06-12-2026 LETTING ITEM 138

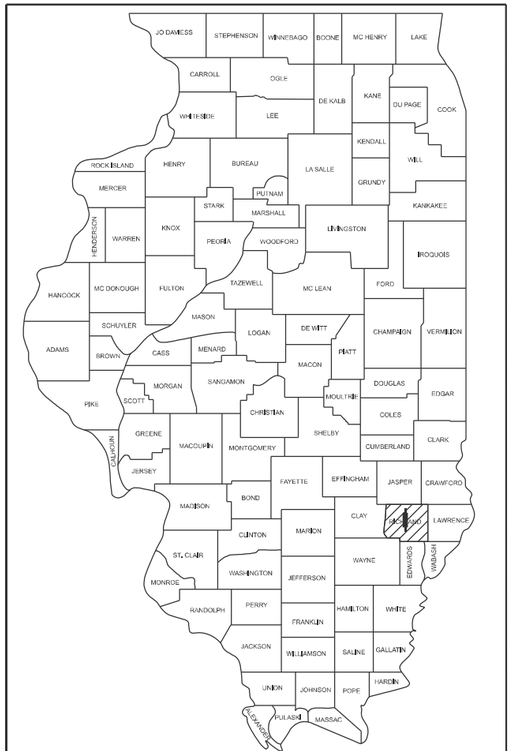
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	1
	ILLINOIS	CONTRACT NO. 74B79		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
HIGHWAY PLANS

FAP ROUTE 116 (IL 130)
SECTION D7 BRIDGE REPAIRS 2026-2
PROJECT BR-7U5V(241)
BRIDGE DECK OVERLAY & REPAIRS
RICHLAND COUNTY
C-97-025-23

D-97-023-23



LOCATION OF SECTION INDICATED THUS: -

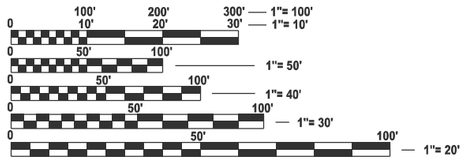
BEGIN IMPROVEMENT
STA. 895+39.4

END IMPROVEMENT
STA. 898+60.6

BRIDGE IMPROVEMENTS
SN 080-0009
STA 897+00.0

GROSS LENGTH = 321.2 FT. = 0.061 MILE
NET LENGTH = 321.2 FT. = 0.061 MILE

FUNCTIONAL CLASSIFICATION
MINOR ARTERIAL
ADT 2025 = 5600
P.V. = 81.3% S.U. = 4.5% M.U. = 14.2%



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 EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER TRAVIS WALK
PROJECT MANAGER ROB HANFLAND

CONTRACT NO. 74B79

CDI
CIVIL DESIGN, INC.
LICENSE #184.003222

STATE OF ILLINOIS
ROBERT HANFLAND
NUMBER 062.064104
PROFESSIONAL ENGINEER

3/20/2026

ROBERT HANFLAND, PE
STATE OF ILLINOIS NO. 062-064104
EXPIRES 11-30-2027

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 24, 2026
Teresa C. Price
REGIONAL ENGINEER

May 8, 2026
ENGINEER OF DESIGN AND ENVIRONMENT

May 8, 2026
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REV - MS

THE FOLLOWING STANDARDS ARE PART OF THESE PLANS AND ARE INCLUDED FOLLOWING THE LAST NUMBERED SHEET IN THE PLANS.

HIGHWAY STANDARDS

000001-09	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
420406	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB
630001-13	STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-18	TRAFFIC BARRIER TERMINA, 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
701321-19	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901-11	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

INDEX OF SHEETS

GENERAL NOTES

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED WHEN CALCULATING PLAN QUANTITIES:

HOT-MIX ASPHALT SURFACE COURSE 112 LB/SQ YD/IN

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE TO THIS PROJECT:

LOCATION(S)	MIXTURE USE(S)	PG	DESIGN AIR VOIDS	MIXTURE COMPOSITION	FRICTION AGGREGATE	MIXTURE WEIGHT	QUALITY MANAGEMENT PROGRAM
MAINLINE	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N90	SBS PG 70-22	4.0% @ N=90	IL - 9.5	MIXTURE D	N90	QCQA
HMA CONNECTOR	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	SBS PG 64-22	4.0% @ N=90	IL - 19.0	N/A	N90	QCQA

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CDI CIVIL DESIGN, INC. EFFINGHAM, IL LICENSE #184.003222

USER NAME = lsmith	DESIGNED - LCD	REVISED -	
	DRAWN - LCD	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HIGHWAY STANDARDS, INDEX OF SHEETS, AND GENERAL NOTES

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	2
		CONTRACT NO. 74B79		
	ILLINOIS FED. AID PROJECT			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	RICHLAND 80% FED/20% STATE RURAL BRIDGE 0059 080-0009
28100105	STONE RIPRAP, CLASS A3	SQ YD	49	49
35400500	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 10"	SQ YD	252	252
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	24	24
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	27	27
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SQ YD	9	9
40600990	TEMPORARY RAMP	SQ YD	12	12
40604164	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N90	TON	8	8
42000070	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	SQ YD	223	223
44000100	PAVEMENT REMOVAL	SQ YD	149	149
44004250	PAVED SHOULDER REMOVAL	SQ YD	297	297
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	12	12
50102400	CONCRETE REMOVAL	CU YD	17.3	17.3
50300225	CONCRETE STRUCTURES	CU YD	29.5	29.5
50300255	CONCRETE SUPERSTRUCTURE	CU YD	23.6	23.6

* SPECIALTY ITEM

REV - MS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	3
		CONTRACT NO. 74B79		
	ILLINOIS FED. AID PROJECT			

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	RICHLAND 80% FED/20% STATE RURAL BRIDGE 0059 080-0009
	50300300	PROTECTIVE COAT	SQ YD	835	835
	50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	108.8	108.8
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	46,200	46,200
	50800515	BAR SPLICERS	EACH	324	324
	52000110	PREFORMED JOINT STRIP SEAL	FOOT	106	106
	52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	4	4
	52100520	ANCHOR BOLTS, 1"	EACH	4	4
	53016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	10	10
	53016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	5	5
	53101002	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	521	521
	53101209	BRIDGE DECK FLY ASH OR GGBF CONCRETE OVERLAY, 2 1/2"	SQ YD	521	521
*	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	238	238
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4

* SPECIALTY ITEM

REV - MS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	4
		CONTRACT NO. 74B79		
	ILLINOIS FED. AID PROJECT			

				RICHLAND
				80% FED/20% STATE RURAL
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0059 080-0009
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4
63200310	GUARDRAIL REMOVAL	FOOT	611	611
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	5	5
67100100	MOBILIZATION	L SUM	1	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6
70107005	PAVEMENT MARKING BLACKOUT TAPE, 5"	FOOT	1137	1137
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	28
70300100	SHORT TERM PAVEMENT MARKING	FOOT	30	30
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	484	484
70300221	TEMPORARY PAVEMENT MARKING - LINE 4"- PAINT	FOOT	1520	1520
70400100	TEMPORARY CONCRETE BARRIER	FOOT	438	438

* SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET 3 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	5
		CONTRACT NO. 74B79		
	ILLINOIS FED. AID PROJECT			

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	RICHLAND 80% FED/20% STATE RURAL BRIDGE 0059 080-0009
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	438	438
	70600251	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2
	70600352	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE,NARROW), TEST LEVEL 3	EACH	2	2
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1520	1520
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	4	4
*	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	16	16
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	4	4
	X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	530	530
	Z0001495	BRIDGE APPROACH SHOULDER REMOVAL	SQ YD	40	40
	Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	4	4
	Z0004552	APPROACH SLAB REMOVAL	SQ YD	171	171
	Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	788	788

* SPECIALTY ITEM

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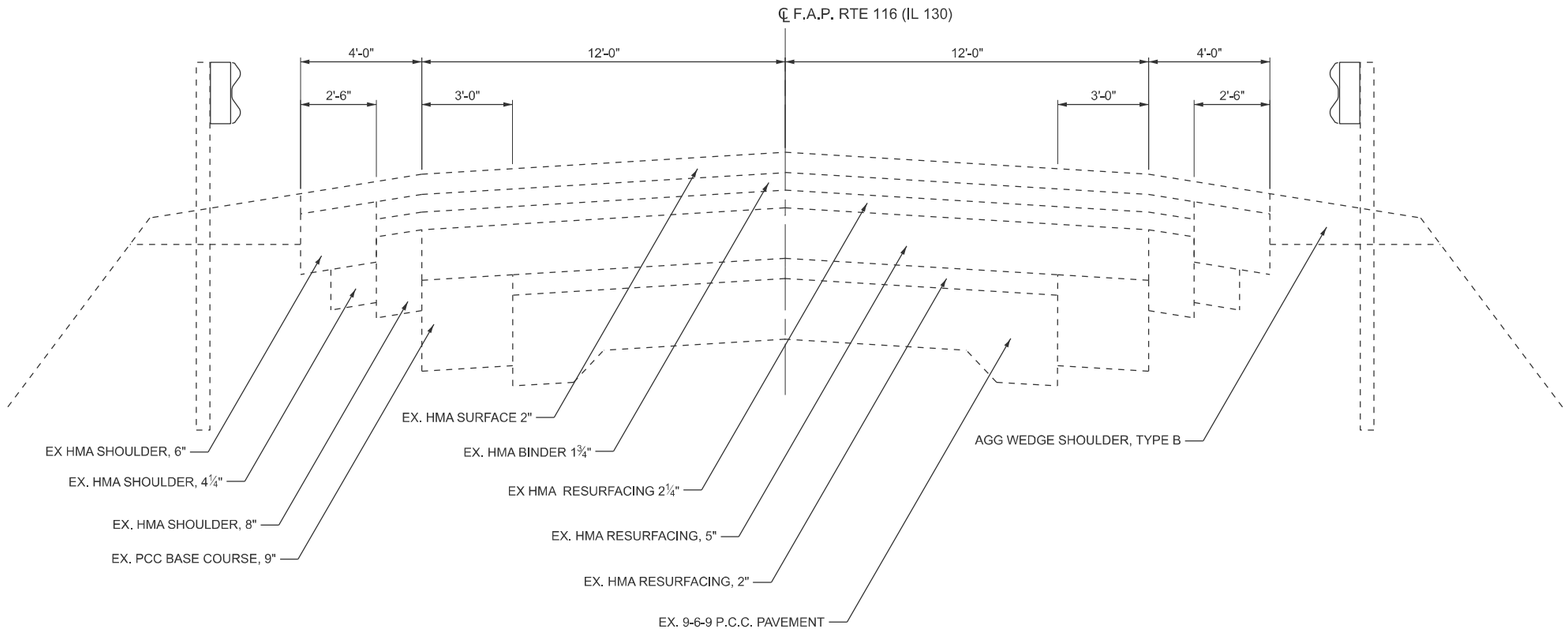
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

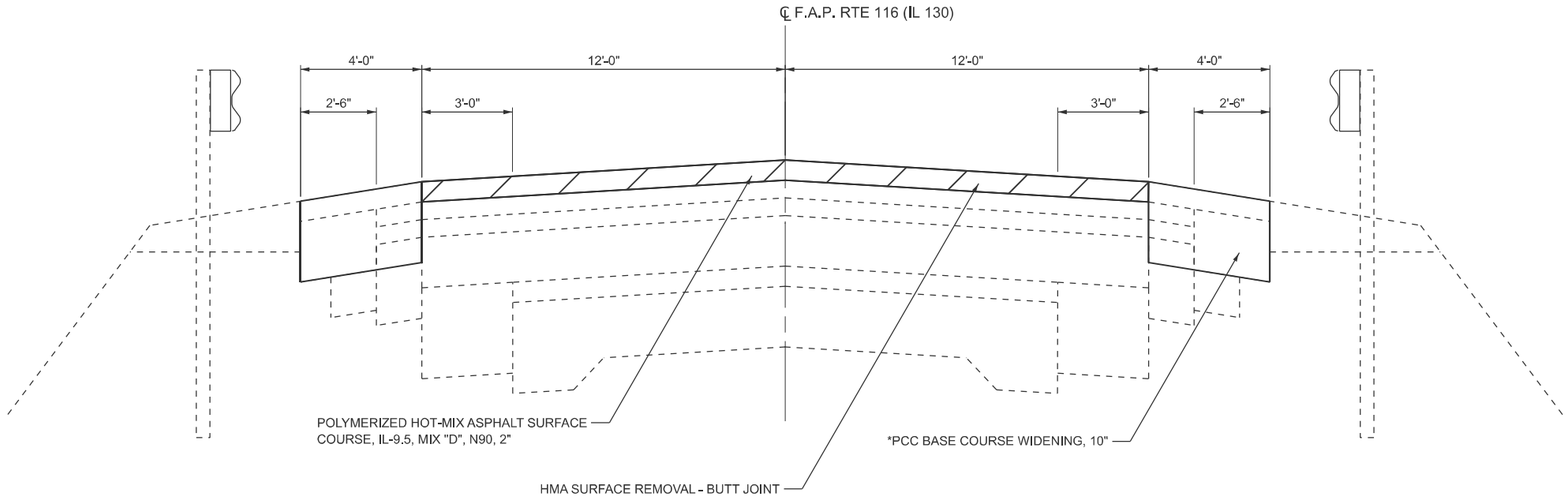
SCALE: | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	6
		CONTRACT NO. 74B79		
	ILLINOIS FED. AID PROJECT			



EXISTING TYPICAL SECTION

STA. 895+00.0 TO 895+99.0
STA. 898+01.0 TO 899+00.0



TYPICAL SECTION

* STA. 894+45.5 RT TO 895+99.0 RT
* STA. 894+45.5 LT TO 895+74.4 LT
STA. 895+39.4 TO 895+74.4
STA. 898+25.6 TO 898+60.6
* STA. 898+00.0 RT TO 899+55.0 RT
* STA. 898+25.6 LT TO 899+55.0 LT

STATIONS SHOWN ARE APPROXIMATE AND
MAY VARY FROM ACTUAL CONDITIONS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	7
		CONTRACT NO. 74B79		
	ILLINOIS FED. AID PROJECT			

TEMPORARY CONCRETE BARRIER SCHEDULE

STAGE	STATION	TO	STATION	TEMPORARY CONCRETE BARRIER 70400100	RELOCATE TEMPORARY CONCRETE BARRIER 70400200	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE, NARROW), TEST LEVEL 3 70600251	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE, NARROW), TEST LEVEL 3 70600352
				FOOT	FOOT		
1	894+81.7		899+18.8	437.5		2	
2	894+81.7		899+18.8		437.5		2
	TOTAL			437.5	437.5	2	2
	USE			438	438	2	2

PAVING SCHEDULE

STATION	TO	STATION	SIDE	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX D, N90 40604164	BITUMINOUS MATERIALS (TACK COAT) 40600290	TEMPORARY RAMP 40600990	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 10" 35400500	AGGREGATE WEDGE SHOULDER, TYPE B 48102100	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB 42000070
				TONS	POUND	SQ YD	SQ YD	TON	SQ YD
895+39.4		895+74.4		4.0	12.0	6.0			
898+25.6		898+60.6		4.0	12.0	6.0			
894+45.5		895+74.4	LT				57.3		
894+45.5		895+99.0	RT				68.3		
898+25.6		899+55.0	LT				57.5		
898+00.0		899+55.0	RT				68.9		
894+45.5		895+74.4	LT/RT					5.8	
898+25.6		899+55.0	LT/RT					5.8	
895+74.4		896+02.2							111.1
897+97.8		898+25.6							111.1
TOTAL				8.0	24.0	12.0	252.0	11.6	222.1
USE				8	24	12	252	12	223

PAVEMENT MARKING SCHEDULE

LOCATION	STATION	TO	STATION	70107005	70300100	70300150	78001110		70300220		78100100	78300200
				PAVEMENT MARKING BLACKOUT TAPE, 5"	SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL	PAINT PAVEMENT MARKING - LINE 4"		TEMPORARY PAINT PAVEMENT MARKING - LINE 4"		RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL
							SOLID, WHITE	SKIP DASH, YELLOW	SOLID, WHITE	SKIP DASH, YELLOW		
				FOOT	FOOT	SQ FT	FOOT	FOOT	FOOT	FOOT	EACH	EACH
STAGE 1	892+80.00		895+00.00	55.0		22.9						
STAGE 1	894+46.00		899+55.00	509.0		212.1						
STAGE 1	898+55.00		901+10.00	63.8		26.6						
STAGE 2	894+46.00		899+55.00	509.0		212.1						
	895+35.00		898+65.00		30.0	10.0						
POST STAGE RT EDGELINE	892+80.00		899+55.00				675.0		675.0			
LT EDGELINE	892+80.00		899+55.00				675.0		675.0			
CENTER SKIPS	892+80.00		899+55.00					169.0		169.0	4	4
TOTAL				1136.8	30.0	483.7	1350.0	169.0	1350.0	169.0	4	4
USE				1137	30	484	1350	170	1350	170	4	4
							1520		1520			

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	8
		CONTRACT NO. 74B79		
	ILLINOIS FED. AID PROJECT			

GUARDRAIL SCHEDULE

LOCATION	STATION	TO	STATION	63000001 STEEL PLATE BEAM GUARDRAIL TYPE A, 6 FOOT POSTS	63100085 TRAFFIC BARRIER TERMINAL TYPE 6	63100167 TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL) TANGENT	78200005 GUARDRAIL REFLECTORS TYPE A	72501000 TERMINAL MARKER - DIRECT APPLIED
RT	895+47		896+35	0.0	1	1	4	1
RT	898+00		899+38	50.0	1	1	4	1
LT	894+62		896+00	50.0	1	1	4	1
LT	897+65		899+90	137.5	1	1	4	1
TOTAL				237.5	4	4	16	4
USE				238	4	4	16	4

REMOVAL SCHEDULE

STATION	TO	STATION	LT/RT	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT 40600982	PCC REMOVAL - BUTT JOINT 40600985	GUARDRAIL REMOVAL 63200310	PAVED SHOULDER REMOVAL 44004250	PAVEMENT REMOVAL 44000100	APPROACH SLAB REMOVAL Z0004552	BRIDGE APPROACH SHOULDER REMOVAL Z0001495
				SQYD	SQYD	FOOT	SQ YD	SQ YD	SQ YD	SQ YD
896+02.5		896+32.5	LT/RT						85.3	20.0
897+68.5		897+98.5	LT/RT						85.3	20.0
895+64.4		895+74.4	LT/RT	13.3	4.4					
989+25.6		989+35.6	LT/RT	13.3	4.4					
894+61.0		896+14.0	LT			153.0				
895+71.0		896+50.0	RT			79.0				
897+49.0		899+83.0	LT			234.0				
897+85.0		899+30.0	RT			145.0				
894+45.5		895+99.0	LT/RT				136.4			
898+00.0		899+55.0	LT/RT				137.8			
895+74.4		895+99.0	RT				10.9			
898+00.0		898+25.6	RT				11.4			
895+74.4		895+99.0	LT/RT					74.1		
897+98.4		898+25.6	LT/RT					74.1		
TOTAL				26.6	8.8	611.0	296.5	148.2	170.6	40.0
USE				27	9	611	297	149	171	40

STONE RIPRAP, CLASS A3 28100105

STATION	TO	STATION	SIDE	SQYD
895+78.7		896+49.0	RT	48.9
TOTAL				48.9
USE				49

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PLOT DATE = 3/19/2026	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

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

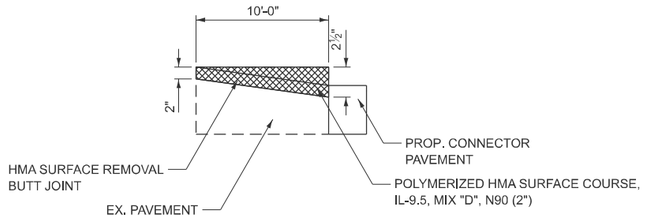
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	9
		CONTRACT NO. 74B79		
	ILLINOIS FED. AID PROJECT			

NOTE: STATIONS SHOWN ARE APPROXIMATE. TAKEN FROM OLD PLANS.

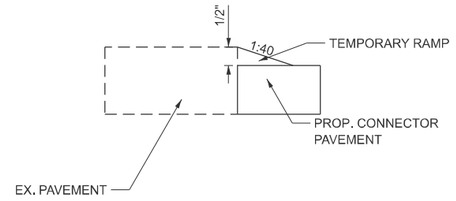
N

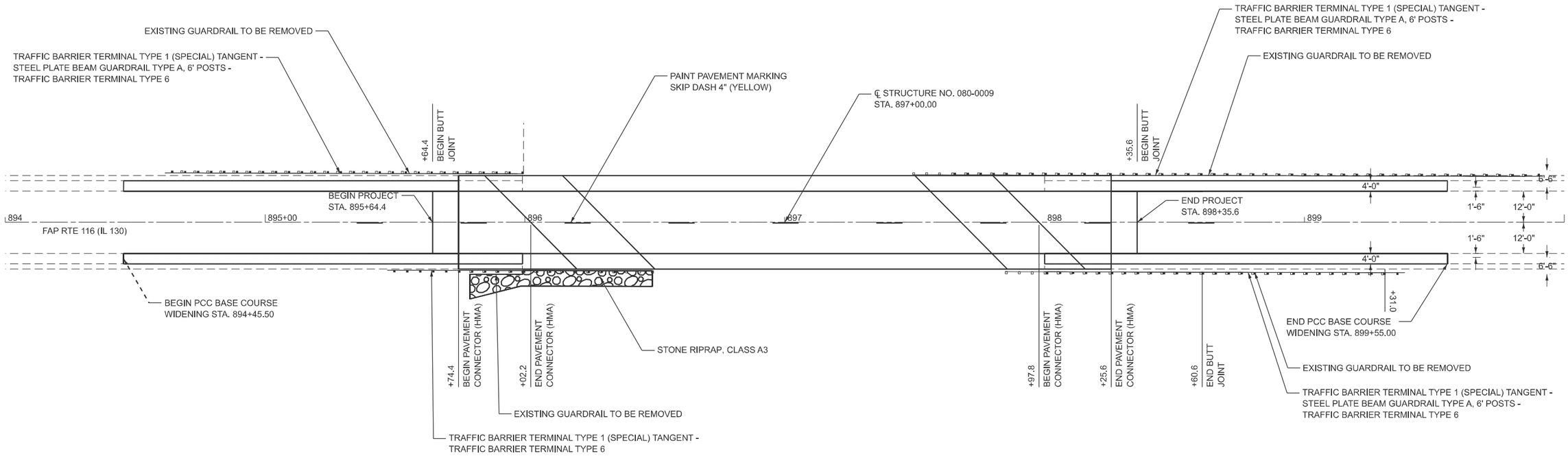
0 20 40
SCALE IN FEET

BUTT JOINT DETAIL



TEMPORARY RAMP DETAIL





NOTE: APPROXIMATE RIP RAP LIMITS ARE 895+78 TO 896+49.
WIDTH VARIES FROM 9' TO 6'.
FINAL LIMITS TO BE DETERMINED IN FIELD BY ENGINEER.

