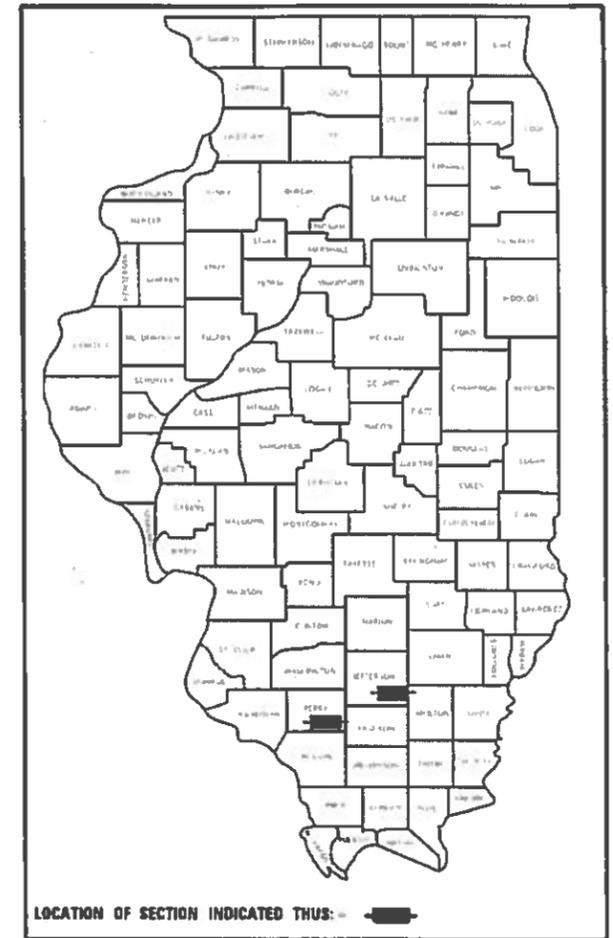


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RATE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	D9 BRIDGE REPAIR 2020-3	28		1
* F.A.P. 849 (IL 142)		** JEFFERSON COUNTY		
F.A.P. 865 (IL 152)		PERRY COUNTY		

D-99-041-18



PROPOSED
HIGHWAY PLANS

F.A.P. ROUTE 849 / F.A.P. ROUTE 865 (IL 142 / IL 152)
SECTION D9 BRIDGE REPAIR 2020-3
PROJECT STP-QX6H(137)
BRIDGE REPAIRS
JEFFERSON & PERRY COUNTY

C-99-071-19

TRAFFIC DATA

041-0046: 2019 ADT = 3,050
12 % TRUCKS
073-0023: 2019 ADT = 2,650
7 % TRUCKS

TOWNSHIPS

041-0046: PENDLETON
073-0023: ROAD DISTRICT 06-2

SN 073-0023 IL 152
OVER BEAUCOUP CREEK



DESIGN DESIGNATION : N/A

COORDINATE SYSTEM : ILLINOIS COORDINATE SYSTEM, EAST ZONE

POSTED SPEED : 55 MPH

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

PROJECT ENGINEER: DAVID PICHE
PROJECT DESIGNER: AUSTIN HENK

CONTRACT NO. 78733

GROSS LENGTH = 1630 FT. = 0.3 MILES
NET LENGTH = 1630 FT. = 0.3 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED 03-09-2020

[Signature] REGION FIVE ENGINEER

MAY 8 20 20 [Signature] ENGINEER OF DESIGN AND ENVIRONMENT

MAY 8 20 20 [Signature] DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

1	COVER SHEET
2	SIGNATURES
3	GENERAL NOTES, INDEX OF SHEETS, AND STANDARDS
4-6	SUMMARY OF QUANTITIES
7	GENERAL PLAN AND ELEVATION SN 041-0046
8	TYPICAL SECTION STAGING SN 041-0046
9	PLAN STAGING SN 041-0046
10	PATCHING SN 041-0046
11-13	JOINT CONSTRUCTION DETAILS SN 041-0046
14-15	SUBSTRUCTURE REPAIR SN 041-0046
16	BUTT JOINT DETAIL SN 041-0046
17	GENERAL PLAN AND ELEVATION SN 073-0023
18	TYPICAL SECTION STAGING SN 073-0023
19	PLAN STAGING SN 073-0023
20	PATCHING SN 073-0023
22-25	JOINT CONSTRUCTION DETAILS SN 073-0023
26-27	SUBSTRUCTURE REPAIR SN 073-0023
28	BUTT JOINT DETAIL SN 073-0023

STANDARDS

000001-07	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
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
701316-13	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR FOR SPEEDS ≥ 45 MPH
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
701901-08	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
862001-01	UNINTERRUPTIBLE POWER SUPPLY

GENERAL NOTES

FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:
 ALL HOT MIX ASPHALT 2.016 TONS/CU YD

CONCRETE REMOVAL QUANTITIES ARE ESTIMATED. THE FINAL LOCATIONS AND QUANTITIES WILL BE DETERMINED BY THE ENGINEER AND MARKED ON THE AS-BUILT PLANS.

REVISE STANDARD SPECIFICATIONS ARTICLE 107.12, PARAGRAPH 5, LAST SENTENCE TO READ: 'ALL OTHER RAILROAD FLAGGER COSTS WILL BE INCURRED BY THE DEPARTMENT ACCORDING TO ARTICLE 109.05.'

A CONTRACTOR'S RIGHT-OF-ENTRY PERMIT IS REQUIRED BEFORE ANY WORK CAN COMMENCE ON RAILROAD PROPERTY. THE COST TO OBTAIN THIS PERMIT SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

COMMITMENTS: NONE

Locations	Hot-Mix Asphalt Surface Course
Mixture Use(s):	Hot-Mix Asphalt Surface Course, Mix C, N70
AB/PG:	PG64-22
ABR % (Max):	See Special Provision
Design Air Voids:	4.0 %, 70 Gyration Design
Mixture Composition: (Gradation Mixture)	IL-9.5FG
Friction Aggregate:	C Surface
Mixture Weight:	112 lbs/Sq Yd/in
Quality Management Program:	QCQA
Sublot Size:	NA

Locations	Hot-Mix Asphalt Base Course Widening
Mixture Use(s):	Hot-Mix Asphalt Binder Course, N30, IL-19.0L
AB/PG:	PG64-22
ABR % (Max):	See Special Provision
Design Air Voids:	4.0 %, 30 Gyration Design
Mixture Composition: (Gradation Mixture)	IL-19.0L
Friction Aggregate:	None
Mixture Weight:	112 lbs/Sq Yd/in
Quality Management Program:	QCQA
Sublot Size:	NA

