11-17-2023 LETTING ITEM 077

FOR INDEX OF SHEETS, SEE SHEET NO. 2

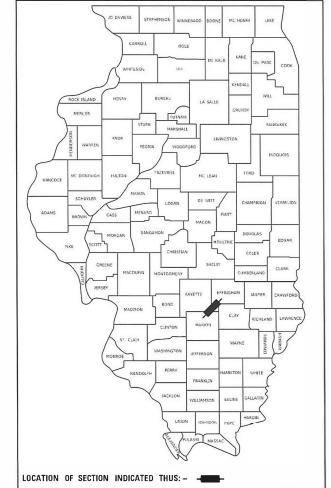
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED

HIGHWAY PLANS

FAYETTE 26 1 ILLINOIS CONTRACT NO. 74B31

D-97-052-22



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

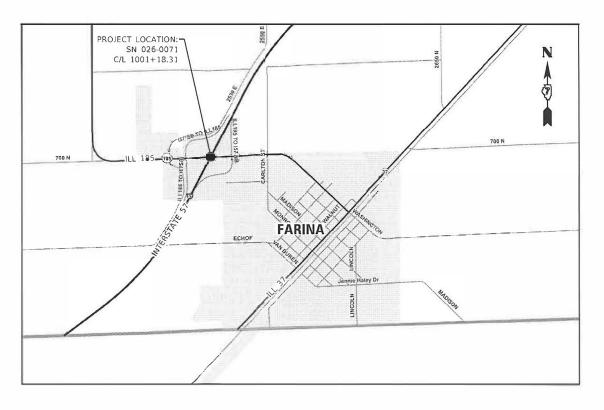
October 13, 2023

DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

FAI ROUTE 57 (I–57) SECTION D7 BRIDGE REPAIRS 2024-5 PROJECT NHPP-UA6Y(031) BRIDGE DECK OVERLAY, JOINT REPLACE / REPAIR **FAYETTE COUNTY**

C-97-099-22



GROSS LENGTH = 392.0 FT. = 0.07 MILE NET LENGTH = 392.0 FT. = 0.07 MILE

ADT (2024) = 3050 (ILL 185)

ADT (2024) = 21000 (1-57)

% TRUCKS = 50.4%

% TRUCKS = 25.4%

0

 \bigcirc

0

ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS 1-800-892-0123 OR 811

PROJECT ENGINEER BRIAN LEWIS PROJECT MANAGER LEAH HILLE

CONTRACT NO. 74B31

GENERAL NOTES

THIS PROJECT IS LOCATED ON FAI 57 IN FAYETTE COUNTY AT ILL ROUTE 185 (OVERHEAD) IN FARINA.

THE WORK ON THIS PROJECT CONSISTS OF EXPANSION JOINT REPLACEMENT WITH NEW STRIP SEALS, STRUCTURAL REPAIR OF CONCRETE ABUTMENTS, REPLACEMENT OF DECK DRAINS, FULL DEPTH DECK PATCHING, CURB REPAIR, SCARIFICATIONS, CONCRETE OVERLAY, AND DIAMOND GRINDING.

WHEN APPLYING SHORT TERM PAVEMENT MARKINGS, TEMPORARY TAPE SHALL BE USED ON THE SURFACE COURSES AND PAINT SHALL BE USED ON MILLED SURFACES.

THE RESIDENT ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE CURING TIME FOR THE VARIOUS HOT-MIX ASPHALT LIFTS.

A UNIFORMLY STRAIGHT SAW CUT SHALL BE MADE AT LOCATIONS WHERE PROPOSED NEW CONSTRUCTION WILL ABUT EXISTING HOT-MIX ASPHALT SURFACES. THE SAW CUT SHALL BE MADE THE SAME DEPTH AS THE HOT-MIX ASPHALT SURFACE REMOVAL. THIS WORK WILL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT ITEMS INVOLVED AND NO EXTRA COMPENSATION WILL BE ALLOWED.

THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM INFORMATION FURNISHED BY THE UTILITY OWNERS AND MUST BE CONSIDERED APPROXIMATE. FIELD MARKINGS OF FACILITIES IN CRITICAL AREAS MAY BE OBTAINED BY PROVIDING. MINIMUM OF FORTY-EIGHT (48) HOURS ADVANCE NOTICE THROUGH THE J.U.L.I.E. SYSTEM BY CALLING 800-892-0123.

APPLICATION RATES

THE FOLLOWING APPLICATION RATES WERE USED IN CALCULATING PLAN QUANTITIES AND HAVE BEEN INCLUDED FOR REFERENCE:

BITUMINOUS MATERIALS (TACK COAT)	0.05 LB/SQ FT (ON MILLED SURFACES)
BITOMINOUS MATERIALS (TACK COAT)	0.025 LB/SQ FT (ON HMA LIFTS)

MIXTURE REQUIREMENTS

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE TO THIS PROJECT:

LOC	CATION(S)	MIXTURE USE(S)	PG	DESIGN AIR VOIDS	MIXTURE COMPOSITION	FRICTION AGGREGATE	MIXTURE WEIGHT	QUALITY MANAGEMENT PROGRAM		MATERIAL TRANSFER DEVICE (REQUIRED?)
М	IAINLINE	POLYMERIZED HMA SURFACE COURSE, IL-9.5, MIX "D", N90	PG 70-22	4.0% @ N=90	IL - 9.5	MIXTURE D	N90	QC/QA	3000	N/A

INDEX OF SHEETS

SHEET NO.	<u>ITEM</u>
1	COVER SHEET
2	INDEX OF SHEETS, LIST OF STANDARDS, AND GENERAL NOTES
3-4	SUMMARY OF QUANTITIES
5	SCHEDULE OF QUANTITIES
6	PLAN SHEET
7	STAGE 1 CONSTRUCTION
8	STAGE 2 CONSTRUCTION
9	POST-STAGE CONSTRUCTION
10-22	STRUCTURE PLANS
23-26	DISTRICT 7 DETAIL SHEETS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 26:

STANDARD NO. DESCRIPTION

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
353001-05	PCC BASE COURSE WITH HMA BINDER AND SURFACE COURSES
420001-10	PAVEMENT JOINTS
606001-08	CONCRETE CURB TYPE B AND COMBINATION CURB AND GUTTER
606301-04	PC CONCRETE ISLANDS AND MEDIANS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24' FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEED \geq 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-04	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS \geq 45 MPH
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701316-13	LANE CLOSURE, 2L, 2W BRIDGE REPAIR, FOR SPEEDS \geq 45 MPH
701400-11	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-13	LANE CLOSURE, FREEWAY/EXPRESSWAY
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS \geq 45 MPH
701901-08	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
782001-01	CURB REFLECTORS

	7				No.				
USER NAME = jessica.hille	DESIGNED LMH	REVISED =			F.A.I.	SECTION	COUNTY	TOTAL SH	EET
	DRAWN LMH	REVISED -	STATE OF ILLINOIS	INDEX OF SHEETS AND GENERAL NOTES	57		FAYETTE	26	2
PLOT SCALE = 100.0000 / in.	CHECKED	REVISED -	DEPARTMENT OF TRANSPORTATION				CONTRACT	NO. 74B3	1
PLOT DATE = 8/30/2023	DATE 8/30/2023	REVISED +		SCALE: NO SCALE SHEET OF SHEETS STA. TO STA.		ILLINOIS FED. AI	ID PROJECT		

	SUMMARY OF QUANTITIES			0059	STRUCTION TYPE	CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	90% FEDERAL 10% STATE			CODE NO	Τ
				10/0 01/112				t
35300400	PORTLAND CEMENT CONCRETE BASE COURSE 9"	SQ YD	92	92			67100100	<u> </u>
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	310	310			70100205	
40604164	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE,	TON	40	40				1
	IL-9.5, MIX "D", N90						70100420	t
								t
42001300	PROTECTIVE COAT	SQ YD	1285	1285				T
							70100450	
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	460	460				
							70100460	1
44000500	COMBINATION CURB AND GUTTER REMOVAL	F00T	331	331			70103815	\downarrow
								+
50102400	CONCRETE REMOVAL	CU YD	24.7	24.7			70106500	+
50157300	PROTECTIVE SHIELD	SQ YD	670	670			70107005	+
30131300	THOTEOTIVE SHIELD	30 15	0.0	0.0			10101003	ł
50300100	FLOOR DRAINS	EACH	20	20			70107025	\dagger
50300255	CONCRETE SUPERSTRUCTURE	CU YD	24.7	24.7			70300100	<u> </u>
								+
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3750	3750			70300150	+
50800515	BAR SPLICERS	EACH	36	36			k 78003111	1
								\dagger
52000110	PREFORMED JOINT STRIP SEAL	FOOT	144	144				T
							k 78011025	Ţ
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3				

	SUMMARY OF QUANTITIES			CONS	STRUCTION TYPE	CODE
CODE NO		LINITT	TOTAL	0059 90% FEDERAL		
CODE NO	ITEM	UNIT	QUANTITIES	10% STATE		
		l				
67100100	MOBILIZATION	L SUM	1	1		
70100205	TRAFFIC CONTROL AND PROTECTION, STANDARD	EACH	2	2		
	701401					
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD	EACH	2	2		
	701411					
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD	LSUM	1	1		
	701201					
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	LSUM	1	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	5	5		
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		
70107005	PAVEMENT MARKING BLACKOUT TAPE, 5"	F00T	1150	1150		
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	28		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	2780	2780		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	1760	1760		
	S.G. TERM PATEMENT WANTING NEWOYAL		1,00	1100		
79003111	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B -	FOOT	1540	1540		
78003111		1001	1540	1540		
	STANDARD - LINE 4"					
78011025	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	1540	1540		
SPECIALT	VITEM					DEV/ MAC

* SPECIALTY ITEM

USER NAME = jessica.hille	DESIGNED -	LMH	REVISED -
	DRAWN -	LMH	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -		REVISED -
PLOT DATE = 8/30/2023	DATE -	8/30/2023	REVISED -

	SUMMARY OF QUANTITIES				TRUCTION TYPE CODE		SUMMARY OF QUANTITIES	, \		CONSTRUCTION TYPE CODE	
CODE NO	ITEM STEM	UNIT	TOTAL QUANTITIES	0059 90% FEDERAL 10% STATE		CODE NO	ITEM	UNIT	TOTAL QUANTITIES	0059 90% FEDERAL 10% STATE	
78200020	CURB REFLECTOR	EACH	30	30		Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SO YD	14	14	
X4402020	CONCRETE MEDIAN SURFACE REMOVAL	SO FT	826	826		Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	1033	1033	
X4403300	CONCRETE MEDIAN REMOVAL	SO FT	43	43							
X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SO YD	809	809							
X6061702	CONCRETE MEDIAN, TYPE SM (DOWELLED)	SQ FT	826	826							
									ļ		
x7010200	TRAFFIC CONTROL AND PROTECTION, STANDARD	EACH	1	1							
	701316 (SPECIAL)	 									
Z0003300	BASE COURSE REMOVAL (SPECIAL)	SQ YD	6	6							
Z0012111	BRIDGE DECK FLY ASH OR GGBF SLAG CONCRETE	SO YD	1170	1170							
	OVERLAY, 2 1/2"										
Z0012142	BRIDGE DECK SCARIFICATION, 2 1/4"	SO YD	1170	1170							
Z0012754	STRUCTUAL REPAIR OF CONCRETE (DEPTH EQUAL TO	SO FT	467	467							
	OR LESS THAN 5")										
Z0012755	STRUCTUAL REPAIR OF CONCRETE (DEPTH GREATER	SO FT	7	7							
	THAN 5")										
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	13	13							

* SPECIALTY ITEM

USER NAME = Jessica-nille	DESIGNED	-	LMH	KEVISED	-
	DRAWN	-	LMH	REVISED	-
PLOT SCALE = 100.0000 ' / in.	CHECKED	-		REVISED	-
PLOT DATE = 8/30/2023	DATE	-	8/30/2023	REVISED	-