MODEL: ExBL-1 - Plan 2 [Sheet]
FILE NAME: P:\5XXX\54XX-55XX\5571 - PTB 203-039_D7 VV Hermann\WO 4\CADData\CADsheets\D7774B79-sht-plan.dgn

CDI CIVIL DESIGN, INC. EFFINGHAM, IL LICENSE #184.003222

USER NAME = rhanland	DESIGNED LCD	REVISED -	
	DRAWN LCD	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/19/2026	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN SHEET

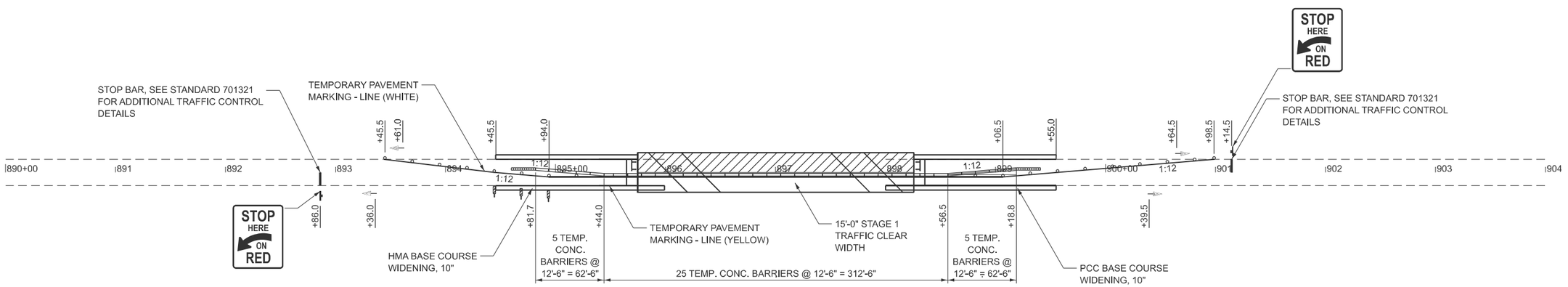
SCALE: 1"=20' | SHEET 1 OF SHEETS | STA. 894+00.00 | TO STA. 900+00.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	10
		CONTRACT NO. 74B79		
		ILLINOIS FED. AID PROJECT		

NOTE: STATIONS SHOWN ARE APPROXIMATE. BASED OFF OF OLD PLANS

N

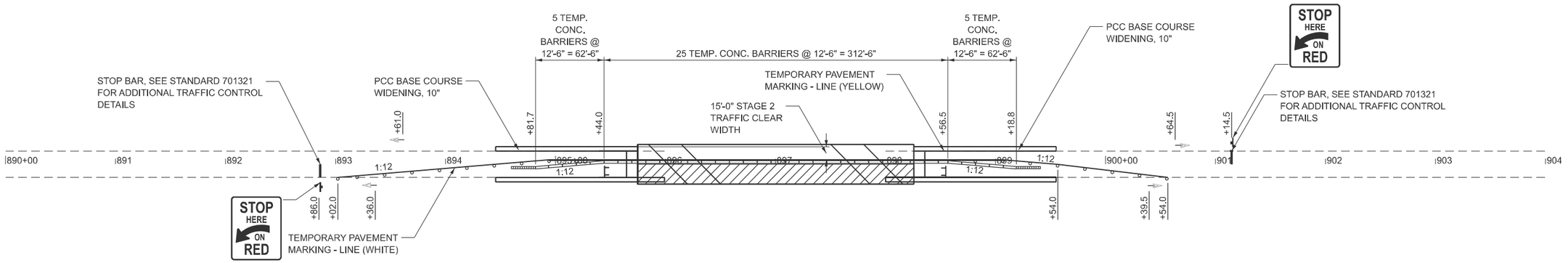
0 50 100
SCALE IN FEET



STAGE 1

LEGEND

- STAGE CONSTRUCTION
- SIGN
- TRAFFIC SIGNAL
- IMPACT ATTENUATOR
- BARRICADES, TYPE III WITH WARNING LIGHT
- DRUM
- DOUBLE VERTICAL PANEL



STAGE 2

MODEL: ExBL - Plan 1 [Sheet]
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CDI CIVIL DESIGN, INC. EFFINGHAM, IL LICENSE #184.003222

USER NAME = rhanland	DESIGNED LCD	REVISED -
	DRAWN LCD	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 3/19/2026	DATE -	REVISED -

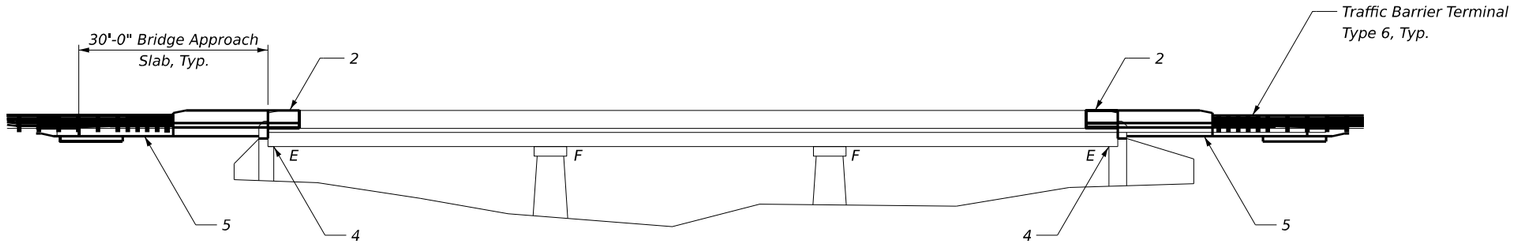
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING PLANS

SCALE: 1"=50' | SHEET 1 OF SHEETS | STA. 890+00.00 | TO STA. 905+00.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	11
		CONTRACT NO. 74B79		
	ILLINOIS	FED. AID PROJECT		

Existig Structure: SN 080-0009, was orignially built in 1929 as SBI Rte. 130 Section 123 B, widened in 1959 as Section 123 Br, rehabilitated in 1983 as Section 123 BR-3. and had the expansion joints replaced in 2006. The superstructure consists of 3 continuous spans of W27 rolled steel beams on closed abutments and solid shaft piers. The back-to-back abumtments dimension measure 137'-0" and the out-to-out width measures 39'-2". See scope of work for the proposed rehabilitation which will utililize stage construction to maintain traffic.



ELEVATION

SCOPE OF WORK

1. Scarify the Bridge Deck 3/4" and Patch as Required
2. Remove and Reconstruct Bridge Parapet
3. Remove the Continuous Seal Neoprene Expansion Joints and Replace with Strip Seal Expansion Joints
4. Remove and Replace the Type I Elastomeric Bearings at the Exterior beams at Each Abutment
5. Remove the Existing Approach Slabs and Shoulders and Replace with full width 30'-0" Skewed Approach Slabs
6. Place Fly Ash or GGBF Slag Concrete Overlay, 2 ½", with Diamond Grinding

LOADING HS20-44

Existing and Proposed

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifcations for Highway Bridges

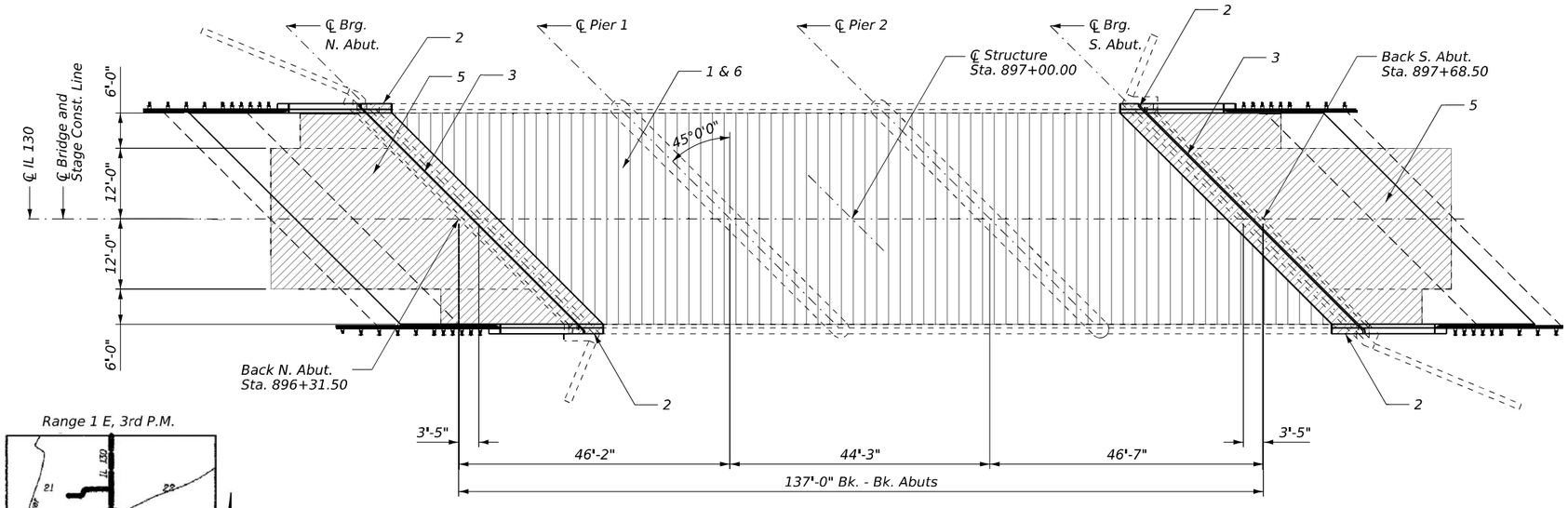
DESIGN STRESSES

NEW CONSTRUCTION

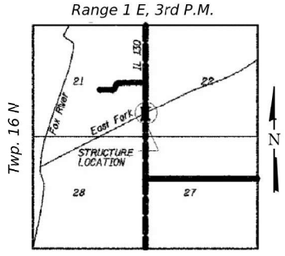
f'_c = 4,000 psi (Superstructure)
f'_y = 60,000 psi (Reinforcement)

EXISTING CONSTRUCTION

f'_c = 3,500 psi
f'_y = 60,000 psi (Reinforcement)
f'_y = 50,000 psi M223, Grade 50 (W27 Beams & Splices)
f'_y = 36,000 psi M183 (other Structural Steel)



PLAN



LOCATION SKETCH

LEGEND

REMOVE

SCARIFY

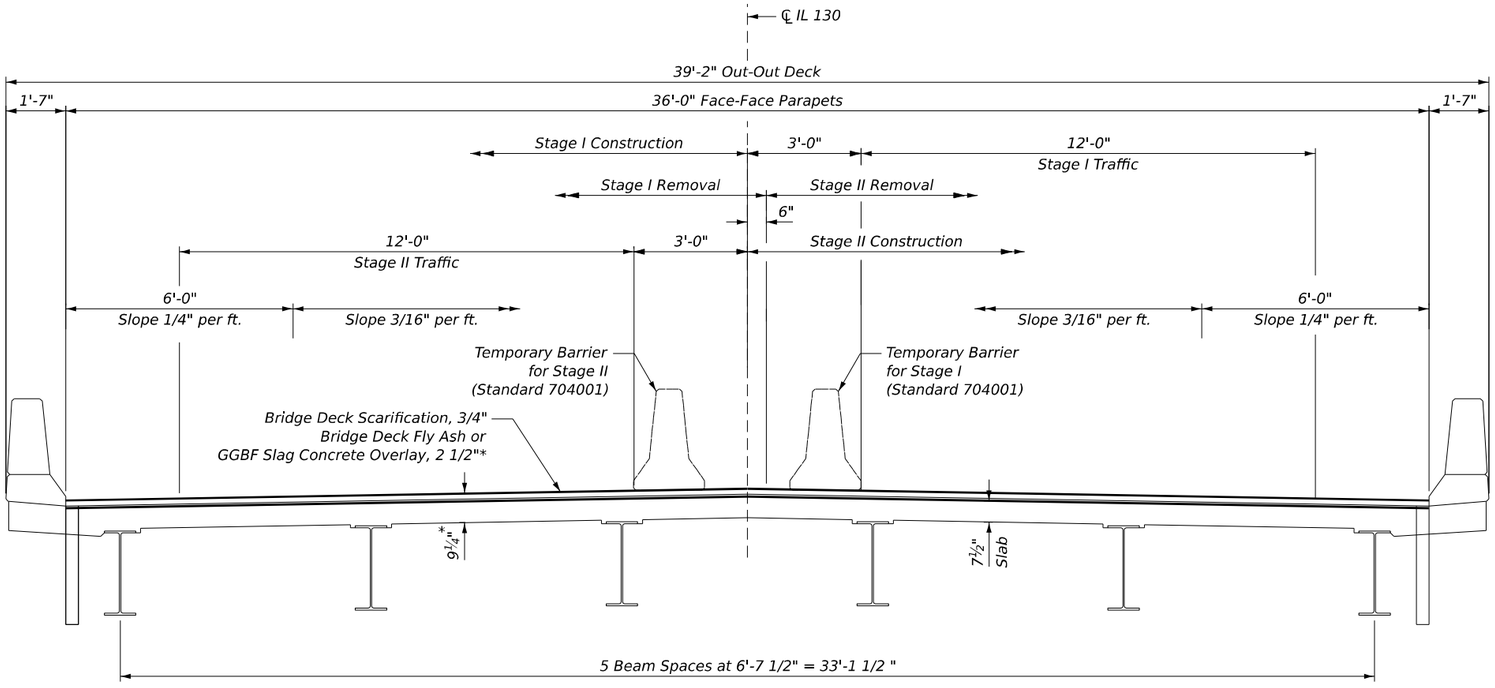
STATE OF ILLINOIS
GARY P. MRAZ
NUMBER 81-005893
LICENSED STRUCTURAL ENGINEER

Name — Date

License Expires 5/4/26

GENERAL PLAN & ELEVATION
IL 130 OVER EAST FORK FOX RIVER
FAP RTE 116 (IL 130)
RICHLAND COUNTY
STATION 897+00.00
STRUCTURE NO. 080-0009

gonzalez GONZALEZ COMPANIES, LLC PRO. ENGINEER 184004564-0014	USER NAME = gmraz	DESIGNED - GM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION STRUCTURE NO. 080-0009	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - GM	REVISED -			116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	12
	PLOT SCALE = 2.000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 74B79		
	PLOT DATE = 5/4/2026	DATE -	REVISED -		SCALE: SHEET 1 OF 21 SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJECT		



*Overlay thickness prior to ¼" grinding, (Typ.)

CROSS SECTION

(Looking South)

GENERAL NOTES

Plan dimensions and details relative to the existing structure have been taken from existing plans and 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 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.

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.

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

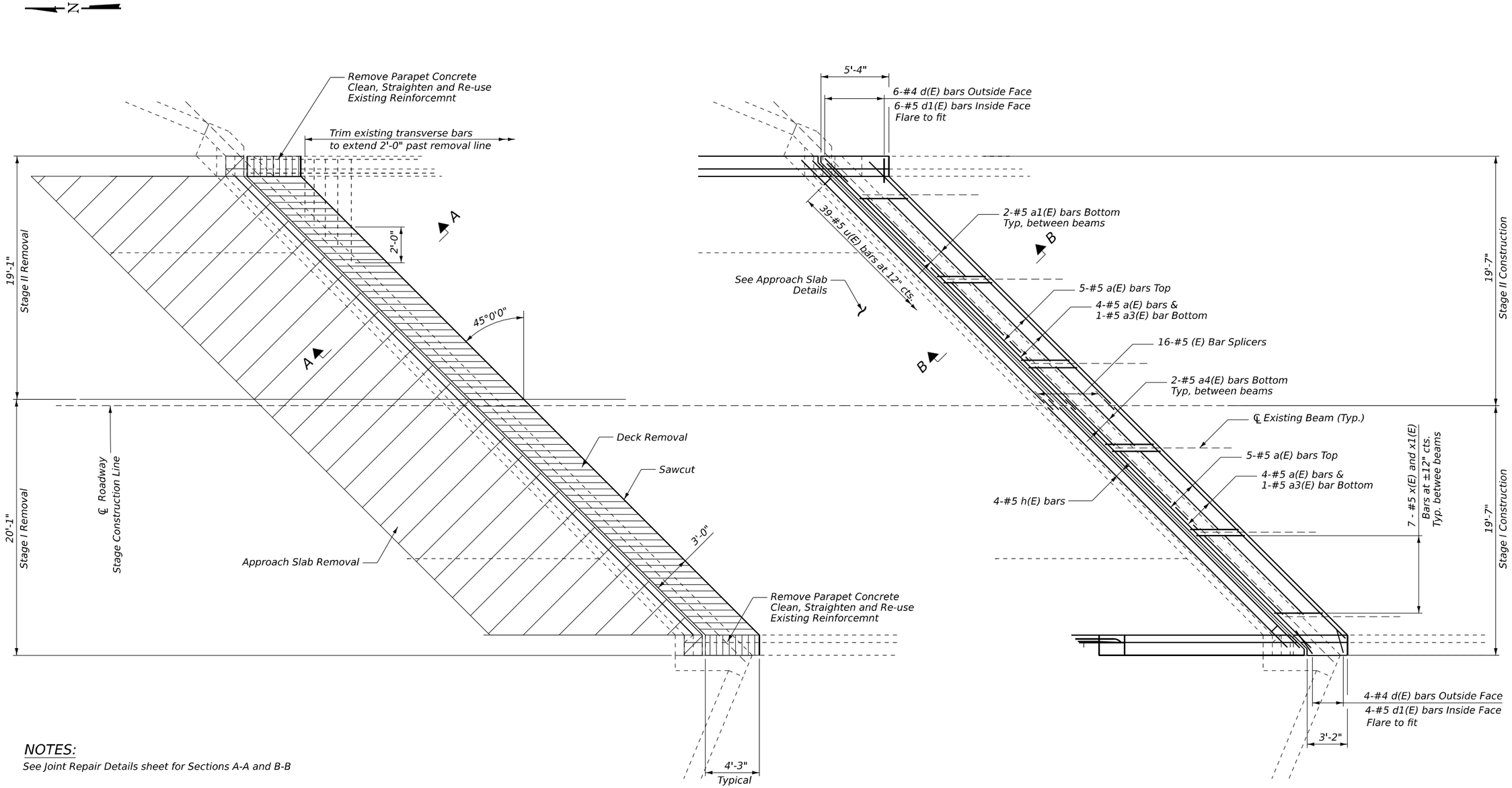
A quantity of 10 SQ YD of Deck Slab Repair (Full Depth, Type I) and 5 SQ YD of Deck Slab Repair (Full Depth, Type II) has been included for any unpredicted repair locations throughout the bridge deck. Exact locations shall be determined by the Engineer. The Engineer shall show actual locations of deck repairs on as-built plans.

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 have elapsed from the end of the previous adjacent pour, and the adjacent pour shall have attained a minimum modulus of rupture of 650psi.

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

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	17.3
Concrete Superstructure	Cu. Yd.	23.6
Concrete Superstructure (Approach Slab)	Cu. Yd.	108.8
Concrete Structures	Cu. Yd.	29.5
Reinforcement Bars, Epoxy Coated	Pound	46,200
Bar Splicers	Each	324
Preformed Joint Strip Seal	Foot	106
Bridge Deck Scarificaiton 3/4"	Sq. Yd.	521
Bridge Deck Fly Ash or GGBF Slag Concrete Overlay, 2 1/2"	Sq. Yd.	521
Diamond Grinding (Bridge Section)	Sq. Yd.	788
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	530
Protective Coat	Sq. Yd.	835
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	10
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	5
Jack and Remove Existing Bearings	Each	4
Elastomeric Bearing Assembly, Type I	Each	4
Anchor Bolts, 1"	Each	4



NOTES:

See Joint Repair Details sheet for Sections A-A and B-B

EXISTING REMOVAL PLAN

Expansion joint removal included with CONCRETE REMOVAL

PROPOSED PARTIAL PLAN

gonzalez
GONZALEZ COMPANIES, LLC
PRO. ENGINEER 184004564-0014

USER NAME = gmraz	DESIGNED - GM	REVISED -
	DRAWN - GM	REVISED -
PLOT SCALE = 2.000 ' / In.	CHECKED -	REVISED -
PLOT DATE = 5/4/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

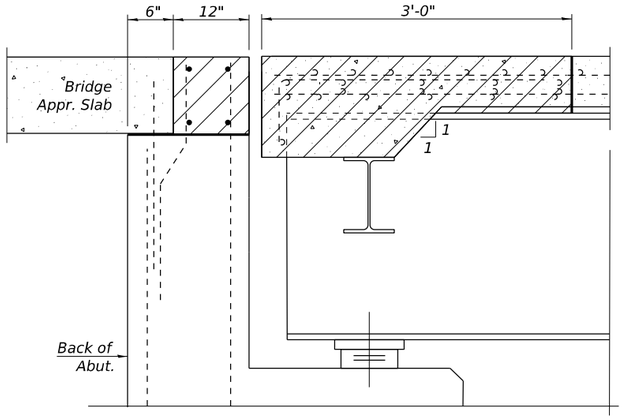
EXPANSION JOINT REPLACEMENT DETAILS
STRUCTURE NO. 080-0009

SCALE: | SHEET 3 OF 21 SHEETS | STA. | TO STA.

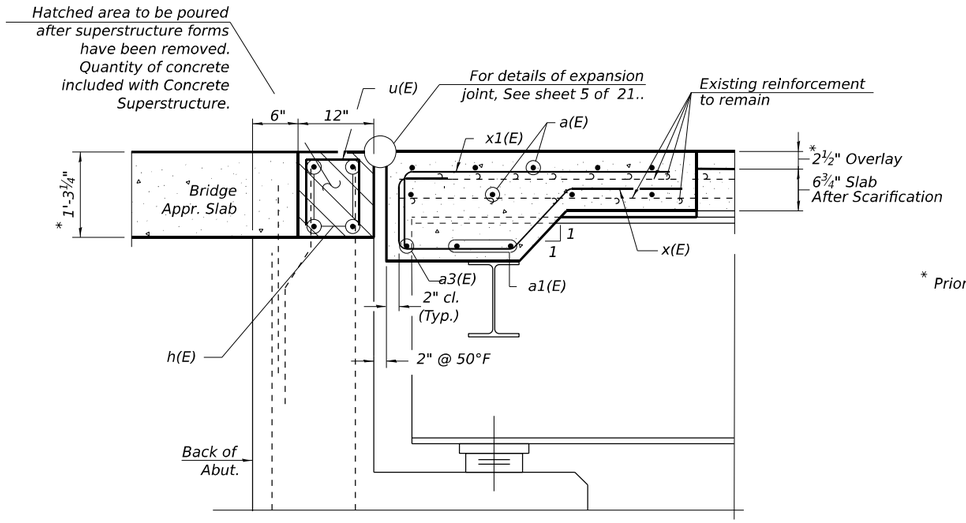
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	14
		CONTRACT NO. 74B79		
	ILLINOIS FED. AID PROJECT			

NOTES

1. 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 han 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.

