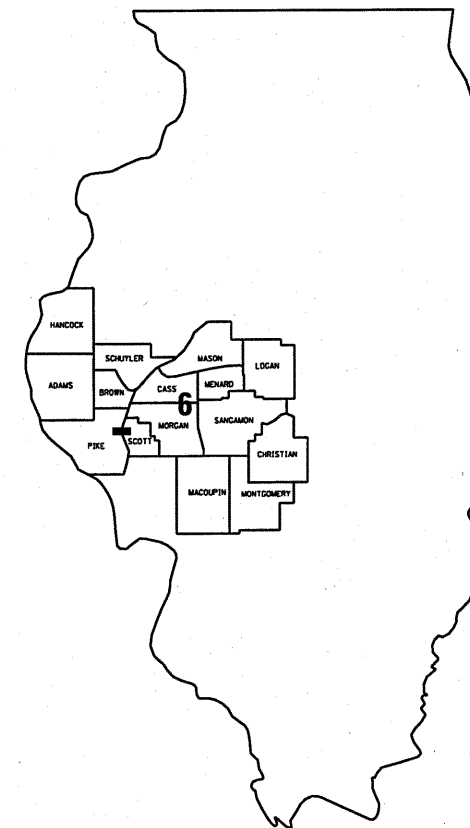
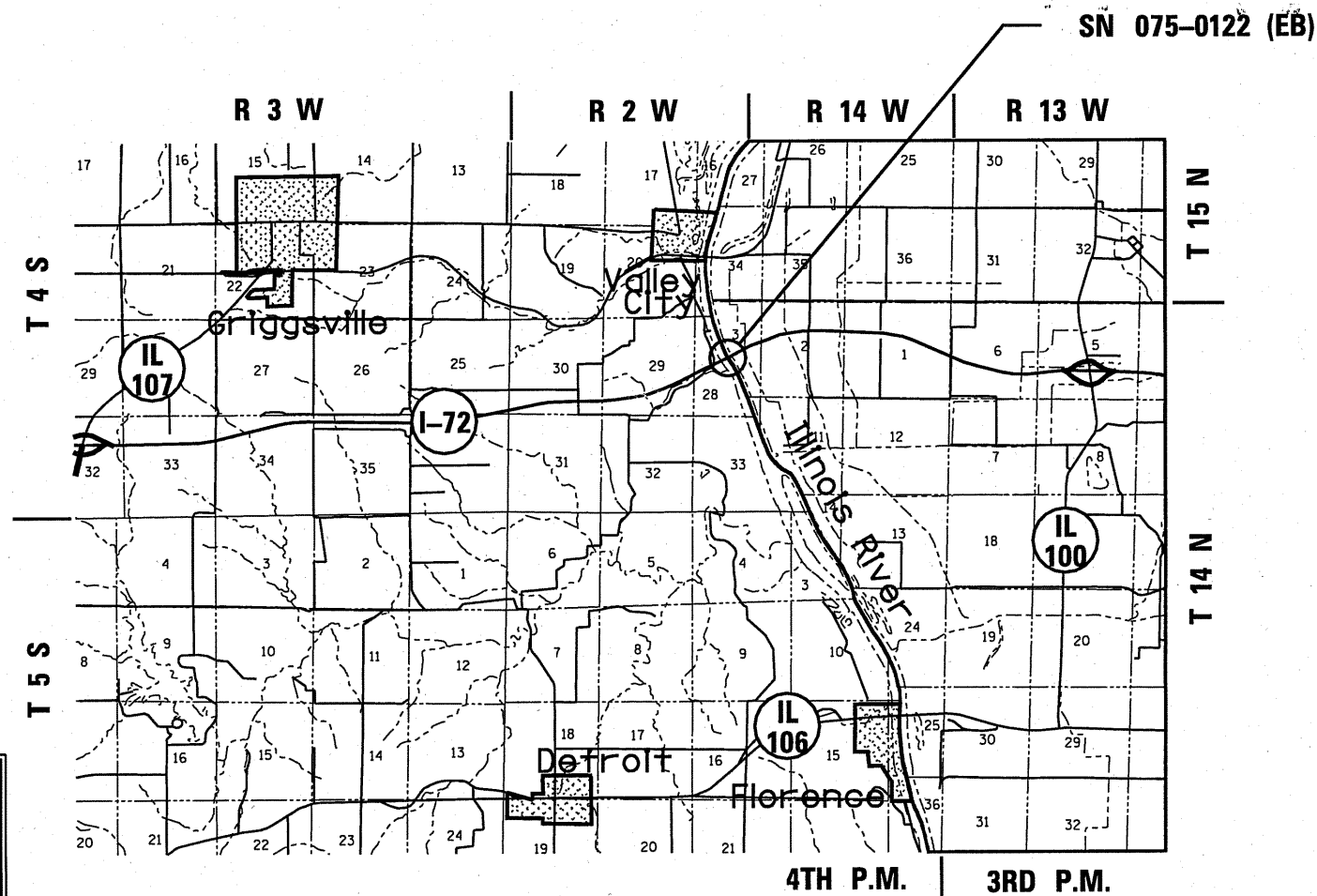


FOR INDEX OF SHEETS AND HIGHWAY  
STANDARDS, SEE SHEET 2.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
**PROPOSED  
HIGHWAY PLANS**  
FAI ROUTE 72 (I-72)  
SECTION (75,86)BJR  
PIKE COUNTY  
C96-016-10 / D96-016-10



LOCATION OF SECTION INDICATED THUS: ■



J. U. L. I. E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123

BRIDGE INSPECTION ENGINEER: DAVE COPENBARGER  
PHONE: (217) 785-5306

NET LTH OF SEC 1,410.00 FT=0.267 MILE

**CONTRACT NO. 72D81**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED SEPTEMBER 10 20 10

Ryan Z. Dinkel  
DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER

October 1 20 10

Scott E. Still, P.E.  
acting ENGINEER OF DESIGN AND ENVIRONMENT

October 1 20 10

Christine M. Reedler  
DIRECTOR, DIVISION OF HIGHWAYS

INDEX OF SHEETS

1	COVER SHEET
2	INDEX, STANDARDS, & GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	STAGING DETAILS
5-13	BRIDGE PLANS & ELEVATION VIEWS

STANDARDS

701101 -02
701106 -02
701400 -04
701402 -07
701901 -01
704001 -06
701406 -05

GENERAL NOTES:

PRIOR TO POURING THE NEW CONCRETE JOINTS, ALL HEAVY OR LOOSE RUST, LOOSE MILL SCALE, AND OTHER LOOSE OR POTENTIALLY DETRIMENTAL FOREIGN MATERIAL SHALL BE REMOVED FROM THE SURFACES IN CONTACT WITH CONCRETE. TIGHTLY ADHERED PAINT MAY REMAIN UNLESS OTHERWISE NOTED. REMOVAL SHALL BE ACCOMPLISHED BY METHODS THAT WILL NOT DAMAGE THE STEEL AND THE COST WILL BE INCLUDED IN THE PAY ITEM COVERING REMOVAL OF EXISTING CONCRETE.

THE DECK SURFACE SHALL HAVE ITS FINAL FINISH TINED ACCORDING TO ARTICLE 420.09(E)(1) OF THE STANDARD SPECIFICATIONS. COST INCLUDED WITH CONCRETE SUPERSTRUCTURE.

<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS DISTRICT 6</b>	
EXAMINED <u>SEP 7</u>	20 <u>10</u>
<i>Carl Walker</i> ENGINEER OF OPERATIONS	
EXAMINED <u>SEPT 7</u>	20 <u>10</u>
<i>Tommy Ford</i> ENGINEER OF PROGRAM IMPLEMENTATION	
EXAMINED <u>Sept 7</u>	20 <u>10</u>
<i>ARMU</i> ENGINEER OF PROGRAM DEVELOPMENT	

INDEX, STDS, & GENERAL NOTES  
FAI 72 (I-72)  
SECTION (75,86)BJR  
PIKE COUNTY

Rev.

