11-21-14 LETTING ITEM 115

FOR INDEX OF SHEETS, SEE SHEET NO. 2

TRAFFIC DATA

IL 15 TRAFFIC DATA

2013 ADT = 7,100 5 % TRUCKS

TOWNSHIP:

MOUNT VERNON

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

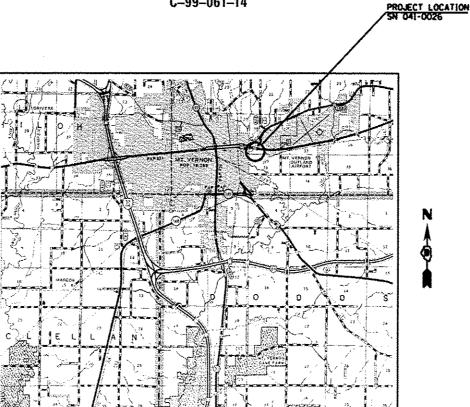
DIVISION OF HIGHWAYS

PROPOSED **HIGHWAY PLANS**

FAP 821 (IL 15) **OVER CASEY FORK D9 CM BRIDGE REPAIR 2015-2**

JEFFERSON COUNTY

C-99-061-14



J.U.L.I.E. JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR 811

PROJECT ENGINEER: T. WAYNE HALSTEAD PROJECT MANAGER: DAVID PICHE (618) 351-5227

GROSS LENGTH = 336 FT. NET LENGTH = 336 FT.

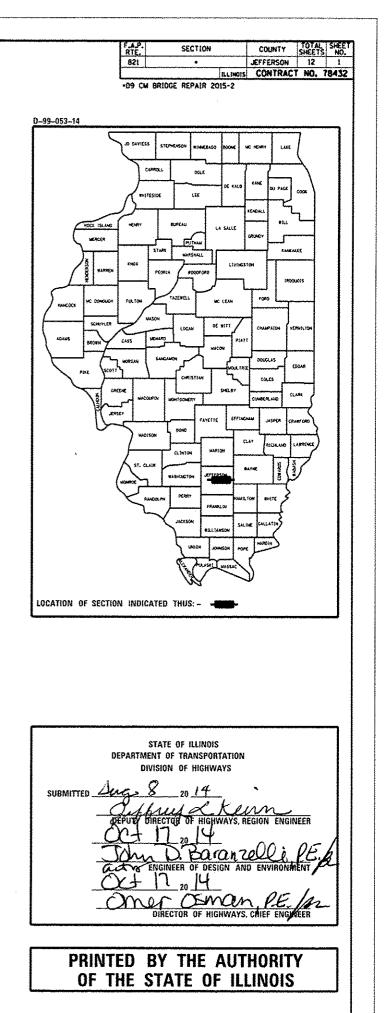
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CONTRACT NO. 78432



GENERAL NOTES

- 1) THE ADVANCE DETECTOR LOOPS ARE TYPICALLY LOCATED 275 FEET IN ADVANCE OF THE STOP BAR. THE BUREAU OF OPERATIONS SHOULD APPROVE THE LOOP LOCATIONS PRIOR TO INSTALLATION.
- 2) IN ADDITION TO THE REQUIREMENTS OF ARTICLE 107.16 THE CONTRACTOR SHALL PROTECT THE SURFACE OF ALL BRIDGE DECKS AND BRIDGE APPROACH PAVEMENTS IN A MANNER SATISFACTORY TO THE ENGINEER BEFORE ANY EQUIPMENT IS ALLOWED TO CROSS THE STRUCTURE. PROTECTION SHALL BE PROVIDED FOR ALL EQUIPMENT AS DEFINED IN ARTICLE 101.15 REGARDLESS IF TRACK MOUNTED OR WHEELED.
- 3) TRIM EDGES OF EXISTING HOT MIX ASPHALT SURFACE FLUSH WITH EXISTING PAVEMENT PRIOR TO CONSTRUCTING NEW BASE COURSE WIDENING.
- 4) IF THE CONTRACTOR ELECTS TO USE P.C.C. BASE COURSE WIDENING, SUCH WIDENING SHALL BE PRIMED ACCORDING TO ARTICLE 406.02. EXCEPT THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE WIDENING.
- 5) THE CENTERLINE PAVEMENT MARKING SHOULD BE COVERED WITH PAVEMENT MARKING TAPE, TYPE III 4" (BLACK OUT) TAPE FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHOULD BE COVERED WITH PAVEMENT MARKING TAPE. TYPE III 4" (BLACK OUT) TAPE IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHOULD BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.
- 6) ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC. THE TEMPORARY TRAFFIC SIGNALS SHALL BE SET TO FLASH ALL RED.

7) COMMITMENTS: NONE AS OF AUGUST 15, 2014.