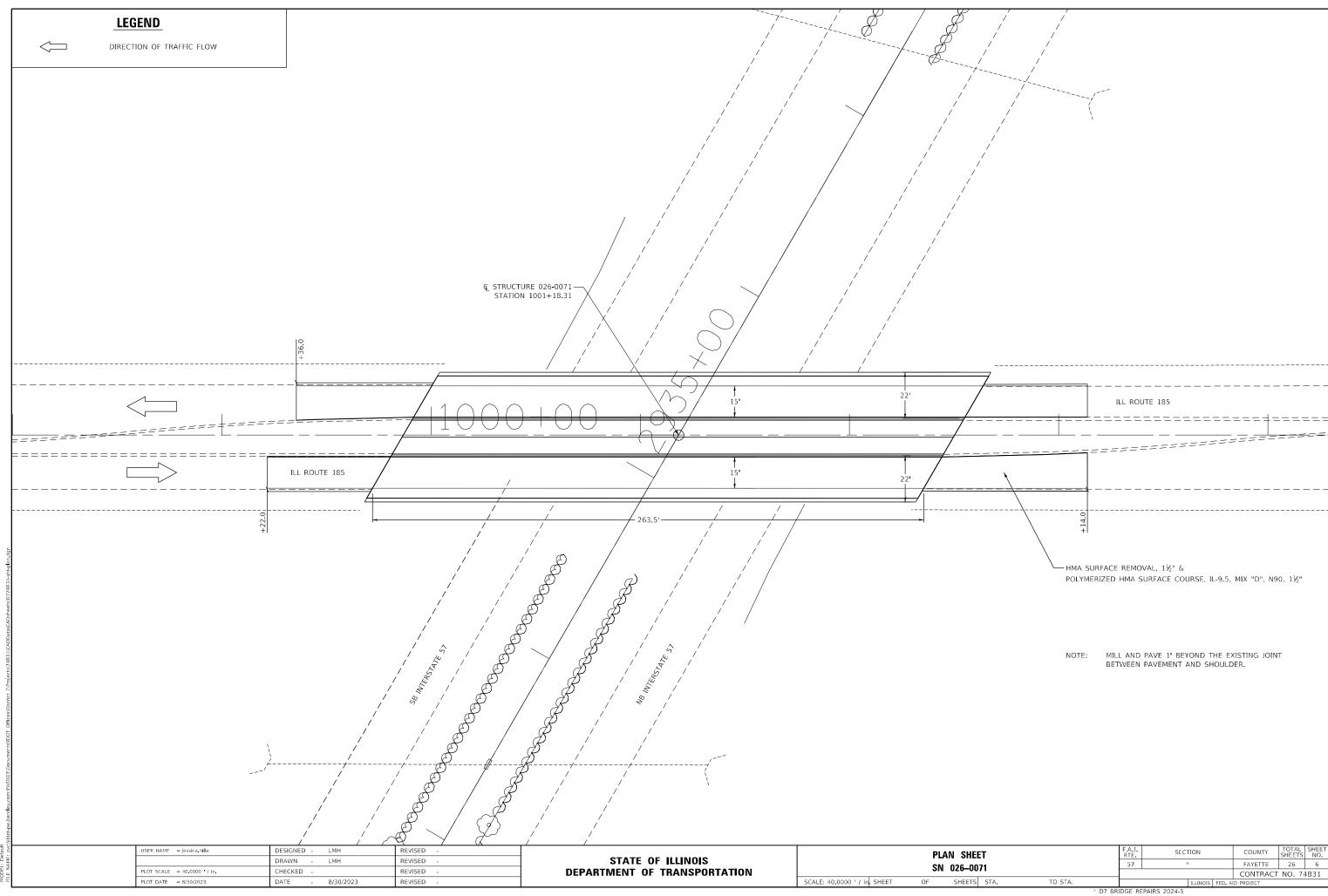
USER NAME = jessica hille	DESIGNED	_	LMH
OULY MARIE — Jessica. Hille	DRAWN	-	LMH
PLOT SCALE = 100.0000 / in.	CHECKED	-	
PLOT DATE = 8/30/2023	DATE	-	8/30/2

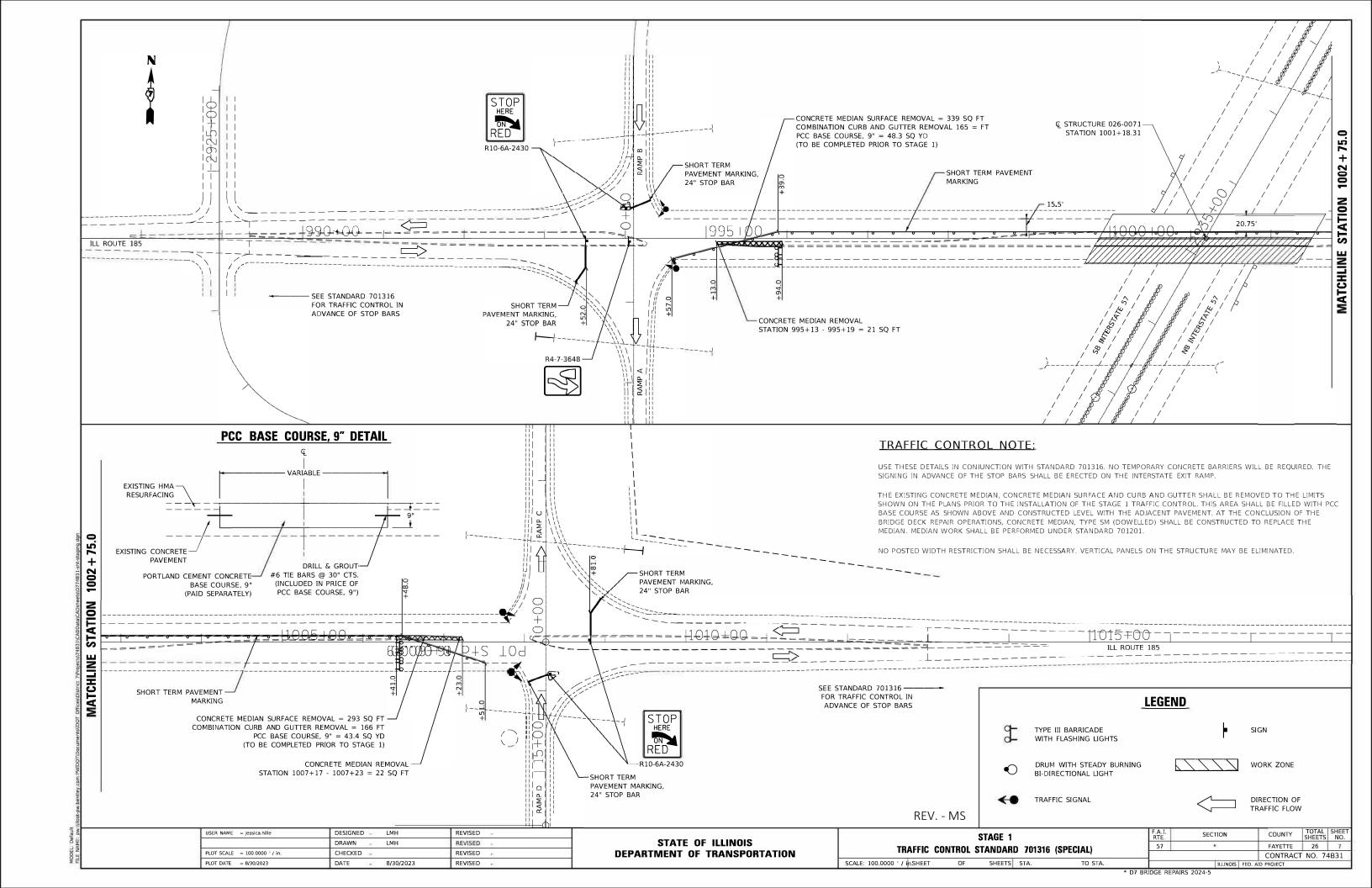
MED SCHE		35300400 PORTLAND CEMENT CONCRETE BASE COURSE 9"	44000500 COMBINATION CURB AND GUTTER REMOVAL	78200020 CURB REFLECTOR	X4402020 CONCRETE MEDIAN SURFACE REMOVAL	X4403300 CONCRETE MEDIAN REMOVAL	X6061702 CONCRETE MEDIAN, TYPE SM (DOWELLED	Z0003300 BASE COURSE REMOVAL (SPECIAL)
STATION TO	O STATION	SQ YD	FOOT	EACH	SQ FT	SQ FT	SQ FT	SQ YD
995+13.0	995+94.0	48.3	165.0	8.0	435.0	-	435.0	-
995+13.0	995+19.0	-	-		8	21.0	222	2.6
999+86.7	1002+50.2	-	3	14.0	-	1	10	1-
1006+41.0	1007+23.0	43.4	166.0	8.0	391.0	-	391.0	-
1007 + 17.0	1007+23.0	-	-	14	-	22.0	-	2.7
	TOTALS:	92	331	30	826	43	826	6

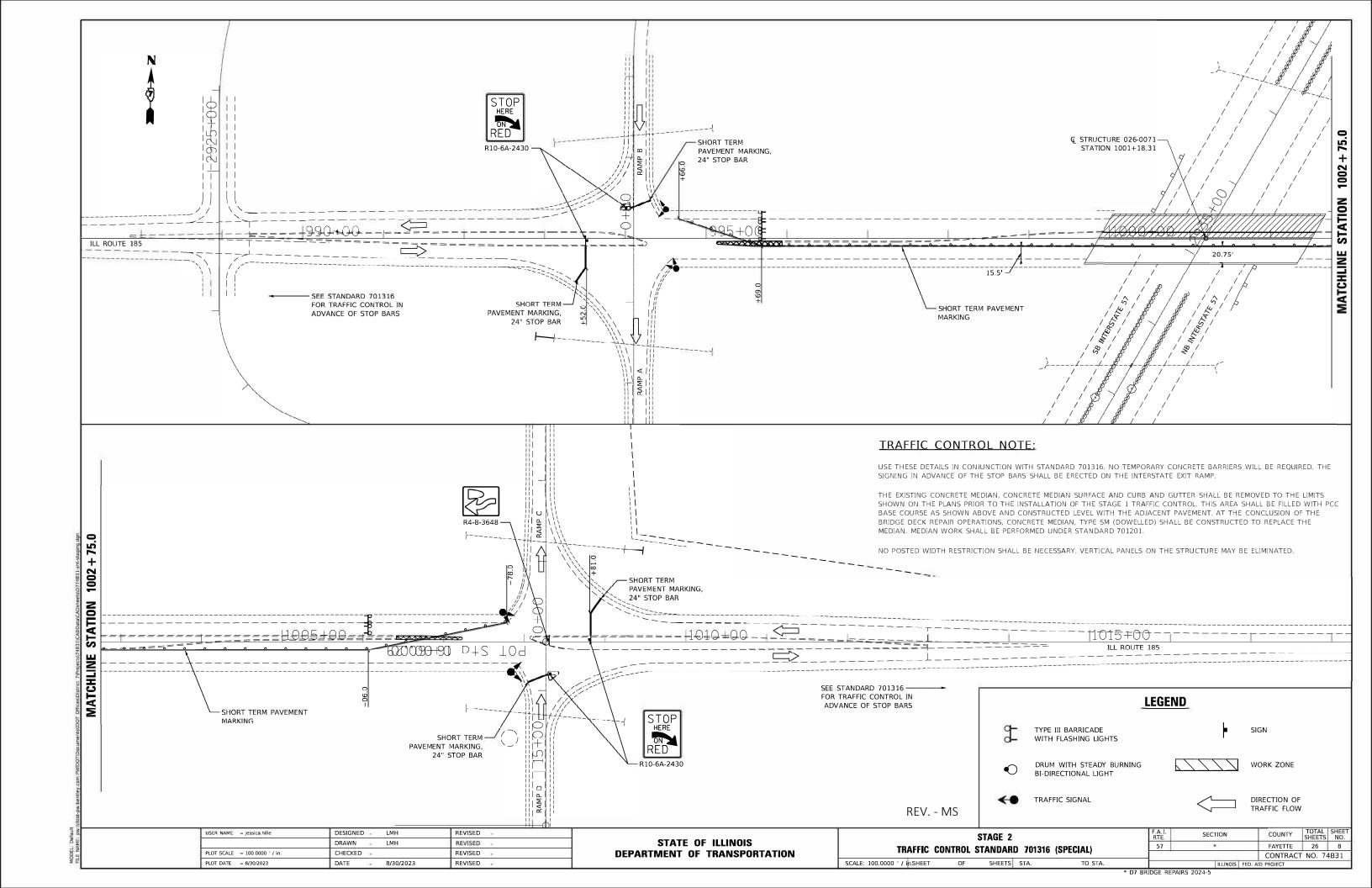
PAVEMENT MARKING SCHEDULE		70107005 PAVEMENT MARKING BLACKOUT TAPE, 5"	70300100 SHORT TERM PAVEMENT MARKING	70300150 SHORT TERM PAVEMENT MARKING REMOVAL	78003111 PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - STANDARE - LINE 4" (YELLOW)	78003111 PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - STANDARG - LINE 4" (WHITE)	78011025 GROOVING FOR RECESSED PAVEMENT MARKING 5"	
STATI	ON TO STA	TION	FOOT	FOOT	SQ FT	FOOT	FOOT	FOOT
STAGE 1	993+52.0	1008+81.0	570.00	1457.00	1072.5	-		-
STAGE 2	994+66.0	1007+78.0	575.00	1321.00	680.6	-	-	-
MAINLINE EB	999+22.0	1003+14.0	-	-	-	392.0	392.0	784.0
MAINLINE WB	999+36.0	1003+14.0	-	-	-	378.0	378.0	756.0
		TOTALS:	1150	2780	1760	15	40	1540
					•	•		

