

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
70	82-1-B-1BJR-2	ST CLAIR	40	1
		ILLINOIS	CONTRACT NO. 76U30	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

TRAFFIC DATA: I-70 OVER I-55/I-64 AND KCSRR

LOCATION	I-70 SN 082-0323
2025 ADT:	42000 (ACTUAL)
MU%	12.6
SU%	3.3

FUNCTIONAL CLASSIFICATION: INTERSTATE

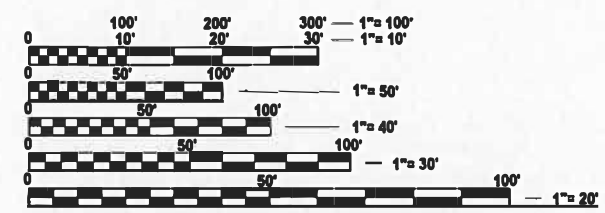
PROPOSED
HIGHWAY PLANS

FAI ROUTE 70 (I-70)
SECTION 82-1-B-1BJR-2
PROJECT: NHPP-T230(819)
BRIDGE DECK OVERLAY,
BRIDGE JOINT REPLACE/REPAIR
ST CLAIR COUNTY
C-98-059-25



END PROJECT:
STA. 85+13.71 SN 082-0325
STA. 87+02.72 SN 082-0323
38°38'11.45"N, 90°08'55.90"W

BEGIN PROJECT:
SN 082-0323
STA. 72+81.22
38°38'04.07"N, 90°08'40.80"W

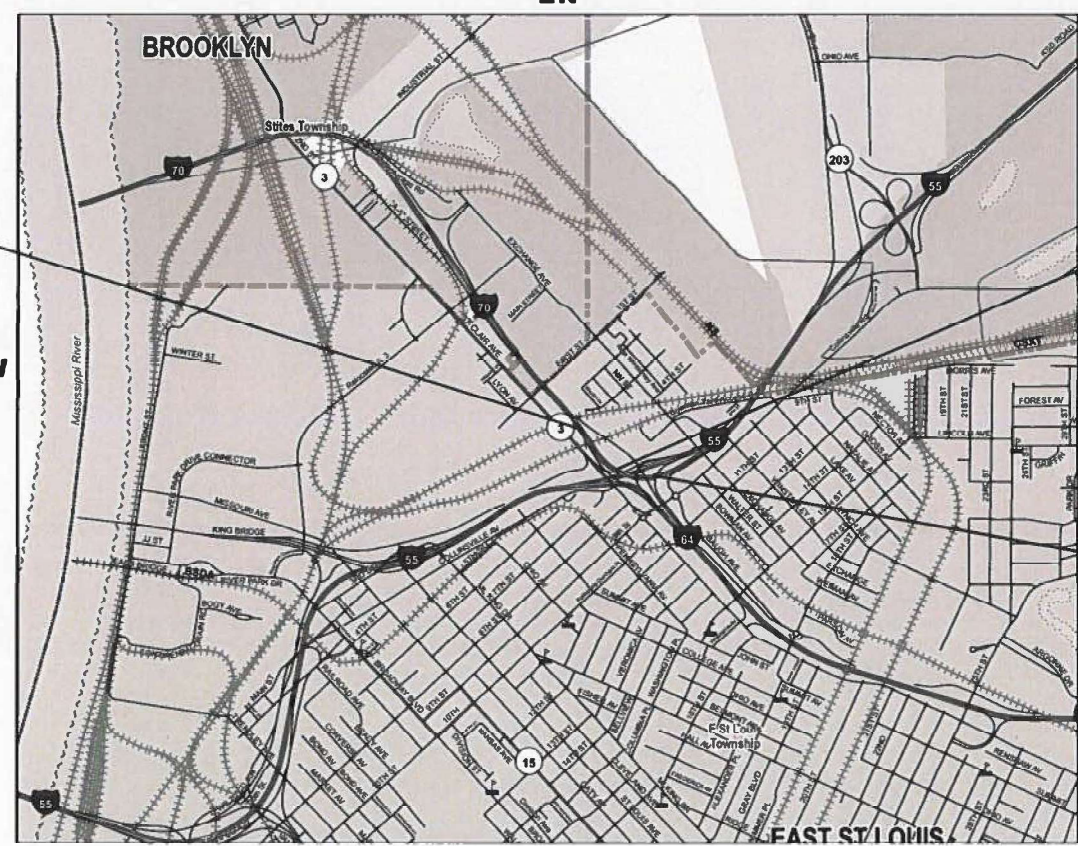


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: BILLIE OWEN
PROJECT MANAGER: MIKE BERG

CONTRACT NO. 76U30



GROSS LENGTH = 2,127.75 FT. = 0.403 MILE
NET LENGTH = 2,744.75 FT. = 0.520 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED FEB 7 2025

REGIONAL ENGINEER

March 21 2025

ENGINEER OF DESIGN AND ENVIRONMENT

March 21 2025

DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

1. COVER SHEET
2. INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES AND COMMITMENTS
- 3.-5. SUMMARY OF QUANTITIES
6. SCHEDULE OF QUANTITIES
7. LOCATION MAP
8. TYPICAL SECTIONS
- 9.-11. STAGE I
- 12.-13 STAGE II
14. 64-70 RAMP DETOUR SIGNING
15. PAVING TRANSITION DETAIL
- 16-40. STRUCTURE PLANS

HIGHWAY STANDARDS

000001-08	STANDARDS SYMBOLS ABBREVIATIONS & PATTERNS
001001-02	DECIMAL OF INCH & FOOT
701101-05	OFF ROAD MOVING OPERATIONS, MULTILANE. 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF ROAD MOVING OPERATIONS, MULTILANE. 15' AWAY
701400-12	APPROACH TO LANE CLOSURE FREEWAY EXPRESSWAY
701401-13	LANE CLOSURE FREEWAY EXPRESSWAY
701402-12	LANE CLOSURE FREEWAY EXPRESSWAY WITH BARRIER
701406-13	LANE CLOSURE FREEWAY EXPRESSWAY DAY OPERATIONS ONLY
701426-09	LANE CLOSURE MULTILANE INTERMITTENT OR MOVING OPERATIONS 45 MPH OR MORE
701428-01	TRAFFIC CONTROL SETUP REMOVAL FREEWAY EXPRESSWAY
701446-11	TWO LANE CLOSURE FREEWAY EXPRESSWAY
701456-05	PARTIAL EXIT RAMP CLOSURE FREEWAY EXPRESSWAY
701901-10	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

GENERAL NOTES

1. UTILITIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREAS
- AT&T ILLINOIS
CITY OF EAST ST. LOUIS
ILLINOIS AMERICAN WATER COMPANY
LEVEL 3 COMMUNICATIONS, LLC
2. NO SURVEY WAS PREFORMED FOR THIS PROJECT AND THE PLANS WERE CREATED USING MICROFILM AND FIELD MEASUREMENTS.
3. THE RESIDENT ENGINEER SHALL VERIFY THE EXISTENCE OF HIGHWAY LIGHTING, INTELLIGENT TRANSPORTATION SYSTEMS (I.T.S.) UTILITIES, AND/OR ELECTRICAL CABLES ASSOCIATED WITH TRAFFIC SIGNALS WITHIN THE PROJECT LIMITS. IF ANY OF THESE EXIST WITHIN THE PROJECT LIMITS, AND IF THESE ITEMS REQUIRE LOCATING, THE CONTRACTOR SHALL BE DIRECTED TO DO SO ACCORDING TO SECTION 803 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.
4. 9 CHANGEABLE MESSAGE BOARDS SHALL BE REQUIRED FOR THIS PROJECT. THEY SHALL BE PLACED 2 WEEKS PRIOR TO ANY LANE CLOSURE. THE CHANGEABLE MESSAGE BOARDS SHALL BE PLACED AS SHOWN IN THE PLANS AND AT THE DIRECTION OF THE ENGINEER.
5. THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM IT'S FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ECT.) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL-TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. CONTRACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.

MIX CHART

MIXTURE USE	POLY SURFACE	POLY BINDER
AC/PG	SBS PG 70-28	SBS PG 70-28
DESIGN AIR VOIDS	4.0% @ NDES=80	4.0% @ NDES=50
MIX COMPOSITION (GRADATION)	SMA 9.5	IL 4.75
FRICTION AGG	E	
QUALITY MGMT PROGRAM	QC/QA	QC/QA
MATTRANDEV REQUIRED?	NO	NO

COMMITMENTS

NONE

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		DRAWN -	REVISED -				70	82-1-B-1BJR-2	ST CLAIR	40	2
		CHECKED -	REVISED -				CONTRACT NO. 76U30				
	PLOT DATE = 2/14/2025	DATE -	REVISED -		SCALE:	SHEET 1 OF 1 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				BRIDGE 0047 082-0323	BRIDGE 0047 082-0325	ROADWAY 0006 0006 RURAL
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	7977	1290	5712	975
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SQ YD	1083			1083
40600990	TEMPORARY RAMP	SQ YD	72			72
40605024	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "E", N80	TON	1675.2			1675.2
42001300	PROTECTIVE COAT	SQ YD	202	69	133	
44200978	CLASS B PATCHES, TYPE I, 11 INCH	SQ YD	13.3			13.3
44200982	CLASS B PATCHES, TYPE II, 11 INCH	SQ YD	10			10
50102400	CONCRETE REMOVAL	CU YD	80.7	21.8	58.9	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	93.7	24.8	68.9	
50500505	STUD SHEAR CONNECTORS	EACH	60	12	48	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	18350	4900	13450	
50800515	BAR SPLICERS	EACH	65	44	21	
50800530	MECHANICAL SPLICERS	EACH	1000	258	742	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	42		42	
58100210	FULL LANE SEALANT WATERPROOFING SYSTEM	SQ YD	11665	2146	9519	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST CLAIR	40	3
CONTRACT NO. 76U30				
ILLINOIS FED. AID PROJECT				

REV-SK
REV - MS

SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				BRIDGE	BRIDGE	ROADWAY
				0047	0047	0006
				082-0323	082-0325	RURAL
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6			6
67100100	MOBILIZATION	L SUM	1			1
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	1	1		
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1			1
70100825	TRAFFIC CONTROL AND PROTECTION, STANDARD 701456	L SUM	1		1	
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	578			578
70300100	SHORT TERM PAVEMENT MARKING	FOOT	685	135	490	60
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	228	45	163	20
70300241	TEMPORARY PAVEMENT MARKING - LINE 6"- PAINT	FOOT	5730	1213	3946	571
70300251	TEMPORARY PAVEMENT MARKING - LINE 8"- PAINT	FOOT	1588		1588	
70300261	TEMPORARY PAVEMENT MARKING - LINE 12"- PAINT	FOOT	397		397	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1842	1542	300	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1480	1480		
70600251	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	1	1	

REV - MS

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		CHECKED -	REVISED -							CONTRACT NO. 76U30				
	PLOT DATE = 2/14/2025	DATE -	REVISED -		ILLINOIS FED. AID PROJECT									
					SCALE:	SHEET 2	OF 3	SHEETS	STA.	TO STA.				

				CONSTRUCTION CODE		
			90% FED 10% STATE			
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE	BRIDGE	ROADWAY
				0047	0047	0006
				082-0323	082-0325	RURAL
70600352	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE,NARROW), TEST LEVEL 3	EACH	1	1		
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	5730	1213	3946	571
* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	1588		1588	
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	397		397	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	35	14	18	3
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	35	14	18	3
X7010206	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401 (SPECIAL)	EACH	1		1	
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	37.3	37.3		
Ø Z0076600	TRAINEES	HOUR	1500	1500		
Z0034806	MODULAR EXPANSION JOINT-SWIVEL 6"	FOOT	36		36	
Ø Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1500	1500		
Z0034809	MODULAR EXPANSION JOINT-SWIVEL 9"	FOOT	171	42	129	

* SPECIALTY ITEM

Ø 0042

REV-SK

REV - MS

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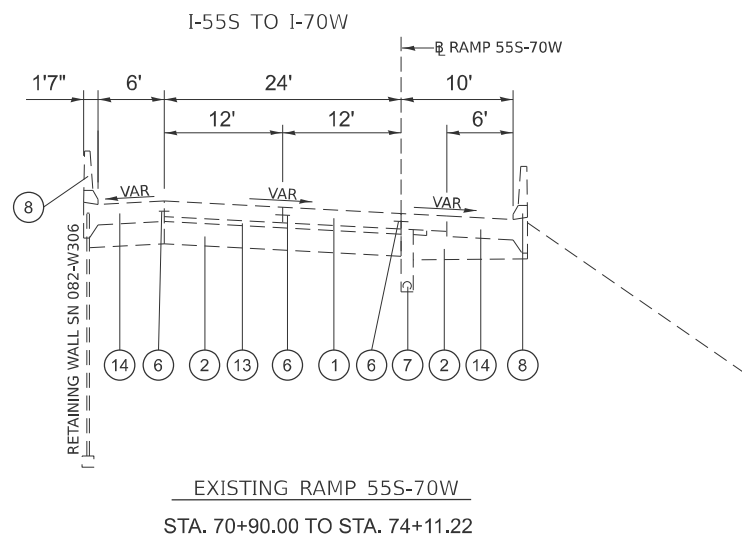
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	PLOT DATE = 2/14/2025	DATE -	REVISED -		SCALE:	SHEET 3	OF 3 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

PATCHING SCHEDULE					
LOCATION	LENGTH	WIDTH	CLASS B PATCHES, 11"		COMMENTS
	FT	FT	TYPE I	TYPE II	
	FT	FT	SQ YD	SQ YD	
55/70					
54+14.22	30	3		10.0	Lane 1 Left
55+31.22	2	4	0.9		Lane 1 Left
58+87.22	3	1	0.3		Lane 2 CL
59+00.22	2	6	1.3		Lane 1 Left
59+56.22	3	1	0.3		Lane 2 CL RPM (typ of all RPM's)
61+94.22	9	4	4.0		C.L. previous patch
62+07.22	10	4	4.4		C.L. previous patch
62+68.22	3	3	1.0		Lane 1 Right previous patch
62+92.22	3	3	1.0		Lane 1 Right previous patch
TOTALS			13.3	10.0	

RESURFACING SCHEDULE								
LOCATION			LENGTH	WIDTH	DEPTH	PCC SURFACE REMOVAL - BUTT JOINT	BITUMINOUS MATERIALS (TACK COAT)	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "C", N80
			FT	FT	IN	SQ YD	POUND	SQ YD
64/70								
STA 64+03.21	TO	STA 65+78.21	75	34	1.5	283.3	127.5	23.8
STA 65+78.21	TO	STA 65+15.71	37.5	34	1.5-2.25		63.8	14.9
STA 83+83.21	TO	STA 84+20.71	37.5	56	2.25-1.5		105.0	24.5
STA 84+20.71	TO	STA 84+95.71	75	56	1.5	466.7	210.0	39.2
55/70								
STA 72+99.22	TO	STA 73+74.22	75	40	1.5	333.3	150.0	28.0
STA 73+74.22	TO	STA 74+11.72	37.5	40	1.5-2.25		75.0	17.5
TOTAL						1083.3	731.3	147.9

PAVEMENT MARKING SCHEDULE											
LOCATION			THERMOPLASTIC PAVEMENT MARKING LINE, 6"			THERMOPLASTIC PAVEMENT MARKING LINE, 8"	THERMOPLASTIC PAVEMENT MARKING LINE, 12"	RAISFD RFFI CTIVE PAVEMENT MARKER REMOVAL	RAISFD RFFFI CTIVE PAVEMENT MARKER - ONE-WAY CRYSTAL	SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL
			FT	FT	FT	FT	FT	FT	EACH	EACH	FT
64/70											
STA 64+03.21	TO	STA 77+01.63	1298.4	1298.4						208	69
STA 77+01.63	TO	STA 84+95.71	1588.2		200	1588.2	397.1	20	20	327	109
55/70											
STA 72+99.22	TO	STA 78+98.22	599	599	150			15	15	150	50
SUB-TOTAL			3485.6	1897.4	350.0	1588.2	397.1	35.0	35	558	186
TOTAL			5733.0			1588.2	397.1	35.0	35	558	186

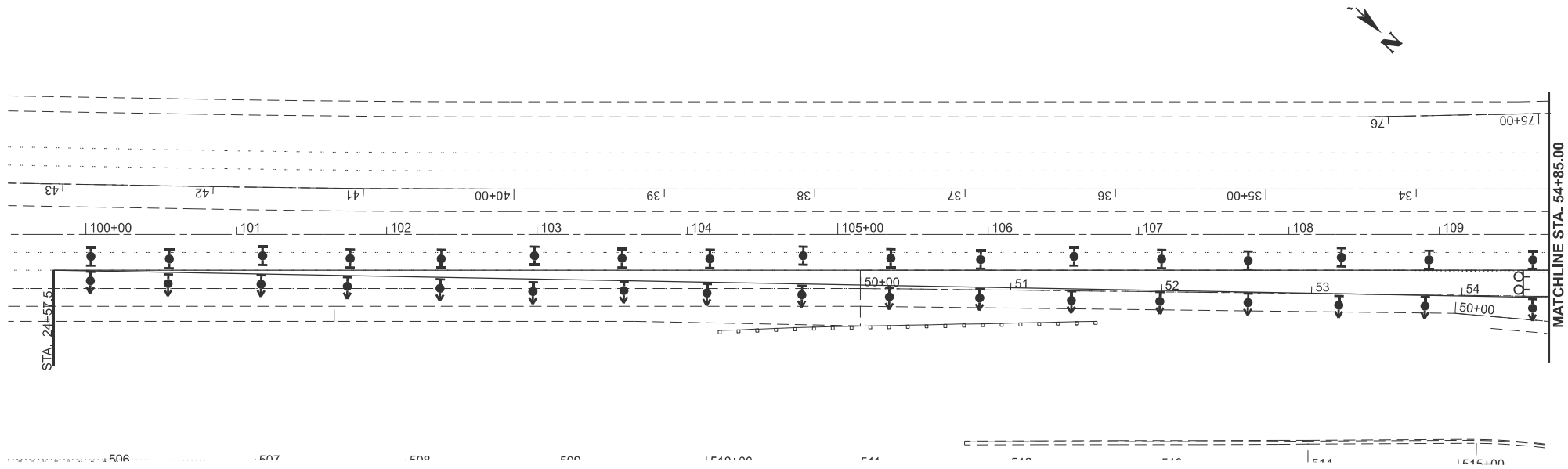
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		DRAWN -	REVISED -						70	82-1-B-1BJR-2	ST CLAIR	40	6
		CHECKED -	REVISED -				CONTRACT NO. 76U30						
	PLOT DATE = 2/14/2025	DATE -	REVISED -		SCALE:	SHEET 1	OF 1	SHEETS	STA.	TO STA.			
									ILLINOIS FED. AID PROJECT				



1. EXISTING P.C.C. PAVEMENT - 10 1/2" (JOINTED RAMPS)
2. EXISTING AGGREGATE BASE COURSE, TYPE A-12"
3. EXISTING P.C.C. SHOULDER 10 1/2"
4. EXISTING P.C.C. SHOULDER 12 1/2"
5. EXISTING AGGREGATE SHOULDERS, TYPE B
6. EXISTING "6 TIE BARS, 24" LONG AT 24" C-C
7. EXISTING PIPE UNDERDRAINS 6"
8. EXISTING CONCRETE BARRIER SINGLE FACE, 42" HEIGHT (SPECIAL)
9. EXISTING HMA OVERLAY
10. EXISTING STONE RIPRAP, CLASS A4
11. EXISTING STEEL PLATE BEAM GUARDRAIL, TYPE A, 6' POST
12. EXISTING BITUMINOUS MATERIAL (PRIME COAT)
13. EXISTING STABILIZED SUBBASE, HMA, 4"
14. EXISTING REINFORCED CONCRETE MOMENT SLAB
15. EXISTING P.C.C. SHOULDER 11 1/4"

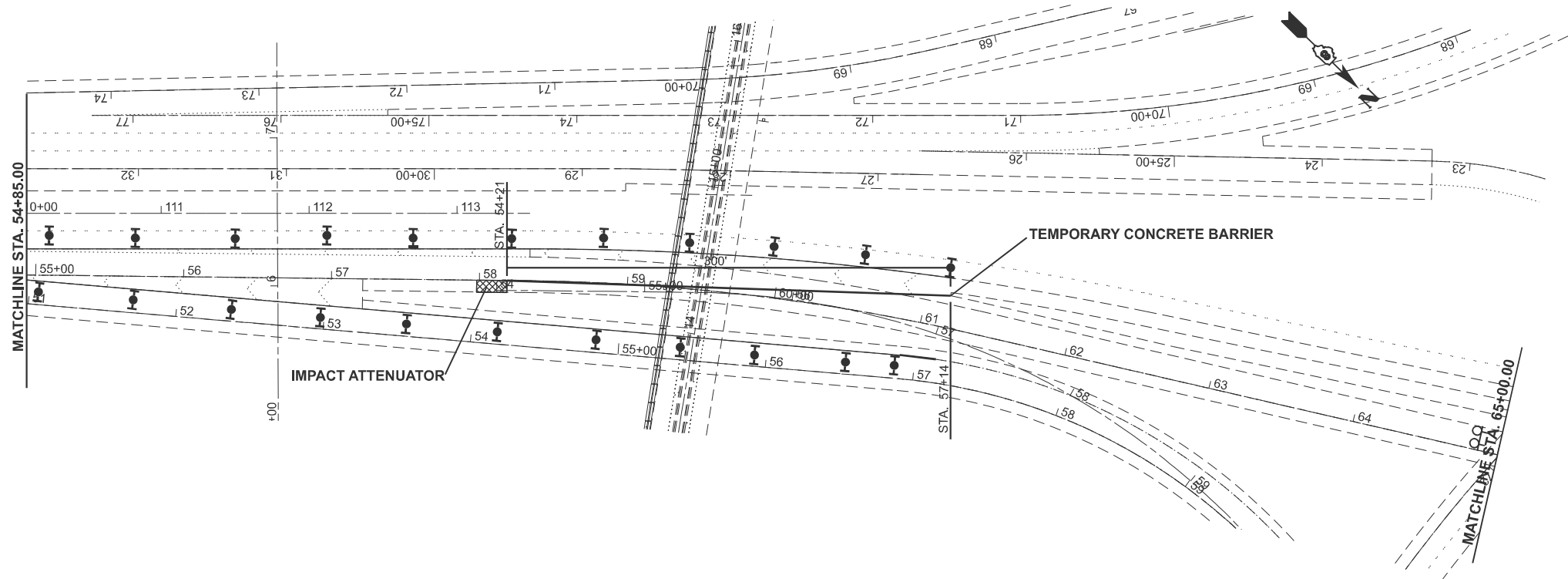


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		CHECKED -	REVISED -						CONTRACT NO. 76U30					
	PLOT DATE = 2/8/2025	DATE -	REVISED -		SCALE:	SHEET 1	OF 1 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT				



- IMPACT ATTENUATOR
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRCETIONAL LIGHT, 50' CENTERS
- DIRECTIONAL INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' CENTERS
- TYPE III BARRICADE WITH FLASHING LIGHT

NOTE: WORK SHOWN IN ADDITION TO STANDARDS IN PLANS PAID FOR AS TRAFFIC CONTROL AND PROTECTION, STANDARD 701401 (SPECIAL)



- IMPACT ATTENUATOR
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRCETIONAL LIGHT, 50' CENTERS
- DIRECTIONAL INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' CENTERS
- TYPE III BARRICADE WITH FLASHING LIGHT

NOTE: WORK SHOWN IN ADDITION TO STANDARDS IN PLANS PAID FOR AS TRAFFIC CONTROL AND PROTECTION, STANDARD 701401 (SPECIAL)