REV. - MS

* F.A.P. 849 (IL 142) ** JEFFERSON COUNTY
 F.A.P. 865 (IL 152) PERRY COUNTY

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PLOT SCALE = 100.0000' / in.	DATE - 2/24/2020	REVISED -		CONTRACT NO. 78733								
PLOT DATE = 3/10/2020	DATE - 2/24/2020	REVISED -		ILLINOIS FED. AID PROJECT								

SUMMARY OF QUANTITIES

COUNTY:	COUNTY:	JEFFERSON	PERRY
ROUTE:	ROUTE:	IL 142	IL 152
FUNDING:	FUNDING:	80% FED / 20% STATE	80% FED / 20% STATE
LOCATION:	LOCATION:	RURAL	RURAL

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	COUNTY:	
				JEFFERSON	PERRY
				SN 041-0046 0013	SN 073-0023 0013
35600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	SQ YD	126	75	51
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1,494	396	1,098
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	428	214	214
40600990	TEMPORARY RAMP	SQ YD	78	42	36
40604002	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, MIX "C", N70	TON	373	94	279
44004250	PAVED SHOULDER REMOVAL	SQ YD	126	75	51
50102400	CONCRETE REMOVAL	CU YD	6.9	2.5	4.4
50300255	CONCRETE SUPERSTRUCTURE	CU YD	8.3	3.1	5.2
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1,230	430	800
50300300	PROTECTIVE COAT	SQ YD	40	14	26
50800515	BAR SPLICERS	EACH	24	8	16
52000110	PREFORMED JOINT STRIP SEAL	FOOT	214	78	136
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	2,543	459	2,084

REV. - MS

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* F.A.P. 849 (IL 142)
 F.A.P. 865 (IL 152)

** JEFFERSON COUNTY
 PERRY COUNTY

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			SCALE: SHEET OF SHEETS STA. TO STA.	CONTRACT NO. 78733 ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES - CONT

COUNTY:	COUNTY:	JEFFERSON	PERRY
ROUTE:	ROUTE:	IL 142	IL 152
FUNDING:	FUNDING:	80% FED / 20% STATE	80% FED / 20% STATE
LOCATION:	LOCATION:	RURAL	RURAL
	TOTAL QUANTITY	SN 041-0046 0013	SN 073-0023 0013

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	JEFFERSON	PERRY
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	4,015	1,232	2,783
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	4,015	1,232	2,783
* 86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	2	1	1
X0327979	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	725	272	453
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	1,326	407	919
Z0001800	APPROACH SLAB REPAIR (PARTIAL DEPTH)	SQ YD	16	1	15
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	149	63	86
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	37	5	32

* SPECIALTY ITEM

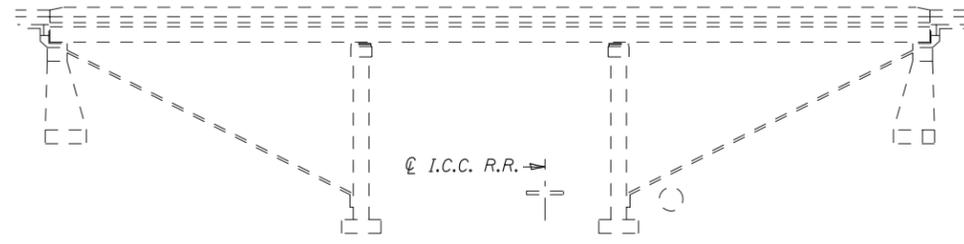
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* F.A.P. 849 (IL 142)
 F.A.P. 865 (IL 152) ** JEFFERSON COUNTY
 PERRY COUNTY

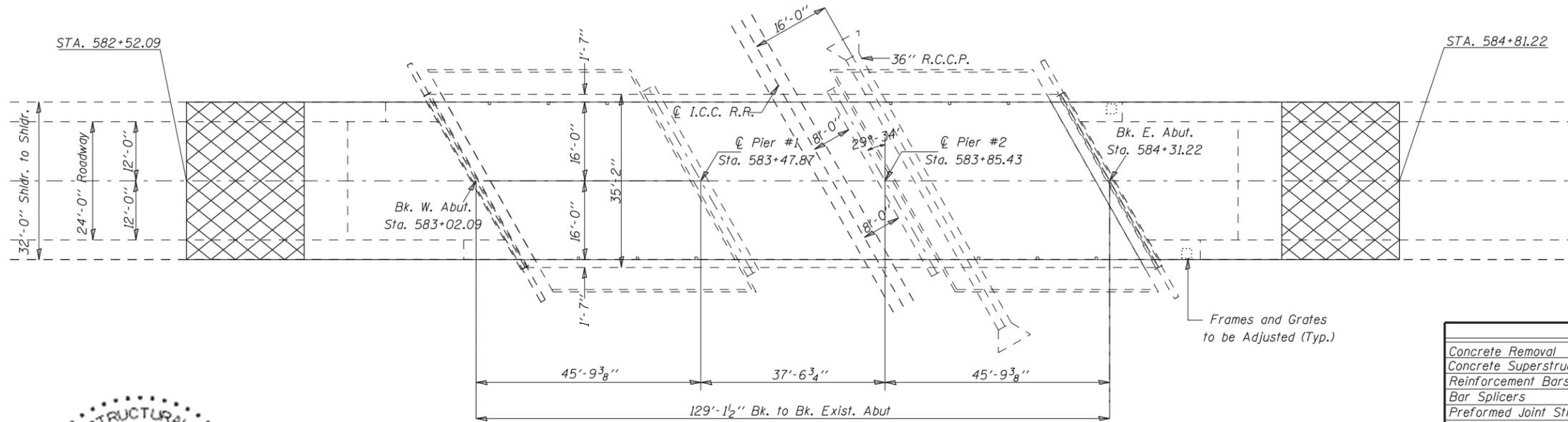
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PLOT SCALE = 100.0000' / in.	DATE - 2/24/2020	REVISED -		CONTRACT NO. 78733										
PLOT DATE = 3/10/2020	DATE - 2/24/2020	REVISED -		ILLINOIS FED. AID PROJECT										

GENERAL NOTES

No field welding is permitted except as specified in the contract documents.
 Reinforcement bars designated (E) shall be epoxy coated.
 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 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.
 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.
 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.
 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.



ELEVATION



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	2.5
Concrete Superstructure	Cu. Yd.	3.1
Reinforcement Bars, Epoxy Coated	Pound	430
Bar Splicers	Each	8
Preformed Joint Strip Seal	Foot	78
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	63
Deck Slab Repair (Partial Depth)	Sq. Yd.	5
Approach Slab Repair (Partial Depth)	Sq. Yd.	1
HMA Surface Course	Ton	94
HMA Surface Removal - Butt Joint	Sq. Yd.	214
Waterproofing Membrane System	Sq. Yd.	459
HMA Base Course Widening 10"	Sq. Yd.	75
Frames and Grates to be Adjusted	Each	2
* Protective Coat	Sq. Yd.	14

* On new concrete only.