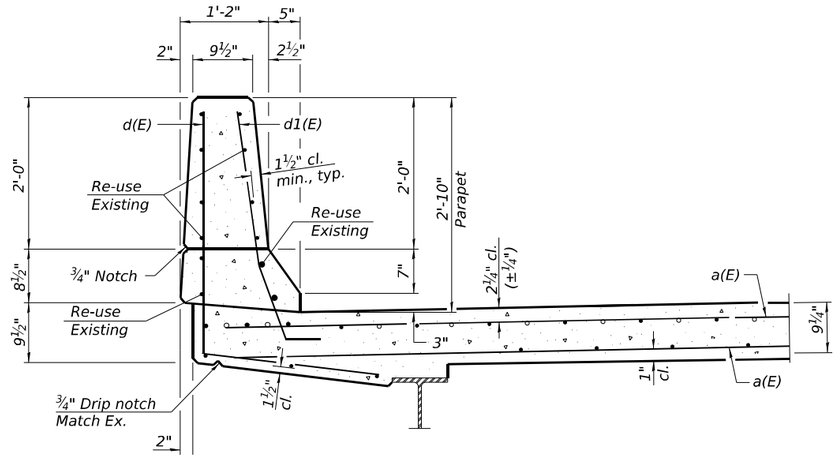


SECTION A-A
(at Rt. ∠'s)

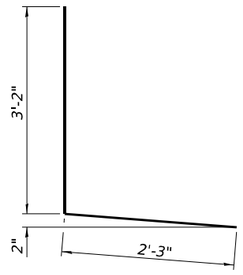


* Prior to ¼" "grinding

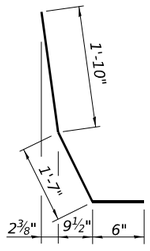
SECTION B-B
(at Rt. ∠'s)



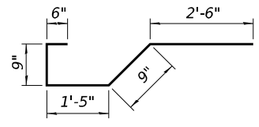
SECTION THRU PARAPET



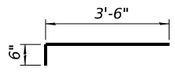
BAR d(E)



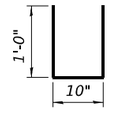
BAR d1(E)



BAR x(E)



BAR x1(E)



BAR u(E)

TWO EXPANSION JOINTS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	36	#5	26'-3"	
a1(E)	16	#5	6'-3"	
a3(E)	4	#5	22'-9"	
a4(E)	8	#5	3'-0"	
h(E)	16	#5	27'-4"	
d(E)	20	#5	5'-5"	
d1(E)	20	#5	3'-11"	
u(E)	78	#4	2'-10"	
x(E)	70	#4	5'-11"	
x1(E)	70	#4	4'-0"	

Item	Unit	Total
Concrete Removal	Cu. Yd.	17.3
Concrete Superstructure	Cu. Yd.	17.0
Reinforcement Bars, Epoxy Coated	Pound	2460
Bar Splicers	Each	32

gonzalez
GONZALEZ COMPANIES, LLC
PRO. ENGINEER 184004564-0014

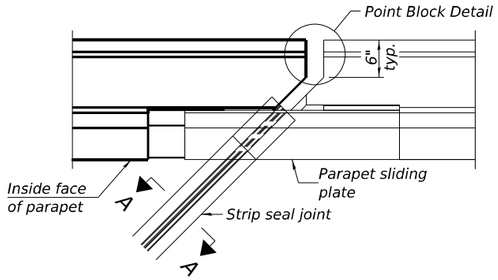
USER NAME = gmraz	DESIGNED - GM	REVISED -
	DRAWN - GM	REVISED -
PLOT SCALE = 2.000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 5/4/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT REPAIR DETAILS
STRUCTURE NO. 080-0009

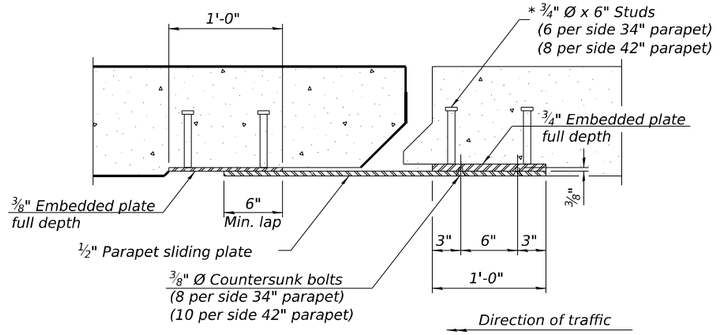
SCALE: | SHEET 4 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	15
		CONTRACT NO. 74B79		
	ILLINOIS FED. AID PROJECT			



FOR SKEWS > 30°

PLAN AT PARAPET



SECTION B-B

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". 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 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

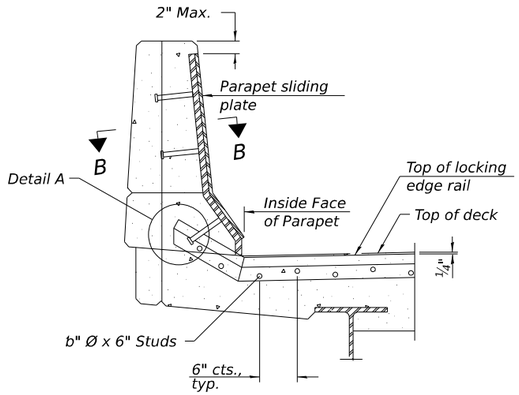
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

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.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.

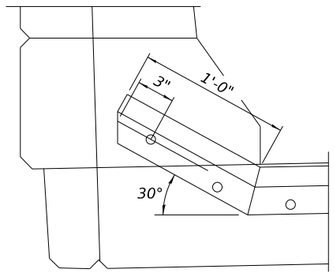
34" F-shape barrier shown, 42" F-shape similar as noted.

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. 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.

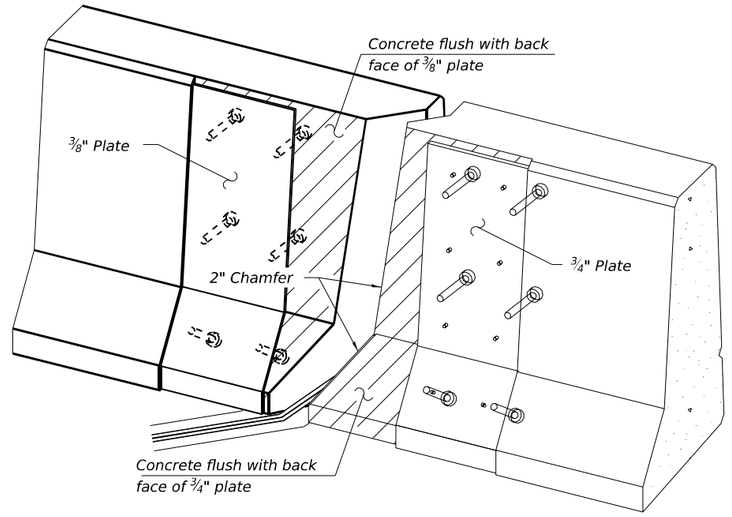


ELEVATION AT PARAPET

(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)

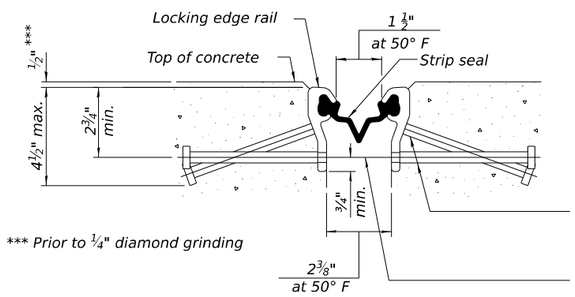


DETAIL A



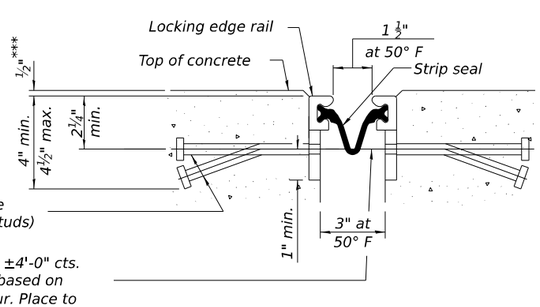
TRIMETRIC VIEW

(Showing embedded plates only)



*** Prior to ¼" diamond grinding

SHOWING ROLLED RAIL JOINT



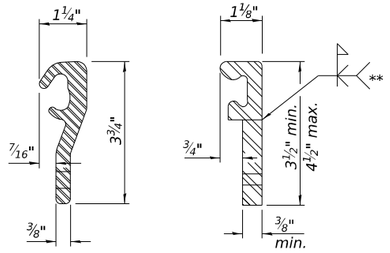
SHOWING WELDED RAIL JOINT

* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

⅜" 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.

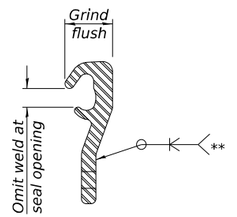
SECTION A-A

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



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	106

EJ-SS

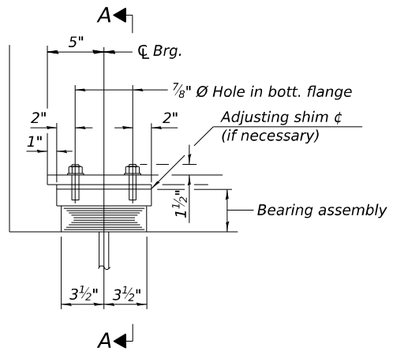
gonzalez GONZALEZ COMPANIES, LLC PRO. ENGINEER 184004564-0014	USER NAME = gmraz	DESIGNED - GM	REVISED -
		DRAWN - GM	REVISED -
	PLOT SCALE = 2.000 ' / In.	CHECKED -	REVISED -
	PLOT DATE = 5/4/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

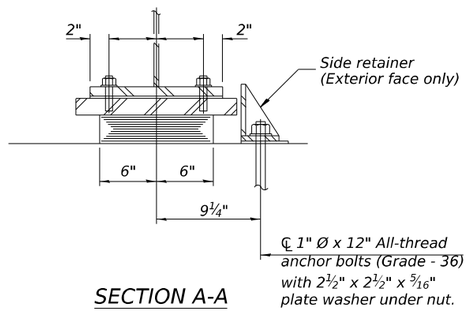
PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 080-0009

SCALE: | SHEET 5 OF 21 SHEETS | STA. | TO STA.

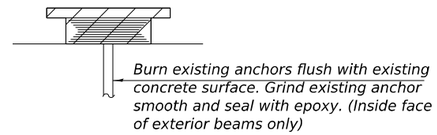
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	16
		CONTRACT NO. 74B79		
		ILLINOIS FED. AID PROJECT		



ELEVATION AT ABUT.

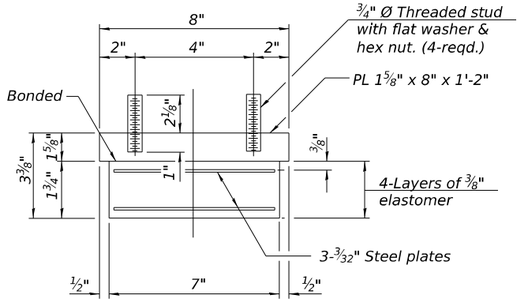


SECTION A-A



EXISTING BEARING REMOVAL

TYPE I ELASTOMERIC EXP. BRG.



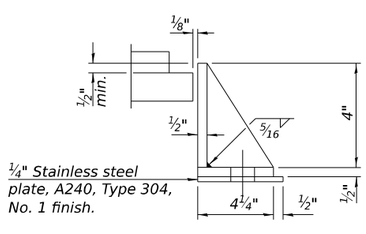
BEARING ASSEMBLY

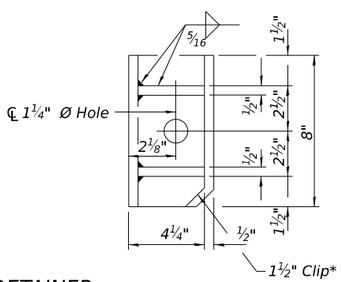
Note:
Shim plates shall not be placed under bearing assembly.

Notes:
Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
Remove and replace bearings at exterior beams at each abutment.

BEAM REACTIONS

R DL	(K)	17.9
R LL	(K)	32
Imp	(K)	9.6
R (Total)	(K)	59.5

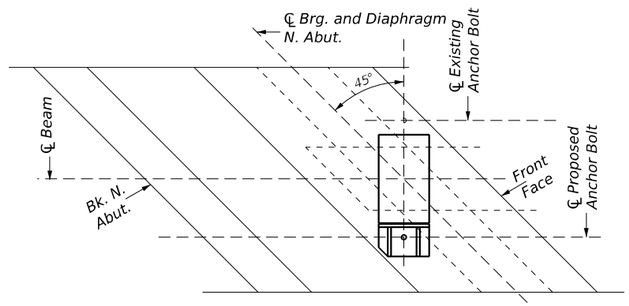




SIDE RETAINER

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

*Field verify geometrics and clearance prior to fabrication



BEARING LAYOUT

North Abutment Shown, South Abutment Similar

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	4
Anchor Bolts	Each	4
Jack and Remove Existing Bearings	Each	4

I-2E-1

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PRO. ENGINEER 184004564-0014

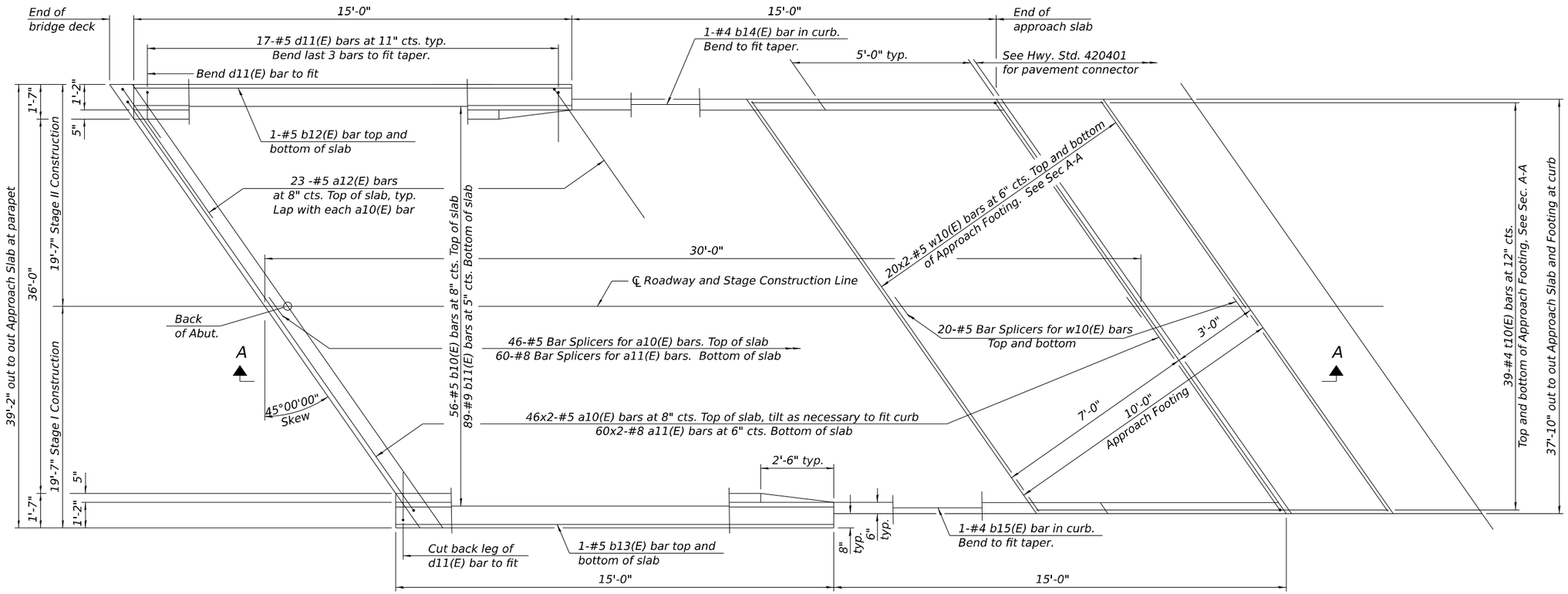
USER NAME = gmraz	DESIGNED - GM	REVISED -
	DRAWN - GM	REVISED -
PLOT SCALE = 2.000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 5/4/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

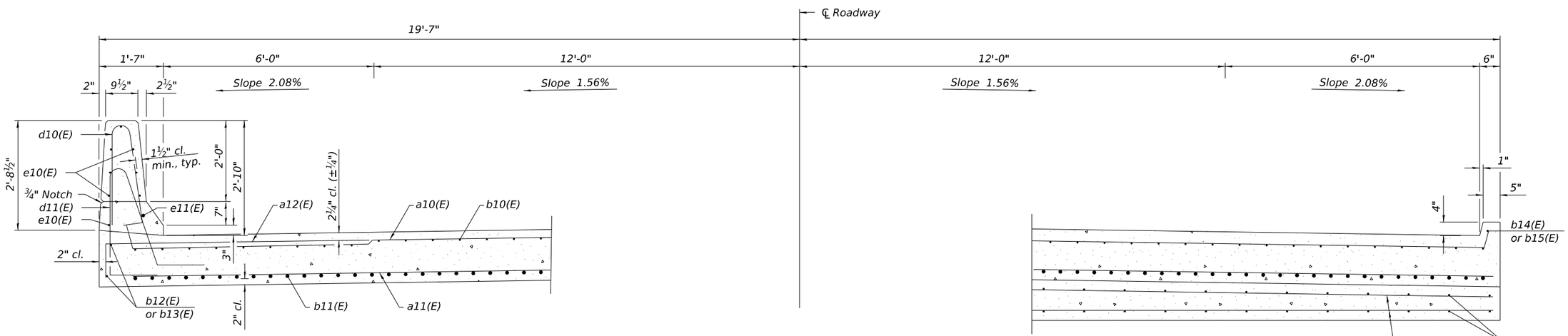
BEARING DETAILS
STRUCTURE NO. 080-0009

SCALE: | SHEET 6 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	17
		CONTRACT NO. 74B79		
		ILLINOIS	FED. AID PROJECT	



PLAN



NEAR ABUTMENT

CROSS SECTION
(Looking South)

AT APPROACH FOOTING

BAIA-CIP-34FS-R(>30°) 2-17-2017

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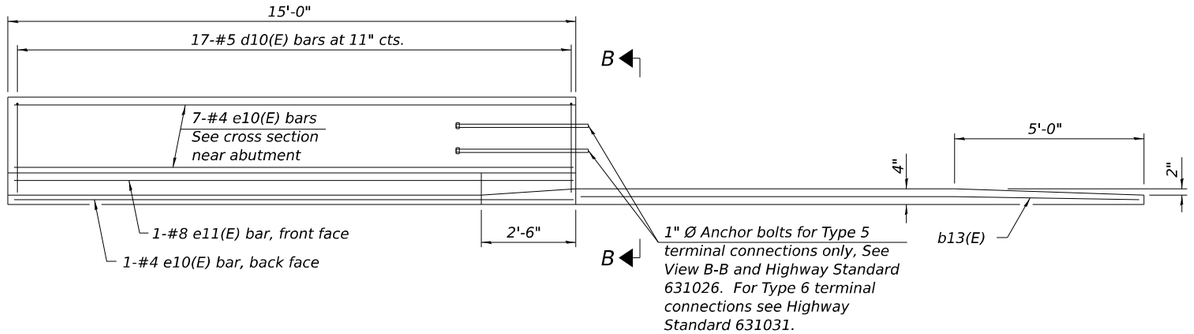
PLOT DATE = 5/4/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

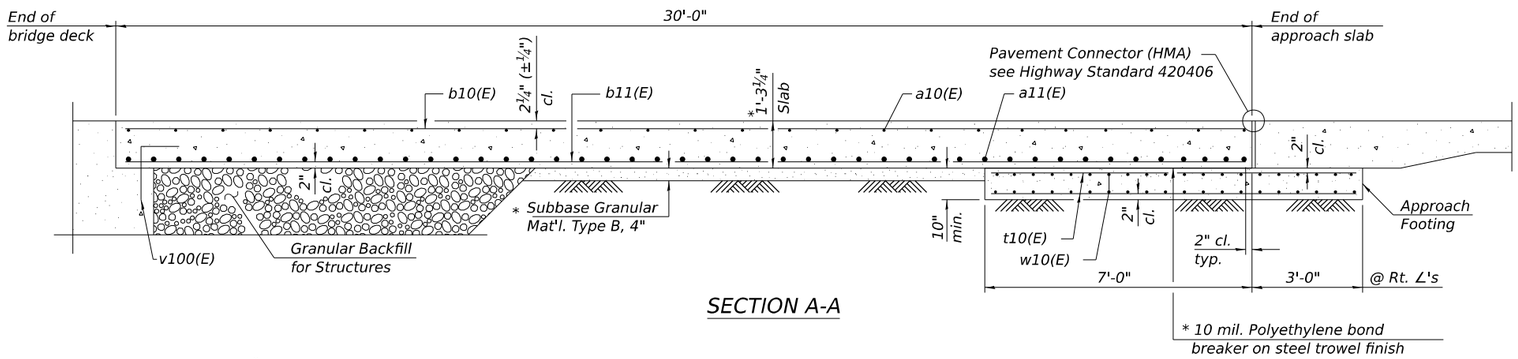
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 080-0009

SCALE: | SHEET 7 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	18
		CONTRACT NO. 74B79		
		ILLINOIS	FED. AID PROJECT	



INSIDE ELEVATION OF PARAPET AND CURB



SECTION A-A

*Overlay thickness prior to grinding

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach pavement.

Parapet concrete shall be paid for as Concrete Superstructure.

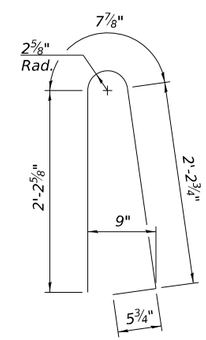
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

Approach footing concrete shall be paid for as Concrete Structures.

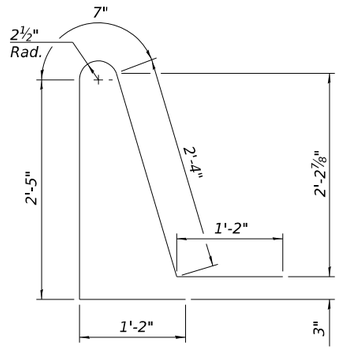
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

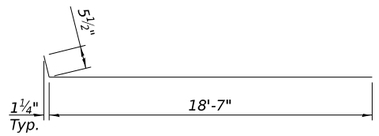
For Granular Backfill for Structures and drainage treatment details, see sheet of .



BAR d10(E)

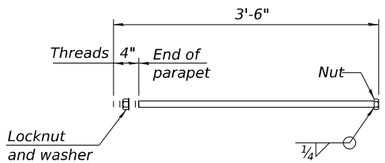


BAR d11(E)



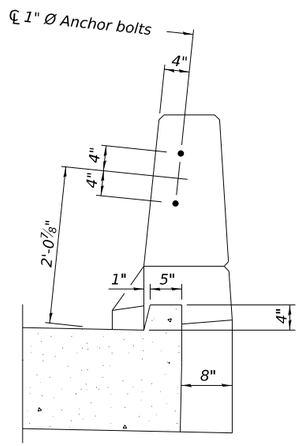
BAR a10(E)

BAR a12(E)



*1" Ø ANCHOR BOLT

(Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications)



VIEW B-B

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	92	#5	19'-½"	
a11(E)	240	#8	19'-4"	
a12(E)	92	#5	7'-4"	
b10(E)	112	#5	29'-8"	
b11(E)	178	#9	29'-8"	
b12(E)	4	#5	14'-8"	
b13(E)	4	#5	14'-8"	
b14(E)	2	#4	14'-8"	
b15(E)	2	#4	14'-8"	
d10(E)	68	#5	5'-7"	
d11(E)	68	#5	7'-8"	
e10(E)	32	#4	14'-8"	
e11(E)	4	#8	14'-8"	
t10(E)	156	#4	13'-10"	
w10(E)	160	#5	26'-3"	

Item	Unit	Total
Concrete Superstructure	Cu. Yd.	6.6
Concrete Superstructure (Approach Slab)	Cu. Yd.	108.8
Concrete Structures	Cu. Yd.	29.5
Reinforcement Bars, Epoxy Coated	Pound	43,740
Bar Splicers	Each	292

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

BAIA-CIP-34FS-R(>30°) 2-17-2017

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PRO. ENGINEER 184004564-0014

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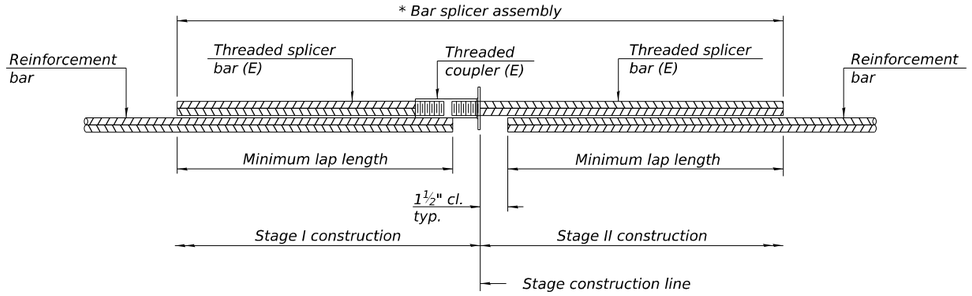
	DRAWN - GM	REVISED -	
PLOT SCALE = 2.000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 5/4/2026	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 080-0009

SCALE: | SHEET 8 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	19
		CONTRACT NO. 74B79		
		ILLINOIS	FED. AID PROJECT	



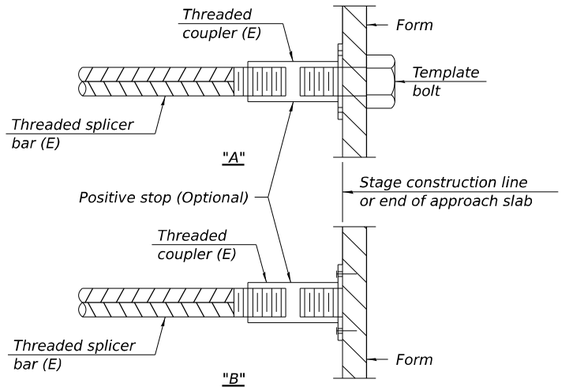
STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as prestented on the approved QPL list may be used.

