

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**NOTES**

1. Work this sheet with Sheets 46 through 50.
2. For Section A-A, Section B-B and Section C-C, see Sheet 49.

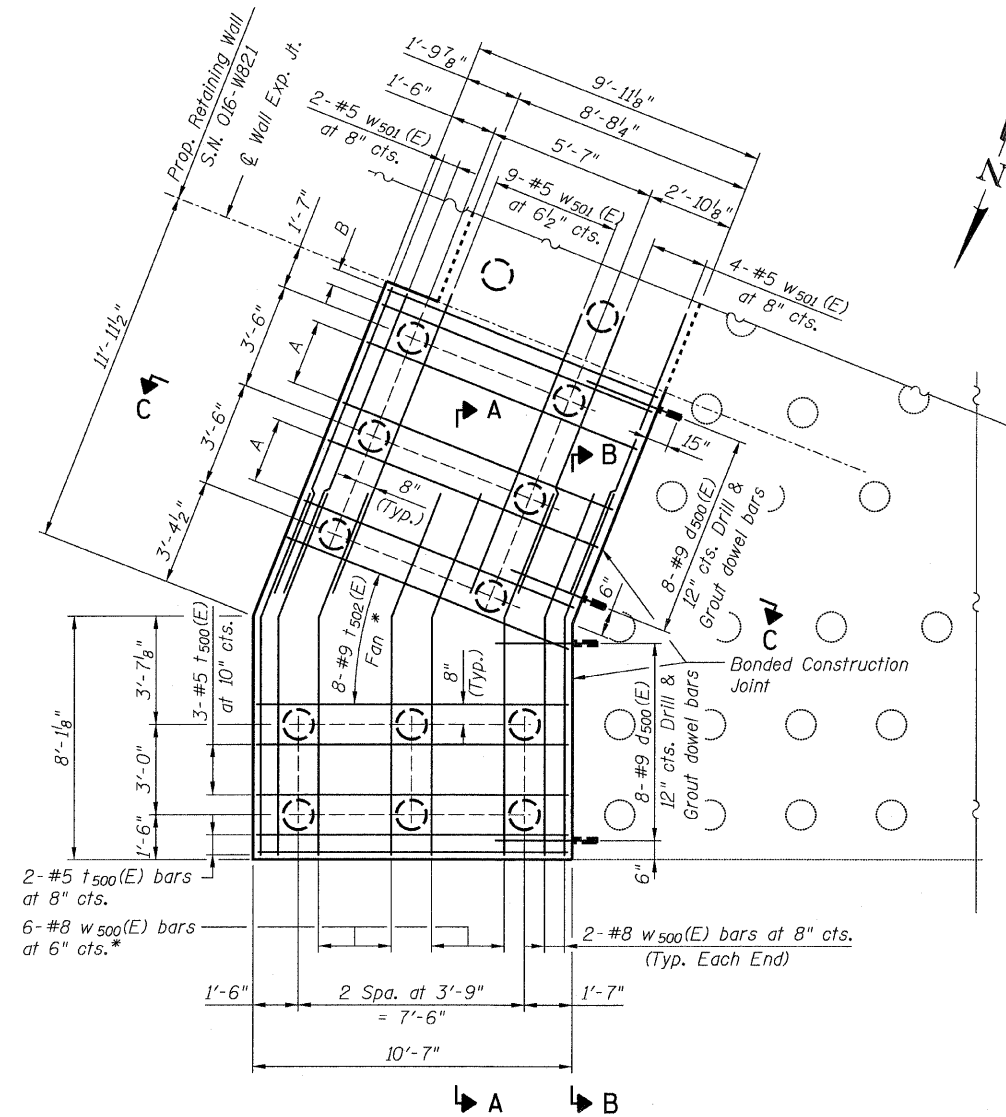
\* Cut to fit in field.  
A: 5-#9 t501(E) bars at 6 1/2" cts.  
B: 2-#9 t501(E) bars at 8" cts.

**PILE DATA TABLE**

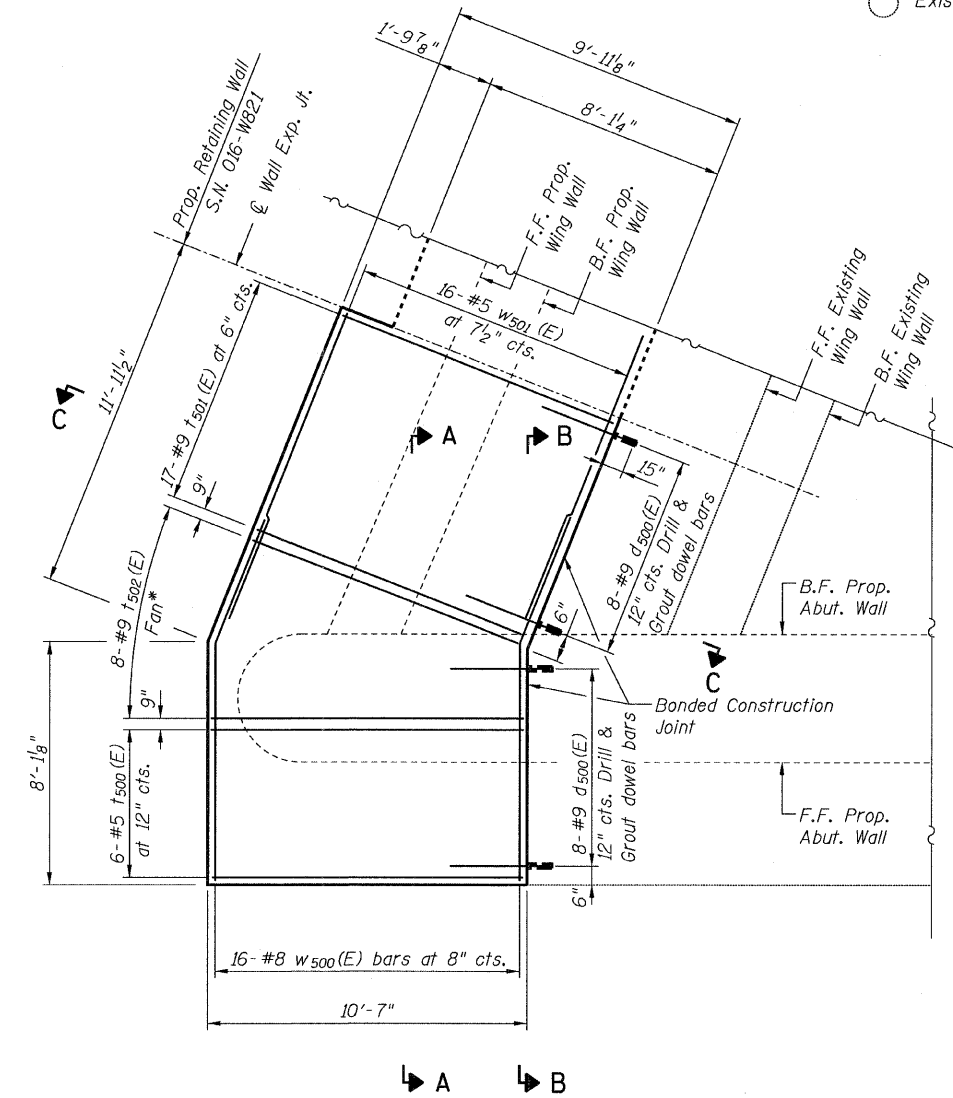
Type: 12"  $\phi$  x 0.25" Wall  
Nominal Required Bearing: 270 kips  
Allowable Resistance Available: 90 kips  
Estimated Length: 32 ft  
No. Production Piles: 11  
No. Test Piles: 1

Prop. Battered Pile, S. Abutment  
S.N. 016-3241

Existing Pile



**FOUNDATION PLAN - BOTTOM BARS**  
(East End Between Piles)



**FOUNDATION PLAN - TOP BARS**  
(East End)

**SOUTH ABUTMENT WINGWALL  
DETAILS & FOOTING PLAN  
STRUCTURE NO. 016-3241**

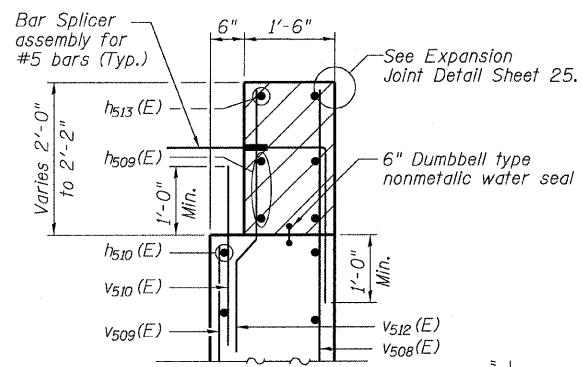
<b>TYLIN INTERNATIONAL</b>	DESIGNED - MMB	REVISIONS		SHEET NO. 48	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	301	
	DRAWN - MMB				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

11:30:49 AM  
p:\01345\structure\1\_South\_Approach\_016-3241\1551sib3.dgn

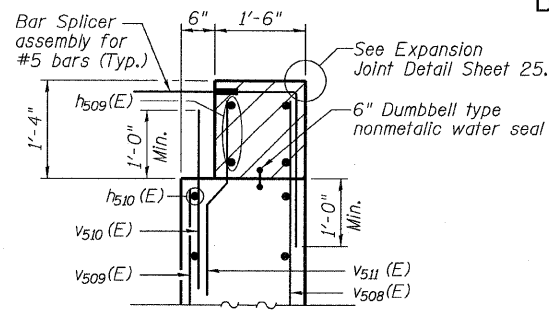
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NOTES

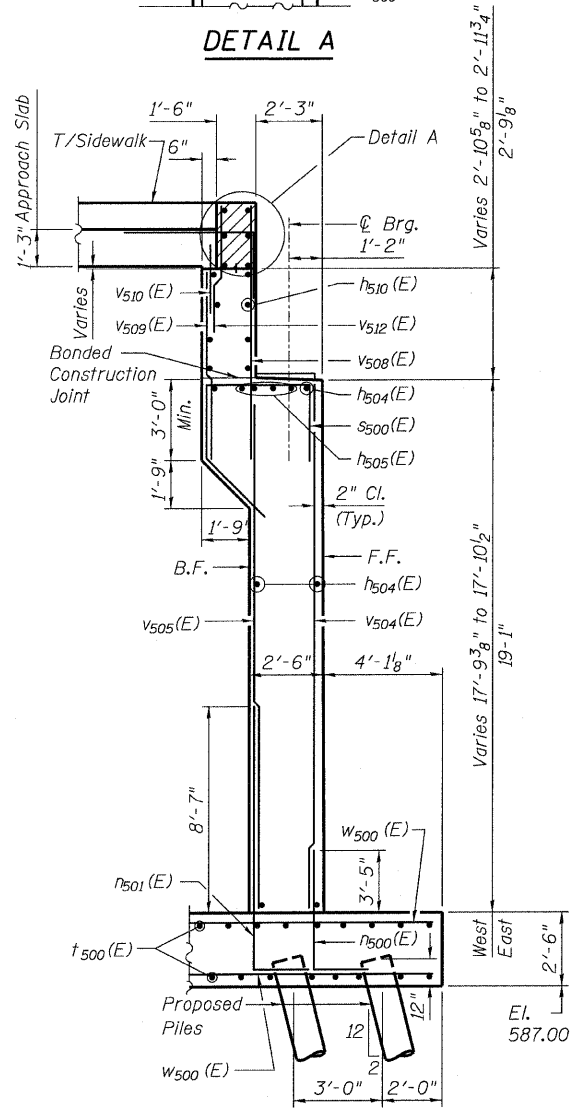
Work this sheet with Sheets 46 through 50.



DETAIL A

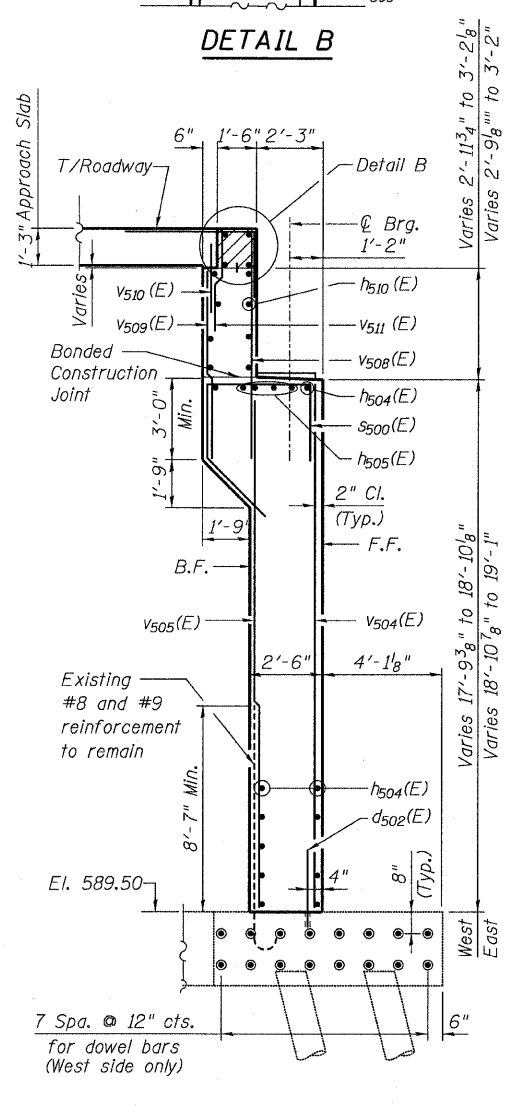


DETAIL B



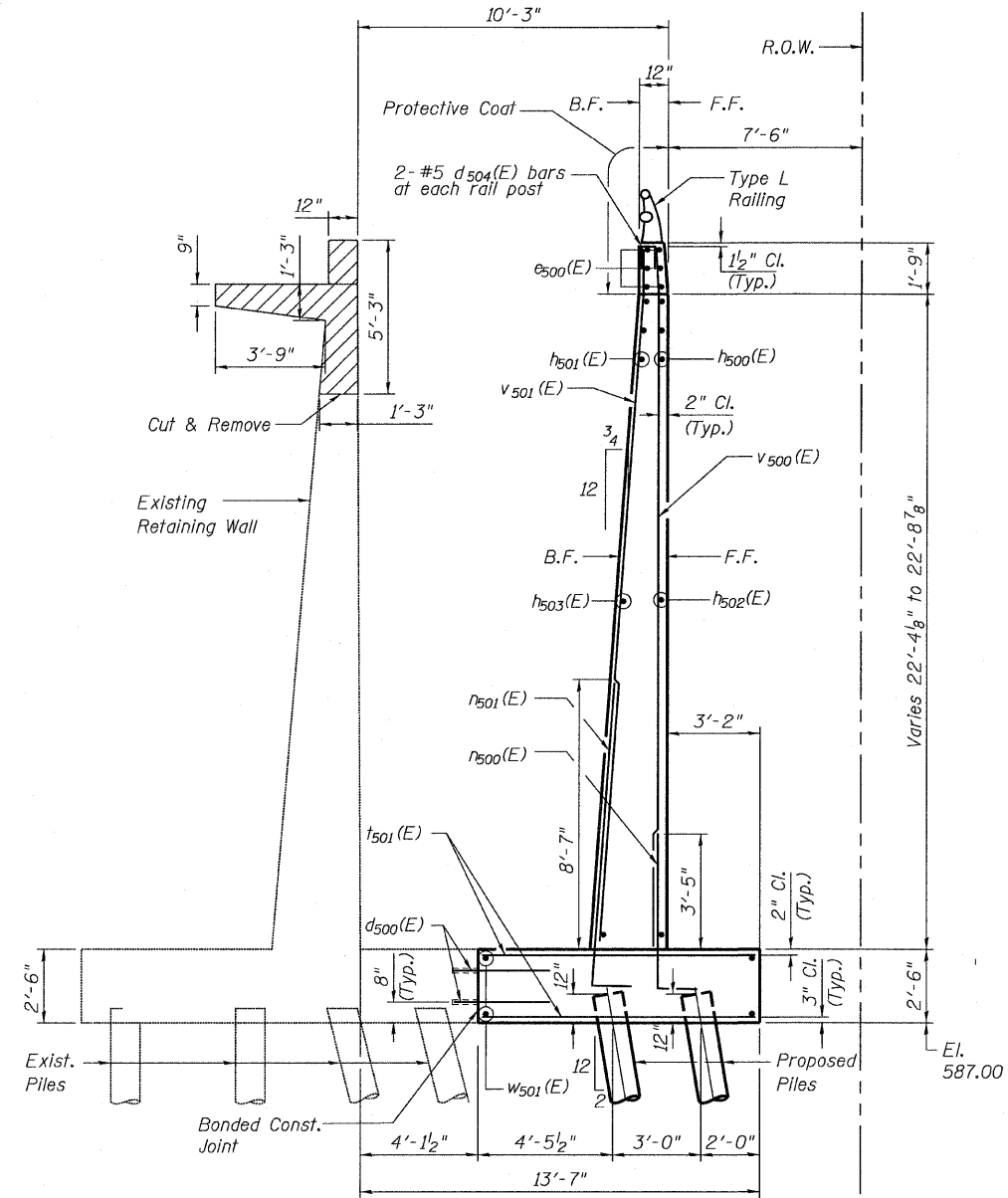
SECTION A-A

(East reinforcement shown,  
West reinforcement similar)

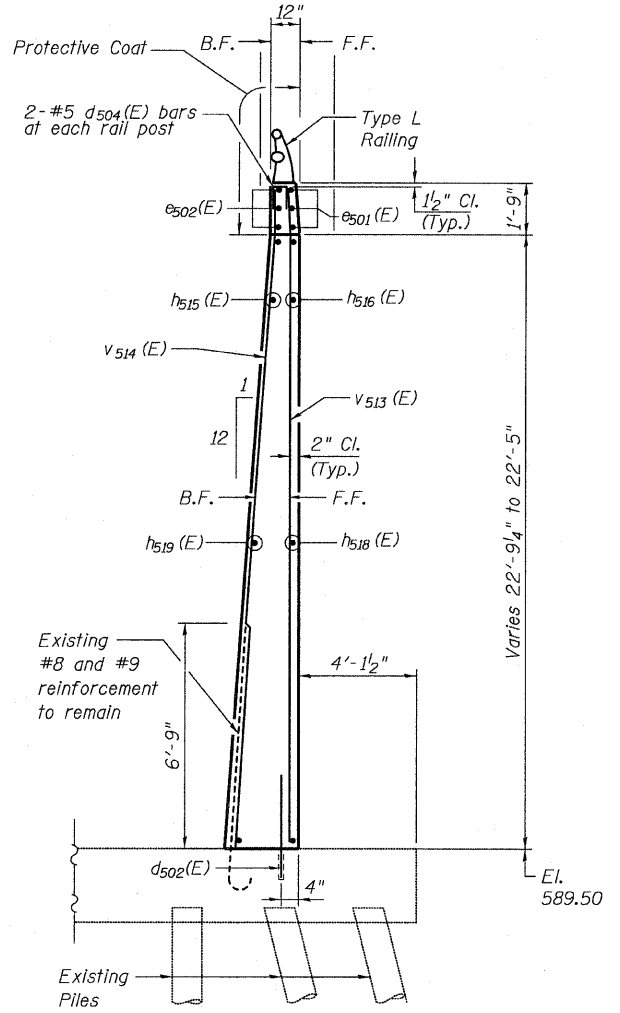


SECTION B-B

(East reinforcement shown,  
West reinforcement similar)



SECTION C-C



SECTION D-D

SOUTH ABUTMENT  
DETAILS - 1 of 2  
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL

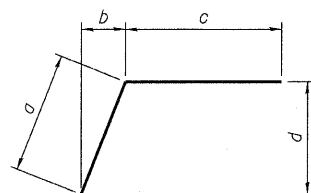
DESIGNED	MMB	REVISIONS	
CHECKED	AMD,	NAME	DATE
DRAWN	MMB		
CHECKED	AMD,		
DATE	03/25/2011		

SHEET NO. 49	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	302
			CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT					

p:\01345\structure\1\1\South Approach 016-3241\155\slab4.dgn 4/28/2011 6:27:44 PM

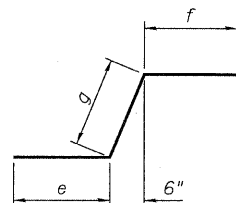
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BILL OF MATERIAL



BAR	a	b	c	d
c <sub>502</sub> (E)	10"	4"	11"	9"
h <sub>515</sub> (E)	3'-2"	1'-2"	4'-2"	2'-11"
w <sub>500</sub> (E)	4'-6"	4'-2"	7'-11"	1'-8"

**BARS c<sub>502</sub>(E), h<sub>515</sub>(E) & w<sub>500</sub>(E)**



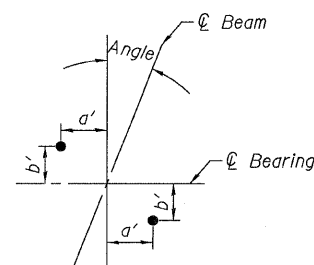
BAR	e	f	g
c <sub>500</sub> (E)	1'-4"	1'-10"	1'-8"
v <sub>511</sub> (E)	2'-2"	1'-5"	6"
v <sub>512</sub> (E)	2'-2"	1'-9"	6"

**BARS c<sub>500</sub>(E), v<sub>511</sub>(E) & v<sub>512</sub>(E)**



BAR	h	k
d <sub>501</sub> (E)	1'-2"	1'-9"
e <sub>501</sub> (E)	2'-1"	9'-4"
h <sub>516</sub> (E)	2'-1"	9'-4"
h <sub>517</sub> (E)	2'-11"	10'-1"
n <sub>500</sub> (E)	10"	5'-11"
n <sub>501</sub> (E)	1'-4"	9'-3"
s <sub>501</sub> (E)	4'-0"	2'-2"

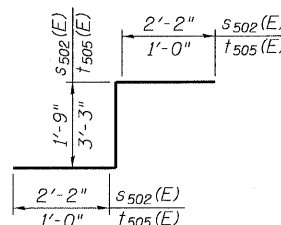
**BARS d<sub>501</sub>(E), e<sub>501</sub>(E), h<sub>516</sub>(E), h<sub>517</sub>(E), n<sub>500</sub>(E), n<sub>501</sub>(E) and s<sub>501</sub>(E)**



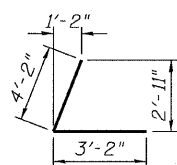
**ANCHOR BOLT LAYOUT**

**SOUTH ABUTMENT BEARINGS**

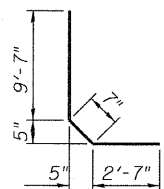
Beam	Angle	a'	b'
SG1	21°39'15"	8 <sup>5</sup> / <sub>8</sub> "	3 <sup>3</sup> / <sub>8</sub> "
1 thru 16	21°39'15"	8 <sup>5</sup> / <sub>8</sub> "	3 <sup>3</sup> / <sub>8</sub> "
SG2	22°22'28"	8 <sup>1</sup> / <sub>2</sub> "	3 <sup>1</sup> / <sub>2</sub> "
SG3	23°5'11"	8 <sup>1</sup> / <sub>2</sub> "	3 <sup>5</sup> / <sub>8</sub> "



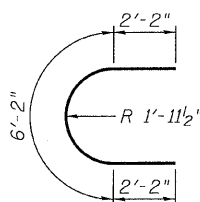
**BARS s<sub>502</sub>(E) and t<sub>505</sub>(E)**



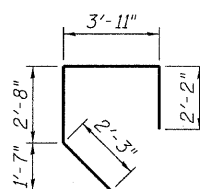
**BAR h<sub>514</sub>(E)**



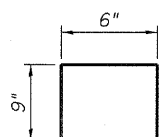
**BAR e<sub>502</sub>(E)**



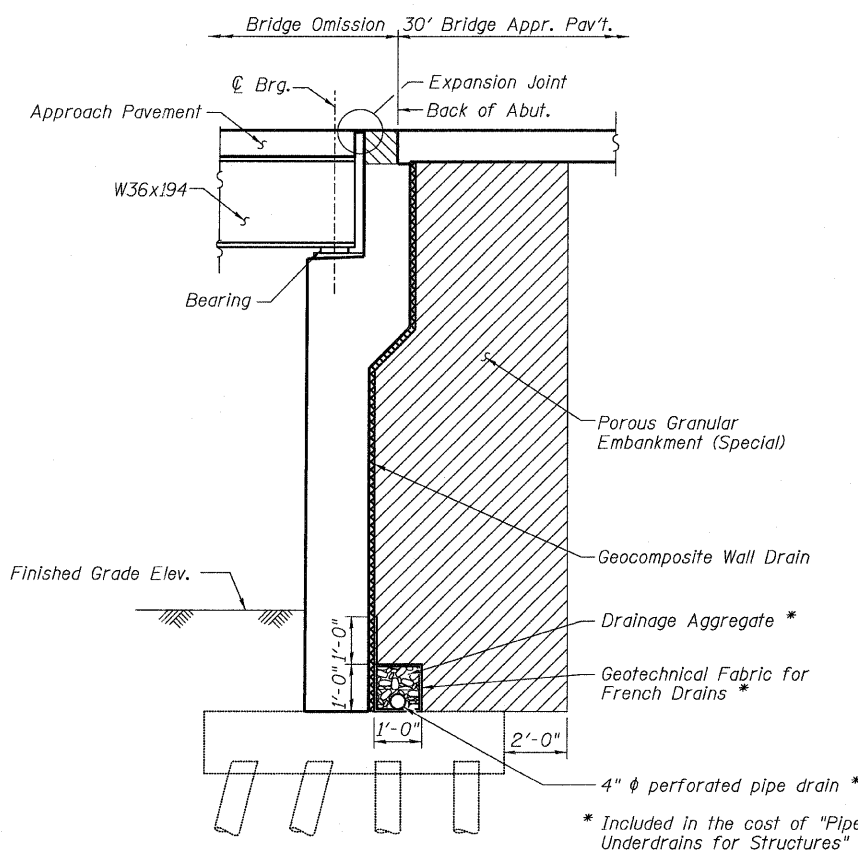
**BARS u<sub>500</sub>(E)**



**BAR s<sub>500</sub>(E)**

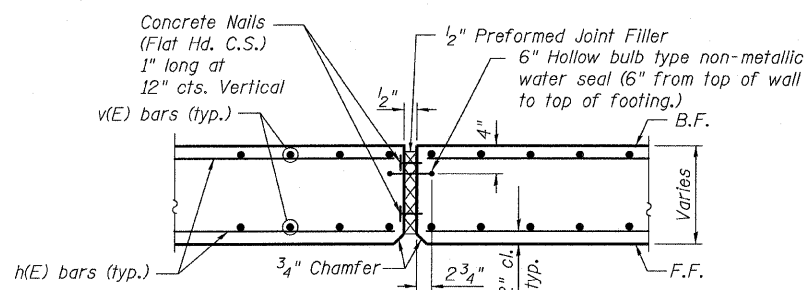


**BAR d<sub>504</sub>(E)**



**SECTION THRU ABUTMENT**

(Horiz. dimensions @ Rt. L's)



**EXPANSION JOINT DETAIL**

Bar	No.	Size	Length	Shape
v <sub>507</sub> (E)	50	#9	17'-5"	—
v <sub>508</sub> (E)	108	#5	7'-6"	—
v <sub>509</sub> (E)	107	#5	5'-6"	—
v <sub>510</sub> (E)	107	#5	3'-0"	—
v <sub>511</sub> (E)	97	#5	4'-1"	—
v <sub>512</sub> (E)	10	#5	4'-5"	—
v <sub>513</sub> (E)	11	#5	23'-10"	—
v <sub>514</sub> (E)	11	#8	23'-10"	—
w <sub>500</sub> (E)	32	#8	12'-5"	—
w <sub>501</sub> (E)	31	#5	11'-0"	—
Porous Granular Embankment (Special) Cu Yd 342				
Structure Excavation Cu Yd 510				
Concrete Structures Cu Yd 266.5				
Reinforcement Bars, Epoxy Coated Pound 37,180				
Furnishing Metal Shell Piles 12"x0.25" Foot 352				
Driving Piles Foot 352				
Concrete Sealer Sq Ft 2,801				
Geocomposite Wall Drain Sq Yd 268				
Pipe Underdrains for Structures, 4" Foot 133				
Test Pile Metal Shells Each 1				
Bar Splicer Each 159				

**MINIMUM BAR LAPS**

Bar Size	Min. Lap
#5	3'-8"
#6	4'-5"

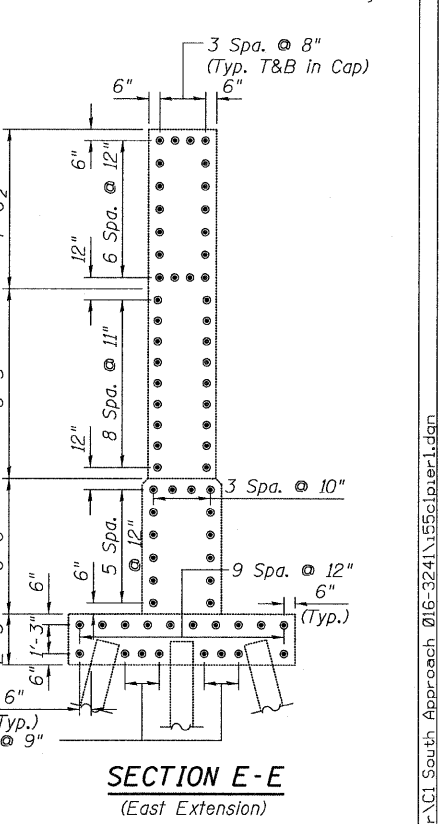
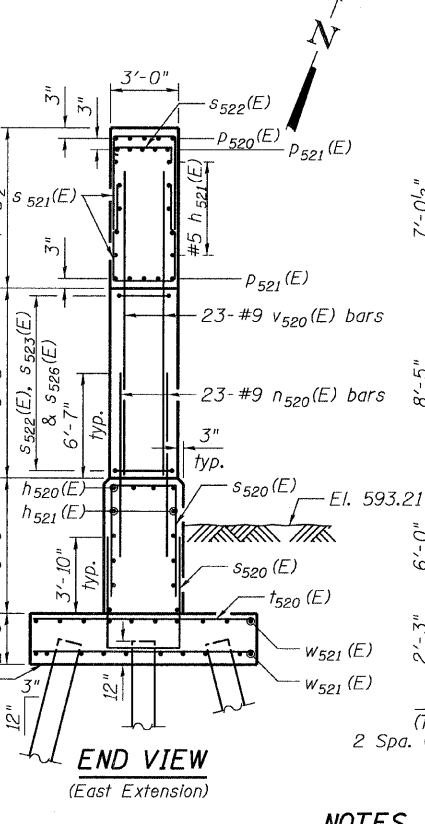
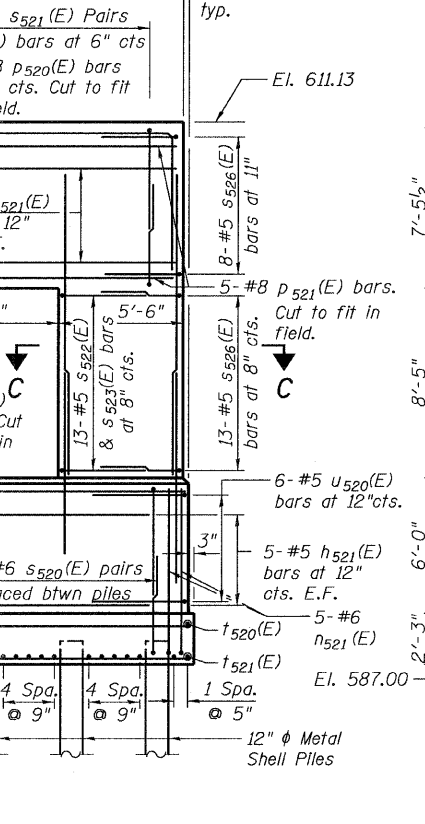
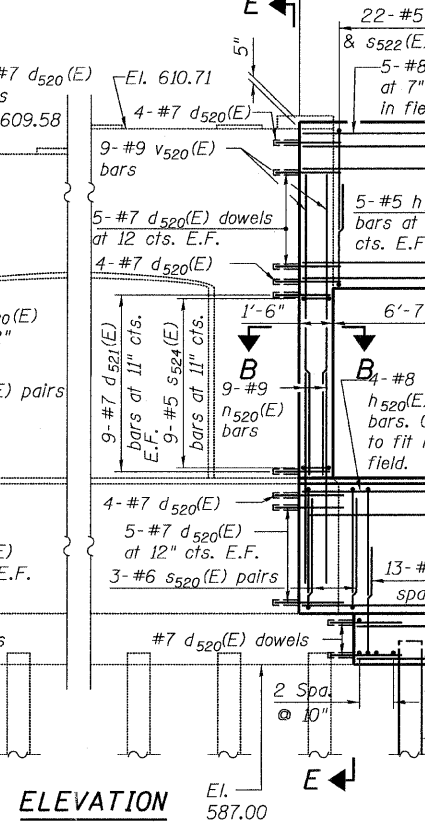
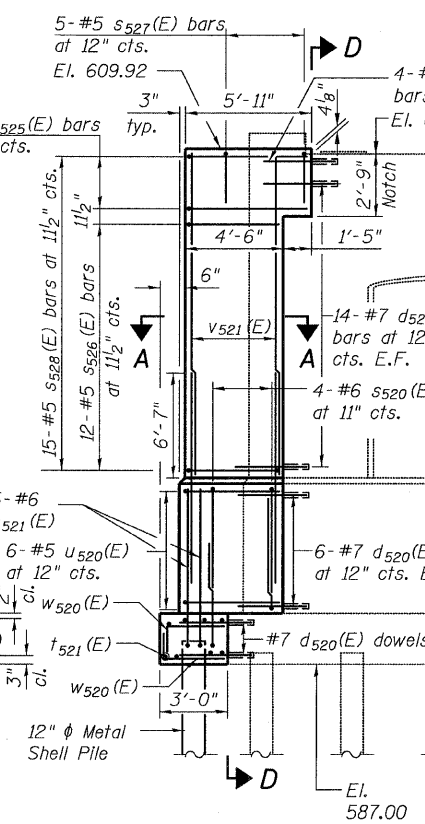
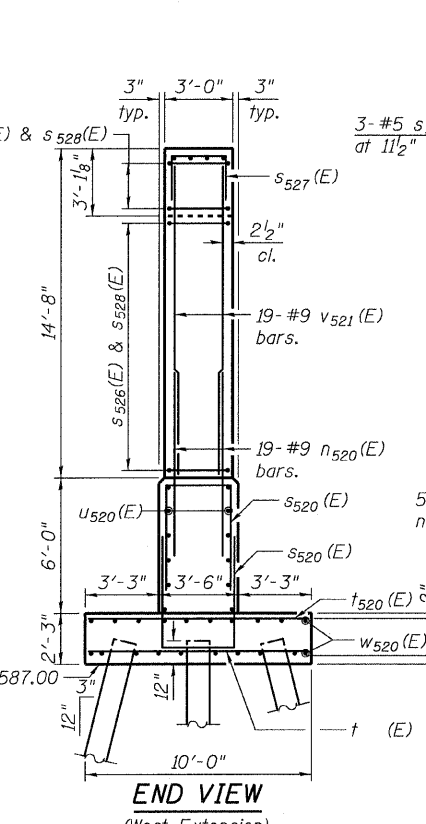
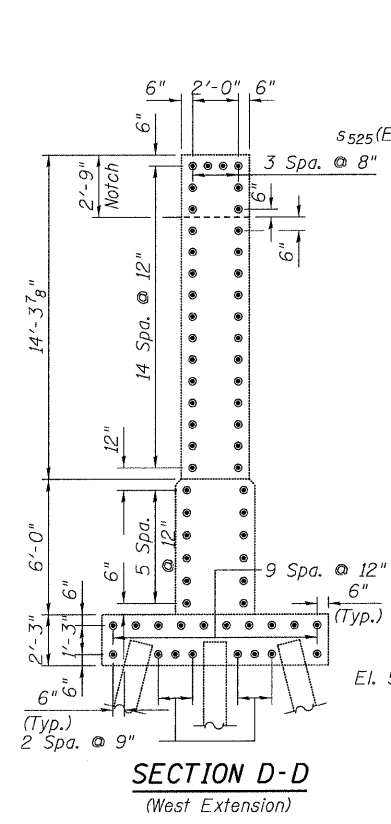
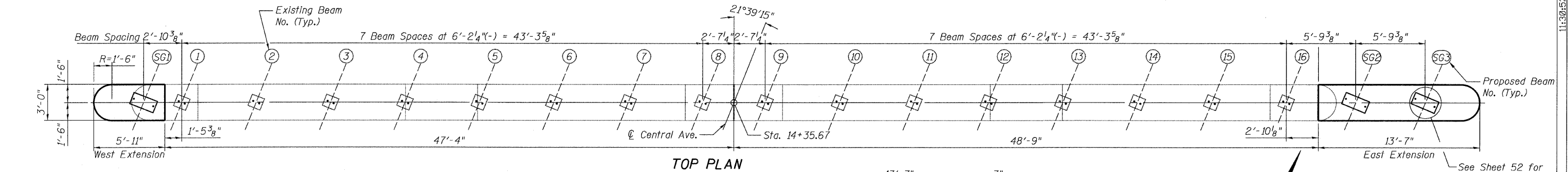
**NOTES**

Work this sheet with Sheets 46 through 49.

**SOUTH ABUTMENT DETAILS - 2 of 2  
STRUCTURE NO. 016-3241**

<b>TYLIN INTERNATIONAL</b>	DESIGNED - MMB	REVISIONS		SHEET NO. 50	F.A.I RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS	SHEET NO.
	CHECKED - AMD,	NAME	DATE					741	303
	DRAWN - MMB							CONTRACT NO. 60999	
	CHECKED - AMD,							FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	
	DATE - 03/25/2011			71 SHEETS					

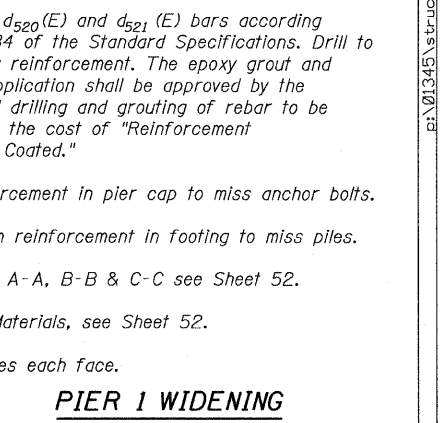
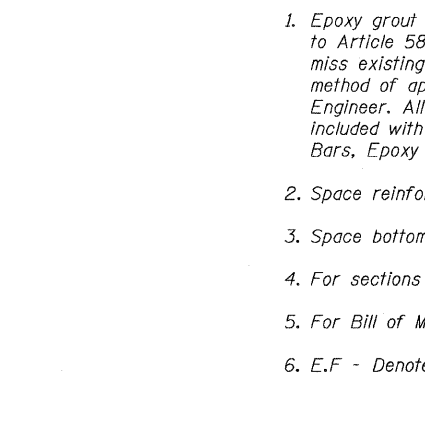
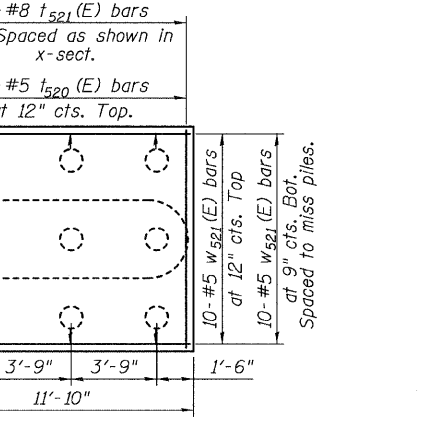
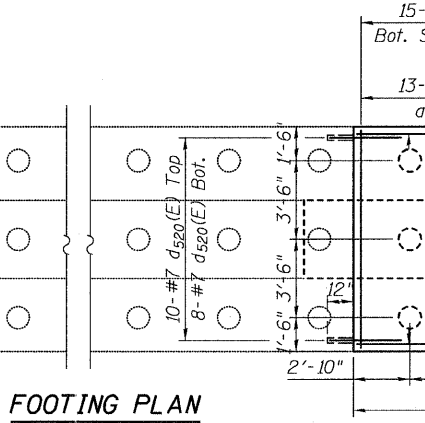
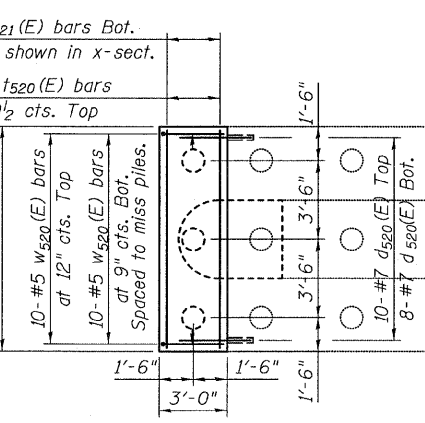
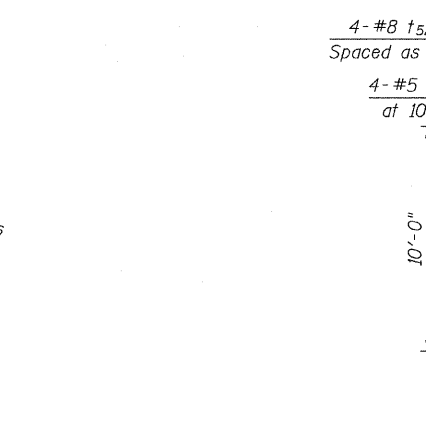
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**PILE DATA TABLE**

Type: 12"  $\phi$  x 0.25" Wall  
Nominal Required Bearing: 270 kips  
Allowable Resistance Available: 90 kips  
Estimated Length: 35 ft  
No. Production Piles: 11  
No. Test Piles: 1

Proposed Pile  
 Existing Pile

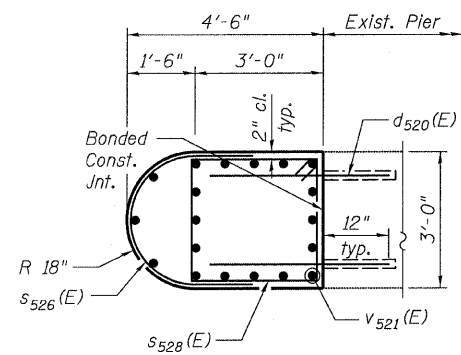


- NOTES**
- Epoxy grout  $d_{520}(E)$  and  $d_{521}(E)$  bars according to Article 584 of the Standard Specifications. Drill to miss existing reinforcement. The epoxy grout and method of application shall be approved by the Engineer. All drilling and grouting of rebar to be included with the cost of "Reinforcement Bars, Epoxy Coated."
  - Space reinforcement in pier cap to miss anchor bolts.
  - Space bottom reinforcement in footing to miss piles.
  - For sections A-A, B-B & C-C see Sheet 52.
  - For Bill of Materials, see Sheet 52.
  - E.F - Denotes each face.

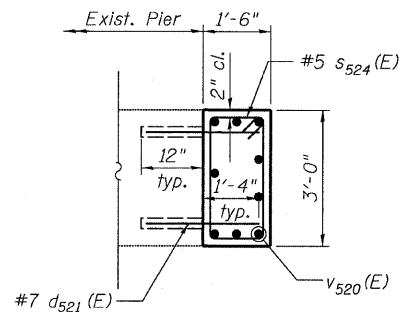
**PIER 1 WIDENING  
STRUCTURE NO. 016-3241**

TYLIN INTERNATIONAL	DESIGNED - MMB	REVISIONS		SHEET NO. 51	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	304
	DRAWN - MMB				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

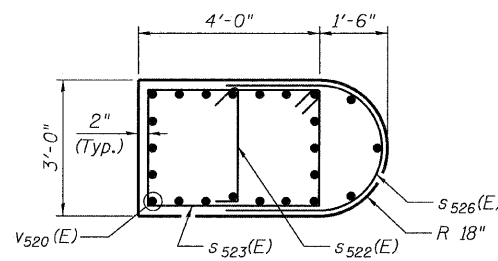
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



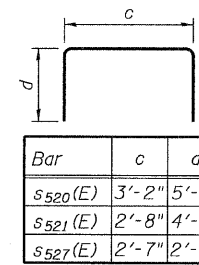
SECTION A-A



SECTION B-B

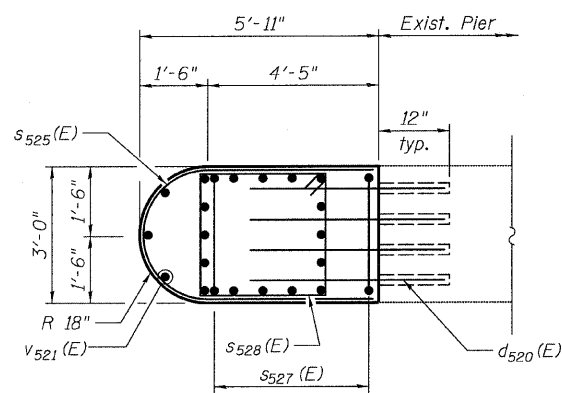


SECTION C-C

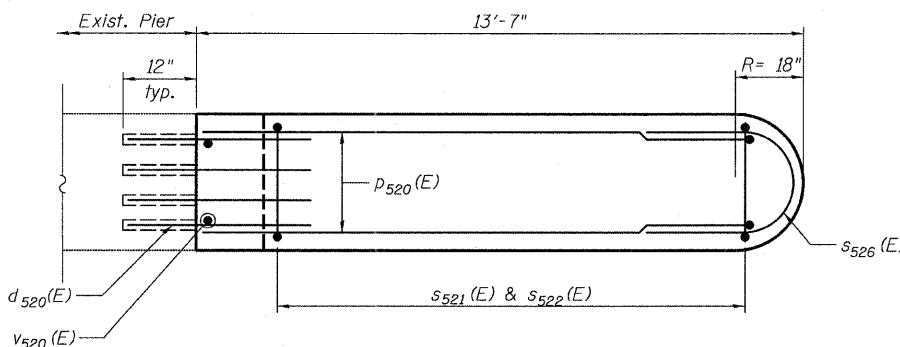


Bar	c	d
s520(E)	3'-2"	5'-8"
s521(E)	2'-8"	4'-8"
s527(E)	2'-7"	2'-2"

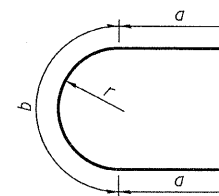
BARS s520(E), s521(E)  
& s527(E)



WEST EXTENSION-PLAN

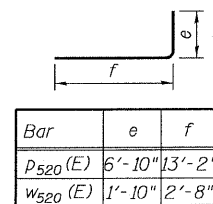


EAST EXTENSION-PLAN



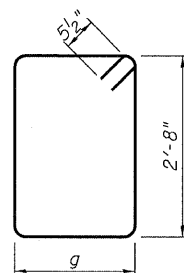
Bar	a	b	r
s525(E)	4'-3"	3'-11"	1'-3"
s526(E)	2'-2"	3'-11"	1'-3"
u520(E)	2'-2"	4'-9"	1'-6"

BARS s525(E), s526(E) & u520(E)



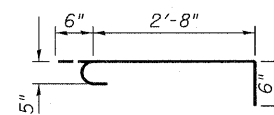
Bar	e	f
p520(E)	6'-10"	13'-2"
w520(E)	1'-10"	2'-8"

BARS p520(E) & w520(E)

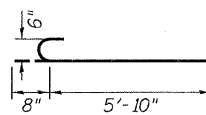


Bar	g
s523(E)	3'-8"
s524(E)	1'-3"
s528(E)	2'-8"

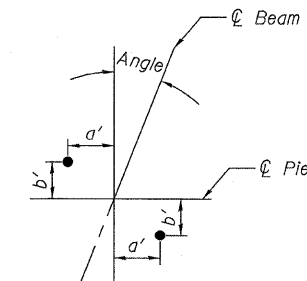
BARS s523(E), s524(E)  
& s528(E)



BAR s522(E)



BAR n521(E)



ANCHOR BOLT LAYOUT

Beam	Angle	a'	b'
SG1	21°39'15"	8 1/8"	3 1/4"
SG2	22°22'28"	8 1/8"	3 3/8"
SG3	23°05'11"	8"	3 3/8"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d520(E)	112	#7	4'-1"	—
d521(E)	18	#7	2'-4"	—
*h520(E)	4	#8	13'-6"	—
h521(E)	20	#5	12'-1"	—
n520(E)	51	#9	10'-8"	—
n521(E)	10	#6	6'-6"	—
*p520(E)	5	#8	20'-0"	—
*p521(E)	10	#8	13'-2"	—
s520(E)	40	#6	14'-6"	□
s521(E)	44	#5	12'-0"	□
s522(E)	35	#5	3'-8"	□
s523(E)	13	#5	13'-7"	□
s524(E)	9	#5	8'-9"	□
s525(E)	3	#5	12'-5"	□
s526(E)	33	#5	8'-3"	□
s527(E)	5	#5	6'-11"	□
s528(E)	15	#5	11'-7"	□
t520(E)	17	#5	9'-8"	—
t521(E)	19	#8	9'-8"	—
u520(E)	12	#5	9'-1"	C
v520(E)	32	#9	12'-6"	—
v521(E)	19	#9	14'-5"	—
w520(E)	20	#5	4'-6"	—
w521(E)	20	#5	11'-6"	—
Test Pile Metal Shells	Each		1	
Structure Excavation	Cu. Yd.		61	
Concrete Structures	Cu. Yd.		50.9	
Reinforcement Bars, Epoxy Coated	Pound		9,750	
Furnishing Metal Shell Piles 12"x0.25"	Foot		385	
Driving Piles	Foot		385	

\* Cut to fit in field.

NOTES

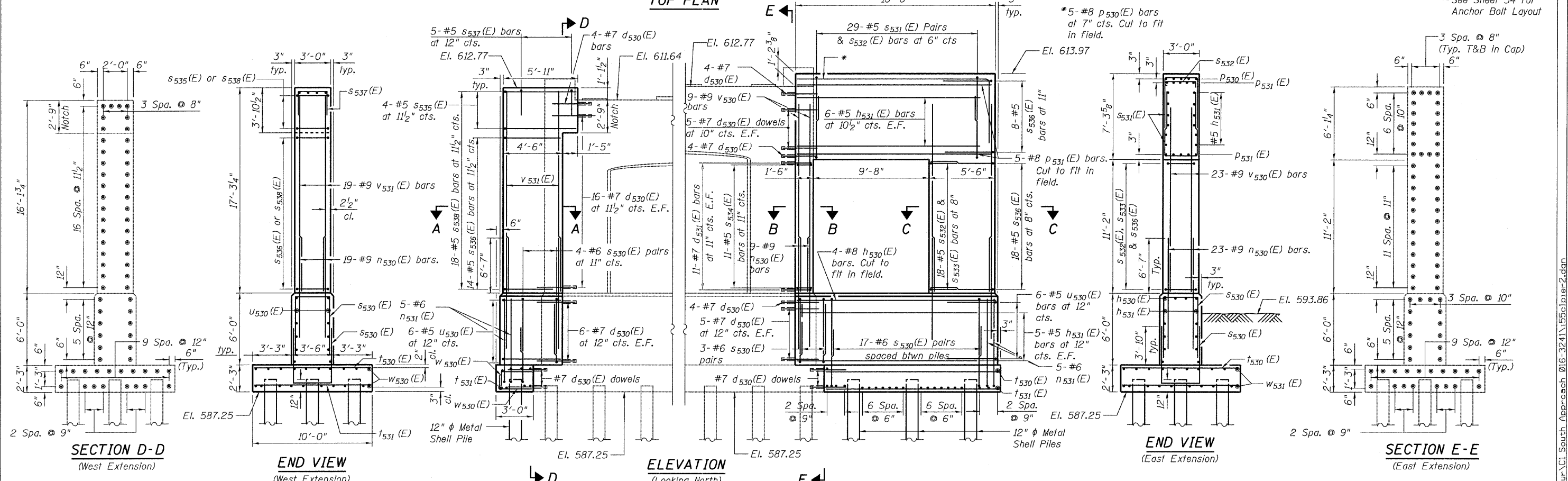
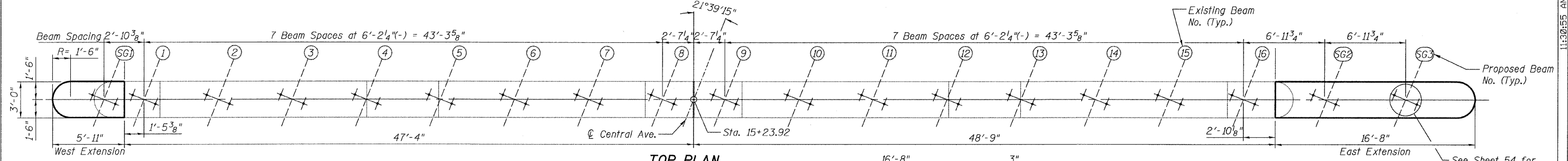
1. Work this sheet with Sheet 51.

PIER 1 DETAILS  
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL	DESIGNED - MMB	REVISIONS		SHEET NO. 52	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 305
	CHECKED - AMD,	NAME	DATE						
	DRAWN - MMB								
	CHECKED - AMD,								
	DATE - 03/25/2011			71 SHEETS	CONTRACT NO. 60999		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		

6:27:46 PM p:\01345\structure\016-3241\55c1pier1.dgn 4/28/2011

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

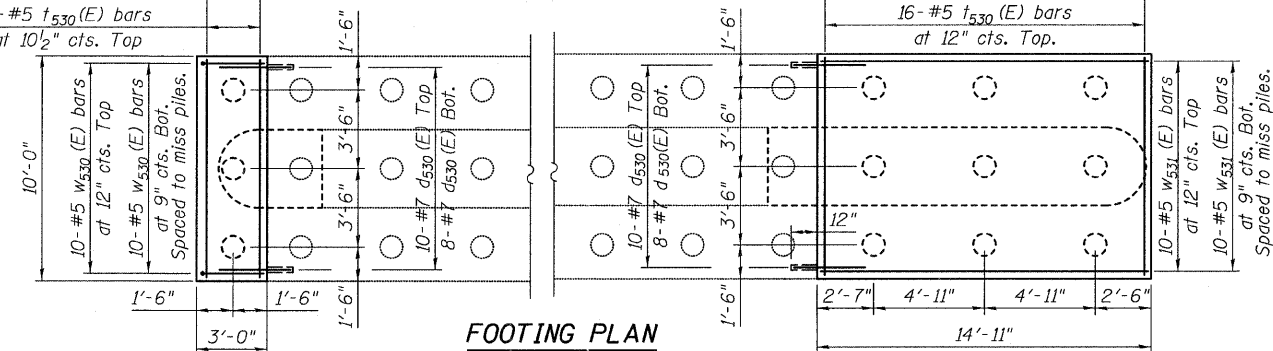


**PILE DATA TABLE**

Type: 12"  $\phi$  x 0.25" Wall  
Nominal Required Bearing: 270 kips  
Allowable Resistance Available: 90 kips  
Estimated Length: 35 ft  
No. Production Piles: 11  
No. Test Piles: 1

- Proposed Pile
- Existing Pile

4-#8 t531(E) bars Bot.  
Spaced as shown in x-sect.  
4-#5 t530(E) bars  
at 10 1/2" cts. Top



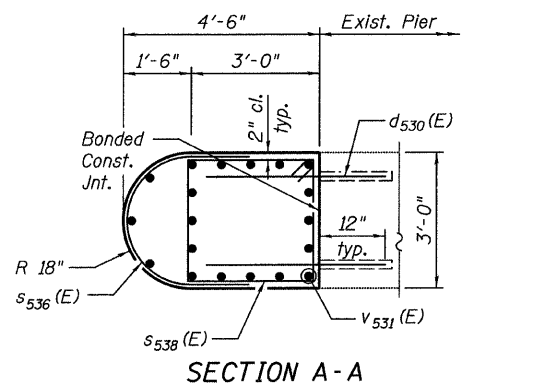
**NOTES**

1. Epoxy grout d530(E) and d531(E) bars according to Article 584 of the Standard Specifications. Drill to miss existing reinforcement. The epoxy grout and method of application shall be approved by the Engineer. All drilling and grouting of rebar to be included with the cost of "Reinforcement Bars, Epoxy Coated."
2. Space reinforcement in pier cap to miss anchor bolts.
3. Space bottom reinforcement in footing to miss piles.
4. For sections A-A, B-B & C-C see Sheet 54.
5. For Bill of Materials, see Sheet 54.
6. E.F - denotes each face.

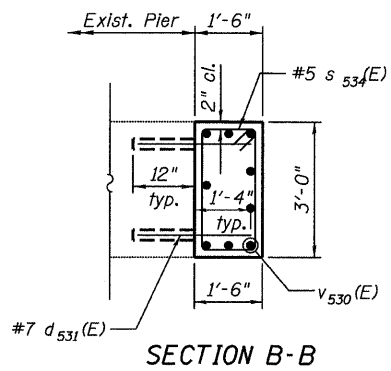
**PIER 2 WIDENING  
STRUCTURE NO. 016-3241**

<b>TYLIN INTERNATIONAL</b>	DESIGNED - MMB	REVISIONS		SHEET NO. 53	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.				
	CHECKED - AMD,	NAME	DATE		55					0711.2R & 1011.1BR	COOK	741	306
	DRAWN - MMB				CONTRACT NO. 60999								
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								
	DATE - 03/25/2011				71 SHEETS								

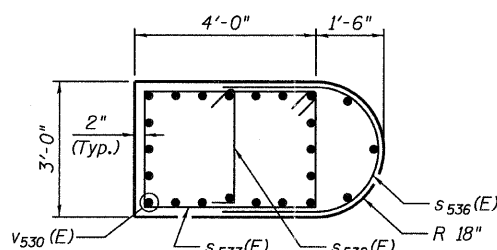
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



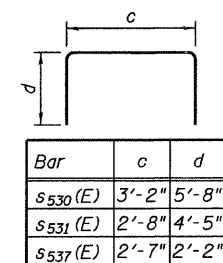
SECTION A-A



SECTION B-B

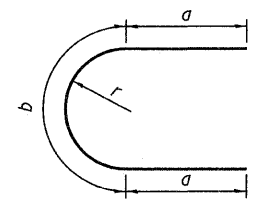


SECTION C-C



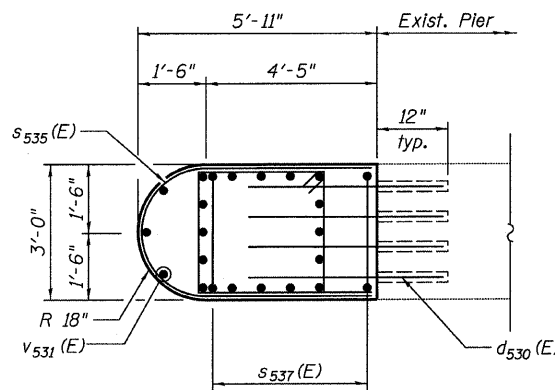
BARS s530(E), s531(E)  
& s537(E)

Bar	c	d
s530(E)	3'-2"	5'-8"
s531(E)	2'-8"	4'-5"
s537(E)	2'-7"	2'-2"

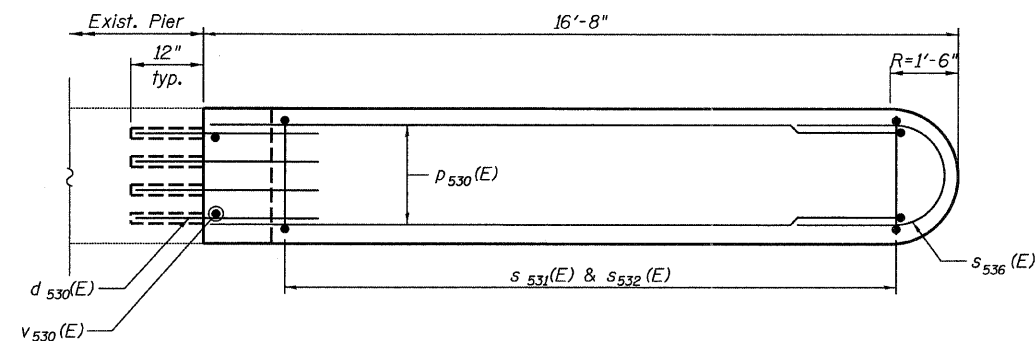


BARS s535(E), s536(E) & u530(E)

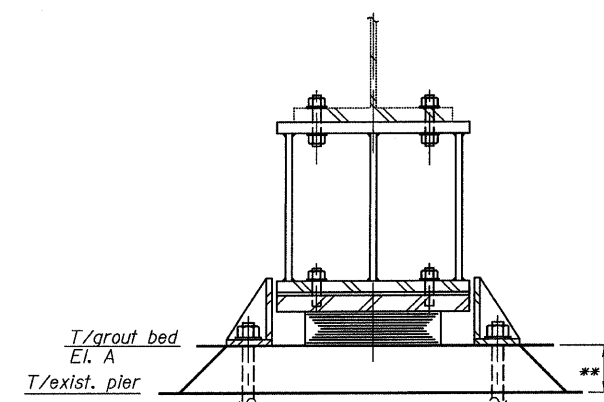
Bar	a	b	r
s535(E)	4'-3"	3'-11"	1'-3"
s536(E)	2'-2"	3'-11"	1'-3"
u530(E)	2'-2"	4'-9"	1'-6"



WEST EXTENSION-PLAN



EAST EXTENSION-PLAN



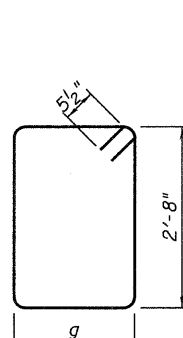
\*\* Provide non-shrink grout at locations indicated in accordance with section 1024 of the Standard Specifications.

The strength of the grout shall not be less than 6000 psi at the age of 28 days.

The grout will not be paid separately but shall be included in "Concrete Structures".

PROPOSED BEAM BEARING DETAIL  
AT EXISTING BEAMS

Existing Girder	El. A	Approx. Top of Existing Pier El.
16	612.929	612.773
15	612.921	612.773
14	612.913	612.773
13	612.905	612.773
12	612.897	612.773
11	612.889	612.773
10	612.881	612.773
9	612.873	612.773
8	612.806	612.554
7	612.654	612.554
6	612.503	612.251
5	612.351	612.251
4	612.199	611.947
3	612.047	611.947
2	611.895	611.644
1	611.744	611.644

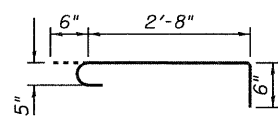


BARS p530(E) & w530(E)

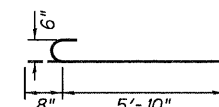
Bar	e	f
p530(E)	6'-9"	16'-5"
w530(E)	1'-10"	2'-8"

Bar	g
s533(E)	3'-8"
s534(E)	1'-3"
s538(E)	2'-8"

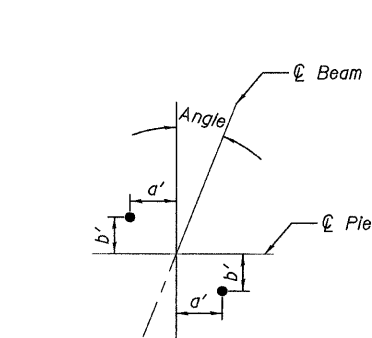
BARS s533(E), s534(E)  
& s538(E)



BAR s532(E)



BAR n531(E)



Beam	Angle	a'	b'
SG1	21°39'15"	12 <sup>3</sup> / <sub>8</sub> "	4 <sup>7</sup> / <sub>8</sub> "
1 thru 16	21°39'15"	12 <sup>3</sup> / <sub>8</sub> "	4 <sup>7</sup> / <sub>8</sub> "
SG2	22°22'28"	12 <sup>1</sup> / <sub>4</sub> "	5"
SG3	23°05'11"	12 <sup>1</sup> / <sub>4</sub> "	5 <sup>1</sup> / <sub>4</sub> "

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d530(E)	116	#7	4'-1"	—
d531(E)	22	#7	2'-4"	—
*h530(E)	4	#8	16'-8"	—
h531(E)	22	#5	15'-0"	—
n530(E)	51	#9	10'-8"	—
n531(E)	10	#6	6'-6"	—
*p530(E)	5	#8	23'-3"	—
*p531(E)	10	#8	16'-5"	—
s530(E)	48	#6	14'-6"	□
s531(E)	58	#5	11'-6"	□
s532(E)	47	#5	3'-8"	—
s533(E)	18	#5	13'-7"	—
s534(E)	11	#5	8'-9"	□
s535(E)	4	#5	12'-5"	—
s536(E)	40	#5	8'-3"	—
s537(E)	5	#5	6'-11"	—
s538(E)	18	#5	11'-7"	□
t530(E)	20	#5	9'-8"	—
t531(E)	24	#8	9'-8"	—
u530(E)	12	#5	9'-1"	—
v530(E)	32	#9	15'-3"	—
v531(E)	19	#9	17'-0"	—
w530(E)	20	#5	4'-6"	—
w531(E)	20	#5	14'-7"	—
Structure Excavation	Cu Yd		75	
Concrete Structures	Cu Yd		61.1	
Reinforcement Bars, Epoxy Coated	Pound		11,210	
Furnishing Metal Shell Piles 12"x0.25"	Foot		385	
Driving Piles	Foot		385	
Test Pile Metal Shells	Each		1	

\* Cut to fit in field.

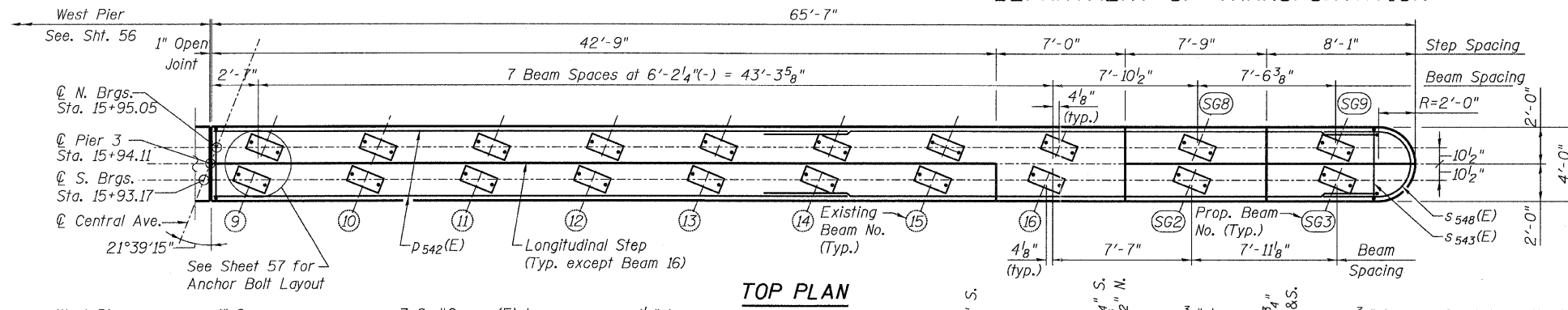
NOTES

1. Work this sheet with Sheet 53.

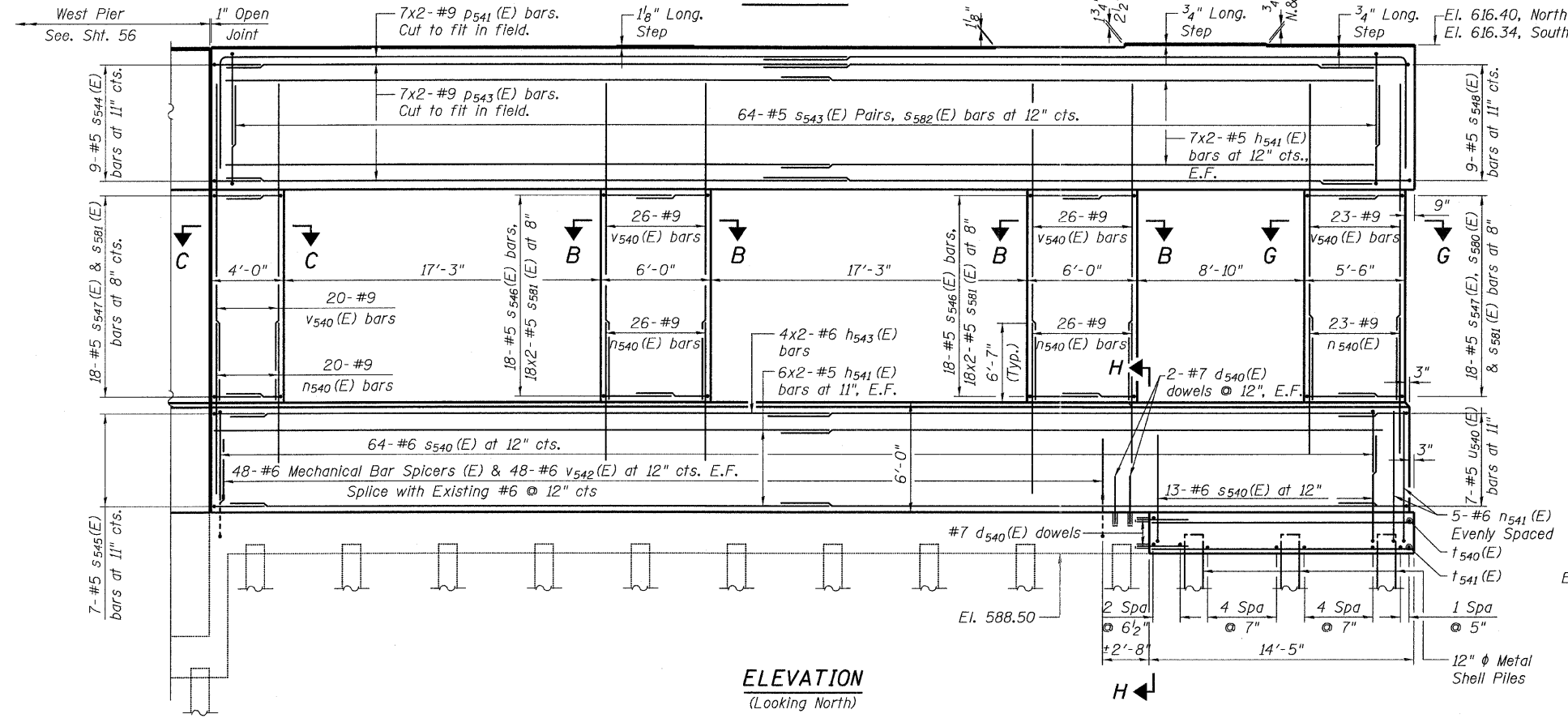
PIER 2 DETAILS  
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL	DESIGNED - MMB	REVISIONS		SHEET NO. 54	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	307
	DRAWN - MMB				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

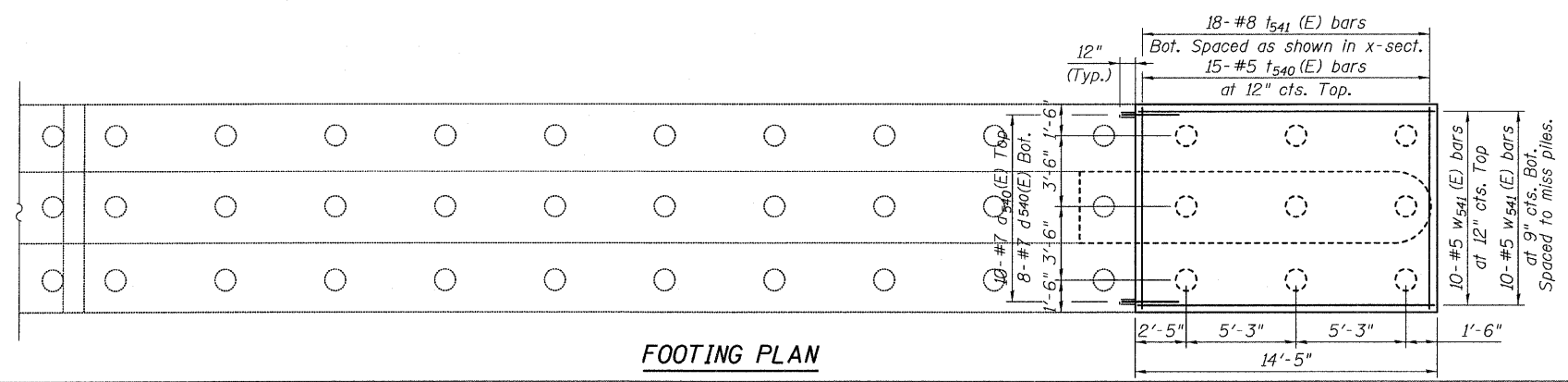
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



TOP PLAN



ELEVATION  
(Looking North)

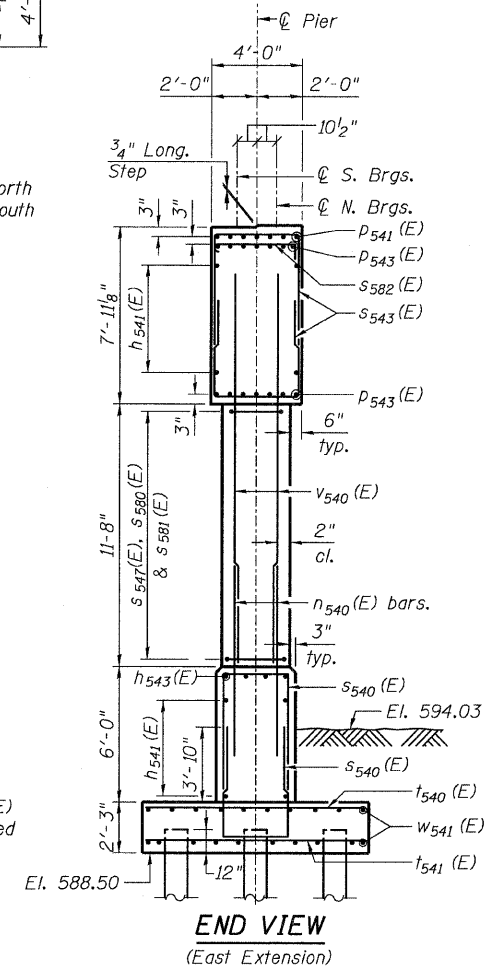


FOOTING PLAN

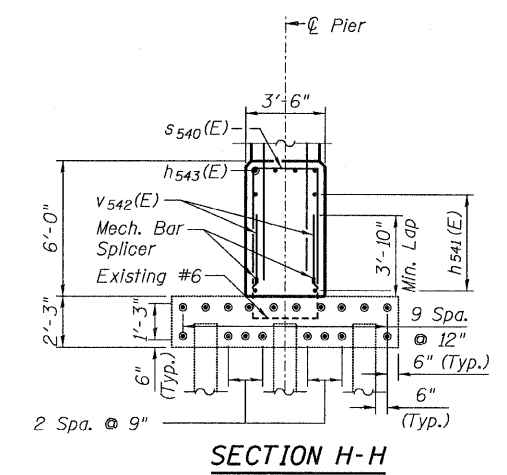


BRIDGE SEAT ELEVATIONS

South Bearings		North Bearings	
Girder Line	Seat Elevation	Girder Line	Seat Elevation
9	616.16	9	616.25
10	616.16	10	616.25
11	616.16	11	616.25
12	616.16	12	616.25
13	616.16	13	616.25
14	616.16	14	616.25
15	616.16	15	616.25
16	616.25	16	616.25
SG2	616.40	SG8	616.46
SG3	616.34	SG9	616.40



END VIEW  
(East Extension)



SECTION H-H

NOTES

- Epoxy grout  $d_{540}(E)$  and  $d_{541}(E)$  bars according to Article 584 of the Standard Specifications. Drill to miss existing reinforcement. The epoxy grout and method of application shall be approved by the Engineer. All drilling and grouting of rebar to be included with the cost of "Reinforcement Bars, Epoxy Coated."
- Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
- Space reinforcement in pier cap to miss anchor bolts.
- Space bottom reinforcement in footing to miss piles.
- For sections A-A, B-B & C-C see Sheet 55.
- For Bill of Materials, see Sheet 55.
- E.F. - denotes each face.
- Work this sheet with Sheets 56 & 57.