STANDARDS

000001-06

701001-02 701006-05

701201-04

701321-13

701326-04

701901-03

704001-07

STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS OFF-ROAD, 2L2W MORE THAN 15' FROM PAVEMENT EDGE OFF-ROAD, 2L2W 15' TO 24" FROM PAVEMENT EDGE LANE CLOSURE, 2L2W DAY ONLY, FOR SPEEDS > 45 MPH LANE CLOSURE, 2L2W BRIDGE REPAIR WITH BARRIER LANE CLOSURE, 2L2W PAVEMENT WIDENING, FOR SPEEDS > 45 MPH TRAFFIC CONTROL DEVICES TEMPORARY CONCRETE BARRIER

INDEX OF SHEETS

1	COVER SHEET
2	INDEX OF SHEETS; GENERAL
3-4	SUMMARY OF QUANTITIES
5	GENERAL PLAN AND ELEVATI
6	STAGING TYPICAL SECTION
7	STAGING DETAILS
8	JOINT REPAIR DETAILS
9	EAST ABUTMENT BEARING DE
10	WEST ABUTMENT BEARING DE
11	PREFORMED JOINT STRIP SE
12	SUBSTRUCTURE REPAIR DETA

MIXTURE REQUIREMENTS

Location(s):	Base Course Widening
Mixture Use(s):	Hot-Mix Asphalt Binder Course, N90, IL-19.0mm Fine Grade
AC/PG:	PG64-22
ABR % (Max):	See Special Provision
Design Air Voids:	4.0%, 90 Gyration Design
Mixture Composition: (Gradation Mixture)	IL-19.0mm Fine Grade
Friction Aggregate:	None
Quality Management Program:	QCQA

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	ACT NO. 7	8432
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15

			[100% STATE	
	SUMMAR	Y OF QUANTITIES		RURAL	
				FAP 821 IL 15	
CODE NUMBER		ITEM DESCRIPTION	UNET	ROADWAY 0014	
35650500	BASE COURSE WIDENING 10"	· · · · · · · · · · · · · · · · · · ·	SQ YD	164	
44004350	PAVED SHOULDER REMOVAL		50 VD		
44004250	PAVED SHOOLDER REMOVAL	······································	50 YD	164	
50102400	CONCRETE REMOVAL		CU YD	12. 2	
50300255	CONCRETE SUPERSTRUCTURE		CU YD	12.4	
50500405	FURNISHING AND ERECTING STRUC	TURAL STEEL	POUND	2510	
50800205	REINFORCEMENT BARS, EPOXY COAT	ED	POUND	1240	
50800515	BAR SPLICERS		EACH	24	
			5007		
52000110	PREFORMED JOINT STRIP SEAL		FOOT	93	
52100010	ELASTOMERIC BEARING ASSEMBLY,	TYPE I	EACH	8	
52100020	ELASTOMERIC BEARING ASSEMBLY.	TYPE II	EACH	8	
52100520	ANCHOR BOLTS, 1"	······································	EACH	32	
67100100	MOBILIZATION		L SUM	1	
70100405	TRAFFIC CONTROL AND PROTECTION	U STANDARD 701321	EACH		
10100403	TRAFFIC CONTROL AND PROTECTION	, STANDARD (UISZI	LACH	I	
70100450	TRAFFIC CONTROL AND PROTECTION	I, STANDARD 701201	L SUM	1	
		·			
70100500	TRAFFIC CONTROL AND PROTECTION	I, STANDARD 701326	L SUM	1	+D9 CM BRIDGE REPAIR 2015-2
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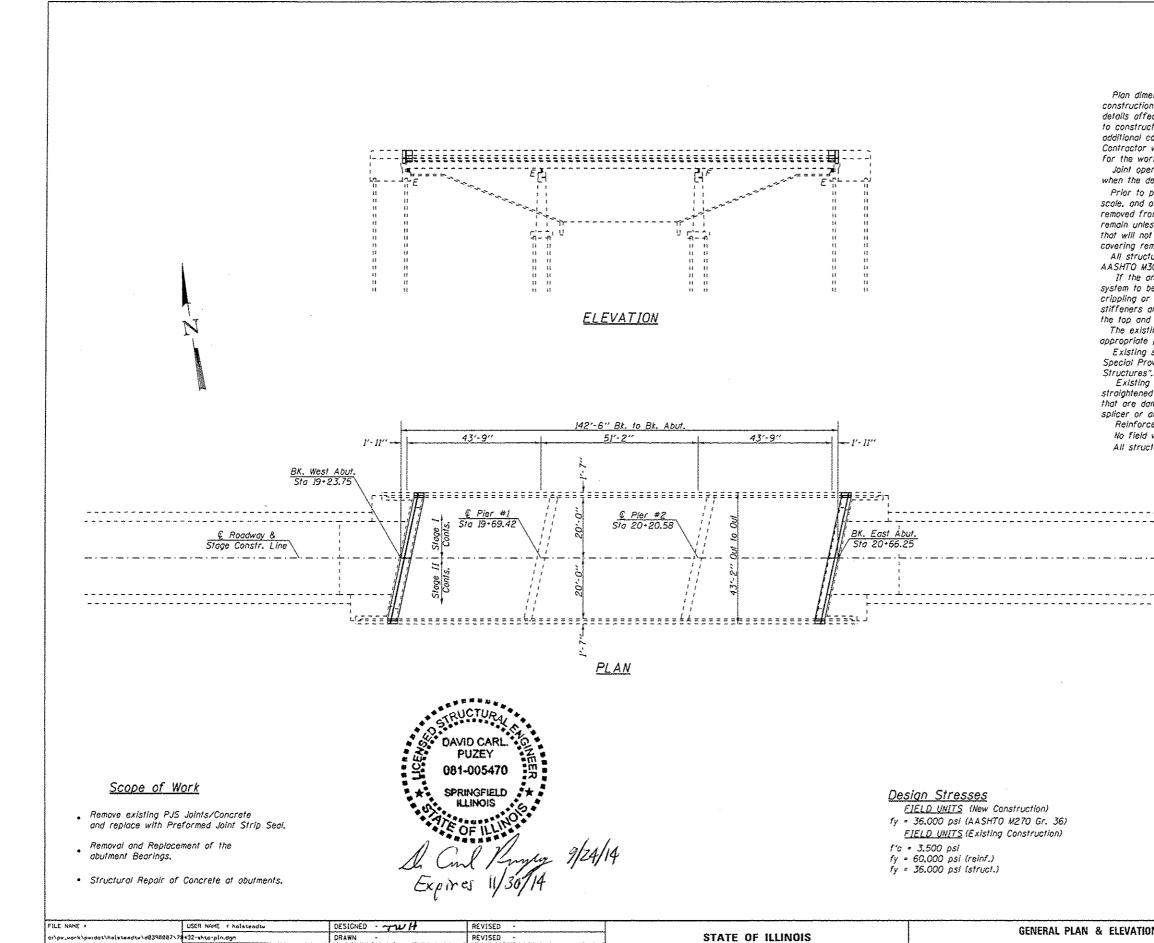
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	SUMMARY OF QUANTITIES - CONT		100% STATE RURAL
			FAP 821 IL 15
CODE			ROADWAY
NUMBER	ITEM DESCRIPTION	UNIT	0014
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	4
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	1
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	700
70400100	TEMPORARY CONCRETE BARRIER	FOOT	375
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	350
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2
86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	16
20012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	39