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		CHECKED	-	REVISED	-
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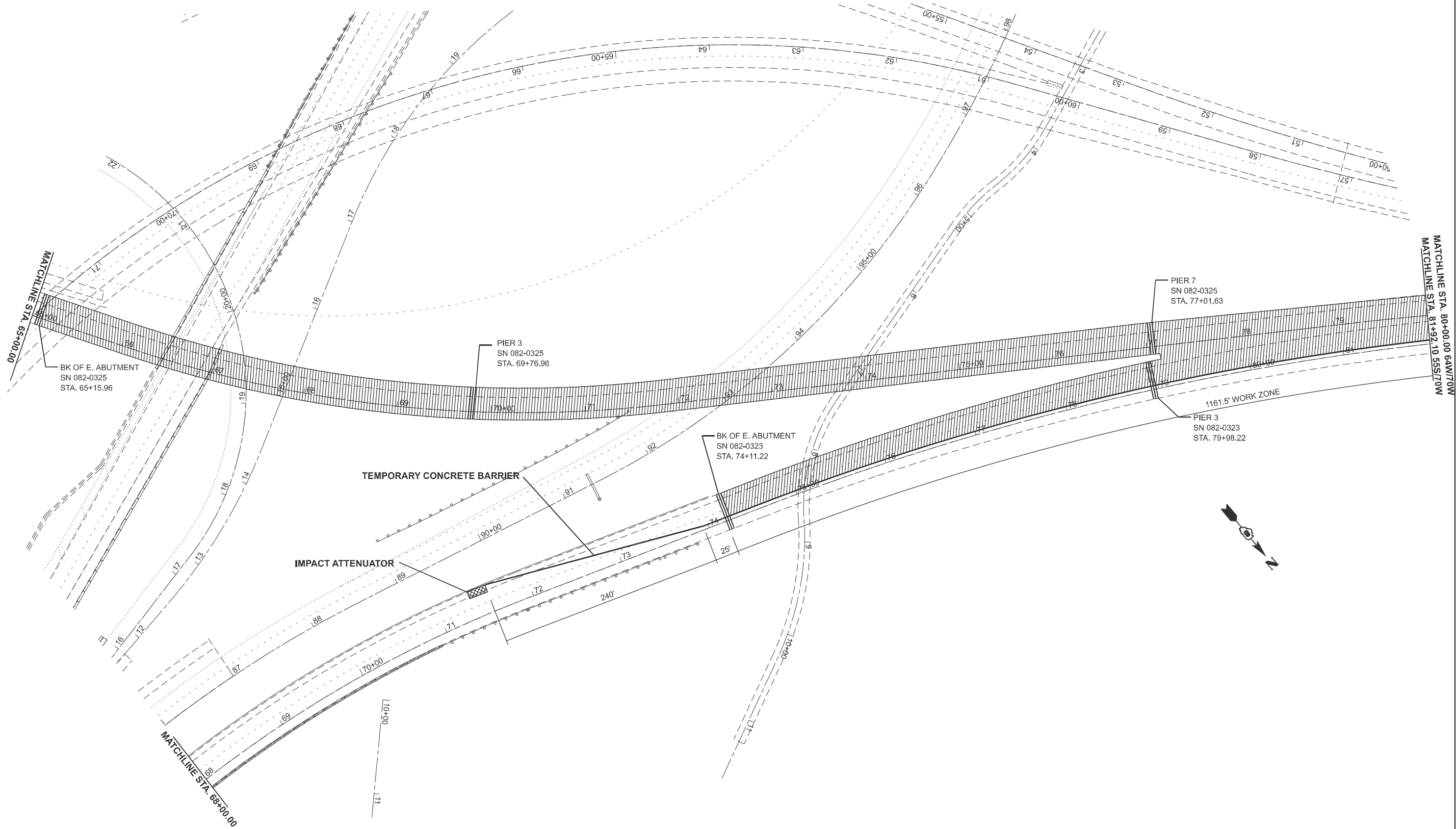
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE 1

SCALE: 1"=50' SHEET 1 OF 3 SHEETS STA. 99+00.00 TO STA. 119+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST CLAIR	40	9
CONTRACT NO. 76U30				
ILLINOIS FED. AID PROJECT				

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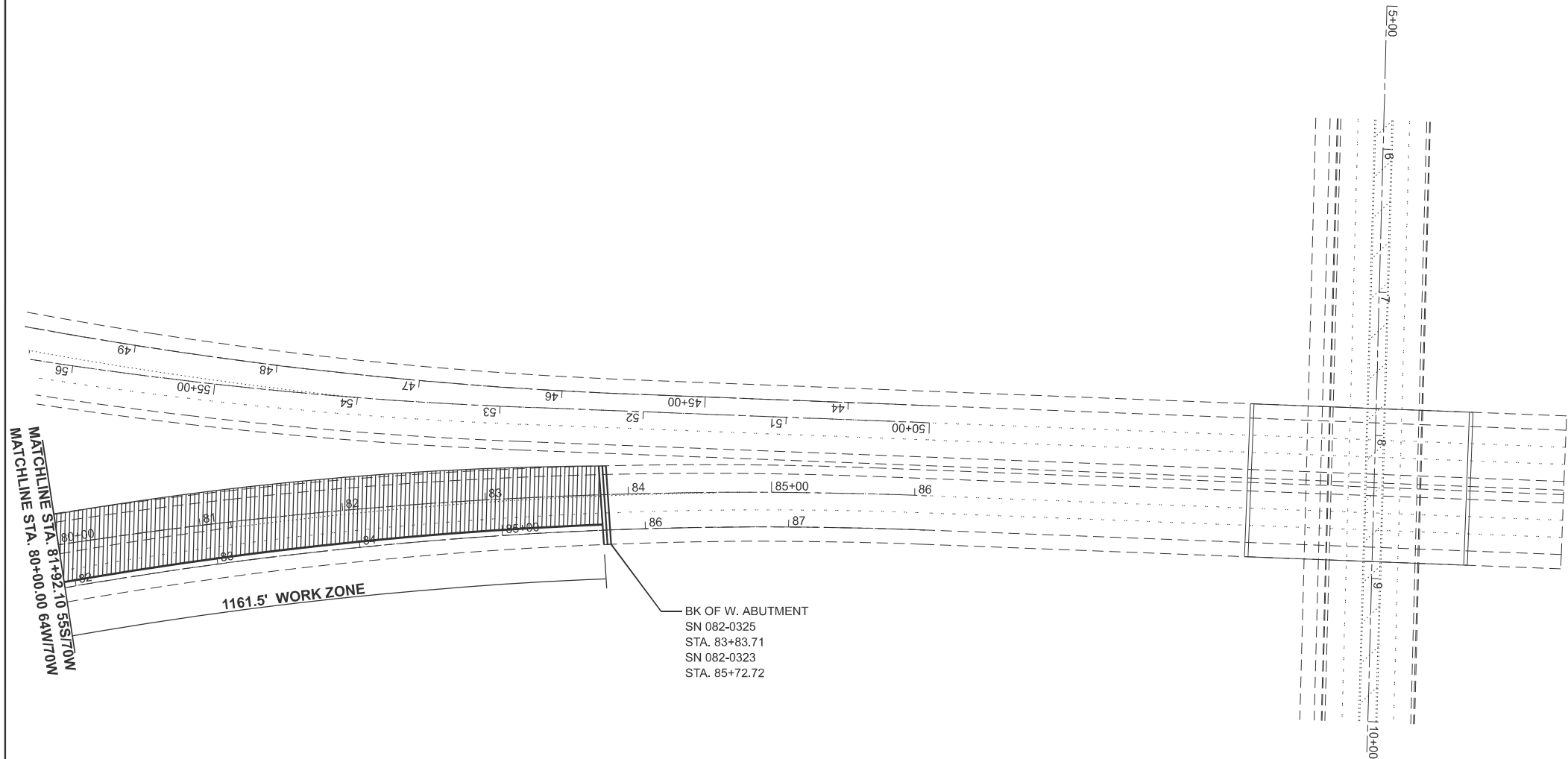
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE 1

SCALE: 1"=50' SHEET 2 OF 3 SHEETS STA. 65+00.00 TO STA. 80+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST CLAIR	40	10
CONTRACT NO. 76U30				
ILLINOIS FED. AID PROJECT				

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BK OF W. ABUTMENT
SN 082-0325
STA. 83+83.71
SN 082-0323
STA. 85+72.72

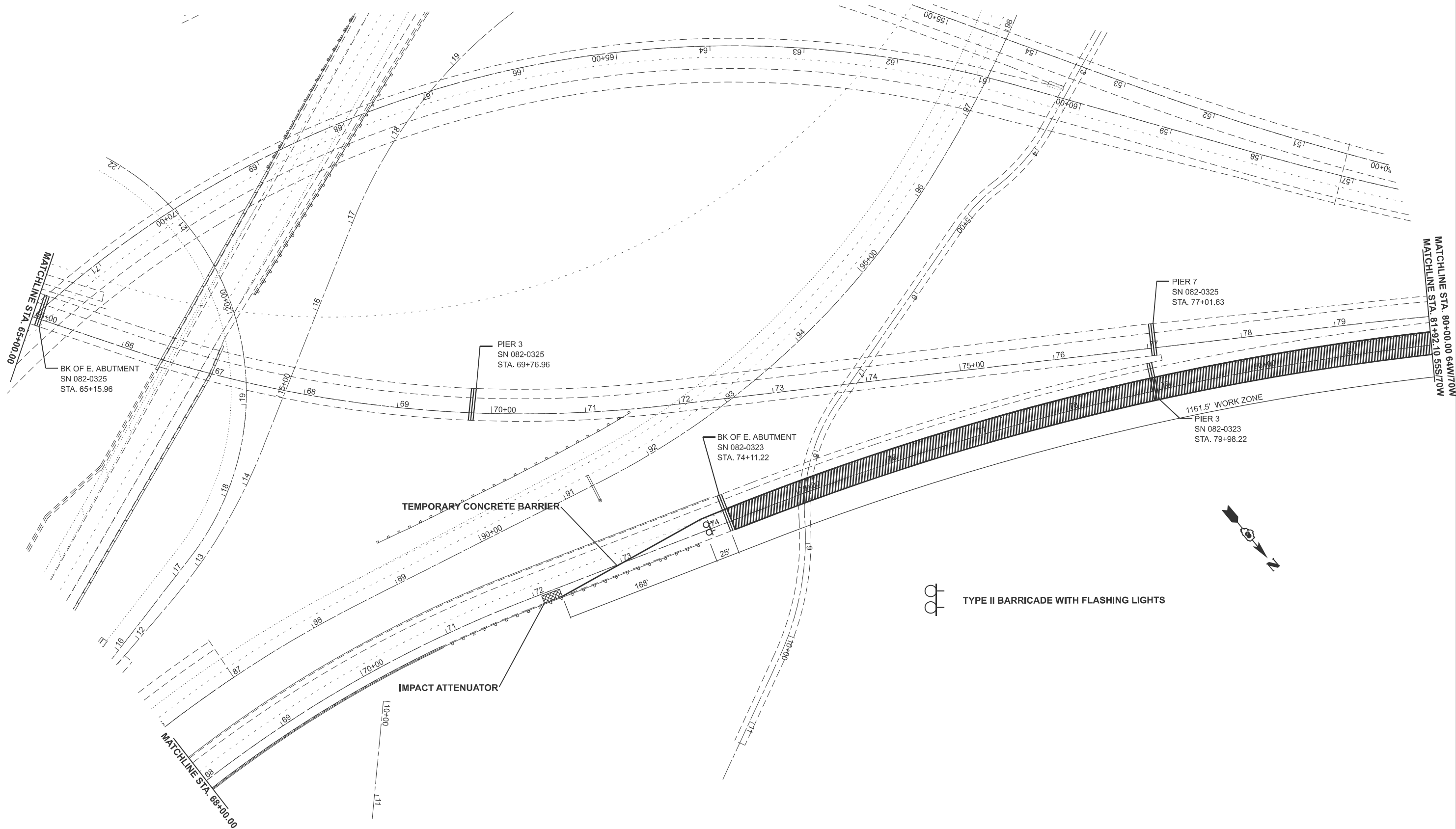
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE 1

SCALE: 1"=50' SHEET 3 OF 3 SHEETS STA. 80+00.00 TO STA. 95+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST CLAIR	40	11
CONTRACT NO. 76U30				
ILLINOIS FED. AID PROJECT				

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		DRAWN -	REVISED -
		CHECKED -	REVISED -
	DATE -	REVISED -	

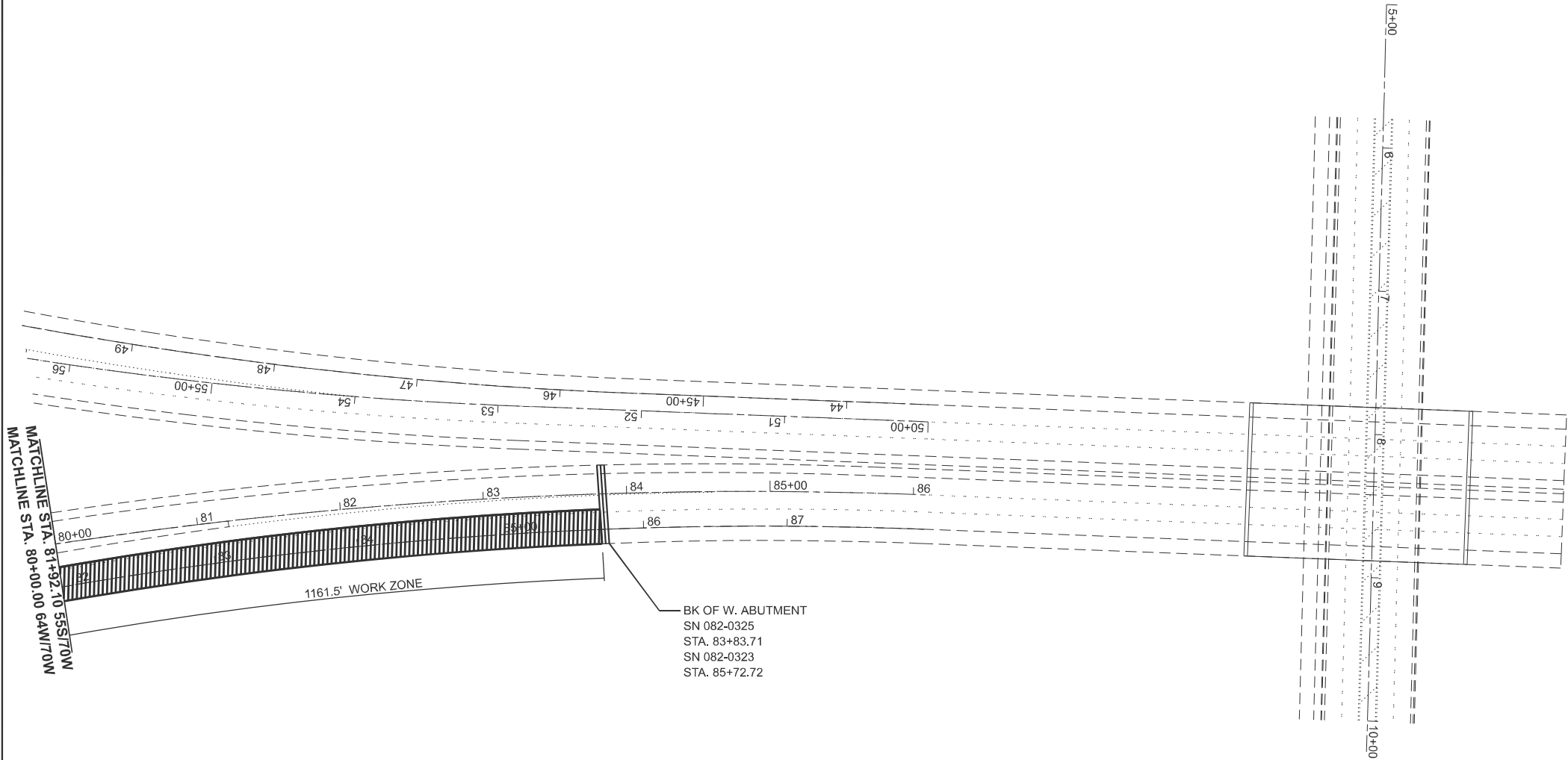
STATE OF ILLINOIS
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STAGE 2

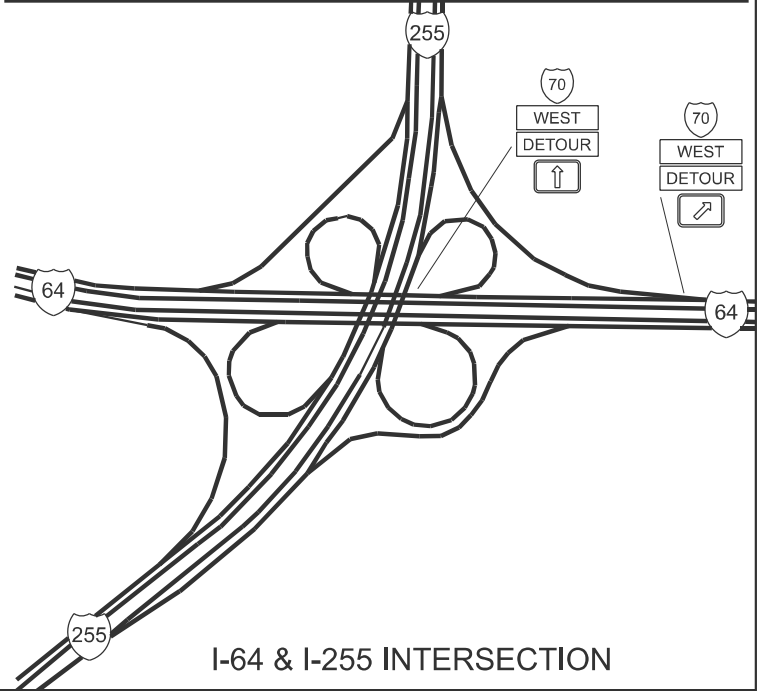
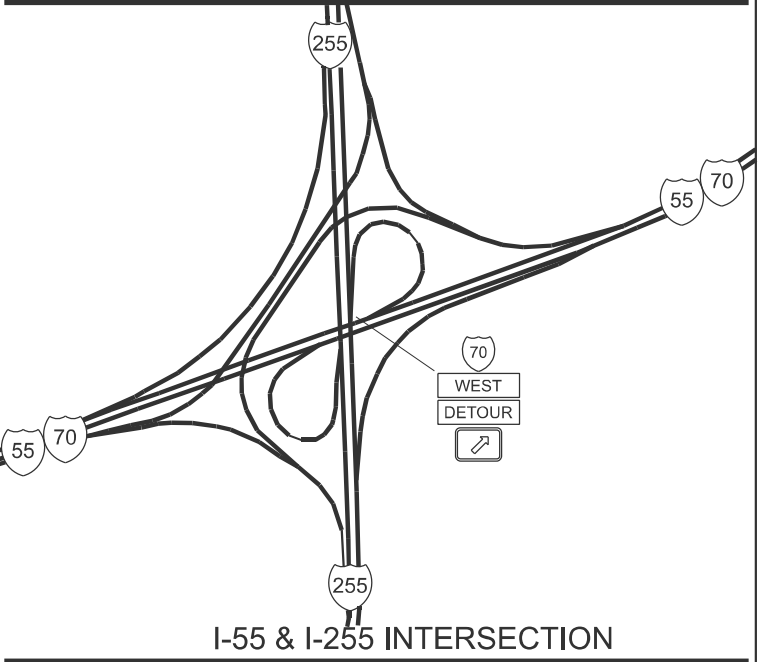
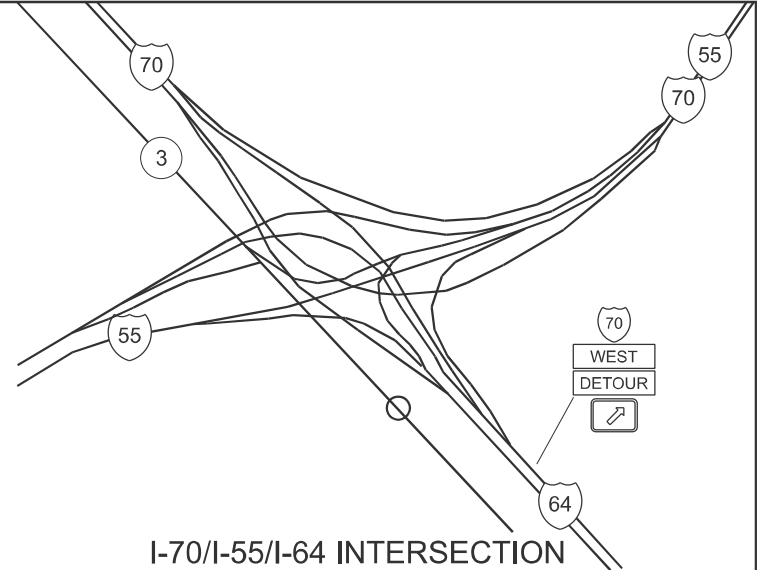
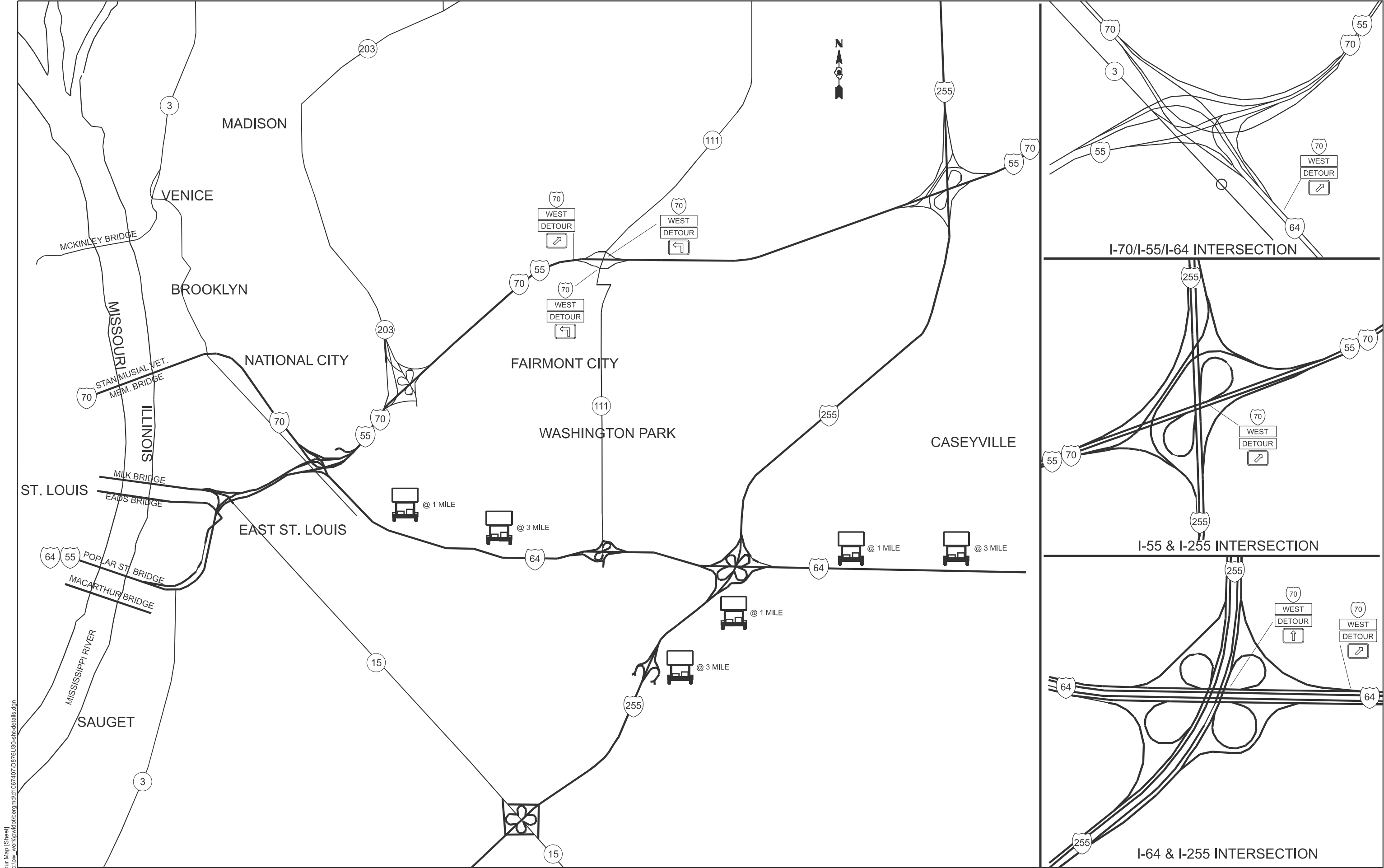
SCALE: 1"=50' SHEET 1 OF 2 SHEETS STA. 65+00.00 TO STA. 80+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST. CLAIR	40	12
CONTRACT NO. 76U30				
ILLINOIS FED. AID PROJECT				

MODEL: 64W70W - Staging-2-2 [Sheet]
FILE NAME: c:\pw_work\pilot\bigmdd\1067407\0876U30-sh-staging-2.dgn



	USER NAME = rahshun.miller	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE 2			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -					70	82-1-B-1BJR-2	ST. CLAIR	40	13
		CHECKED -	REVISED -		SCALE: 1"=50'			CONTRACT NO. 76U30				
	PLOT DATE = 2/14/2025	DATE -	REVISED -		SHEET 2	OF 2	SHEETS	STA. 80+00.00	TO STA. 95+00.00	ILLINOIS FED. AID PROJECT		