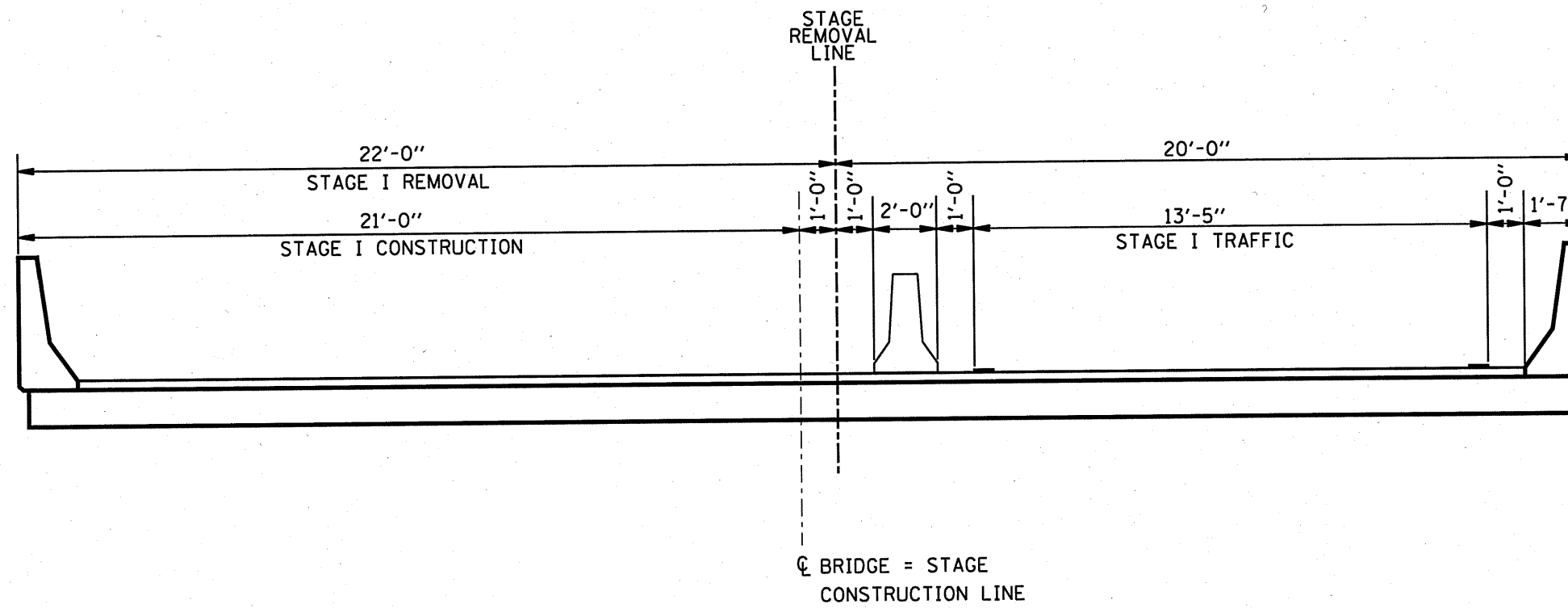
S U M M A R Y O F Q U A N T I T I E S

CODE NO.	ITEM	UNIT	100% STATE
			0014
			TOTAL QTY
50102400	CONCRETE REMOVAL	CU YD	39.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	35.2
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3500
50800515	BAR SPLICERS	EACH	56
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1
52000110	PREFORMED JOINT STRIP SEAL	FOOT	84
67100100	MOBILIZATION	L SUM	1
70100805	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	L SUM	1
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1
Z0030250	IMPACT ATTENUATORS, TEMPORARY ( NON-REDIRECTIVE, ), TEST LEVEL 3	EACH	1
Z0034390	MODULAR EXPANSION JOINT 6"	FOOT	84
Z0034396	MODULAR EXPANSION JOINT 12"	FOOT	84
Z0030350	IMPACT ATTENUATORS, RELOCATE ( NON-REDIRECTIVE), TEST LEVEL 3	EACH	3
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	8867
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1750
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	3850
78300100	PAVEMENT MARKING REMOVAL	SQ FT	4554
* X7800620	URETHANE PAVEMENT MARKING LINE - 5" <sup>LINE</sup>	FOOT	11110

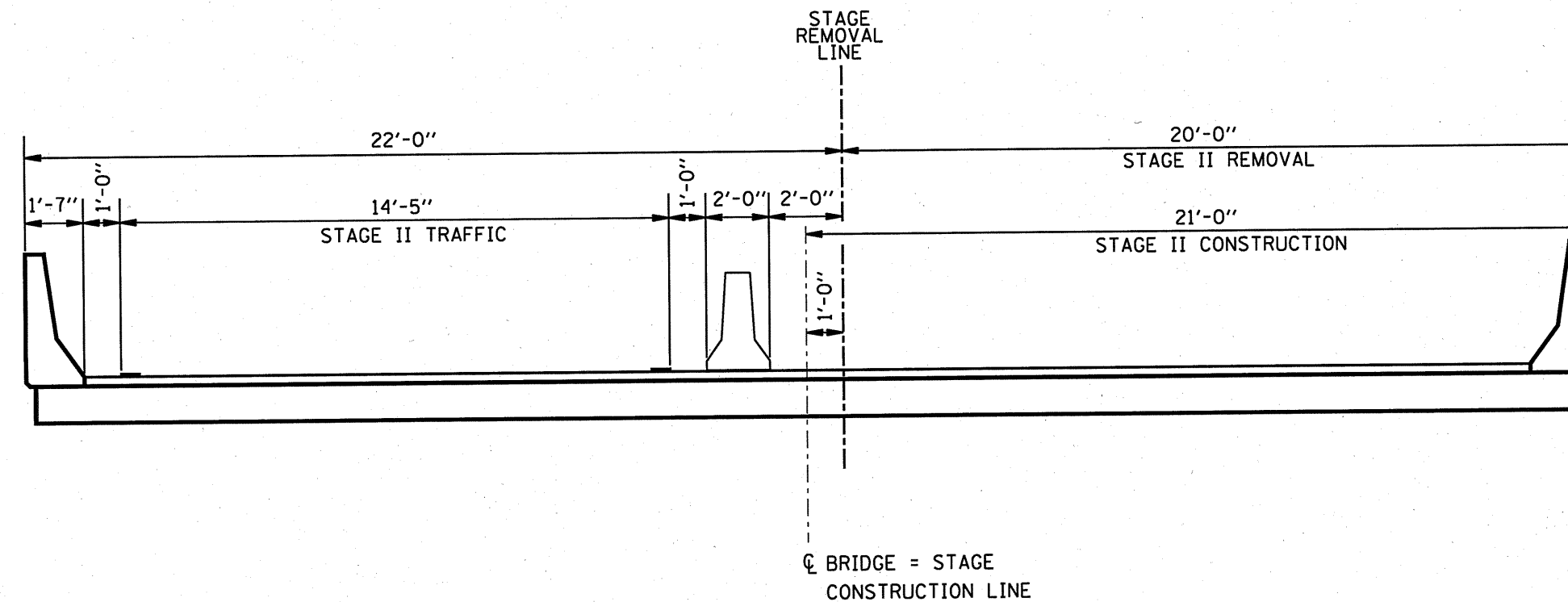
\* Specialty Items

Rev.

QUANTITIES  
FAI 72 (I-72)  
SECTION (75,86)BJR  
PIKE COUNTY

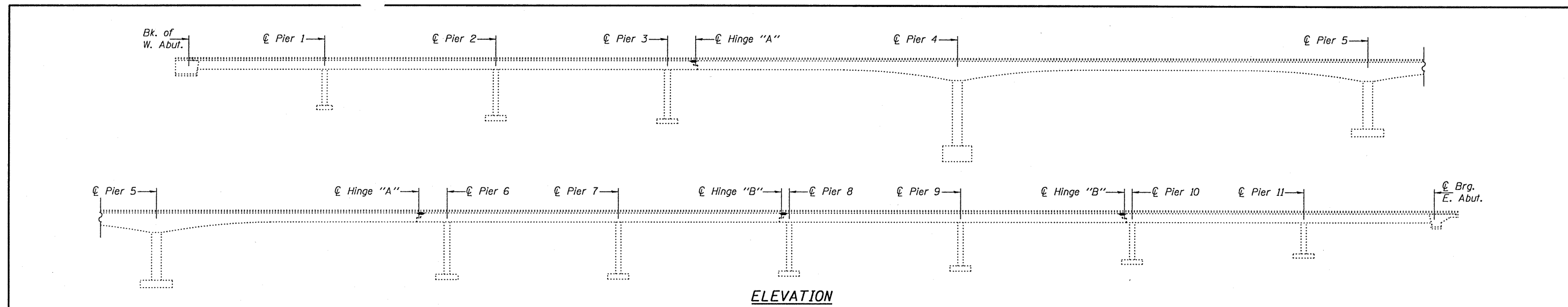


STAGE I CONSTRUCTION  
(LOOKING IN DIRECTION OF TRAFFIC)

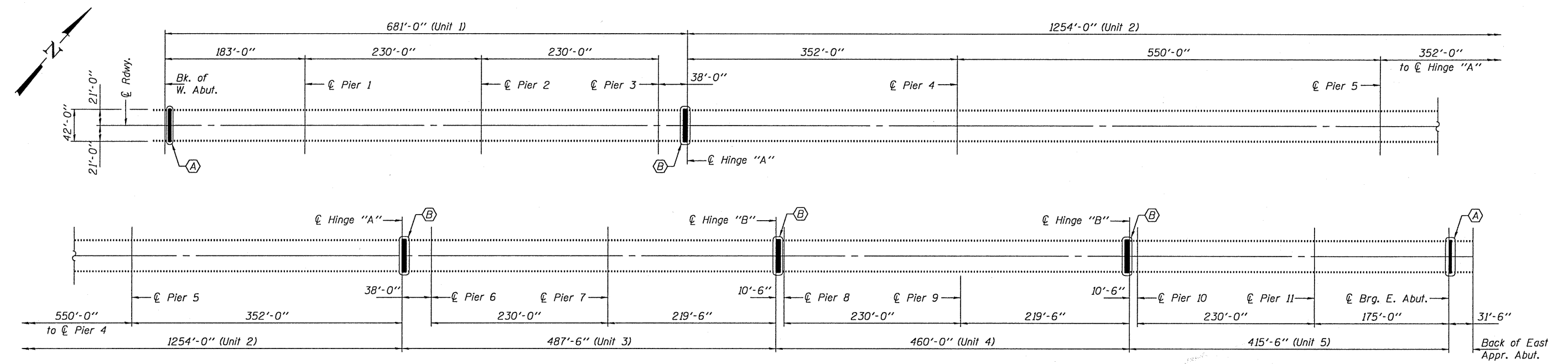


STAGE II CONSTRUCTION  
(LOOKING IN DIRECTION OF TRAFFIC)

STAGING DETAILS  
FAI 72 (I-72)  
SECTION (75,86)BJR  
PIKE COUNTY



ELEVATION



PLAN

- (A) - Replace Existing Expansion Joint with Preformed Joint Strip Seal.
- (B) - Replace Existing Expansion Joint with Modular Expansion Joint.

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.  
 Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.  
 Expansion joints shall be fabricated and installed according to the manufacturer's recommendations and as approved by the Engineer.  
 Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.