* SPECIALTY ITEM

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GENERAL NOTES

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 bld for the work.

Joint openings shall be adjusted according to Article 520.04 of the Std. Specs, when the deck is poured at an ambient temperature other than 50°F. Prior to pouring the new concrete deck section, 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 othered point 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 the existing concrete,

All structural steel shall be shop painted with inorganic zinc rich primer per AASHTO M300, Type 1. Cost Included with Furnishing and Erecting Structural Steel. If the analysis submitted to the Contractor for the jacking/temporary support system to be used show temporary stiffeners are required to prevent web crippling or buckling, the stiffeners shall be steel and bolted to the web. If stiffeners are not required, hardwood timbers shall be installed tightly between the top and bottom flange to prevent flange rotation.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project. Existing structural steel shall only be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures"

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

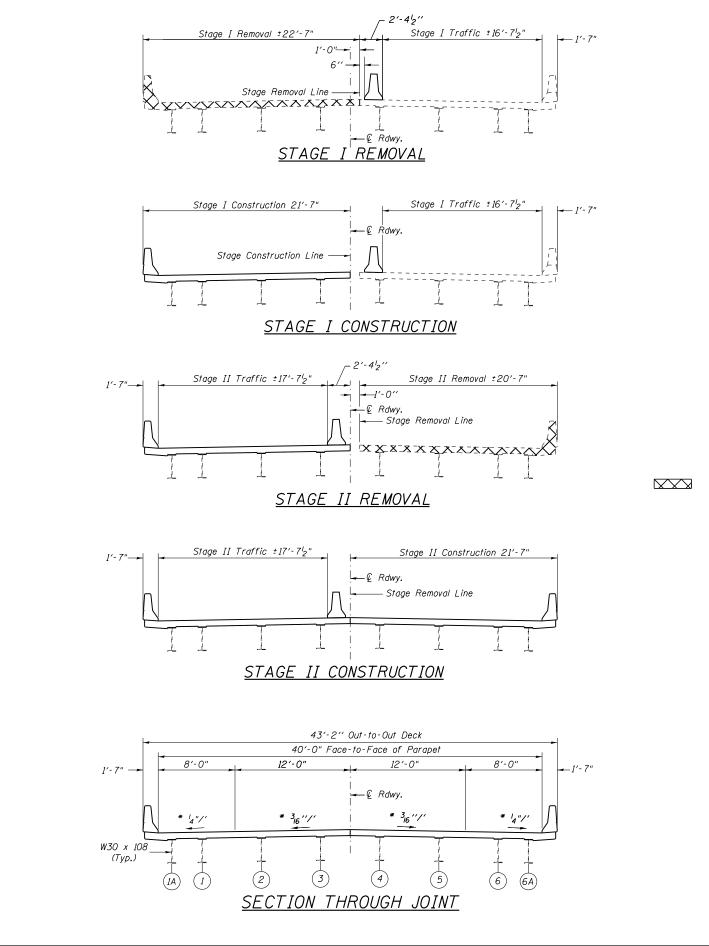
No field welding is permitted except as specified in the contract documents, All structural steel shall be AASHTO M 270 Grade 36 unless otherwise noted.

TOTAL BILL OF MATERIAL

ITEM	UNIT	OUANITY
Reinforcement Bars. Epoxy Coaled	Pound	1240
Bar Splicers	Each	24
Preformed Joint Strip Seal	Foot	93
Elastomeric Bearing Assembly, Type I	Each	8
Elastomeric Bearing Assembly, Type 11	Each	. 8
Jack and Remove Existing Bearings	Each	16
Furnishing and Erecting Structural Steel	Pound	2510
Anchor Bolts 1" Ø	Each	32
Concrete Removal	Cu. Yd.	12.2
Concrete Superstructure	Cu. Yd.	12.4
Structural Repair of Concrete (Depth ≤ 5 Inches)	Sq. Ft.	39
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BRIDGE REPAIR IL 15 (FAP 821) OVER CASEY FORK JEFFERSON COUNTY D9 CM BRIDGE REPAIR 2015-2 STA. 19+95.00 SN 041-0026