PILE DATA TABLE

Type: 12"  $\phi$  x 0.25" Wall  
Nominal Required Bearing: 270 kips  
Allowable Resistance Available: 90 kips  
Estimated Length: 41 ft  
No. Production Piles: 8  
No. Test Piles: 1

- Proposed Pile
- Existing Pile

PIER 3 WIDENING  
EAST  
STRUCTURE NO. 016-3241

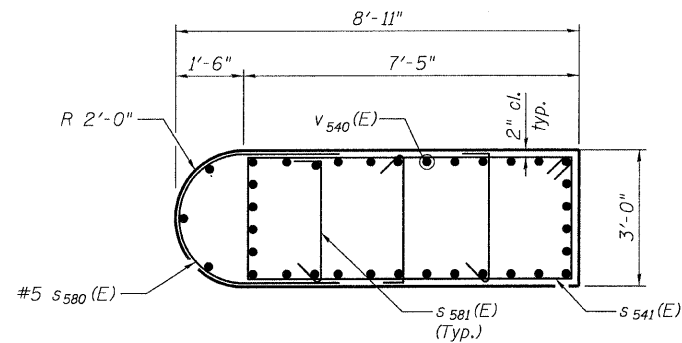
TYLIN INTERNATIONAL	DESIGNED - MMB	REVISIONS		SHEET NO. 55	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	308
	DRAWN - MMB				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

11-30157 AM  
pi:\01345\structure\016-3241\55c\pier3e.dgn 4/28/2011 11:30:57 AM

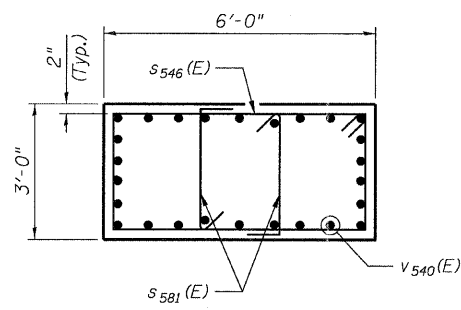




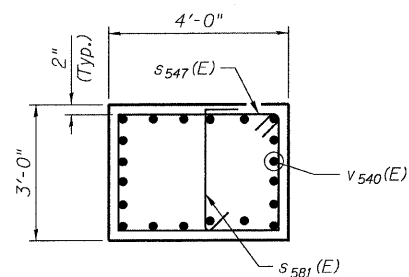
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



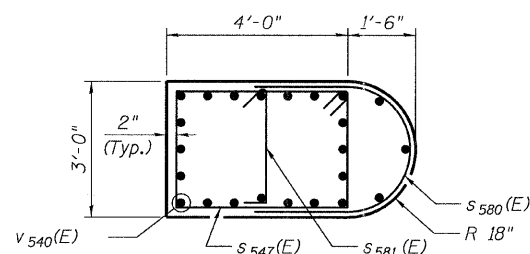
SECTION A-A



SECTION B-B

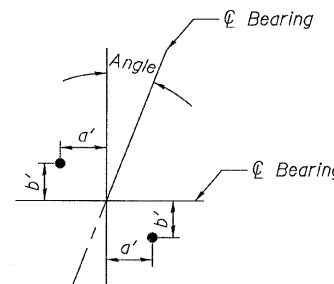


SECTION C-C



SECTION G-G

MINIMUM LAP	
#5	3'-8"
#6	4'-5"
#9	9'-8"



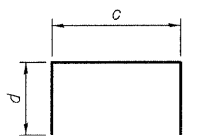
ANCHOR BOLT LAYOUT

PIER #3 S. BEARINGS

Beam	Angle	a'	b'
SG1	21°39'15"	8 <sup>5</sup> / <sub>8</sub> "	3 <sup>3</sup> / <sub>8</sub> "
1 Thru 16	21°39'15"	8 <sup>5</sup> / <sub>8</sub> "	3 <sup>3</sup> / <sub>8</sub> "
SG2	22°22'28"	8 <sup>1</sup> / <sub>2</sub> "	3 <sup>1</sup> / <sub>2</sub> "
SG3	23°05'11"	8 <sup>1</sup> / <sub>2</sub> "	3 <sup>5</sup> / <sub>8</sub> "

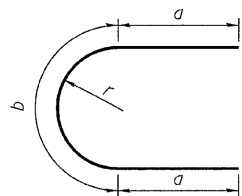
PIER #3 N. BEARINGS

Beam	Angle	a'	b'
SG4	20°58'38"	8 <sup>5</sup> / <sub>8</sub> "	3 <sup>1</sup> / <sub>4</sub> "
1 Thru 16	21°39'15"	8 <sup>5</sup> / <sub>8</sub> "	3 <sup>3</sup> / <sub>8</sub> "
SG8	21°39'15"	8 <sup>5</sup> / <sub>8</sub> "	3 <sup>3</sup> / <sub>8</sub> "
SG9	21°39'15"	8 <sup>5</sup> / <sub>8</sub> "	3 <sup>3</sup> / <sub>8</sub> "



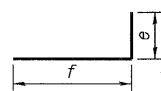
Bar	c	d
s540(E)	3'-2"	5'-6"
s542(E)	3'-8"	4'-3"
s543(E)	3'-8"	4'-10"
s544(E)	3'-8"	2'-2"
s545(E)	3'-2"	2'-2"

BARS s540(E),  
s542(E) thru s545(E)



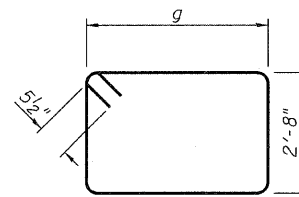
Bar	a	b	r
s548(E)	2'-2"	5'-6"	1'-9"
s580(E)	2'-2"	3'-11"	1'-3"
u540(E)	2'-9"	4'-9"	1'-6"

BARS s548(E), s580(E)  
& u540(E)



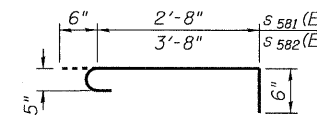
Bar	e	f
p540(E)	6'-0"	31'-9"
p541(E)	6'-0"	37'-8"
w540(E)	1'-10"	2'-8"

BARS p540(E), p541(E)  
& w540(E)

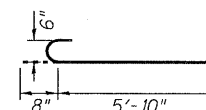


Bar	g
s541(E)	7'-1"
s546(E)	5'-8"
s547(E)	3'-8"

BARS s541(E), s546(E)  
& s547(E)



BARS s581(E) & s582(E)



BAR n541(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d540(E)	56	#7	4'-1"	—
h540(E)	48	#5	27'-9"	—
h541(E)	52	#5	33'-6"	—
h542(E)	8	#6	28'-1"	—
h543(E)	8	#6	33'-10"	—
h545(E)	5	#5	30'-4"	—
h546(E)	5	#5	11'-10"	—
n540(E)	176	#9	10'-8"	—
n541(E)	14	#6	6'-6"	—
p540(E)	14	#9	37'-9"	—
p541(E)	14	#9	43'-8"	—
p542(E)	28	#9	31'-9"	—
p543(E)	28	#9	37'-8"	—
s540(E)	130	#6	14'-2"	—
s541(E)	18	#5	20'-5"	—
s542(E)	106	#5	12'-2"	—
s543(E)	128	#5	13'-4"	—
s544(E)	62	#5	8'-0"	—
s545(E)	14	#5	7'-6"	—
s546(E)	54	#5	17'-7"	—
s547(E)	54	#5	13'-7"	—
s548(E)	17	#5	9'-10"	—
s580(E)	36	#5	8'-3"	—
s581(E)	216	#5	3'-8"	—
s582(E)	117	#5	4'-8"	—
t540(E)	19	#5	9'-8"	—
t541(E)	22	#8	9'-8"	—
u540(E)	20	#5	10'-3"	—
v540(E)	176	#9	15'-9"	—
v541(E)	13	#6	12'-5"	—
v542(E)	96	#6	4'-6"	—
w540(E)	20	#5	4'-6"	—
w541(E)	20	#5	14'-1"	—
Test Pile Metal Shells	Each		1	
Structure Excavation	Cu Yd		79	
Concrete Structures	Cu Yd		293.9	
Reinforcement Bars, Epoxy Coated	Pound		43,860	
Furnishing Metal Shell Piles 12"x0.25"	Foot		451	
Driving Piles	Foot		451	
Concrete Sealer	Sq Ft		5,109	
Mechanical Splitters	Each		96	

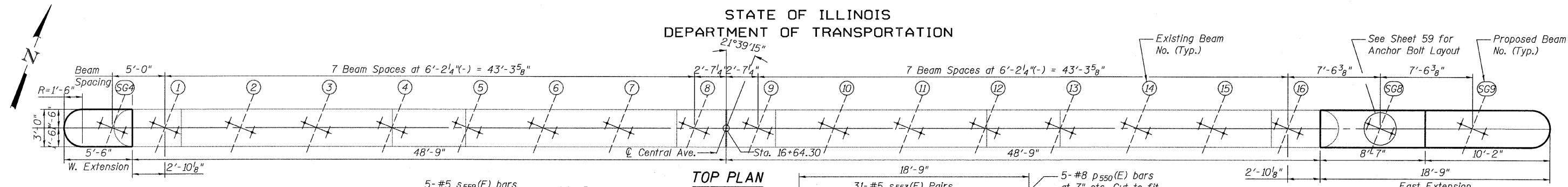
NOTES

1. Work this sheet with Sheets 55 & 56.

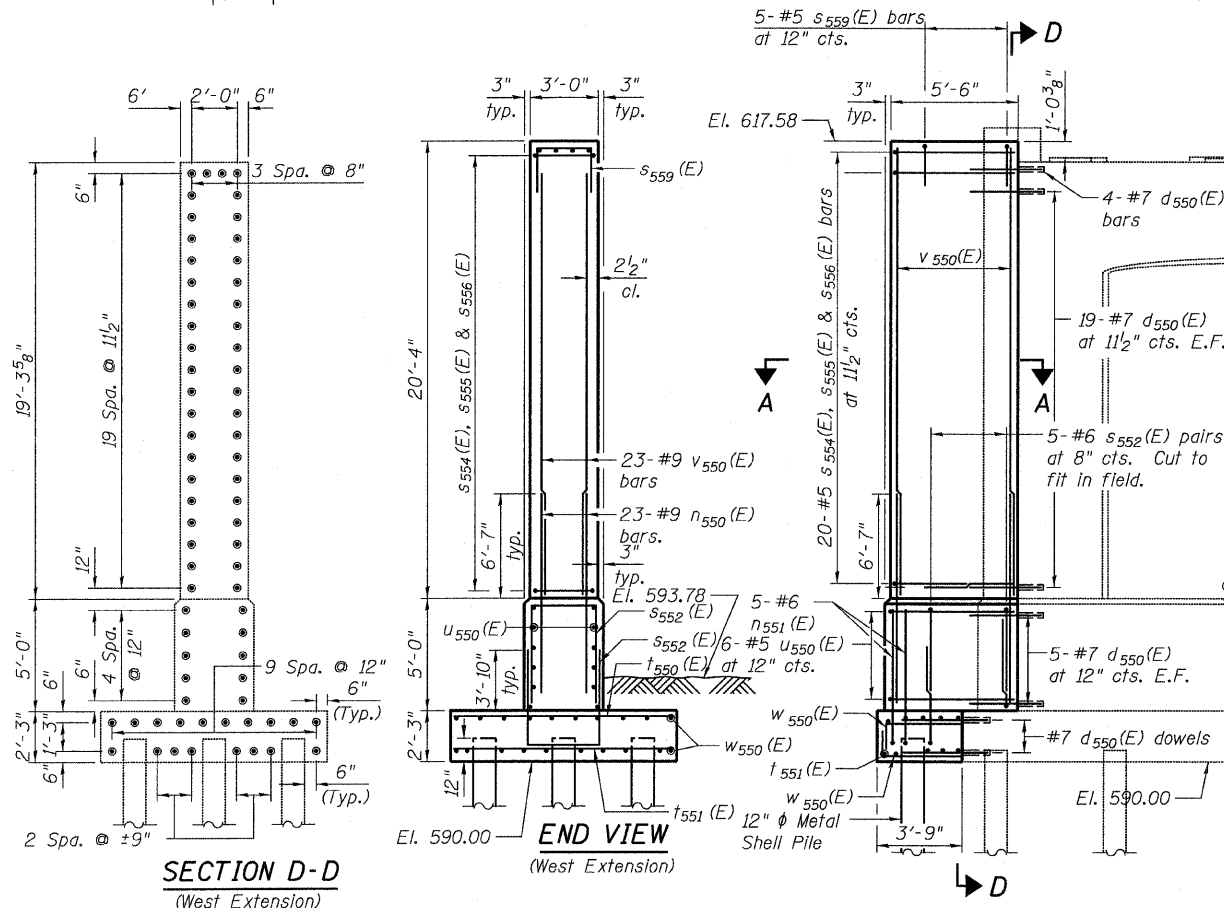
PIER 3 DETAILS  
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL	DESIGNED - MMB	REVISIONS		SHEET NO. 57	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	310	
	DRAWN - MMB				71 SHEETS	CONTRACT NO. 60999				
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

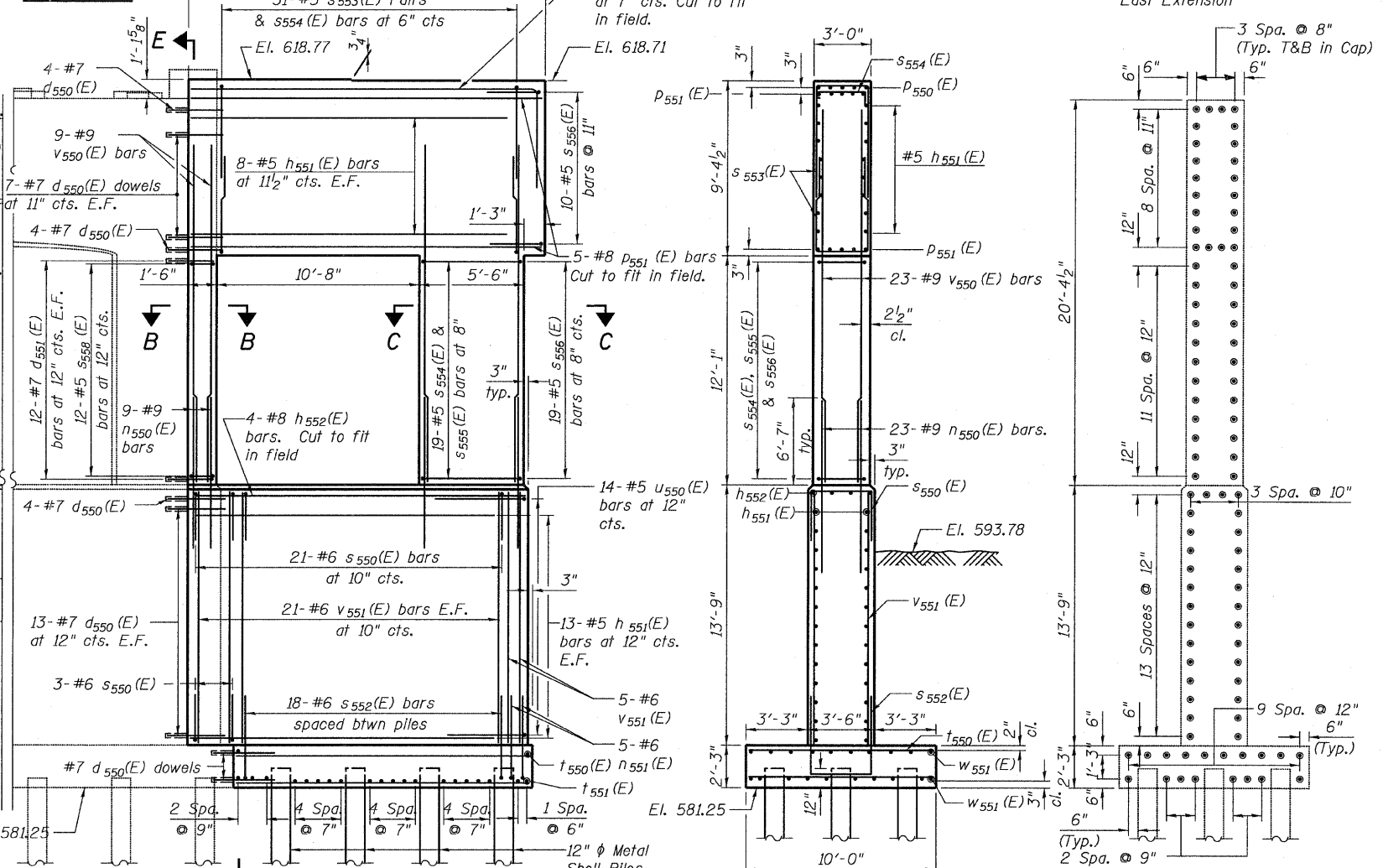


TOP PLAN



SECTION D-D  
(West Extension)

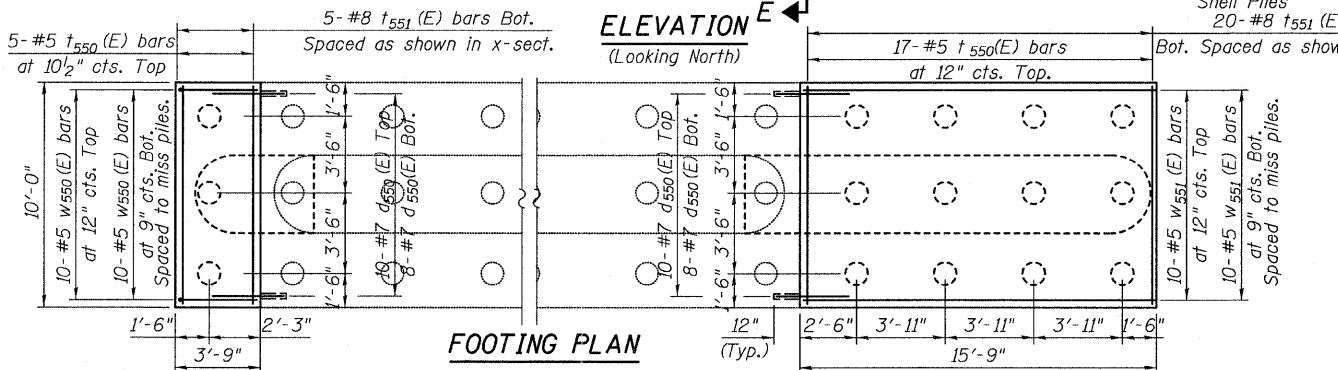
END VIEW  
(West Extension)



ELEVATION E  
(Looking North)

END VIEW  
(East Extension)

SECTION E-E  
(East Extension)



FOOTING PLAN

NOTES

1. Epoxy grout  $d_{550}(E)$  and  $d_{551}(E)$  bars according to Article 584 of the Standard Specifications. Drill to miss existing reinforcement. The epoxy grout and method of application shall be approved by the Engineer. All drilling and grouting of rebar to be included with the cost of "Reinforcement Bars, Epoxy Coated."
2. Space reinforcement in pier cap to miss anchor bolts.
3. Space bottom reinforcement in footing to miss piles.
4. For sections A-A, B-B, C-C & Detail 1 see Sheet 59.
5. For Bill of Materials, see Sheet 59.
6. E.F. - denotes each face

PILE DATA TABLE

Type: 12"  $\phi$  x 0.25" Wall  
Nominal Required Bearing: 270 kips  
Allowable Resistance Available: 90 kips  
Estimated Length: 33 ft  
No. Production Piles: 14  
No. Test Piles: 1

- Proposed Pile
- Existing Pile

PIER 4 WIDENING  
STRUCTURE NO. 016-3241

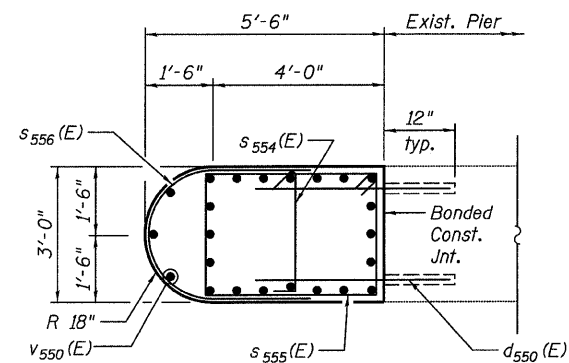
TYLIN INTERNATIONAL

DESIGNED -	MMB	REVISIONS	
CHECKED -	AMD,	NAME	DATE
DRAWN -	MMB		
CHECKED -	AMD,		
DATE -	03/25/2011		

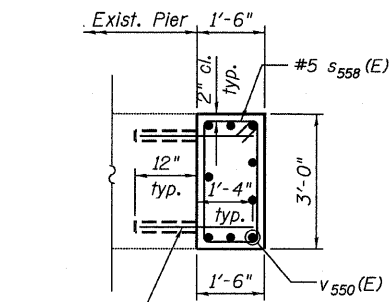
SHEET NO. 58	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	311
			CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

4/28/2011

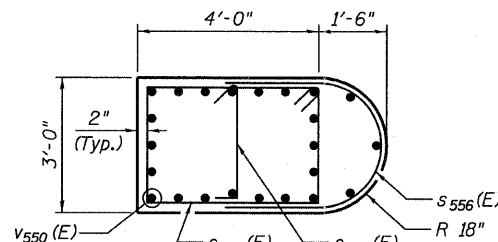
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



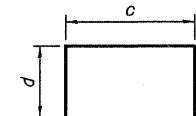
SECTION A-A



SECTION B-B

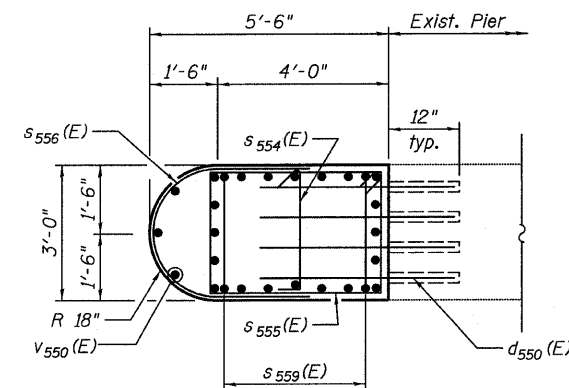


SECTION C-C

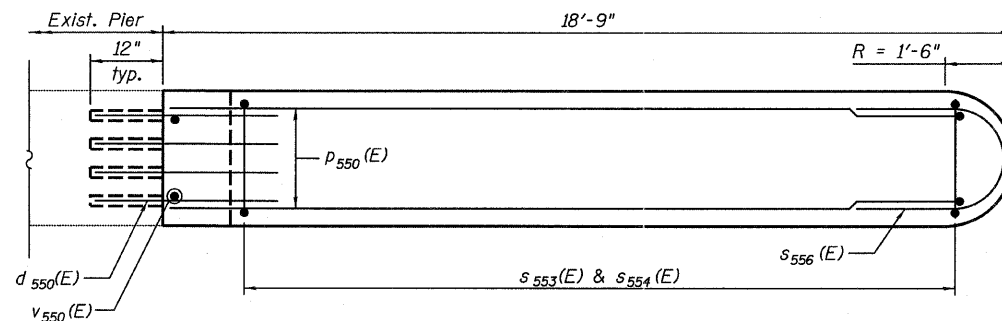


Bar	c	d
s550(E)	3'-2"	2'-7"
s552(E)	3'-2"	5'-10"
s553(E)	2'-8"	6'-2"
s559(E)	2'-7"	2'-2"

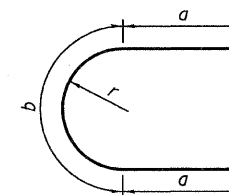
BARS s550(E), s552(E),  
s553(E) & s559(E)



WEST EXTENSION-PLAN

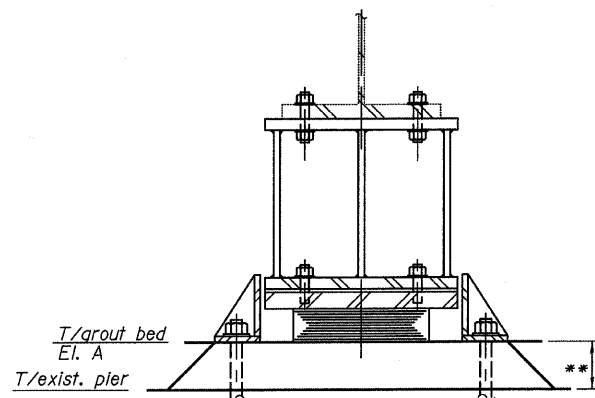


EAST EXTENSION-PLAN



Bar	a	b	r
s556(E)	2'-2"	3'-11"	1'-3"
u550(E)	3'-10"	4'-9"	1'-6"

BARS s556(E) & u550(E)



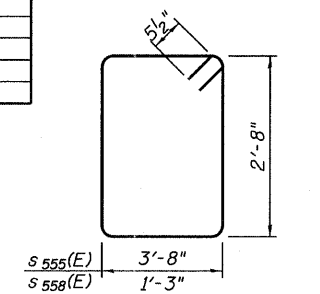
\*\* Provide non-shrink grout at locations indicated in accordance with section 1024 of the Standard Specifications.

The strength of the grout shall not be less than 6000 psi at the age of 28 days.

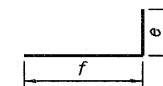
The grout will not be paid separately but shall be included in "Concrete Structures".

PROPOSED BEAM BEARING DETAIL  
AT EXISTING BEAMS

Existing Girder	El. A	Approx. Top of Existing Pier El.
16	617.732	617.632
15	617.736	617.632
14	617.739	617.632
13	617.741	617.632
12	617.743	617.632
11	617.745	617.632
10	617.747	617.632
9	617.748	617.632
8	617.663	617.419
7	617.519	617.419
6	617.375	617.130
5	617.230	617.130
4	617.086	616.840
3	616.940	616.840
2	616.795	616.549
1	616.649	616.549

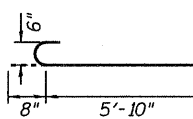


BARS s555(E) & s558(E)

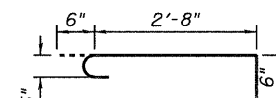


Bar	e	f
p550(E)	8'-9"	18'-6"
w550(E)	1'-10"	3'-5"

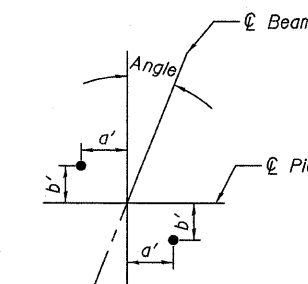
BARS p550(E) & w550(E)



BAR n551(E)



BAR s554(E)



ANCHOR BOLT LAYOUT

Beam	Angle	a'	b'
SG4	20°58'38"	12 <sup>3</sup> / <sub>8</sub> "	4 <sup>3</sup> / <sub>4</sub> "
I-16	21°39'15"	12 <sup>3</sup> / <sub>8</sub> "	4 <sup>7</sup> / <sub>8</sub> "
SG8	21°39'15"	12 <sup>3</sup> / <sub>8</sub> "	4 <sup>7</sup> / <sub>8</sub> "
SG9	21°39'15"	12 <sup>3</sup> / <sub>8</sub> "	4 <sup>7</sup> / <sub>8</sub> "

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d550(E)	140	#7	4'-1"	—
d551(E)	24	#7	2'-4"	—
h551(E)	42	#5	17'-1"	—
h552(E)	4	#8	17'-8"	—
n550(E)	55	#9	10'-8"	—
n551(E)	10	#6	6'-6"	—
p550(E)	5	#8	27'-3"	—
w550(E)	10	#8	18'-6"	—
s550(E)	24	#6	8'-4"	□
s552(E)	28	#5	14'-10"	□
s553(E)	62	#5	15'-0"	□
s554(E)	70	#5	3'-8"	—
s555(E)	39	#5	13'-7"	—
s556(E)	49	#5	8'-3"	—
s558(E)	12	#5	8'-9"	—
s559(E)	5	#5	6'-11"	□
t550(E)	22	#5	9'-8"	—
t551(E)	25	#8	9'-8"	—
u550(E)	20	#5	12'-5"	—
v550(E)	55	#9	20'-2"	—
v551(E)	47	#6	13'-6"	—
w550(E)	20	#5	5'-3"	—
w551(E)	20	#5	15'-5"	—
Structure Excavation	Cu Yd	127		
Concrete Structures	Cu Yd	90.8		
Reinforcement Bars, Epoxy Coated	Pound	14,550		
Furnishing Metal Shell Piles 12"x0.25"	Foot	462		
Driving Piles	Foot	462		
Test Pile Metal Shells	Each	1		

\* Cut to fit in field.

NOTES

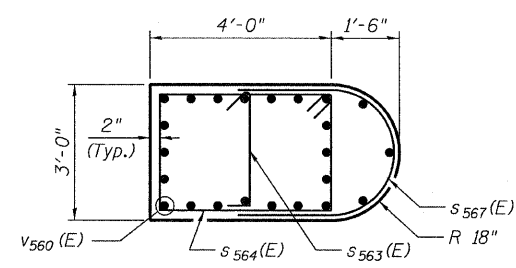
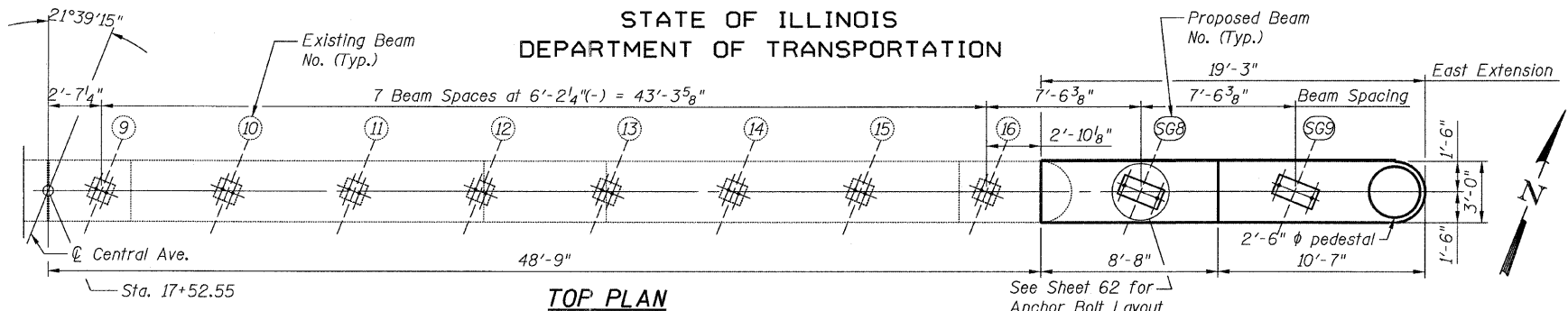
1. Work this sheet with Sheet 58.

PIER 4 DETAILS  
STRUCTURE NO. 016-3241

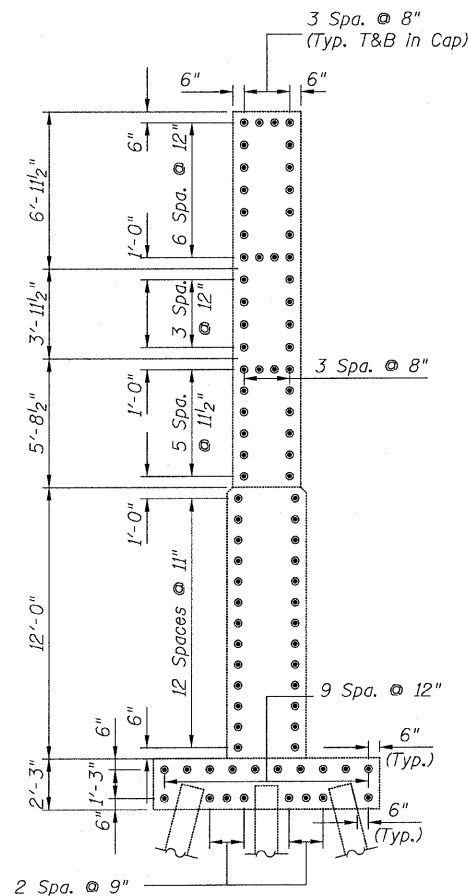
TYLIN INTERNATIONAL	DESIGNED - MMB	REVISIONS		SHEET NO. 59	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.						
	CHECKED - AMD,	NAME	DATE							71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	312
	DRAWN - MMB														
	CHECKED - AMD,														
	DATE - 03/25/2011														
					CONTRACT NO. 60999										
					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT										

**NOTES**

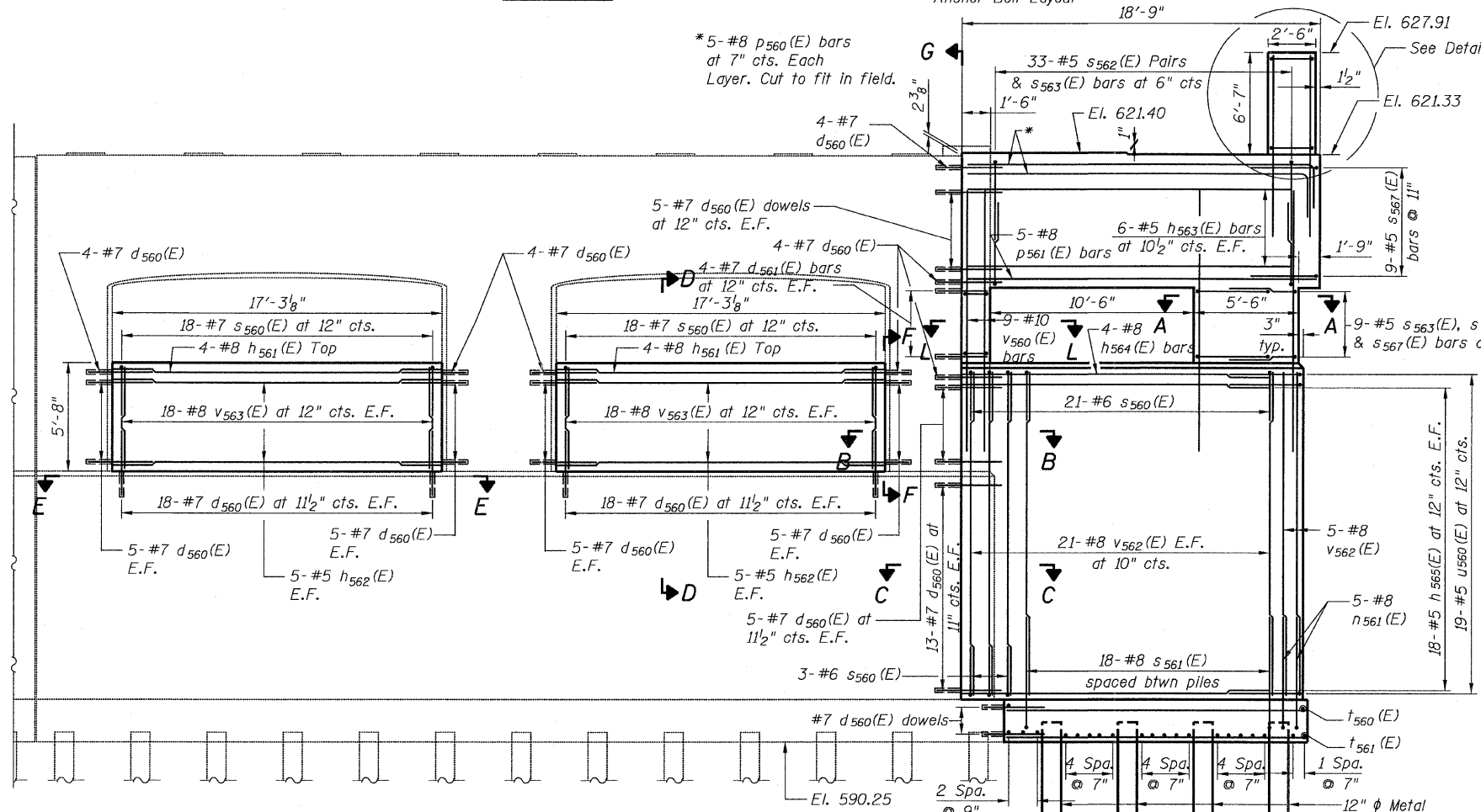
- Epoxy grout  $d_{560}(E)$  and  $d_{561}(E)$  bars according to Article 584 of the Standard Specifications. Drill to miss existing reinforcement. The epoxy grout and method of application shall be approved by the Engineer. All drilling and grouting of rebar to be included with the cost of "Reinforcement Bars, Epoxy Coated."
- Space reinforcement in pier cap to miss anchor bolts.
- Space bottom reinforcement in footing to miss piles.
- Work with Sheets 61 & 62.
- For Bill of Materials, see Sheet 62.
- E.F. - denotes each face.



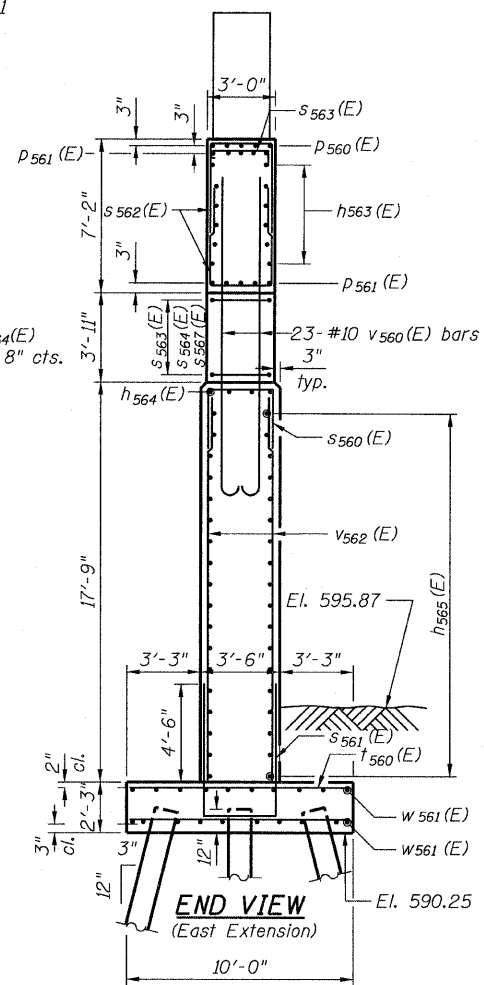
**SECTION A-A**



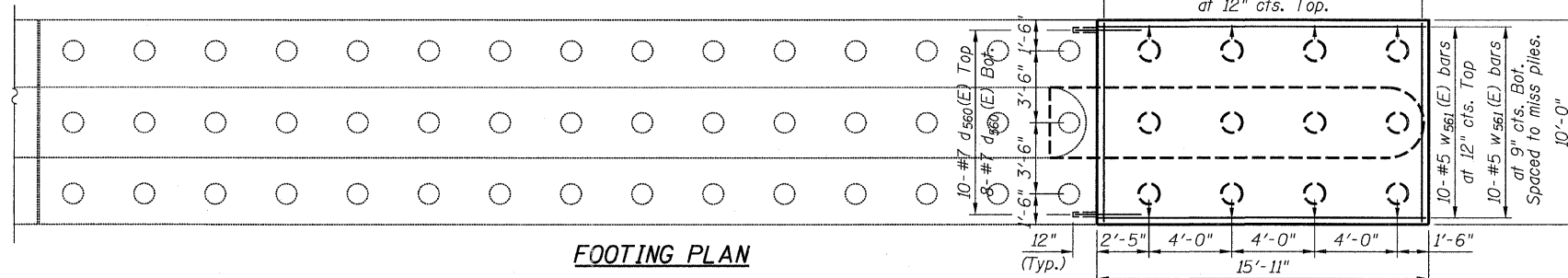
**SECTION G-G**  
(East Extension)



**ELEVATION**  
(Looking North)



**PIER 5 WIDENING**  
**EAST**  
**STRUCTURE NO. 016-3241**



**FOOTING PLAN**

**PILE DATA**

Type: 12"  $\phi$  x 0.25" Wall  
 Nominal Required Bearing: 270 kips  
 Allowable Resistance Available: 90 kips  
 Estimated Length: 49 ft  
 No. Production Piles: 11  
 No. Test Piles: 1

- Proposed Pile
- Existing Pile

**TYLIN INTERNATIONAL**

DESIGNED - MMB	REVISIONS	
	NAME	DATE
CHECKED - AMD,		
DRAWN - MMB		
CHECKED - AMD,		
DATE - 03/25/2011		

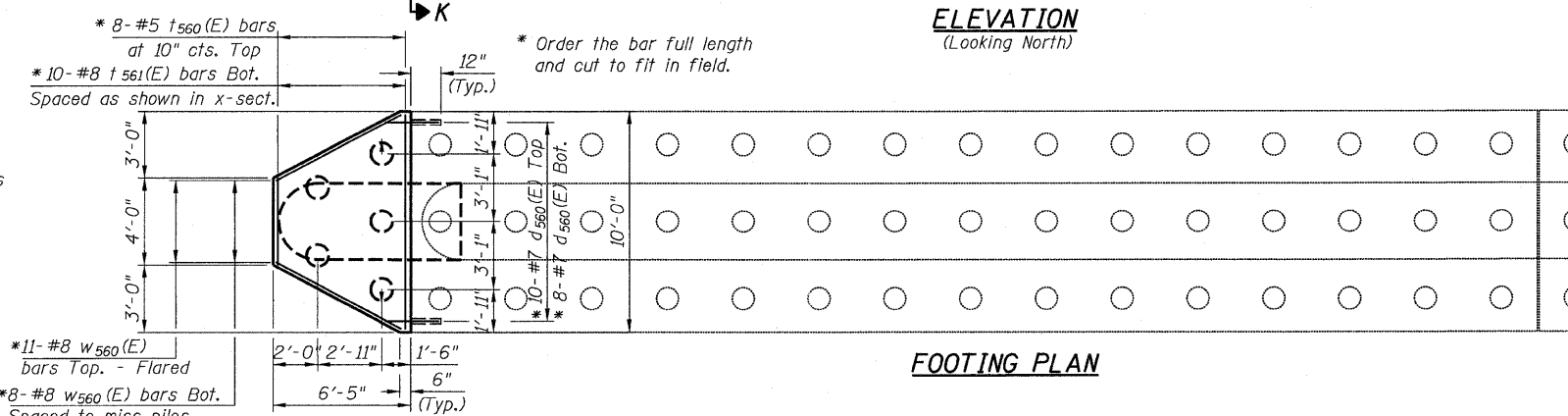
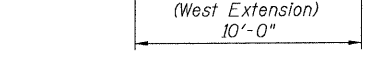
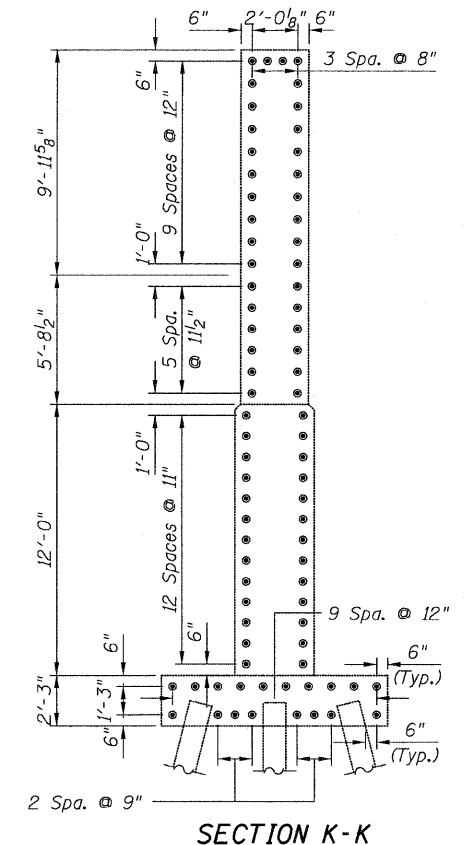
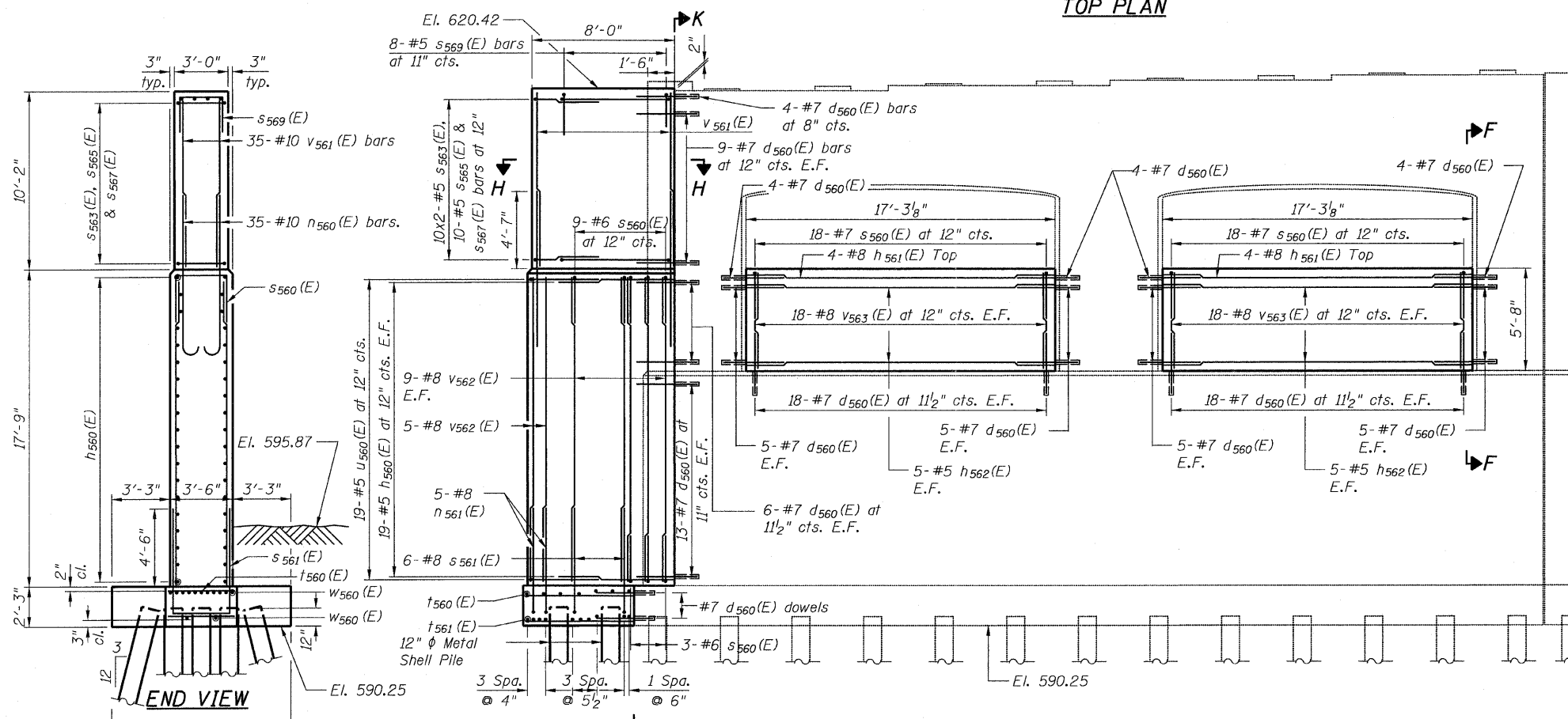
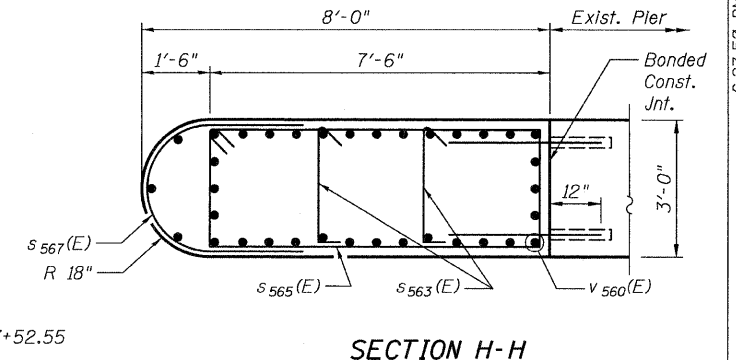
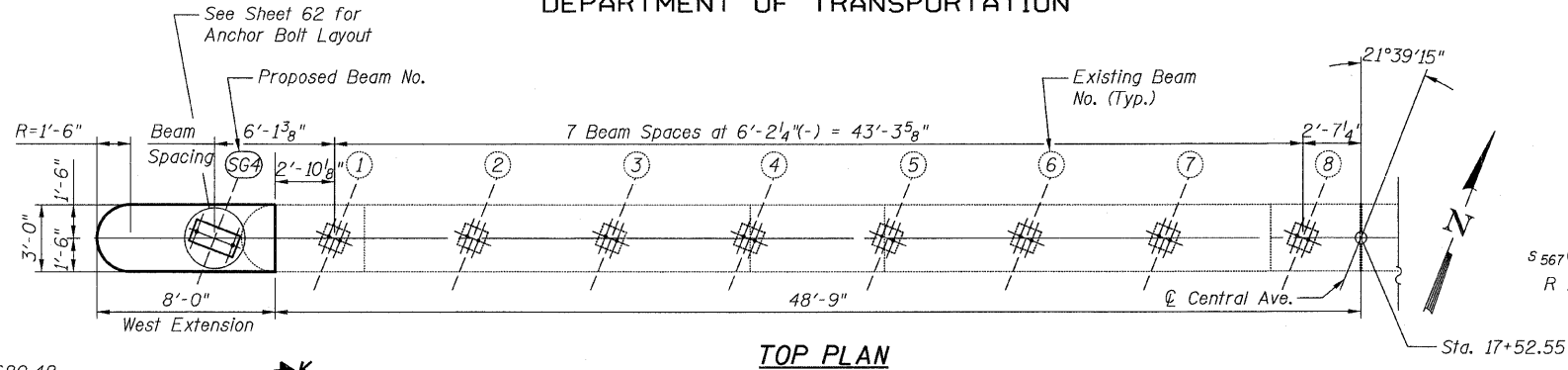
SHEET NO. 60	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	71 SHEETS	55	0711.2R & 1011.1BR	COOK	741 313
			CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

pi:01345\structure\1 south approach 016-3241\1552\pier5.eas 5/9/2011 9:01:58 AM

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**NOTES**

1. Work this sheet with Sheets 60 & 62.



**PILE DATA**  
Type: 12"  $\phi$  x 0.25" Wall  
Nominal Required Bearing: 270 kips  
Allowable Resistance Available: 90 kips  
Estimated Length: 45 ft  
No. Production Piles: 5

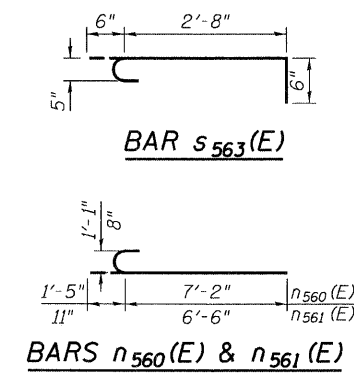
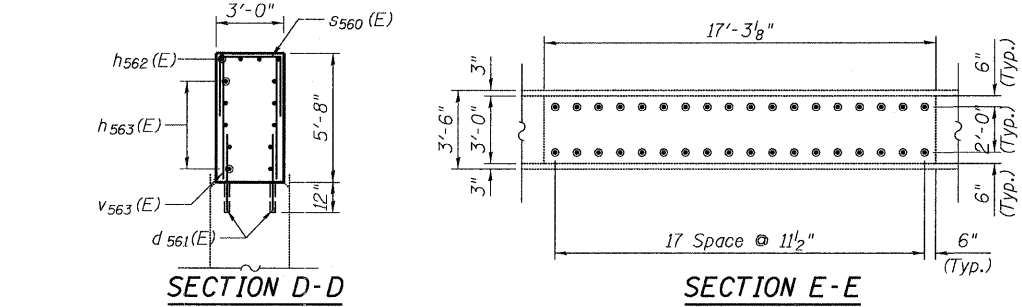
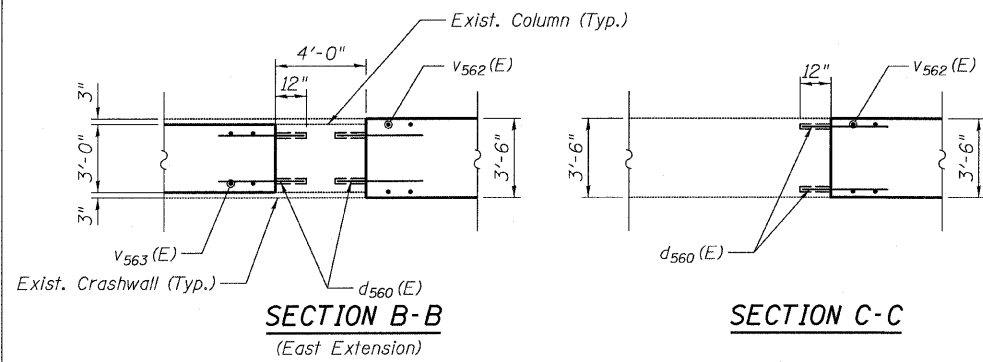
- Proposed Pile
- Existing Pile

**PIER 5 WIDENING  
WEST  
STRUCTURE NO. 016-3241**

<b>TYLIN INTERNATIONAL</b>	DESIGNED - MMB	REVISIONS		SHEET NO. 61  71 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	314	
	DRAWN - MMB				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

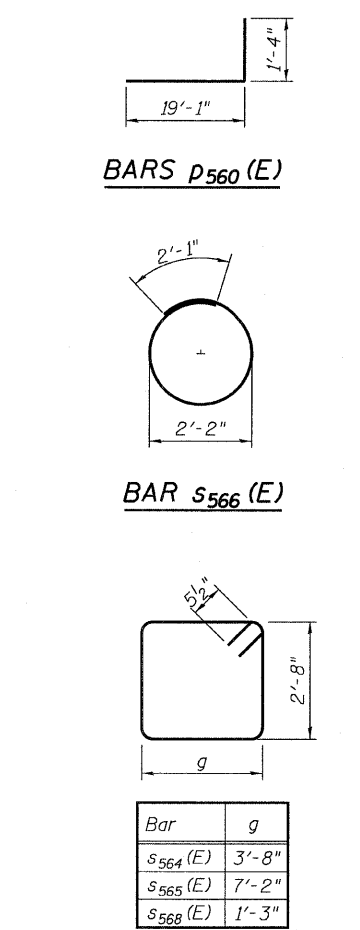
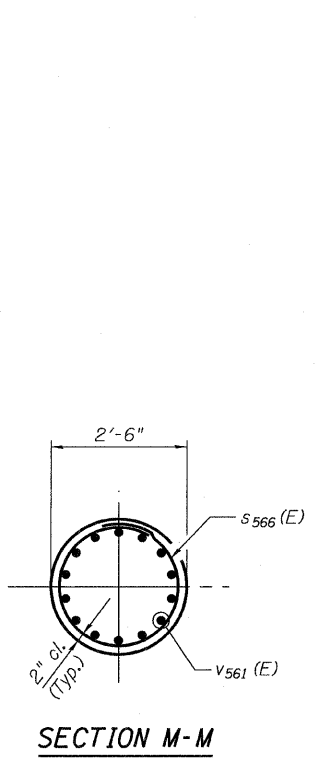
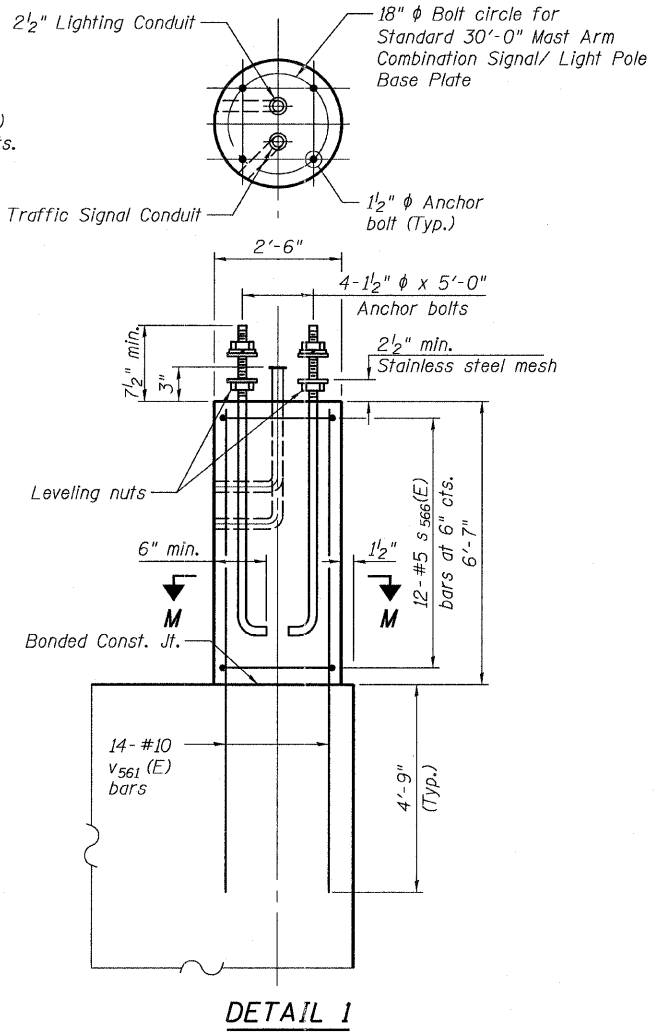
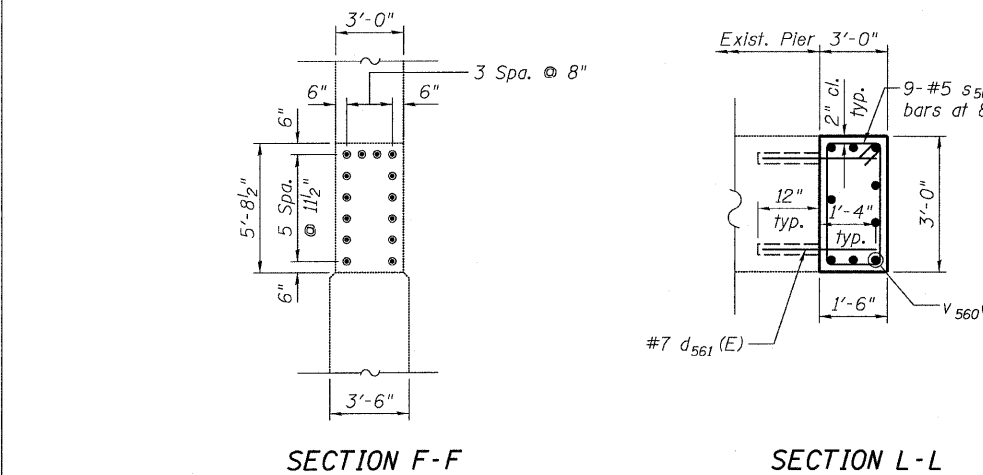
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4/28/2011

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d560 (E)	410	#7	4'-1"	—
d561 (E)	8	#7	2'-4"	—
h560 (E)	60	#5	6'-6"	—
h561 (E)	16	#8	17'-0"	—
h562 (E)	40	#5	17'-0"	—
h563 (E)	12	#5	17'-9"	—
* h564 (E)	4	#8	17'-9"	—
h565 (E)	36	#5	16'-2"	—
n560 (E)	35	#10	8'-7"	—
n561 (E)	10	#8	7'-5"	—
* p560 (E)	10	#8	25'-8"	—
* p561 (E)	5	#8	19'-1"	—
s560 (E)	108	#6	8'-4"	—
s561 (E)	24	#8	16'-2"	—
s562 (E)	66	#5	11'-6"	—
s563 (E)	62	#5	3'-8"	—
s564 (E)	9	#5	13'-7"	—
s565 (E)	10	#5	20'-7"	—
s566 (E)	12	#5	8'-11"	—
s567 (E)	28	#5	8'-3"	—
s568 (E)	9	#5	8'-9"	—
s569 (E)	8	#5	6'-11"	—
* t560 (E)	25	#5	9'-8"	—
* t561 (E)	30	#8	9'-8"	—
u560 (E)	38	#5	9'-1"	—
v560 (E)	32	#10	13'-5"	—
v561 (E)	49	#10	10'-10"	—
v562 (E)	70	#8	17'-4"	—
v563 (E)	144	#8	5'-7"	—
* w560 (E)	19	#5	6'-4"	—
* w561 (E)	20	#5	15'-9"	—
Test Pile Metal Shells	Each		1	
Structure Excavation	Cu Yd		104	
Concrete Structures	Cu Yd		145.3	
Reinforcement Bars, Epoxy Coated	Pound		24,230	
Furnishing Metal Shell Piles 12"x0.25"	Foot		764	
Driving Piles	Foot		764	

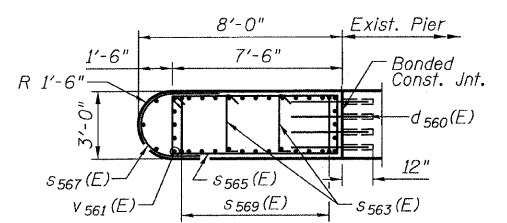


Bar	c	d
s560 (E)	3'-2"	2'-7"
s561 (E)	3'-2"	6'-6"
s562 (E)	2'-8"	4'-5"
s569 (E)	2'-7"	2'-2"

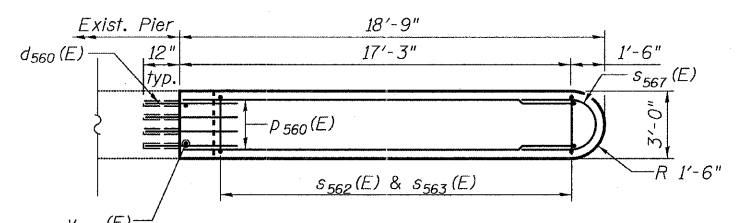
BARS s560 (E), s561 (E), s562 (E) & s569 (E)

Bar	a	b	r
s567 (E)	2'-2"	3'-11"	1'-3 1/2"
u560 (E)	2'-2"	4'-9"	1'-6"

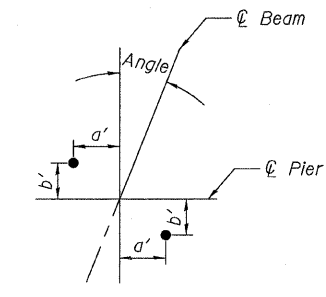
BARS s567 (E) & u560 (E)



WEST EXTENSION-PLAN



EAST EXTENSION-PLAN



ANCHOR BOLT LAYOUT

Beam	Angle	a'	b'
SG4	20°58'38"	8 1/8"	3 1/8"
SG8	21°39'15"	8 1/8"	3 1/4"
SG9	21°39'15"	8 1/8"	3 1/4"

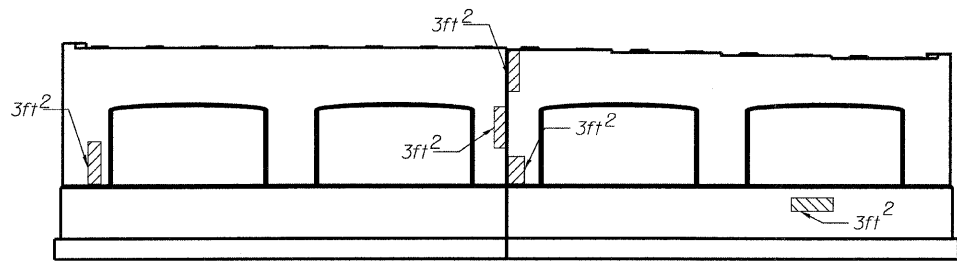
\* Cut to fit in field.  
**NOTES**  
1. Work this sheet with Sheets 60 & 61.

PIER 5 WIDENING  
SECTIONS & DETAILS  
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL	DESIGNED - MMB	REVISIONS		SHEET NO. 62	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	315
	DRAWN - MMB				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

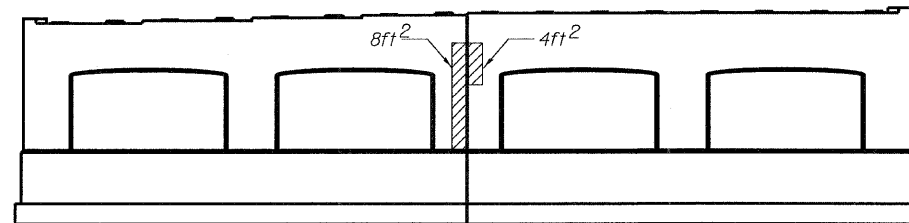
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pi01345\structure\c1\_south\_approach\016-3241\55c1pier5detail.dwg

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

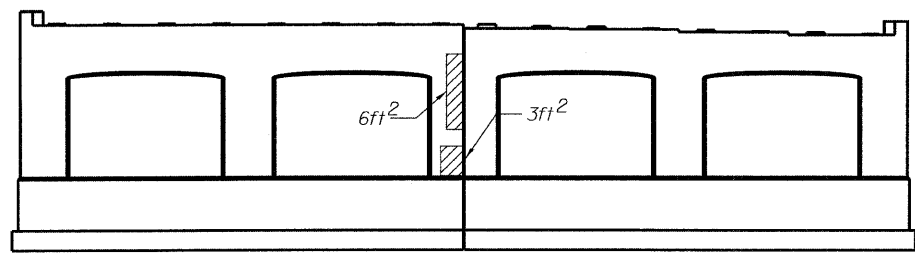


**North Elevation**  
(Looking South)

**PIER 1**

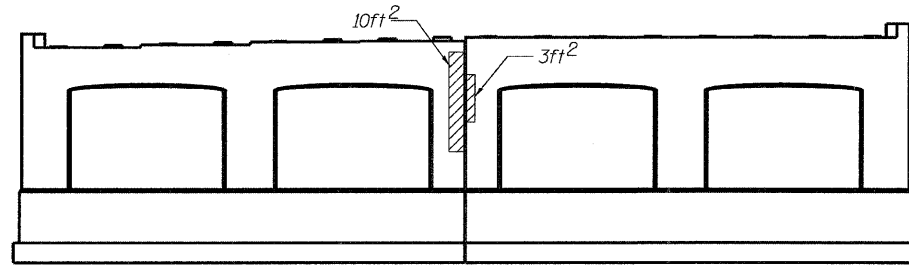


**South Elevation**  
(Looking North)

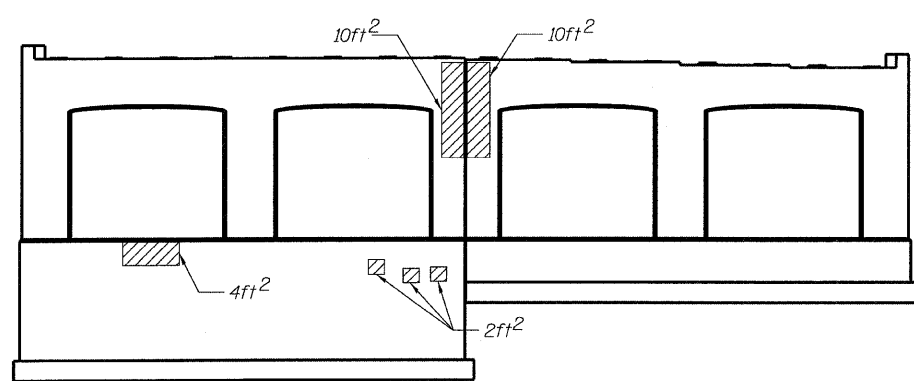


**North Elevation**  
(Looking South)

**PIER 2**

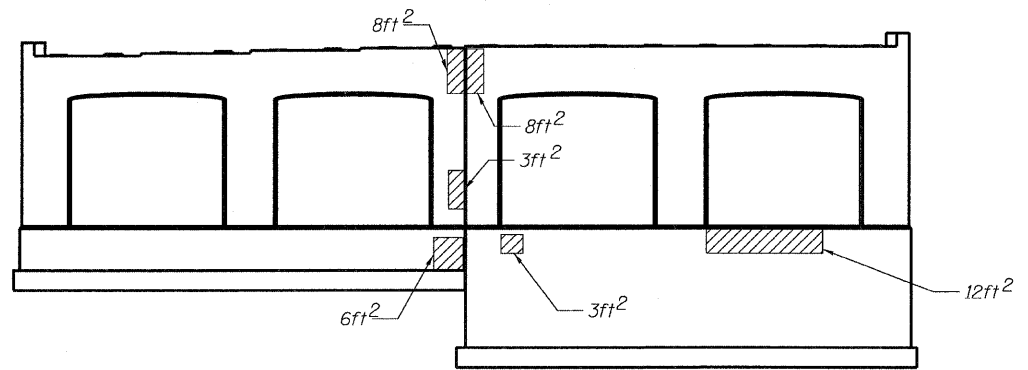


**South Elevation**  
(Looking North)

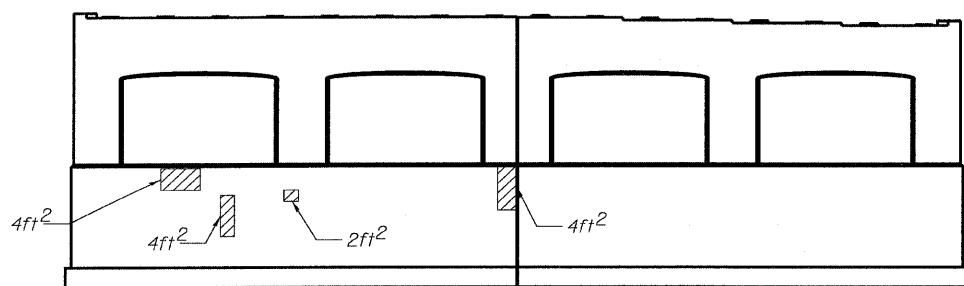


**North Elevation**  
(Looking South)

**PIER 4**

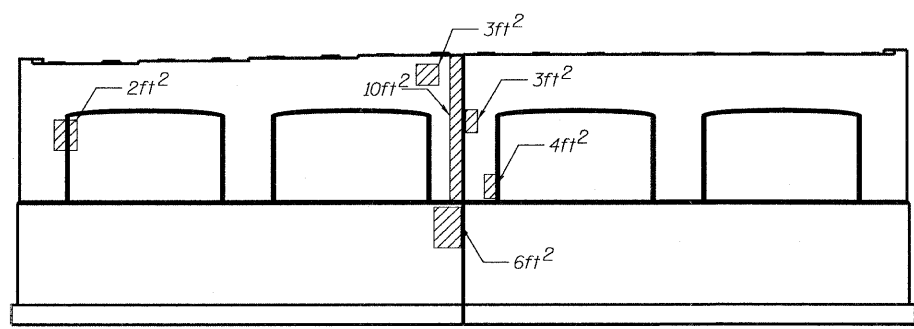


**South Elevation**  
(Looking North)



**North Elevation**  
(Looking South)

**PIER 5**



**South Elevation**  
(Looking North)

**BILL OF MATERIAL**

Item	Unit	TOTAL
Structural Repair of Concrete (Depth Less than 5 inches)	Sq. Ft.	161

**LEGEND**

Formed Concrete Repair (Depth < 5")

**SUBSTRUCTURE REPAIRS  
STRUCTURE NO. 016-3241**

**TYLIN INTERNATIONAL**

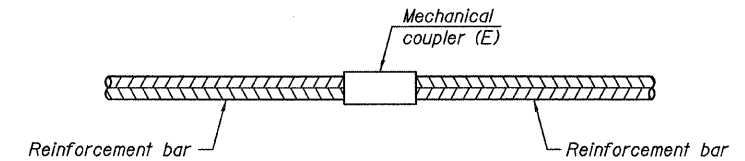
	REVISIONS	
	NAME	DATE
DESIGNED - JPN		
CHECKED - AMD,		
DRAWN - EKH		
CHECKED - AMD,		
DATE - 03/25/2011		

SHEET NO. 63  71 SHEETS	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 316
	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT					

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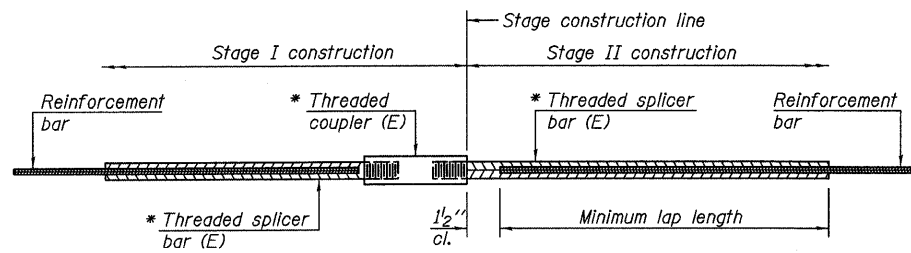


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required	Table for minimum lap length
Crashwall @ Pier 3	#6	96	3



**STANDARD BAR SPLICER ASSEMBLY**

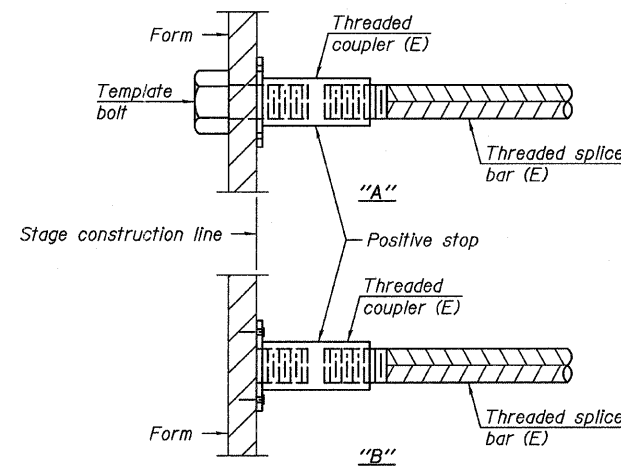
Bar size to be spliced	Minimum Lap Lengths				
	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1/2" + thread length

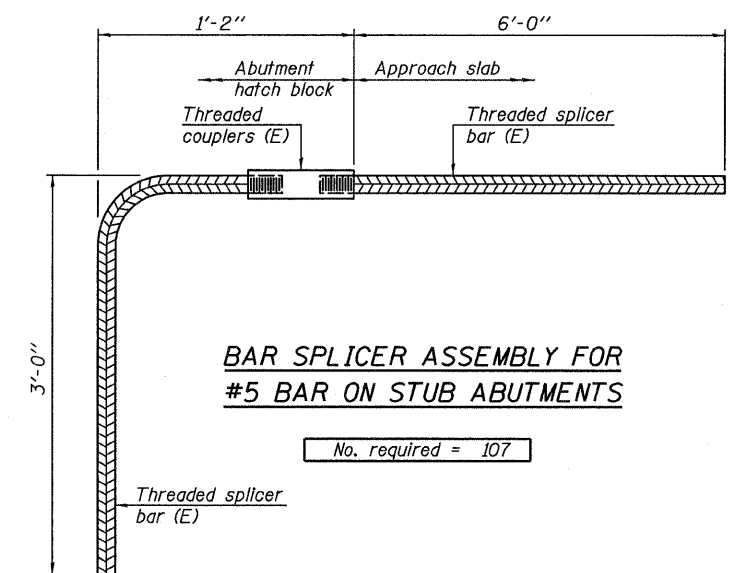
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	1454	4
Deck @ Pier 3 Exp Jt	#6	4	4
Deck @ Abut. Exp. Jts.	#5	10	4
Approach Slab	#4	25	4
Approach Slab	#5	66	4
Abutment	#5	52	4



**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.



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required = 107

**NOTES**

1. Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
2. All reinforcement shall be lapped and tied to the splicer bars.
3. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
4. See special provision for Mechanical Splicers.
5. See approved list of bar splicer assemblies and mechanical splicers for alternatives.

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
STRUCTURE NO. 016-3241**

TYLIN INTERNATIONAL

DESIGNED - MAU	REVISIONS	
	NAME	DATE
CHECKED - AMD,		
DRAWN - MAU		
CHECKED - AMD,		
DATE - 03/25/2011		

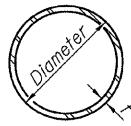
SHEET NO. 64	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	0711.2R & 1011.1BR	COOK	741	317
71 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

5/10/2011

pi:\01345\structure\016-3241\55splicer.dgn

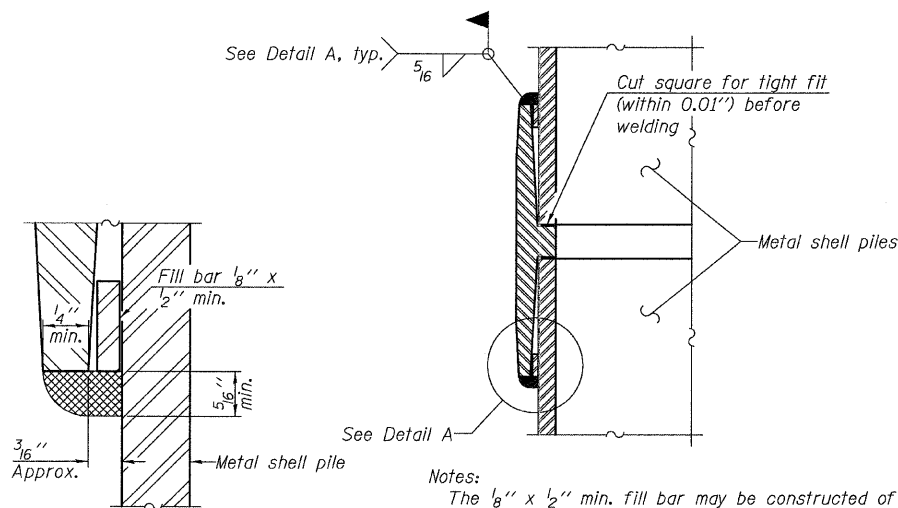
4:53:46 PM

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**METAL SHELL PILE TABLE**

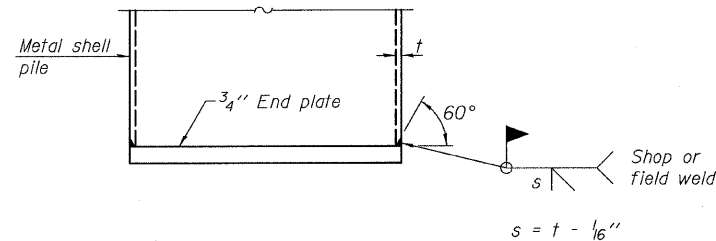
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. <sup>3</sup> /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



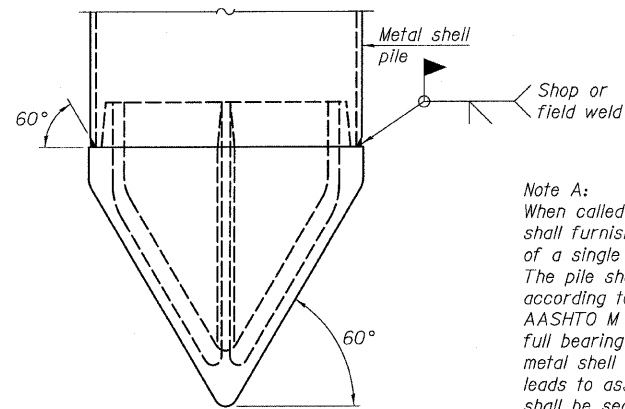
**DETAIL A**

Notes:  
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.  
Pile segments shall be driven to solid contact with splicer before welding.

**WELDED COMMERCIAL SPLICE**



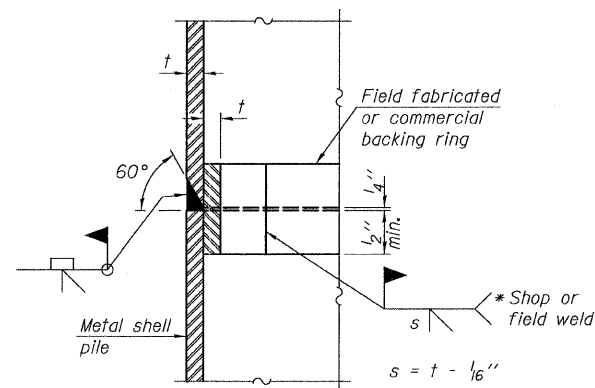
**END PLATE ATTACHMENT**



**METAL SHELL PILE SHOE ATTACHMENT**

(See Note A)

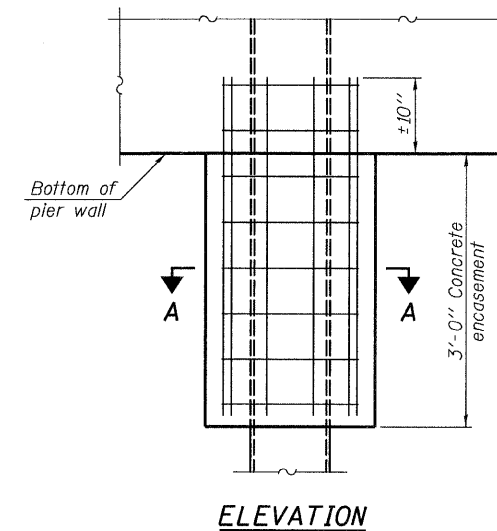
Note A:  
When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.



**COMPLETE PENETRATION WELD SPLICE**

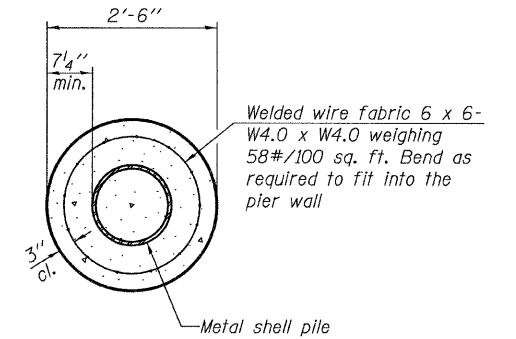
\* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

Note:  
The metal shell piles shall be according to ASTM A 252 Grade 3.



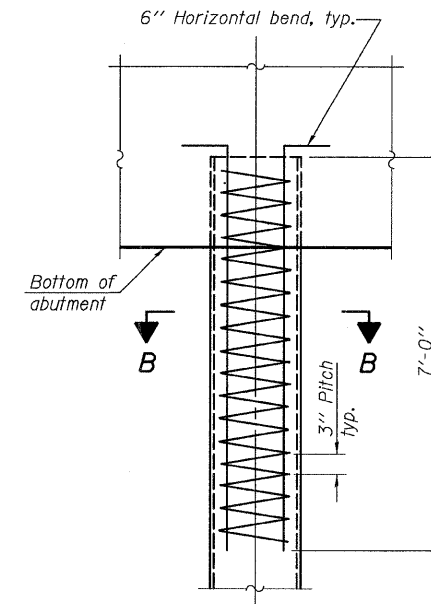
**ELEVATION**

**CONCRETE ENCASMENT AT PIERS**



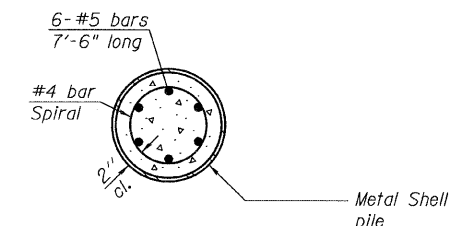
**SECTION A-A**

Note:  
Forms for encasement may be omitted when soil conditions permit.



**ELEVATION**

**METAL SHELL REINFORCEMENT AT ABUTMENTS**



**SECTION B-B**

**METAL SHELL PILE DETAILS  
STRUCTURE NO. 016-3241**

<b>TYLIN INTERNATIONAL</b>	DESIGNED - JMA	REVISIONS		SHEET NO. 65	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	318
	DRAWN - JMA				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DEPTH (m)		DEPTH (FT)		STRATA	SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT)	RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS
0.0	1.0	2.0	3.0						
0.0	1.0	1.0	2.0		DARK GRAY SILTY LOAM & GRAVEL 182.16 (597.50)	AU-1 0-1.0		13	w=5.6%
1.0	2.0	2.0	3.0		BROWN SILTY LOAM LITTLE FINE GRAVEL 181.63 (595.75)	SS-2 1.0-2.5 8" R		11	N=32 NP w=6.8%
2.0	3.0	3.0	4.0		GRAY SILTY LOAM LITTLE FINE GRAVEL, LOOSE	SS-3 3.5-5.0 12" R		4	N=8 NP w=18.4%
3.0	4.0	4.0	5.0		GRAY-BLACK SILTY CLAY LOAM MEDIUM DENSE, SL MOIST 180.79 (593.0)	SS-4 6.0-7.5 12" R		4	N=13 NP w=19.1%
4.0	5.0	5.0	6.0		GRAY SILTY CLAY, LITTLE FINE SAND, STIFF SL MOIST 180.03 (590.5)	SS-5 8.5-10.0 10" R		4	QU=201 B w=18.0%
5.0	6.0	6.0	7.0			SS-6 11.0-12.5 18" R		4	QU=177 B w=22.2%
6.0	7.0	7.0	8.0			SS-7 13.5-15.0 18" R		3	QU=151 B w=21.7%
7.0	8.0	8.0	9.0			SS-8 16.0-17.5 18" R		2	QU=137 B w=19.7%
8.0	9.0	9.0	10.0			SS-9 18.5-20.0 18" R		3	QU=113 B w=20.6%
9.0	10.0	10.0	11.0					4	
10.0	11.0	11.0	12.0					4	
11.0	12.0	12.0	13.0					4	
12.0	13.0	13.0	14.0					4	
13.0	14.0	14.0	15.0					4	
14.0	15.0	15.0	16.0					4	
15.0	16.0	16.0	17.0					4	
16.0	17.0	17.0	18.0					4	
17.0	18.0	18.0	19.0					4	
18.0	19.0	19.0	20.0					4	

DEPTH (m)		DEPTH (FT)		STRATA	SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT)	RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS
20.0	21.0	22.0	23.0						
20.0	21.0	21.0	22.0		GRAY SILTY CLAY, SL MOIST STIFF, TRACE FINE SAND	SS-10 21.0-22.5 18" R		4	QU=145 B W=20.1%
21.0	22.0	22.0	23.0			SS-11 23.5-25.0 18" R		4	QU=145 B W=20.2%
22.0	23.0	23.0	24.0			SS-12 26.0-27.5 18" R		3	QU=153 B W=16.3%
23.0	24.0	24.0	25.0			SS-13 28.5-30.0 18" R		3	QU=104 B W=24.5%
24.0	25.0	25.0	26.0			SS-14 33.5-35.0 18" R		2	N=11 NP W=23.7%
25.0	26.0	26.0	27.0					5	
26.0	27.0	27.0	28.0					5	
27.0	28.0	28.0	29.0					5	
28.0	29.0	29.0	30.0					5	
29.0	30.0	30.0	31.0					5	
30.0	31.0	31.0	32.0					5	
31.0	32.0	32.0	33.0					5	
32.0	33.0	33.0	34.0					5	
33.0	34.0	34.0	35.0					5	
34.0	35.0	35.0	36.0					5	
35.0	36.0	36.0	37.0					5	
36.0	37.0	37.0	38.0					5	
37.0	38.0	38.0	39.0					5	
38.0	39.0	39.0	40.0					5	

DEPTH (m)		DEPTH (FT)		STRATA	SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT)	RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS
40.0	41.0	42.0	43.0						
40.0	41.0	41.0	42.0		GRAY SILT, DENSE SL. MOIST	SS-16 43.5-45.0 18" R		22	N=48 NP w=14.6%
41.0	42.0	42.0	43.0			SS-17 48.5-50.0 18" R		10	N=31 NP QU=450 B w=13.7%
42.0	43.0	43.0	44.0			SS-18 53.5-55.0 18" R		12	N=35 NP QU=466 B w=19.7%
43.0	44.0	44.0	45.0			SS-19 58.5-60.0 18" R		25	N=83 NP EDB AT 60' w=8.9%
44.0	45.0	45.0	46.0					27	
45.0	46.0	46.0	47.0					27	
46.0	47.0	47.0	48.0					27	
47.0	48.0	48.0	49.0					27	
48.0	49.0	49.0	50.0					27	
49.0	50.0	50.0	51.0					27	
50.0	51.0	51.0	52.0					27	
51.0	52.0	52.0	53.0					27	
52.0	53.0	53.0	54.0					27	
53.0	54.0	54.0	55.0					27	
54.0	55.0	55.0	56.0					27	
55.0	56.0	56.0	57.0					27	
56.0	57.0	57.0	58.0					27	
57.0	58.0	58.0	59.0					27	
58.0	59.0	59.0	60.0					27	

NOTE:

1. To convert from kPa to psi:  
1 kPa = 0.14504 psi

BORING LOGS 1  
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL	DESIGNED -	REVISIONS		SHEET NO. 66	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.						
	CHECKED - AMD,	NAME	DATE							71 SHEETS	0711.2R & 1011.1BR	COOK	741	319	
	DRAWN -														CONTRACT NO. 60999
	CHECKED - AMD,														
DATE - 03/25/2011			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT												

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DEPTH (m)		DEPTH (FT)		SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT)	RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS
STRA TA								
	0.0			GRAY SILT LOAM AND GRAVEL	AU-1 0-1.0			w=4.9%
	1.0			182.30 (597.96)				
	2.0			DRK GRAY SILT LOAM AND GRAVEL, BRICK DEBRIS SL. MOIST, LOOSE (FILL)	SS-2 1.0-2.5 8" R		3	w=17.6%
	3.0						2	
	4.0			BLACK SILTY LOAM AND GRAVEL DRY, LOOSE (FILL)	SS-3 3.5-5.0 6" R		6	w=11.6%
	5.0						5	
	6.0						2	
	7.0			BLACK LOAM	SS-4 6.0-7.5 12" R		8	w=5.0%
	8.0			SOME COARSE SAND, SL. MOIST MEDIUM DENSE			15	
	9.0						13	
	10.0			DRK. GRAY SILTY CLAY LOAM LITTLE MED.- SAND MOIST MEDIUM STIFF	SS-5 8.5-10.0 4" R		3	w=16.3%
	10.5			179.41 (588.46)			3	
	11.0						3	
	12.0			BROWN & GRAY SILTY CLAY, TRACE FINE SAND SL. MOIST, MED. STIFF	SS-6 11.0-12.5 12" R		3	QU=161 B w=23.1%
	13.0						4	
	14.0						4	
	15.0						2	QU=88 B w=30.2%
	16.0						2	
	17.0						3	
	18.0						4	QU=96 B w=22.10%
	19.0						1	
	20.0						2	
							4	QU=80 B w=21.4%

DEPTH (m)		DEPTH (FT)		SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT)	RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS
STRA TA								
	20.0							
	21.0							
	22.0			GRAY SILTY CLAY, MOIST, TRACE FINE SAND MED. STIFF	SS-10 21.0-22.5 6" R		2	QU=32 B w=19.6%
	23.0						4	
	24.0						4	
	25.0						6	QU=161 B w=21.1%
	26.0						4	
	27.0						4	QU=129 B w=20.4%
	28.0						7	
	29.0						3	
	30.0						4	QU=137 B w=24.3%
	31.0						7	
	32.0						3	
	33.0						4	
	34.0						6	
	35.0						4	QU=137 B w=16.8%
	36.0						4	
	37.0						6	
	38.0						4	
	39.0						10	
	40.0			GRAY SILT, SL. MOIST DENSE, LITTLE FINE SAND	SS-15 38.5-40.0 14" R		19	N=47 NP w=12.4%
				170.81 (560.26)			28	

DEPTH (m)		DEPTH (FT)		SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT)	RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS
STRA TA								
	40.0							
	41.0							
	42.0							
	43.0							
	44.0			GRAY SILT MOIST, VERY DENSE	SS-16 43.5-45.0 18" R		18	N=59 NP w=17.9%
	45.0						31	
	46.0						28	
	47.0							
	48.0							
	49.0			GRAY SILT, SL. MOIST, SOME FINE SAND, DENSE	SS-17 48.5-50.0 18" R		12	N=35 NP w=12.4%
	50.0						14	
	51.0						21	
	52.0			166.76 (546.96)				
	53.0							
	54.0			GRAY SILTY CLAY LOAM SL. MOIST VERY STIFF LITTLE FINE SAND	SS-18 53.5-55.0 18" R		7	N=27 QU=426 B w=18.1%
	55.0						12	
	56.0						15	
	57.0							
	58.0							
	59.0			GRAY SILT WET DENSE 1" SAND SEAM AT 59.5	SS-19 58.5-60.0 18" R		7	N=35 NP w=13.6%
	60.0						14	
							21	

**NOTE:**

1. To convert from kPa to psi:  
1 kPa = 0.14504 psi

**BORING LOGS 2**  
**STRUCTURE NO. 016-3241**

TYLIN INTERNATIONAL	DESIGNED -	REVISIONS		SHEET NO. 67	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	320
	DRAWN -				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

4/28/2011 11:31:11 AM

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DEPTH (m)		DEPTH (FT)		STRATA	SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS
60.0	61.0	62.0	63.0					
64.0	65.0	66.0	67.0		GRAY SILT, LITTLE COARSE SAND VERY DENSE, DRY	SS-20 61.5-62.5 18" R	21 27 34	N=61 NP EDB AT 62.5 w=8.3%
68.0	69.0	70.0	71.0					
72.0	73.0	74.0	75.0					
76.0	77.0	78.0	79.0					
80.0								

DRILLING CONTRACTOR	PATRICK DRILLING	REMARKS	WATER LEVEL (ft.)	
DRILLING METHOD	3 1/4" ID HSA		▽	DRY
DRILLING EQUIPMENT	CME		▽	DRY
DRILLING STARTED	6/22/01 ENDED 6/22/01		▽	N.A.

DEPTH (m)		DEPTH (FT)		STRATA	SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS
0.0	1.0	2.0	3.0					
4.0	5.0	6.0	7.0		BLACK & BROWN SILT & CINDERS (FILL)	SS-2 1.0-2.5 12" R	5 7 4	w=5% w=19.6%
8.0	9.0	10.0	11.0		BLACK & BROWN SILT & CINDERS (FILL)	SS-3 3.5-5.0 6" R	2 2	w=17%
12.0	13.0	14.0	15.0		GRAY BROWN SILTY CLAY SOFT, MOIST, LITTLE FINE SAND	SS-4 6.0-7.5 12" R	1 1 2	QU=80 B w=23.7%
16.0	17.0	18.0	19.0					
20.0								

DRILLING CONTRACTOR	PATRICK DRILLING	REMARKS	WATER LEVEL (ft.)	
DRILLING METHOD	HSA		▽	DRY
DRILLING EQUIPMENT	CME		▽	DRY
DRILLING STARTED	7/5/01 ENDED 7/5/01		▽	N.A.

DEPTH (m)		DEPTH (FT)		STRATA	SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS
20.0	21.0	22.0	23.0					
24.0	25.0	26.0	27.0		GRAY SILTY CLAY, MED STIFF MOIST, TRACE FINE-COARSE SAND	SS-10 21.0-22.5 18" R	1 3 4	QU=183 B w=20.0%
28.0	29.0	30.0	31.0					
32.0	33.0	34.0	35.0					
36.0	37.0	38.0	39.0					
40.0								

DRILLING CONTRACTOR	PATRICK DRILLING	REMARKS	WATER LEVEL (ft.)	
DRILLING METHOD	3 1/4" ID HSA		▽	DRY
DRILLING EQUIPMENT	CME		▽	DRY
DRILLING STARTED	7/5/01 ENDED 7/5/01		▽	N.A.

**NOTE:**

1. To convert from kPa to psi:  
1 kPa = 0.14504 psi

**BORING LOGS 3  
STRUCTURE NO. 016-3241**

<b>TYLIN INTERNATIONAL</b>	DESIGNED -	REVISIONS							
	CHECKED - AMD,	NAME	DATE						
	DRAWN -								
	CHECKED - AMD,								
DATE - 03/25/2011									

SHEET NO. 68	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	71 SHEETS	55	0711.2R & 1011.1BR	COOK	741 321
CONTRACT NO. 60999					
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DEPTH (m)		DEPTH (FT)		STRATA	SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS	
40.0	41.0	42.0	43.0						
13.5	45.0	46.0	47.0		GRAY SILT, SL. MOIST MEDIUM DENSE TRACE FINE SAND	SS-16 43.5-45.0 18" R	10 12 13	N=25 NP w=11.3%	
15.0	49.0	50.0	51.0		GRAY SILTY CLAY LOAM VERY STIFF, SL. MOIST	SS-17 48.5-50.0 18" R	7 9 13	QU=659 B w=16.2%	
16.5	54.0	55.0	56.0			SS-18 53.5-55.0 " R	7 14 18	QU=788 B w=11.4%	
18.0	59.0	60.0			GRAY SILT, VERY DENSE SL. MOIST, LITTLE FINE-COARSE SAND	SS-19 58.5-60.0 " R	20 21 35	N=56 NP w=17.2%	
					REMARKS		WATER LEVEL (ft.)		
DRILLING CONTRACTOR PATRICK DRILLING DRILLING METHOD 3 1/4" ID HSA DRILLING EQUIPMENT CME DRILLING STARTED 7/5/01 ENDED 7/5/01							<input checked="" type="checkbox"/> DRY <input checked="" type="checkbox"/> DRY <input checked="" type="checkbox"/> N.A.		

DEPTH (m)		DEPTH (FT)		STRATA	SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS	
60.0	61.0	62.0	63.0						
19.5	64.0	65.0	66.0		LIMESTONE ROCK IN SPLIT SPOON SAMPLE, NO SOIL SAMPLE	SS-20 63.5-65.0 " R	32 37 65	N=107	
21.0	69.0	70.0	71.0		GRAY SILT VERY DENSE MOIST, SOME FINE TO COARSE SAND	SS-21 66.5-70.0 " R	21 37 30	N=67 NP w=10.7%	
22.5	74.0	75.0	76.0			SS-22 73.5-75.0 " R	19 100	N=100 NP w=17.4%	
24.0	79.0	80.0			LIMESTONE (DOLOMITE) GRAYISH WHITE, FINE GRAINED FREQUENT CEMENTED HORIZONTAL AND VERTICAL FRACTURES				
					REMARKS		WATER LEVEL (ft.)		
DRILLING CONTRACTOR PATRICK DRILLING DRILLING METHOD 3 1/4" ID HSA DRILLING EQUIPMENT CME DRILLING STARTED 7/5/01 ENDED 7/5/01							<input checked="" type="checkbox"/> DRY <input checked="" type="checkbox"/> DRY <input checked="" type="checkbox"/> N.A.		