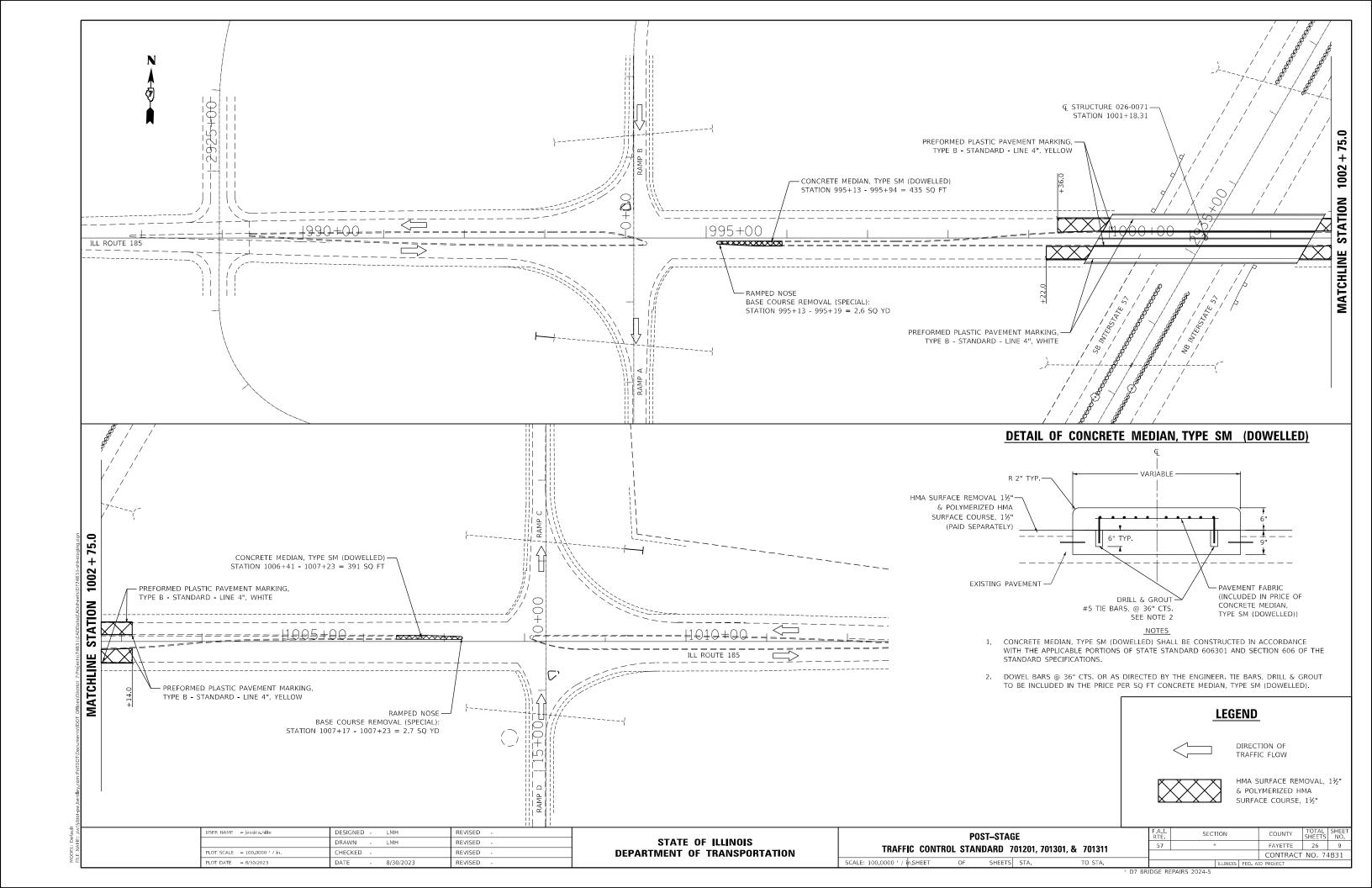
PAVING SCHEDULE		40600290 BITUMINOUS MATERIALS (TACK COAT)	40604164 POLYMERIZED HOT- MIX ASPHALT SURFACE COURSE, IL- 9.5, MIX "D", N90	44000155 HOT-MIX ASPHALT SURFACE REMOVAL, 1.5"
STATION T	O STATION	POUND	TON	SQ YD
999+22.0	999+86.7	68.9	8.6	102.1
999+36.0	999+86.7	78.3	9.7	116.0
1002+50.2	1003+14.0	95.7	11.9	141.8
1002+50.2	1002+50.2 1003+14.0		7.9	94.2
	TOTALS:	310	40	460
				,

ER NAME = jessica hille	DESIGNED - LMH	REVISED -						F.A.I.	SECTION	COUNTY	TOTAL S	SHEET
	DRAWN - LMH	REVISED -	STATE OF ILLINOIS	SCHEDULE OF QUANTITIES				57	*	FAYETTE	26	5
OT SCALE = 100.0000 / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION							CONTRACT	T NO. 74E	B31
OT DATE = 8/30/2023	DATE - 8/30/2023	REVISED -		SCALE: NO SCALE SHEET	OF	SHEETS STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		







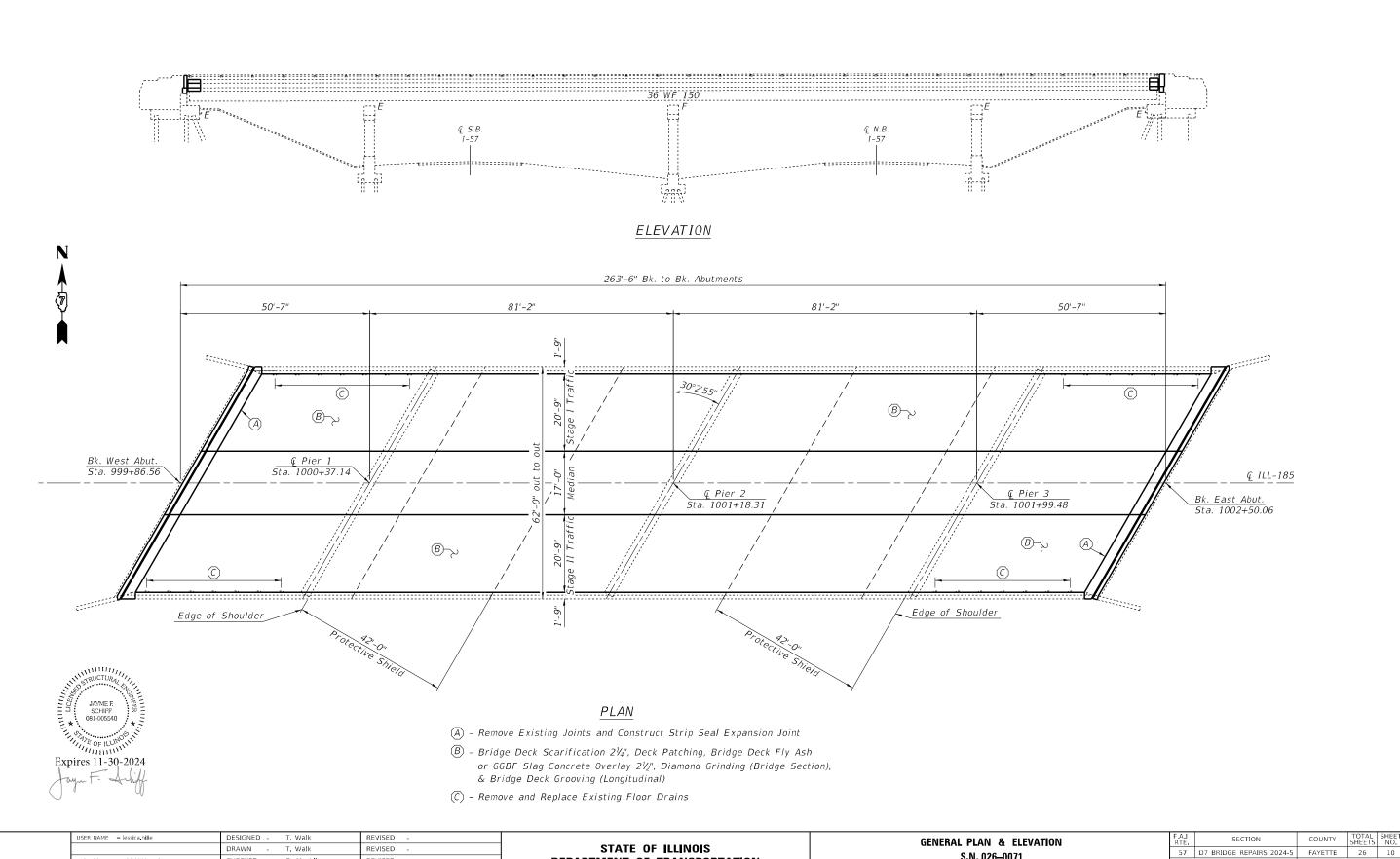


EXISTING STRUCTURE: SN 026-0071 carries ILL 185 over FAI 57. The four span, steel I-beam structure was built in 1969. The existing microsilica concrete overlay was installed in 1998. The proposed project consists of replacement of the expansion joints with new strip seals, structural repair of concrete abutments, replacement of deck drains, full depth deck patching, curb repair, scarification, concrete overlay, & diamond grinding.

LOT SCALE = 100.0000 / in.

CHECKED

REVISED



DEPARTMENT OF TRANSPORTATION

S.N. 026-0071

SCALE: 100.0000 / inSHEET 1 OF 13 SHEETS STA.

CONTRACT NO. 74B31

* Overlay thickness prior to grinding

STAGE CONSTRUCTION DETAIL Looking West

GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Reinforcement Bars designated (E) shall be epoxy coated.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal operations shall be replaced with an approved bar splicer or anchorage system. Cost included with CONCRETE REMOVAL.

Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50 $^{\circ}$ F.

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

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

Protective Coat to be applied to areas of new concrete only, including bridge deck concrete overlay, curb repair, and structural repair of abutments.

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.

Areas of deck repairs shown are estimated. 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 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.