David Carl Puzey 04/24/2020
 Expires: 11/30/2020

SCOPE OF WORK

- Deck/approach patching
- Shallow strip seals
- Substructure repairs
- Waterproofing
- Bituminous Overlay

DESIGN STRESSES

- $f'_c = 3,500$ psi
- $f_y = 60,000$ psi (Reinf.)
- $f_y = 50,000$ psi (AASHTO M-223-Grade 50) Struct.
- $f_y = 36,000$ psi (AASHTO M-183, Struct.)

LEGEND:

HMA Surface Removal - Butt Joint

**BRIDGE REPAIR
 IL 142 (FAP 849)
 OVER I.C.R.R.
 JEFFERSON COUNTY
 D9 BRIDGE REPAIR 2020-3
 SN 041-0046**

* F.A.P. 849 (IL 142)
 F.A.P. 865 (IL 152) **JEFFERSON COUNTY
 PERRY COUNTY

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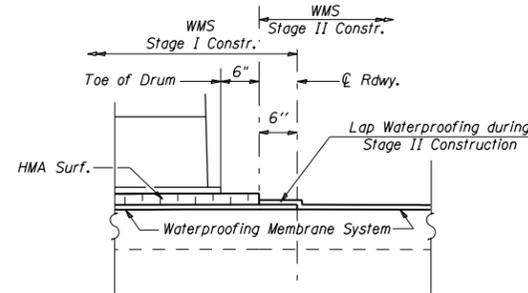
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

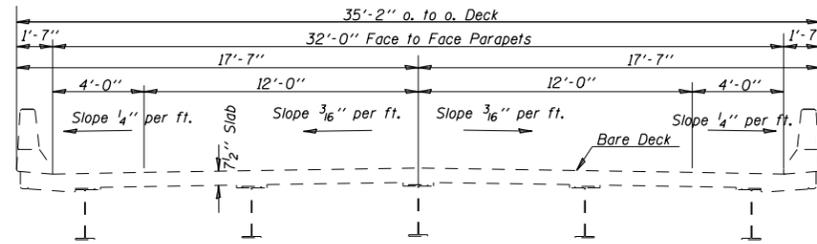
**GENERAL PLAN AND ELEVATION
 SN 041-0046**

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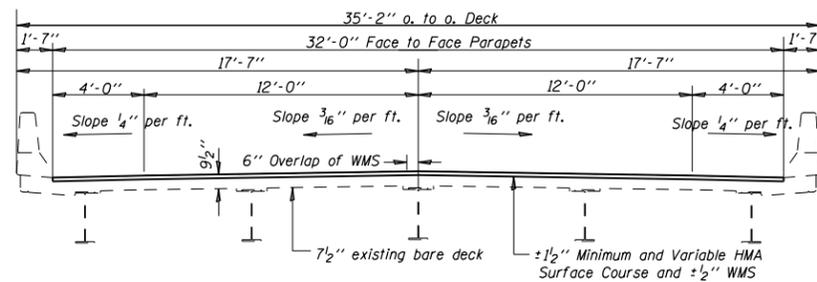
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CONTRACT NO. 78733				
ILLINOIS FED. AID PROJECT				



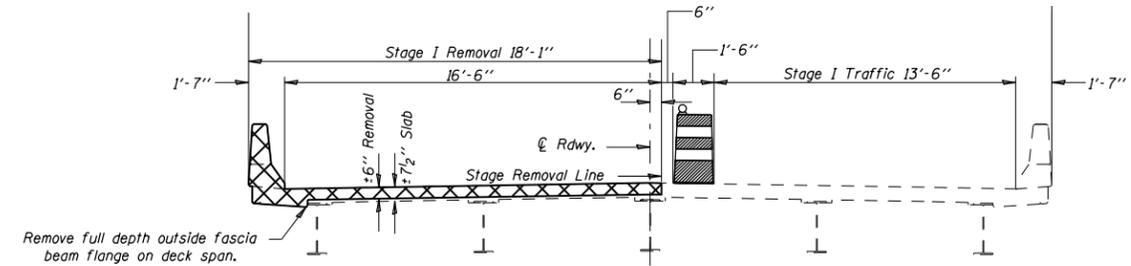
**WATERPROOFING TREATMENT
AT STAGE CONSTRUCTION**



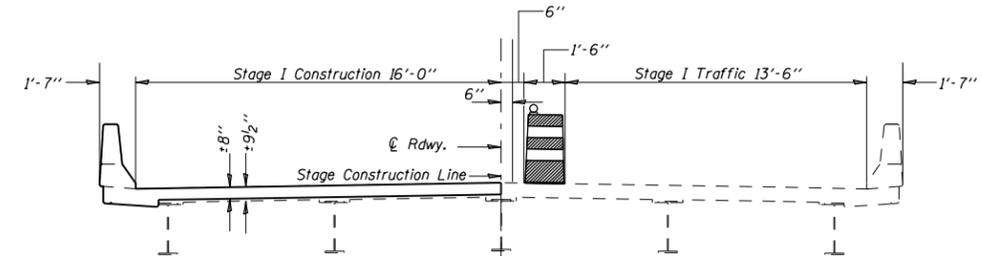
TYPICAL BRIDGE SECTION - EXISTING



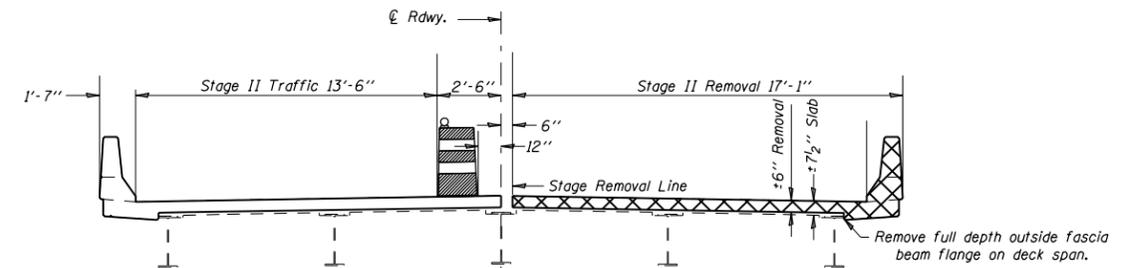
TYPICAL BRIDGE SECTION - PROPOSED



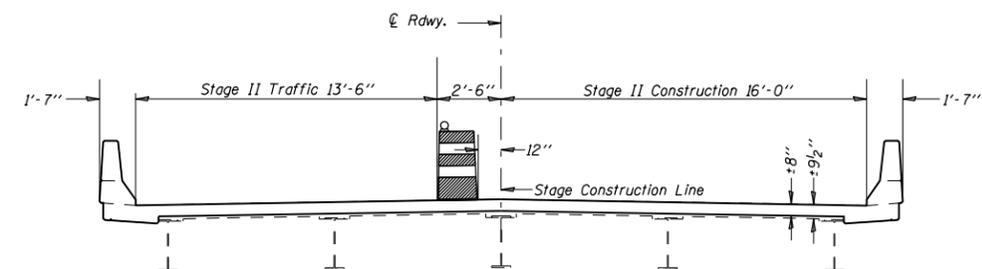
**STAGE I REMOVAL
(At joint locations only)**