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.  
 Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.  
 Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	39.6
Concrete Superstructure	Cu. Yd.	35.2
Reinforcement Bars, Epoxy Coated	Pound	3500
Bar Splicers	Each	56
Modular Expansion Joint, 6"	Foot	84
Modular Expansion Joint, 12"	Foot	84
Preformed Joint Strip Seal	Foot	84



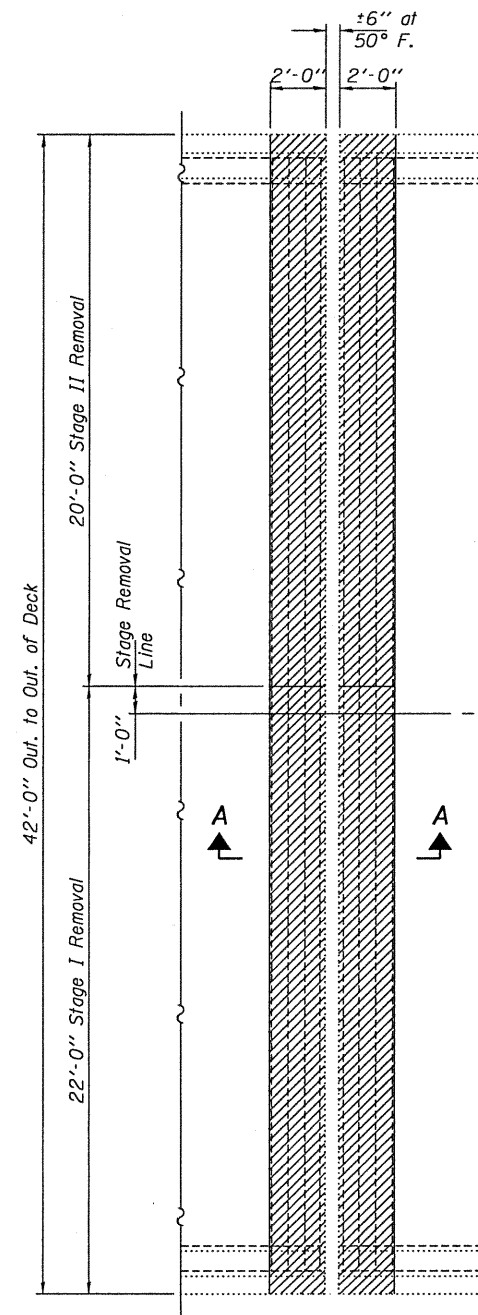
Expires: November 30, 2010

DESIGNED - <i>[Signature]</i>	EXAMINED - <i>[Signature]</i>	DATE - SEPTEMBER 27, 2010
CHECKED - <i>[Signature]</i>	PASSED - <i>[Signature]</i>	
DRAWN - Kyle M. Steffen		
CHECKED - <i>[Signature]</i>		

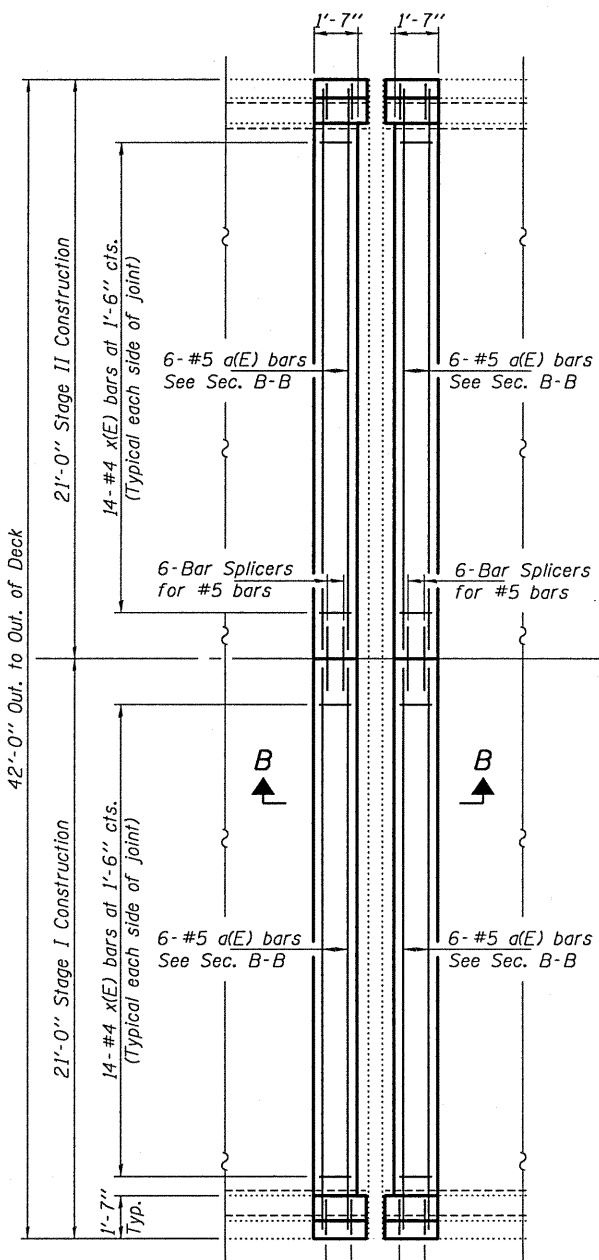
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION  
 SN 075-0122 (E.B.)  
 SHEET NO. 1 OF 9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75, 86)BJR	PIKE	13	5
CONTRACT NO. 72081				
ILLINOIS FED. AID PROJECT				



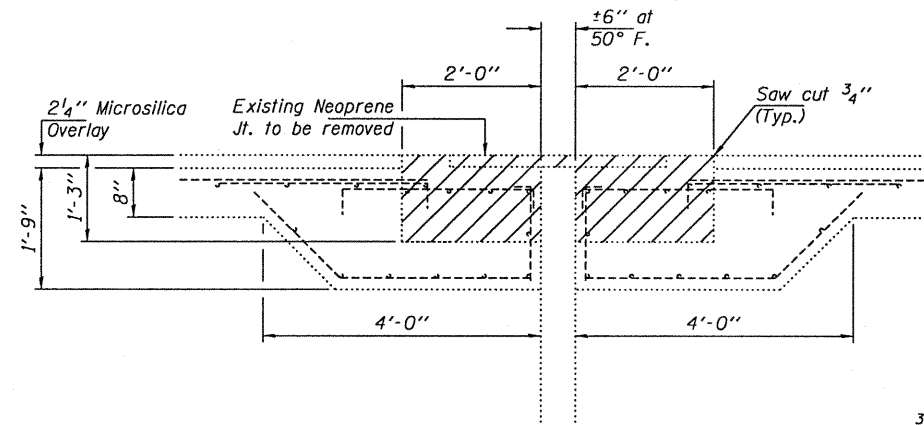
REMOVAL PLAN AT HINGE "A"



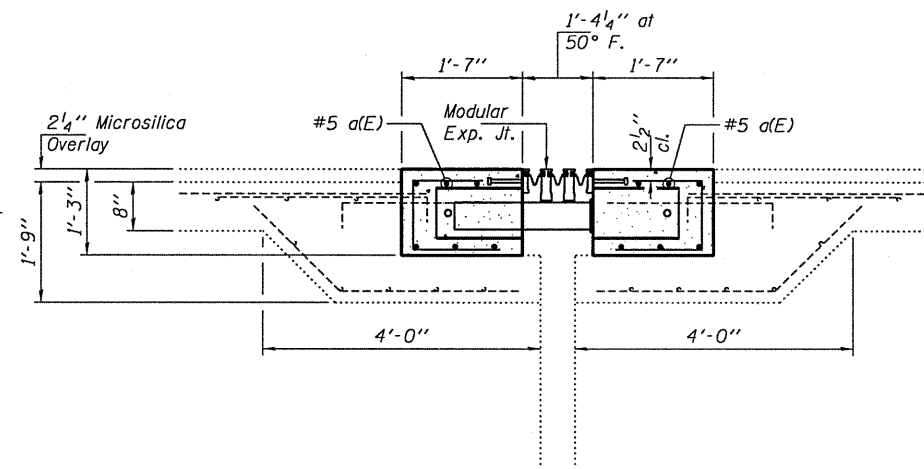
CONCRETE PLAN AT HINGE "A"

Note:  
 Hatched areas indicate concrete sections to be removed and replaced. Perimeters of concrete removal areas shall be saw cut  $\frac{3}{4}$ " prior to the removal of concrete.  
 The Modular Expansion Joint at Hinge "A" shall have a total movement capability of  $12\frac{1}{2}$ ".  
 See sheet 4 of 9 for Parapet Details & d1(E) bars.  
 In reference to Article 520.04 of the Standard Specifications, the expansion length handled by Hinge "A" located adjacent to Pier 3 is 968 feet. The expansion length handled by Hinge "A" located adjacent to Pier 6 is 871 feet.

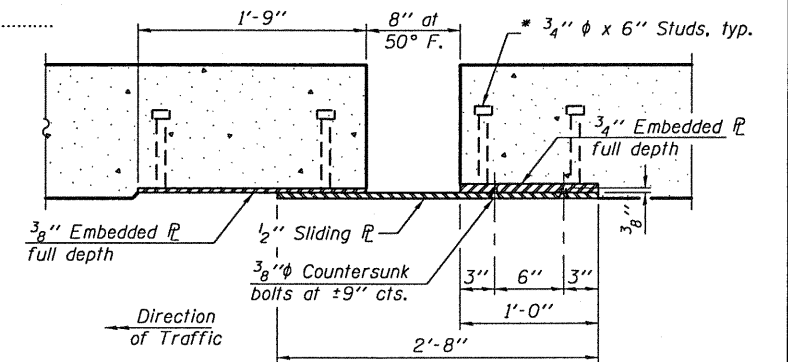
\* Dimension for Modular Expansion Joint at 50°F.



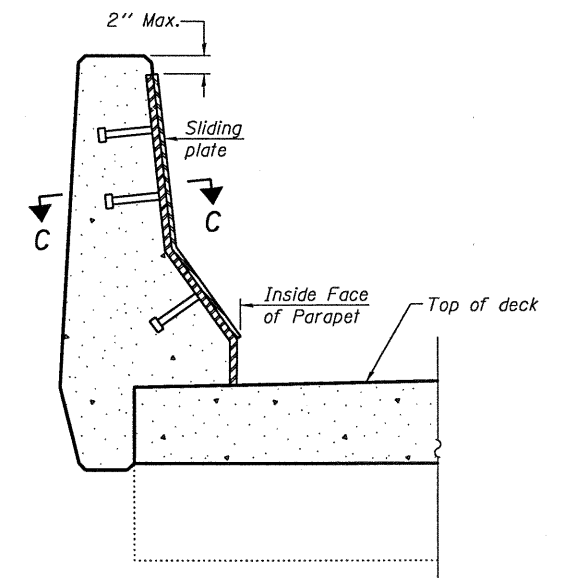
SECTION A-A



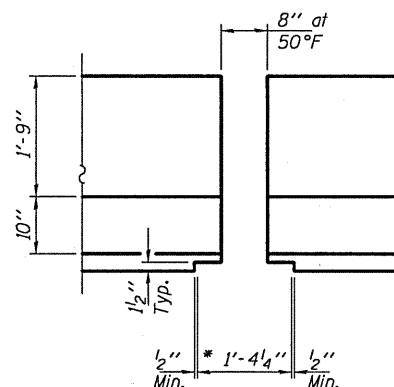
SECTION B-B



SECTION C-C

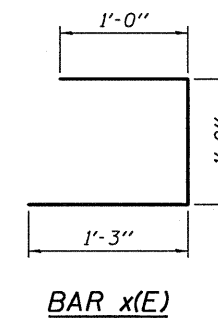


SECTION THRU PARAPET  
 (at Modular Joints)



PARAPET ELEVATION

(Sliding R's not shown for clarity)  
 Cost of sliding plates are included in the Modular Expansion Joint pay item.