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		921	*	JEFFERSON	12	5
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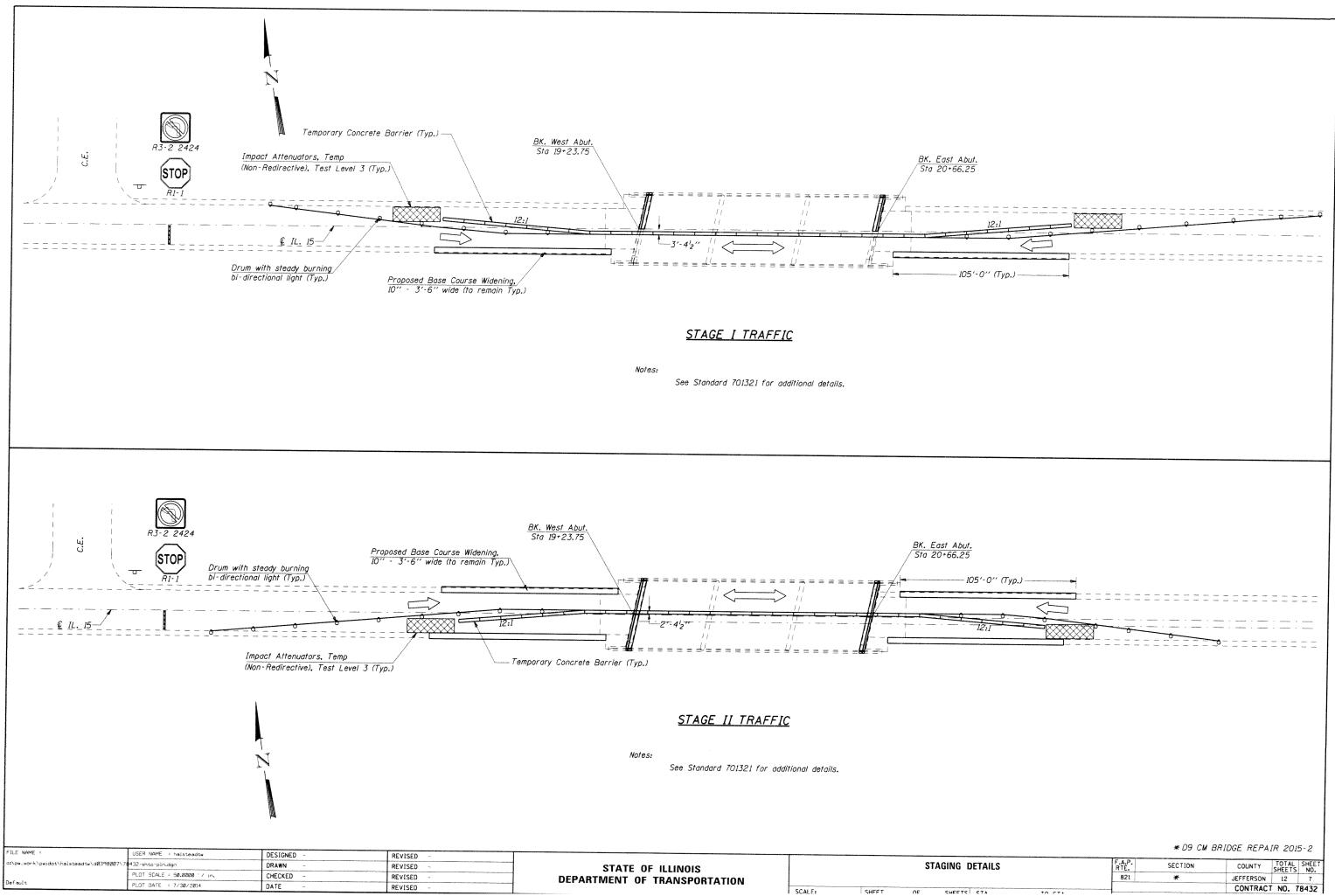
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Concrete Removal (at Joint Locations)