MODEL: Detour Map [Shae]
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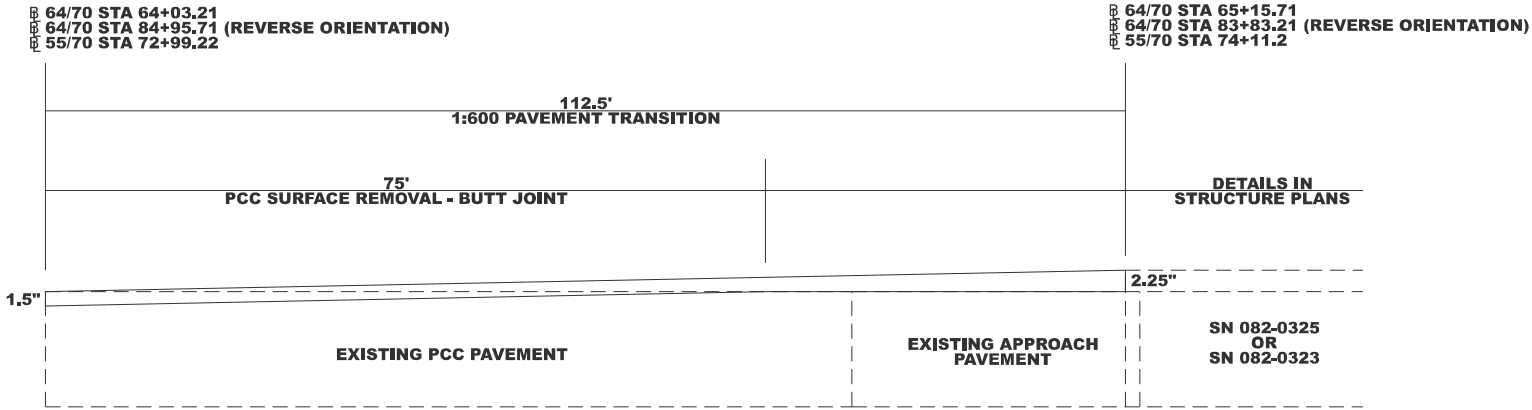
USER NAME	= michael.berg	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
		CHECKED	-	REVISED	-
PLOT DATE	= 2/8/2025	DATE	-	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WB I-64 TO WB I-70 DETOUR SIGNING				
SCALE:	SHEET 1	OF 1	SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST CLAIR	40	14
CONTRACT NO. 76U30				
ILLINOIS FED. AID PROJECT				

MODEL: Transition Detail [Sheet]
FILE NAME: c:\p\work\p\michael.berg\mdd1067407\0876U30-sh-detaills.dgn



PAVEMENT TRANSITION DETAIL

	USER NAME = michael.berg	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVING TRANSITION DETAIL			F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -					70	82-1-B-1BJR-2	ST CLAIR	40	15
		CHECKED -	REVISED -					CONTRACT NO. 76U30				
	PLOT DATE = 2/14/2025	DATE -	REVISED -		SCALE:	SHEET 1	OF 1	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	

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Expires: November 30, 2026

DESIGNED -	Victor H. Veitz
CHECKED -	Chris A. Loeh
DRAWN -	daburdell
CHECKED -	VHV CAL

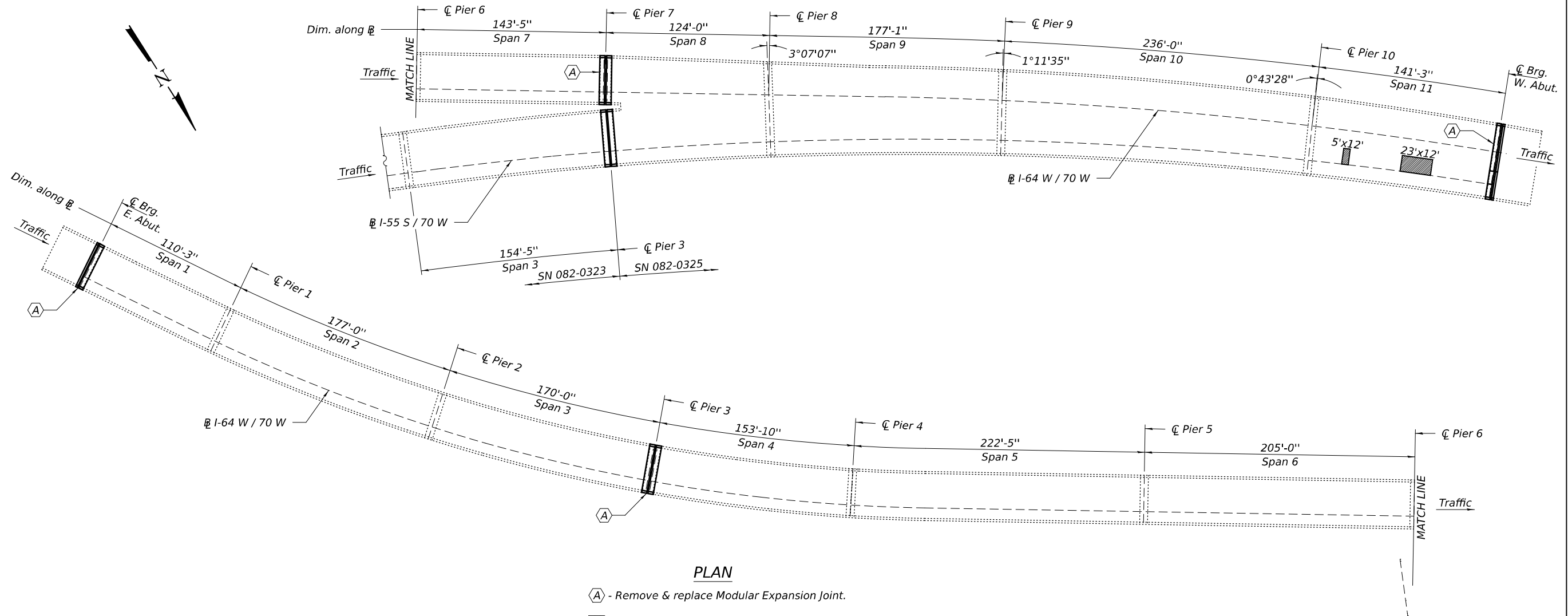
EXAMINED		DATE -	MARCH 20, 2025
PASSED	ENGINEER OF STRUCTURAL SERVICES	REVISED -	
	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN (PARTIAL)
I-70E OVER I-55, CSX & KCS RAILROADS
SN 082-0325

SHEET 1 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST. CLAIR	40	16
CONTRACT NO. 76U30				
ILLINOIS		FED. AID PROJECT		



PLAN

(A) - Remove & replace Modular Expansion Joint.

▨ - Deck Slab Repair (Partial)

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 50, unless otherwise noted.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose detrimental foreign material shall be removed from the surfaces in contact with concrete (SSPC-SP3 standards). 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 paid for according to Article 109.04 of the Standard Specifications. As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding ¼ inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

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

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system at the contractor's expense.

The new deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.

Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.

The number, location and orientation of support boxes shall be determined by the manufacturer. All boxes shall be located to miss the top flanges of the girders. Modular expansion joints shall be assembled in their final relative position with the ends in place for inspection and acceptance.

The steel components for the Modular Expansion Joints shall be hot-dip galvanized according to Special Provision for "Hot Dip Galvanizing for Strutural Steel".

Joint shall be fabricated to conform to the roadway profile and cross slopes.

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

LOCATION	TOTAL LONGITUDINAL MOVEMENT	JOINT SIZE
E. Abut.	4.26"	6"
Pier 3	7.66"	9"
Pier 7	7.85"	9"
W. Abut.	6.60"	9"

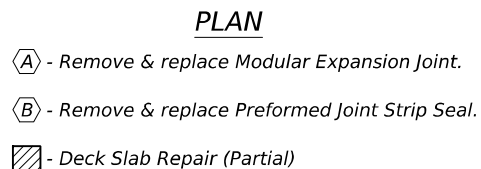
DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

TOTAL BILL OF MATERIAL

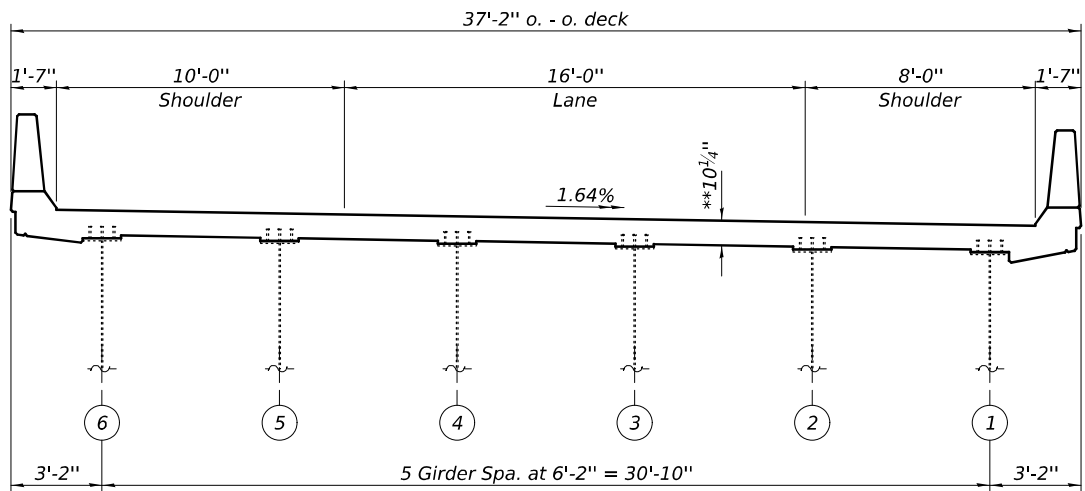
ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	79.4
Concrete Superstruture	Cu. Yd.	94.8
Reinforcement Bars, Epoxy Coated	Pound	18350
* Protective Coat	Sq. Yd.	202
Bar Splicers	Each	65
Mechanical Splicers	Each	940
Stud Shear Connectors	Each	60
Preformed Joint Strip Seal	Each	42
Modular Expansion Joint - Swivel 6"	Foot	36
Modular Expansion Joint - Swivel 9"	Foot	171
Deck Slab Repair (Partial Depth)	Sq. Yd.	37.3
Full Lane Sealant Waterproofing System	Sq. Yd.	11665

* Applied on new concrete only.

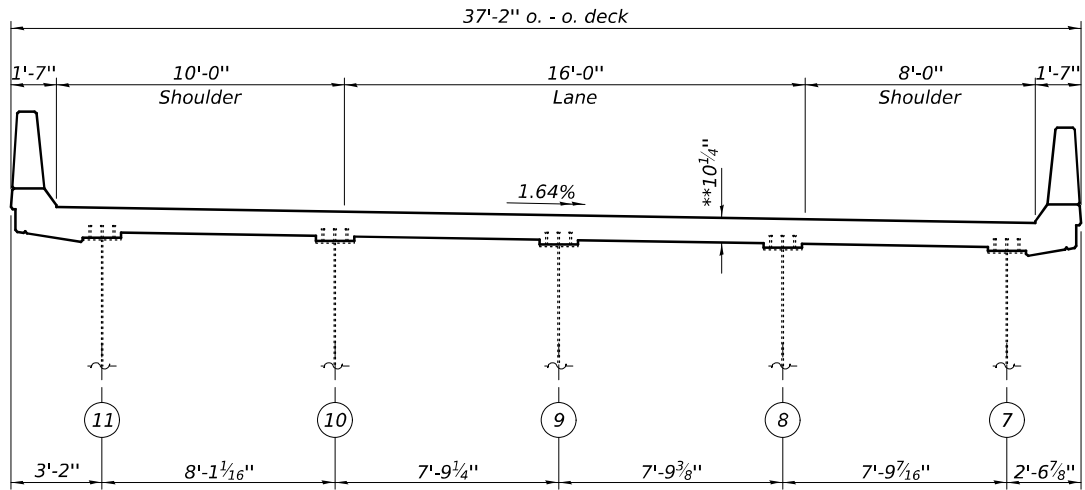


LOCATION	TOTAL LONGITUDINAL MOVEMENT	JOINT SIZE
E. Abut.	NA	PJSS
Pier 3	6.61"	9"

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CROSS SECTION
(Looking West - Span 7)



CROSS SECTION
(Looking West - Span 8)

** Existing deck and new overlay.

Note:
Joint replacement to be constructed under
road closure.

DESIGNED -	VHV
CHECKED -	CAL
DRAWN -	daburdell
CHECKED -	VHV CAL

EXAMINED	
PASSED	

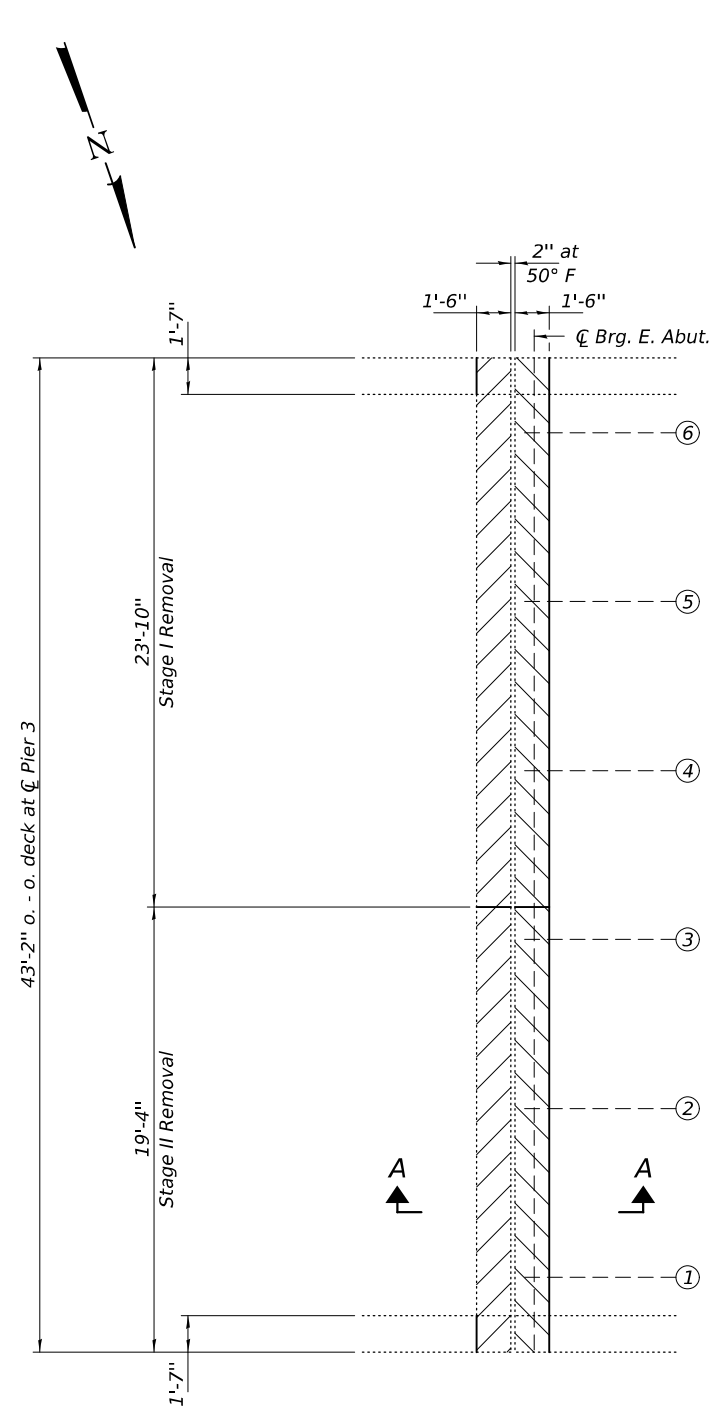
DATE -	MARCH 20, 2025
REVISED -	
REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

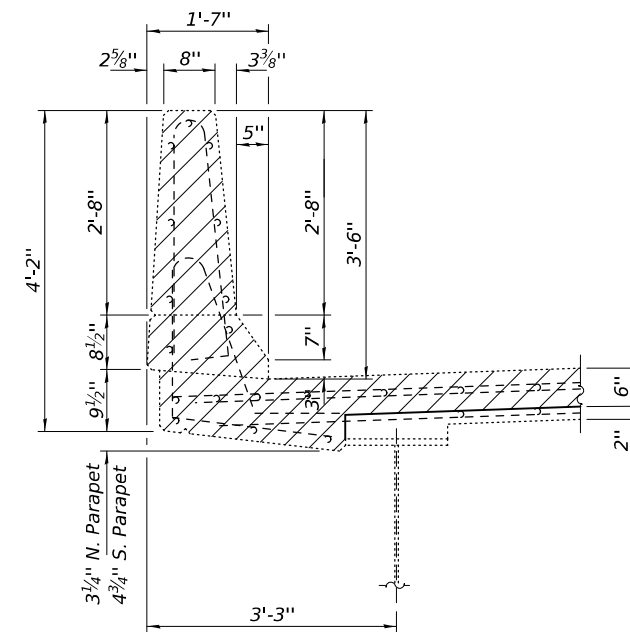
STAGE CONSTRUCTION DETAILS - PIER 7
SN 082-0325

SHEET 6 OF 25 SHEETS

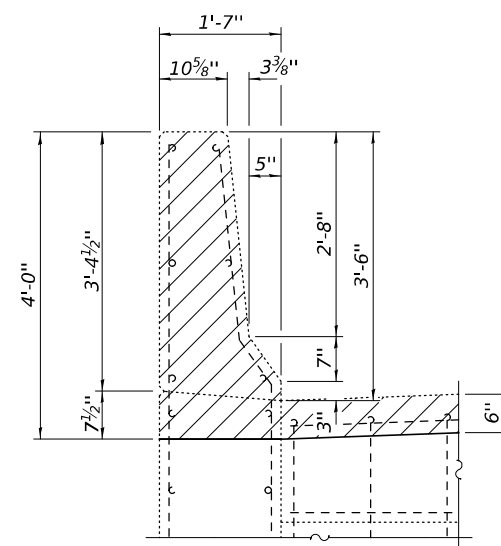
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST. CLAIR	40	21
CONTRACT NO. 76U30				
ILLINOIS FED. AID PROJECT				



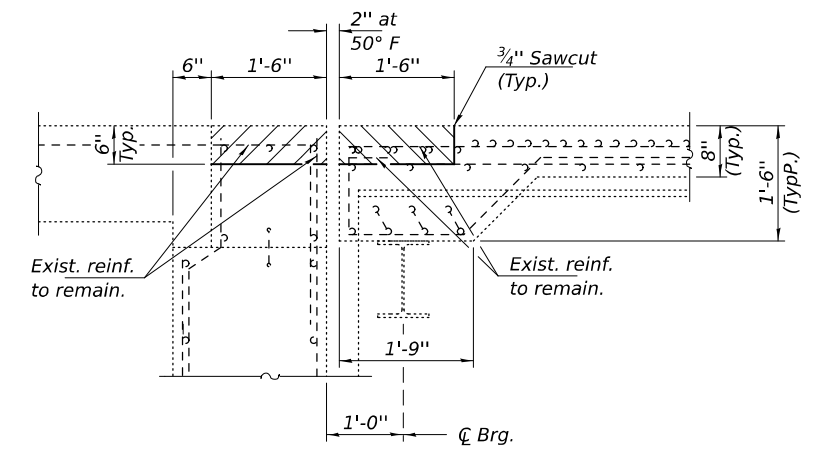
CONCRETE REMOVAL DETAILS



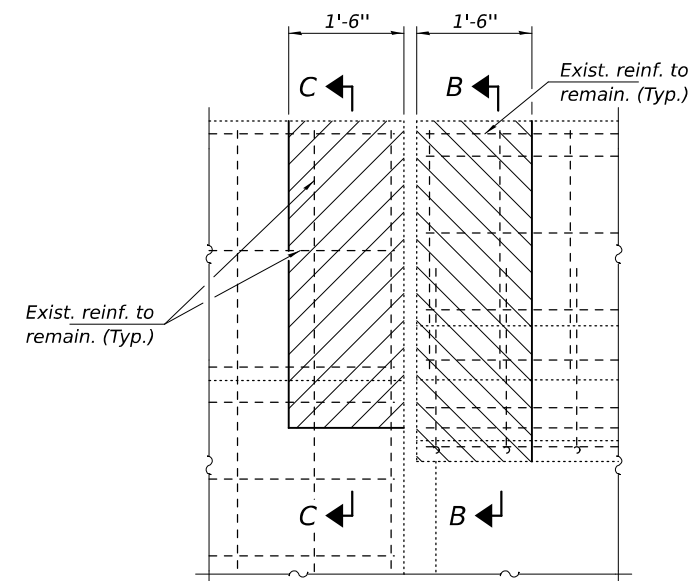
SEC B-B



SEC C-C



SEC A-A

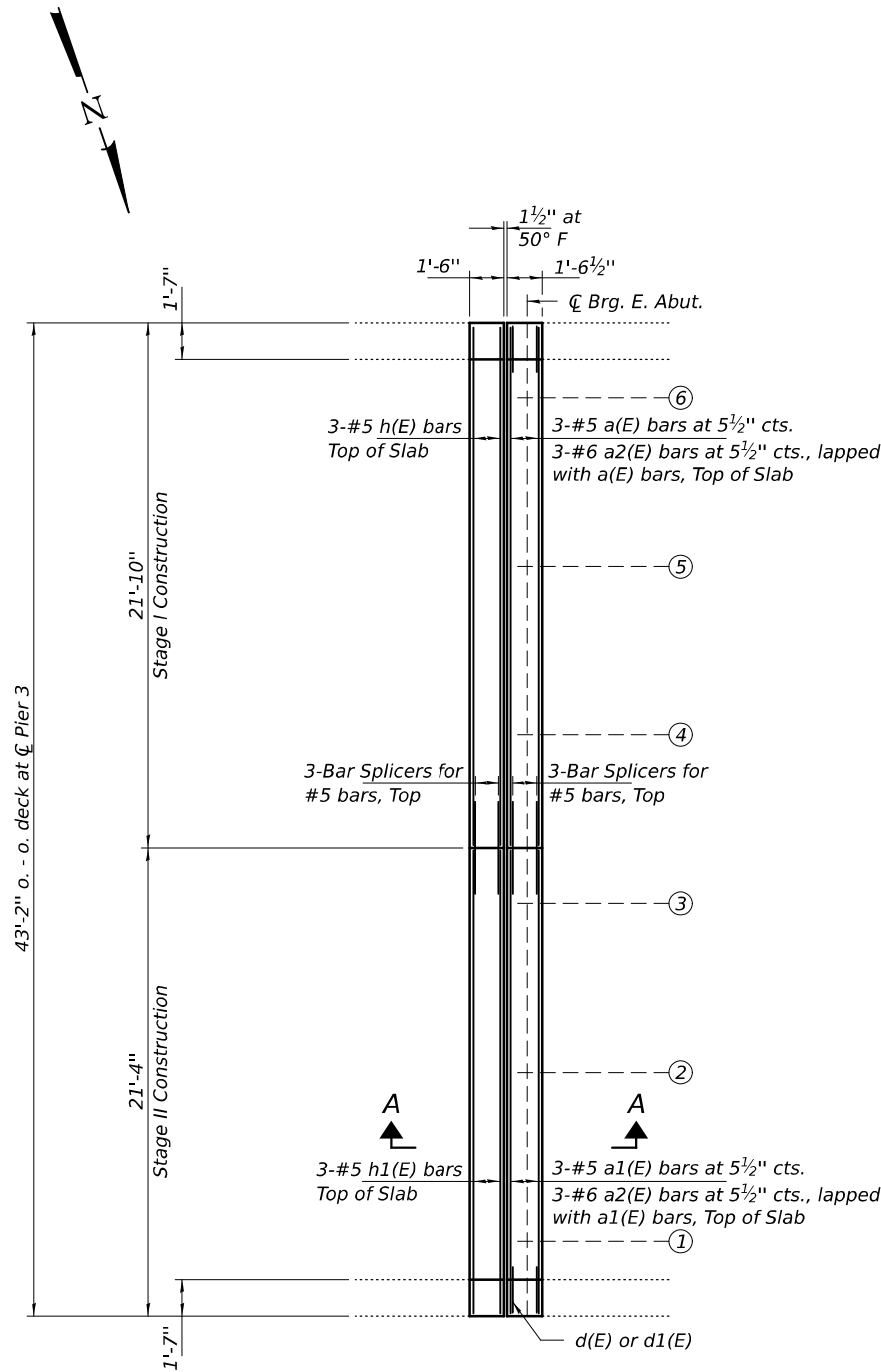


OUTSIDE ELEVATION
(Looking South)

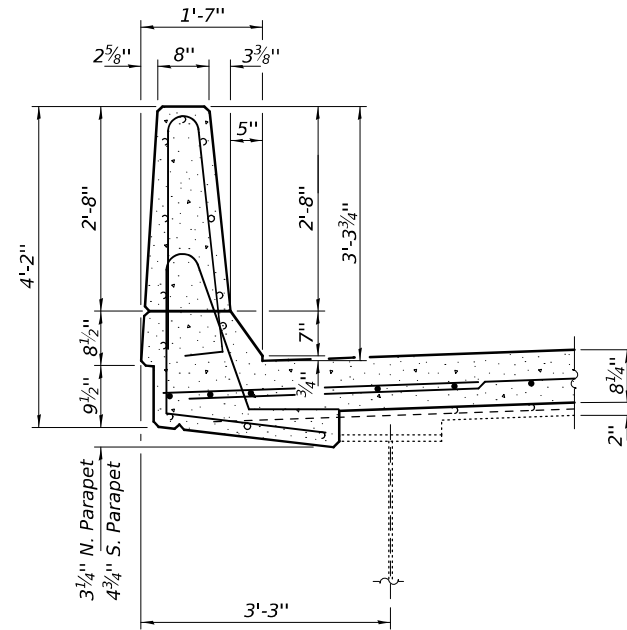
Notes:
Hatched areas indicate Concrete Removal.

