

083

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805A	8-2VB-2	MARION	28	1
		ILLINOIS	CONTRACT NO. 76M40	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED HIGHWAY PLANS

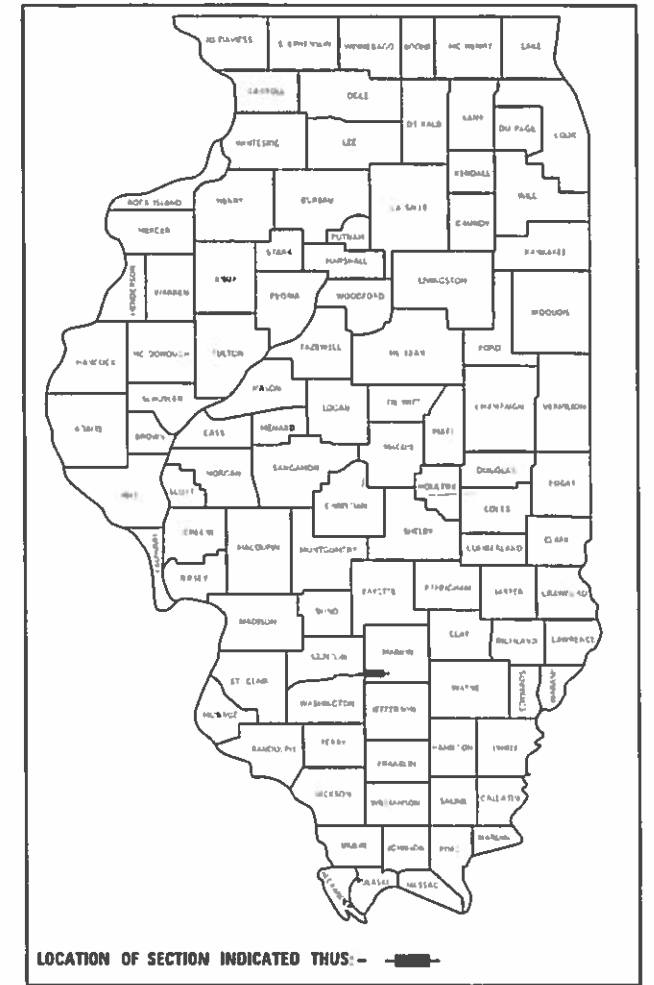
FAP ROUTE 805A (IL 161)
SECTION 8-2VB-2
PROJECT STP-UJ9P(300)

BRIDGE DECK REPAIRS, JOINT REPLACEMENT, DECK OVERLAY
MARION COUNTY

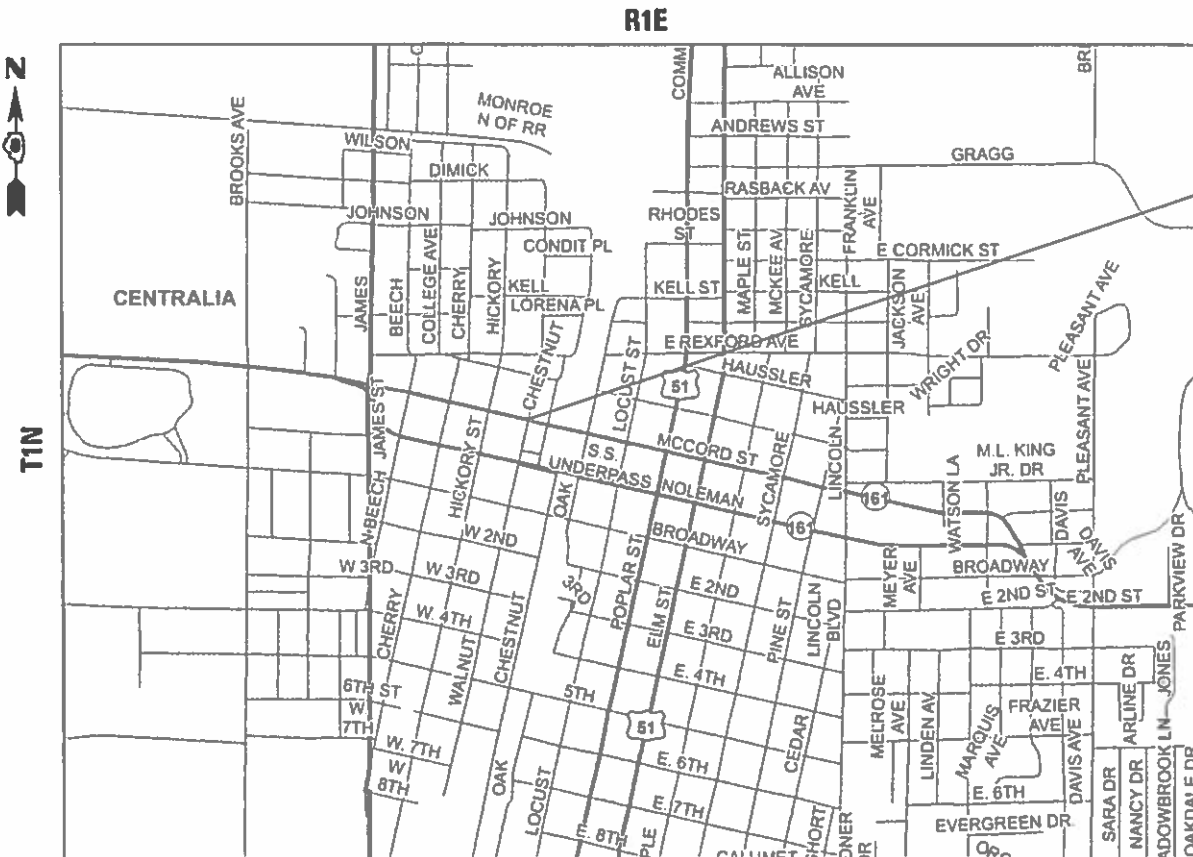
C-98-070-19

2017 ADT = 9800 (ACTUAL)
2019 ADT = 10100 (ESTIMATED)
2029 ADT = 13300 (ESTIMATED)
SU = 3.8% MU = 1.8%

D-98-053-19



PROJECT LOCATION:
SN 061-0079
IL 161 AT WALNUT STREET
& ICG&N RR
STA. 894 + 98.80
LATITUDE: 38.53022
LONGITUDE: -89.13392



MAP NOT TO SCALE



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD

CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: HERVE GELIN (618) 346-3179
PROJECT MANAGER: BILLIE OWEN (618) 346-3209

GROSS LENGTH = 1090.24 FT. = 0.206 MILE
NET LENGTH = 1090.24 FT. = 0.206 MILE

CONTRACT NO. 76M40

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED *Jan 21, 2020*
Keith Kolata REGIONAL ENGINEER

March 20, 2020
E.A. Etk ENGINEER OF DESIGN AND ENVIRONMENT

March 20, 2020
James Gurn DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

INDEX OF SHEETS

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- 2 INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES AND COMMITMENTS
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- 9 SCHEDULES
- 10-11 TRAFFIC CONTROL PLAN
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- 22-28 ELECTRICAL DETAILS

HIGHWAY STANDARDS

- 000001-07 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001006 DECIMALS OF AN INCH AND OF A FOOT
- 701321-18 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701601-09 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
- 701611-01 URBAN HALF ROAD CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
- 701901-08 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER
- 720001-01 SIGN PANEL MOUNTING DETAILS
- 780001-05 TYPICAL PAVEMENT MARKING
- 781001-04 TYPICAL APPLICATIONS OF RAISED REFLECTIVE PAVEMENT MARKERS
- 821001 UNDERPASS LIGHTING WALL MOUNT
- 821101-02 LUMINAIRE WIRING IN POLE
- 825001-04 LIGHTING CONTROLLER POLE MOUNTED, 240V

GENERAL NOTES

1 THE FOLLOWING UTILITIES ARE KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

UTILITY	CONTACT INFORMATION	ABOVE GROUND	BELOW GROUND
AMEREN ILLINOIS (GAS & ELECTRIC)	1050 WEST BOULEVARD; BELLEVILLE, IL 62221-4169	X	X
AT&T ILLINOIS (COMMUNICATIONS)	3526 STATE ROUTE 161 ROOM 121; CENTRALIA, IL 62801	X	X
CITY OF CENTRALIA (WATER & SANITARY SEWER)	101 S. LOCUST ST. P.O. BOX 569; CENTRALIA, IL 62801	X	X
CHARTER COMMUNICATIONS, INC. (CABLE TV)	101 NORTHWEST PLAZA; SAINT ANN, MO 63074	X	X
CLEARWAVE COMMUNICATIONS (COMMUNICATIONS)	TWO NORTH VINE STREET 2ND FLOOR P.O. BOX 808; HARRISBURG, IL 62946	X	X
ILLINOIS NETWORK ALLIANCE (COMMUNICATIONS)	21668 DOUBLE ARCH ROAD BOX 29; STAUNTON, IL 62088	X	X
WINDSTREAM KDL, INC. (COMMUNICATIONS)	102 E. SHAFER STREET; FORSYTH, IL 62535	X	X

2 NO SURVEY WAS PERFORMED FOR THIS PROJECT AND THE PLANS WERE CREATED USING MICROFILM AND FIELD MEASUREMENTS.

3 THE USE OF VIBRATORY ROLLERS WILL NOT BE PERMITTED WITHIN THE CITY LIMITS OF CENTRALIA. THIS DOES NOT RELIEVE THE CONTRACTOR OF DENSITY REQUIREMENTS FOR THE CONSTRUCTION OF THE BITUMINOUS PAVEMENTS AS SPECIFIED IN SECTIONS 406 & 407 OF THE STANDARD SPECIFICATIONS

4 THE PROPOSED PAVEMENT MARKING SHALL MATCH THE LOCATIONS OF THE EXISTING PAVEMENT MARKING AS DIRECTED BY THE ENGINEER.

5 THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

MIXTURE USE	POLY SURFACE
AC/PG	SBS PG 76-22
RAP % (MAX)	SEE SPECIAL PROVISION
DESIGN AIR VOIDS	4.0% @ Ndes=70
MIX COMPOSITION (Gradation)	IL 9.5
FRICTION AGG	MIXTURE "D"
QUALITY MGMT PROGRAM	QC/QA

PLAN QUANTITIES FOR HOT-MIX ASPHALT ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN.

7 EXISTING INLETS ARE TO REMAIN IN PLACE ON BOTH SIDES OF THE STRUCTURE. THE HOT-MIX ASPHALT SHALL BE TAPERED INTO THE EXISTING INLET ELEVATION.

COMMITMENTS

NONE

PERTINENT INFORMATION

THE FOLLOWING SHALL BE NOTIFIED TWO WEEKS PRIOR TO ANY LANE CLOSURES:
 - ELKS LODGE - 618-532-5751
 - FUEL VENDOR EXPRESS - 618-545-0980
 - CITY OF CENTRALIA FIRE DEPARTMENT - 618-533-7660
 - CENTRALIA CITY SCHOOLS DISTRICT - 618-532-1907

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	DRAWN -	REVISED -			805A	8-2VB-2	MARION	28	2	
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -			CONTRACT NO. 76M40					
PLOT DATE = 1/31/2020	DATE -	REVISED -			SCALE: N.T.S.	SHEET	OF	SHEETS	STA.	TO
					ILLINOIS FED. AID PROJECT					

URBAN

CONSTR. CODE
80% STATE
20% FED
BRIDGE
0047
061-0079

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1094	1094
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SQ YD	294	294
40604162	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	TON	386	386
50102400	CONCRETE REMOVAL	CU YD	37	37
50300255	CONCRETE SUPERSTRUCTURE	CU YD	45.3	45.3
50606701	CLEANING AND PAINTING STRUCTURAL STEEL, LOCATION 1	L SUM	1	1
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	5640	5640
50800515	BAR SPLICERS	EACH	76	76
50800530	MECHANICAL SPLICERS	EACH	204	204
52000110	PREFORMED JOINT STRIP SEAL	FOOT	92	92
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	4864	4864
58700300	CONCRETE SEALER	SQ FT	2074	2074
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	18	18
67100100	MOBILIZATION	L SUM	1	1

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805A	8-2VB-2	MARION	28	3
CONTRACT NO. 76M40				
ILLINOIS FED. AID PROJECT				

URBAN
CONSTR. CODE
 80% STATE
 20% FED
 BRIDGE
 0047
 061-0079

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
70107005	PAVEMENT MARKING BLACKOUT TAPE, 5"	FOOT	120	120
70300100	SHORT TERM PAVEMENT MARKING	FOOT	200	200
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	107	107
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3070	3070
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1237.5	1237.5
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1237.5	1237.5
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1	1
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1	1
78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	64	64
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	30	30
* 80400100	ELECTRIC SERVICE INSTALLATION	EACH	1	1
* 81300220	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	12	12
* 81300530	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 10" X 6"	EACH	1	1
* 81702450	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10	FOOT	1475	1475

* SPECIALTY ITEM

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
SCALE:	SHEET 2	OF 4	SHEETS
	STA.	TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805A	8-2VB-2	MARION	28	4
				CONTRACT NO. 76M40
		ILLINOIS	FED. AID PROJECT	

URBAN

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80% STATE
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BRIDGE
0047
061-0079

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
* 82110005	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION E	EACH	7	7
* 82110022	LUMINAIRE, LED, UNDERPASS, WALLMOUNT, OUTPUT DESIGNATION E	EACH	6	6
* 82500310	LIGHTING CONTROLLER, POLE MOUNTED, 240VOLT, 60AMP	EACH	1	1
* 83001200	LIGHT POLE, ALUMINUM, 35 FT. M.H., 6 FT. DAVIT ARM	EACH	7	7
* 84200600	REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	7	7
* 84500110	REMOVAL OF LIGHTING CONTROLLER	EACH	1	1
* 84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	1	1
* 89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	3540	3540
X0300062	GRAFFITI REMOVAL	SQ YD	628	628
X2700006	PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - LINE 4"	FOOT	2729	2729
X5060601	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1	1
X5870015	BRIDGE DECK CONCRETE SEALER	SQ FT	8085	8085
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	1024	1024

* SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

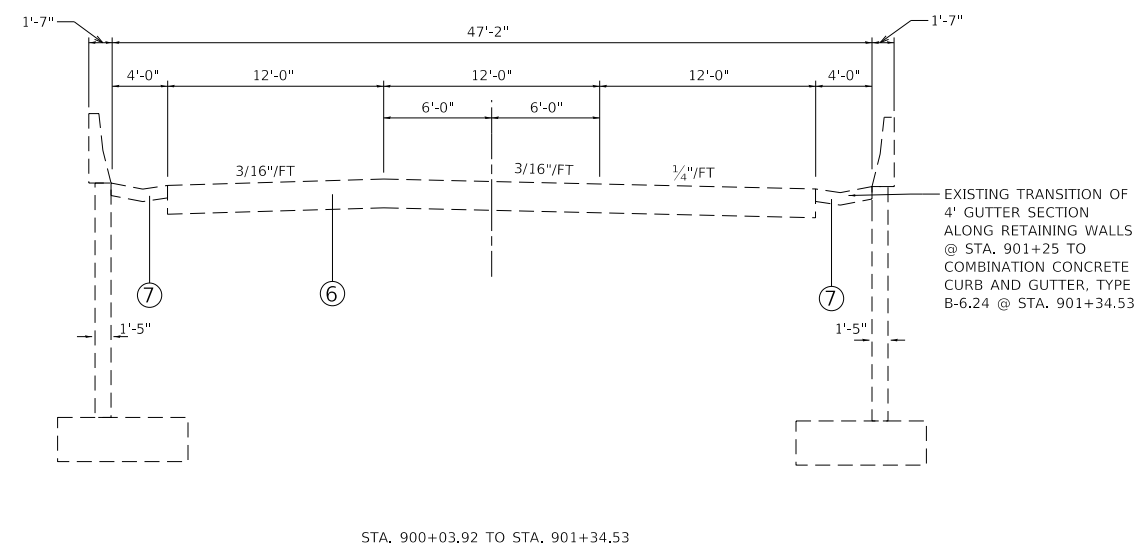
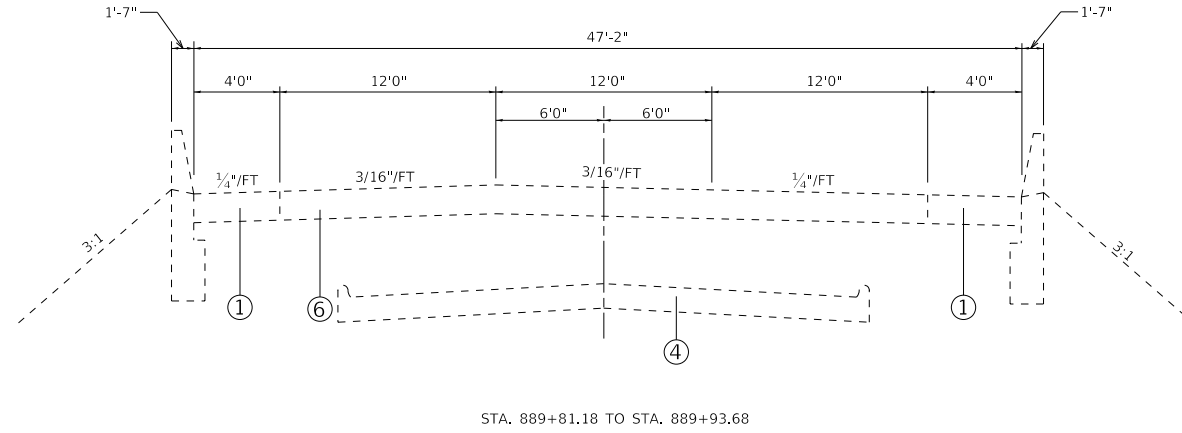
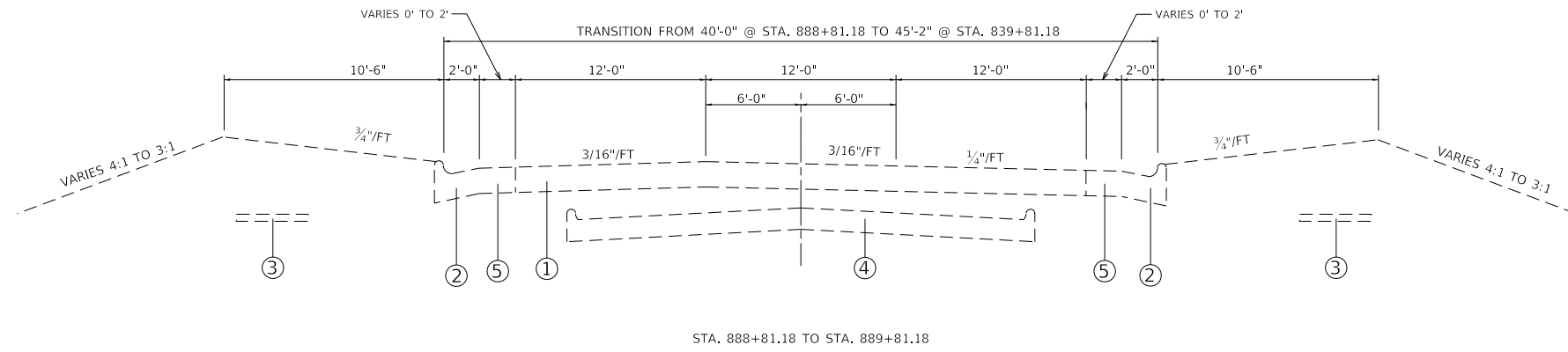
SUMMARY OF QUANTITIES

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805A	8-2VB-2	MARION	28	5
CONTRACT NO. 76M40				
ILLINOIS FED. AID PROJECT				

LEGEND

- ① EXISTING PCC PAVEMENT 10"
- ② EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
- ③ EXISTING BROKEN UP SIDEWALK
- ④ EXISTING BROKEN UP PAVEMENT
- ⑤ EXISTING PCC BASE WIDENING
- ⑥ EXISTING BRIDGE APPROACH PAVEMENT
- ⑦ EXISTING CONCRETE GUTTER, TYPE A (MODIFIED)