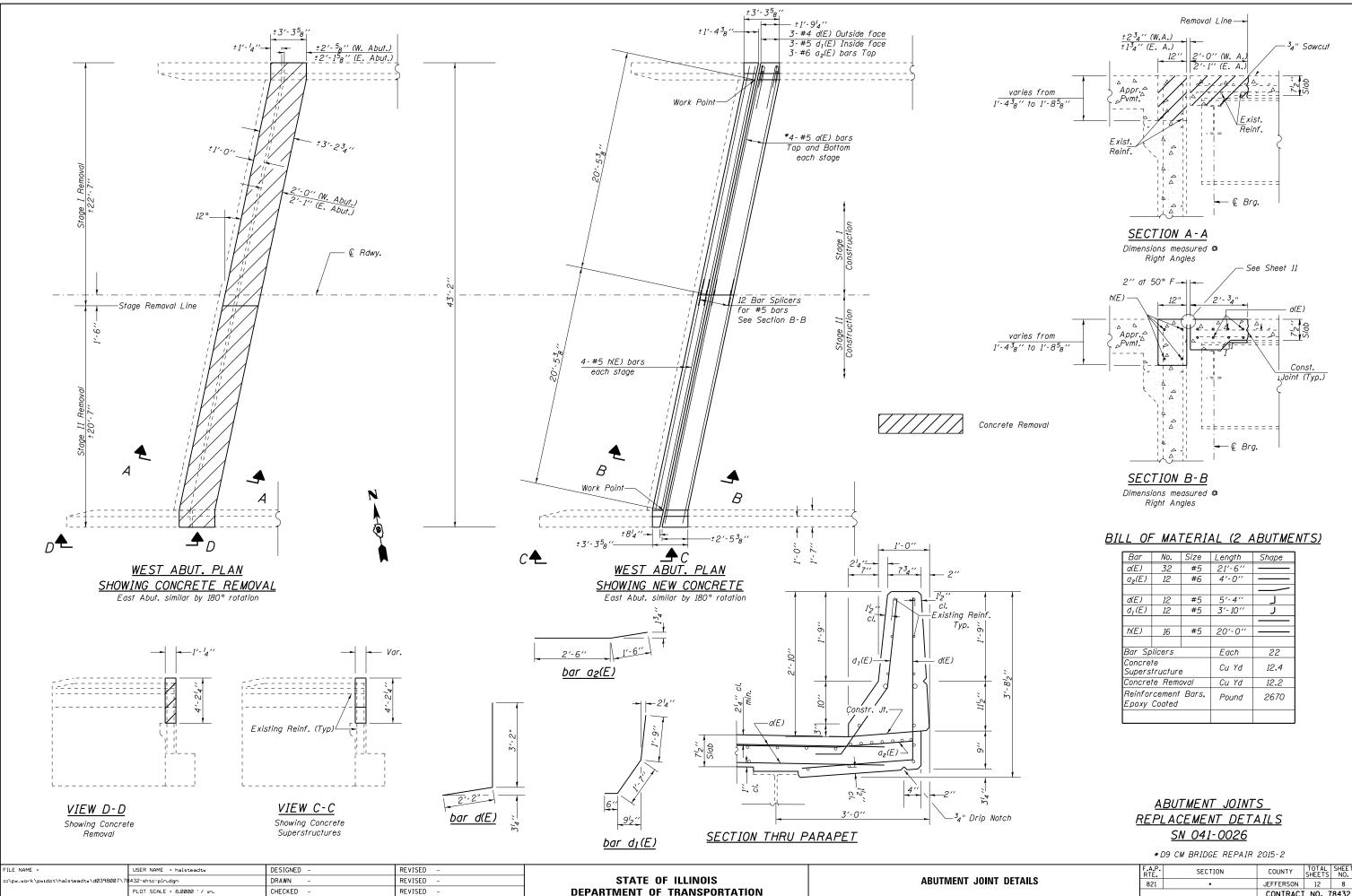
NOTES:

All Sections looking East.





CONTRACT NO. 78432 -----

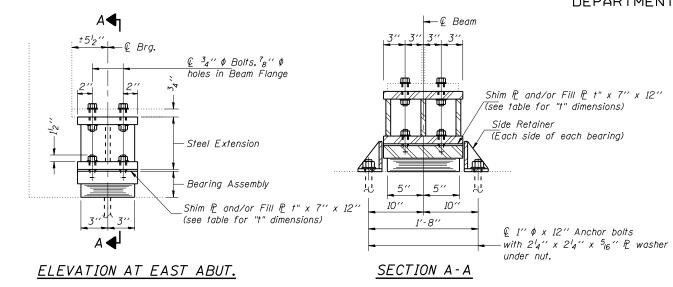


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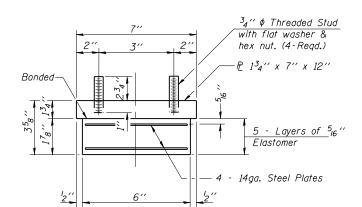
Bar	No.	Size	Length	Shape
a(E)	32	#5	21'-6''	
a ₂ (E)	12	#6	4'-0''	
				<u> </u>
d(E)	12	#5	5′-4″	L
$d_1(E)$	12	#5	3'-10''	J
h(E)	16	#5	20'-0''	
Bar Splicers			Each	22
Concrete Superstructure		Cu Yd	12.4	
Concrete Removal		Cu Yd	12.2	
Reinforcement Bars, Epoxy Coated		Pound	2670	

INT DETAILS		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		•	JEFFERSON	12	8
	_		CONTRACT	「 NO. 7	8432
S STA. TO STA.	ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



TYPE I ELASTOMERIC EXP. BRG.



OINDEN NERCIIONS					
R₽	(K)	14.6			
R4	(K)	30.7			
Imp.	(K)	9.1			
R (Total)	(K)	54.4			

GIRDER REACTIONS

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

The minimum jack capacity required is 35 Tons. Existing diaphragm removal and reinstallation

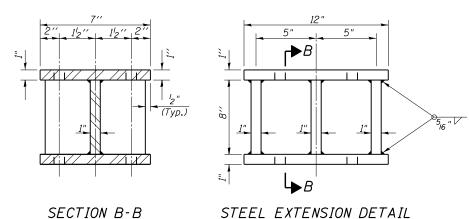
may be required to facilitate drilling holes, cost to be included with "Jack and Remove Existing Bearings". Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

Two $l_{\mathcal{B}}$ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

New steel extensions, connection bolts, Fill P's and Shim P's are included in "Furnishing and Erecting Structural Steel".