**STAGE I CONSTRUCTION
(At joint locations only)**



**STAGE II REMOVAL
(At joint locations only)**



**STAGE II CONSTRUCTION
(At joint locations only)**

LEGEND:

Concrete Removal

Notes: All Sections looking East

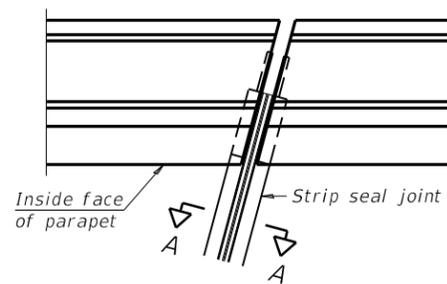
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	DRAWN - ASH	REVISED -
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PLOT DATE = 3/10/2020	DATE - 2/24/2020	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

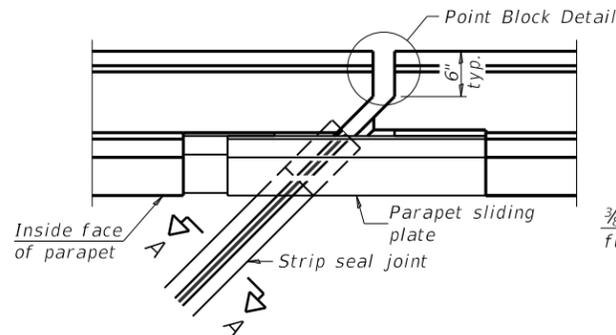
STAGE CONSTRUCTION DETAILS			
SN 041-0046			
SCALE:	SHEET 2	OF 10 SHEETS	STA. TO STA.

*F.A.P. 849 (IL 142)	**JEFFERSON COUNTY		
F.A.P. 865 (IL 152)	PERRY COUNTY		
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D9 BRIDGE REPAIR 2020-3	**	28	8
CONTRACT NO. 78733			
ILLINOIS FED. AID PROJECT			

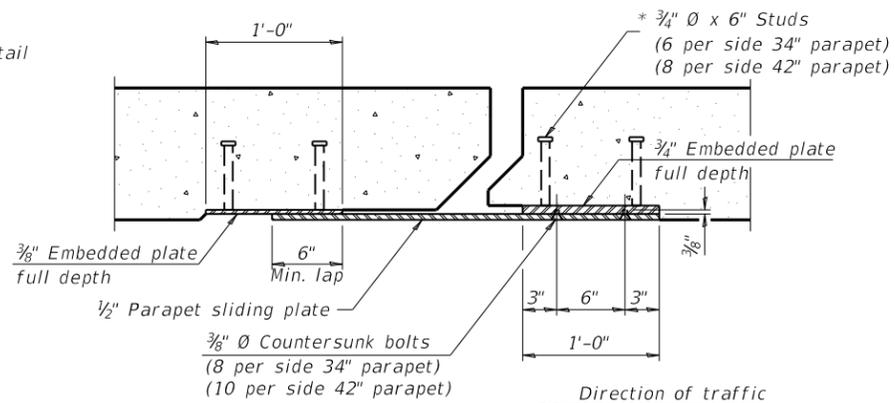


FOR SKEWS $\leq 30^\circ$

PLAN AT PARAPET



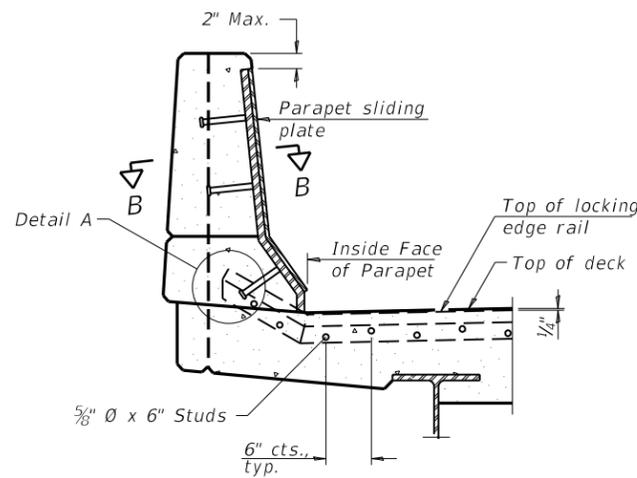
FOR SKEWS $> 30^\circ$



SECTION B-B

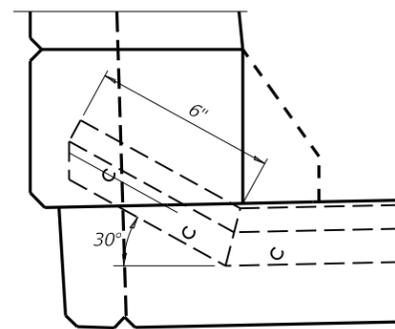
Notes:
 The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement 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.
 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.
 Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.
 34" F-shape barrier shown, 42" F-shape similar as noted.
 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. Such adjustments shall be at no additional cost to the State.

