

GENERAL NOTES

- ALL SAW CUTS NECESSARY TO COMPLETE THE WORK DETAILED IN THESE PLANS SHALL BE INCLUDED IN THE COST FOR THE VARIOUS PAY ITEMS INVOLVED
- UNLESS DIRECTED BY THE ENGINEER, PAVEMENT MARKING LINES SHALL NOT BE LAID DIRECTLY OVER A LONGITUDINAL CRACK OR JOINT NOR OVER A TAR OR ASPHALT PAINTED LINE. THE EDGE OF A CENTERLINE OR LANE LINE SHALL BE OFFSET A MINIMUM DISTANCE OF 2" FROM A LONGITUDINAL CRACK OR JOINT. EDGE LINES SHALL BE APPROXIMATELY 2" FROM THE EDGE LINE OF PAVEMENT. SEE SECTION 780 OF THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS.
- THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED TO CALCULATE PLAN QUANTITIES:

BITUMINOUS MATERIALS (TACK COAT)	0.05 LBS/SQ FT (ON PAVEMENT)
BITUMINOUS MATERIALS (PRIME COAT)	0.25 LBS/SQ FT (ON AGGREGATE)
BITUMINOUS MATERIALS (TACK COAT)	0.025 LBS/SQ FT (FOG)
HOT-MIX ASPHALT MATERIAL	0.056 TON/SQ YD PER 1"
AGGREGATE MATERIAL	1.60 TONS/CU YD
- AREAS OF DECK REPAIRS SHOWN ARE ESTIMATED. THE ENGINEER SHALL SHOW ACTUAL LOCATIONS OF DECK REPAIRS ON AS-BUILT PLANS.
- THE CONTRACTOR SHALL SUBMIT A SEQUENCE OF CONSTRUCTION FOR APPROVAL TO THE RESIDENT ENGINEER BEFORE THIS PROJECT IS STARTED.
- IDOT DISTRICT 6 OPERATIONS TRAFFIC SIGNAL SECTION SHALL BE CONTACTED AT (217) 785-5306 FOR CONTROLLER PROGRAMMING AND TIMING APPROVAL PRIOR TO ACTIVATING THE TEMPORARY BRIDGE TRAFFIC SIGNALS.
- THE CONTRACTOR SHALL COOPERATE WITH THE LEVEE DISTRICT SHOULD THERE BE A FLOOD EVENT WHERE THE FLOOD BARRIER WALLS ARE NEEDED TO BE INSTALLED. COST SHALL BE INCLUDED IN THE VARIOUS TRAFFIC CONTROL PAY ITEMS.
- SYNTHETIC FIBERS ARE NOT REQUIRED FOR THE BRIDGE DECK MICROSILICA CONCRETE OVERLAY.

LIST OF STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
610001-09	SHOULDER INLET WITH CURB
642001-03	SHOULDER RUMBLE STRIPS, 16 IN.
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 M) AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE 2L, 2W, MOVING OPERATION-DAY ONLY
701321-18	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

COMMITMENTS

THERE ARE NO COMMITMENTS.


THE FOLLOWING MIXTURE REQUIREMENTS FOR THIS PROJECT:


MIXTURE USE (S)	HMA SURFACE CSE
AC/PG	PG 64-22
DESIGN AIR VOIDS	4.0% @ N50
MIX COMPOSITION (GRADATION MIXTURE)	IL 9.5
FRICITION AGGREGATE	MIX "C"
QUALITY MANAGEMENT	QC/QA
SUBLOT SIZE	N/A

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS DISTRICT 6

EXAMINED September 13 2021

 ENGINEER OF OPERATIONS

EXAMINED September 29 2021

 ENGINEER OF PROJECT IMPLEMENTATION

EXAMINED October 1 2021

 ENGINEER OF PROGRAM DEVELOPMENT

REV. - MS

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, COMMITMENTS AND LIST OF STANDARDS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(114)BDR,BJR	CASS	21	2
CONTRACT NO. 72M67			ILLINOIS FED. AID PROJECT	