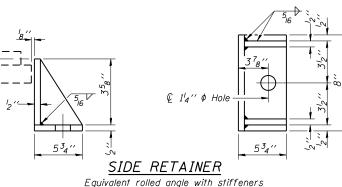
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()	14.6	L
()	30.7	Bear
()	9.1	Beam
()	54.4	Bear

ŀ	<u>-ILL P2 "†" DI</u>	MENSIONS
	LOCATION	"† "
	Beam 1, 3, 4, & 6	1'4''
	Beam 2 & 5	1'2''
	Beam 1A & 6A	NA

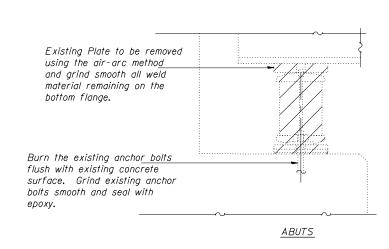


BEARING ASSEMBLY Note: Shim plates shall not be placed under Bearing Assembly.

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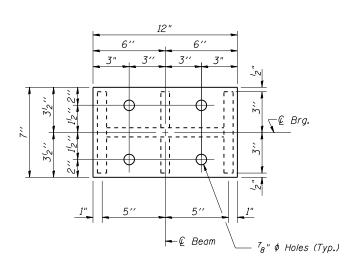
will be allowed in lieu of welded plates.



EXISTING BEARING REMOVAL DETAIL

Cost is included with Jack and Remove Existing Bearings

						* D9	CM BRIDGE REA	PAIR 2015-2
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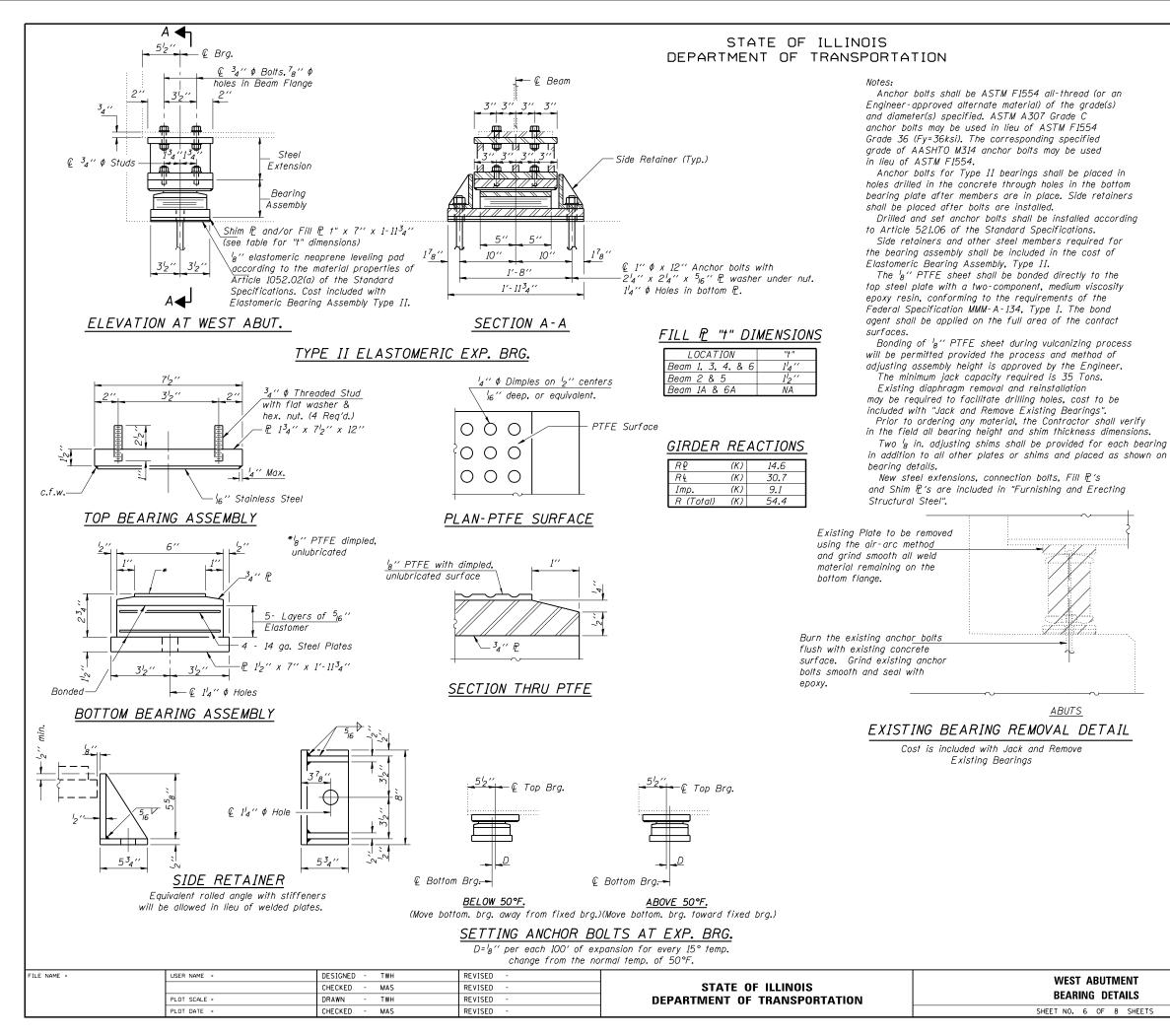


