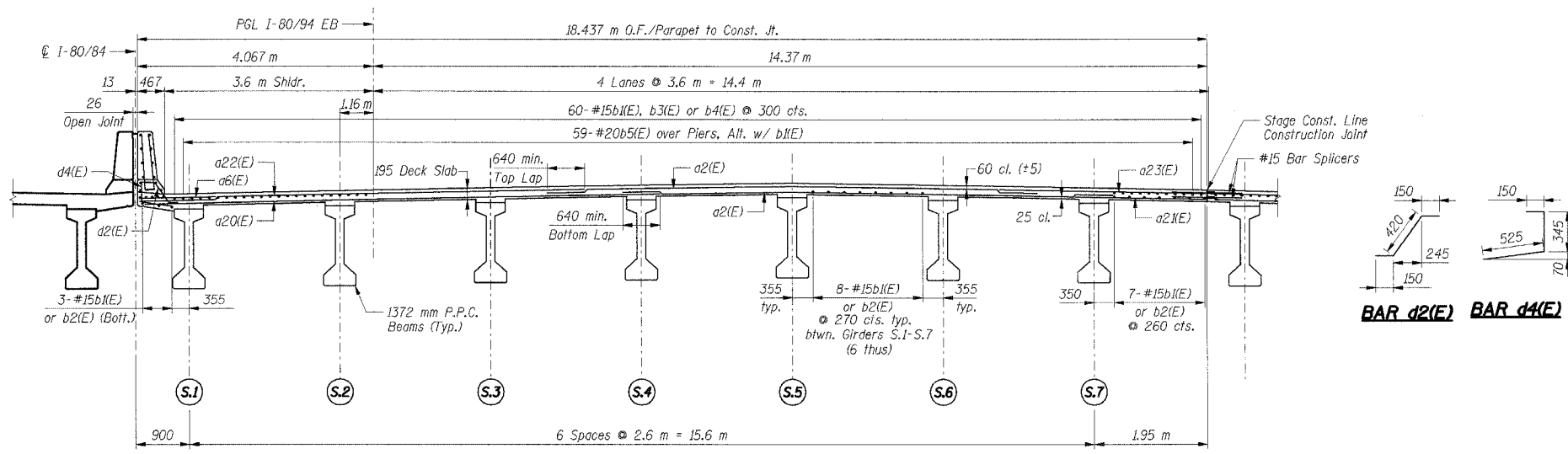
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 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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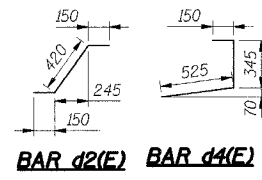
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	-	COOK	631	398
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2		CONTRACT NO. 62111		



PLAN-III



SECTION C-C



- Notes:
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
 - For Parapet 5 Elevation, see Sht. RS-37.
 - For Section H-H, see Sht. RS-28.
 - For Reinforcement Bar List & Bill of Material, see Sht. RS-34.
 - Work this Sheet with Shts. RS-24, RS-25, RS-27 thru RS-34.
 - I.F. Denotes Inside Face
 - O.F. Denotes Outside Face.
 - All edges shall have a 20 mm chamfer unless noted otherwise.

SHT. RS-26 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 1977-121-R
 COOK COUNTY