Threaded splicer bar length = min. lap length + 1½" + thread length

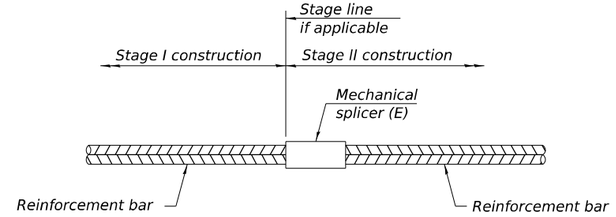
** Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.*

Location	Bar size	No. assemblies required	Minimum lap length
Bridge Deck	#5	32	3'-10"
Approach Slab	#5	92	2'-10"
Approach Slab	#8	120	5'-2"
Approach Slab Ftg.	#5	80	2'-10"



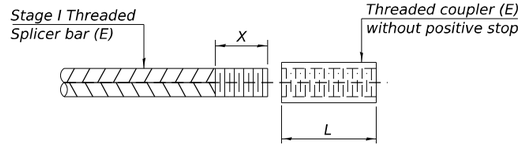
INSTALLATION AND SETTING METHODS

"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



THREADING OF ASSEMBLIES

The threaded length "X" shall be no more than L/2. The bar should be tightened until 0-1 thread(s) is (are) exposed.

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 4-4-2025

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GONZALEZ COMPANIES, LLC
PRO. ENGINEER 184004564-0014

USER NAME = gmraz	DESIGNED - GM	REVISED -
	DRAWN - GM	REVISED -
PLOT SCALE = 2.000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 5/4/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 080-0009

SCALE: | SHEET 9 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	20
		CONTRACT NO. 74B79		
	ILLINOIS FED. AID PROJECT			

B.M. Chiseled "O" on N.E. wing of existing structure Sta. 897+00 Elev. 439.29
Existing Structure: built in 1929 as S.B.I. Rte 130, Sec. 123B widened in 1959 as Sec. 123 (B)Y. - 3 span deck girder on solid concrete piers and closed abutments - 30'-0" wide and 132'-9" Bk. Bk. of abutments.
The contractor shall remove existing superstructure utilizing Stage Construction.
Abutment and piers to be reused.
Str. No. 080-0009

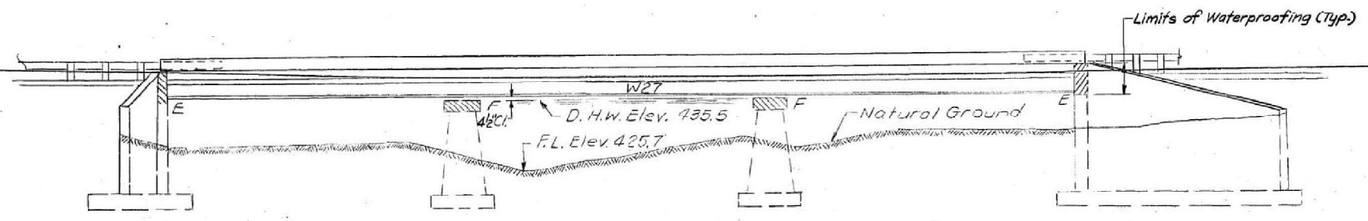
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.Rte. 116	123(B)RS	RICHLAND	18	5
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
13 SHEETS

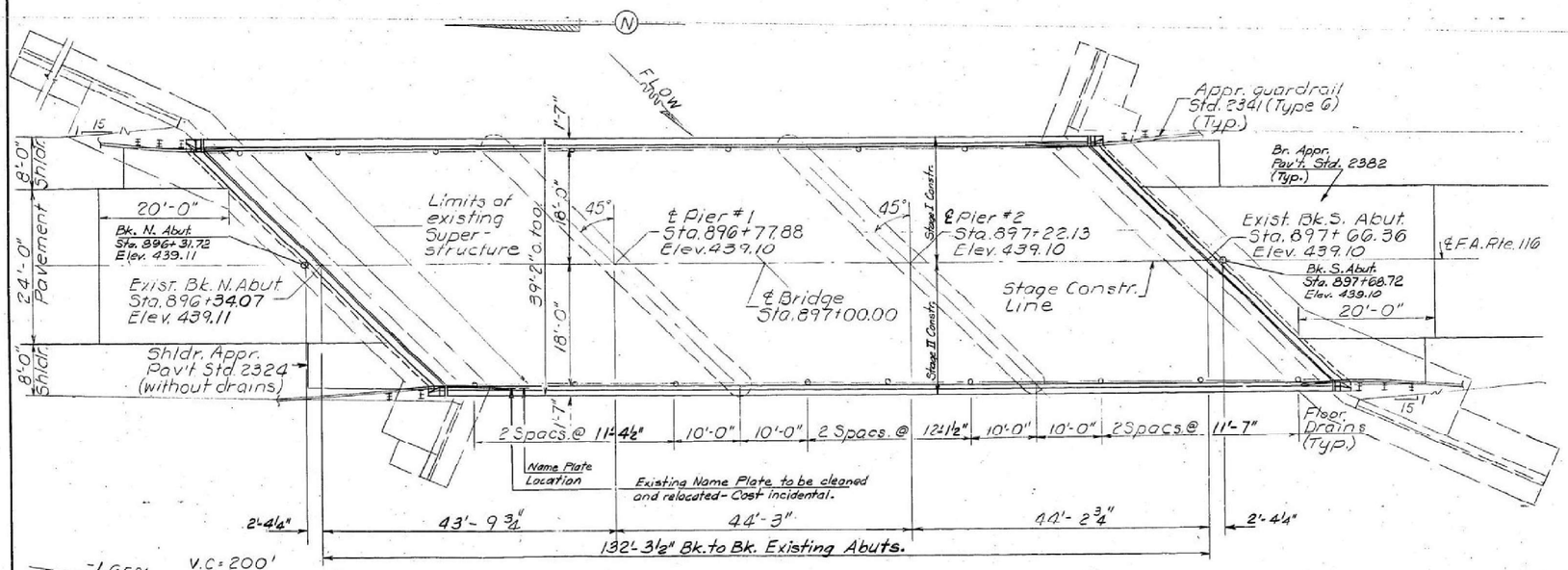
STATION 897+00.00
REBUILT 198_ BY
STATE OF ILLINOIS
F.A. RT. 116 SEC. 123 BR-3
F.A. PROJ. BR-F-116(23)
LOADING HS-20
STR. NO. 080-0009

NAME PLATE
See Std. 2113



Hatched area indicates "Concrete Removal"

ELEVATION



PROFILE GRADE

PLAN

Design Specifications: 1977 AASHTO, 1978, 1979, 1980, 1981 and 1982 Interim Specifications.

LOADING HS20-44 (New Construction)

Allow 25#/sq.ft. for future wearing surface.

WATERWAY INFORMATION

Drainage Area 16.00 Sq. Mi. Low Grade Elev. 438.9 ± Sta. 898+00

Flood	Freq. Yr	Q C.F.S.	Opening Sq.Ft. Exist.	Opening Sq.Ft. Prop.	Nat. H.W.E.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	3360	486	513	435.5	1.16	1.05	436.66	436.55
Base	100	3857	486	522	435.8	0.71	1.33	436.51	437.13
Max. Calc.	500	4996	486	522	436.5	1.40	1.40	437.9	437.9

DESIGNED Steven K. Doerner
CHECKED David Burdick
DRAWN E.V. Taylor F.M.
CHECKED SKD D.B.

January 25 1983
EXAMINED James T. Rayburn ENGINEER OF BRIDGE DESIGN
PASSED
APPROVED ENGINEER OF BRIDGES AND STRUCTURES
DIRECTOR OF HIGHWAYS

GENERAL NOTES

The Structural Steel Bearing Plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 222.

Fasteners shall be high strength bolts. Bolts 7/8"Φ, open holes 15/16"Φ, unless otherwise noted.

Calculated weight of Structural Steel = 16,800 Lbs. (M-183)
69,900 Lbs. (M-223)

The basic lead silico chromate paint system shall be used for shop and field painting of Structural Steel.

Field welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

Anchor bolts shall be set before bolting diaphragms over supports.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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 the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Expansion bolts shall consist of approved expansion anchors, providing minimum certified proof load = 4,080 lbs., and ¾"Φ x 12" hooked bolts.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of ⅛ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two '8' adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearings, shims of the dimensions of top plate shall be provided and placed as detailed.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These Components are the wide flange beams and all splice plate material.

Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 60.

The back face of Closed Abutments shall be waterproofed according to Article 503.11 of the Standard Specifications.

TOTAL BILL OF MATERIAL

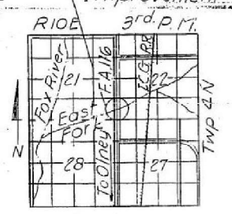
ITEM	UNIT	SUPER	SUB	TOTAL
Protective Coat	Sq.Yds.	638		638
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu.Yds.		43.6	43.6
Expansion Bolts (¾"Φ)	Each		260	260
Structure Excavation	Cu.Yds.		102	102
Floor Drains	Each	18		18
Class X Concrete	Cu.Yds.	164.3	78.6	242.9
Structural Steel	L. Sum	L.S.		L.S.
Reinforcement Bars	Lbs.	14,860	8,480	23,340
Reinforcement Bars (Epoxy Coated)	Lbs.	22,420		22,420
Name Plates	Each	1		1
Neoprene Expansion Joint (2")	Lin. Ft.	106		106
Elastomeric Bearing Assembly, Type I	Each	12		12
Epoxy Crack Sealing	Lin. Ft.		54	54

DESIGN STRESSES

NEW CONSTRUCTION
f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (Reinf.)
fy = 50,000 p.s.i. (M 223, Grade 50) (Struct.)
fy = 36,000 psi (M 183) (Struct.)
fy = 50,000 psi (M 222)

EXIST. CONSTRUCTION
fc = 1,400 p.s.i.
fs = 20,000 p.s.i. (Reinf.)
fs = 18,000 p.s.i. (Struct.)

CARL E. THURMAN — STATE OF ILLINOIS — 2281 — STRUCTURAL ENGINEER



LOCATION PLAN

GENERAL PLAN
ILL. RTE. 130
OVER EAST FORK CREEK
F.A. RTE. 116 SEC. 123 BR-3
RICHLAND COUNTY
STA. 897+00.00

USER NAME = gmraz	DESIGNED - GM	REVISED -
	DRAWN - GM	REVISED -
PLOT SCALE = 2.000 ' / In.	CHECKED -	REVISED -
PLOT DATE = 3/20/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS - FOR INFORMATION ONLY
STRUCTURE NO. 080-0009

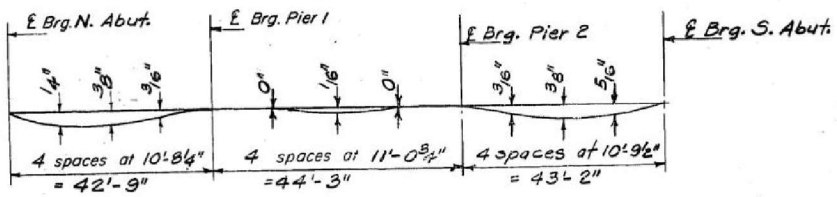
SCALE: | SHEET 10 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	21
		CONTRACT NO. 74B79		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	123BR-3	RICHLAND	18	7

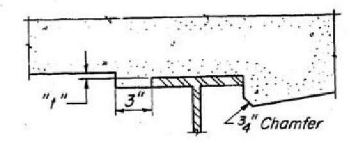
SHEET NO. 3
13 SHEETS



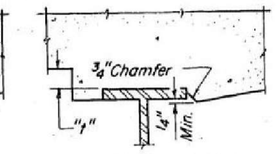
DEAD LOAD DEFLECTION DIAGRAM

(Includes ~~weight of concrete only~~)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below and on Sheet # 4.



At Minimum Fillet



At Maximum Fillet

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below and on Sheet # 4. These elevations, subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below and on sheet # 4, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

BEAM #1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	89615.153	-16.563	438.868	438.868
CL. BRG. N. ABUT.	89618.570	-16.563	438.858	438.858
A	89628.570	-16.563	438.837	438.858
B	89638.570	-16.563	438.823	438.852
C	89648.570	-16.563	438.818	438.837
CL. BRG. PIER 1	89661.320	-16.563	438.818	438.818
D	89671.320	-16.563	438.818	438.819
E	89681.320	-16.563	438.818	438.822
F	89691.320	-16.563	438.818	438.820
CL. BRG. PIER 2	89705.570	-16.563	438.818	438.818
G	89715.570	-16.563	438.818	438.834
H	89725.570	-16.563	438.818	438.847
I	89735.570	-16.563	438.818	438.844
CL. BRG. S. ABUT.	89748.737	-16.563	438.818	438.818
BK. S. ABUT.	89752.154	-16.563	438.818	438.818

BEAM #2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	89621.778	-9.938	438.978	438.978
CL. BRG. N. ABUT.	89625.195	-9.938	438.970	438.970
A	89635.195	-9.938	438.954	438.976
B	89645.195	-9.938	438.946	438.975
C	89655.195	-9.938	438.945	438.964
CL. BRG. PIER 1	89667.945	-9.938	438.945	438.945
D	89677.945	-9.938	438.945	438.946
E	89687.945	-9.938	438.945	438.949
F	89697.945	-9.938	438.945	438.947
CL. BRG. PIER 2	89712.195	-9.938	438.945	438.945
G	89722.195	-9.938	438.945	438.961
H	89732.195	-9.938	438.945	438.974
I	89742.195	-9.938	438.945	438.971
CL. BRG. S. ABUT.	89755.362	-9.938	438.945	438.945
BK. S. ABUT.	89758.779	-9.938	438.945	438.945

BEAM #3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	89628.403	-3.313	439.067	439.067
CL. BRG. N. ABUT.	89631.820	-3.313	439.062	439.062
A	89641.820	-3.313	439.051	439.073
B	89651.820	-3.313	439.048	439.077
C	89661.820	-3.313	439.048	439.068
CL. BRG. PIER 1	89674.570	-3.313	439.048	439.048
D	89684.570	-3.313	439.048	439.049
E	89694.570	-3.313	439.048	439.053
F	89704.570	-3.313	439.048	439.051
CL. BRG. PIER 2	89718.820	-3.313	439.048	439.048
G	89728.820	-3.313	439.048	439.064
H	89738.820	-3.313	439.048	439.077
I	89748.820	-3.313	439.048	439.074
CL. BRG. S. ABUT.	89761.987	-3.313	439.048	439.048
BK. S. ABUT.	89765.404	-3.313	439.048	439.048

STAGE CONSTRUCTION JOINT & ℄ ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	89631.716	0.0	439.114	439.114
CL. BRG. N. ABUT.	89635.133	0.0	439.109	439.109
A	89645.133	0.0	439.101	439.123
B	89655.133	0.0	439.100	439.129
C	89665.133	0.0	439.100	439.119
CL. BRG. PIER 1	89677.883	0.0	439.100	439.100
D	89687.883	0.0	439.100	439.101
E	89697.883	0.0	439.100	439.104
F	89707.883	0.0	439.100	439.102
CL. BRG. PIER 2	89722.133	0.0	439.100	439.100
G	89732.133	0.0	439.100	439.116
H	89742.133	0.0	439.100	439.129
I	89752.133	0.0	439.100	439.126
CL. BRG. S. ABUT.	89765.299	0.0	439.100	439.100
BK. S. ABUT.	89768.716	0.0	439.100	439.100

DESIGNED Steven K. Doerner
CHECKED David Burdick
DRAWN E. V. Taylor
CHECKED SKD D.B.

January 25, 1983
EXAMINED James T. Bashburn, ENGINEER OF BRIDGE DESIGN
PASSED ENGINEER OF BRIDGES AND STRUCTURES
APPROVED DIRECTOR OF HIGHWAYS

E-S 8-30-80

TOP OF SLAB ELEVATIONS
F.A. RTE. 116 SEC. 123 BR-3
RICHLAND COUNTY
STA. 897+00.00

USER NAME = gmraz	DESIGNED - GM	REVISED -	
	DRAWN - GM	REVISED -	
PLOT SCALE = 2.000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 3/20/2026	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS - FOR INFORMATION ONLY
STRUCTURE NO. 080-0009

SCALE: SHEET 11 OF 21 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	22
		CONTRACT NO. 74B79		
		ILLINOIS	FED. AID PROJECT	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM #4

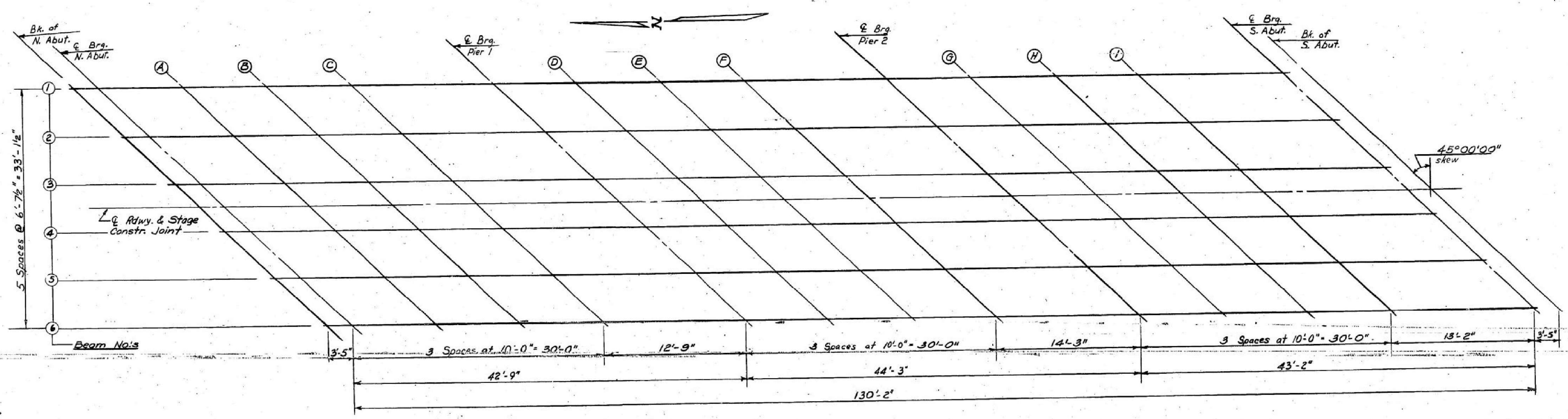
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	89635.029	3.313	439.057	439.057
CL. BRG. N. ABUT.	89638.445	3.313	439.054	439.054
A	89648.445	3.313	439.048	439.070
B	89658.445	3.313	439.048	439.077
C	89668.445	3.313	439.048	439.068
CL. BRG. PIER 1	89681.195	3.313	439.048	439.048
D	89691.195	3.313	439.048	439.049
E	89701.195	3.313	439.048	439.053
F	89711.195	3.313	439.048	439.051
CL. BRG. PIER 2	89725.445	3.313	439.048	439.048
G	89735.445	3.313	439.048	439.064
H	89745.445	3.313	439.048	439.077
I	89755.445	3.313	439.048	439.074
CL. BRG. S. ABUT.	89768.612	3.313	439.048	439.048
BK. S. ABUT.	89772.029	3.313	439.048	439.048

BEAM #5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	89641.654	9.938	438.948	430.948
CL. BRG. N. ABUT.	89645.070	9.938	438.946	438.946
A	89655.070	9.938	438.945	438.966
B	89665.070	9.938	438.945	438.974
C	89675.070	9.938	438.945	438.964
CL. BRG. PIER 1	89687.820	9.938	438.945	438.945
D	89697.820	9.938	438.945	438.946
E	89707.820	9.938	438.945	438.949
F	89717.820	9.938	438.945	438.947
CL. BRG. PIER 2	89732.070	9.938	438.945	438.945
G	89742.070	9.938	438.945	438.961
H	89752.070	9.938	438.945	438.974
I	89762.070	9.938	438.945	438.971
CL. BRG. S. ABUT.	89775.237	9.938	438.945	438.945
BK. S. ABUT.	89778.654	9.938	438.945	438.945

BEAM #6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	89648.279	16.563	438.818	438.818
CL. BRG. N. ABUT.	89651.695	16.563	438.818	438.818
A	89661.695	16.563	438.818	438.839
B	89671.695	16.563	438.818	438.847
C	89681.695	16.563	438.818	438.837
CL. BRG. PIER 1	89694.445	16.563	438.818	438.818
D	89704.445	16.563	438.818	438.819
E	89714.445	16.563	438.818	438.822
F	89724.445	16.563	438.818	438.820
CL. BRG. PIER 2	89738.695	16.563	438.818	438.818
G	89748.695	16.563	438.818	438.834
H	89758.695	16.563	438.818	438.847
I	89768.695	16.563	438.818	438.844
CL. BRG. S. ABUT.	89781.862	16.563	438.818	438.818
BK. S. ABUT.	89785.279	16.563	438.818	438.818



PLAN

DESIGNED	Steven K. Doerner
CHECKED	David Bardick
DRAWN	E.V. Taylor / John Priester
CHECKED	SKD D.B.

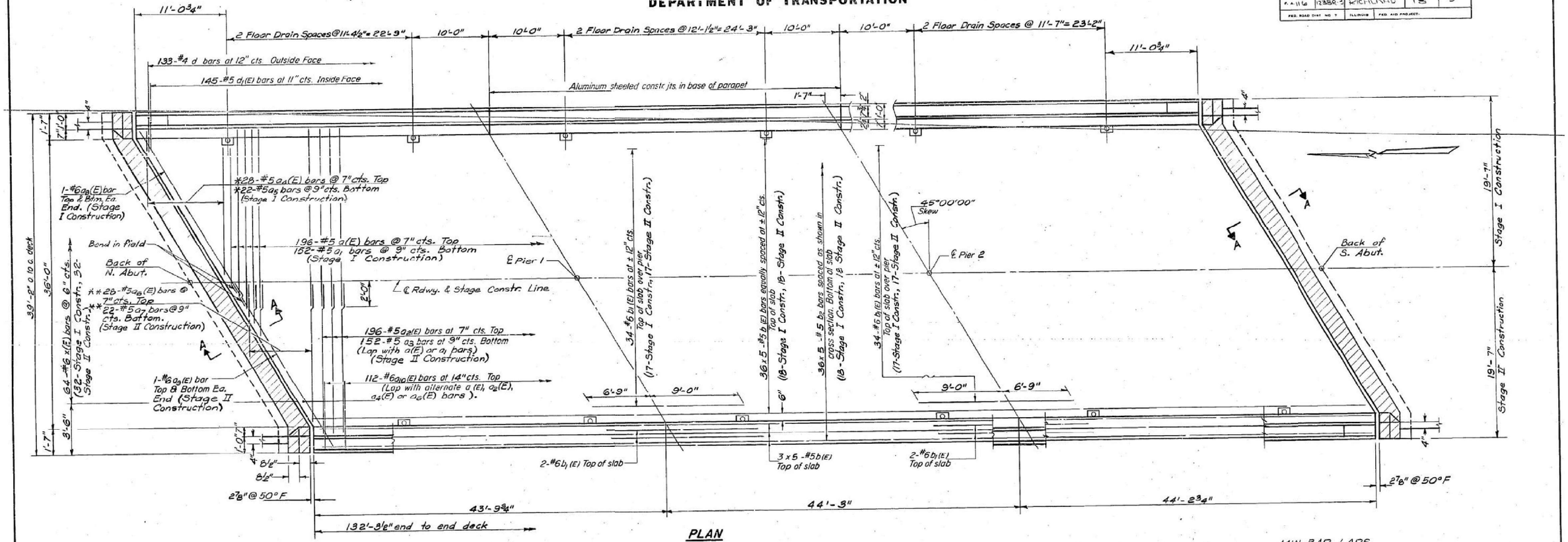
January 25, 1983
EXAMINED [signature] ENGINEER OF BRIDGE DESIGN
PASSED [signature] ENGINEER OF BRIDGES AND STRUCTURES
APPROVED DIRECTOR OF HIGHWAYS

TOP OF SLAB ELEVATIONS
F.A. RTE. 116 SEC. 123 BR-3
RICHLAND COUNTY
STA. 897+00.00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. RTE. 116	123BR-3	RICHLAND	18	5
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 5
18 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



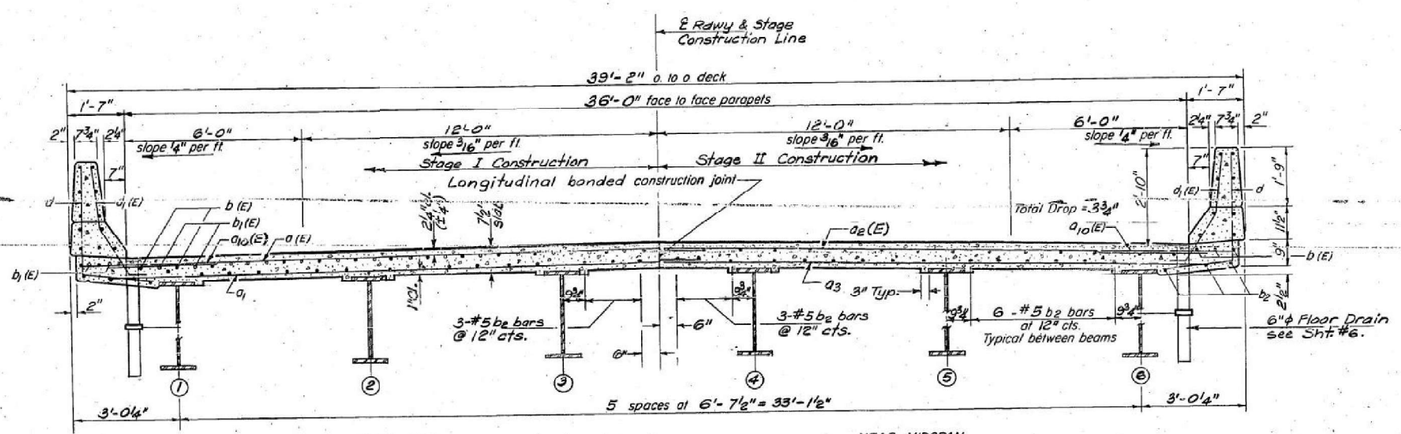
PLAN

* Order a4(E) & a5 bars full length. Cut to fit skew and use remainder of bars in opposite end, Stage I Construction.