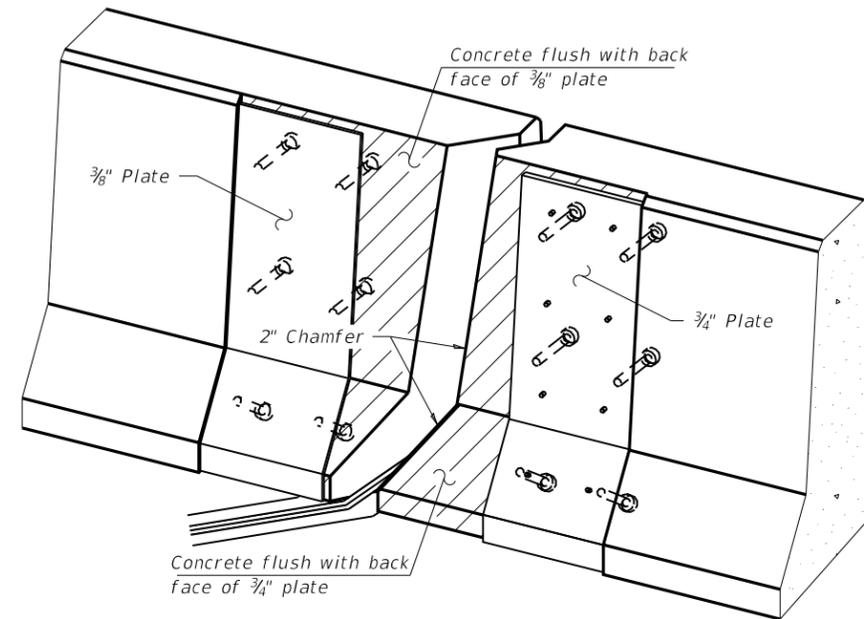


ELEVATION AT PARAPET

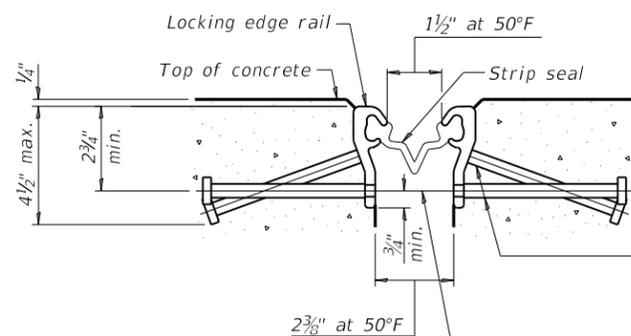
(Skews $> 30^\circ$ shown. Skews $\leq 30^\circ$ similar except as shown in plan view.)



DETAIL A
(Abutments)



TRIMETRIC VIEW
(Showing embedded plates only)



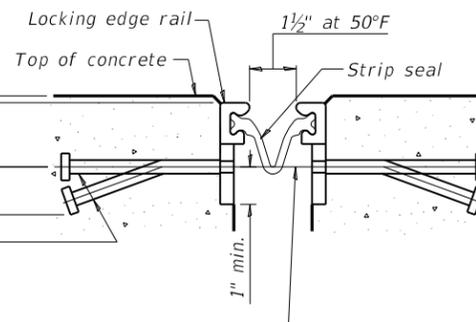
SHOWING ROLLED RAIL JOINT

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

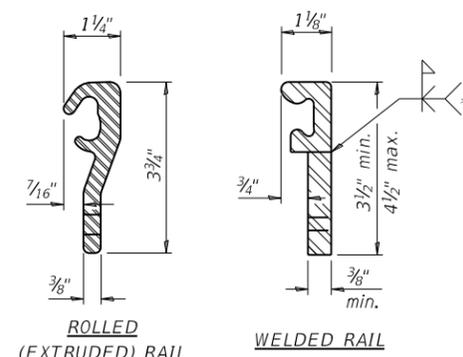
3/8" ϕ threaded rods in 7/16" ϕ holes at ± 4 -0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

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

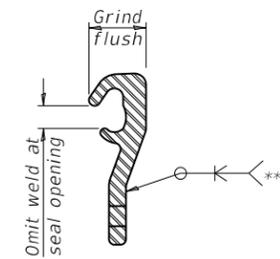


SHOWING WELDED RAIL JOINT



LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	78

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 OFFICE: DISTRICT 9
 DATE: 4/22/2020

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

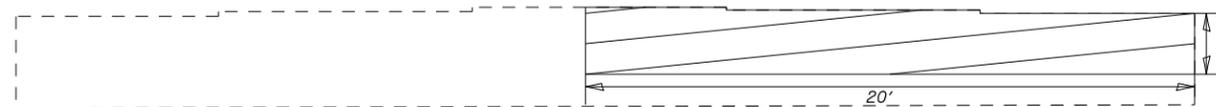
PREFORMED JOINT STRIP SEAL DETAILS
SN 041-0046

SCALE: SHEET 6 OF 10 SHEETS STA. TO STA.

* F.A.P. 849 (IL 142)	** JEFFERSON COUNTY			
F.A.P. 865 (IL 152)	PERRY COUNTY			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D9	BRIDGE REPAIR 2020-3	**	28	12
CONTRACT NO. 78733				
ILLINOIS FED. AID PROJECT				



EAST ABUTMENT



WEST ABUTMENT

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth \leq 5 Inches)	Sq. Ft.	43

* F.A.P. 849 (IL 142)
F.A.P. 865 (IL 152)

** JEFFERSON COUNTY
PERRY COUNTY

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

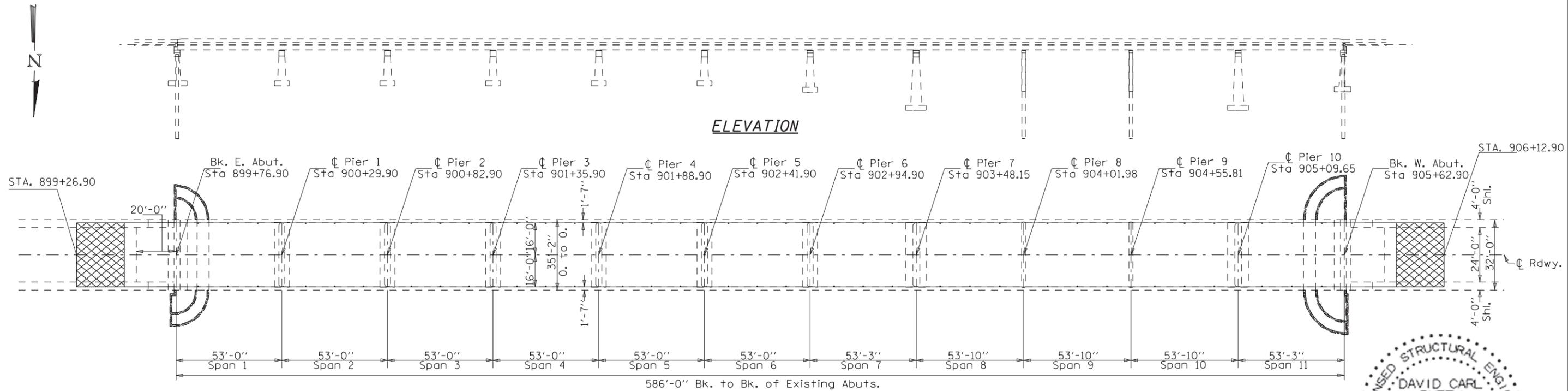
**ABUTMENT SUBSTRUCTURE REPAIRS
SN 041-0046**

SCALE: SHEET 9 OF 10 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	D9 BRIDGE REPAIR 2020-3	**	28	15
CONTRACT NO. 78733			ILLINOIS FED. AID PROJECT	

GENERAL NOTES

No field welding is permitted except as specified in the contract documents.
 Reinforcement bars designated (E) shall be epoxy coated.
 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 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.
 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.
 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.
 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.