DEPTH (m)		DEPTH (FT)		STRATA	SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS	
80.0	81.0	82.0	83.0						
25.5	84.0	85.0	86.0		GRAYISH WHITE LIMESTONE (DOLOMITE)	NX-203 77.5-82.5 60" R		REC=100% ROD=67%	
27.0	89.0	90.0	91.0					EOB AT 82.5'	
28.5	94.0	95.0	96.0						
30.0	99.0	100.0							
					REMARKS		WATER LEVEL (ft.)		
DRILLING CONTRACTOR PATRICK DRILLING DRILLING METHOD 3 1/4" ID HSA DRILLING EQUIPMENT CME DRILLING STARTED 6/28/01 ENDED 6/29/01							<input checked="" type="checkbox"/> DRY <input checked="" type="checkbox"/> DRY <input checked="" type="checkbox"/> N.A.		

**NOTE:**

1. To convert from kPa to psi:  
1 kPa = 0.14504 psi

**BORING LOGS 4  
STRUCTURE NO. 016-3241**

TYLIN INTERNATIONAL	DESIGNED -	REVISIONS		SHEET NO. 69	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	322	
	DRAWN -				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DEPTH (m)		DEPTH (FT)		STRATA	SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT)	RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS
0.0	0.0	1.0	1.0						
2.0	2.0	3.0	3.0	BLACK-GRAY SILT & GRAVEL CINDERS (FILL)	SS-2 1.0-2.5 12" R			w=13.3%	
4.0	4.0	5.0	5.0	SILT, CINDERS & GRAVEL (FILL)	SS-3 3.5-5.0 8" R			w=12.6%	
6.0	6.0	7.0	7.0	GRAY BROWN SILTY CLAY MED. STIFF, MOIST	SS-4 6.0-7.5 12" R			QU=145 B w=20.3%	
8.0	8.0	9.0	9.0		SS-5 8.5-10.0 18" R			QU=112 B w=20.7%	
10.0	10.0	11.0	11.0	GRAY SILTY CLAY, MOIST TRACE FINE SAND, MED. SHIFF	SS-6 11.0-12.5 18" R			QU=145 B w=30.7%	
12.0	12.0	13.0	13.0		SS-7 13.5-15.0 18" R			QU=145 B w=19.7%	
14.0	14.0	15.0	15.0	GRAY SILTY CLAY, MOIST TRACE FINE SAND, MED. SHIFF	SS-8 16.0-17.5 18" R			QU=161 B w=20.7%	
16.0	16.0	17.0	17.0		SS-9 18.5-20.0 18" R			QU=121 B w=21.6%	

DEPTH (m)		DEPTH (FT)		STRATA	SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT)	RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS
20.0	20.0	21.0	21.0						
22.0	22.0	23.0	23.0	SS-11 23.5-25.0 18" R			QU=113 B w=19.6%		
24.0	24.0	25.0	25.0	GRAY SILTY CLAY LOAM MOIST, STIFF	SS-12 26.0-27.5 18" R			QU=80 B w=33.2%	
26.0	26.0	27.0	27.0		SS-13 28.5-30.0 18" R			QU=72 B w=27.5%	
28.0	28.0	29.0	29.0	GRAY SILTY CLAY LOAM MOIST, STIFF	SS-14 33.5-35.0 18" R			QU=121 B N=15 NP w=12.5%	
30.0	30.0	31.0	31.0		SS-15 38.5-40.0 18" R			N=43 NP w=16.7%	

DEPTH (m)		DEPTH (FT)		STRATA	SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT)	RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS
40.0	40.0	41.0	41.0						
42.0	42.0	43.0	43.0	GRAY SILTY CLAY LOAM, SL MOIST, HARD, TRACE FINE SAND	SS-17 48.5-50.0 18" R			QU=724 B w=14.3%	
44.0	44.0	45.0	45.0		GRAY SILTY CLAY LOAM, SL MOIST, HARD, TRACE FINE SAND	SS-18 53.5-55.0 18" R			QU=386 B w=16.6%
46.0	46.0	47.0	47.0	GRAY SILT, VERY DENSE DRY SOME FINE TO COARSE SAND		SS-19 58.5-60.0 18" R			EOB AT 60' N=55 NP w=8.1%

**NOTE:**

1. To convert from kPa to psi:  
1 kPa = 0.14504 psi

**BORING LOGS 5**  
**STRUCTURE NO. 016-3241**

TYLIN INTERNATIONAL	DESIGNED -	REVISIONS		SHEET NO. 70	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	323
	DRAWN -				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DEPTH (m)		DEPTH (FT)		STRATA	SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS
0.0	0.0	1.0	1.0					
2.0	2.0	3.0	3.0	BROWN- GRAY SILTY CLAY, LITTLE FINE SAND, SL. MOIST, STIFF	SS-2 1.0-2.5 12" R	3	NO PIECES > 2" w=13.8%	
5.0	5.0	6.0	6.0	180.21 (591.10)	SS-3 3.5-5.0 12" R	2	NO PIECES > 2" w=17.5%	
7.0	7.0	8.0	8.0	GRAY SILTY CLAY, MOIST, SOFT, LITTLE MEDIUM SAND	SS-4 6.0-7.5 12" R	1	QU=8 B w=24.3%	
9.0	9.0	10.0	10.0	179.45 (588.60)	SS-5 8.5-10.0 12" R	2	QU=145 B w=23.2%	
12.0	12.0	13.0	13.0	GRAY SILT, SL. MOIST, MEDIUM DENSE	SS-6 11.0-12.5 15" R	2	N=11 NP w=20.3%	
15.0	15.0	16.0	16.0	176.86 (580.10)	SS-7 13.5-15.0 16" R	7	N=16 NP w=19.9%	
17.0	17.0	18.0	18.0	GRAY SILTY CLAY MEDIUM STIFF, MOIST, LITTLE FINE-MEDIUM SAND	SS-8 16.0-17.5 14" R	2	QU=80 B w=18.9%	
19.0	19.0	20.0	20.0	QU=113 B w=20.8%	SS-9 18.5-20.0 18" R	2		

DEPTH (m)		DEPTH (FT)		STRATA	SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS
20.0	20.0	21.0	21.0					
22.0	22.0	23.0	23.0	TRACE MEDIUM SAND	SS-11 23.5-25.0 18" R	2	QU=177 B w=20.2%	
24.0	24.0	25.0	25.0	172.13 (564.60)	SS-12 26.0-27.5 18" R	2	QU=273 B w=15.5%	
26.0	26.0	27.0	27.0	QU=161 B w=21.4%	SS-13 28.5-30.0 18" R	3		
28.0	28.0	29.0	29.0	170.46 (559.10)	SS-14 33.5-35.0 18" R	4	N=25 w=11.4%	
30.0	30.0	31.0	31.0	GRAY SILT, SL. MOIST TRACE MEDIUM SAND MEDIUM DENSE	SS-15 38.5-40.0 18" R	11	N=60 NP w=15.5%	
32.0	32.0	33.0	33.0			27		
34.0	34.0	35.0	35.0			33		

DEPTH (m)		DEPTH (FT)		STRATA	SOIL / ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	NOTES & TEST RESULTS
40.0	40.0	41.0	41.0					
42.0	42.0	43.0	43.0			31		
44.0	44.0	45.0	45.0			33		
46.0	46.0	47.0	47.0					
48.0	48.0	49.0	49.0					
50.0	50.0	51.0	51.0					
52.0	52.0	53.0	53.0					
54.0	54.0	55.0	55.0					
56.0	56.0	57.0	57.0					
58.0	58.0	59.0	59.0					
60.0	60.0							

**NOTE:**

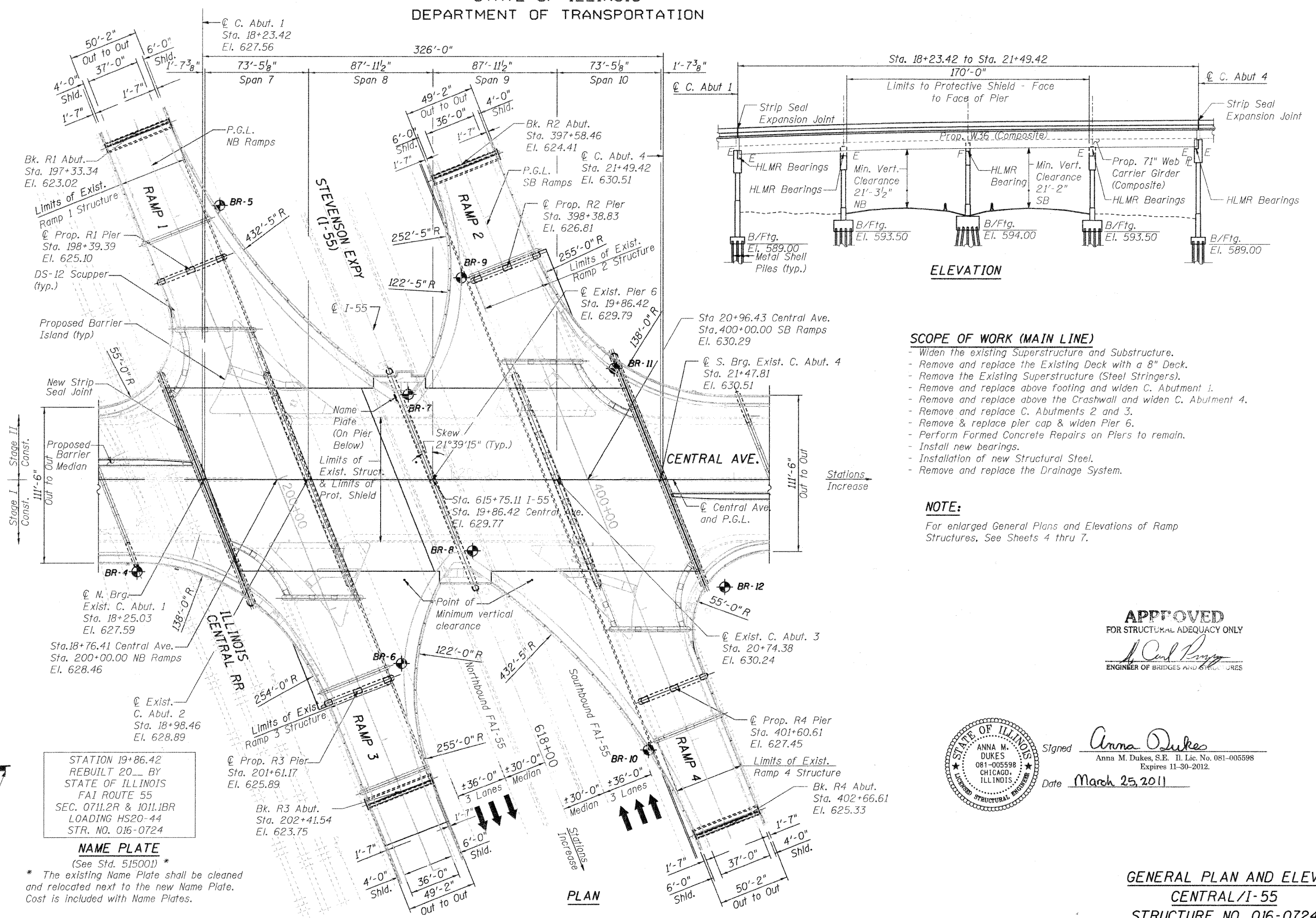
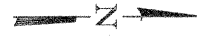
1. To convert from kPa to psi:  
1 kPa = 0.14504 psi

**BORING LOGS 6  
STRUCTURE NO. 016-3241**

TYLIN INTERNATIONAL	DESIGNED -	REVISIONS		SHEET NO. 71	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	324	
	DRAWN -				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**LEGEND**

⊙ Boring Location

**BORING LOCATIONS**

No.	Station	**Offset
BR-4	17+77.4	65.6' RT
BR-5	18+35.7	194.7' LT
BR-6	19+64.7	130.8' RT
BR-7	19+69.2	60.7' LT
BR-8	20+14.9	50.8' RT
BR-9	20+06.8	143.2' LT
BR-10	21+39.5	192.4' RT
BR-11	21+15.0	79.3' LT
BR-12	21+93.5	76.6' RT

\*\* Offset from C Central Avenue

**SCOPE OF WORK (MAIN LINE)**

- Widen the existing Superstructure and Substructure.
- Remove and replace the Existing Deck with a 8" Deck.
- Remove the Existing Superstructure (Steel Stringers).
- Remove and replace above footing and widen C. Abutment 1.
- Remove and replace above the Crashwall and widen C. Abutment 4.
- Remove and replace C. Abutments 2 and 3.
- Remove & replace pier cap & widen Pier 6.
- Perform Formed Concrete Repairs on Piers to remain.
- Install new bearings.
- Installation of new Structural Steel.
- Remove and replace the Drainage System.

**NOTE:**

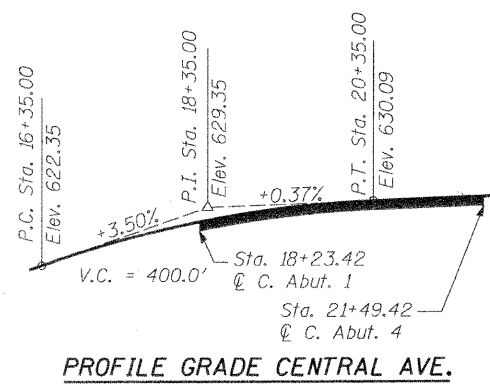
For enlarged General Plans and Elevations of Ramp Structures, See Sheets 4 thru 7.

**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY

*Carl Perry*  
ENGINEER OF BRIDGES AND STRUCTURES



Signed *Anna Dukes*  
Anna M. Dukes, S.E. Il. Lic. No. 081-005598  
Expires 11-30-2012  
Date March 25, 2011



**PROFILE GRADE CENTRAL AVE.**

STATION 19+86.42  
REBUILT 20\_\_ BY  
STATE OF ILLINOIS  
FAI ROUTE 55  
SEC. 0711.2R & 1011.1BR  
LOADING HS20-44  
STR. NO. 016-0724

**NAME PLATE**

(See Std. 515001) \*  
\* The existing Name Plate shall be cleaned and relocated next to the new Name Plate. Cost is included with Name Plates.

**GENERAL PLAN AND ELEV.**  
**CENTRAL/I-55**  
**STRUCTURE NO. 016-0724**

**TYLINT** INTERNATIONAL

DESIGNED - JMA	REVISIONS	
	NAME	DATE
CHECKED - AMD,		
DRAWN - JMA		
CHECKED - AMD,		
DATE - 03/25/2011		

SHEET NO. 1	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	239 SHEETS	55	0711.2R & 1011.1BR	COOK	741 325
			CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES**

1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 7/8-in.  $\phi$ , holes 15/16-in.  $\phi$ , unless otherwise noted.
2. Calculated weight of Structural Steel =  
Grade 50 = 4,418,700 lbs \*\*  
Grade 36 = 405,950 lbs \*\*
3. The Organic Zinc Rich Primer/Epoxy/Urethane paint system shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that the exterior surfaces and bottom of the bottom flange of the fascia beams, masked off connection surfaces, and field installed fasteners, all of which shall be touched up and finish coated in the field. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown - Munsell No 2.5YR 3/4. See Special Provision for \*Cleaning and Painting New Metal Structures\*.
4. No field welding is permitted except as specified in the contract documents.
5. Anchor bolts shall be set before bolting diaphragms and cross frames over supports.
6. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.
7. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction 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 scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
8. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
9. Concrete Sealer shall be applied to the designated areas of the new bridge seats at C Abutments 1 and 4, Pier 3 of Ramps and the East and West Abutments of Ramps.
10. Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

11. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
12. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using approved bar splicer or anchorage system. Cost included to "Concrete Removal".
13. SB denotes Southbound I-55  
NB denotes Eastbound I-55  
NF denotes Near Face  
FF denotes Far Face.
14. Reinforcement bars designated (E) shall be epoxy coated.
15. If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
16. The Contractor shall retain the services on an engineering firm prequalified in the IDOT consultant selection category of Highway Bridges Complex, for preparation of the Structural Assessment Report. Contractor's pre-approval shall not be applicable for this project. See Special Provision.  
Current Ratings on File for Existing Structure  
Inventory: HS 27.1  
Operating: HS 41.8  
Live Load Restrictions: No  
  
Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configurations. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractors Equipment.
17. Slipforming of the parapets is not allowed.

\*\* Structural steel furnished under a separate contract shall be erected under pay item Erecting Structural Steel. The listed weights include structural steel framing comprised of girders, diaphragms, fill plates, connection plates, bolts and steel extensions.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	MAINLINE		
		SUPER	SUB	TOTAL
REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1
CONCRETE REMOVAL	CU YD		1,489.5	1,489.5
REMOVAL OF EXISTING SUB-STRUCTURES - ABUTMENT TYPE 1	EACH		4	4
REMOVAL OF EXISTING SUB-STRUCTURES - ABUTMENT TYPE 2	EACH		2	2
REMOVAL OF EXISTING SUB-STRUCTURES - PIER	EACH		19	19
BRIDGE RAIL REMOVAL	FOOT	3150		3150
PROTECTIVE SHIELD	SQ YD	1681.1		1681.1
STRUCTURE EXCAVATION	CU YD		3,967.3	3,967.3
CONCRETE STRUCTURES	CU YD	59.0	4,423.1	4,482.1
CONCRETE SUPERSTRUCTURE	CU YD	3,515.1		3,515.1
BRIDGE DECK GROOVING	SQ YD	9439		9439
PROTECTIVE COAT	SQ YD	11418		11418
ERECTING STRUCTURAL STEEL	L SUM	0.81		0.81
STUD SHEAR CONNECTORS	EACH	47,410		47,410
REINFORCEMENT BARS, EPOXY COATED	POUND	877,380	637,190	1,514,570
BAR SPLICERS	EACH	2637	62	2699
FURNISHING METAL SHELL PILES 12"X 0.250"	FOOT		38,018	38,018
DRIVING PILES	FOOT		38,018	38,018
TEST PILE METAL SHELLS	EACH		18	18
TEMPORARY SHEET PILING	SQ FT		13,566	13,566
NAME PLATES	EACH	1		1
CONCRETE SEALER	SQ FT		41,371	41,371
FIELD MEASUREMENTS	L SUM		0.30	0.30
DRAINAGE SCUPPERS, DS-12	EACH	16		16
STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5")	SQ FT		40	40
MODULAR EXPANSION JOINT-SWIVEL 6" (ERECT ONLY)	FOOT	186		186
HIGH LOAD MULTI-ROTATIONAL BEARINGS, FIXED, 250K (ERECT ONLY)	EACH	20		20
HIGH LOAD MULTI-ROTATIONAL BEARINGS, FIXED, 500K (ERECT ONLY)	EACH	2		2
HIGH LOAD MULTI-ROTATIONAL BEARINGS, GUIDED EXPANSION, 150K (ERECT ONLY)	EACH	40		40
ERECTING HIGH LOAD MULTI-ROTATIONAL BEARINGS, GUIDED EXPANSION, 250K	EACH	40		40
HIGH LOAD MULTI-ROTATIONAL BEARINGS, GUIDED EXPANSION, 350K (ERECT ONLY)	EACH	4		4
HIGH LOAD MULTI-ROTATIONAL BEARINGS, GUIDED EXPANSION, 900K (ERECT ONLY)	EACH	4		4
HIGH LOAD MULTI-ROTATIONAL BEARINGS, NON-GUIDED EXPANSION, 150K (ERECT ONLY)	EACH	34		34
HIGH LOAD MULTI-ROTATIONAL BEARINGS, NON-GUIDED EXPANSION, 800K (ERECT ONLY)	EACH	4		4
HIGH LOAD MULTI-ROTATIONAL BEARINGS, NON-GUIDED EXPANSION, 1500K (ERECT ONLY)	EACH	4		4
DRAINAGE SYSTEM	L SUM	0.28		0.28
ANCHOR BOLTS, 1"	EACH	268		268
ANCHOR BOLTS, 1 1/2"	EACH	36		36
ANCHOR BOLTS, 2"	EACH	16		16
DECK SLAB REPAIR (PARTIAL)	SQ YD	20		20
DECK SLAB REPAIR (FULL DEPTH, TYPE 1)	SQ YD	20		20
PILE EXTRACTION	EACH		86	86
MECHANICAL SPLICERS	EACH		308	308
ALUMINUM RAILING, TYPE L	FOOT	257.5		257.5
ANCHOR BOLTS, 1 1/4"	EACH	8		8
DRAINAGE SCUPPERS, DS-33	EACH	6		6
PREFORMED JOINT STRIP SEAL	FOOT	350		350
BRACED EXCAVATION	CU YD		323	323

**GEN. NOTES & BILL OF MATERIALS  
STRUCTURE NO. 016-0724**

<b>TYLIN INTERNATIONAL</b>	DESIGNED -	REVISIONS		SHEET NO. 2	F.A.I RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 326
	CHECKED - AMD,	NAME	DATE						
	DRAWN -								
	CHECKED - AMD,								
DATE - 03/25/2011				239 SHEETS	CONTRACT NO. 60999				
					FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

1 GENERAL PLAN AND ELEV.- CENTRAL/I-55  
2 GEN. NOTES & BILL OF MATER. - CENTRAL/I-55  
3 INDEX OF SHEETS - CENTRAL/I-55  
4 GENERAL PLAN AND ELEVATION - RAMP 1  
5 GENERAL PLAN AND ELEVATION - RAMP 2  
6 GENERAL PLAN AND ELEVATION - RAMP 3  
7 GENERAL PLAN AND ELEVATION - RAMP 4  
8 FOOTING LAYOUT - CENTRAL/I-55  
9 TEMPORARY SHEET PILING & BRACED EXCAVATION I - CENTRAL/I-55  
10 TEMPORARY SHEET PILING & BRACED EXCAVATION II - CENTRAL/I-55  
11 REMOVAL PLAN 1 - CENTRAL/I-55  
12 REMOVAL PLAN 2 - CENTRAL/I-55  
13 STAGE I CONSTRUCTION - CENTRAL/I-55  
14 STAGE II CONSTRUCTION - CENTRAL/I-55  
15 TEMP. CONCRETE BARRIER - CENTRAL/I-55  
16 TOP OF SLAB ELEVATIONS LAYOUT - CENTRAL/I-55  
17 TOP OF SLAB ELEVATIONS LAYOUT - RAMP 1 FLARE  
18 TOP OF SLAB ELEVATIONS LAYOUT - RAMP 2 FLARE  
19 TOP OF SLAB ELEVATIONS LAYOUT - RAMP 3 FLARE  
20 TOP OF SLAB ELEVATIONS LAYOUT - RAMP 4 FLARE  
21 TOP OF SLAB ELEV. - 1 CENTRAL/I-55  
22 TOP OF SLAB ELEV. - 2 CENTRAL/I-55  
23 TOP OF SLAB ELEV. - 3 CENTRAL/I-55  
24 TOP OF SLAB ELEV. - 4 CENTRAL/I-55  
25 TOP OF SLAB ELEV. - 5 CENTRAL/I-55  
26 TOP OF SLAB ELEV. - 6 CENTRAL/I-55  
27 TOP OF SLAB ELEV. - 1 RAMP 1 FLARE  
28 TOP OF SLAB ELEV. - 2 RAMP 1 FLARE  
29 TOP OF SLAB ELEV. - 1 RAMP 2 FLARE  
30 TOP OF SLAB ELEV. - 2 RAMP 2 FLARE  
31 TOP OF SLAB ELEV. - 1 RAMP 3 FLARE  
32 TOP OF SLAB ELEV. - 2 RAMP 3 FLARE  
33 TOP OF SLAB ELEV. - 1 RAMP 4 FLARE  
34 TOP OF SLAB ELEV. - 2 RAMP 4 FLARE  
35 TOP OF SLAB LAYOUT AND ELEV - RAMP 1 APPROACH SLAB  
36 TOP OF SLAB LAYOUT AND ELEV - RAMP 2 APPROACH SLAB  
37 TOP OF SLAB LAYOUT AND ELEV - RAMP 3 APPROACH SLAB  
38 TOP OF SLAB LAYOUT AND ELEV - RAMP 4 APPROACH SLAB  
39 SUPERSTRUCTURE KEY PLAN - CENTRAL/I-55  
40 SUPERST. SPANS 7 & 8 - CENTRAL/I-55  
41 SUPERST. SPANS 9 & 10 - CENTRAL/I-55  
42 SUPERST. CROSS SECTION - CENTRAL/I-55  
43 SUPERSTRUCTURE DETAILS - CENTRAL/I-55  
44 SUPERSTRUCTURE - BOTTOM - RAMP 1 FLARE  
45 SUPERSTRUCTURE - TOP - RAMP 1 FLARE  
46 CROSS SECTIONS & DETAILS SHEET 1 OF 2 - RAMP 1 FLARE  
46A CROSS SECTIONS & DETAILS SHEET 2 OF 2 - RAMP 1 FLARE  
47 SUPERST. PARAPET ELEV. - RAMP 1 FLARE  
48 SUPERSTRUCTURE - BOTTOM - RAMP 2 FLARE  
49 SUPERSTRUCTURE - TOP - RAMP 2 FLARE  
50 CROSS SECTIONS & DETAILS SHEET 1 OF 2 - RAMP 2 FLARE  
50A CROSS SECTIONS & DETAILS SHEET 2 OF 2 - RAMP 2 FLARE  
51 SUPERST. PARAPET ELEV. - RAMP 2 FLARE  
52 SUPERSTRUCTURE - BOTTOM - RAMP 3 FLARE  
53 SUPERSTRUCTURE - TOP - RAMP 3 FLARE  
54 CROSS SECTIONS & DETAILS SHEET 1 OF 2 - RAMP 3 FLARE  
54A CROSS SECTIONS & DETAILS SHEET 2 OF 2 - RAMP 3 FLARE  
55 SUPERST. PARAPET ELEV. - RAMP 3 FLARE  
56 SUPERSTRUCTURE - BOTTOM - RAMP 4 FLARE  
57 SUPERSTRUCTURE - TOP - RAMP 4 FLARE  
58 CROSS SECTIONS & DETAILS SHEET 1 OF 2 - RAMP 4 FLARE  
58A CROSS SECTIONS & DETAILS SHEET 2 OF 2 - RAMP 4 FLARE  
59 SUPERST. PARAPET ELEV. - RAMP 4 FLARE  
60 CROSSWALK DETAILS  
61 SUPERST. PARAPET DETAILS  
62 MEDIAN ISLANDS - RAMPS 1 & 3  
63 MEDIAN ISLANDS - RAMPS 2 & 4  
64 MAINLINE SIDEWALK - CENTRAL/I-55  
65 MEDIAN ISLAND DETAILS  
66 TRAFFIC SIGNAL APPURTENANCES KEY PLAN  
67 TRAFFIC SIGNAL BASE DETAILS - I  
68 TRAFFIC SIGNAL BASE DETAILS - II  
69 STRUCTURE-MOUNTED HANDHOLE DETAILS  
70 RAMP 1 APPROACH SLAB

71 RAMP 1 APPROACH SLAB DETAILS  
72 RAMP 2 APPROACH SLAB  
73 RAMP 2 APPROACH SLAB DETAILS  
74 RAMP 3 APPROACH SLAB  
75 RAMP 3 APPROACH SLAB DETAILS  
76 RAMP 4 APPROACH SLAB  
77 RAMP 4 APPROACH SLAB DETAILS  
78 PREFORMED JOINT STRIP SEAL DETAILS  
79 TYPE L ALUMINUM RAILING  
80 NOT USED  
81 RAMPS 1 AND 4 MODULAR EXPANSION JOINT DETAILS AT ABUT.  
82 RAMP 2 MODULAR EXPANSION JOINT DETAILS AT ABUT.  
83 DRAINAGE SYSTEM - CENTRAL/I-55  
84 DRAINAGE SYSTEM - RAMP 1  
85 DRAINAGE SYSTEM - RAMP 2  
86 DRAINAGE SYSTEM - RAMP 3  
87 DRAINAGE SYSTEM - RAMP 4  
88 DRAINAGE SCUPPER DS-12  
89 DRAINAGE SCUPPER DS-33  
90 FRAMING KEY PLAN - CENTRAL/I-55  
91 FRAMING SHORING PLAN PHASE I  
92 FRAMING SHORING PLAN PHASE II  
93 FRAMING PLAN - CENTRAL/I-55  
94 FRAMING PLAN - RAMP 1 FLARE  
95 FRAMING PLAN - RAMP 2 FLARE  
96 FRAMING PLAN - RAMP 3 FLARE  
97 FRAMING PLAN - RAMP 4 FLARE  
98 MOMENT & REACTION TABLES - CENTRAL/I-55  
99 GIRDER G1 - ELEVATION - CENTRAL/I-55  
100 GIRDER G2 - ELEVATION - CENTRAL/I-55  
101 GIRDER G3 - ELEVATION - CENTRAL/I-55  
102 GIRDERS G4 THRU G19 - ELEVATIONS - CENTRAL/I-55  
103 NOT USED  
104 GIRDER G21 - ELEVATION - CENTRAL/I-55  
105 GIRDER G22 - ELEVATION - CENTRAL/I-55  
106 FIELD SPLICES - CENTRAL/I-55  
107 FIELD SPLICE 3 & CONNECTION DETAILS - CENTRAL/I-55  
108 CROSS FRAMES & DIAPHRAGMS - CENTRAL/I-55  
109 DIAPHRAGM/FRAMING AT TRAFFIC POST TPMA-1  
110 MOMENT TABLE 1 - RAMP 1 FLARE  
111 MOMENT TABLE 2 - RAMP 1 FLARE  
112 GIRDER ELEVATIONS 1 - RAMP 1 FLARE  
113 GIRDER ELEVATIONS 2 - RAMP 1 FLARE  
114 GIRDER ELEVATIONS 3 - RAMP 1 FLARE  
115 GIRDER ELEVATIONS 4 - RAMP 1 FLARE  
116 GIRDER ELEVATIONS 5 - RAMP 1 FLARE  
117 GIRDER ELEVATIONS 6 - RAMP 1 FLARE  
118 CROSSHEAD GIRDER DETAILS - RAMP 1 FLARE  
119 FLOOR BEAM DETAILS - RAMP 1 FLARE  
120 CONNECTION DETAILS 1 & 2 - RAMP 1 FLARE  
121 CONNECTION DETAILS 3 & 4 - RAMP 1 FLARE  
122 CONNECTION DETAILS 5 & 6 - RAMP 1 FLARE  
123 CONNECTION DETAILS 7 & 8 - RAMP 1 FLARE  
124 CONNECTION DETAILS 9 & 10 - RAMP 1 FLARE  
125 CONNECTION DETAILS 11 & 12 - RAMP 1 FLARE  
126 CONNECTION DETAILS 13 & 14 - RAMP 1 FLARE  
127 CONNECTION DETAILS 15 & 16 - RAMP 1 FLARE  
128 CONNECTION DETAILS 17, 18 & 19 - RAMP 1 FLARE  
129 FIELD SPLICES - RAMP 1 FLARE  
130 DIAPHRAGMS & DETAILS - RAMP 1 FLARE  
131 MOMENT TABLE - RAMP 2 FLARE  
132 STEEL ELEVATIONS - RAMP 2 FLARE  
133 GIRDER ELEVATIONS 1 - RAMP 2 FLARE  
134 GIRDER ELEVATIONS 2 - RAMP 2 FLARE  
135 GIRDER ELEVATIONS 3 - RAMP 2 FLARE  
136 GIRDER ELEVATIONS 4 - RAMP 2 FLARE  
137 CROSSHEAD DETAILS - RAMP 2 FLARE  
138 FLOOR BEAM DETAILS - RAMP 2 FLARE  
139 CONNECTION DETAILS 20 & 21 - RAMP 2 FLARE  
140 CONNECTION DETAILS 22 & 23 - RAMP 2 FLARE  
141 CONNECTION DETAILS 24 - RAMP 2 FLARE  
142 CONNECTION DETAILS 25 & 26 - RAMP 2 FLARE  
143 CONNECTION DETAILS 27, 28 & 29 - RAMP 2 FLARE  
144 CONNECTION DETAILS 30 & 31 - RAMP 2 FLARE

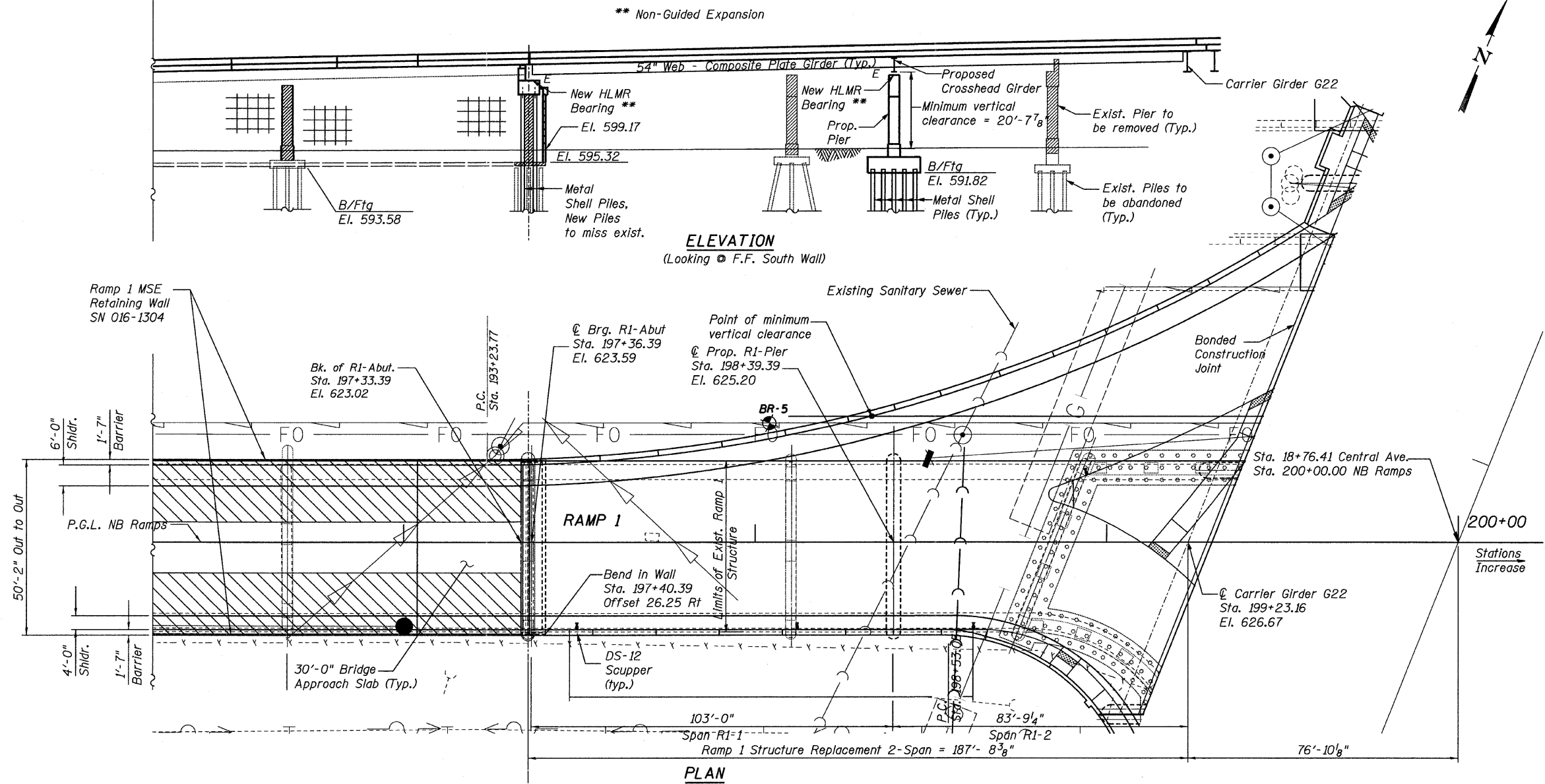
145 CONNECTION DETAILS 32 - RAMP 2 FLARE  
146 CONNECTION DETAILS 33 - RAMP 2 FLARE  
147 CONNECTION DETAILS 34 - RAMP 2 FLARE  
148 FIELD SPLICES - RAMP 2 FLARE  
149 DIAPHRAGMS & DETAILS - RAMP 2 FLARE  
150 MOMENT TABLE - RAMP 3 FLARE  
151 STEEL ELEVATIONS - RAMP 3 FLARE  
152 GIRDER ELEVATIONS 1 - RAMP 3 FLARE  
153 GIRDER ELEVATIONS 2 - RAMP 3 FLARE  
154 GIRDER ELEVATIONS 3 - RAMP 3 FLARE  
155 GIRDER ELEVATIONS 4 - RAMP 3 FLARE  
156 CROSSHEAD DETAILS - RAMP 3 FLARE  
157 FLOOR BEAM DETAILS - RAMP 3 FLARE  
158 CONNECTION DETAILS 20 & 21 - RAMP 3 FLARE  
159 CONNECTION DETAILS 22 & 23 - RAMP 3 FLARE  
160 CONNECTION DETAILS 24 - RAMP 3 FLARE  
161 CONNECTION DETAILS 25 & 26 - RAMP 3 FLARE  
162 CONNECTION DETAILS 27, 28 & 29 - RAMP 3 FLARE  
163 CONNECTION DETAILS 30 & 31 - RAMP 3 FLARE  
164 CONNECTION DETAILS 32 - RAMP 3 FLARE  
165 CONNECTION DETAILS 33 - RAMP 3 FLARE  
166 CONNECTION DETAILS 34 - RAMP 3 FLARE  
167 FIELD SPLICES - RAMP 3 FLARE  
168 DIAPHRAGMS & DETAILS - RAMP 3 FLARE  
169 MOMENT TABLE 1 - RAMP 4 FLARE  
170 MOMENT TABLE 2 - RAMP 4 FLARE  
171 GIRDER ELEVATIONS 1 - RAMP 4 FLARE  
172 GIRDER ELEVATIONS 2 - RAMP 4 FLARE  
173 GIRDER ELEVATIONS 3 - RAMP 4 FLARE  
174 GIRDER ELEVATIONS 4 - RAMP 4 FLARE  
175 GIRDER ELEVATIONS 5 - RAMP 4 FLARE  
176 GIRDER ELEVATIONS 6 - RAMP 4 FLARE  
177 CROSSHEAD GIRDER DETAILS - RAMP 4 FLARE  
178 FLOOR BEAM DETAILS - RAMP 4 FLARE  
179 CONNECTION DETAILS 1 & 2 - RAMP 4 FLARE  
180 CONNECTION DETAILS 3 & 4 - RAMP 4 FLARE  
181 CONNECTION DETAILS 5 & 6 - RAMP 4 FLARE  
182 CONNECTION DETAILS 7 & 8 - RAMP 4 FLARE  
183 CONNECTION DETAILS 9 & 10 - RAMP 4 FLARE  
184 CONNECTION DETAILS 11 & 12 - RAMP 4 FLARE  
185 CONNECTION DETAILS 13 & 14 - RAMP 4 FLARE  
186 CONNECTION DETAILS 15 & 16 - RAMP 4 FLARE  
187 CONNECTION DETAILS 17, 18 & 19 - RAMP 4 FLARE  
188 FIELD SPLICES - RAMP 4 FLARE  
189 DIAPHRAGMS & DETAILS - RAMP 4 FLARE  
190 HIGH LOAD MULTI-ROTATIONAL BEARINGS NON-GUIDED EXPANSION  
191 HIGH LOAD MULTI-ROTATIONAL BEARINGS GUIDED EXPANSION  
192 HIGH LOAD MULTI-ROTATIONAL BEARINGS FIXED  
193 C. ABUT. 1 REPL. & WID.-EAST - CENTRAL/I-55  
194 C. ABUT. 1 REPL. & WID.-WEST - CENTRAL/I-55  
195 C. ABUT. 1 - DETAILS - CENTRAL/I-55  
196 C. ABUT. 1 - DETAILS - CENTRAL/I-56  
197 C. ABUT. 2 REPL. & WID.-EAST - CENTRAL/I-55  
198 C. ABUT. 2 REPL. & WID.-WEST - CENTRAL/I-55  
199 C. ABUT. 2 - DETAILS - CENTRAL/I-55  
200 C. ABUT. 3 REPL. & WID.-EAST - CENTRAL/I-55  
201 C. ABUT. 3 REPL. & WID.-WEST - CENTRAL/I-55  
202 C. ABUT. 3 - DETAILS - CENTRAL/I-55  
203 C. ABUT. 4 REPL. & WID.-EAST - CENTRAL/I-55  
204 C. ABUT. 4 REPL. & WID.-WEST - CENTRAL/I-55  
205 C. ABUT. 4 - DETAILS - CENTRAL/I-55  
206 C. ABUT. 4 - DETAILS - CENTRAL/I-56  
207 PIER 6 WIDENING - EAST - CENTRAL/I-55  
208 PIER 6 WIDENING - WEST - CENTRAL/I-55  
209 PIER 6 DETAILS 1 - CENTRAL/I-55  
210 PIER 6 DETAILS 2 - CENTRAL/I-55  
211 RAMP 1 ABUTMENT  
212 RAMP 1 PIER  
213 RAMP 1 PIER DETAILS  
214 RAMP 2 ABUTMENT  
215 RAMP 2 PIER  
216 RAMP 2 PIER DETAILS  
217 RAMP 3 ABUTMENT  
218 RAMP 3 PIER

219 RAMP 3 PIER DETAILS  
220 RAMP 4 ABUTMENT  
221 RAMP 4 PIER  
222 RAMP 4 PIER DETAILS  
223 SUBSTRUCTURE REPAIRS - CENTRAL/I-55  
224 BAR SPICER (COUPLER) DETAILS  
225 CONCRETE PILE DETAILS  
226 BORING LOGS 1  
227 BORING LOGS 2  
228 BORING LOGS 3  
229 BORING LOGS 4  
230 BORING LOGS 5  
231 BORING LOGS 6  
232 BORING LOGS 7  
233 BORING LOGS 8  
234 BORING LOGS 9  
235 BORING LOGS 10  
236 BORING LOGS 11  
237 BORING LOGS 12  
238 BORING LOGS 13  
239 BORING LOGS 14

**INDEX OF SHEETS**  
**STRUCTURE NO. 016-0724**

<b>TYLIN INTERNATIONAL</b>	DESIGNED -	REVISIONS		SHEET NO. 3	F.A.I RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 327	
	CHECKED - AMD,	NAME	DATE							239 SHEETS
	DRAWN - EMK									
	CHECKED - AMD,									
	DATE - 03/25/2011									
			FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT							

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



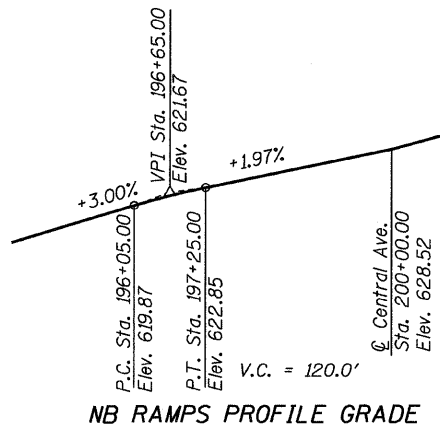
**ELEVATION**  
(Looking @ F.F. South Wall)

**PLAN**

**BORING LOCATIONS**

No.	Station	*Offset
BR-5	198+04.0	33.9' LT

\* Offset from PGL NB Ramps



**NB RAMP PROFILE GRADE**

**SCOPE OF WORK**

- Spans 4 and 5 (New Spans R1-1 & R1-2)
- Remove Existing deck and Structural Steel.
  - Remove Substructure Elements per Removal Plan
  - Construct R1-Pier
  - Construct new Superstructure

**LEGEND**

● Boring Location

**GENERAL PLAN AND  
ELEVATION - RAMP 1  
STRUCTURE NO. 016-0724**

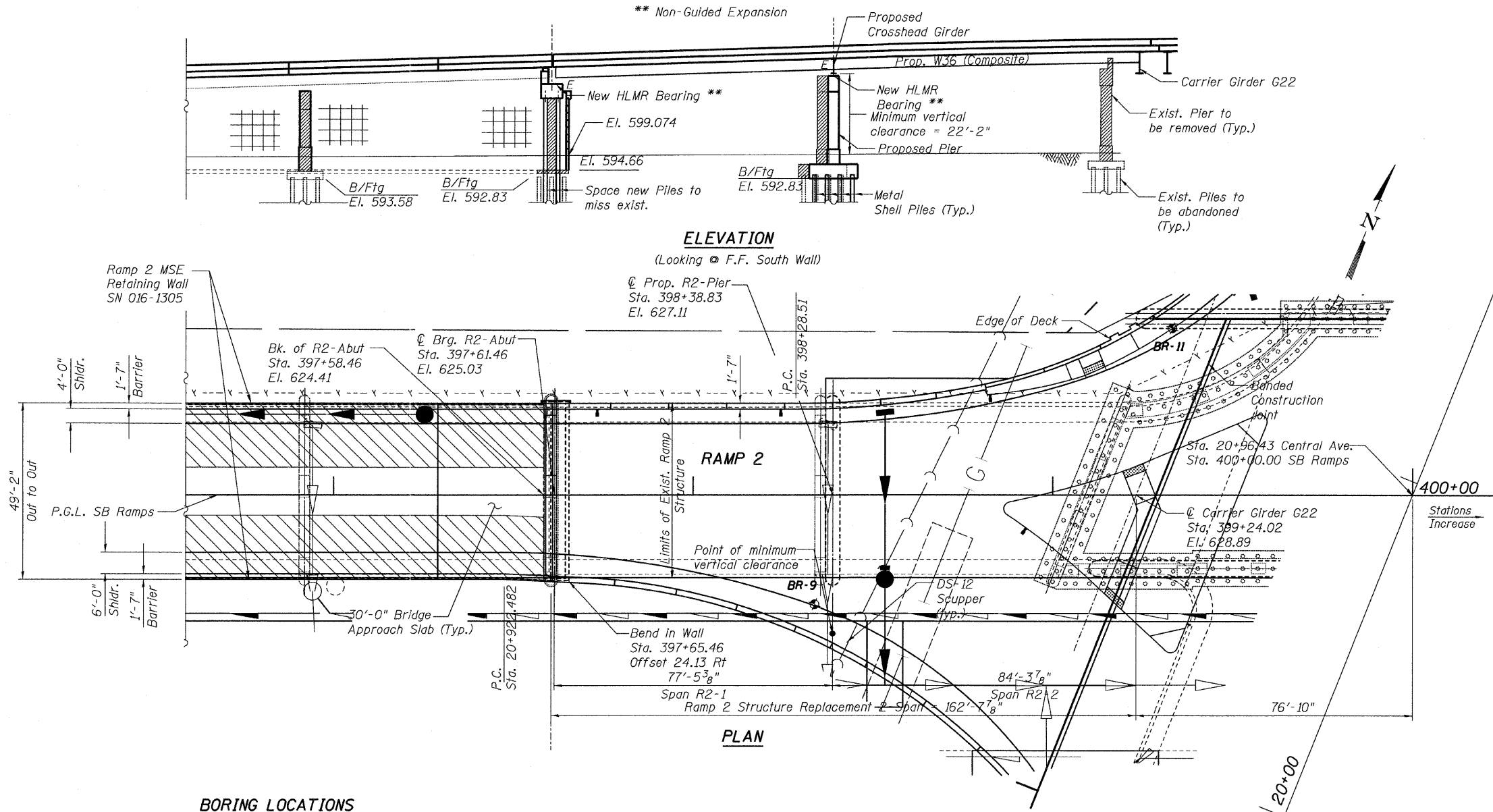
**TYLIN INTERNATIONAL**

DESIGNED	JMA	REVISIONS	
CHECKED	AMD,	NAME	DATE
DRAWN	JMA		
CHECKED	AMD,		
DATE	03/25/2011		

SHEET NO. 4	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	0711.2R & 1011.1BR	COOK	741	328
239 SHEETS			CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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DEPARTMENT OF TRANSPORTATION



**ELEVATION**

(Looking @ F.F. South Wall)

**PLAN**

**SCOPE OF WORK**

- Spans 4 and 5 (New Spans R2-1 & R2-2)
- Remove existing deck and Structural Steel.
- Remove Substructure Elements per Removal Plan
- Construct R2-Pier.
- Construct new Superstructure

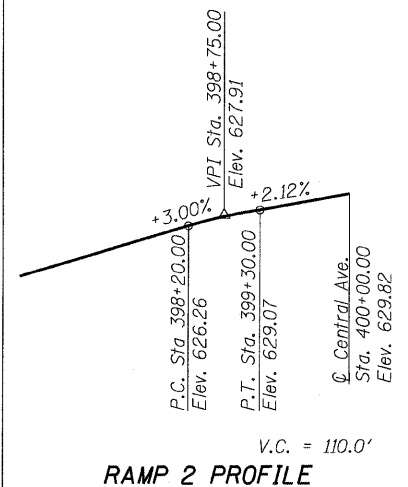
**BORING LOCATIONS**

No.	Station	*Offset
BR-9	398+33.8	30.5' RT
BR-11	399+33.2	46.5' LT

\* Offset from PGL SB Ramps

**LEGEND**

● Boring Location



**RAMP 2 PROFILE**

**GENERAL PLAN AND  
ELEVATION - RAMP 2  
STRUCTURE NO. 016-0724**

**TYLIN INTERNATIONAL**

DESIGNED	JMA	REVISIONS	
CHECKED	AMD,	NAME	DATE
DRAWN	JMA		
CHECKED	AMD,		
DATE	03/25/2011		

SHEET NO. 5	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	0711.2R & 1011.1BR	COOK	741	329
239 SHEETS			CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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DEPARTMENT OF TRANSPORTATION

\*\* Non-Guided Expansion

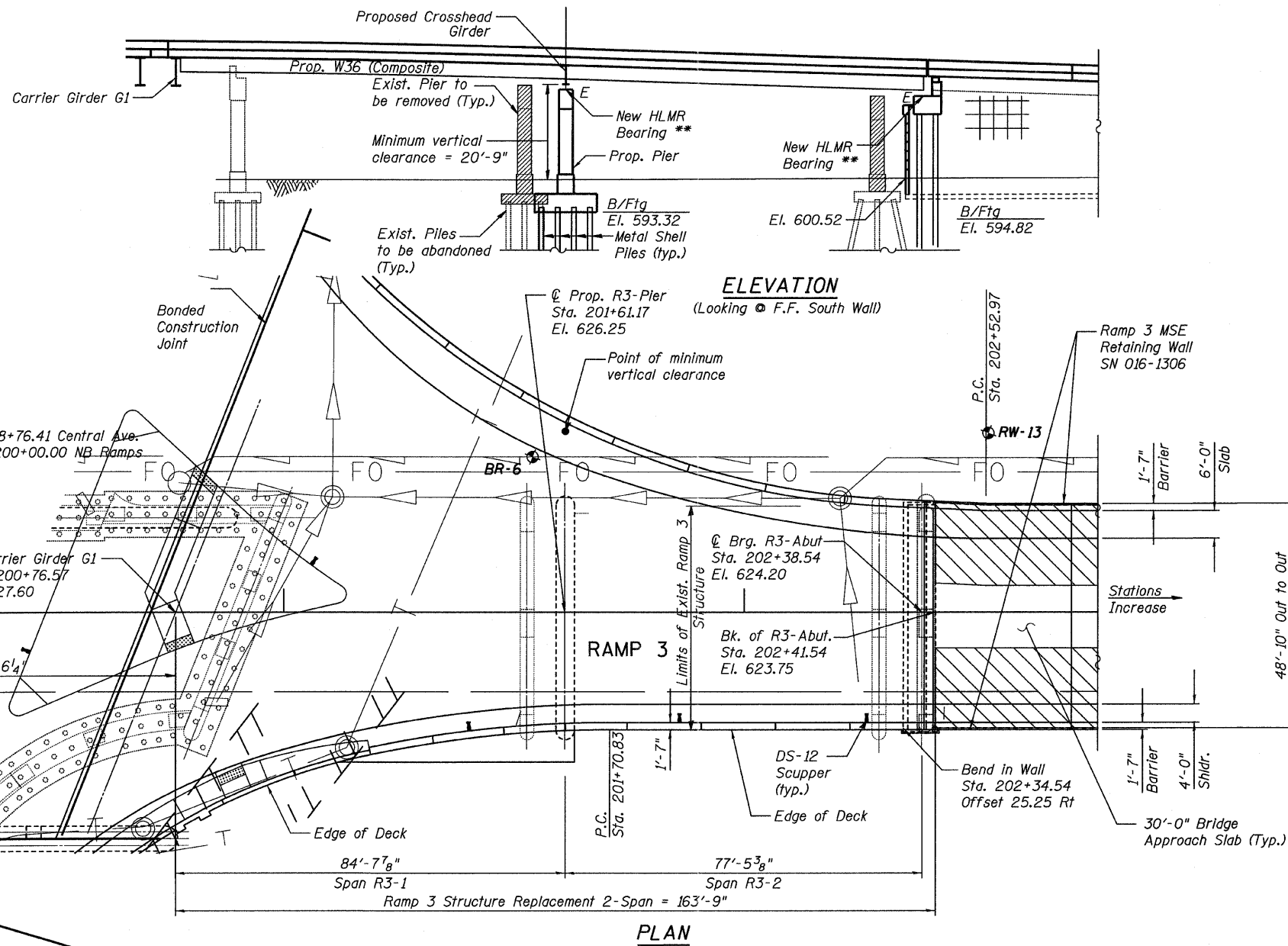
**BORING LOCATIONS**

No.	Station	*Offset
BR-6	201+54.07	33.8' LT
RW-13	202+53.00	39.0' LT

\* Offset from PGL NB Ramps

**LEGEND**

● Boring Location



**ELEVATION**

(Looking @ F.F. South Wall)

**PLAN**

**SCOPE OF WORK**

- Spans 1 & 2 (New Spans R3-1 & R3-2)
- Remove existing deck and Structural Steel.
  - Remove Substructure Elements per Removal Plan
  - Construct R3-Pier.
  - Construct new Superstructure

**RAMP 3 PROFILE GRADE**

**GENERAL PLAN AND  
ELEVATION - RAMP 3  
STRUCTURE NO. 016-0724**

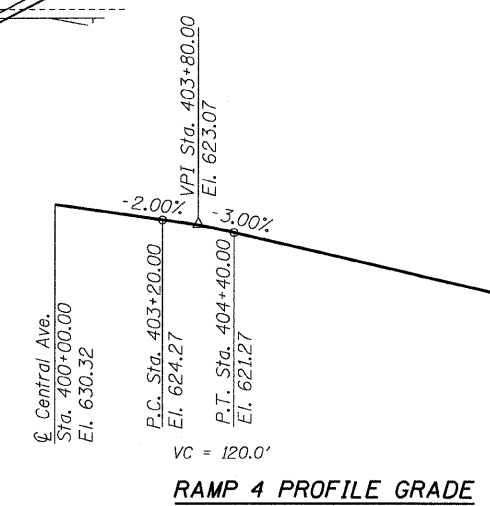
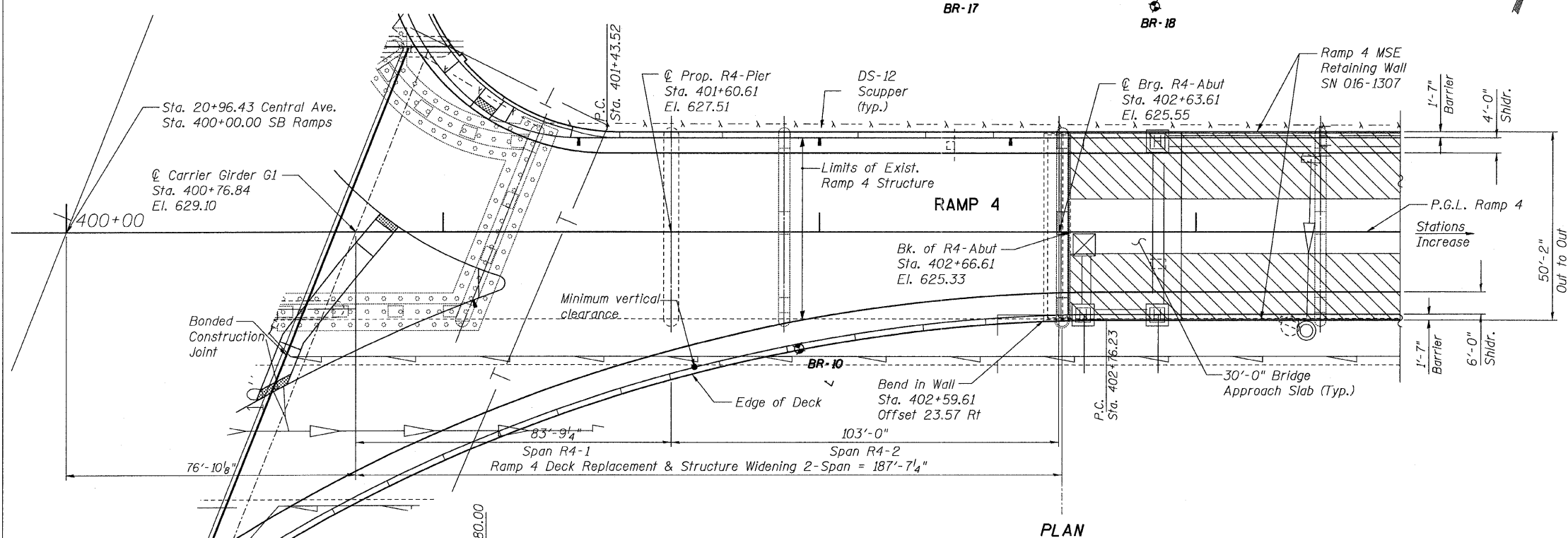
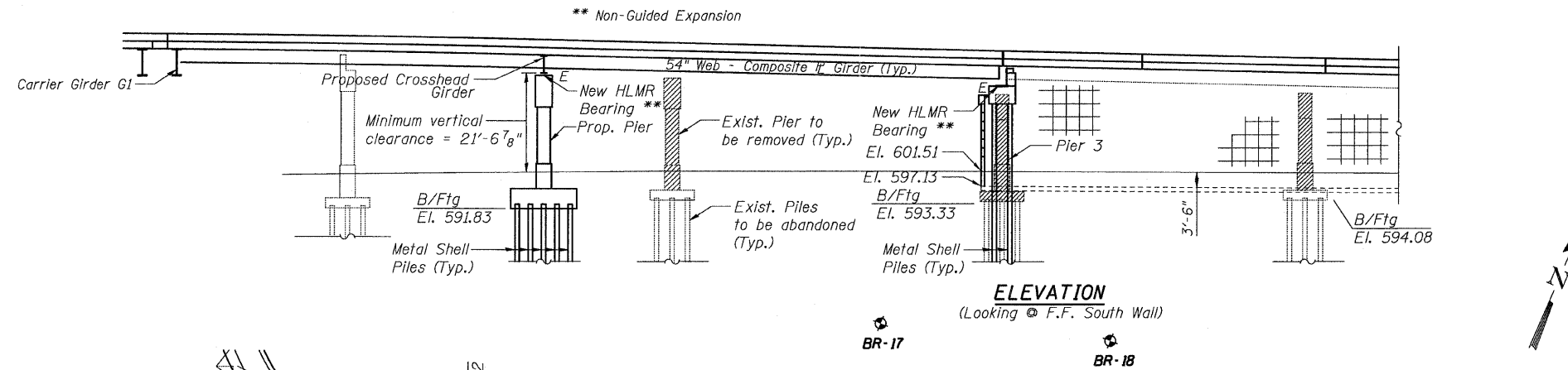
**TYLIN INTERNATIONAL**

DESIGNED - JMA	REVISIONS	
CHECKED - AMD,	NAME	DATE
DRAWN - JMA		
CHECKED - AMD,		
DATE - 03/25/2011		

SHEET NO. 6	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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239 SHEETS			CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT					

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DEPARTMENT OF TRANSPORTATION



**SCOPE OF WORK**

Spans 1 & 2 (New Spans R4-1 & R4-2)  
- Remove existing deck and Structural Steel.  
- Remove Substructure Elements per Removal Plan  
- Construct R4-Pier.  
- Construct new Superstructure.

**BORING LOCATIONS**

No.	Station	*Offset
BR-10	401+96.70	31.0' RT
BR-17	402+37.00	64.0' LT
BR-18	402+89.00	60.0' LT

\* Offset from PGL SB Ramps

**LEGEND**

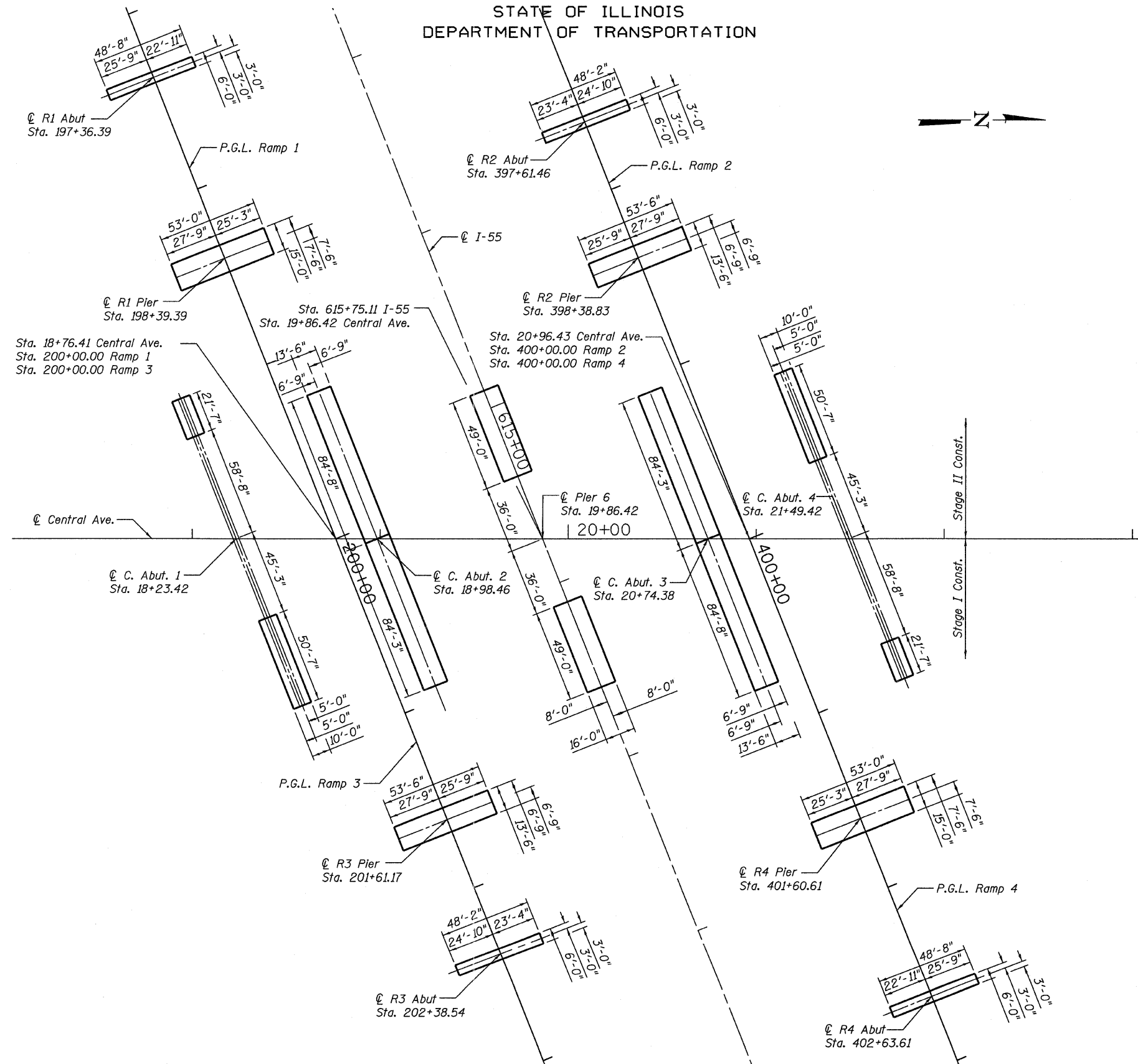
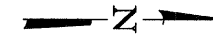
⊕ Boring Location

**GENERAL PLAN AND  
ELEVATION - RAMP 4  
STRUCTURE NO. 016-0724**

<b>TYLIN INTERNATIONAL</b>	DESIGNED - JMA	REVISIONS		SHEET NO. 7	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - AMD,	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	331
	DRAWN - JMA				239 SHEETS	CONTRACT NO. 60999			
	CHECKED - AMD, DATE - 03/25/2011				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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DEPARTMENT OF TRANSPORTATION



**FOOTING LAYOUT**  
**CENTRAL/I-55**  
**STRUCTURE NO. 016-0724**

**TYLIN INTERNATIONAL**

DESIGNED - EKH	REVISIONS	
CHECKED - AMD,	NAME	DATE
DRAWN - EKH		
CHECKED - AMD,		
DATE - 03/25/2011		

SHEET NO. 8	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

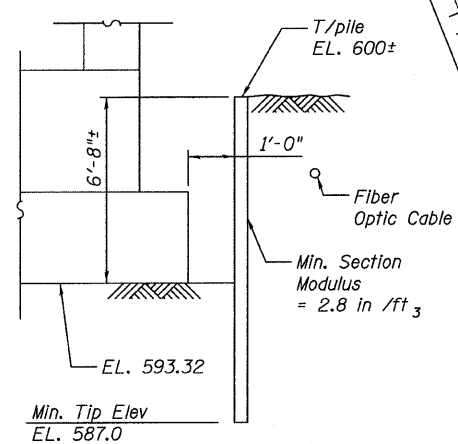
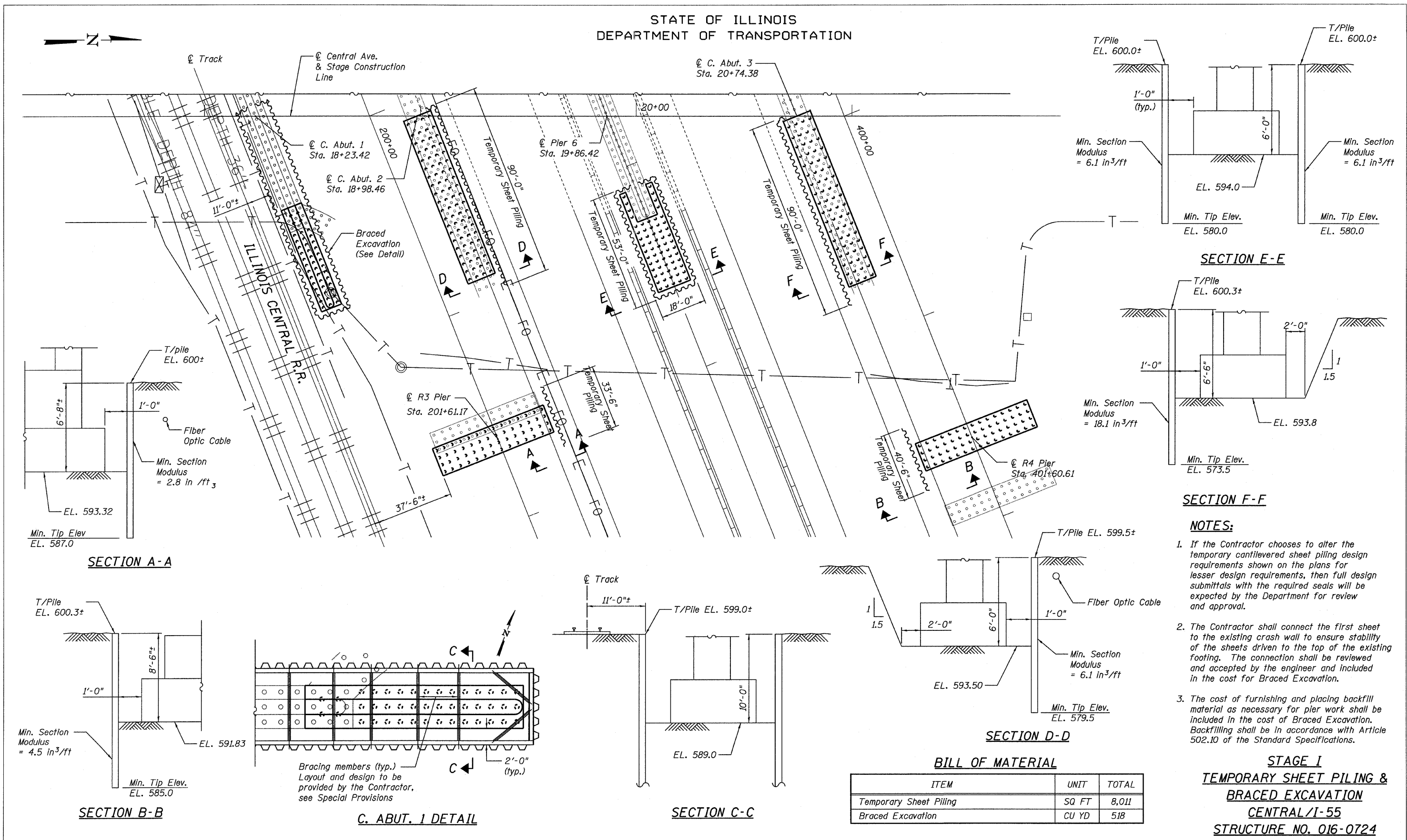
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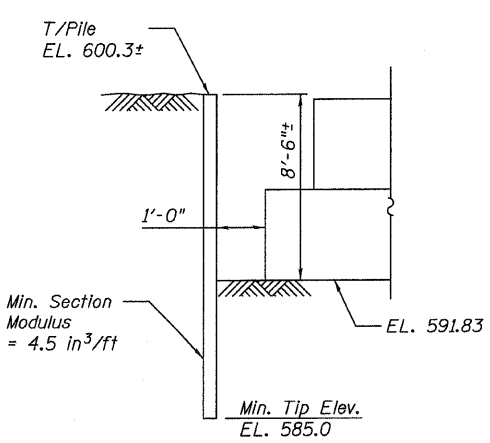
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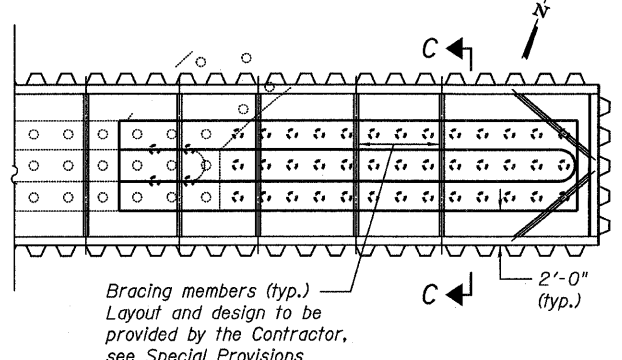
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DEPARTMENT OF TRANSPORTATION



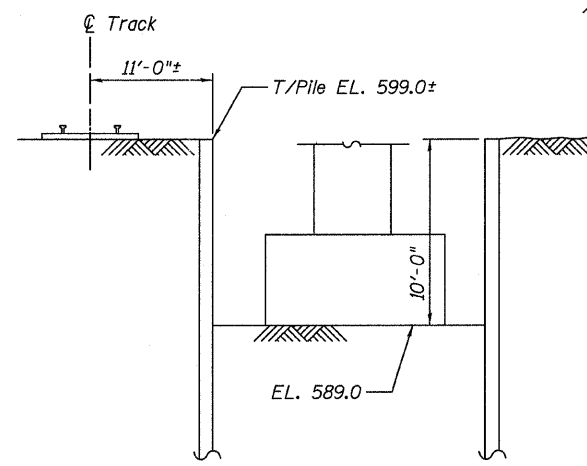
SECTION A-A



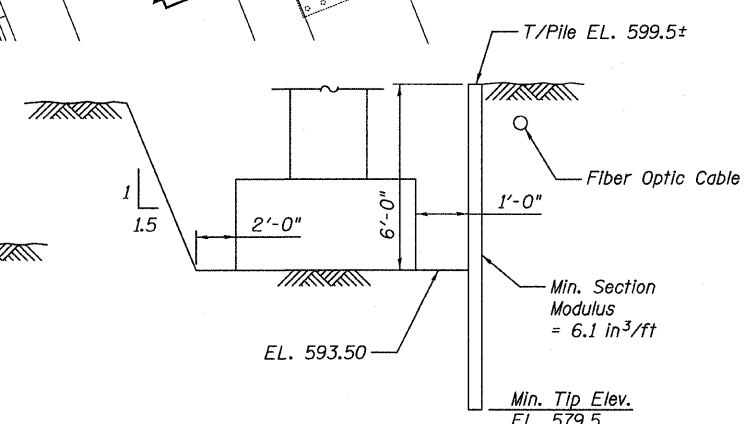
SECTION B-B



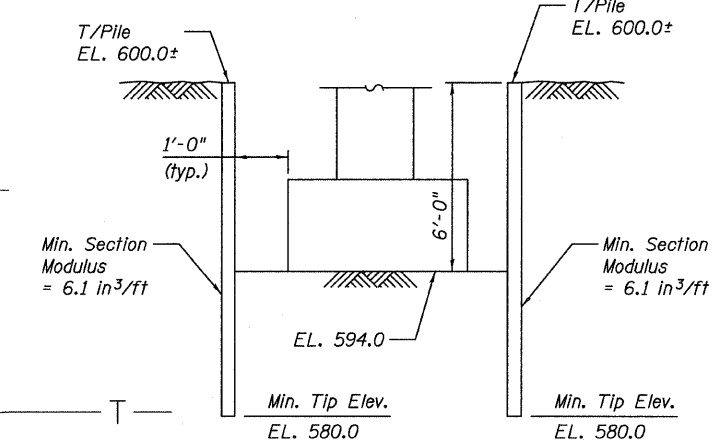
C. ABUT. 1 DETAIL



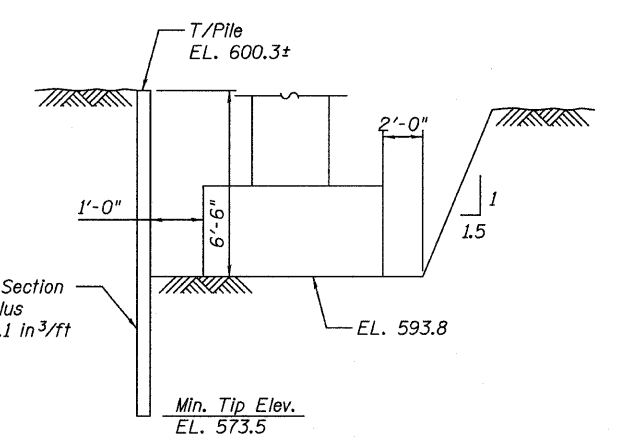
SECTION C-C



SECTION D-D



SECTION E-E



SECTION F-F

- NOTES:**
- If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans for lesser design requirements, then full design submittals with the required seals will be expected by the Department for review and approval.
  - The Contractor shall connect the first sheet to the existing crash wall to ensure stability of the sheets driven to the top of the existing footing. The connection shall be reviewed and accepted by the engineer and included in the cost for Braced Excavation.
  - The cost of furnishing and placing backfill material as necessary for pier work shall be included in the cost of Braced Excavation. Backfilling shall be in accordance with Article 502.10 of the Standard Specifications.

**BILL OF MATERIAL**

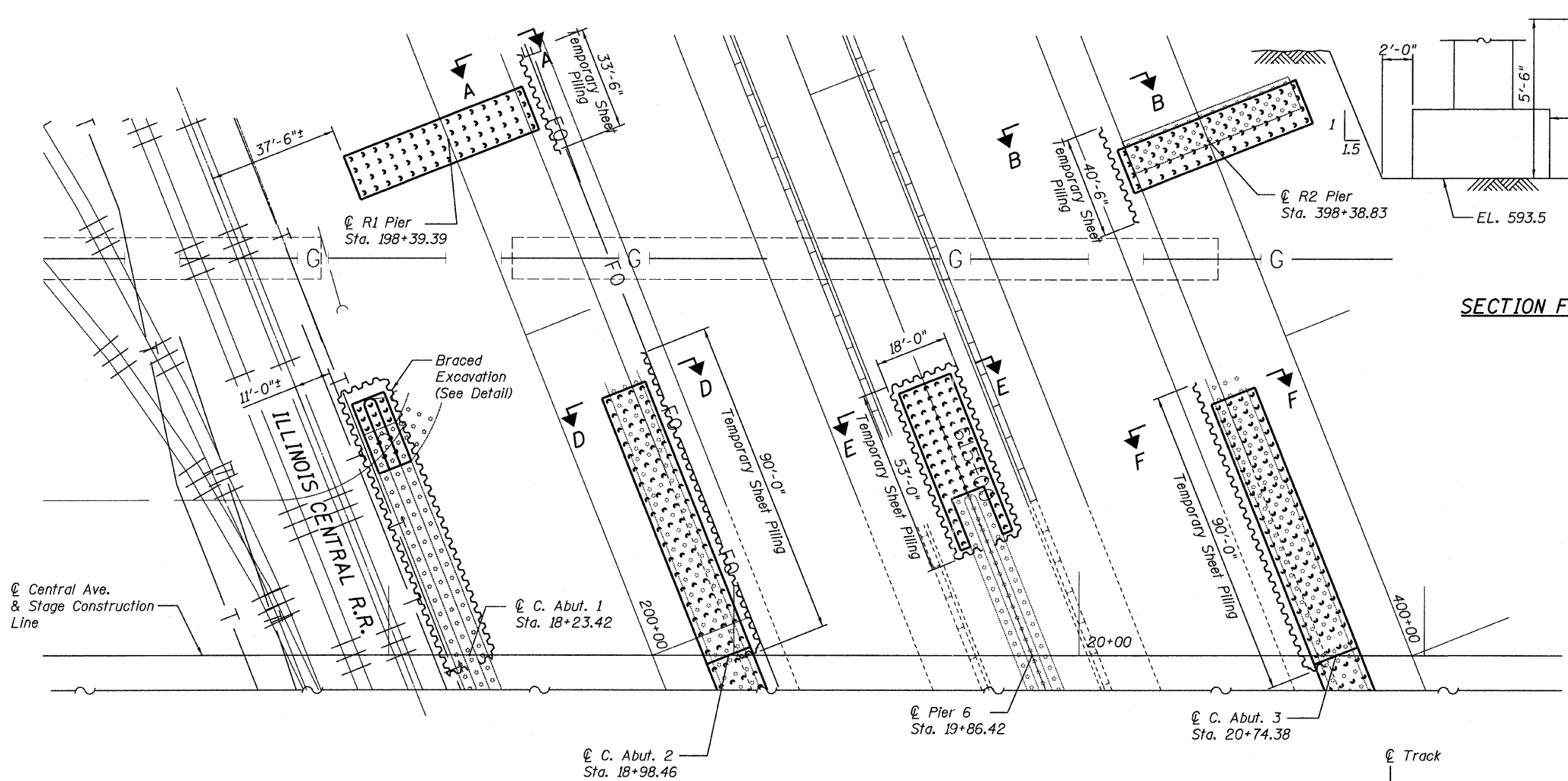
ITEM	UNIT	TOTAL
Temporary Sheet Piling	SQ FT	8,011
Braced Excavation	CU YD	518

**STAGE I**  
**TEMPORARY SHEET PILING & BRACED EXCAVATION**  
**CENTRAL/I-55**  
**STRUCTURE NO. 016-0724**

<b>TYLIN INTERNATIONAL</b> DESIGNED - JMA CHECKED - AMD, DRAWN - JMA CHECKED - AMD, DATE - 03/25/2011	REVISIONS		SHEET NO. 9 239 SHEETS	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS	SHEET NO.
	NAME	DATE					741	333
							CONTRACT NO. 60999	
							FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

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SECTION F-F

SECTION E-E

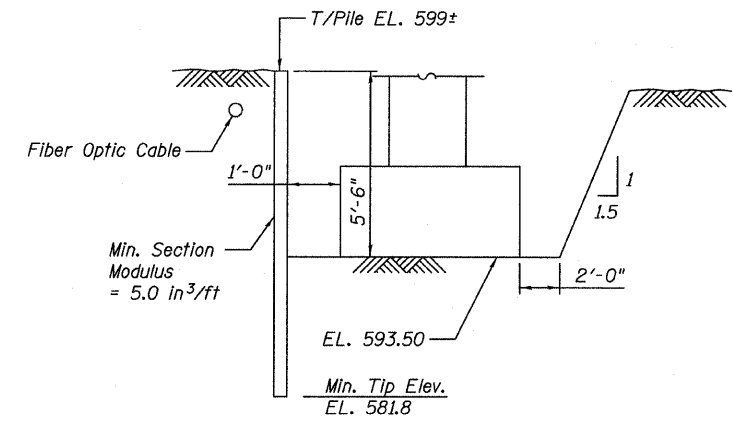
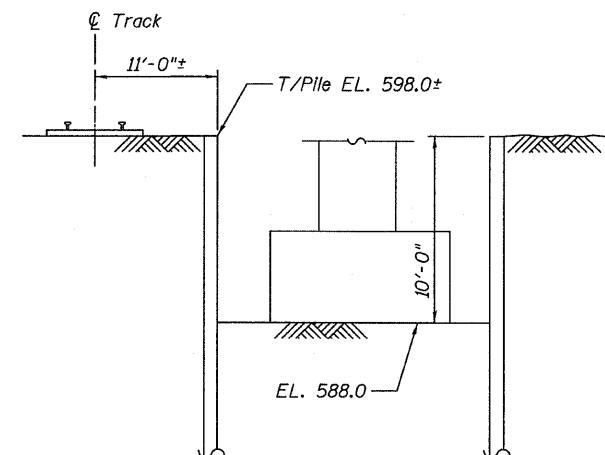
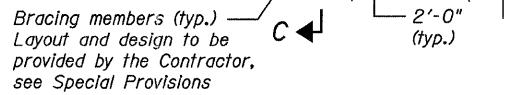
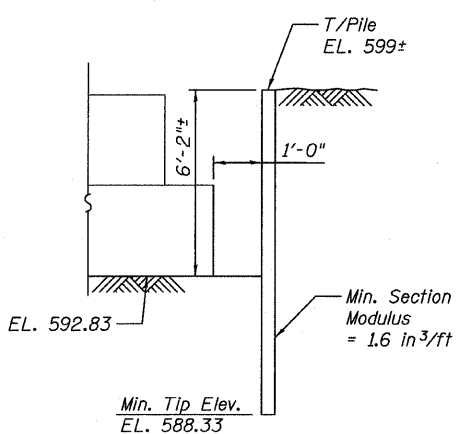
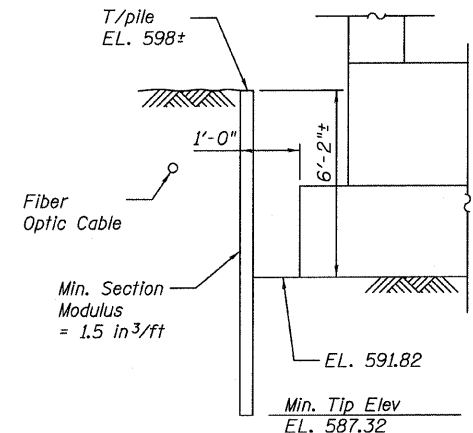
SECTION D-D

SECTION C-C

SECTION A-A

SECTION B-B

C. ABUT. 1 DETAIL



NOTES:

1. If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans for lesser design requirements, then full design submittals with the required seals will be expected by the Department for review and approval.
2. The Contractor shall connect the first sheet to the existing crash wall to ensure stability of the sheets driven to the top of the existing footing. The connection shall be reviewed and accepted by the engineer and included in the cost for Braced Excavation.
3. The cost of furnishing and placing backfill material as necessary for pier work shall be included in the cost of Braced Excavation. Backfilling shall be in accordance with Article 502.10 of the Standard Specifications.

BILL OF MATERIAL

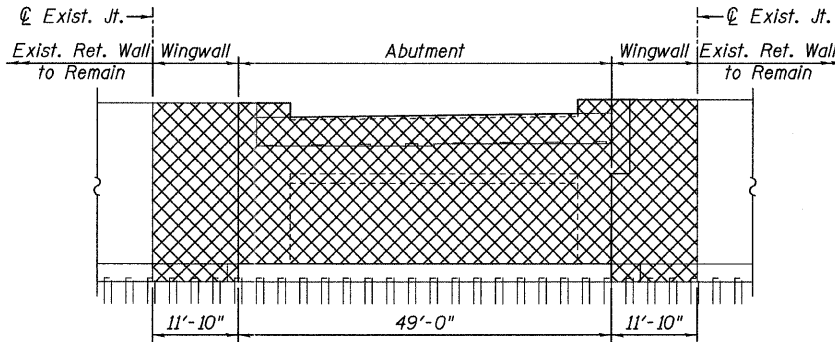
ITEM	UNIT	TOTAL
Temporary Sheet Piling	SQ FT	5,555
Braced Excavation	CU YD	437

STAGE II  
TEMPORARY SHEET PILING &  
BRACED EXCAVATION  
CENTRAL/I-55  
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL	DESIGNED - JMA	REVISIONS		SHEET NO. 10	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS	SHEET NO.
	CHECKED - AMD,	NAME	DATE					741	334
	DRAWN - JMA							CONTRACT NO. 60999	
	CHECKED - AMD,							FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	
	DATE - 03/25/2011			239 SHEETS					

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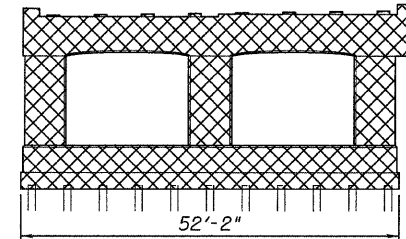
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**RAMP ABUTMENTS**

The following is paid for as Removal of Existing Sub-Structures - Abutment Type 1:

- Ramp 1 Abut.
- Ramp 2 Abut.
- Ramp 3 Abut.
- Ramp 4 Abut.