** Order a6(E) & a7 bars full length. Cut to fit skew and use remainder of bars in opposite end, Stage II Construction.

MIN. BAR LAPS

#5 bars	1'-9"
#6 bars	2'-0"



NEAR PIER — NEAR MIDSPAN

CROSS SECTION
LOOKING SOUTH

NOTES:
See sheet #6 for superstructure details and Bill of Material.

Reinforcement bars designated (E) shall be epoxy coated. See Special Provisions.

Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

For Section A-A, see Sht. #6.

Hatched area and Curb End to be poured after superstructure formwork has been removed. Quantity of Class X Concrete billed with superstructure.

See Sht. #2 for details of slab treatment at End Diaphragm at Stage Constr. Line.

DESIGNED	Steven K. Dorner
CHECKED	David Burdick
DRAWN	E.V. Taylor
CHECKED	SKD D.B.

January 25, 1983
EXAMINED James J. Kaufman
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES
APPROVED
DIRECTOR OF HIGHWAYS

SUPERSTRUCTURE
F.A. RTE. 116 SEC. 123 BR-3
RICHLAND COUNTY
STA. 897+00.00

USER NAME = gmraz	DESIGNED - GM	REVISED -	
	DRAWN - GM	REVISED -	
PLOT SCALE = 2.000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 3/20/2026	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS - FOR INFORMATION ONLY
STRUCTURE NO. 080-0009

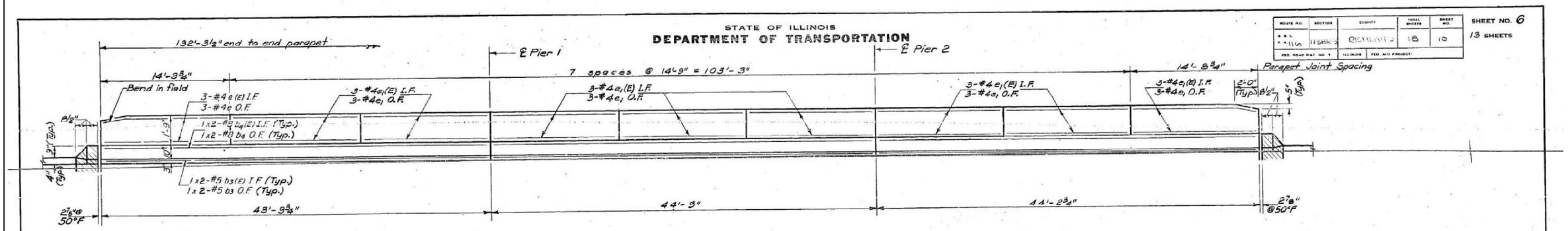
SCALE: | SHEET 13 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	24
		CONTRACT NO. 74B79		
	ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

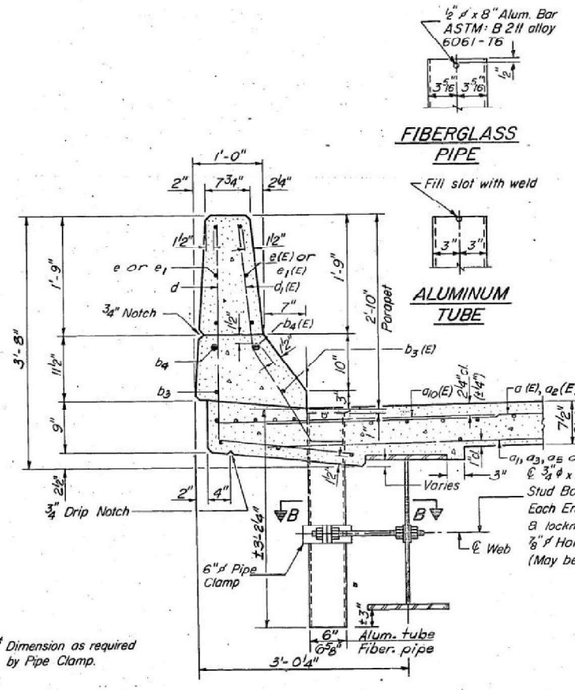
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 116	123BR-3	RICHLAND	18	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 6
13 SHEETS



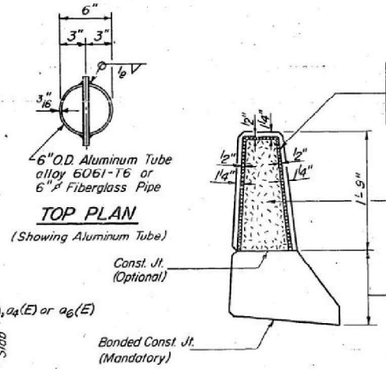
INSIDE ELEVATION OF PARAPET
(Looking East)

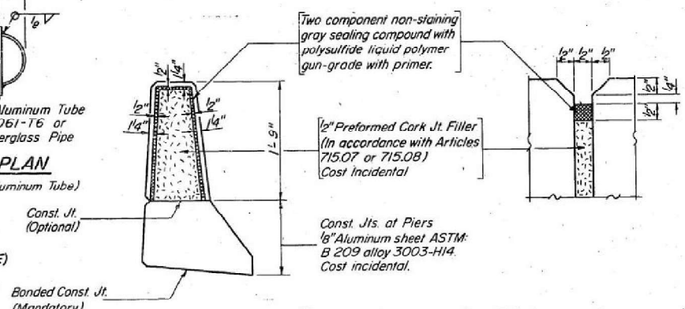
MIN. BAR LAP	
#5 bars	1'-9"
#8 bars	3'-6"



* Dimension as required by Pipe Clamp.

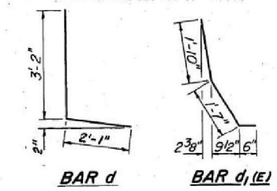
SECTION THRU PARAPET

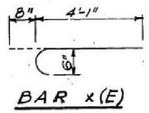


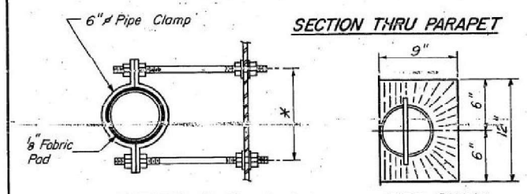


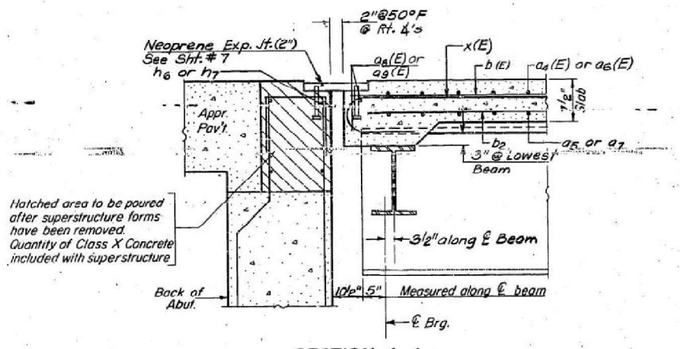
PARAPET JOINT DETAILS

Note:
The exterior surfaces of the Floor Drain shall be painted with the Basic Lead Silico Chromate painting specified for Structural Steel. The exterior surface of the Aluminum tube shall be cleaned and given a wash coat pretreatment in accordance with Steel Structural Painting Council's Spec. SSPC-SP1 & SSPC-PT3 prior to painting.
Fiberglass pipe shall conform to ASTM D2996, Designation Code RTRP-11AE-5112. Pipes with Class C or F liner are acceptable. The surface of the Fiberglass pipe shall be free of bond inhibiting agents.



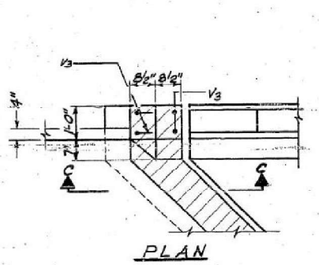






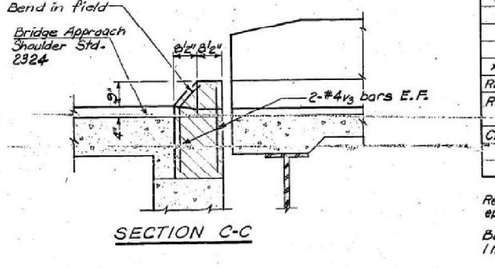
SECTION A-A

Anchor bolts should be tied to a8(E) or a6(E) and h6 or h7 bars.



CURB END DETAIL

Note:
See sht. #10 & #11 for Bars h6, h7 & V3.



SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a (E)	196	#5	20'-6"	——
a1	152	#5	20'-6"	——
a2(E)	196	#5	18'-6"	——
a3	152	#5	18'-6"	——
a4(E)	28	#5	22'-0"	——
a5	22	#5	22'-0"	——
a6(E)	28	#5	20'-0"	——
a7	22	#5	20'-0"	——
a8(E)	4	#6	29'-0"	——
a9(E)	4	#6	27'-0"	——
a10(E)	224	#6	4'-0"	——
b(E)	210	#5	27'-9"	——
b1(E)	70	#6	15'-9"	——
b2	180	#5	27'-9"	——
b3(E)	12	#5	22'-10"	——
b3	12	#5	22'-10"	——
b4(E)	12	#8	23'-10"	——
b4	12	#8	23'-10"	——
d	266	#4	5'-3"	L
d1(E)	290	#5	3'-11"	⌐
e(E)	6	#4	14'-0"	——
e	6	#4	14'-0"	——
e1(E)	48	#4	14'-5"	——
e1	48	#4	14'-5"	——
x(E)	128	#6	4'-9"	C
Reinforcement Bars			Lbs.	14,860
Reinforcement Bars (Epoxy Coated)			Lbs.	22,420
Class X Concrete			Cu. Yds.	164.3

Reinforcement bars designated (E) shall be epoxy coated. See Special Provisions.

Bars indicated thus 1x2-#5 etc. indicates 1 line of bars with 2 lengths per line.

SUPERSTRUCTURE DETAILS
F.A. RTE. 116 SEC. 123 BR-3
RICHLAND COUNTY
STA. 897+00.00

DESIGNED	Steven K. Doerr
CHECKED	David Bardick
DRAWN	E. V. Taylor
CHECKED	S.K.D. D.B.

January 25 1983
EXAMINED James T. Hawkins
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES
APPROVED
DIRECTOR OF HIGHWAYS

USER NAME = gmraz	DESIGNED - GM	REVISED -
	DRAWN - GM	REVISED -
PLOT SCALE = 2.000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 3/20/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS - FOR INFORMATION ONLY
STRUCTURE NO. 080-0009

SCALE: | SHEET 14 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	25
		CONTRACT NO. 74B79		
	ILLINOIS	FED. AID PROJECT		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 116	123BR3	RICHLAND	13	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 7
13 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Joint Size	"C" at 50°F	"D" at 50°F
2	2"	1½" min.
2½	2½"	1¾" min.
4	3"	2½" min.

INSTALLATION NOTES

Use anchor blocks and continuous seal as anchor bolt location templates.

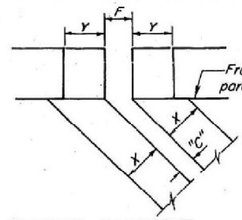
1. Install sponge mandrels into positions shown to form flap convolution.
2. Install parapet or sidewalk piece (trim roadway flap to fit before applying epoxy).
3. Install continuous seal in roadway.
4. Install anchor blocks as indicated.

NOTE A - Maximum spacing of anchor bolts shall be 12" centers

SKEW LIMITATIONS

The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews.

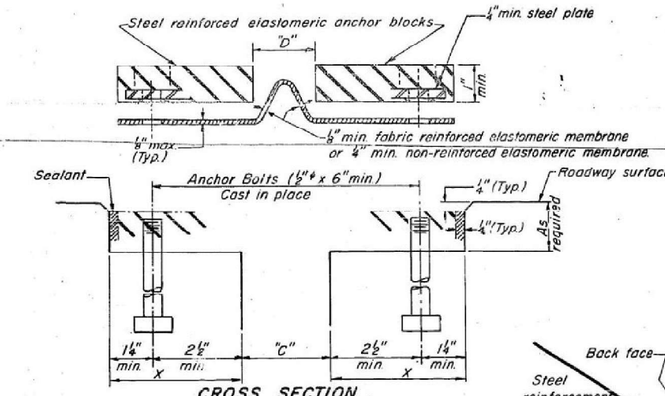
For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed in accordance with dimension "D", might require modifications to insure a minimum clearance of 1½" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" cts.



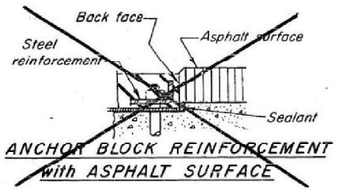
FORMING BLOCKOUT SKETCH

$Y = X - \left(\frac{F-C}{2}\right)$

For dimension "F" see sheet #5.



CROSS SECTION



ANCHOR BLOCK REINFORCEMENT with ASPHALT SURFACE

GENERAL NOTES

Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane. See Special Provisions.

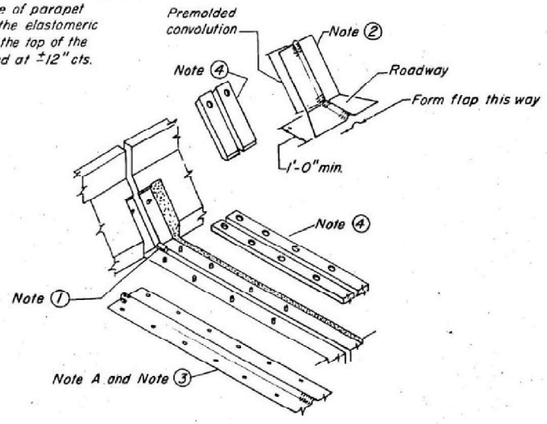
The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.

The steel reinforcement must extend up the back face of anchor blocks when asphalt surfaces are used but is optional in concrete Blockout.

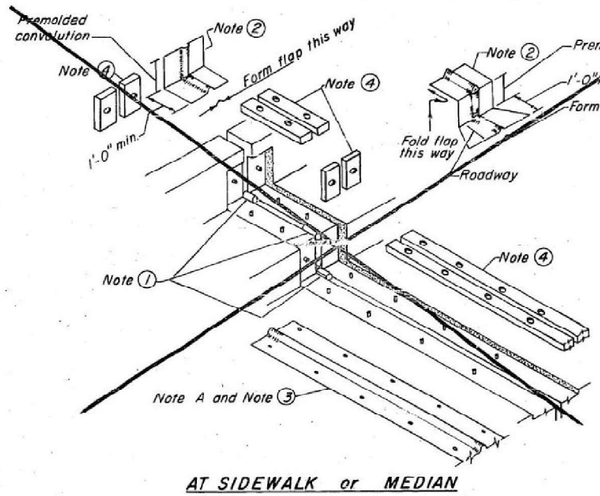
The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.

Joint openings shall be adjusted in accordance with Article 503.07(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

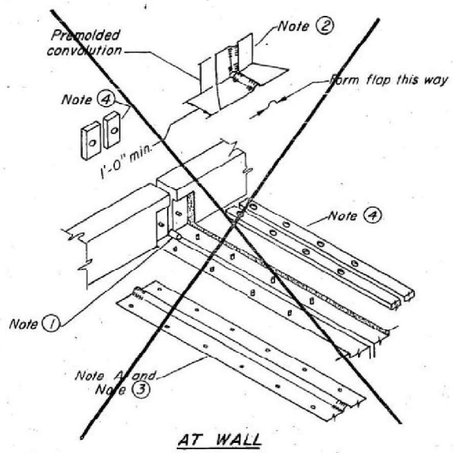
The parapet and sidewalk flaps may be furnished factory vulcanized to the roadway membrane provided the centerline of the convolution is maintained and the process and method meet the approval of the Engineer.



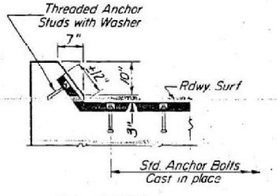
AT PARAPET



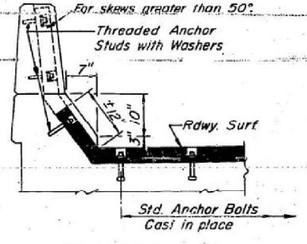
AT SIDEWALK or MEDIAN



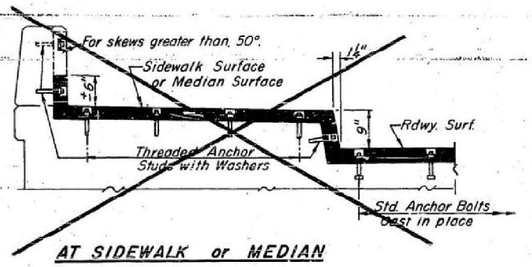
AT WALL



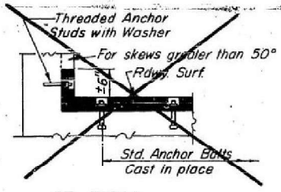
AT CURB



AT PARAPET



AT SIDEWALK or MEDIAN



AT WALL

TYPICAL END TREATMENTS

DESIGNED	Steven K. Doerner
CHECKED	David Burdick
DRAWN	E. V. Taylor
CHECKED	SKD D.B.

January 25, 1983

EXAMINED James T. Kaufman
DIVISION OF BRIDGE DESIGN

PASSED
ENGINEER OF BRIDGES AND STRUCTURES

APPROVED
DIRECTOR OF HIGHWAYS

CONTINUOUS SEAL TYPE NEOPRENE EXPANSION JOINTS
For 2", 2½" and 4" Movement

F.A. RTE. 116 SEC. 123 BR-3
RICHLAND COUNTY
STA. 897+00.00

EJ-CS 2-1-83

USER NAME = gmraz	DESIGNED - GM	REVISED -	
	DRAWN - GM	REVISED -	
PLOT SCALE = 2.000 ' / In.	CHECKED -	REVISED -	
PLOT DATE = 3/20/2026	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS - FOR INFORMATION ONLY
STRUCTURE NO. 080-0009

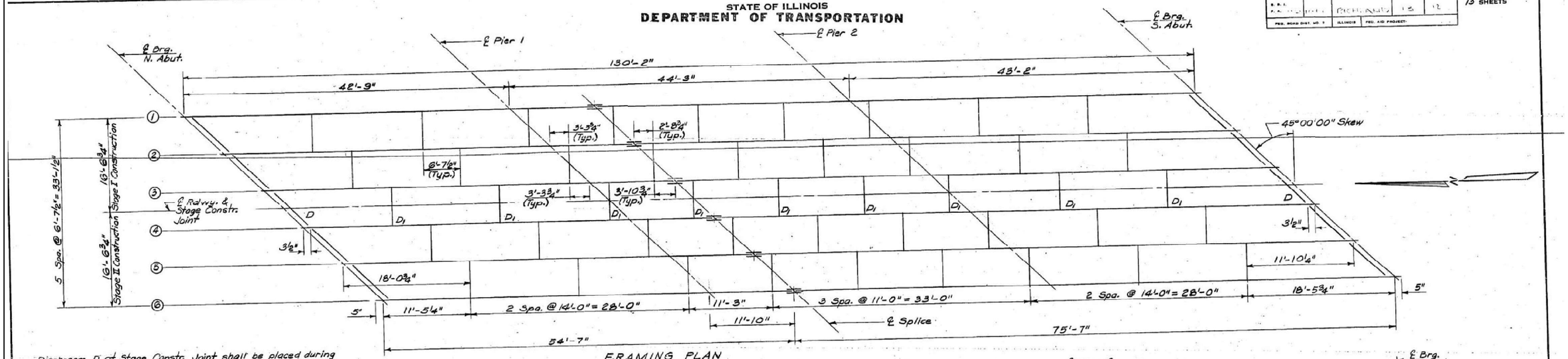
SCALE: | SHEET 15 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	26
		CONTRACT NO. 74B79		
	ILLINOIS	FED. AID PROJECT		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P.		RICHLAND	13	12
PROJ. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

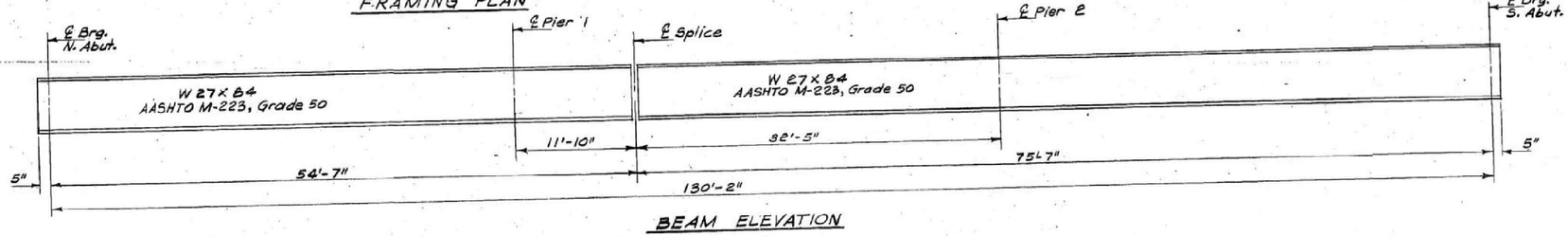
SHEET NO. 8
13 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

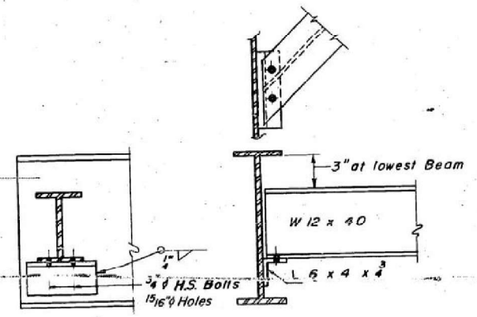


FRAMING PLAN

Diaphragm D at Stage Constr. Joint shall be placed during Stage II Constr. (See Sht. #2)

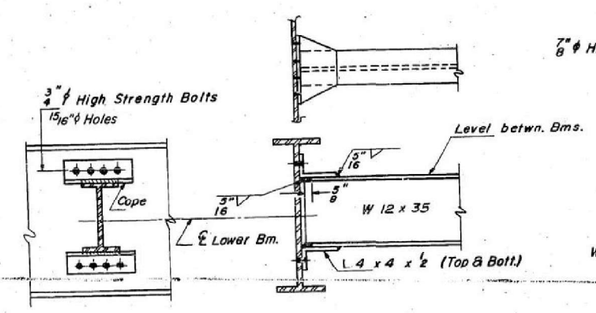


BEAM ELEVATION



DIAPHRAGM D

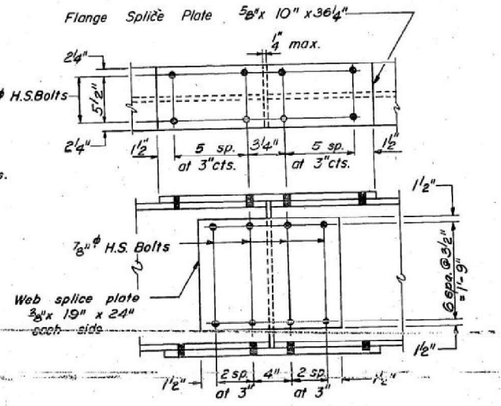
10 Required



DIAPHRAGM D₁

45 Required

Note: Two hardened washers shall be required over all 15/16" ϕ holes. All contact surfaces of joints shall be free of paint or lacquer.