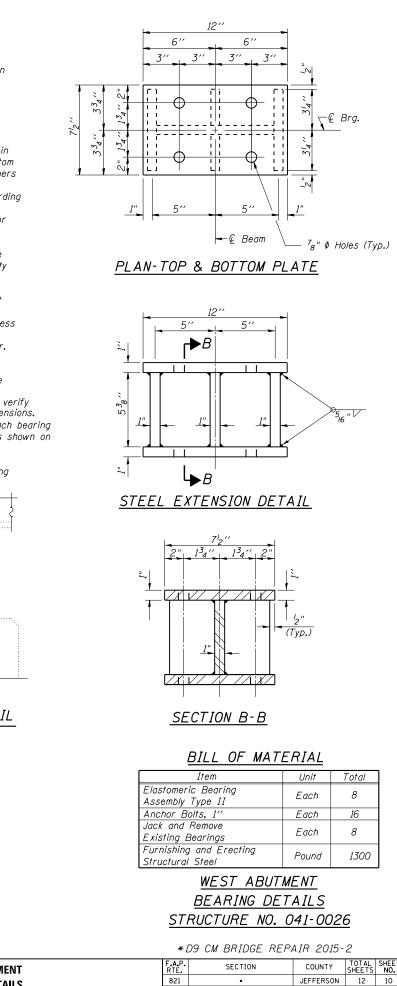


Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	8
Anchor Bolts, 1"	Each	16
Jack and Remove Existing Bearings	Each	8
Furnishing and Erecting Structural Steel	Pound	1210

EAST ABUTMENT BEARING DETAILS STRUCTURE NO. 041-0026

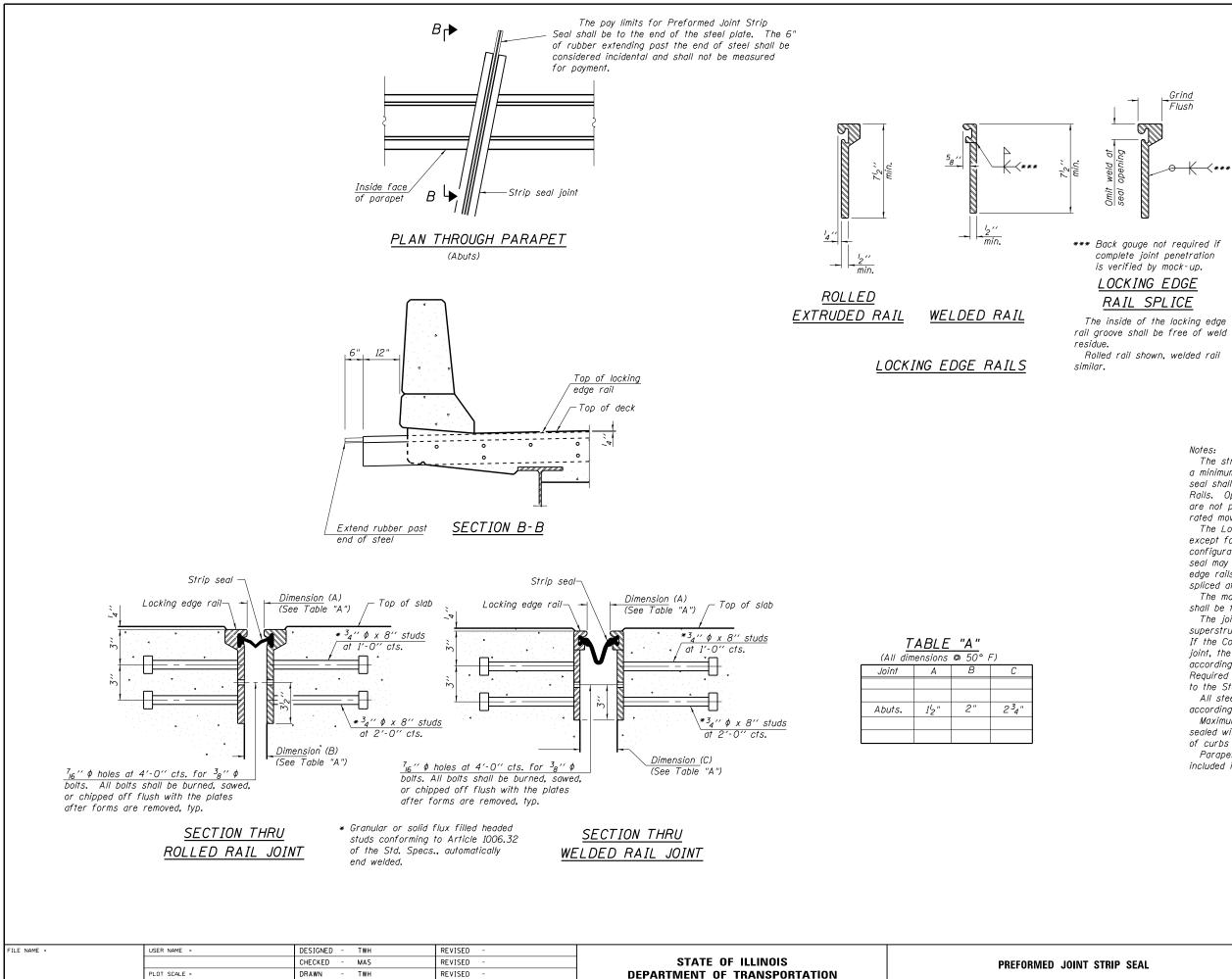
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 SHEETS
 CONTRACT NO. 78432
 ILLINOIS FED. AID PROJECT



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SHEET NO. 7 OF 8

The strip seal shall be made continuous and shall have a minimum thickness of l_{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.

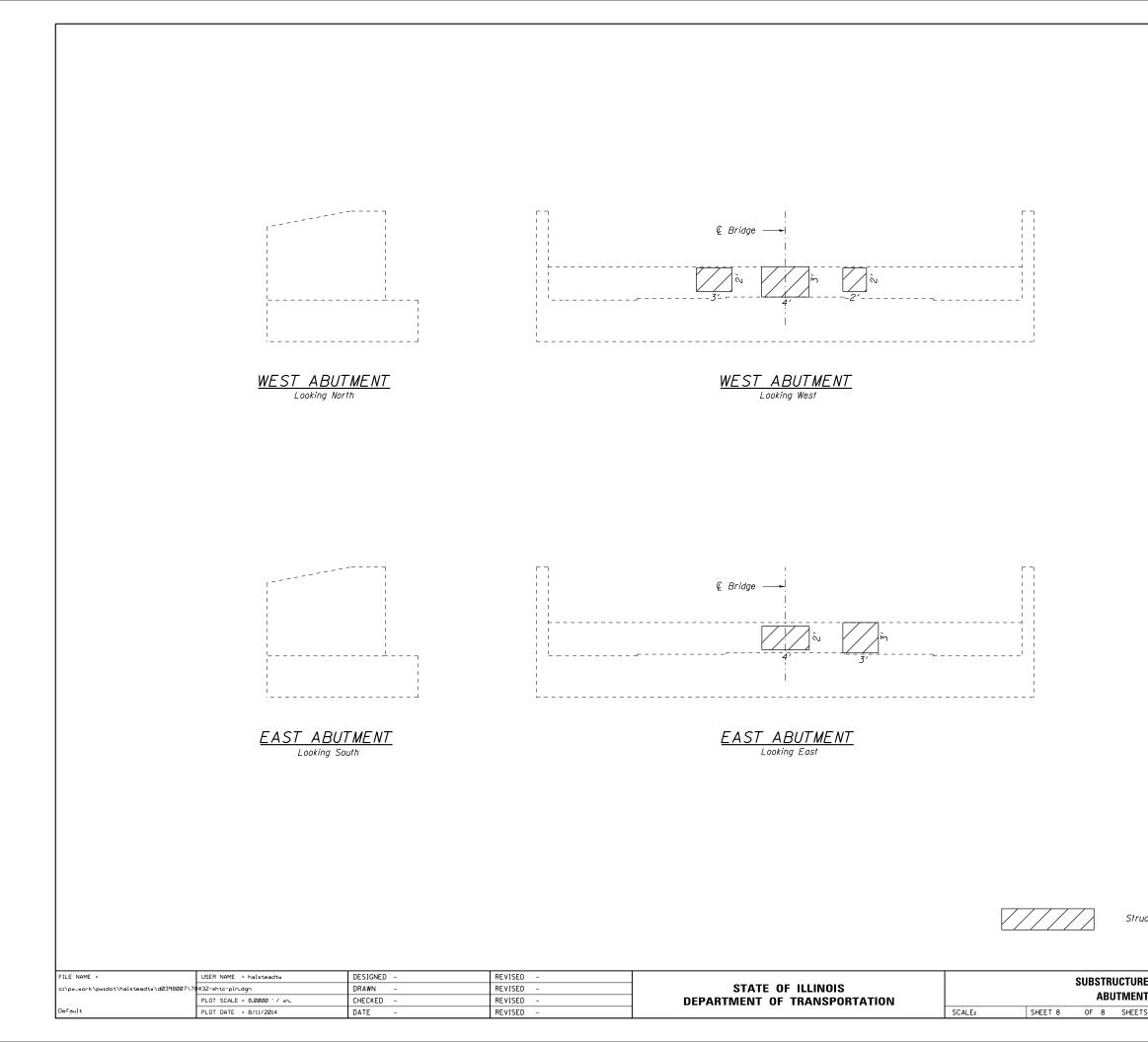
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments shall be ${}^{3}_{16}$ ",

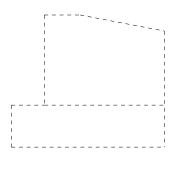
sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

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

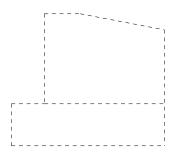
<u>BILL OF MATERIAL</u>				
Item	Unit	Total		
Preformed Joint Strip Seal	Foot	93		
<u>PREFORMED JOINT</u> <u>JEFFERSON</u> <u>STRUCTURE NO.</u>	COUNTY			
*D9_CM	BRIDGE RE	PATR 2015-		

*D9 CM BRIDGE REPAIR 2015-2					15-2
	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
IT STRIP SEAL	821	•	JEFFERSON	12	11
			CONTRACT	NO. 7	8432
8 SHEETS	ILLINOIS FED. AID PROJECT				











<u>BILL OF MATERIAL</u>

Item	Unit	Total
Structural Repair of Concrete (Depth ≤ 5 Inches)	Sq. Ft.	39

<u>SUBSTRUCTURE REPAIRS</u> <u>ABUTMENTS</u> <u>JEFFERSON COUNTY</u> <u>SN 041-0026</u>

Structural Repair of Concrete < 5''

			*D9 CM BRIDGE REPAIR 2015-2				
RE REPAIRS ITS		F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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