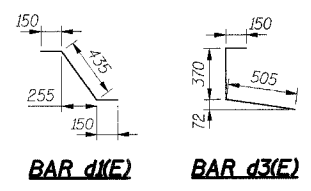
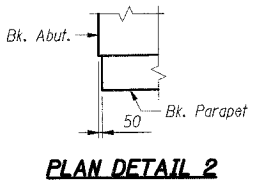
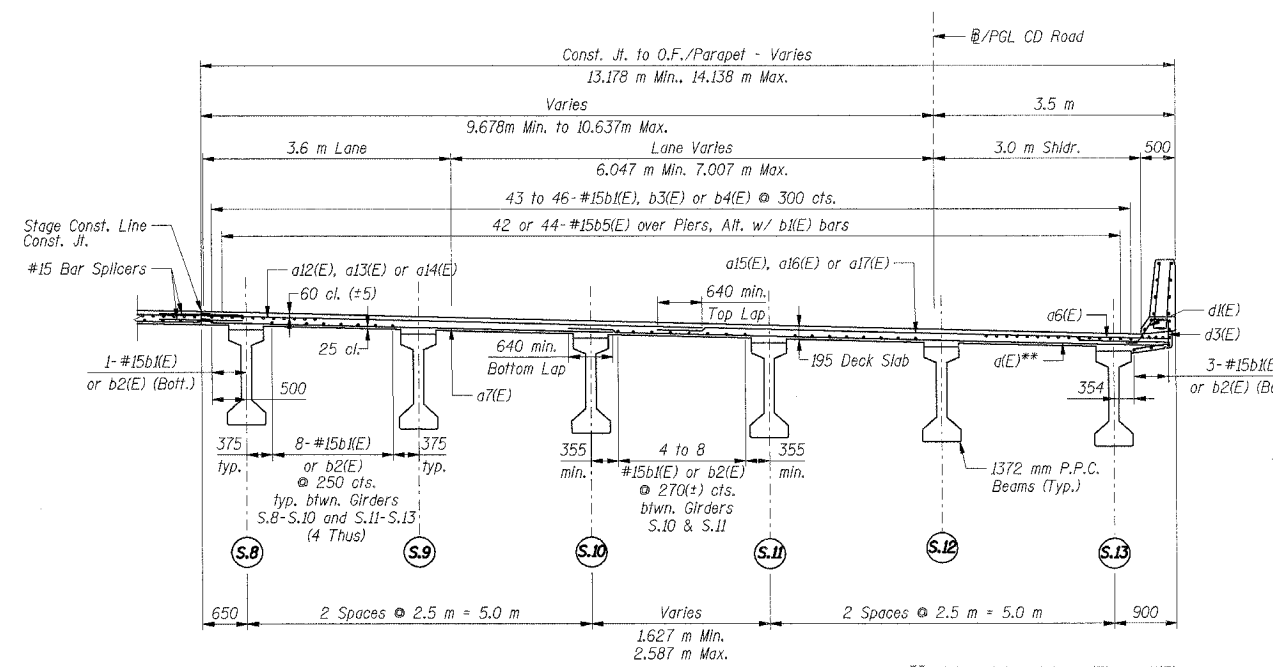
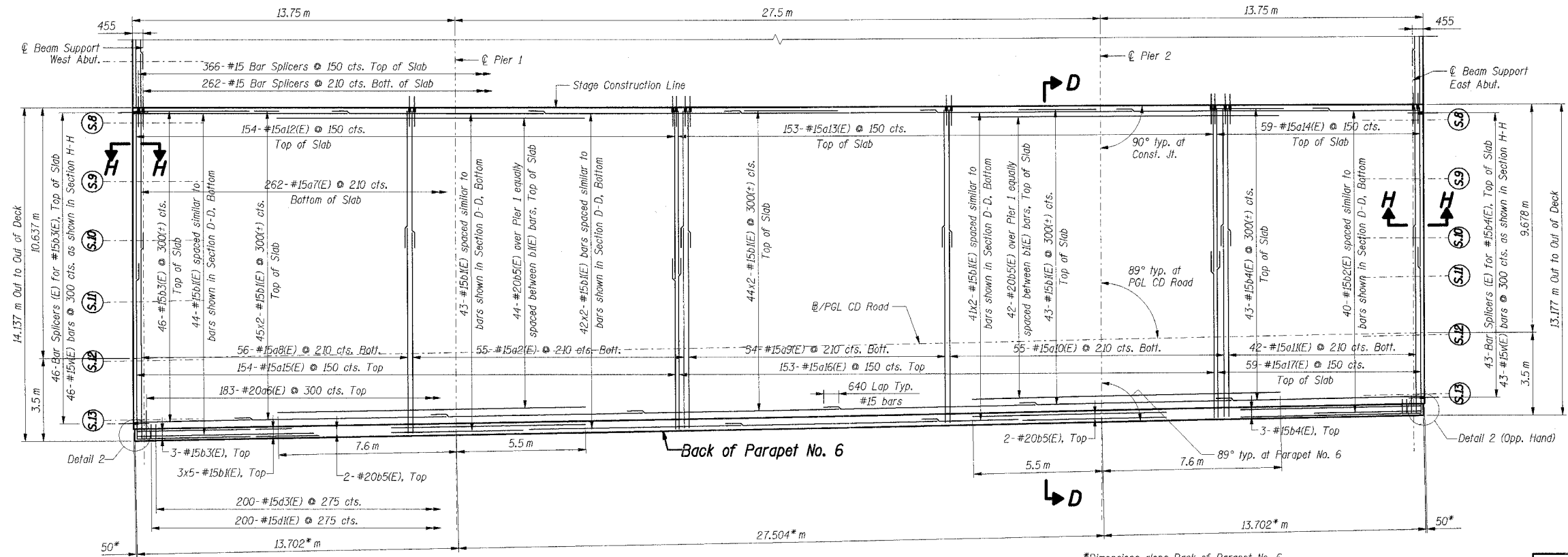
**DECK PLAN
 DECK CROSS SECTION - III**