DESIGNED - VHV	EXAMINED  ENGINEER OF STRUCTURAL SERVICES PASSED  ENGINEER OF BRIDGES AND STRUCTURES	DATE - MARCH 20, 2025	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	JOINT REMOVAL DETAILS - EAST ABUTMENT SN 082-0323	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - CAL		REVISED -			70	82-1-B-1BJR-2	ST. CLAIR	40	23
DRAWN - daourdell		REVISED -			CONTRACT NO. 76U30				
CHECKED - VHV CAL					SHEET 8 OF 25 SHEETS				
					ILLINOIS FED. AID PROJECT				

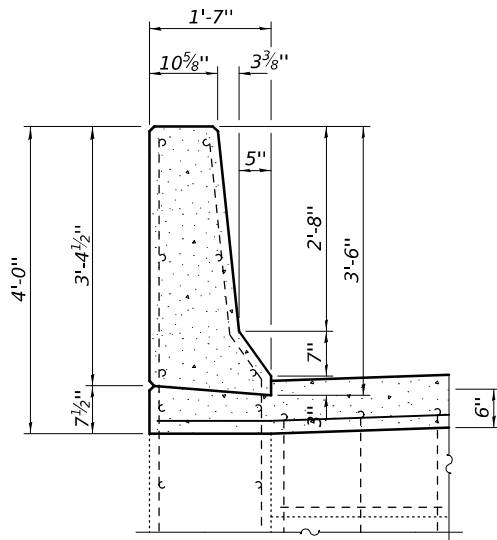
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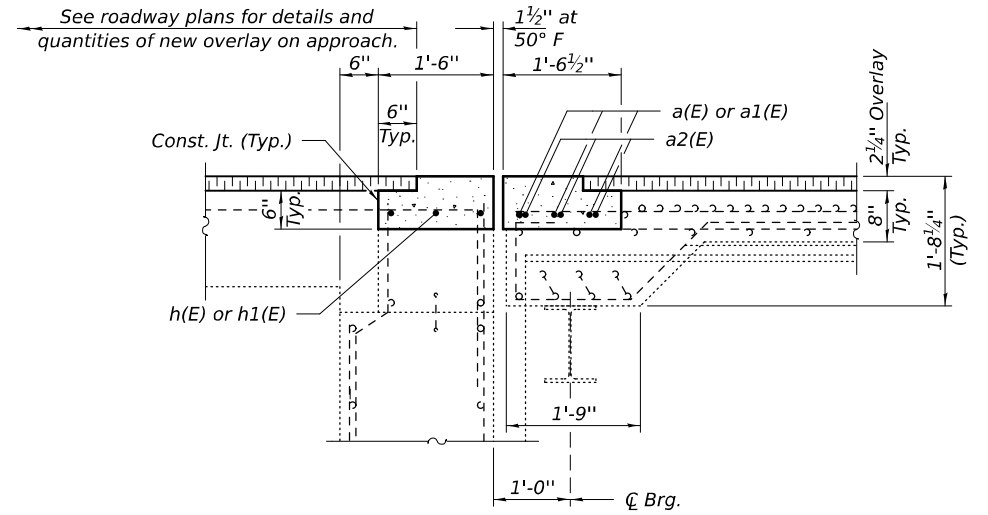
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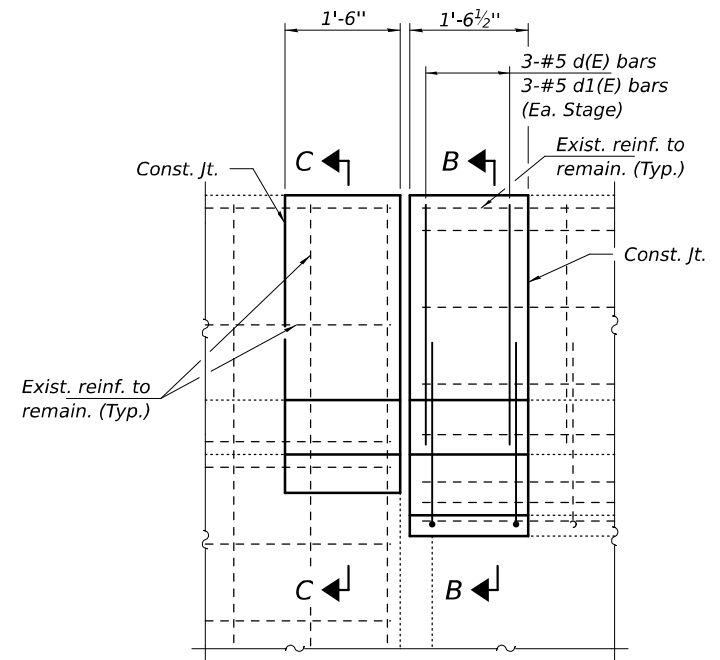
SEC B-B



SEC C-C



SEC A-A



OUTSIDE ELEVATION
(Looking South)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	3	#5	21'-6"	—
a1(E)	3	#5	21'-0"	—
a2(E)	6	#6	6'-6"	—
d(E)	3	#5	6'-10"	⌋
d1(E)	3	#5	7'-8"	⌋
h(E)	3	#5	21'-6"	—
h1(E)	3	#5	21'-0"	—
Concrete Removal			Cu. Yd.	3.3
Concrete Superstructure			Cu. Yd.	3.9
Bar Splicers			Each	6
Reinforcement Bars, Epoxy Coated			Pound	390
Preformed Joint Strip Seal			Foot	42

Note:
See sheet 12 of 25 for bar bending diagrams.

DESIGNED -	VHV
CHECKED -	CAL
DRAWN -	daburdell
CHECKED -	VHV CAL

EXAMINED	ENGINEER OF STRUCTURAL SERVICES
PASSED	ENGINEER OF BRIDGES AND STRUCTURES

DATE -	MARCH 20, 2025
REVISED -	
REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

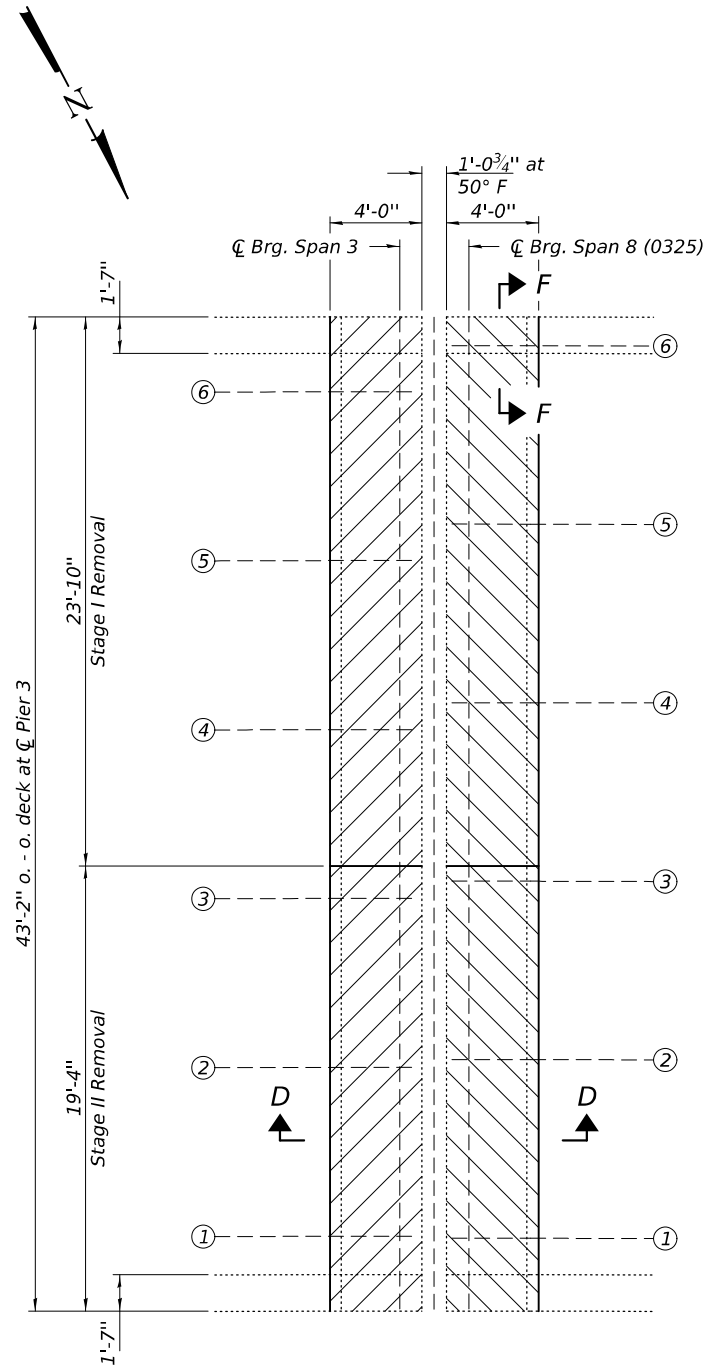
JOINT REPLACEMENT DETAILS - EAST ABUTMENT
SN 082-0323

SHEET 9 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST. CLAIR	40	24
CONTRACT NO. 76U30				
ILLINOIS FED. AID PROJECT				

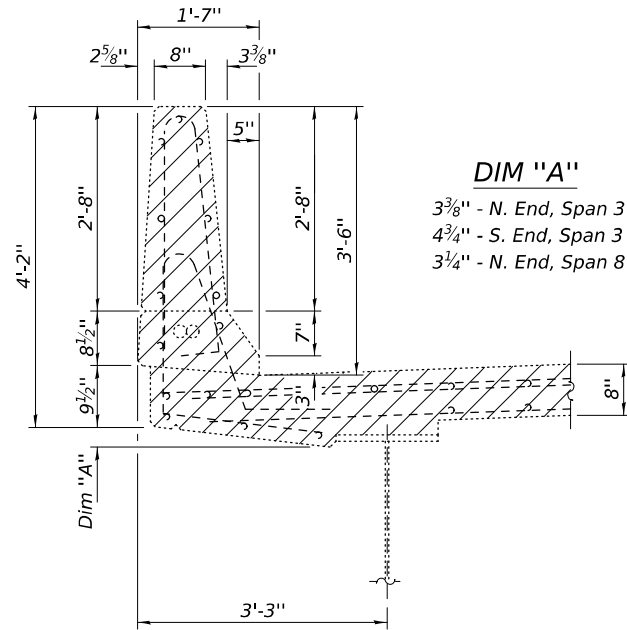
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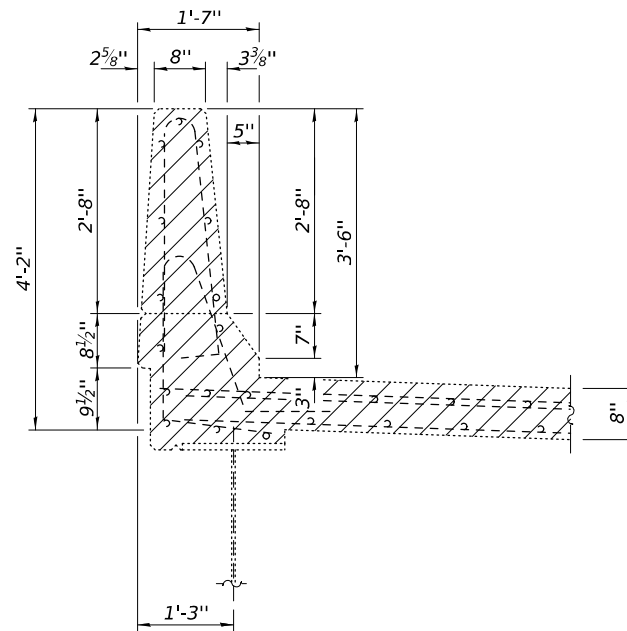


CONCRETE REMOVAL DETAILS

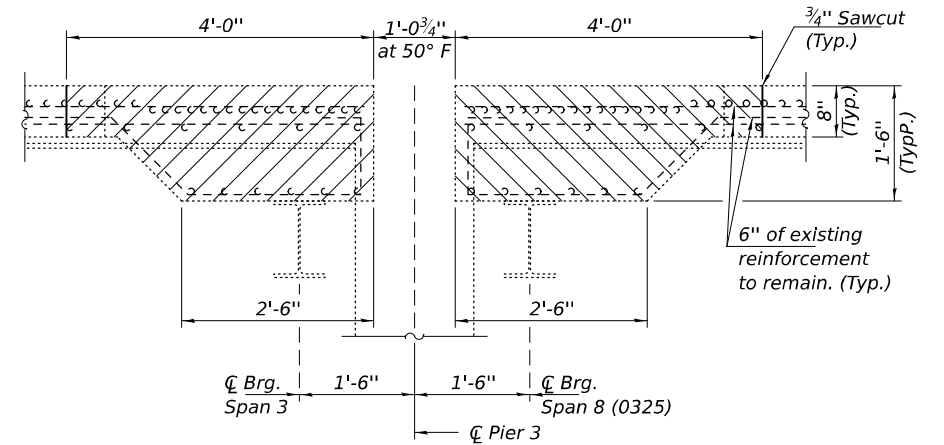
Notes:
Hatched areas indicate Concrete Removal.
Cost of existing modular joint removal is included with Concrete Removal.



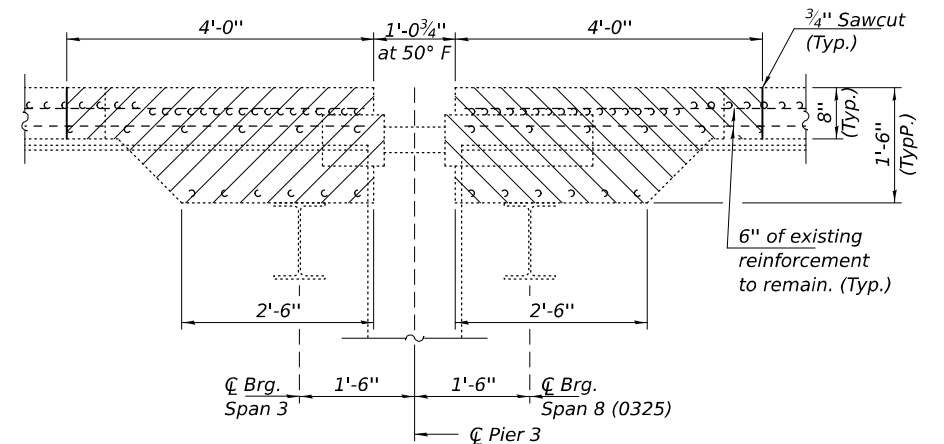
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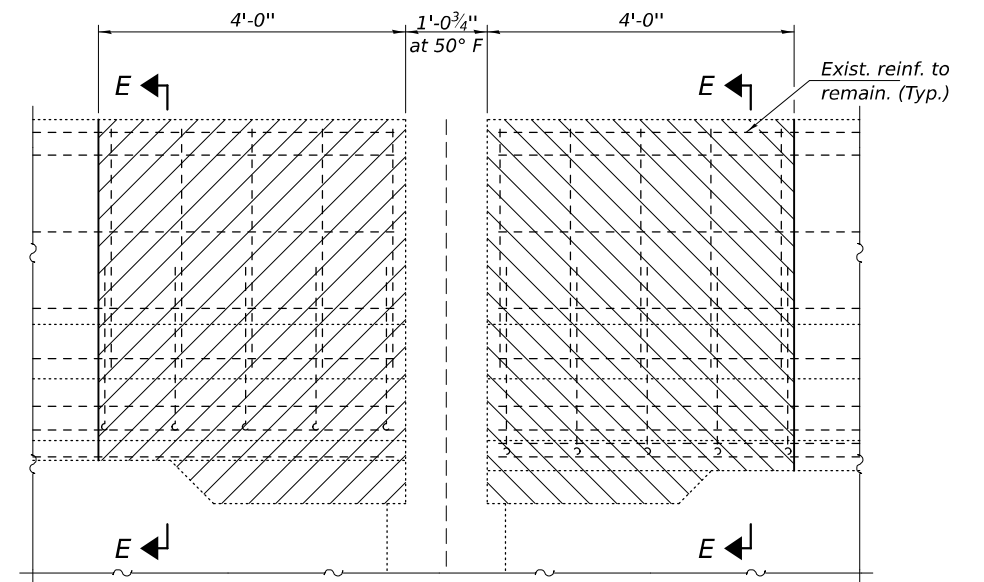
SEC F-F



SEC D-D
(Btwn. Support Boxes)



SEC D-D
(At Support Boxes)



OUTSIDE ELEVATION
(Looking South)

DESIGNED -	VHV
CHECKED -	CAL
DRAWN -	daburdell
CHECKED -	VHV CAL

EXAMINED	ENGINEER OF STRUCTURAL SERVICES
PASSED	ENGINEER OF BRIDGES AND STRUCTURES

DATE -	MARCH 20, 2025
REVISED -	
REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT REMOVAL DETAILS - PIER 3
SN 082-0323

SHEET 10 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST. CLAIR	40	25
CONTRACT NO. 76U30				
ILLINOIS FED. AID PROJECT				

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DESIGNED - VHV
CHECKED - CAL
DRAWN - daburdell
CHECKED - VHV CAL

EXAMINED
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

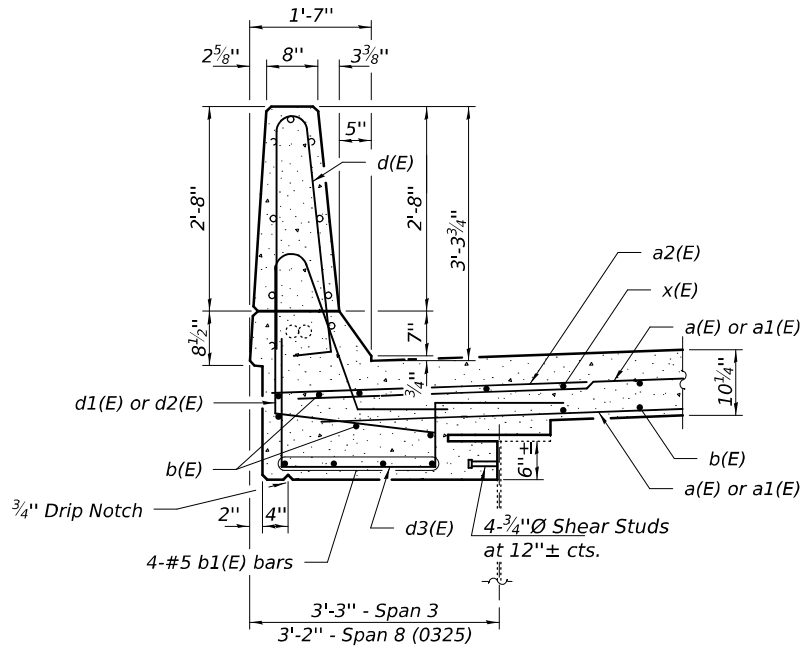
DATE - MARCH 20, 2025
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

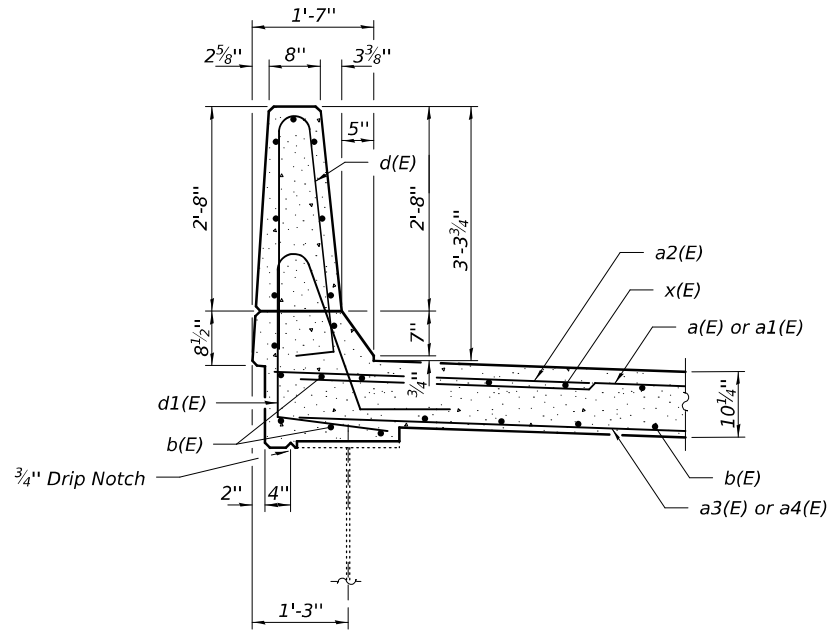
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SN 082-0323

SHEET 12 OF 25 SHEETS

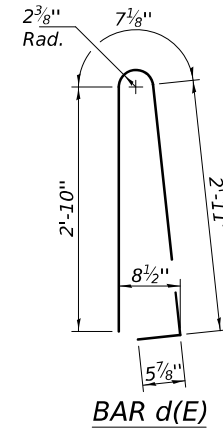
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70	82-1-B-1BJR-2	ST. CLAIR	40	27
CONTRACT NO. 76U30				
ILLINOIS		FED. AID PROJECT		



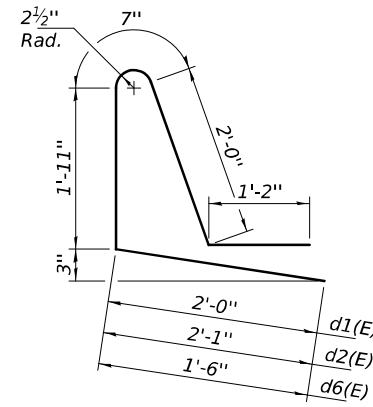
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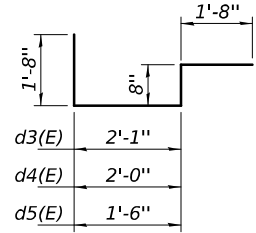
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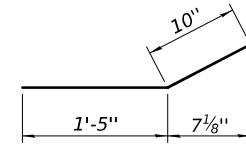
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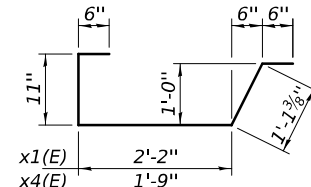
BARS d1(E), d2(E) & d6(E)