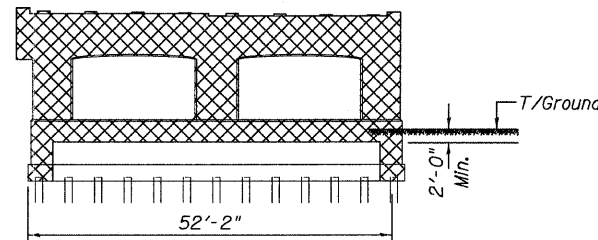
**RAMP PIERS - REMOVAL DETAILS**

The following is paid for as Removal of Existing Sub-Structures - Pier:

- Ramp 1 - Pier 3
- Ramp 2 - Piers 3 & 4
- Ramp 3 - Pier 2
- Ramp 4 - Pier 3

**NOTES:**

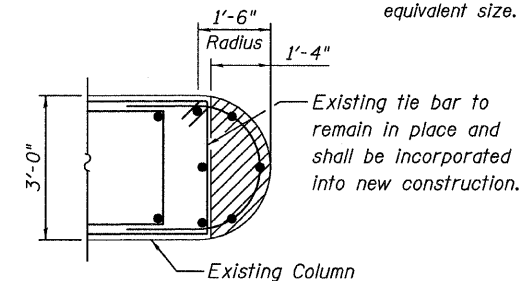
1. The existing structure plans are available from the Department for review by the Contractor.
2. Removal quantities are based on existing plan dimensions.
3. Sand blast clean existing reinforcing bars to be incorporated into new construction. After cleaning, bars shall be evaluated to determine if additional reinforcing bars are required. Damaged or cut bars, or bars that have lost 25% or more of their original cross sectional areas shall be supplemented by drilling and grouting of new epoxy coated bars of equivalent size. Cost included with "Concrete Removal".



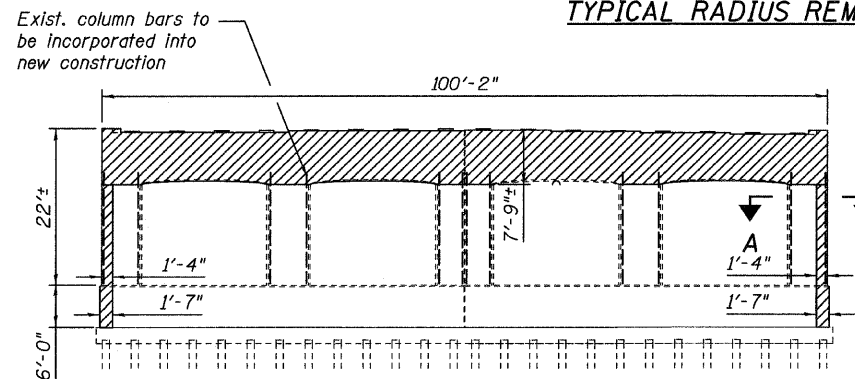
**RAMP PIERS - REMOVAL DETAILS**

The following is paid for as Removal of Existing Sub-Structures - Pier:

- Ramp 1 - Piers 1, 2, 4 & 5
- Ramp 2 - Piers 1, 2, & 5
- Ramp 3 - Piers 1, 3 & 4
- Ramp 4 - Piers 1, 2, 4 & 5



**SECTION A-A  
TYPICAL RADIUS REMOVAL**

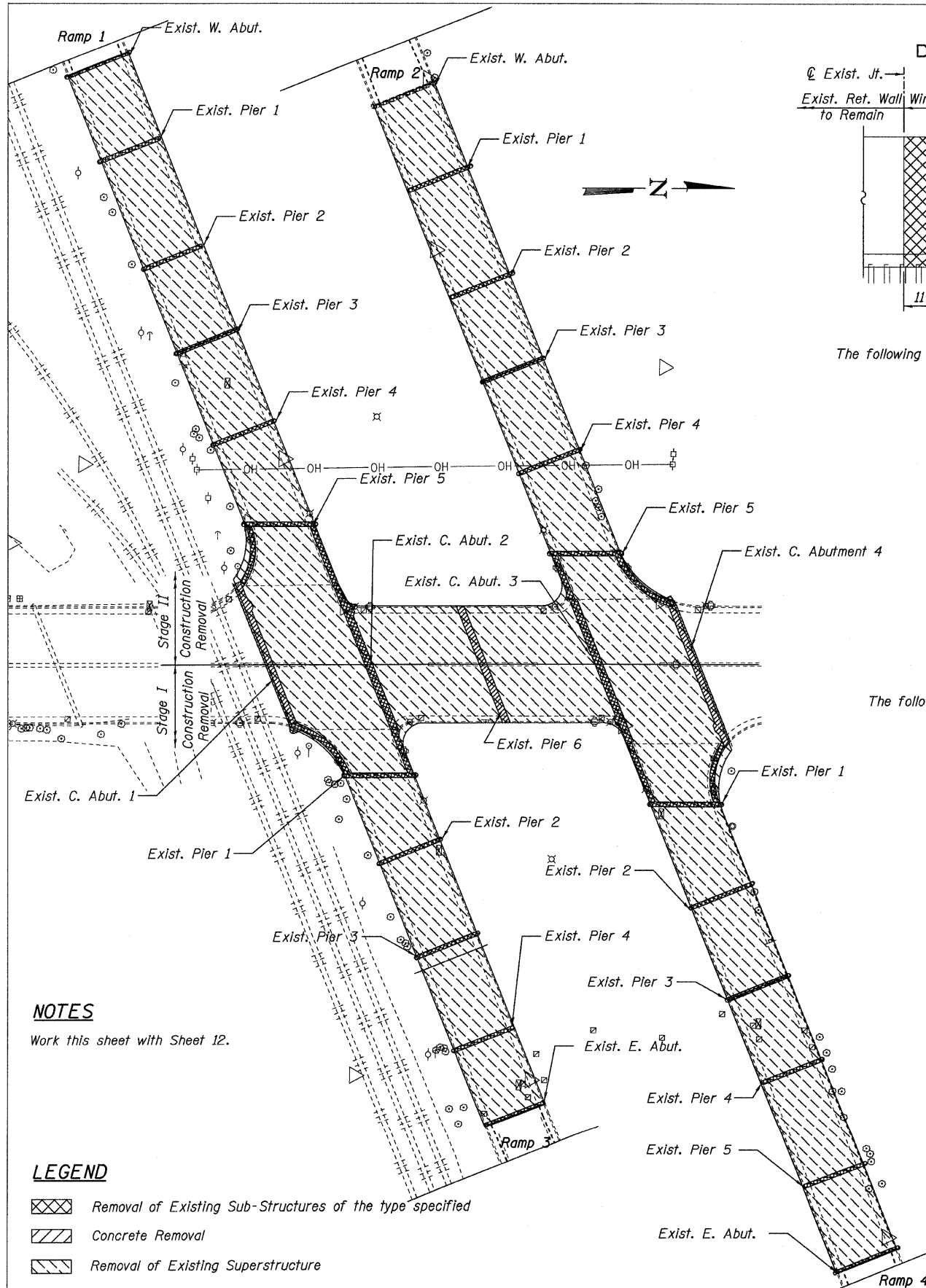


**PIER 6 - PARTIAL REMOVAL**

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Removal of Existing Superstructures	L SUM	1
Concrete Removal	CU YD	1,489.5
Removal of Existing Sub-Structures - Abutment Type 1	EACH	4
Removal of Existing Sub-Structures - Abutment Type 2	EACH	2
Removal of Existing Sub-Structures - Pier	EACH	19

**REMOVAL PLAN 1  
CENTRAL/I-55  
STRUCTURE NO. 016-0724**



**NOTES**

Work this sheet with Sheet 12.

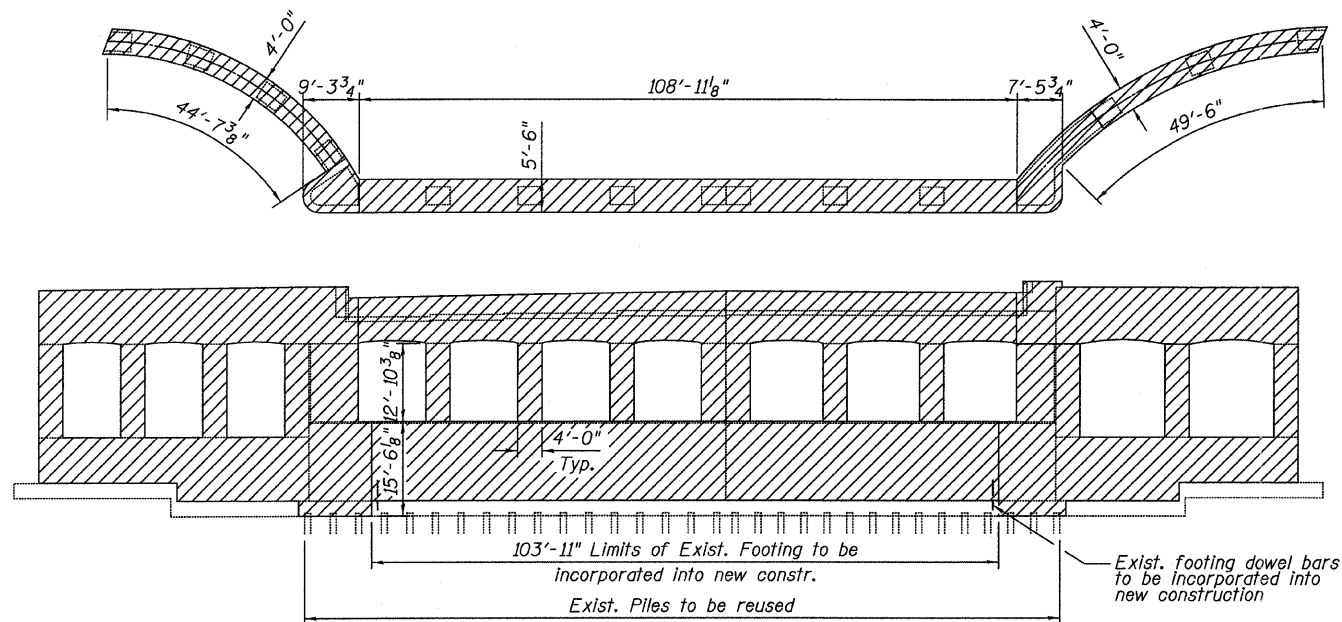
**LEGEND**

- Removal of Existing Sub-Structures of the type specified
- Concrete Removal
- Removal of Existing Superstructure

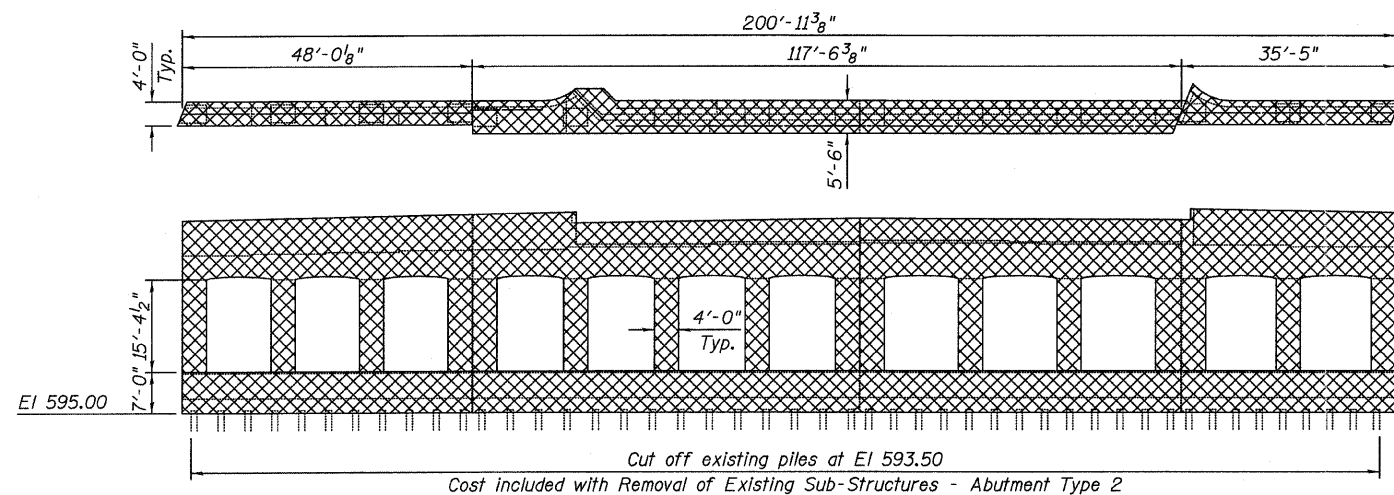
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	DRAWN - MMB											CONTRACT NO. 60999
	CHECKED - AMD,											
DATE - 03/25/2011			FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT									

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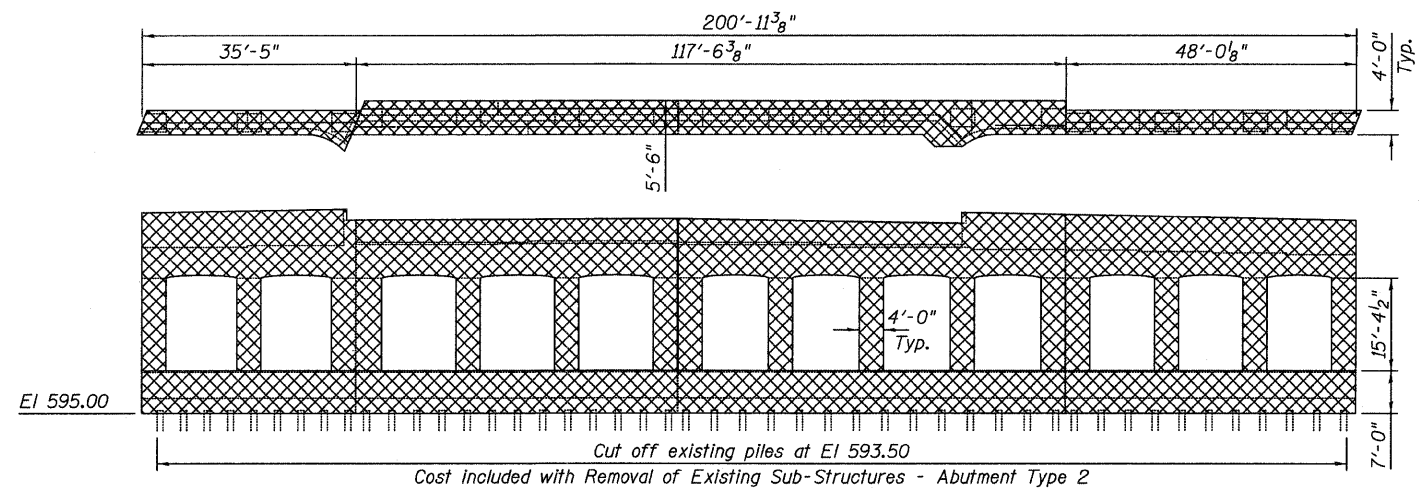
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



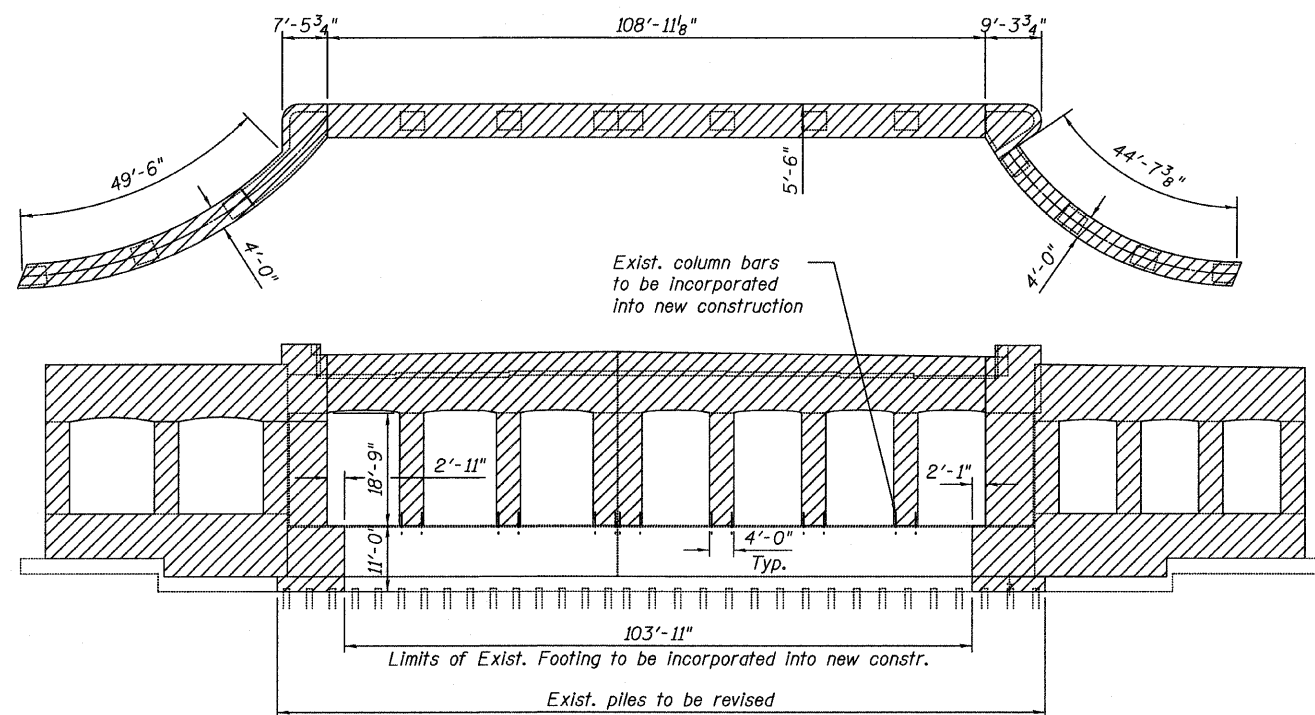
**C. ABUTMENT 1**



**C. ABUTMENT 2**



**C. ABUTMENT 3**



**C. ABUTMENT 4**

**LEGEND**

- Removal of Existing Sub-Structures - Abutment Type 2
- Concrete Removal

**NOTES:**

1. For removal notes and Bill of Material, see sheet 11.

**REMOVAL PLAN 2**  
**CENTRAL/I-55**  
**STRUCTURE NO. 016-0724**

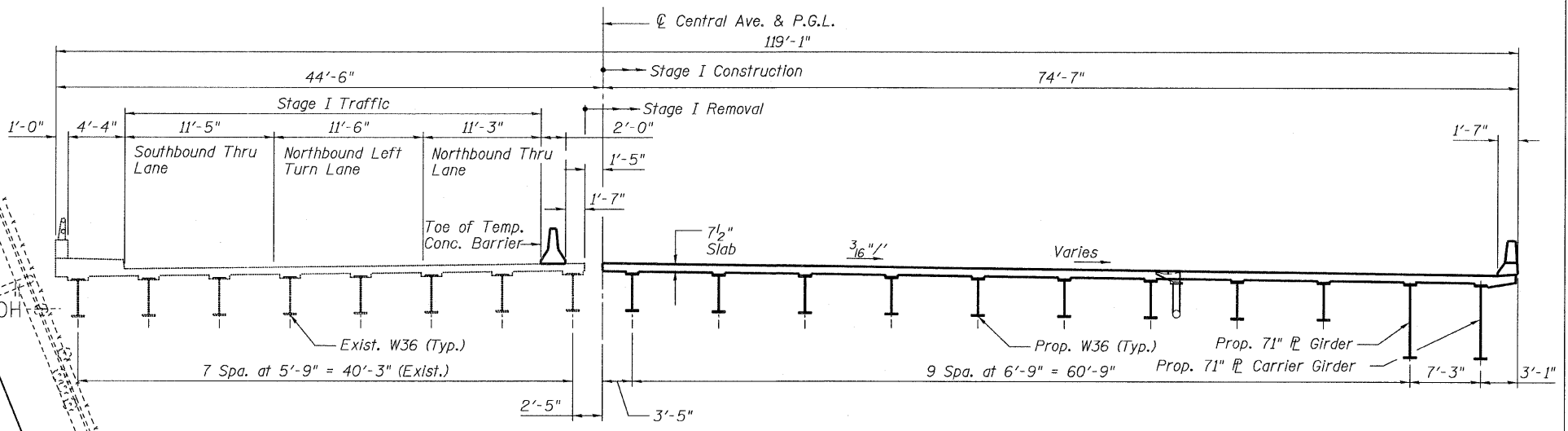
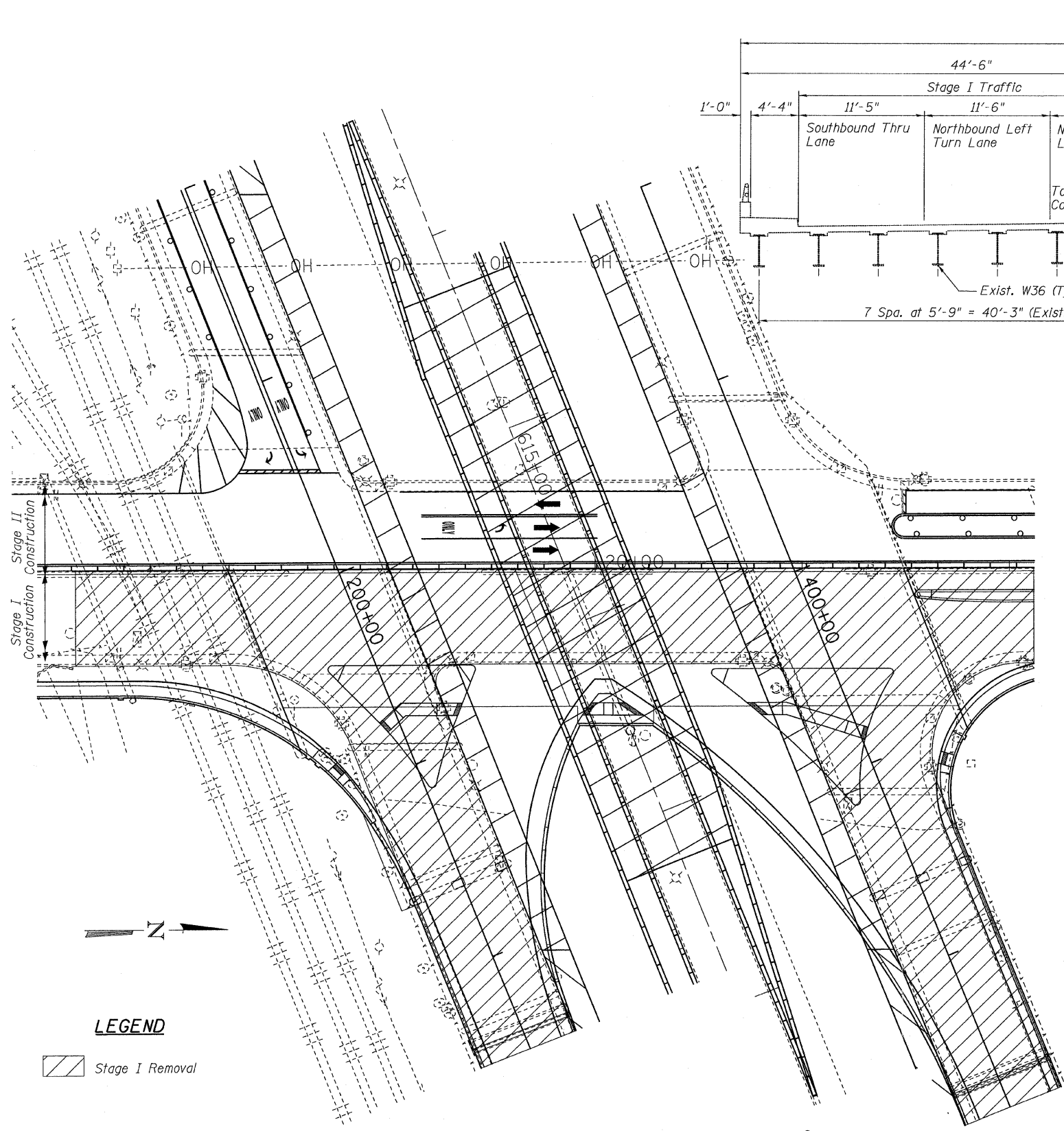
**TYLIN INTERNATIONAL**

DESIGNED - MMB	REVISIONS	
CHECKED - AMD,	NAME	DATE
DRAWN - MMB		
CHECKED - AMD,		
DATE - 03/25/2011		

SHEET NO. 12	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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239 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

4/28/2011

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DEPARTMENT OF TRANSPORTATION



**STAGE I:**

Stage I is the construction of the east half of the new SPUI, which includes the widening and rehabilitation of the Northbound Lanes of Central Ave. (main line) and removal and reconstruction of Ramps 3 and 4.

**STAGE I REMOVAL**

1. Install temporary concrete barrier as shown and divert traffic to the existing Southbound bridge.
2. Close existing Northbound bridge and Ramps 3 and 4.
3. Remove Central Avenue superstructure, within limits of Stage I.
4. Remove existing structure in Ramps 3 and 4 including portions of the approach retaining walls to the limits shown on the Removal Plans.
5. Jack existing structural steel at C. Abut.1 in span 6 (S.N. 016-3241) and at C-Abutment 4 in span 11 (S.N. 016 - 3240 ) within limits of Stage I.
6. Remove C-Abutment 1 above the footing and C-Abutment 4 above the crashwall, within limits of Stage I.
7. Remove C-Abutments 2 and 3 within limits of Stage I.
8. Remove C-Abutment 1, 2, 3 and 4 wingwalls within limits of Stage I.
9. Remove the Pier 6 cap within limits of Stage I.

**STAGE I CONSTRUCTION**

1. Reconstruct and widen portions of C-Abutments 1, 2, 3 and 4 within limits of Stage I.
2. Reconstruct and widen pier 6 within limits of Stage I.
3. Construct new Ramp piers, abutments and MSE retaining walls.
4. Erect new structural steel diaphragms to replace the existing diaphragms at existing expansion joints.
5. Replace existing expansion bearings with new elastomeric bearings.
6. Erect new structural steel beams, girders, cross frames and diaphragms.
7. Construct new concrete deck, islands and parapets.
8. Install expansion joints at C.Abutments 1 and 4.
9. Install expansion joints at Abutments for Ramps 3 and 4.
10. Remove Temporary shoring at C-Abutments 1 and 4.

**LEGEND**

Stage I Removal


**STAGE I CONSTRUCTION  
STRUCTURE NO. 016-0724**

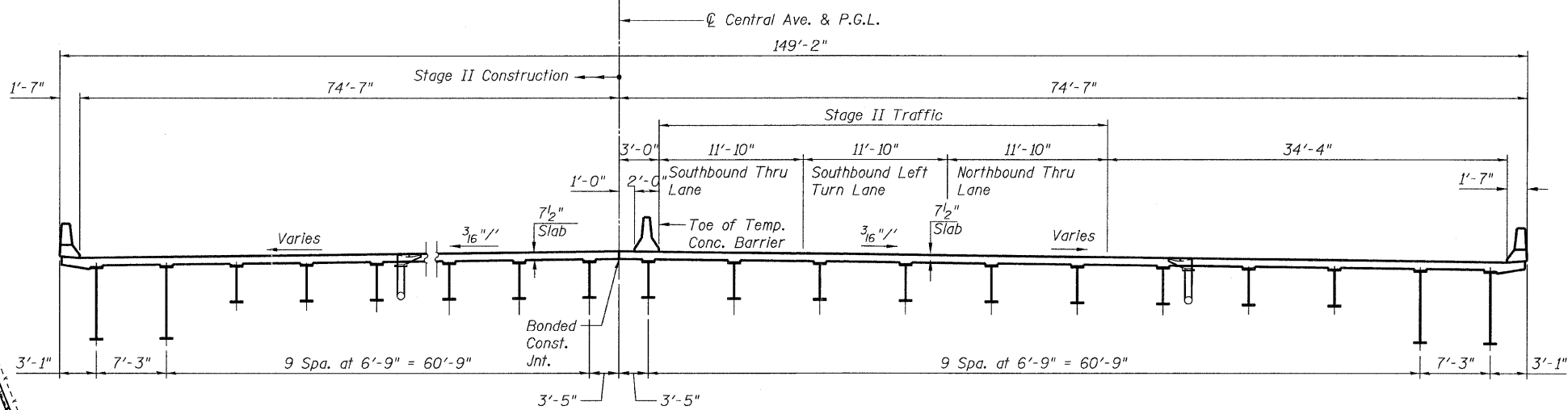
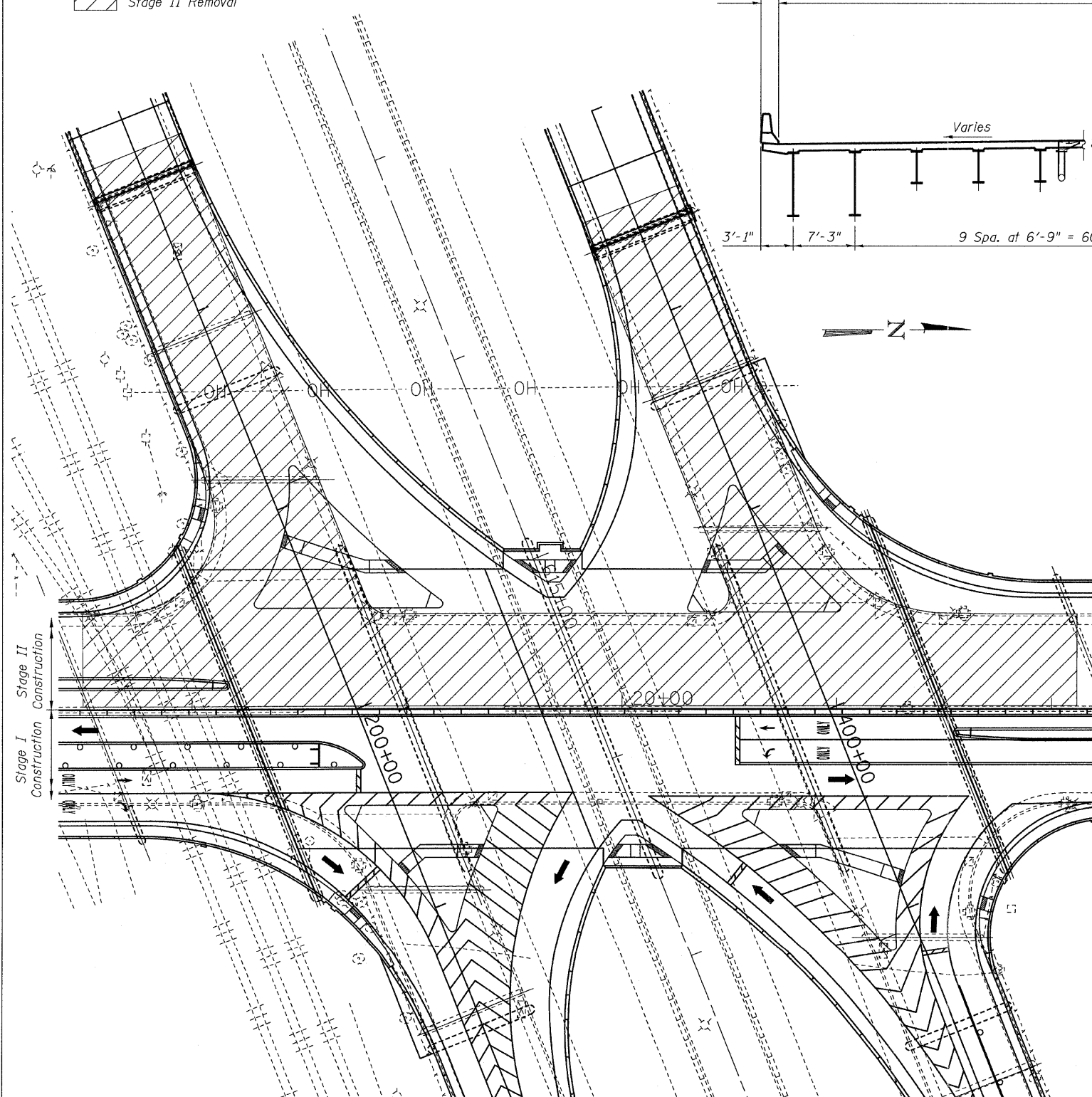
<b>TYLIN INTERNATIONAL</b>	DESIGNED - EMK	REVISIONS		SHEET NO. 13	F.A.I RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 337
	CHECKED - AMD,	NAME	DATE						
	DRAWN - EMK								
	CHECKED - AMD,								
DATE - 03/25/2011				239 SHEETS	CONTRACT NO. 60999				
					FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

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DEPARTMENT OF TRANSPORTATION

**LEGEND**

 Stage II Removal



**STAGE II**

Stage II is the construction of the west half of the new SPUI, which includes the rehabilitation of the Southbound lanes of Central Ave-Bridge (main line) and removal and reconstruction of Ramp 1 and 2.

**STAGE II REMOVAL**

1. Install temporary concrete barrier as shown and divert traffic to the constructed portion of the new bridge.
2. Ramps 1 and 2 will be closed, Ramps 3 and 4 will be open for traffic.
3. Remove remainder of Central Avenue superstructure.
4. Remove existing structure in Ramps 3 and 4 including portions of the approach retaining walls to the limits shown on the removal plans.
5. Shore existing structural steel at C-Abut 1 in span 6 (S.N. 016-3241) and at C-Abutment 4 in span (S.N. 016-3240) within limits of Stage II.
6. Remove remainder of C-Abutment 1 above the footing and C-Abutment 4 above the crashwall.
7. Remove remainder of C-Abutments 2 and 3.
8. Remove remainder of C-Abutment 1, 2, 3 and 4 wingwalls.
9. Remove the remainder of Pier 6 cap.

**STAGE II CONSTRUCTION**

1. Reconstruct and widen remainder portions of C-Abutments 1,2,3 and 4.
2. Reconstruct and widen remainder of pier 6.
3. Construct new Ramp piers, abutments and retaining walls.
4. Erect new structural steel diaphragms to replace the remainder existing diaphragms at existing expansion joints.
5. Replace remainder of existing expansion bearings with elastomeric bearings.
6. Erect new structural steel beams, girders, cross frames and diaphragms.
7. Construct new concrete deck, islands and parapets.
8. Install expansion joints at C-Abutments 1 and 4.
9. Install expansion joints at Abutments for Ramps 1 and 2.
10. Remove temporary shoring at C. Abutments 1 and 4.

**STAGE II CONSTRUCTION  
STRUCTURE NO. 016-0724**

**TYLIN INTERNATIONAL**

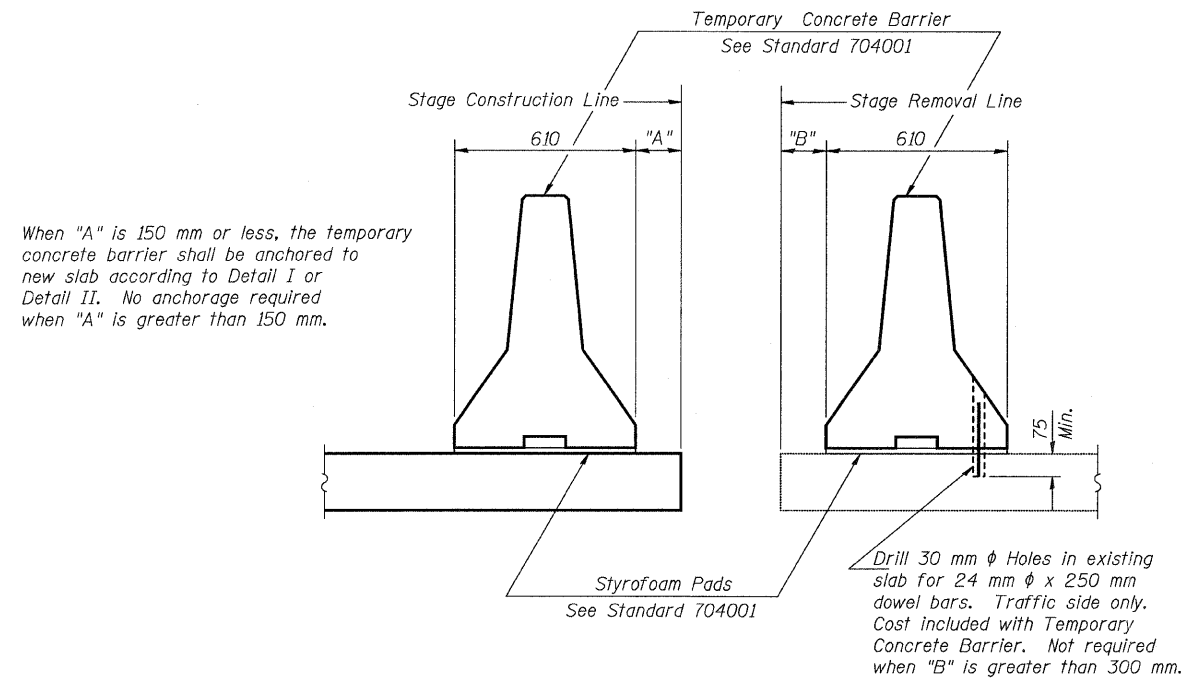
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CHECKED - AMD,  
DRAWN - EMK  
CHECKED - AMD,  
DATE - 03/25/2011

REVISIONS	
NAME	DATE

SHEET NO. 14  239 SHEETS	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	0711.2R & 1011.1BR	COOK	741	338
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60999		

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NEW SLAB

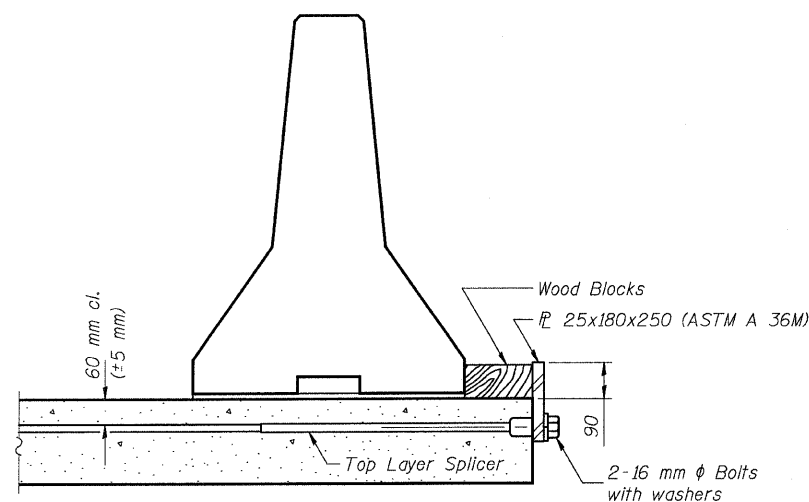
EXISTING SLAB

SECTIONS THRU SLAB

When "A" is 150 mm or less, the temporary concrete barrier shall be anchored to new slab according to Detail I or Detail II. No anchorage required when "A" is greater than 150 mm.

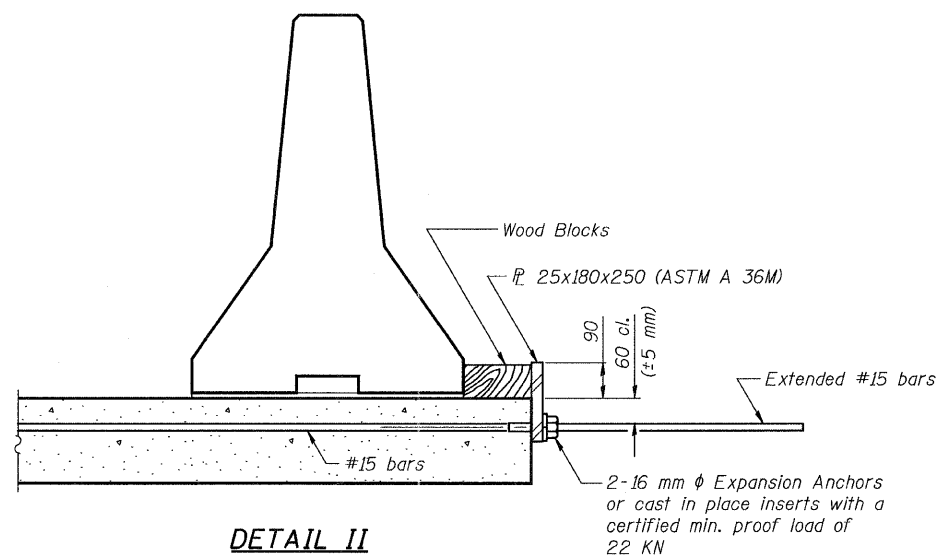
NOTES

- Detail I - With Bar Splicer or Couplers:  
Connect one (1) 25x180x250 steel  $\bar{P}$  to the top layer of couplers with 2-16 mm  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each 3 m barrier panel.
- Detail II - With Extended Reinforcement Bars:  
Connect one (1) 25x180x250 steel  $\bar{P}$  to the concrete slab with 2-16 mm  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  of each 3 m barrier panel.
- Cost of anchorage included with Temporary Concrete Barrier.  
All dimensions are in millimeters (mm) except as noted.



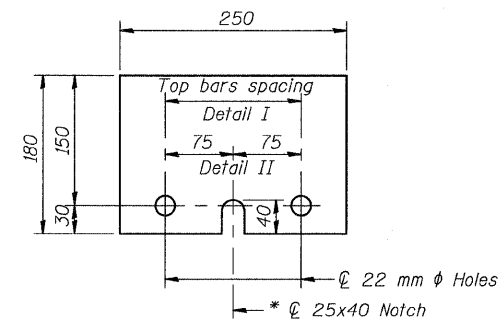
DETAIL I

The 25x180x250 Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II

The 25x180x250 Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



$\bar{P}$  25x180x250

\* Required only with Detail II

TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION

TEMP. CONCRETE BARRIER  
CENTRAL/I-55  
STRUCTURE NO. 016-0724

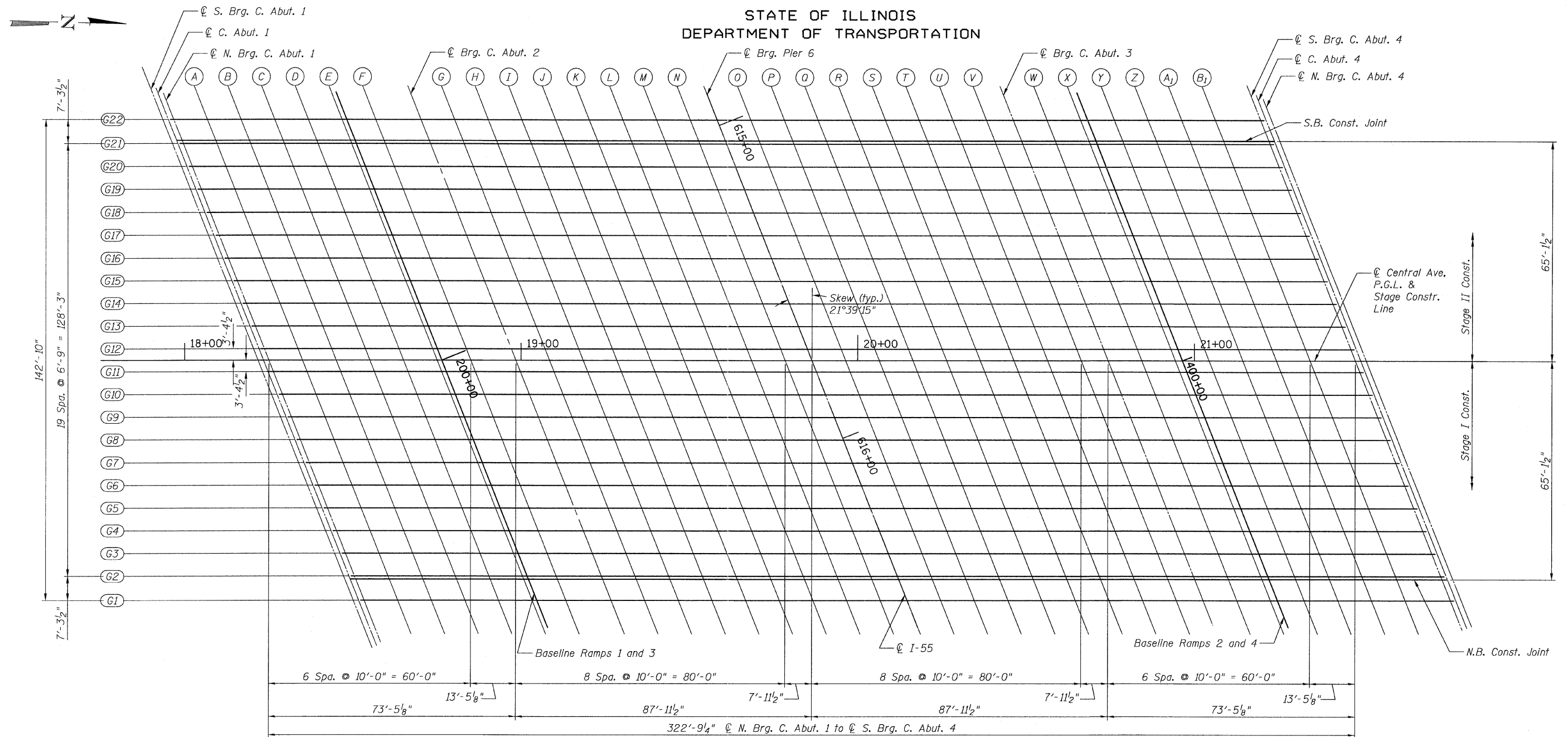
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	DRAWN -				239 SHEETS	CONTRACT NO. 60999				
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

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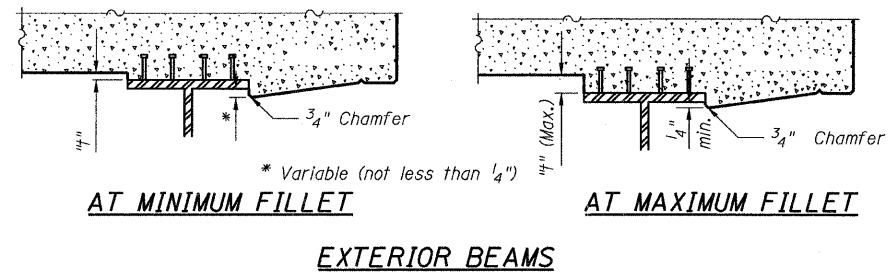
STATE OF ILLINOIS  
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PLAN

**STANDARD FILLET DETAILS**

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on the Elevation Location Plan. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheet Nos. 20 thru 33, minus slab thickness, equals the fillet heights "t" above the top flange of beams.



EXTERIOR BEAMS

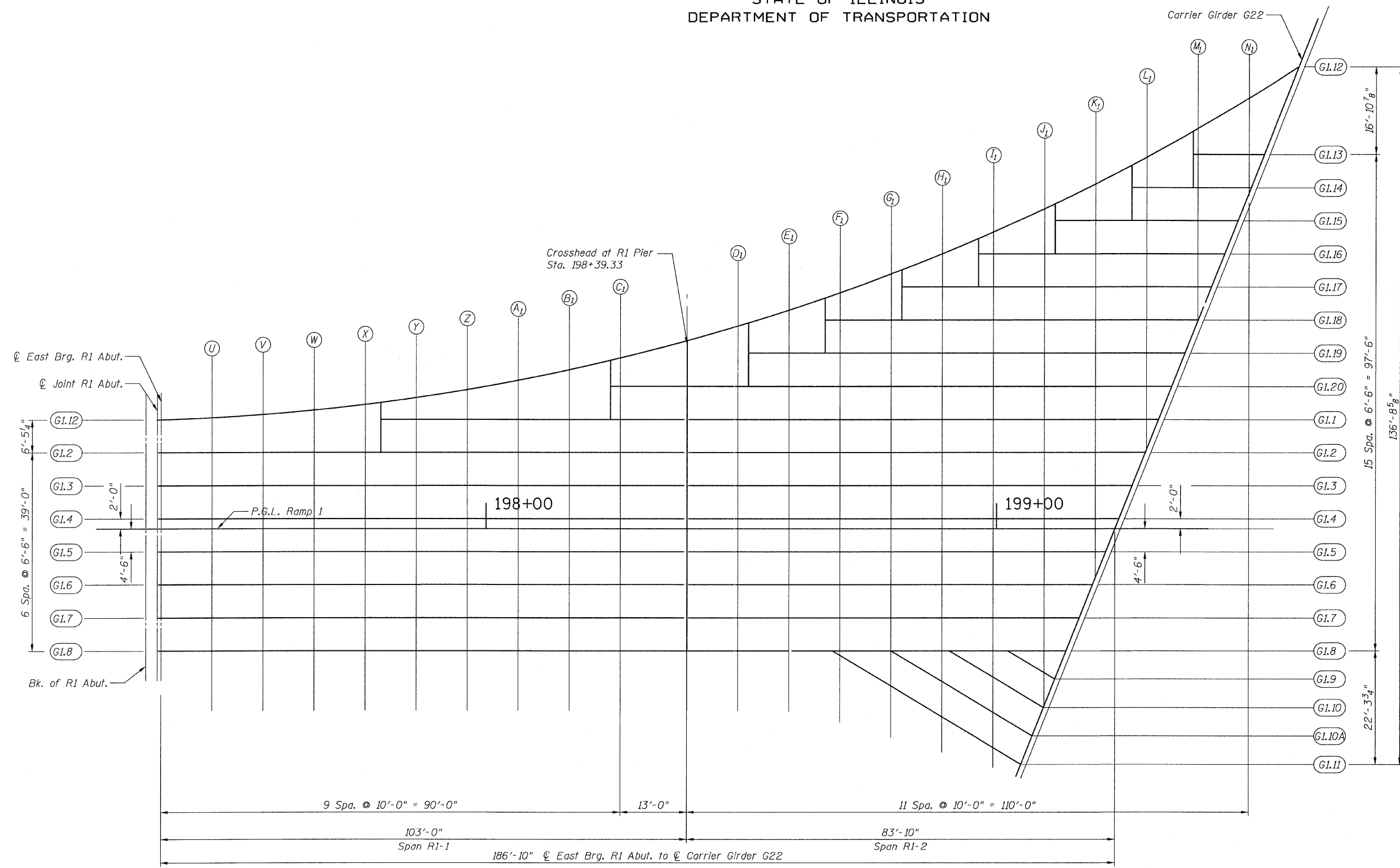
TOP OF SLAB ELEVATION  
LAYOUT - CENTRAL/I-55  
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL	DESIGNED - EKH	REVISIONS	
	CHECKED - AMD,	NAME	DATE
	DRAWN - EKH		
	CHECKED - AMD,		
	DATE - 03/25/2011		

SHEET NO. 16 239 SHEETS	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 340
	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT					



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PLAN

Note:  
For Standard Fillet Details, See Sheet 16.

**TOP OF SLAB ELEVATIONS  
LAYOUT - RAMP 1 FLARE  
STRUCTURE NO. 016-0724**

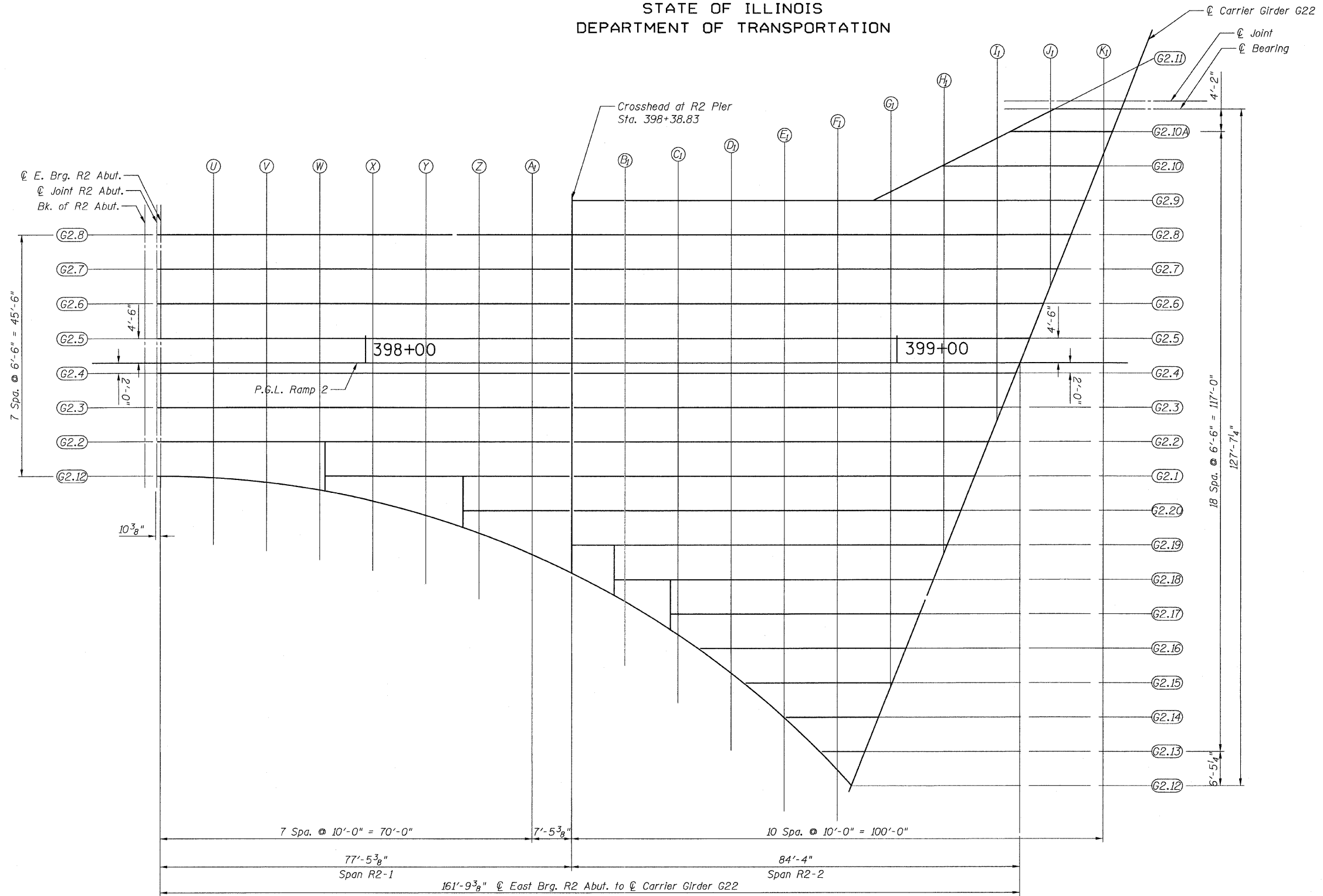
**TYLIN INTERNATIONAL**

DESIGNED - EKH	REVISIONS	
CHECKED - AMD,	NAME	DATE
DRAWN - EKH		
CHECKED - AMD,		
DATE - 03/25/2011		

SHEET NO. 17 239 SHEETS	F.A.I RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 341
	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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PLAN

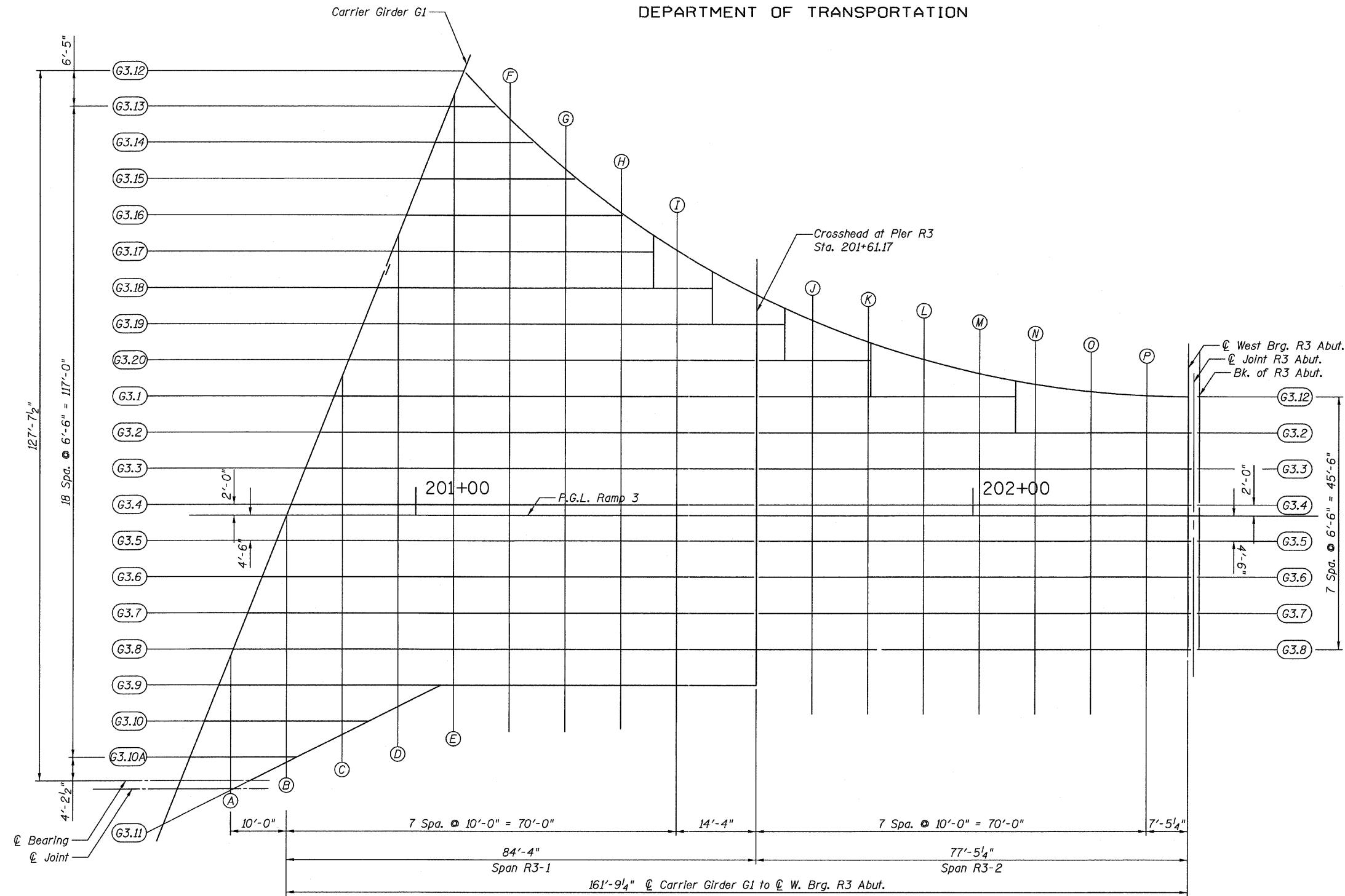
Note:  
For Standard Fillet Details, See Sheet 16.

**TOP OF SLAB ELEVATIONS  
LAYOUT - RAMP 2 FLARE  
STRUCTURE NO. 016-0724**

<b>TYLIN INTERNATIONAL</b>	DESIGNED - EKH	REVISIONS		SHEET NO. 18  239 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	DATE - 03/25/2011									

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DEPARTMENT OF TRANSPORTATION



PLAN

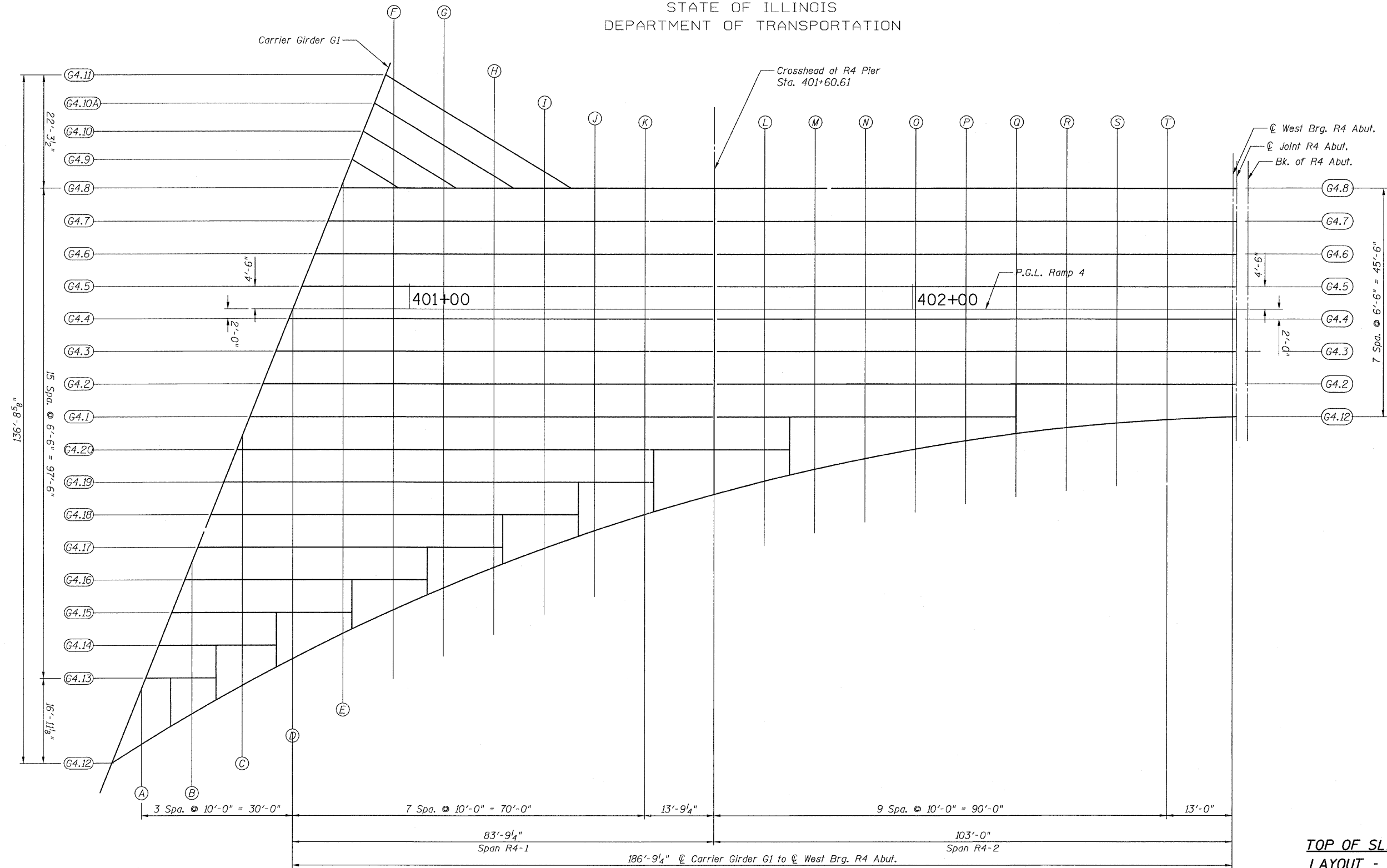
**TOP OF SLAB ELEVATIONS  
LAYOUT - RAMP 3 FLARE  
STRUCTURE NO. 016-0724**

Note:  
For Standard Fillet Details, See Sheet 16.

<b>TYLIN INTERNATIONAL</b>	DESIGNED - EKH	REVISIONS		SHEET NO. 19	F.A.I RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 343		
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	CHECKED - AMD,										
DATE - 03/25/2011			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								

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PLAN

Note:  
For Standard Fillet Details, See Sheet 16.

**TYLIN** INTERNATIONAL

DESIGNED - EKH	REVISIONS	
CHECKED - AMD,	NAME	DATE
DRAWN - EKH		
CHECKED - AMD,		
DATE - 03/25/2011		

SHEET NO. 20	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	0711.2R & 1011.1BR	COOK	741	344
239 SHEETS			CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT					

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GIRDER G16					GIRDER G17					GIRDER G18					GIRDER G19				
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
Ⓞ C. Abut. 1	18+11.34	-30.38	626.83	626.83	Ⓞ C. Abut. 1	18+08.66	-37.13	626.64	626.64	Ⓞ C. Abut. 1	18+05.98	-43.88	626.45	626.45	Ⓞ C. Abut. 1	18+03.29	-50.63	626.26	626.26
Ⓞ N. Brg.	18+12.96	-30.38	626.87	626.87	Ⓞ N. Brg.	18+10.27	-37.13	626.68	626.68	Ⓞ N. Brg.	18+07.59	-43.88	626.48	626.48	Ⓞ N. Brg.	18+04.91	-50.63	626.29	626.29
C. Abut 1	18+22.96	-30.38	627.07	627.10	C. Abut 1	18+20.27	-37.13	626.89	626.91	C. Abut 1	18+17.59	-43.88	626.69	626.72	C. Abut 1	18+14.91	-50.63	626.50	626.53
A	18+32.96	-30.38	627.27	627.31	B	18+30.27	-37.13	627.09	627.13	A	18+27.59	-43.88	626.90	626.94	A	18+24.91	-50.63	626.71	626.75
B	18+42.96	-30.38	627.47	627.51	C	18+40.27	-37.13	627.28	627.33	B	18+37.59	-43.88	627.09	627.14	B	18+34.91	-50.63	626.91	626.95
C	18+52.96	-30.38	627.65	627.69	D	18+50.27	-37.13	627.46	627.51	C	18+47.59	-43.88	627.28	627.32	C	18+44.91	-50.63	627.10	627.14
D	18+62.96	-30.38	627.82	627.85	E	18+60.27	-37.13	627.64	627.67	D	18+57.59	-43.88	627.46	627.49	D	18+54.91	-50.63	627.28	627.31
E	18+72.96	-30.38	627.99	628.01	F	18+70.27	-37.13	627.81	627.83	E	18+67.59	-43.88	627.63	627.65	E	18+64.91	-50.63	627.45	627.47
F	18+86.39	-30.38	628.20	628.20	Ⓞ Brg.	18+83.70	-37.13	628.03	628.03	Ⓞ Brg.	18+81.02	-43.88	627.85	627.85	Ⓞ Brg.	18+78.34	-50.63	627.67	627.67
Ⓞ Brg. C. Abut. 2	18+96.39	-30.38	628.35	628.36	G	18+93.70	-37.13	628.18	628.19	G	18+91.02	-43.88	628.00	628.01	G	18+88.34	-50.63	627.83	627.84
G	19+06.39	-30.38	628.50	628.52	H	19+03.70	-37.13	628.32	628.34	H	19+01.02	-43.88	628.15	628.17	H	18+98.34	-50.63	627.98	628.00
H	19+16.39	-30.38	628.63	628.66	I	19+13.70	-37.13	628.46	628.49	I	19+11.02	-43.88	628.29	628.32	I	19+08.34	-50.63	628.12	628.15
I	19+26.39	-30.38	628.76	628.80	J	19+23.70	-37.13	628.59	628.63	J	19+21.02	-43.88	628.42	628.46	J	19+18.34	-50.63	628.25	628.29
J	19+36.39	-30.38	628.87	628.92	K	19+33.70	-37.13	628.71	628.75	K	19+31.02	-43.88	628.54	628.58	K	19+28.34	-50.63	628.37	628.42
K	19+46.39	-30.38	628.98	629.02	L	19+43.70	-37.13	628.82	628.85	L	19+41.02	-43.88	628.66	628.69	L	19+38.34	-50.63	628.49	628.52
L	19+56.39	-30.38	629.09	629.11	M	19+53.70	-37.13	628.92	628.94	M	19+51.02	-43.88	628.76	628.78	M	19+48.34	-50.63	628.60	628.62
M	19+66.39	-30.38	629.18	629.19	N	19+63.70	-37.13	629.02	629.03	N	19+61.02	-43.88	628.86	628.87	N	19+58.34	-50.63	628.70	628.71
N	19+74.35	-30.38	629.25	629.25	Ⓞ Brg. Pier 6	19+71.66	-37.13	629.09	629.09	Ⓞ Brg. Pier 6	19+68.98	-43.88	628.93	628.93	Ⓞ Brg. Pier 6	19+66.30	-50.63	628.77	628.77
Ⓞ Brg. Pier 6	19+84.35	-30.38	629.33	629.34	O	19+81.66	-37.13	629.17	629.18	O	19+78.98	-43.88	629.02	629.03	O	19+76.30	-50.63	628.86	628.87
O	19+94.35	-30.38	629.40	629.43	P	19+91.66	-37.13	629.25	629.27	P	19+88.98	-43.88	629.10	629.12	P	19+86.30	-50.63	628.94	628.96
P	20+04.35	-30.38	629.47	629.50	Q	20+01.66	-37.13	629.32	629.35	Q	19+98.98	-43.88	629.16	629.20	Q	19+96.30	-50.63	629.01	629.05
Q	20+14.35	-30.38	629.53	629.57	R	20+11.66	-37.13	629.38	629.42	R	20+08.98	-43.88	629.23	629.27	R	20+06.30	-50.63	629.08	629.12
R	20+24.35	-30.38	629.57	629.62	S	20+21.66	-37.13	629.43	629.47	S	20+18.98	-43.88	629.28	629.32	S	20+16.30	-50.63	629.13	629.17
S	20+34.35	-30.38	629.62	629.65	T	20+31.66	-37.13	629.47	629.50	T	20+28.98	-43.88	629.32	629.36	T	20+26.30	-50.63	629.18	629.21
T	20+44.35	-30.38	629.65	629.67	U	20+41.66	-37.13	629.51	629.53	U	20+38.98	-43.88	629.36	629.38	U	20+36.30	-50.63	629.22	629.24
U	20+54.35	-30.38	629.69	629.70	V	20+51.66	-37.13	629.55	629.55	V	20+48.98	-43.88	629.40	629.41	V	20+46.30	-50.63	629.26	629.26
V	20+62.30	-30.38	629.72	629.72	Ⓞ Brg. C. Abut. 3	20+59.62	-37.13	629.57	629.57	Ⓞ Brg. C. Abut. 3	20+56.94	-43.88	629.43	629.43	Ⓞ Brg. C. Abut. 3	20+54.25	-50.63	629.28	629.28
Ⓞ Brg. C. Abut. 3	20+72.30	-30.38	629.76	629.77	W	20+69.62	-37.13	629.61	629.62	W	20+66.94	-43.88	629.47	629.48	W	20+64.25	-50.63	629.32	629.33
W	20+82.30	-30.38	629.79	629.82	X	20+79.62	-37.13	629.65	629.67	X	20+76.94	-43.88	629.50	629.53	X	20+74.25	-50.63	629.36	629.38
X	20+92.30	-30.38	629.83	629.87	Y	20+89.62	-37.13	629.69	629.73	Y	20+86.94	-43.88	629.54	629.58	Y	20+84.25	-50.63	629.40	629.44
Y	21+02.30	-30.38	629.87	629.91	Z	20+99.62	-37.13	629.72	629.77	Z	20+96.94	-43.88	629.58	629.62	Z	20+94.25	-50.63	629.43	629.48
Z	21+12.30	-30.38	629.90	629.95	AI	21+09.62	-37.13	629.76	629.80	AI	21+06.94	-43.88	629.61	629.66	AI	21+04.25	-50.63	629.47	629.51
AI	21+22.30	-30.38	629.94	629.97	BI	21+19.62	-37.13	629.80	629.83	BI	21+16.94	-43.88	629.65	629.68	BI	21+14.25	-50.63	629.51	629.54
BI	21+35.73	-30.38	629.99	629.99	Ⓞ S. Brg. C. Abut. 4	21+33.05	-37.13	629.85	629.85	Ⓞ S. Brg. C. Abut. 4	21+30.37	-43.88	629.70	629.70	Ⓞ S. Brg. C. Abut. 4	21+27.68	-50.63	629.56	629.56
Ⓞ S. Brg. C. Abut. 4	21+47.35	-30.38	630.00	630.00	Ⓞ C. Abut. 4	21+34.67	-37.13	629.85	629.85	Ⓞ C. Abut. 4	21+31.98	-43.88	629.71	629.71	Ⓞ C. Abut. 4	21+29.30	-50.63	629.56	629.56
Ⓞ C. Abut. 4																			

TOP OF SLAB ELEV. - 5  
CENTRAL / I-55  
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL	DESIGNED - EKH	REVISIONS		SHEET NO. 25	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - AMD,	NAME	DATE						
	DRAWN - EKH								
	CHECKED - AMD,								
	DATE - 03/25/2011			239 SHEETS			ILLINOIS	741	349
							FED. ROAD DIST. NO. 1	CONTRACT NO. 60999	













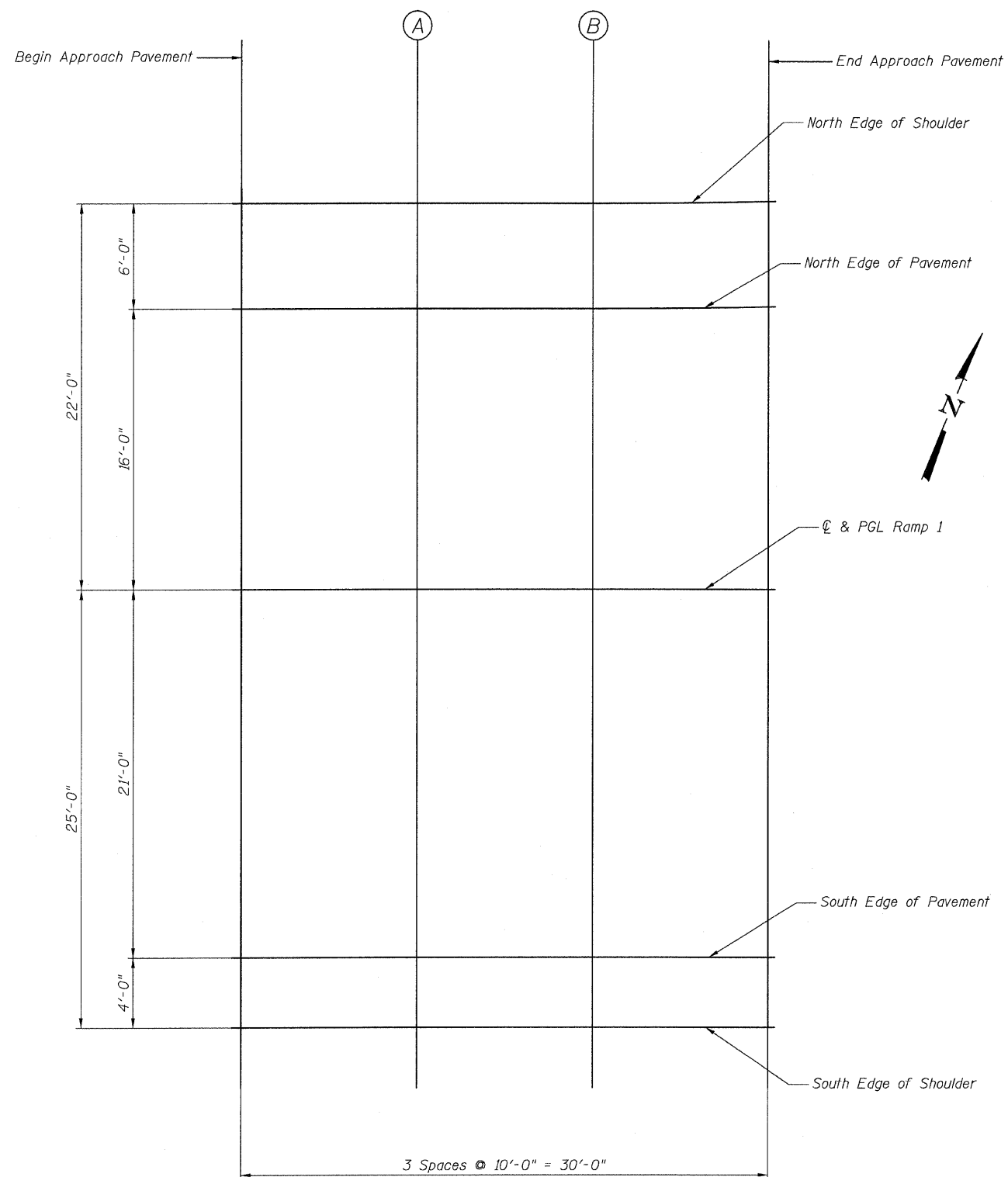








STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
Begin Appr. Pav't	197+03.89	-22.00	626.17
A	197+13.89	-22.00	626.45
B	197+23.89	-22.00	626.74
End Appr. Pav't	197+33.89	-22.12	627.01

RAMP 1 P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
Begin Appr. Pav't	197+03.89	0.00	622.42
A	197+13.89	0.00	622.63
B	197+23.89	0.00	622.83
End Appr. Pav't	197+33.89	0.00	623.03

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Begin Appr. Pav't	197+03.89	-16.00	626.23
A	197+13.89	-16.00	626.51
B	197+23.89	-16.00	626.80
End Appr. Pav't	197+33.89	-16.12	627.07

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Begin Appr. Pav't	197+03.89	21.00	626.77
A	197+13.89	21.00	627.05
B	197+23.89	21.00	627.34
End Appr. Pav't	197+33.89	21.00	627.61

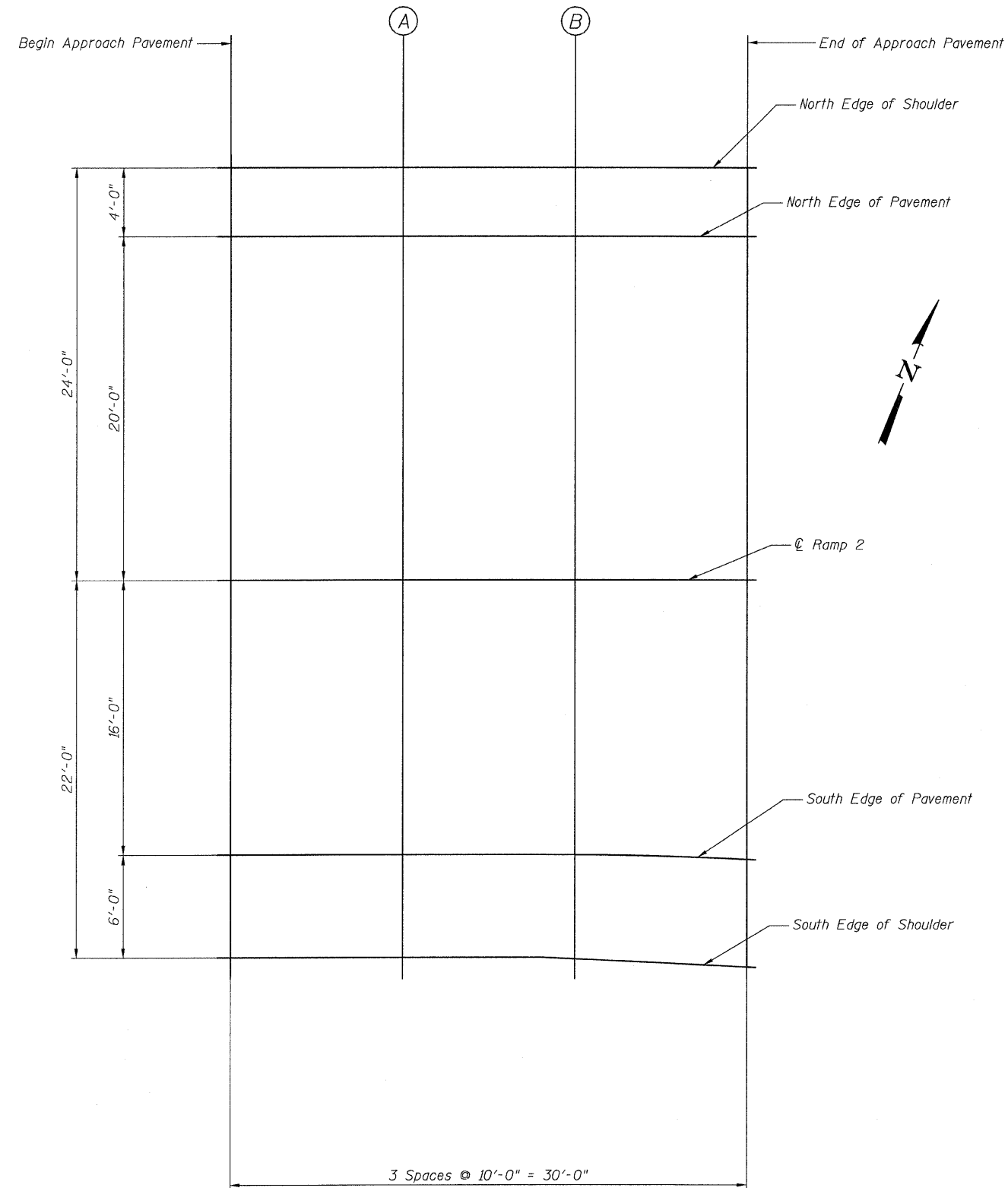
SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
Begin Appr. Pav't	197+03.89	25.00	626.86
A	197+13.89	25.00	627.14
B	197+23.89	25.00	627.43
End Appr. Pav't	197+33.89	25.00	627.71

TOP OF RAMP 1 APPROACH  
SLAB ELEVATIONS  
STRUCTURE NO. 016-0724

<b>TYLIN INTERNATIONAL</b>	DESIGNED - EKH	REVISIONS		SHEET NO. 35	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 359
	CHECKED - AMD,	NAME	DATE						
	DRAWN - EKH								
	CHECKED - AMD,								
DATE - 03/25/2011				239 SHEETS	CONTRACT NO. 60999				
					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**NORTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
Begin Appr. Pav't	398+28.96	-24.00	626.89
A	398+38.96	-24.00	627.17
B	398+48.96	-24.00	627.46
End Appr. Pav't	398+58.96	-24.00	627.73

**RAMP 1 P.G.L.**

Location	Station	Offset	Theoretical Grade Elevations
Begin Appr. Pav't	398+28.96	0.00	626.53
A	398+38.96	0.00	626.81
B	398+48.96	0.00	627.10
End Appr. Pav't	398+58.96	0.00	627.37

**NORTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
Begin Appr. Pav't	398+28.96	-20.00	626.83
A	398+38.96	-20.00	627.11
B	398+48.96	-20.00	627.40
End Appr. Pav't	398+58.96	-20.00	627.67

**SOUTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
Begin Appr. Pav't	398+28.96	16.00	626.29
A	398+38.96	16.00	626.57
B	398+48.96	16.00	626.86
End Appr. Pav't	398+58.96	16.27	627.12

**SOUTH EDGE OF SHOULDER**

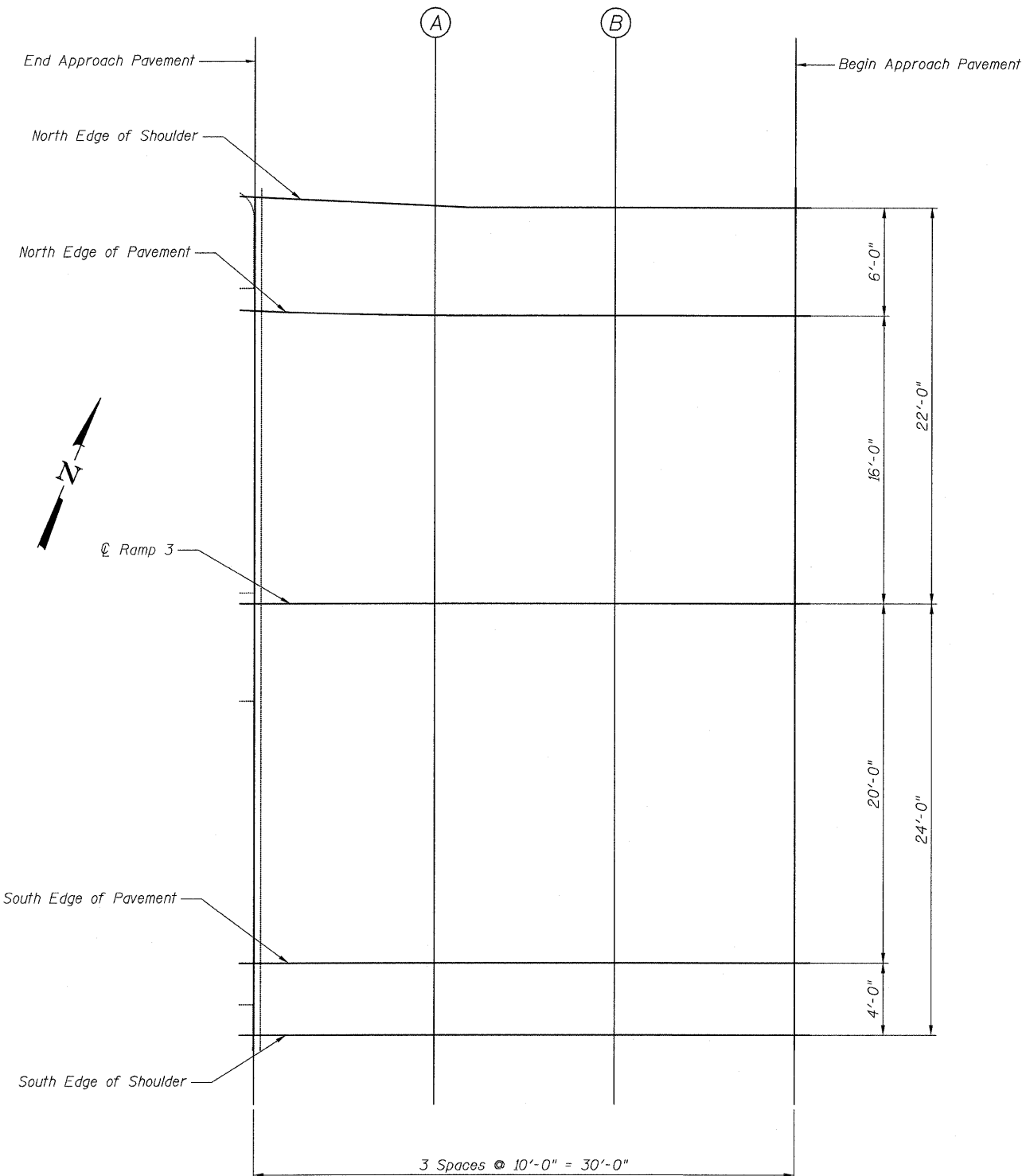
Location	Station	Offset	Theoretical Grade Elevations
Begin Appr. Pav't	398+28.96	22.00	626.20
A	398+38.96	22.00	626.48
B	398+48.96	22.09	626.76
End Appr. Pav't	398+58.96	22.57	627.03

**TOP OF RAMP 2 APPROACH  
SLAB ELEVATIONS  
STRUCTURE NO. 016-0724**

<b>TYLIN INTERNATIONAL</b>	DESIGNED - EKH	REVISIONS		SHEET NO. 36	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 360
	CHECKED - AMD,	NAME	DATE						
	DRAWN - EKH								
	CHECKED - AMD,								
	DATE - 03/25/2011			239 SHEETS	CONTRACT NO. 60999				
					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
End Appr. Pav't	202+41.04	-22.57	624.10
A	202+51.04	-22.09	623.79
B	202+61.04	-22.00	623.49
Begin Appr. Pav't	202+71.04	-22.00	623.19

RAMP 1 P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
End Appr. Pav't	202+41.04	0.00	623.76
A	202+51.04	0.00	623.46
B	202+61.04	0.00	623.16
Begin Appr. Pav't	202+71.04	0.00	622.86

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End Appr. Pav't	202+41.04	-16.27	624.01
A	202+51.04	-16.00	623.70
B	202+61.04	-16.00	623.40
Begin Appr. Pav't	202+71.04	-16.00	623.10

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End Appr. Pav't	202+41.04	20.00	623.46
A	202+51.04	20.00	623.16
B	202+61.04	20.00	622.86
Begin Appr. Pav't	202+71.04	20.00	622.56