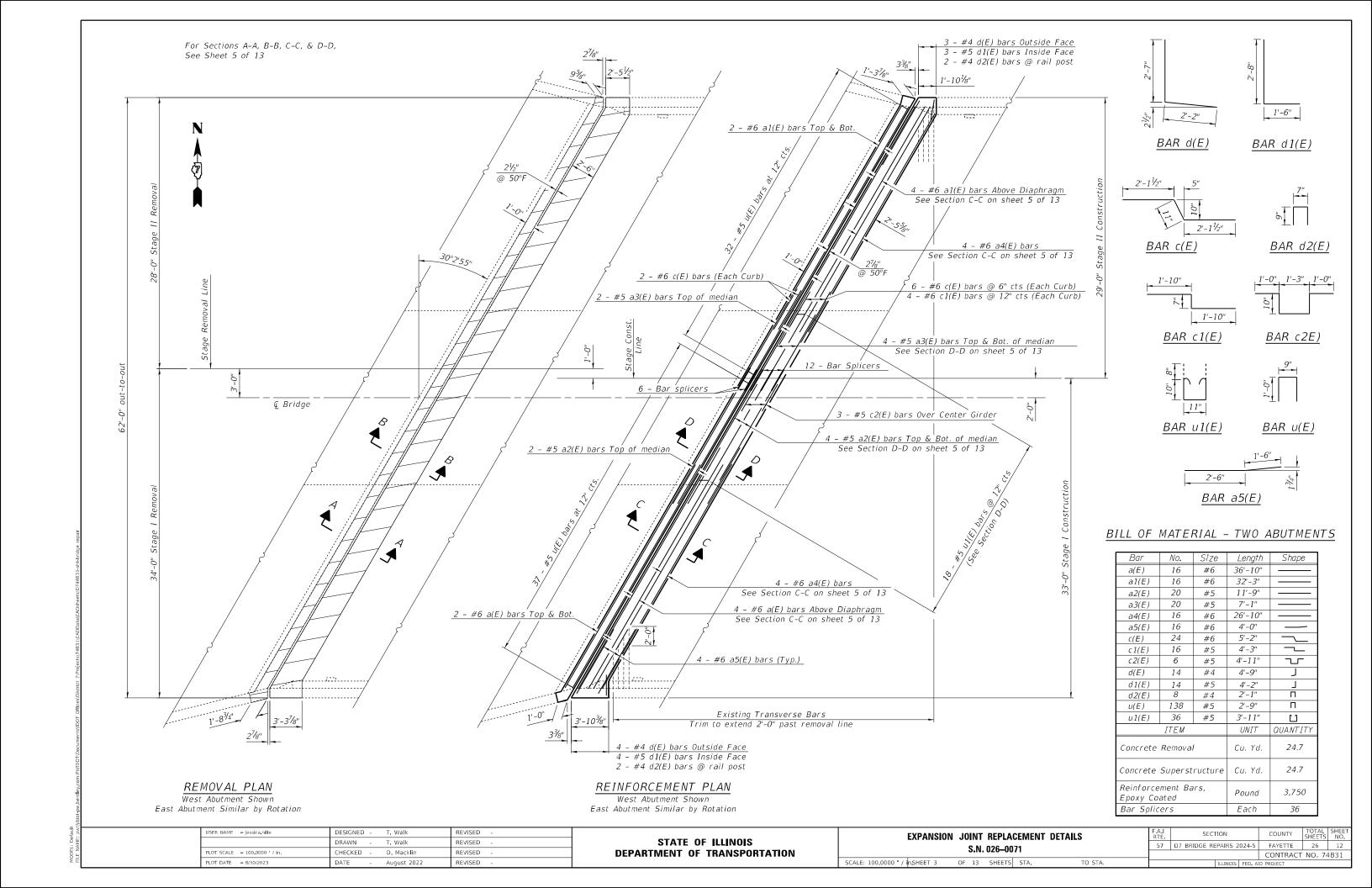
It is anticipated that a full depth deck slab repair will be necessary at each existing floor drain location. Removal and disposal of the existing floor drains shall be included in the contract unit price for Deck Slab Repair (Full Depth, Type I).

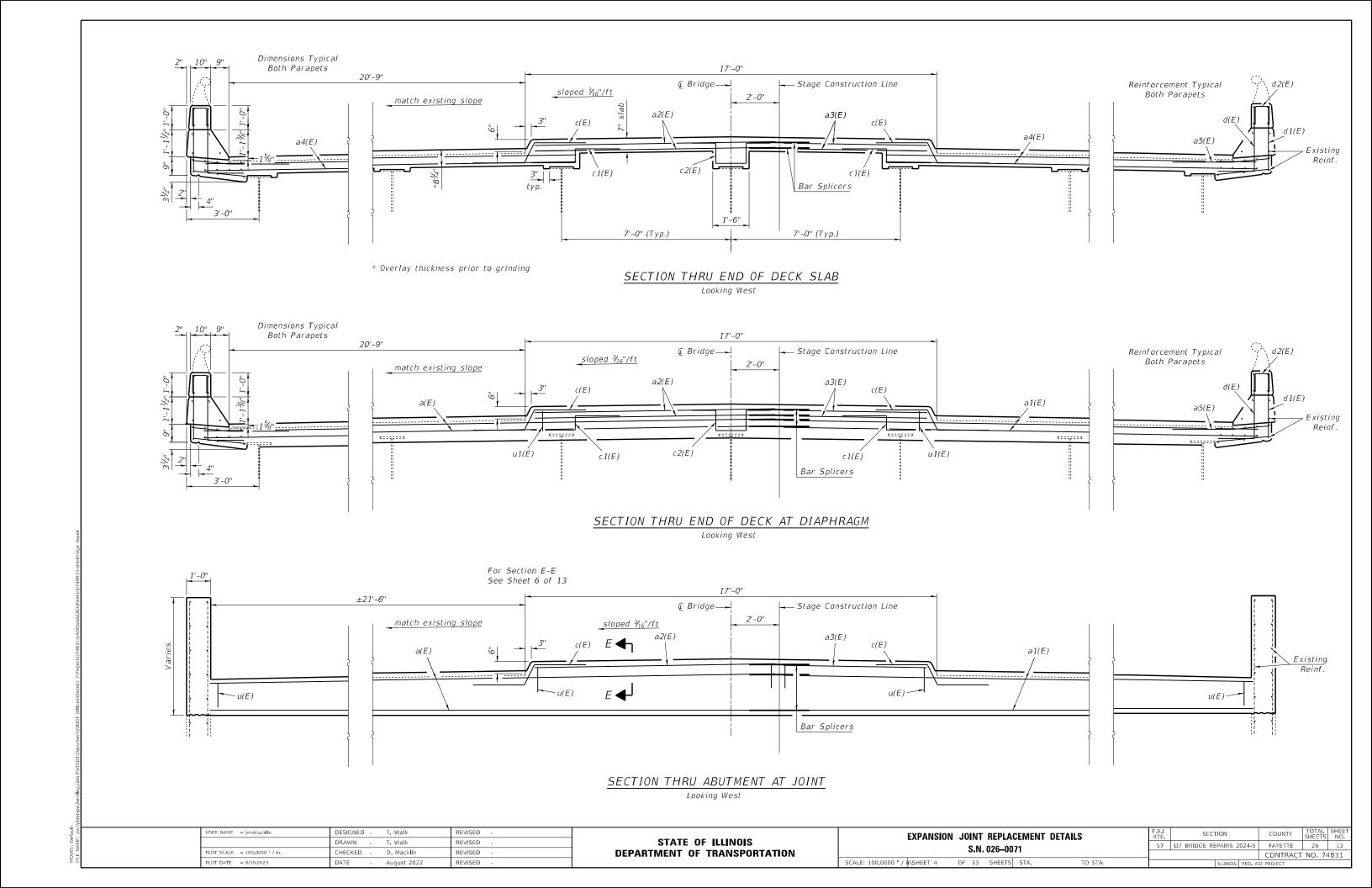
TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	24.7
Concrete Superstructure	Cu. Yd.	24.7
Reinforcement Bars, Epoxy Coated	Pound	3,750
Bar Splicers	Each	36
Bridge Deck Scarification, 21/4"	Sq. Yd.	1,170
Bridge Deck Fly Ash or GGBF Slag Concrete Overlay, 2½"	Sq. Yd.	1,170
Diamond Grinding (Bridge Section)	Sq. Yd.	1,033
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	809
Preformed Joint Strip Seal	Foot	144
Protective Coat	Sq. Yd.	1,285
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	13
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	14
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	467
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	7
Protective Shield	Sq. Yd.	670
Floor Drains	Each	20

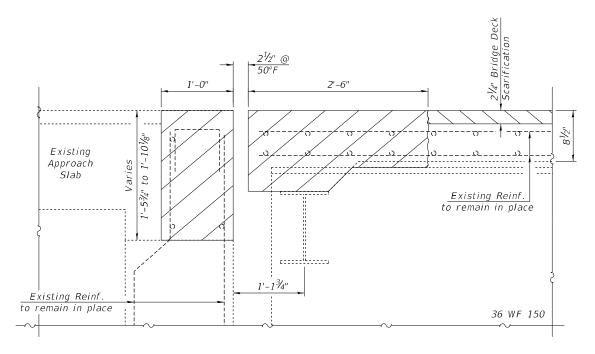
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION, GE	F.A.I RTE SECTION			COUNTY	TOTAL SHEETS		
BILL OF MATERIALS S	57	D7 BRIDGE REPAIRS 2024-5		FAYETTE	26	11	
DILL OF WATERIALS	DILL OF WATERIALS S.W. 020-00/1						4B31
SCALE: 100.0000 / InSHEET 2 OF 13 SHEETS	STA. TO STA.			ILLINOIS FED.	AID PROJECT		

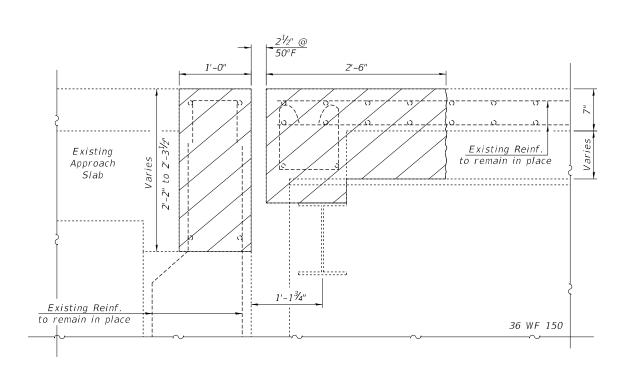




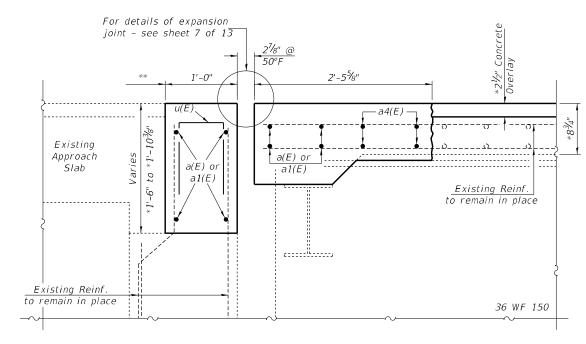
Note: Hatched areas indicate removal



SECTION A-A

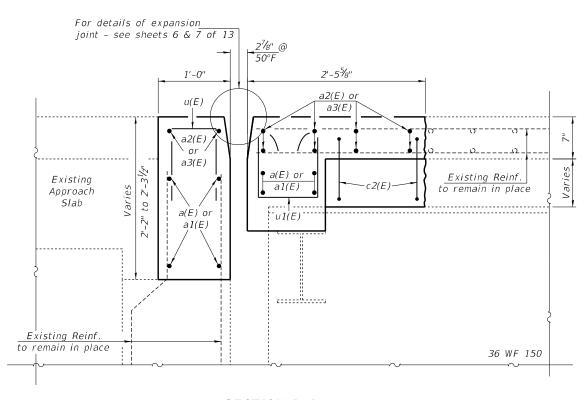


** Deterioration or damage to the existing HMA surface beyond this interface shall not be repaired with concrete, but shall instead be repaired with HMA Surface Course as directed by the Engineer. This repair shall be paid for as Extra Work according to Article 109.04 of the Standard Specifications.