SPLICE

A.A.S.H.T.O. M-223, Grade 50

All structural steel shall be AASHTO M-183 except as noted.

*INTERIOR BEAM MOMENT TABLE

	0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	0.6 Span 3
Is (in⁴)	2850	2850	2850	2850	2850
Ss (in³)	213	213	213	213	213
℄ (K/1)	1.045	1.045	1.045	1.045	1.045
MD+MSD (1K)	196	256	75	260	200
ML (1K)	513	368	429	371	513
MIMP (1K)	154	111	129	111	156
MTOTAL (1K)	863	735	633	742	875
fs (KSI)	48.6	41.4	35.7	41.8	49.3

**INTERIOR BEAM REACTION TABLE

	N. Abut.	Pier 1	Pier 2	S. Abut.
RD (k)	17.7	50.0	50.4	17.9
RL (k)	32.0	40.2	40.3	32.0
Imp. (k)	9.6	12.1	12.1	9.6
RTOTAL (1K)	59.3	102.8	102.8	59.5

* The Load Factor (1.3)[D+5/3(L+Imp)], is used in computing moments and stresses.

**-Values given in Table are based upon service loads.

TOP OF FLANGE ELEVATIONS (FOR FABRICATION ONLY)

	℄ Brg. N. Abut.	℄ Pier 1	℄ Splice	℄ Pier 2	℄ Brg. S. Abut.
Beam 1	438.10	438.10	438.10	438.10	438.10
Beam 2	438.23	438.23	438.23	438.23	438.23
Beam 3	438.33	438.33	438.33	438.33	438.33
Beam 4	438.33	438.33	438.33	438.33	438.33
Beam 5	438.23	438.23	438.23	438.23	438.23
Beam 6	438.10	438.10	438.10	438.10	438.10

DESIGNED	Steven K. Doerner
CHECKED	David Burdick
DRAWN	E. V. Taylor
CHECKED	SKD D.B.

January 25, 1983

EXAMINED James J. Kaufman
ENGINEER OF BRIDGES AND STRUCTURES

PASSED

APPROVED
DIRECTOR OF HIGHWAYS

STRUCTURAL STEEL
F.A. RTE. 116 SEC. 123 BR-3
RICHLAND COUNTY
STA. 897+00.00

USER NAME = gmraz	DESIGNED - GM	REVISED -	
	DRAWN - GM	REVISED -	
PLOT SCALE = 2.000 ' / In.	CHECKED -	REVISED -	
PLOT DATE = 3/20/2026	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS - FOR INFORMATION ONLY
STRUCTURE NO. 080-0009

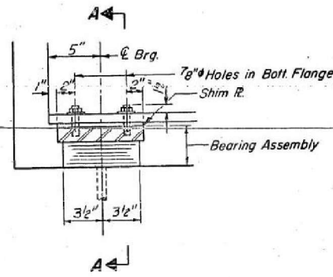
SCALE: | SHEET 16 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	27
		CONTRACT NO. 74B79		
	ILLINOIS	FED. AID PROJECT		

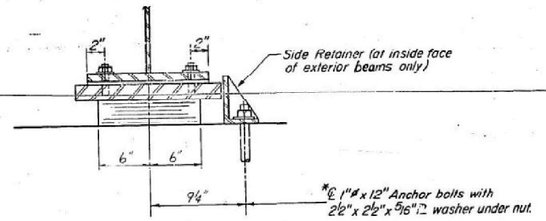
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. RTE. 116	123BR-3	RICHLAND	13	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 9
13 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

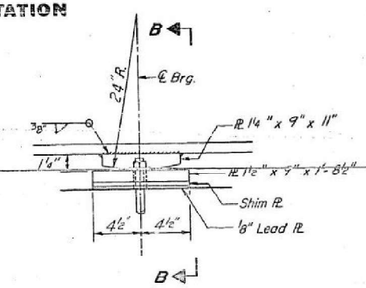


SECTION AT ABUTS.

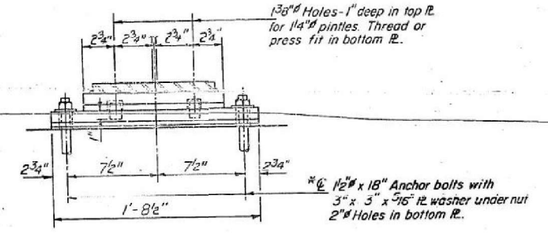


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



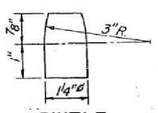
ELEVATION AT PIERS



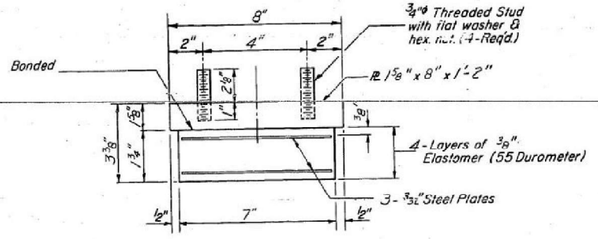
SECTION B-B

FIXED BEARING

*Note: After beams have been erected holes at expansion bearings shall be drilled and anchor bolts grouted in place. Anchor bolts at fixed bearings may be built into the masonry.

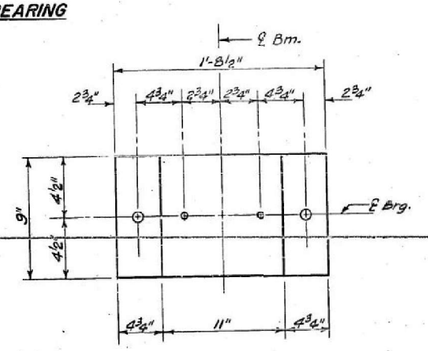


PINTLE

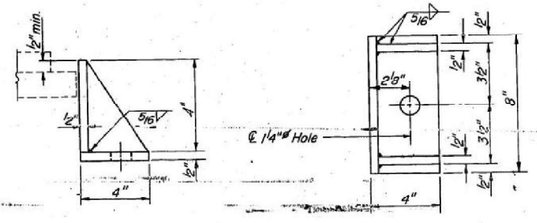


BEARING ASSEMBLY

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



PLAN



SIDE RETAINER

DESIGNED	Steven K. Doerr
CHECKED	David Burdick
DRAWN	E. V. Taylor John Priester
CHECKED	SKD D.B.

January 25, 1983
EXAMINED James F. Kaufmann
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES
APPROVED
DIRECTOR OF HIGHWAYS

BEARING DETAILS
FA RTE 116 SEC. 123 BR-3
RICHLAND COUNTY
STA. 897+00.00

I-2-E1 8-30-80

USER NAME = gmraz	DESIGNED - GM	REVISED -
	DRAWN - GM	REVISED -
PLOT SCALE = 2.000 ' / In.	CHECKED -	REVISED -
PLOT DATE = 3/20/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS - FOR INFORMATION ONLY
STRUCTURE NO. 080-0009

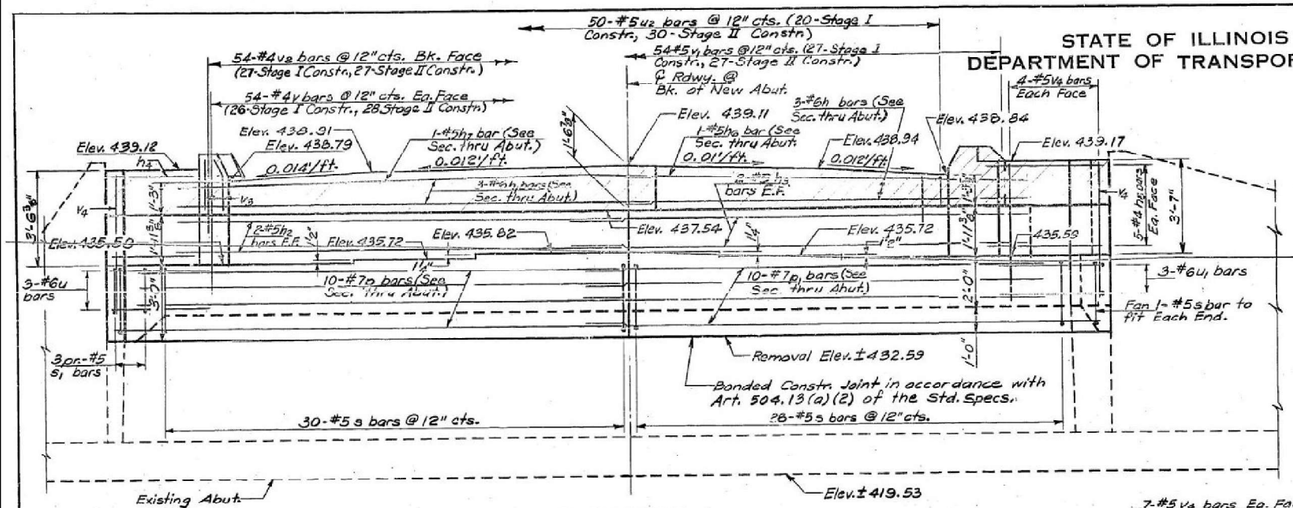
SCALE: | SHEET 17 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	28
		CONTRACT NO. 74B79		
	ILLINOIS	FED. AID PROJECT		

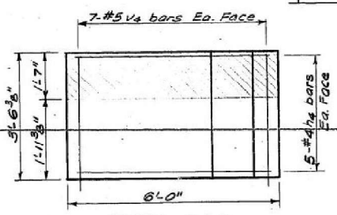
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R.B.I. 116	23BR-3	RICHLAND	13	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 10
13 SHEETS

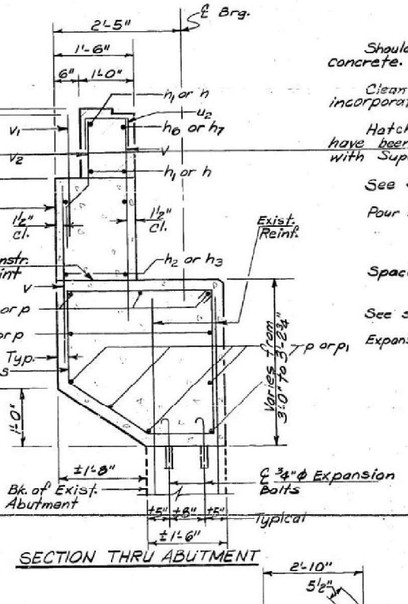
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION
(Looking North)



VIEW A-A



SECTION THRU ABUTMENT

Notes:

Shoulder transition to wingwall shall be shaped with broken concrete. Cost incidental.

Clean existing reinforcement, cut to fit when necessary, and incorporate into new concrete.

Hatched area to be poured after superstructure forms have been removed. Quantity of ~~Class X Concrete~~ included with Superstructure.

See Sht. #12 for Concrete Removal Details.

Pour steps monolithically with cap.

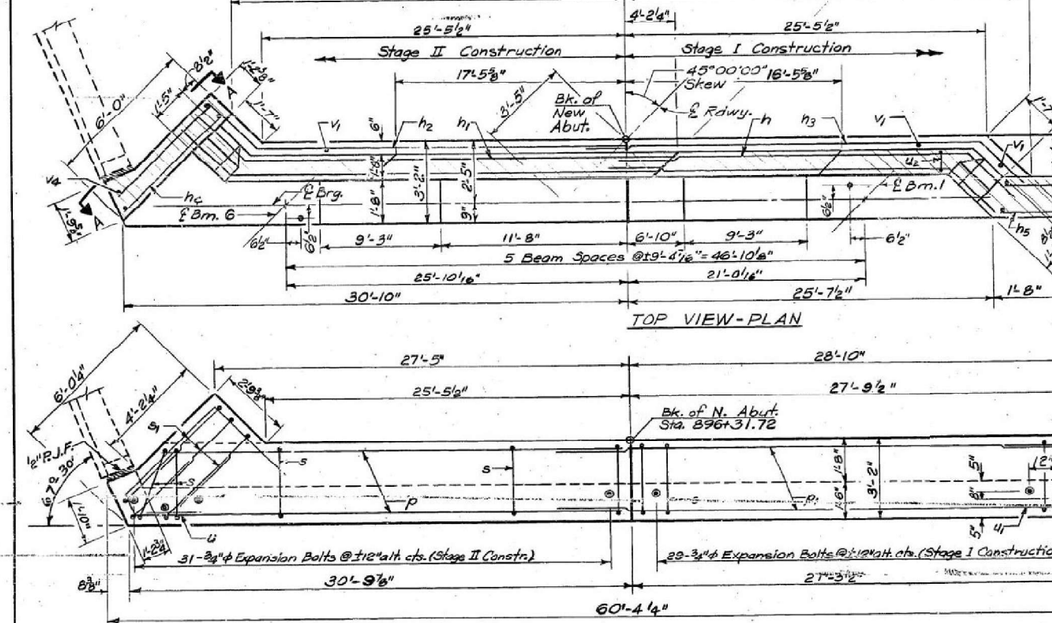
Space reinforcement in cap to miss Anchor Bolts.

See sht. #6 for Curb End Details.

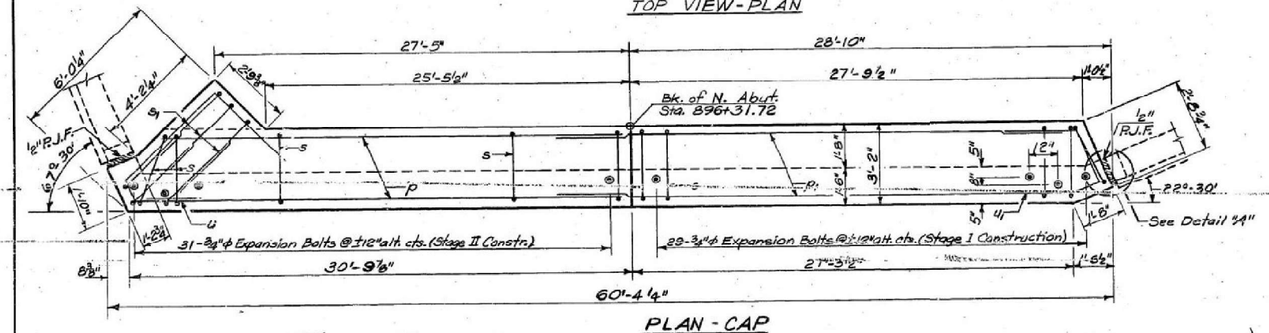
Expansion bolts shall be anchored into sound concrete.

MIN. BAR LAPS

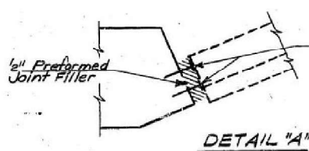
#5 bar	1'-9"
#6 bar	2'-0"
#7 bar	2'-6"



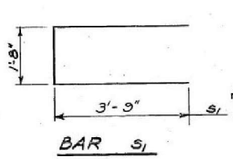
TOP VIEW-PLAN



PLAN - CAP

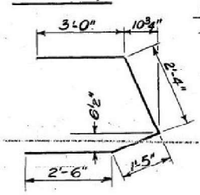


DETAIL "A"

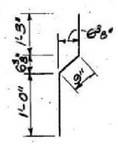


BARS h2 & h3

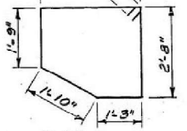
BAR s1



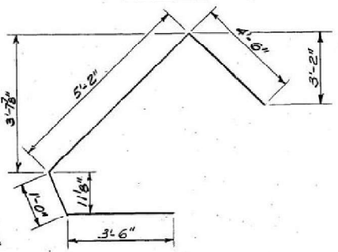
BAR u1



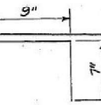
BAR v2



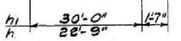
BAR s



BAR u



BAR u2



BARS h1 & h

NORTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	3	#6	25'-0"	
h1	3	#6	32'-3"	
h2	4	#5	27'-9"	
h3	4	#5	29'-6"	
h4	10	#4	5'-2"	
h5	10	#4	3'-0"	
h6	1	#5	22'-6"	
h7	1	#5	30'-0"	
p	10	#7	29'-1"	
p1	10	#7	30'-6"	
s	60	#5	11'-3"	
s1	6	#5	8'-2"	
u	3	#6	14'-2"	
u1	3	#6	9'-3"	
u2	50	#5	1'-11"	
v	108	#4	3'-8"	
v1	54	#5	2'-10"	
v2	54	#4	3'-0"	
v3	8	#4	2'-2"	
v4	22	#5	5'-3"	
Class X Concrete			Cu Yds.	26.5
Expansion Bolts (¾"ø)			Each	60
Reinforcement Bars			Lbs.	3460
Concrete Removal			Cu.Yds.	11.5

NORTH ABUTMENT
F.A. RTE. 116 SEC. 123BR-3
RICHLAND COUNTY
STA. 897+00.00

DESIGNED	Steven K. Doerner	
CHECKED	David Burdick	
DRAWN	E. V. Taylor	
CHECKED	S.K.D.	D.B.

January 25, 1983

EXAMINED
PASSED — ENGINEER OF BRIDGES AND STRUCTURES
APPROVED — DIRECTOR OF HIGHWAYS

USER NAME = gmraz	DESIGNED - GM	REVISED -	
	DRAWN - GM	REVISED -	
PLOT SCALE = 2.000 ' / In.	CHECKED -	REVISED -	
PLOT DATE = 3/20/2026	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS - FOR INFORMATION ONLY
STRUCTURE NO. 080-0009

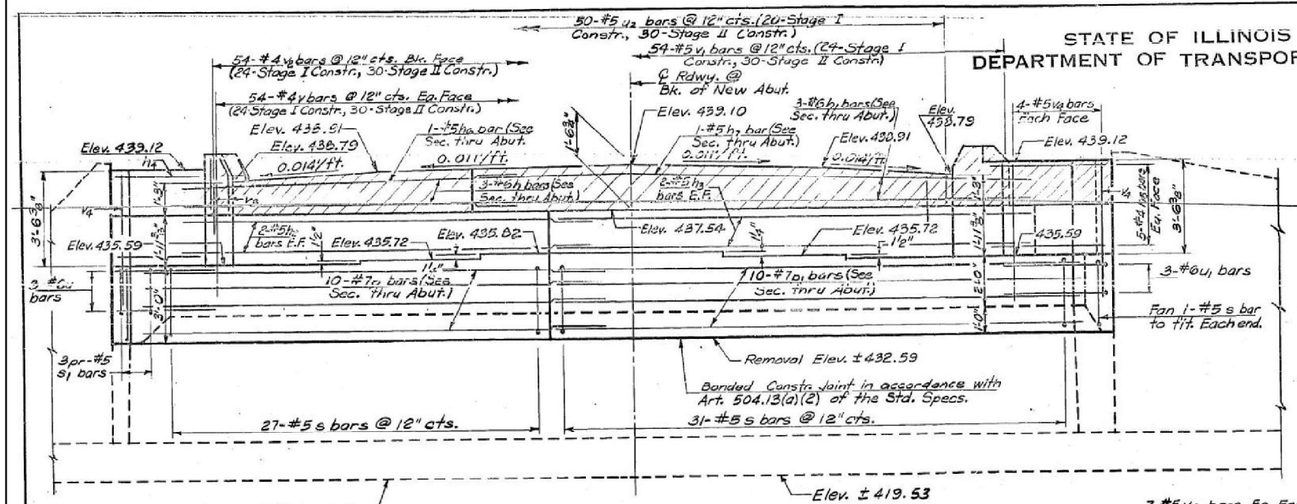
SCALE: | SHEET 18 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	29
		CONTRACT NO. 74B79		
		ILLINOIS	FED. AID PROJECT	

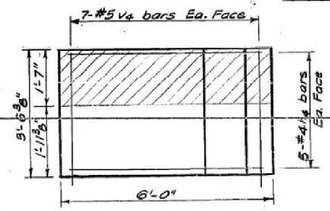
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 116	123BR	RICHLAND	18	15
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 11
13 SHEETS

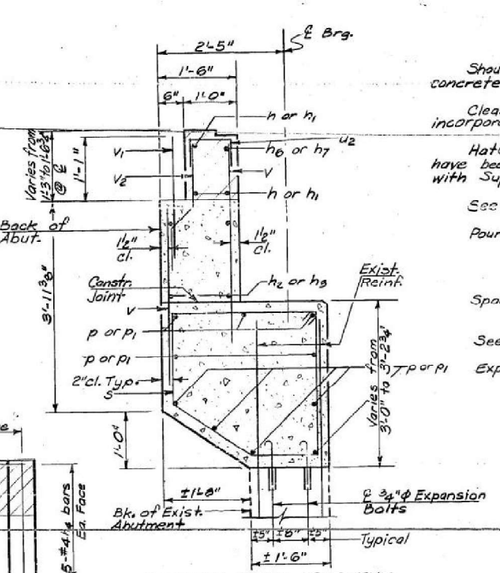
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION
(Looking South)



VIEW A-A



SECTION THRU ABUTMENT

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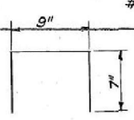
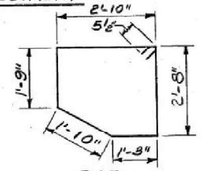
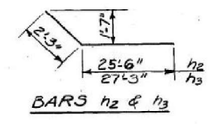
#6 bar	2'-0"
#7 bar	2'-6"



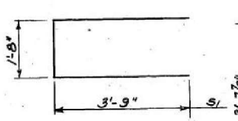
BAR u2



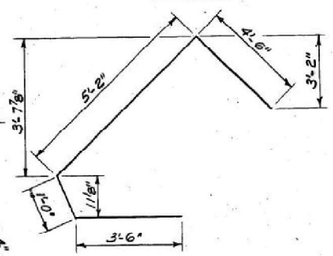
BAR s



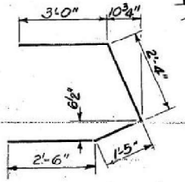
BARS h2 & h3



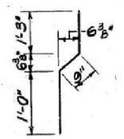
BAR s1



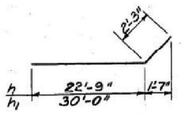
BAR u



BAR u1



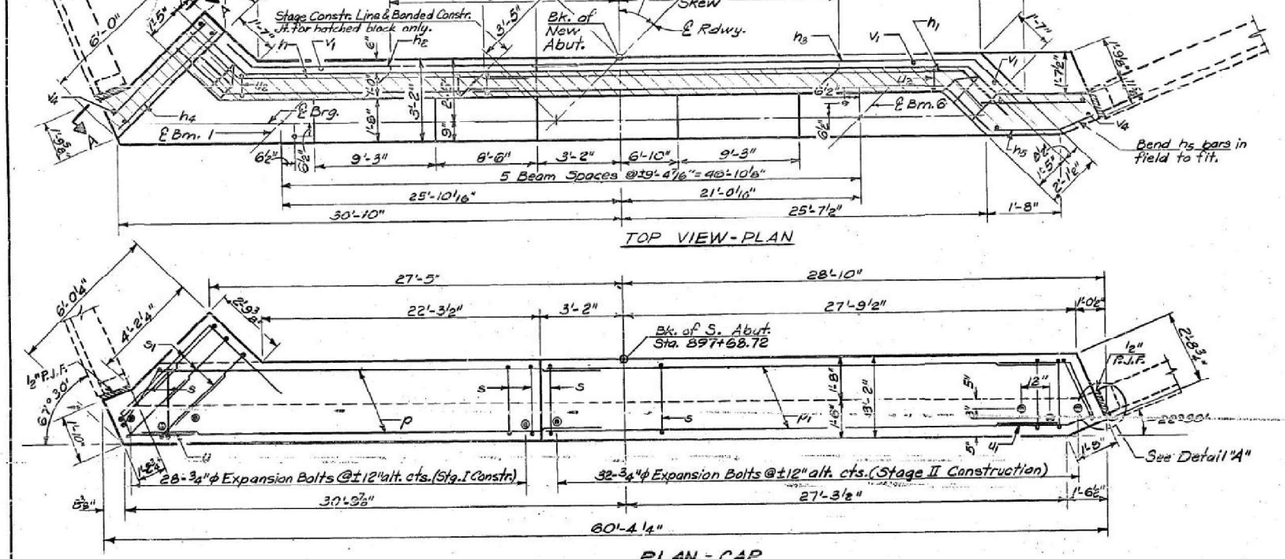
BAR v2



BARS h & h1

SOUTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	3	#6	25'-0"	
h1	3	#6	32'-3"	
h2	4	#5	27'-3"	
h3	4	#5	29'-6"	
h4	10	#4	5'-2"	
h5	10	#4	3'-0"	
h6	1	#5	22'-6"	
h7	1	#5	30'-0"	
p	10	#7	29'-1"	
p1	10	#7	30'-6"	
s	60	#5	11'-3"	
s1	6	#5	9'-2"	
u	3	#6	14'-2"	
u1	3	#6	9'-3"	
u2	50	#5	1'-11"	
v	108	#4	3'-8"	
v1	54	#5	2'-10"	
v2	54	#4	3'-0"	
v3	8	#4	2'-2"	
v4	22	#5	5'-3"	
Class X Concrete			Cu Yds.	26.5
Expansion Bolts (¾"ϕ)			Each	60
Reinforcement Bars			Lbs.	3460
Concrete Removal			Cu. Yds.	11.5

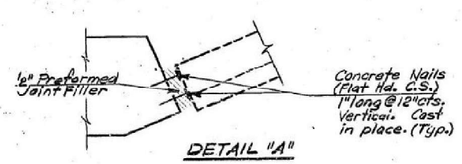


TOP VIEW - PLAN

PLAN - CAP

DESIGNED Steven K. Doerner
CHECKED David Burdick
DRAWN E.V. Taylor
CHECKED SKD D.B.