BAR x(E)

HINGE "A"  
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	48	#5	20'-2"	—
d(E)	24	#4	2'-9"	—
d1(E)	24	#5	6'-1"	⊔
x(E)	112	#4	3'-3"	⊔
Concrete Removal			Cu. Yd.	17.4
Concrete Superstructure			Cu. Yd.	14.0
Reinforcement Bars, Epoxy Coated			Pound	1450
Modular Expansion Joint, 12"			Foot	84

DESIGNED - MKC  
 CHECKED - GGE  
 DRAWN - Kyle M. Steffen  
 CHECKED - MKC GGE

EXAMINED *Carl Perry*  
 ENGINEER OF STRUCTURAL SERVICES  
 PASSED *Ralph E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES

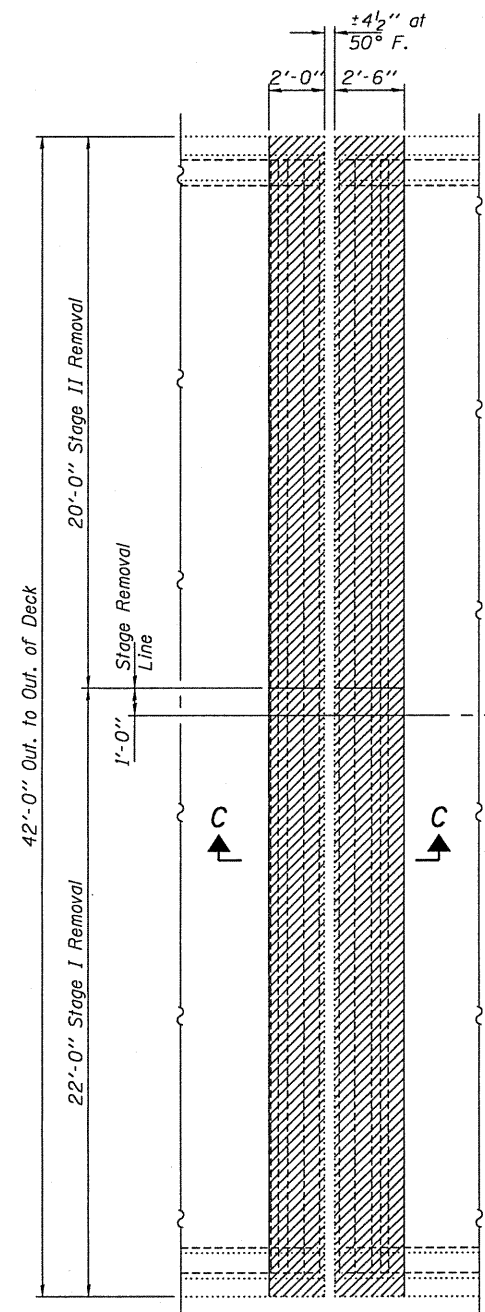
DATE - SEPTEMBER 27, 2010

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

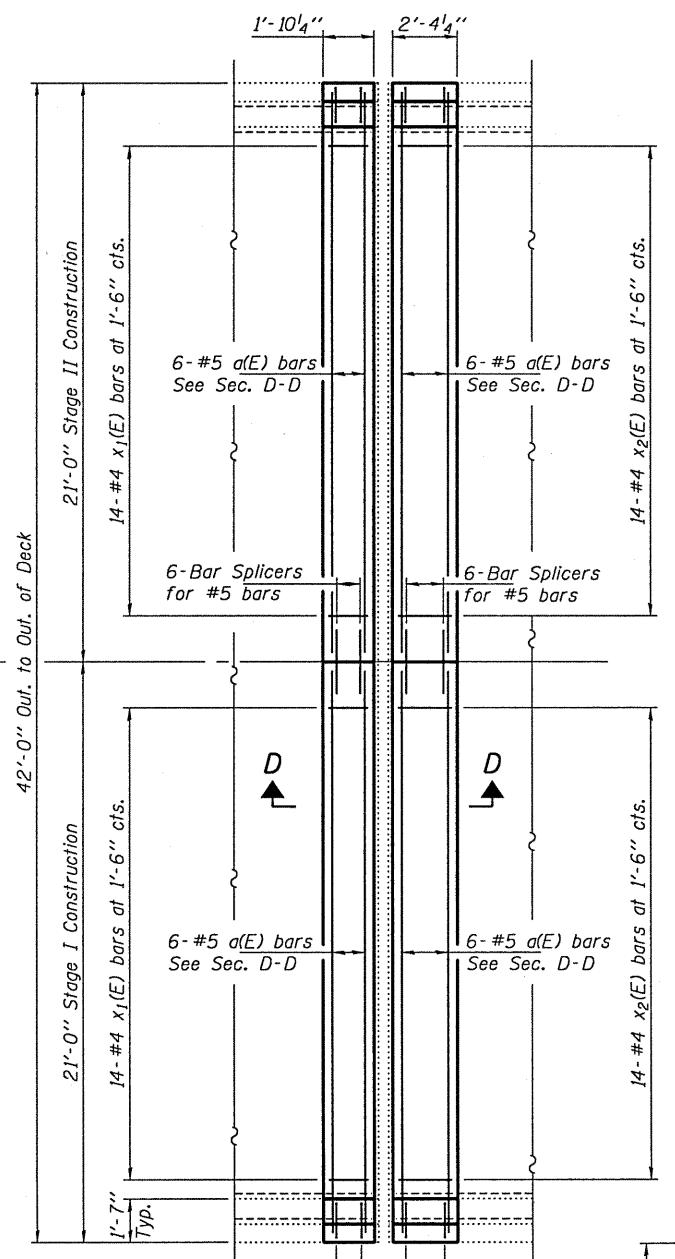
JOINT REMOVAL & REPLACEMENT DETAILS AT HINGE "A"  
 SN 075-0122 (E.B.)

SHEET NO. 2 OF 9 SHEETS

F.A.I. SECTION COUNTY TOTAL SHEETS SHEET NO.  
 RTE. 72 (75, 86)BJR PIKE 13 6  
 CONTRACT NO. 72081  
 [ILLINOIS] FED. AID PROJECT

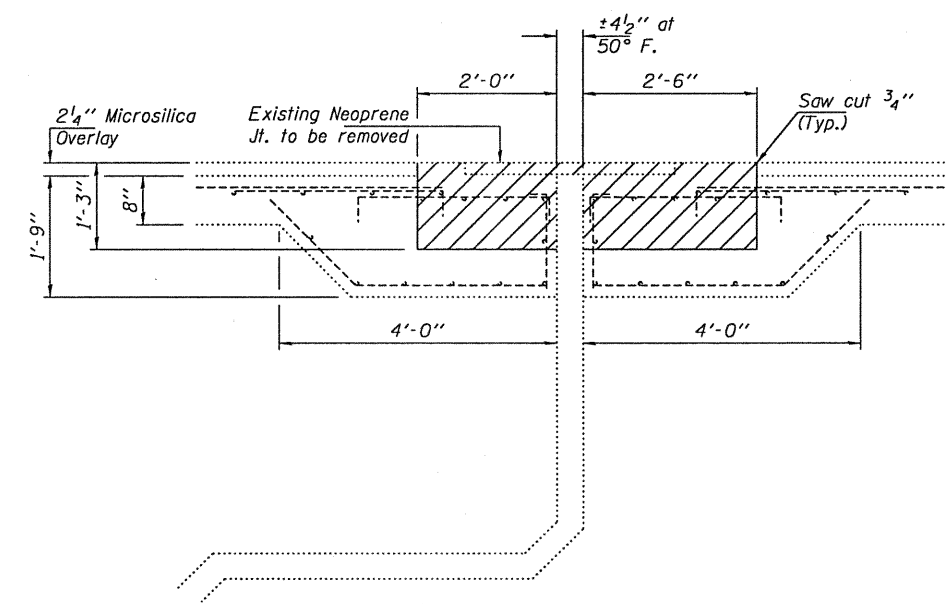


**REMOVAL PLAN AT HINGE "B"**

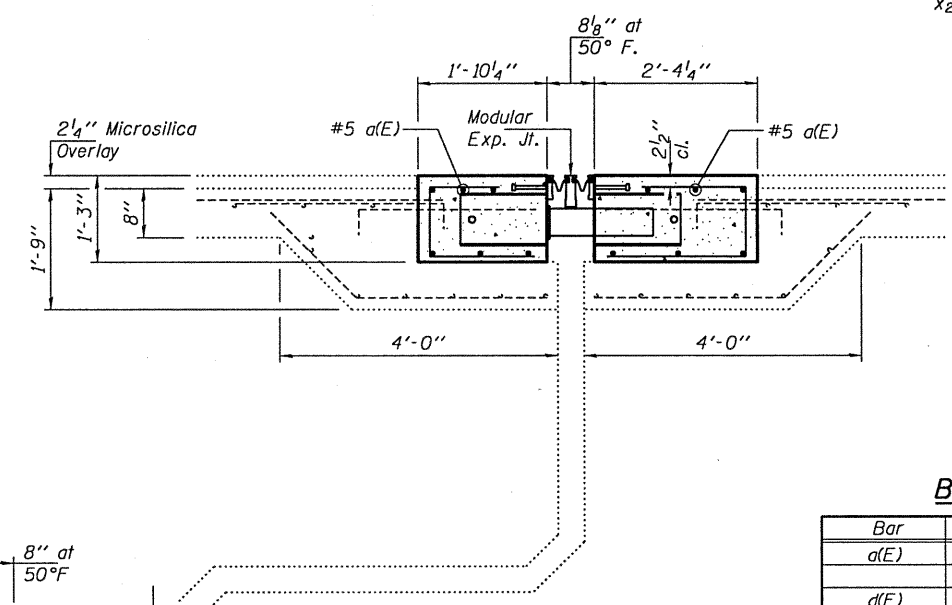
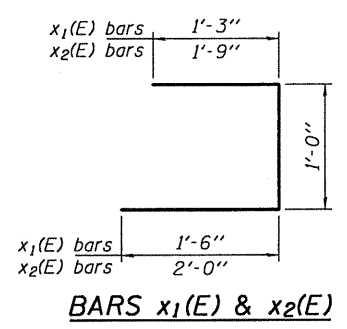


**CONCRETE PLAN AT HINGE "B"**

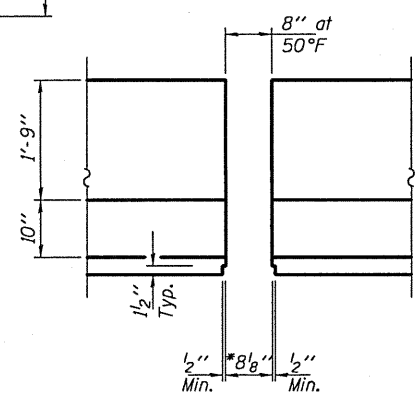
Note:  
 Hatched areas indicate concrete sections to be removed and replaced. Perimeters of concrete removal areas shall be saw cut 3/4" prior to the removal of concrete.  
 The Modular Expansion Joint at Hinge "B" shall have a total movement capability of 6 1/4".  
 See sheet 4 of 9 for Parapet Details & d1(E) bars.  
 In reference to Article 520.04 of the Standard Specifications, the expansion length handled by Hinge "B" located adjacent to Pier 8 is 474 feet. The expansion length handled by Hinge "B" located adjacent to Pier 10 is 438 feet.