* Overlay thickness prior to grinding

SECTION C-C



SECTION D-D

USER NAME = jessica hille	DESIGNED	-	T. Walk	REVISED	-
	DRAWN	-	T. Walk	REVISED	-
PLOT SCALE = 100.0000 / in.	CHECKED	-	D. Macklin	REVISED	-
PLOT DATE = 8/30/2023	DATE	-	August 2022	REVISED	-

SECTION B-B

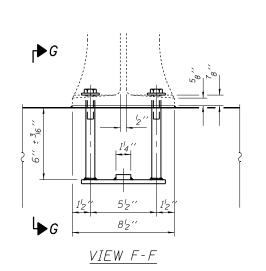
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

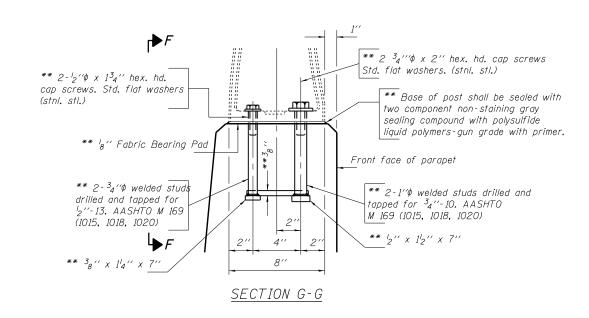
Ī	EXPANSION JOINT REPLACEMENT DETAILS		F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	
l	S.N. 026-0071	57	D7 BRIDGE REPAIRS 2024-5	FAYETTE	26	14	
ļ	5:N: 020-0071			CONTRACT	NO. 74	4B31	
ı	SCALE: 100.0000 / inSHEET 5 OF 13 SHEETS STA TO STA.			ILLINOIS FED. AI	D PROJECT		

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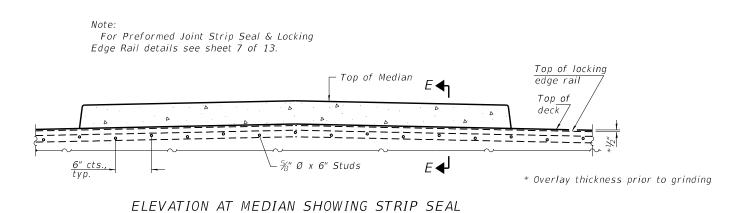
DDEL: Default LE NAME: pw:\\ildot-pw.bentl

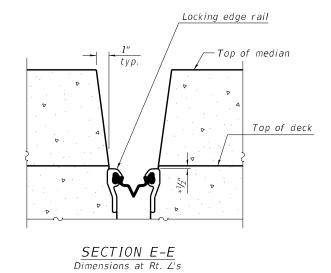




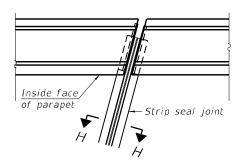
** New Rail Post anchorage devices will be required at each location where posts are connected to new construction. Cost shall be included with Concrete Superstructure. In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods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



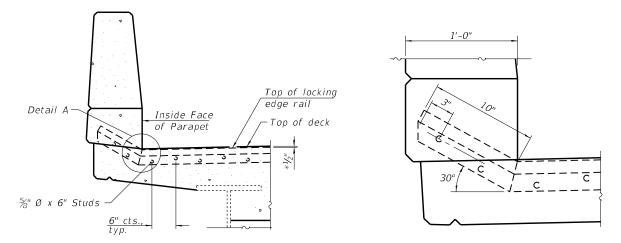




USER NAME = jessica hille	DESIGNED -	T. Walk	REVISED -		ME	NIAN & RAII POST DETAILS		F.A.I	SECTION	COUNTY	SHEETS NO
	DRAWN -	T. Walk	REVISED -	STATE OF ILLINOIS	IVIL	· · · · · · · · · · · · · · · · · ·		57	D7 BRIDGE REPAIRS 2024-5	FAYETTE	26 15
PLOT SCALE = 100.0000 / in.	CHECKED -	D. Mack l in	REVISED -	DEPARTMENT OF TRANSPORTATION		3.IV. U20-UU/I				CONTRACT	T NO. 74B31
PLOT DATE = 8/30/2023	DATE -	August 2022	REVISED -		SCALE: 100.0000 / InSHEET 6	OF 13 SHEETS STA.	TO STA.		ILLINOIS FED. A	ID PROJECT	
	USER NAME = jessica.hille PLOT SCALE = 100.0000 / in. PLOT DATE = 8/30/2023	DESIGNED - DRAWN - DRAWN - DRAWN - DRAWN - DRAWN - DRAWN - D	DESIGNED - T. Walk DRAWN - T. Walk DRAWN - T. Walk DRAWN - DRAWN - D. Macklin DRAWN - D. Macklin DATE - August 2022 DATE - D. Macklin DATE - DRAWN - DATE - DRAWN - DATE - DATE DATE - DATE	DESIGNED - T. Walk REVISED -	DESIGNED - T. Walk REVISED -	DRAWN - T. Walk REVISED - STATE OF ILLINOIS	PLOT SCALE = 100,0000 '/ in. CHECKED - D. Macklin REVISED - DEPARTMENT OF TRANSPORTATION S.N. 026-0071	DRAWN - T. Walk REVISED - STATE OF ILLINOIS PLOT SCALE = 100,0000 '/ in. CHECKED - D. Macklin REVISED - DEPARTMENT OF TRANSPORTATION BLOT DATE = 9/3/2023 PATE SCALE 100,0000 / in. SCALE	DRAWN - T. Walk REVISED - STATE OF ILLINOIS PLOT SCALE = 100,0000 '/ in. CHECKED - D. Macklin REVISED - DEPARTMENT OF TRANSPORTATION BLOT DATE = 900,0003 / in. SELECT STATE OF ILLINOIS S.N. 026-0071 DEPARTMENT OF TRANSPORTATION SCALE: 100,0000 / in. SELECT STATE OF ILLINOIS S.N. 026-0071	DRAWN - T. Walk REVISED - STATE OF ILLINOIS PLOT SCALE = 100,0000 '/ in. CHECKED - D. Macklin REVISED - DEPARTMENT OF TRANSPORTATION STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION SCALE 100,0000 '/ in. CHECKED - D. Macklin REVISED - DEPARTMENT OF TRANSPORTATION SCALE 100,0000 '/ in. CHECKED - D. Macklin REVISED - DEPARTMENT OF TRANSPORTATION	DRAWN - T. Walk REVISED - STATE OF ILLINOIS PLOT SCALE = 100,0000 '/ in. CHECKED - D. Macklin REVISED - DEPARTMENT OF TRANSPORTATION SCALE = 100,0000 '/ in. CHECKED - D. Macklin REVISED - DEPARTMENT OF TRANSPORTATION SCALE = 100,0000 '/ in. CHECKED - D. Macklin REVISED - DEPARTMENT OF TRANSPORTATION SCALE = 100,0000 '/ in. CHECKED - D. Macklin REVISED - DEPARTMENT OF TRANSPORTATION SCALE = 100,0000 '/ in. CHECKED - D. Macklin REVISED - DEPARTMENT OF TRANSPORTATION



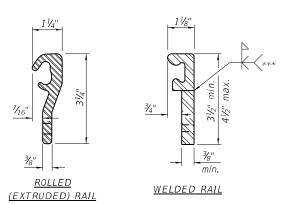
PLAN AT PARAPET



ELEVATION AT PARAPET

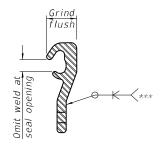
(Skews > 30° shown. Skews \leq 30° similar except as shown in plan view.)

DETAIL A



LOCKING EDGE RAILS

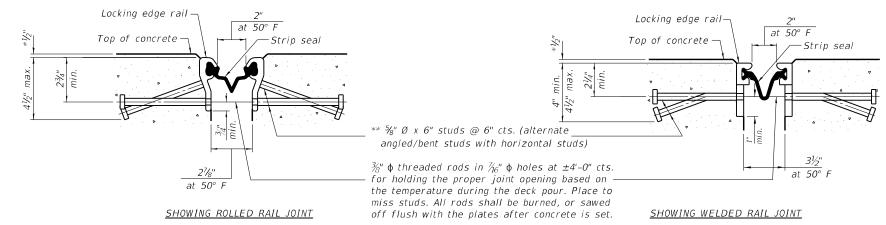
**** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

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

* Overlay thickness prior to grinding



SECTION H-H

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

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of V_4 ". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 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 $\frac{3}{16}$ " and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

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

BILL OF MATERIAL

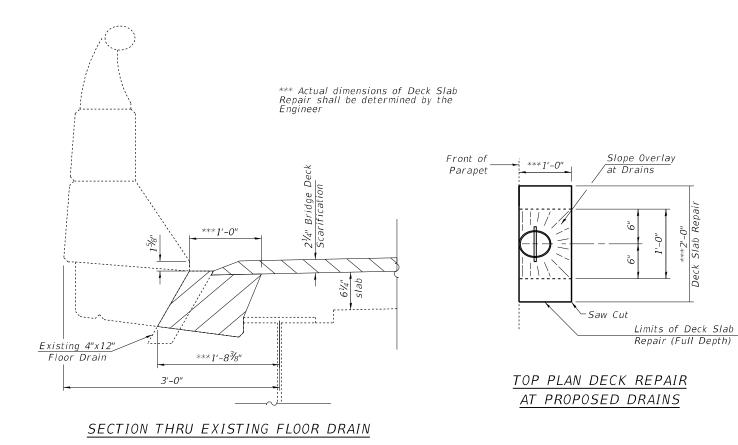
Item	Unit	Total
Preformed Joint Strip Seal	Foot	144

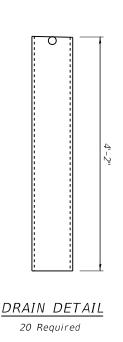
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

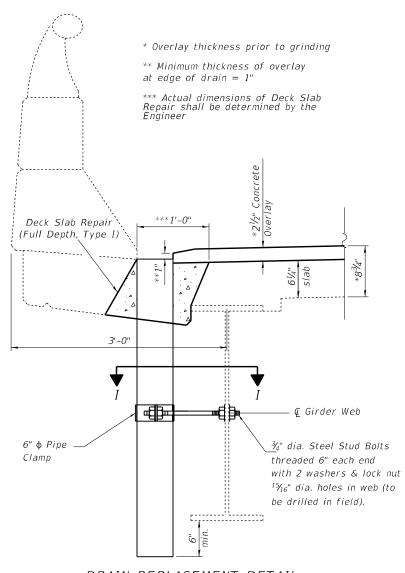
 PREFORMED
 JOINT STRIP
 SEAL DETAIL
 F.A.I RTE.
 SECTION
 COUNTY SHEETS
 TOTAL SHEETS WO.