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

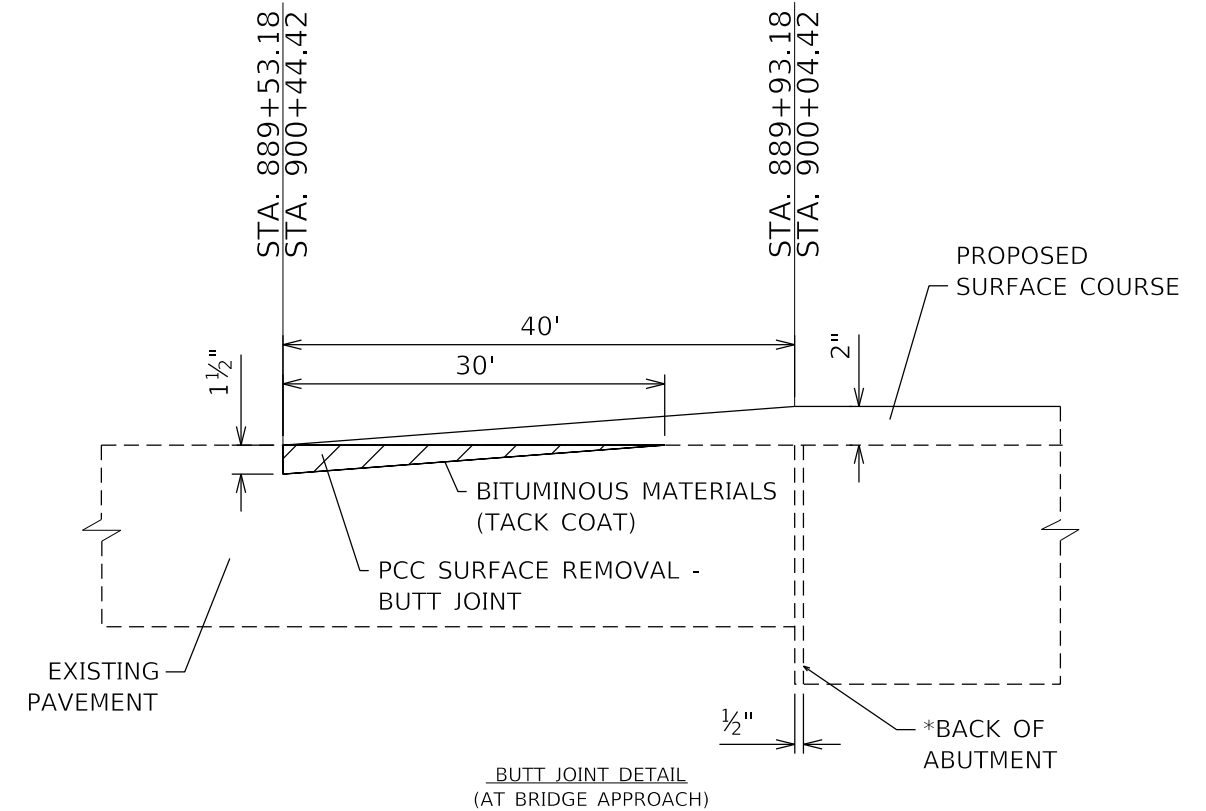
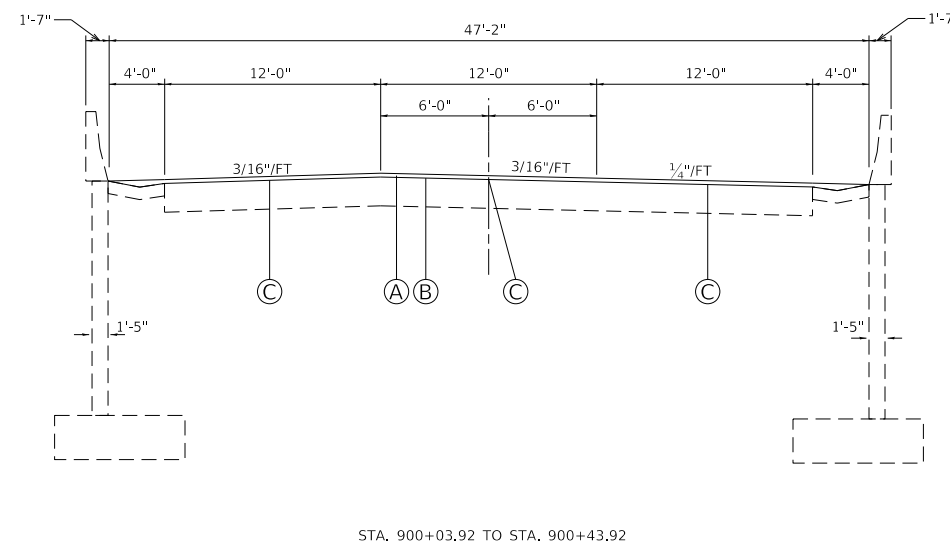
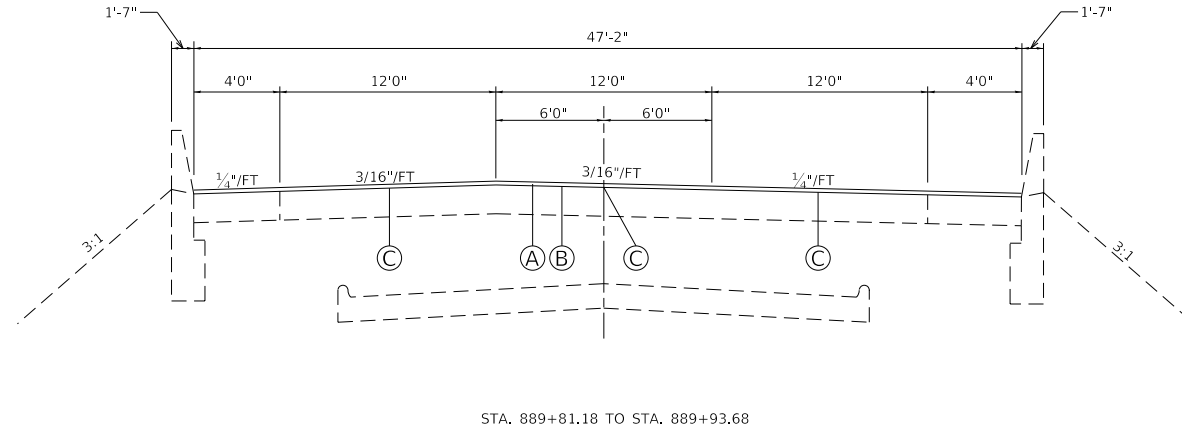
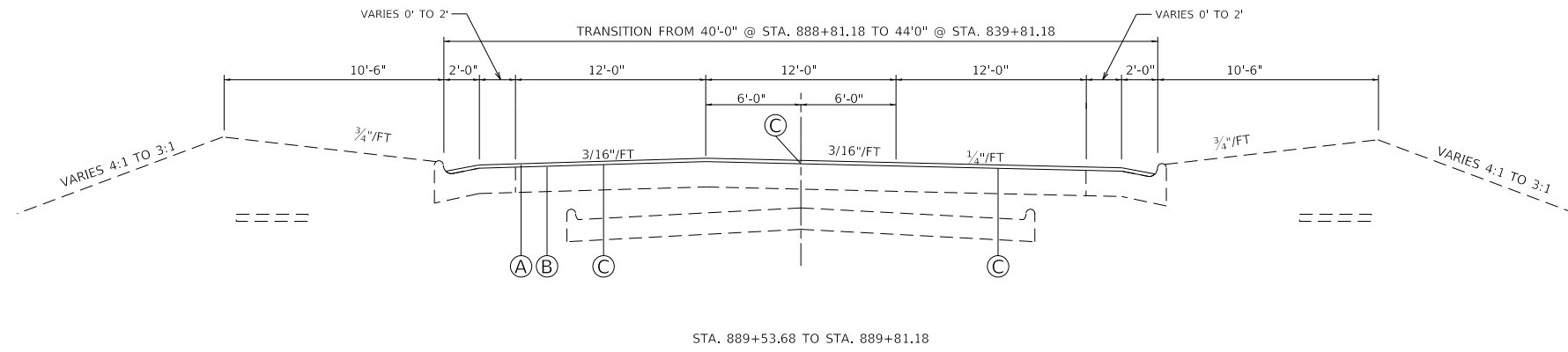
TYPICAL SECTIONS (EXISTING)

SCALE: N.T.S. SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	8-2VB-2	MARION	28	7
CONTRACT NO. 76M40				
ILLINOIS FED. AID PROJECT				

LEGEND

- (A) PROPOSED HOT-MIX ASPHALT SURFACE COURSE, VARIES 1½ TO 2" (SEE DETAIL BELOW)
- (B) PROPOSED BITUMINOUS MATERIALS (TACK COAT)
- (C) PROPOSED LONGITUDINAL JOINT SEALANT



*SEE SECTION B-B ON THE ABUTMENT DETAILS SHEET FOR ADDITIONAL DETAILS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS (PROPOSED)

SCALE: N.T.S. SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805	8-2VB-2	MARION	28	8
CONTRACT NO. 76M40				
ILLINOIS FED. AID PROJECT				

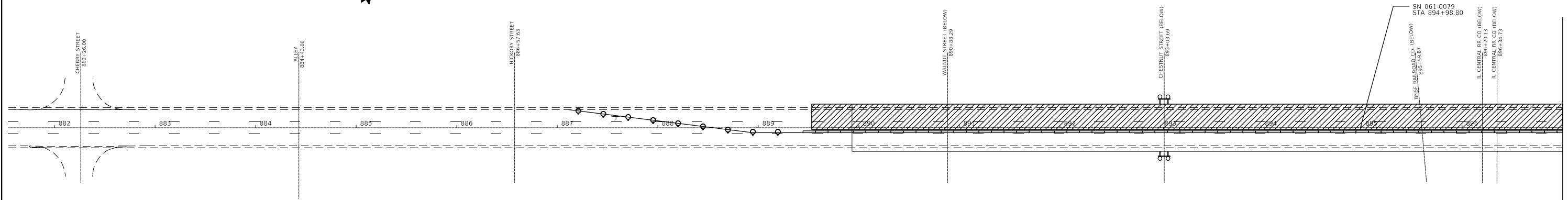
RESURFACING SCHEDULE								
STATION	TO	STATION	LENGTH	WIDTH	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	BITUMINOUS MATERIALS (TACK COAT)	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL 9.5 MIX "D",	LONGITUDINAL JOINT SEALANT
			FOOT	FOOT	SQYD	POUND	TON	FOOT
889+53.68	TO	889+93.68	40.00	44.00	146.67	88.00	21.90	120.00
889+93.68	TO	900+03.92	1010.24	44.00		1094.00	340.00	2984.82
900+03.92	TO	900+43.92	40.00	44.00	146.67	88.00	21.90	120.00
TOTAL					294	1270	384	3225

PAVEMENT MARKING AND TEMPORARY CONCRETE BARRIER SCHEDULE																
STATION	TO	STATION	LENGTH	PAVEMENT MARKING BLACKOUT TAPE, 5"	SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL	TEMPORARY PAVEMENT MARKING - LINE 4"	TEMPORARY PAVEMENT MARKING REMOVAL	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - LINE 4"		BARRIER WALL REFLECTORS, TYPE C	GROOVING FOR RECESSED PAVEMENT MARKING 5"	
			FOOT	FOOT	FOOT	SQFT	FOOT	SQFT	FOOT	FOOT	EACH	SOLID WHITE	SKIP-DASH	EACH	FOOT	
												FOOT	FOOT			
889+53.18	TO	889+93.18	40.00		8.00	2.67					2.00	80.00	20.00	4.00	100.00	
889+93.18	TO	900+04.42	1011.24		184.00	61.33					26.00	2022.48	505.62	56.00	2528.10	
900+04.42	TO	900+44.42	40.00		8.00	2.67					2.00	80.00	20.00	4.00	100.00	
STAGE I	889+44.42	TO	889+53.18	8.76			8.76	2.92								
	889+53.18	TO	889+93.18	40.00			40.00	13.33	50.00							
	889+93.18	TO	900+04.42	1011.24			1011.24	337.08	1012.50							
	900+04.42	TO	900+44.42	40.00			40.00	13.33	50.00							
	900+44.42	TO	904+79.42	435.00	60.00		25.00	435.00	145.00	137.50						
STAGE II	889+44.42	TO	889+53.18	8.76			8.76	2.92								
	889+53.18	TO	889+93.18	40.00			40.00	13.33	50.00							
	889+93.18	TO	900+04.42	1011.24			1011.24	337.08	1012.50							
	900+04.42	TO	900+44.42	40.00			40.00	13.33	50.00							
	900+44.42	TO	904+79.42	435.00	60.00		25.00	435.00	145.00	137.50						
SUBTOTAL					120.00	200.00	116.67	3070.00	1023.33	1250.00	1250.00	30.00	2182.48	545.62	64.00	2728.10
TOTAL					120	200	117	3070	1024	1250.00	1250.00	30		2729	64	2729

*SEE TRAFFIC CONTROL PLAN SHEETS FOR LOCATION OF BLACK OUT TAPE

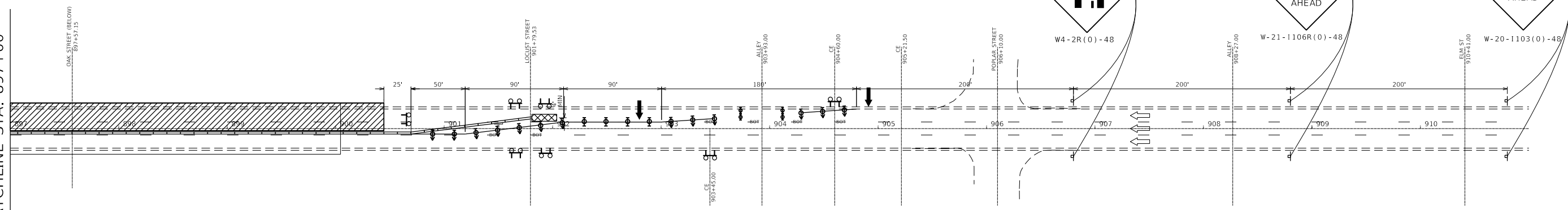
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PLOT DATE = 1/31/2020	CHECKED -	REVISED -		CONTRACT NO. 76M40										
	DATE -	REVISED -		ILLINOIS FED. AID PROJECT										



MATCHLINE STA. 897+00

MATCHLINE STA. 897+00



LEGEND

- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TRAFFIC DIRECTION ARROW
- WORK AREA
- IMPACT ATTENUATOR (1 EACH)
- SIGN
- BARRICADE OR DRUM WITH STEADY BURN LIGHT
- TYPE III BARRICADE WITH FLASHING LIGHTS
- TEMPORARY CONCRETE BARRIER (1237.5 FT)
- BLACKOUT TAPE
- ARROW BOARD

STAGE I

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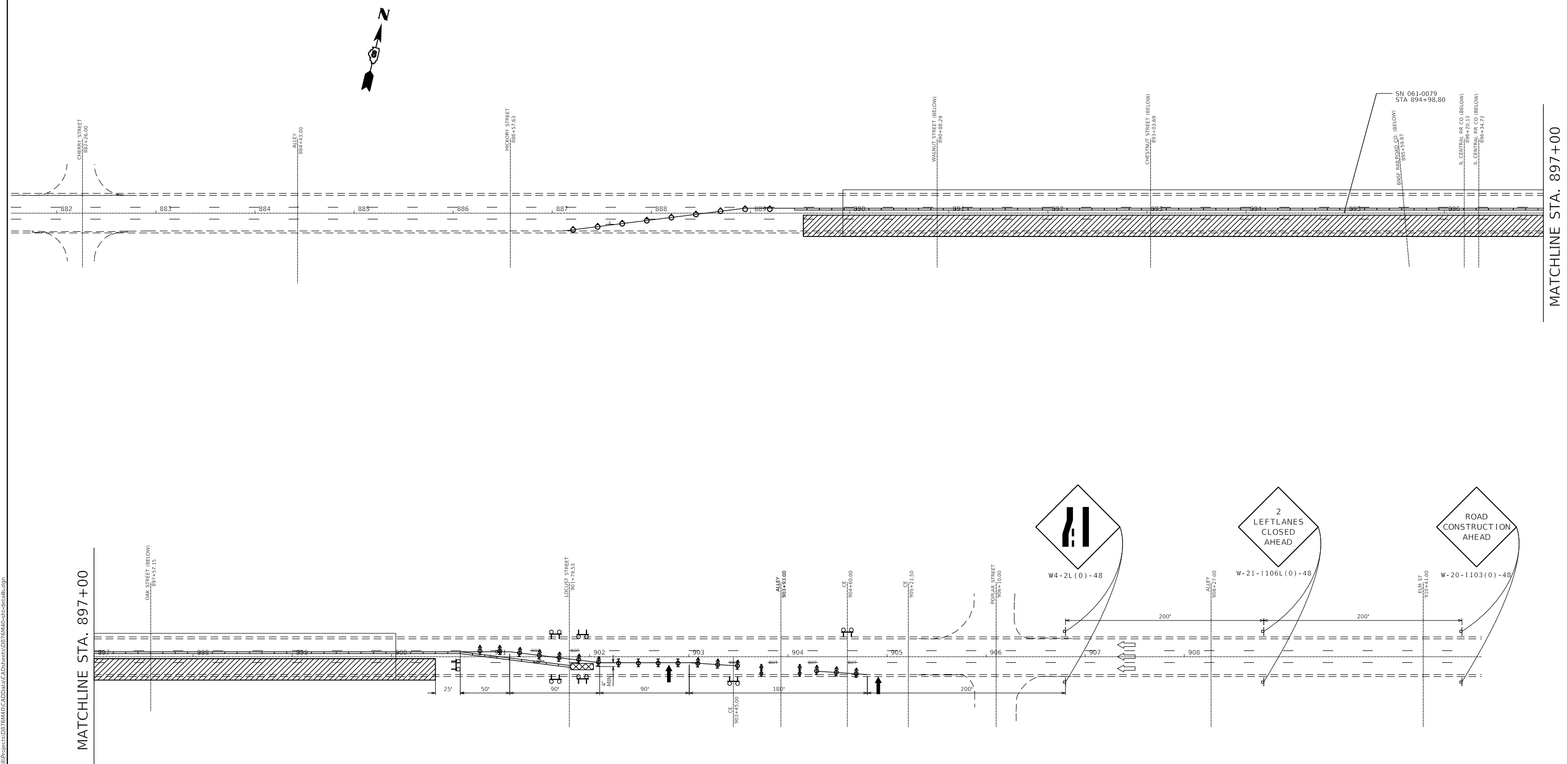
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL PLAN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805A	8-2VB-2	MARION	28	10
CONTRACT NO. 76M40				
ILLINOIS		FED. AID PROJECT		

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- LEGEND**
- TRAFFIC DIRECTION ARROW
 - DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
 - DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
 - WORK AREA
 - BARRICADE OR DRUM WITH STEADY BURN LIGHT
 - IMPACT ATTENUATOR (1 EACH) (RELOCATE FOR STAGE II)
 - TYPE III BARRICADE WITH FLASHING LIGHTS
 - SIGN
 - BOT BLACKOUT TAPE
 - ARROW BOARD
 - TEMPORARY CONCRETE BARRIER (1237.5 FT)

STAGE II

USER NAME = leej	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 1/31/2020	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL PLAN			
SCALE:	SHEET 2	OF 2	SHEETS
	STA.		TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805A	8-2VB-2	MARION	28	11
CONTRACT NO. 76M40				
		ILLINOIS	FED. AID PROJECT	

Existing Structure: 061-0079 was built in 1986 under contract 38443, FAP Route 805 Sec 8-2VB.
 It is a 10 span (3 unit) continuous plate girder supported on pile bent abutments and pile supported piers.
 In 1997 Day Labor installed replaced the preformed joint seals at both abutments with silicone sealer under contract 97F709.
 In 2013 the silicone joints at the abutments were replaced with experimental, pre-compressed, self expanding EMSEAL joints.