January 25, 1983
EXAMINED
PASSED
APPROVED
DIRECTOR OF HIGHWAYS



DETAIL "A"

SOUTH ABUTMENT
F.A. RTE. 116 SEC. 123 BR-3
RICHLAND COUNTY
STA. 897+00.00

USER NAME = gmraz	DESIGNED - GM	REVISED -	
	DRAWN - GM	REVISED -	
PLOT SCALE = 2.000 ' / In.	CHECKED -	REVISED -	
PLOT DATE = 3/20/2026	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

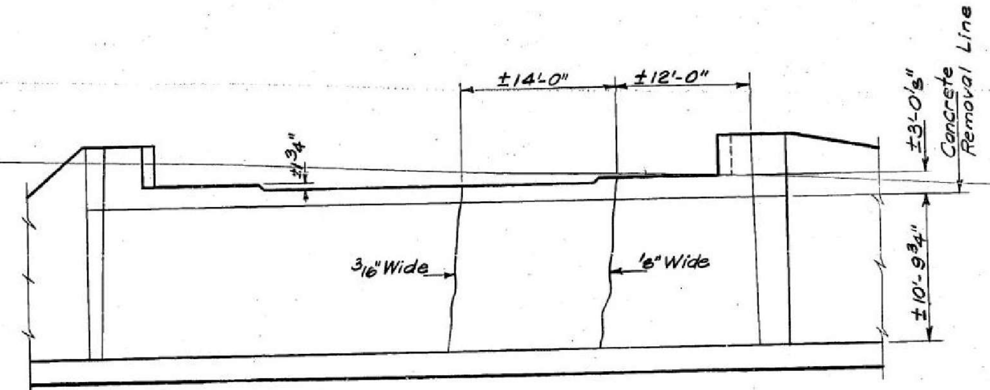
EXISTING BRIDGE PLANS - FOR INFORMATION ONLY
STRUCTURE NO. 080-0009

SCALE: | SHEET 19 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	30
		CONTRACT NO. 74B79		
	ILLINOIS FED. AID PROJECT			

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 116	123BR-3	RICHLAND	18	16

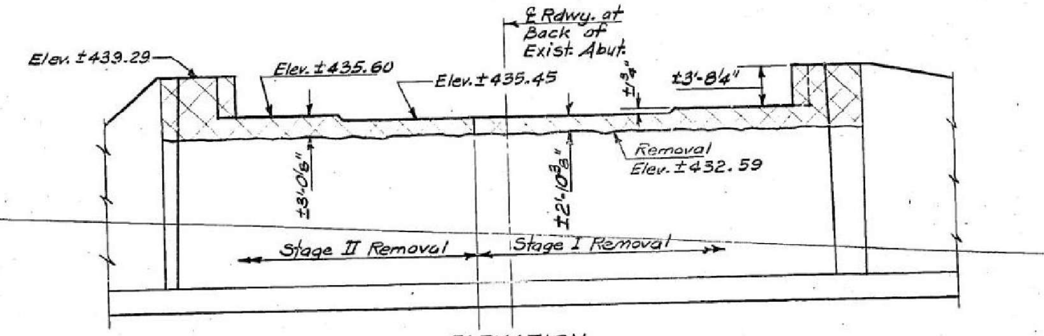
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



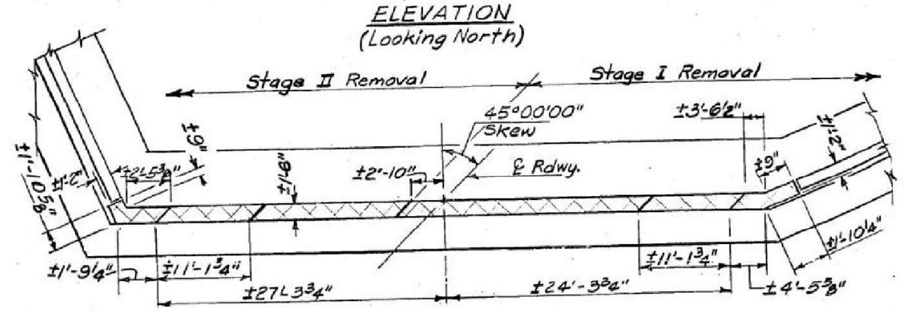
NORTH ABUTMENT
(Looking North)
Epoxy Crack Sealing= 22 Lin. Ft.

Cracks shown vary in width from hairline to 3/16". Repairs shall follow renovation of the existing caps and prior to placement of the new superstructure.

Repairs of these cracks and any other similar cracks, as indicated by the Engineer, shall be billed as "Epoxy Crack Sealing".

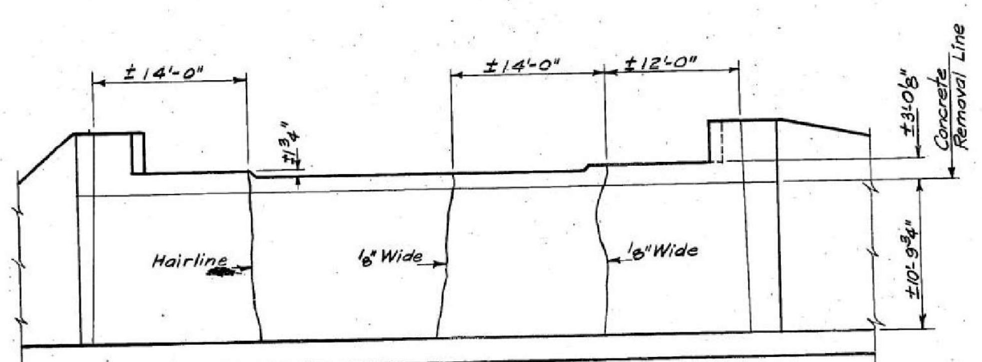


ELEVATION
(Looking North)



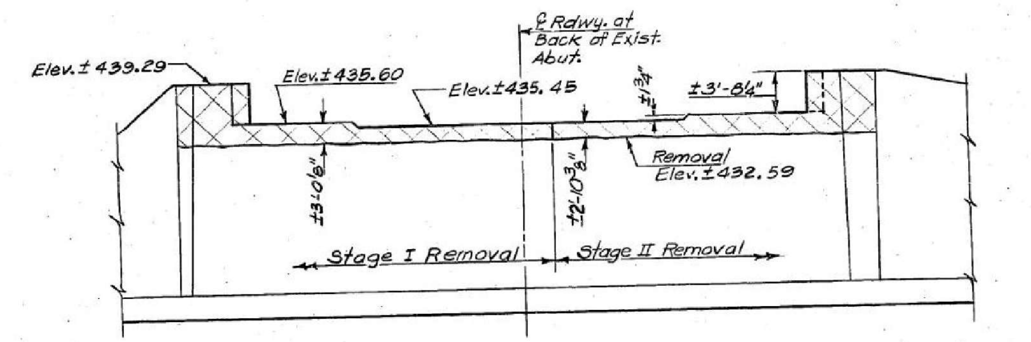
PLAN

N. ABUTMENT CONCRETE REMOVAL

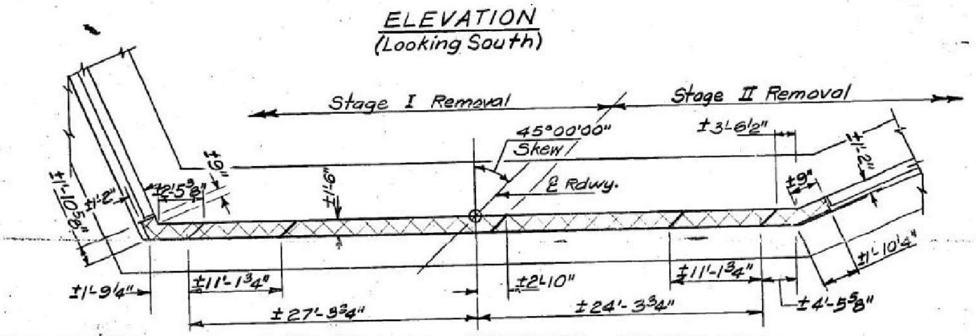


SOUTH ABUTMENT
(Looking South)
Epoxy Crack Sealing= 32 Lin. Ft.

ABUTMENT CRACK LOCATIONS



ELEVATION
(Looking South)



PLAN

S. ABUTMENT CONCRETE REMOVAL

Notes: Cross hatched area indicates concrete removal.

Reinforcement extending into removal area shall be cleaned and incorporated into the new construction.

CONCRETE REMOVAL & REPAIR DETAILS
F.A. RTE. 116 SEC. 123 BR-3
RICHLAND COUNTY
STA. 897+00.00

DESIGNED Steven K. Dorner
CHECKED David Burdick
DRAWN E. V. Taylor
CHECKED SKD D.B.

January 25, 1983
EXAMINED James J. Kordon — ENGINEER OF BRIDGE DESIGN
PASSED — ENGINEER OF BRIDGES AND STRUCTURES
APPROVED — DIRECTOR OF HIGHWAYS

USER NAME = gmraz	DESIGNED - GM	REVISED -
	DRAWN - GM	REVISED -
PLOT SCALE = 2.000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 3/20/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS - FOR INFORMATION ONLY
STRUCTURE NO. 080-0009

SCALE: SHEET 20 OF 21 SHEETS STA. TO STA.

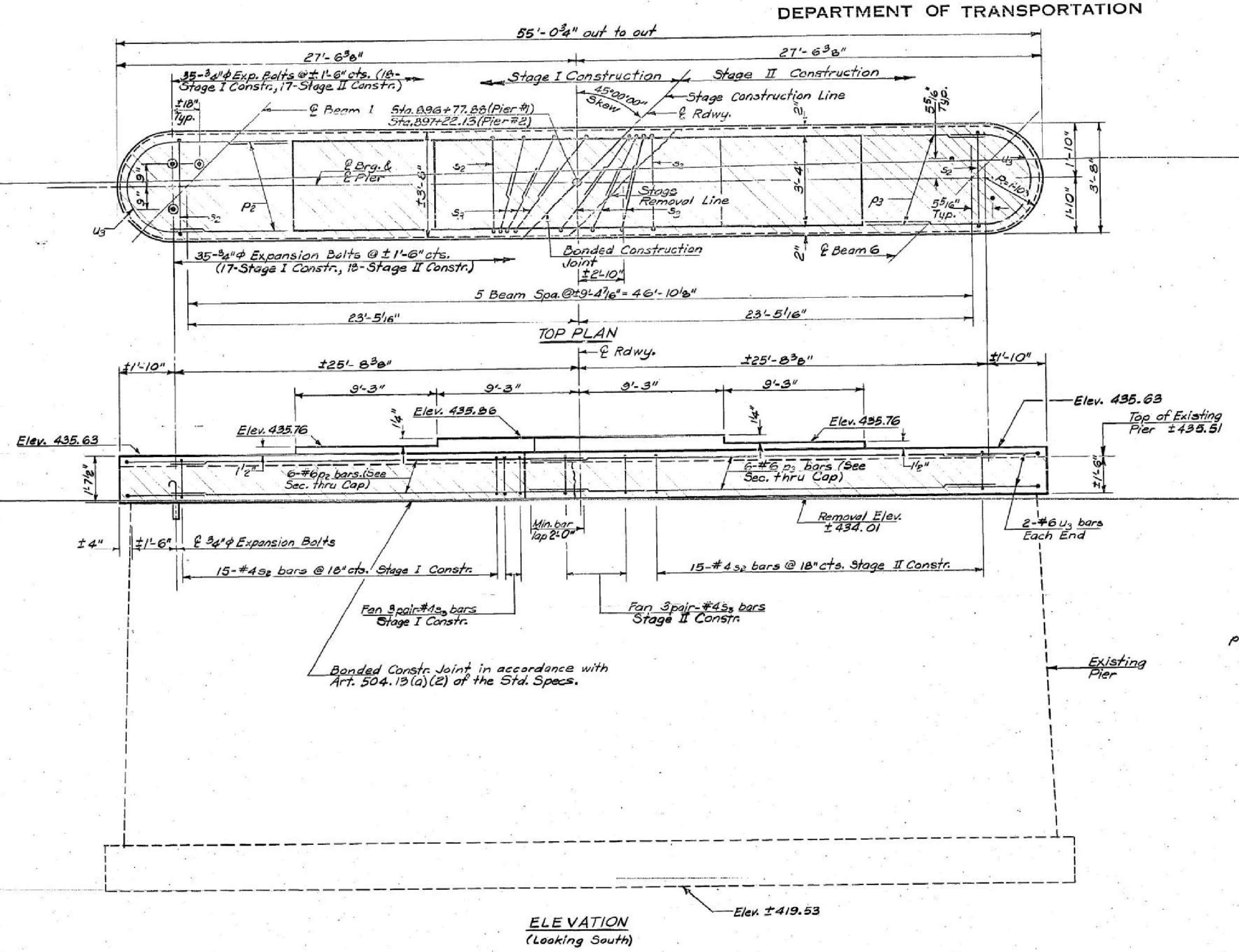
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	31

CONTRACT NO. 74B79
ILLINOIS FED. AID PROJECT

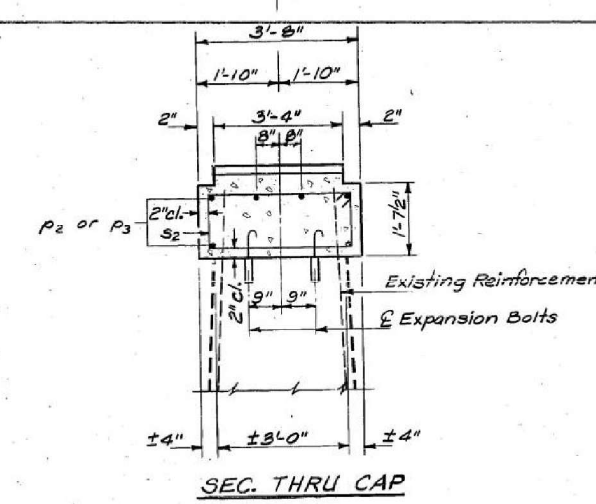
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 116	123BR-3	RICHLAND	18	17

SHEET NO. 13
13 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION
(Looking South)



SEC. THRU CAP

Notes:

Hatched area indicates "Concrete Removal". Reinforcement extending into removal area shall be cleaned and incorporated into the new construction.

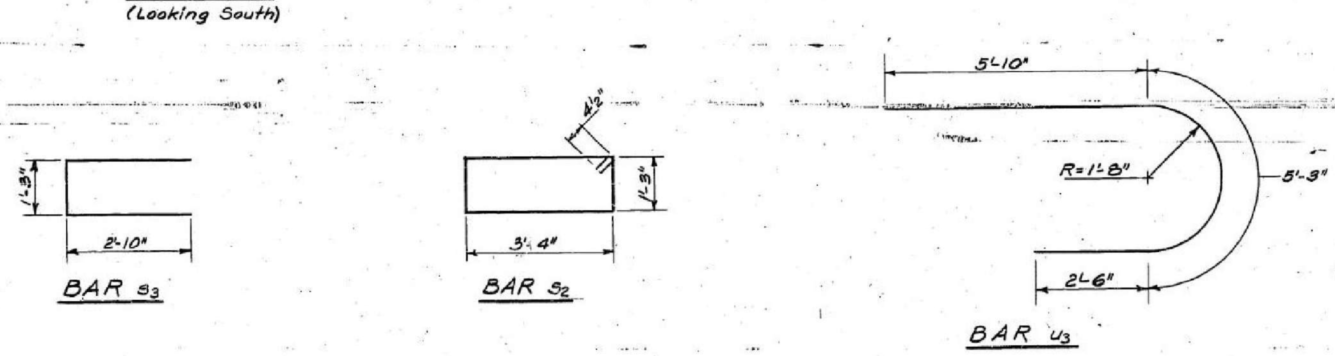
Pour steps monolithically with cap.

~~Space reinforcement in cap to miss anchor bolts.~~

Expansion Bolts shall be anchored into sound concrete.

TWO PIERS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p2	12	#6	25'-9"	
p3	12	#6	23'-9"	
s2	60	#4	9'-11"	
s3	24	#4	6'-11"	
u3	8	#6	13'-7"	
Class X Concrete			Cu. Yds.	25.6
Reinforcement Bars			Lbs.	1560
Expansion Bolts (¾"ϕ)			Each	140
Concrete Removal			Cu. Yds.	20.6



DESIGNED Steven K. Doerner
CHECKED David Burdick
DRAWN E. V. Taylor
CHECKED SKD D.B.

January 25, 1983
EXAMINED James [illegible] ENGINEER OF BRIDGE DESIGN
PASSED [illegible] ENGINEER OF BRIDGES AND STRUCTURES
APPROVED DIRECTOR OF HIGHWAYS

PIERS
F.A. RTE. 116 SEC. 123BR-3
RICHLAND COUNTY
STA. 897+00.00

USER NAME = gmraz	DESIGNED - GM	REVISED -
	DRAWN - GM	REVISED -
PLOT SCALE = 2.000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 3/20/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

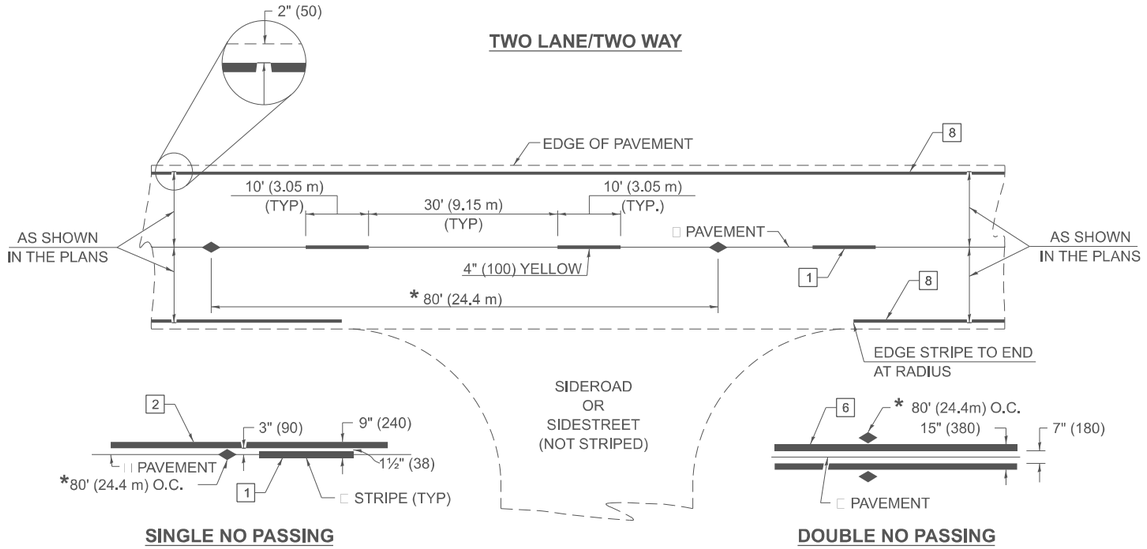
EXISTING BRIDGE PLANS - FOR INFORMATION ONLY
STRUCTURE NO. 080-0009

SCALE: SHEET 21 OF 21 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	32

CONTRACT NO. 74B79
ILLINOIS FED. AID PROJECT

TWO LANE/TWO WAY



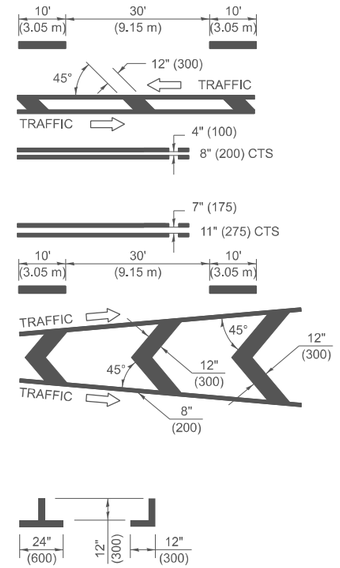
SINGLE NO PASSING

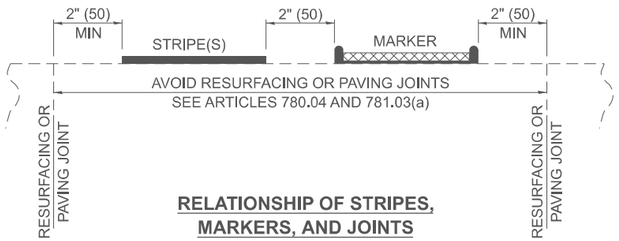
DOUBLE NO PASSING

* REDUCE TO 40' (12.2 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS OF 45 MPH (70 km/h) OR LESS.