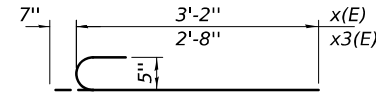
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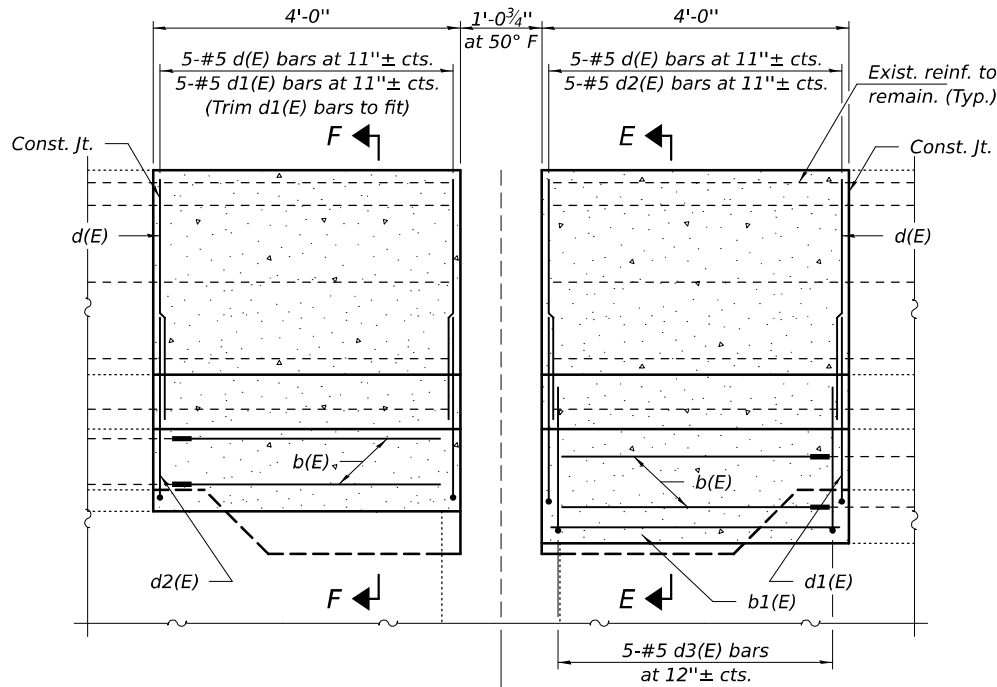
BAR x2(E)



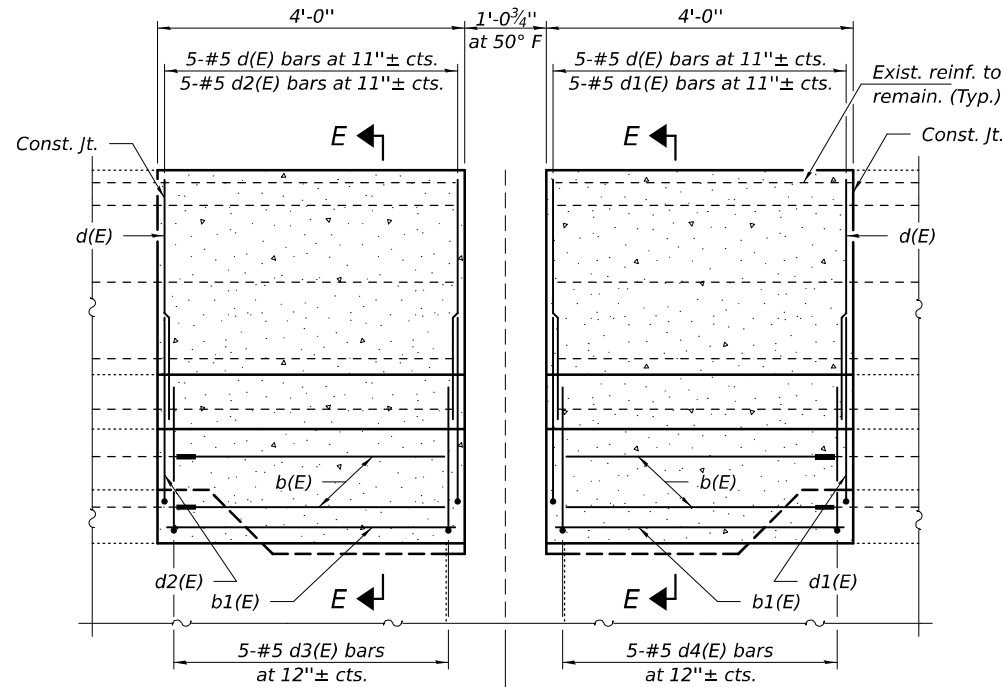
BARS x1(E) & x4(E)



BARS x(E) & x3(E)



OUTSIDE ELEVATION
(Looking North)



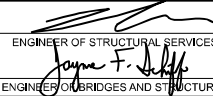
OUTSIDE ELEVATION
(Looking South)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	38	#5	21'-6"	
a1(E)	38	#5	21'-0"	
a2(E)	44	#6	6'-6"	
a3(E)	30	#6	7'-0"	
a4(E)	30	#6	7'-5"	
b(E)	94	#5	3'-3"	
b1(E)	12	#5	3'-8"	
d(E)	20	#5	6'-10"	
d1(E)	10	#5	7'-8"	
d2(E)	10	#5	7'-9"	
d3(E)	10	#5	6'-1"	
d4(E)	5	#5	6'-0"	
x(E)	82	#5	3'-9"	
x1(E)	82	#5	5'-3"	
x2(E)	90	#5	2'-3"	
Concrete Removal			Cu. Yd.	18.5
Concrete Superstructure			Cu. Yd.	20.9
Bar Splicers			Each	38
Mechanical Splicers			Each	258
Stud Shear Connectors			Each	12
Reinforcement Bars, Epoxy Coated			Pound	4510
Modular Expansion Joint - Swivel 9"			Foot	42

MODEL: 76U30-028
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DESIGNED -	VHV
CHECKED -	CAL
DRAWN -	dauburdell
CHECKED -	VHV CAL

EXAMINED	
PASSED	ENGINEER OF BRIDGES AND STRUCTURES

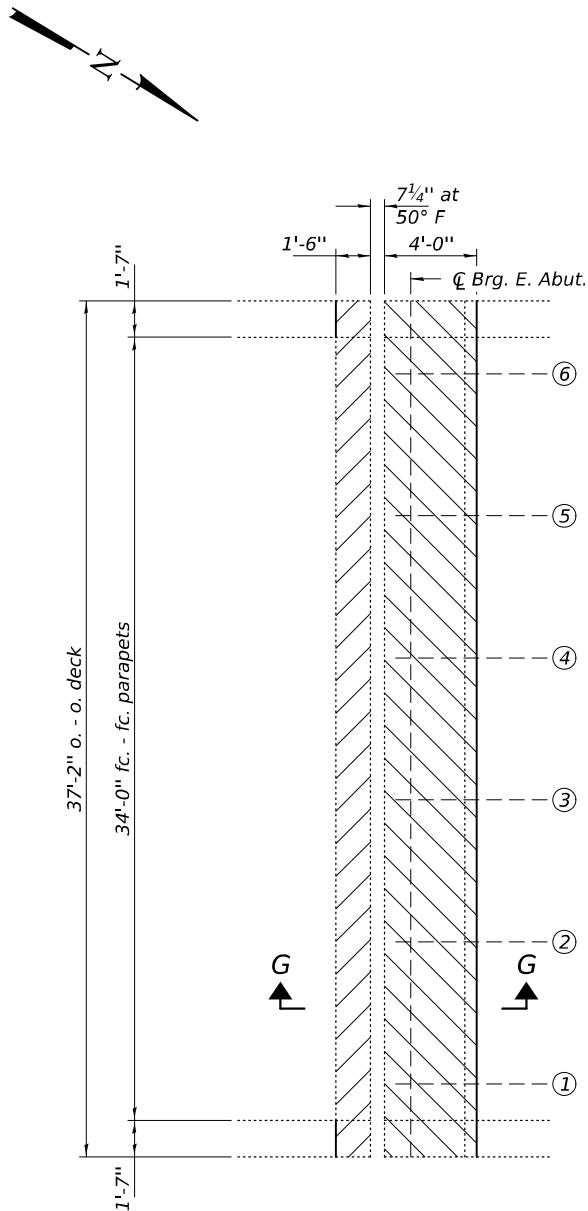
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REVISED -	
REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT REMOVAL DETAILS - EAST ABUTMENT
SN 082-0325

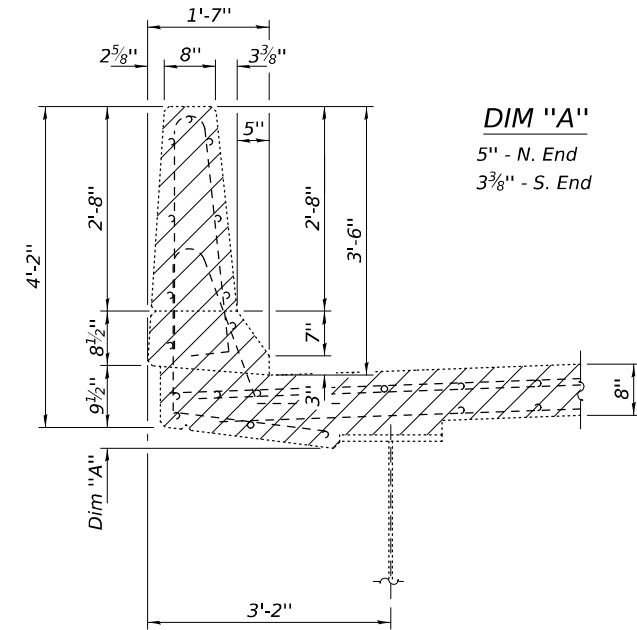
SHEET 13 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 76U30				
ILLINOIS		FED. AID PROJECT		

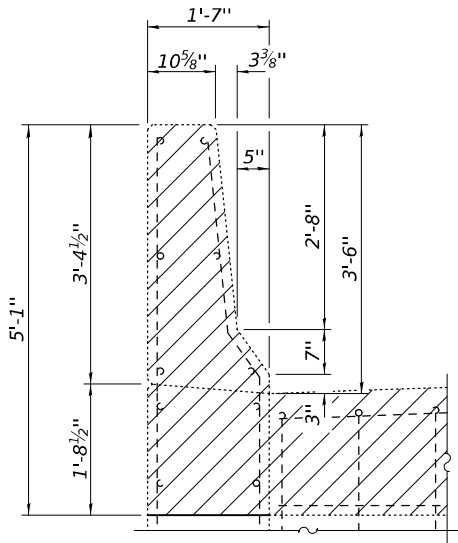


CONCRETE REMOVAL DETAILS

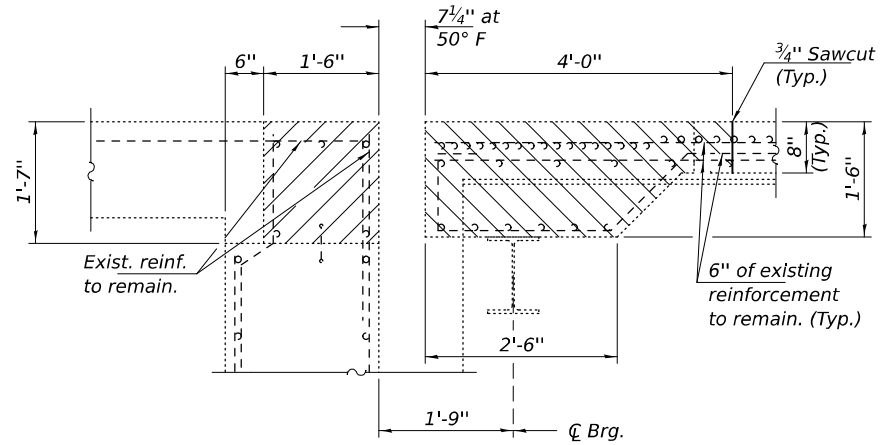
Notes:
Hatched areas indicate Concrete Removal.
Cost of existing modular joint removal is
included with Concrete Removal.



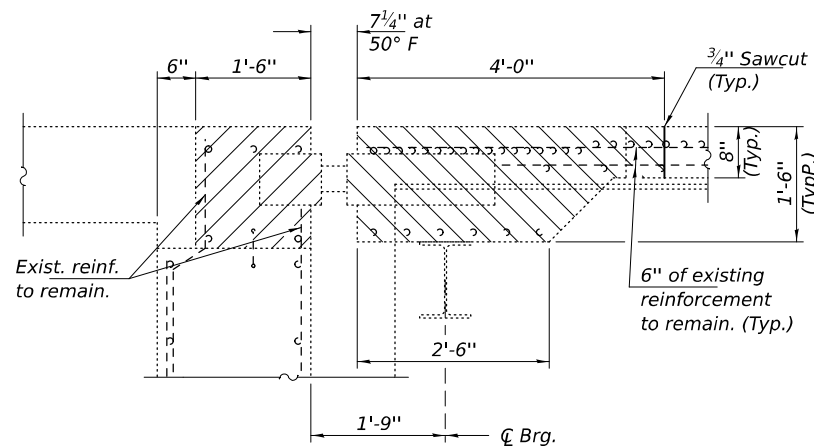
SEC H-H



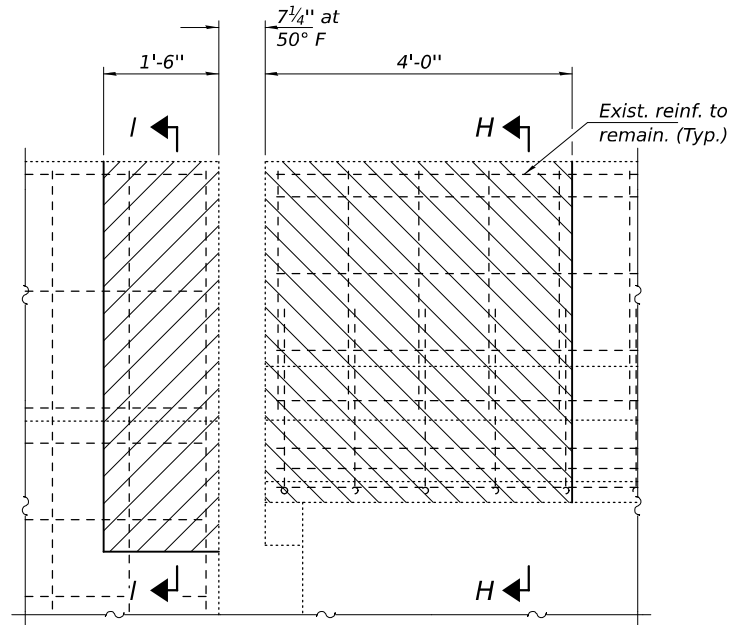
SEC I-I



SEC G-G
(Btwn. Support Boxes)

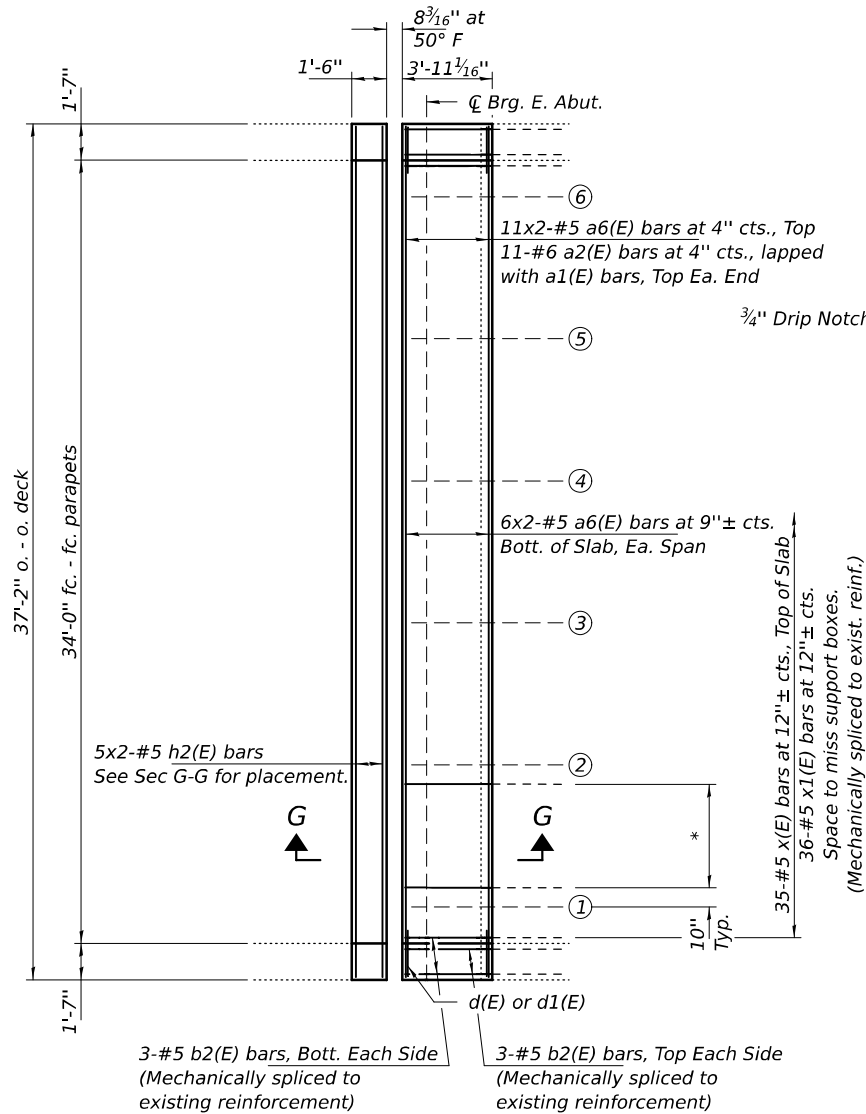


SEC G-G
(At Support Boxes)



OUTSIDE ELEVATION
(Looking South)

MODEL: 76U30-029
FILE NAME: pw://jldot-pw/bentley.com:PWIDOT/Documents/IDOT O ces/Bureau of Bridges and Structures/IDOT O ces/Bureau of Structures/0820323/CADDData/Structures/0820323.dgn

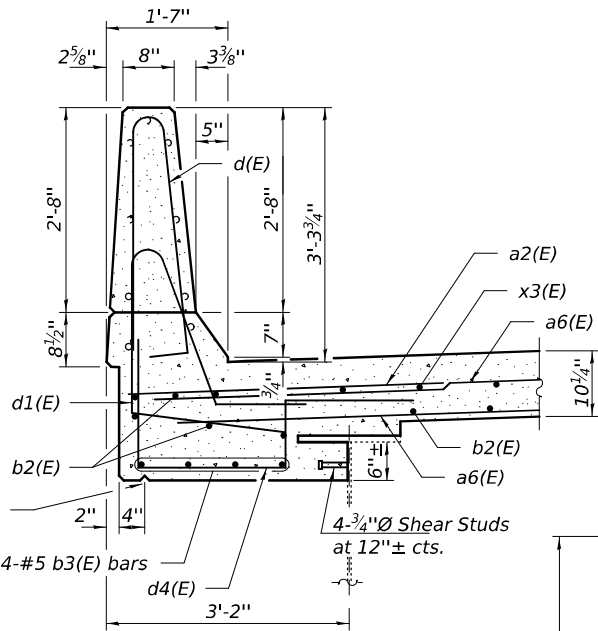


CONCRETE REPLACEMENT DETAILS

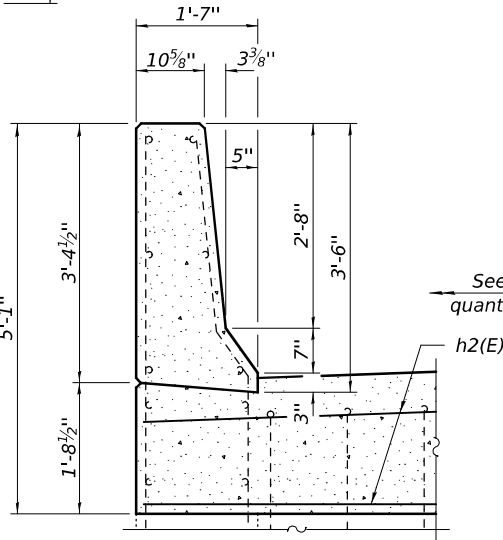
* 6-#5 b2(E) bars at 12"± cts., Bott.
Typ. between girders, Mechanically
spliced to exist. reinf.

Notes:
Bars indicated thus 11x2-#5 etc.
indicates 11 lines of bars with 2
lengths per line.
See sheet 12 of 25 for bar bending
diagrams.

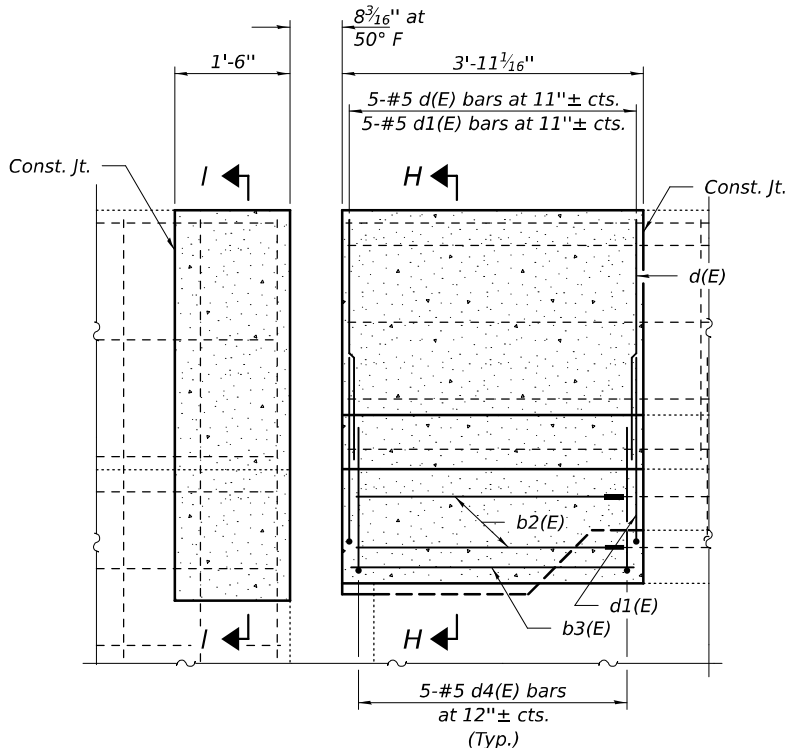
MINIMUM BAR LAP
#5 bar = 3'-6"



SEC H-H

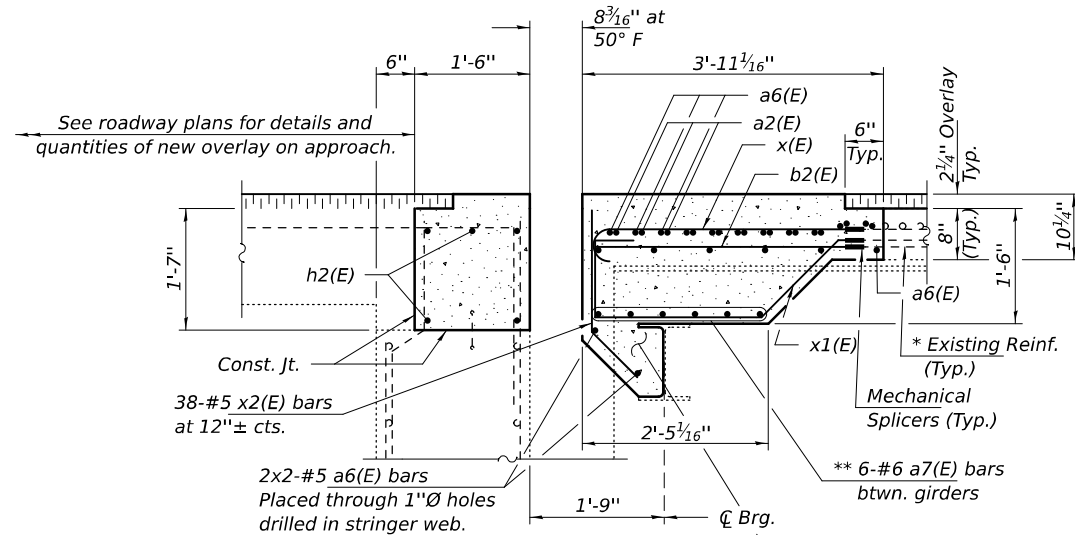


SEC I-I



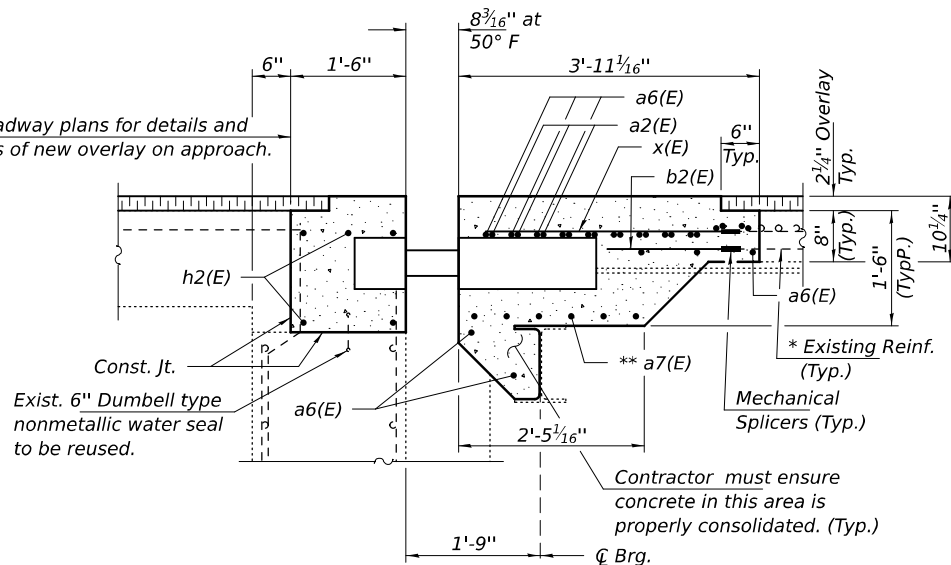
OUTSIDE ELEVATION

(Looking South)



SEC G-G

(Btwn. Support Boxes)



SEC G-G

(At Support Boxes)

* Cut existing reinforcement 6"
minimum from Concrete Removal
line to facilitate installation of
Mechanical Splicers.