The deck ends and hatchblocks at the abutments shall be replaced with strip seal joints. The deck ends at piers 3 & 7 shall be replaced with modular joints. The deck shall be patched, and overlaid with waterproofing membrane system and hot-mix asphalt.

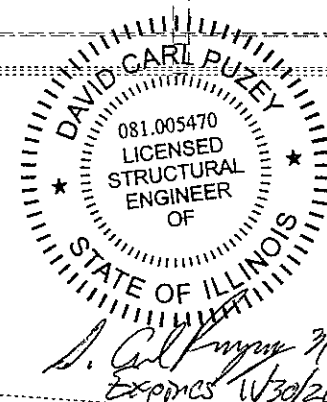
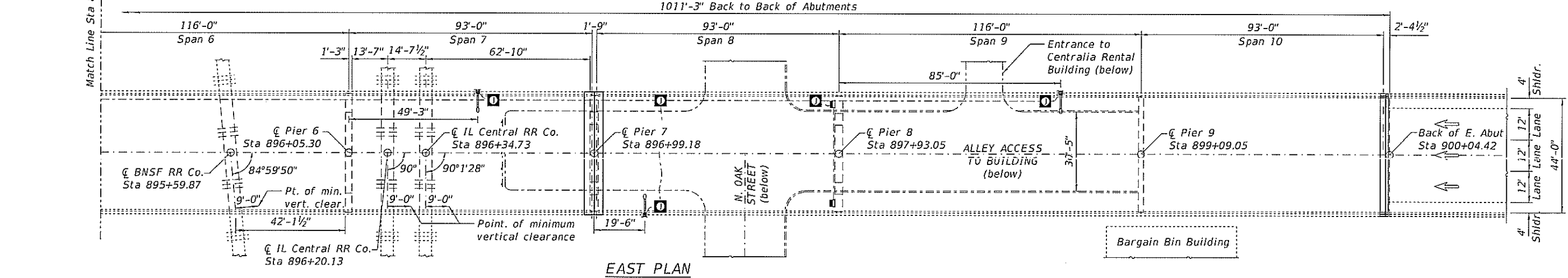
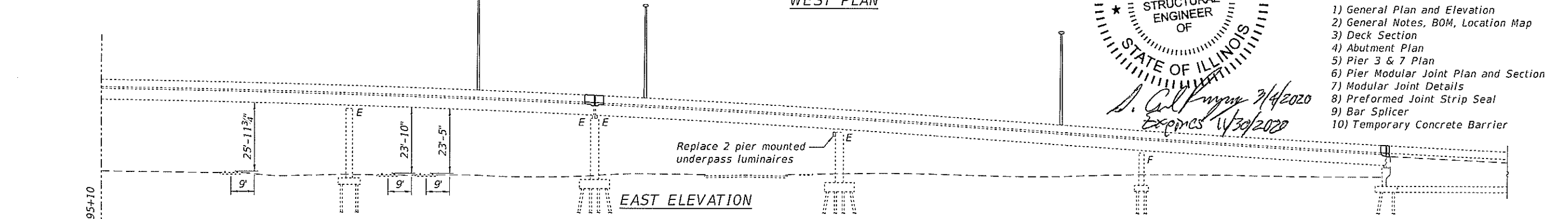
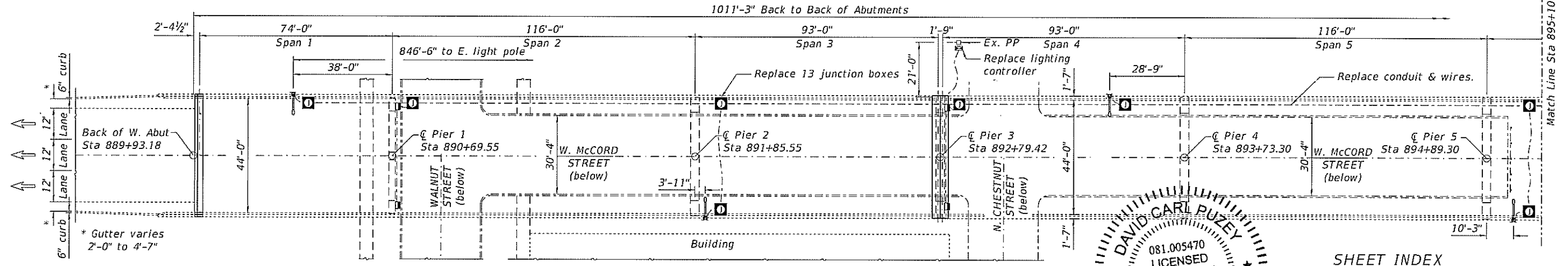
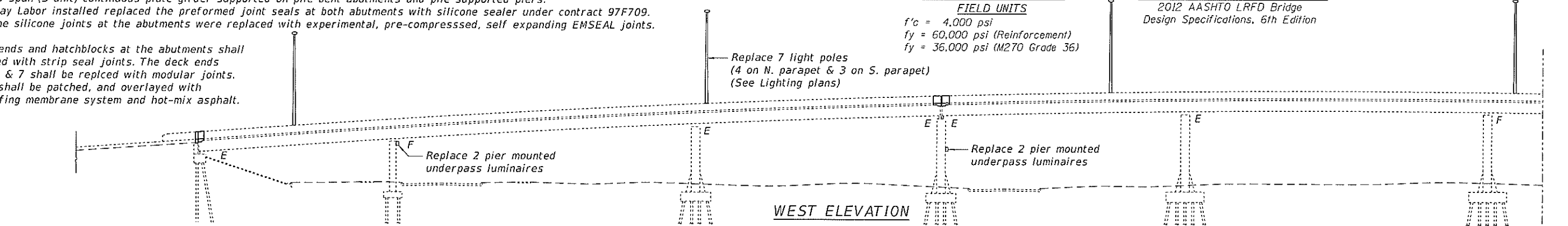
DESIGN STRESSES

FIELD UNITS

$f'_c = 4,000$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (M270 Grade 36)

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition



- SHEET INDEX**
- 1) General Plan and Elevation
 - 2) General Notes, BOM, Location Map
 - 3) Deck Section
 - 4) Abutment Plan
 - 5) Pier 3 & 7 Plan
 - 6) Pier Modular Joint Plan and Section
 - 7) Modular Joint Details
 - 8) Preformed Joint Strip Seal
 - 9) Bar Splicer
 - 10) Temporary Concrete Barrier

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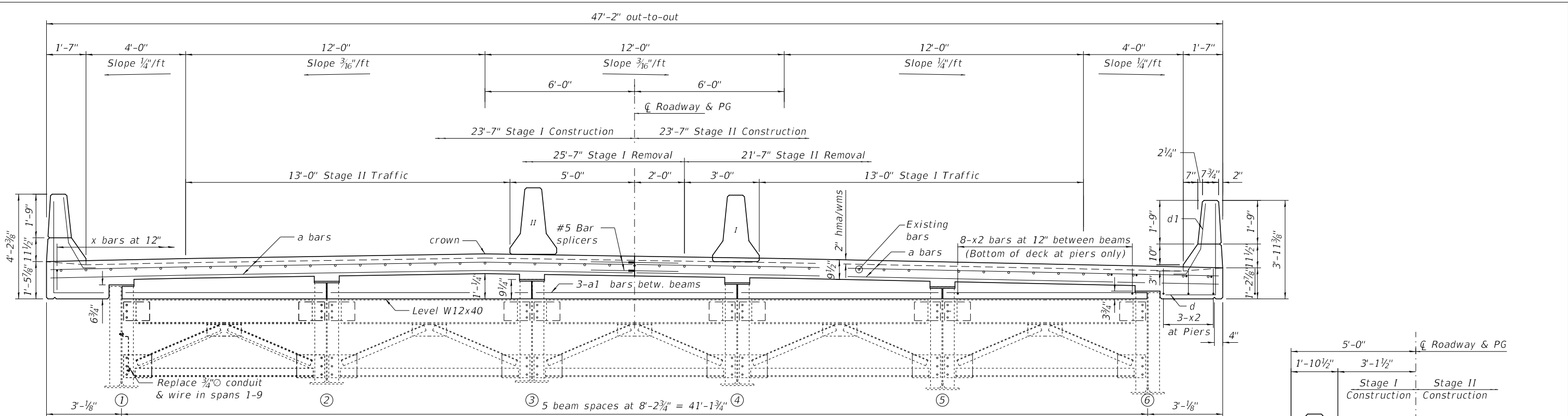
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		CHECKED -	Adrian Holloway	REVISED -	
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PLOT DATE =		CHECKED -	Adrian Holloway	REVISED -	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

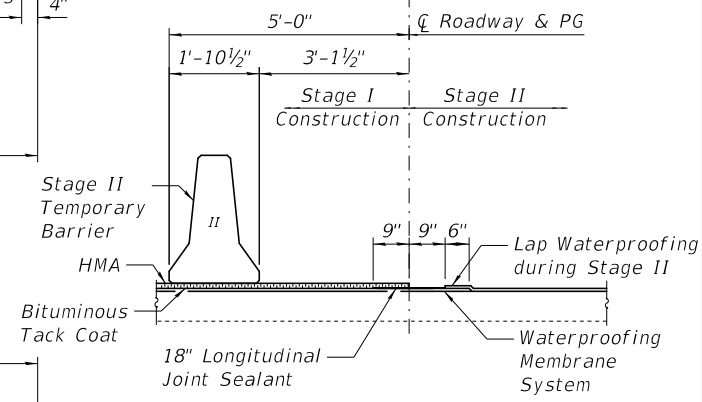
GENERAL PLAN & ELEVATION
 SN 061-0079

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CONTRACT NO. 76M40				
ILLINOIS FED. AID PROJECT				

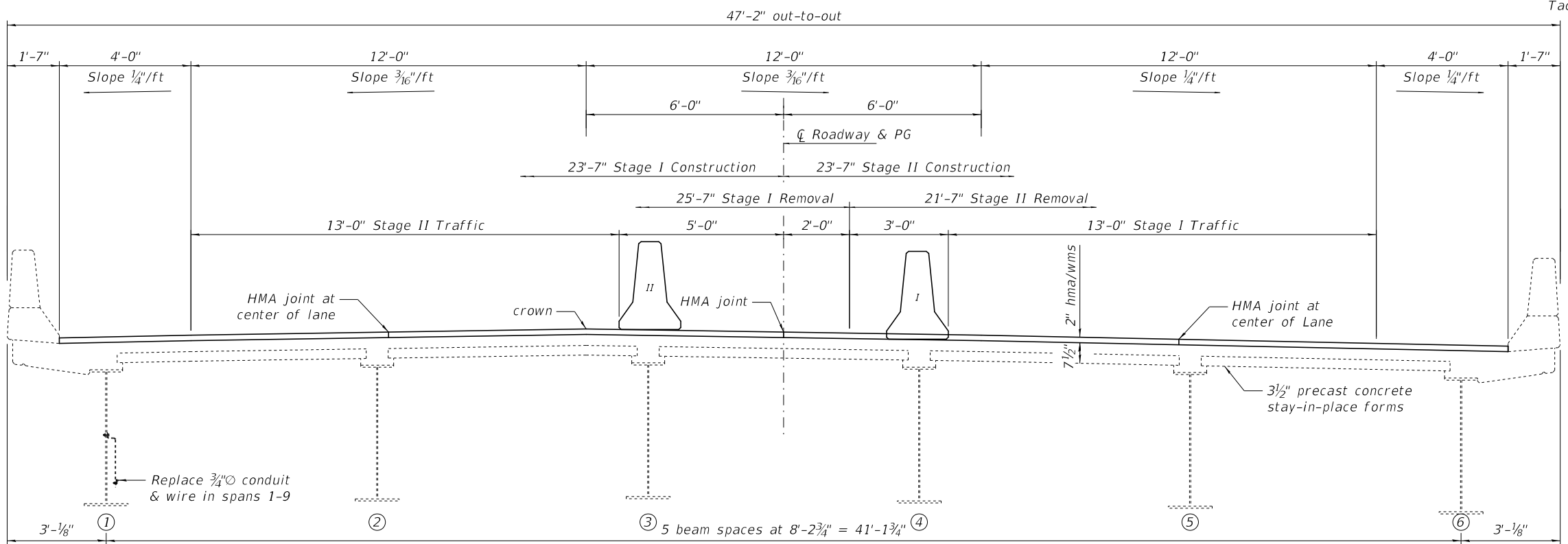
SHEET 1 OF 10 SHEETS



DECK SECTION AT PIER & ABUTMENT JOINTS
(Looking East)



WATERPROOFING STAGING
(Lap shown at center line. Lap 2 other HMA joints similar)



DECK SECTION AWAY FROM JOINTS
(Looking East)

MODEL: 0610079-76M40-003
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PLOT SCALE =	CHECKED - Adrian Hallows	REVISED -
PLOT DATE =	DRAWN - John Uehle	REVISED -
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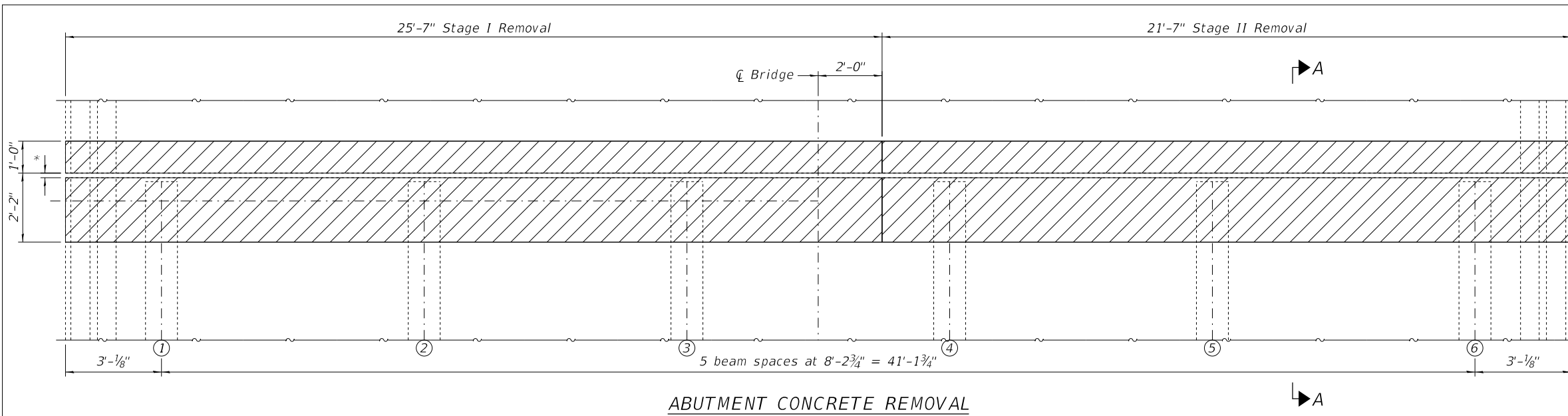
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK SECTION
SN 061-0079

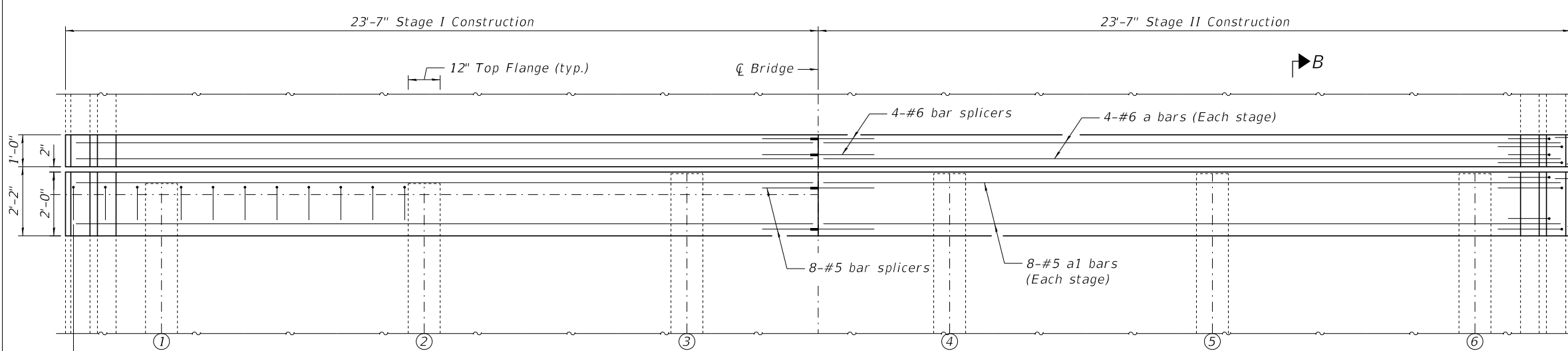
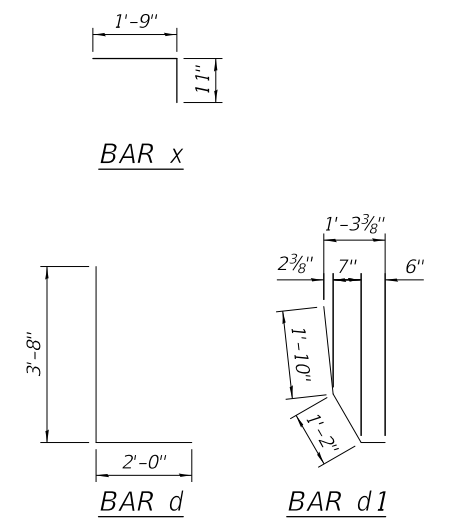
SHEET 3 OF 10 SHEETS

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CONTRACT NO. 76M40				

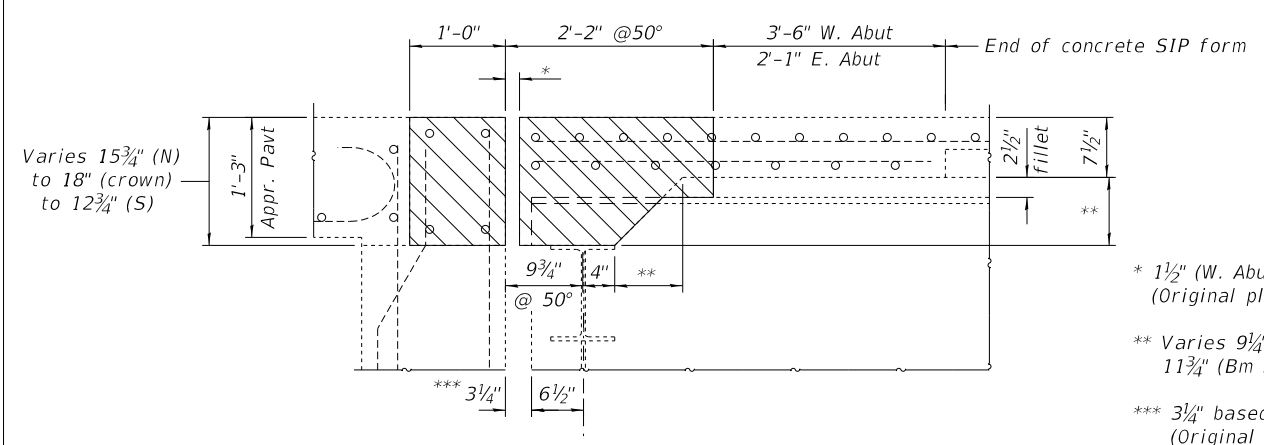
ILLINOIS FED. AID PROJECT



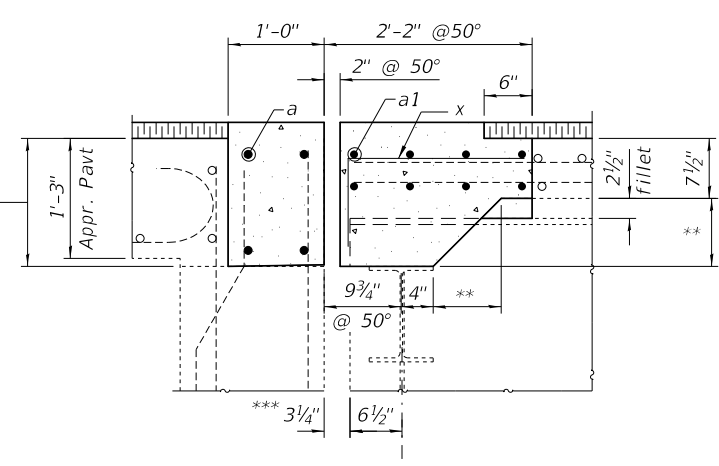
ABUTMENT CONCRETE REMOVAL



ABUTMENT CONCRETE REPLACEMENT



SECTION A-A



SECTION B-B

BOTH ABUTMENTS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	16	#6	23'-4"	—
a1	32	#5	23'-4"	—
d	24	#5	5'-8"	L
d1	24	#5	3'-6"	L
x	96	#5	2'-8"	└
Concrete Removal			Cu. Yds.	13.7
Concrete Superstructure			Cu. Yds.	15.2
Reinforcement Bars, Epoxy Coated			Lbs.	1840