**SECTION C-C**



**SECTION D-D**



**PARAPET ELEVATION**

(Sliding P's not shown for clarity)  
 See sheet 2 of 8 for Sliding P Details.  
 Cost of sliding plates are included in the Modular Expansion Joint pay item.

**HINGE "B" BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	48	#5	20'-2"	—
d(E)	24	#4	2'-9"	—
d1(E)	24	#5	6'-1"	⊐
x1(E)	56	#4	3'-9"	⊐
x2(E)	56	#4	4'-9"	⊐
Concrete Removal			Cu. Yd.	19.4
Concrete Superstructure			Cu. Yd.	18.4
Reinforcement Bars, Epoxy Coated			Pound	1524
Modular Expansion Joint, 6"			Foot	84

\* Dimension for Modular Expansion Joint at 50°F.

DESIGNED - MKC	EXAMINED	DATE - SEPTEMBER 27, 2010
CHECKED - GGE	<i>Carl Perry</i>	
DRAWN - Kyle M. Steffen	PASSED	
CHECKED - MKC GGE	<i>Ralph E. Anderson</i>	

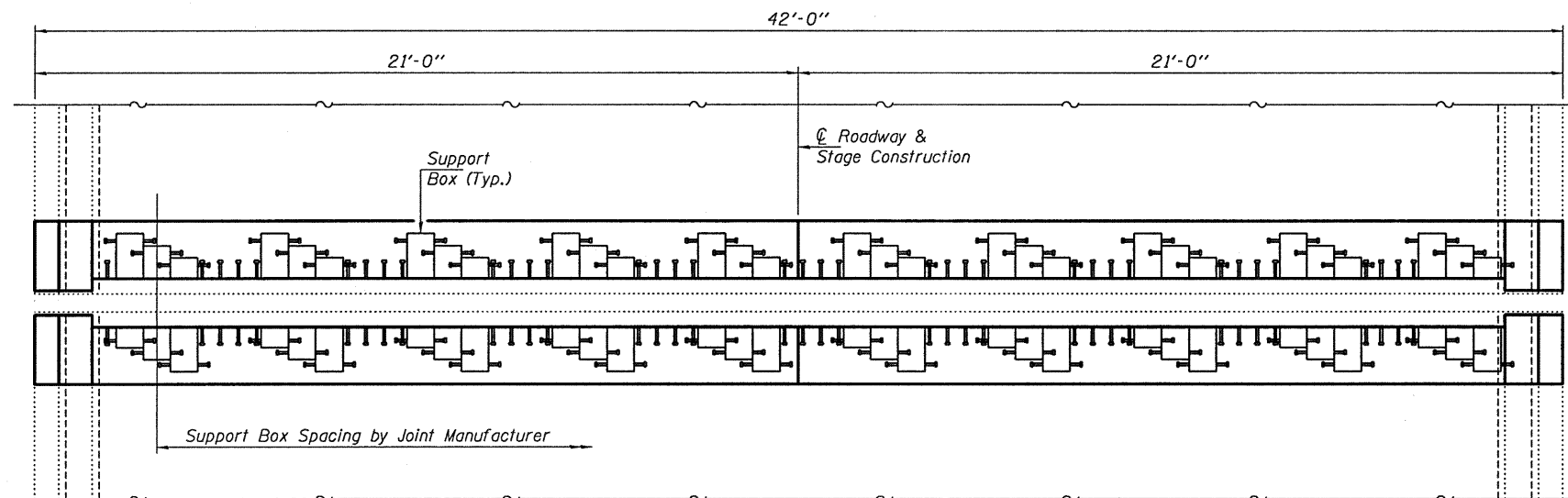
ENGINEER OF STRUCTURAL SERVICES  
 ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

JOINT REMOVAL & REPLACEMENT DETAILS AT HINGE "B"  
 SN 075-0122 (E.B.)

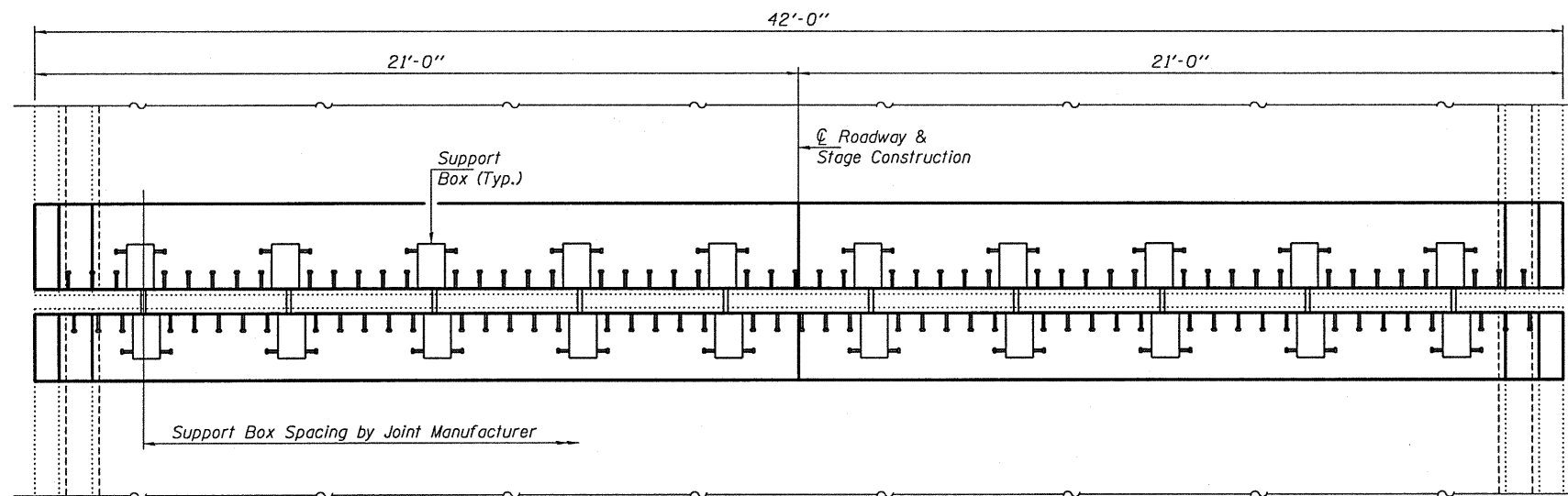
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75, 86)JR	PIKE	13	7
CONTRACT NO. 72081			ILLINOIS FED. AID PROJECT	

SHEET NO. 3 OF 9 SHEETS



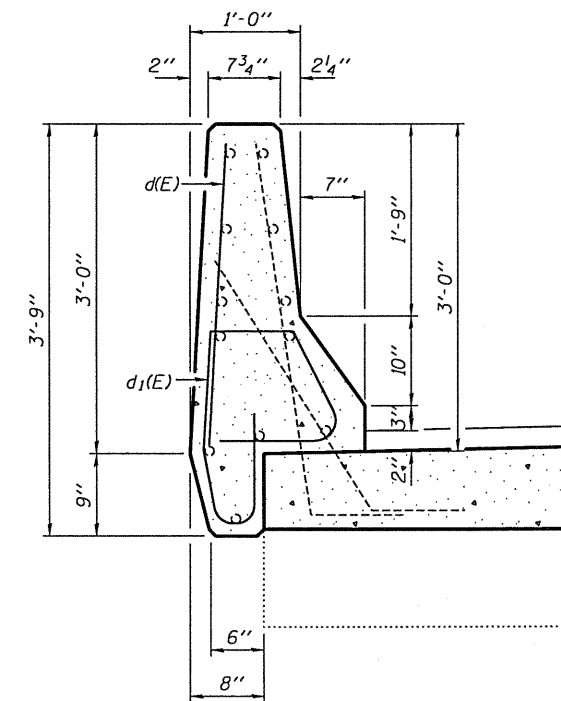
**PLAN AT HINGE "A"**

Reinforcement not shown for clarity.  
See sheet 2 of 9 for Reinforcement details.

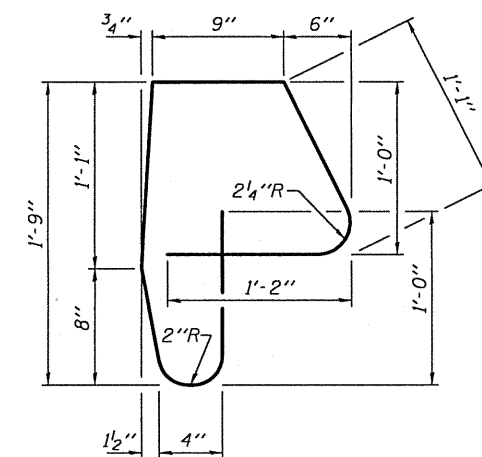


**PLAN AT HINGE "B"**

Reinforcement not shown for clarity.  
See sheet 3 of 9 for Reinforcement details.