CONSTR. CODE
6-00814-0000
80% FED / 20% STATE
BRIDGE
0059
S.N. 009-0012

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	180	180
70300100	SHORT TERM PAVEMENT MARKING	FOOT	72	72
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	24	24
70400100	TEMPORARY CONCRETE BARRIER	FOOT	500	500
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	500	500
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2
70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2
* 78001120	PAINT PAVEMENT MARKING - LINE 5"	FOOT	4004	4004
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	3	3
78300201	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	1424	1424
X6024503	INLETS TO BE ADJUSTED WITH NEW FRAME AND GRATE (SPECIAL)	EACH	4	4

* DENOTES SPECIALTY ITEM

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(114)BDR,BJR	CASS	21	4
CONTRACT NO. 72M67			ILLINOIS FED. AID PROJECT	

CONSTR. CODE
6-00814-0000
80% FED / 20% STATE
BRIDGE
0059
S.N. 009-0012

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1	1
Z0001800	APPROACH SLAB REPAIR (PARTIAL DEPTH)	SQ YD	19	19
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	1010	1010
Z0012164	BRIDGE DECK MICROSILICA CONCRETE OVERLAY 2 1/2"	SQ YD	1010	1010
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	30	30
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	1.3	1.3
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	9.3	9.3
Z0018051	DRAINAGE SCUPPERS TO BE ADJUSTED	EACH	4	4
Z0041895	POLYMER CONCRETE	CU FT	15	15
X1200296	FLOOD GATE CLOSURE EXTENSION	L SUM	1	1

* DENOTES SPECIALTY ITEM

* DENOTES SPECIALTY ITEM

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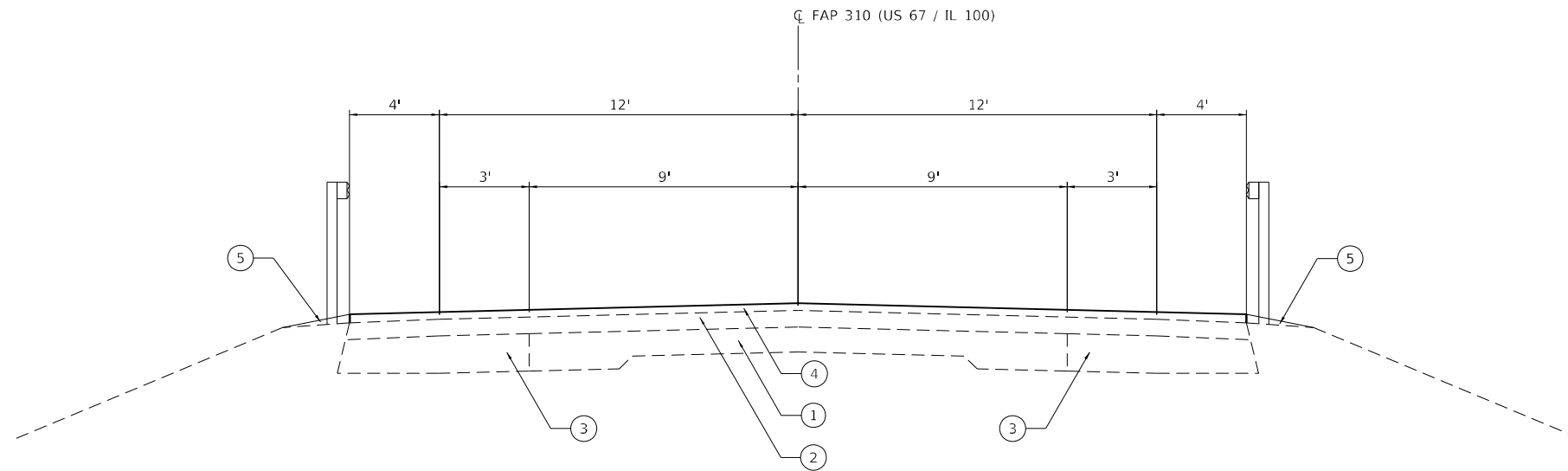
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(114)BDR,BJR	CASS	21	5
CONTRACT NO. 72M67			ILLINOIS FED. AID PROJECT	



TYPICAL SECTION (SN 009-0012)