 57
 D7 BRIDGE REPAIRS 2024-5
 FAYETTE
 26
 16

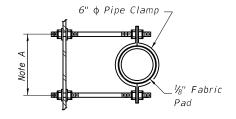
 SCALE: 100.00000 1 / In SHEET 7
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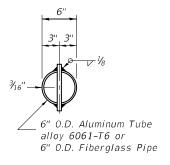


DRAIN REPLACEMENT DETAIL

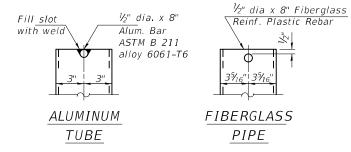


Note A: Dimension as required by Pipe Clamp

SECTION I-I



TOP PLAN



NOTES

Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

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

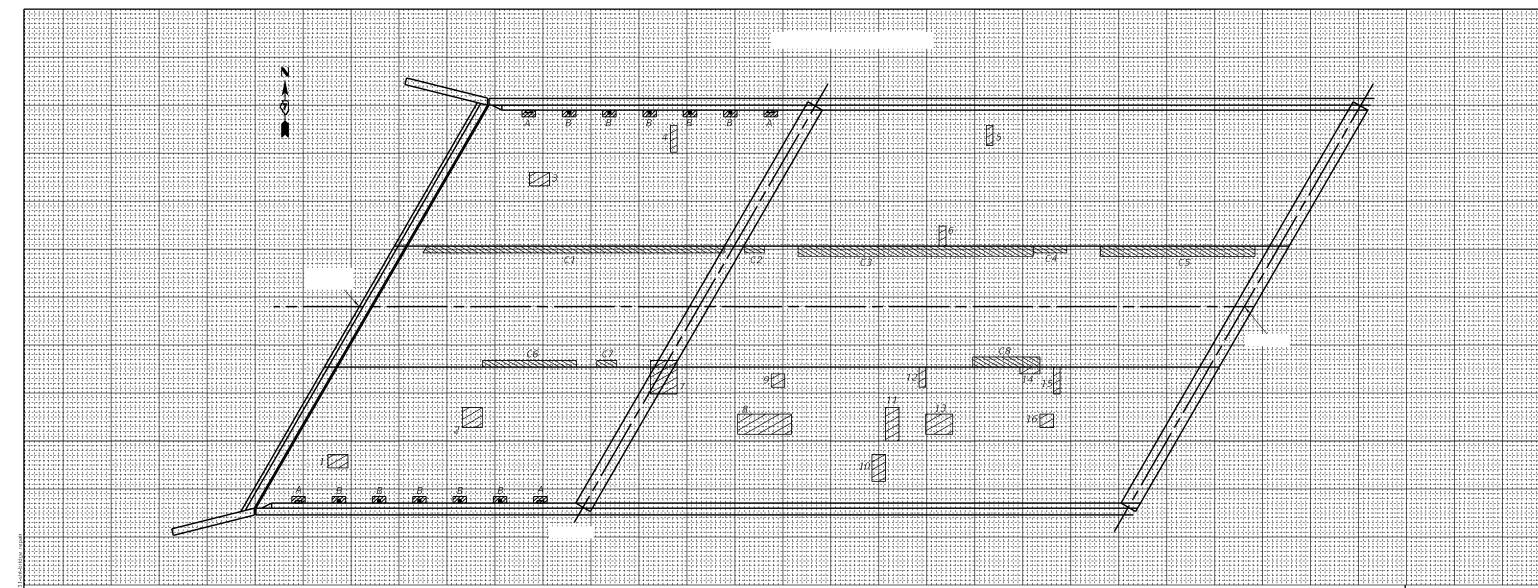
Concrete removal and replacement quantites and locations for drains are included in Deck Slab Repair (Full Depth, Type I) as shown on "Bridge Deck Patching" see sheets 9 & 10 of 13.

The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coating's Spec. SSPC-SP1 prior to painting.

USER NAME = jessica hille	DESIGNED	-	T. Walk	REVISED -	
	DRAWN	-	T. Walk	REVISED -	
PLOT SCALE = 100.0000 / in.	CHECKED	-	D. Macklin	REVISED -	
PLOT DATE = 8/30/2023	DATE	-	August 2022	REVISED -	
					_

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

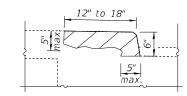
DECK DRAIN REPLACEMENT DETAILS	F.A.I RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.N. 026-0071	57	D7 BRIDGE REPAIRS 2024-5	FAYETTE	26	17
3.1V. 020-0071			CONTRACT	NO. 74	IB31
SCALE: 100.0000 / inSHEET 8 OF 13 SHEETS STA. TO STA.		ILLINOIS FED. AI	D PROJECT		



PATCH	SI	ZE	DECK SLAB REPAIR (FD TY I)	DECK SLAB REPAIR (FD TY II)
NO.	LENGTH	WIDTH	SQ YD	SQ YD
1	3.0	2.0		0.7
2	3.0	3.0		1.0
3	3.0	2.0		0.7
4	1.0	4.0	0.4	
5	1.0	3.0	0.3	
6	1.0	3.0	0.3	
7	4.0	4.0		1.8
8	8.0	3.0		2.7
9	2.0	2.0	0.4	
10	2.0	4.0		0.9
11	2.0	5.0		1.1
12	1.0	3.0	0.3	
13	4.0	3.0		1.3
14	3.0	1.0	0.3	
15	1.0	4.0	0.4	
16	2.0	2.0	0.4	

PATCH	SI.	ZE	DECK SLAB REPAIR (FD TY I)	DECK SLAB REPAIR (FD TY II)
NO.	LENGTH	WIDTH	SQ YD	SQ YD
A - Re	move Drai	0.9		
B- Rep	lace Drain	2.2		
TOT	AL ROUNDS	7.0	11.0	

PATCH		SIZE			
NO.	LENGTH	WIDTH	HEIGHT	STRUC. REPAIR OF CONCRETE (DEPTH \(\in S^{\mu} \))	
C 1	41.0	1.0	0.5	61.5	
C2	3.0	1.0	0.5	4.5	
С3	35.0	1.5	0.5	70.0	
C4	5.0	1.0	0.5	7.5	
C5	23.0	1.5	0.5	46.0	
C6	14.0	1.0	0.5	21.0	
C7	3.0	1.0	0.5	4.5	
C8	10.0	1.5	0.5	20.0	
	235				



Curb Repair Detail

Note: Max width 18" for curb repair

A & B = Deck Slab Repair (Full Depth, Type I) 2ft²=.22yd² Each

REMOVE DECK

REMOVE & REPLACE

ESTIMATED PAY QUANTITIES

DECK SLAB REPAIR (FULL DEPTH, TYPE I) = 7.0 SQ YD DECK SLAB REPAIR (FULL DEPTH, TYPE II) = 11.0 SQ YD STRUC. REPAIR OF CONCRETE (DEPTH ≤ 5") = 235 SQ FT FLOOR DRAINS = 10 EACH

CK DI	Ally		
F.A.I RTE	SECTION	COUNTY	TOT SHE
57	D7 BRIDGE REPAIRS 2024-5	FAYETTE	21

OSER WARE = Jessieu, mile	DESIGNED	-	i. Walk	INLVISED	-
	DRAWN	-	T. Walk	REVISED	-
PLOT SCALE = 100.0000 / in.	CHECKED	-	D. Macklin	REVISED	-
PLOT DATE = 8/30/2023	DATE	-	August 2022	REVISED	-

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

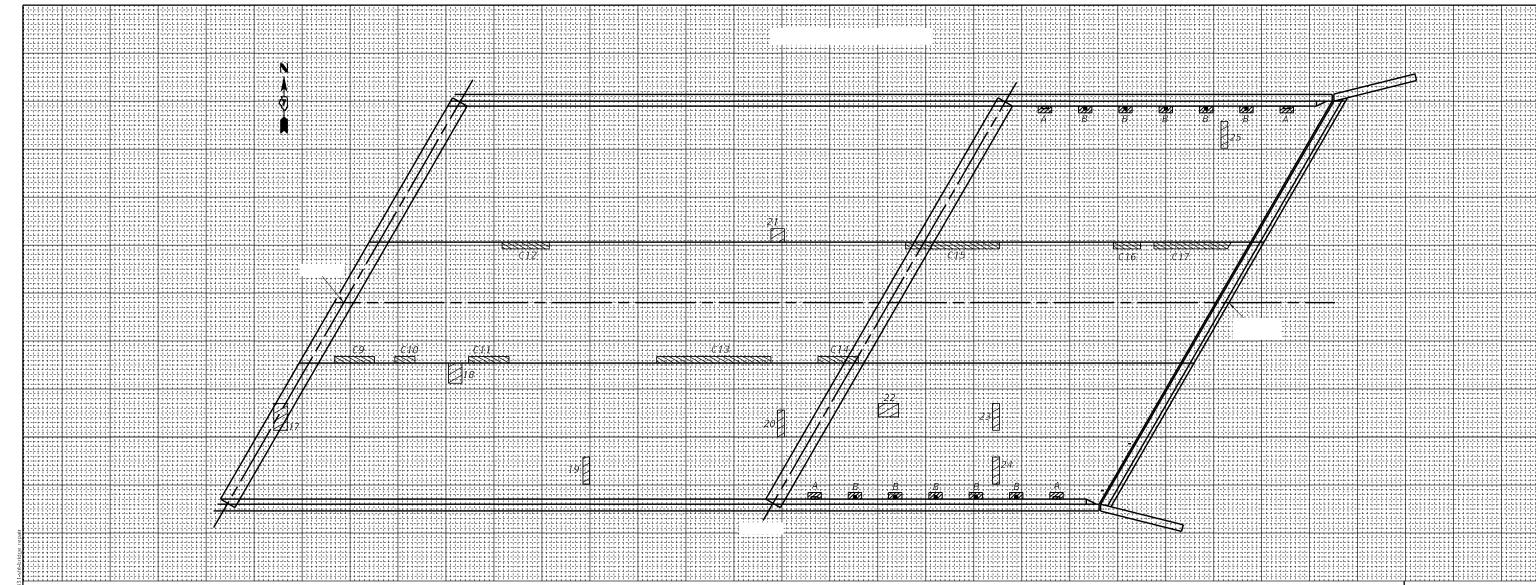
BRIDGE DECK PATCHING, WEST HALF SN. 026-0071 SCALE: 100.0000 / inSHEET 9 OF 13 SHEETS STA. TO STA.

26 18 CONTRACT NO. 74B31

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

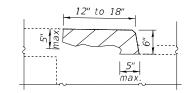
DATE OF SURVEY: 7-12-2022 SURVEY BY: DPM & TMW METHOD OF SURVEY: VISUAL

DECK REPAIR FULL DEPTH TY 1 & TY 2



PATCH	SI.	ZE	DECK SLAB REPAIR (FD TY I)	DECK SLAB REPAIR (FD TY II)
NO.	LENGTH	WIDTH	SQ YD	SQ YD
17	2.0	4.0		0.9
18	2.0	3.0		0.7
19	1.0	4.0	0.4	
20	1.0	4.0	0.4	
21	2.0	2.0	0.4	
22	3.0	2.0		0.7
23	1.0	4.0	0.4	
24	1.0	4.0	0.4	
25	1.4	4.0	0.4	
A - Re	move Drai	0.9		
B- Rep	lace Drain	2.2		
тот	AL ROUNDS	TO:	6.0	3.0





Curb Repair Detail

Note: Max width 18" for curb repair

A & B = Deck Slab Repair (Full Depth, Type I) 2ft²=.22yd² Each

REMOVE DECK



ESTIMATED PAY QUANTITIES

DECK SLAB REPAIR (FULL DEPTH, TYPE I) = 6.0 SQ YD DECK SLAB REPAIR (FULL DEPTH, TYPE II) = 3.0 SQ YD STRUC. REPAIR OF CONCRETE (DEPTH \leq 5") = 111 SQ FT FLOOR DRAINS = 10 EACH

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V / ~ / /

REMOVE & REPLACE DECK DRAIN

USER NAME = Jessica. Hille	DESIGNED	-	I. Walk	MENISED -	
	DRAWN	-	T. Walk	REVISED -	
PLOT SCALE = 100.0000 / in.	CHECKED	-	D. Macklin	REVISED -	
PLOT DATE = 8/30/2023	DATE	-	August 2022	REVISED -	

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

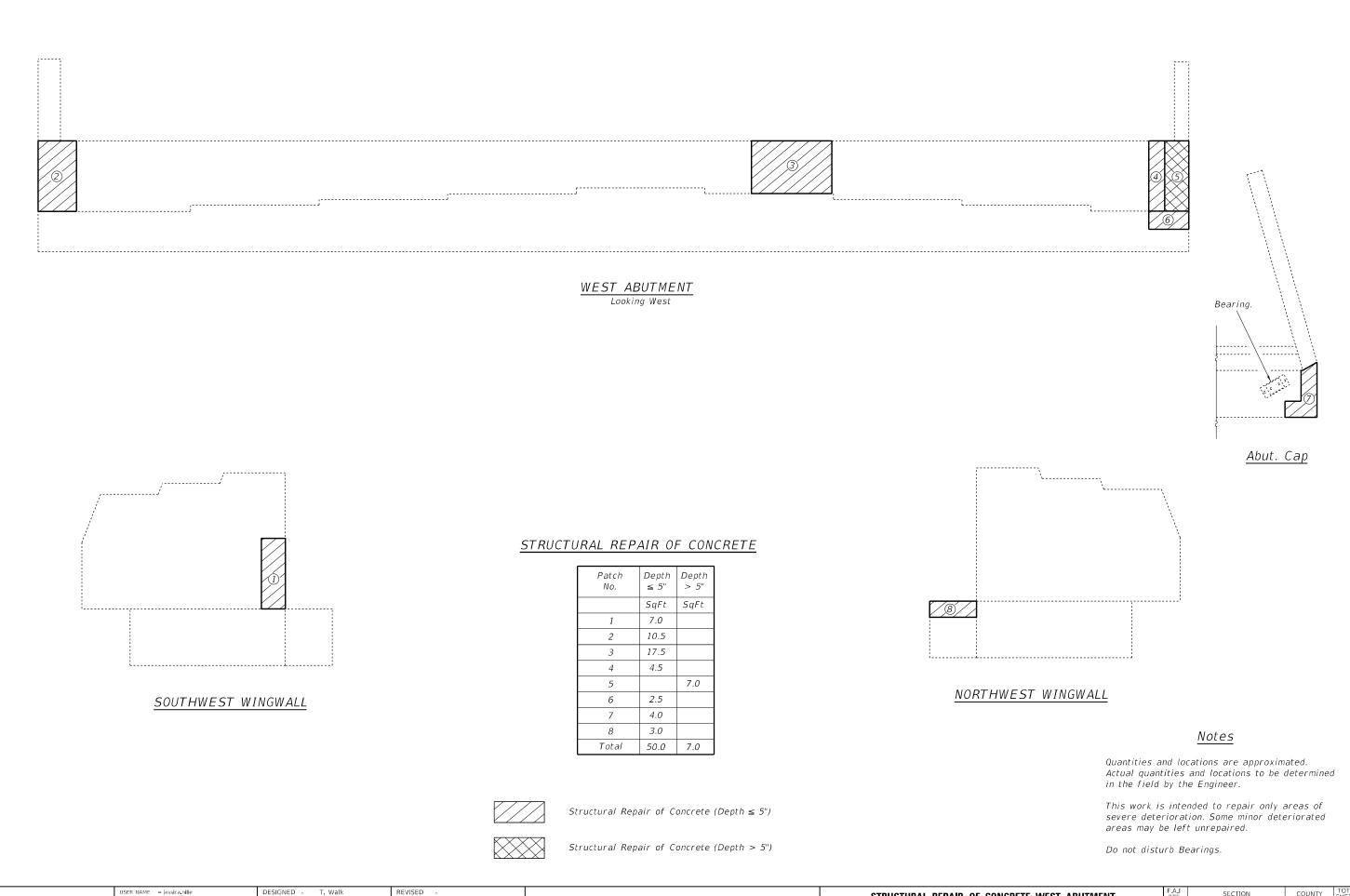
BRIDGE DECK PATCHING, EAST HALF SN. 026-0071 SCALE: 100.0000 / inSHEET 10 OF 13 SHEETS STA TO STA.

F.A.I RTE	SECTION		COUNTY	TOTAL SHEETS	SHE
57	D7 BRIDGE REPAIRS 2	2024-5	FAYETTE	26	19
			CONTRACT	NO. 74	4B31

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

DATE OF SURVEY: 7-12-2022 SURVEY BY: DPM & TMW METHOD OF SURVEY: VISUAL

DECK REPAIR FULL DEPTH TY 1 & TY 2



REVISED

DRAWN

CHECKED

PLOT SCALE = 100.0000 / in

PLOT DATE = 8/30/2023

T. Walk

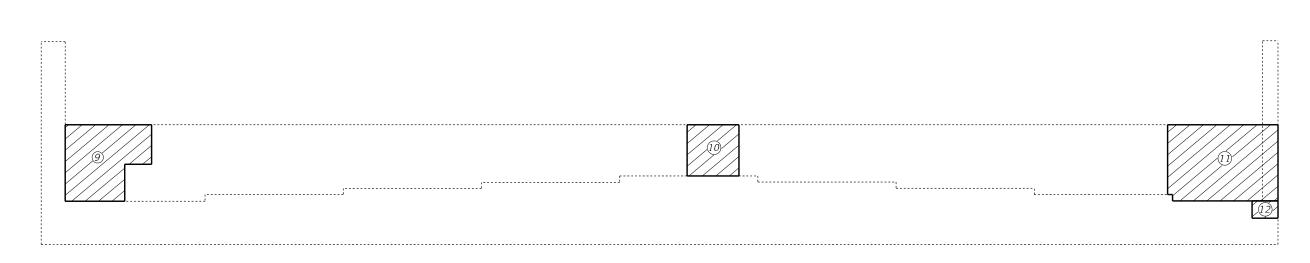
D. Mack**l**in

REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

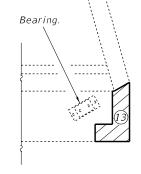
STRUCTURAL REPAIR OF CONCRETE WEST ABUTMENT S.N. 026-0071 SCALE: 100.0000 / inSHEET 11 OF 13 SHEETS STA.

57 D7 BRIDGE REPAIRS 2024-5 FAYETTE 26 20 CONTRACT NO. 74B31



EAST ABUTMENT

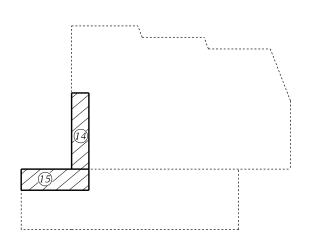
Looking West



<u>Abut. Cap</u>



Patch No.	Depth ≤ 5"	Depth > 5"
	SqFt	SqFt
9	19.0	
10	10.5	
11	27.0	
12	2.0	
13	4.0	
14	4.5	
15	4.0	
Total	71.0	0.0



SOUTHEAST WINGWALL

<u>Notes</u>

Quantities and locations are approximated. Actual quantities and locations to be determined in the field by the Engineer.

This work is intended to repair only areas of severe deterioration. Some minor deteriorated areas may be left unrepaired.

Do not disturb Bearings.

Structural Repair of Concrete (Depth > 5")

Structural Repair of Concrete (Depth ≤ 5")

 USER NAME
 = jessica.hille
 DESIGNED
 T. Walk
 REVISED

 PLOT SCALE
 = 100.0000 ' / in.
 CHECKED
 D. Macklin
 REVISED

 PLOT DATE
 = 8/30/2023
 DATE
 August 2022
 REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL REPAIR OF CONCRETE EAST ABUTMENT

S.N. 026-0071

SCALE: 100.0000 ' / hSHEET 12 OF 13 SHEETS STA. TO STA.

| F.A.I | SECTION | COUNTY | TOTAL | SHEETS | NO. |
| 57 | D7 BRIDGE REPAIRS 2024-5 | FAYETTE | 26 | 21 |
| CONTRACT NO. 74B31

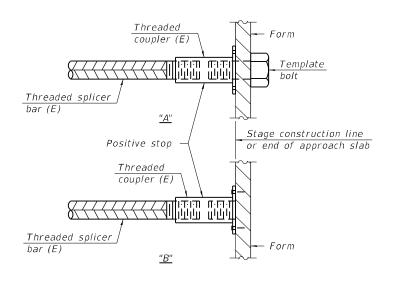
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + $1\frac{1}{2}$ " + thread length

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

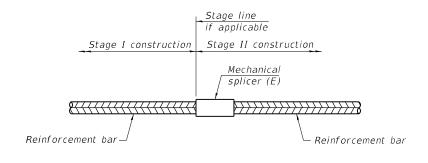
Location	Bar size	No. assemblies required	Minimum Iap length
Deck	#6	8	3'-7"
Deck Median	#5	16	3'-0"
Approach	#6	8	4'-0"
Approach Median	#5	4	3'-4"



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E): Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

Notes:

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars. Bar splicer assemblies shall be epoxy coated according to the requirements

for reinforcement bars. See Section 508 of the Standard Specifications. See approved list of bar splicer assemblies and mechanical splicers for

alternatives.