**TYPICAL PARAPET DETAILS**



**BAR d<sub>1</sub>(E)**

DESIGNED - MKC	EXAMINED <i>Carl Perry</i>	DATE - SEPTEMBER 27, 2010
CHECKED - GGE	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Kyle M. Steffen	PASSED <i>Ralph E. Anderson</i>	
CHECKED - MKC GGE	ENGINEER OF BRIDGES AND STRUCTURES	

DESIGNED - MKC	EXAMINED <i>Carl Perry</i>	DATE - SEPTEMBER 27, 2010
CHECKED - GGE	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Kyle M. Steffen	PASSED <i>Ralph E. Anderson</i>	
CHECKED - MKC GGE	ENGINEER OF BRIDGES AND STRUCTURES	

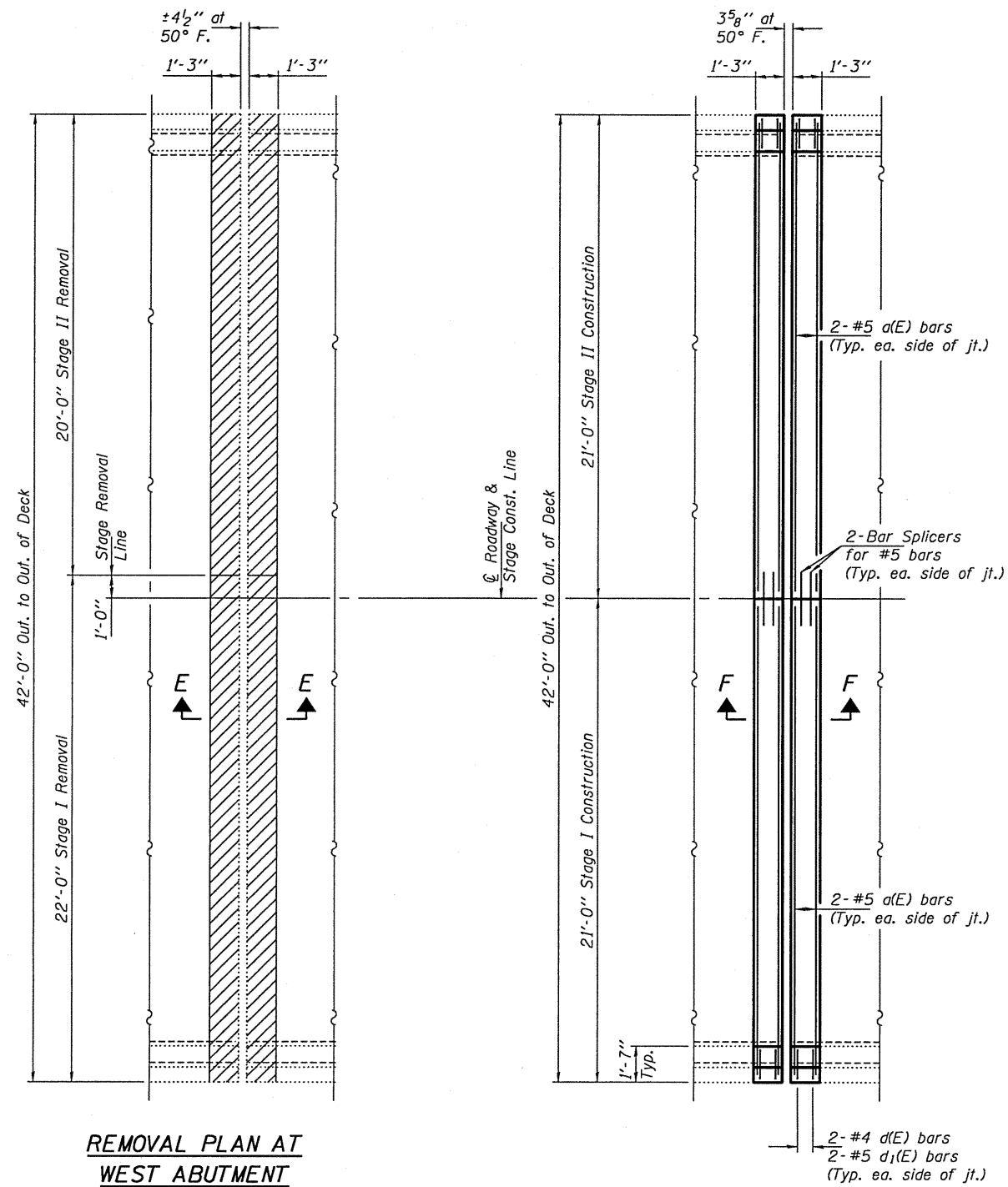
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**MODULAR EXPANSION JOINTS  
SN 075-0122 (E.B.)**

SHEET NO. 4 OF 9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75, 86)BJR	PIKE	13	8
CONTRACT NO. 72081				
ILLINOIS FED. AID PROJECT				

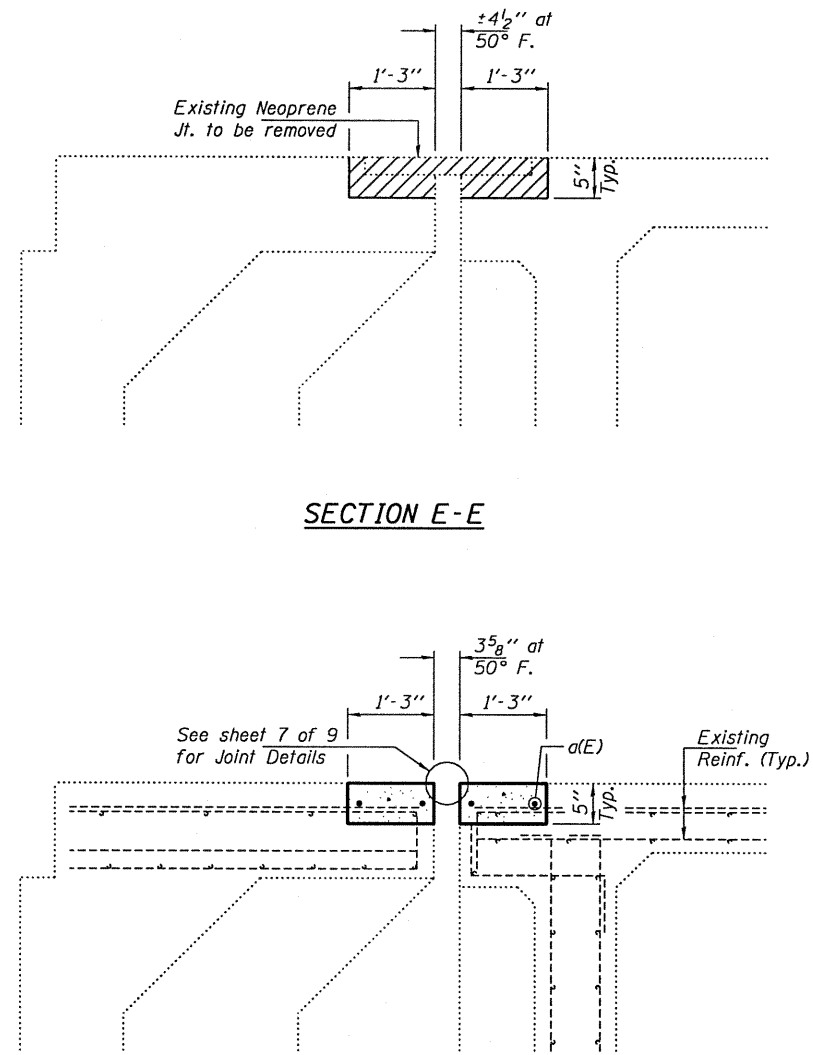




**REMOVAL PLAN AT WEST ABUTMENT**

**REPLACEMENT PLAN AT WEST ABUTMENT**

Notes:  
 Hatched areas indicate concrete sections to be removed and replaced.  
 Perimeters of concrete removal areas shall be saw cut 3/4" prior to the removal of concrete.  
 Extreme care shall be exercised in the removal of concrete due to the shallow slab depth from the web of the box girder out to the parapet.  
 See sheet 4 of 9 for Parapet Details & d1(E) bars.



**SECTION E-E**

**SECTION F-F**

**WEST ABUTMENT  
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	8	#5	20'-2"	—
d(E)	8	#4	2'-9"	—
d1(E)	8	#5	6'-1"	⊔
Concrete Removal			Cu. Yd.	1.4
Concrete Superstructure			Cu. Yd.	1.4
Reinforcement Bars, Epoxy Coated			Pound	260

DESIGNED - MKC  
 CHECKED - GGE  
 DRAWN - Kyle M. Steffen  
 CHECKED - MKC GGE

EXAMINED *Carl Perry*  
 ENGINEER OF STRUCTURAL SERVICES  
 PASSED *Ralph E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES

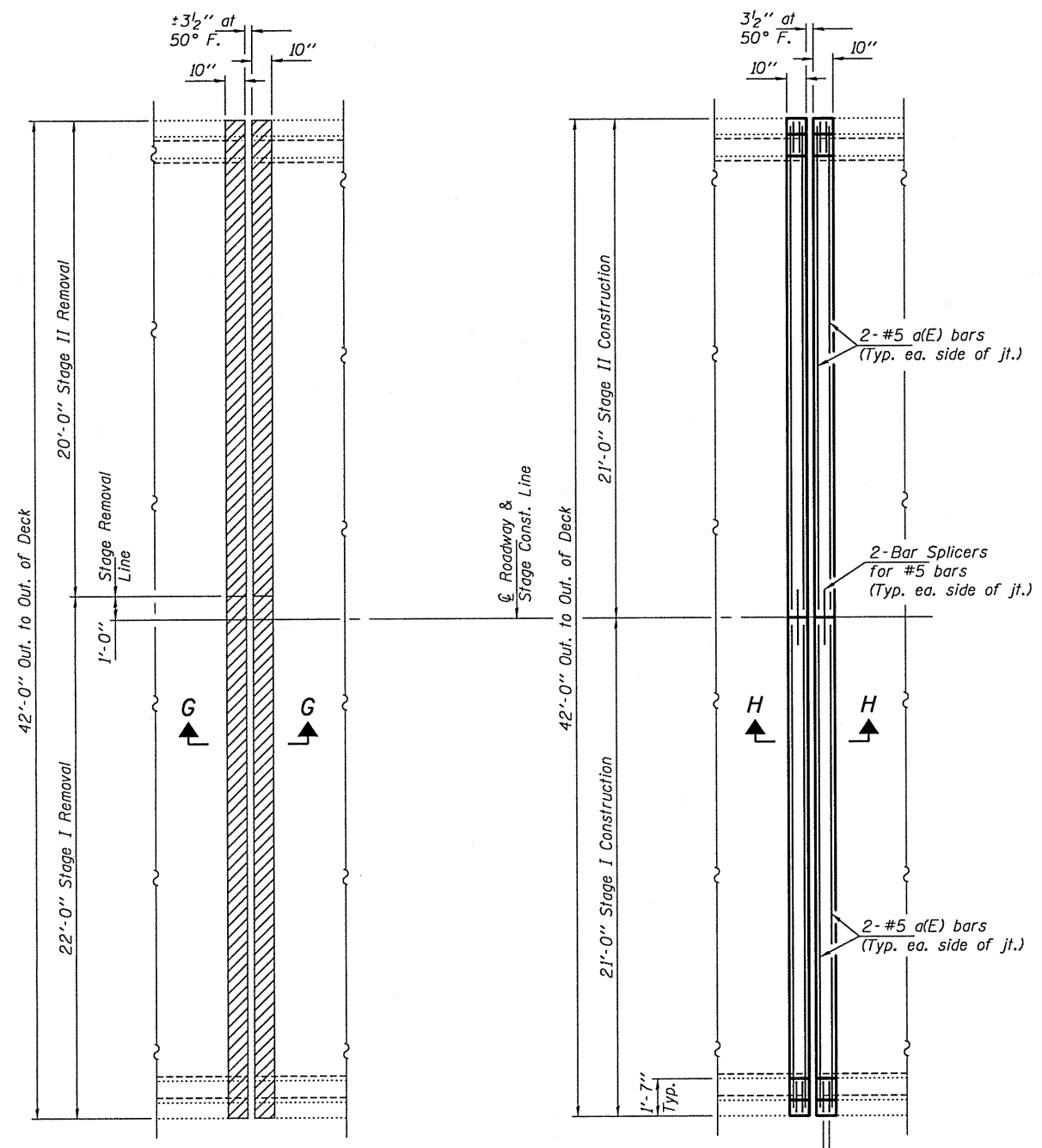
DATE - SEPTEMBER 27, 2010

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**JOINT REMOVAL & REPLACEMENT DETAILS AT WEST ABUTMENT  
 SN 075-0122 (E.B.)**

SHEET NO. 5 OF 9 SHEETS

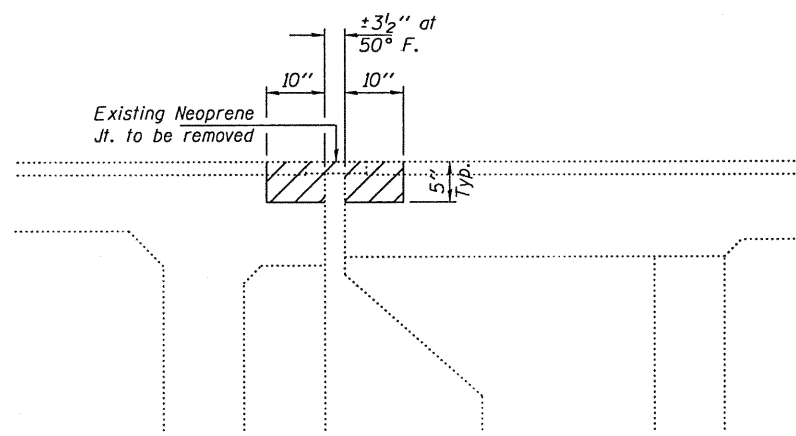
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75, 86)JR	PIKE	13	9
				CONTRACT NO. 72081
ILLINOIS FED. AID PROJECT				



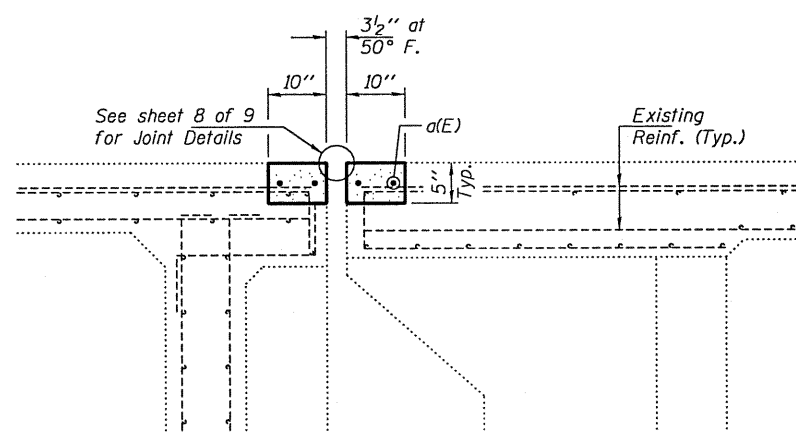
**REMOVAL PLAN AT EAST ABUTMENT**

**REPLACEMENT PLAN AT EAST ABUTMENT**

**Notes:**  
 Hatched areas indicate concrete sections to be removed and replaced.  
 Perimeters of concrete removal areas shall be saw cut 3/4" prior to the removal of concrete.  
 Extreme care shall be exercised in the removal of concrete due to the shallow slab depth from the web of the box girder out to the parapet.  
 See sheet 4 of 9 for Parapet Details & d1(E) bars.



**SECTION G-G**



**SECTION H-H**

**EAST ABUTMENT BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	8	#5	20'-2"	—
d(E)	8	#4	2'-9"	—
d1(E)	8	#5	6'-1"	P
Concrete Removal			Cu. Yd.	1.4
Concrete Superstructure			Cu. Yd.	1.4
Reinforcement Bars, Epoxy Coated			Pound	260

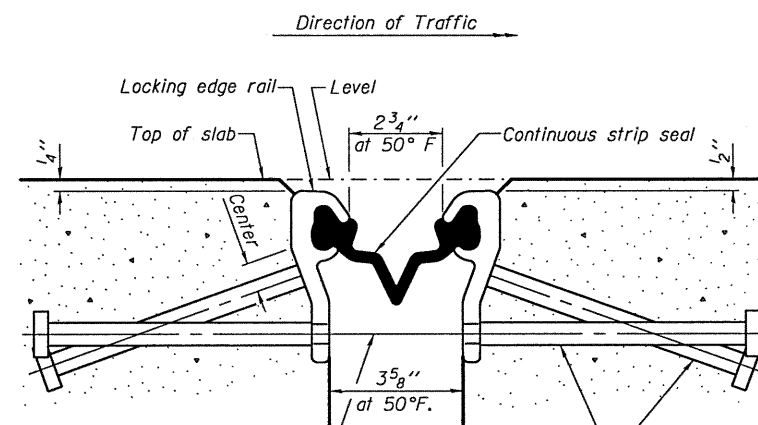
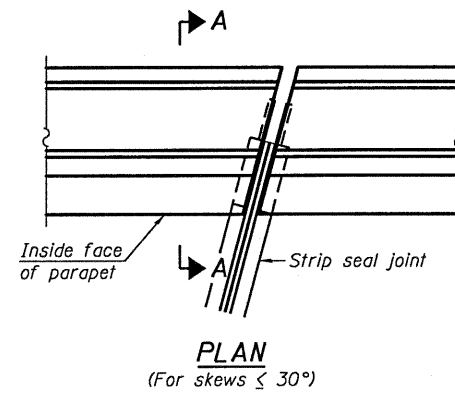
DESIGNED - MKC	EXAMINED <i>Carl Perry</i>	DATE - SEPTEMBER 27, 2010
CHECKED - GGE	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Kyle M. Steffen	PASSED <i>Ralph E. Anderson</i>	
CHECKED - MKC GGE	ENGINEER OF BRIDGES AND STRUCTURES	

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**JOINT REMOVAL & REPLACEMENT DETAILS AT EAST ABUTMENT SN 075-0122 (E.B.)**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75, 86)BJR	PIKE	13	10
CONTRACT NO. 72081				
ILLINOIS FED. AID PROJECT				

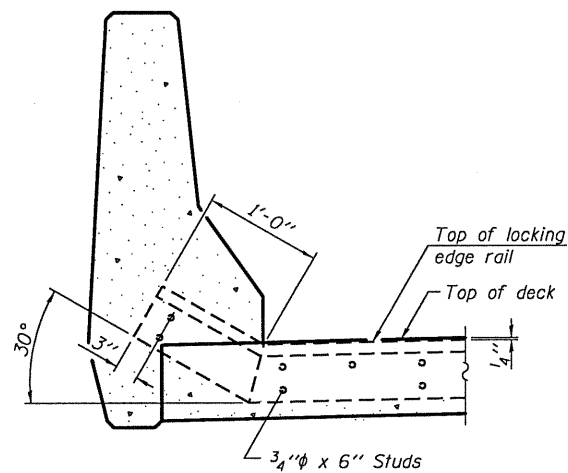
SHEET NO. 6 OF 9 SHEETS



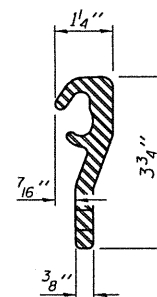
$7/16''$   $\phi$  holes at 4'-0" cts. for  $3/8''$   $\phi$  bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

Place  $1/2''$   $\phi$  x 6" granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded at 1'-0" alt. cts.

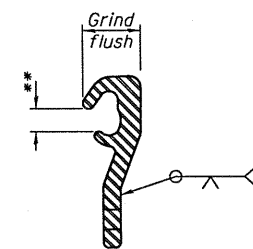
**SECTION THRU STRIP SEAL JOINT**



**SECTION A-A**



**LOCKING EDGE RAIL**



**LOCKING EDGE RAIL SPLICE**

**Notes:**

The strip seal shall be made continuous and shall have a minimum thickness of  $1/4''$ . The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 5 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be  $3/16''$ , sealed with a suitable sealant.

Parapet plates and anchorage studs for skews  $> 30^\circ$  included in the cost of Preformed Joint Strip Seal.

The inside of the Locking Edge Rail groove shall be free of weld residue.

The maximum temperature at which the strip seal gland (at the West Abutment) may be installed is  $74^\circ$  F.

When calculating the required joint opening (see Article 520.04 of the Standard Specifications) for the joint at the West Abutment, the expansion length is 413 feet for the joint calculations.