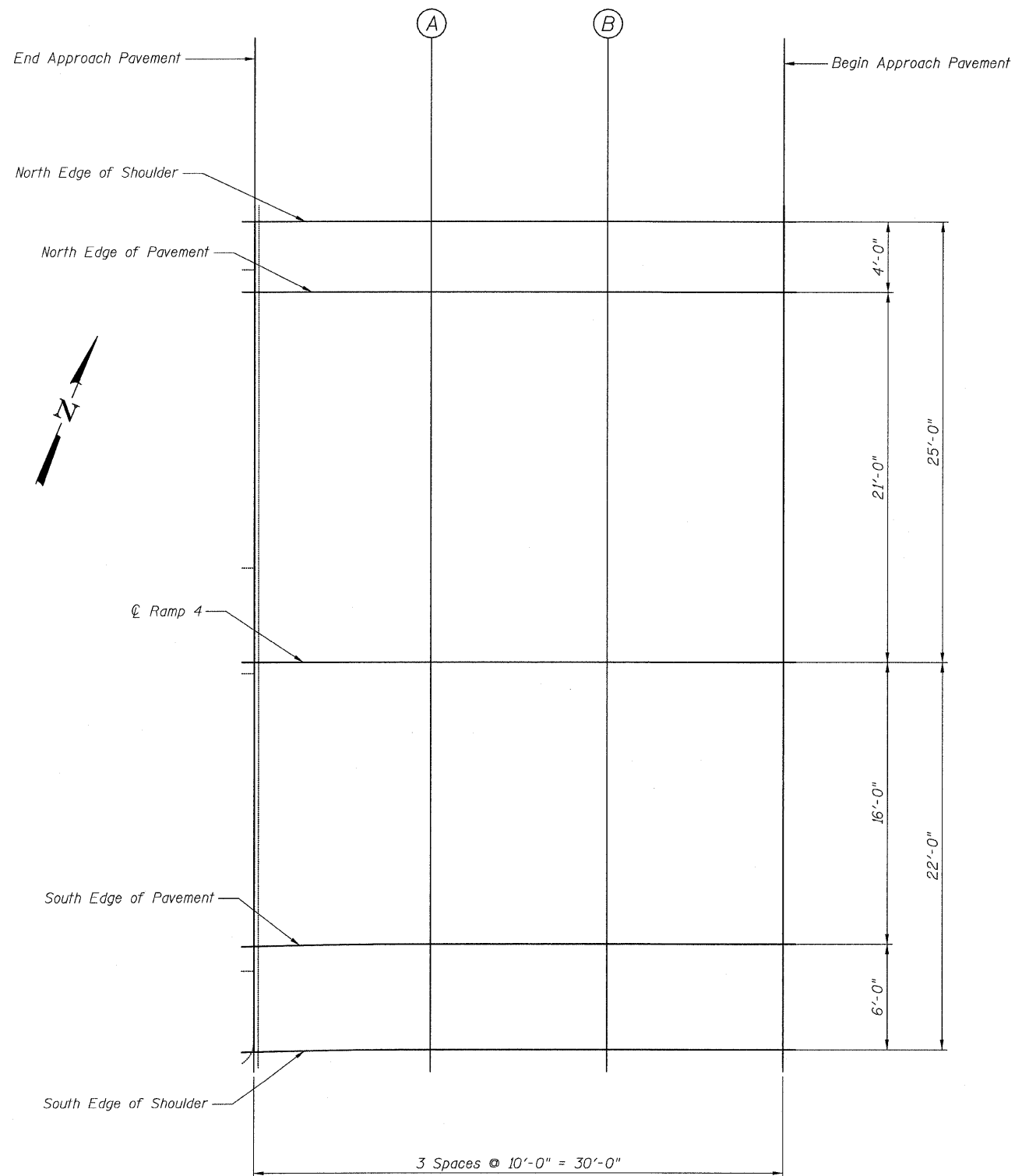
SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
End Appr. Pav't	202+41.04	24.00	623.40
A	202+51.04	24.00	623.10
B	202+61.04	24.00	622.80
Begin Appr. Pav't	202+71.04	24.00	622.50

TOP OF RAMP 3 APPROACH  
SLAB ELEVATIONS  
STRUCTURE NO. 016-0724

<b>TYLIN INTERNATIONAL</b>	DESIGNED - EKH	REVISIONS		SHEET NO. 37	F.A.I RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 361
	CHECKED - AMD,	NAME	DATE						
	DRAWN - EKH								
	CHECKED - AMD,								
	DATE - 03/25/2011								
				239 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT									

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
End Appr. Pav't	402+66.11	-25.00	624.97
A	402+76.11	-25.00	624.77
B	402+86.11	-25.00	624.57
Begin Appr. Pav't	402+96.11	-25.00	624.37

RAMP 1 P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
End Appr. Pav't	402+66.11	0.00	625.34
A	402+76.11	0.00	625.14
B	402+86.11	0.00	624.94
Begin Appr. Pav't	402+96.11	0.00	624.74

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End Appr. Pav't	402+66.11	-21.00	625.03
A	402+76.11	-21.00	624.83
B	402+86.11	-21.00	624.63
Begin Appr. Pav't	402+96.11	-21.00	624.43

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End Appr. Pav't	402+66.11	16.12	625.59
A	402+76.11	16.00	625.38
B	402+86.11	16.00	625.18
Begin Appr. Pav't	402+96.11	16.00	624.98

SOUTH EDGE OF SHOULDER

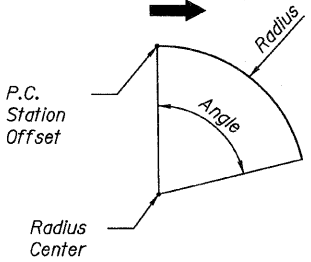
Location	Station	Offset	Theoretical Grade Elevations
End Appr. Pav't	402+66.11	22.12	625.68
A	402+76.11	22.00	625.47
B	402+86.11	22.00	625.27
Begin Appr. Pav't	402+96.11	22.00	625.07

TOP OF RAMP 4 APPROACH  
SLAB ELEVATIONS  
STRUCTURE NO. 016-0724

<b>TYLIN INTERNATIONAL</b>	DESIGNED - EKH	REVISIONS		SHEET NO. 38	F.A.I RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 362
	CHECKED - AMD,	NAME	DATE						
	DRAWN - EKH								
	CHECKED - AMD,								
	DATE - 03/25/2011								
				239 SHEETS	CONTRACT NO. 60999				
				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Stations Increase



HORIZONTAL CURVE DATA

Stations and Offsets Measured from Ramp Baselines

Ramp	Curve	P.C. Station	Offset	P.T./P.C.C. Station	Offset	Radius	Angle	Reference @
1	C 1.1	198+53.05	26.58 RT	199+04.60	100.75 RT	55'-0"	110°-24'-04"	NB Ramp
	C 1.2	197+23.77	23.58 LT	199+56.12	91.31 LT	432'-5"	32°-30'-08"	NB Ramp
2	C 2.1a	398+29.17	25.58 LT	398+81.09	30.95 LT	254'-0"	11°-47'-46"	SB Ramp
	C 2.1b	398+81.09	30.95 LT	399+81.14	115.11 LT	138'-0"	56°-32'-59"	SB Ramp
	C 2.2	397+69.29	24.65 RT	398+87.96	80.36 RT	172'-0"	44°-48'-11"	SB Ramp
3	C 3.1a	200+18.85	115.11 RT	201+18.90	30.95 RT	138'-0"	56°-32'-59"	NB Ramp
	C 3.1b	201+18.90	30.95 RT	201+70.83	25.58 RT	254'-0"	11°-47'-46"	NB Ramp
4	C 3.2	201+12.04	80.36 LT	202+30.70	24.65 LT	172'-0"	44°-48'-09"	NB Ramp
	C 4.1	400+95.40	100.75 LT	402+76.23	23.58 LT	55'-0"	110°-24'-04"	SB Ramp
	C 4.2	400+43.88	91.31 RT	401+46.95	26.58 RT	432'-5"	32°-30'-04"	SB Ramp

HORIZONTAL CURVE DATA

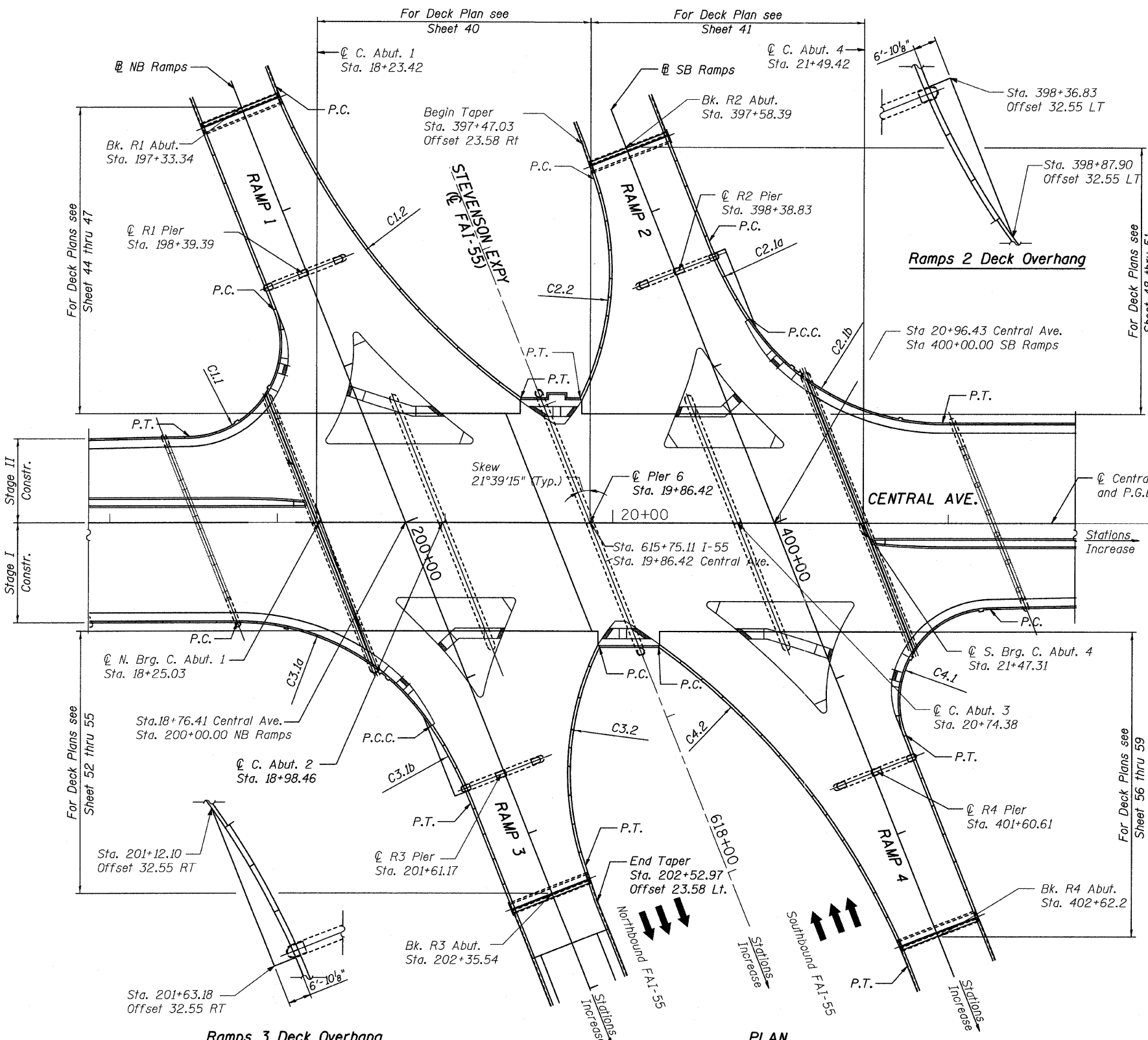
Stations and Offsets Measured from Central Avenue Baseline

Ramp	Curve	P.C. Station	Offset	P.T./P.C.C. Station	Offset	Radius	Angle	Reference @
1	C 1.1	17+97.47	126.77 LT	17+47.56	51.49 LT	55'-0"	110°-24'-04"	Central Ave.
	C 1.2	17+98.58	260.05 LT	19+45.08	74.47 LT	432'-5"	32°-30'-08"	Central Ave.
2	C 2.1a	20+57.17	168.21 LT	20+81.32	121.93 LT	254'-0"	11°-47'-46"	Central Ave.
	C 2.1b	20+81.32	121.93 LT	21+96.46	60.00 LT	138'-0"	56°-32'-59"	Central Ave.
3	C 2.2	19+88.39	205.33 LT	19+80.40	74.47 LT	172'-0"	44°-48'-11"	Central Ave.
	C 3.1a	17+76.38	60.00 LT	18+91.52	121.93 LT	138'-0"	56°-32'-59"	Central Ave.
4	C 3.1b	18+91.52	121.93 LT	19+15.66	168.21 LT	254'-0"	11°-47'-46"	Central Ave.
	C 3.2	19+92.44	74.47 LT	19+84.45	205.33 LT	172'-0"	44°-48'-09"	Central Ave.
	C 4.1	22+25.28	51.49 LT	21+75.37	126.77 LT	55'-0"	110°-24'-04"	Central Ave.
	C 4.2	20+27.76	74.47 LT	21+76.44	265.44 LT	432'-5"	32°-30'-04"	Central Ave.

NOTES:

- Stations, offset, and radii shown are to the outside face of the parapet.
- Location of lighting and Traffic Signal Conduits and appurtenances shall be coordinated with lighting and Traffic Signal Plans, see sheets 66 through 69.
- For Island Medians, see sheets 62, 63 & 65.

**SUPERSTRUCTURE KEY PLAN**  
**CENTRAL AVE./I-55**  
**STRUCTURE NO. 016-0724**



PLAN

**TYLIN INTERNATIONAL**

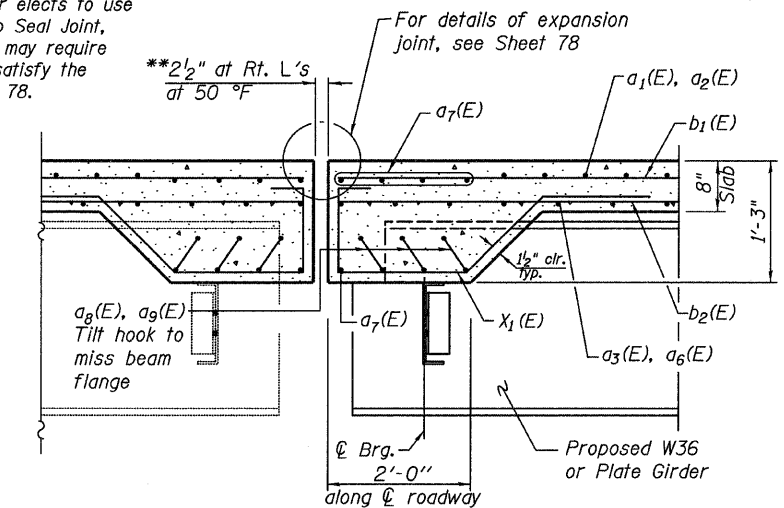
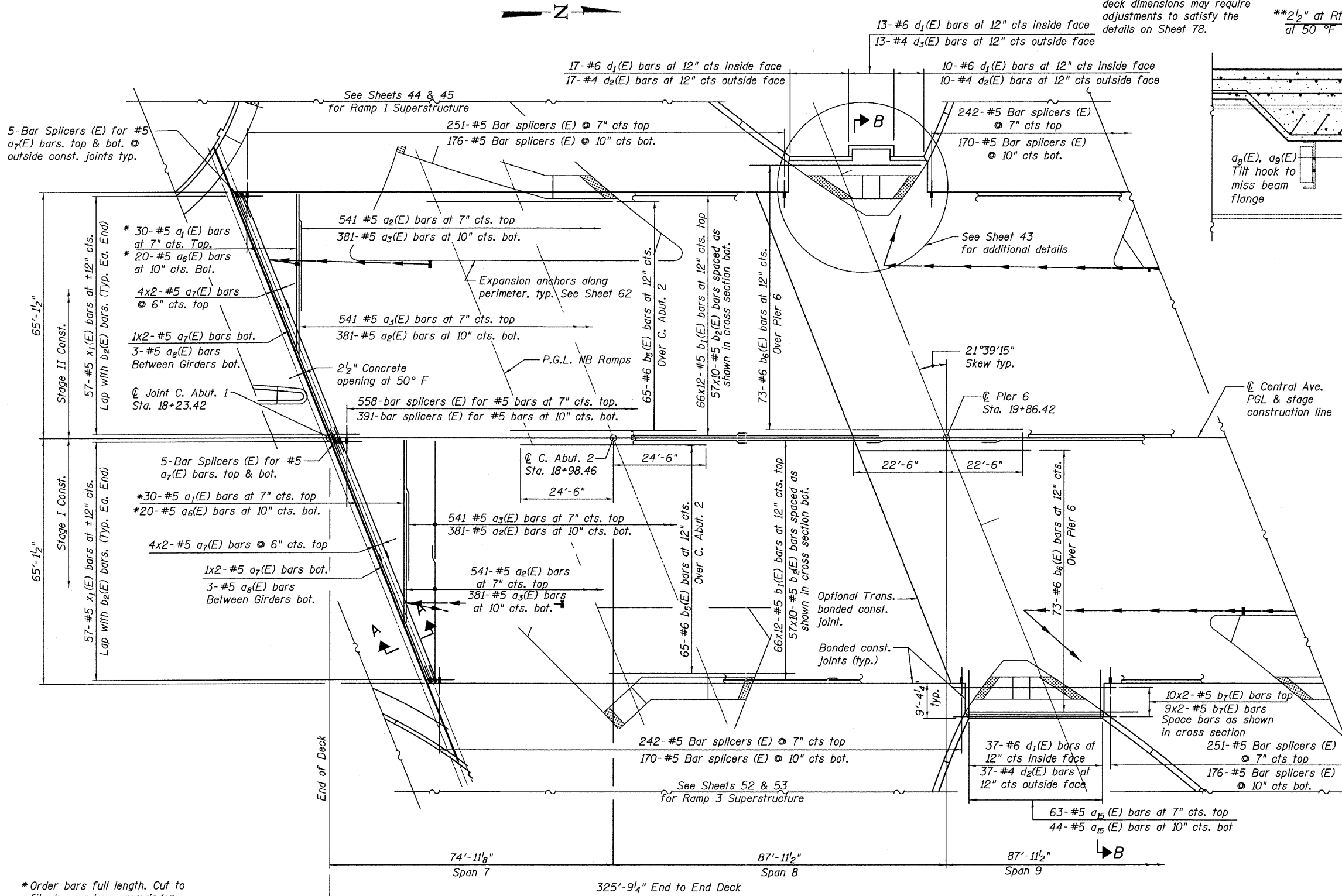
DESIGNED - JMA  
CHECKED - AMD,  
DRAWN - JMA  
CHECKED - AMD,  
DATE - 03/25/2011

REVISIONS	
NAME	DATE

SHEET NO. 39	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	0711.2R & 1011.1BR	COOK	741	363
239 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

\*\* Dimensions are based on a Rolled Rail Strip Seal Joint. If the contractor elects to use Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 78.



SECTION A-A

NOTES:

1. Bars indicated thus "68x9-#5" etc. indicates 68 lines of bars with 9 lengths per line.
2. For Section B-B, see Sheet 42.
3. For Bill of Material, see Sheet 42.
4. Work this sheet with Sheet 39 "Superstructure Key Plan"
5. For Drainage Scupper locations and Details see Sheets 83 and 88.
6. Work this sheet with Sheets 62 thru 65, for Median Island and Mainline Sidewalk and Parapet Details.
7. Work this Sheet with Sheets 66 thru 69 for Traffic Signal appurtenances locations and details.
8. Cut longitudinal reinforcement to clear scuppers.

MINIMUM BAR LAPS

Bar Size	Min. Lap
#4	2'-7"
#5	3'-3"
#6	4'-5"

SUPERST. SPANS 7 & 8  
CENTRAL/I-55  
STRUCTURE NO. 016-0724

\*Order bars full length. Cut to fit skew and use remainder of bars at opposite end.

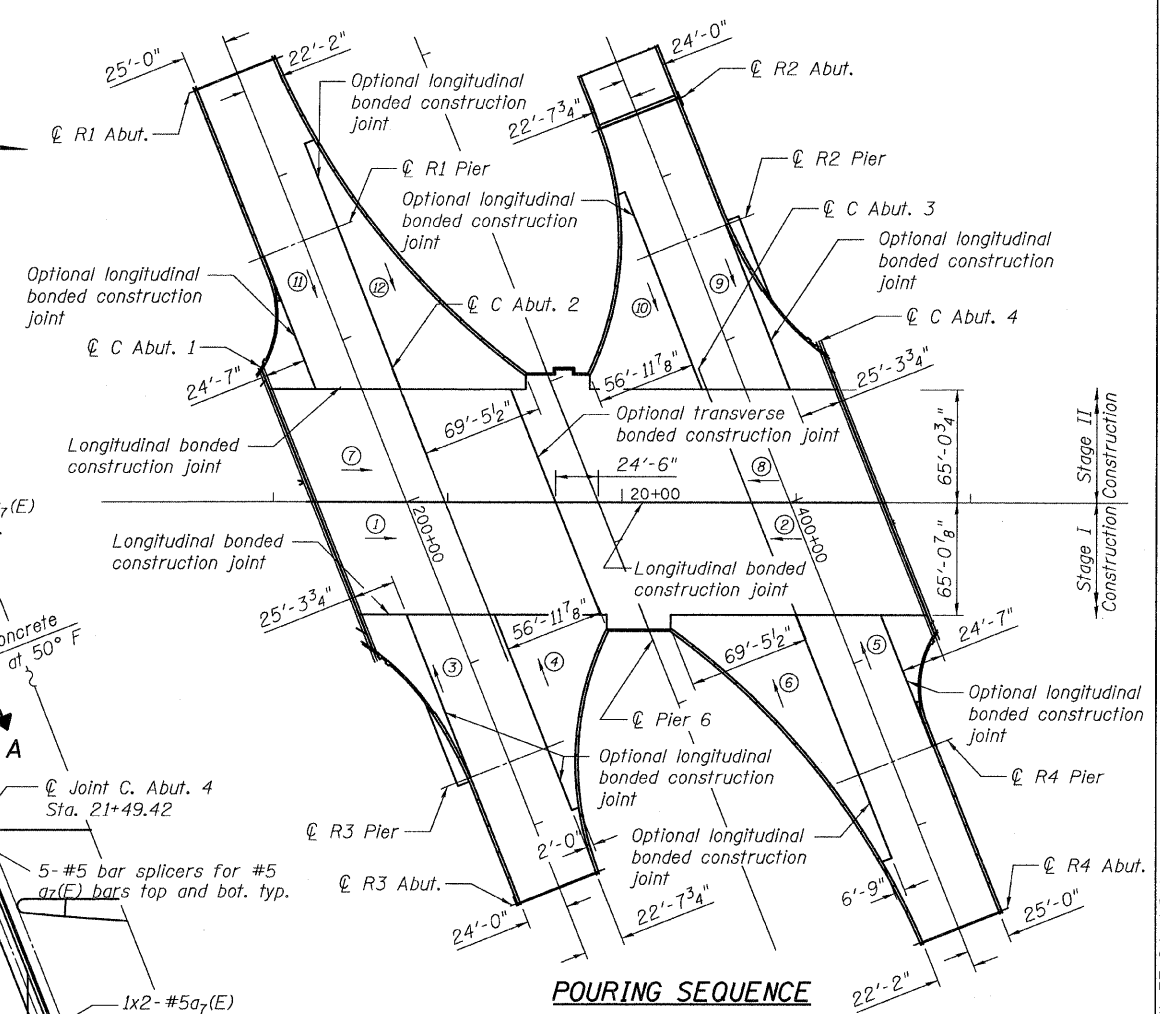
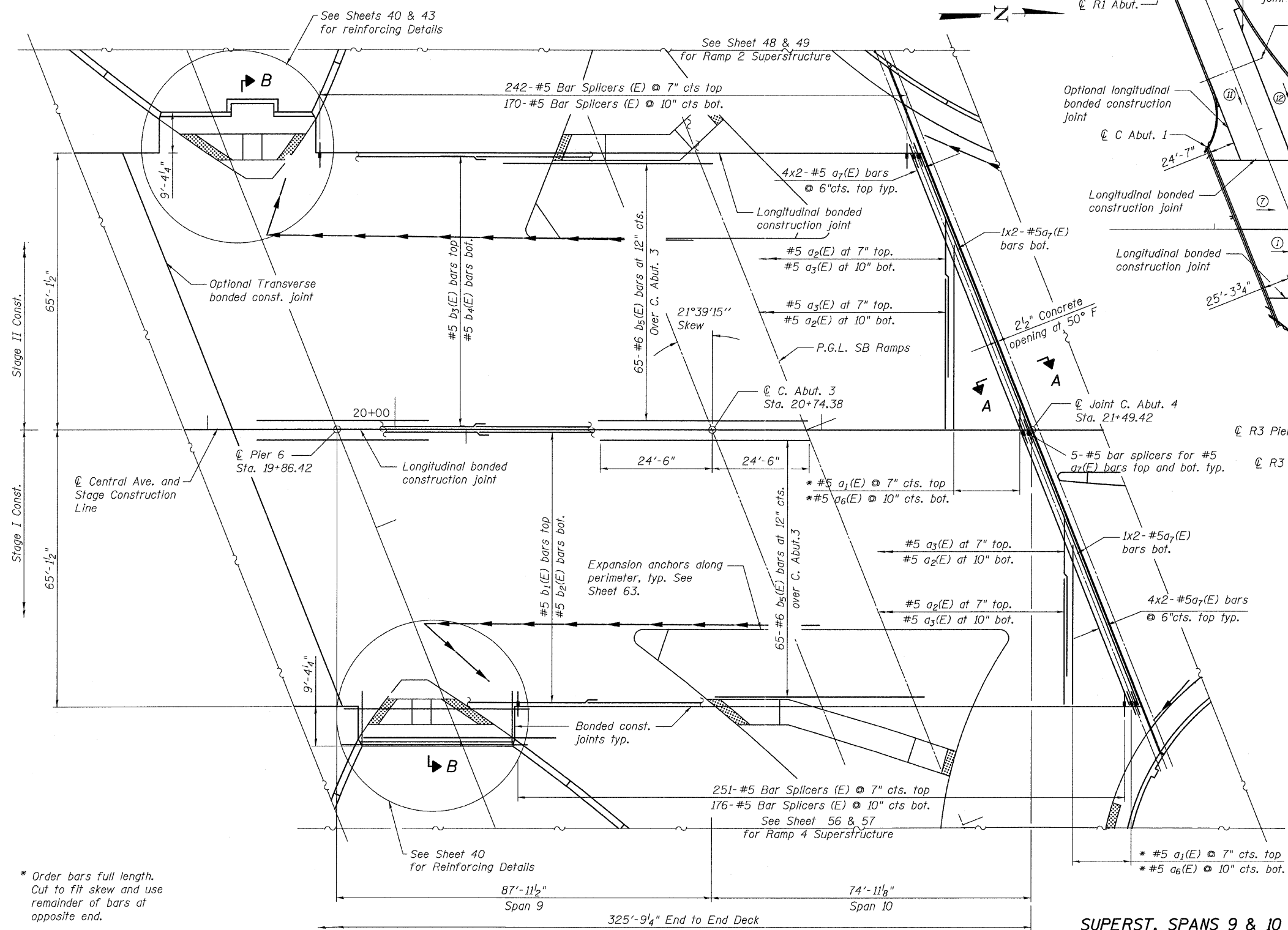
DECK PLAN

<b>TYLIN INTERNATIONAL</b>	DESIGNED - JN	REVISIONS		SHEET NO. 40  239 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	364	
	DRAWN - MU				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**POURING SEQUENCE**

**NOTES:**

1. Bars indicated thus "68x10-#5" etc. indicates 68 lines of bars with 10 lengths per line.
2. For Bill of Material and Section B-B, see Sheet 42.
3. For Section A-A, See Sheet 40.
4. Work this sheet with Sheet 39 "Superstructure Key Plan"
5. For Drainage Scupper locations and details see Sheets 83 and 88.
6. Work this sheet with Sheets 62 thru 65, for Median Island and Mainline Sidewalk and Parapet details.
7. Work this sheet with Sheets 66 thru 69 for Traffic Signal Appurtenances locations and details.
8. When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:
  1. At least 72 hours have elapsed from the end of the previous pour.
  2. The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.
9. Cut longitudinal reinforcement to clear scuppers.

**SUPERST. SPANS 9 & 10  
CENTRAL/I-55  
STRUCTURE NO. 016-0724**

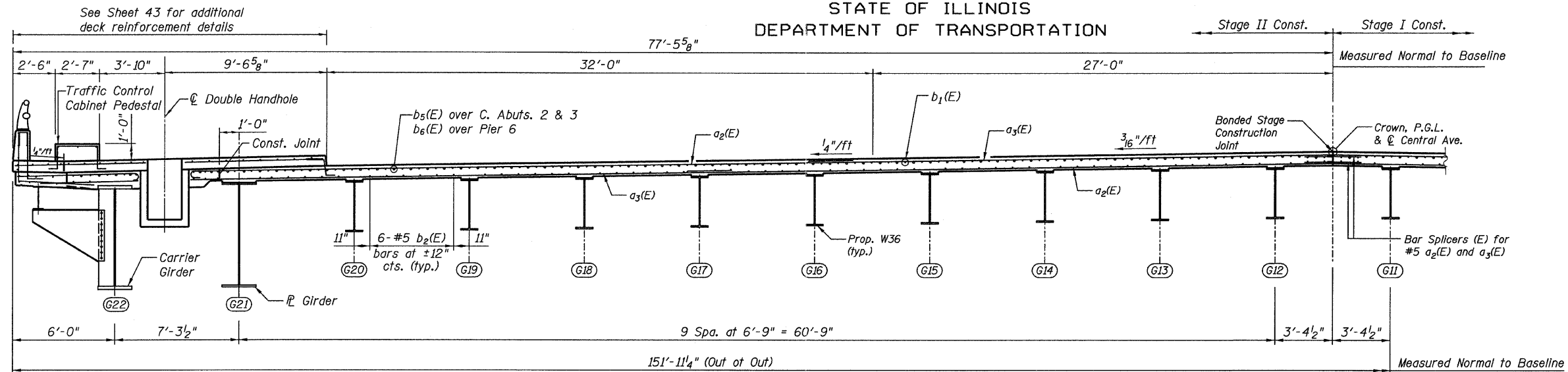
\* Order bars full length. Cut to fit skew and use remainder of bars at opposite end.

**DECK PLAN**

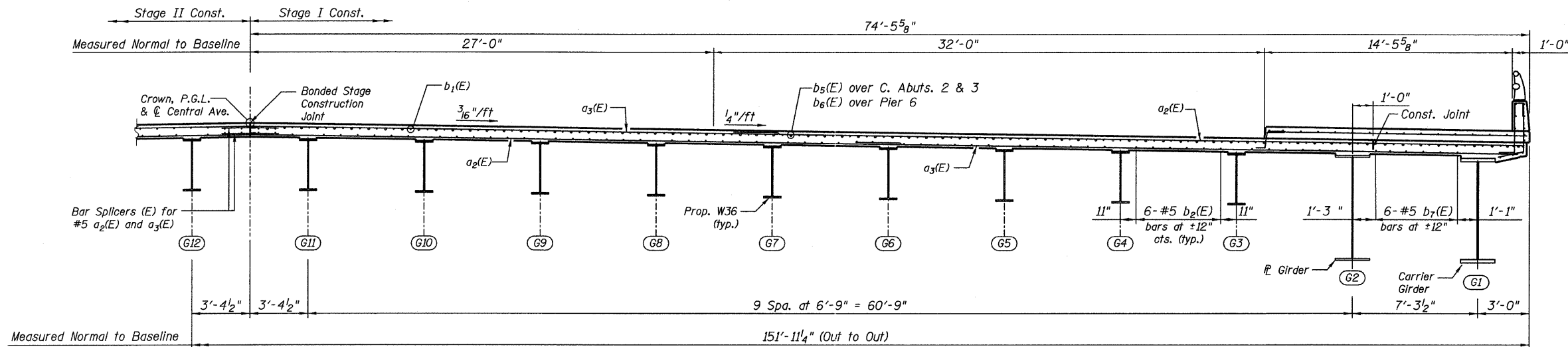
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	CHECKED - AMD,	NAME	DATE						
	DRAWN - MU								
	CHECKED - AMD,								
	DATE - 03/25/2011								
				239 SHEETS	CONTRACT NO. 60999				
				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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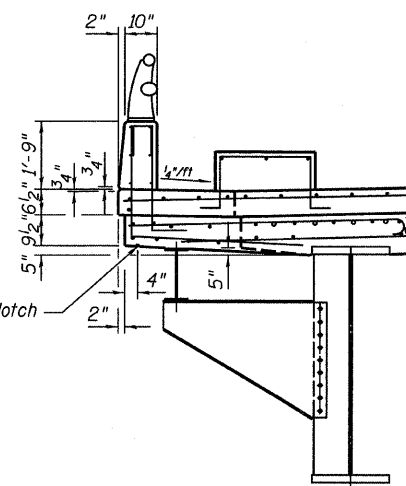
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



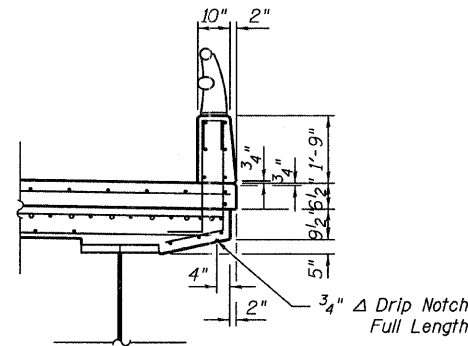
**HALF SECTION B-B**  
(Looking North, Near Pier 6)



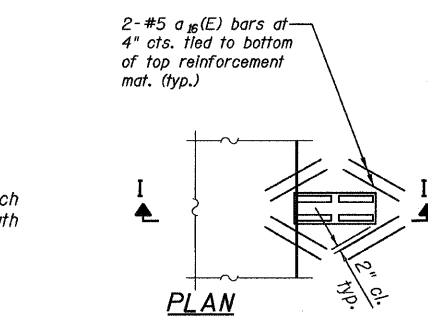
**HALF SECTION B-B**  
(Looking North, Near Pier 6)



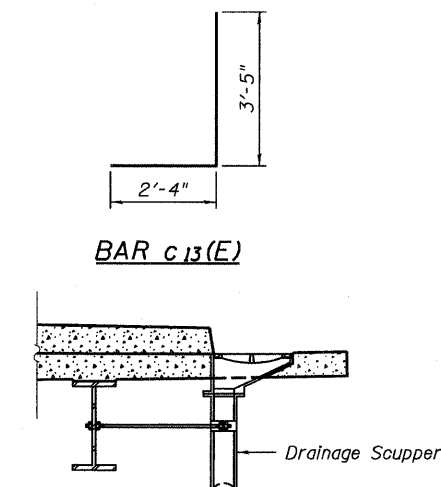
**SECTION THRU W. PARAPET**



**SECTION THRU E. PARAPET**



**DRAINAGE SCUPPER DS-12**



**SECTION I-I**

**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar	No.	Size	Length (ft)	Shape
a <sub>1</sub> (E)	60	#5	46'-0"	—
a <sub>2</sub> (E)	1844	#5	36'-0"	—
a <sub>3</sub> (E)	1844	#5	32'-0"	—
a <sub>4</sub> (E)	40	#5	43'-9"	—
a <sub>5</sub> (E)	40	#5	36'-4"	—
a <sub>6</sub> (E)	114	#5	8'-2"	—
a <sub>7</sub> (E)	12	#5	4'-1"	—
a <sub>8</sub> (E)	95	#5	15'-0"	—
a <sub>9</sub> (E)	7	#5	5'-7"	—
a <sub>10</sub> (E)	5	#5	5'-0"	—
a <sub>11</sub> (E)	7	#5	7'-7"	—
a <sub>12</sub> (E)	5	#5	5'-6"	—
a <sub>13</sub> (E)	107	#5	12'-3"	—
a <sub>14</sub> (E)	48	#5	2'-0"	—
b <sub>1</sub> (E)	1584	#5	30'-1"	—
b <sub>2</sub> (E)	1140	#5	35'-6"	—
b <sub>3</sub> (E)	260	#6	49'-0"	—
b <sub>4</sub> (E)	146	#6	45'-0"	—
b <sub>5</sub> (E)	38	#6	22'-8"	—
b <sub>6</sub> (E)	8	#5	11'-8"	—
b <sub>7</sub> (E)	252	#5	35'-0"	—
b <sub>8</sub> (E)	56	#5	8'-0"	—
b <sub>9</sub> (E)	50	#5	19'-8"	—
b <sub>10</sub> (E)	5	#5	11'-8"	—
b <sub>11</sub> (E)	3	#5	5'-8"	—
c <sub>1</sub> (E)	348	#5	23'-8"	—
c <sub>2</sub> (E)	80	#5	2'-6"	—
c <sub>3</sub> (E)	710	#5	1'-6"	—
c <sub>4</sub> (E)	56	#4	8'-3"	—
c <sub>5</sub> (E)	98	#5	2'-4"	—
c <sub>6</sub> (E)	74	#5	25'-4"	—
c <sub>7</sub> (E)	13	#5	4'-0"	—
c <sub>8</sub> (E)	7	#5	5'-7"	—
c <sub>9</sub> (E)	4	#5	8'-6"	—
c <sub>10</sub> (E)	12	#5	4'-6"	—
c <sub>11</sub> (E)	20	#5	8'-8"	—
c <sub>12</sub> (E)	20	#5	5'-9"	—
c <sub>13</sub> (E)	60	#5	5'-6"	—
d <sub>1</sub> (E)	85	#6	3'-9"	—
d <sub>2</sub> (E)	70	#4	4'-4"	—
d <sub>3</sub> (E)	13	#4	7'-3"	—
d <sub>4</sub> (E)	30	#4	2'-0"	—
e <sub>1</sub> (E)	6	#5	6'-0 1/2"	—
e <sub>2</sub> (E)	6	#5	5'-6 1/2"	—
e <sub>3</sub> (E)	3	#5	11'-4"	—
e <sub>4</sub> (E)	6	#5	16'-4"	—
e <sub>5</sub> (E)	6	#5	9'-2"	—
e <sub>6</sub> (E)	6	#5	23'-5"	—
e <sub>7</sub> (E)	6	#5	12'-1"	—
e <sub>8</sub> (E)	3	#5	10'-0"	—
x <sub>1</sub> (E)	228	#5	6'-8"	—
Protective Coat		Sq Yd	4,782	
Bridge Deck Grooving		Sq Yd	4,251	
Concrete Superstructure		Cu Yd	1,411.9	
Reinforcement Bars, Epoxy Coated		Pound	289,940	
Bar Splicers		Each	2,637	

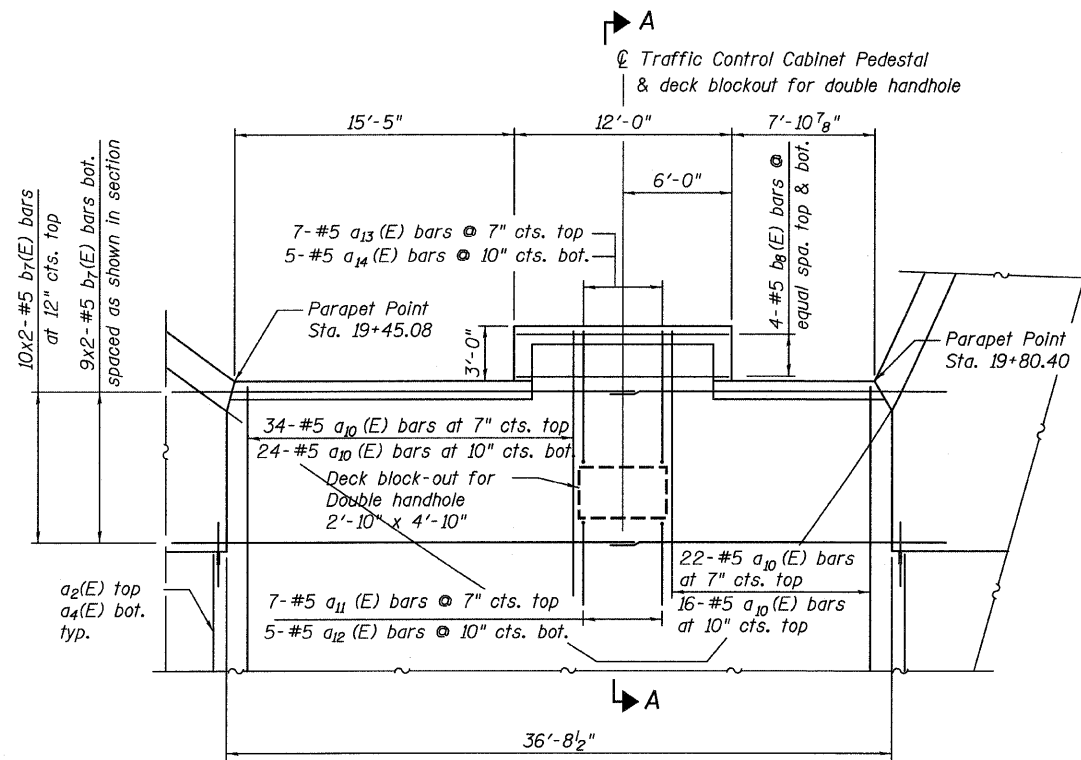
**NOTES:**

- For locations of section B-B, see sheets 39 and 40.
- Concrete inserts and hanger assemblies for traffic signal conduits, refer to traffic signal plans for details. The cost of installation included with the pay item "Concrete Superstructure".
- Concrete Inserts for underpass lighting shall be embedded in concrete. For numbers & locations of these items and installation details, refer to lighting plans. The cost of the embedded items included with the pay item "Concrete Superstructure".
- All deck construction joints shall be bonded construction joints.

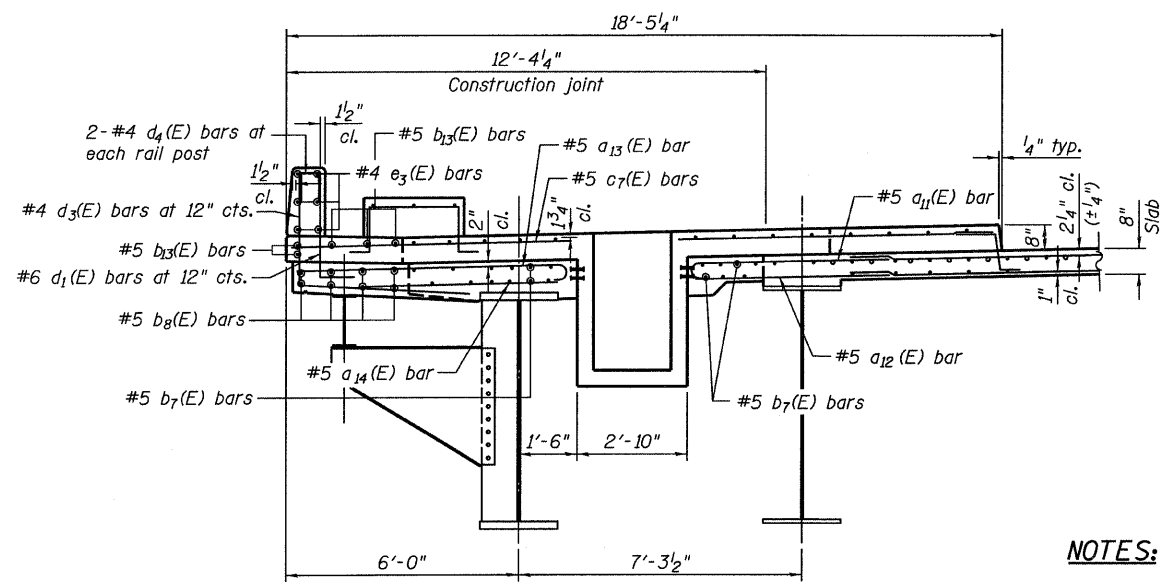
**SUPERST. CROSS SECTION  
STRUCTURE NO. 016-0724**

<b>TYLIN INTERNATIONAL</b>	DESIGNED - JN,	REVISIONS		SHEET NO. 42	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS	SHEET NO. 366
	CHECKED - AMD,	NAME	DATE					741	
	DRAWN - EMK							CONTRACT NO. 60999	
	CHECKED - AMD,							FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	
	DATE - 03/25/2011			239 SHEETS					

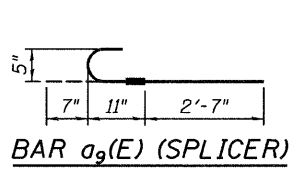
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



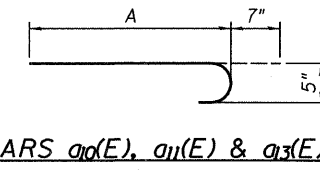
DECK BLOCKOUT PLAN



SECTION A-A

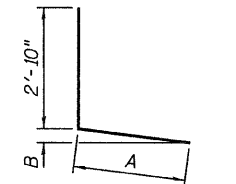


BAR a9(E) (SPLICER)



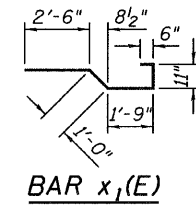
BARS a10(E), a11(E) & a13(E)

BAR	A
a10(E)	6'-7"
a11(E)	5'-0"
a13(E)	7'-0"

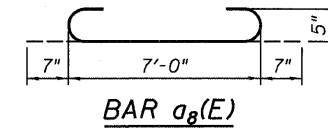


BAR d2(E) & d3(E)

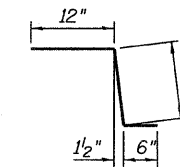
BAR	A	B
d2(E)	1'-6"	3 3/4"
d3(E)	4'-5"	2 3/4"



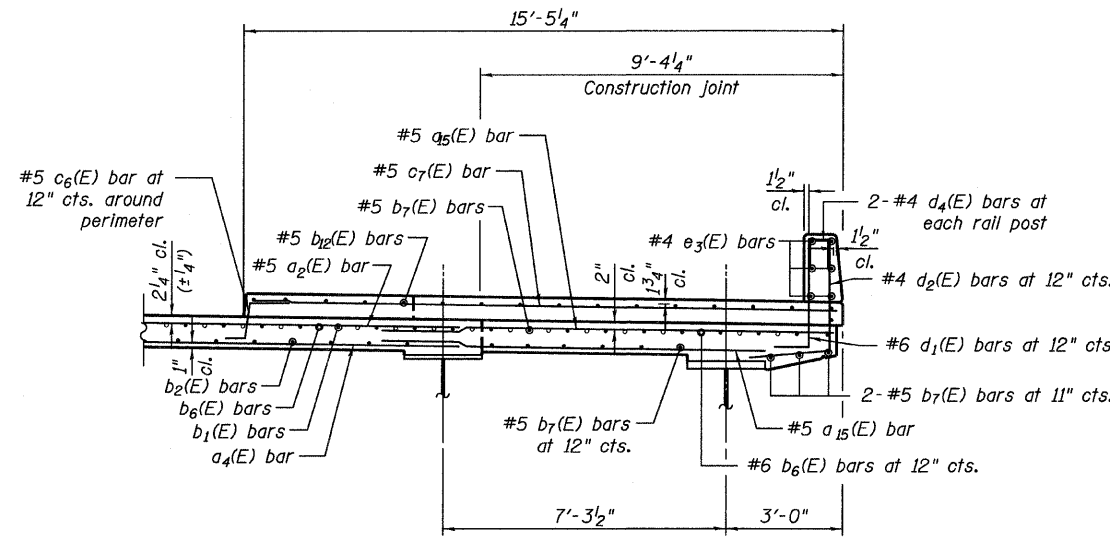
BAR x1(E)



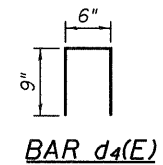
BAR a8(E)



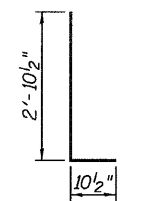
BAR c6(E)



SECTION THRU EAST SIDEWALK  
(Looking North)



BAR d4(E)



BAR d1(E)

NOTES:

1. For locations of Traffic Signal Appurtenances, see Sheet 66.
2. For sidewalk details see Sheets 64 & 65.
3. Bars indicated thus "10x2-#5" etc. indicate 10 lines of bars with 2 lengths per line.
4. Refer to Sheet 42 for Bill of Materials.

LEGEND

- I.F. - Denotes inside face of parapet.  
O.F. - Denotes outside face of parapet.

SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL

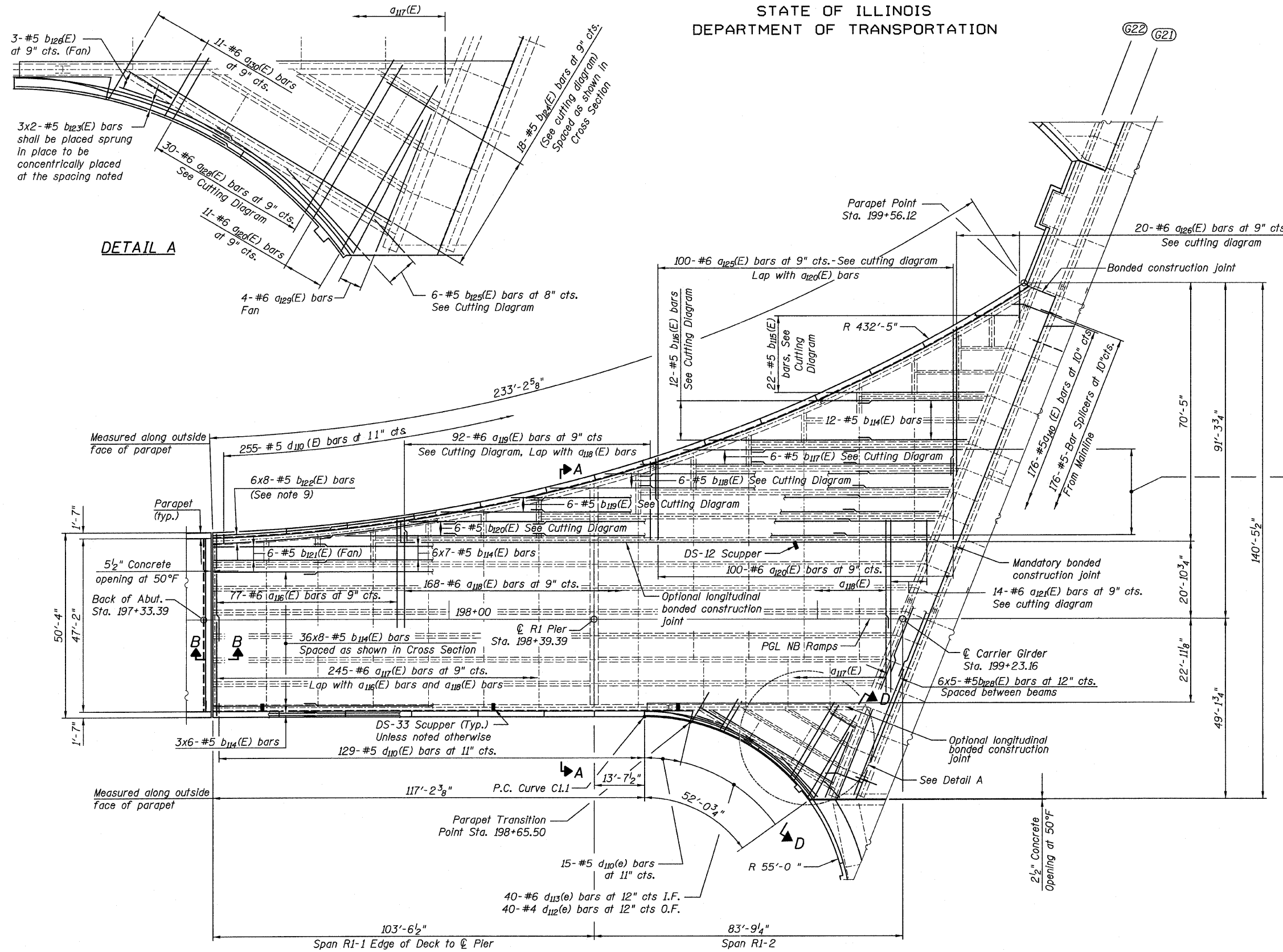
DESIGNED -	REVISIONS
CHECKED - AMD,	NAME DATE
DRAWN -	
CHECKED -	
DATE - 03/25/2011	

SHEET NO. 43	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 367
239 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

622 621



**MIN. BAR LAP**  
#5 bar = 3'-3"  
#6 bar = 3'-10"

Working from North to South:  
6x2- #5 b<sub>114</sub>(E) bars  
6x3- #5 b<sub>114</sub>(E) bars  
6x4- #5 b<sub>114</sub>(E) bars  
6x5- #5 b<sub>114</sub>(E) bars

**NOTES:**

1. Bars indicated thus "42x8-#5" etc. indicates 42 lines of bars with 8 lengths per line.
2. For Section A-A, see Sheet 46. For Section D-D, see Sheet 46A.
3. For Section B-B, see Sheet 45.
4. For Parapet Elevations, see Sheet 47.
5. For Bill of Material and Cutting Diagram, see Sheet 46.
6. For Drainage Scupper Plans and Details, see Sheets 84, 88 & 89.
7. All construction joints shall be bonded construction joints.
8. Cut longitudinal reinforcement to clear scuppers.
9. Bars shall be placed radially at the spacing noted. Bend bars in field to fit.

**SUPERSTRUCTURE - BOTTOM**  
**RAMP 1 FLARE**  
**STRUCTURE NO. 016-0724**

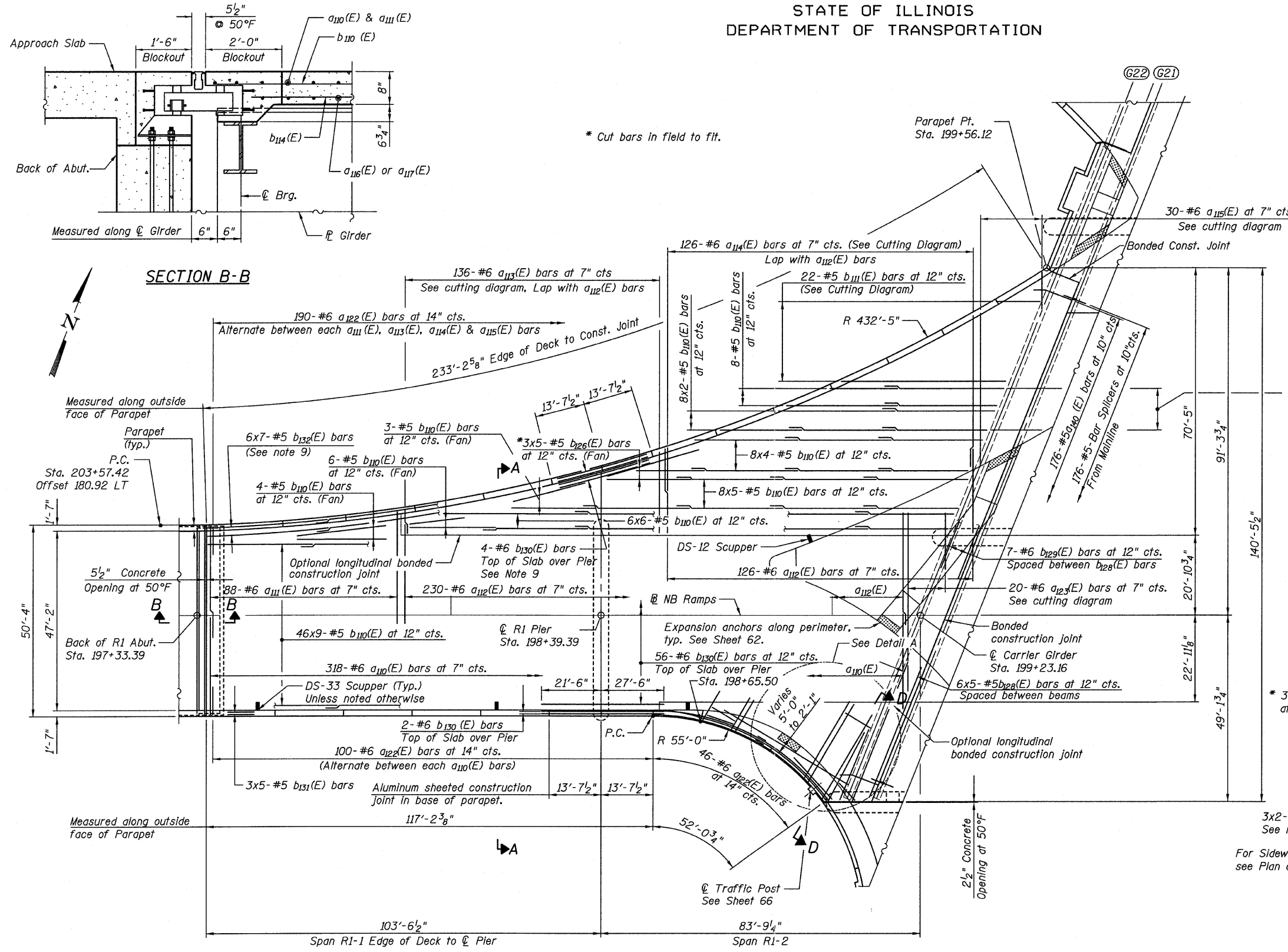
**TYLIN INTERNATIONAL**

DESIGNED - AMD		REVISIONS	
CHECKED - PF		NAME	DATE
DRAWN - MU			
CHECKED - AMD			
DATE - 03/25/2011			

SHEET NO. 44		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
239 SHEETS		55	0711.2R & 1011.1BR	COOK	741	368
				CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						

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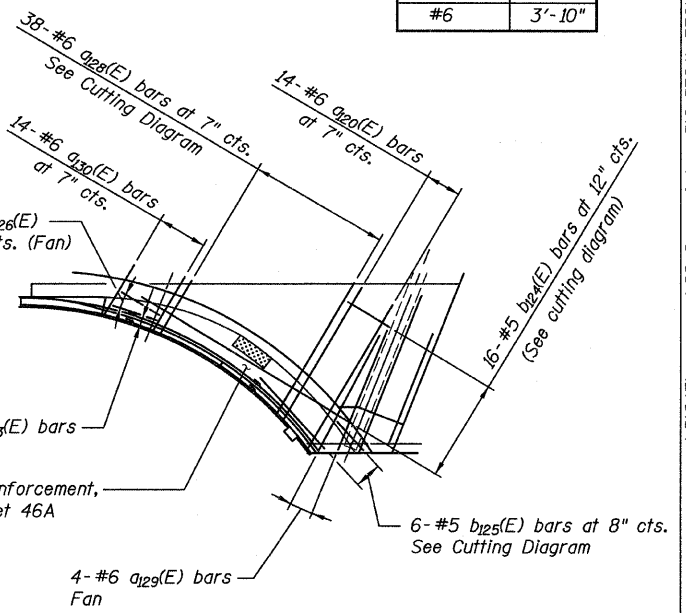
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



- NOTES:**
1. Bars indicated thus "47x8-#5" etc. indicates 47 lines of bars with 8 lengths per line.
  2. For Section A-A, see Sheet 46.  
For Section D-D, see Sheet 46A.
  3. For Parapet Elevations, see Sheet 47.
  4. For Bill of Material and Cutting Diagram, see Sheet 46.
  5. For Drainage Scupper Plans and Sections, see Sheets 84, 88 & 89.
  6. All deck construction joints shall be bonded construction joints.
  7. Cut longitudinal reinforcement to clear scuppers.
  8. Bars shall be sprung in place to be concentrically placed at the spacing noted.

**MINIMUM BAR LAPS**

Bar Size	Min. Lap
#5	3'-3"
#6	3'-10"



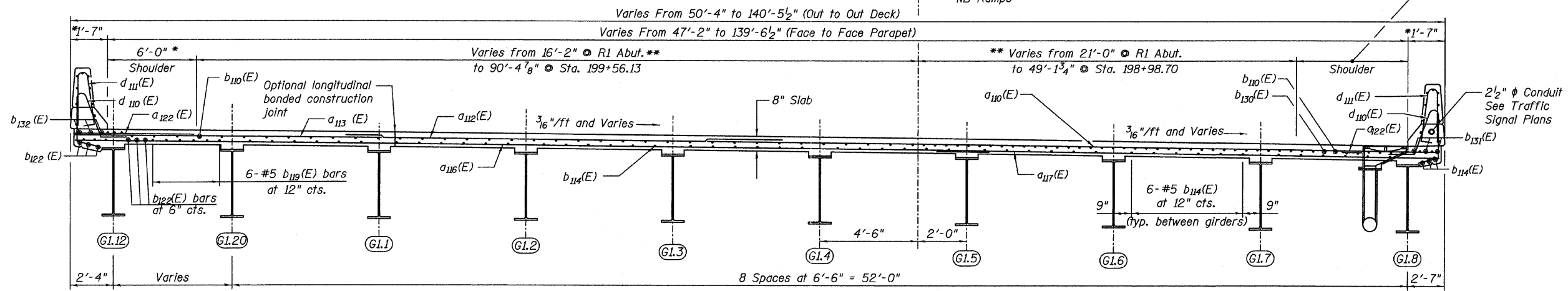
**DETAIL A**  
**SUPERSTRUCTURE - TOP**  
**RAMP 1 FLARE**  
**STRUCTURE NO. 016-0724**

<b>TYLIN INTERNATIONAL</b>	DESIGNED - AMD	REVISIONS		SHEET NO. 45	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 369
	CHECKED - PF	NAME	DATE						
	DRAWN - MU								
	CHECKED - AMD,								
	DATE - 03/25/2011			239 SHEETS	CONTRACT NO. 60999		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

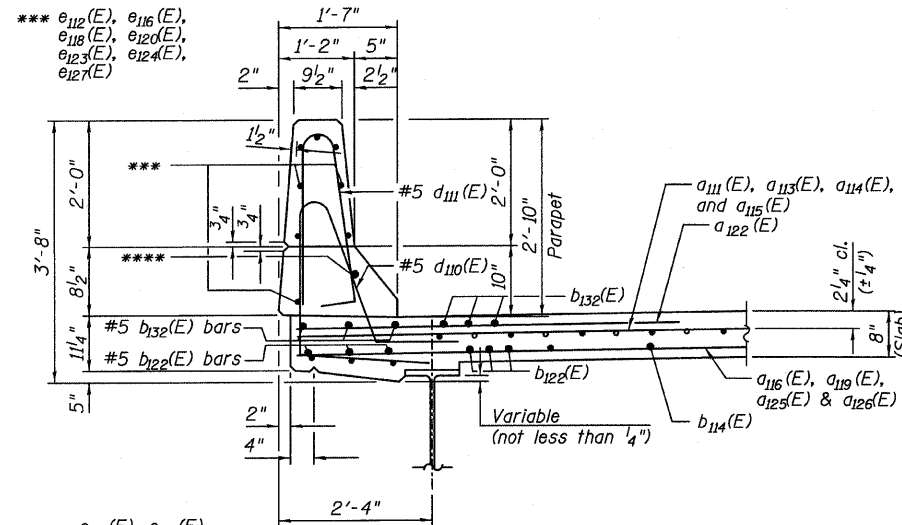
\* 4'-0";  
\* Varies 4'-0" " to 5'-3" ";  
\* Varies 5'-3" " to 7'-1 1/2" ";  
R1 Abut. to 198+53.05  
Sta. 198+53.05 to 198+65.50  
Sta. 198+65.50 to 198+97.88

P.G.L.  
NB Ramps

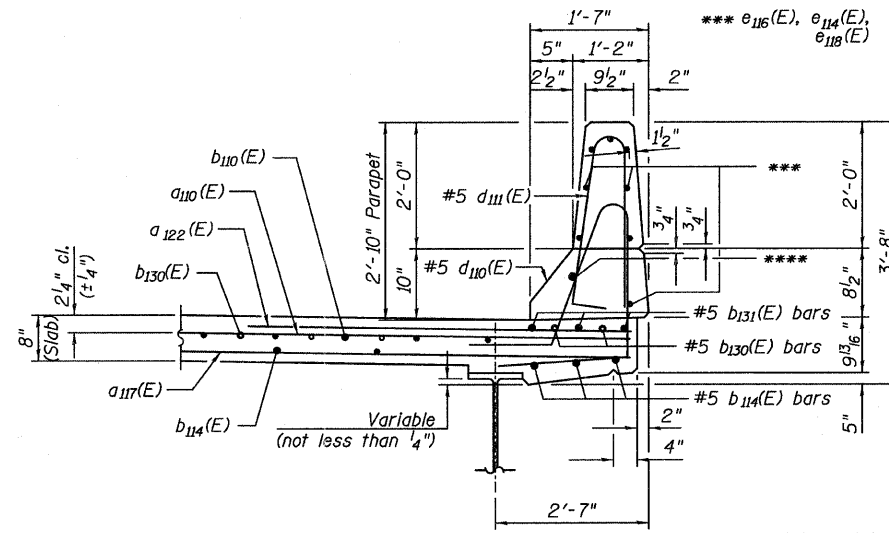


SECTION A-A  
(Looking East)

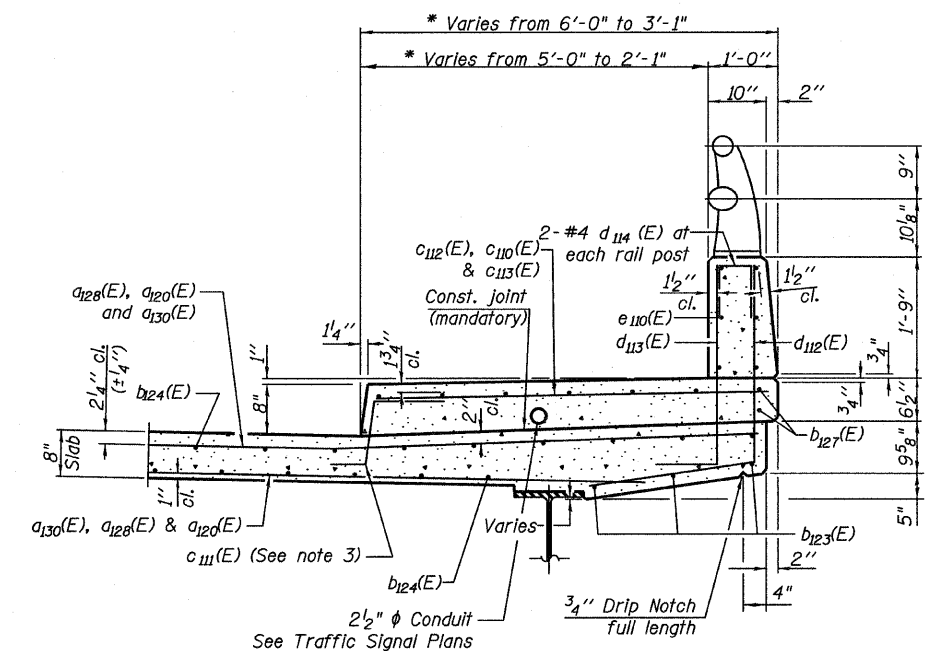
\* Measurement perpendicular to parapet  
\*\* Measurement perpendicular to alignment



SECTION THRU NORTH PARAPET



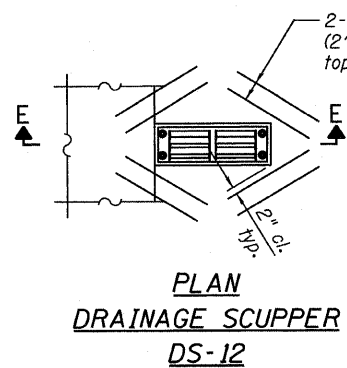
SECTION THRU SOUTH PARAPET



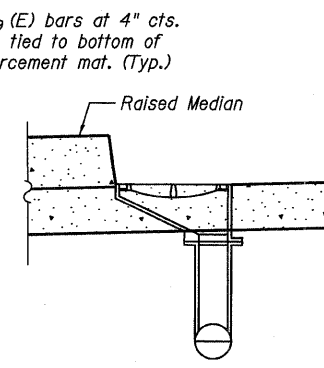
SECTION THRU SIDEWALK

NOTES:

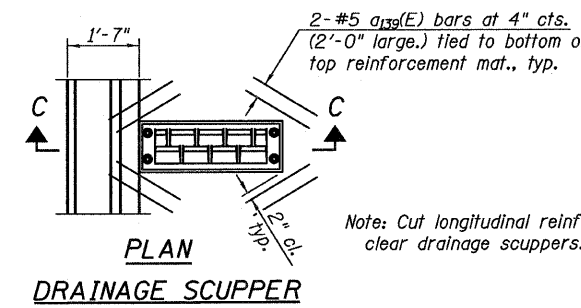
- For location of Section A-A, see Sheets 44 and 45.
- Work this sheet with Sheets 44, 45, 46A & 47.
- In lieu of bottom leg c<sub>III</sub>(E) bars may be cored and set according to article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per Manufacturer's Recommendations. Maximum depth of cored hole shall not exceed 6".



PLAN  
DRAINAGE SCUPPER  
DS-12

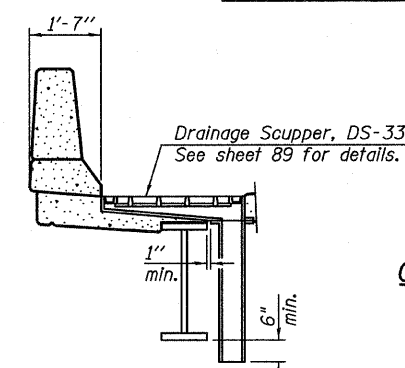


SECTION E-E



PLAN  
DRAINAGE SCUPPER  
DS-33

Note: Cut longitudinal reinforcement to clear drainage scuppers.



SECTION C-C

CROSS SECTIONS & DETAILS  
RAMP 1 FLARE  
SHEET 1 OF 2  
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL

DESIGNED -	AMD	REVISIONS	
CHECKED -	PF	NAME	DATE
DRAWN -	MU		
CHECKED -	AMD,		
DATE -	03/25/2011		

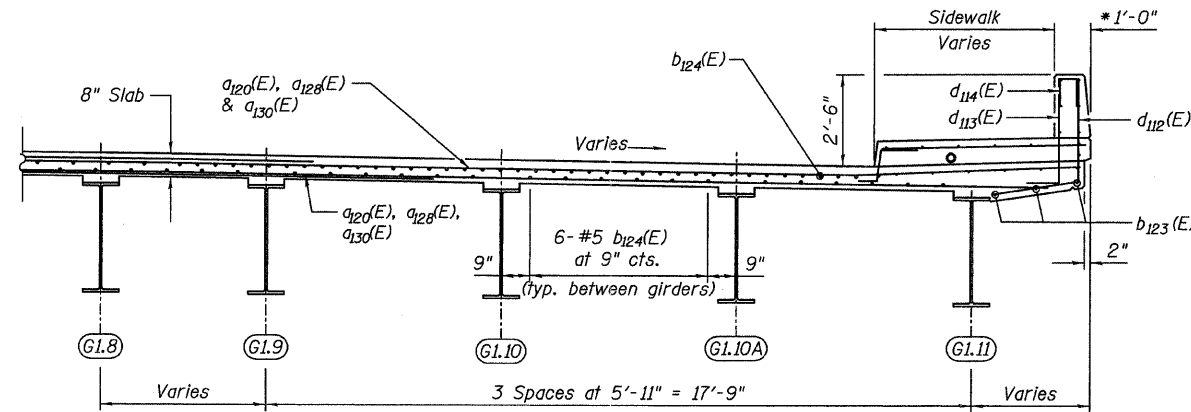
SHEET NO. 46	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	239 SHEETS	55	0711.2R & 1011.1BR	COOK	741 370
			CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

5/9/2011

**BILL OF MATERIAL**

Bar	No.	Size	Length (ft)	Shape
a110 (E)	318	#6	33'-7"	
a111 (E)	88	#6	25'-11"	
a112 (E)	230	#6	23'-4"	
a113 (E)	68	#6	30'-3"	
a114 (E)	63	#6	44'-3"	
a115 (E)	15	#6	54'-6"	
a116 (E)	77	#6	29'-0"	
a117 (E)	245	#6	30'-2"	
a118 (E)	168	#6	24'-8"	
a119 (E)	46	#6	34'-0"	
a120 (E)	125	#6	25'-0"	
a121 (E)	7	#6	38'-0"	
a122 (E)	336	#6	6'-6"	
a123 (E)	10	#6	49'-0"	
a125 (E)	100	#6	51'-0"	
a126 (E)	10	#6	50'-0"	
a128 (E)	34	#6	35'-0"	
a129 (E)	8	#6	18'-6"	
a130 (E)	25	#6	10'-0"	
a139 (E)	32	#5	2'-0"	
a140 (E)	427	#5	10'-4"	
b110 (E)	559	#5	24'-6"	
b111 (E)	11	#5	44'-0"	
b112 (E)	4	#5	51'-0"	
b113 (E)	4	#5	27'-3"	
b114 (E)	450	#5	26'-10"	
b115 (E)	11	#5	43'-0"	
b116 (E)	6	#5	55'-6"	
b117 (E)	3	#5	51'-7"	
b118 (E)	3	#5	40'-1"	
b119 (E)	3	#5	38'-0"	
b120 (E)	3	#5	53'-11"	
b121 (E)	6	#5	30'-9"	
b122 (E)	48	#5	32'-2"	
b123 (E)	12	#5	28'-11"	
b124 (E)	9	#5	47'-3"	
b125 (E)	6	#5	20'-3"	
b126 (E)	9	#5	15'-0"	
b127 (E)	2	#5	14'-9"	
b128 (E)	70	#5	32'-0"	
b129 (E)	7	#6	49'-0"	
b130 (E)	62	#6	49'-0"	
b131 (E)	15	#5	28'-6"	
b132 (E)	42	#5	36'-3"	
b133 (E)	1	#5	28'-1"	
b134 (E)	2	#5	20'-4"	
b135 (E)	2	#5	22'-11"	
b136 (E)	2	#5	23'-8"	
b137 (E)	2	#5	24'-4"	
c110 (E)	18	#5	5'-8"	
c111 (E)	46	#5	2'-4"	
c112 (E)	6	#5	10'-0"	
c113 (E)	5	#5	7'-2"	
d110 (E)	399	#5	6'-10"	
d111 (E)	399	#5	5'-7"	
d112 (E)	40	#4	4'-10"	
d113 (E)	40	#6	3'-9"	
d114 (E)	10	#4	2'-0"	
d115 (E)	3	#6	7'-0"	
d116 (E)	3	#6	4'-9"	
e110 (E)	12	#5	19'-0"	
e111 (E)	1	#8	16'-0"	
e112 (E)	8	#4	16'-0"	
e113 (E)	1	#8	13'-3"	
e114 (E)	8	#4	13'-3"	
e115 (E)	4	#8	16'-8"	
e116 (E)	32	#4	16'-8"	
e117 (E)	3	#8	30'-6"	
e118 (E)	35	#4	17'-4"	
e119 (E)	3	#8	30'-11"	
e120 (E)	21	#4	17'-2"	
e121 (E)	3	#4	29'-11"	
e122 (E)	3	#4	29'-5"	
e123 (E)	7	#4	15'-3"	
e124 (E)	7	#4	15'-3"	
e125 (E)	4	#8	25'-9"	
Reinforcement Bars, Epoxy Coated	LB		134,830	
Concrete Superstructure	CU YD		488.0	
Bridge Deck Grooving	SQ YD		1,382	
Protective Coat	SQ YD		1,782	

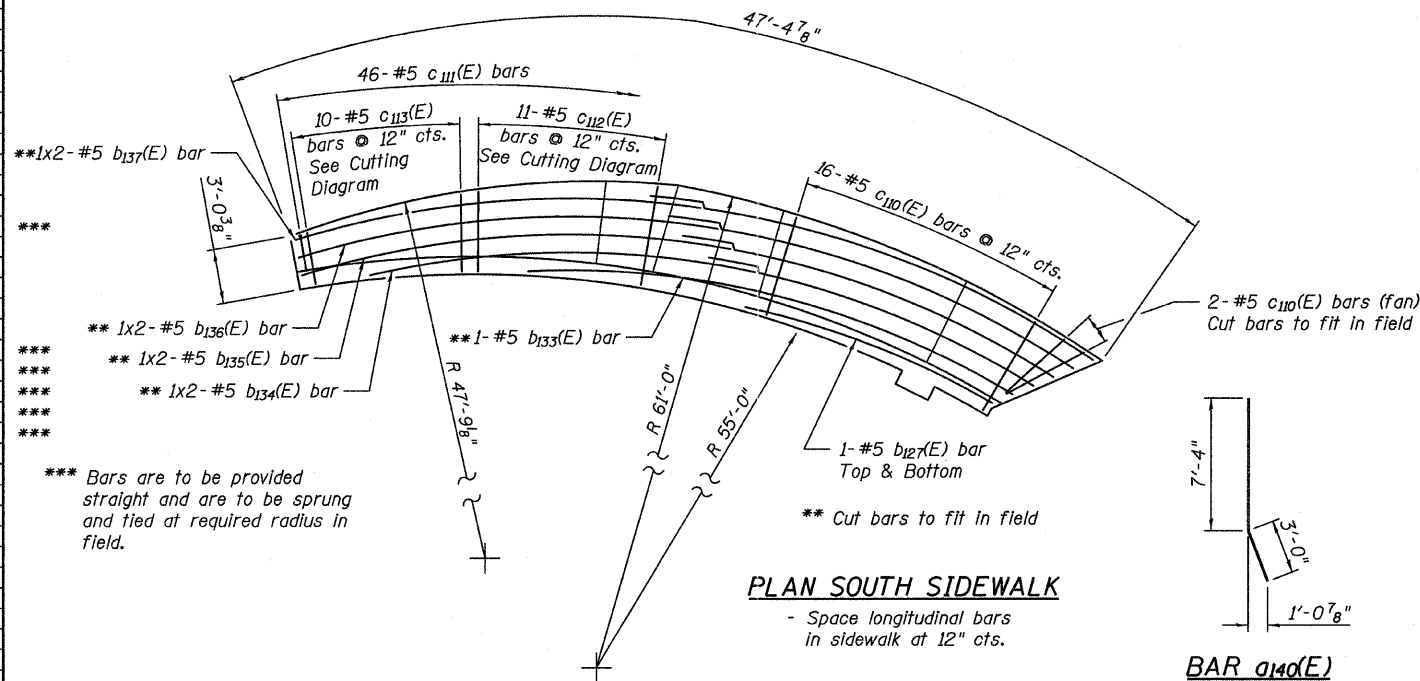
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**SECTION D-D**

(Looking East)

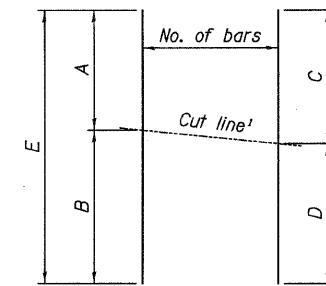
\* Measurement perpendicular to parapet



**PLAN SOUTH SIDEWALK**

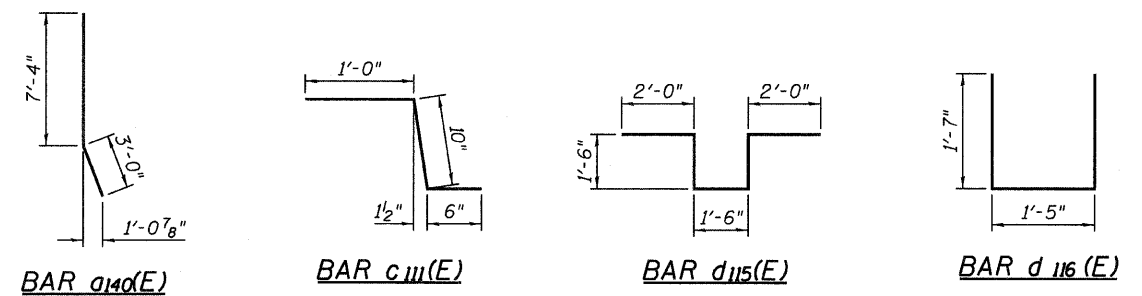
- Space longitudinal bars in sidewalk at 12\"/>

\*\*\* Bars are to be provided straight and are to be sprung and tied at required radius in field.



BAR	A	B	C	D	E	No. bars
a113 (E)	5'-6"	24'-9"	15'-1"	15'-2"	30'-3"	68
a114 (E)	5'-6"	38'-9"	22'-0"	22'-3"	44'-3"	63
a115 (E)	10'-6"	44'-0"	26'-8"	27'-10"	54'-6"	15
a119 (E)	9'-0"	25'-0"	16'-11"	17'-1"	34'-0"	46
a121 (E)	10'-0"	32'-0"	20'-2"	21'-10"	42'-0"	7
a125 (E)	13'-0"	38'-0"	25'-4"	25'-8"	51'-0"	50
a126 (E)	12'-0"	38'-0"	24'-4"	25'-8"	50'-0"	10
a128 (E)	10'-0"	25'-0"	17'-3"	17'-9"	35'-0"	15
b111 (E)	6'-0"	38'-0"	21'-3"	22'-9"	44'-0"	11
b112 (E)	19'-0"	32'-0"	24'-7"	26'-5"	51'-0"	4
b113 (E)	12'-0"	30'-0"	19'-9"	22'-3"	42'-0"	4
b115 (E)	5'-4"	37'-8"	20'-9"	22'-3"	43'-0"	11
b116 (E)	16'-9"	38'-9"	26'-4"	29'-2"	55'-6"	6
b117 (E)	19'-7"	32'-0"	24'-7"	27'-0"	51'-7"	3
b118 (E)	12'-6"	27'-7"	18'-6"	21'-7"	40'-1"	3
b119 (E)	9'-0"	29'-0"	17'-0"	21'-0"	38'-0"	3
b120 (E)	12'-7"	41'-4"	24'-1"	29'-10"	53'-11"	3
b124 (E)	8'-9"	38'-6"	22'-9"	24'-6"	47'-3"	9
b125 (E)	5'-9"	14'-6"	9'-3"	11'-0"	20'-3"	3
c112 (E)	4'-5"	5'-7"	4'-11"	5'-1"	10'-0"	6
c113 (E)	2'-11"	4'-3"	3'-6"	3'-8"	7'-2"	5

**BAR CUTTING DIAGRAM**



**NOTES:**

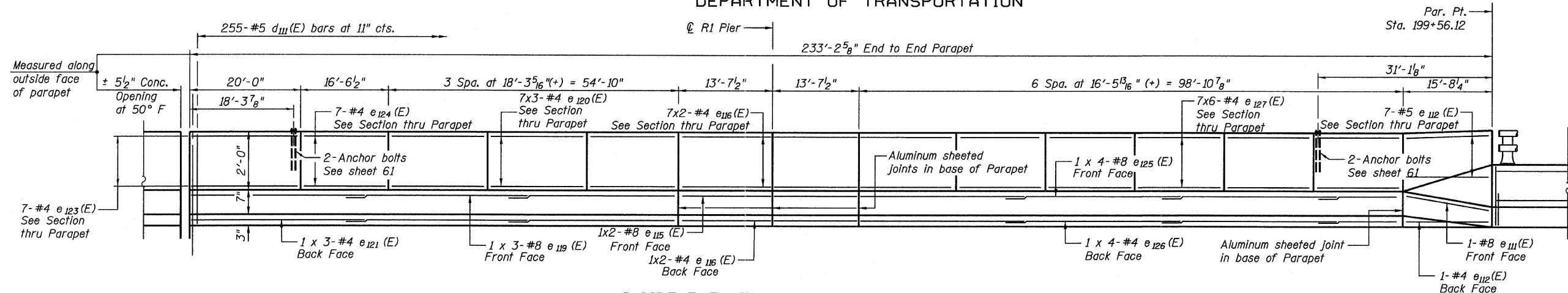
- For location of Section D-D, see Sheets 44 and 45.
- Work this sheet with Sheets 44 thru 47.