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PLOT DATE =	DRAWN - John Uehle	REVISED -
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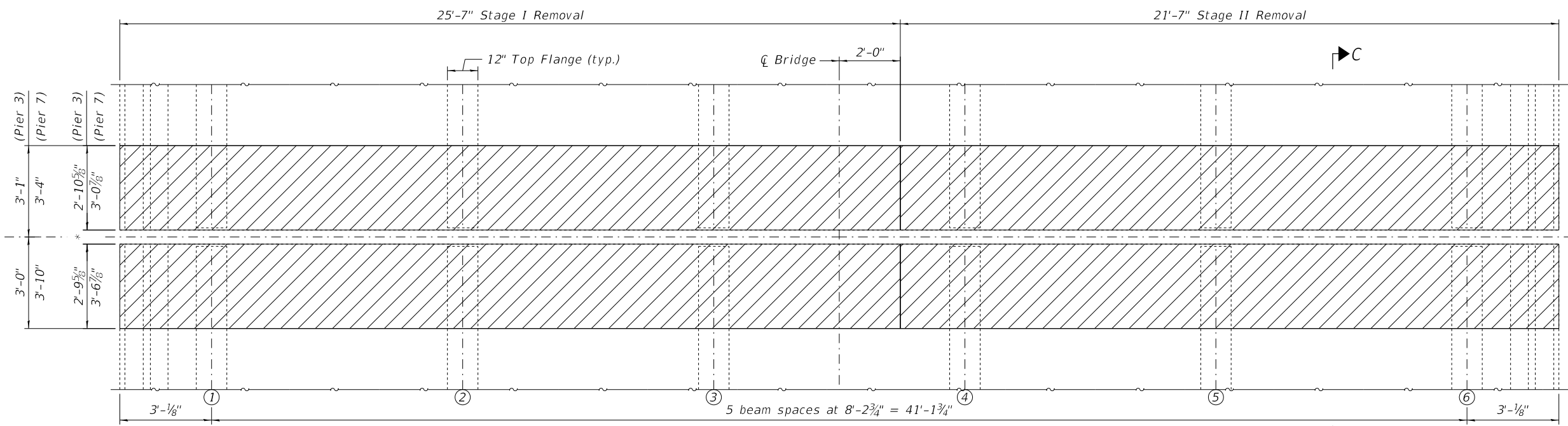
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT PLAN
SN 061-0079

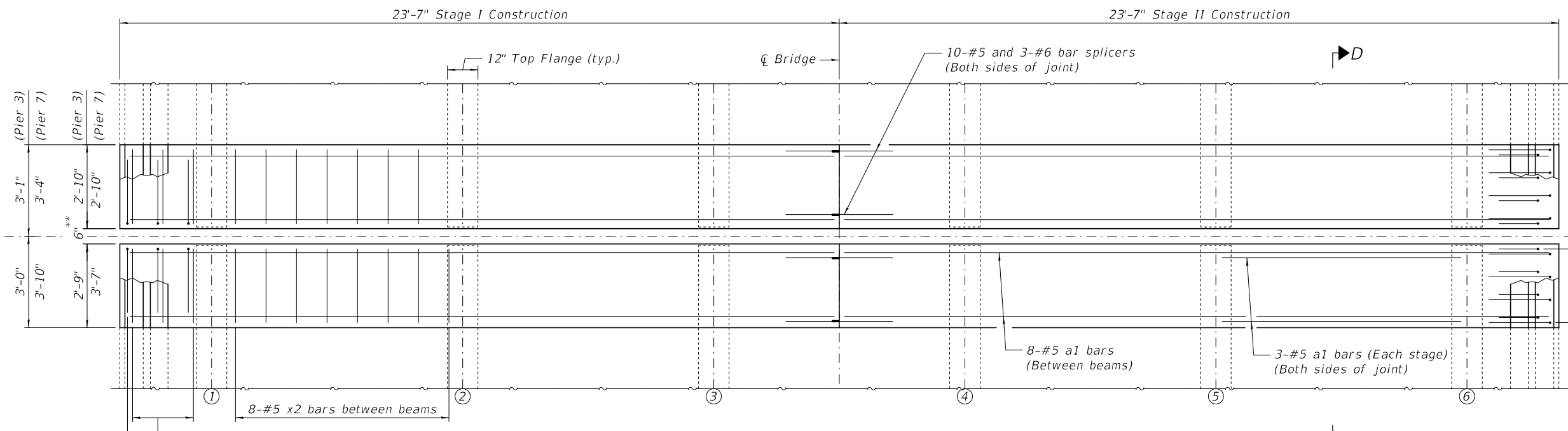
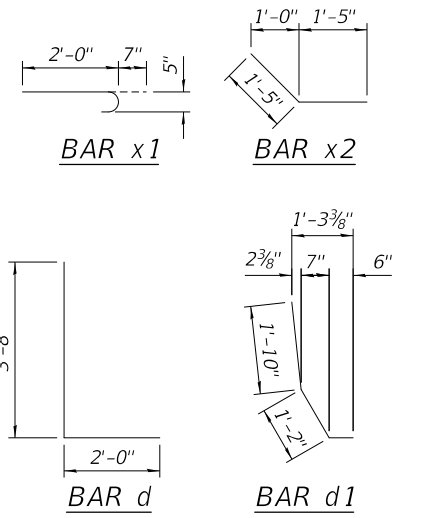
SHEET 4 OF 10 SHEETS

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ILLINOIS FED. AID PROJECT				

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PIER 3 & 7 CONCRETE REMOVAL



PIER 3 & 7 CONCRETE REPLACEMENT

**BOTH PIERS
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	
a1	80	#5	23'-4"	—	
a2	60	#5	7'-10"	—	
d	32	#5	5'-8"	L	
d1	32	#5	3'-6"	L	
x1	192	#5	2'-7"	—	
x2	184	#5	2'-10"	—	
Concrete Removal				Cu. Yds.	23.3
Concrete Superstructure				Cu. Yds.	30.1
Reinforcement Bars, Epoxy Coated				Lbs.	3800

* 4 3/4" (Pier 3) & 6 1/4" (Pier 7) Based on field measurements (Existing plans show 4 1/2")
 ** The joint opening and concrete opening shown is estimated. The actual openings shall be determined by the modular joint supplier.

USER NAME =	DESIGNED - John Uehle	REVISED -
PLOT SCALE =	CHECKED - Adrian Holloway	REVISED -
PLOT DATE =	DRAWN - John Uehle	REVISED -
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

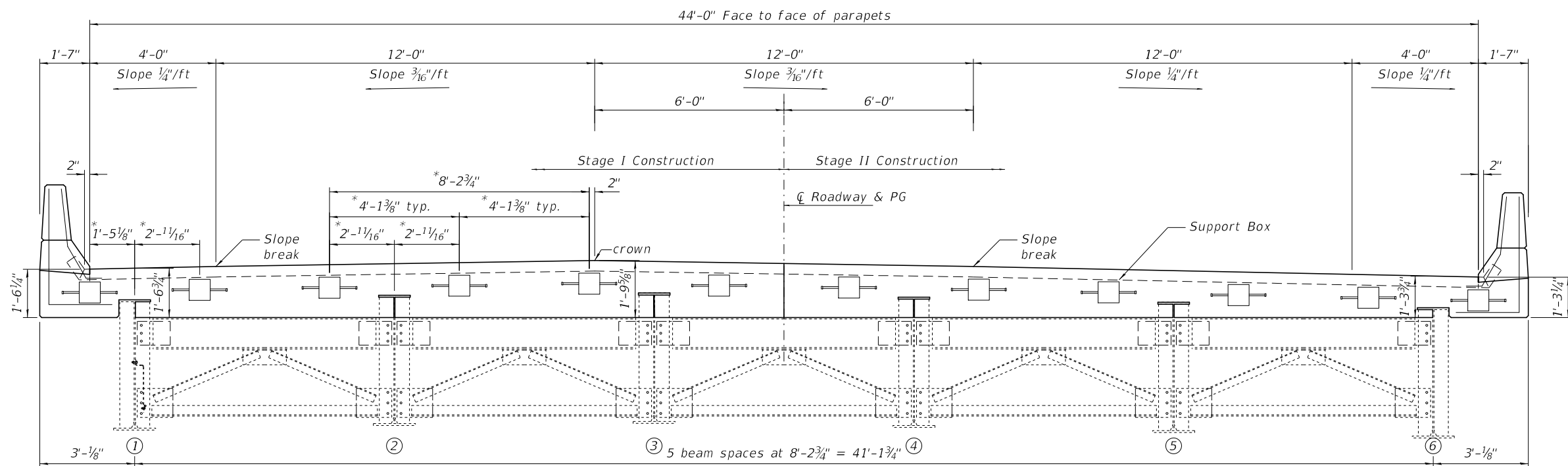
**PIER 3 & 7 PLAN
 SN 061-0079**

SHEET 5 OF 10 SHEETS

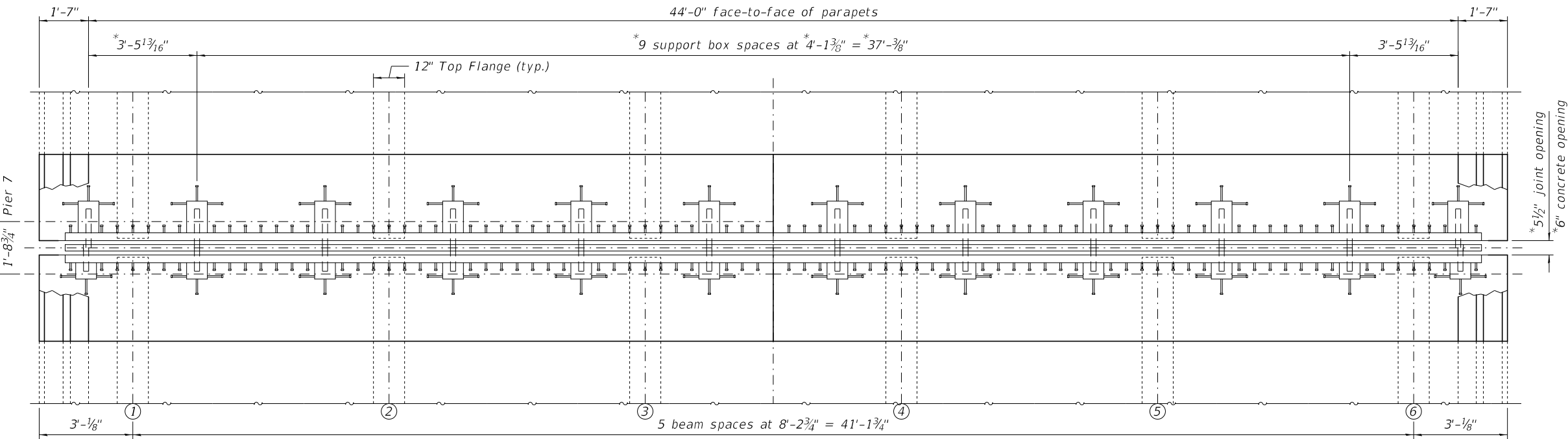
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CONTRACT NO. 76M40				

ILLINOIS FED. AID PROJECT

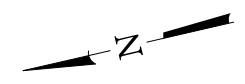
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MODULAR JOINT ELEVATION
 (Looking East)



MODULAR JOINT PLAN



Notes:
 The joint opening and concrete opening shown is estimated. The actual openings shall be determined by the modular joint supplier.
 * Subject to manufacturer. The support boxes shall not interfere with beam flanges.

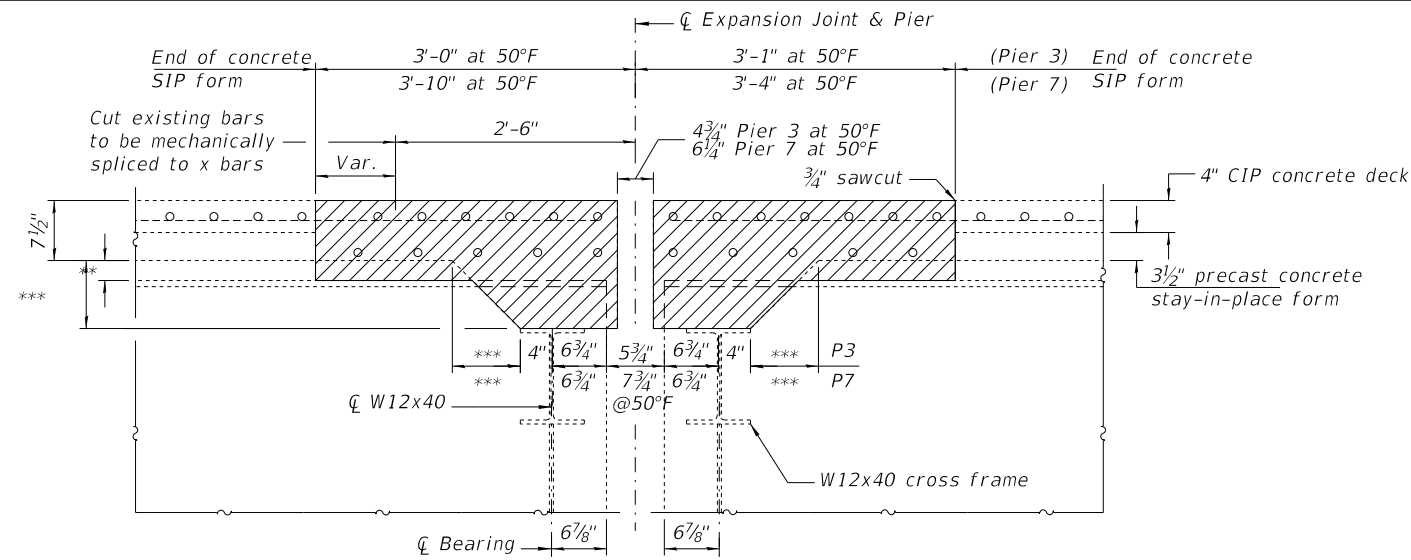
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STATE OF ILLINOIS
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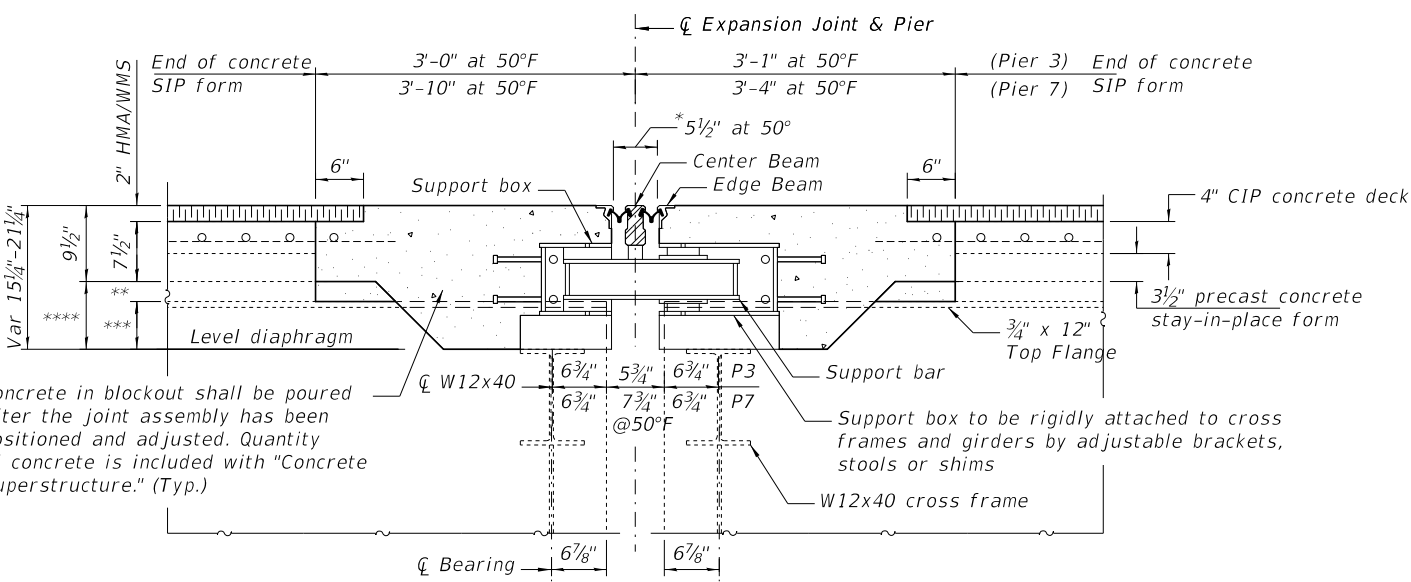
MODULAR EXPANSION JOINT
SN 061-0079

SHEET 6 OF 10 SHEETS

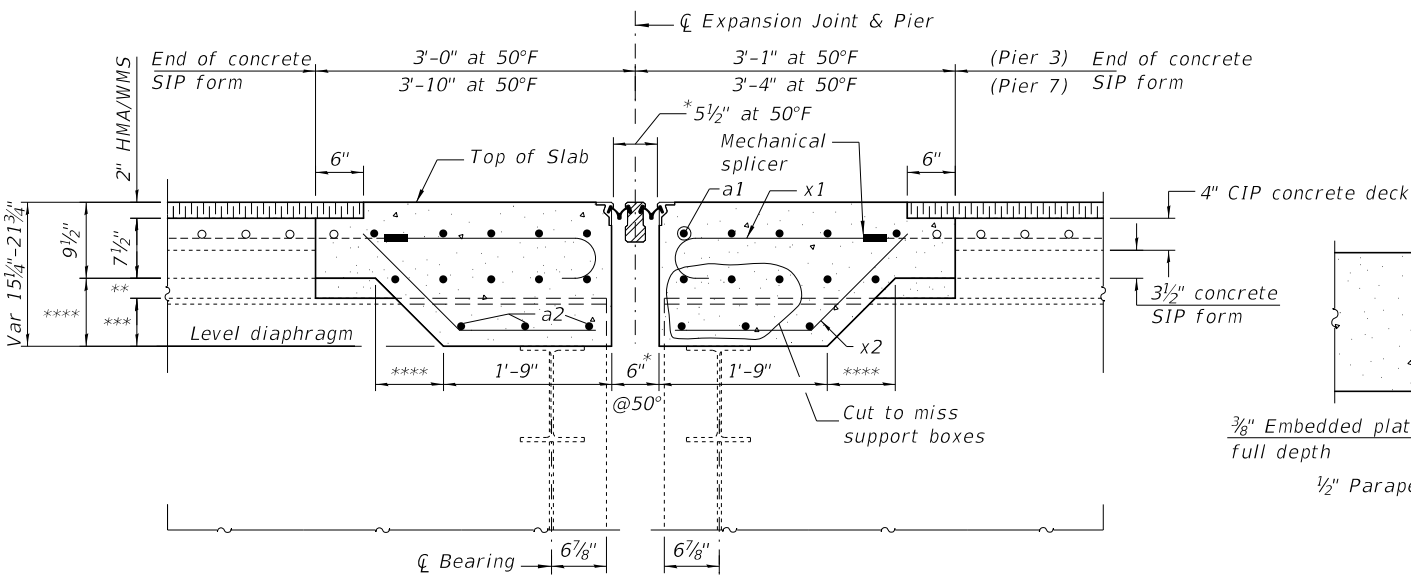
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 76M40				
ILLINOIS FED. AID PROJECT				