DATE: 9/13/05
 DRAWN BY: LAR
 CHECKED BY: MJK

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	*	COOK	631	399
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (2425 & 2626) R-2			CONTRACT NO. 62111	



- Notes:
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - Bars indicated thus 74x10-#15 etc. indicates 74 lines of bars with 10 lengths per line
 - For Parapet 6 Elevation, see Sht. RS-35.
 - For Section H-H, see Sht. RS-28.
 - For Reinforcement Bar List & Bill of Material, see Sht. RS-34.
 - Work this Sheet with Shts. RS-24 thru RS-26 & RS-28 thru RS-34.
 - I.F. Denotes Inside Face.
 - O.F. Denotes Outside Face.
 - All edges shall have a 20 mm chamfer unless noted otherwise.

THIS SHEET FOR INFORMATION ONLY

SHT. RS-27 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 1977-121-R
 COOK COUNTY

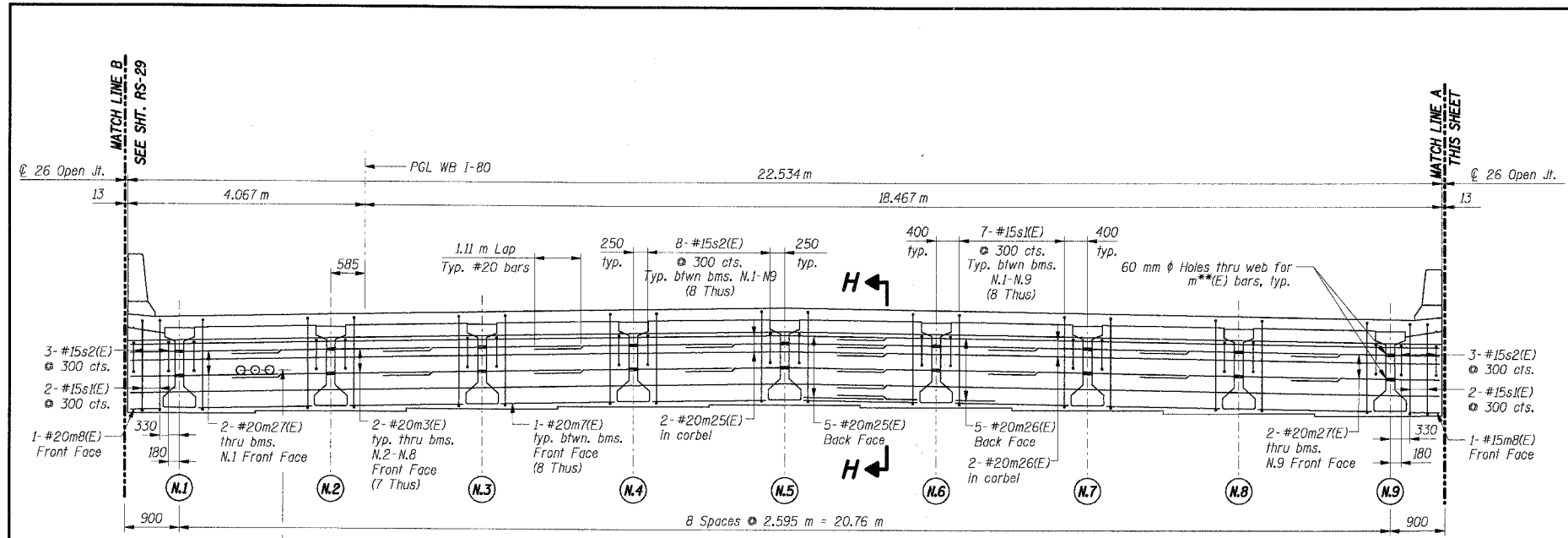
**DECK PLAN
 DECK CROSS SECTION - IV**

DATE: 9/13/05
 DRAWN BY: LAR
 CHECKED BY: MJK

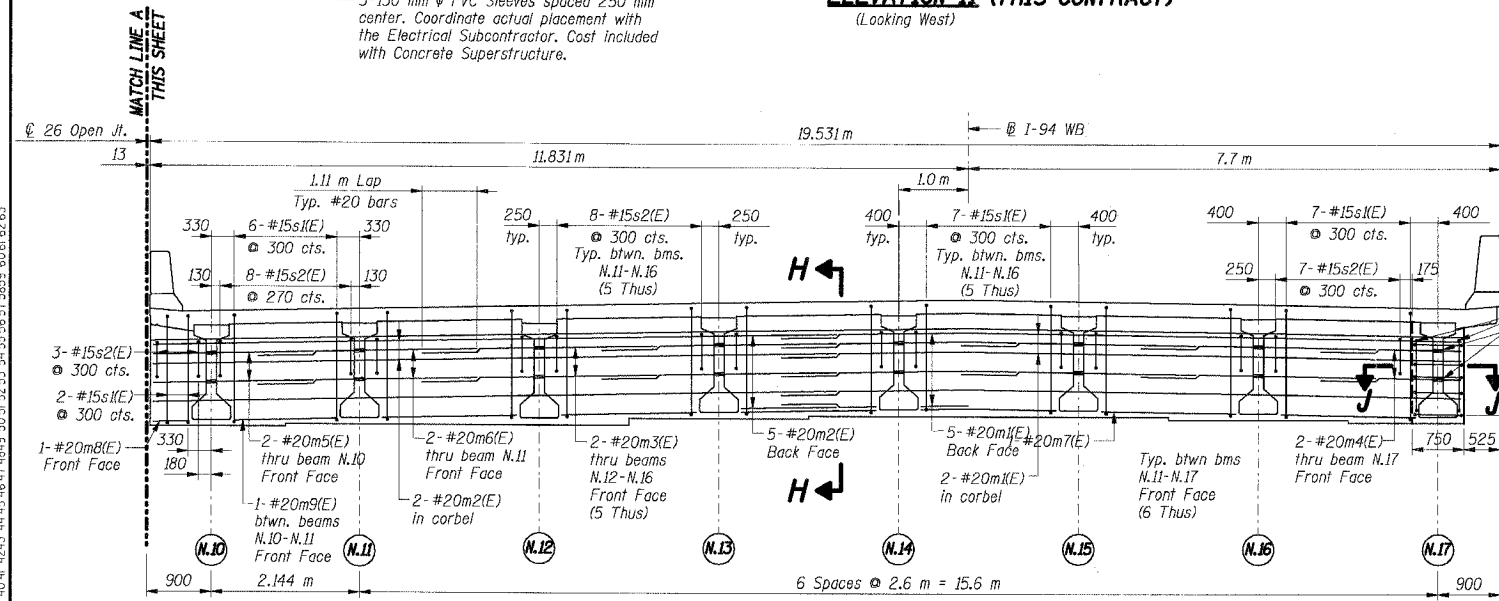
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

KUIENSTMJ
 13.4.56.78.9.10.11.12.13.14.15.16.17.18.19.20.21.22.23.24.25.26.27.28.29.30.31.32.33.34.35.36.37.38.39.40.41.42.43.44.45.46.47.48.49.50.51.52.53.54.55.56.57.58.59.60.61.62.63

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94		COOK	631	400
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (2425 & 2626) R-2		CONTRACT NO. 62111		