STA. 350+42 TO STA. 351+42*
 STA. 354+84 TO STA. 355+54*

*BRIDGE APPROACH PAVEMENT
 STA. 351+42 TO STA. 351+68
 STA. 354+60 TO STA. 354+84

- ① EXISTING CONCRETE PAVEMENT
- ② EXISTING HOT-MIX ASPHALT OVERLAY ±20"
- ③ EXISTING HOT-MIX ASPHALT BASE COURSE (VARIABLE DEPTH)
- ④ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C" N50 (1 3/4")
- ⑤ PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B

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DATE - 8/23/2021	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(114)BDR,BJR	CASS	21	6
CONTRACT NO. 72M67				
ILLINOIS FED. AID PROJECT				

PAVING SCHEDULE					
STATION TO STATION	40600290 BITUMINOUS MATERIALS (TACK COAT)	40600982 HMA SURFACE REMOVAL - BUTT JOINT	40600990 TEMPORARY RAMP	40604050 HMA SURFACE COURSE, 1L-9.5 MIX "C", N50	48102100 AGGREGATE WEDGE SHOULDER, TYPE B
	POUND	SQ YD	SQ YD	TON	TON
350+42 - 350+48			21		
350+42 - 350+48	200	249		43	3.2
351+06 - 351+12			21		
354+84 - 354+90			21		
354+60 - 355+54	150	249		33	1.8
355+48 - 355+54			21		
TOTAL	350	498	84	76	5

PAVEMENT MARKING SCHEDULE				
STATION TO STATION	COLOR	78001120 PAINT PAVEMENT MARKING-LINE 5"	78300200 RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	COMMENT
		FOOT	EACH	
348+13 RT - 358+14 RT	WHITE	1001		
348+13 CL - 358+14 CL	YELLOW	2002	3	
348+13 LT - 358+14 LT	WHITE	1001		
TOTAL		4004	3	

SHORT TERM PAVEMENT MARKING SCHEDULE				
STATION TO STATION	NUMBER OF APPLICATIONS	70300100 SHORT TERM PAVEMENT MARKING	70300150 SHORT TERM PAVEMENT MARKING REMOVAL	
		FOOT	SQ FT	
350+42 - 351+12	2	16	5.3	
351+12 - 354+84	1	40	13.4	
354+84 - 355+54	2	16	5.3	
TOTAL		72	24	

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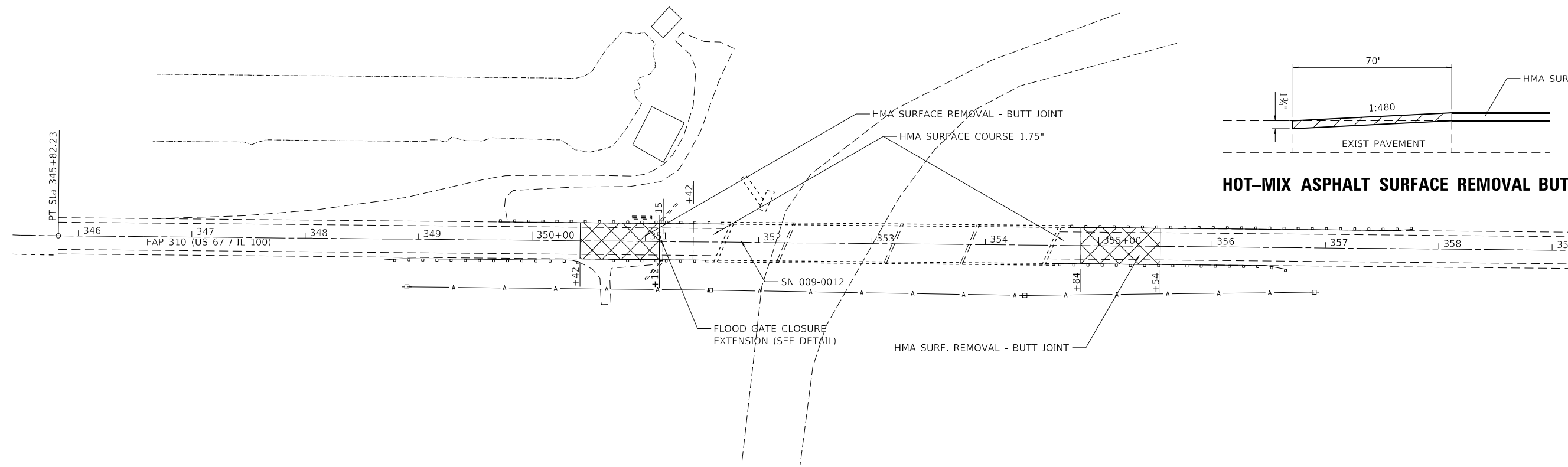
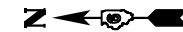
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