SECTION C-C
(Looking North)

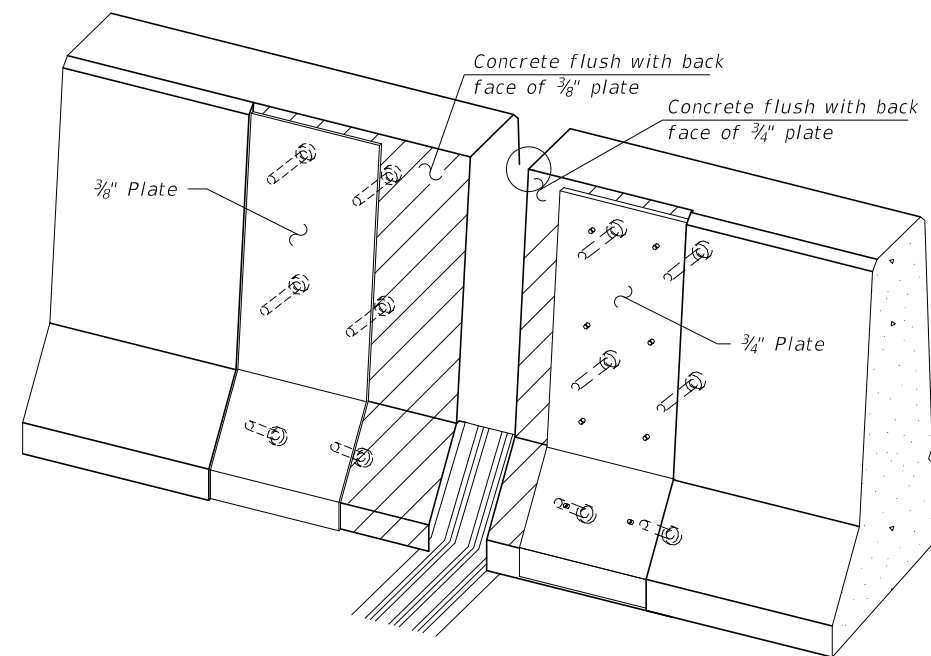


SECTION D-D
(Looking North - Rebar omitted for clarity)

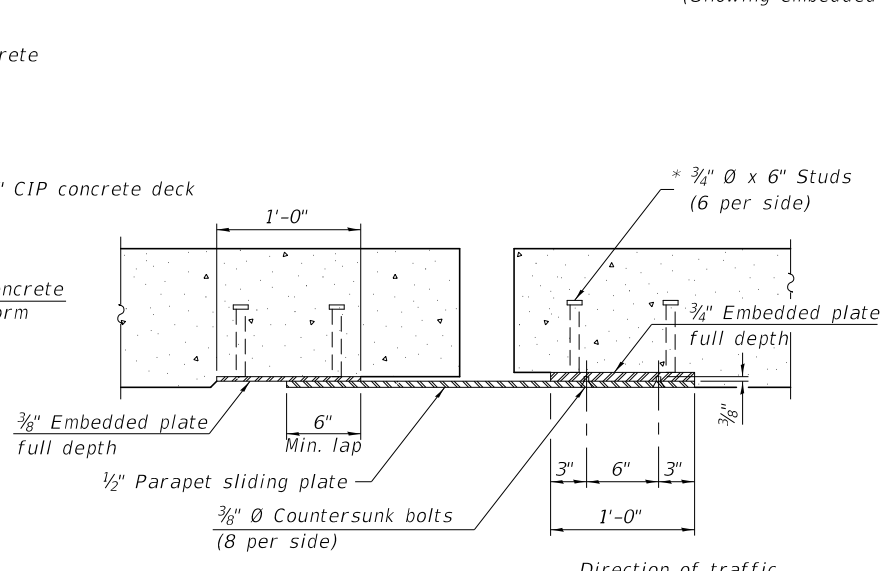


SECTION D-D
(Looking North - Support boxes omitted for clarity)

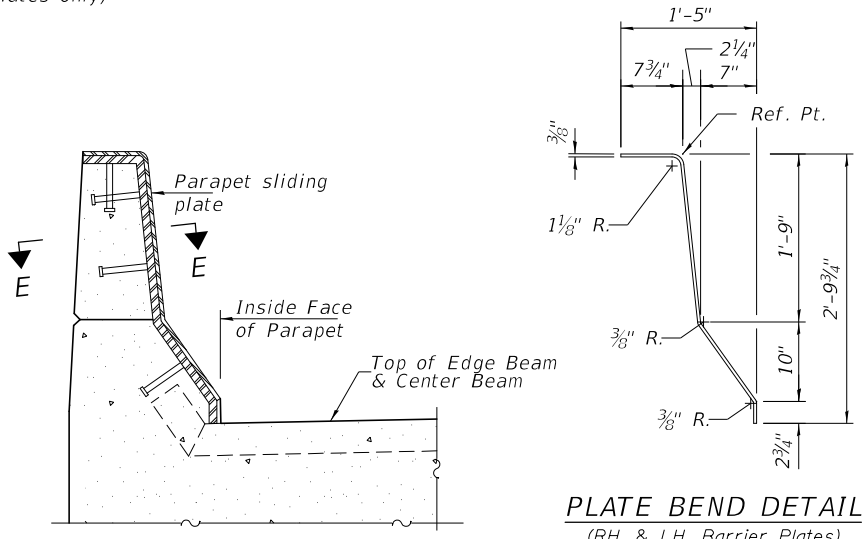
Notes:
 All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
 Cut x1 bars to fit as needed behind support boxes.
 The distance between beams is 7 1/4" from the original plans, but was field measured 5 3/4" at Pier 3 and 7 3/4" at Pier 7. The fillets heights, deck thickness over each beam, and distance between beams shall be verified by the contractor prior to fabrication of the modular joints.
 The contractor shall field drill holes through the deck in the removal area in each bay, measure the distance to the ends of concrete SIP forms below, and transfer this distance to the top of deck to locate the exact sawcut location.
 * The joint opening and concrete opening shown is estimated. The actual openings shall be determined by the modular joint supplier.
 ** ±2 1/2" fillet (The fillets from the existing plans are 2 1/2" and were field measured to match this within 1/2").
 *** Varies 6 3/4" (Bm1) to 9 1/4" (Bm3) to 3 3/4" (Bm6)
 **** Varies 9 1/4" (Bm 1) to 12 1/4" (crown) to 11 3/4" (Bm 3) to 6 1/4" (Bm 6)



TRIMETRIC VIEW
(Showing embedded plates only)



SECTION E-E



ELEVATION AT OUTSIDE PARAPET

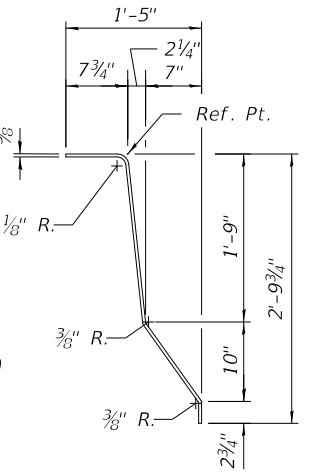


PLATE BEND DETAIL
(RH. & LH. Barrier Plates)

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CHECKED - Adrian Holloway	REVISED -	
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PLOT DATE =	CHECKED - Adrian Holloway	REVISED -

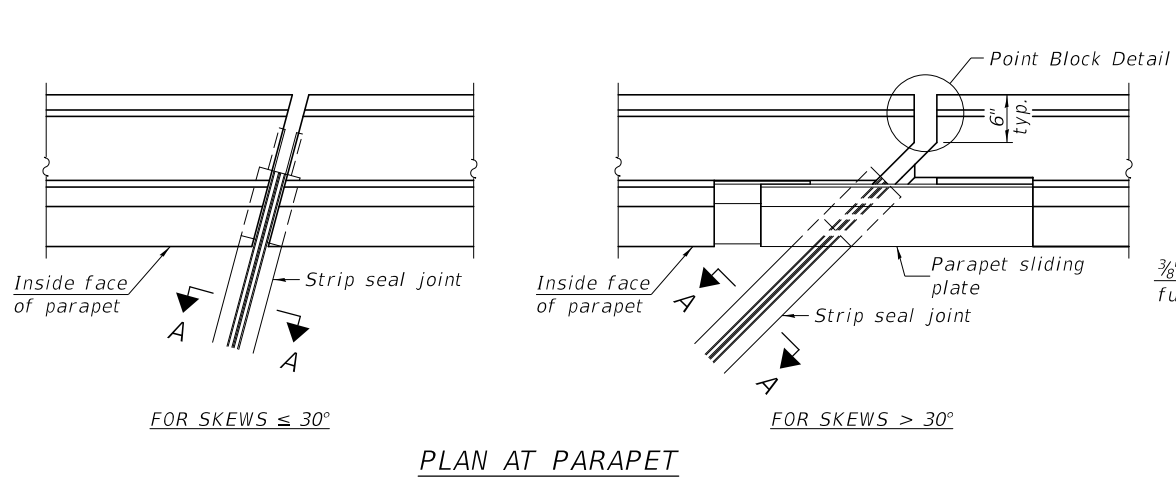
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODULAR JOINT DETAILS
SN 061-0079

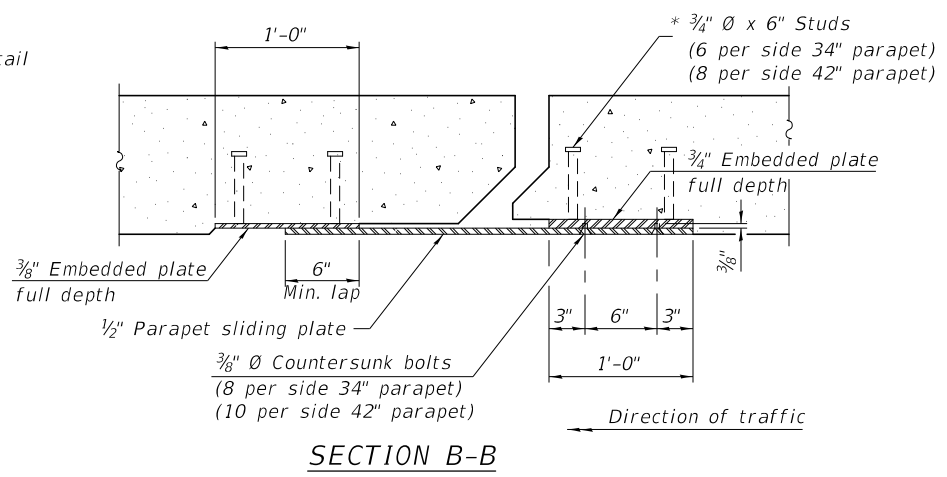
SHEET 7 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805A	8-2VB-2	MARION	28	18
CONTRACT NO. 76M40				
ILLINOIS FED. AID PROJECT				

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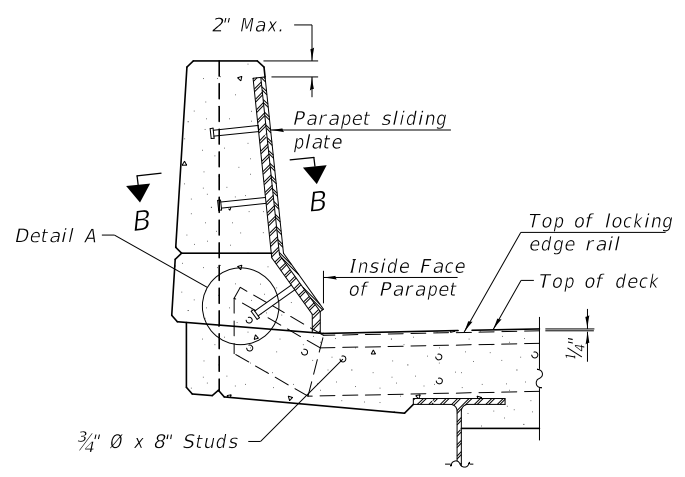


PLAN AT PARAPET



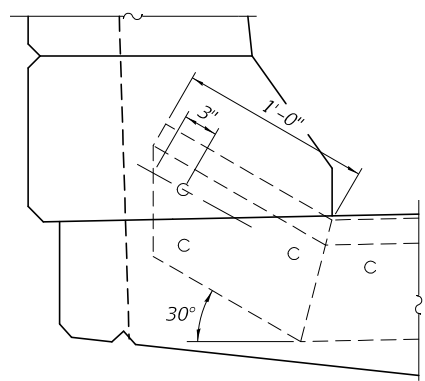
SECTION B-B

Notes:
 The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
 The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed.
 The manufacturer's recommended installation methods shall be followed.
 All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
 The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.
 Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.
 34" F-shape barrier shown, 42" F-shape similar as noted.
 The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

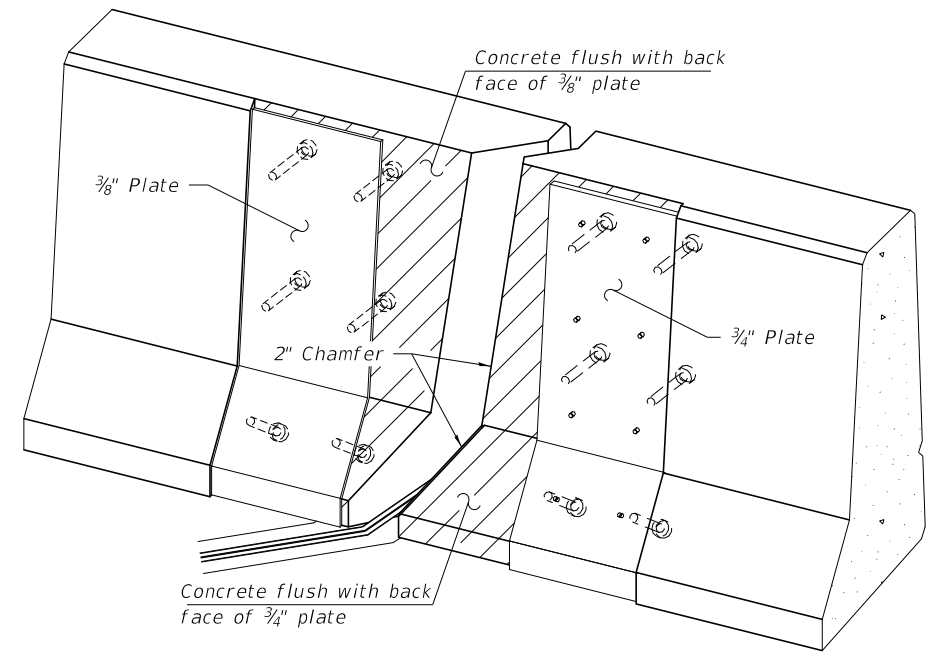


ELEVATION AT PARAPET

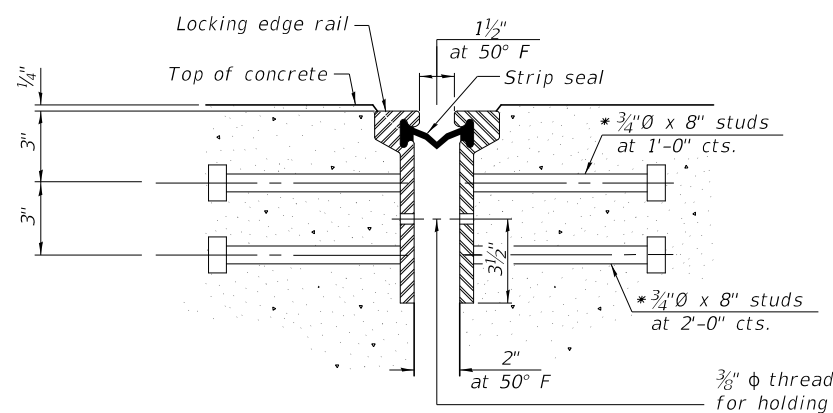
(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)



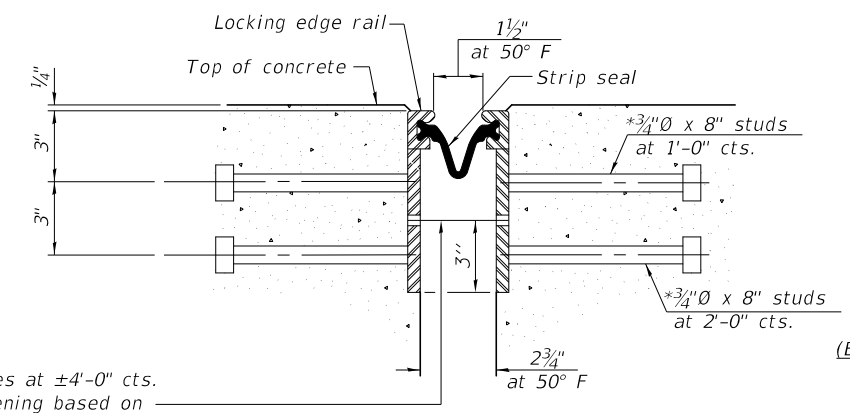
DETAIL A



TRIMETRIC VIEW
(Showing embedded plates only)



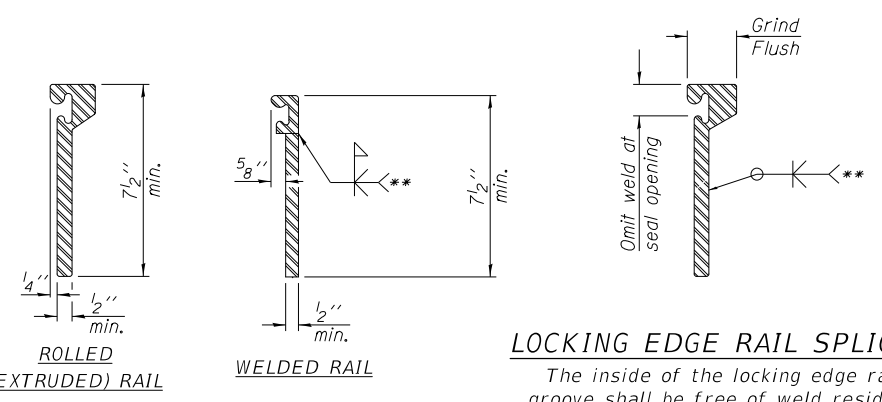
SHOWING ROLLED RAIL JOINT



SHOWING WELDED RAIL JOINT

SECTION A-A

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



LOCKING EDGE RAIL SPLICE

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

LOCKING EDGE RAILS

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	92.0

EJ-SS (TALL WITH GUTTER) 10-1-19

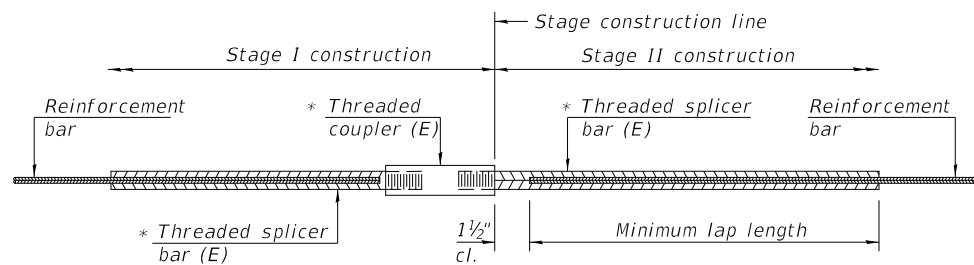
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PLOT SCALE =	DRAWN - John Uehle	REVISED -
PLOT DATE =	CHECKED - Adrian Holloway	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL
SN 061-0079**