PAVEMENT MARKERS LEGEND

1	4" (100) SKIP-DASH (YELLOW)
2	4" (100) SOLID (YELLOW)
3	12" (300) DIAGONAL (YELLOW)
4	4" (100) DOUBLE YELLOW (NARROW)
5	12" (300) SOLID (WHITE)
6	4" (100) DOUBLE YELLOW (WIDE)
7	6" (150) SKIP-DASH (WHITE)
8	4" (100) SOLID (WHITE)
9	12" (300) DIAGONAL (WHITE)
10	6" (150) SOLID (WHITE)
11	24" (600) STOP BAR (WHITE)
12	8" (200) SOLID (WHITE)
13	4" (100) PARKING (WHITE)



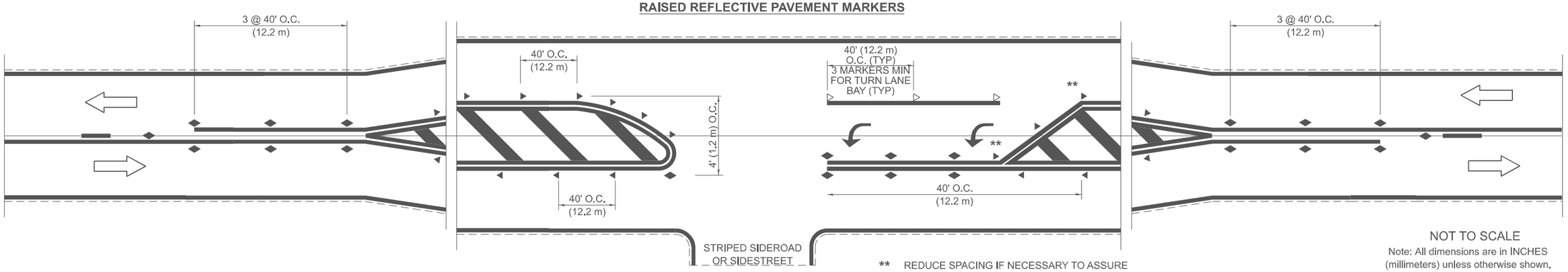


RELATIONSHIP OF STRIPES, MARKERS, AND JOINTS

TYPICAL PAVEMENT MARKERS LEGEND

- TWO-WAY AMBER MARKER
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER

RAISED REFLECTIVE PAVEMENT MARKERS



** REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.

NOT TO SCALE

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 78000001

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	33
		CONTRACT NO. 74B79		
		ILLINOIS	FED. AID PROJECT	

CIVIL DESIGN,INC.
EFFINGHAM, IL
LICENSE #184.003222

USER NAME = lsmith	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 3/19/2026	DATE -	REVISED -

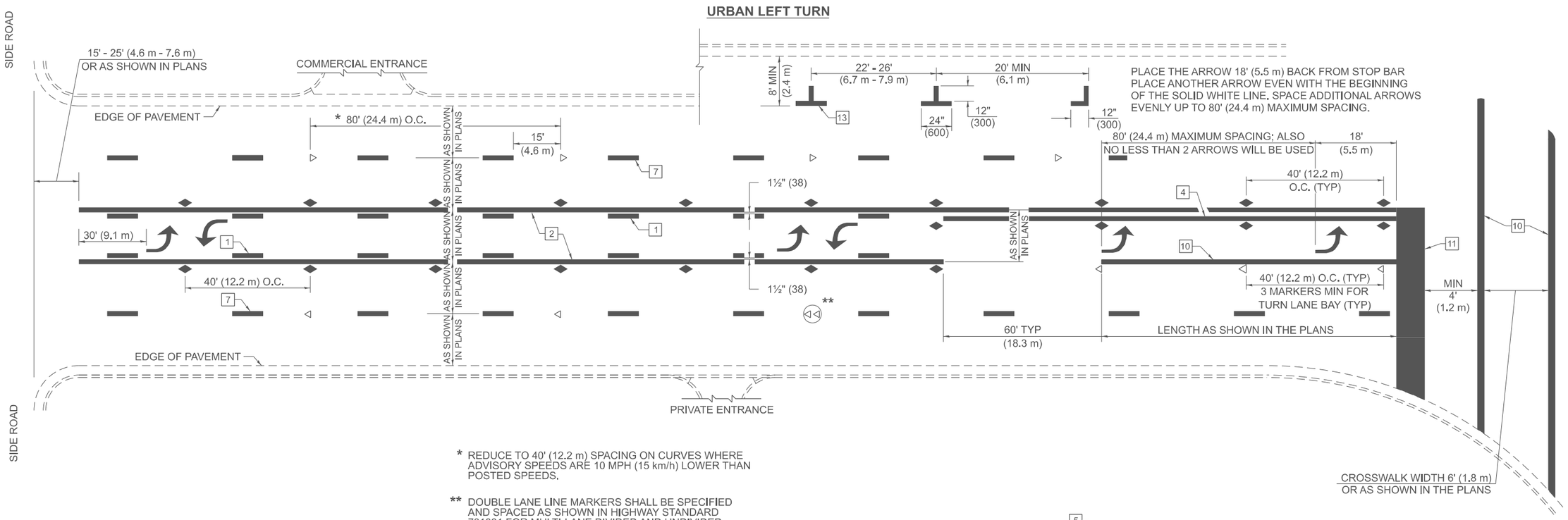
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)

SCALE: | SHEET 1 OF 4 SHEETS | STA. | TO STA.

MODEL: Untitled-1 [Sheet]
FILE NAME: P:\5XX\54XX\54XX55XX\5571 - PTB 203-039_D7 VV Hermann\WO 4\CADData\CADSheets\78000001.dgn

URBAN LEFT TURN

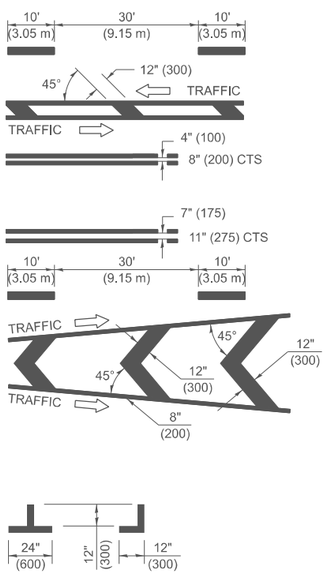


* REDUCE TO 40' (12.2 m) SPACING ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER THAN POSTED SPEEDS.

** DOUBLE LANE LINE MARKERS SHALL BE SPECIFIED AND SPACED AS SHOWN IN HIGHWAY STANDARD 781001 FOR MULTI-LANE DIVIDED AND UNDIVIDED HIGHWAYS.

PAVEMENT MARKING LEGEND

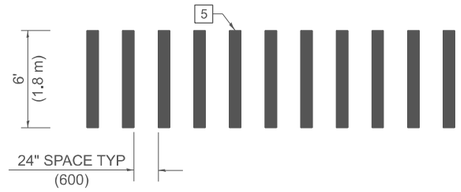
1. 4" (100) SKIP-DASH (YELLOW)
2. 4" (100) SOLID (YELLOW)
3. 12" (300) DIAGONAL (YELLOW)
4. 4" (100) DOUBLE YELLOW (NARROW)
5. 12" (300) SOLID (WHITE)
6. 4" (100) DOUBLE YELLOW (WIDE)
7. 6" (150) SKIP-DASH (WHITE)
8. 4" (100) SOLID (WHITE)
9. 12" (300) DIAGONAL (WHITE)
10. 6" (150) SOLID (WHITE)
11. 24" (600) STOP BAR (WHITE)
12. 8" (200) SOLID (WHITE)
13. 4" (100) PARKING (WHITE)



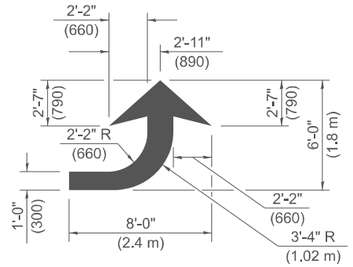
GENERAL NOTES

1. TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE USE A MINIMUM OF TWO PAIRS PER BLOCK.
2. THE SOLID YELLOW PAVEMENT MARKING 2 SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.
3. THE SKIP-DASH PAVEMENT MARKING 1 OR 7 SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER.
4. USE LARGE ARROW SIZE FOR BOTH RURAL AND URBAN LOCATIONS. (SEE SECTION 780 FOR SYMBOLS TABLE)
5. LANE LINE EXTENSIONS SHALL BE THE SAME COLOR AND WIDTH AS THE LANE LINE BEING EXTENDED.
6. ALL WHITE SKIP-DASH LINES SHALL BE 6" IN WIDTH.

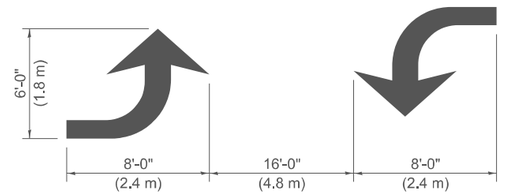
LANE LINE EXTENSIONS



CROSSWALK DETAIL
(DECATUR CITY LIMITS ONLY)



LEFT ARROW
REVERSE FOR RIGHT ARROW
AREA = 15.6 SQ.FT. (1.47 m²)
(WHITE)



TYPICAL DOUBLE
TURN ARROWS (WHITE)

NOT TO SCALE
Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 78000001

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	34
		CONTRACT NO. 74B79		
	ILLINOIS FED. AID PROJECT			

CDI — CIVIL DESIGN, INC.
EFFINGHAM, IL
LICENSE #184.003222

USER NAME = lsmith	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 3/19/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

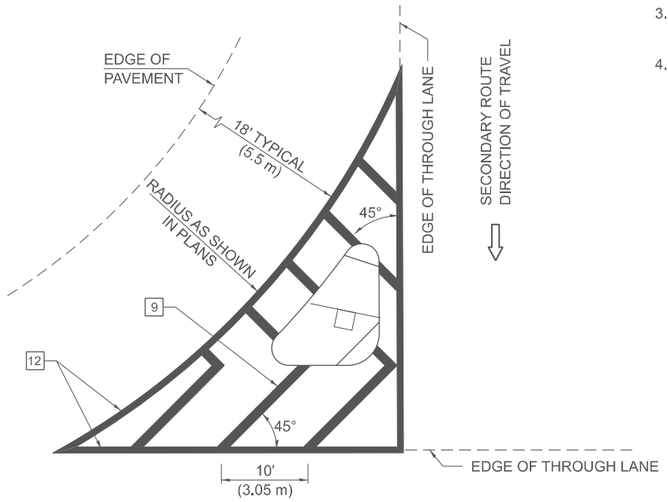
PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)

SCALE: | SHEET 2 OF 4 SHEETS | STA. | TO STA.

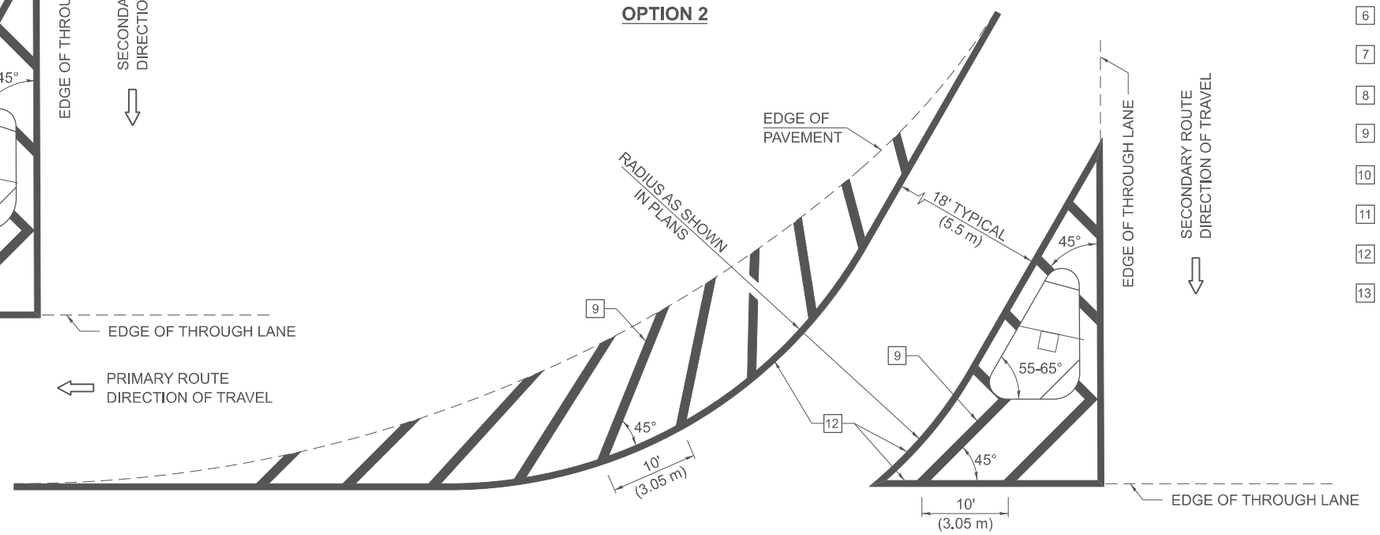
MODEL: Untitled-2 [Sheet]
FILE NAME: P:\5XXX\54XX-55XX\5571 - PTB 203-039_D7 VV Hermann\WO 4\CADData\CADsheets\78000001.dgn

ISLANDS

OPTION 1



OPTION 2



GENERAL NOTES

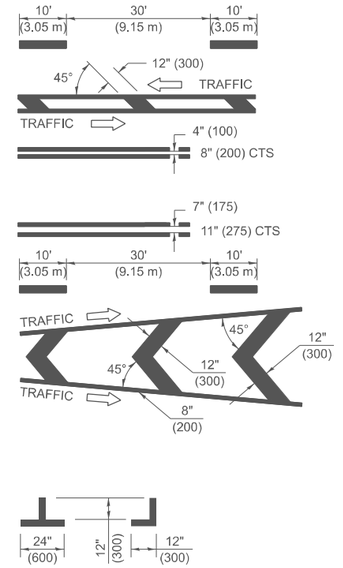
1. RAISED AND CORRUGATED MEDIANS SHALL BE OUTLINED WITH 2.
2. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
3. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
4. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
5. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING:

<30 MPH (<50 km/h)	15' (4.5 m)
30-45 MPH (50-75 km/h)	20' (6.0 m)
>45 MPH (>75 km/h)	30' (9.0 m)

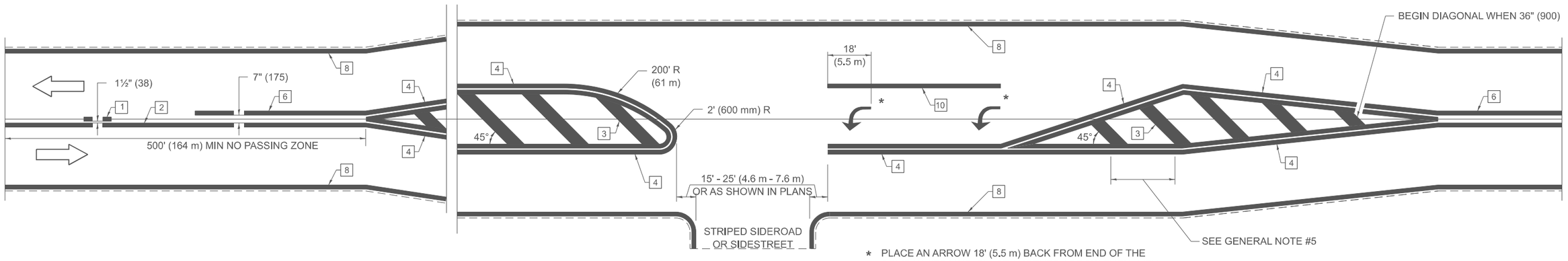
6. THE USE OF ISLAND STRIPING OPTION 1 OR OPTION 2 SHALL BE AS SHOWN ON THE PLANS.

PAVEMENT MARKING LEGEND

1	4" (100) SKIP-DASH (YELLOW)
2	4" (100) SOLID (YELLOW)
3	12" (300) DIAGONAL (YELLOW)
4	4" (100) DOUBLE YELLOW (NARROW)
5	12" (300) SOLID (WHITE)
6	4" (100) DOUBLE YELLOW (WIDE)
7	6" (150) SKIP-DASH (WHITE)
8	4" (100) SOLID (WHITE)
9	12" (300) DIAGONAL (WHITE)
10	6" (150) SOLID (WHITE)
11	24" (600) STOP BAR (WHITE)
12	8" (200) SOLID (WHITE)
13	4" (100) PARKING (WHITE)



RURAL LEFT TURN STRIPING



* PLACE AN ARROW 18' (5.5 m) BACK FROM END OF THE SOLID WHITE LINE. PLACE ANOTHER ARROW EVEN WITH THE BEGINNING OF THE SOLID WHITE LINE. SPACE ADDITONAL ARROWS EVENLY UP TO 80' (24.4 m) MAXIMUM SPACING. USE MINIMUM OF 2 ARROWS.

NOT TO SCALE

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 78000001

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CDI — CIVIL DESIGN,INC. — EFFINGHAM, IL LICENSE #184.003222

USER NAME = lsmith	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 3/19/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

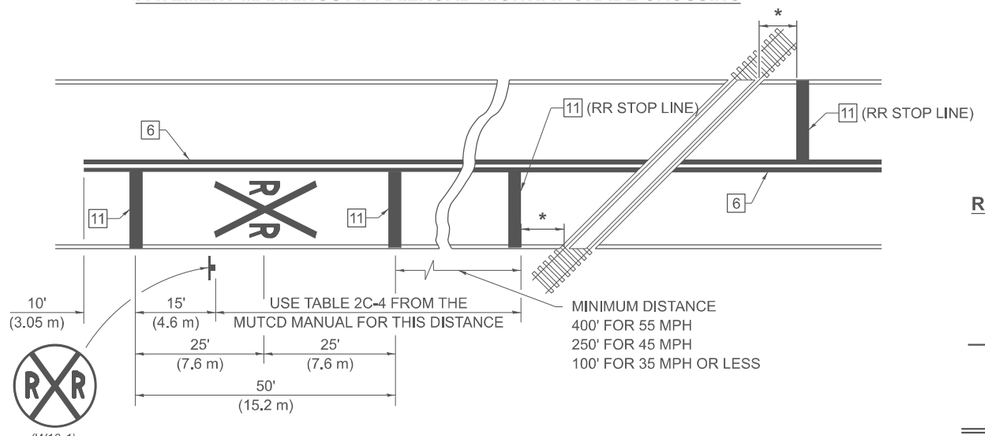
PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)

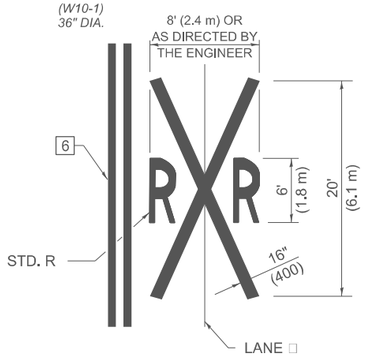
SCALE: | SHEET 3 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	35
		CONTRACT NO. 74B79		
		ILLINOIS FED. AID PROJECT		

SUPPLEMENTAL PAVEMENT MARKING TREATMENT FOR RAILROAD-HIGHWAY GRADE CROSSING

PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING





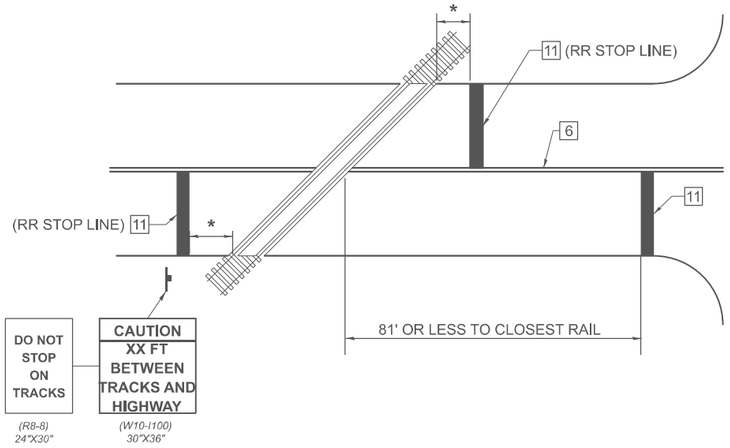
NOTES

THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

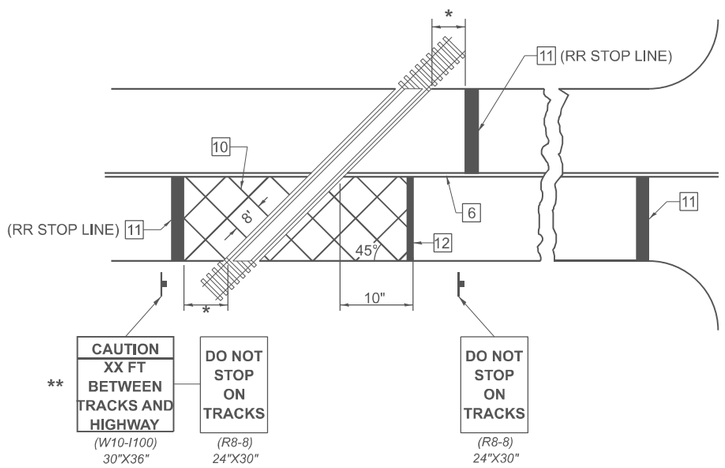
ON MULTI-LANE ROADS, THE STOP LINES SHALL EXTEND ACROSS ALL APPROACH LANES AND SEPARATE RXR SYMBOLS SHALL BE PLACED ADJACENT TO EACH OTHER IN EACH LANE.

WHEN THE PAVEMENT MARKING SYMBOLS IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B OF THE MUTCD.

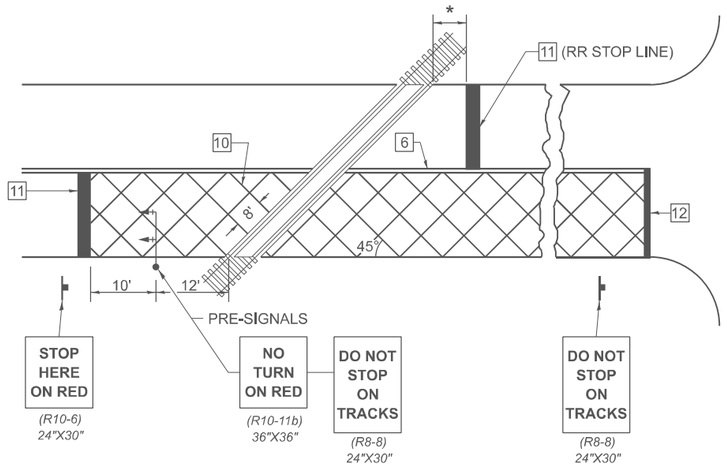
RAILROAD CROSSING WITH NON-SIGNALIZED INTERSECTION



RAILROAD CROSSING WITH INTERCONNECT ONLY

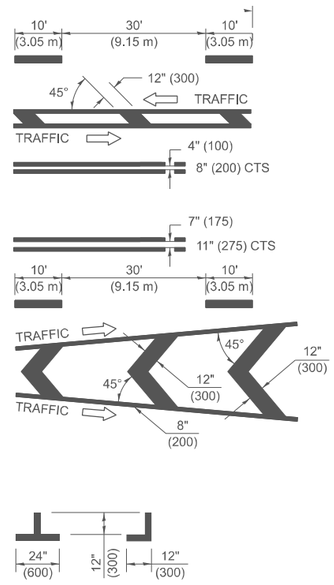


RAILROAD CROSSING WITH INTERCONNECT AND PRE-SIGNALS



PAVEMENT MARKING LEGEND

1	4" (100) SKIP-DASH (YELLOW)
2	4" (100) SOLID (YELLOW)
3	12" (300) DIAGONAL (YELLOW)
4	4" (100) DOUBLE YELLOW (NARROW)
5	12" (300) SOLID (WHITE)
6	4" (100) DOUBLE YELLOW (WIDE)
7	6" (150) SKIP-DASH (WHITE)
8	4" (100) SOLID (WHITE)
9	12" (300) DIAGONAL (WHITE)
10	6" (150) SOLID (WHITE)
11	24" (600) STOP BAR (WHITE)
12	8" (200) SOLID (WHITE)
13	4" (100) PARKING (WHITE)



GENERAL NOTES

1. SUPPLEMENTAL PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.

2. EXTEND PAVEMENT MARKINGS TO THE INTERSECTION ONLY WHERE PRE-SIGNALS ARE USED.

3. WHEN PEDESTRIAN SIGNALS ARE PRESENT WITH INTERCONNECTED SIGNALS, WARNING SIGN W10-I101 (18"X24") SHALL BE PLACED NEAR EACH PEDESTRIAN SIGNAL HEAD. COUNTDOWN PEDESTRIAN SIGNAL HEADS SHALL NOT BE UTILIZED ALONG WITH INTERCONNECTED SIGNALS.

CAUTION
WALK TIME SHORTENED WHEN TRAIN APPROACHES

(W10-I101) 18"X24"

4. PLEASE REFER TO THE IDOT BUREAU OF OPERATION MEMO OPS T-06 DATED DECEMBER 1, 2020 FOR ADDITIONAL INFORMATION.

* 15' FROM NEAR RAIL OR 8' FROM AND PARALLEL TO GATE IF PRESENT

** WARNING SIGN W10-I100 SHALL BE USED AS AN INTERIM MEASURE AT INTERCONNECTED SIGNAL LOCATIONS WHERE PRE-SIGNALS ARE TO BE INSTALLED IN THE FUTURE. THIS SIGN SHALL BE REMOVED WHEN THE PRE-SIGNALS ARE INSTALLED AND THE PAVEMENT MARKINGS ARE EXTENDED TO THE INTERSECTION.

NOT TO SCALE

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 78000001

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	D7 BRIDGE REPAIRS 2026-2	RICHLAND	36	36
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CIVIL DESIGN,INC.
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STATE OF ILLINOIS
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PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)

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

MODEL: Untitled-4 [Sheet]
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