**CROSS SECTIONS & DETAILS**  
**RAMP 1 FLARE**  
**SHEET 2 OF 2**  
**STRUCTURE NO. 016-0724**

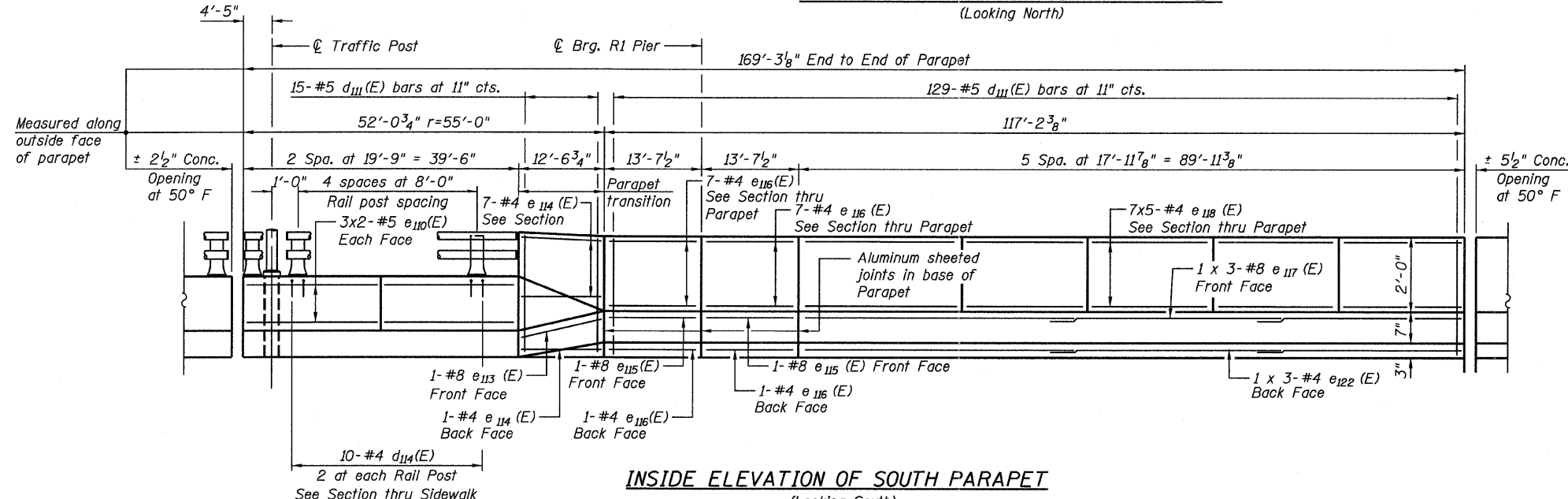
<b>TYLIN INTERNATIONAL</b>	DESIGNED - AMD, MU	REVISIONS		SHEET NO. 46A	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 370A
	CHECKED - PF	NAME	DATE						
	DRAWN - MU								
	CHECKED - AMD,								
DATE - 03/25/2011				239 SHEETS	CONTRACT NO. 60999		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		

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**INSIDE ELEVATION OF NORTH PARAPET**  
(Looking North)

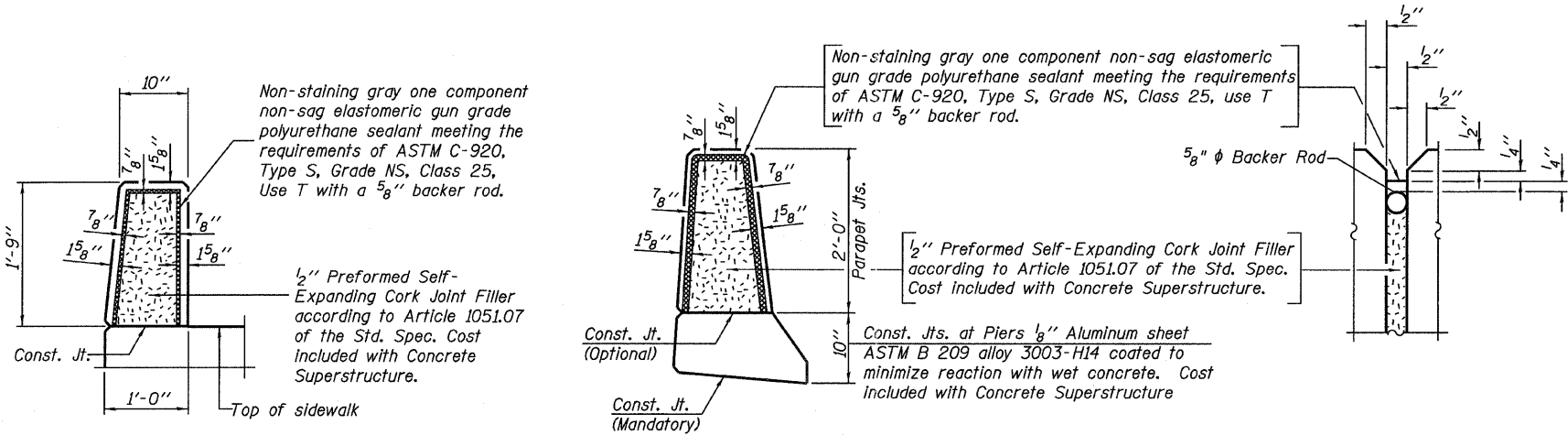


**INSIDE ELEVATION OF SOUTH PARAPET**  
(Looking South)

**MINIMUM BAR LAP**  
(Parapet)  
#4 bar = 2'-0"  
#8 bar = 5'-2"

**NOTES:**

1. See Sheet 46A for Bill of Material.
2. Bars indicated thus 3 x 2-#5 etc. indicates 3 lines of bars with 2 lengths per line.
3. Work this Sheet with Sheets 44 thru 46A.
4. Refer to sheet 61 for parapet details at traffic signal.
5. Refer to Sheet 66, Traffic Signal Appurtenances Key Plan for locations of parapet mounted traffic signals.



**PARAPET JOINT DETAILS**

**SUPERST. PARAPET ELEV.**  
**RAMP 1 FLARE**  
**STRUCTURE NO. 016-0724**

<b>TYLIN INTERNATIONAL</b>	DESIGNED - JE, PK	REVISIONS		SHEET NO. 47	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.				
	CHECKED - AMD,	NAME	DATE							741	371		
	DRAWN - PK											CONTRACT NO. 60999	
	CHECKED - AMD,												FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT
	DATE - 03/25/2011												

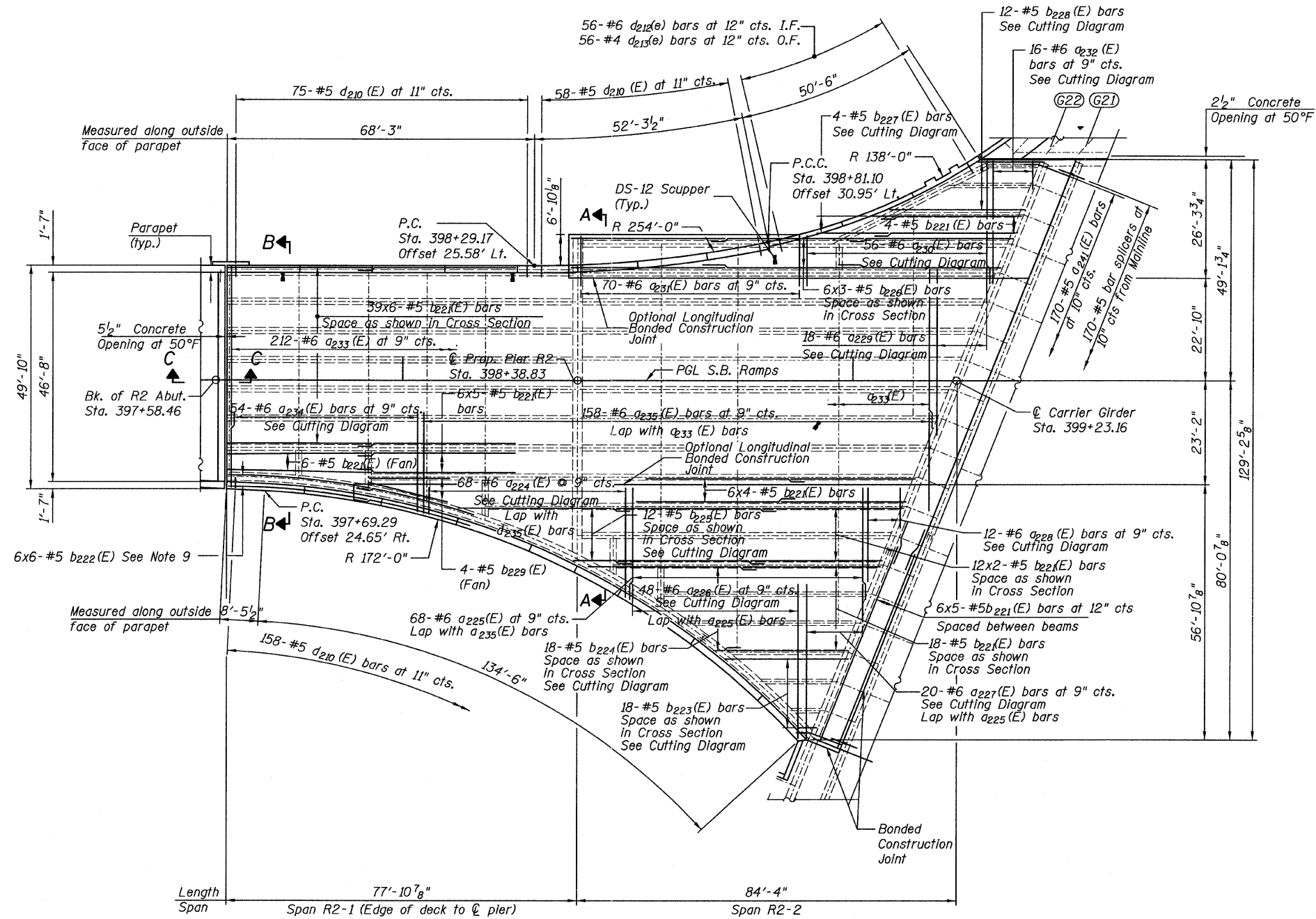
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MINIMUM BAR LAPS

Bar Size	Min. Lap
#5	3'-3"
#6	3'-10"



DECK PLAN

NOTES:

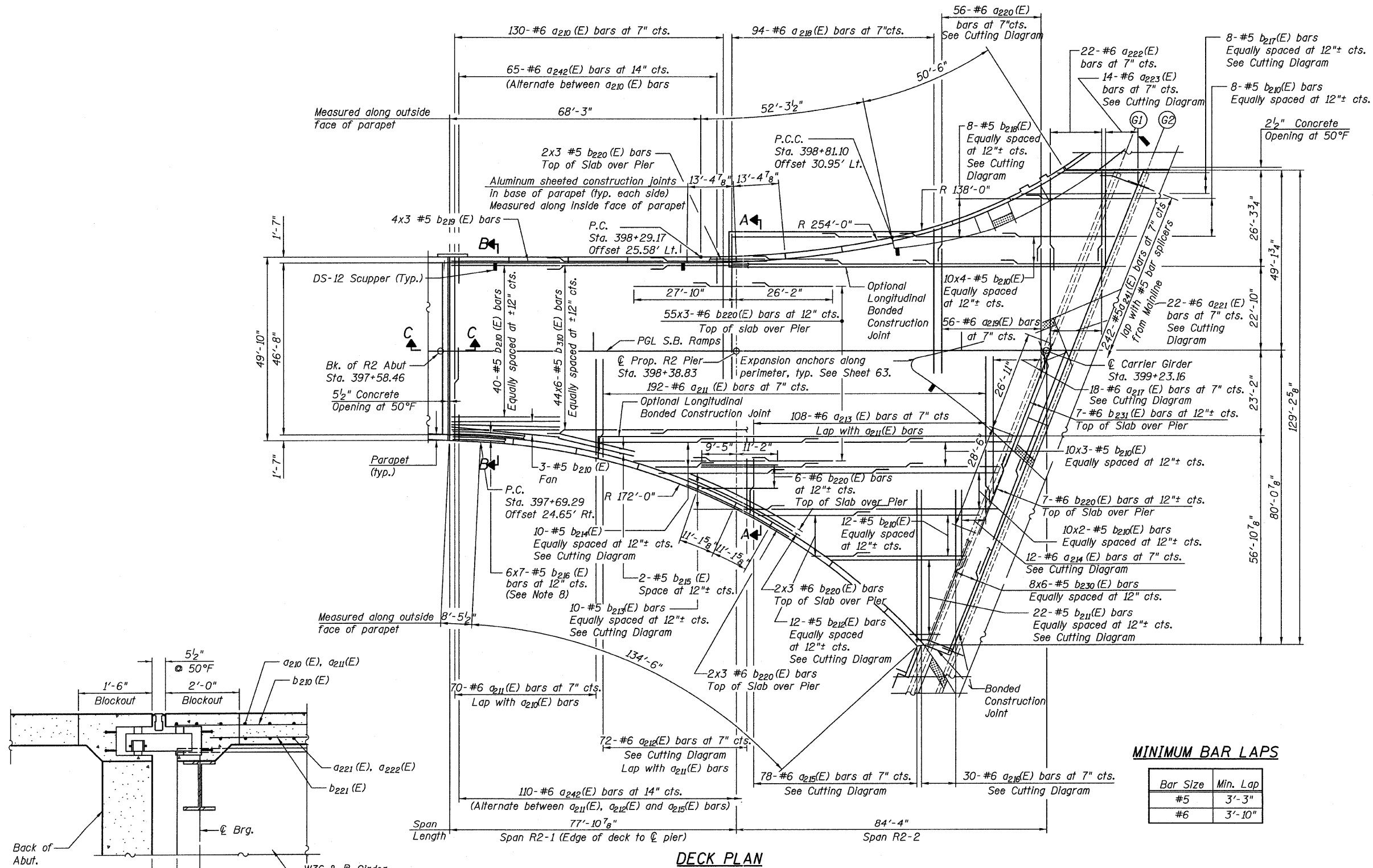
1. Bars Indicated thus "42x6- #5" etc. indicates 42 lines of bars with 6 lengths per line.
2. For Section A-A and B-B, see Sheet 50.
3. For Section C-C, see Sheet 49.
4. For Parapet Elevations, see Sheet 51.
5. For Bill of Material, see Sheet 50A.
6. For Drainage System Plan and Details, see Sheets 85, 88 & 89.
7. All construction joints shall be bonded construction joints.
8. Cut longitudinal reinforcement to clear scuppers.
9. Bars shall be sprung in place to be concentrically placed at the spacing noted.

SUPERSTRUCTURE - BOTTOM  
RAMP 2 FLARE  
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL	DESIGNED - AMD	REVISIONS		SHEET NO. 48	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	DRAWN - PK				239 SHEETS	CONTRACT NO. 60999			
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
	DATE - 03/25/2011								

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5/10/2011

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DECK PLAN

NOTES:

1. Bars indicated thus "47x7-#5" etc. indicates 47 lines of bars with 7 lengths per line.
2. For Section A-A, see Sheet 50.
3. For Parapet Elevations, see Sheet 51.
4. For Bill of Material, see Sheet 50A.
5. For Drainage Scupper System Plan and Section, see Sheets 85, 88 & 89.
6. All construction joints shall be bonded construction joints.
7. Cut longitudinal reinforcement to clear scuppers.
8. Bars shall be placed radially at the spacing noted. Bends bars in field to fit.
9. For sidewalk reinforcement see Sheet 50A.

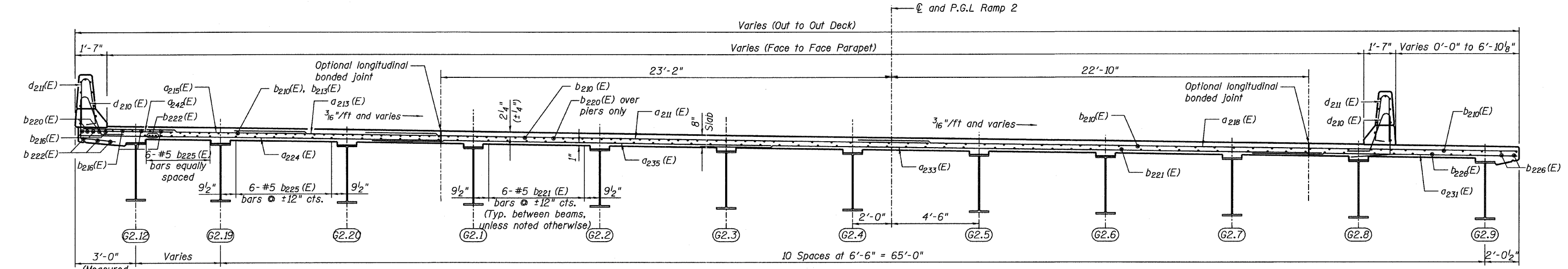
SECTION C-C

SUPERSTRUCTURE - TOP  
RAMP 2 FLARE  
STRUCTURE NO. 016-0724

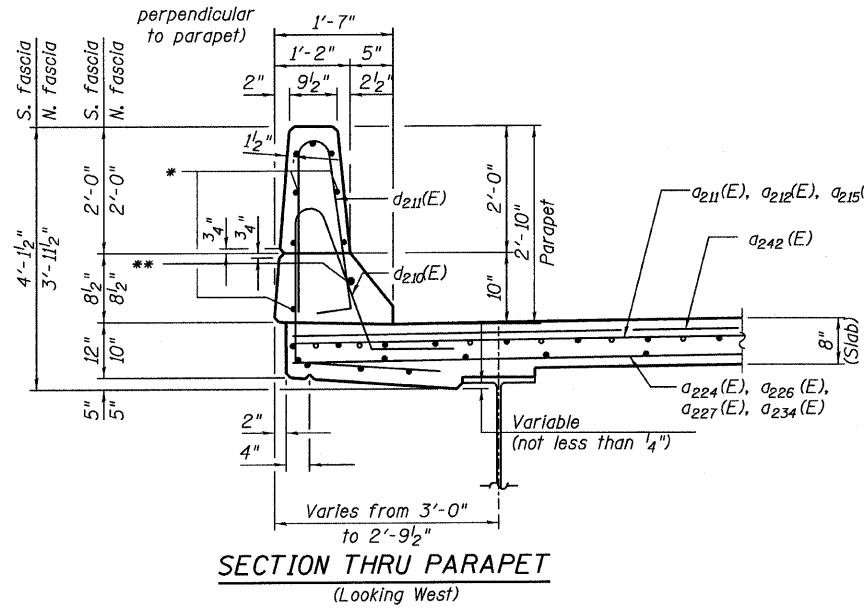
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	CHECKED - AMD,							FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	
	DATE - 03/25/2011			239 SHEETS					

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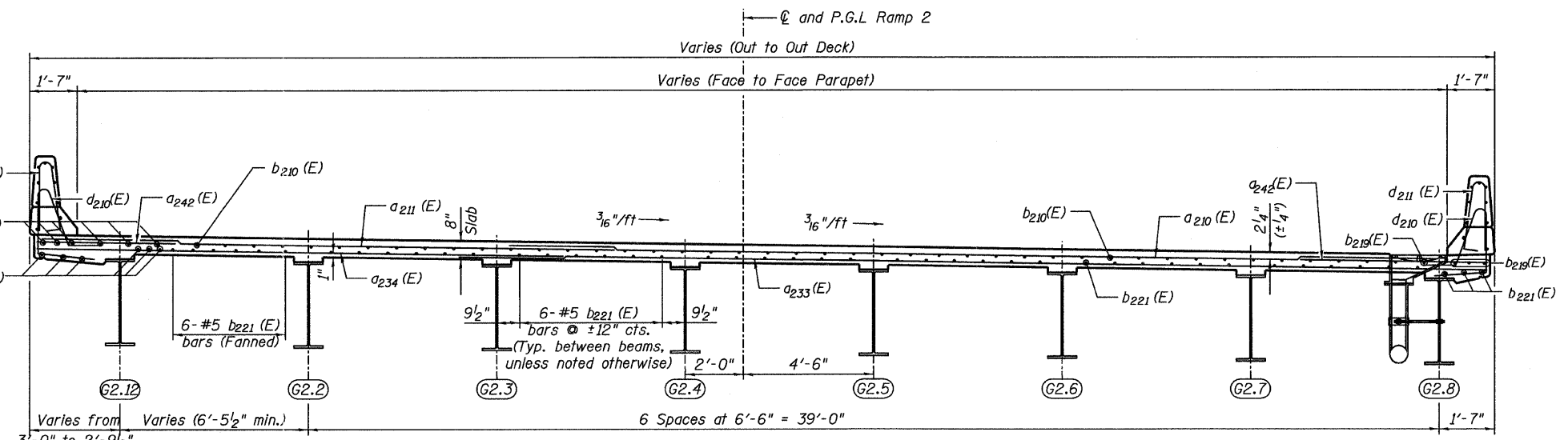
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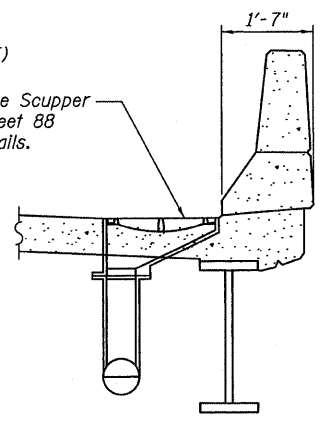
SECTION A-A  
(Looking West)



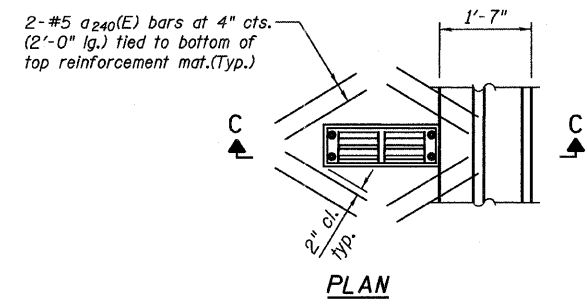
SECTION THRU PARAPET  
(Looking West)



SECTION B-B  
(Looking West)



SECTION C-C



PLAN  
DRAINAGE SCUPPER  
DS-12

NOTES:

1. For location of Section A-A and B-B, see Sheets 48 and 49.
2. Work this sheet with Sheets 48, 49, 50A & 51.
3. All deck construction joints shall be bonded construction joints.
4. See Sheet 60 for concrete parapet transition details.

CROSS SECTIONS & DETAILS  
RAMP 2 FLARE  
SHEET 1 OF 2  
STRUCTURE NO. 016-0724

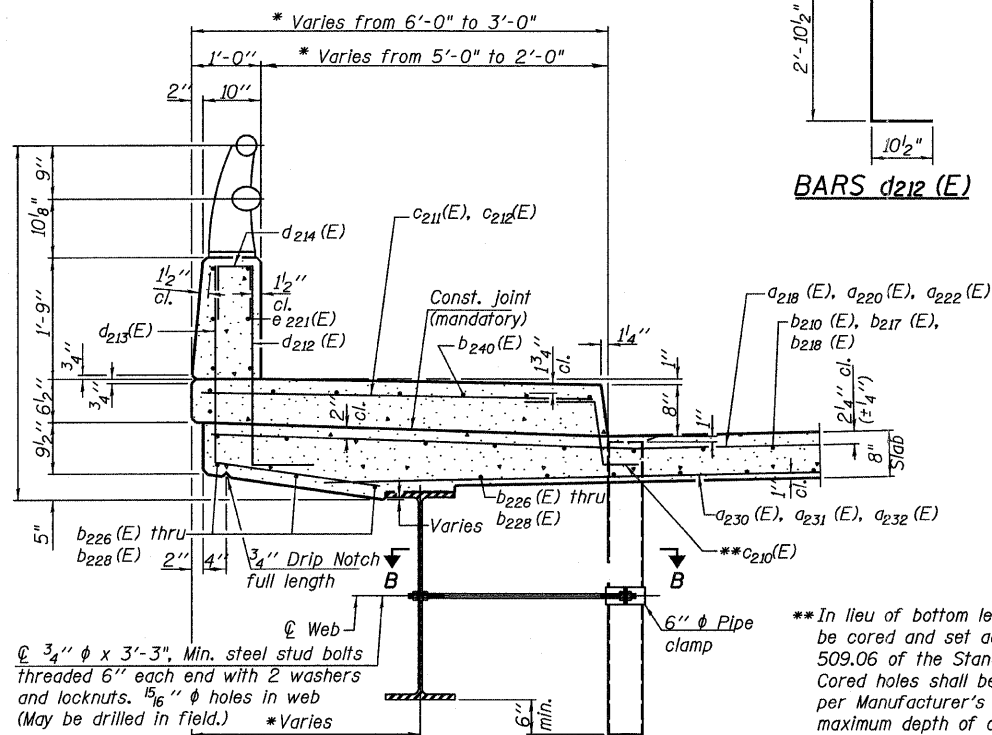
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	CHECKED - AMD,					FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	
DATE - 03/25/2011									

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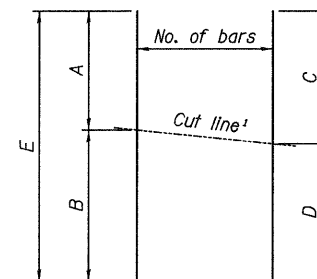
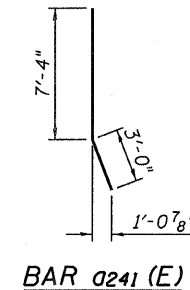
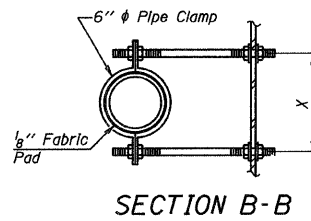
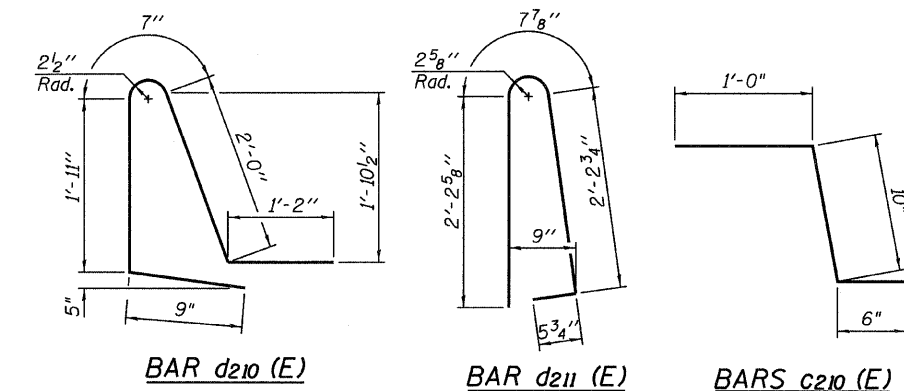
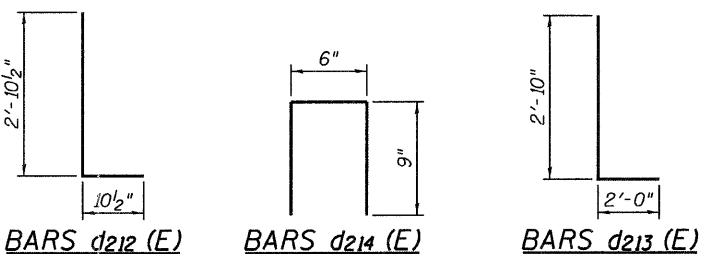
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BILL OF MATERIAL

Bar	No.	Size	Length (ft)	Shape
d210 (E)	130	#6	32'-7"	
d211 (E)	262	#6	25'-9"	
d212 (E)	36	#6	24'-0"	
d213 (E)	108	#6	20'-0"	
d214 (E)	6	#6	26'-0"	
d215 (E)	78	#6	53'-0"	
d216 (E)	15	#6	54'-0"	
d217 (E)	9	#6	30'-9"	
d218 (E)	94	#6	39'-7"	
d219 (E)	56	#6	36'-4"	
d220 (E)	56	#6	30'-6"	
d221 (E)	11	#6	41'-10"	
d222 (E)	22	#6	25'-0"	
d223 (E)	7	#6	30'-0"	
d224 (E)	34	#6	27'-4"	
d225 (E)	68	#6	25'-6"	
d226 (E)	24	#6	42'-0"	
d227 (E)	10	#6	40'-0"	
d228 (E)	6	#6	32'-0"	
d229 (E)	9	#6	47'-0"	
d230 (E)	28	#6	39'-0"	
d231 (E)	70	#6	11'-2"	
d232 (E)	8	#6	38'-0"	
d233 (E)	212	#6	35'-8"	
d234 (E)	27	#6	39'-8"	
d235 (E)	158	#6	22'-6"	
d240 (E)	32	#5	2'-0"	
d241 (E)	412	#5	10'-4"	
d242 (E)	175	#6	6'-6"	
b210 (E)	417	#5	27'-4"	
b211 (E)	11	#5	42'-0"	
b212 (E)	6	#5	50'-0"	
b213 (E)	5	#5	53'-0"	
b214 (E)	5	#5	60'-0"	
b215 (E)	2	#5	20'-0"	
b216 (E)	42	#5	23'-11"	
b217 (E)	4	#5	42'-0"	
b218 (E)	4	#5	28'-0"	
b219 (E)	12	#5	28'-7"	
b220 (E)	196	#5	20'-7"	
b221 (E)	370	#5	31'-4"	
b222 (E)	36	#5	27'-8"	
b223 (E)	9	#5	39'-0"	
b224 (E)	9	#5	45'-0"	
b225 (E)	6	#5	57'-0"	
b226 (E)	18	#5	35'-0"	
b227 (E)	2	#5	27'-0"	
b228 (E)	6	#5	47'-0"	
b229 (E)	4	#5	15'-0"	
b230 (E)	48	#5	26'-5"	
b231 (E)	7	#6	38'-8"	
b240 (E)	12	#5	27'-8"	
c210 (E)	62	#5	2'-4"	
c211 (E)	26	#5	5'-6"	
c212 (E)	15	#5	8'-0"	
d210 (E)	291	#5	6'-5"	
d211 (E)	291	#5	5'-7"	
d212 (E)	56	#6	3'-9"	
d213 (E)	56	#4	4'-10"	
d214 (E)	12	#4	2'-0"	
d215 (E)	3	#6	7'-0"	
d216 (E)	3	#6	4'-9"	
d217 (E)	3	#6	7'-9"	
d218 (E)	3	#6	3'-0"	
e210 (E)	2	#4	33'-1"	
e211 (E)	2	#8	34'-8"	
e212 (E)	28	#4	15'-9"	
e213 (E)	16	#4	13'-1"	
e214 (E)	2	#8	13'-1"	
e215 (E)	1	#8	15'-2"	
e216 (E)	8	#4	15'-2"	
e217 (E)	16	#4	13'-9"	
e218 (E)	18	#5	15'-7"	
e222 (E)	2	#8	22'-1"	
e223 (E)	2	#4	20'-6"	
e224 (E)	14	#4	19'-4"	
e225 (E)	16	#4	10'-10"	
e226 (E)	2	#8	10'-10"	
e229 (E)	3	#8	26'-7"	
e230 (E)	3	#4	24'-6"	
e231 (E)	28	#4	17'-0"	
e232 (E)	2	#8	13'-10"	
Reinforcement Bars, Epoxy Coated	LB		120,840	
Concrete Superstructure	CU YD		401.9	
Bridge Deck Grooving	SQ YD		1,212	
Protective Coat	SQ YD		1,536	

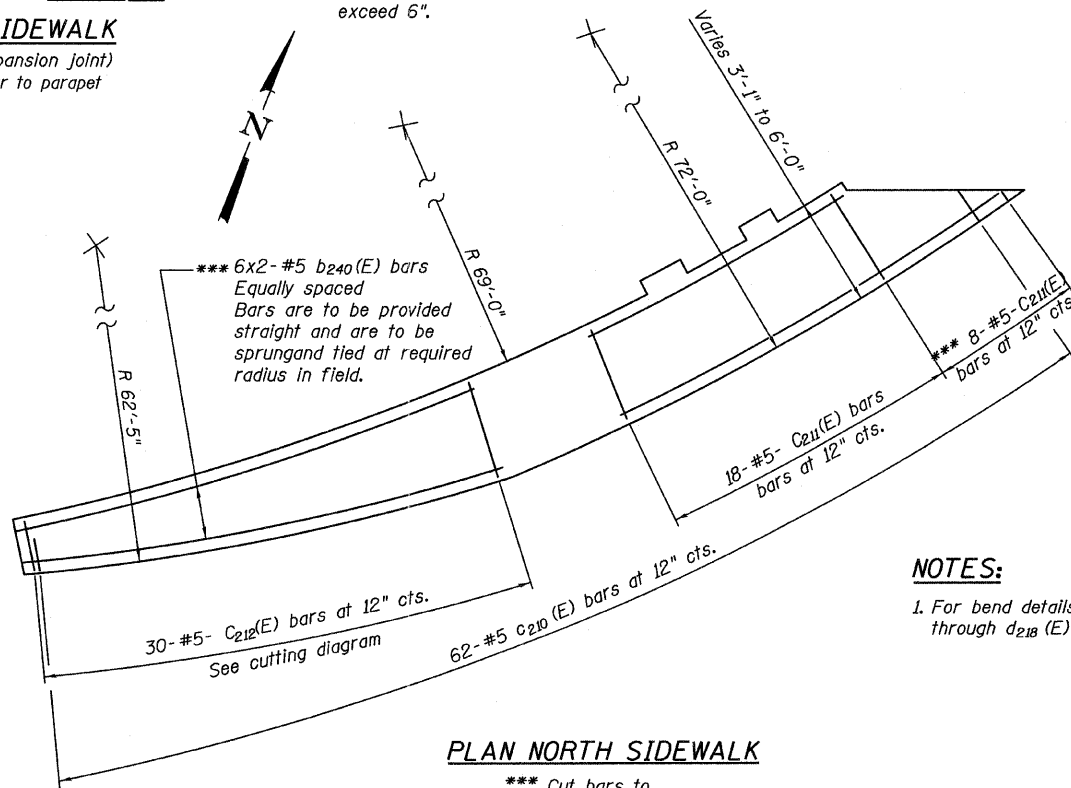


**SECTION THRU SIDEWALK**  
(Looking East, near expansion joint)  
\* Measurement perpendicular to parapet



<sup>1</sup> Make all cuts normal to bars

\*\*In lieu of bottom leg c210(E) bars may be cored and set according to article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per Manufacturer's Recommendations, maximum depth of cored hole shall not exceed 6".



**PLAN NORTH SIDEWALK**

\*\*\* Cut bars to fit in field

BAR	A	B	C	D	E	No. bars
d212 (E)	4'-0"	20'-0"	11'-11"	12'-1"	24'-0"	36
d214 (E)	6'-0"	20'-0"	12'-4"	13'-8"	26'-0"	6
d215 (E)	9'-0"	44'-0"	26'-3"	26'-9"	53'-0"	39
d216 (E)	10'-0"	44'-0"	26'-5"	27'-7"	54'-0"	15
d217 (E)	6'-6"	24'-3"	14'-11"	15'-10"	30'-9"	9
d220 (E)	8'-6"	22'-0"	15'-2"	15'-4"	30'-6"	28
d221 (E)	10'-4"	31'-6"	20'-5"	21'-5"	41'-10"	11
d223 (E)	6'-0"	24'-0"	14'-4"	15'-8"	30'-0"	7
d224 (E)	3'-10"	23'-6"	13'-6"	13'-10"	27'-4"	34
d226 (E)	6'-0"	36'-0"	20'-8"	21'-4"	42'-0"	24
d227 (E)	8'-0"	32'-0"	19'-5"	20'-7"	40'-0"	10
d228 (E)	7'-0"	25'-0"	15'-3"	16'-9"	32'-0"	6
d229 (E)	9'-0"	38'-0"	22'-8"	24'-4"	47'-0"	9
d230 (E)	12'-0"	27'-0"	19'-10"	20'-2"	39'-0"	28
d232 (E)	9'-0"	29'-0"	18'-4"	19'-8"	38'-0"	8
d234 (E)	17'-4"	22'-4"	19'-9"	19'-11"	39'-8"	27
b211 (E)	7'-0"	35'-0"	20'-4"	21'-8"	42'-0"	11
b212 (E)	14'-0"	36'-0"	24'-0"	26'-0"	50'-0"	6
b213 (E)	15'-0"	38'-0"	25'-3"	27'-9"	53'-0"	5
b214 (E)	18'-0"	42'-0"	28'-8"	31'-4"	60'-0"	5
b217 (E)	16'-0"	26'-0"	20'-3"	21'-9"	42'-0"	4
b218 (E)	8'-0"	20'-0"	13'-2"	14'-10"	28'-0"	4
b223 (E)	7'-0"	32'-0"	18'-10"	20'-2"	39'-0"	9
b224 (E)	7'-0"	38'-0"	21'-8"	23'-4"	45'-0"	9
b225 (E)	15'-0"	42'-0"	26'-9"	30'-3"	57'-0"	6
b227 (E)	9'-0"	18'-0"	12'-0"	15'-0"	27'-0"	2
b228 (E)	15'-0"	32'-0"	22'-5"	24'-7"	47'-0"	6
c212 (E)	2'-6"	5'-6"	4'-0"	4'-0"	8'-0"	15

**BAR CUTTING DIAGRAM**

**NOTES:**

1. For bend details for bars d215 (E) through d218 (E) See Sheet 61.

**CROSS SECTIONS & DETAILS**  
**RAMP 2 FLARE**  
**SHEET 2 OF 2**  
**STRUCTURE NO. 016-0724**

**TYLIN INTERNATIONAL**

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DRAWN -	PK		
CHECKED -	AMD,		
DATE -	03/25/2011		

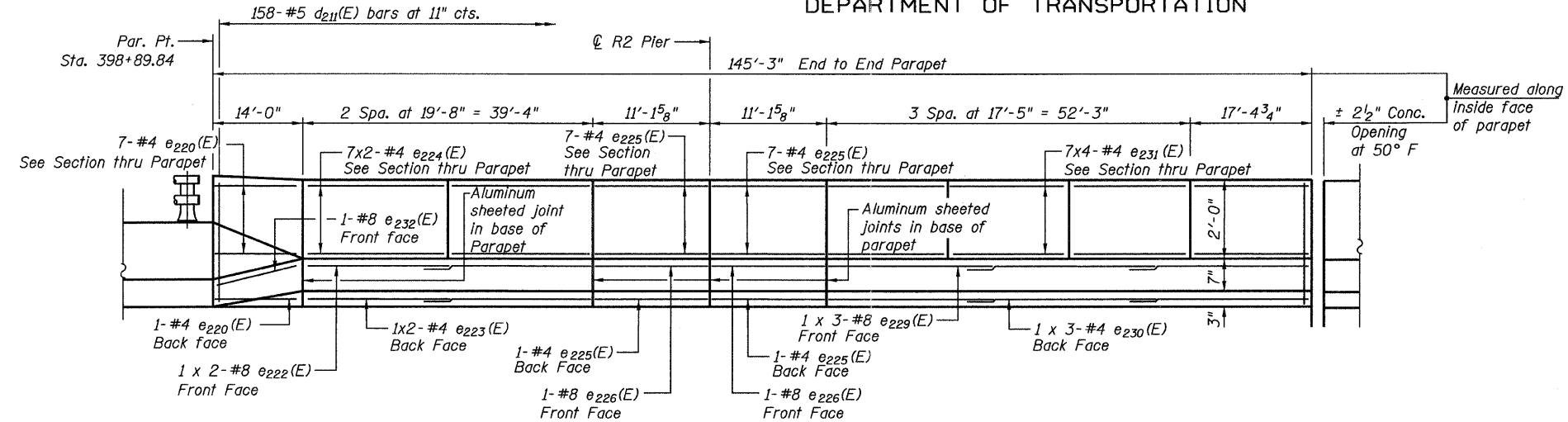
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239 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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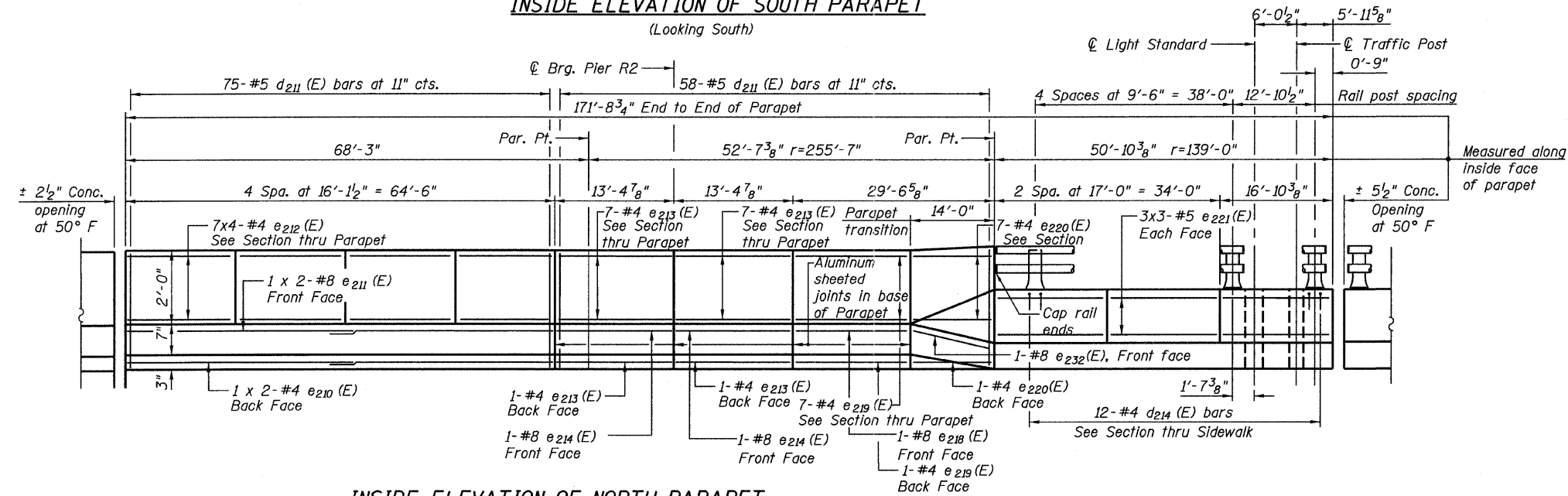
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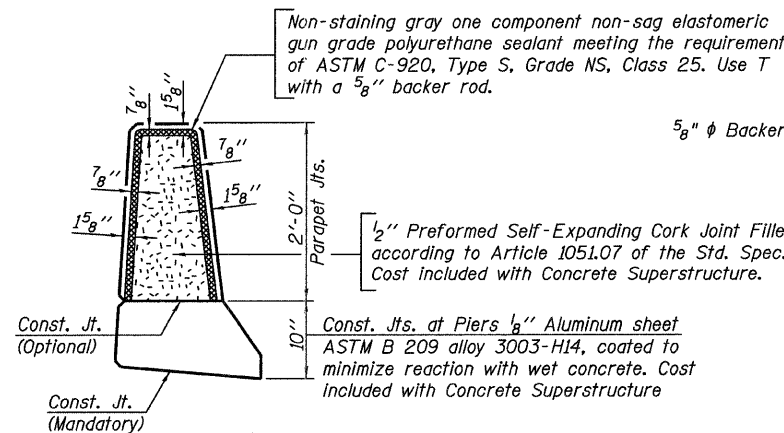
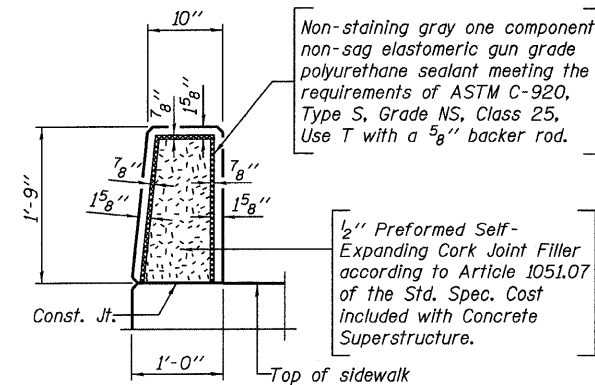
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**INSIDE ELEVATION OF SOUTH PARAPET**  
(Looking South)



**INSIDE ELEVATION OF NORTH PARAPET**  
(Looking North)



**PARAPET JOINT DETAILS**

**MINIMUM BAR LAP**  
(Parapet)  
#4 bar = 2'-0"  
#8 bar = 5'-2"

- NOTES:**
1. See Sheet 50 for Bill of Material.
  2. Bars indicated thus 3 x 2-#5 etc. indicates 3 lines of bars with 2 lengths per line.
  3. Work this Sheet with Sheets 48 thru 50.
  4. See Sheet 60 for crosswalk transition details.
  5. Refer to sheet 61 for parapet details at traffic post and light standard.

**SUPERST. PARAPET ELEV.**  
**RAMP 2 FLARE**  
**STRUCTURE NO. 016-0724**

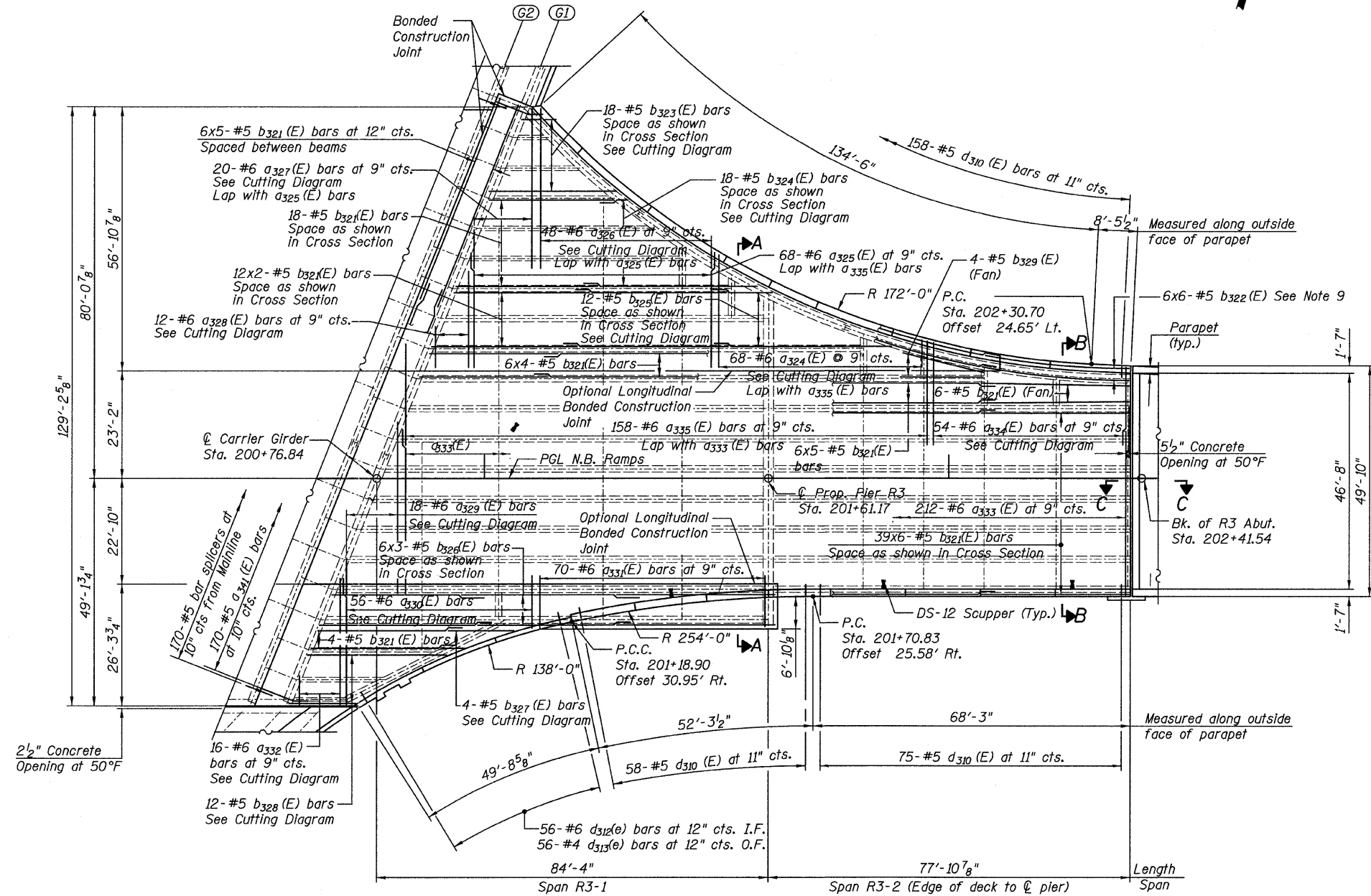
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**NOTES:**

1. Bars indicated thus "42x6-#5" etc. indicates 42 lines of bars with 6 lengths per line.
2. For Section A-A and B-B, see Sheet 54.
3. For Section C-C, see Sheet 53.
4. For Parapet Elevations, see Sheet 55.
5. For Bill of Material, see Sheet 54A.
6. For Drainage System Plan and Details, see Sheet 86, 88 & 89.
7. All construction joints shall be bonded construction joints.
8. Cut longitudinal reinforcement to clear scuppers.
9. Bars shall be sprung in place to be concentrically placed at the spacing noted.



**MINIMUM BAR LAPS**

Bar Size	Min. Lap
#5	3'-3"
#6	3'-10"

**DECK PLAN**

**SUPERSTRUCTURE - BOTTOM  
RAMP 3 FLARE  
STRUCTURE NO. 016-0724**

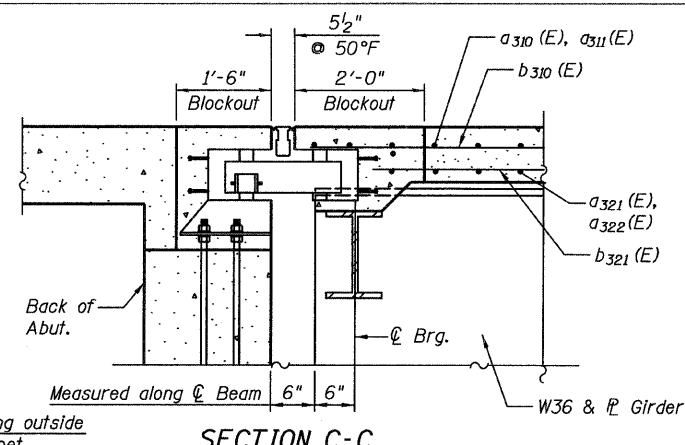
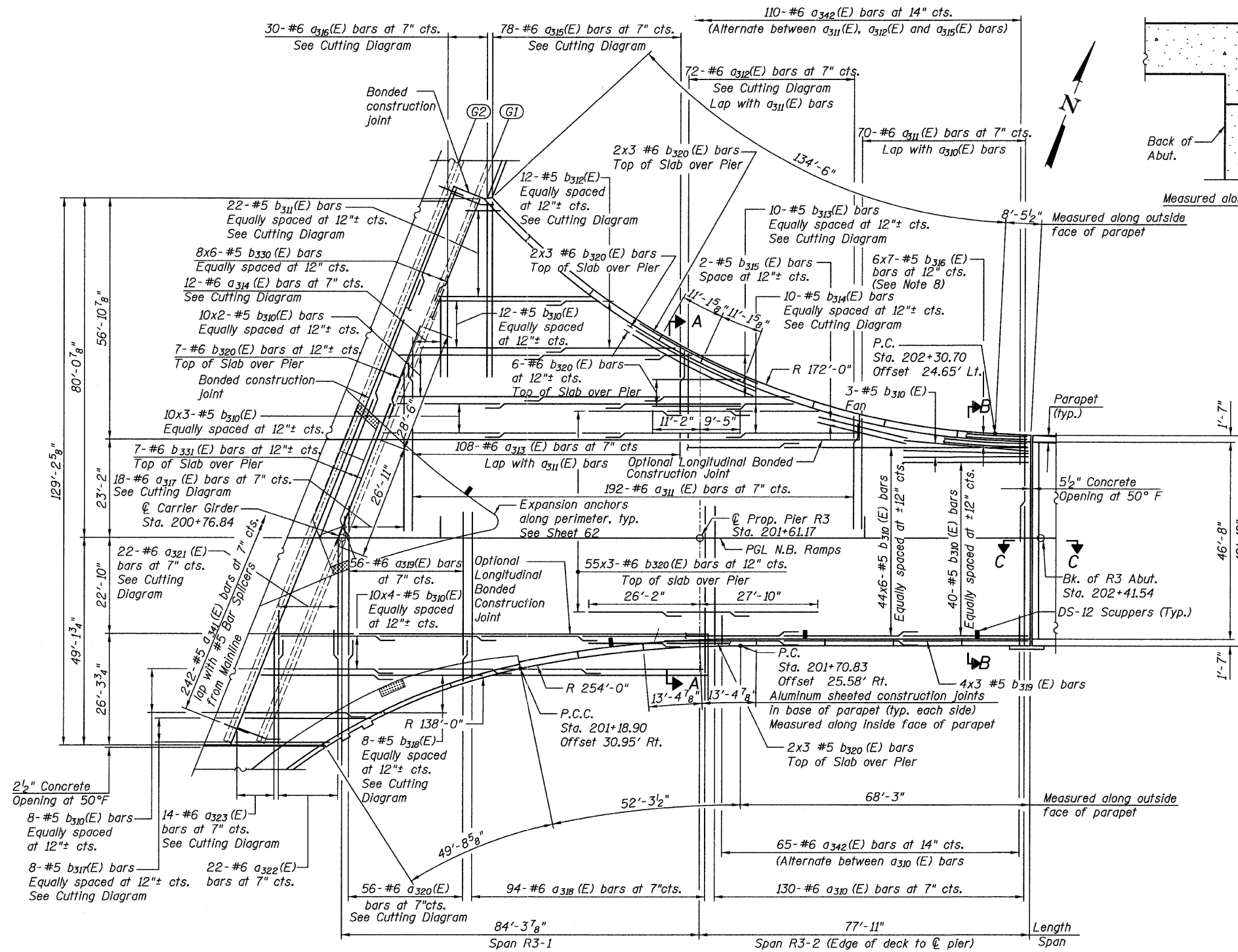
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	DATE - 03/25/2011									

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SECTION C-C

MINIMUM BAR LAPS

Bar Size	Min. Lap
#5	3'-3"
#6	3'-10"

NOTES:

1. Bars indicated thus "47x7-#5" etc. indicates 47 lines of bars with 7 lengths per line.
2. For Section A-A, see Sheet 54.
3. For Parapet Elevations, see Sheet 55.
4. For Bill of Material, see Sheet 54A.
5. For Drainage Scupper System Plans and Sections, see Sheets 86, 88 & 89.
6. All construction joints shall be bonded construction joints.
7. Cut longitudinal reinforcement to clear scuppers.
8. Bars shall be placed radially at the spacing noted. Bends bars in field to fit.
9. For sidewalk reinforcement see Sheet 54A.

DECK PLAN

SUPERSTRUCTURE - TOP  
RAMP 3 FLARE  
STRUCTURE NO. 016-0724

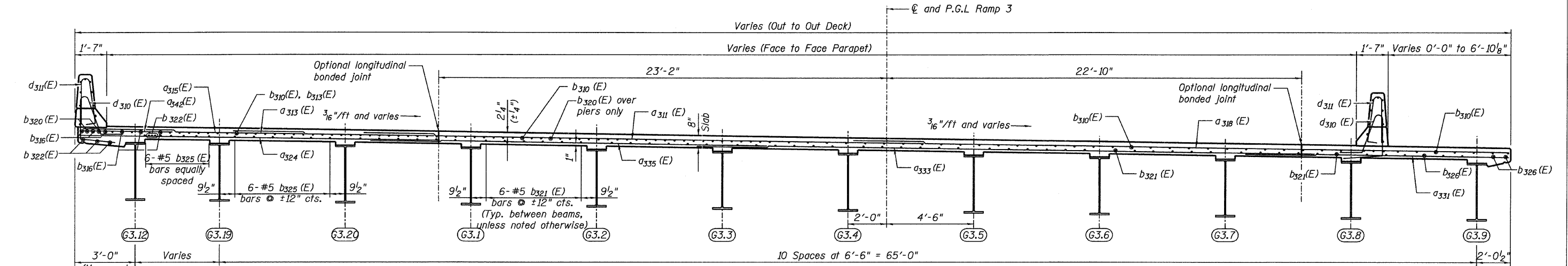
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DATE -	03/25/2011		

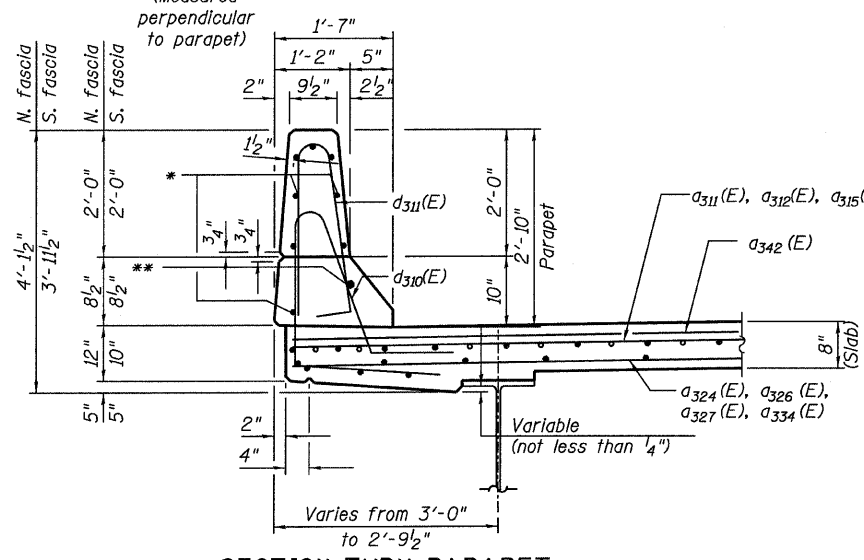
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239 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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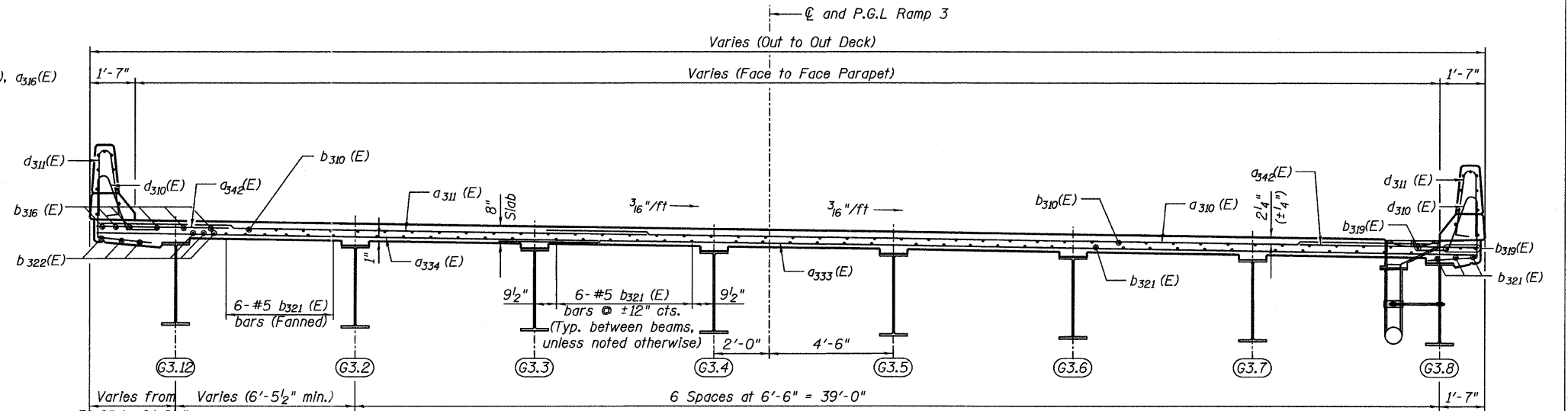
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SECTION A-A  
(Looking East)



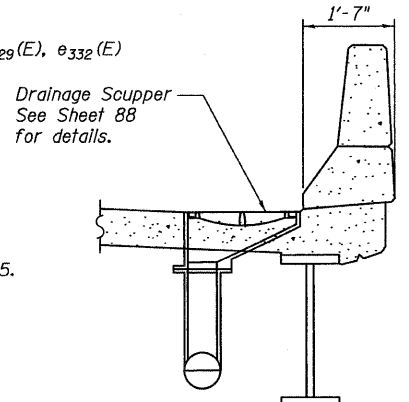
SECTION THRU PARAPET  
(Looking East)



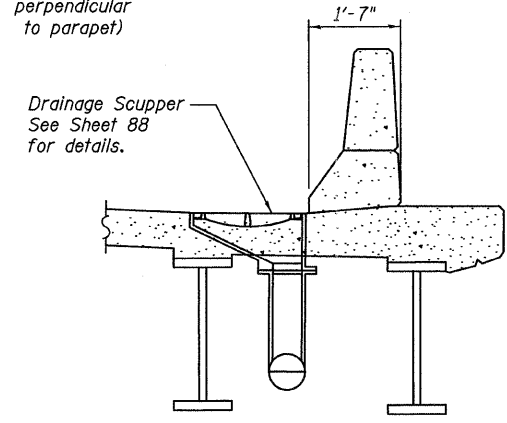
SECTION B-B  
(Looking East)

\* e310 (E), e312 (E), e313 (E), e319 (E), e320(E), e325(E), e330 (E), e331 (E)

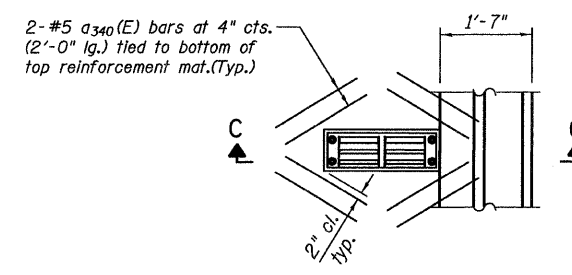
\*\* e311 (E), e314 (E), e318 (E), e322(E), e326(E), e329(E), e332(E)



SECTION C-C  
(Typ.)



SECTION C-C  
(Scupper 3.2)



PLAN  
DRAINAGE SCUPPER  
DS-12

NOTES:

1. For location of Section A-A and B-B, see Sheets 52 and 53.
2. Work this sheet with Sheets 52, 53, 54A & 55.
3. All deck construction joints shall be bonded construction joints.
4. See Sheet 60 for concrete parapet transition details.

CROSS SECTION & DETAILS  
RAMP 3 FLARE  
SHEET 1 OF 2  
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL	DESIGNED - AMD	REVISIONS		SHEET NO. 54	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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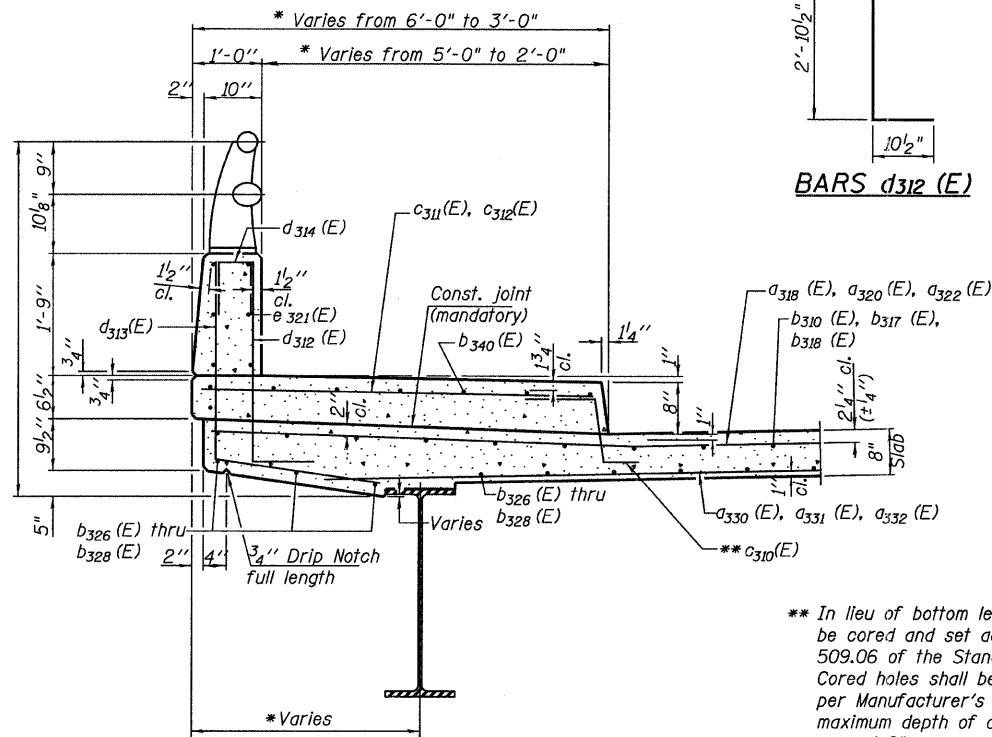
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**BILL OF MATERIAL**

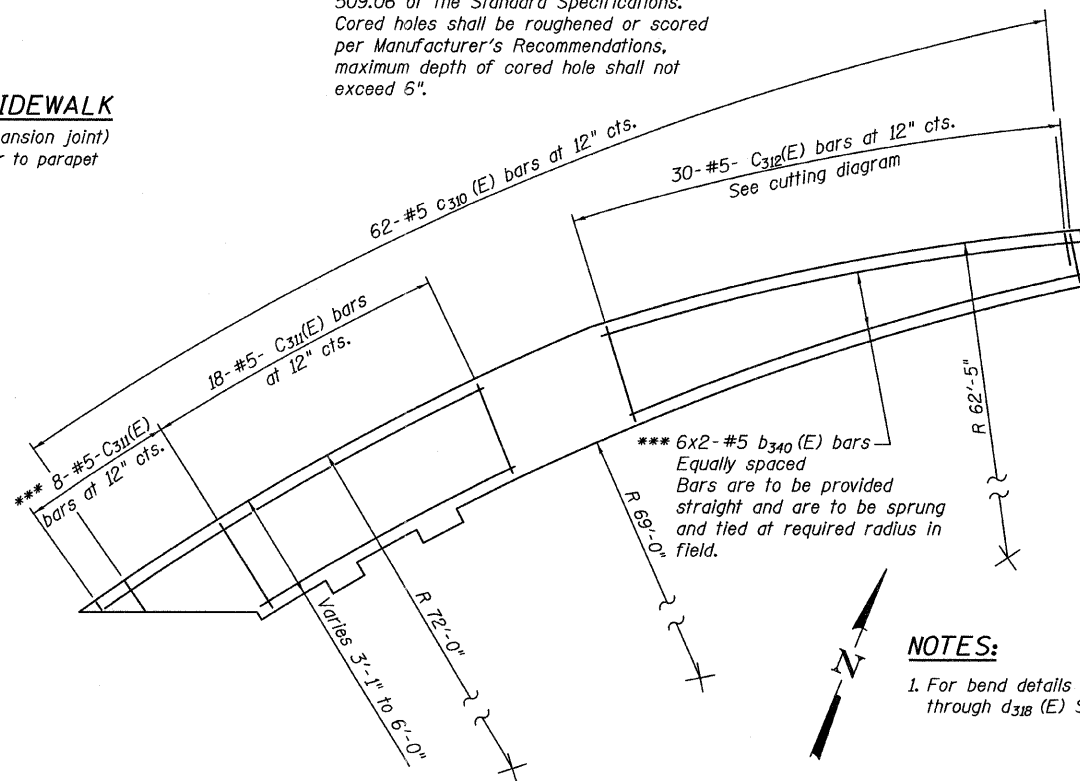
Bar	No.	Size	Length (ft)	Shape
a 310 (E)	130	#6	32'-7"	
a 311 (E)	262	#6	25'-9"	
a 312 (E)	36	#6	24'-0"	
a 313 (E)	108	#6	20'-0"	
a 314 (E)	6	#6	26'-0"	
a 315 (E)	78	#6	53'-0"	
a 316 (E)	15	#6	54'-0"	
a 317 (E)	9	#6	30'-9"	
a 318 (E)	94	#6	39'-7"	
a 319 (E)	56	#6	36'-4"	
a 320 (E)	56	#6	30'-6"	
a 321 (E)	11	#6	41'-10"	
a 322 (E)	22	#6	25'-0"	
a 323 (E)	7	#6	30'-0"	
a 324 (E)	34	#6	27'-4"	
a 325 (E)	68	#6	25'-6"	
a 326 (E)	24	#6	42'-0"	
a 327 (E)	10	#6	40'-0"	
a 328 (E)	6	#6	32'-0"	
a 329 (E)	9	#6	47'-0"	
a 330 (E)	28	#6	39'-0"	
a 331 (E)	70	#6	11'-2"	
a 332 (E)	8	#6	38'-0"	
a 333 (E)	212	#6	35'-8"	
a 334 (E)	27	#6	39'-8"	
a 335 (E)	158	#6	22'-6"	
a 340 (E)	32	#5	2'-0"	
a 341 (E)	412	#5	10'-4"	
a 342 (E)	175	#6	6'-6"	
b 310 (E)	417	#5	27'-4"	
b 311 (E)	11	#5	42'-0"	
b 312 (E)	6	#5	50'-0"	
b 313 (E)	5	#5	53'-0"	
b 314 (E)	5	#5	60'-0"	
b 315 (E)	2	#5	20'-0"	
b 316 (E)	42	#5	23'-11"	
b 317 (E)	4	#5	42'-0"	
b 318 (E)	4	#5	28'-0"	
b 319 (E)	12	#5	28'-7"	
b 320 (E)	196	#5	20'-7"	
b 321 (E)	370	#5	31'-4"	
b 322 (E)	36	#5	27'-8"	
b 323 (E)	9	#5	39'-0"	
b 324 (E)	9	#5	45'-0"	
b 325 (E)	6	#5	57'-0"	
b 326 (E)	18	#5	35'-0"	
b 327 (E)	2	#5	27'-0"	
b 328 (E)	6	#5	47'-0"	
b 329 (E)	4	#5	15'-0"	
b 330 (E)	48	#5	26'-5"	
b 331 (E)	7	#6	38'-8"	
b 340 (E)	12	#5	27'-8"	
c 310 (E)	62	#5	2'-4"	
c 311 (E)	26	#5	5'-6"	
c 312 (E)	15	#5	8'-0"	
d 310 (E)	291	#5	6'-5"	
d 311 (E)	291	#5	5'-7"	
d 312 (E)	56	#6	3'-9"	
d 313 (E)	56	#4	4'-10"	
d 314 (E)	12	#4	2'-0"	
d 315 (E)	3	#6	7'-0"	
d 316 (E)	3	#6	4'-9"	
d 317 (E)	3	#6	7'-9"	
d 318 (E)	3	#6	3'-0"	
e 310 (E)	2	#4	33'-1"	
e 311 (E)	2	#8	34'-8"	
e 312 (E)	28	#4	15'-9"	
e 313 (E)	16	#4	13'-1"	
e 314 (E)	2	#8	13'-1"	
e 318 (E)	1	#8	15'-2"	
e 319 (E)	8	#4	15'-2"	
e 320 (E)	16	#4	13'-9"	
e 321 (E)	18	#5	15'-7"	
e 322 (E)	2	#8	22'-1"	
e 323 (E)	2	#4	20'-6"	
e 324 (E)	14	#4	19'-4"	
e 325 (E)	16	#4	10'-10"	
e 326 (E)	2	#8	10'-10"	
e 329 (E)	3	#8	26'-7"	
e 330 (E)	3	#4	24'-6"	
e 331 (E)	28	#4	17'-0"	
e 332 (E)	2	#8	13'-10"	
Reinforcement Bars, Epoxy Coated	LB	120,840		
Concrete Superstructure	CU YD	401.9		
Bridge Deck Grooving	SQ YD	1,212		
Protective Coat	SQ YD	1,536		

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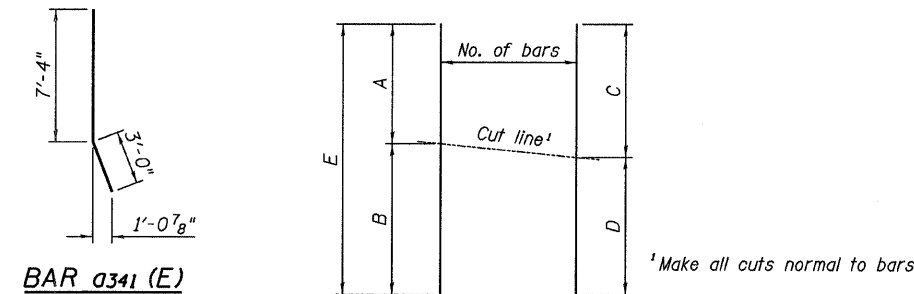
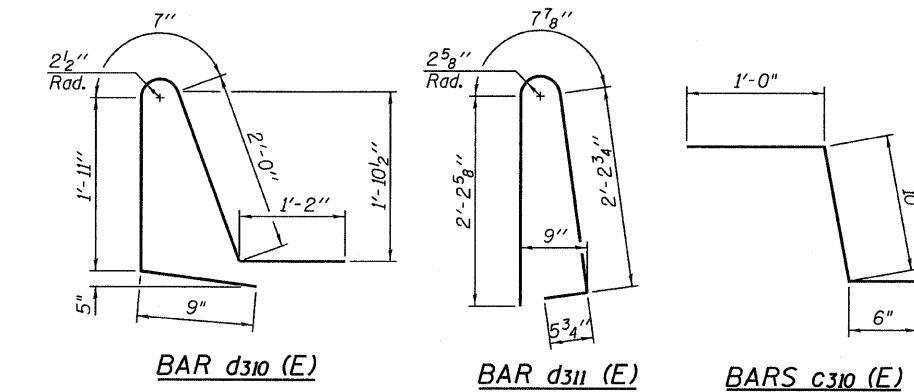
**SECTION THRU SIDEWALK**  
(Looking West, near expansion joint)  
\* Measurement perpendicular to parapet

\*\* In lieu of bottom leg c<sub>310</sub>(E) bars may be cored and set according to article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per Manufacturer's Recommendations, maximum depth of cored hole shall not exceed 6".



**PLAN SOUTH SIDEWALK**

\*\*\* Cut bars to fit in field



**BAR CUTTING DIAGRAM**

**NOTES:**

1. For bend details for bars d<sub>315</sub>(E) through d<sub>318</sub>(E) See Sheet 61.

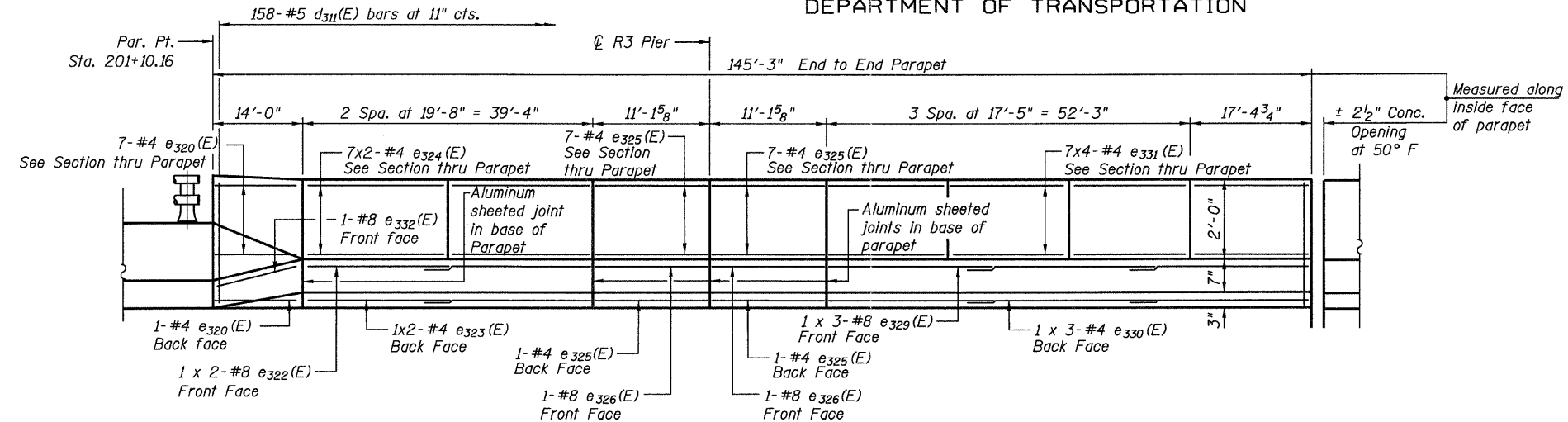
**CROSS SECTION & DETAILS  
RAMP 3 FLARE  
SHEET 2 OF 2  
STRUCTURE NO. 016-0724**

**TYLIN INTERNATIONAL**

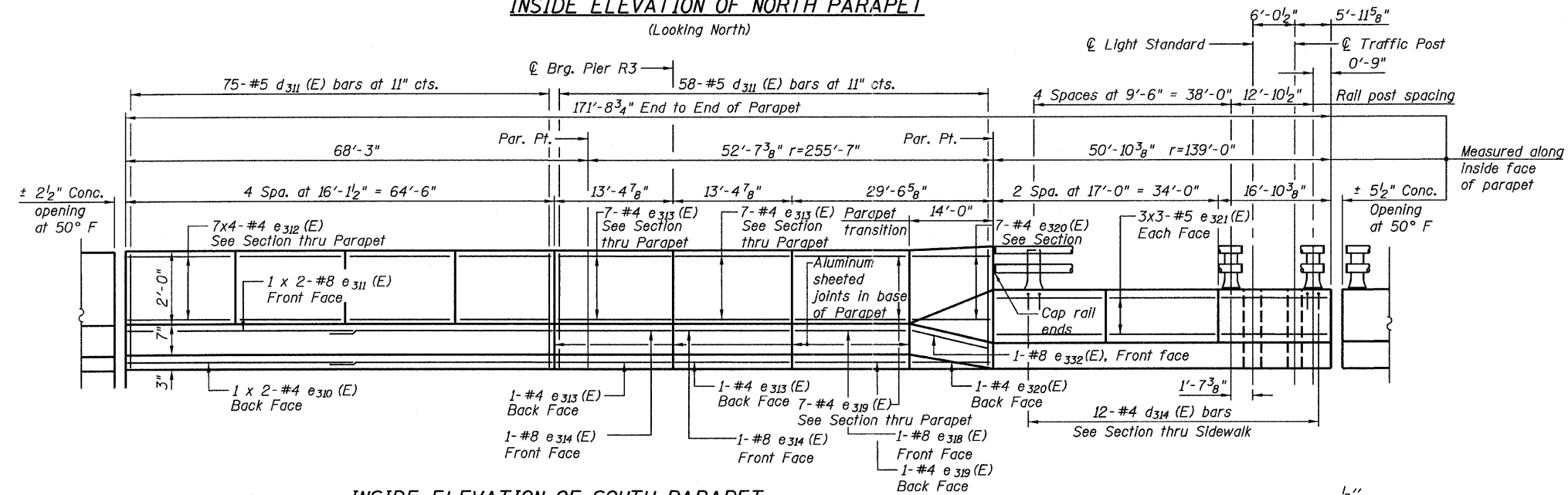
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DATE -	03/25/2011		

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54A	55	0711.2R & 1011.1BR	COOK	741	378A
239 SHEETS					
CONTRACT NO. 60999					
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

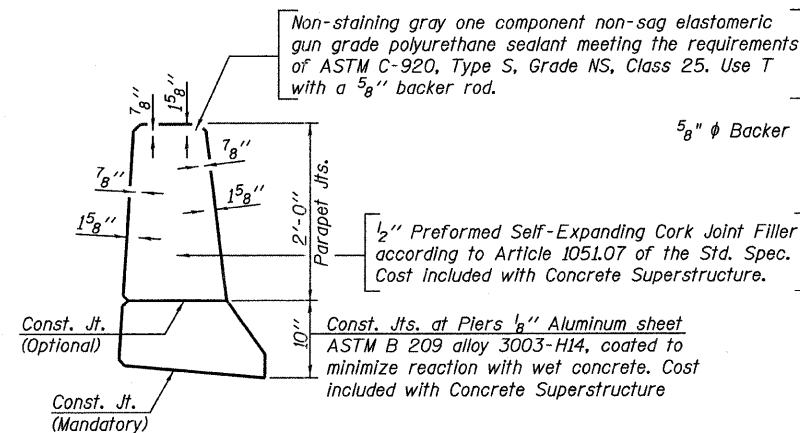
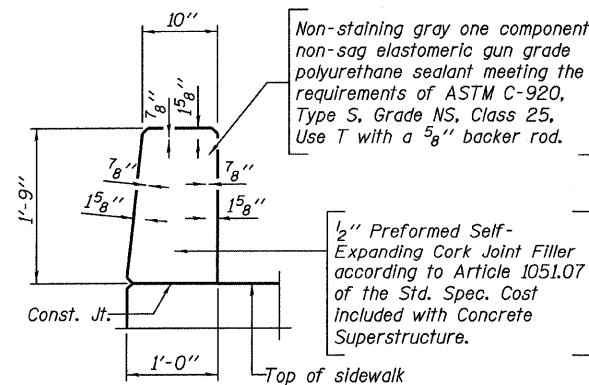
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**INSIDE ELEVATION OF NORTH PARAPET**  
(Looking North)



**INSIDE ELEVATION OF SOUTH PARAPET**  
(Looking South)



**PARAPET JOINT DETAILS**

**MINIMUM BAR LAP**  
(Parapet)  
#4 bar = 2'-0"  
#8 bar = 5'-2"

**NOTES:**

1. See Sheet 54 for Bill of Material.
2. Bars indicated thus 3 x 2-#5 etc. indicates 3 lines of bars with 2 lengths per line.
3. Work this Sheet with Sheets 52 thru 54.
4. See Sheet 60 for crosswalk transition details.
5. Refer to sheet 61 for parapet details at traffic post and light standard.

**SUPERST. PARAPET ELEV.**  
**RAMP 3 FLARE**  
**STRUCTURE NO. 016-0724**

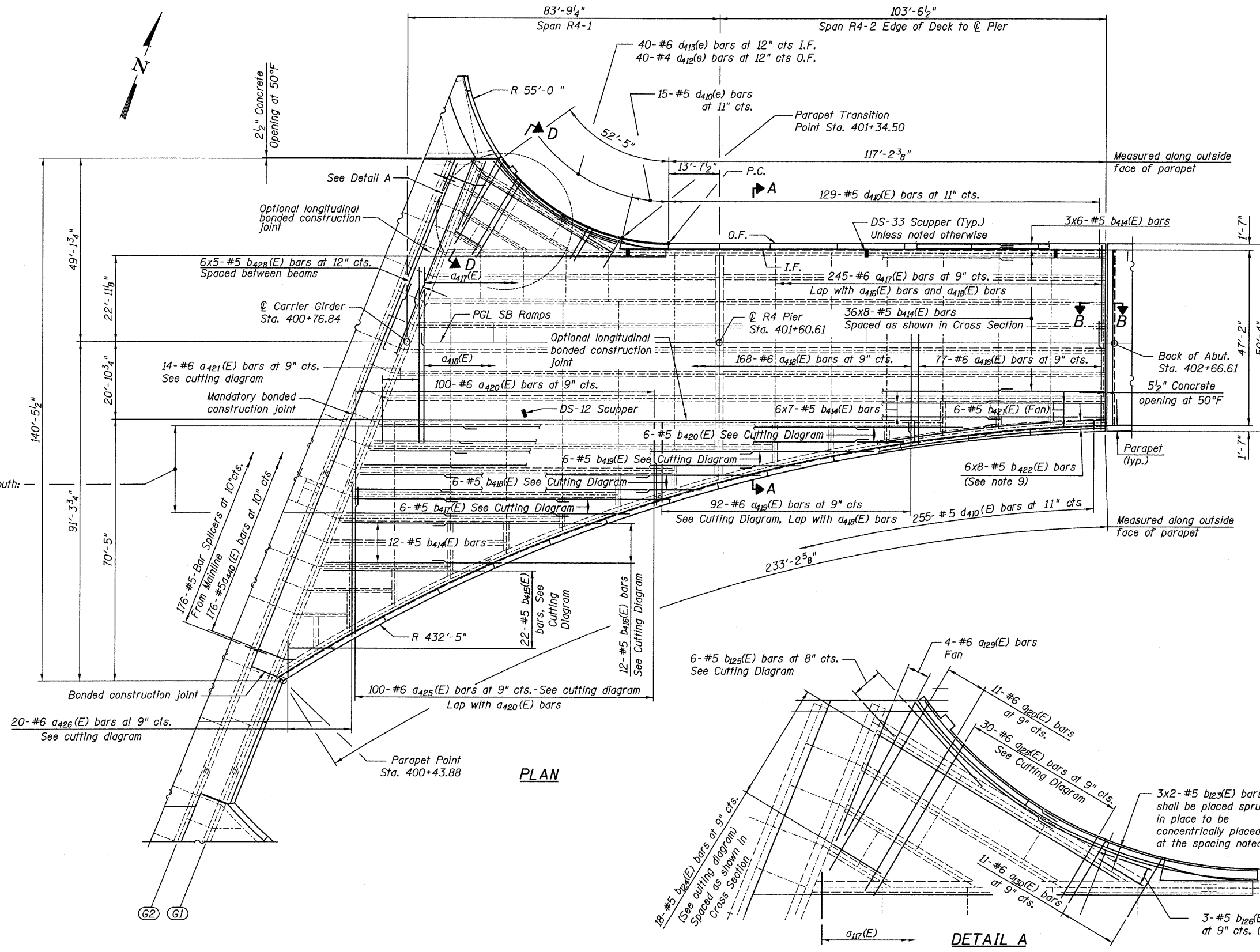
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CHECKED -	AMD,		
DATE -	03/25/2011		

SHEET NO. 55	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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239 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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Working from North to South:  
Bars between beams  
6x5-#5 b414(E) bars  
6x4-#5 b414(E) bars  
6x3-#5 b414(E) bars  
6x2-#5 b414(E) bars

- NOTES:**
1. Bars indicated thus "42x8-#5" etc. indicates 42 lines of bars with 8 lengths per line.
  2. For Section A-A, see Sheet 58. For Section D-D, see Sheet 58A.
  3. For Section B-B, see Sheet 57.
  4. For Parapet Elevations, see Sheet 59.
  5. For Bill of Material and Cutting Diagram, see Sheet 58.
  6. For Drainage Scupper Plans and Details, see Sheets 87 thru 89.
  7. All construction joints shall be bonded construction joints.
  8. Cut longitudinal reinforcement to clear scuppers.
  9. Bars shall be placed radially at the spacing noted. Bends bars in field to fit.

**MIN. BAR LAP**  
#5 bar = 3'-3"  
#6 bar = 3'-10"

**SUPERSTRUCTURE - BOTTOM**  
**RAMP 4 FLARE**  
**STRUCTURE NO. 016-0724**

TYLIN INTERNATIONAL	DESIGNED - AMD	REVISIONS		SHEET NO. 56	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 380
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					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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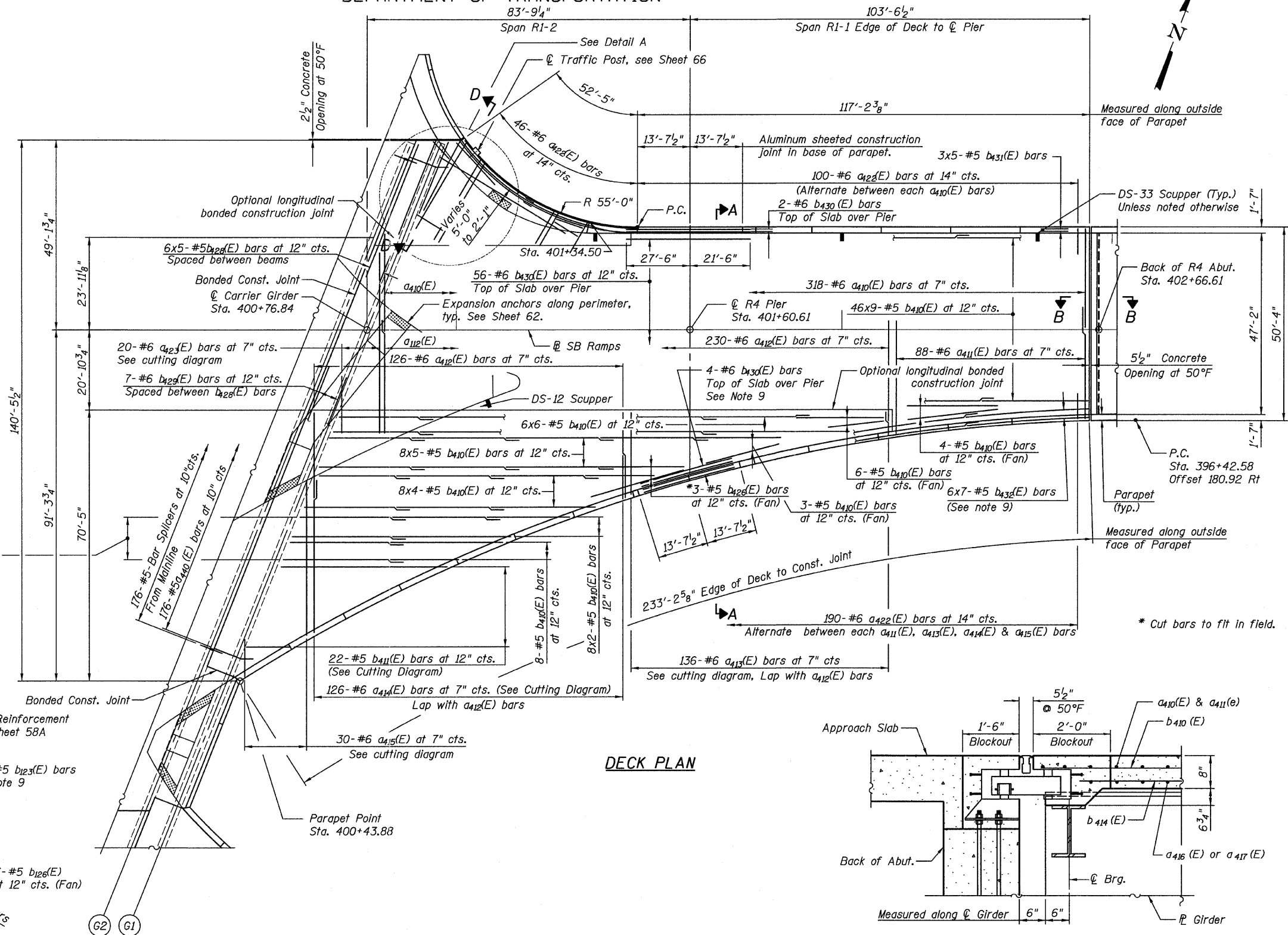
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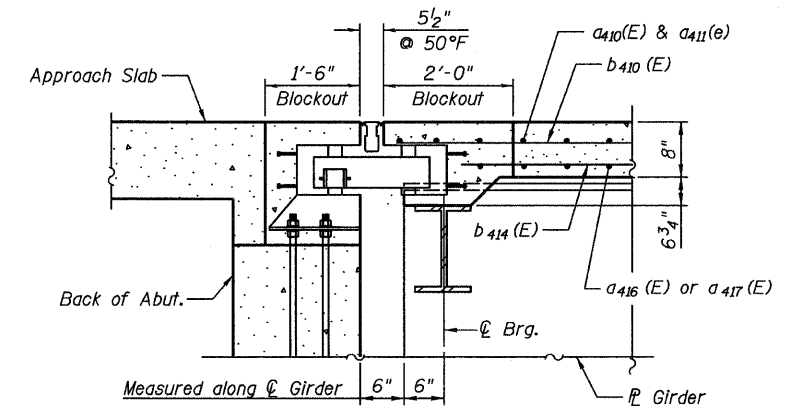
1. Bars indicated thus "47x8-#5" etc. indicates 47 lines of bars with 8 lengths per line.
2. For Section A-A, see Sheet 58.  
For Section D-D, see Sheet 58A.
3. For Parapet Elevations, see Sheet 59.
4. For Bill of Material and Cutting Diagram, see Sheet 58A.
5. For Drainage Scupper Plans and Sections, see Sheet 87 thru 89.
6. All construction joints shall be bonded construction joints.
7. Cut longitudinal reinforcement to clear scuppers.
8. Bars shall be sprung in place to be concentrically placed at the spacing noted.

MINIMUM BAR LAPS

Bar Size	Min. Lap
#5	3'-3"
#6	3'-10"

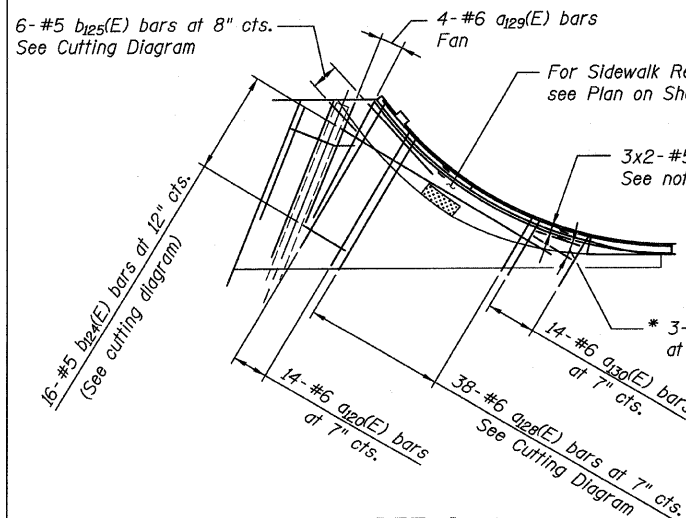


DECK PLAN



SECTION B-B

SUPERSTRUCTURE - TOP  
RAMP 4 FLARE  
STRUCTURE NO. 016-0724



DETAIL A

TYLIN INTERNATIONAL

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DRAWN	MU		
CHECKED	AMD,		
DATE	03/25/2011		

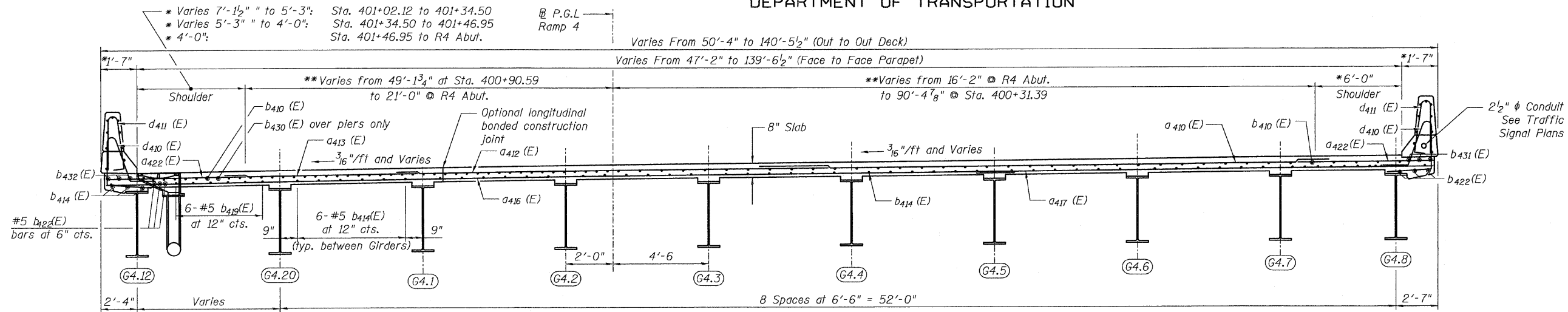
SHEET NO. 57

239 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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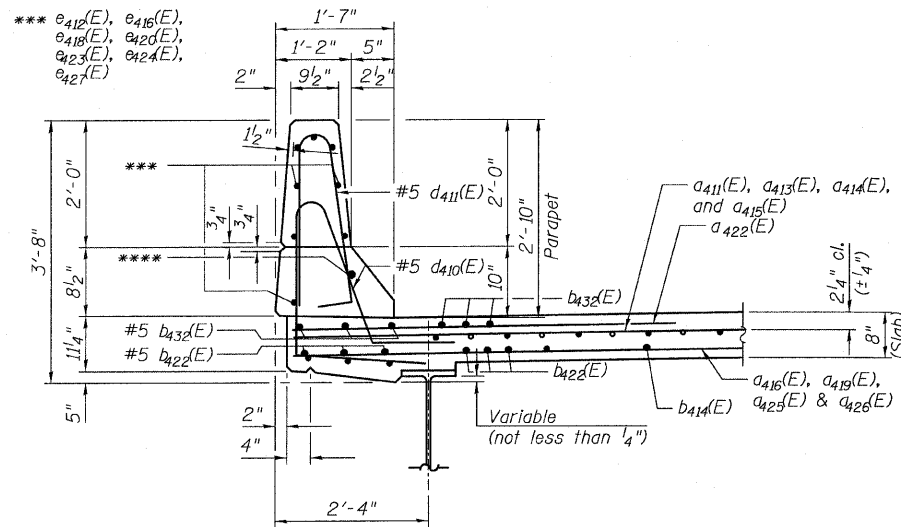
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



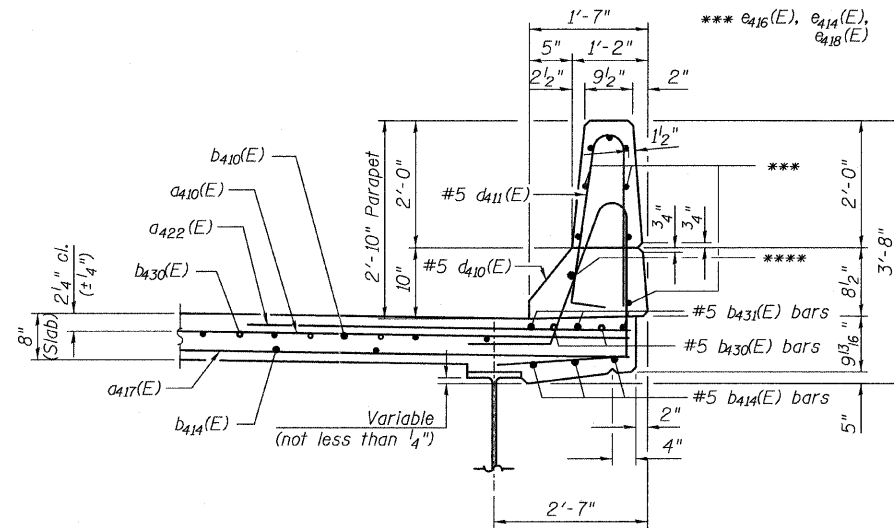
**SECTION A-A**

(Looking West)

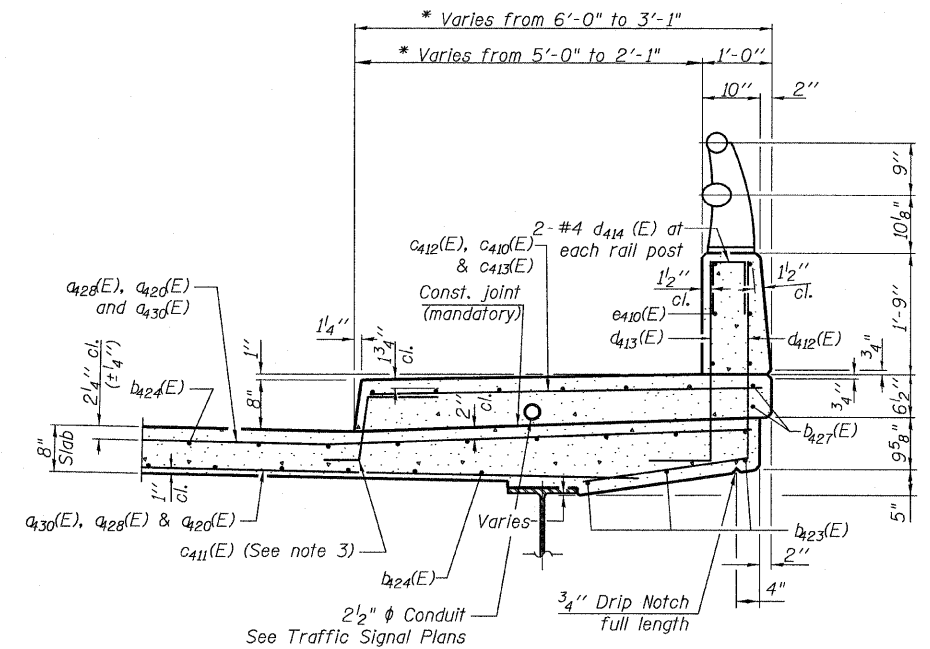
- \* Measurement perpendicular to parapet
- \*\* Measurement perpendicular to alignment



**SECTION THRU SOUTH PARAPET**



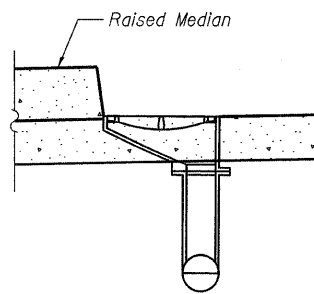
**SECTION THRU NORTH PARAPET**



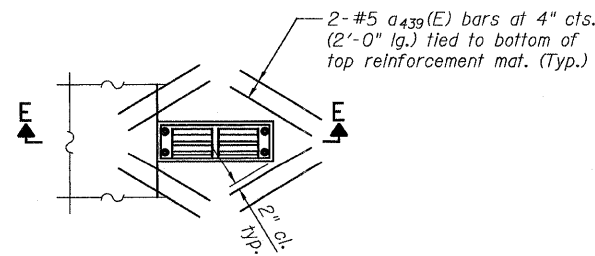
**SECTION THRU SIDEWALK**

**NOTES:**

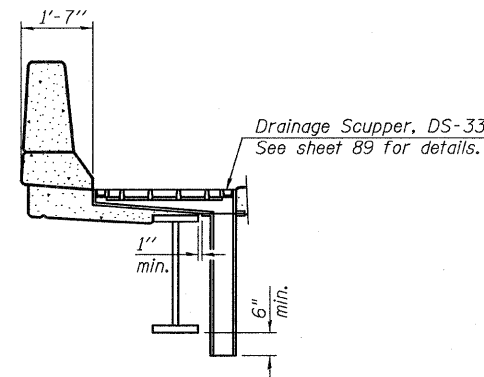
- For location of Section A-A, see Sheets 56 and 57.
- Work this sheet with Sheets 56, 57, 58A & 59.
- In lieu of bottom leg c411(E) bars may be cored and set according to article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per Manufacturer's Recommendations, maximum depth of cored hole shall not exceed 6".



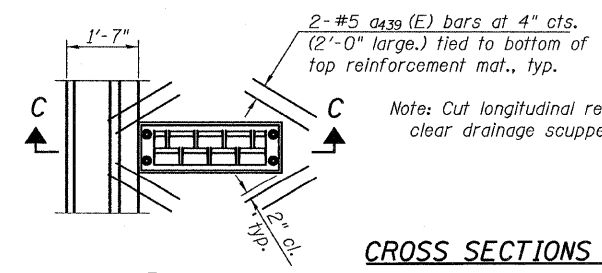
**SECTION E-E**



**PLAN DRAINAGE SCUPPER DS-12**



**SECTION C-C**



**PLAN DRAINAGE SCUPPER DS-33**

**CROSS SECTIONS & DETAILS  
RAMP 4 FLARE  
SHEET 1 OF 2  
STRUCTURE NO. 016-0724**

**TYLIN INTERNATIONAL**

DESIGNED -	AMD	REVISIONS	
CHECKED -	PF	NAME	DATE
DRAWN -	MU		
CHECKED -	AMD,		
DATE -	03/25/2011		

SHEET NO. 58	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	239 SHEETS	55	0711.2R & 1011.1BR	COOK	741
			CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

5/12/07 PM

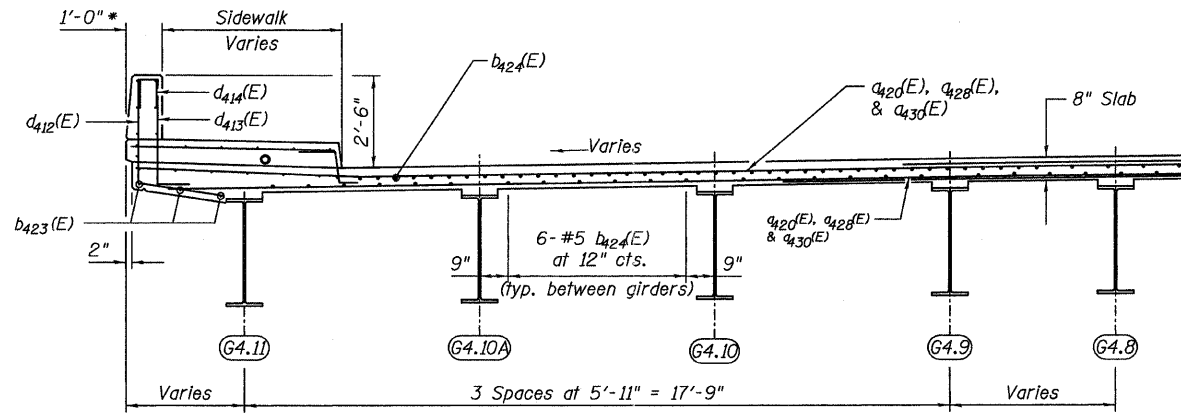
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5/9/2011

**BILL OF MATERIAL**

Bar	No.	Size	Length (ft)	Shape
d410 (E)	318	#6	33'-7"	
d411 (E)	88	#6	25'-11"	
d412 (E)	230	#6	23'-4"	
d413 (E)	68	#6	30'-3"	
d414 (E)	63	#6	44'-3"	
d415 (E)	15	#6	54'-6"	
d416 (E)	77	#6	29'-0"	
d417 (E)	245	#6	30'-2"	
d418 (E)	168	#6	24'-8"	
d419 (E)	46	#6	34'-0"	
d420 (E)	125	#6	25'-0"	
d421 (E)	7	#6	38'-0"	
d422 (E)	336	#6	6'-6"	
d423 (E)	10	#6	49'-0"	
d425 (E)	100	#6	51'-0"	
d426 (E)	10	#6	50'-0"	
d428 (E)	34	#6	35'-0"	
d429 (E)	8	#6	18'-6"	
d430 (E)	25	#6	10'-0"	
d439 (E)	32	#5	2'-0"	
d440 (E)	427	#5	10'-4"	
d410 (E)	559	#5	24'-6"	
d411 (E)	11	#5	44'-0"	
d412 (E)	4	#5	51'-0"	
d413 (E)	4	#5	27'-3"	
d414 (E)	450	#5	26'-10"	
d415 (E)	11	#5	43'-0"	
d416 (E)	6	#5	55'-6"	
d417 (E)	3	#5	51'-7"	
d418 (E)	3	#5	40'-1"	
d419 (E)	3	#5	38'-0"	
d420 (E)	3	#5	53'-11"	
d421 (E)	6	#5	30'-9"	
d422 (E)	48	#5	32'-2"	
d423 (E)	12	#5	28'-11"	
d424 (E)	9	#5	47'-3"	
d425 (E)	6	#5	20'-3"	
d426 (E)	9	#5	15'-0"	
d427 (E)	2	#5	14'-9"	
d428 (E)	70	#5	32'-0"	
d429 (E)	7	#6	49'-0"	
d430 (E)	62	#6	49'-0"	
d431 (E)	15	#5	28'-6"	
d432 (E)	42	#5	36'-3"	
d433 (E)	1	#5	28'-1"	
d434 (E)	2	#5	20'-4"	
d435 (E)	2	#5	22'-11"	
d436 (E)	2	#5	23'-8"	
d437 (E)	2	#5	24'-4"	
c410 (E)	18	#5	5'-8"	
c411 (E)	46	#5	2'-4"	
c412 (E)	6	#5	10'-0"	
c413 (E)	5	#5	7'-2"	
d410 (E)	399	#5	6'-10"	
d411 (E)	399	#5	5'-7"	
d412 (E)	40	#4	4'-10"	
d413 (E)	40	#6	3'-9"	
d414 (E)	10	#4	2'-0"	
d415 (E)	3	#6	7'-0"	
d416 (E)	3	#6	4'-9"	
e410 (E)	12	#5	19'-0"	
e411 (E)	1	#8	16'-0"	
e412 (E)	8	#4	16'-0"	
e413 (E)	1	#8	13'-3"	
e414 (E)	8	#4	13'-3"	
e415 (E)	4	#8	16'-8"	
e416 (E)	32	#4	16'-8"	
e417 (E)	3	#8	30'-6"	
e418 (E)	35	#4	17'-4"	
e419 (E)	3	#8	30'-11"	
e420 (E)	21	#4	17'-2"	
e421 (E)	3	#4	29'-11"	
e422 (E)	3	#4	29'-5"	
e423 (E)	7	#4	15'-3"	
e424 (E)	7	#4	15'-3"	
e425 (E)	4	#8	25'-9"	
Reinforcement Bars, Epoxy Coated	LB		134,830	
Concrete Superstructure	CU YD		488.0	
Bridge Deck Grooving	SQ YD		1,382	
Protective Coat	SQ YD		1,782	

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**SECTION D-D**  
(Looking East)

\* Measurement perpendicular to parapet

\*\*\* Bars are to be provided straight and are to be sprung and tied at required radius in field.

\*\*\*

2- #5 c410(E) bars (fan)  
Cut bars to fit in field

\*\*\*

\*\*\*

\*\*\*

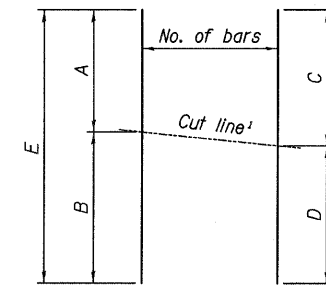
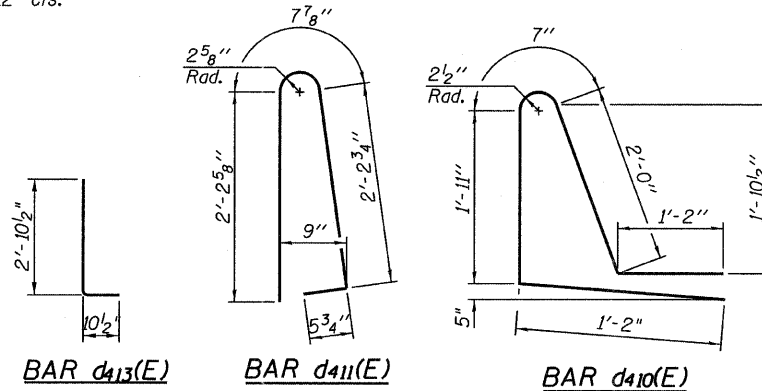
\*\*\*

\*\* Cut bars to fit in field

**PLAN NORTH SIDEWALK**

- Space longitudinal bars in sidewalk at 12" cts.

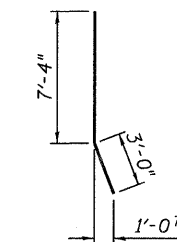
e426 (E)	4	#4	25'-2"	
e427 (E)	42	#4	16'-1"	
Reinforcement Bars, Epoxy Coated	LB		134,830	
Concrete Superstructure	CU YD		488.0	
Bridge Deck Grooving	SQ YD		1,382	
Protective Coat	SQ YD		1,782	



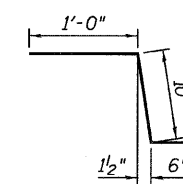
1 Make all cuts normal to bars

BAR	A	B	C	D	E	No. bars
a413 (E)	5'-6"	24'-9"	15'-1"	15'-2"	30'-3"	68
a414 (E)	5'-6"	38'-9"	22'-0"	22'-3"	44'-3"	63
a415 (E)	10'-6"	44'-0"	26'-8"	27'-10"	54'-6"	15
a419 (E)	9'-0"	25'-0"	16'-11"	17'-1"	34'-0"	46
a421 (E)	10'-0"	32'-0"	20'-2"	21'-10"	42'-0"	7
a423 (E)	12'-0"	37'-0"	23'-10"	25'-2"	49'-0"	10
a425 (E)	13'-0"	38'-0"	25'-4"	25'-8"	51'-0"	50
a426 (E)	12'-0"	38'-0"	24'-4"	25'-8"	50'-0"	10
a428 (E)	10'-0"	25'-0"	17'-3"	17'-9"	35'-0"	15
b411 (E)	6'-0"	38'-0"	21'-3"	22'-9"	44'-0"	11
b412 (E)	19'-0"	32'-0"	24'-7"	26'-5"	51'-0"	4
b413 (E)	12'-0"	30'-0"	19'-9"	22'-3"	42'-0"	4
b415 (E)	5'-4"	37'-8"	20'-9"	22'-3"	43'-0"	11
b416 (E)	16'-9"	38'-9"	26'-4"	29'-2"	55'-6"	6
b417 (E)	19'-7"	32'-0"	24'-7"	27'-0"	51'-7"	3
b418 (E)	12'-6"	27'-7"	18'-6"	21'-7"	40'-1"	3
b419 (E)	9'-0"	29'-0"	17'-0"	21'-0"	38'-0"	3
b420 (E)	12'-7"	41'-4"	24'-1"	29'-10"	53'-11"	3
b424 (E)	8'-9"	38'-6"	22'-9"	24'-6"	47'-3"	9
b425 (E)	5'-9"	14'-6"	9'-3"	11'-0"	20'-3"	3
c412 (E)	4'-5"	5'-7"	4'-11"	5'-1"	10'-0"	6
c413 (E)	2'-11"	4'-3"	3'-6"	3'-8"	7'-2"	5

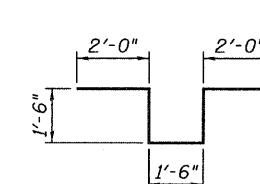
**BAR CUTTING DIAGRAM**



**BAR c411(E)**



**BAR d415(E)**



**BAR d416(E)**

**NOTES:**

1. For location of Section D-D, see Sheets 56 and 57.
2. Work this sheet with Sheets 56, 57, 58, & 59.

**CROSS SECTIONS & DETAILS**  
**RAMP 4 FLARE**  
**SHEET 2 OF 2**  
**STRUCTURE NO. 016-0724**

**TYLIN INTERNATIONAL**

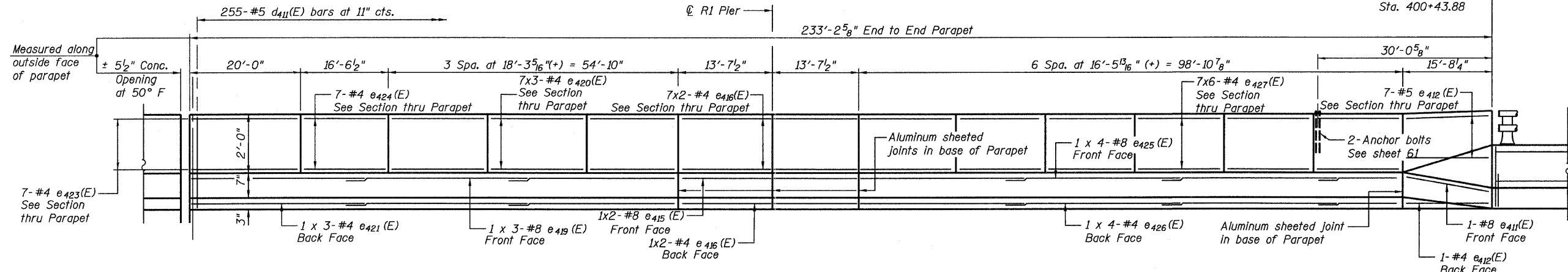
DESIGNED	AMD, MU	REVISIONS	
CHECKED	PF	NAME	DATE
DRAWN	MU		
CHECKED	AMD,		
DATE	03/25/2011		

SHEET NO. 58A	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
239 SHEETS	55	0711.2R & 1011.1BR	COOK	741	382A
			CONTRACT NO. 60999		
			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		

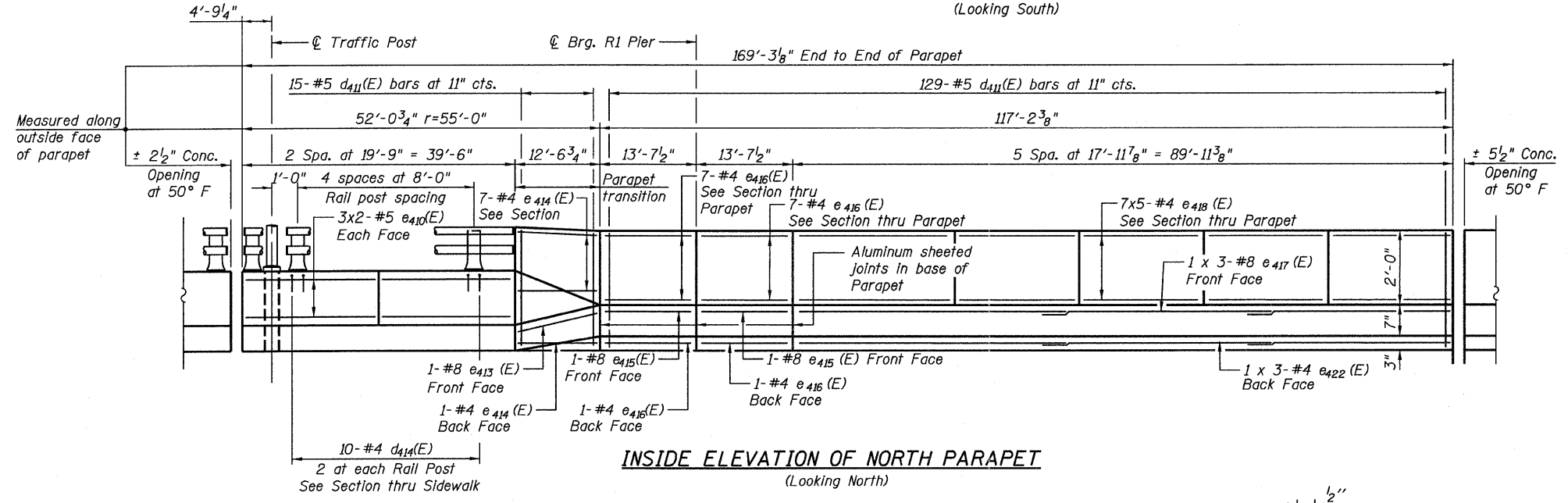
5:32:23 PM p:\01345\structure\02\_Central\_Ave\_016-0724\155174sec2.dgn

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Par. Pt.  
Sta. 400+43.88

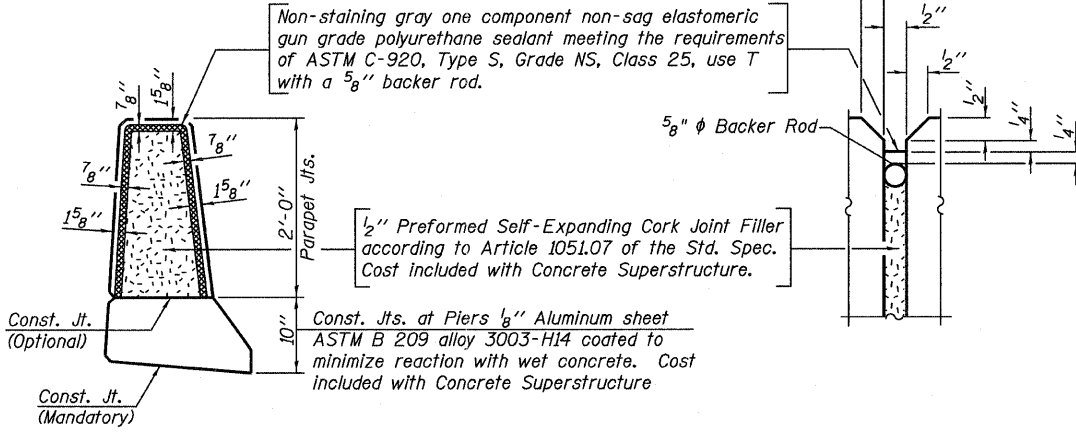
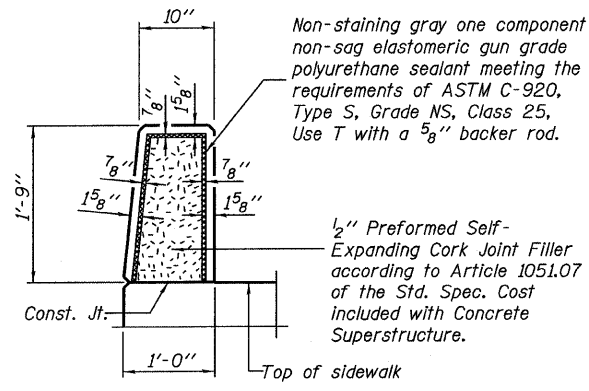


**INSIDE ELEVATION OF SOUTH PARAPET**  
(Looking South)



**INSIDE ELEVATION OF NORTH PARAPET**  
(Looking North)

**MINIMUM BAR LAP**  
(Parapet)  
#4 bar = 2'-0"  
#8 bar = 5'-2"



**PARAPET JOINT DETAILS**

**NOTES:**

1. See Sheet 58 for Bill of Material.
2. Bars indicated thus 3 x 2-#5 etc. indicates 3 lines of bars with 2 lengths per line.
3. Work this Sheet with Sheets 56 thru 58A & 64.
4. Refer to sheet 61 for parapet details at traffic signal.
5. Refer to Sheet 66, Traffic Signal Appurtenances Key Plan for locations of parapet mounted traffic signals.

**SUPERST. PARAPET ELEV.**  
**RAMP 4 FLARE**  
**STRUCTURE NO. 016-0724**

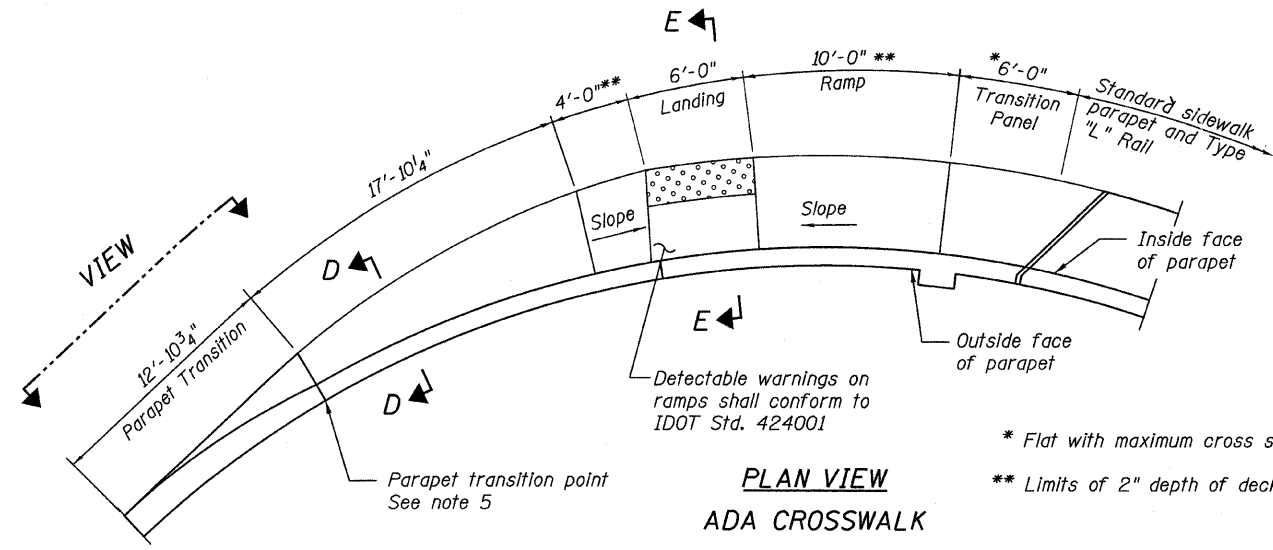
**TYLIN INTERNATIONAL**

DESIGNED - JE, PK	REVISIONS	
CHECKED - AMD,	NAME	DATE
DRAWN - PK		
CHECKED - AMD,		
DATE - 03/25/2011		

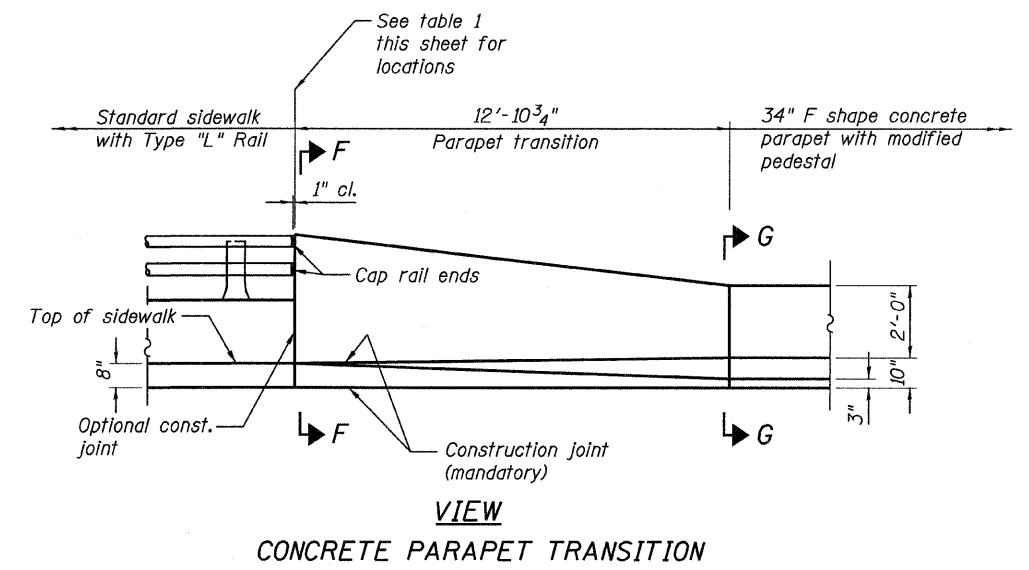
SHEET NO. 59	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	0711.2R & 1011.1BR	COOK	741	383
239 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

145:32 PM  
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 5/9/2011

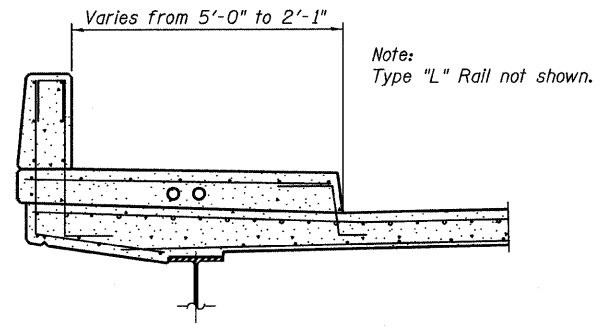
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



PLAN VIEW  
ADA CROSSWALK

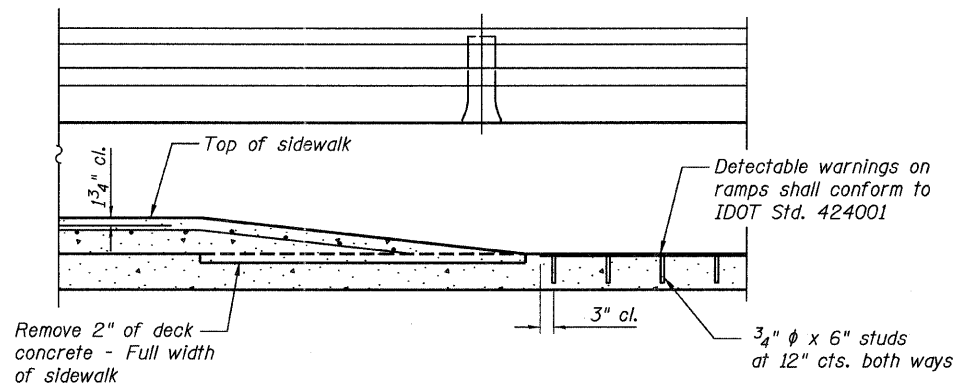


VIEW  
CONCRETE PARAPET TRANSITION

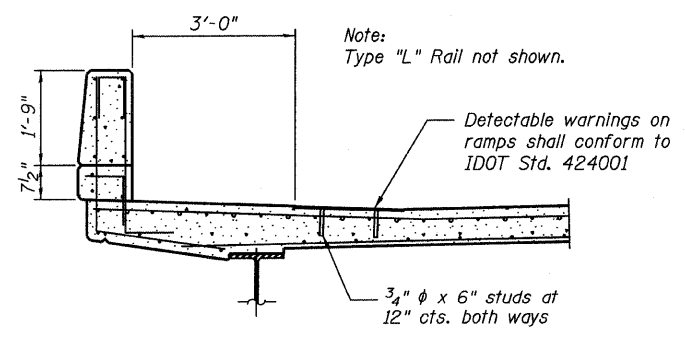


\*\*\* Field bend and cut bars as needed to meet clearance requirements (See note 6)

SECTION D-D

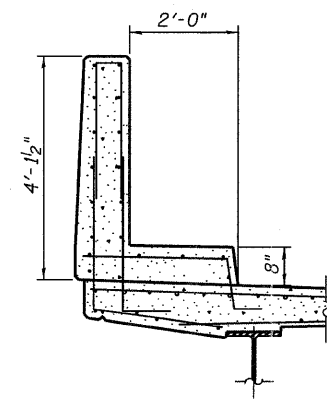


PARTIAL ELEVATION  
ADA CROSSWALK

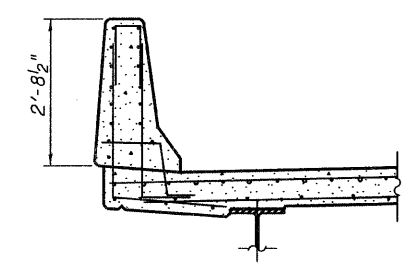


\*\*\* Field bend and cut bars as needed to meet clearance requirements (See note 6)

SECTION E-E



SECTION F-F



SECTION G-G

NOTES:

- All checkered plates to be ASTM A786 and to be hot-dipped galvanized according to ASTM A385 after fabrication.
- 3/4" x 6" studs shall be according to article 1006.32 of standard specification for road and bridge construction.
- The cost of furnishing all material for the checkered plate shall be included with superstructure concrete.
- Removal of 2" of deck concrete shall be by grinding or cutting. Bushhammering or any method involving impact shall not be used. After removal of concrete the surface shall be cleaned of debris. Surface shall be kept moist 24-hours before sidewalk ramp concrete is placed. Cost of 2" deck concrete removal included with "Concrete Superstructures."
- For parapet transition point locations see Ramp deck sheets.
- For detailing of reinforcement bars in section thru sidewalk and parapet see Ramp cross section & detail sheets.

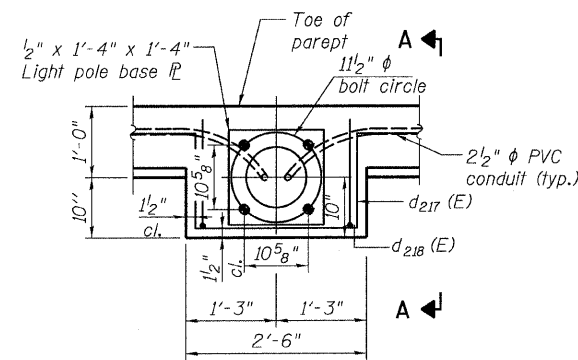
CROSSWALK DETAILS  
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL	DESIGNED -	REVISIONS		SHEET NO. 60	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - AMD,	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	384
	DRAWN -				239 SHEETS	CONTRACT NO. 60999			
	CHECKED - AMD,					FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	
	DATE - 03/25/2011								

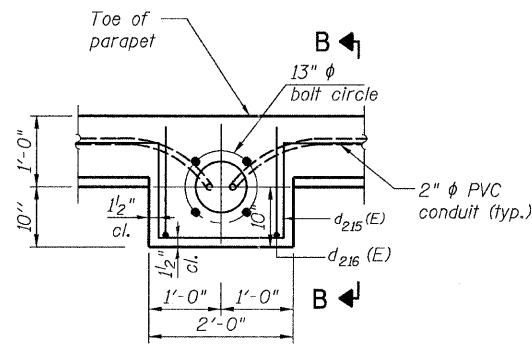
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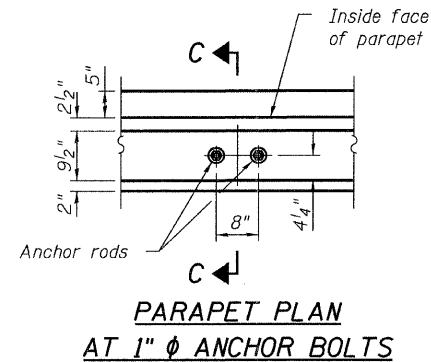
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



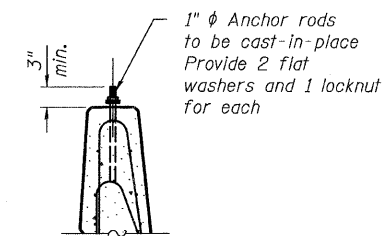
**PLAN LIGHT POLE SUPPORT  
(MOUNTED ON PARAPET)**



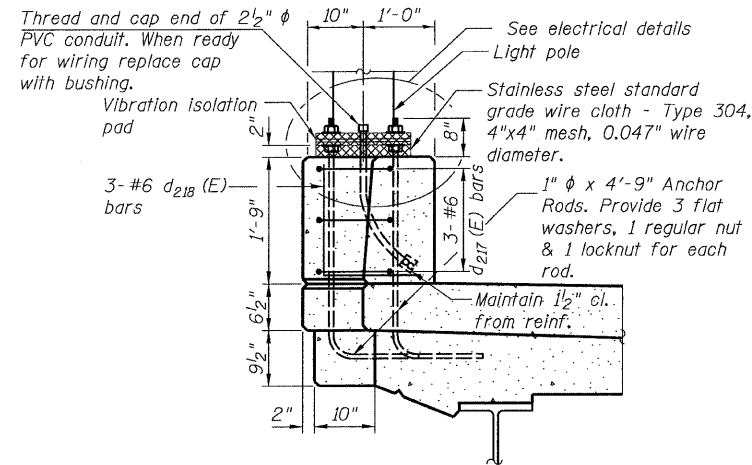
**PLAN TRAFFIC SIGNAL POLE SUPPORT  
(MOUNTED ON PARAPET)**



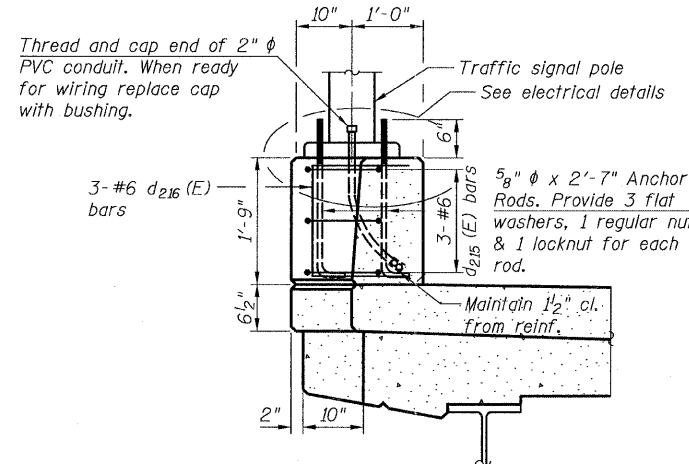
**PARAPET PLAN  
AT 1"  $\phi$  ANCHOR BOLTS**



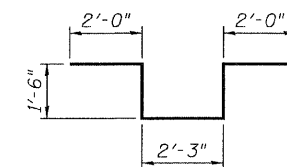
**SECTION C-C**



**SECTION A-A**

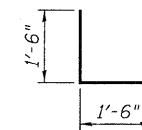


**SECTION B-B**



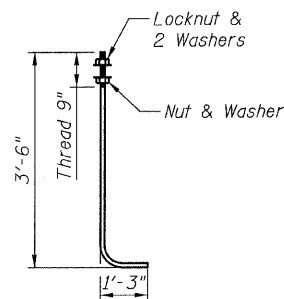
**BARS d<sub>217</sub>(E) & d<sub>317</sub>(E)**

Bar	LOCATION
d <sub>217</sub> (E)	Ramp 2 Parapet
d <sub>317</sub> (E)	Ramp 3 Parapet

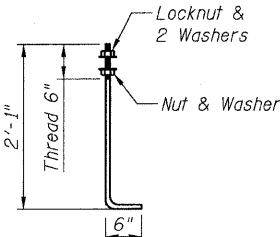


**BARS d<sub>218</sub>(E) & d<sub>318</sub>(E)**

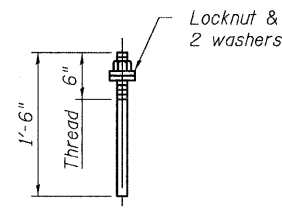
Bar	LOCATION
d <sub>218</sub> (E)	Ramp 2 Parapet
d <sub>318</sub> (E)	Ramp 3 Parapet



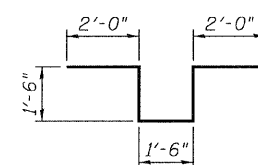
**1"  $\phi$  ANCHOR ROD  
(ASTM F 1554 Grade 105)**



**5/8"  $\phi$  ANCHOR ROD  
(ASTM F 1554 Grade 105)**

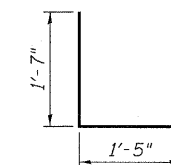


**1"  $\phi$  ANCHOR BOLT  
(ASTM F 1554 Grade 105)**



**BARS d<sub>115</sub>(E), d<sub>215</sub>(E),  
d<sub>315</sub>(E) & d<sub>415</sub>(E)**

Bar	LOCATION
d <sub>115</sub> (E)	Ramp 1 Parapet
d <sub>215</sub> (E)	Ramp 2 Parapet
d <sub>315</sub> (E)	Ramp 3 Parapet
d <sub>415</sub> (E)	Ramp 4 Parapet



**BARS d<sub>116</sub>(E), d<sub>216</sub>(E),  
d<sub>316</sub>(E) & d<sub>416</sub>(E)**

Bar	LOCATION
d <sub>116</sub> (E)	Ramp 1 Parapet
d <sub>216</sub> (E)	Ramp 2 Parapet
d <sub>316</sub> (E)	Ramp 3 Parapet
d <sub>416</sub> (E)	Ramp 4 Parapet

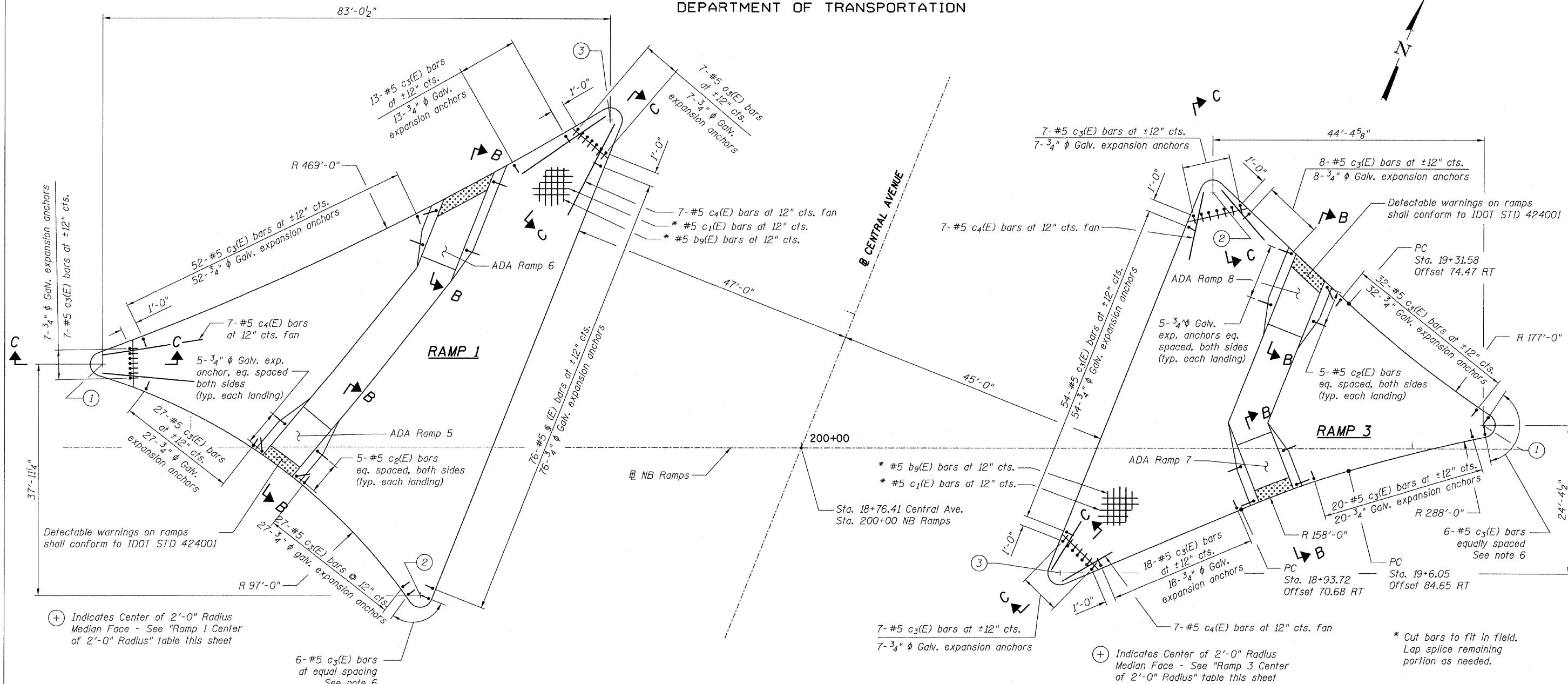
**NOTES:**

- Cost of anchor rod and anchor bolts is included with "Concrete Superstructure."
- Refer to sheets 46A, 50A, 54A, or 58A for Bill of Materials.
- For 1 inch diameter anchor bolt locations see Sheets 47 & 59.

**SUPERSTRUCTURE  
PARAPET DETAILS  
STRUCTURE NO. 016-0724**

<b>TYLIN INTERNATIONAL</b>	DESIGNED - JPN	REVISIONS		SHEET NO. 61	F.A.I RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 385
	CHECKED - AMD,	NAME	DATE						
	DRAWN - MAU								
	CHECKED - AMD,								
DATE - 03/25/2011				239 SHEETS	CONTRACT NO. 60999				
					FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**RAMP 1 MEDIAN ISLAND PLAN**

**RAMP 3 MEDIAN ISLAND PLAN**

**RAMP 1  
CENTER OF 2'-0" RADIUS**

Point	℄ Ramp 1 Sta.	℄ Ramp 1 Offset (ft)	℄ Central Av. Sta.	℄ Central Av. Offset (ft)
1	198+85.52	13.65 LT	18+46.85	111.43 LT
2	199+37.63	24.29 RT	18+30.81	49.00 LT
3	199+68.56	53.61 LT	19+14.63	49.00 LT

**RAMP 3  
CENTER OF 2'-0" RADIUS**

Point	℄ Ramp 3 Sta.	℄ Ramp 3 Offset (ft)	℄ Central Av. Sta.	℄ Central Av. Offset (ft)
1	201+11.61	3.89 LT	19+21.20	102.30 RT
2	200+67.22	41.94 LT	19+40.19	47.00 RT
3	200+42.44	20.48 RT	18+73.03	47.00 RT

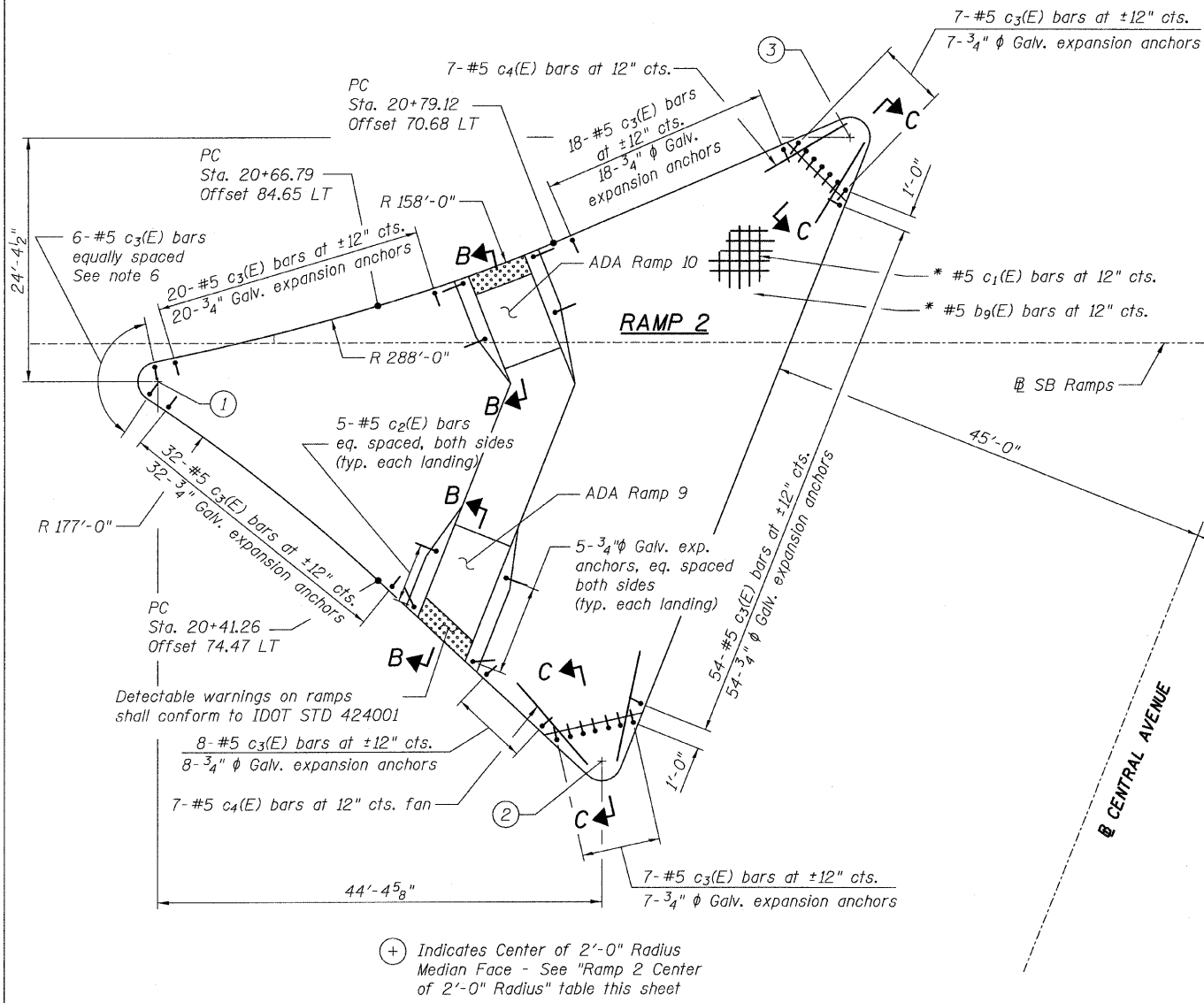
**MEDIAN ISLANDS  
RAMPS 1 & 3  
STRUCTURE NO. 016-0724**

- NOTES:**
- 3/4" Galvanized expansion anchor or ferrule loop slab insert (proof load 6600lb). Cost of expansion anchor/inserts is included in the cost of "Reinforcement Bars, Epoxy Coated."
  - For locations of Traffic Signal Appurtenances see Sheet 66.
  - For median details see Sheet 65.
  - For Section B-B and C-C see Sheet 65.
  - Refer to Sheet 42 for Bill of Materials.
  - Bars shall be placed radially at the spacing noted.

<b>TYLIN INTERNATIONAL</b>	DESIGNED - JRE	REVISIONS		SHEET NO. 62	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.				
	CHECKED - AMD,	NAME	DATE		55					0711.2R & 1011.1BR	COOK	741	386
	DRAWN - MAU				239 SHEETS					CONTRACT NO. 60999			
	CHECKED - JRE				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								
	DATE - 03/25/2011												

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



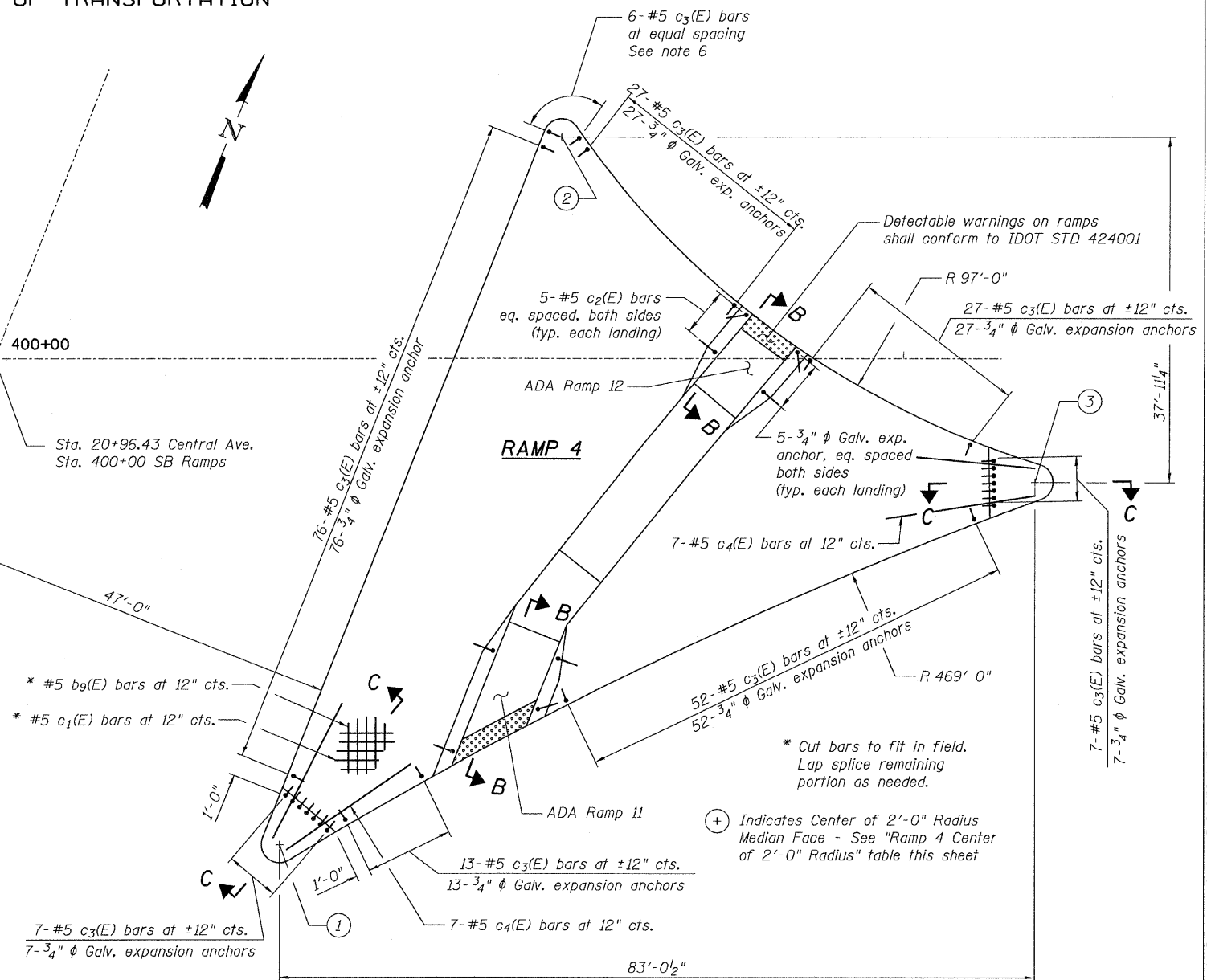
**RAMP 2 MEDIAN ISLAND PLAN**

**RAMP 2  
CENTER OF 2'-0" RADIUS**

Point	℄ Ramp 2 Sta.	℄ Ramp 2 Offset (ft)	℄ Central Av. Sta.	℄ Central Av. Offset (ft)
1	398+88.39	3.89 RT	20+51.64	102.30 LT
2	399+32.78	41.94 RT	20+32.65	47.00 LT
3	399+57.56	20.48 LT	20+99.81	47.00 LT

**NOTES:**

- 3/4" Galvanized expansion anchor or ferrule loop slab insert (proof load 6600lb). Cost of expansion anchor/inserts is included in the cost of "Reinforcement Bars, Epoxy Coated."
- For locations of Traffic Signal Appurtenances, see Sheet 66.
- For median details see Sheet 65.
- For Section B-B and C-C see Sheet 65.
- Refer to Sheet 42 for Bill of Materials.
- Bars shall be placed radially at the spacing noted.



**RAMP 4 MEDIAN ISLAND PLAN**

**RAMP 4  
CENTER OF 2'-0" RADIUS**

Point	℄ Ramp 4 Sta.	℄ Ramp 4 Offset (ft)	℄ Central Av. Sta.	℄ Central Av. Offset (ft)
1	400+31.44	53.61 RT	20+58.21	49.00 RT
2	400+62.37	24.29 LT	21+42.03	49.00 RT
3	401+14.48	13.65 RT	21+25.99	111.43 RT

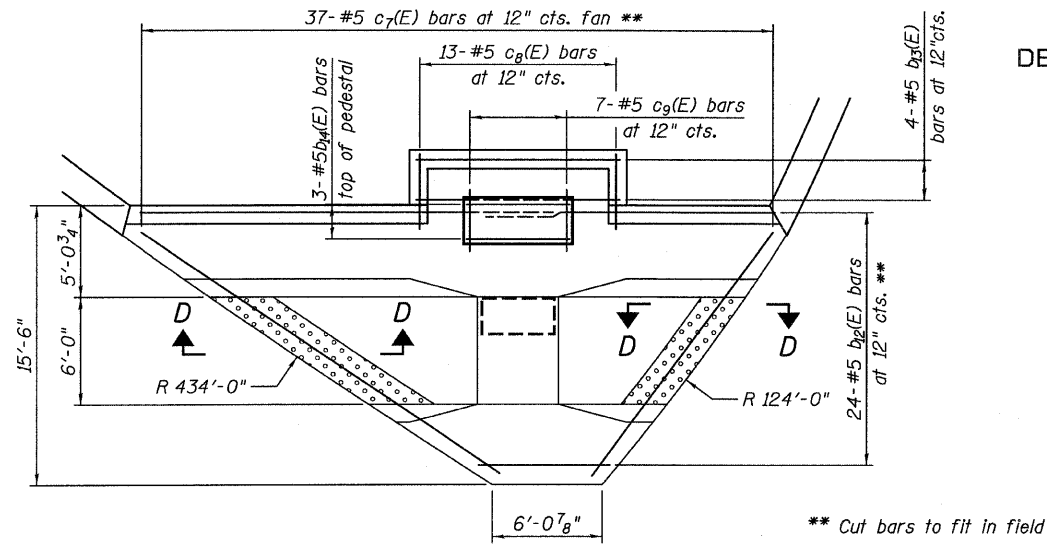
**MEDIAN ISLANDS  
RAMPS 2 & 4  
STRUCTURE NO. 016-0724**

<b>TYLIN INTERNATIONAL</b>	DESIGNED - JRE	REVISIONS	
	CHECKED - AMD,	NAME	DATE
	DRAWN - MAU		
	CHECKED - JRE		
	DATE - 03/25/2011		

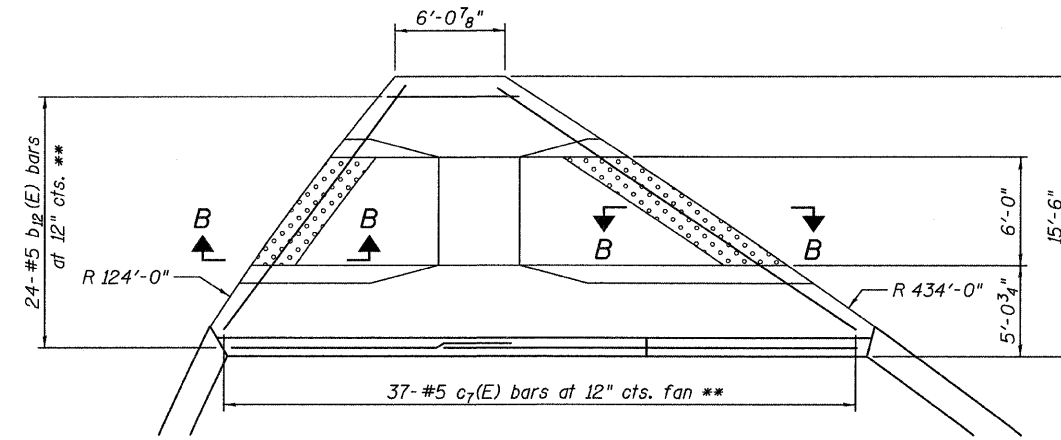
SHEET NO. 63	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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239 SHEETS		CONTRACT NO. 60999			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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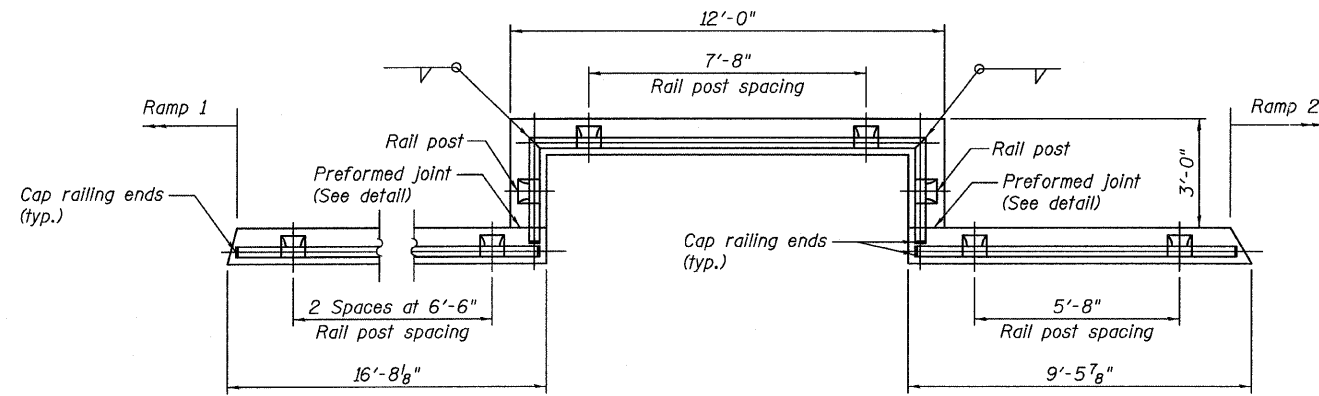
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



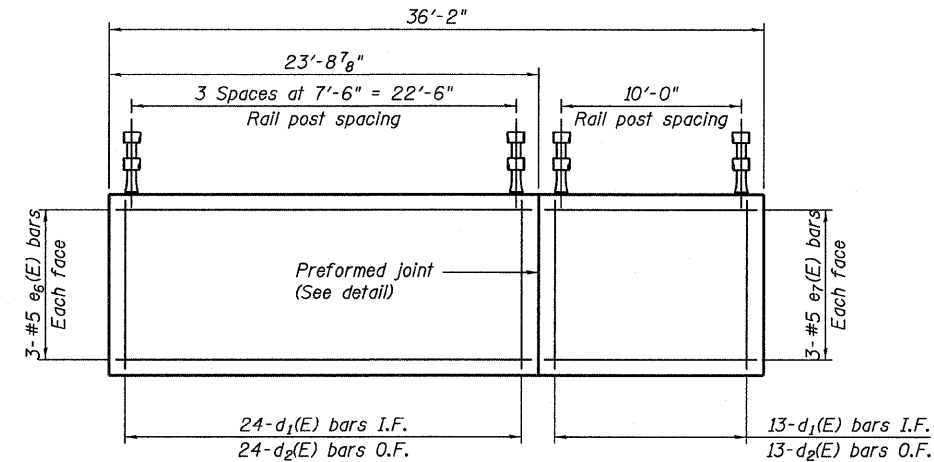
WEST SIDEWALK PLAN



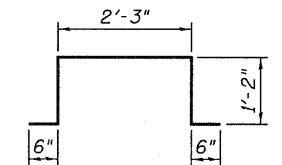
EAST SIDEWALK PLAN



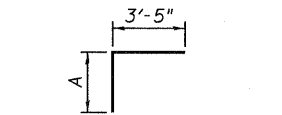
WEST PARAPET PLAN  
(Rail Post Details)



INSIDE ELEVATION OF EAST PARAPET

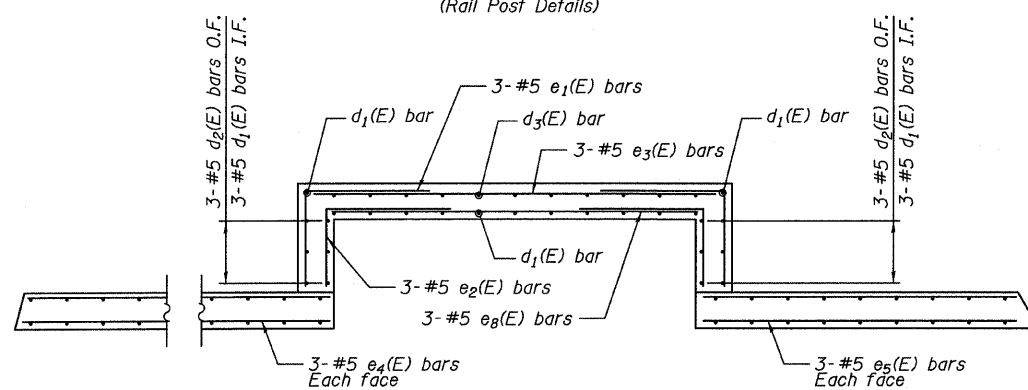


BAR c<sub>9</sub>(E)

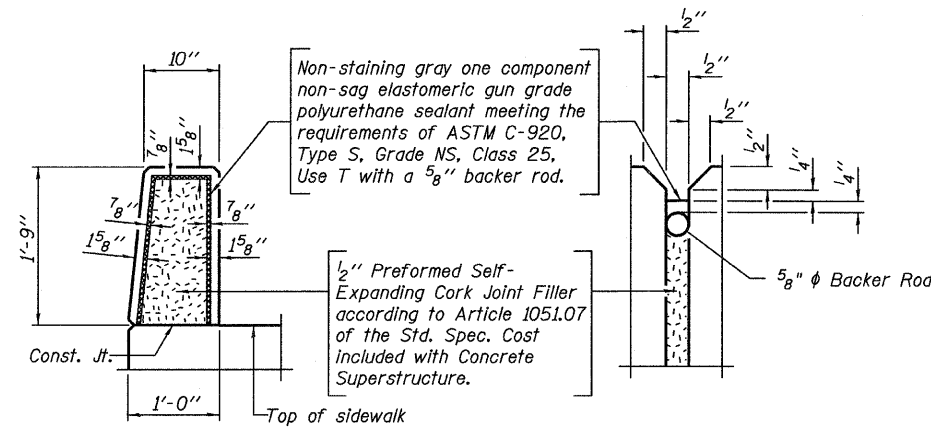


e<sub>1</sub>(E) & e<sub>2</sub>(E) bar

BAR	A
e <sub>1</sub> (E)	2'-7 1/2"
e <sub>2</sub> (E)	2'-1 1/2"



WEST PARAPET PLAN  
(Reinforcement Bar Details)



PARAPET JOINT DETAILS

NOTES:

1. For locations of Traffic Signal Appurtenances, see Sheet 66.
2. For sidewalk details and Section B-B see Sheet 65.
3. Refer to Sheet 42 for Bill of Materials.

LEGEND

I.F. - Denotes inside face of parapet.  
O.F. - Denotes outside face of parapet.

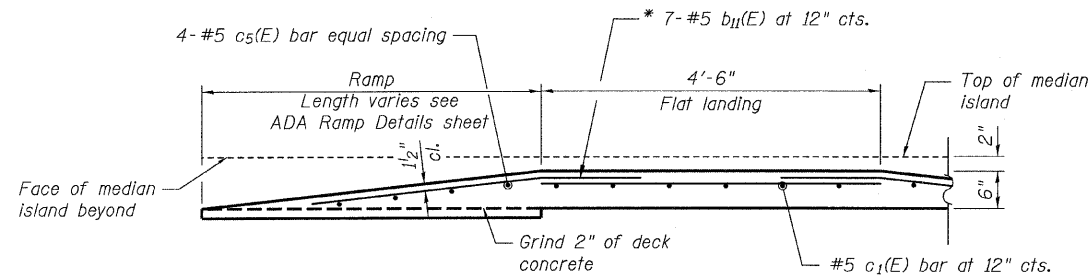
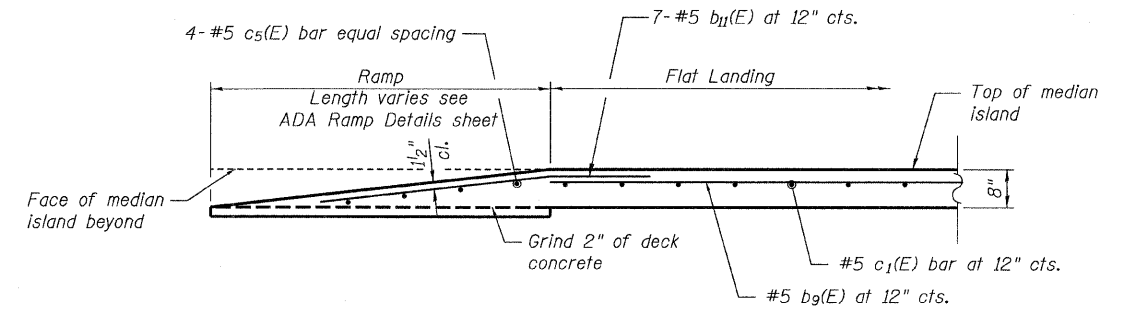
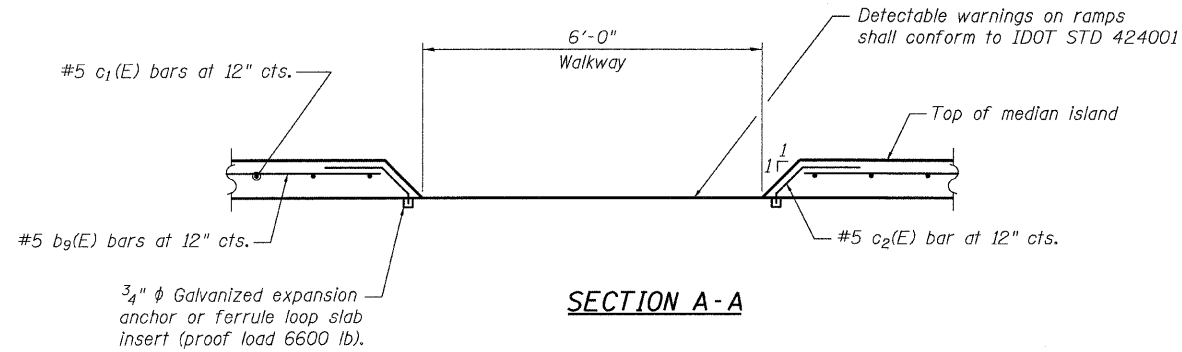
PARAPETS & SIDEWALKS  
CENTRAL / I-55  
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL	DESIGNED - JPN	REVISIONS	
	CHECKED - AMD,	NAME	DATE
	DRAWN - MAU		
	CHECKED - AMD,		
	DATE - 03/25/2011		

SHEET NO. 64 239 SHEETS	F.A.I RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 388
	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60999	

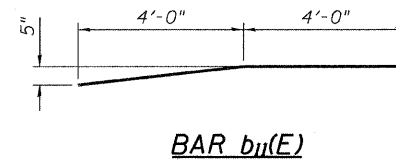
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

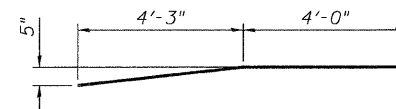


SECTION B-B

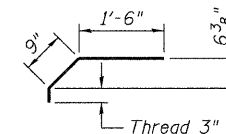
SECTION D-D \* Cut bars to fit in field



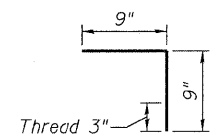
BAR b11(E)



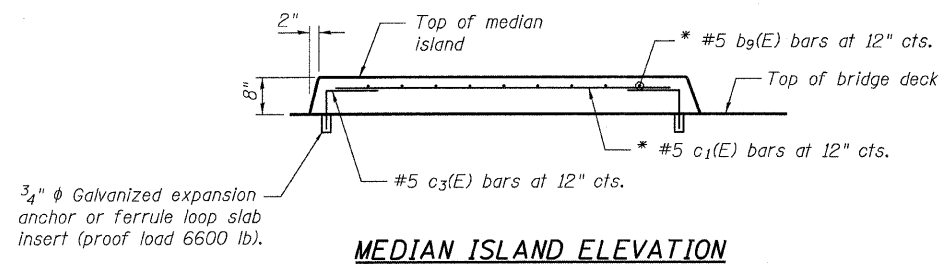
BAR c4(E)



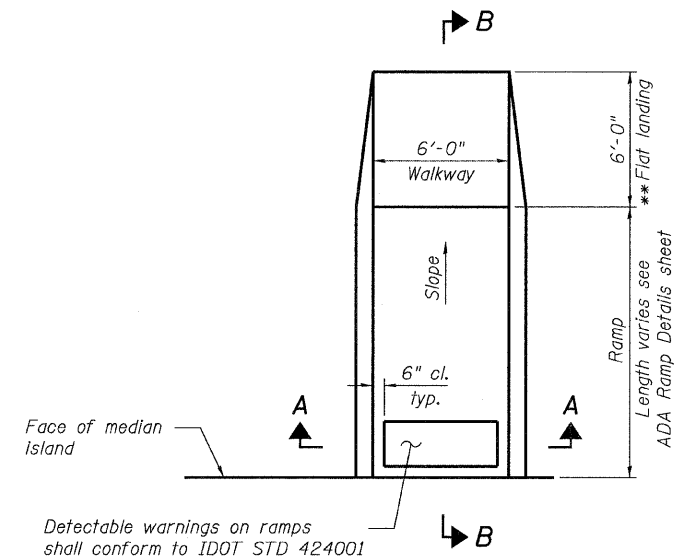
BAR c2(E)



BAR c3(E)

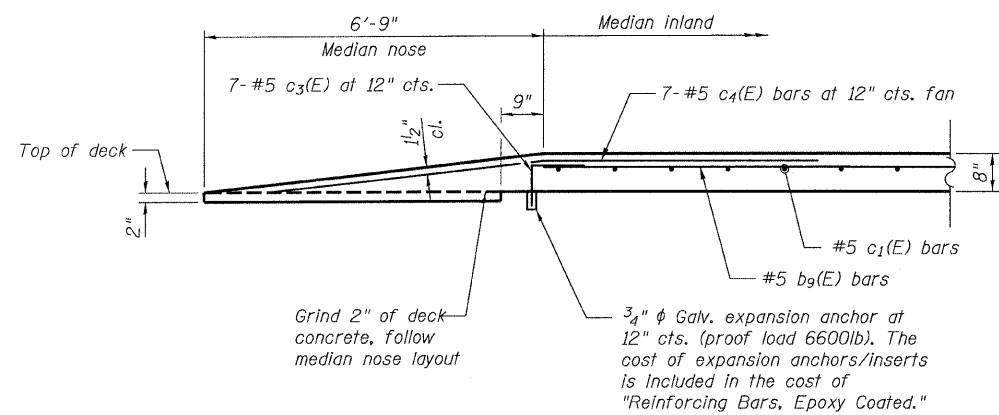


MEDIAN ISLAND ELEVATION



PARTIAL PLAN VIEW

\*\* All cross slopes less than 3/16"/ft.



SECTION C-C

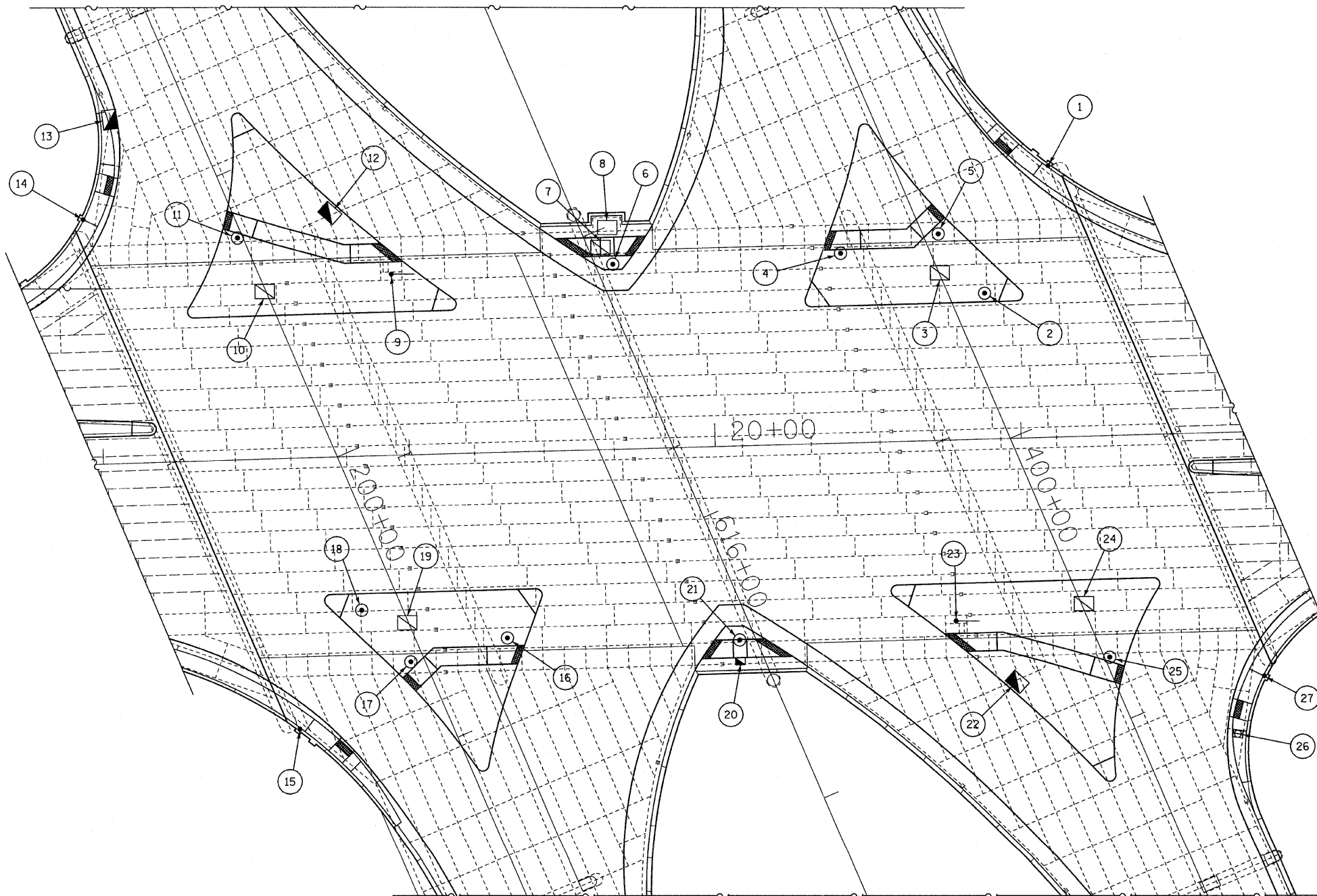
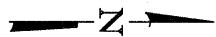
NOTES:

1. Pay items included in the deck superstructure bill of materials, see sheet 42.
2. ADA Ramps shall be constructed to IDOT Standard 424001. See ADA Ramp Details sheet for dimensions.
3. Work this Sheet with Sheets 62 thru 64.