SHEET 8 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805A	8-2VB-2	MARION	28	19
CONTRACT NO. 76M40				
ILLINOIS FED. AID PROJECT				

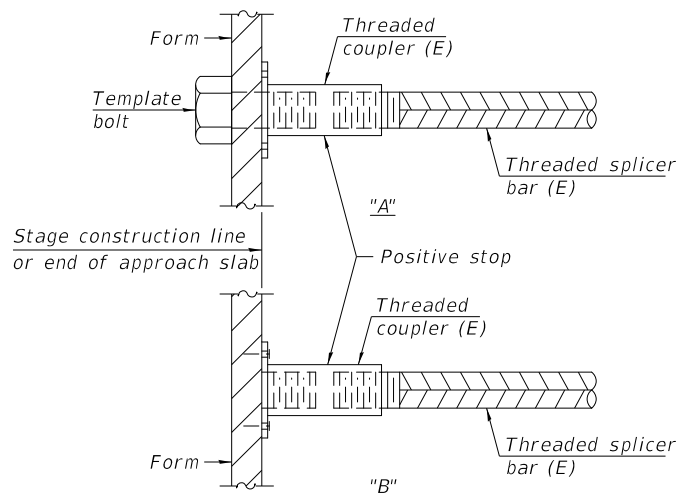


STANDARD BAR SPLICER ASSEMBLY

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

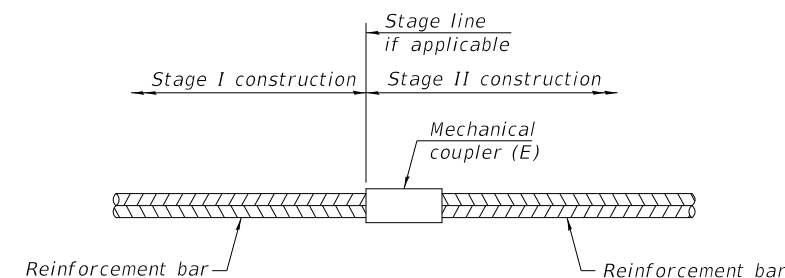
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Abut. hatchblocks	#6	8	4'-0"
Abut. Deck Ends	#5	16	3'-6"
Pier Deck Ends	#5	52	3'-6"



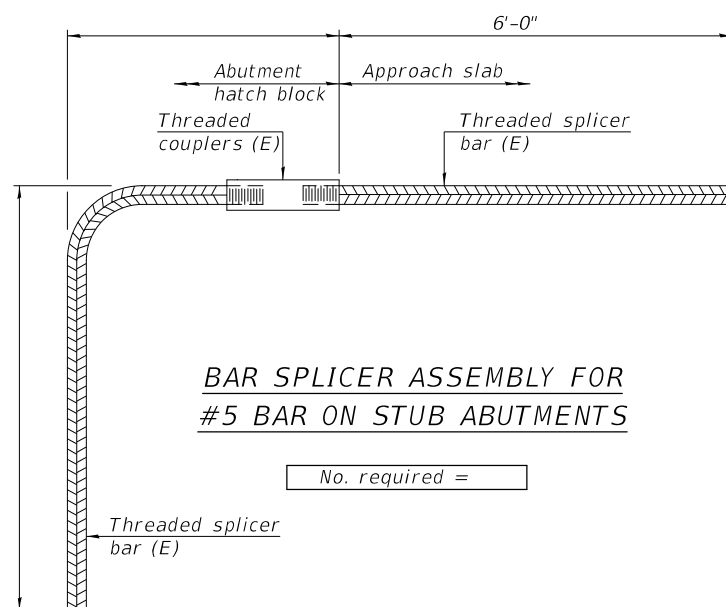
INSTALLATION AND SETTING METHODS

"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 Deck Ends	#5	204



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. 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.

MODEL: 0610079-76M40-009
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BSD-1 2-17-2017

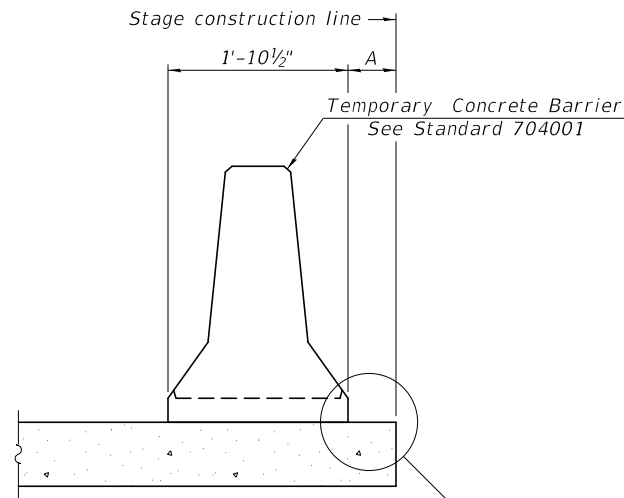
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PLOT SCALE =	DRAWN - John Uehle	REVISED -
PLOT DATE =	CHECKED - Adrian Holloway	REVISED -

STATE OF ILLINOIS
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BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 SN 061-0079

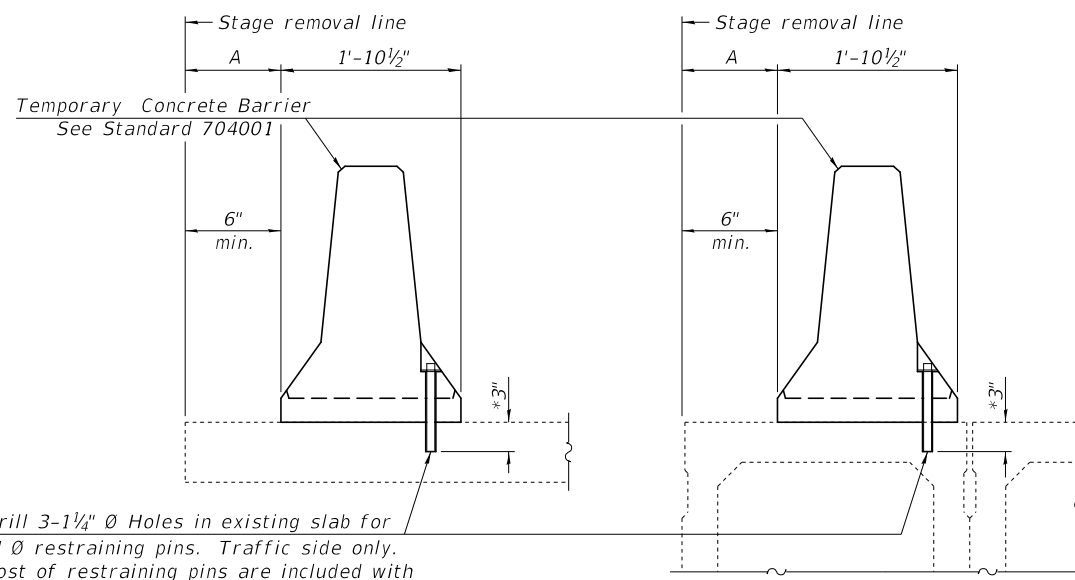
SHEET 9 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805A	8-2VB-2	MARION	28	20
CONTRACT NO. 76M40				
ILLINOIS FED. AID PROJECT				



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM

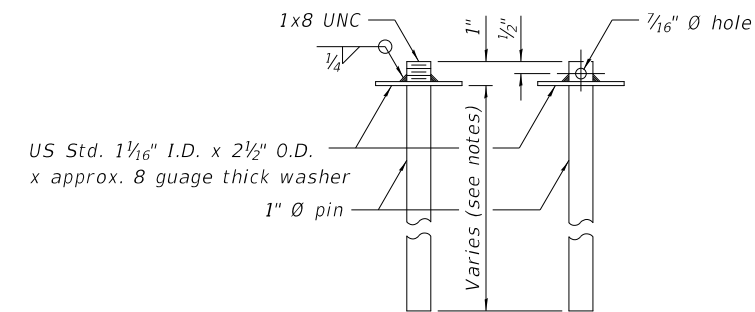


Drill 3-1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

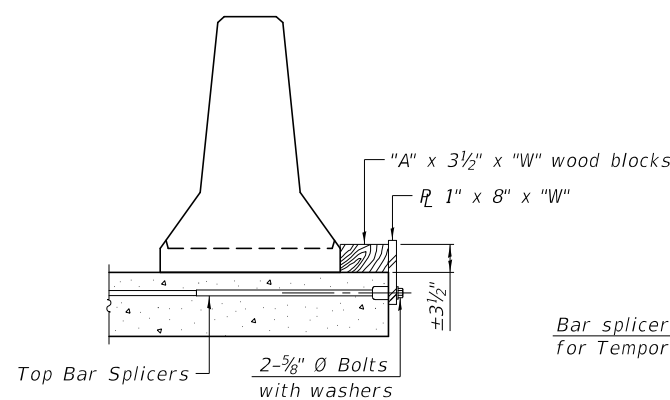
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

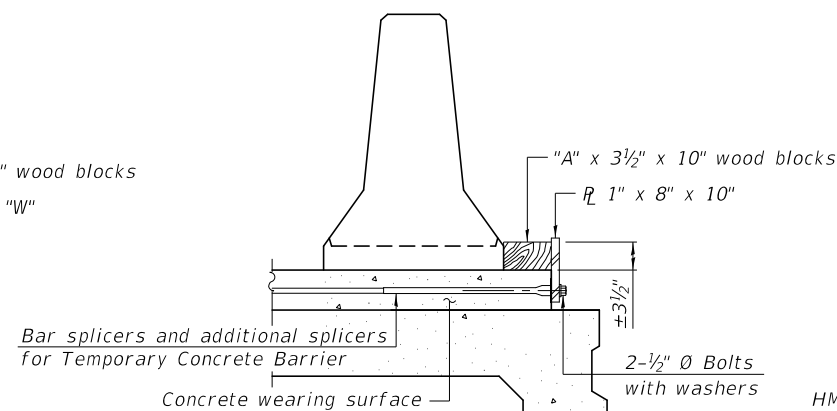


RESTRAINING PIN

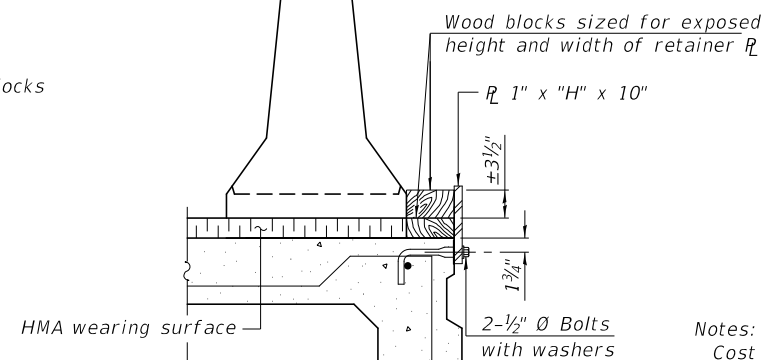
SECTIONS THRU SLAB OR DECK BEAM



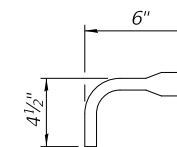
DETAIL I



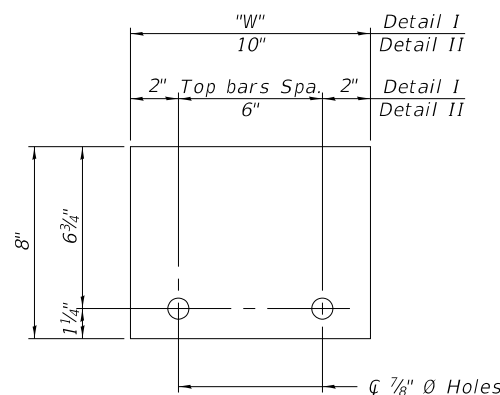
DETAIL II



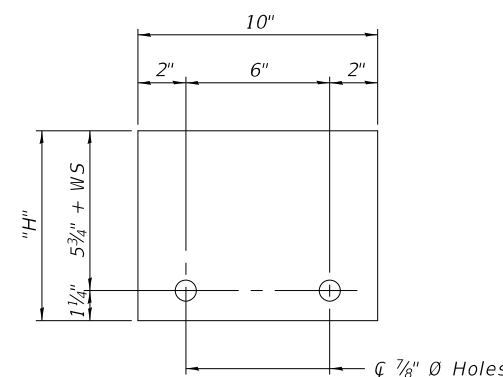
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER R 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER R 1" x "H" x 10"
(Detail III)

Notes:
 Cost of retainer assembly is included with Temporary Concrete Barrier.
 A retainer assembly shall be located at the approximate \bar{C} of each temporary concrete barrier.
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
 When the 'A' dimension is less than 1 1/2', the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.
 Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
 Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

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R-27 2-17-2017

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PLOT SCALE =	CHECKED - Adrian Holloway	REVISED -
PLOT DATE =	DRAWN - John Uehle	REVISED -
	CHECKED - Adrian Holloway	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
 SN 061-0079

SHEET 10 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805A	8-2VB-2	MARION	28	21
CONTRACT NO. 76M40				
ILLINOIS FED. AID PROJECT				

LIGHTING LEGEND

- ☒ EXISTING LIGHTING CONTROLLER TO BE REMOVED.
- ☒ EXISTING JUNCTION BOX TO BE REMOVED.
- ⌚ EXISTING PARAPET WALL MOUNTED LIGHT POLE TO BE REMOVED, PARAPET FOUNDATION TO REMAIN.
- ☒ EXISTING UNDERPASS LUMINAIRE TO BE REMOVED.
- EXISTING ELECTRIC CABLE AND CONDUIT TO BE REMOVED.
- ☒ PROPOSED POLE MOUNTED LIGHTING CONTROLLER.
- ☐ PROPOSED 6"X6"X4" S.S. JUNCTION BOX ATTACHED TO STRUCTURE, UNLESS NOTED OTHERWISE.
- ⌚ PROPOSED LIGHT POLE, ALUMINUM, 35' M.H., 6' DAVIT ARM, LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION E, 240V, ON EXISTING PARAPET WALL FOUNDATION.
- ☐ PROPOSED LUMINAIRE, LED, UNDERPASS, OUTPUT DESIGNATION E, 240V WALL MOUNTED ONTO EXISTING PIERS.
- PROPOSED ELECTRIC CABLE IN CONDUIT, SIZE AS NOTED ON PLANS.

CABLE/CONDUIT SCHEDULE

- ⬡ ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 2-1C NO. 10, 1/C NO. 10 GROUND IN EXISTING CONDUIT.
- ⬡ ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 2-1C NO. 10, 1/C NO. 10 GROUND IN 3/4" DIA. STAINLESS STEEL CONDUIT ATTACHED TO STRUCTURE.

HIGHWAY STANDARDS

- 821001 UNDERPASS LIGHTING WALL MOUNT
- 821101-02 LUMINAIRE WIRING IN POLE
- 825001-04 LIGHTING CONTROLLER, POLE MOUNTED, 240V

GENERAL NOTES

1. ELECTRICAL WORK SHALL CONFORM WITH NATIONAL, STATE, AND LOCAL CODES.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL LFNC AT EXPANSION JOINTS, AS REQUIRED FOR THE PROPOSED LIGHTING INSTALLATION, AND AS DIRECTED BY THE ENGINEER. THE COST OF THE LFNC SHALL BE INCLUDED IN THE COST OF THE PROPOSED CONDUIT.
3. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS REQUIRED TO ATTACH THE CONDUITS AND JUNCTION BOXES TO THE STRUCTURE, INCLUDING, BUT NOT LIMITED TO UNI-STRUT, BRACKETS, LFNC, LBS FITTINGS, HARDWARE, AND OTHER MISCELLANEOUS ITEMS. THESE ITEMS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE BID PRICE FOR THE CONDUIT ATTACHED TO STRUCTURE AND JUNCTION BOX PAY ITEMS.
4. CONDUIT ATTACHMENT BRACKETS SHALL BE INSTALLED AT 8 FT. SPACINGS (MAXIMUM) ON STRUCTURES.
5. ALL LFNC SHALL INCLUDE CONNECTORS WITH INTEGRAL STAINLESS STEEL KELLUM GRIPS AT THE ENDS FOR INCREASED STRENGTH AND DURABILITY.
6. THE CONTRACTOR SHALL INSTALL THREAD LOCKER ON ALL ATTACHED CONDUIT THREADED CONNECTIONS TO PREVENT LOOSENING THROUGH VIBRATION.
7. THE CONTRACTOR SHALL INTERCEPT EXISTING UNDERGROUND CONDUIT WITH NEW 3/4" DIA. STAINLESS STEEL CONDUIT ATTACHED TO STRUCTURE. USE CONDUIT TRANSITION COUPLING. INSTALL NEW ELECTRIC CABLE IN CONDUIT.

INDEX OF SHEETS

- L-1 GENERAL NOTES, INDEX OF SHEETS, AND SUMMARY OF QUANTITIES.
- L-2 LIGHTING REMOVAL PLAN.
- L-3 PROPOSED LIGHTING PLAN.
- L-4 WIRING DIAGRAM.
- L-5 LIGHTING DETAILS.
- L-6 LIGHTING DETAILS.
- L-7 LIGHTING DETAILS.