** Bar to be adjusted and/or
cut in the field to miss
support boxes or webs.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	22	#6	6'-6"	
a6(E)	38	#5	20'-2"	
a7(E)	30	#6	5'-10"	
b2(E)	42	#5	3'-2"	
b3(E)	8	#5	3'-7"	
d(E)	10	#5	6'-10"	
d1(E)	10	#5	7'-8"	
d4(E)	10	#5	6'-0"	
h2(E)	10	#5	20'-2"	
x(E)	35	#5	3'-9"	
x1(E)	36	#5	5'-3"	
x2(E)	38	#5	2'-3"	
Concrete Removal			Cu. Yd.	11.6
Concrete Superstructure			Cu. Yd.	12.8
Mechanical Splicers			Each	113
Stud Shear Connectors			Each	8
Reinforcement Bars, Epoxy Coated			Pound	2290
Modular Expansion Joint - Swivel 6"			Foot	36

DESIGNED - VHV
CHECKED - CAL
DRAWN - daburdell
CHECKED - VHV CAL
3/20/2025 4:10:58 PM

EXAMINED
PASSED
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

DATE - MARCH 20, 2025
REVISED -
REVISED -

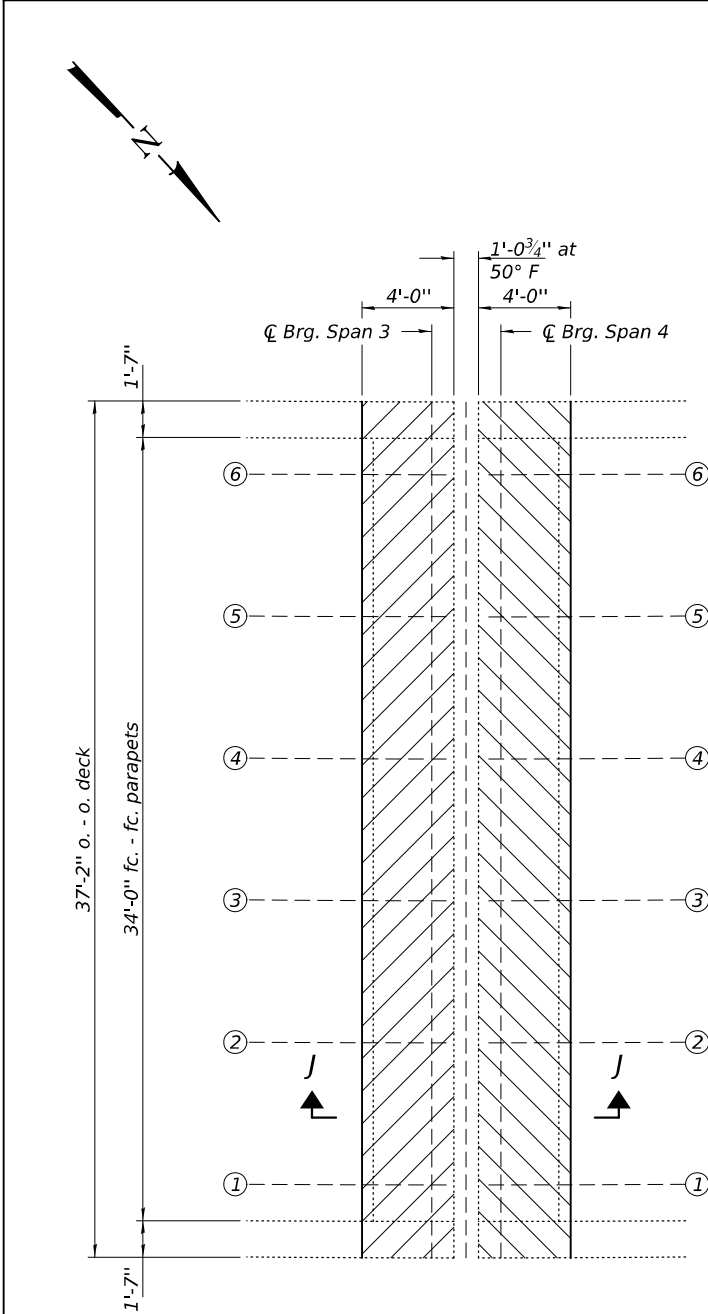
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT REPLACEMENT DETAILS - EAST ABUTMENT
SN 082-0325

SHEET 14 OF 25 SHEETS

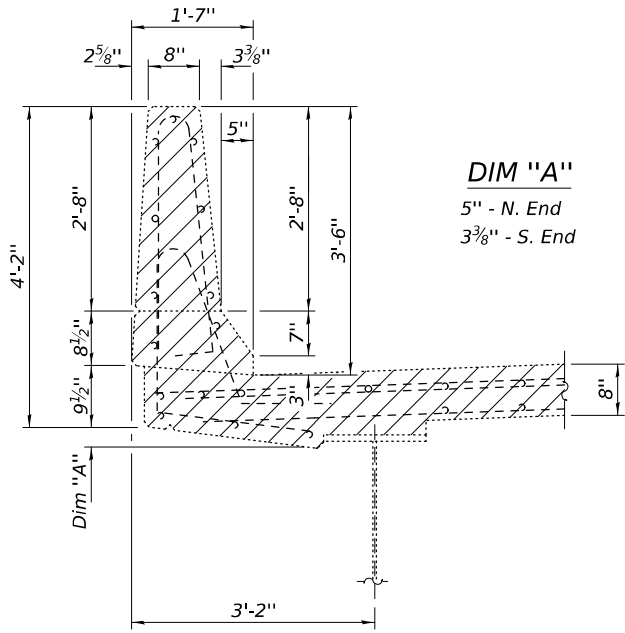
F.A.I. RTE. 70 SECTION 82-1-B-1BJR-2 COUNTY ST. CLAIR TOTAL SHEETS 40 SHEET NO. 29 CONTRACT NO. 76U30 ILLINOIS FED. AID PROJECT

MODEL: 76U30-030
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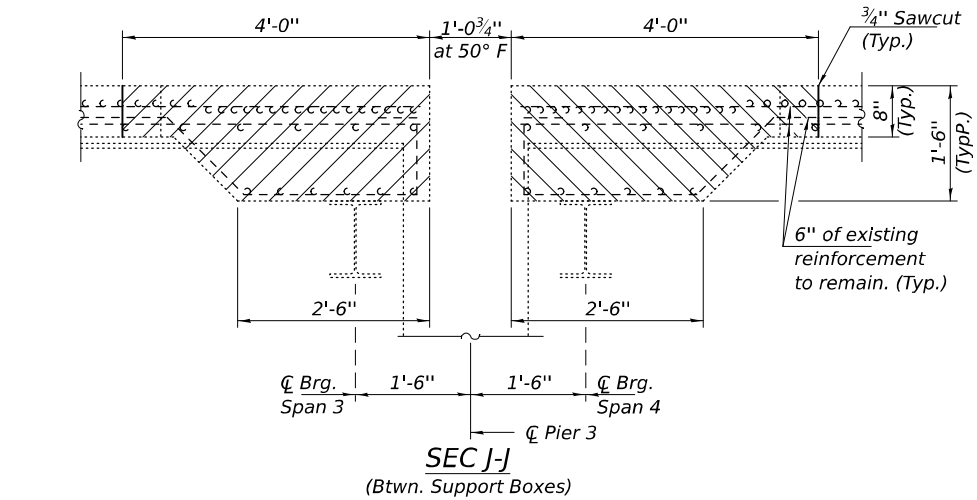


CONCRETE REMOVAL DETAILS

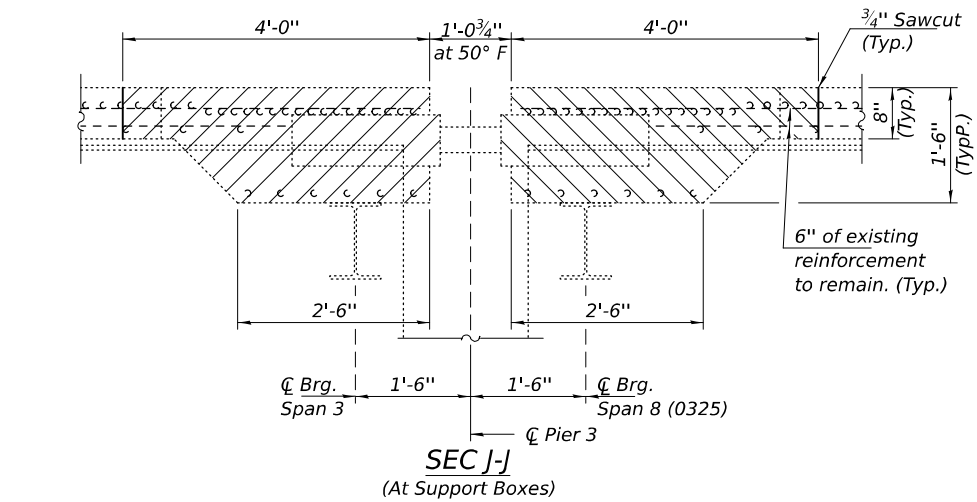
Notes:
Hatched areas indicate Concrete Removal.
Cost of existing modular joint removal is included with Concrete Removal.



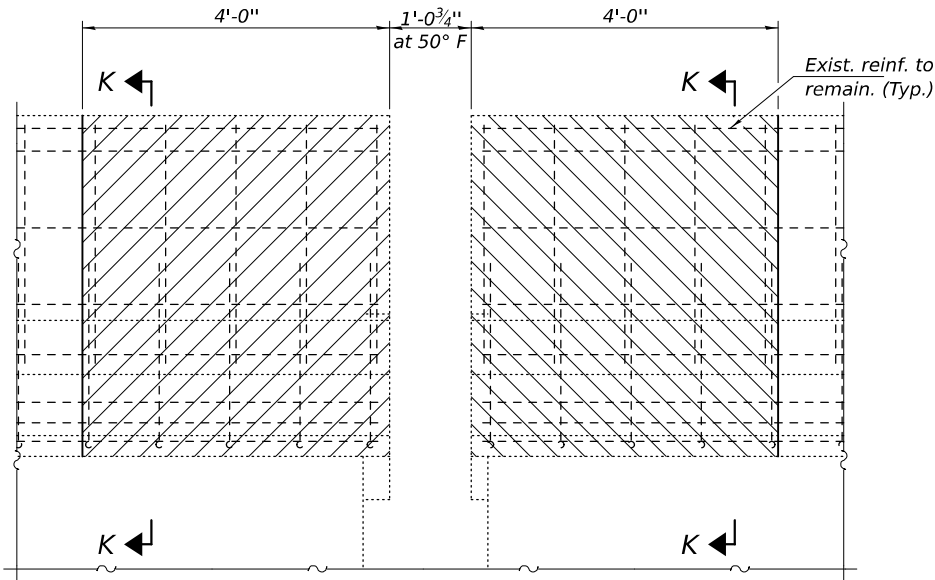
SEC K-K



SEC J-J
(Btwn. Support Boxes)



SEC J-J
(At Support Boxes)



OUTSIDE ELEVATION
(Looking South)

DESIGNED -	VHV
CHECKED -	CAL
DRAWN -	daburdell
CHECKED -	VHV CAL

EXAMINED	ENGINEER OF STRUCTURAL SERVICES
PASSED	ENGINEER OF BRIDGES AND STRUCTURES

DATE -	MARCH 20, 2025
REVISED -	
REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT REMOVAL DETAILS - PIER 3
SN 082-0325

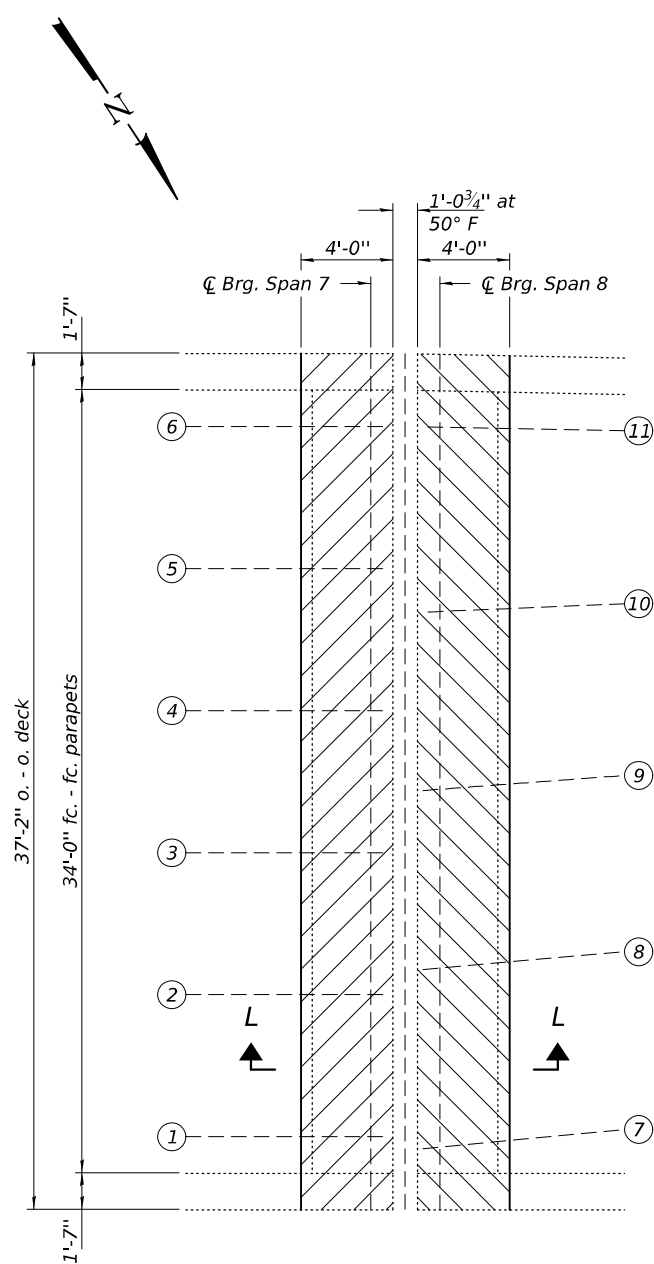
SHEET 15 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST. CLAIR	40	30
CONTRACT NO. 76U30				
ILLINOIS FED. AID PROJECT				

3/20/2025 4:10:59 PM

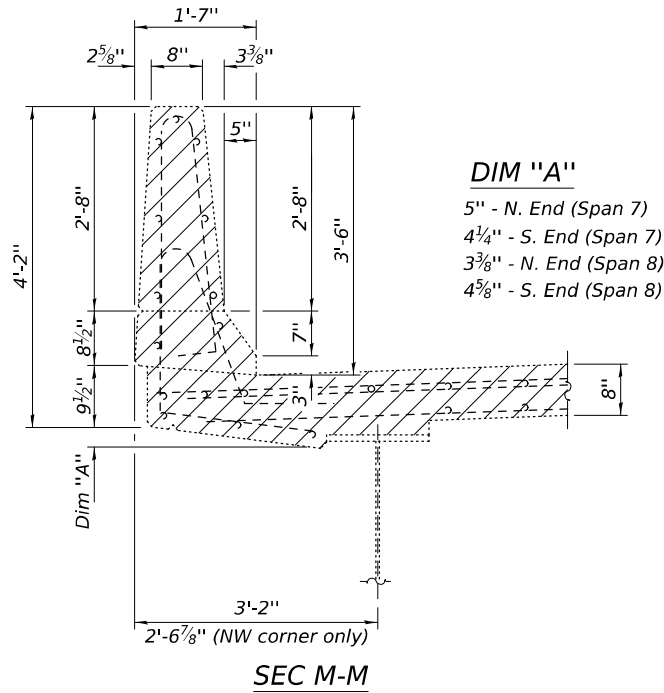
MODEL: 76U30-032
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3/20/2025 4:11:02 PM



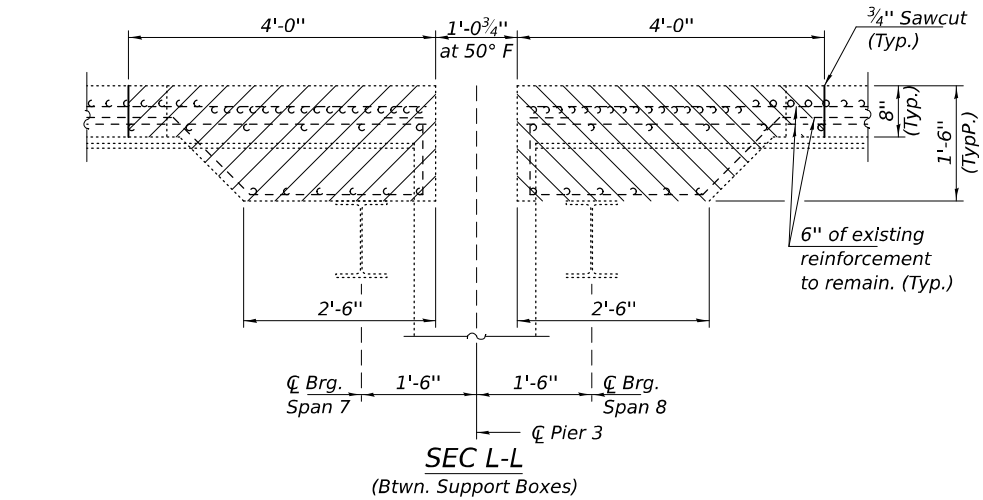
CONCRETE REMOVAL DETAILS

Notes:
Hatched areas indicate Concrete Removal.
Cost of existing modular joint removal is included with Concrete Removal.

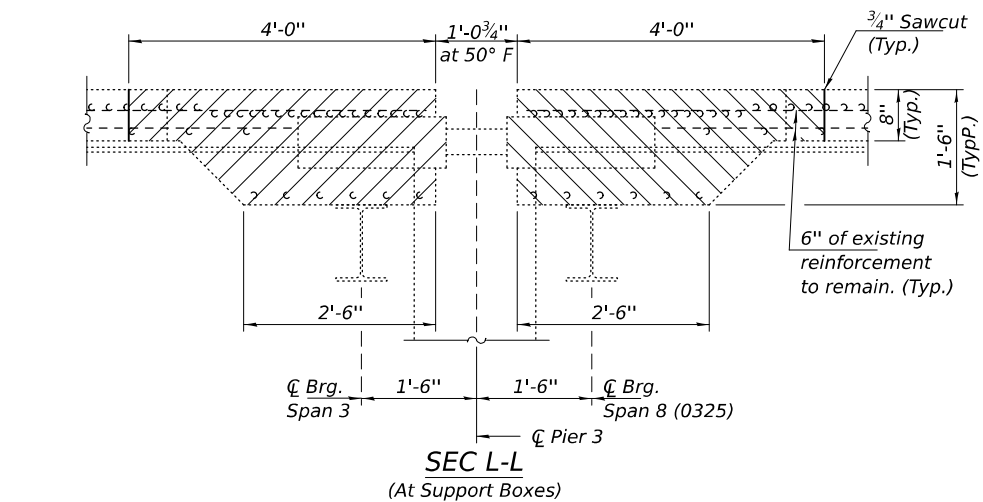


DIM "A"

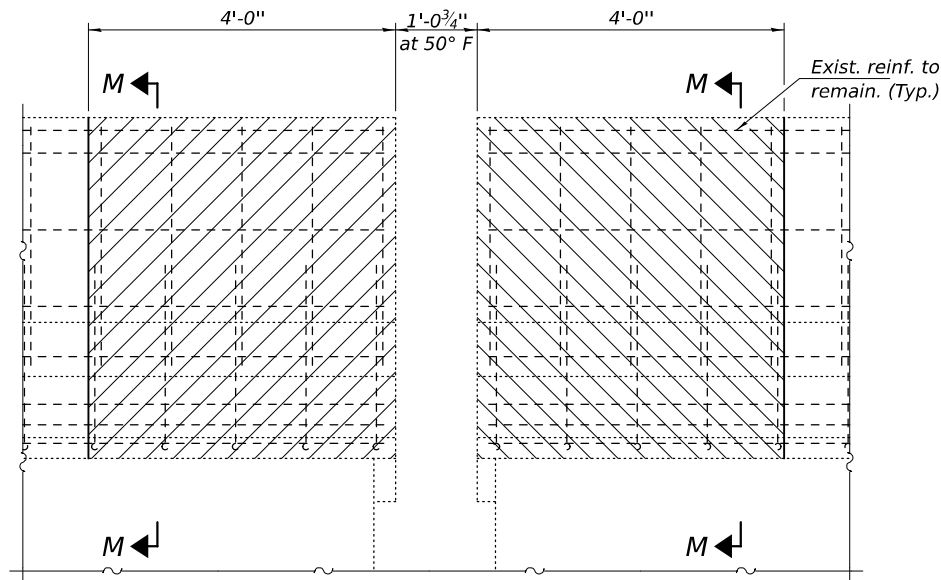
5" - N. End (Span 7)
4 1/4" - S. End (Span 7)
3 3/8" - N. End (Span 8)
4 5/8" - S. End (Span 8)



SEC L-L
(Btwn. Support Boxes)



SEC L-L
(At Support Boxes)



OUTSIDE ELEVATION
(Looking South)

DESIGNED -	VHV
CHECKED -	CAL
DRAWN -	daburdell
CHECKED -	VHV CAL

EXAMINED	ENGINEER OF STRUCTURAL SERVICES
PASSED	ENGINEER OF BRIDGES AND STRUCTURES

DATE -	MARCH 20, 2025
REVISED -	
REVISED -	

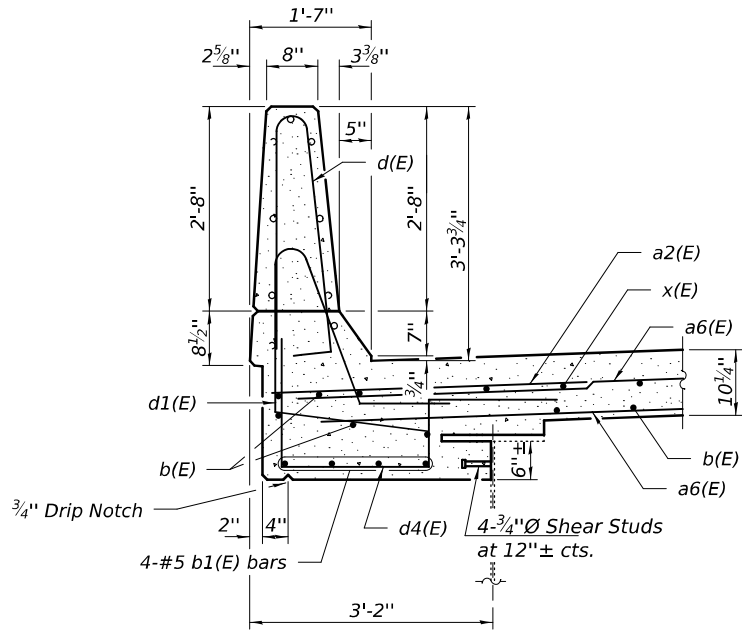
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT REMOVAL DETAILS - PIER 7
SN 082-0325