David Carl Puzey 04/23/2020
 Expires: 11/30/2020

**BRIDGE REPAIR
 IL 152 (FAP 865)
 PERRY COUNTY
 D9 BRIDGE REPAIR 2020-3
 SN 073-0023**

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	4.4
Concrete Superstructure	Cu. Yd.	5.2
Reinforcement Bars, Epoxy Coated	Pound	800
Bar Splicers	Each	16
Preformed Joint Strip Seal	Foot	136
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	86
Deck Slab Repair (Partial Depth)	Sq. Yd.	32
HMA Surface Course	Ton	279
HMA Surface Removal - Butt Joint	Sq. Yd.	214
Waterproofing Membrane System	Sq. Yd.	2084
HMA Base Course Widening 10"	Sq. Yd.	51
* Protective Coat	Sq. Yd.	26
Approach Slab Repair (Partial Depth)	Sq. Yd.	15

* On new concrete only.

SCOPE OF WORK

- Deck/Approach Patching
- Shallow Strip Seals
- Substructure Repairs
- Waterproofing
- Bituminous Overlay

DESIGN STRESSES

f'c = 3,500 psi
 fy = 50,000 psi (Str. Steel) M-222
 fy=60,000 psi (Reinforcement)

LEGEND:

▨ HMA Surface Removal - Butt Joint

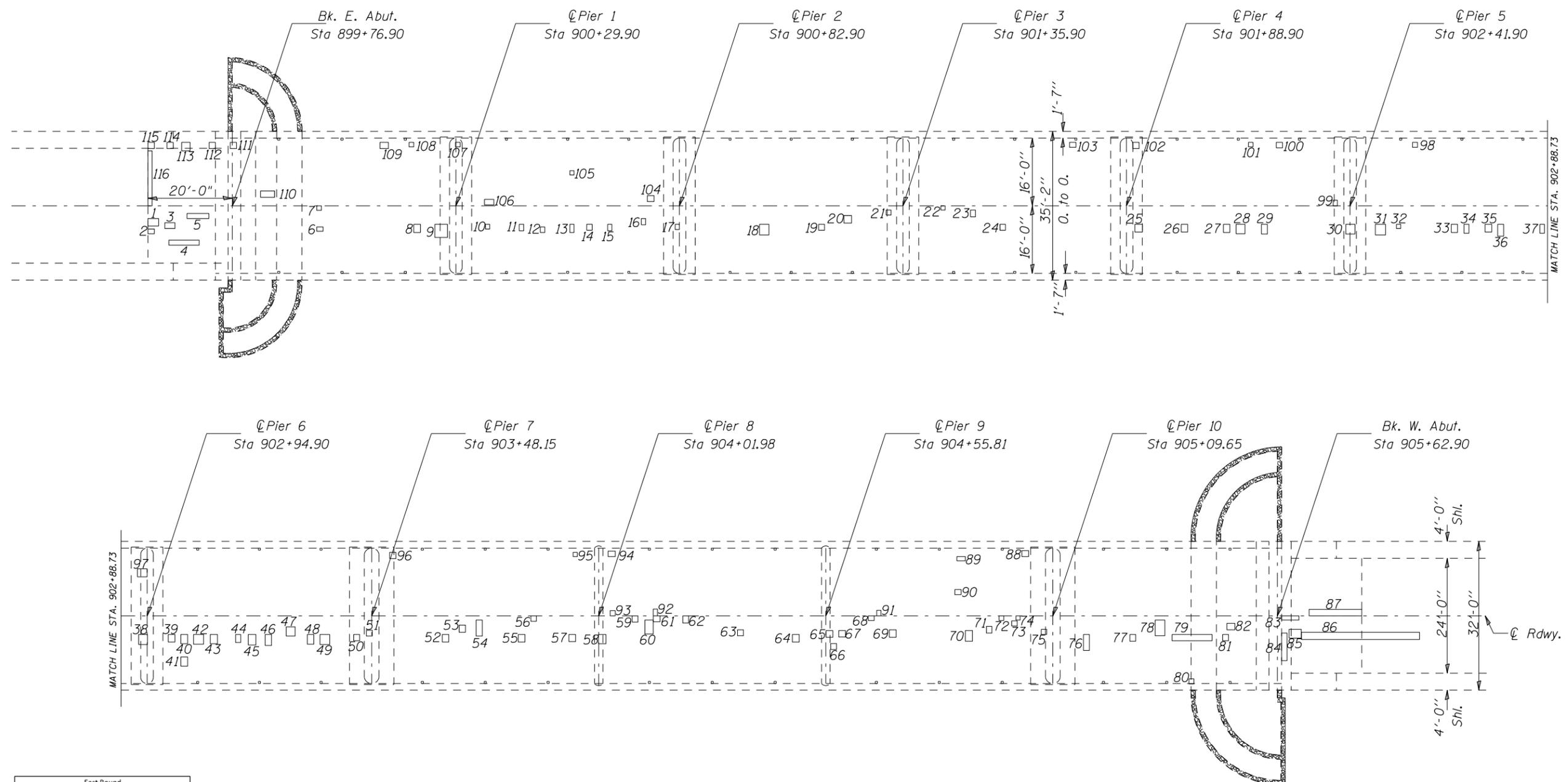
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION
 SN 073-0023**

SCALE: SHEET 1 OF 12 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D9	BRIDGE REPAIR 2020-3	**	28	17
CONTRACT NO. 78733			ILLINOIS FED. AID PROJECT	