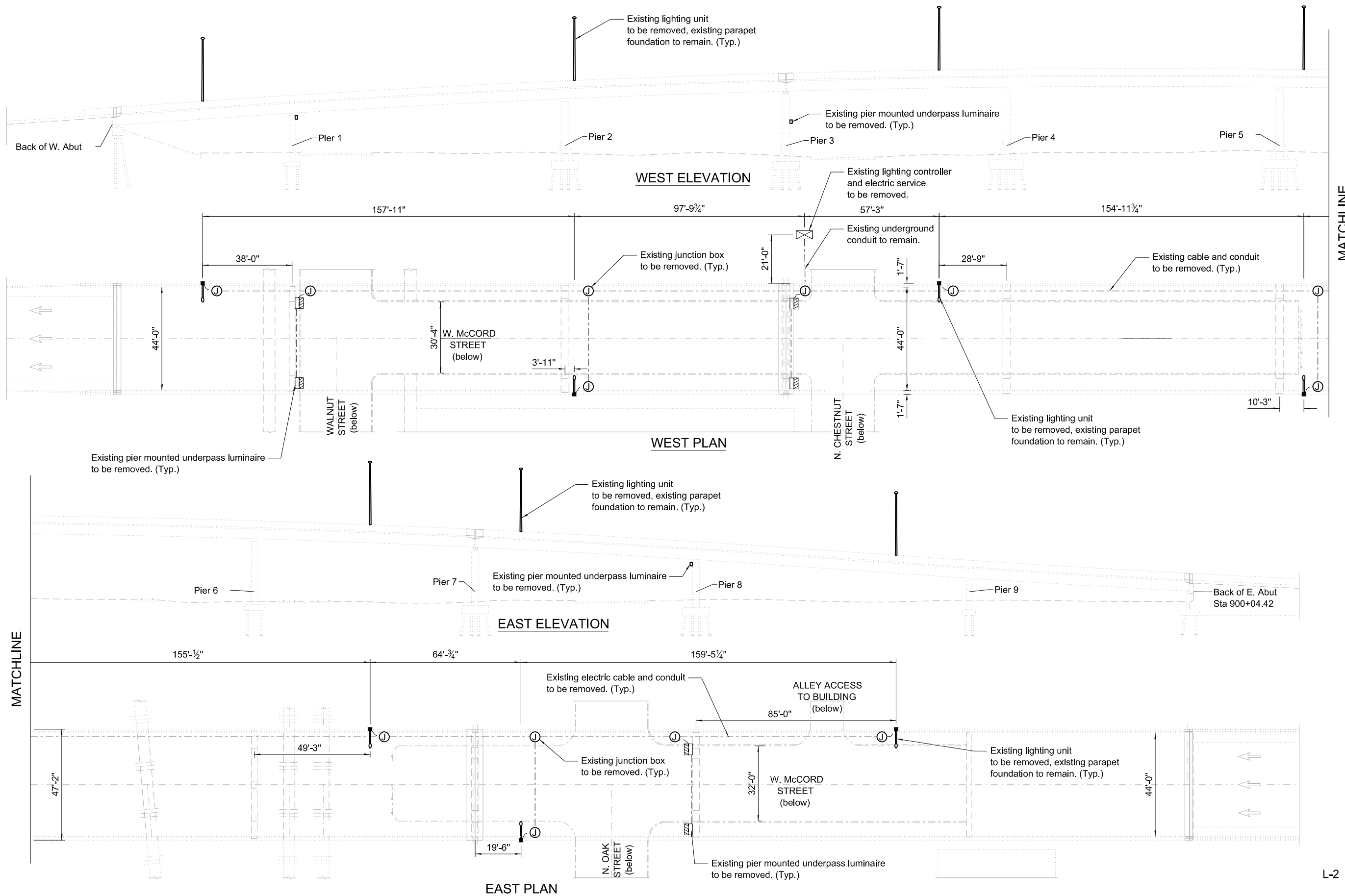
SCHEDULE OF QUANTITIES

PAY ITEM	DESCRIPTION	UNIT	QUANTITY
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
81300220	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	12
81300530	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 10" X 6"	EACH	1
81702450	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10	FOOT	1,475
82110005	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION E	EACH	7
82110022	LUMINAIRE, LED, UNDERPASS, WALLMOUNT, OUTPUT DESIGNATION E	EACH	6
82500310	LIGHTING CONTROLLER, POLE MOUNTED, 240VOLT, 60AMP	EACH	1
83001200	LIGHT POLE, ALUMINUM, 35 FT. M.H., 6 FT. DAVIT ARM	EACH	7
84200600	REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	7
84500110	REMOVAL OF LIGHTING CONTROLLER	EACH	1
84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	1
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	3,540
X8110453	CONDUIT ATTACHED TO STRUCTURE, 3/4" DIA. STAINLESS STEEL	FOOT	1,390
X8130125	REMOVE EXISTING JUNCTION BOX	EACH	13
X8420111	REMOVAL OF UNDERPASS LIGHTING UNIT, NO SALVAGE	EACH	6
X8430100	REMOVE EXISTING CONDUIT ATTACHED TO STRUCTURE	FOOT	1,390

L-1

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			SHEET 1 OF 7 SHEETS		ILLINOIS FED. AID PROJECT			



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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

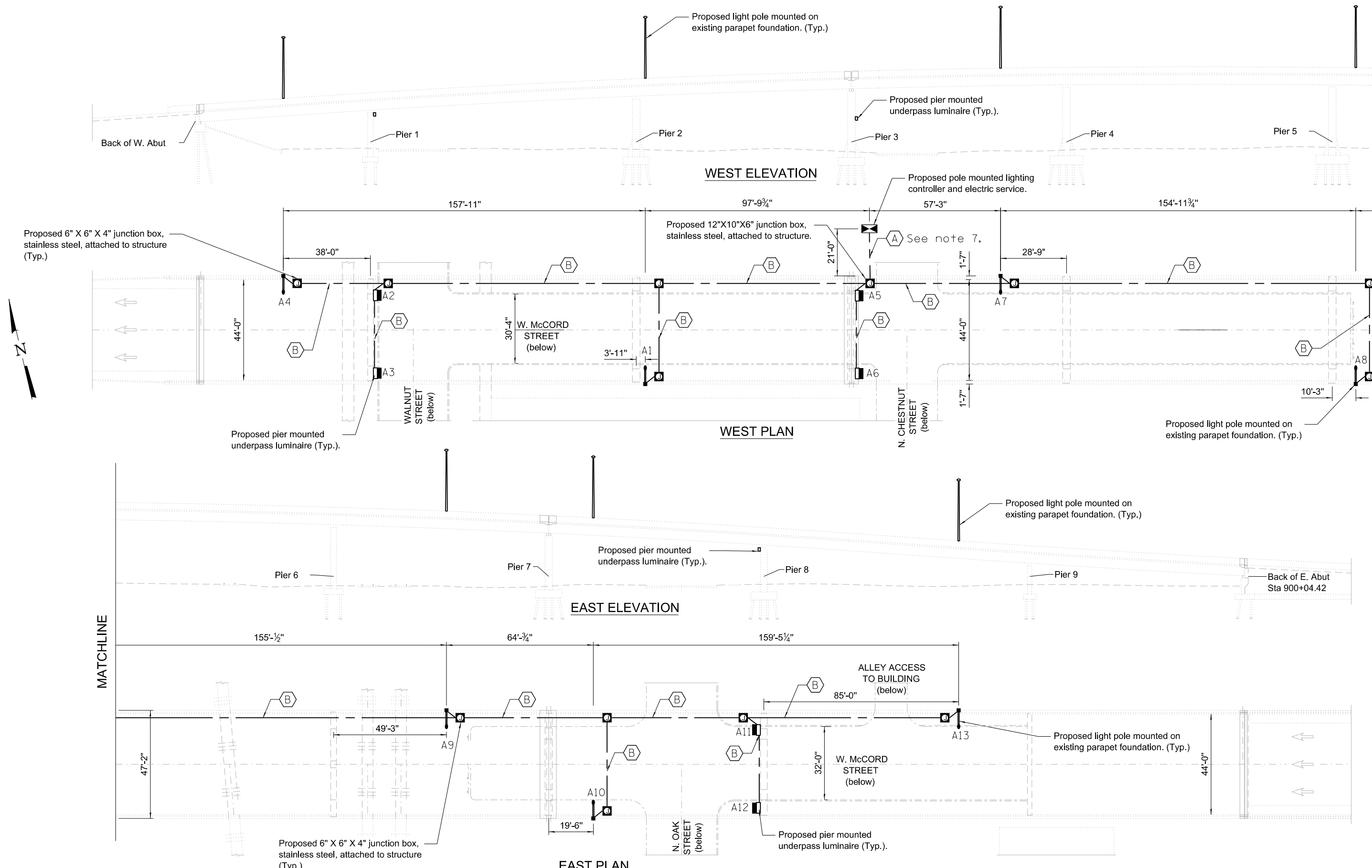
LIGHTING REMOVAL PLAN

SHEET 2 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805A	8-2VB-2	MARION	28	23
CONTRACT NO. 76M40				

ILLINOIS FED. AID PROJECT

SDATES\$ \$TIMES\$



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SDATES \$TIMES\$

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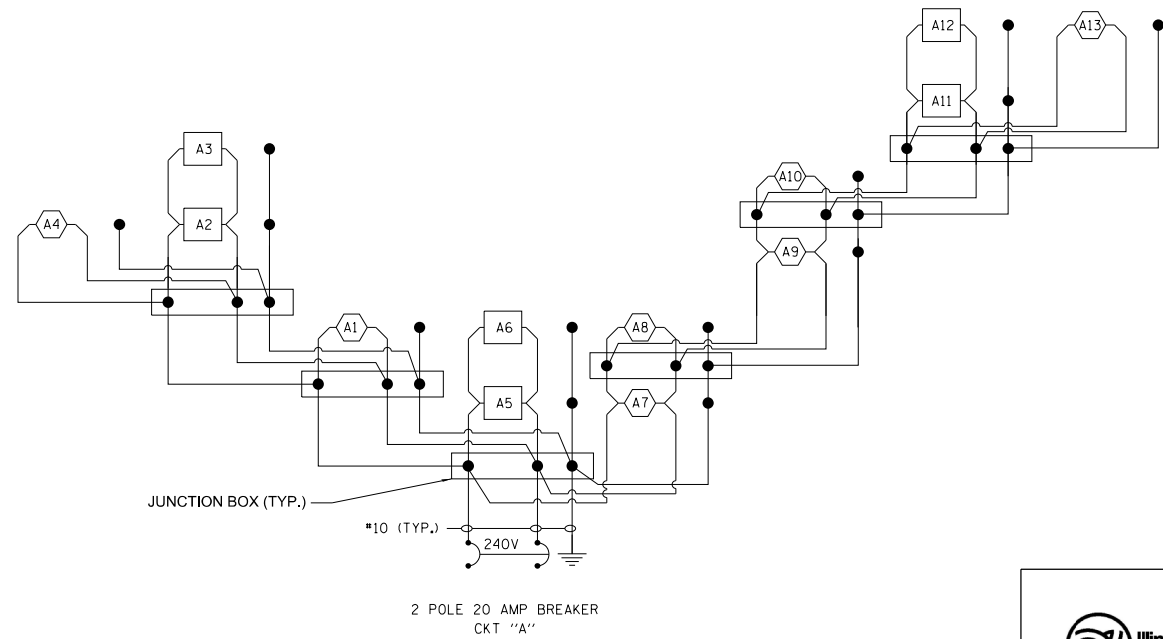
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN

SHEET H OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805A	8-2VB-2	MARION	28	24
CONTRACT NO. 76M40				

ILLINOIS FED. AID PROJECT



LIGHTING CONTROLLER
IL RTE 161 AT PIER 3
POLE MOUNT, 240V

WIRING DIAGRAM LEGEND:

- PROPOSED LUMINAIRE. NUMBER INSIDE INDICATES CIRCUIT NUMBER.
- PROPOSED UNDERPASS LUMINAIRE. NUMBER INSIDE INDICATES CIRCUIT NUMBER.
- GROUND ROD.

- NOTES:
- ALL NECESSARY REVISIONS TO THE WIRING SHOWN ON THIS SHEET SHALL BE MADE AT NO ADDITIONAL COST TO THE DEPARTMENT AND TO THE SATISFACTION OF THE ENGINEER.



Luminaire Performance Table

Project			
Date	Contract Number	Section Number	County
01/06/20	76M40	8-2VB-2	Marion
Marked Route Number		Municipality	
IL 161			

Roadway				
Lane Width	# of Lanes	Median Width	I.E.S. Surface Classification	Q-Zero Value
12	3	N/A	R3	0.7

Structure			
Mounting Height	Arm Length	Set-Back	Number of Luminaires (Highmast & Sign Lighting Only)
35 FT	6 FT	1.5 FT	

Luminaire		I.E.S. Lateral Distribution	I.E.S. Vertical Distribution
Description	Luminaire LED Output Designation	Type II	Medium
Total Light Loss Factor (LLF)	B-U-G Rating	Shields	Dimming Protocol
0.684	B3-U0-G3	N/A	10V

Layout	
Spacing (to Nearest 5 ft)	Configuration (Opposite, Staggered, 1 Sided, or Median)
310 FT	Staggered

Performance			
Average Illuminance, E_{AVE} (fc)	Uniformity Ratio, E_{AVE}/E_{MIN}		
Average Luminance, L_{AVE} (cd/m ²)	Uniformity Ratio, L_{AVE}/L_{MIN}	Uniformity Ratio, L_{MAX}/L_{MIN}	Veiling Luminance Ratio, L_v/L_{AVE}
0.6	3.5	6.0	0.3

Light Trespass		
Distance to ROW (behind pole)	Max. Horizontal Illuminance at ROW, E_H	Max. Vertical Illuminance at ROW, E_v

- Notes
- Set-Back is from Edge of Pavement (white line) except for sign luminaires when it is vertical and horizontal distance from the sign to the luminaire.
 - Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.
 - Total Light Loss Factor (LLF) = the product of "Lumen Maintenance" (LLD) = 0.9, "Dirt Depreciation" (LDD) = 0.8, and "Equipment Factors" (EF) = 0.95.
 - Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

Printed 01/09/20

BDE 5630 (04/10/19)



Luminaire Performance Table

Project			
Date	Contract Number	Section Number	County
01/06/20	76M40	8-2VB-2	Marion
Marked Route Number		Municipality	
IL 161			

Roadway				
Lane Width	# of Lanes	Median Width	I.E.S. Surface Classification	Q-Zero Value
15	2	N/A	R3	0.7

Structure			
Mounting Height	Arm Length	Set-Back	Number of Luminaires (Highmast & Sign Lighting Only)
17 FT	N/A	20 FT	

Luminaire		I.E.S. Lateral Distribution	I.E.S. Vertical Distribution
Description	Luminaire LED Output Designation	Type IV	Short
Total Light Loss Factor (LLF)	B-U-G Rating	Shields	Dimming Protocol
0.684	B3-U0-G2	N/A	10V

Layout	
Spacing (to Nearest 5 ft)	Configuration (Opposite, Staggered, 1 Sided, or Median)
37 FT	1 Sided

Performance			
Average Illuminance, E_{AVE} (fc)	Uniformity Ratio, E_{AVE}/E_{MIN}		
Average Luminance, L_{AVE} (cd/m ²)	Uniformity Ratio, L_{AVE}/L_{MIN}	Uniformity Ratio, L_{MAX}/L_{MIN}	Veiling Luminance Ratio, L_v/L_{AVE}
0.6	3.5	6.0	0.4

Light Trespass		
Distance to ROW (behind pole)	Max. Horizontal Illuminance at ROW, E_H	Max. Vertical Illuminance at ROW, E_v

- Notes
- Set-Back is from Edge of Pavement (white line) except for sign luminaires when it is vertical and horizontal distance from the sign to the luminaire.
 - Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.
 - Total Light Loss Factor (LLF) = the product of "Lumen Maintenance" (LLD) = 0.9, "Dirt Depreciation" (LDD) = 0.8, and "Equipment Factors" (EF) = 0.95.
 - Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

- The contractor may tilt the luminaire, as appropriate, in accordance with the manufacturer's requirements to meet the performance requirements.
- 1 lane in each direction of travel.

Printed 01/09/20

BDE 5630 (04/10/19)

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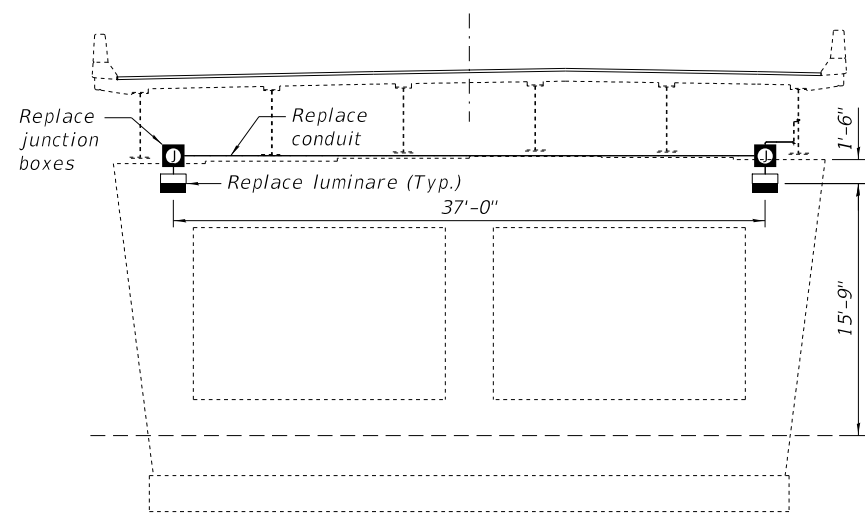
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

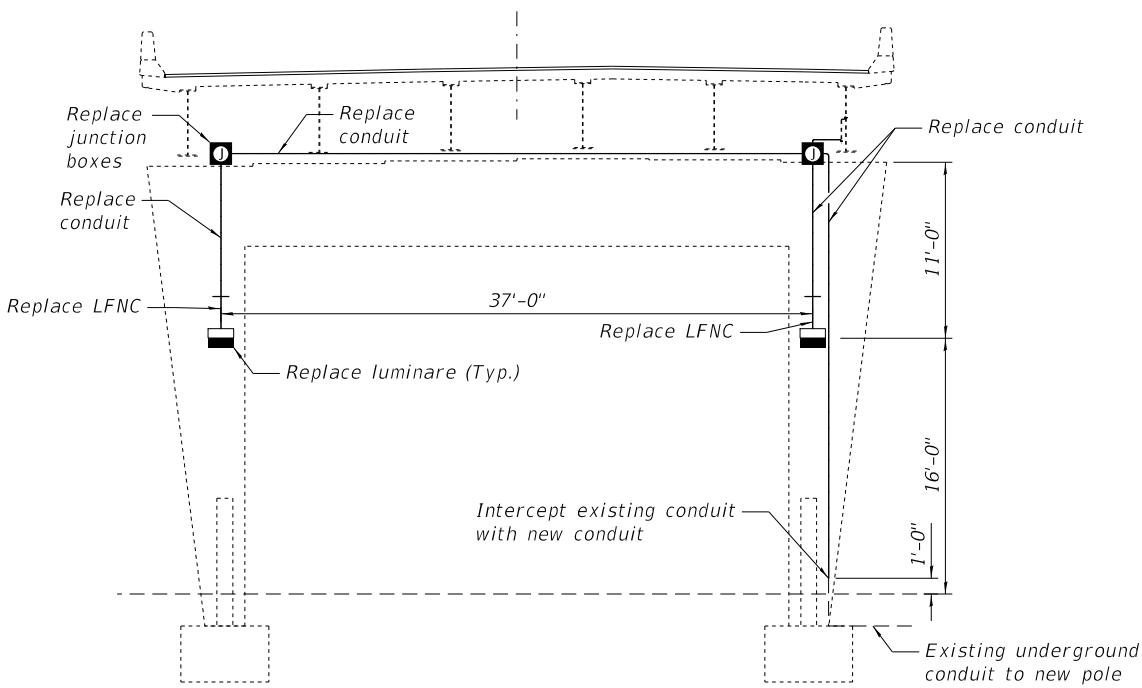
WIRING DIAGRAM & LUMINAIRE PERFORMANCE TABLES

SHEET 4 OF 7 SHEETS

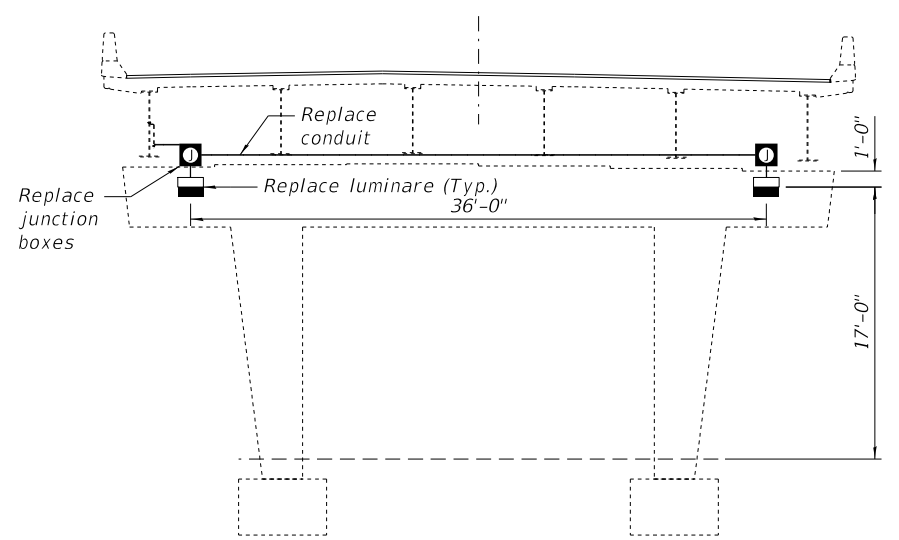
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			CONTRACT NO. 76M40	
ILLINOIS		FED. AID PROJECT		