BSD-1

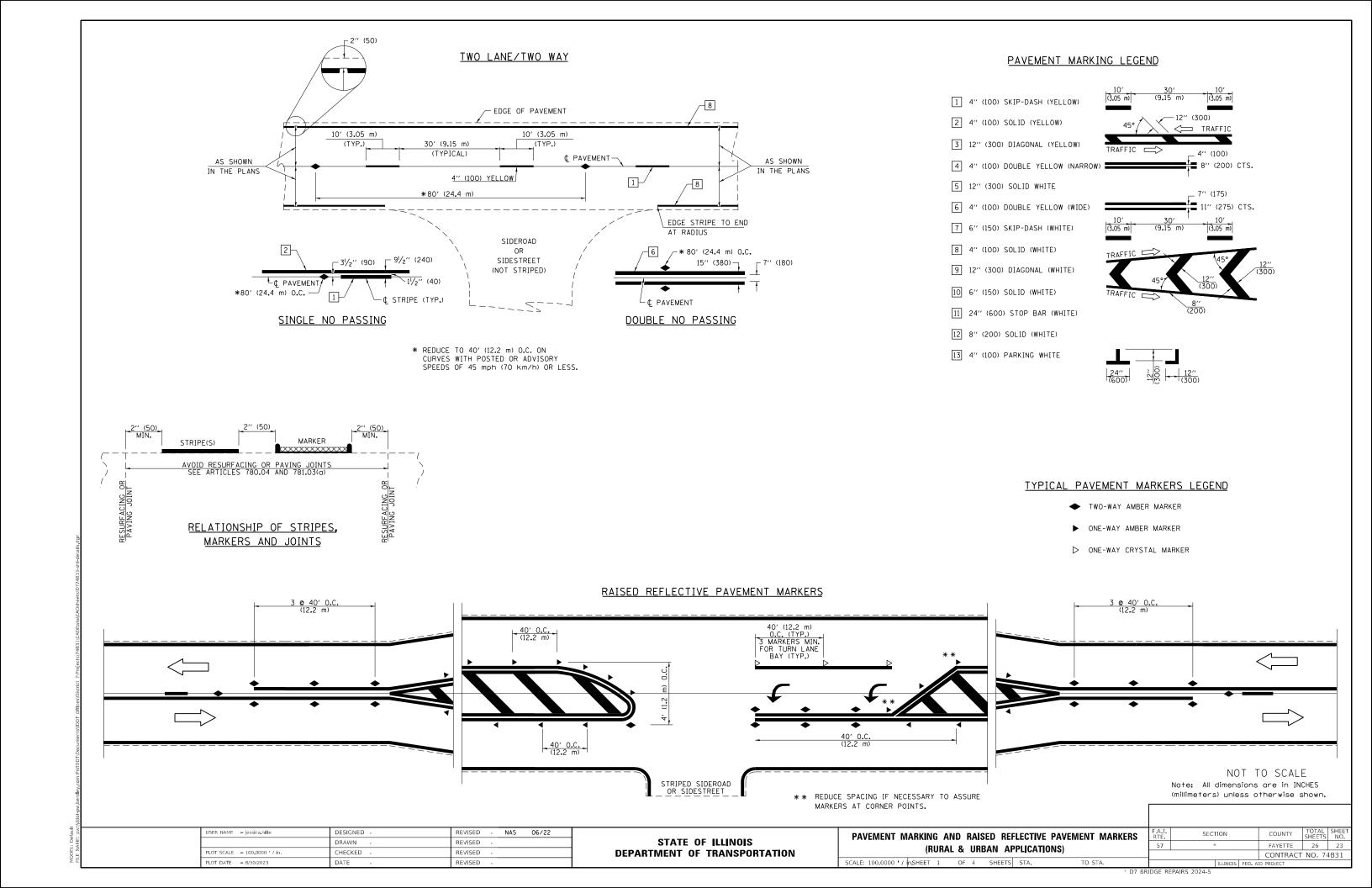
1-1-2020

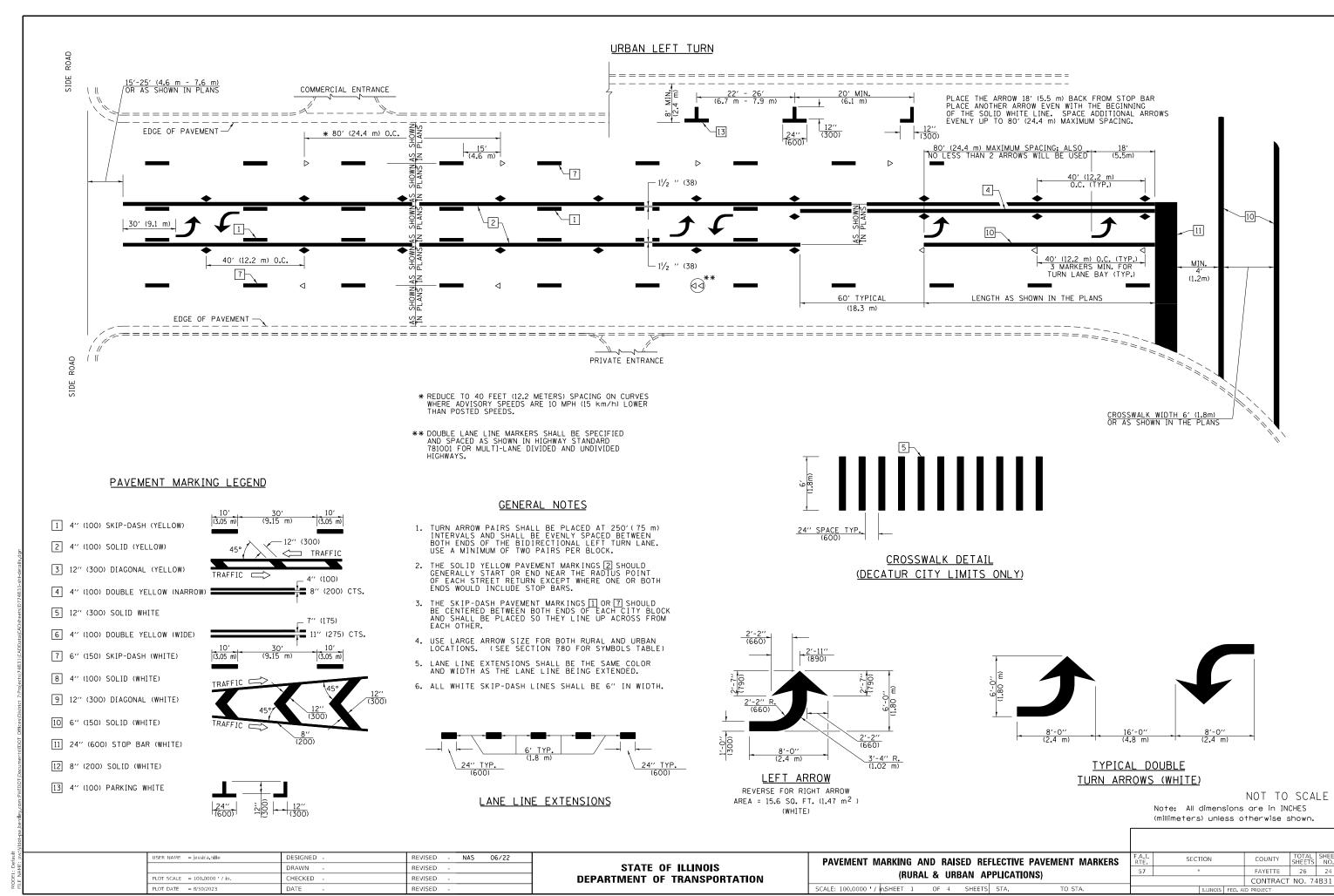
USER NAME = Default	DESIGNED	-	T. Walk	REVISED -
	DRAWN	-	T. Walk	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED	-	D. Mack l in	REVISED -
PLOT DATE = 10/3/2023	DATE	-	August 2022	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

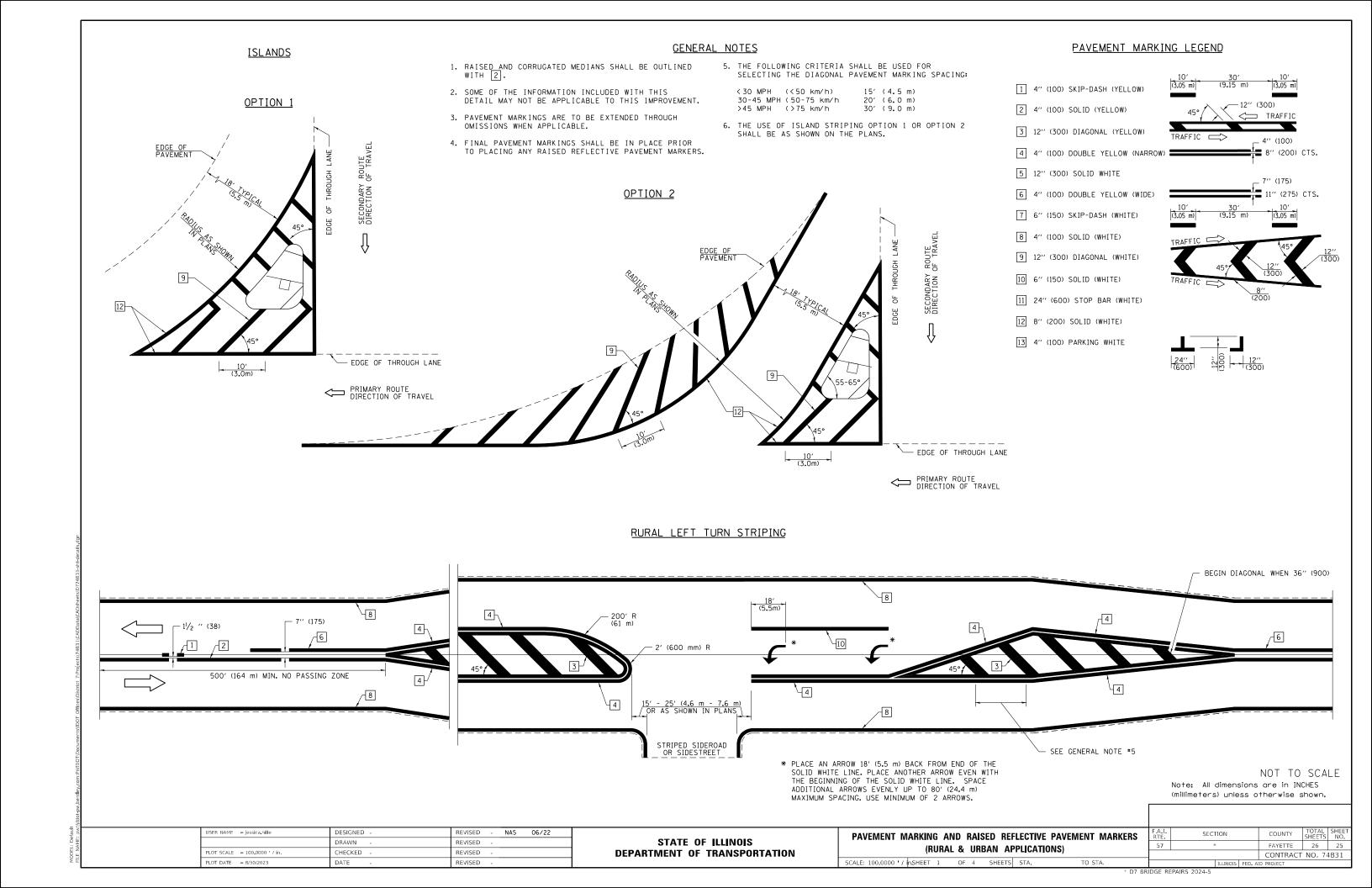
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS S.N. 026-0071 SCALE: 100.0000 / in SHEET 13 OF 13 SHEETS STA. TO STA.

SECTION COUNTY 57 D7 BRIDGE REPAIRS 2024-5 FAYETTE 26 22 CONTRACT NO. 74B31

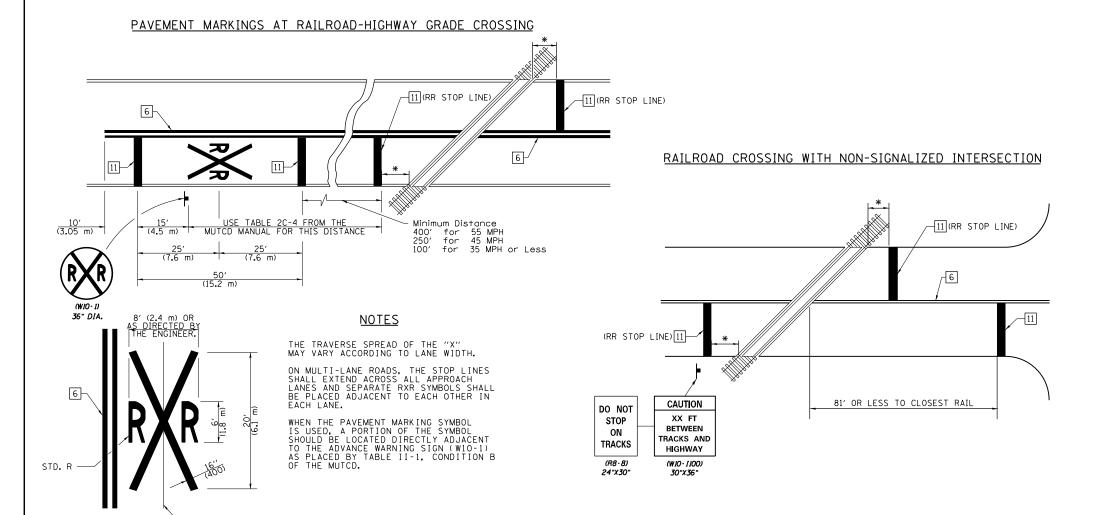




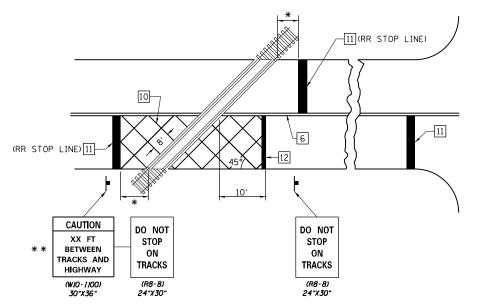
* D7 BRIDGE REPAIRS 2024-5



SUPPLEMENTAL PAVEMENT MARKING TREATMENT FOR RAILROAD-HIGHWAY GRADE CROSSING

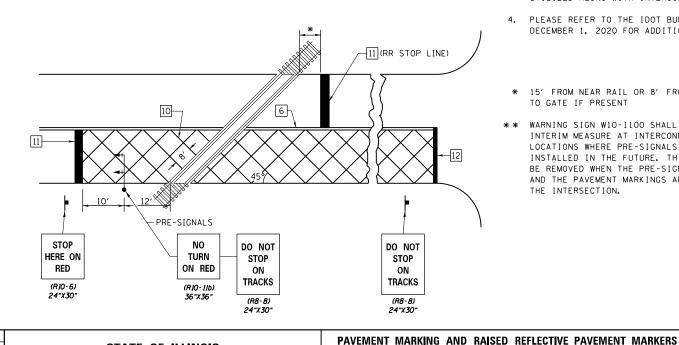


RAILROAD CROSSING WITH INTERCONNECT ONLY



JSER NAME = jessica hille DESIGNED NAS 06/22 REVISED DRAWN REVISED HECKED REVISED PLOT DATE = 8/30/2023 REVISED DATE

RAILROAD CROSSING WITH INTERCONNECT AND PRE-SIGNALS

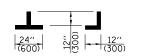


STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LEGEND

- 1 4" (100) SKIP-DASH (YELLOW) 2 4" (100) SOLID (YELLOW) TRAFFI'S 3 12" (300) DIAGONAL (YELLOW 4" (100) 4 4" (100) DOUBLE YELLOW (NARROW) **3** 8" (200) CTS. 5 12" (300) SOLID WHITE 7" (175)
- 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

(W10-1101)

- 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 WIO-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.

TO STA.

(RURAL & URBAN APPLICATIONS)

SCALE: 100.0000 / inSHEET 1 OF 4 SHEETS STA.

NOT TO SCALE

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

F.A.I. RTE	SECTION			COUNTY	TOTAL SHEETS	SHEET NO.
57	*			FAYETTE	26	26
				CONTRACT NO. 74B31		
		ILLINOIS	ID PROJECT			