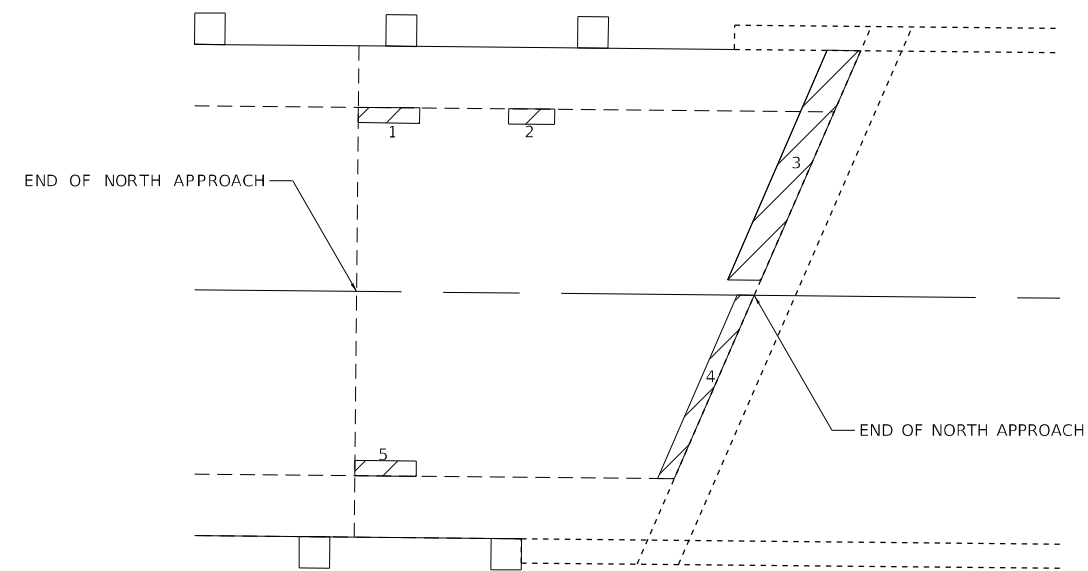
SCHEDULES OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(114)BDR,BJR	CASS	21	7
CONTRACT NO. 72M67				
ILLINOIS FED. AID PROJECT				