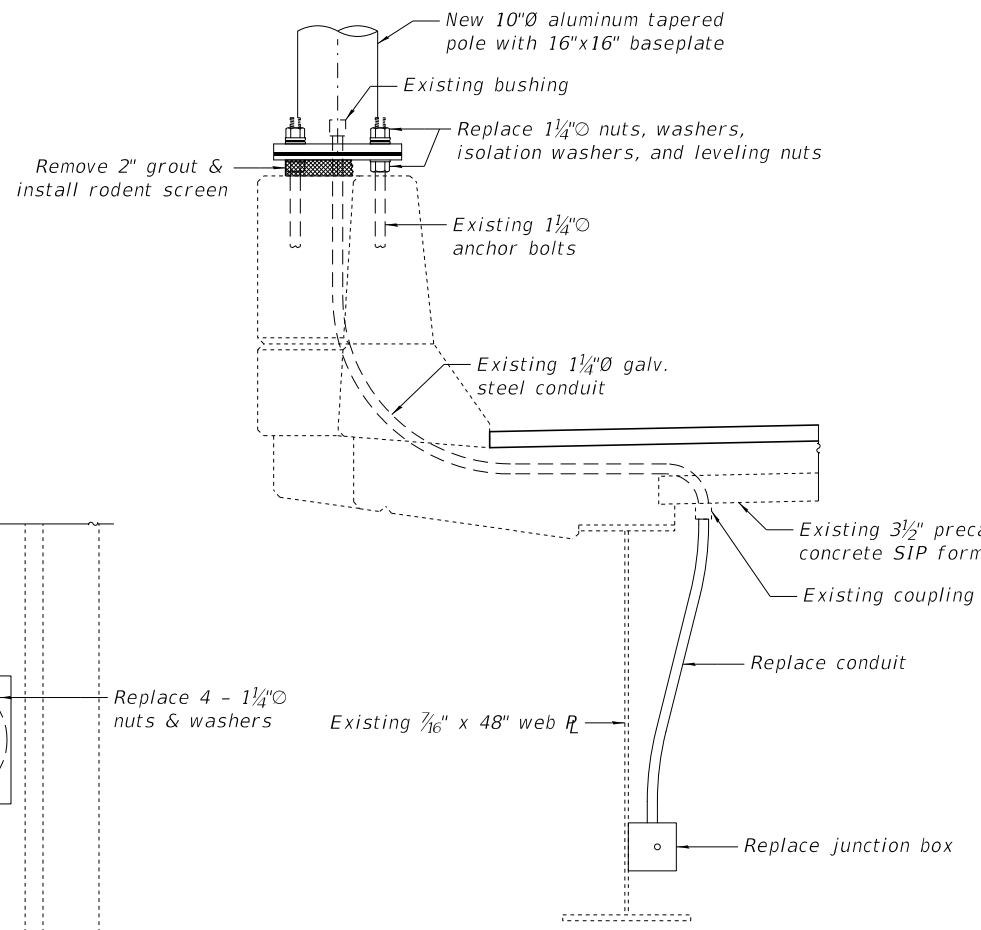
PIER 1
(Looking West)



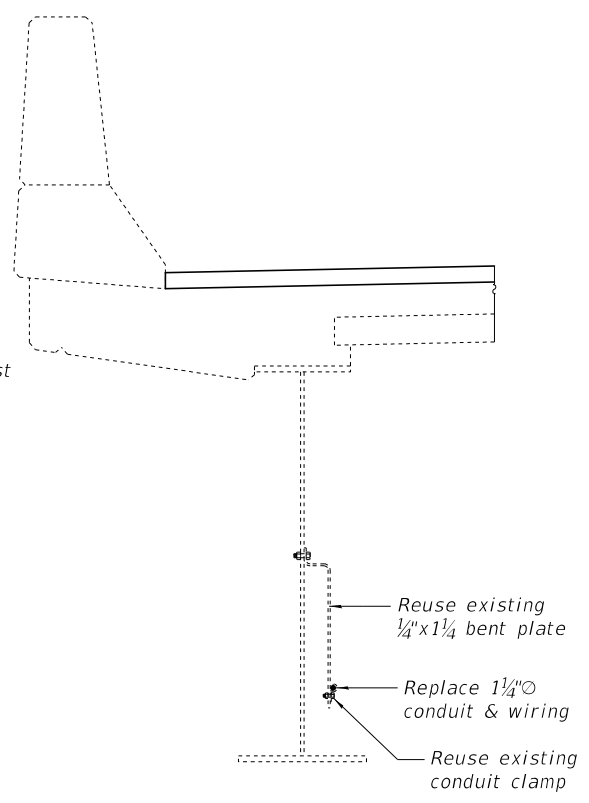
PIER 3
(Looking West)



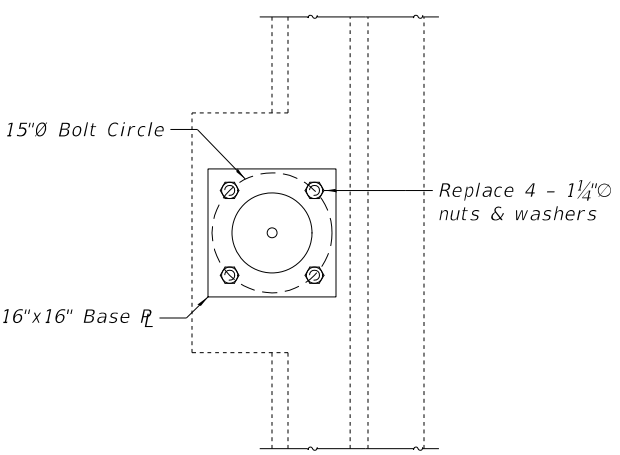
PIER 8
(Looking East)



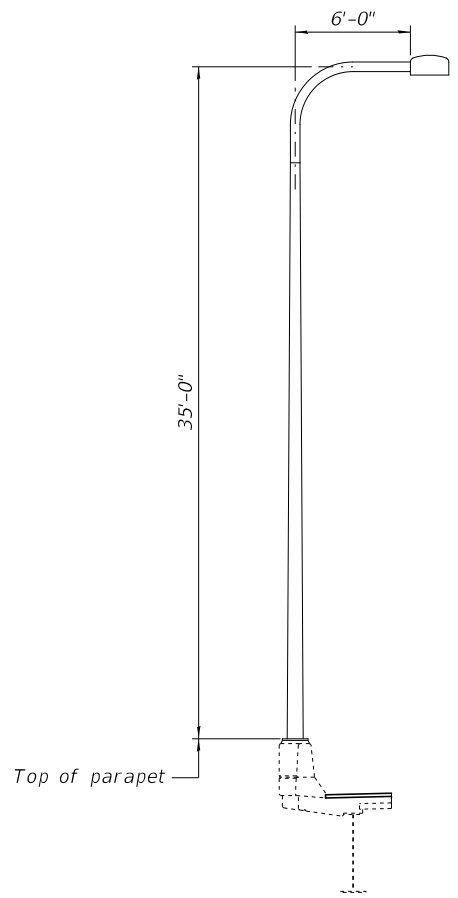
PARAPET SECTION AT LIGHT POLES
(Beam 1 Looking East)



PARAPET SECTION
(Beam 1 Looking East)



PARAPET PLAN AT LIGHT POLES



TAPERED ALUMINUM POLE WITH DAVIT ARM

L-5

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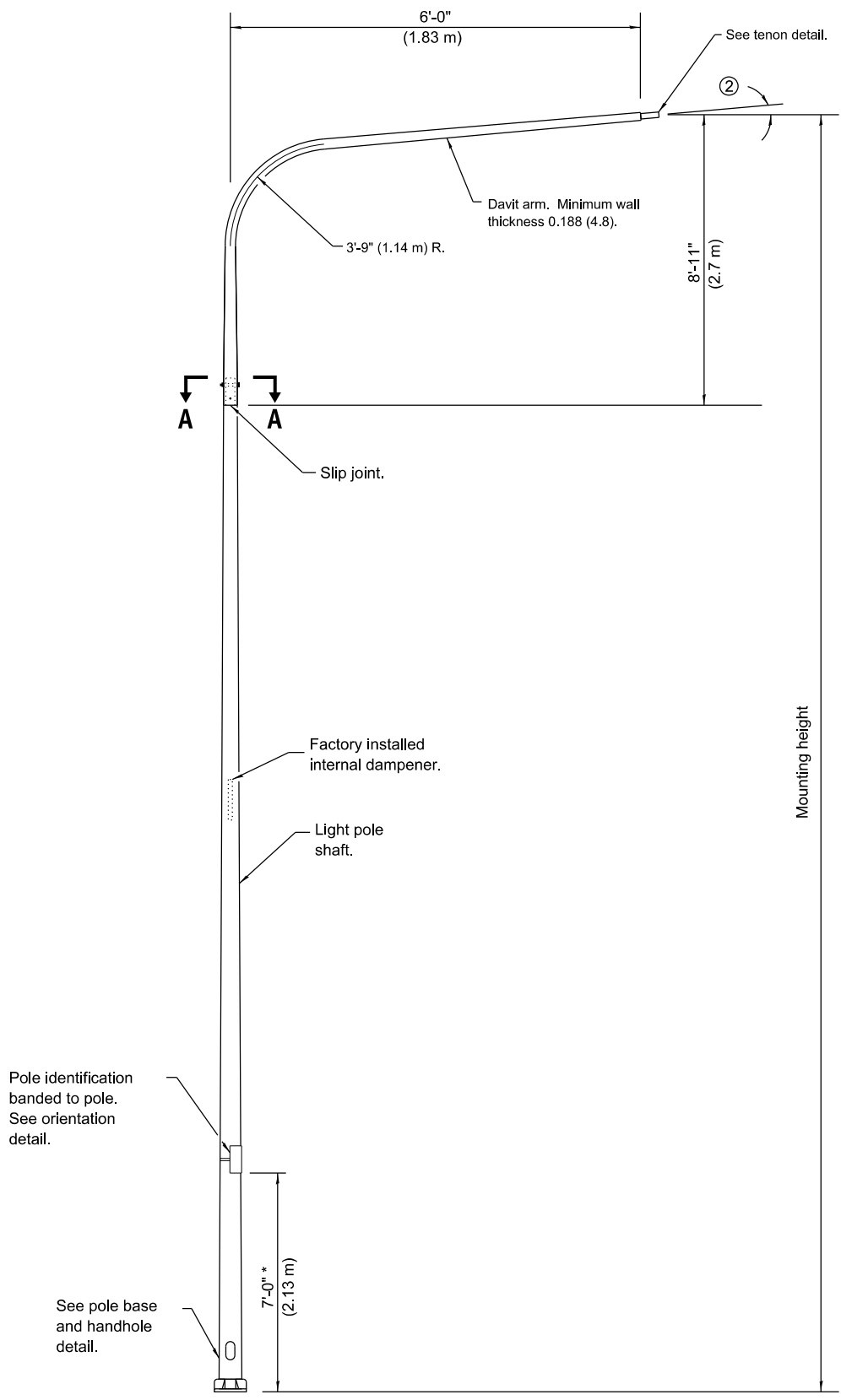
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LIGHTING DETAILS
SN 061-0079**

SHEET 5 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805A	8-2VB-2	MARION	28	26
CONTRACT NO. 76M40				

ILLINOIS FED. AID PROJECT



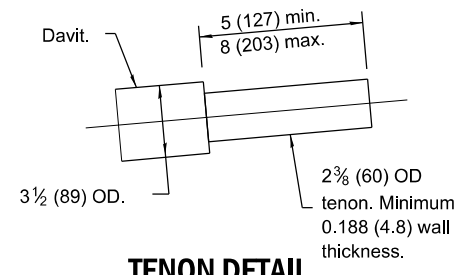
DAVIT LIGHT POLE

* Unless directed otherwise by the Engineer.

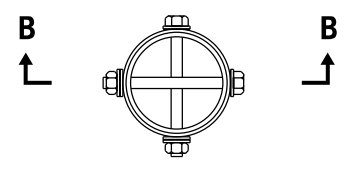
POLE BASE	
MOUNTING HEIGHT	BOLT CIRCLE DIAMETER
35' (10.7 m)	15 (380)

POLE LOWER SHAFT			
MOUNTING HEIGHT	LOWER SHAFT LENGTH ①	MINIMUM SHAFT DIAMETER	MINIMUM WALL THICKNESS
35' (10.7 m)	26'-1" (7.9 m)	8 tapered to 6 (200 to 114)	0.25 (6)

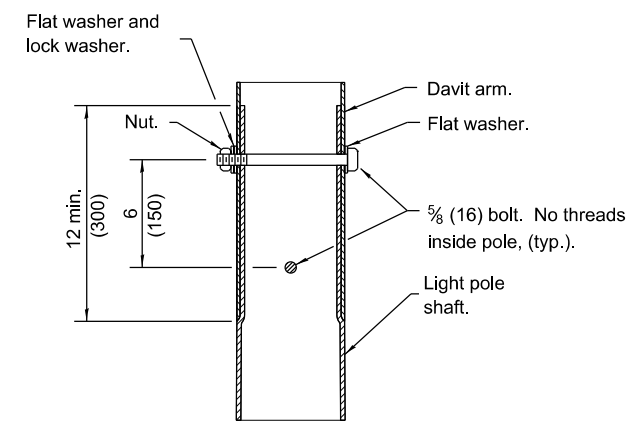
- ① Lower shaft length shall be from the bottom of the pole base to the bottom of the slip joint.
- ② 5° max. for unloaded pole, 1.5° max. for loaded pole.



TENON DETAIL



SECTION A-A



SECTION B-B

GENERAL NOTES

See Standard 720001 for pole identification banding to pole.

Voids in light pole base shall be sealed to prevent rodent entry.

Where anchor rods on existing bridge parapets are too short to mount poles as shown, install leveling plate directly on concrete and level with stainless steel washers.

All dimensions are in inches (millimeters) unless otherwise shown.

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FILE NAME: \$FILEL\$

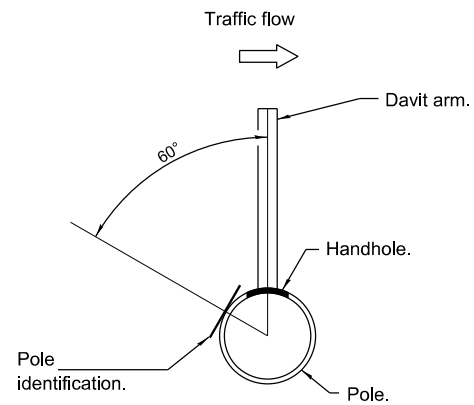
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DEPARTMENT OF TRANSPORTATION**

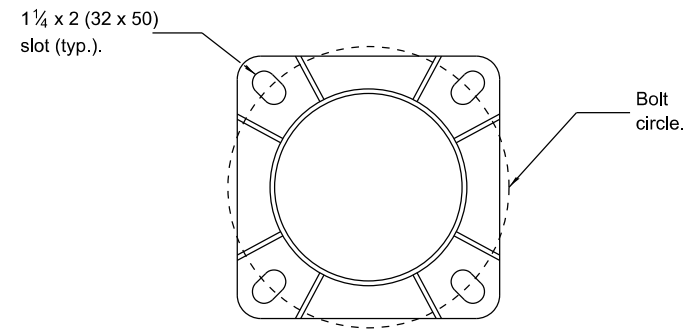
LIGHTING DETAILS

SHEET 6 OF 7 SHEETS

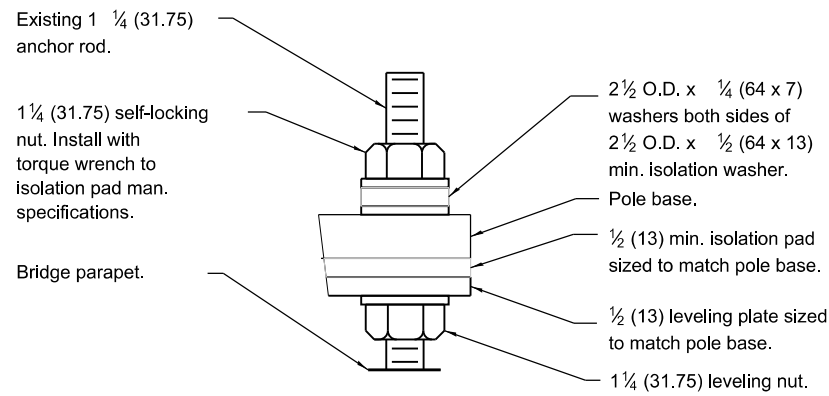
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805A	8-2VB-2	MARION	28	27
CONTRACT NO. 76M40				
ILLINOIS FED. AID PROJECT				



Pole on bridge parapet.
**HANDHOLE / IDENTIFICATION
 ORIENTATION DETAIL**

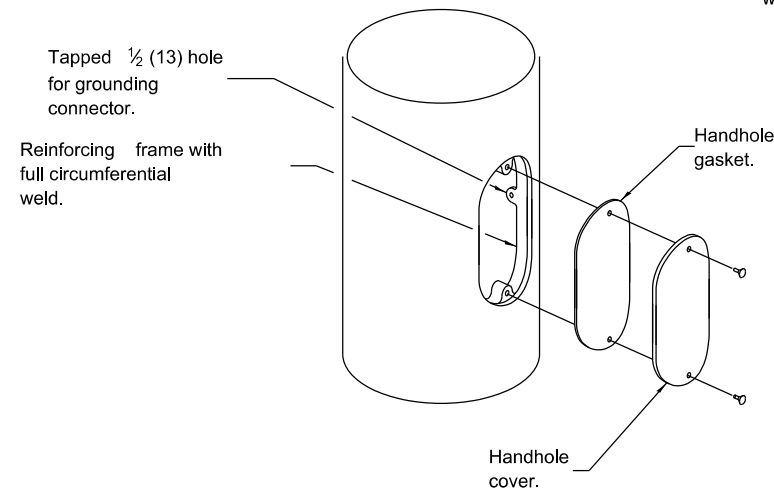


SECTION A-A
 (Bolts not shown)

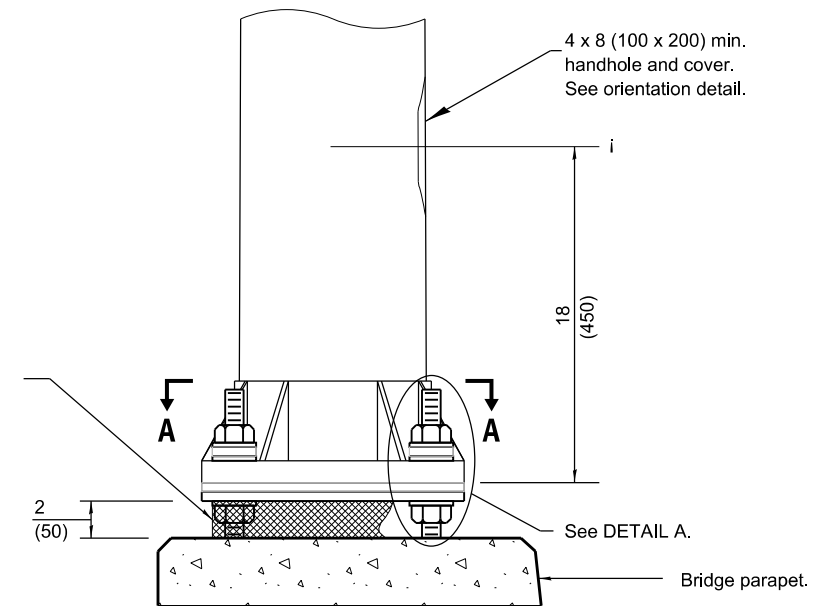


DETAIL A

Screen wrapped around nuts and anchor rods between foundation and bottom of leveling plate. Provide 6 (150) minimum overlap and wire-tie with matching wire.



HANDHOLE DETAIL



**ELEVATION AT
 BRIDGE PARAPET**

POLE BASE DETAILS

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

SHEET 7 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
805A	8-2VB-2	MARION	28	28
CONTRACT NO. 76M40				
ILLINOIS FED. AID PROJECT				

SDATES\$ \$TIMES\$