**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	42

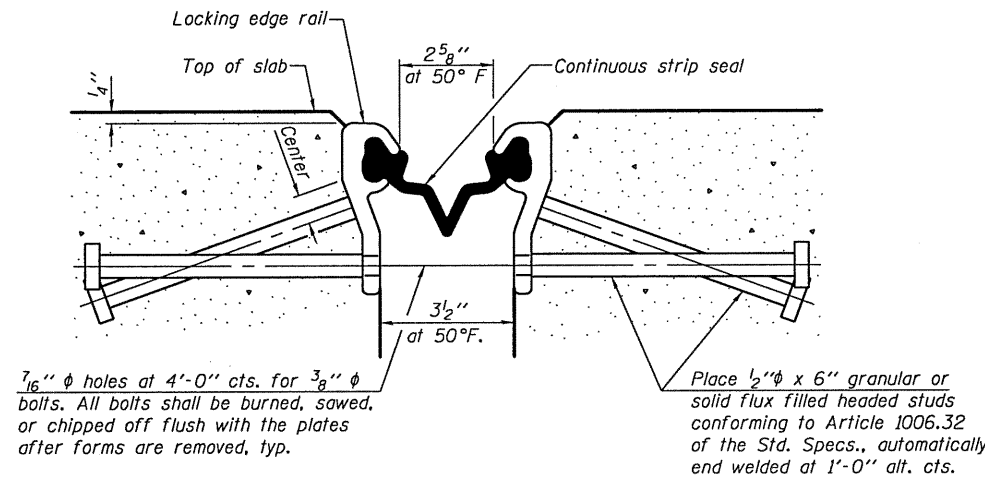
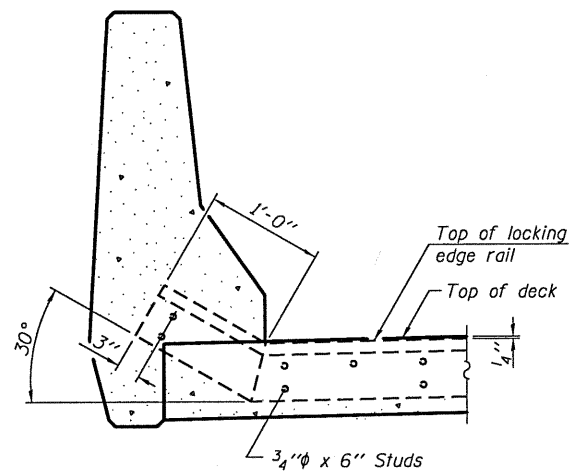
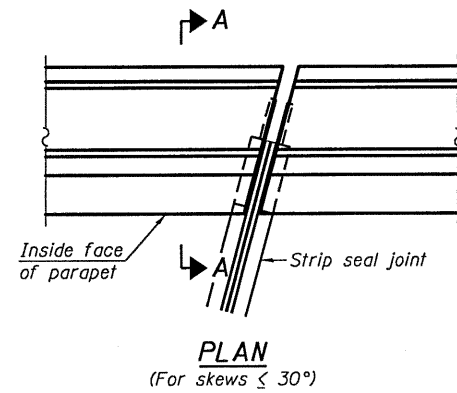
DESIGNED - MKC	EXAMINED <i>Ralph E. Anderson</i>	DATE - SEPTEMBER 27, 2010
CHECKED - GGE	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Kyle M. Steffen	PASSED <i>Ralph E. Anderson</i>	
CHECKED - MKC GGE	ENGINEER OF BRIDGES AND STRUCTURES	

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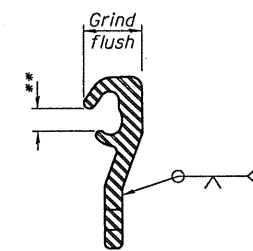
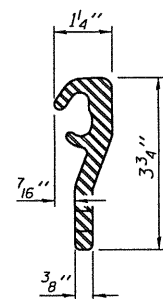
PREFORMED JOINT STRIP SEAL DETAILS AT WEST ABUTMENT  
SN 075-0122 (E.B.)

SHEET NO. 7 OF 9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75, 86)BJR	PIKE	13	11
CONTRACT NO. 72D81			ILLINOIS FED. AID PROJECT	



**SECTION THRU STRIP SEAL JOINT**



**Notes:**

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.

The inside of the Locking Edge Rail groove shall be free of weld residue.

When calculating the required joint opening (see Article 520.04 of the Standard Specifications) for the joint at the East Abutment, the expansion length is 290 feet for the joint calculations.

**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	42

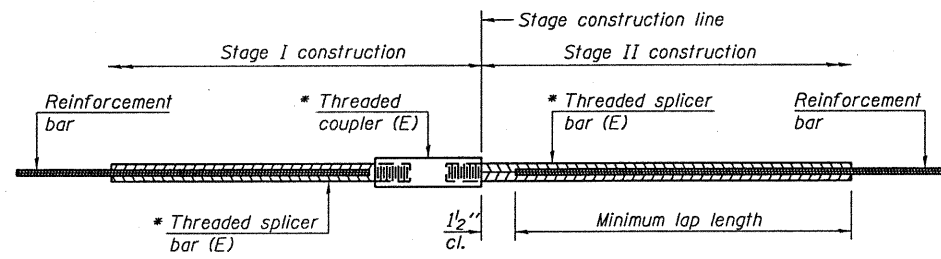
DESIGNED - MKC	EXAMINED <i>Carl Peyer</i>	DATE - SEPTEMBER 27, 2010
CHECKED - GGE	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Kyle M. Steffen	PASSED <i>Ralph E. Anderson</i>	
CHECKED - MKC GGE	ENGINEER OF BRIDGES AND STRUCTURES	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL DETAILS AT EAST ABUTMENT  
SN 075-0122 (E.B.)**

SHEET NO. 8 OF 9 SHEETS

F.A.I. RTE. 72	SECTION (75, 86)BJR	COUNTY PIKE	TOTAL SHEETS 13	SHEET NO. 12
ILLINOIS FED. AID PROJECT			CONTRACT NO. 72081	



**STANDARD BAR SPLICER ASSEMBLY**

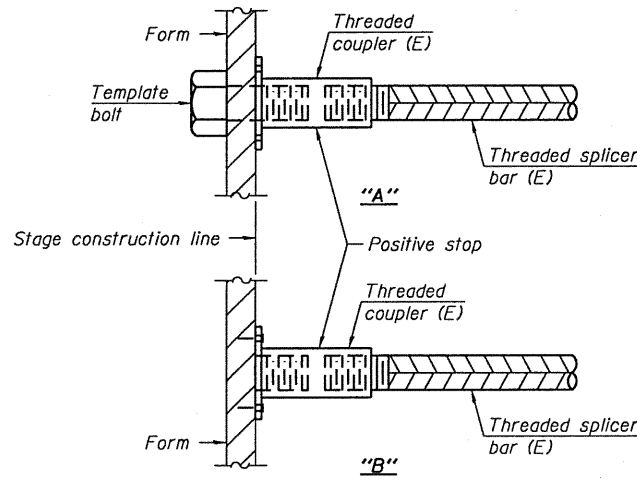
Bar size to be spliced	Minimum Lap Lengths				
	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- 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

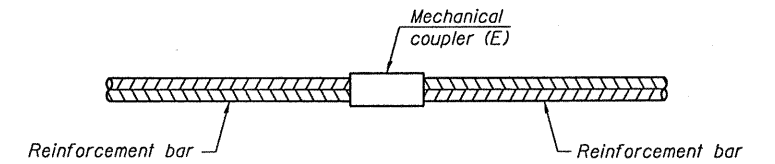
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Hinge "A"	#5	24	3
Hinge "B"	#5	24	3
West Abutment	#5	4	3
East Abutment	#5	4	3



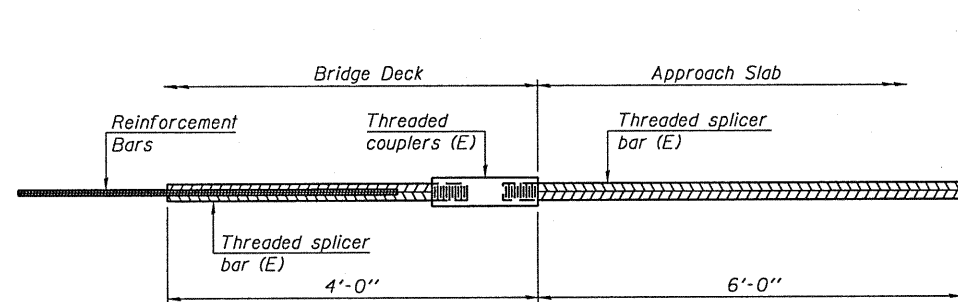
**INSTALLATION AND SETTING METHODS**

"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.



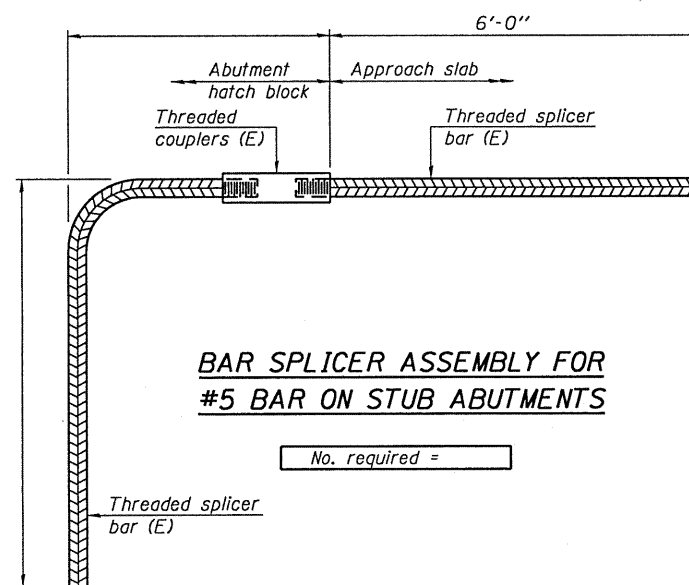
**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required



**BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

No. required =



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

No. required =

**NOTES**

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

BSD-1

7-1-10

DESIGNED - MKC	EXAMINED <i>Carl Payer</i>	DATE - SEPTEMBER 27, 2010
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
SN 075-0122 (E.B.)

SHEET NO. 9 OF 9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75, 86)BJR	PIKE	13	13
CONTRACT NO. 72D81			ILLINOIS FED. AID PROJECT	