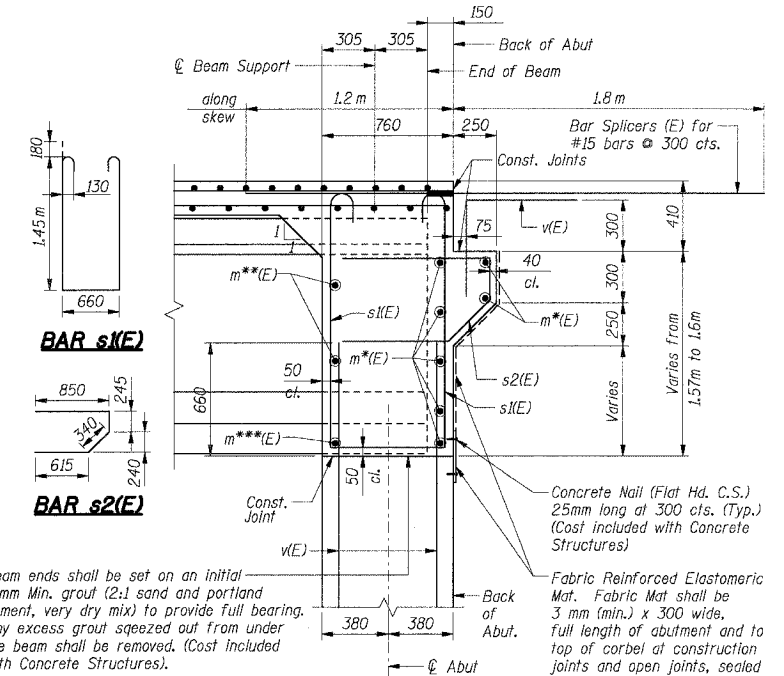
ELEVATION-II (THIS CONTRACT)
(Looking West)



ELEVATION-I
(Looking West)

**FOR INFORMATION ONLY
BY OTHERS IN PREVIOUS CONTRACT 62110**

BAJZEK, J. 08/18/05 10:55:42
 ..\B999022A.DGN, ..\B999022A.DGN, ..\B999022A.DGN, ..\B999022A.DGN, ..\B999022A.DGN, ..\B999022A.DGN
 7-12-2005, 10:25:42
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 12 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63

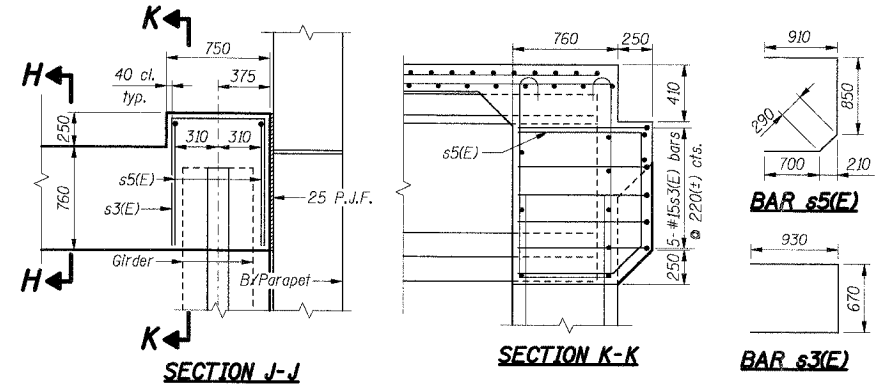


SECTION H-H

Beam ends shall be set on an initial 15mm Min. grout (2:1 sand and portland cement, very dry mix) to provide full bearing. Any excess grout squeezed out from under the beam shall be removed. (Cost included with Concrete Structures).

Fabric Reinforced Elastomeric Mat. Fabric Mat shall be 3 mm (min.) x 300 wide, full length of abutment and to top of corbel at construction joints and open joints, sealed with mastic, and shall be according to Special Provisions for Fabric Reinforced Elastomeric Mat. (Cost included with Concrete Structures).

- * m25(E), m26(E) or m28(E)
- ** m3(E), m27(E) or m29(E)
- *** m7(E), m8(E) or m30(E)



SECTION J-J

SECTION K-K

BAR s3(E)



KEY PLAN

- Notes:**
- All dimensions are in millimeters (mm) except as noted.
 - Reinforcement bars designated (E) shall be epoxy coated.
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 - For Reinforcement Bar List & Bill of Material, see Sht. RS-34.
 - Work this Sheet with Shts. RS-24 thru RS-27 & RS-29 thru RS-34.
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O.F. Denotes Outside Face.
 - All edges shall have a 20 mm chamfer unless noted otherwise.

SHT. RS-28 OF 70

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)
 EB & WB INSIDE LANES (MAINLINE) CONSTRUCTION
 I-80/94 OVER RAILROAD AVENUE
 STRUCTURE NO. 016-2792 STA. 6+025.000
 SECTION 1977-121-R
 COOK COUNTY

**WEST INTEGRAL BACKWALL
 ELEVATIONS & SECTIONS - I & II**

DATE: 7/18/2005

TENG

DRAWN BY: LAR
 CHECKED BY: MJK
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS