

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

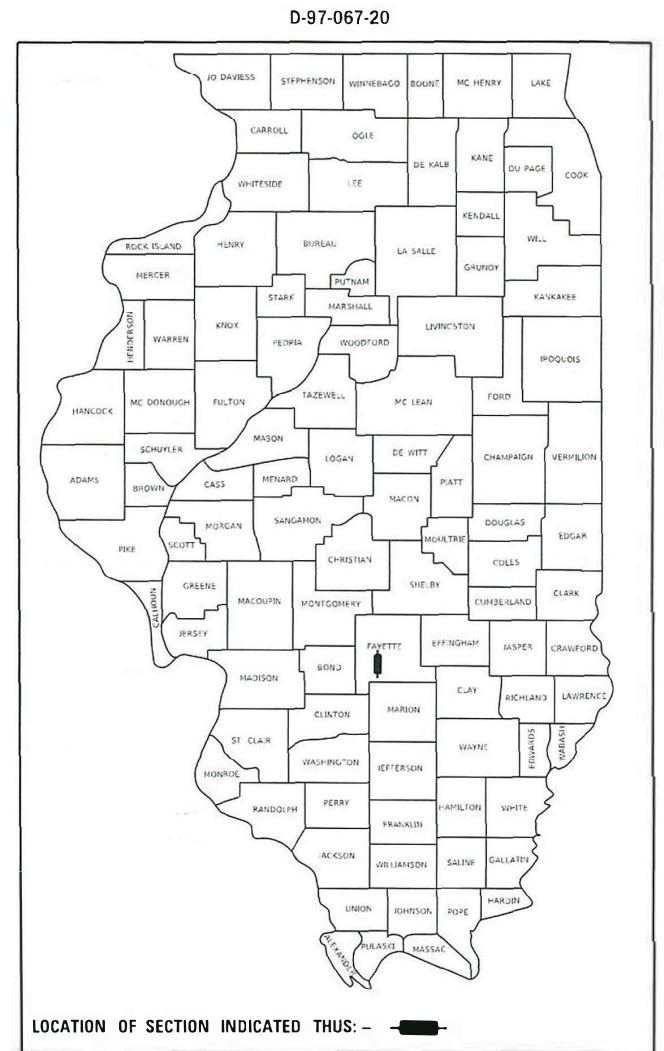
F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	D-7 BRIDGE REPAIRS 2021-3	FAYETTE	23	1
		ILLINOIS	CONTRACT NO. 74990	

FOR INDEX OF SHEETS, SEE SHEET NO. 2  
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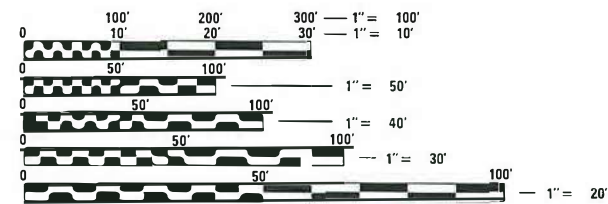
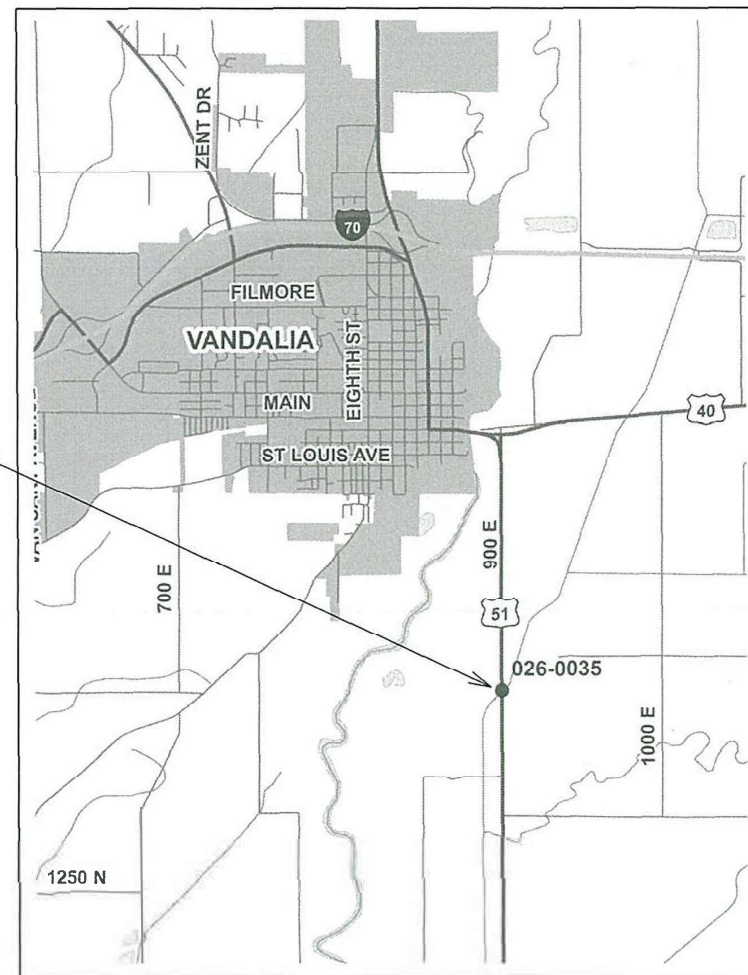
**PROPOSED  
HIGHWAY PLANS**

FAP ROUTE 322 (US 51)  
SECTION D7 BRIDGE REPAIRS 2021-3  
PROJECT NHPP-F8MI(872)  
BRIDGE REHABILITATION  
FAYETTE COUNTY

C-97-075-20



PROJECT LOCATION:  
STATION 87 + 36.00



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: TOM RONAN  
PROJECT MANAGER: KELLEN KOCHER

CONTRACT NO. 74990

GROSS LENGTH = 136.00 FT. = 0.025 MILE  
NET LENGTH = 136.00 FT. = 0.025 MILE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED April 1 20 21  
Jeffrey P. Myer  
REGIONAL ENGINEER

May 7, 2021  
Scott A. Elk  
ENGINEER OF DESIGN AND ENVIRONMENT

May 7, 2021  
James J. [Signature]  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

**INDEX OF SHEETS**

**SHEET NO. ITEM**

- 1 COVER SHEET
- 2 INDEX OF SHEETS AND GENERAL NOTES
- 3-4 SUMMARY OF QUANTITIES
- 5 TYPICAL SECTION
- 6 PAVEMENT MARKING AND SHOULDER SCHEDULES
- 7-8 PLAN / TRAFFIC CONTROL SHEETS
- 9 GUARDRAIL DETAIL SHEET
- 10-23 BRIDGE REPAIR PLAN SHEETS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 23

**STD. NO. DESCRIPTION**

- 000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 631031-17 TRAFFIC BARRIER TERMINAL, TYPE 6
- 701001-02 OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
- 701006-05 OFF-RD OPERATIONS, 2L, 2W, 15' TO 24' FROM PAVEMENT EDGE
- 701201-05 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS >=45 MPH
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701311-03 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
- 701321-18 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701326-04 LANE CLOSURE, 2L,2W, PAVEMENT WIDENING, FOR SPEEDS>= 45 MPH
- 701901-08 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER
- 780001-05 TYPICAL PAVEMENT MARKINGS

**GENERAL NOTES**

THE WORK INCLUDED IN THIS PROJECT CONSISTS OF HOT-MIX ASPHALT SHOULDER PLACEMENT, REPLACEMENT OF THE EXPANSION JOINTS WITH NEW STRIP SEALS, BEARING REPLACEMENT AT ABUTMENTS WITH NEW ELASTOMERIC BEARINGS, REPLACEMENT OF DECK DRAINS, STRUCTURAL REPAIR OF CONCRETE ABUTMENTS, FULL DEPTH DECK PATCHING, SCARIFICATION, & CONCRETE OVERLAY. THE WORK SHALL BE COMPLETED UTILIZING STAGE CONSTRUCTION WITH TEMPORARY TRAFFIC SIGNALS. THE EXISTING STRUCTURE (SN 026-0035), BUILT IN 1964, IS A 3 SPAN BRIDGE CARRYING U.S. 51 OVER SANDY RUN CREEK APPROXIMATELY 1.5 MILES SOUTH OF VANDALIA IN FAYETTE COUNTY.

ALL ELEVATIONS REFER TO U.S.G.S. DATUM AT MEAN SEA LEVEL UNLESS OTHERWISE NOTED.

SHOULDER REMOVAL AND PLACEMENT BUTTS UP TO THE EDGE OF THE SKEWED BRIDGE JOINT. THE STATIONING SHOWN IN THE SCHEDULE REFERS TO THE THE MIDPOINT OF THE DIAGONAL EDGE ADJACENT TO THE SKEWED BRIDGE JOINT.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

APPLICATION	AC/PG	DESIGN AIR VOIDS	MIXTURE COMPOSITION	FRICTION AGGREGATE	QUALITY MANAGEMENT
HOT MIX ASPHALT SHOULDER, 10" (TOP LIFT)	PG 64-22	4.0% @ N=70	IL - 9.5	MIXTURE C	QC/QA
HOT MIX ASPHALT SHOULDER, 10" (BOTTOM LIFT)	PG 64-22	4.0% @ N=70	IL - 19.0	N/A	QC/QA

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS &  
GENERAL NOTES**

SCALE: SHEET 2 OF 23 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	D-7 BRIDGE REPAIRS 20201-3	FAYETTE	23	2
			CONTRACT NO. 74990	
		ILLINOIS	FED. AID PROJECT	

80% FED  
20% STATE

80% FED  
20% STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0047		
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SO YD	621	621		
48203037	HOT-MIX ASPHALT SHOULDERS, 10"	SO YD	611	611		
50102400	CONCRETE REMOVAL	CU YD	16	16		
50300100	FLOOR DRAINS	EACH	20	20		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	16.2	16.2		
50300260	BRIDGE DECK GROOVING	SO YD	615	615		
50300300	PROTECTIVE COAT	SO YD	660	660		
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	2860	2860		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2300	2300		
50800515	BAR SPLICERS	EACH	28	28		
52000110	PREFORMED JOINT STRIP SEAL	FOOT	112	112		
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	16	16		
52100520	ANCHOR BOLTS, 1"	EACH	32	32		
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0047		
63200310	GUARDRAIL REMOVAL	FOOT	150	150		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4		
67100100	MOBILIZATION	L SUM	1	1		
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD	EACH	1	1		
	701321					
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD	L SUM	1	1		
	701201					
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD	L SUM	1	1		
	701326					
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	4	4		
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	28		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	196	196		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SO FT	65	65		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	450	450		

\* SPECIALTY ITEM

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF  
QUANTITIES

SCALE: SHEET 3 OF 23 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	D-7 BRIDGE REPAIRS 2021-3	FAYETTE	23	3
CONTRACT NO. 74990			ILLINOIS FED. AID PROJECT	

80% FED  
20% STATE

80% FED  
20% STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0047		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	400	400		
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1112	1112		
78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SO FT	266	266		
X4404260	PAVED SHOULDER REMOVAL (SPECIAL)	SO YD	570	570		
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	16	16		
Z0001901	JACK AND REPOSITION BEARINGS	EACH	8	8		
Z0005010	HOT-MIX ASPHALT FOR PATCHING POTHOLES (COLD MIX)	TON	2	2		
Z0012114	BRIDGE DECK FLY ASH OR GGBF SLAG CONCRETE OVERLAY, 3 1/4"	SO YD	621	621		
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SO YD	621	621		
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SO FT	54	54		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0047		
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SO YD	27	27		
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SO YD	60	60		

\* SPECIALTY ITEM

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

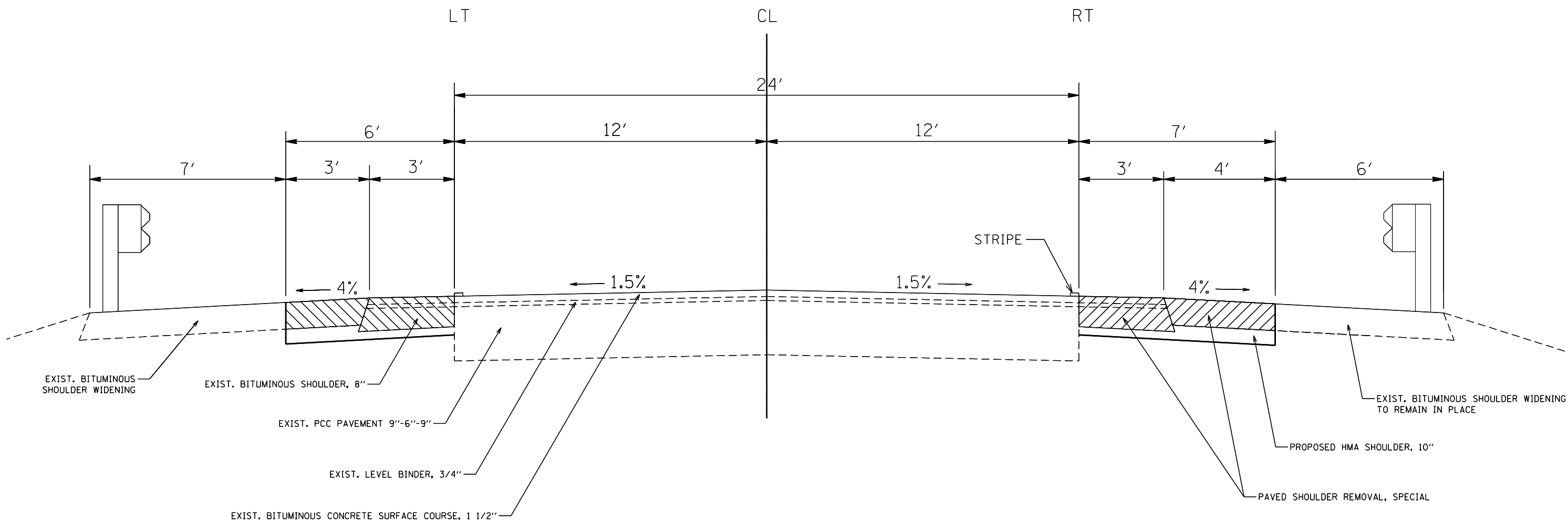
**SUMMARY OF  
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	D-7 BRIDGE REPAIRS 2021-3	FAYETTE	23	4
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74990	

PROPOSED TYPICAL CROSS SECTION

RT: STA. 84+51 TO 86+79; STA. 88+15 TO 90+21  
 LT: STA. 84+63 TO 86+58; STA. 87+94 TO 90+09



 PAVED SHOULDER REMOVAL (SPECIAL)

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>TYPICAL SECTION</b>		SCALE:	SHEET 5	OF 23 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	D-7 BRIDGE REPAIRS 2021-3	FAYETTE	23	5
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74990	

**PAVEMENT MARKING SCHEDULE**

STATION	TO	STATION	LT / RT	LOCATION	LENGTH	PAVEMENT MARKING REMOVAL - WATER BLASTING	PAINT PAVEMENT MARKING - LINE 4"	SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL
				EOP / CL	FOOT	SQ FT	FOOT	FOOT	SQ FT
83+41.94	TO	86+68.00		CL	326.1	26.9	81.5	81.5	27.2
88+04.00	TO	91+25.81		CL	321.8	26.5	80.5	80.5	26.8
85+01.44	TO	86+76.40	RT	EOP	175.0	57.7	175.0	0.0	0.0
88+12.40	TO	89+71.43	RT	EOP	159.0	52.5	159.0	0.0	0.0
85+13.01	TO	86+59.60	LT	EOP	146.6	48.4	146.6	0.0	0.0
87+95.60	TO	89+59.00	LT	EOP	163.4	53.9	163.4	0.0	0.0
86+68.00	TO	88+04.00		CL Bridge	136.0	0.0	34.0	34.0	11.3
86+76.40	TO	88+12.40	RT	EOP Bridge	136.0	0.0	136.0	0.0	0.0
86+59.60	TO	87+95.60	LT	EOP Bridge	136.0	0.0	136.0	0.0	0.0
TOTALS						266.0	1111.9	196.0	65.3
ROUND TO						266	1112	196	65

**SHOULDER SCHEDULE**

STATION	TO	STATION	LOCATION	LENGTH	PAVED SHOULDER REMOVAL WIDTH	HMA SHOULDER, 10" WIDTH	PAVED SHOULDER REMOVAL, SPECIAL	HOT-MIX ASPHALT SHOULDERS, 10"
			LT / RT	FOOT	FOOT	FOOT	SQ YD	SQ YD
84+51.40	TO	86+78.90	RT (NW QUAD)	227.5	7.0	7.0	176.9	176.9
88+14.90	TO	89+50.09	RT (SW QUAD)	135.2	7.0	7.0	105.1	105.1
89+50.09	TO	89+59.79	RT (SW QUAD)	9.7	5.0	7.0	5.4	7.5
89+59.79	TO	90+21.47	RT (SW QUAD)	61.7	3.0	7.0	20.6	48.0
84+63.00	TO	86+57.50	LT (NE QUAD)	194.5	6.0	6.0	129.7	129.7
87+93.50	TO	89+71.57	LT (SE QUAD)	178.1	6.0	6.0	118.7	118.7
89+71.57	TO	89+80.43	LT (SE QUAD)	8.9	4.5	6.0	4.4	5.9
89+80.43	TO	90+09.00	LT (SE QUAD)	28.6	3.0	6.0	9.5	19.0
TOTALS							570.4	610.9
ROUND TO							570	611

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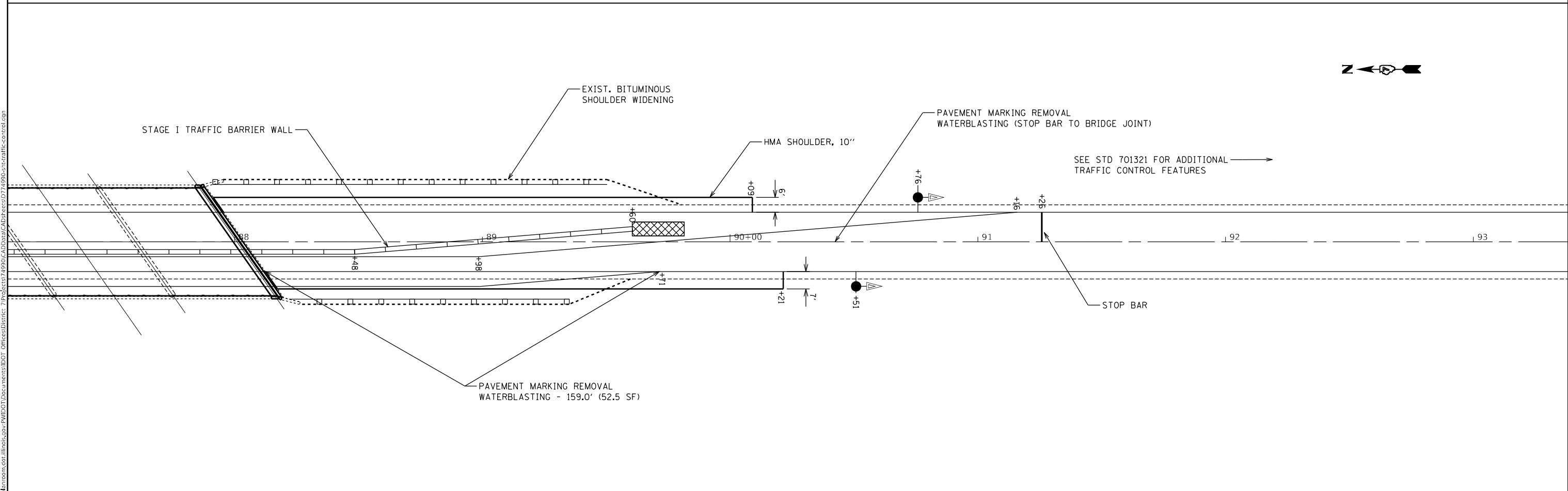
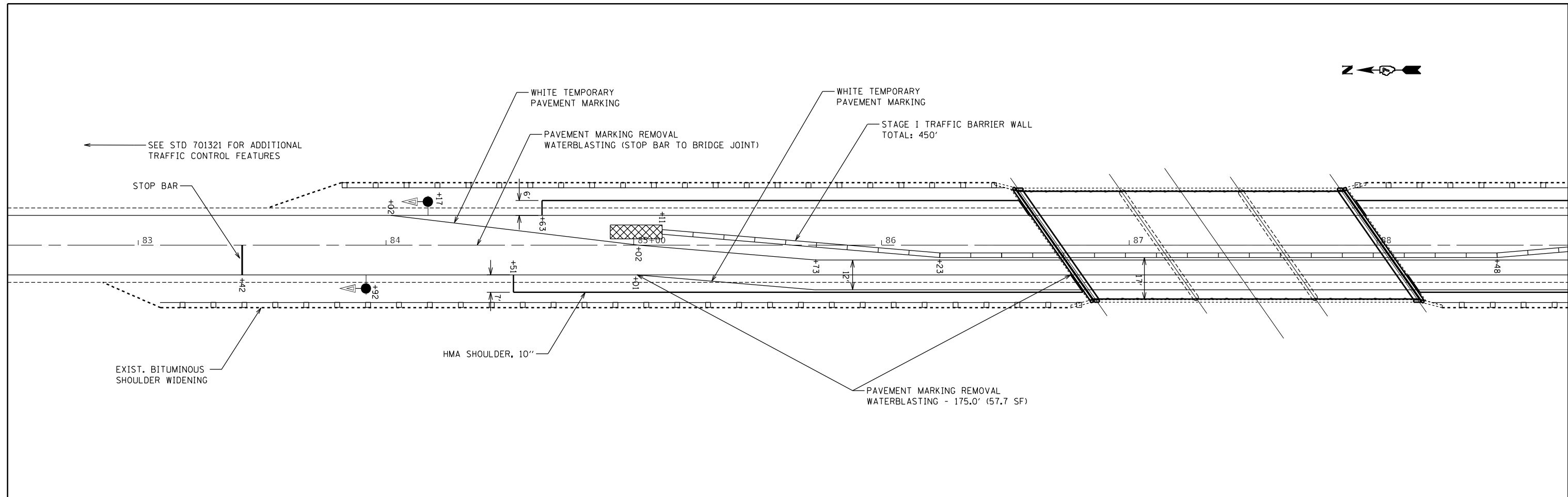
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SCHEDULES  
OF QUANTITIES**

SCALE: SHEET 6 OF 23 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	D-7 BRIDGE REPAIRS 2021-3	FAYETTE	23	6
			CONTRACT NO. 74990	
			ILLINOIS FED. AID PROJECT	



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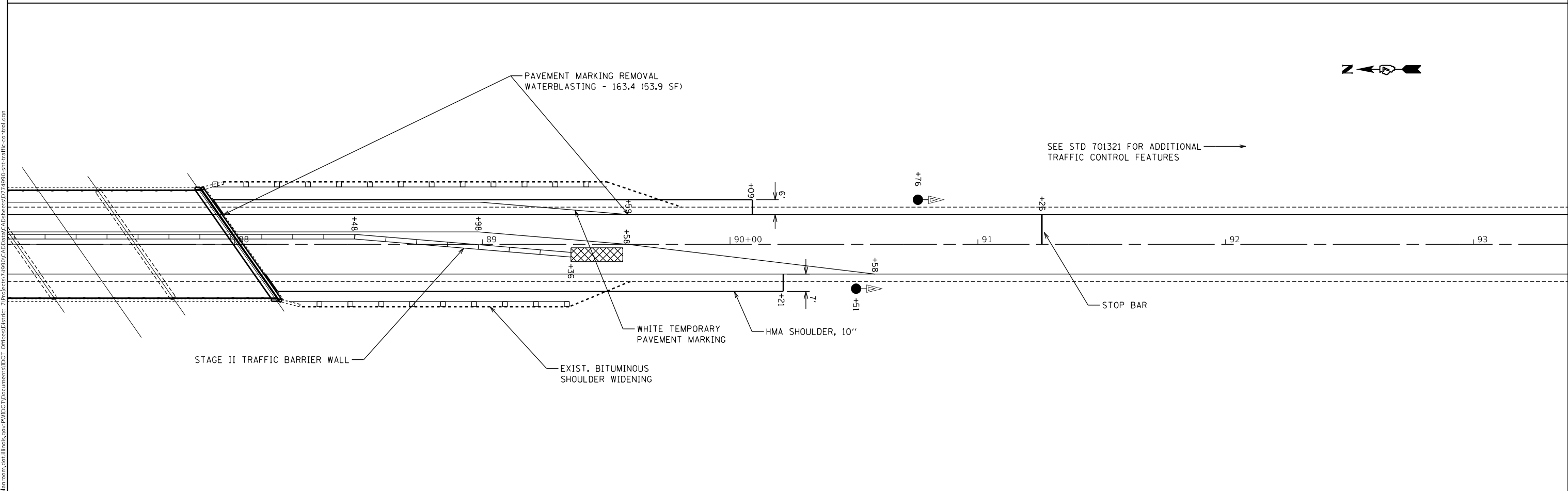
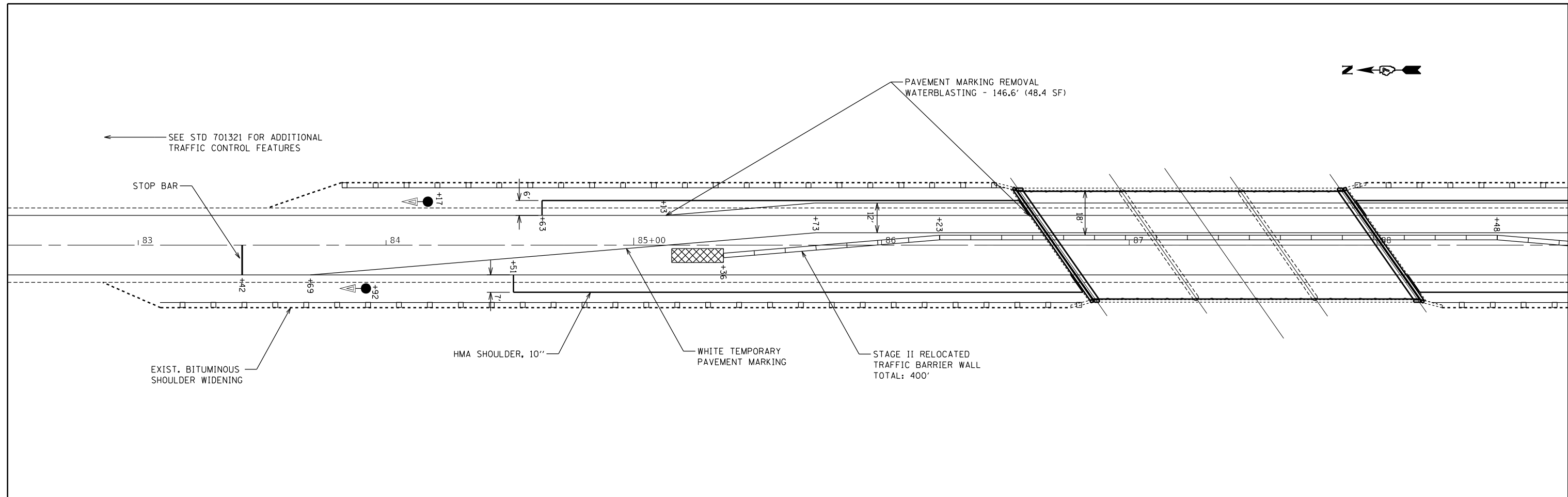
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>STAGE I TRAFFIC CONTROL</b> <b>PLAN SHEET</b>			
SCALE: 1:20	SHEET 7	OF 23 SHEETS	STA. 83+00 TO STA. 93+00

F.A.P. RTE. 322	SECTION D-7 BRIDGE REPAIRS 2021-3	COUNTY FAYETTE	TOTAL SHEETS 23	SHEET NO. 7
			CONTRACT NO. 74990	
ILLINOIS FED. AID PROJECT				

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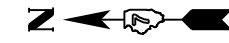
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>STAGE II TRAFFIC CONTROL PLAN SHEET</b>			
SCALE: 1:20	SHEET 8	OF 23 SHEETS	STA. 83+00 TO STA. 93+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	D7-BRIDGE REPAIRS 2021-3	FAYETTE	23	8
CONTRACT NO. 74990				
ILLINOIS FED. AID PROJECT				





GUARDRAIL REMOVAL - 37.5 FT  
 REPLACE WITH TRAFFIC  
 BARRIER TERMINAL, TY. 6

82

83

84

85+00

86

87

GUARDRAIL REMOVAL - 37.5 FT  
 REPLACE WITH TRAFFIC  
 BARRIER TERMINAL, TY. 6



GUARDRAIL REMOVAL - 37.5 FT  
 REPLACE WITH TRAFFIC  
 BARRIER TERMINAL, TY. 6

87

88

89

90+00

91

92

93

GUARDRAIL REMOVAL - 37.5 FT  
 REPLACE WITH TRAFFIC  
 BARRIER TERMINAL, TY. 6

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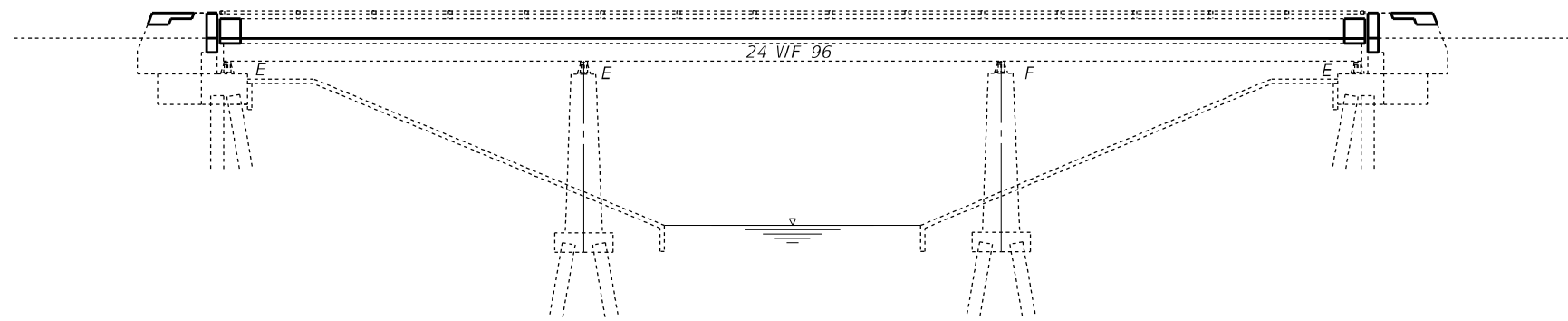
**STATE OF ILLINOIS  
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**GUARDRAIL  
 DETAIL**

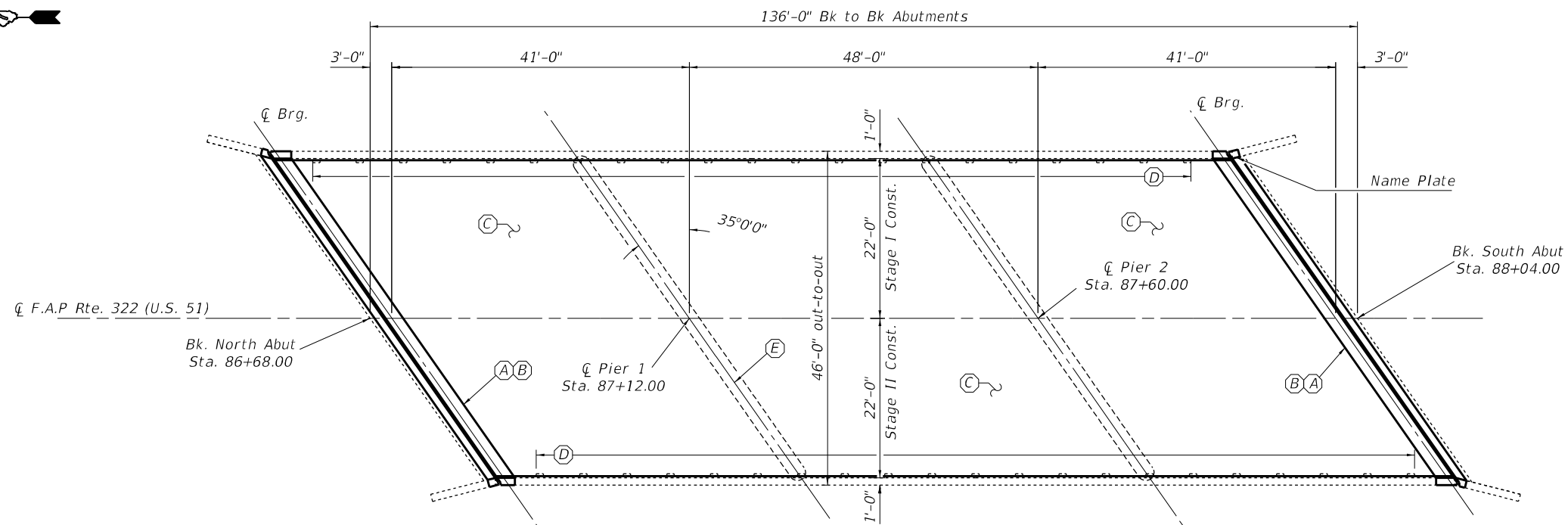
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	D7 BRIDGE REPAIRS 2021-3	FAYETTE	23	9
CONTRACT NO. 74990				
ILLINOIS FED. AID PROJECT				

EXISTING STRUCTURE: SN 026-0035, built in 1964, is a 3 span bridge carrying U.S. 51 over Sandy Run Creek. The proposed project consists of replacement of the expansion joints with new strip seals, bearing replacement at abutments with new elastomeric bearings, HMA surface removal, replacement of deck drains, structural repair of concrete abutments, full depth deck patching, scarification & concrete overlay.



ELEVATION



PLAN



Expires 11-30-2022

*David Carl Puzev*

04/30/2021

- (A) - Remove and Replace Existing Strip Seal Expansion Joint
- (B) - Remove Existing Abutment Bearings and Install new Elastomeric Bearings
- (C) - HMA Surface Removal, 2-1/2", Bridge Deck Scarification, 3/4", Deck Patching, & Bridge Deck Fly Ash or GGBF Slag Concrete Overlay, 3-1/4"
- (D) - Remove and Replace Existing Floor Drains
- (E) - Jack and Reposition Existing Bearings

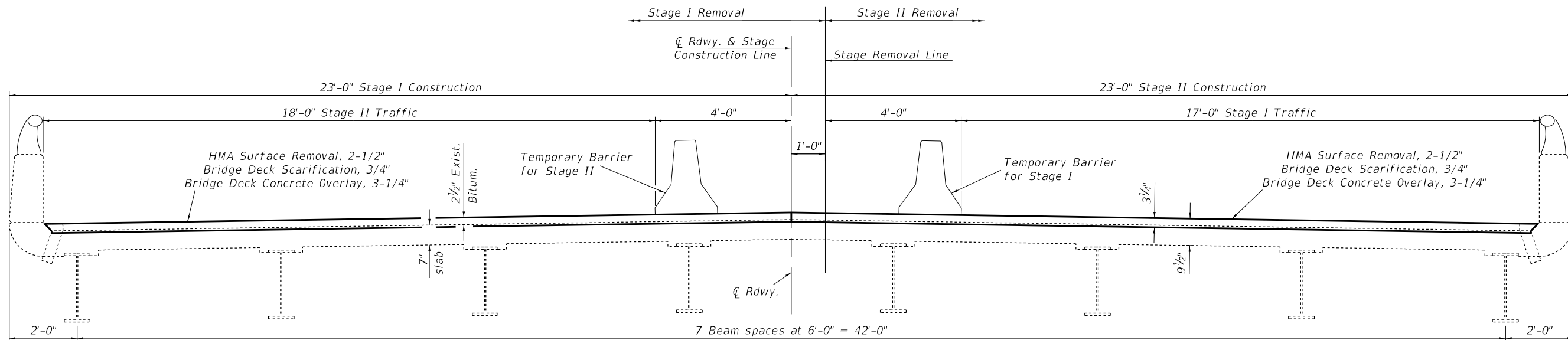
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION  
S.N. 026-0035

SCALE: SHEET 1 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO. 74990	
			ILLINOIS FED. AID PROJECT	

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**STAGE CONSTRUCTION DETAIL**  
Looking South

**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 bid for the work.

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 operations shall be replaced with an approved bar splicer or anchorage system. Cost included with CONCRETE REMOVAL.

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.

Removal and reinstallation of the handrail sections and support posts at both abutments will be necessary for construction of the expansion joints and parapet repair. The existing handrail sections and support posts shall be reused. New bolts, shim plates and post support anchor assemblies, as detailed in the plans, are to be provided and installed for the replacement of the handrail sections. This work and all materials shall be included in the contract unit price for CONCRETE SUPERSTRUCTURE.

Removal and reinstallation of the guardrail will be necessary for construction of the expansion joints. The existing guardrail sections shall be reused. All embedded anchors that are within the concrete removal area shall be cleaned and incorporated in the new construction or new approved alternatives shall be supplied and installed. This work and all materials shall be included in the contract unit price for CONCRETE SUPERSTRUCTURE.

Protective Coat to be applied to areas of new concrete only, including bridge deck concrete overlay.

Synthetic Fibers shall be added to the Bridge Deck Fly Ash or GGBF Slag Concrete Overlay. See special provisions.

Full depth deck slab repairs performed in the exterior bays of the bridge deck (between the parapet walls and the first interior beams) shall be limited to individual lengths no greater than 10'. In these portions of the deck, repair areas longer than 10' shall be divided into segments not greater than 10' in length, and the segments shall be poured in alternating sequence. Subsequent segments repaired in sequence shall not be removed until 72 hours shall have elapsed from the end of the previous, adjacent pour, and the adjacent pour shall have attained a minimum modulus of rupture of 650psi.

Prior to pouring the new concrete deck, 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 the existing concrete.

The existing Name Plate extends into the concrete removal area of the wingwall. The Contractor shall use extreme care during concrete removal so as not to damage the Name Plate. Cost included with Concrete Removal.

Areas of deck repairs shown are estimated. The Engineer shall show actual locations of deck repairs on as-built plans.

It is anticipated that full depth deck slab repair will be necessary at each existing floor drain location. Removal and disposal of existing floor drains shall be included in the contract unit price for Deck Slab Repair (Full Depth, Type I).

Proposed new Floor Drains shall be constructed of 6" diameter aluminum tube. Fiberglass pipe alternative shall not be allowed.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Concrete Removal	CU. YD.	16.0
Concrete Superstructure	CU. YD.	16.2
Reinforcement Bars, Epoxy Coated	Pound	2,300
Hot-Mix Asphalt Surface Removal, 2-1/2"	SQ. YD.	621
Bridge Deck Grooving	SQ. YD.	615
Bridge Deck Scarification, 3/4"	SQ. YD.	621
Bridge Deck Fly Ash or GGBF Slag Concrete Overlay, 3-1/4"	SQ. YD.	621
Preformed Joint Strip Seal	Foot	112
Protective Coat	SQ. YD.	660
Bar Splicers	Each	28
Floor Drains	Each	20
Jack & Reposition Existing Bearings	Each	8
Jack & Remove Existing Bearings	Each	16
Elastomeric Bearing Assembly, Type I	Each	16
Anchor Bolts, 1"Ø	Each	32
Furnishing and Erecting Structural Steel	Pound	2860
Deck Slab Repair (Full Depth, Type I)	SQ. YD.	27
Deck Slab Repair (Full Depth, Type II)	SQ. YD.	60
Structural Repair of Concrete (Depth ≤ 5")	SQ. FT.	54

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PROJECT: 749903-026-0035-Bridge Repair.sdp  
OFFICE: DISTRICT 7  
DRAWN: T. Walk  
CHECKED: D. Macklin  
DATE: May 2020

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	DRAWN - T. Walk	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - D. Macklin	REVISED -
PLOT DATE = 3/3/2021	DATE - May 2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

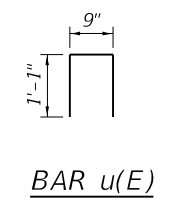
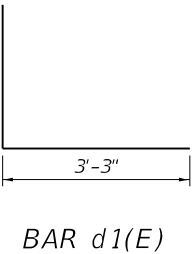
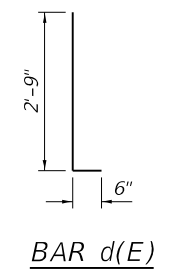
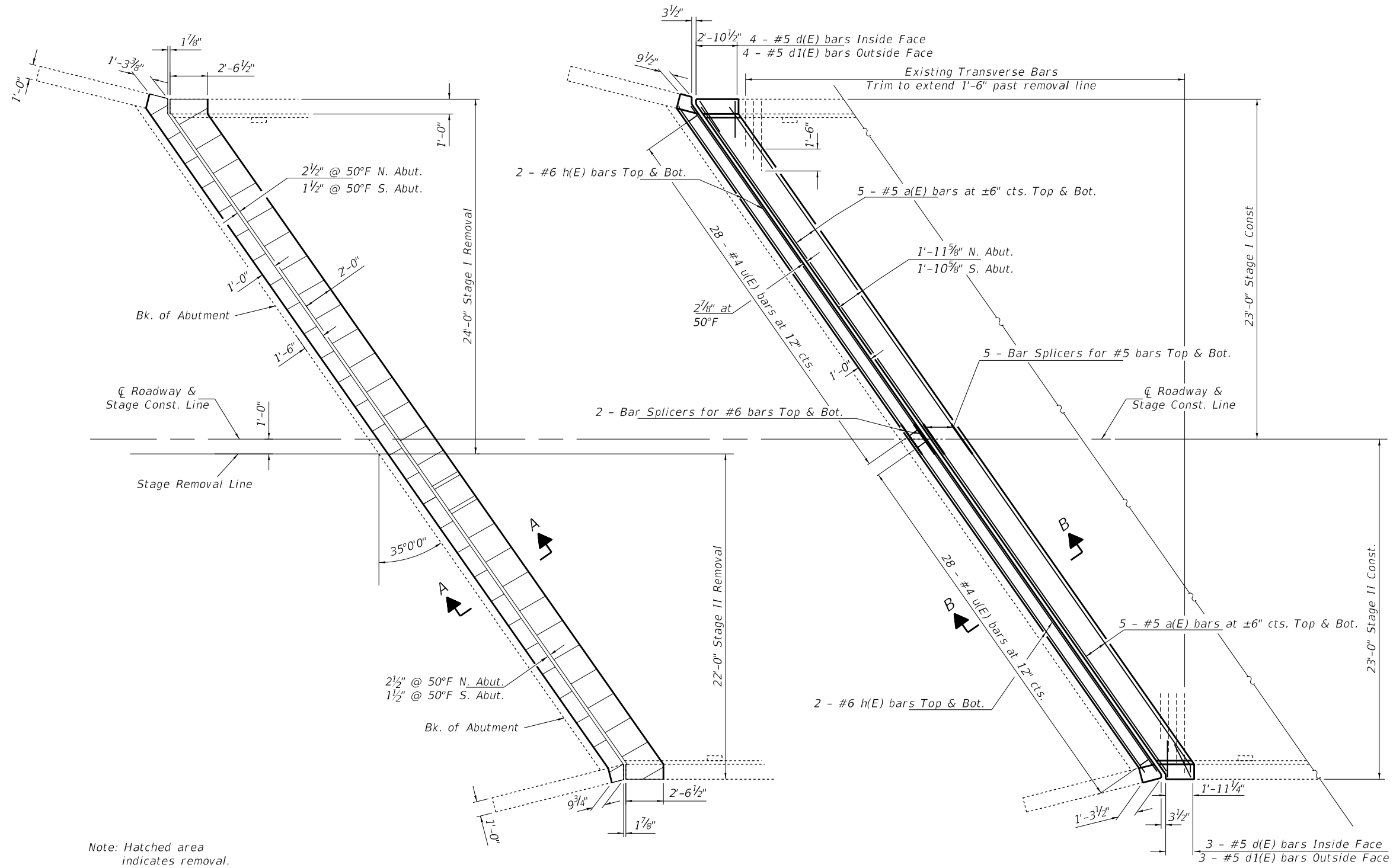
**STAGE CONSTRUCTION, GENERAL NOTES, &  
BILL OF MATERIAL - S.N. 026-0035**

SCALE: SHEET 2 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	D7 BRIDGE REPAIRS 2021-3	FAYETTE	23	11
CONTRACT NO. 74990				
ILLINOIS FED. AID PROJECT				



For Section A-A and B-B, See sheet 4 of 14



**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	40	#5	27'-3"	—
d(E)	14	#5	3'-3"	┌
d1(E)	14	#5	5'-9"	┌
h(E)	16	#6	27'-4"	—
u(E)	112	#4	2'-11"	┐
ITEM		UNIT	QUANTITY	
Concrete Removal		Cu. Yd.	16.0	
Concrete Superstructure		Cu. Yd.	15.4	
Reinforcement Bars, Epoxy Coated		Pound	2150	
Bar Splicers		Each	28	

Note: Hatched area indicates removal.

**REMOVAL PLAN**  
North Abutment Shown  
South Abutment Similar

**REINFORCEMENT PLAN**  
North Abutment Shown  
South Abutment Similar

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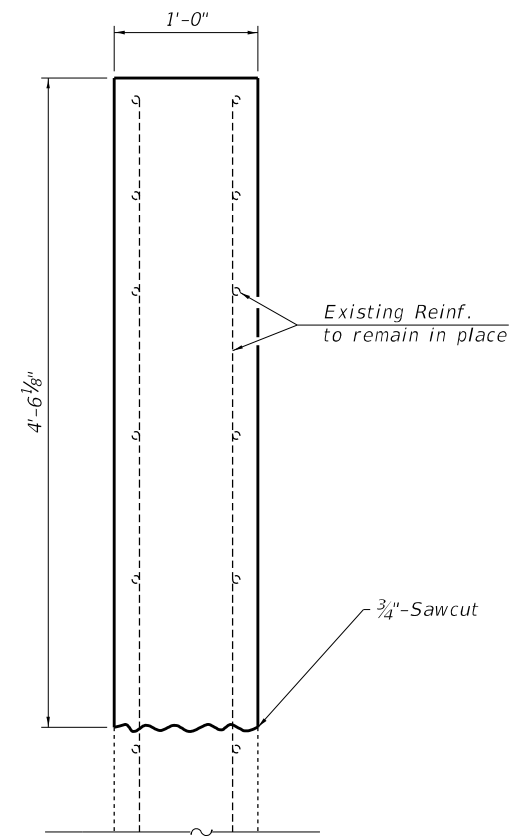
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PLOT DATE = 3/3/2021	DATE - May 2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

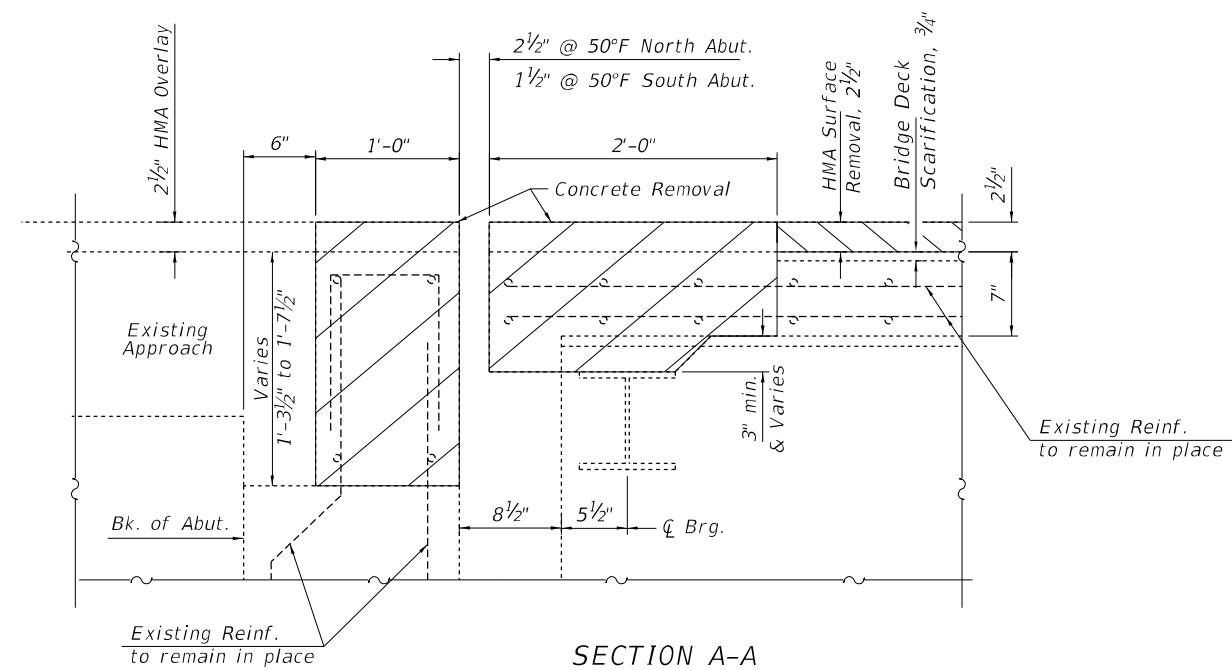
**EXPANSION JOINT REPLACEMENT DETAILS  
S.N. 026-0035**

SCALE: SHEET 3 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS FED. AID PROJECT			CONTRACT NO. 74990	

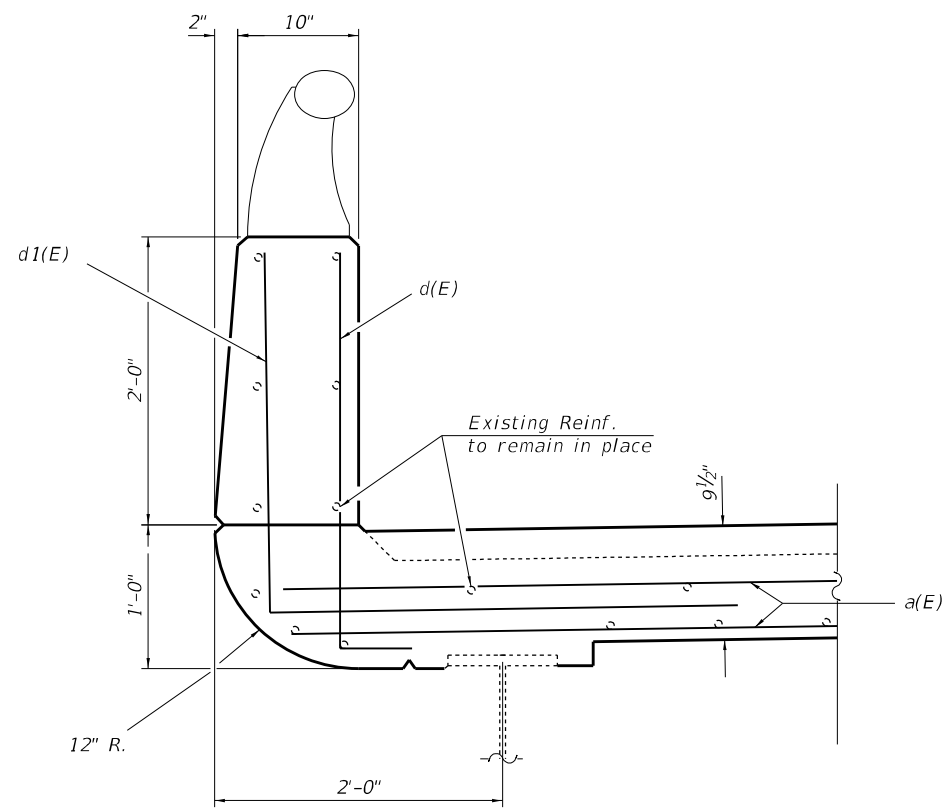


SECTION THRU WING WALL

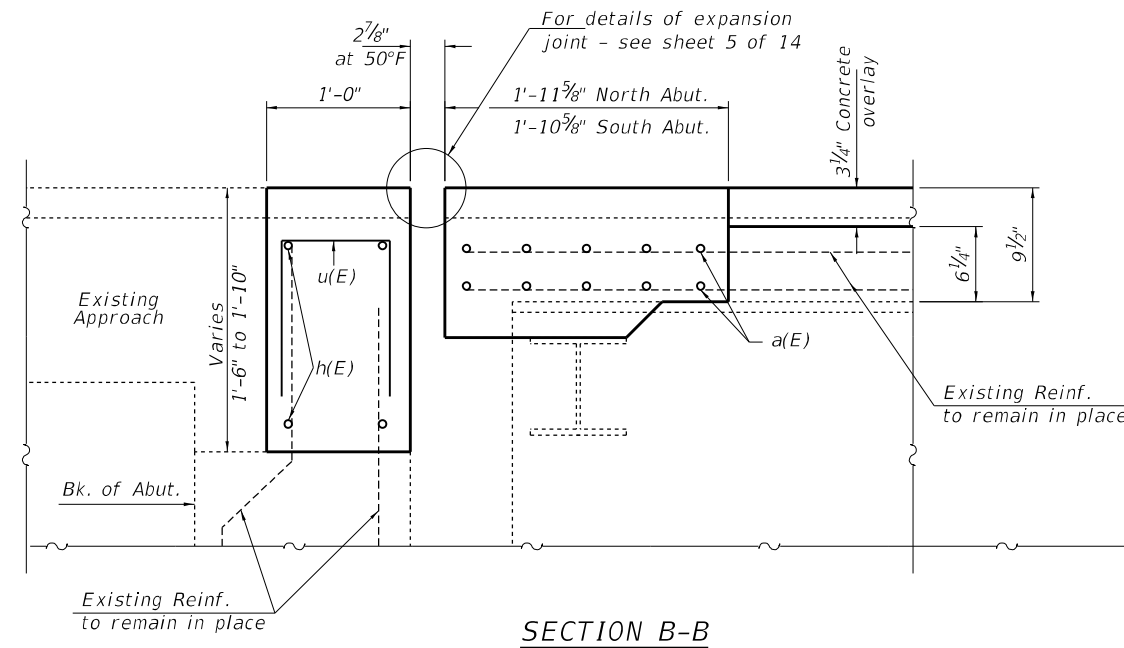


SECTION A-A

Note: Hatched area indicates removal.



SECTION THRU PARAPET



SECTION B-B

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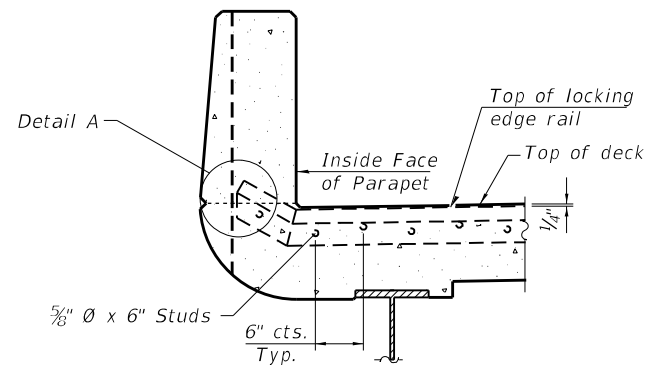
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	DATE - May 2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

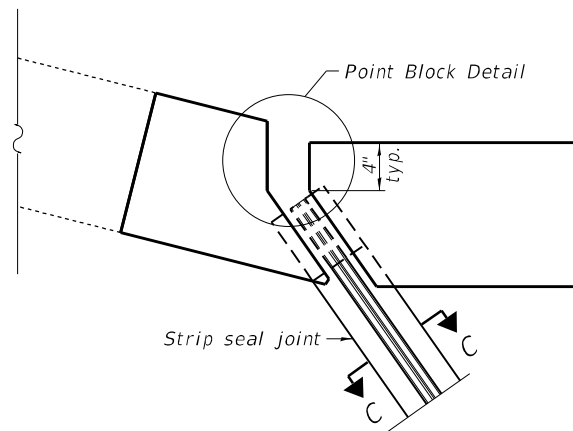
**EXPANSION JOINT REPLACEMENT DETAILS  
S.N. 026-0035**

SCALE: SHEET 4 OF 14 SHEETS STA. TO STA.

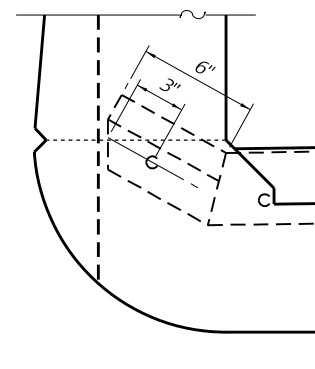
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322	D7 BRIDGE REPAIRS 2021-3	FAYETTE	23	13
CONTRACT NO. 74990				
ILLINOIS FED. AID PROJECT				



**ELEVATION AT PARAPET**



**PLAN AT PARAPET**



**DETAIL A**

**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.

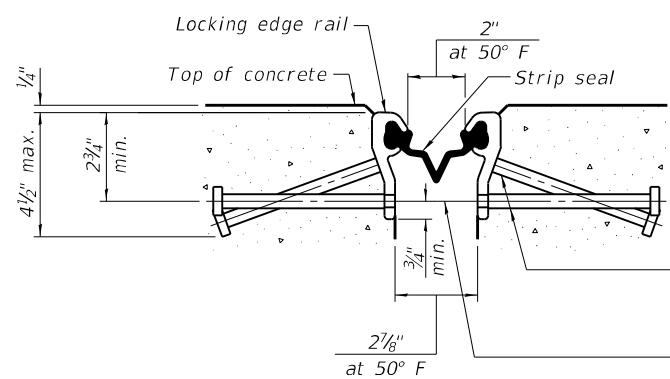
The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

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

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



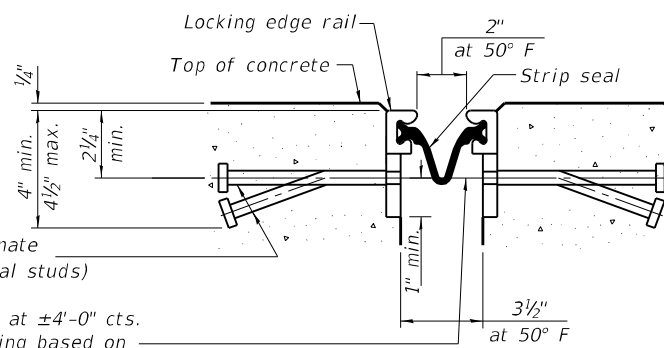
**SHOWING ROLLED RAIL JOINT**

\* 5/8"  $\phi$  x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

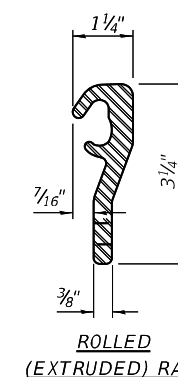
3/8"  $\phi$  threaded rods in 1/16"  $\phi$  holes at  $\pm 4'-0"$  cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

**SECTION C-C**

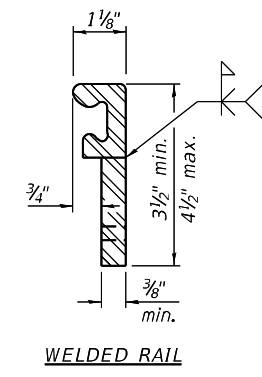
\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



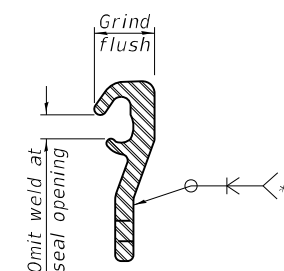
**SHOWING WELDED RAIL JOINT**



**ROLLED (EXTRUDED) RAIL**



**WELDED RAIL**



**LOCKING EDGE RAIL SPLICE**

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

**LOCKING EDGE RAILS**

\*\* Back gouge not required if complete joint penetration is verified by mock-up.

**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	112

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PLOT DATE = 3/3/2021	CHECKED - D. Macklin	REVISED -
	DATE - May 2020	REVISED -

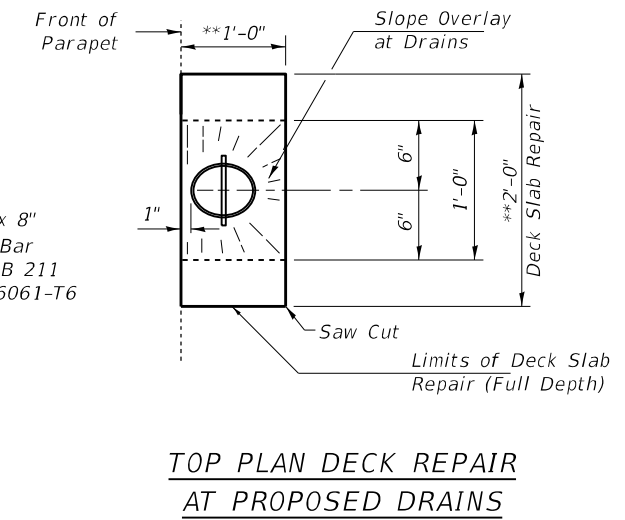
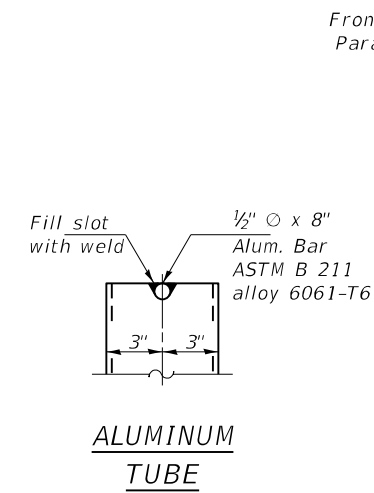
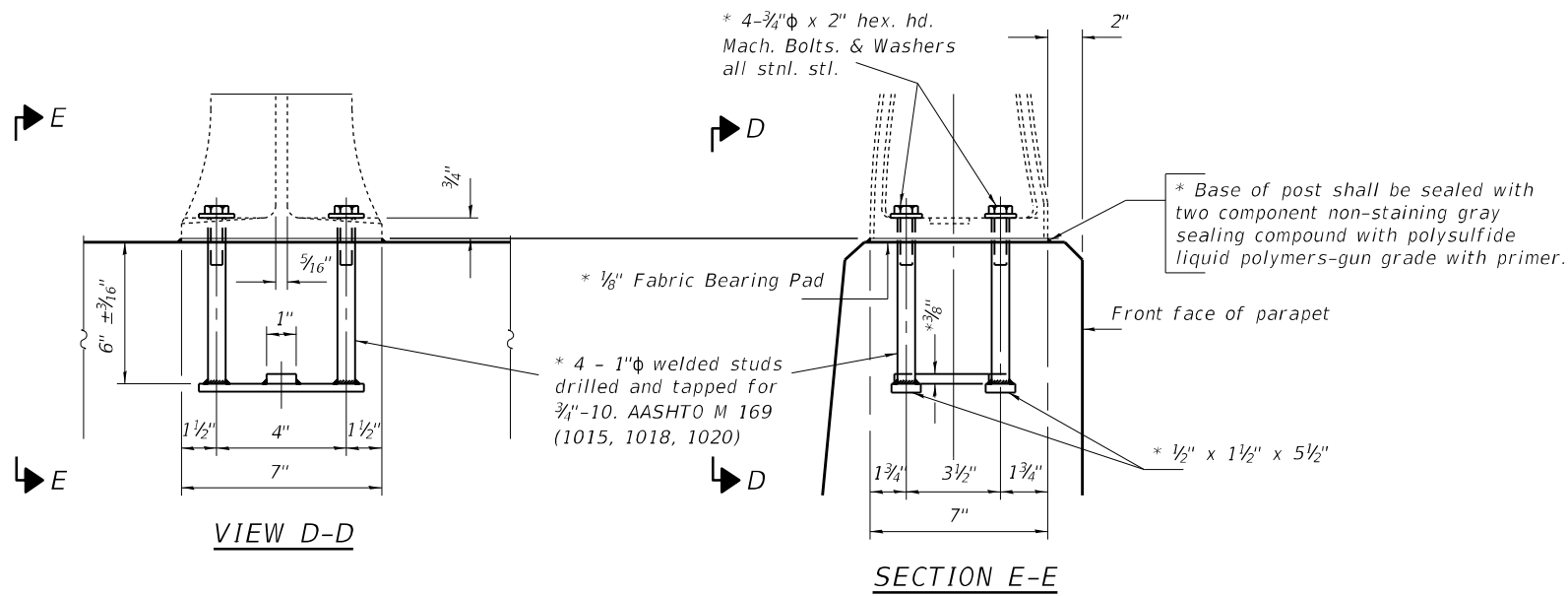
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL DETAIL  
S.N. 026-0035**

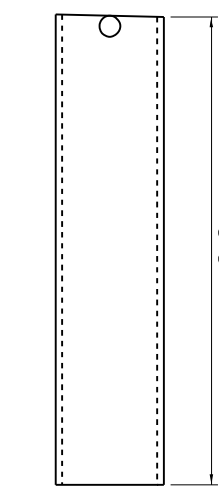
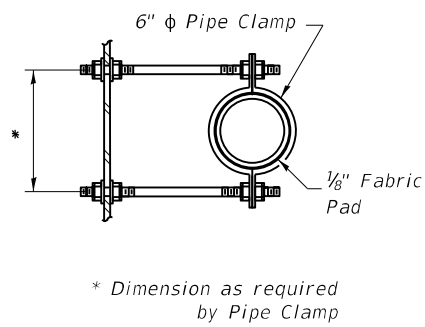
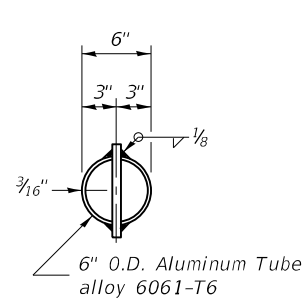
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS FED. AID PROJECT			CONTRACT NO. 74990	

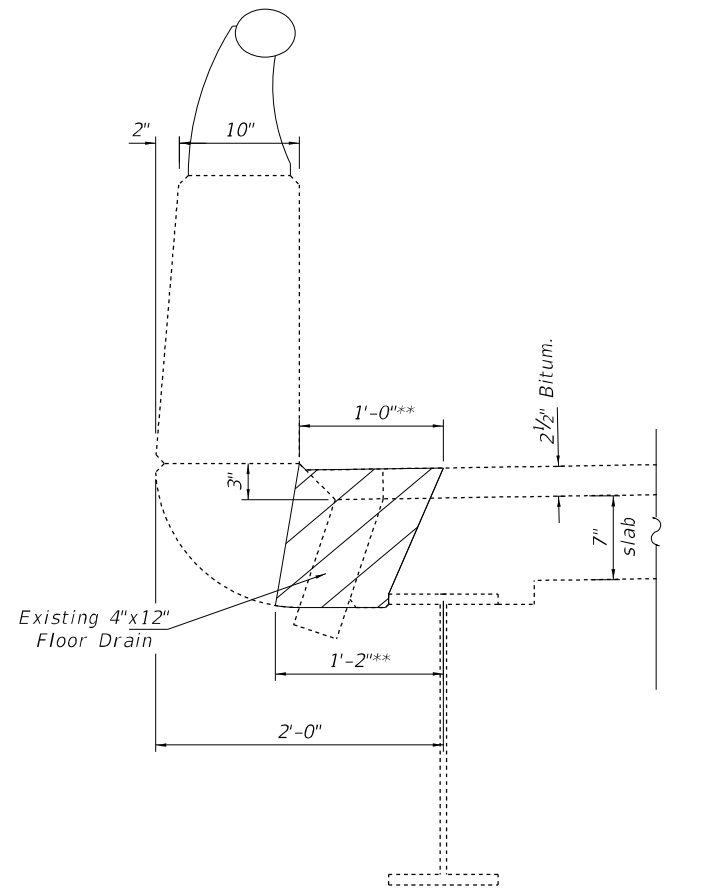
\* New Rail Post anchorage devices will be required at each location where posts are connected to new construction. In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications. Cost shall be included with Concrete Superstructure.



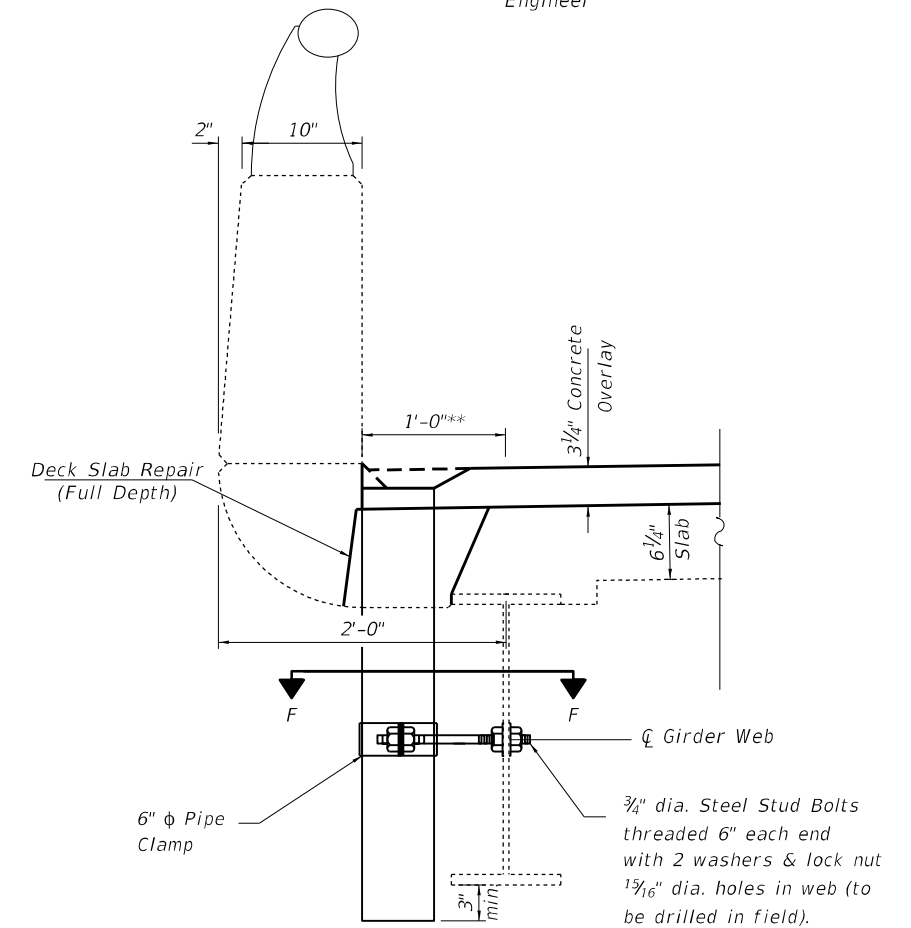
\*\* Actual dimensions of Deck Slab Repair shall be determined by the Engineer



**DRAIN DETAIL**  
20 Required



**SECTION THRU EXISTING FLOOR DRAIN**



**DRAIN REPLACEMENT DETAIL**

**NOTES**

Fiberglass pipe alternative shall not be allowed for floor drains.

Gallvanize clamping device according to AASHTO M232. Cost of clamping device, bolts and galvanizing is included with Floor Drains.

Concrete removal and replacement quantites and locations for drains are included in Deck Slab Repair (Full Depth, Type I) as shown on "Bridge Deck Patching" see sheet ## of ##

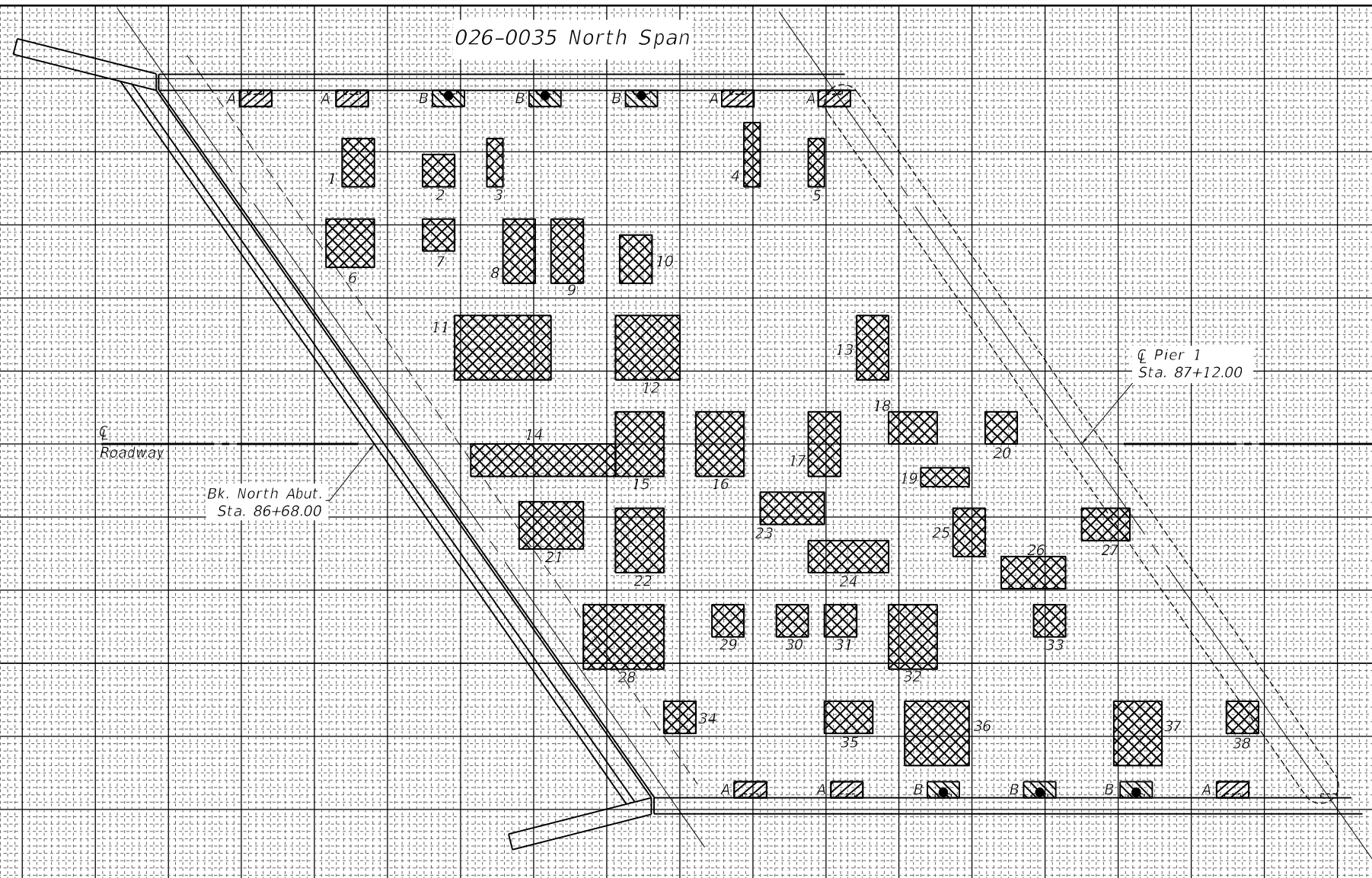
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FLOOR DRAIN DETAILS & RAIL POST DETAILS  
S.N. 026-0035**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	D7 BRIDGE REPAIRS 2021-3	FAYETTE	23	15
CONTRACT NO. 74990			ILLINOIS FED. AID PROJECT	

SCALE: SHEET 6 OF 14 SHEETS STA. TO STA.

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PATCH NO.	SIZE		DECK SLAB REPAIR	
	LENGTH	WIDTH	(FD TY I) SQ YD	(FD TY II) SQ YD
1	2.0	3.0		0.7
2	2.0	2.0	0.4	
3	1.0	3.0	0.3	
4	1.0	4.0	0.4	
5	1.0	3.0	0.3	
6	3.0	2.5		0.8
7	2.0	2.0	0.4	
8	2.0	4.0		0.9
9	2.0	4.0		0.9
10	2.0	3.0		0.7
11	6.0	4.0		2.7
12	4.0	4.0		1.8
13	2.0	4.0		0.9
14	9.0	2.0		2.0
15	3.0	4.0		1.3
16	3.0	4.0		1.3

PATCH NO.	SIZE		DECK SLAB REPAIR	
	LENGTH	WIDTH	(FD TY I) SQ YD	(FD TY II) SQ YD
17	2.0	4.0		0.9
18	3.0	2.0		0.7
19	3.0	1.0	0.3	
20	2.0	2.0	0.4	
21	4.0	3.0		1.3
22	3.0	4.0		1.3
23	4.0	2.0		0.9
24	5.0	2.0		1.1
25	2.0	3.0		0.7
26	4.0	2.0		0.9
27	3.0	2.0		0.7
28	5.0	4.0		2.2
29	2.0	2.0	0.4	
30	2.0	2.0	0.4	
31	2.0	2.0	0.4	
32	3.0	4.0		1.3

PATCH NO.	SIZE		DECK SLAB REPAIR	
	LENGTH	WIDTH	(FD TY I) SQ YD	(FD TY II) SQ YD
33	2.0	2.0	0.4	
34	2.0	2.0	0.4	
35	3.0	2.0		0.7
36	4.0	4.0		1.8
37	3.0	4.0		1.3
38	2.0	2.0	0.4	
A - Remove Drain, 7 ea			1.6	
B - Replace Drain, 6 ea			1.3	
<b>TOTALS</b>			<b>8.3</b>	<b>29.7</b>
<b>ROUND TO:</b>			<b>9.0</b>	<b>30.0</b>

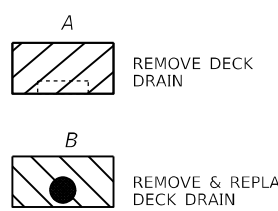
THE LOCATIONS AND SIZES SHOWN GRAPHICALLY ABOVE ARE APPROXIMATE. SEE THIS TABLE FOR ACTUAL SIZES.



DATE OF SURVEY: 4-24-2020  
 SURVEY BY: DPM & TMW  
 METHOD OF SURVEY: VISUAL

A & B = Deck Slab Repair (Full Depth, Type I)  
 2ft<sup>2</sup> = .22yd<sup>2</sup> Each

**ESTIMATED PAY QUANTITIES**  
 DECK SLAB REPAIR (FULL DEPTH, TYPE I) = 9 SQ YD  
 DECK SLAB REPAIR (FULL DEPTH, TYPE II) = 30 SQ YD



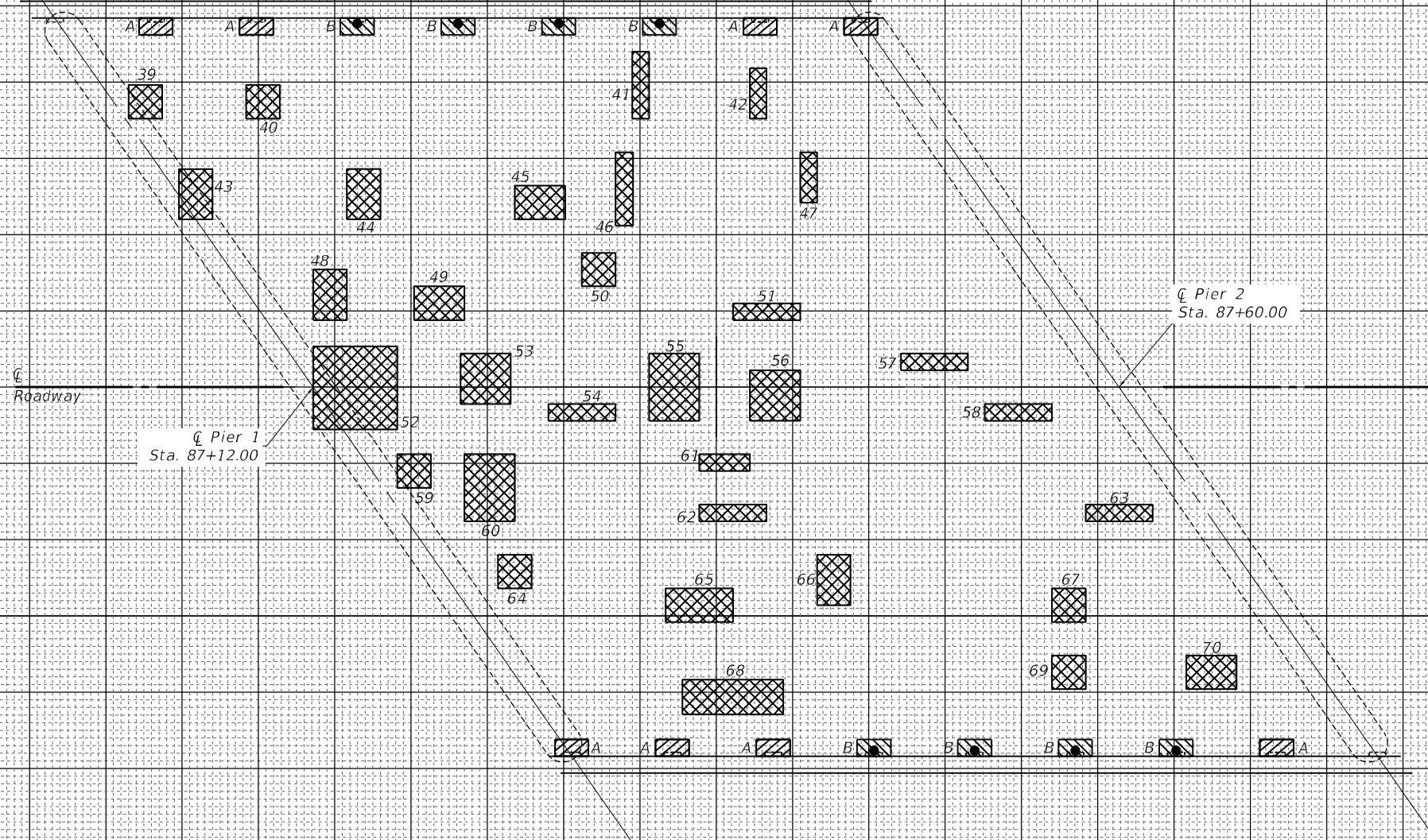
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					ILLINOIS FED. AID PROJECT			CONTRACT NO. 74990	



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 OFFICE: District 7  
 DATE: 3/4/2021

026-0035 Mid Span



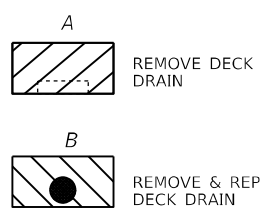
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40	2.0	2.0	0.4	
41	1.0	4.0	0.4	
42	1.0	3.0	0.3	
43	2.0	3.0		0.7
44	2.0	3.0		0.7
45	3.0	2.0		0.7
46	1.0	4.0	0.4	
47	1.0	3.0	0.3	
48	2.0	3.0		0.7
49	3.0	2.0		0.7
50	2.0	2.0	0.4	
51	4.0	1.0	0.4	
52	5.0	4.0		2.2
53	3.0	3.0		1.0
54	4.0	1.0	0.4	

PATCH NO.	LENGTH	WIDTH	DECK SLAB REPAIR (FD TY I) SQ YD	DECK SLAB REPAIR (FD TY II) SQ YD
55	3.0	4.0		1.3
56	3.0	3.0		1.0
57	4.0	1.0	0.4	
58	4.0	1.0	0.4	
59	2.0	2.0	0.4	
60	3.0	4.0		1.3
61	3.0	1.0	0.3	
62	4.0	1.0	0.4	
63	4.0	1.0	0.4	
64	2.0	2.0	0.4	
65	4.0	2.0		0.9
66	2.0	3.0		0.7
67	2.0	2.0	0.4	
68	6.0	2.0		1.3
69	2.0	2.0	0.4	
70	3.0	2.0		0.7

PATCH	SIZE	DECK SLAB REPAIR (FD TY I) SQ YD	DECK SLAB REPAIR (FD TY II) SQ YD
A - Remove Drain, 8 ea		1.8	
B- Replace Drain, 8 ea		1.8	
TOTALS		11.2	13.8
ROUND TO:		12.0	14.0

ESTIMATED PAY QUANTITIES

DECK SLAB REPAIR (FULL DEPTH, TYPE I) = 12 SQ YD  
 DECK SLAB REPAIR (FULL DEPTH, TYPE II) = 14 SQ YD



A & B = Deck Slab Repair (Full Depth, Type I)  
 2ft<sup>2</sup> = .22yd<sup>2</sup> Each

THE LOCATIONS AND SIZES SHOWN GRAPHICALLY ABOVE ARE APPROXIMATE. SEE THIS TABLE FOR ACTUAL SIZES.



DATE OF SURVEY: 4-24-2020  
 SURVEY BY: DPM & TMW  
 METHOD OF SURVEY: VISUAL

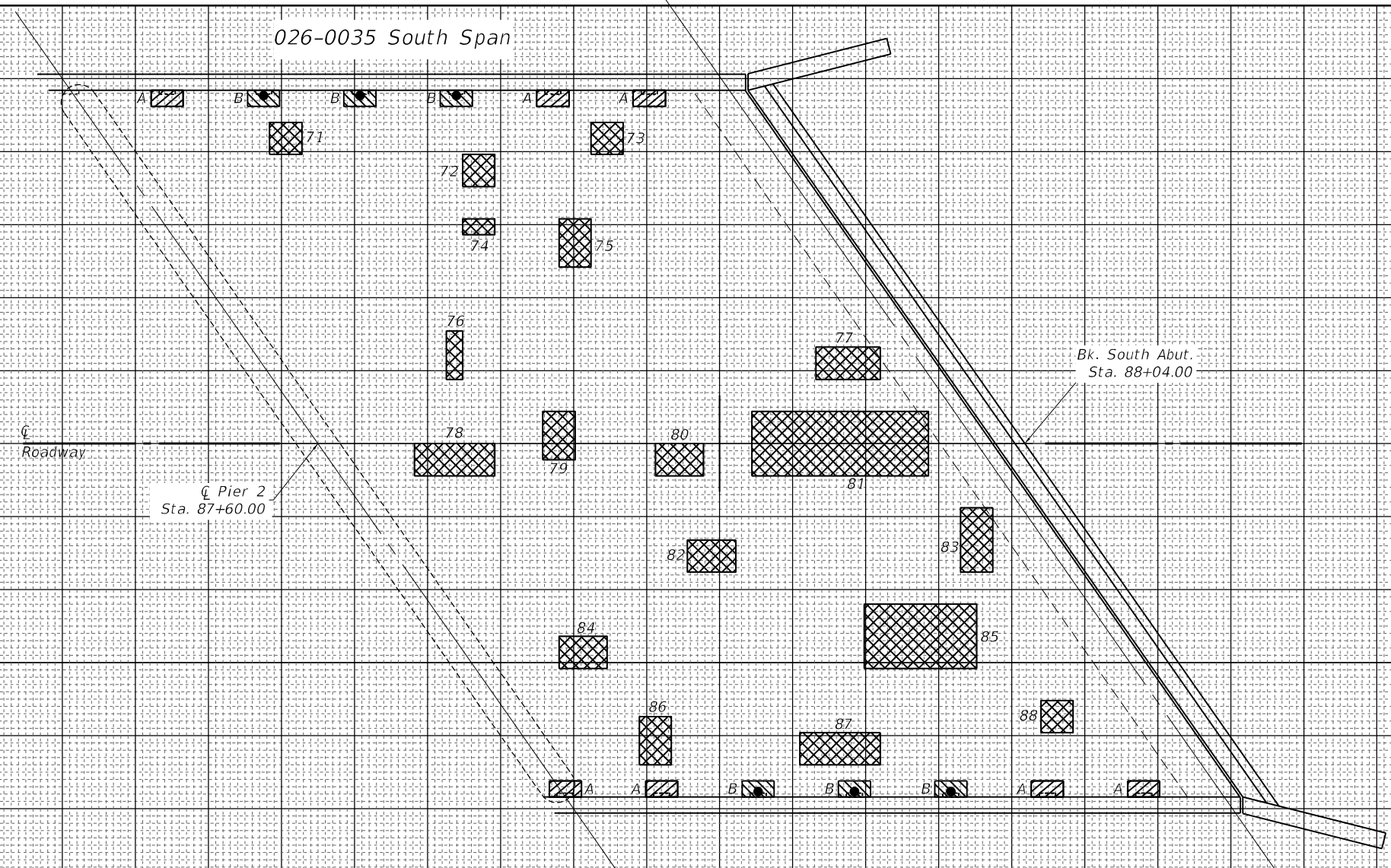
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PLOT SCALE = 100,000' / in.	DRAWN - T. Walk	REVISED -
PLOT DATE = 3/4/2021	CHECKED - D. Macklin	REVISED -
	DATE - May 2020	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BRIDGE DECK PATCHING, MID SPAN  
 SN. 026-0035

SCALE: SHEET 8 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	D7 BRIDGE REPAIRS 2021-3	FAYETTE	23	17
CONTRACT NO. 74990				
ILLINOIS FED. AID PROJECT				



PATCH NO.	SIZE		DECK SLAB REPAIR (FD TY I)	DECK SLAB REPAIR (FD TY II)
	LENGTH	WIDTH	SQ YD	SQ YD
71	2.0	2.0	0.4	
72	2.0	2.0	0.4	
73	2.0	2.0	0.4	
74	2.0	1.0	0.2	
75	2.0	3.0		0.7
76	1.0	3.0	0.3	
77	4.0	2.0		0.9
78	5.0	2.0		1.1
79	2.0	3.0		0.7
80	3.0	2.0		0.7
81	11.0	4.0		4.9
82	3.0	2.0		0.7
83	2.0	4.0		0.9
84	3.0	2.0		0.7
85	7.0	4.0		3.1
86	2.0	3.0		0.7

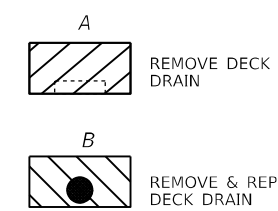
PATCH	SIZE		DECK SLAB REPAIR (FD TY I)	DECK SLAB REPAIR (FD TY II)
	NO.	LENGTH	WIDTH	SQ YD
87	5.0	2.0		1.1
88	2.0	2.0	0.4	
A - Remove Drain, 7 ea			1.6	
B - Replace Drain, 6 ea			1.3	
TOTALS			5.2	16.0
ROUND TO:			6.0	16.0

THE LOCATIONS AND SIZES SHOWN GRAPHICALLY ABOVE ARE APPROXIMATE. SEE THIS TABLE FOR ACTUAL SIZES.



DATE OF SURVEY: 4-24-2020  
 SURVEY BY: DPM & TMW  
 METHOD OF SURVEY: VISUAL

A & B = Deck Slab Repair (Full Depth, Type I)  
 2ft<sup>2</sup> = .22yd<sup>2</sup> Each



ESTIMATED PAY QUANTITIES  
 DECK SLAB REPAIR (FULL DEPTH, TYPE I) = 6 SQ YD  
 DECK SLAB REPAIR (FULL DEPTH, TYPE II) = 16 SQ YD

MODEL: Default  
 FILE NAME: p:\11\mason\11\mason\11\mason\11\DOT\Documents\DOT - Offices\District 7\Projects\174990\CAD\Drawings\026-0035\18.dwg - Repair - 2.dwg

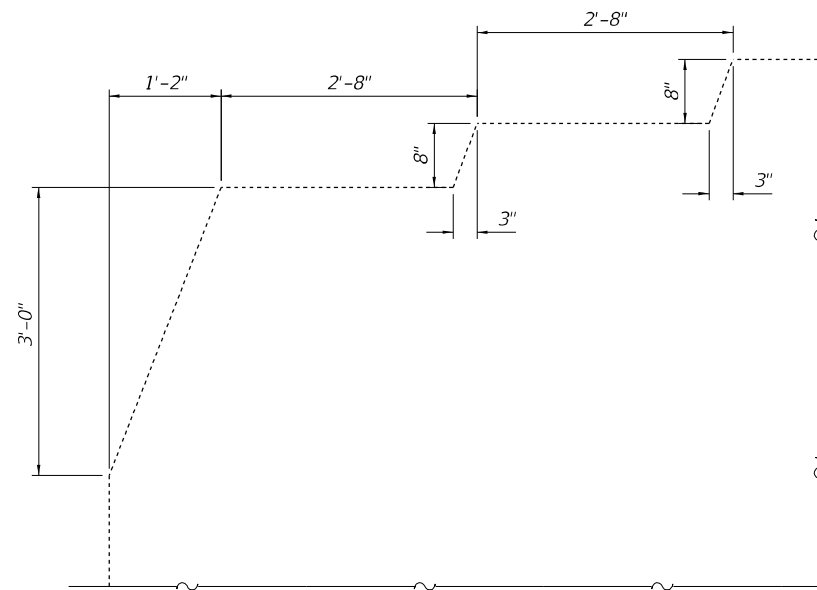
USER NAME = stefenmk	DESIGNED - T. Walk	REVISED -
PLOT SCALE = 100,000' / in.	DRAWN - T. Walk	REVISED -
PLOT DATE = 3/4/2021	CHECKED - D. Macklin	REVISED -
	DATE - May 2020	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

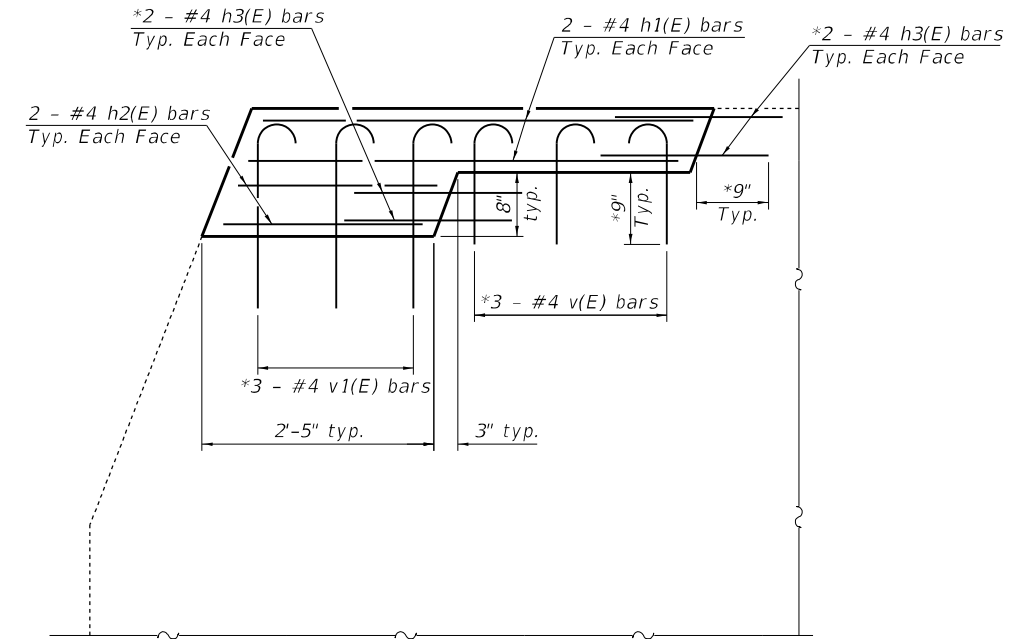
**BRIDGE DECK PATCHING, SOUTH SPAN  
 SN. 026-0035**

SCALE: SHEET 9 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	D7 BRIDGE REPAIRS 2021-3	FAYETTE	23	18
CONTRACT NO. 74990				
ILLINOIS FED. AID PROJECT				



EXISTING WINGWALL ELEVATION



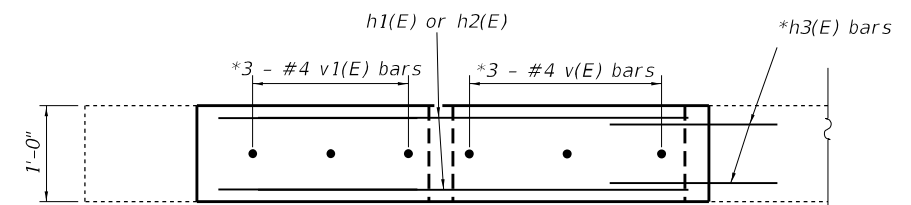
PROPOSED WINGWALL ELEVATION

NOTES

All edges shall have standard ( $\frac{3}{4}$ " chamfers.

Reinforcement bars designated (E) shall be epoxy coated

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 for the work. However, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

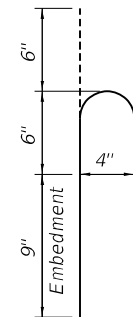


TOP VIEW OF WINGWALL SECTION

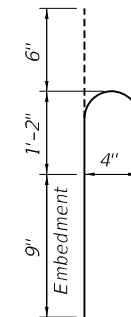
BILL OF MATERIALS  
FOUR WINGWALLS

Bar	No.	Size	Length	Shape
h1(E)	16	#4	4'-6"	—
h2(E)	16	#4	2'-1"	—
h3(E)	32	#4	1'-9"	—
v(E)	12	#4	1'-9"	⌋
v1(E)	12	#4	2'-5"	⌋
ITEM	UNIT	QUANTITY		
Concrete Superstructure	Cu. Yd.	0.8		
Reinforcement Bars, Epoxy Coated	Pound	150		

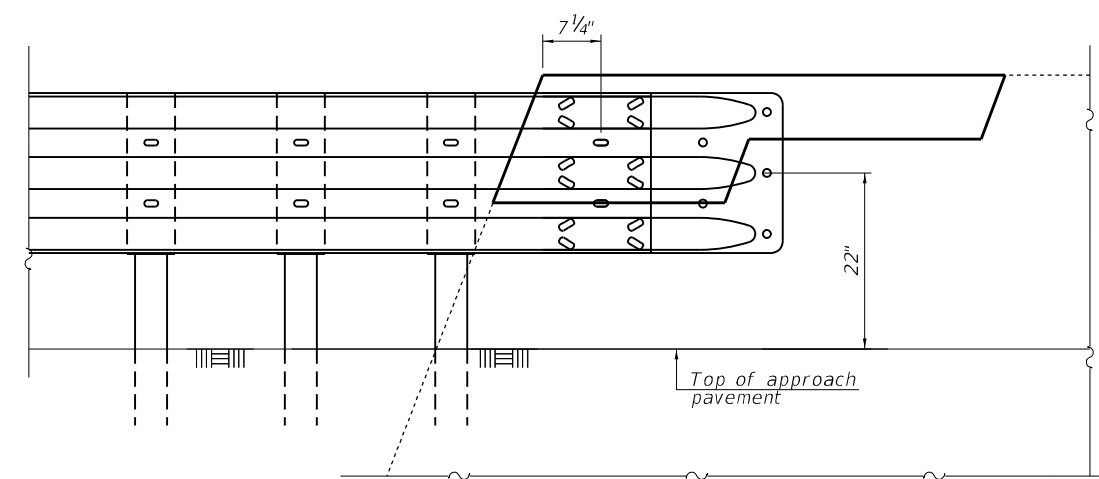
\* Epoxy grout h1(E), v(E), and v1(E) bars in 9" min. holes according to Article 584 of Std. Spec. Cost included with Concrete Superstructure.



BAR v(E)



BAR v1(E)



GUARDRAIL LOCATION

MODEL: Default  
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 PROJECT: 74990-CAD00Data\CAD\Drawings\74990-CAD-026-0035-Brldge Repair.sdw

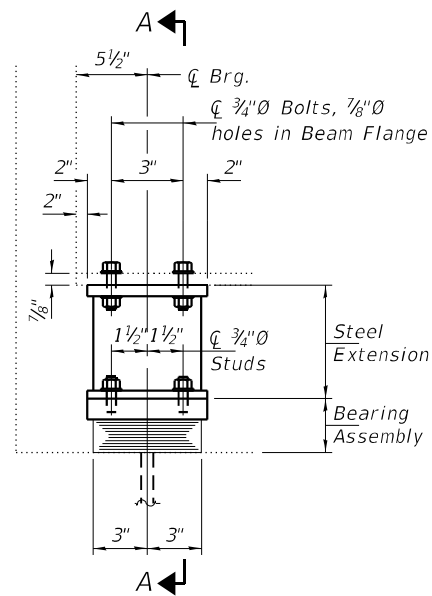
USER NAME = steffenmk	DESIGNED - T. Walk	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN - T. Walk	REVISED -
PLOT DATE = 3/3/2021	CHECKED - D. Macklin	REVISED -
	DATE - May 2020	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**WINGWALL MODIFICATION FOR GUARDRAIL ATTACHMENT**  
**S.N. 026-0035**

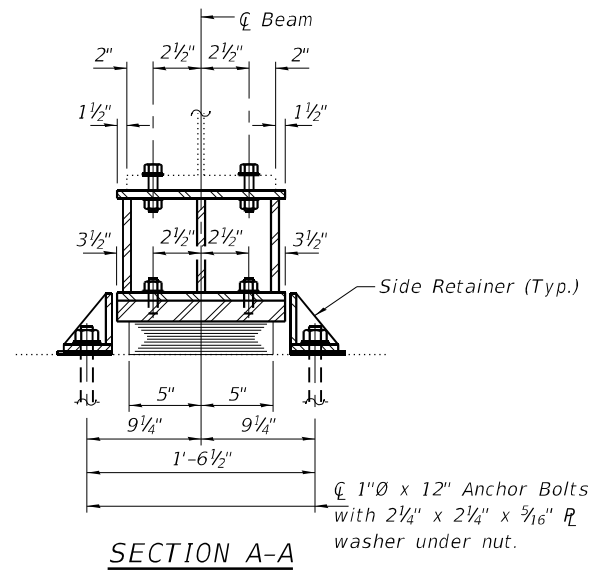
SCALE: SHEET 10 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	D7 BRIDGE REPAIRS 2021-3	FAYETTE	23	19
CONTRACT NO. 74990				
ILLINOIS FED. AID PROJECT				



**ELEVATION AT NORTH ABUTMENT**

**TYPE I ELASTOMERIC EXP. BRG.**

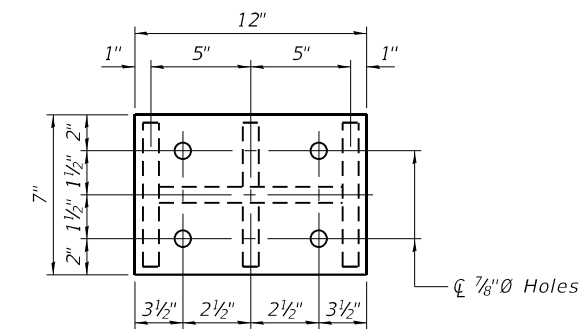


**SECTION A-A**

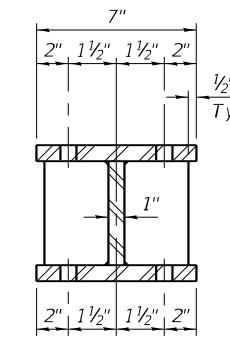
**BEAM REACTIONS**

R <sub>l</sub>	(K)	15.3
R <sub>t</sub>	(K)	28.6
Imp.	(K)	8.6
R (Total)	(K)	52.5

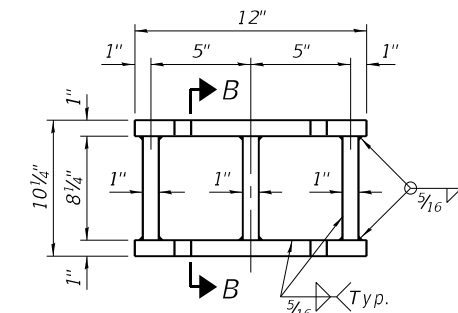
Notes:  
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.  
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.  
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).  
 Min. jack capacity = 26 Tons.  
 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 (F<sub>y</sub>=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.  
 Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.



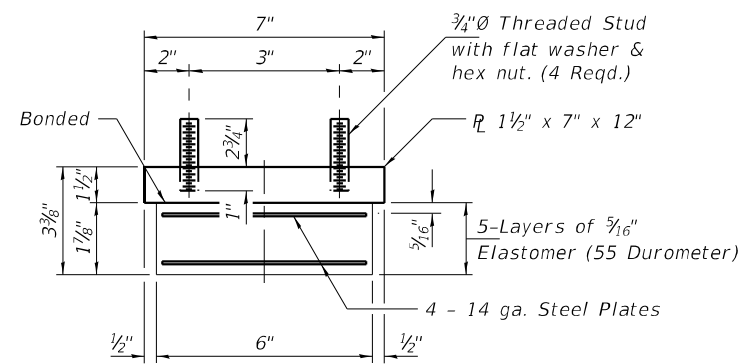
**PLAN TOP AND BOTTOM PLATE**



**SECTION B-B**

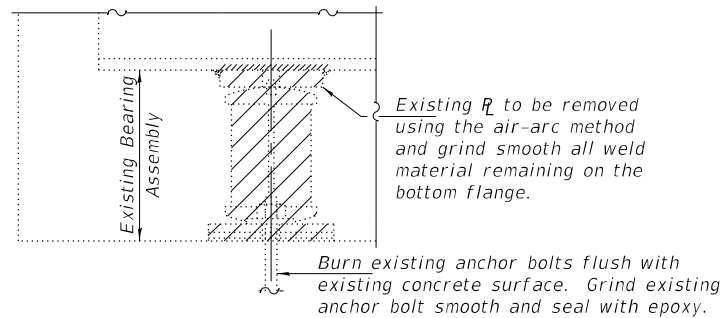


**STEEL EXTENSION DETAIL**



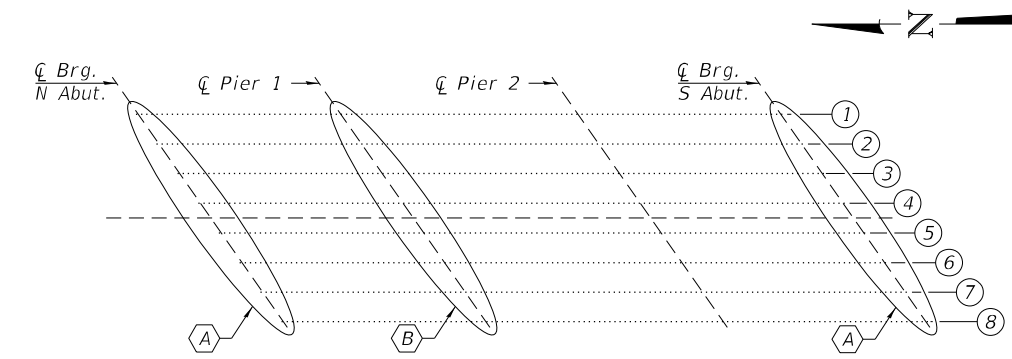
**BEARING ASSEMBLY**

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



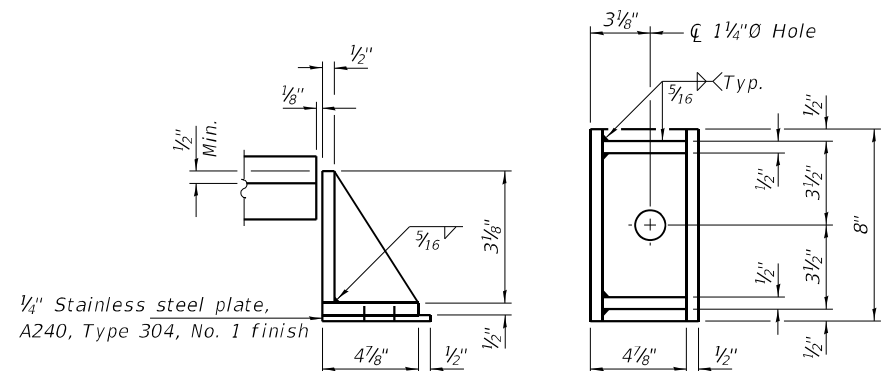
**EXISTING BEARING REMOVAL DETAIL**

Cost included with Jack and Remove Existing Bearings.



**PARTIAL FRAMING PLAN**

- (A) - Bearing Removal and Replacement.
- (B) - Reposition of bearings with a new top bearing plate. See sheet 2 of 2 for details.



**SIDE RETAINER**

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

TYI/REPS 5-17-2018

DESIGNED - Adrian T. Holloway	EXAMINED	DATE - APRIL 29, 2021
CHECKED - Steven M. Ryan	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Venkat Ramana Reddy	PASSED	REVISED -
CHECKED - ATH SMR	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

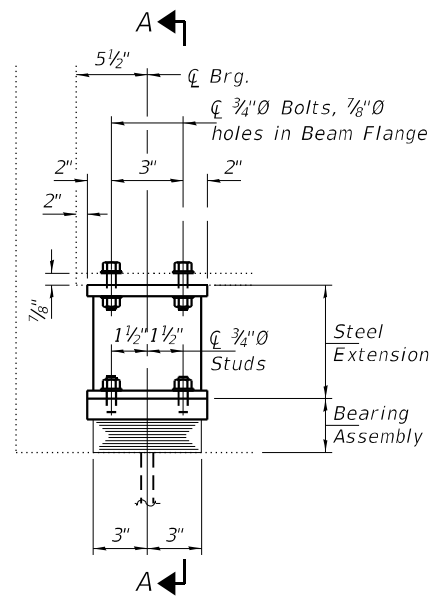
**BEARING DETAILS - NORTH ABUTMENT  
 US 51 OVER SANDY RUN CREEK  
 SN 026-0035**

SHEET NO. 1 OF 2 SHEETS

**BILL OF MATERIAL NORTH ABUTMENT**

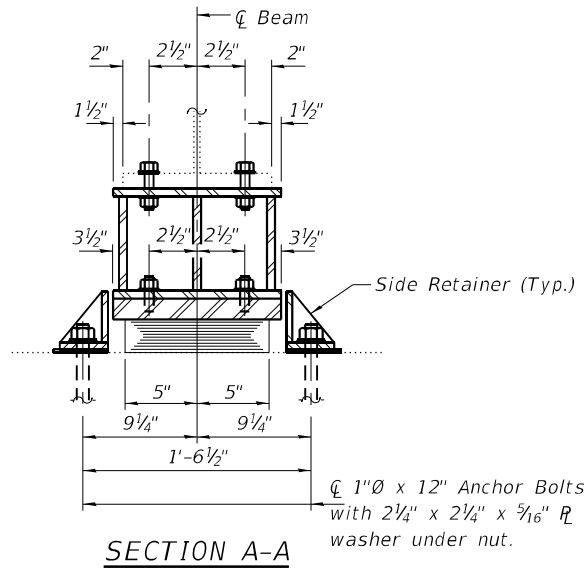
Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	8
Jack and Remove Existing Bearings	Each	8
Furnishing and Erecting Structural Steel	Pound	1240
Anchor Bolts, 1"Ø	Each	16

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	D7 BRIDGE REPAIRS 2021-3	FAYETTE	23	20
CONTRACT NO. 74990			ILLINOIS FED. AID PROJECT	



ELEVATION AT SOUTH ABUTMENT

TYPE I ELASTOMERIC EXP. BRG.



SECTION A-A

BEAM REACTIONS

	PIER 1	S. ABUT.
R <sub>∅</sub>	(K) 48.4	15.3
R <sub>L</sub>	(K) 36.5	28.6
Imp.	(K) 10.7	8.6
R (Total)	(K) 95.6	52.5

Notes:

Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.

Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).

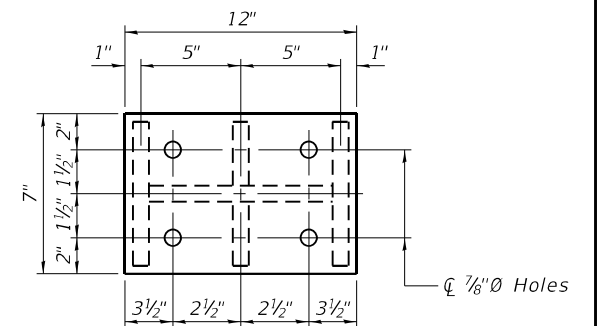
Min. jack capacity = 26 Tons. (South Abutment)

Min. jack capacity = 54 Tons. (Pier 1)

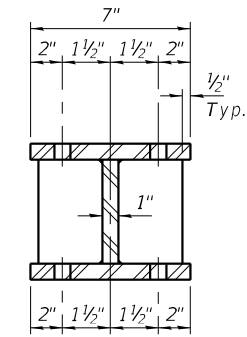
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F<sub>y</sub>=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used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

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

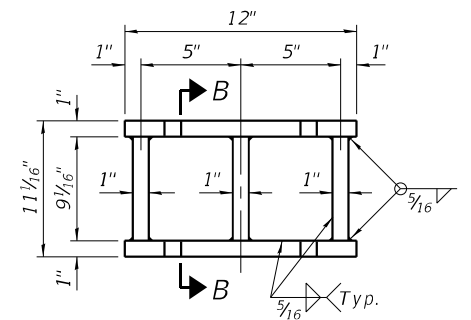
Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.



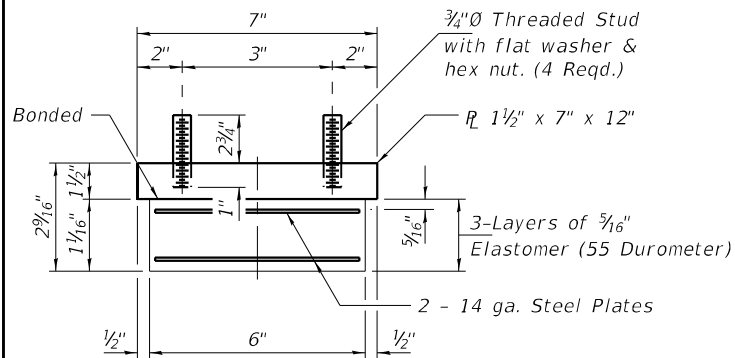
PLAN TOP AND BOTTOM PLATE



SECTION B-B



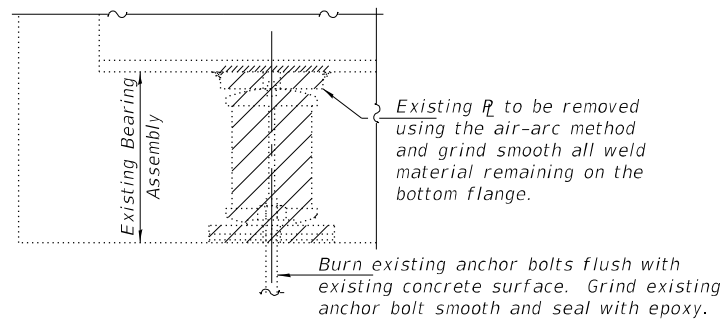
STEEL EXTENSION DETAIL



BEARING ASSEMBLY

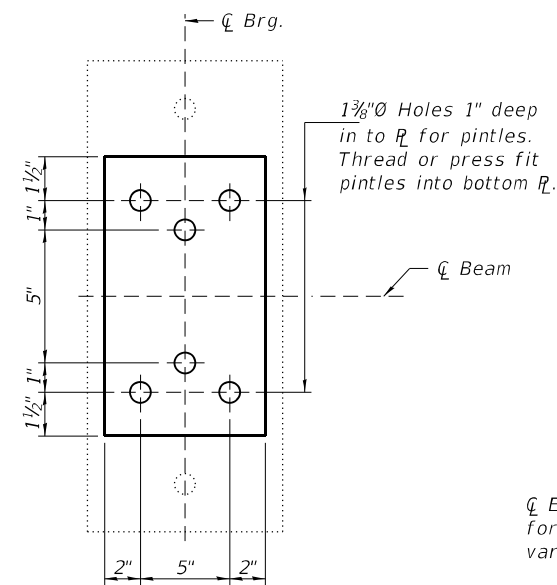
Note:

Shim plates shall not be placed under Bearing Assembly.

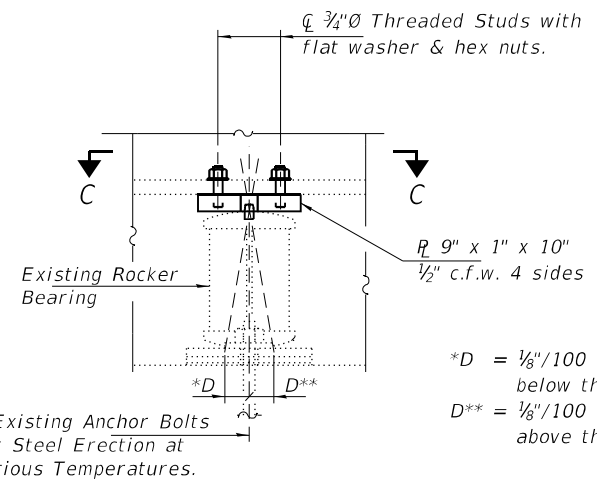


EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.



SECTION C-C



BEARING REPOSITION AT PIER 1

(8 Bearings)

\*D = 1/8"/100 ft. of exp. for every 15° below the normal temp. of 50°F.  
D\*\* = 1/8"/100 ft. of exp. for every 15° above the normal temp. of 50°F.

REPAIR "B"

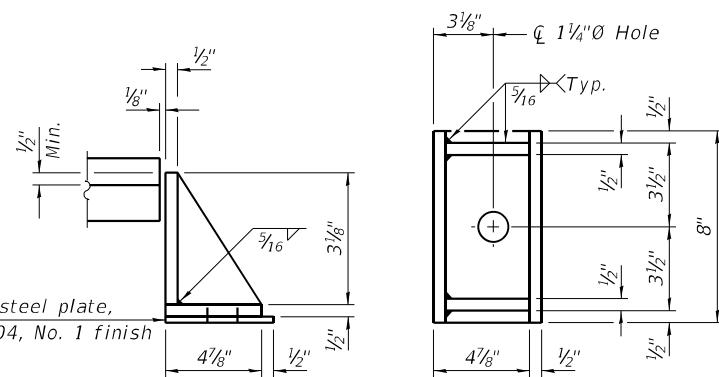
Note:

Existing top bearing R to be removed using the air-arc method and grind smooth all weld material remaining on the bottom flange then install new R and reposition should be done using threaded studs through the bottom flange. Adjustment should be done using the information shown on the existing plans.

BILL OF MATERIAL

SOUTH ABUTMENT & PIER 1

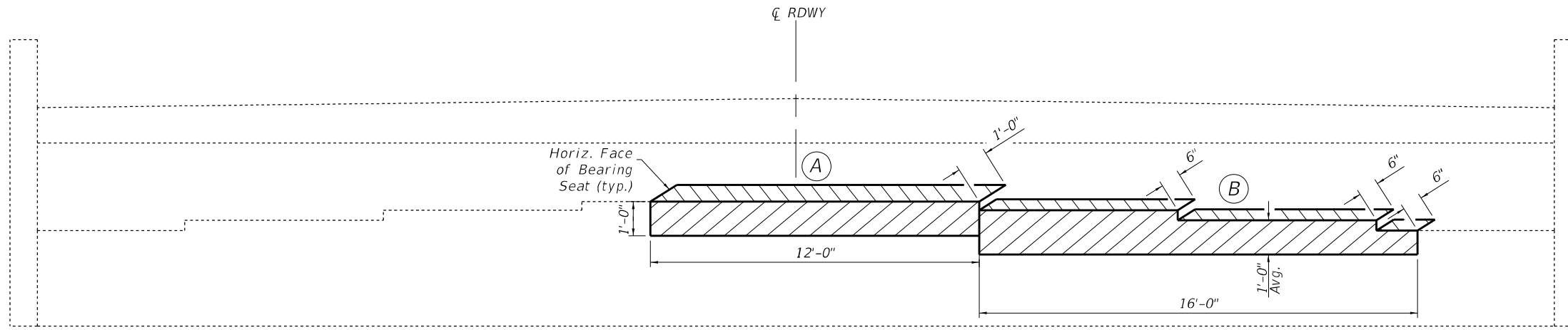
Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	8
Jack and Reposition Existing Bearings	Each	8
Jack and Remove Existing Bearings	Each	8
Furnishing and Erecting Structural Steel	Pound	1620
Anchor Bolts, 1"∅	Each	16



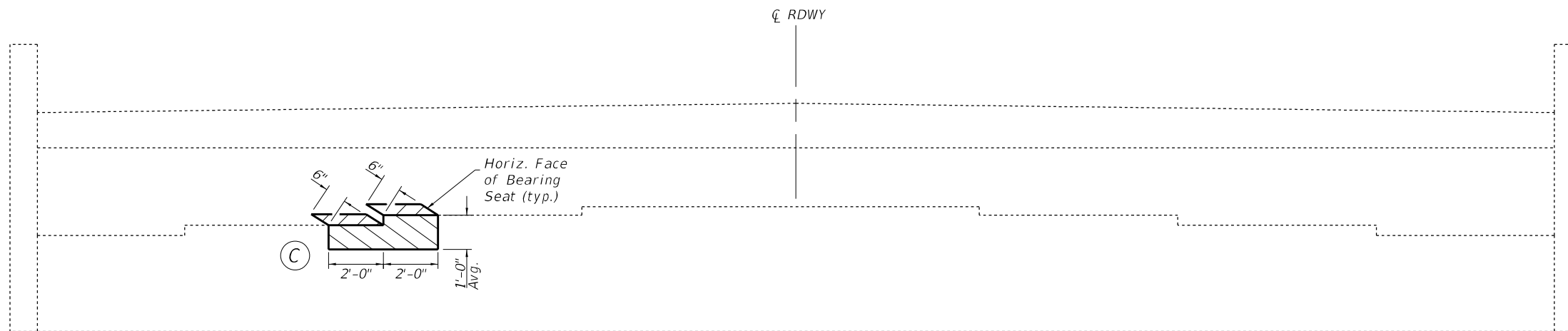
SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

TYI/REPS 5-17-2018



NORTH ABUTMENT



SOUTH ABUTMENT

STRUCTURAL REPAIR OF CONCRETE  
(DEPTH ≤ 5")

Note: Quantities are estimated. Actual Quantities to be determined in the field.



Structural Repair of Concrete (Depth ≤ 5")

Location	Dimension	Area SqFt
A	12' x 2'	24
B	16' x 1'-6"	24
C	4' x 1'-6"	6
Total		54

MODEL: Default  
 FILE NAME: p:\pub\harrington.dwg  
 PLOT DATE: 3/3/2021  
 PROJECT: 74990-026-0035-BrIDGE REPAIRS  
 OFFICE: DISTRICT OFFICE  
 DRAWN: T. WALK  
 CHECKED: D. MACKLIN  
 DATE: MAY 2020

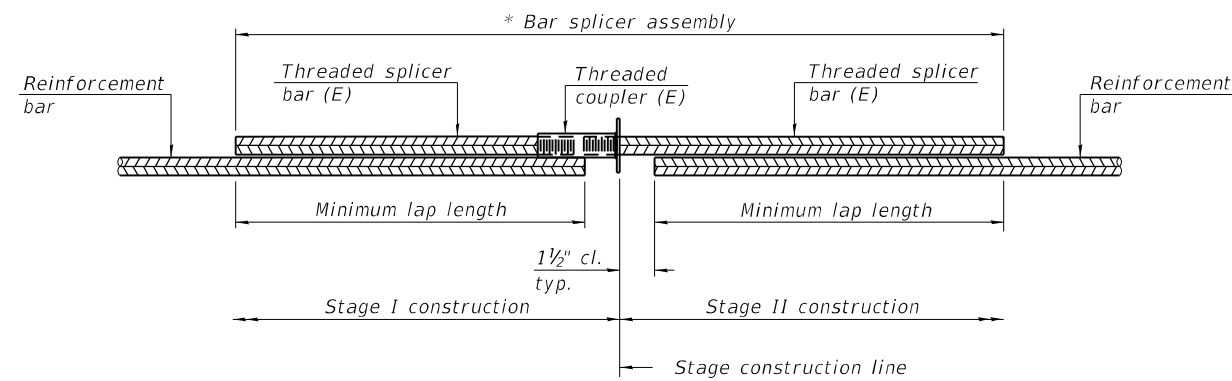
USER NAME = steffenmk	DESIGNED - T. Walk	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN - T. Walk	REVISED -
PLOT DATE = 3/3/2021	CHECKED - D. Macklin	REVISED -
	DATE - May 2020	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL REPAIR OF CONCRETE ABUTMENTS DETAILS**  
**026-0035**

SCALE: SHEET 13 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	D7 BRIDGE REPAIRS 2021-3	FAYETTE	23	22
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74990	

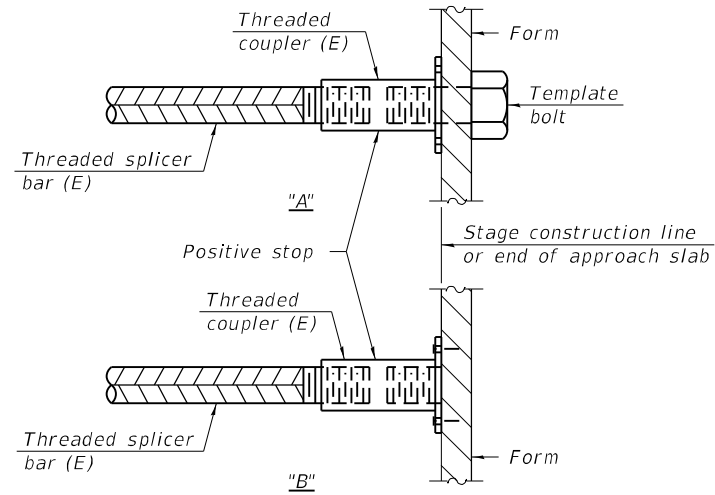


**STANDARD BAR SPLICER ASSEMBLY PLAN**  
(All components shall be provided from one supplier)

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

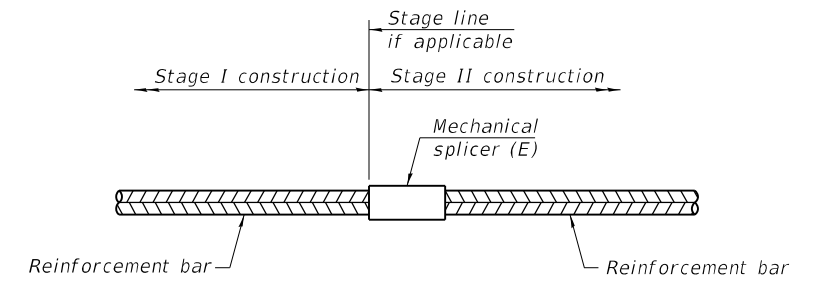
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	20	3'-0"
Approach	#6	8	4'-0"



**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

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

BSD-1 1-1-2020

MODEL: Default  
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 PROJECT: 74990\CADD\Drawings\DOT\_Offices\Drawings\74990\026-0035-Bridge\_Repairs.dwg

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DRAWN - T. Walk	REVISED -	
PLOT SCALE = 100,0000 ' / in.	CHECKED - D. Macklin	REVISED -
PLOT DATE = 3/3/2021	DATE - May 2020	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
 STRUCTURE NO. 026-0035**

SCALE: SHEET 14 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	D7 BRIDGE REPAIRS 2021-3	FAYETTE	23	23
CONTRACT NO. 74990				
ILLINOIS FED. AID PROJECT				