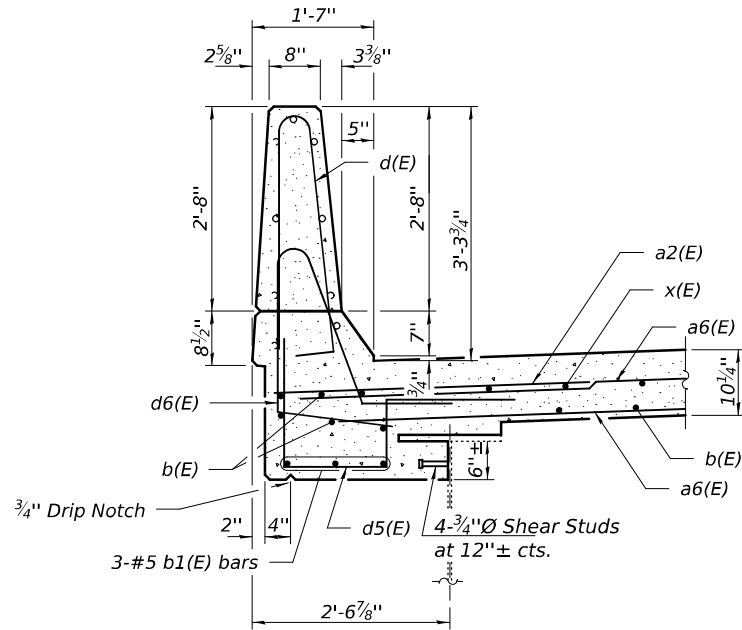
SHEET 17 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST. CLAIR	40	32
CONTRACT NO. 76U30				
ILLINOIS FED. AID PROJECT				

MODEL: 76U30-034
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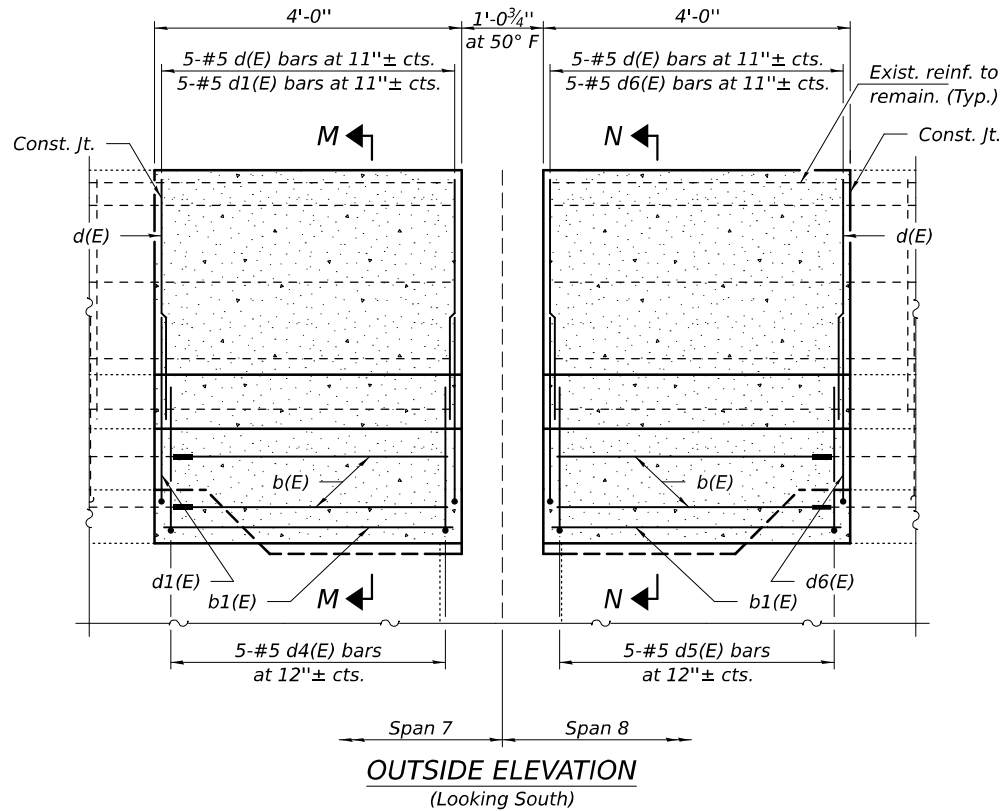
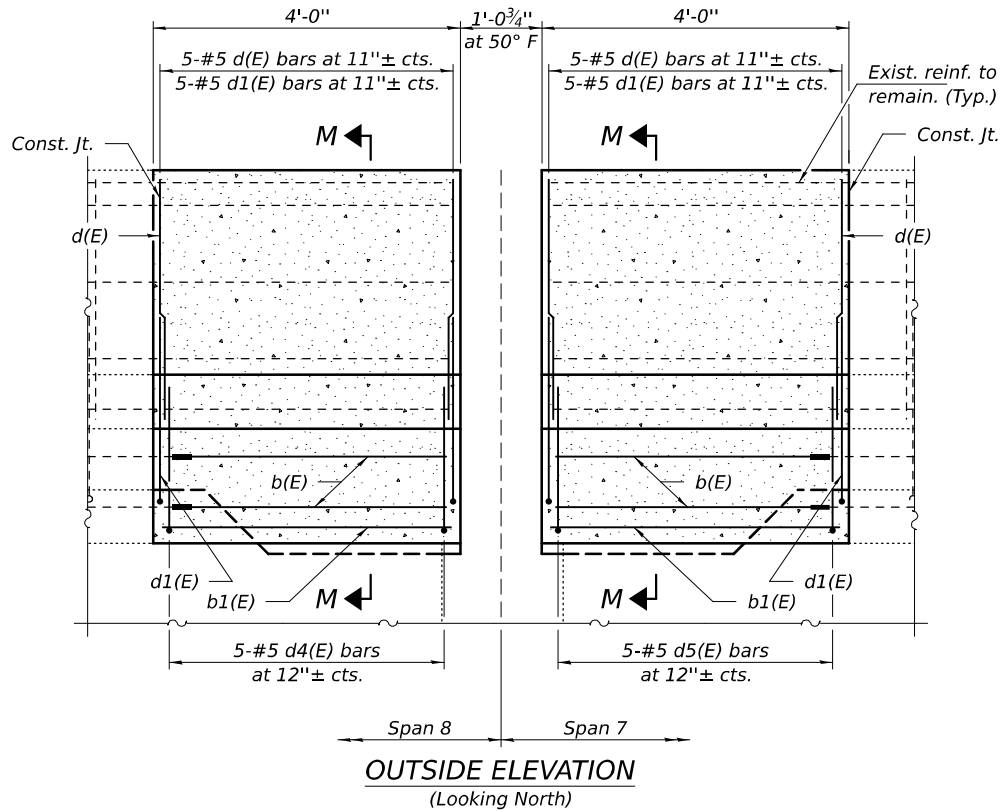


SEC M-M



SEC N-N

Note:
See sheet 12 of 25 for bar bending
diagrams.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	44	#6	6'-6"	—
a6(E)	76	#5	20'-2"	—
a7(E)	30	#6	5'-10"	—
a8(E)	18	#6	7'-5"	—
a9(E)	6	#6	8'-9"	—
b(E)	82	#5	3'-3"	—
b1(E)	15	#5	3'-8"	—
d(E)	20	#5	6'-10"	⌋
d1(E)	15	#5	7'-8"	⌋
d4(E)	10	#5	6'-0"	⌋
d5(E)	10	#5	5'-6"	⌋
d6(E)	5	#5	7'-2"	⌋
x(E)	70	#5	3'-9"	⌋
x1(E)	72	#5	5'-3"	⌋
x2(E)	76	#5	2'-3"	⌋
Concrete Removal			Cu. Yd.	15.3
Concrete Superstructure			Cu. Yd.	19.4
Mechanical Splicers			Each	224
Stud Shear Connectors			Each	16
Reinforcement Bars, Epoxy Coated			Pound	4170
Modular Expansion Joint - Swivel 9"			Foot	36

DESIGNED -	VHV
CHECKED -	CAL
DRAWN -	daburdell
CHECKED -	VHV CAL

EXAMINED	ENGINEER OF STRUCTURAL SERVICES
PASSED	ENGINEER OF BRIDGES AND STRUCTURES

DATE -	MARCH 20, 2025
REVISED -	
REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT REMOVAL DETAILS - PIER 7
SN 082-0325

SHEET 19 OF 25 SHEETS

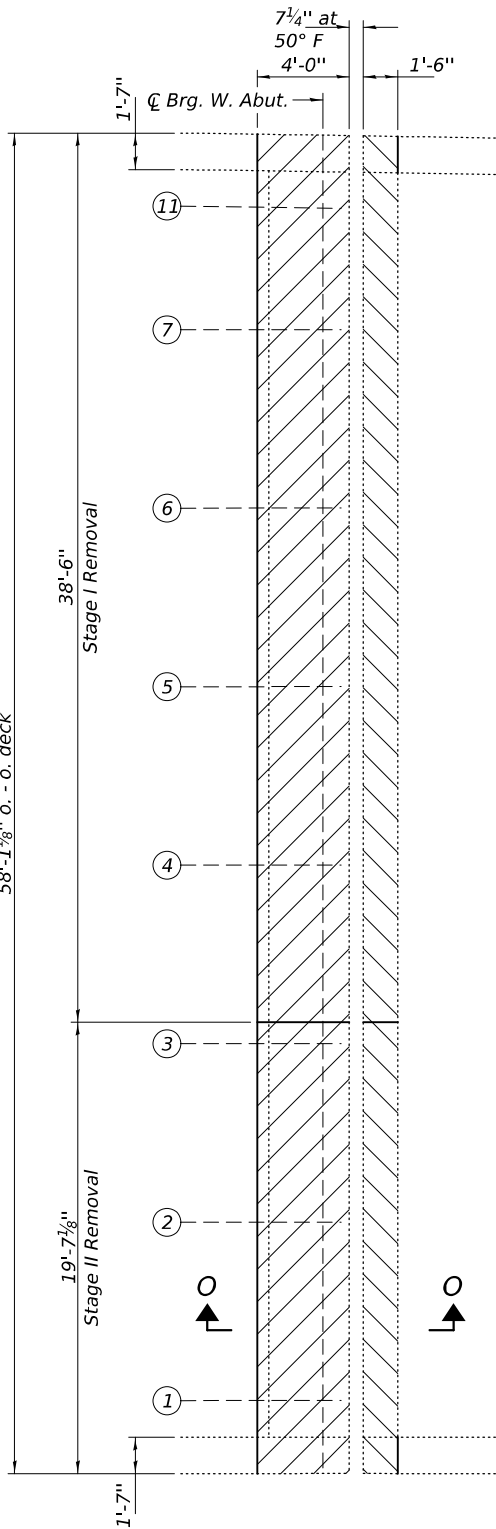
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST. CLAIR	40	34
CONTRACT NO. 76U30				
ILLINOIS FED. AID PROJECT				

3/20/2025 4:11:04 PM

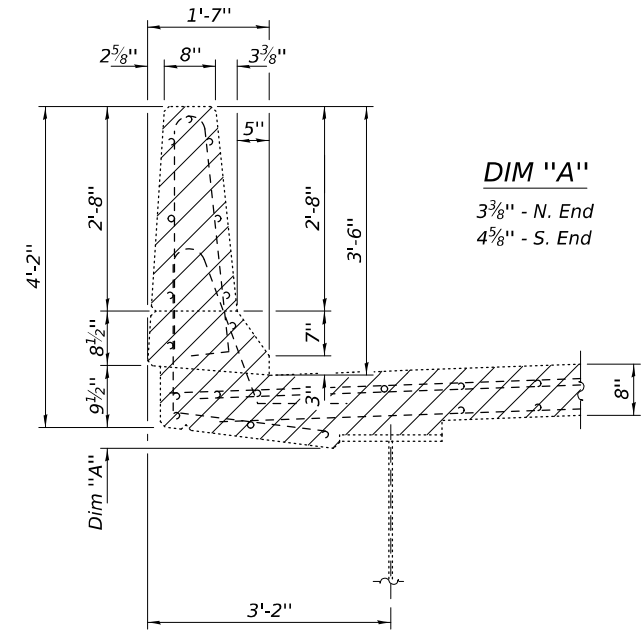
MODEL: 76U30-035
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3/20/2025 4:11:06 PM

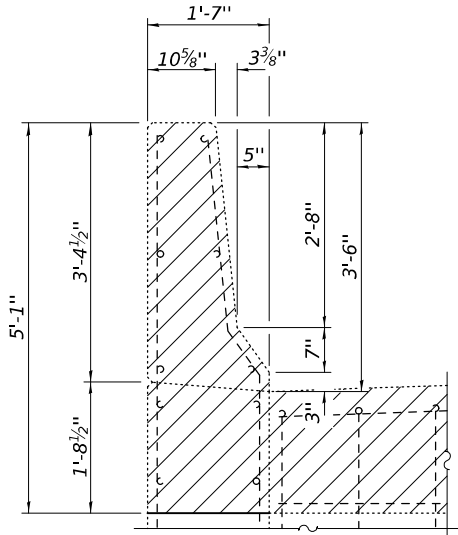
58'-1 $\frac{1}{8}$ " o. - o. deck



CONCRETE REMOVAL DETAILS

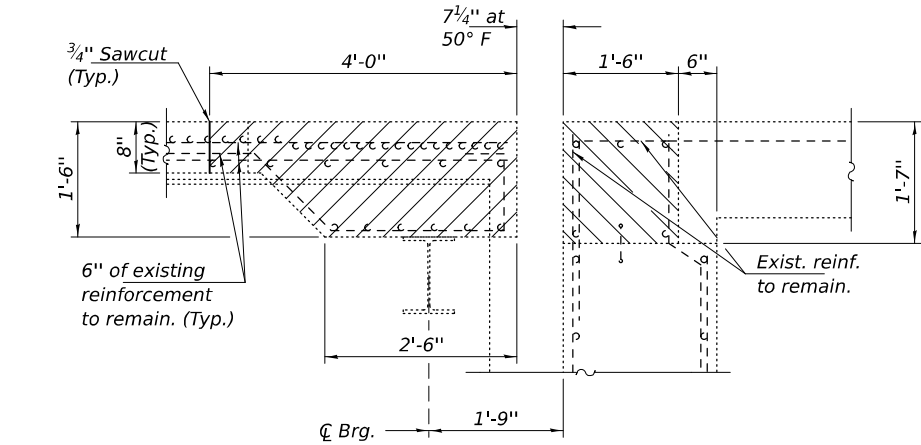


SEC P-P

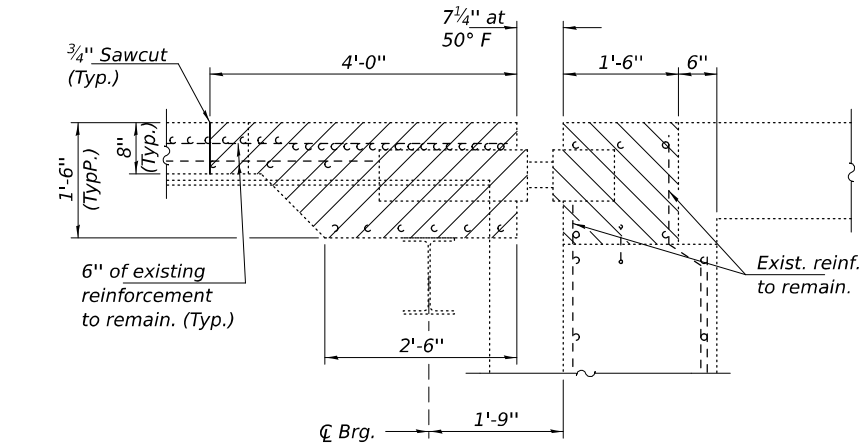


SEC Q-Q

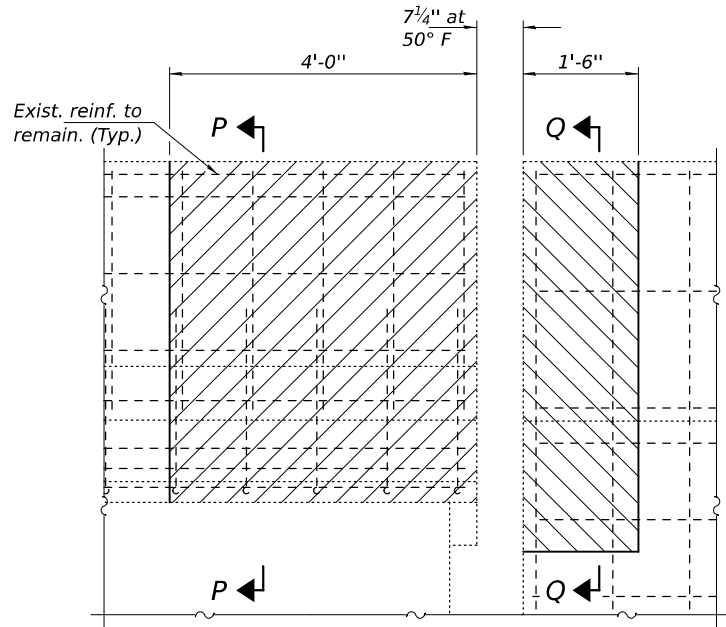
Notes:
Hatched areas indicate Concrete Removal.
Cost of existing modular joint removal is included with Concrete Removal.



SEC O-O
(Btwn. Support Boxes)



SEC O-O
(At Support Boxes)



OUTSIDE ELEVATION
(Looking South)

DESIGNED -	VHV
CHECKED -	CAL
DRAWN -	dauburdell
CHECKED -	VHV CAL

EXAMINED	ENGINEER OF STRUCTURAL SERVICES
PASSED	ENGINEER OF BRIDGES AND STRUCTURES

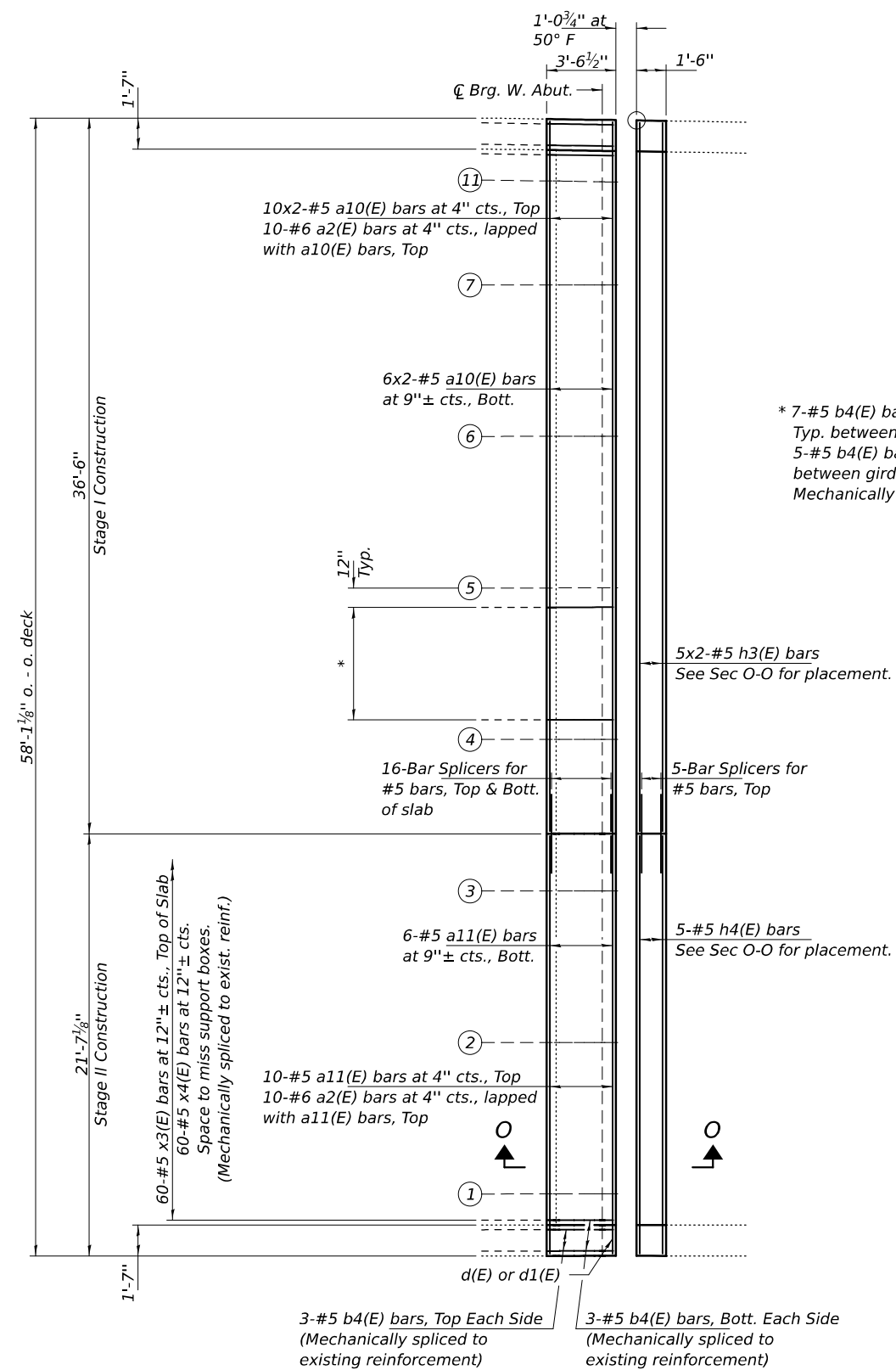
DATE -	MARCH 20, 2025
REVISED -	
REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT REMOVAL DETAILS - WEST ABUTMENT
SN 082-0325

SHEET 20. OF 25 SHEETS

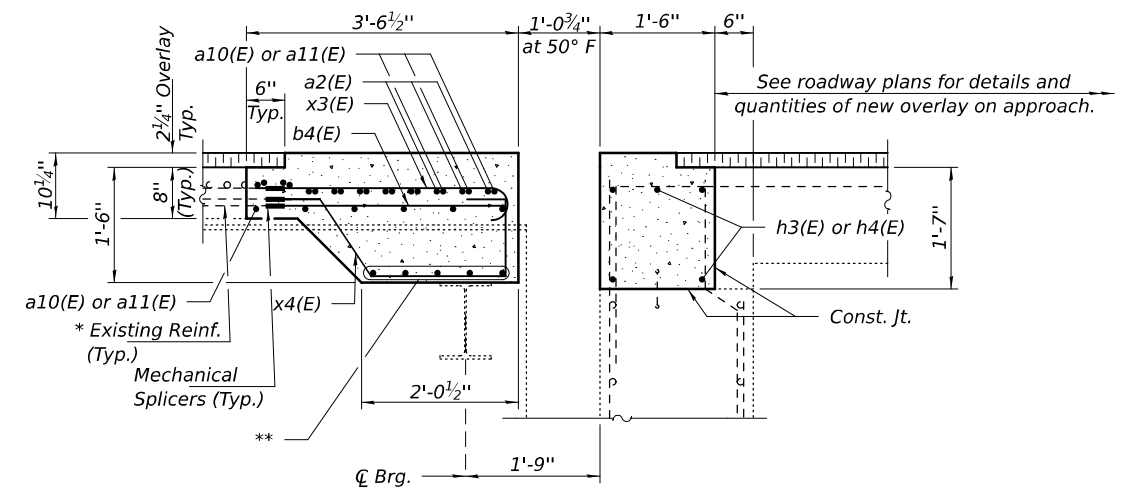
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST. CLAIR	40	35
CONTRACT NO. 76U30				
ILLINOIS FED. AID PROJECT				



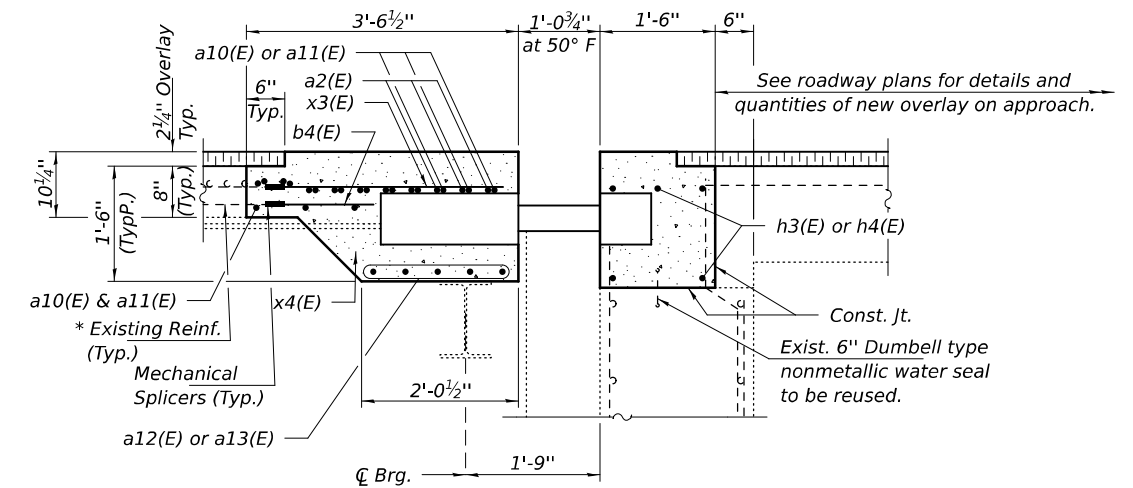
CONCRETE REPLACEMENT DETAILS

Notes:
Bars indicated thus 10x2-#5 etc.
indicates 10 lines of bars with 2
lengths per line.
See sheet 22 of 25 for additional
details.