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West Bound			
Number	Length (ft)	Width (ft)	Area (sq yd)
1	1.8	2.5	0.5
2	1.1	1.5	0.2
3	2.4	1.4	0.4
4	7.2	1.2	1.0
5	1.2	5.2	0.7
6	1.5	1.0	0.2
7	1.1	1.1	0.1
8	1.6	1.9	0.3
9	3.1	3.0	1.0
10	1.1	1.0	0.1
11	1.1	1.5	0.2
12	1.1	1.3	0.2
13	1.0	1.9	0.2
14	1.4	1.3	0.2
15	1.5	1.0	0.2
16	1.0	1.5	0.2
17	1.0	1.2	0.1
18	2.5	2.2	0.6
19	1.4	1.4	0.2
20	1.8	1.8	0.4
21	1.2	1.2	0.2
22	1.0	1.0	0.1
23	1.6	1.2	0.2
24	1.4	1.3	0.2
25	1.8	1.8	0.4
26	1.5	1.8	0.3
27	1.9	1.5	0.3
28	2.2	2.1	0.5
29	1.4	2.3	0.4
30	2.2	2.3	0.6
31	2.4	2.5	0.7
32	1.0	1.0	0.1
33	1.9	1.5	0.3
34	1.2	2.1	0.3
35	1.8	1.6	0.3
36	2.8	1.4	0.4
37	1.1	2.2	0.3
38	2.4	2.1	0.6
39	1.6	1.8	0.3
40	1.6	2.2	0.4
41	1.0	1.2	0.1
42	2.4	2.3	0.6
43	1.7	2.2	0.4
44	1.9	1.2	0.3
45	2.5	1.8	0.5
46	2.6	1.5	0.4
47	2.2	2.1	0.5
48	2.3	1.5	0.4
49	2.4	1.3	0.3
50	1.4	1.5	0.2
51	1.4	1.4	0.2
52	1.8	1.5	0.3
53	1.7	1.5	0.3
54	1.5	3.8	0.6
55	1.6	1.8	0.3
56	1.3	1.3	0.2
57	1.6	1.7	0.3
58	1.8	2.2	0.4
59	1.4	1.5	0.2
60	3.3	2.0	0.7
61	1.6	1.4	0.2
62	1.4	1.7	0.3
63	1.4	1.4	0.2
64	1.6	1.8	0.3
65	1.6	1.6	0.3
66	1.4	1.4	0.2
67	1.5	1.6	0.3
68	1.4	1.1	0.2
69	1.6	1.8	0.3
70	2.5	1.7	0.5
71	1.6	1.3	0.2
72	1.1	1.1	0.1
73	1.3	1.2	0.2
74	1.0	1.0	0.1
75	1.2	1.3	0.2
76	3.8	1.4	0.6
77	1.6	1.4	0.2
78	2.3	3.7	0.9
79	9.5	1.5	1.6
80	1.2	1.2	0.2
81	1.4	1.5	0.2
82	1.9	1.5	0.3
83	4.1	1.0	0.5
84	1.3	6.5	0.9
85	2.9	2.1	0.7
86	28.0	1.7	5.3
West Bound Total			36.2

East Bound			
Number	Length (ft)	Width (ft)	Area (sq yd)
87	1.5	12.5	2.1
88	1.6	1.4	0.2
89	2.0	1.0	0.2
90	1.5	1.2	0.2
91	1.3	1.0	0.1
92	1.0	1.6	0.2
93	1.2	1.2	0.2
94	1.3	1.7	0.2
95	1.0	1.0	0.1
96	1.5	1.5	0.3
97	1.9	2.3	0.5
98	1.2	1.2	0.2
99	1.3	1.0	0.1
100	1.5	1.3	0.2
101	1.1	1.1	0.1
102	1.5	1.5	0.3
103	1.5	1.2	0.2
104	1.4	1.6	0.2
105	1.0	1.0	0.1
106	1.3	2.2	0.3
107	1.1	1.1	0.1
108	1.1	1.1	0.1
109	2.0	1.5	0.3
110	1.5	3.3	0.6
111	1.5	1.5	0.3
112	1.5	1.5	0.3
113	2.0	2.0	0.4
114	1.5	1.5	0.3
115	1.5	1.5	0.3
116	1.0	13.0	1.4
East Bound Total			10.2

Notes: The Engineer will determine final patch locations and quantities in the field before bridge deck patching operations begin.
The Engineer shall show actual locations of deck repairs on As-Built Plans.

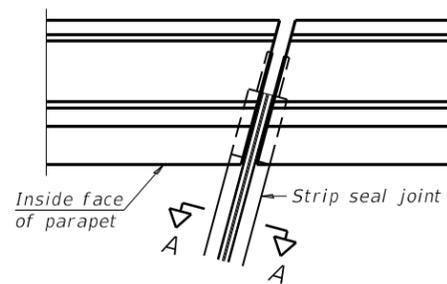
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Deck Slab Repair (Partial Depth)	Sq. Yd.	32
Approach Slab Repair (Partial Depth)	Sq. Yd.	15

F.A.P. 849 (IL 142) JEFFERSON COUNTY
* F.A.P. 865 (IL 152) **PERRY COUNTY

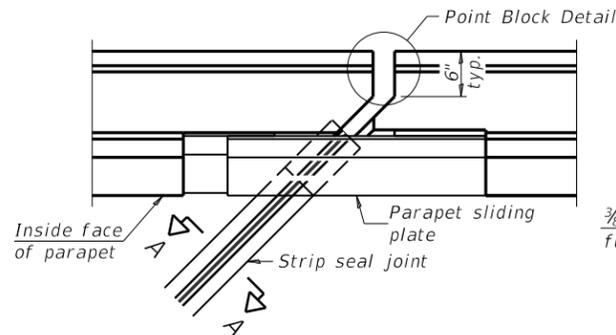
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PLOT SCALE = 60.0000' / in.	CHECKED - MAS	REVISED -	D9 BRIDGE REPAIR 2020-3			**	28	21		
PLOT DATE = 4/22/2020	DATE = 2/24/2020	REVISED -	CONTRACT NO. 78733							