MEDIAN ISLAND DETAILS  
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL	DESIGNED - JRE	REVISIONS		SHEET NO. 65	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	389	
	DRAWN - MAU				239 SHEETS		CONTRACT NO. 60999			
	CHECKED - JRE				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



I.D. No.	Type	TP Mounting Detail	Reference Baseline	Station	Offset
1	TP	PM	Central	21+10.79	88.54 LT
2	TP	IM-A	Central	20+90.28	49.02 LT
3	DHH		Central	20+75.92	54.00 LT
4	TP	IM-B	Central	20+41.28	61.71 LT
5	TP	IM-B	Central	20+75.24	68.92 LT
6	TP	IM-A	Central	19+67.51	62.50 LT
7	DHH		Central	19+66.51	68.33 LT
8	TC		Central	19+66.51	73.63 LT
9	TPMA		Central	18+93.86	61.71 LT
10	DHH		Central	18+53.97	54.00 LT
11	TP	IM-C	Central	18+44.41	73.17 LT
12	HH-C		Central	18+75.51	78.84 LT
13	HH-C		Central	18+03.22	112.48 LT
14	TP	PM	Central	17+95.77	80.13 LT
15	TP	PM	Central	18+62.04	88.53 RT
16	TP	IM-B	Central	19+31.56	61.71 RT
17	TP	IM-B	Central	18+97.60	68.92 RT
18	TP	IM-A	Central	18+82.55	49.02 RT
19	DHH		Central	18+96.90	54.00 RT
20	HH-C		Central	20+06.33	70.08 RT
21	TP	IM-A	Central	20+05.34	62.50 RT
22	HH-C		Central	20+94.81	81.46 RT
23	TPMA		Central	20+78.99	61.71 RT
24	DHH		Central	21+18.86	54.00 RT
25	TP	IM-C	Central	21+28.44	73.17 RT
26	HH		Central	21+68.19	99.08 RT
27	TP	PM	Central	21+77.07	80.13 RT

**LEGEND**

- TP-PM Traffic Post - Parapet Mounted
- ⊙ TP-IM Traffic Post - Island Mounted
- TPMA Traffic Post w/Mast Arm - Island Mounted
- ⊠ HH Precast Concrete Handhole (20" x 20")
- ⊠ DHH Precast Concrete Double Handhole (24" x 48")
- ⊠ HH-C Handhole - Composite
- ⊠ TC Traffic Controller/UPS Pad (31" x 72")

**NOTES:**

1. For pay items for Lighting Appurtenances, see Lighting Plans.
2. See sheet 69 for details of precast concrete handholes.
3. See sheet 67 thru 68 for installation details for Traffic Signal and Lighting Appurtenances.
4. Traffic pole stationing and offset measured from inside face of parapet.

**TRAFFIC SIGNAL APPURTENANCES**

**KEY PLAN**

**STRUCTURE NO. 016-0724**

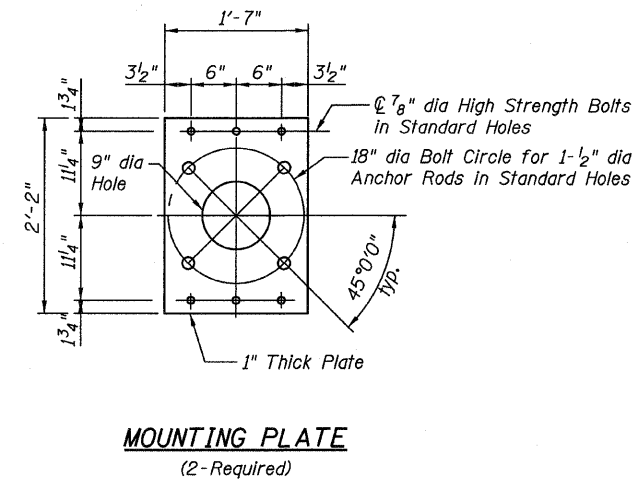
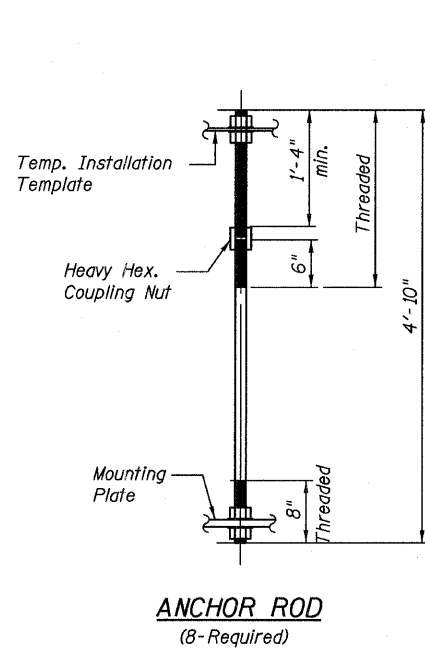
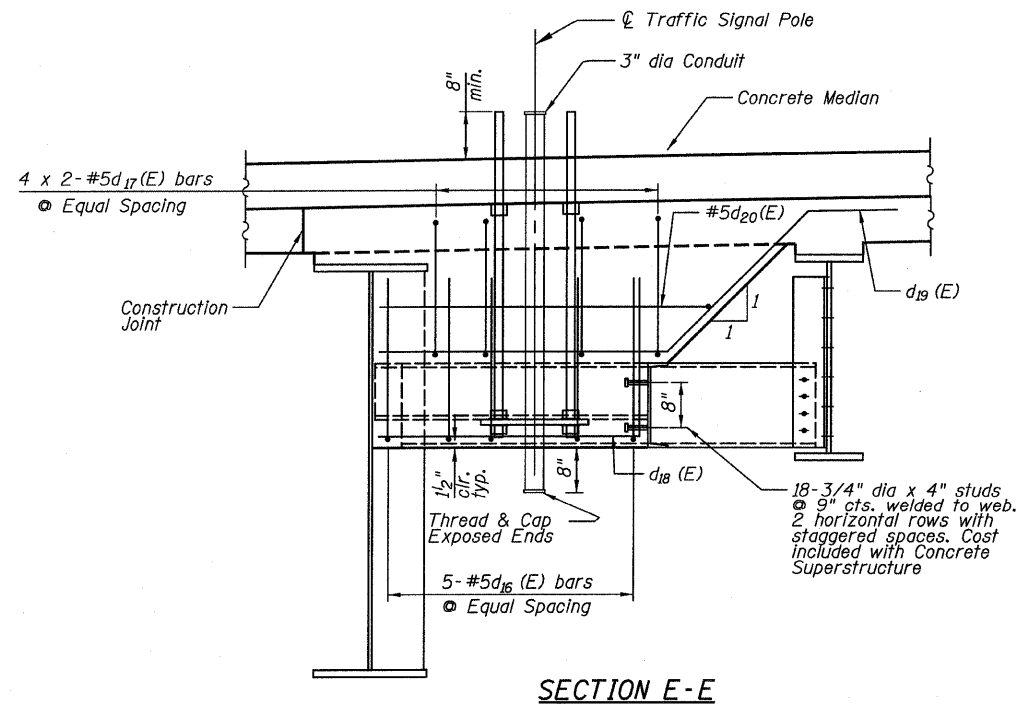
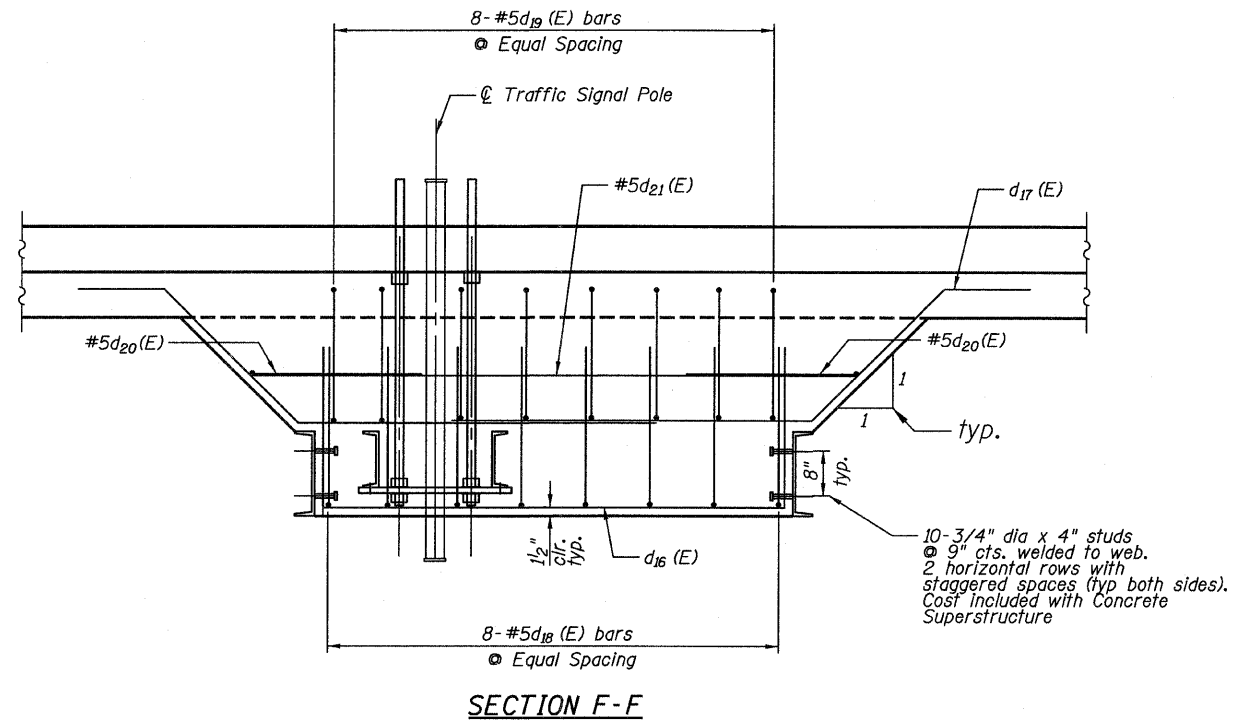
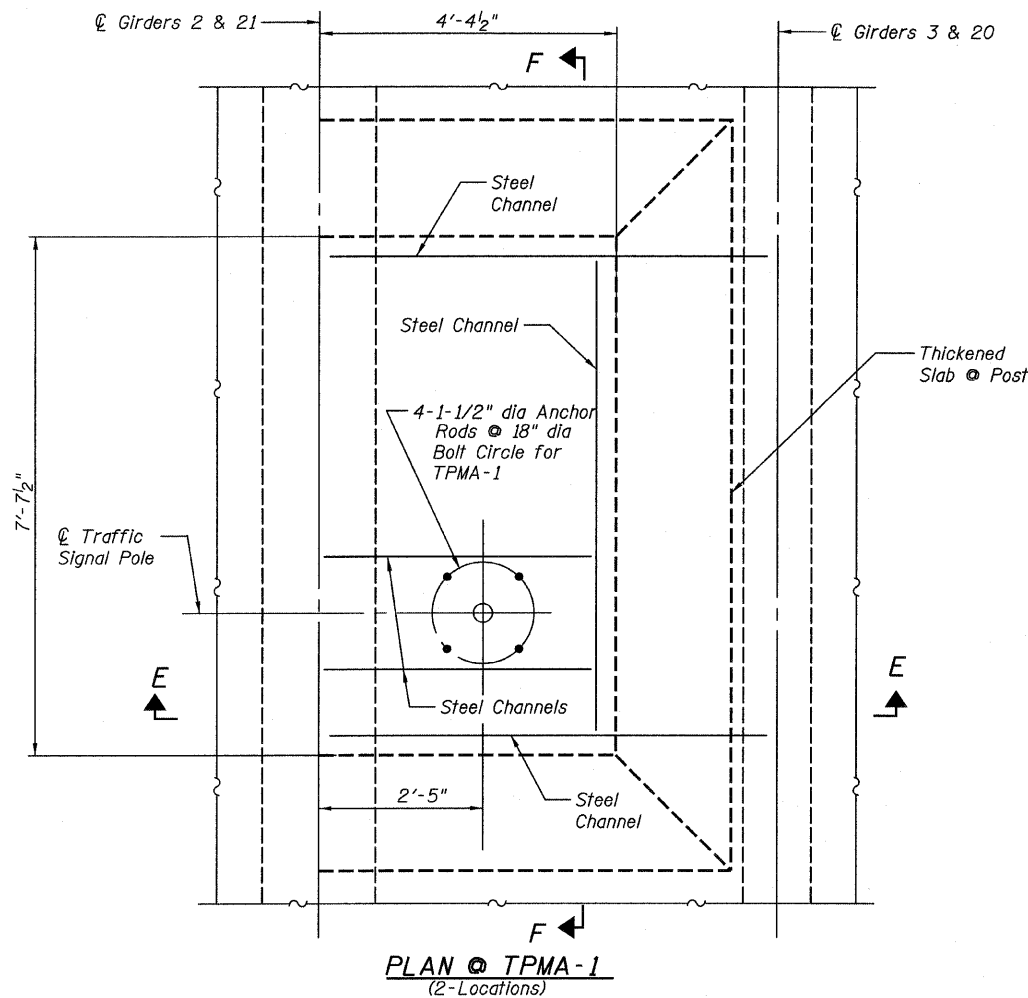
**TYLIN** INTERNATIONAL

	DESIGNED - JPN	REVISIONS	
		NAME	DATE
CHECKED - AMD,			
DRAWN - MAU			
CHECKED - AMD,			
DATE - 03/25/2011			

SHEET NO. 66	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	0711.2R & 1011.1BR	COOK	741	390
239 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT					

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**NOTES:**

1. See Sheet 66 for locations of Island Mounted Traffic Posts.
2. See Sheet 40 & 41 for reinforcement details.
3. Anchor rod assemblies including bolts, nuts and washers are furnished and paid for with the respective traffic signal post pay item.
4. Anchor Rods shall be ASTM F1554 Grade 55 and galvanized according to Standard Specification 1006.09.
5. All Nuts and washers shall be galvanized. Grade, finish and style shall conform to the recommendations of ASTM F1554.

**TRAFFIC SIGNAL BASE DETAILS I**  
**CENTRAL / I-55**  
**STRUCTURE NO. 016-0724**

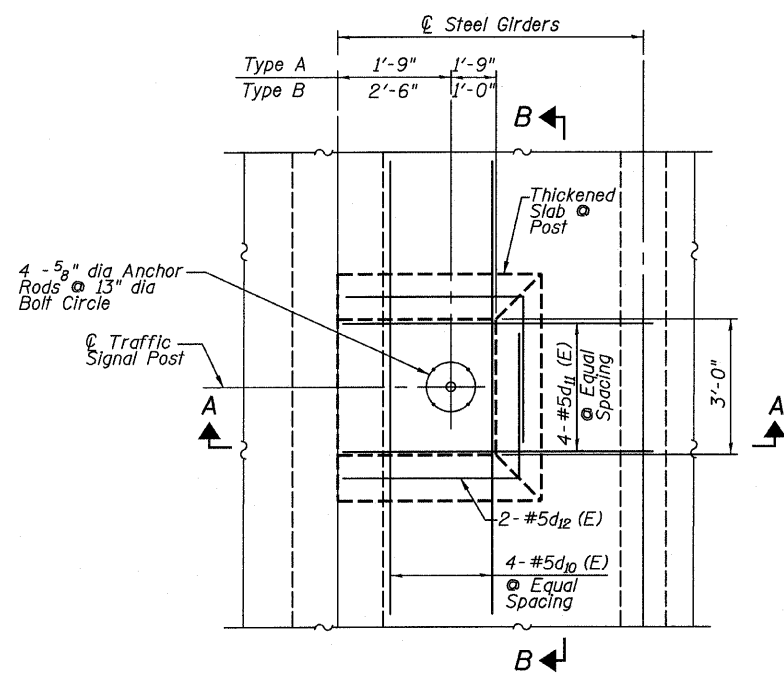
**TYLIN INTERNATIONAL**

DESIGNED -	REVISIONS	
CHECKED - AMD,	NAME	DATE
DRAWN -		
CHECKED - AMD,		
DATE - 03/25/2011		

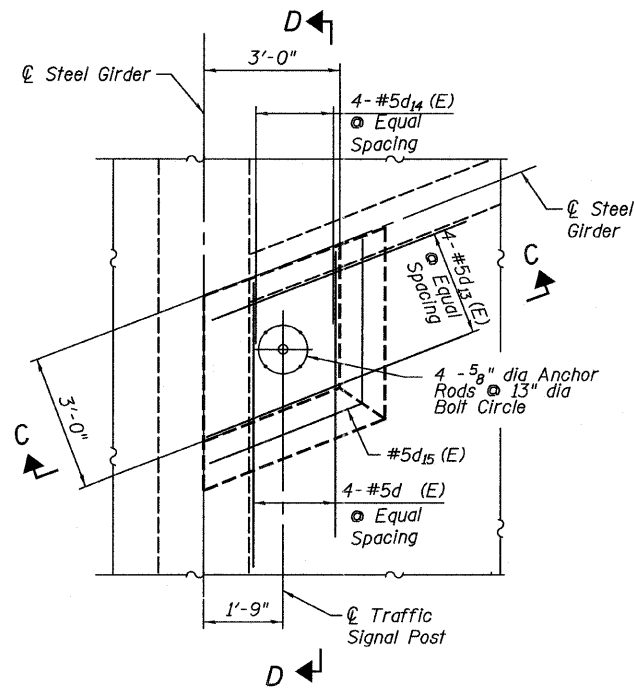
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239 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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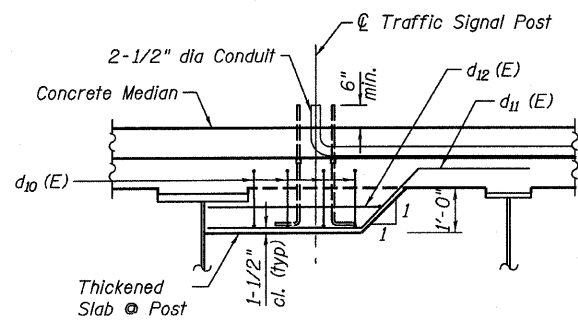
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



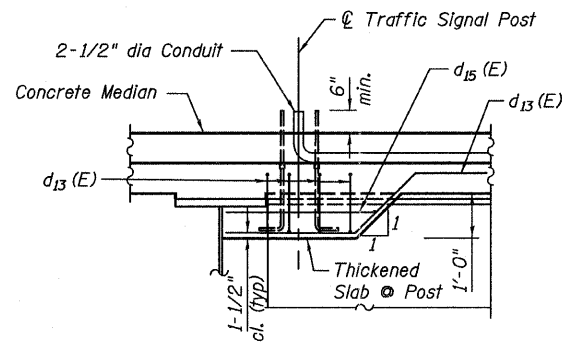
PLAN ISLAND MOUNTED TRAFFIC POST  
TPIM-A & TPIM-B  
(6 Locations)



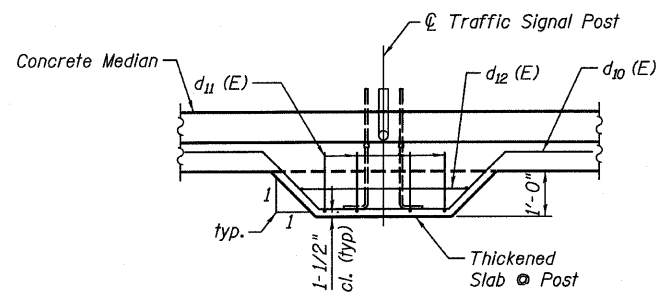
PLAN ISLAND MOUNTED TRAFFIC POST  
TPIM-C  
(2 Locations)



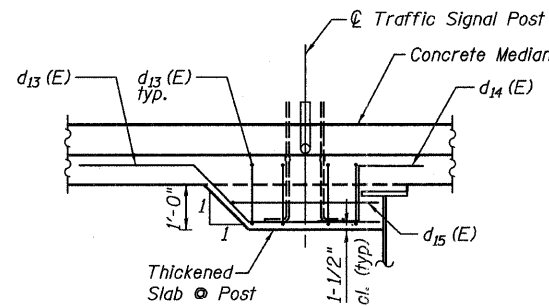
SECTION A-A



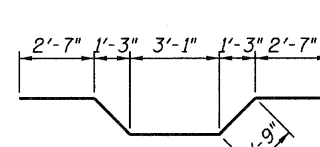
SECTION C-C



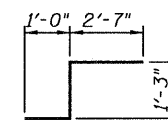
SECTION B-B



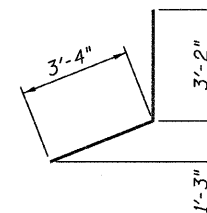
SECTION D-D



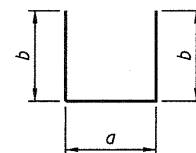
BAR d10 (E)



BAR d14 (E)

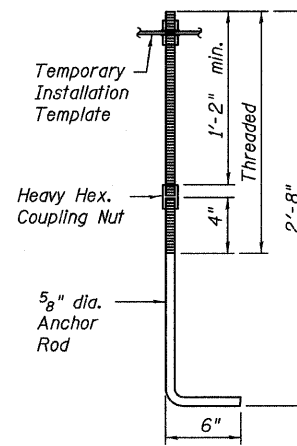


BAR d15 (E)

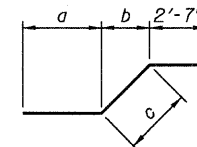


Bar	a	b
d16 (E)	6'-8"	2'-4"
d18 (E)	3'-8"	2'-4"

BARS d16 (E) & d18 (E)

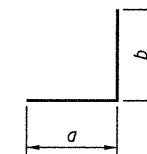


ANCHOR ROD  
(24 Required)



Bar	a	b	c
d11 (E)	3'-4"	1'-3"	1'-9"
d13 (E)	3'-1"	1'-4"	1'-10"
d17 (E)	5'-1"	1'-11"	2'-8"
d19 (E)	4'-3"	1'-11"	2'-8"

BARS d11 (E), d13 (E),  
d17 (E) & d19 (E)



Bar	a	b
d12 (E)	3'-8"	3'-3"
d20 (E)	4'-10"	2'-8"

BARS d12 (E) & d20 (E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
d10 (E)	24	#5	11'-9"	U	
d11 (E)	24	#5	7'-8"	U	
d12 (E)	12	#5	6'-11"	U	
d13 (E)	16	#5	7'-6"	U	
d14 (E)	8	#5	4'-10"	U	
d15 (E)	2	#5	6'-6"	U	
d16 (E)	10	#5	11'-4"	U	
d17 (E)	16	#5	10'-4"	U	
d18 (E)	16	#5	6'-0"	U	
d19 (E)	16	#5	9'-6"	U	
d20 (E)	4	#5	7'-6"	U	
d21 (E)	2	#5	8'-7"	U	
Reinforcement Bars, Epoxy Coated				Pound	1,360

NOTES

- See Sheet 66 for locations of Island Mounted Traffic Posts
- Anchor rod assemblies including bolts, nuts and washers are furnished and paid for with the respective traffic signal post pay item.
- Anchor rods shall be ASTM F1554 Grade 55 and galvanized according to Standard Specification 1006.09.
- All nuts and washers shall be galvanized. Grade, finish and style shall conform to the recommendations of ASTM F1554.
- Concrete volume for thickened slab at traffic post included with Superstructure Bill of Material on Sheet 42.

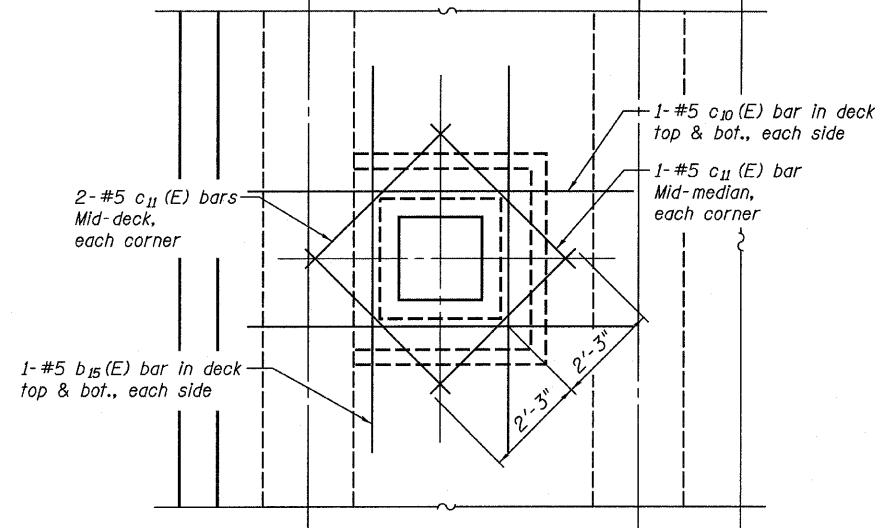
TRAFFIC SIGNAL BASE DETAILS II  
CENTRAL / I-55  
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL	DESIGNED -	REVISIONS	
	CHECKED - AMD,	NAME	DATE
	DRAWN -		
	CHECKED - AMD,		
	DATE - 03/25/2011		

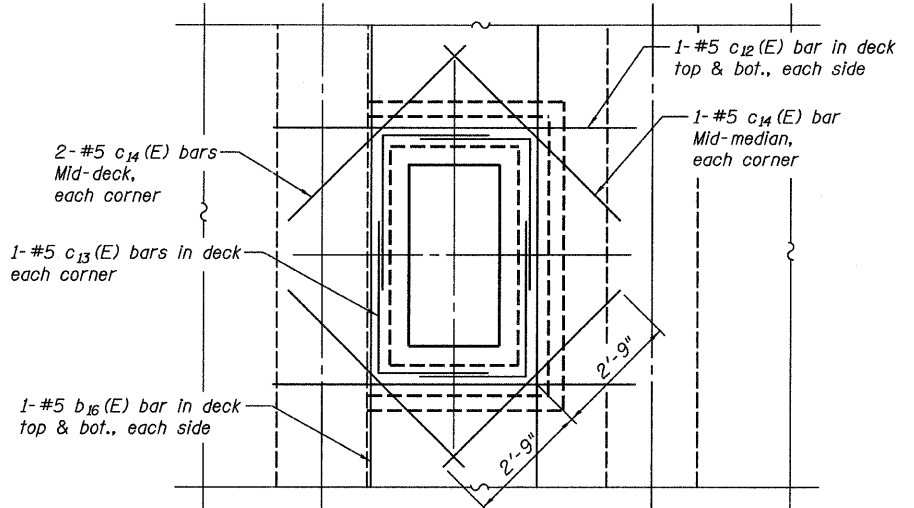
SHEET NO. 68 239 SHEETS	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 392
	CONTRACT NO. 60999			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	



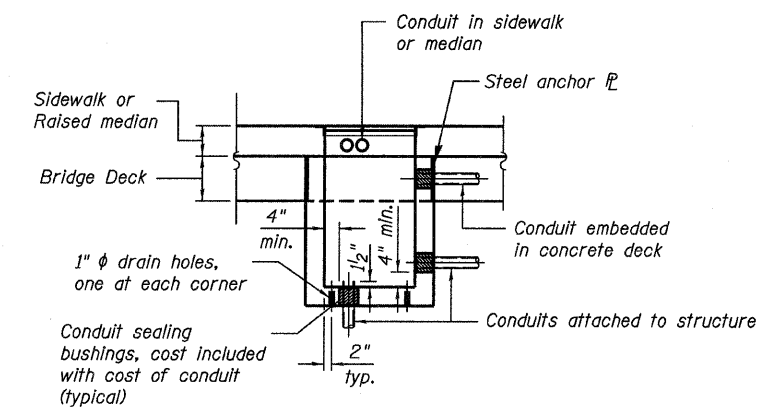
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



PLAN

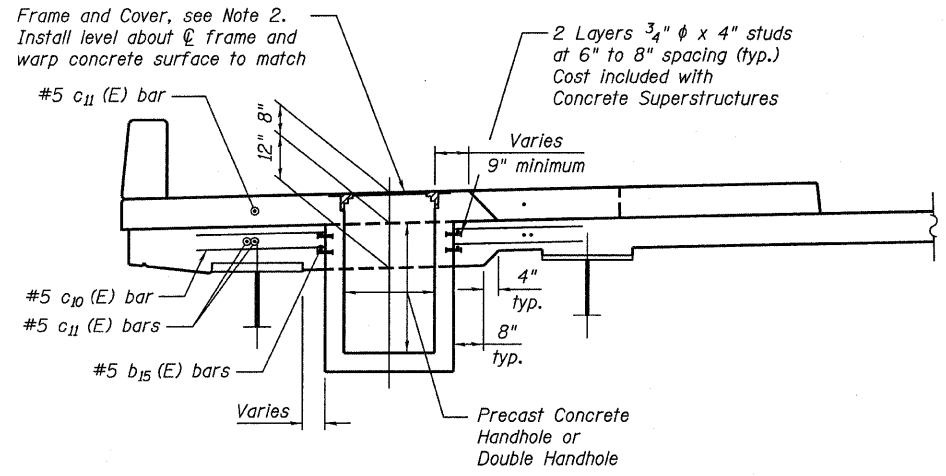


PLAN

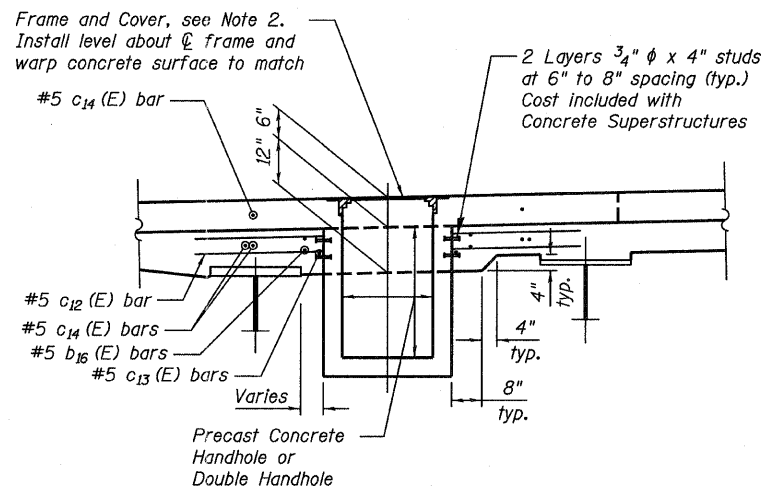


CONDUIT DETAILS @ HANDHOLES

- Holes for conduit penetration must be cast in or cored in shop. Min. clear spacing between conduit holes shall be 5 in.
- Conduit holes shall be compatible with Fabricator's Conduit Sealing System.
- The contractor shall coordinate the sizes & locations of the conduits with the conduit installation plan, and include the sizes & locations of the conduit holes in the shop drawings for fabrication of the handholes. The conduit installation plan shall be submitted for information with the Handhole shop drawings.



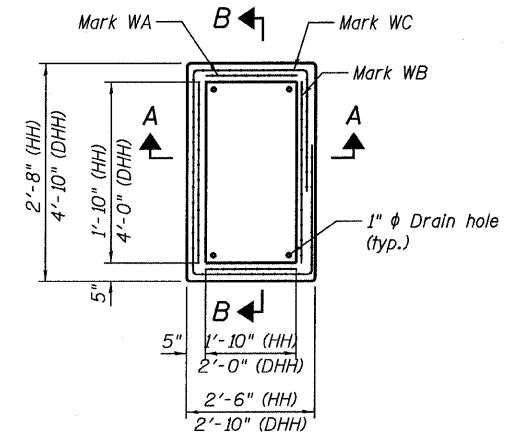
SECTION  
HH INSTALLATION AT SIDEWALK



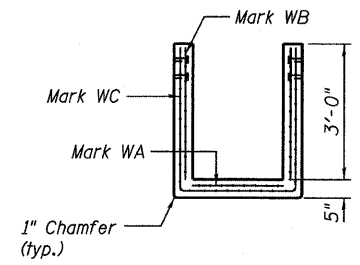
SECTION  
DHH INSTALLATION

NOTES:

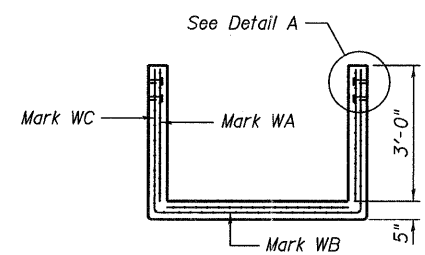
- Frame and cover shall be Neenah R6662-GP for single handhole, and R6663-KH for double handhole; or approved equal. Cost included with Structure-Mounted Handhole & Structure-Mounted Double Handhole.
- For concrete handhole locations, see Sheet 66.
- Cost of handhole concrete, reinforcement, embedded studs and 3/8\"/>



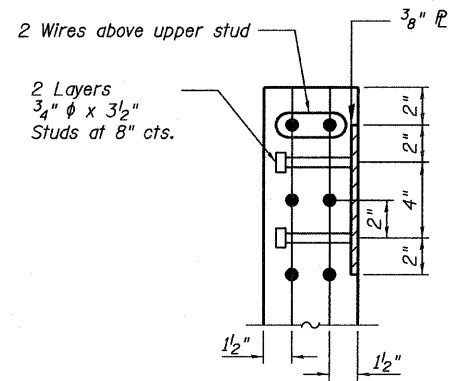
PLAN SECTION



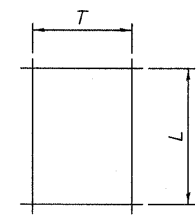
SECTION A-A



SECTION B-B



DETAIL A



WWR

MARK	WWR	HH		DHH	
		L [ft]	T [ft]	L [ft]	T [ft]
WA	*	8'-2"	1'-11"	10'-4"	2'-1"
WB	*	8'-6"	1'-11"	8'-8"	4'-1"
WC	*	10'-0"	3'-4"	14'-8"	3'-4"

\* All WWR shall be epoxy coated 4" x 4" - MW26xMW26. All bend radii 1". Min. lap 6".

Note:  
Work this sheet with  
Traffic Signal and  
Lighting Plans.

STRUCTURE-MOUNTED  
HANDHOLE DETAILS  
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL

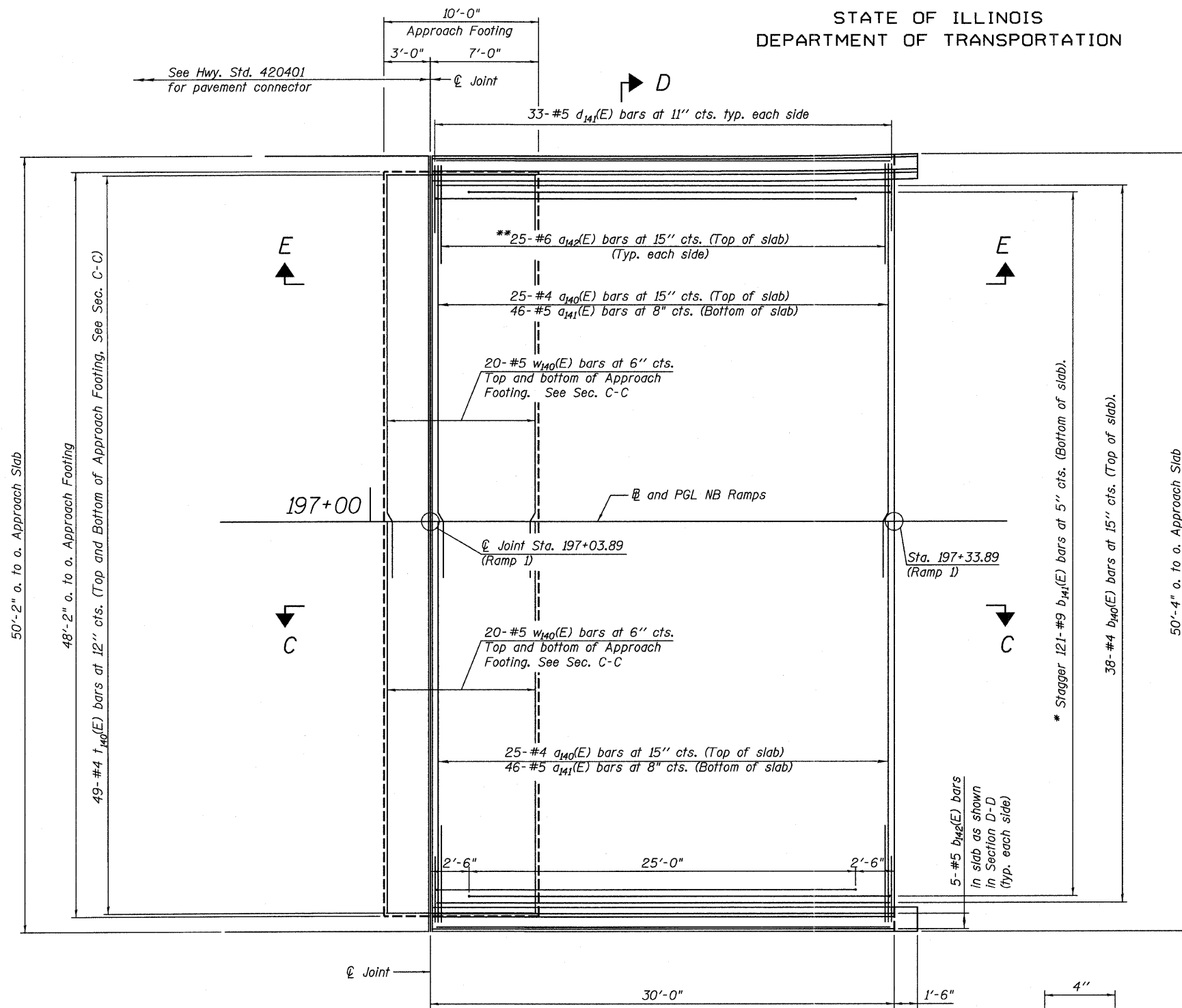
DESIGNED -	REVISIONS
CHECKED - AMD,	NAME
DRAWN -	DATE
CHECKED - AMD,	
DATE - 03/25/2011	

SHEET NO. 69	F.A.I R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
239 SHEETS	55	0711.2R & 1011.1BR	COOK	741	393
			CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

4/28/2011 11:51:44 AM p:\01345\structure\C2\_Central\_Ave\_016-0724\155hhdet.dwg

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Notes:  
See Sheet 71 for Sections C-C & D-D and View E-E.  
 $a_{140}(E)$  and  $a_{141}(E)$  bar spacings measured along  $\phi$  Rdwy.

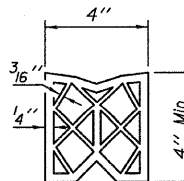


MIN LAP

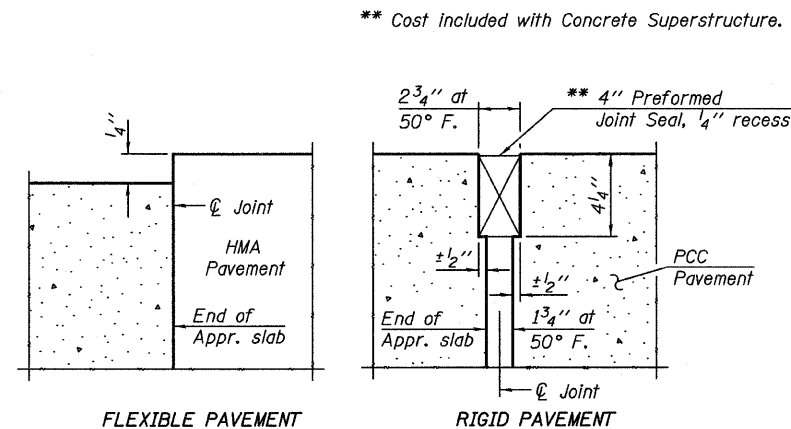
Bar	Lap
#4	2'-11"
#5	3'-8"

PLAN

\* Tilt #9  $b_{141}(E)$  bars as required to maintain clearance.  
\*\* Space between  $a_{140}(E)$  bars, typ. each parapet.



PREFORMED  
JOINT SEAL



DETAIL A

(Sheet 1 of 2)  
**RAMP 1 APPROACH SLAB**  
**STRUCTURE NO. 016-0724**

**TYLIN** INTERNATIONAL

	DESIGNED - CBS	REVISIONS	
		NAME	DATE
CHECKED	- AMD,MMB		
DRAWN	- CBS		
CHECKED	- AMD,MMB		
DATE	- 03/25/2011		

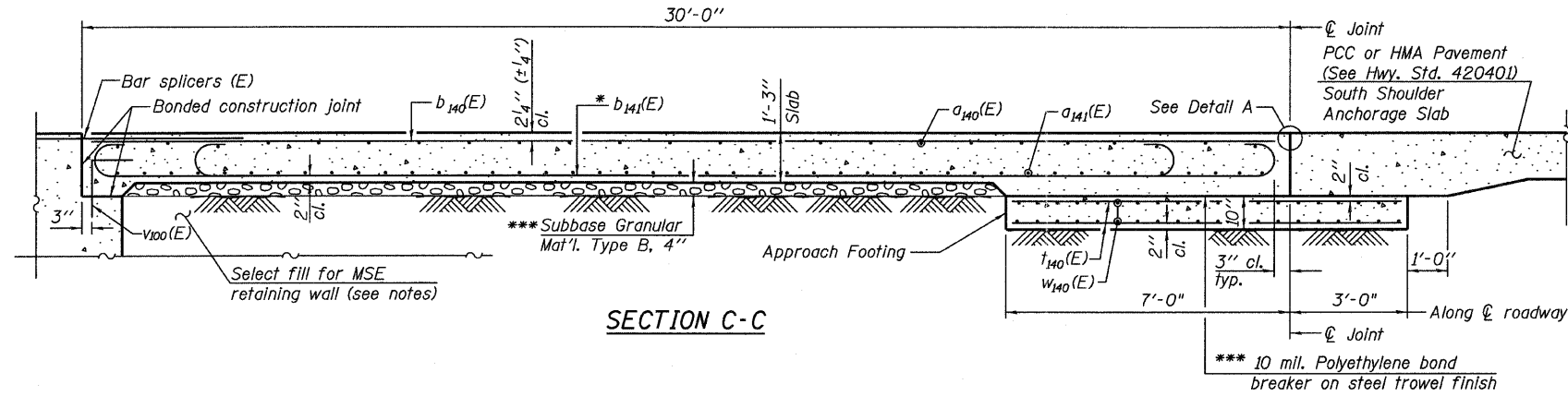
SHEET NO. 70	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	239 SHEETS	55	0711.2R & 1011.1BR	COOK	741 394
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT		
CONTRACT NO. 60999					

4/28/2011

p:\01345\structure\c2 Central Ave. 016-0724\35r\appr01.dwg

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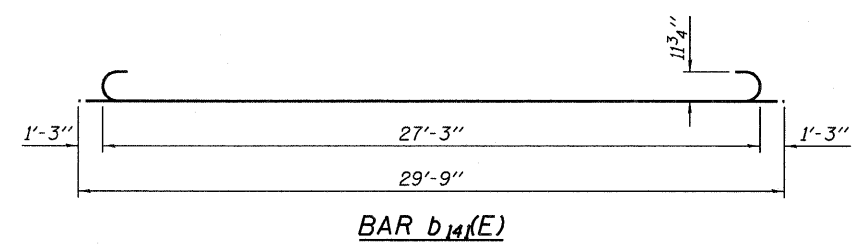
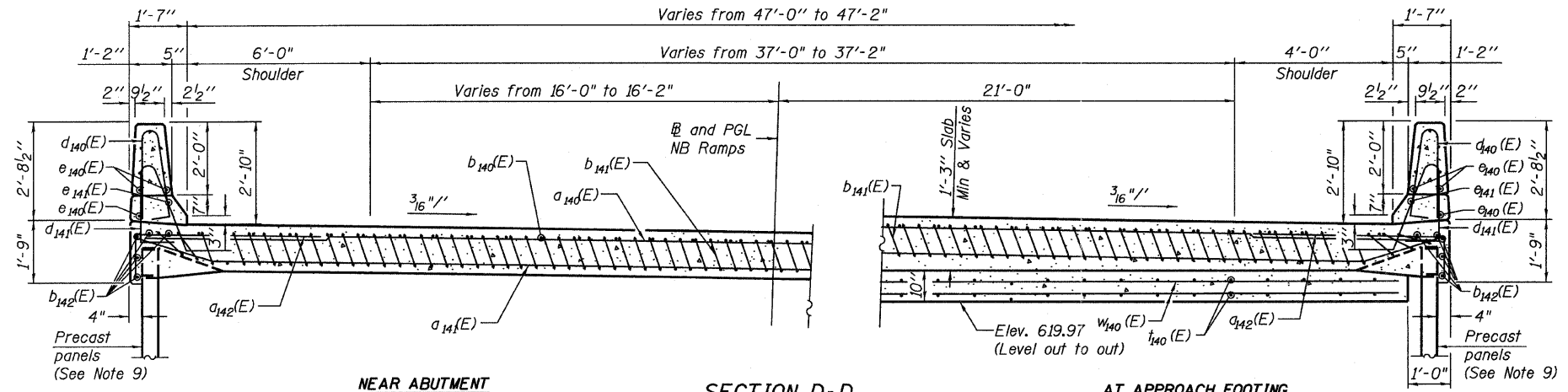
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



- Notes:
1. See sheet 70 for Detail A.
  2. Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
  3. Approach footing concrete shall be paid for as Concrete Structures.
  4. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
  5. For  $v_{100}(E)$  bar details, see sheet 211.
  6. The approach footing maximum applied service bearing pressure ( $Q_{max}$ ) = 2.0 ksf.
  7. For bar splicer details, see sheet 224.
  8. Cost of excavation for approach footing included with Concrete Structures.
  9. For MSE Retaining Wall details (S.N. 016-1304), See sheets 567-573 of 741.

The quantity for Bridge Deck Grooving & Protective Coat for approach slab is included with the quantities on sheet 46.

- \* Tilt #9  $b_{141}(E)$  bars as required to maintain clearance.
- \*\*\* Cost included with Concrete Superstructure.

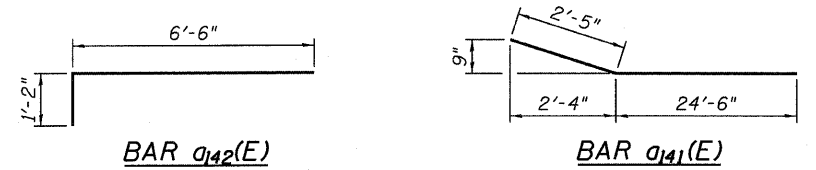
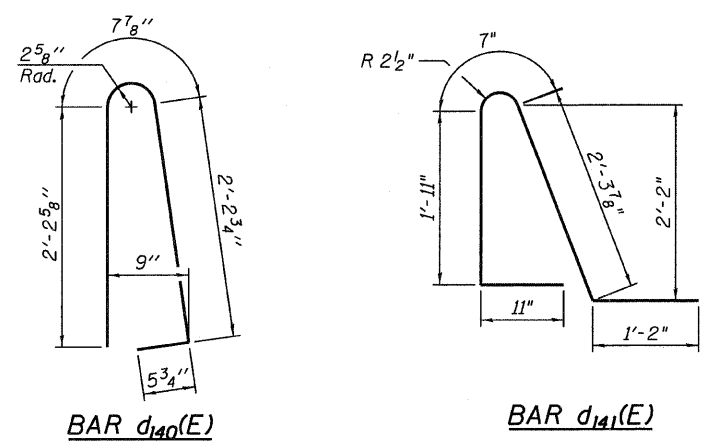


BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$a_{140}(E)$	50	#4	26'-7"	—
$a_{141}(E)$	92	#5	26'-11"	—
$a_{142}(E)$	50	#6	7'-8"	—
$b_{140}(E)$	38	#4	29'-8"	—
$b_{141}(E)$	121	#9	29'-9"	—
$b_{142}(E)$	10	#5	31'-2"	—
$d_{140}(E)$	70	#5	5'-7"	⏏
$d_{141}(E)$	66	#5	6'-11"	⏏
$e_{140}(E)$	16	#4	31'-2"	—
$e_{141}(E)$	2	#8	31'-2"	—
$f_{140}(E)$	98	#4	9'-9"	—
$w_{140}(E)$	80	#5	25'-9"	—
Concrete Superstructure		Cu. Yd.	81.4	
Concrete Structures		Cu. Yd.	14.9	
(L) Reinforcement Bars, Epoxy Coated		Pound	21,550	

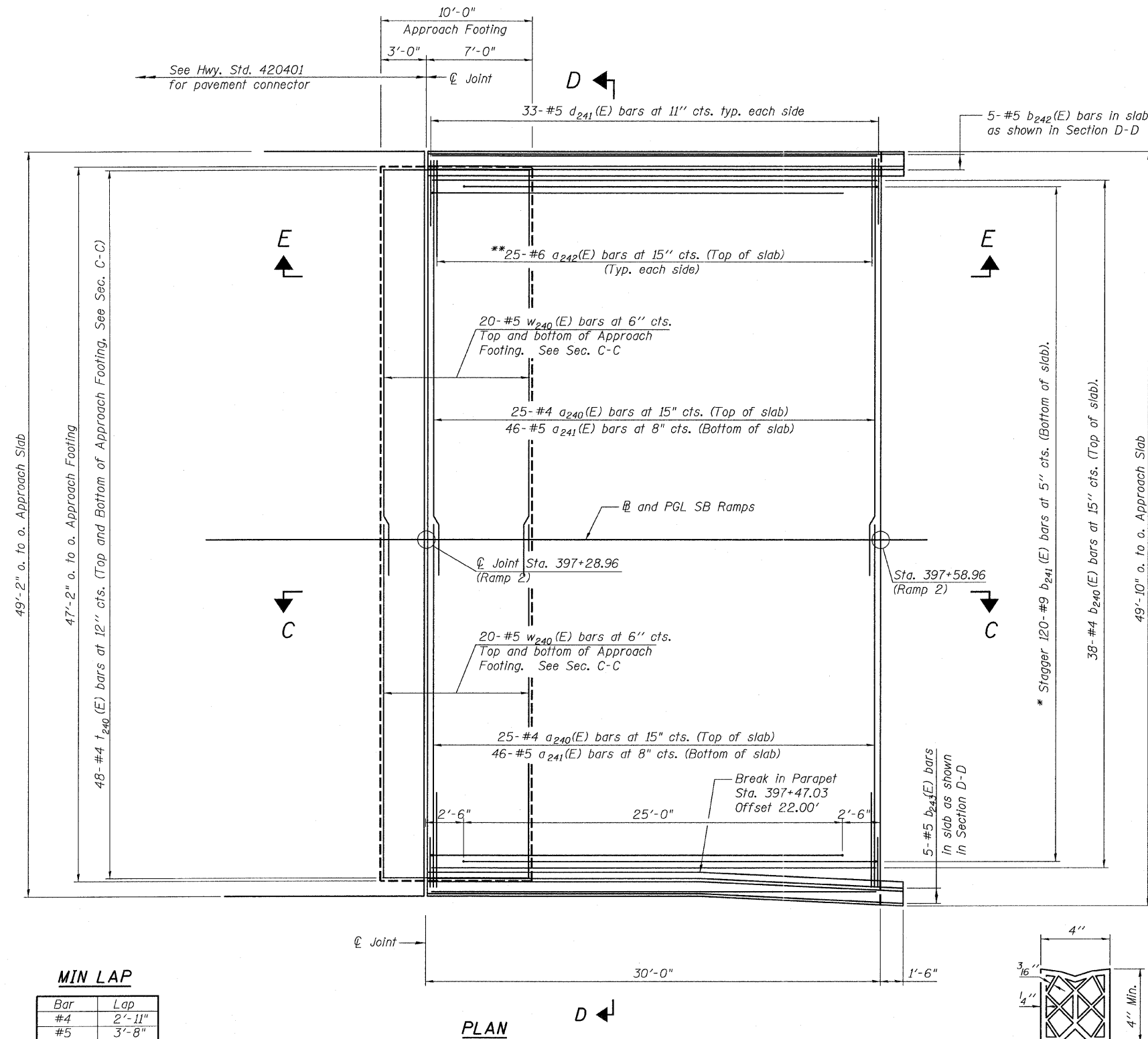
(L) 2,790 pounds billed in Substructure  
Total in Total Bill of Material on sheet 2.

(Sheet 2 of 2)  
RAMP 1 APPROACH SLAB DETAILS  
STRUCTURE NO. 016-0724



TYLIN INTERNATIONAL	DESIGNED - CBS	REVISIONS		SHEET NO. 71	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.						
	CHECKED - AMD,MMB	NAME	DATE							239 SHEETS	0711.2R & 1011.1BR	COOK	741	395	
	DRAWN - CBS														CONTRACT NO. 60999
	CHECKED - AMD,MMB														
	DATE - 03/25/2011														

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



Notes:  
See sheet 73 for Sections C-C & D-D and View E-E.  
a<sub>240</sub>(E) and a<sub>241</sub>(E) bar spacings measured along  $\varnothing$  Rdwy.

49'-2" o. to o. Approach Slab

47'-2" o. to o. Approach Footing

48'-#4 a<sub>240</sub>(E) bars at 12" cts. (Top and Bottom of Approach Footing, See Sec. C-C)

E

E

C

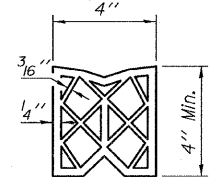
C

MIN LAP

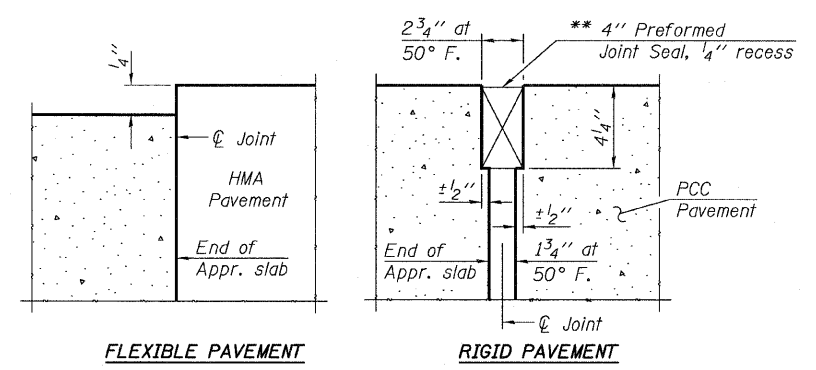
Bar	Lap
#4	2'-11"
#5	3'-8"

PLAN

\* Tilt #9 b<sub>241</sub>(E) bars as required to maintain clearance.  
\*\* Space between a<sub>240</sub>(E) bars, typ. each parapet.



PREFORMED  
JOINT SEAL



DETAIL A

\*\* Cost included with Concrete Superstructure.

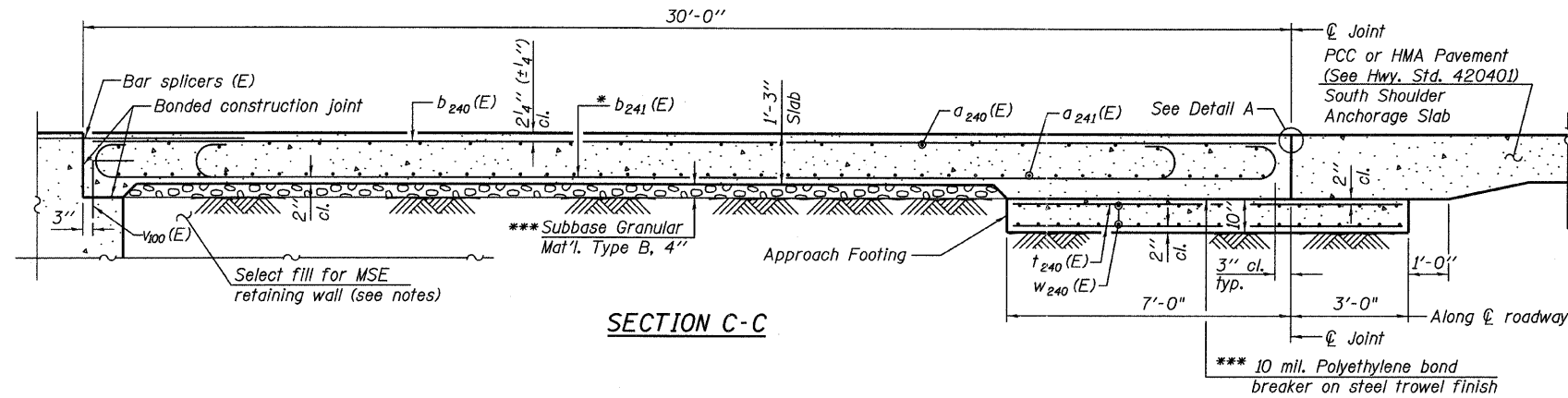
(Sheet 1 of 2)

RAMP 2 APPROACH SLAB  
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL	DESIGNED - CBS	REVISIONS		SHEET NO. 72	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,MMB	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	396	
	DRAWN - CBS				239 SHEETS	CONTRACT NO. 60999				
	CHECKED - AMD,MMB				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

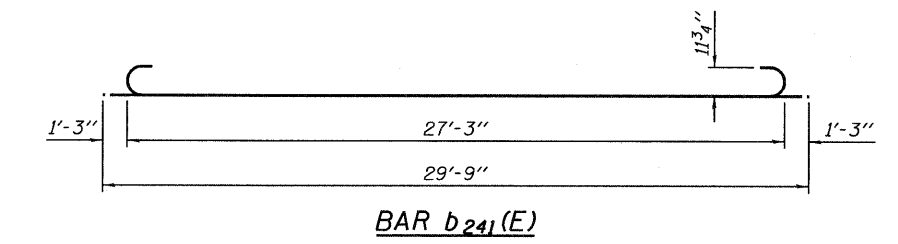


SECTION C-C

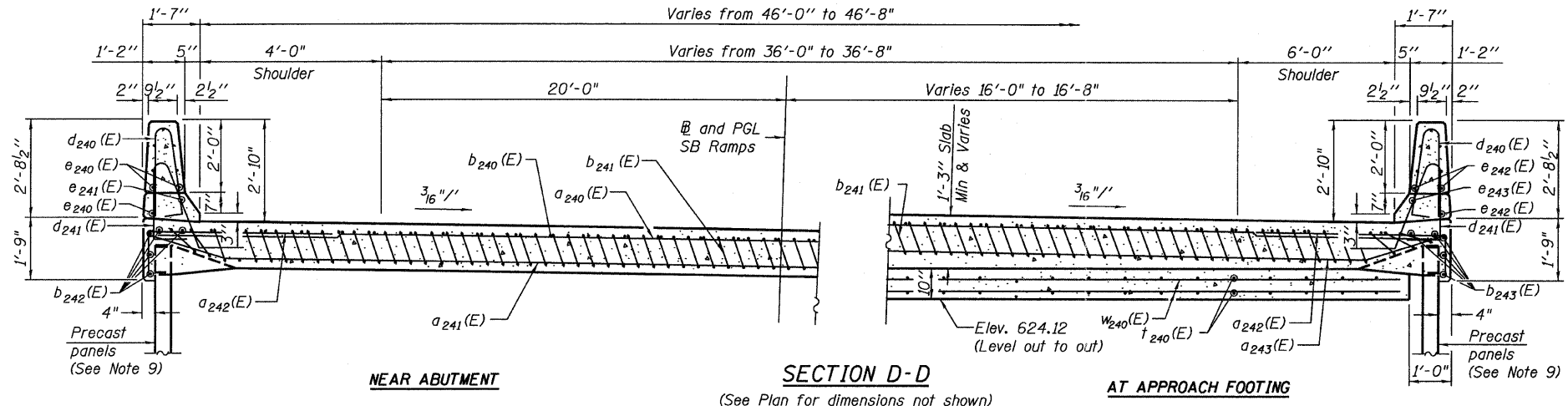
- Notes:
1. See sheet 72 for Detail A.
  2. Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
  3. Approach footing concrete shall be paid for as Concrete Structures.
  4. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
  5. For  $v_{100}(E)$  bar details, see sheet 214.
  6. The approach footing maximum applied service bearing pressure ( $Q_{max}$ ) = 2.0 ksf.
  7. For bar splicer details, see sheet 224.
  8. Cost of excavation for approach footing included with Concrete Structures.
  9. For MSE Retaining Wall details (S.N. 016-1305), See sheets 574-583 of 741.

The quantity for Bridge Deck Grooving & Protective Coat for approach slab is included with the quantities on sheet 50.

- \* Tilt #9  $b_{241}(E)$  bars as required to maintain clearance.
- \*\*\* Cost included with Concrete Superstructure.



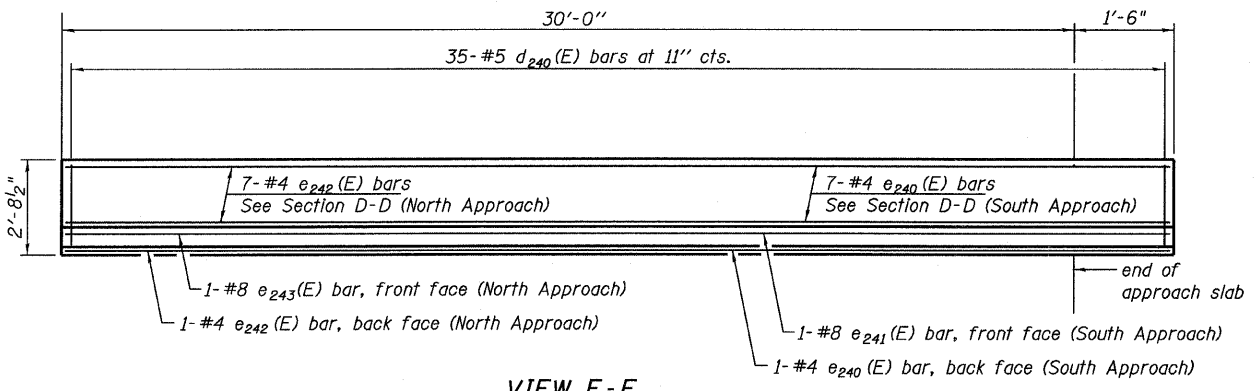
BAR  $b_{241}(E)$



NEAR ABUTMENT

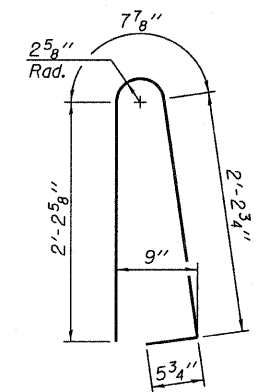
SECTION D-D

AT APPROACH FOOTING

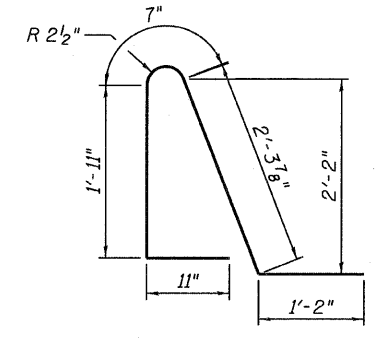


VIEW E-E

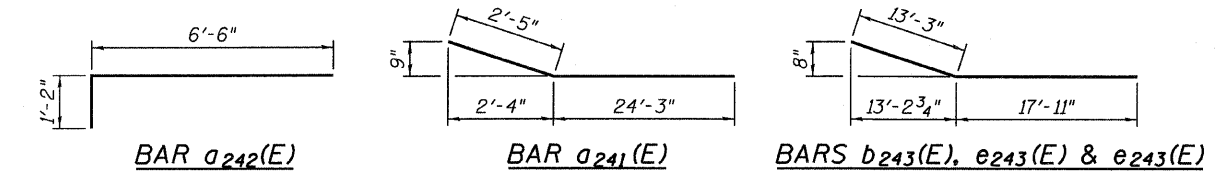
(North parapet shown, South opposite hand)



BAR  $d_{240}(E)$



BAR  $e_{241}(E)$



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$d_{240}(E)$	50	#4	26'-3"	U
$a_{241}(E)$	92	#5	26'-8"	U
$e_{242}(E)$	50	#6	7'-8"	U
$b_{240}(E)$	38	#4	29'-8"	U
$b_{241}(E)$	120	#9	29'-9"	U
$b_{242}(E)$	5	#5	31'-2"	U
$b_{243}(E)$	5	#5	31'-2"	U
$d_{240}(E)$	70	#5	5'-7"	U
$d_{241}(E)$	66	#5	6'-11"	U
$e_{240}(E)$	8	#4	31'-2"	U
$e_{241}(E)$	1	#8	31'-2"	U
$e_{242}(E)$	8	#4	31'-2"	U
$e_{243}(E)$	1	#8	31'-2"	U
$t_{240}(E)$	96	#4	9'-9"	U
$w_{240}(E)$	80	#5	25'-3"	U
Concrete Superstructure		Cu. Yd.	80.3	
Concrete Structures		Cu. Yd.	14.6	
(1.) Reinforcement Bars, Epoxy Coated		Pound	21,400	

(1.) 2,775 pounds billed in Substructure  
Total in Total Bill of Material on sheet 2.

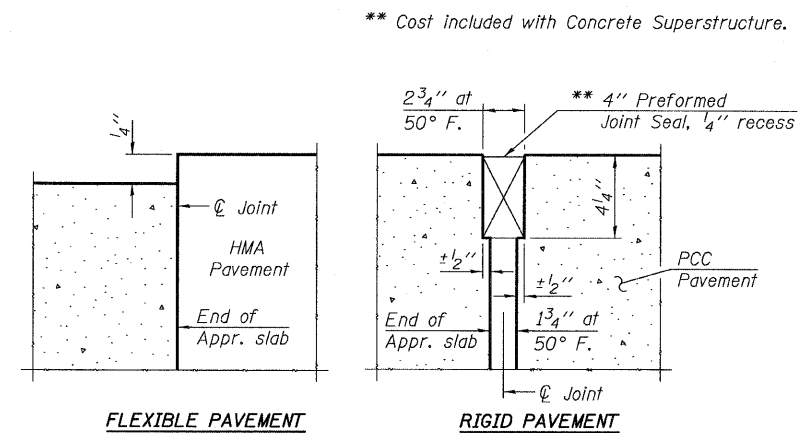
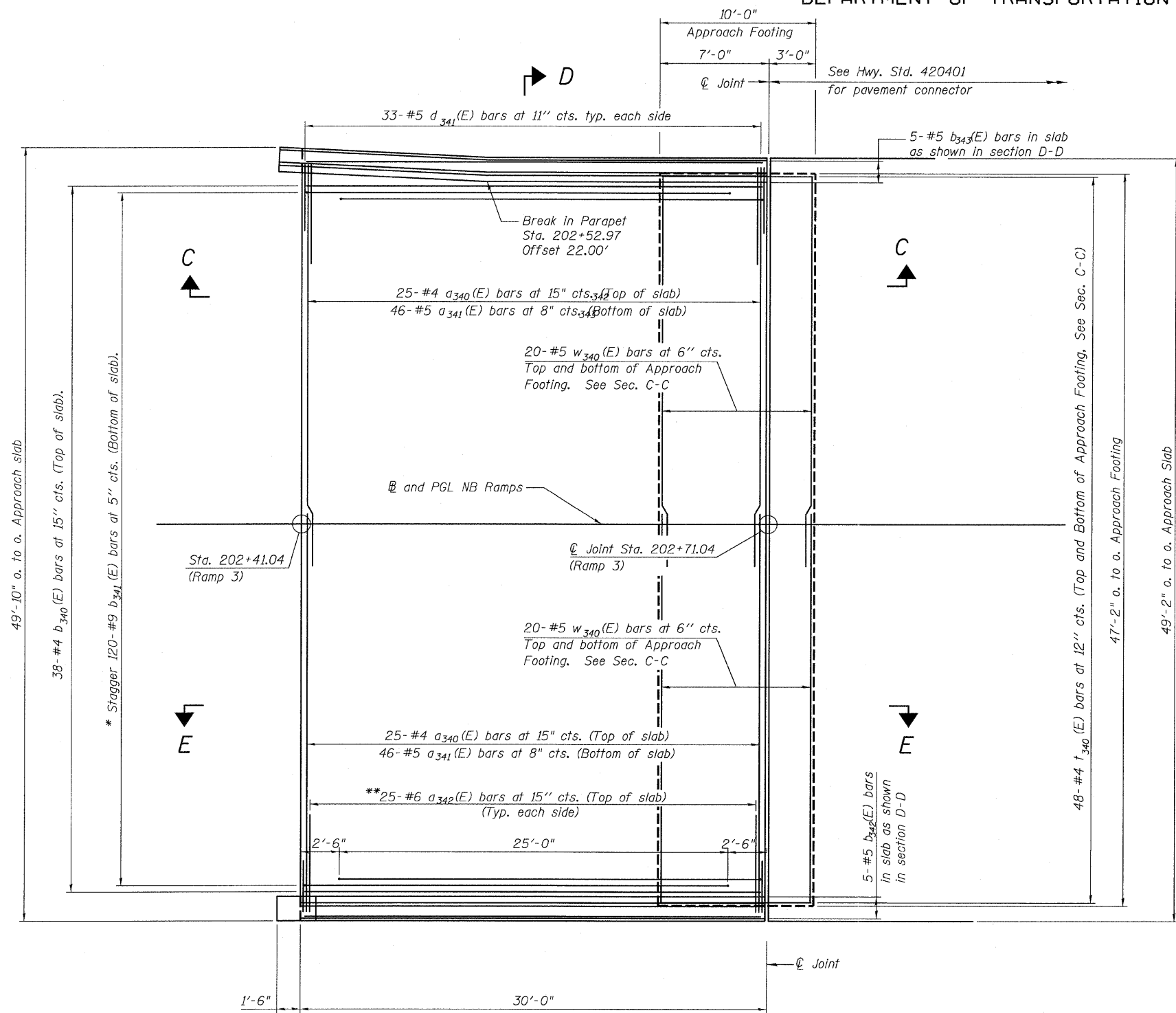
(Sheet 2 of 2)  
RAMP 2 APPROACH SLAB DETAILS  
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL	DESIGNED - CBS	REVISIONS		SHEET NO. 73	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.				
	CHECKED - AMD,MMB	NAME	DATE							741	397		
	DRAWN - CBS											CONTRACT NO. 60999	
	CHECKED - AMD,MMB												
	DATE - 03/25/2011												

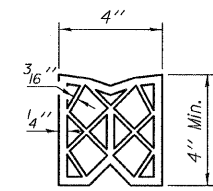
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Notes:  
See sheet 75 for Sections C-C & D-D and View E-E.  
a<sub>340</sub>(E) and a<sub>341</sub>(E) bar spacings measured along  $\phi$  Rdwy.



DETAIL A



PREFORMED  
JOINT SEAL

\*\* Cost included with Concrete Superstructure.

(Sheet 1 of 2)

RAMP 3 APPROACH SLAB  
STRUCTURE NO. 016-0724

**MIN LAP**

Bar	Lap
#4	2'-11"
#5	3'-8"

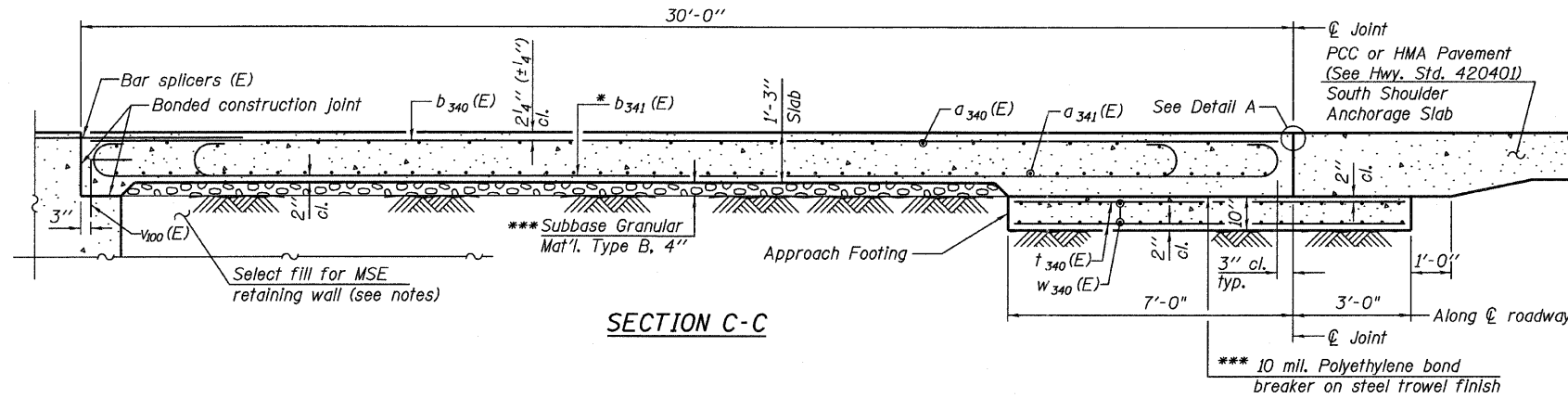
**PLAN**

\* Tilt #9 b<sub>341</sub>(E) bars as required to maintain clearance.  
\*\* Space between a<sub>340</sub>(E) bars, typ. each parapet.

<b>TYLIN INTERNATIONAL</b>	DESIGNED - CBS	REVISIONS		SHEET NO. 74	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD, MMB	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	398	
	DRAWN - CBS				CONTRACT NO. 60999					
	CHECKED - AMD, MMB				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

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4/28/2011

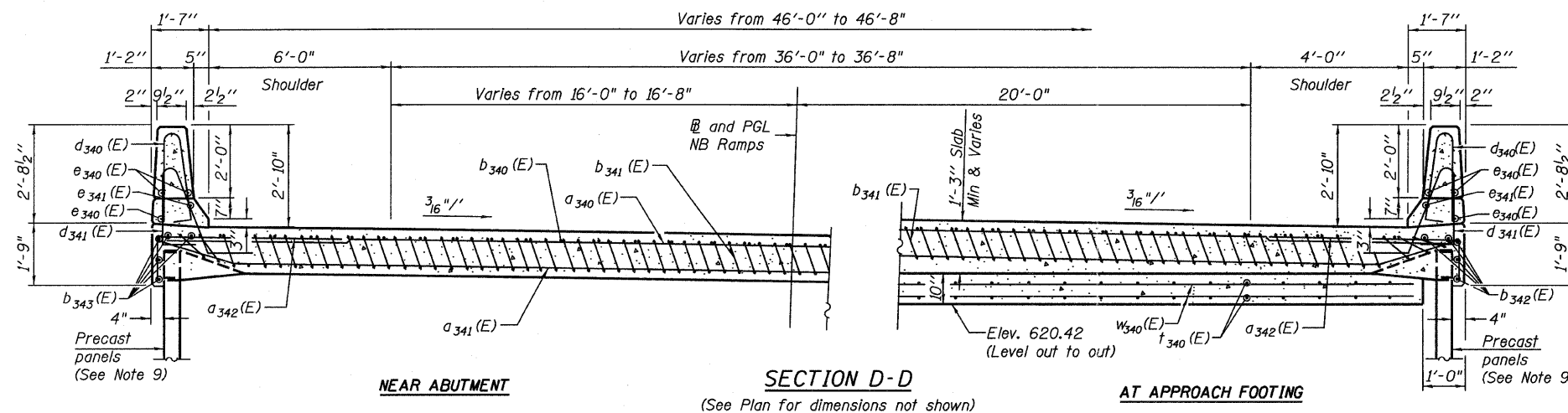
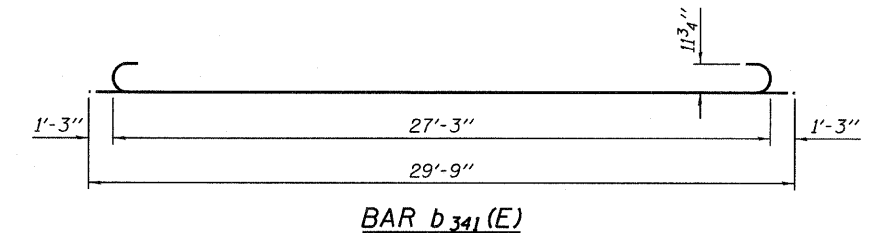
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



- Notes:
1. See sheet 74 for Detail A.
  2. Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
  3. Approach footing concrete shall be paid for as Concrete Structures.
  4. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
  5. For  $v_{100}(E)$  bar details, see sheet 217.
  6. The approach footing maximum applied service bearing pressure ( $Q_{max}$ ) = 2.0 ksf.
  7. For bar splicer details, see sheet 224.
  8. Cost of excavation for approach footing included with Concrete Structures.
  9. For MSE Retaining Wall details (S.N. 016-1306), See sheets 584-592 of 741.

The quantity for Bridge Deck Grooving & Protective Coat for approach slab is included with the quantities on sheet 54.

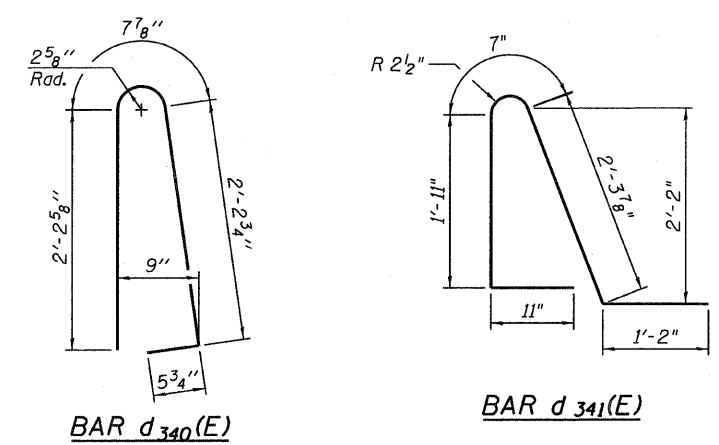
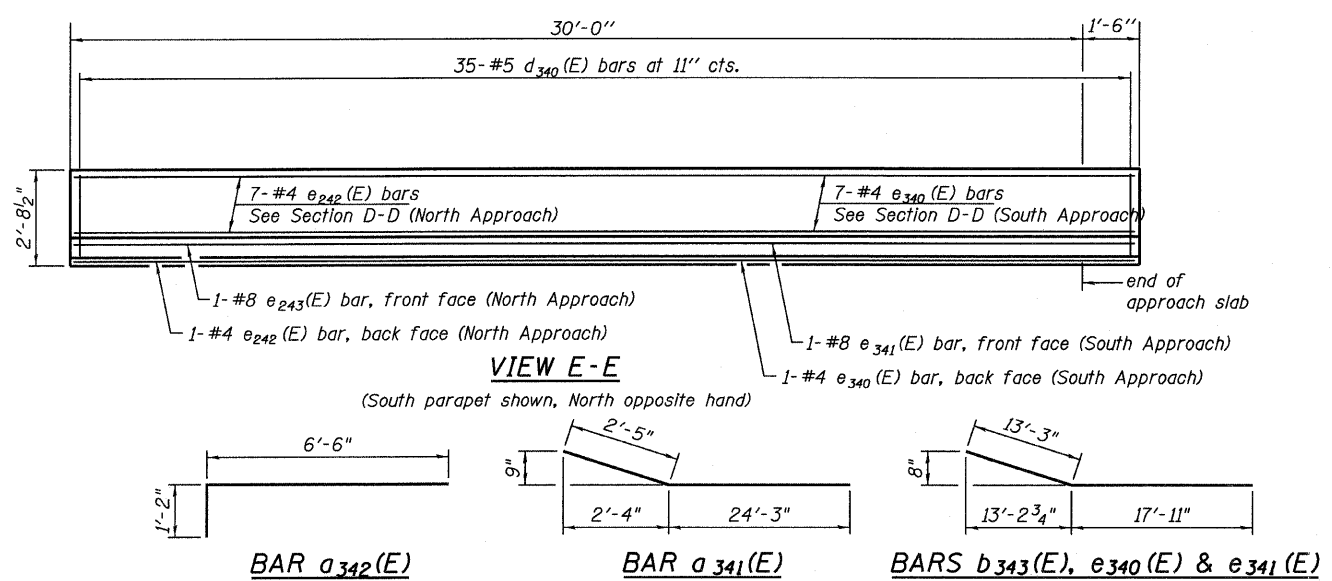
- \* Tilt #9  $b_{341}(E)$  bars as required to maintain clearance.  
\*\*\* Cost included with Concrete Superstructure.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$d_{340}(E)$	50	#4	26'-3"	—
$d_{341}(E)$	92	#5	26'-8"	—
$d_{342}(E)$	50	#6	7'-8"	—
$b_{340}(E)$	38	#4	29'-8"	—
$b_{341}(E)$	120	#9	29'-9"	—
$b_{342}(E)$	5	#5	31'-2"	—
$b_{343}(E)$	5	#5	31'-2"	—
$d_{340}(E)$	70	#5	5'-7"	△
$d_{341}(E)$	66	#5	6'-11"	△
$e_{340}(E)$	8	#4	31'-2"	—
$e_{341}(E)$	1	#8	31'-2"	—
$e_{342}(E)$	8	#4	31'-2"	—
$e_{343}(E)$	1	#8	31'-2"	—
$t_{340}(E)$	96	#4	9'-9"	—
$w_{340}(E)$	80	#5	25'-3"	—
Concrete Superstructure		Cu. Yd.	80.3	
Concrete Structures		Cu. Yd.	14.6	
(1.) Reinforcement Bars, Epoxy Coated		Pound	21,400	

(1.) 2,775 pounds billed in Substructure  
Total in Total Bill of Material on sheet 2.



(Sheet 2 of 2)  
RAMP 3 APPROACH SLAB DETAILS  
STRUCTURE NO. 016-0724

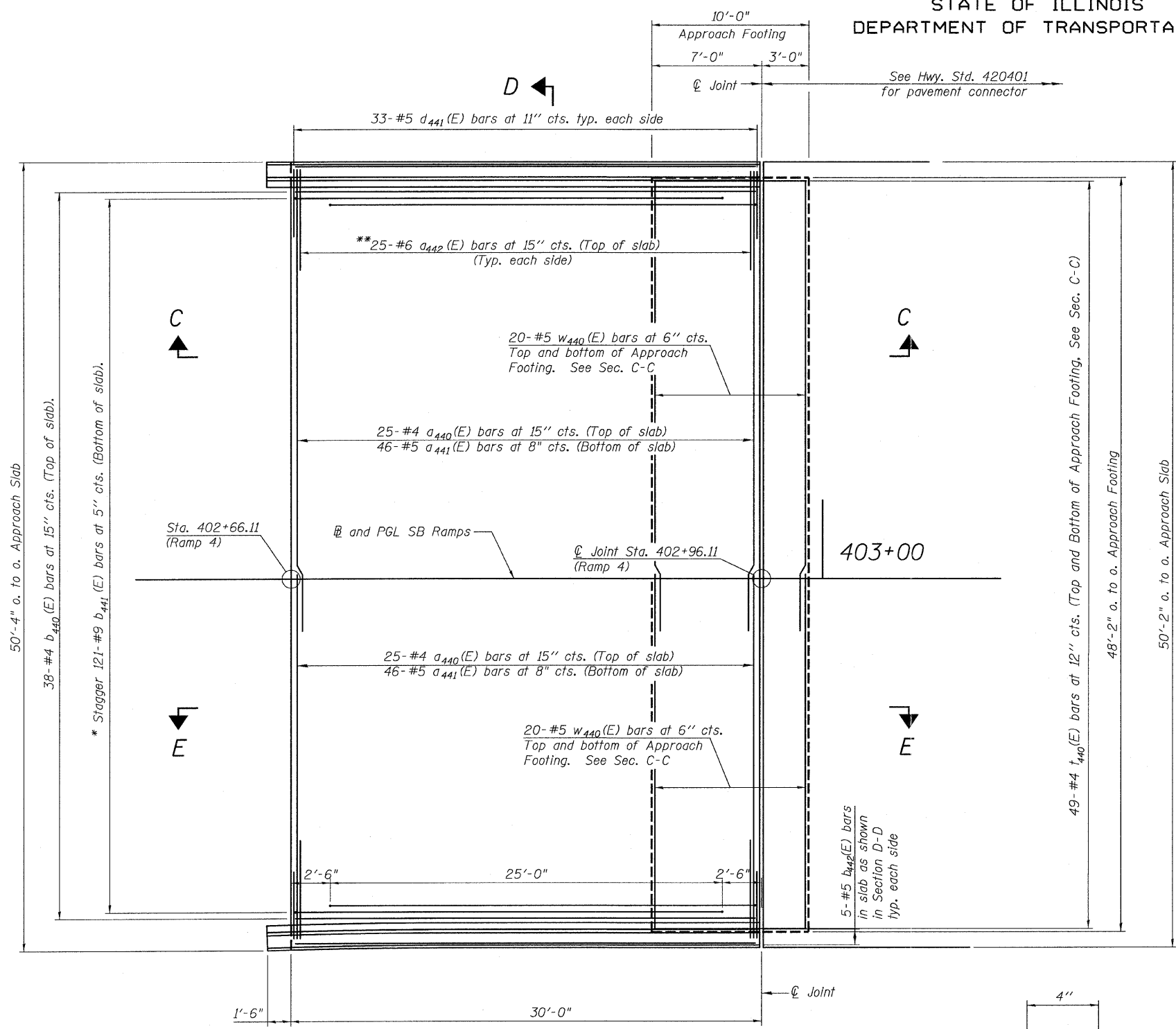
TYLIN INTERNATIONAL	DESIGNED - CBS	REVISIONS		SHEET NO. 75	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD, MMB	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	399	
	DRAWN - CBS				239 SHEETS	CONTRACT NO. 60999				
	CHECKED - AMD, MMB				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



Notes:  
See sheet 77 for Sections C-C & D-D and View E-E.  
a<sub>440</sub>(E) and a<sub>441</sub>(E) bar spacings measured along  $\phi$  Rdwy.

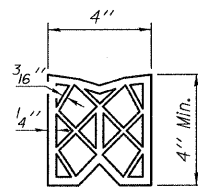


MIN LAP

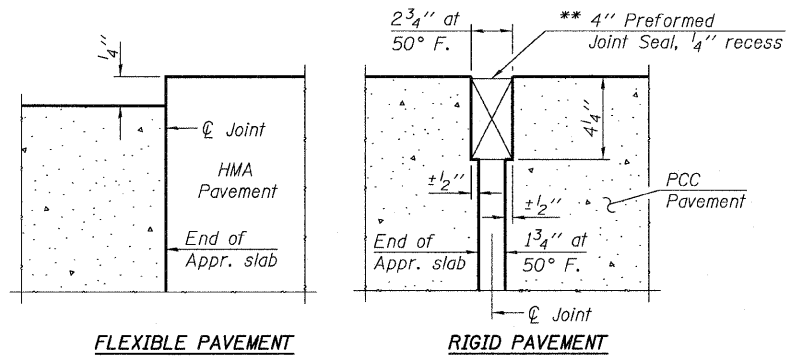
Bar	Lap
#4	2'-11"
#5	3'-8"

\* Tilt #9 b<sub>441</sub>(E) bars as required to maintain clearance.  
\*\* Space between a<sub>440</sub>(E) bars, typ. each parapet.

PLAN



PREFORMED  
JOINT SEAL



FLEXIBLE PAVEMENT RIGID PAVEMENT

DETAIL A

\*\* Cost included with Concrete Superstructure.

(Sheet 1 of 2)

RAMP 4 APPROACH SLAB  
STRUCTURE NO. 016-0724

**TYLIN** INTERNATIONAL

DESIGNED - CBS	REVISIONS	
CHECKED - AMD, MMB	NAME	DATE
DRAWN - CBS		
CHECKED - AMD, MMB		
DATE - 03/25/2011		

SHEET NO. 76	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	0711.2R & 1011.1BR	COOK	741	400
239 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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