MINIMUM BAR LAP
#5 bar = 3'-6"



SEC O-O
(Btwn. Support Boxes)

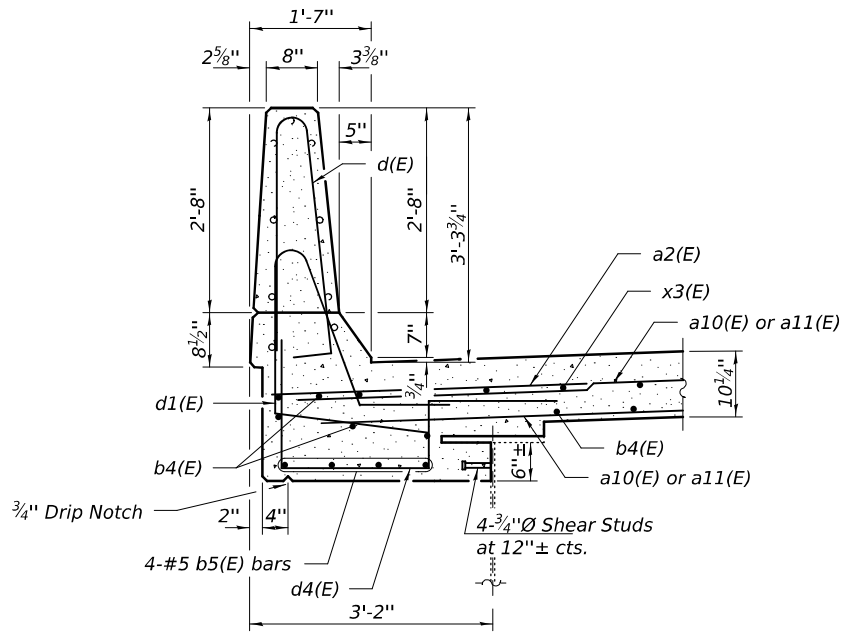


SEC O-O
(Btwn. Support Boxes)

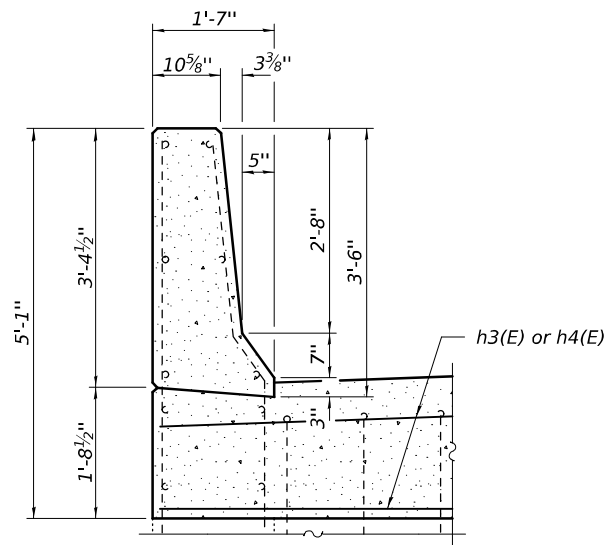
* Cut existing reinforcement 6" minimum from Concrete Removal line to facilitate installation of Mechanical Splicers.

**** 5-#6 a12(E) bars btwn. girders 1 thru 7
5-#6 a13(E) bars btwn. girders 7 & 11.
Bar to be adjusted and/or cut in the
field to miss support boxes or webs.**

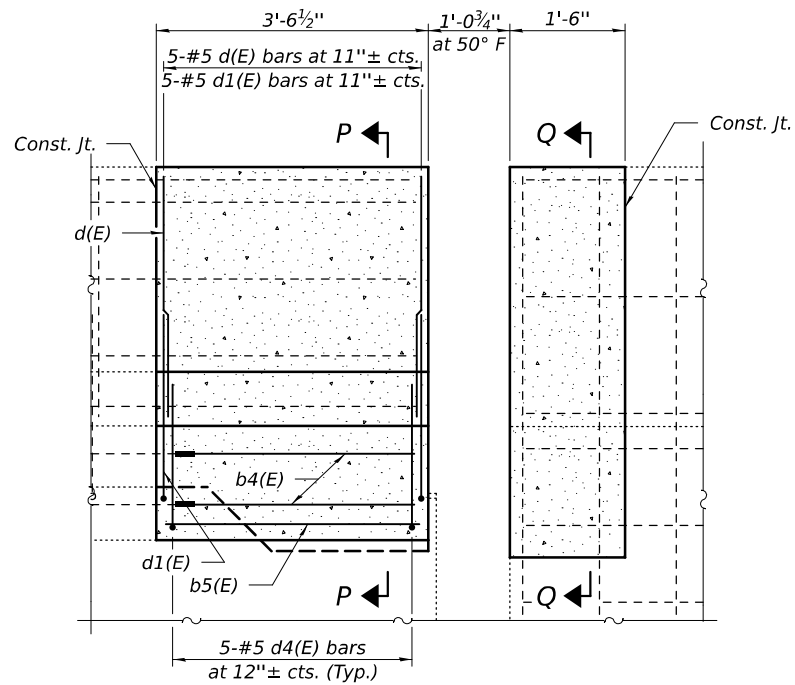
DESIGNED - VHV	EXAMINED		DATE - MARCH 20, 2025	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	JOINT REPLACEMENT DETAILS - WEST ABUTMENT SN 082-0325	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
CHECKED - CAL			ENGINEER OF STRUCTURAL SERVICES				70	82-1-B-1BJR-2	ST. CLAIR	40	36
DRAWN - daburdell	PASSED		REVISED -			SHEET 21 OF 25 SHEETS	CONTRACT NO. 76U30				
CHECKED - VHV CAL			ENGINEER OF BRIDGES AND STRUCTURES				REVISED -	ILLINOIS FED. AID PROJECT			
3/20/2025 4:11:07 PM											



SEC P-P



SEC Q-Q



OUTSIDE ELEVATION
(Looking South)

Note:
See sheet 12 of 25 for bar bending
diagrams.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	20	#6	6'-6"	—
a10(E)	32	#5	19'-10"	—
a11(E)	16	#5	21'-3"	—
a12(E)	30	#6	7'-5"	—
a13(E)	5	#6	4'-11"	—
b4(E)	59	#5	2'-10"	—
b5(E)	8	#5	3'-3"	—
d(E)	10	#5	6'-10"	⌋
d1(E)	10	#5	7'-8"	⌋
d4(E)	10	#5	6'-0"	⌋
h3(E)	10	#5	19'-10"	—
h4(E)	5	#5	21'-3"	—
x3(E)	60	#5	3'-3"	—
x4(E)	60	#5	4'-10"	—
Concrete Removal			Cu. Yd.	16.8
Concrete Superstructure			Cu. Yd.	17.4
Bar Splicers			Each	21
Mechanical Splicers			Each	179
Stud Shear Connectors			Each	8
Reinforcement Bars, Epoxy Coated			Pound	2820
Modular Expansion Joint - Swivel 9"			Foot	57

MODEL: 76U30-037
FILE NAME: pw:///idol-epw/bentley.com:FWIDOT/Documents/IDOT O ces/Bureau of Bridges and Structures/IDOT O ces/Bureau of Bridges and Structures/0820323.dgn

DESIGNED -	VHV
CHECKED -	CAL
DRAWN -	daubardell
CHECKED -	VHV CAL

EXAMINED	ENGINEER OF STRUCTURAL SERVICES	DATE -	MARCH 20, 2025
PASSED	JOHN F. J. J.	REVISED -	
	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

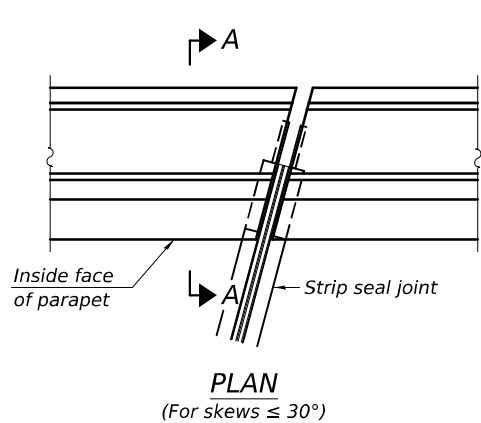
JOINT REPLACEMENT DETAILS - WEST ABUTMENT
SN 082-0325

SHEET 22 OF 25 SHEETS

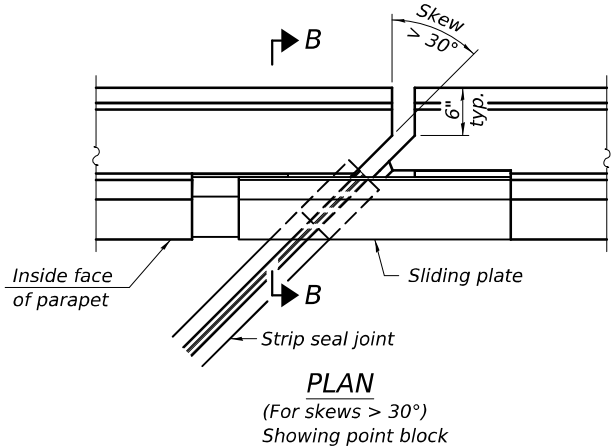
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST. CLAIR	40	37
CONTRACT NO. 76U30				
ILLINOIS FED. AID PROJECT				

3/20/2025 4:11:08 PM

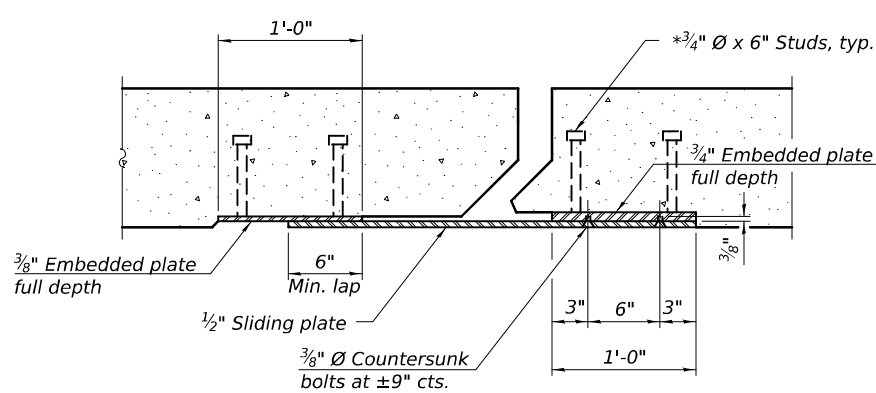
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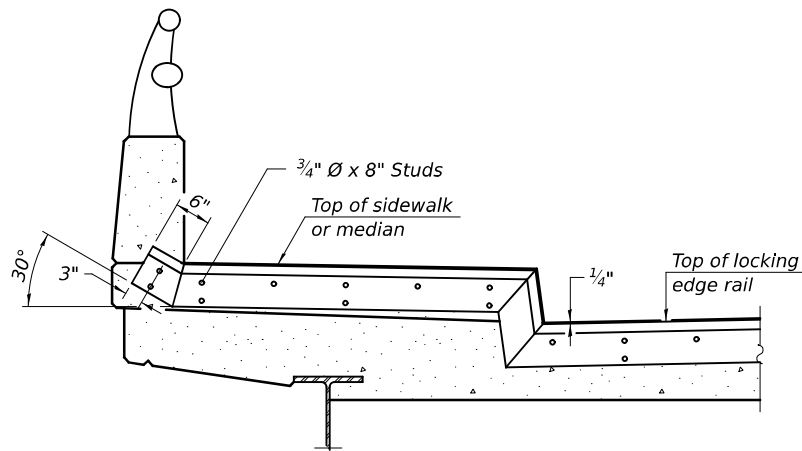
PLAN
(For skews $\leq 30^\circ$)



PLAN
(For skews $> 30^\circ$)
Showing point block

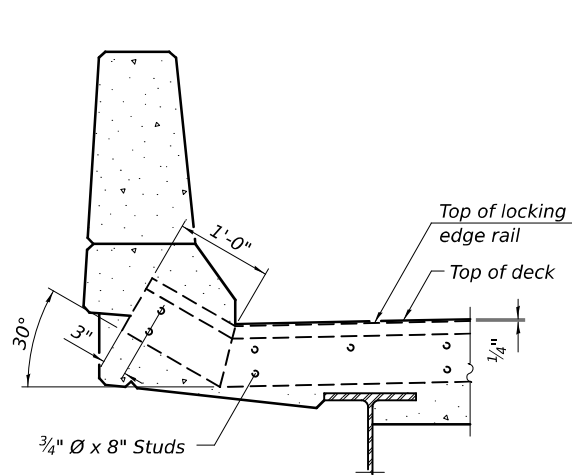


SECTION C-C

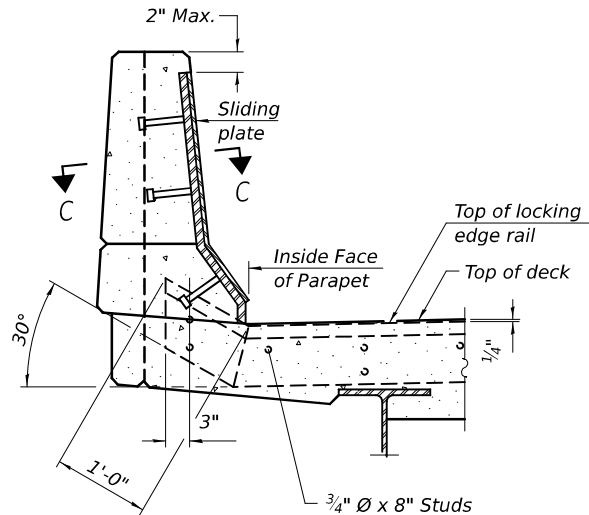


TYPICAL END TREATMENT
AT SIDEWALK OR MEDIAN

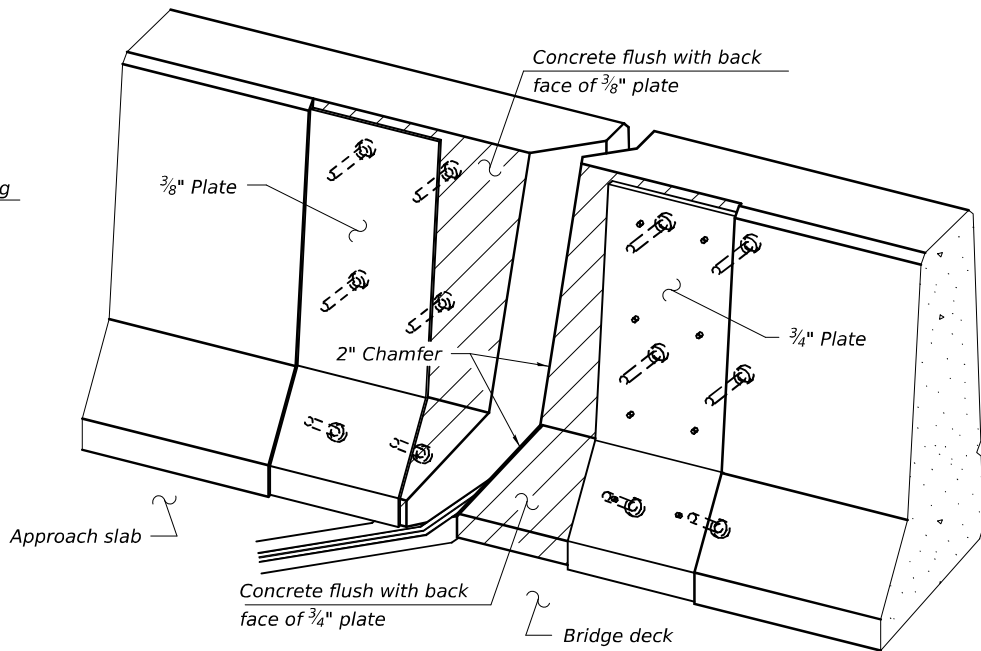
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A



SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of $\frac{1}{4}$ ". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

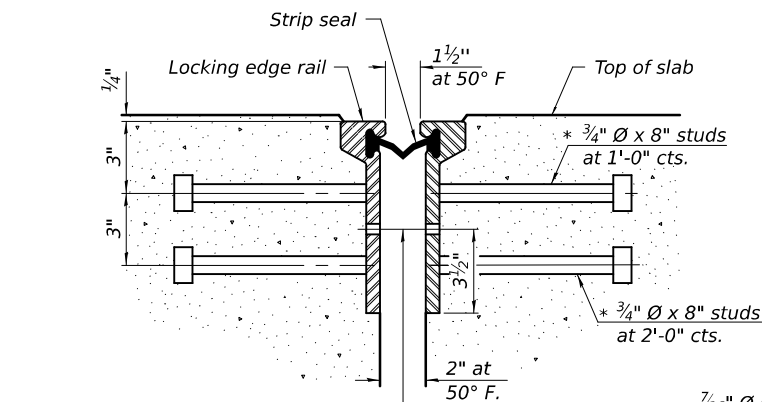
The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

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

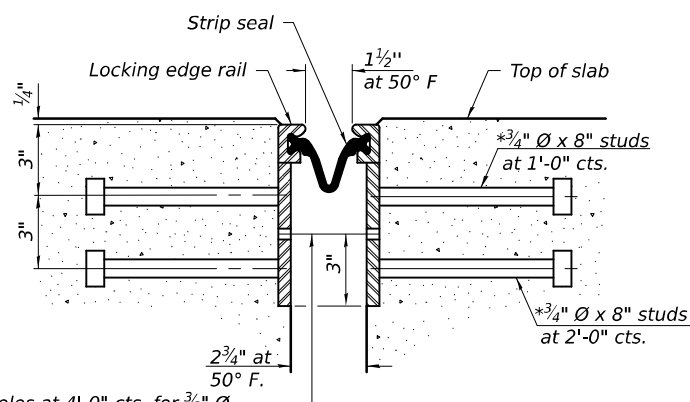
Maximum space between rail segments shall be $\frac{3}{16}$ ", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

Parapet plates and anchorage studs for skews $> 30^\circ$ included in the cost of Preformed Joint Strip Seal.



$\frac{7}{16}$ " $\varnothing$ holes at 4'-0" cts. for $\frac{3}{8}$ " $\varnothing$ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

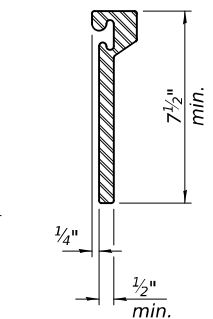
SECTION THRU
ROLLED RAIL JOINT



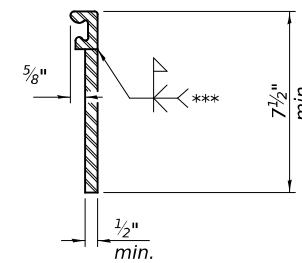
$\frac{7}{16}$ " $\varnothing$ holes at 4'-0" cts. for $\frac{3}{8}$ " $\varnothing$ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU
WELDED RAIL JOINT

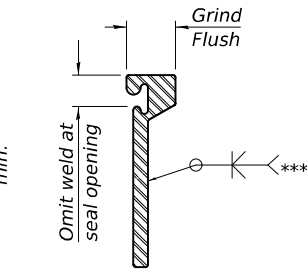
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED
EXTRUDED RAIL



WELDED RAIL



*** 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.

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	42

DESIGNED -	VHV
CHECKED -	CAL
DRAWN -	daburdell
CHECKED -	VHV CAL

EXAMINED	ENGINEER OF STRUCTURAL SERVICES
PASSED	ENGINEER OF BRIDGES AND STRUCTURES

DATE -	MARCH 20, 2025
REVISED -	
REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
SN 082-0323

SHEET 23 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST. CLAIR	40	38
CONTRACT NO. 76U30				
ILLINOIS FED. AID PROJECT				

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BSD-1

5-15-2023

DESIGNED -	VHV
CHECKED -	CAL
DRAWN -	daburdell
CHECKED -	VHV CAL

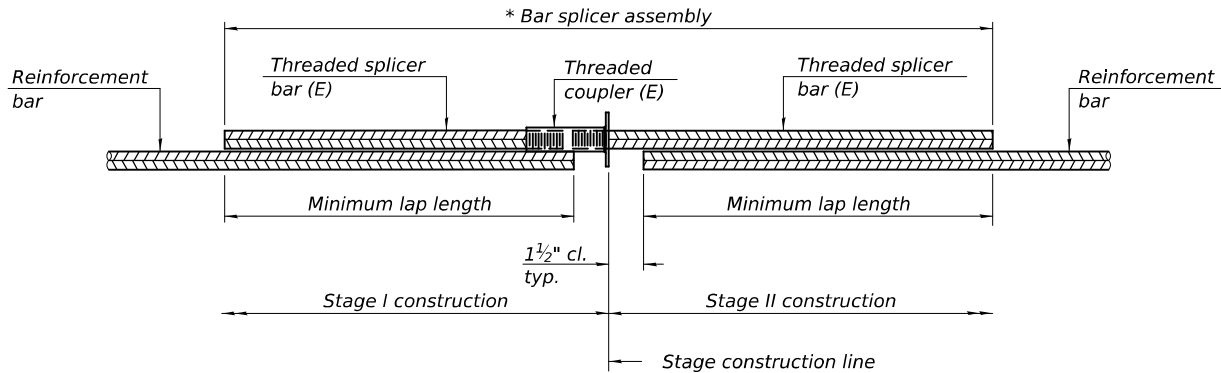
EXAMINED		DATE -	MARCH 20, 2025
PASSED	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -	
		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
SN 082-0323

SHEET 25 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1BJR-2	ST. CLAIR	40	40
CONTRACT NO. 76U30				
		ILLINOIS	FED. AID PROJECT	



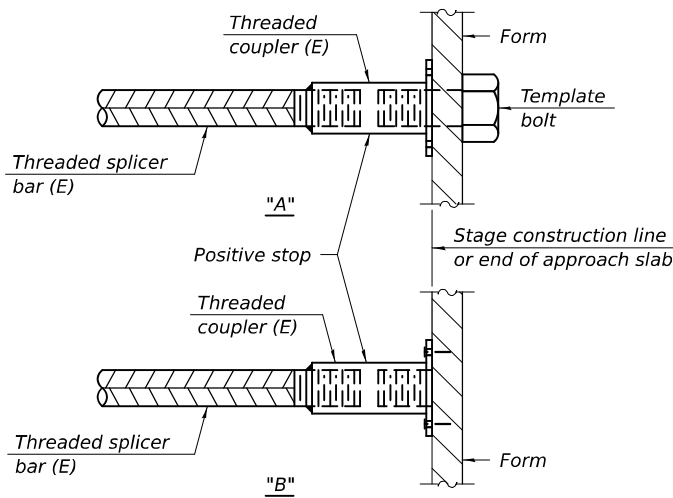
STANDARD BAR SPLICER ASSEMBLY PLAN

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

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

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

Location	Bar size	No. assemblies required	Minimum lap length
W. Abut. (0325)	#5	21	3'-6"
Pier 3 (0323)	#5	38	3'-6"
E. Abut. (0323)	#5	6	3'-6"

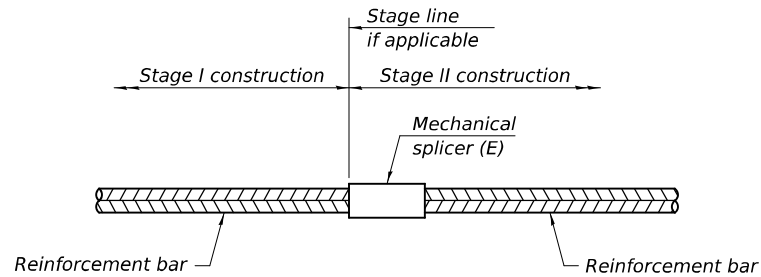


INSTALLATION AND SETTING METHODS

"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
Pier #3 (0323)	#5	258
E. Abut. (0325)	#5	113
Pier #3 (0325)	#5	226
Pier #7 (0325)	#5	224
W. Abut. (0323)	#5	179

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.