SCALE: SHEET 5 OF 12 SHEETS STA. TO STA. ILLINOIS FED. AID PROJECT

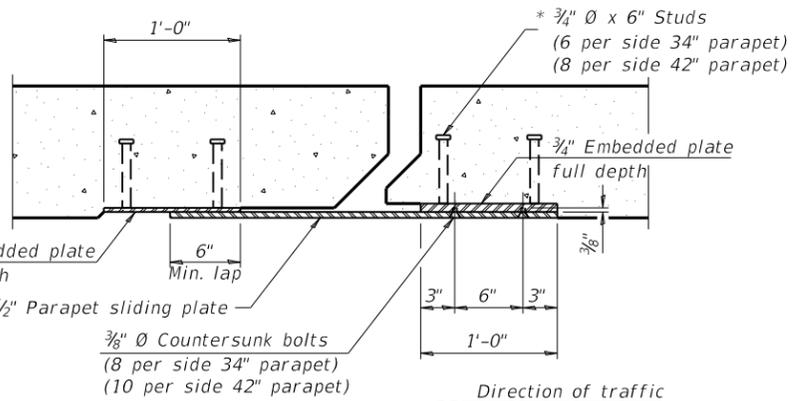


FOR SKEWS $\leq 30^\circ$

PLAN AT PARAPET



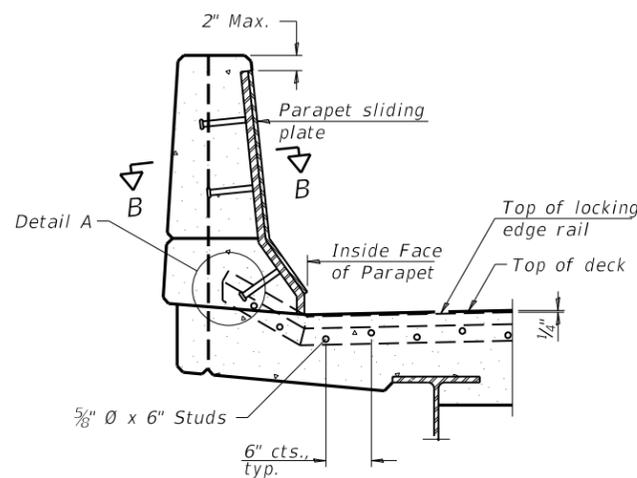
FOR SKEWS $> 30^\circ$



SECTION B-B

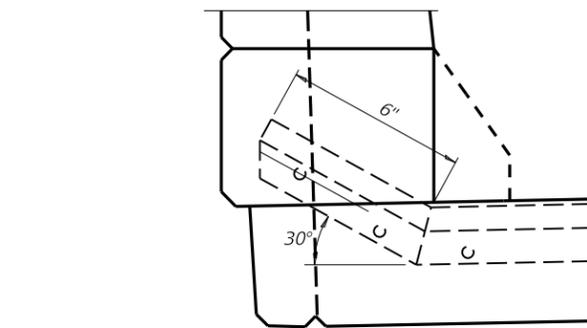
Notes:
 The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement 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.
 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.
 Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.
 34" F-shape barrier shown, 42" F-shape similar as noted.
 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. Such adjustments shall be at no additional cost to the State.

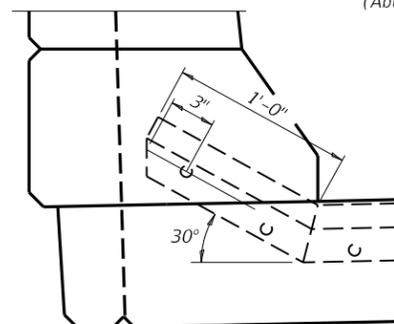


ELEVATION AT PARAPET

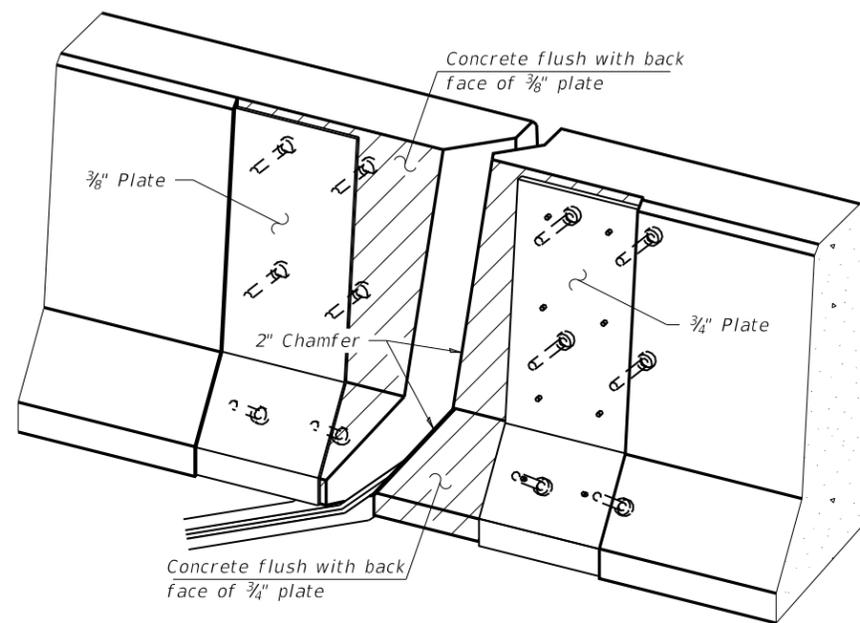
(Skews $> 30^\circ$ shown. Skews $\leq 30^\circ$ similar except as shown in plan view.)



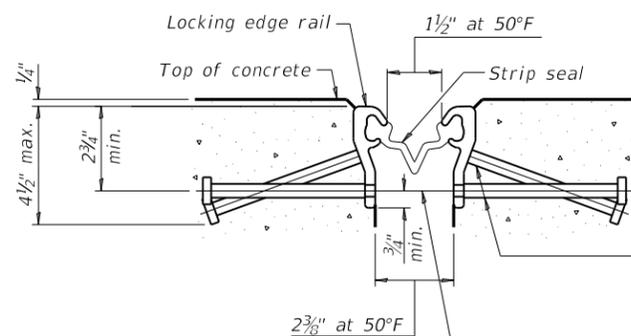
DETAIL A (Abutments)



DETAIL A (Piers)



TRIMETRIC VIEW (Showing embedded plates only)



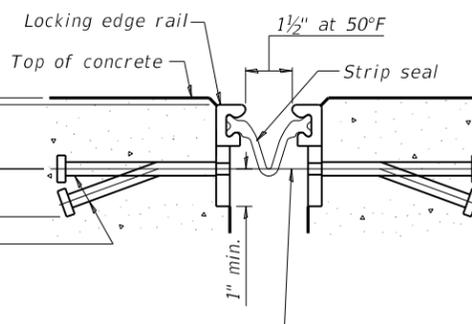
SHOWING ROLLED RAIL JOINT

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

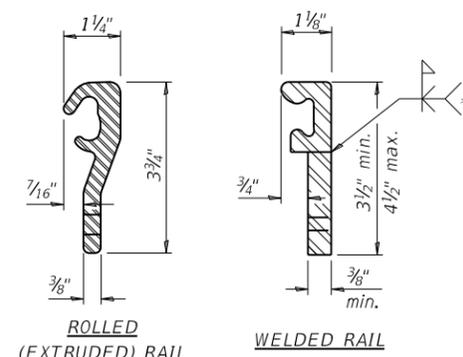
3/8" ϕ threaded rods in 7/16" ϕ holes at ± 4 -0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

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

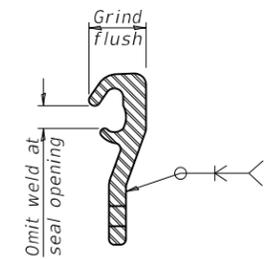


SHOWING WELDED RAIL JOINT



LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	68

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 PROJECT: 78733
 OFFICE: D:\Projects\78733\78733-CADD\Drawings\07-78733-Sheets.dwg

USER NAME = henkas	DESIGNED - ASH	REVISED -
PLOT SCALE = 55.0000 ' / in.	DRAWN - ASH	REVISED -
PLOT DATE = 4/22/2020	CHECKED - MAS	REVISED -
	DATE - 2/24/2020	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL DETAILS
 SN 073-0023

SCALE: SHEET 8 OF 12 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
* F.A.P. 849 (IL 142)	D9 BRIDGE REPAIR 2020-3	JEFFERSON COUNTY	28	24
		** PERRY COUNTY	CONTRACT NO. 78733	
ILLINOIS FED. AID PROJECT				