HOT-MIX ASPHALT SURFACE REMOVAL BUTT-JOINT DETAIL

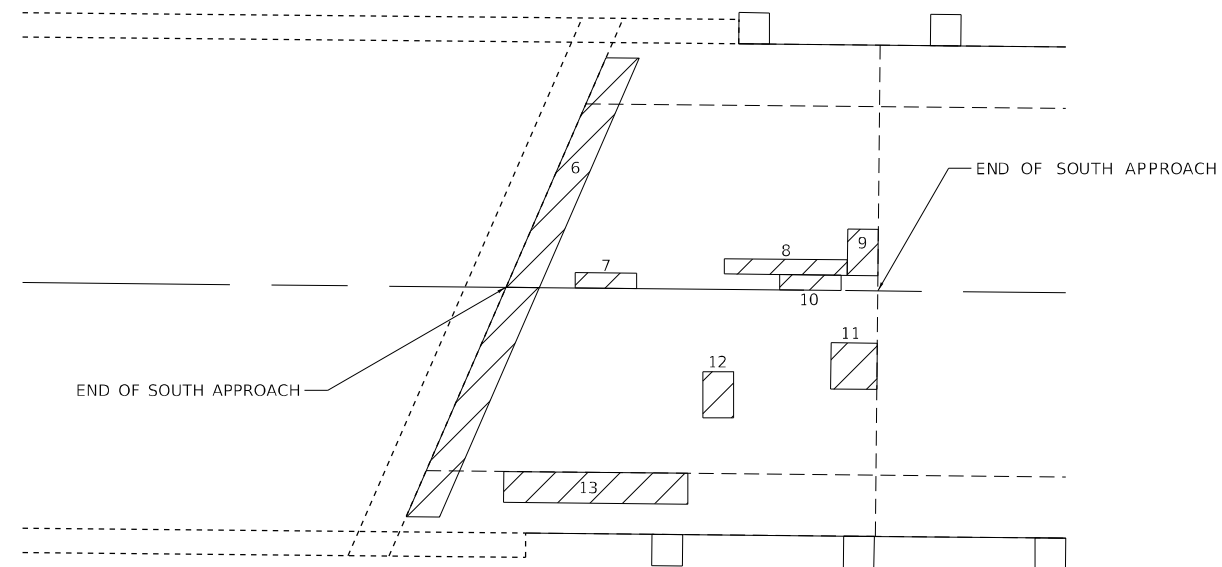


NORTH APPROACH PAVEMENT PATCHING

APPROACH SLAB REPAIR (PARTIAL DEPTH)				
PATCH NUMBER	LENGTH	WIDTH	AREA	
			SQ FT	SQ YD
NORTH APPROACH				
1	4	1	4.0	0.4
2	3	1	3.0	0.3
3	2	16	32.0	3.6
4	1	12	12.0	1.3
5	4	1	4.0	0.4
SOUTH APPROACH				
6	2	30	60.0	6.7
7	4	1	4.0	0.4
8	8	1	8.0	0.9
9	2	3	6.0	0.7
10	4	1	4.0	0.4
11	3	3	9.0	1.0
12	3	2	6.0	0.7
13	12	1	12.0	1.3

NOTE: REPAIR AREAS ARE FOR INFORMATION ONLY.

SEE BRIDGE SHEETS FOR DECK REPAIR DETAILS



SOUTH APPROACH PAVEMENT PATCHING

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 Professional Design Firm No. 284-005516



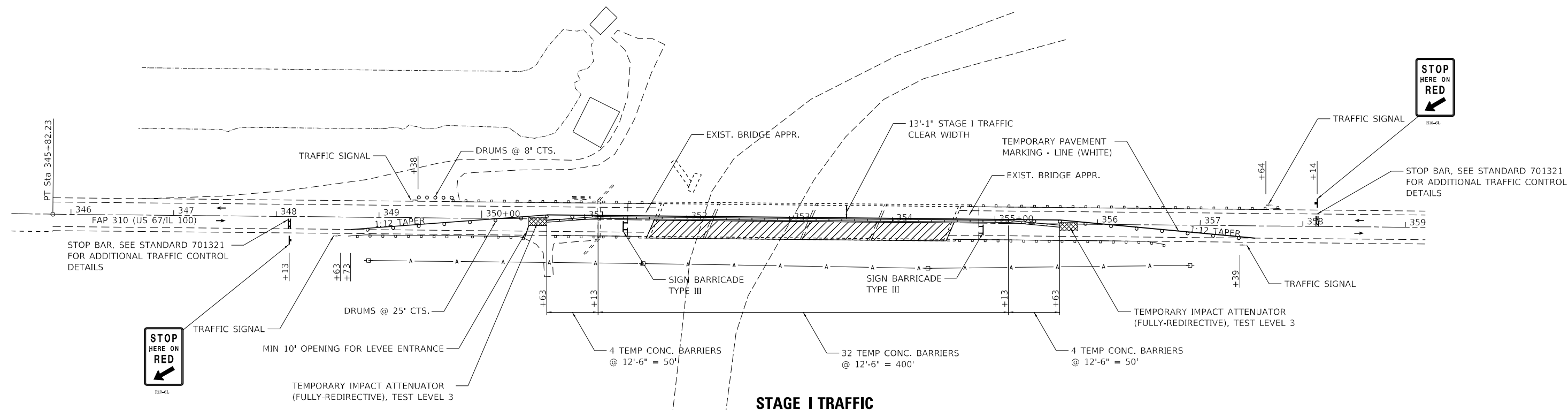
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

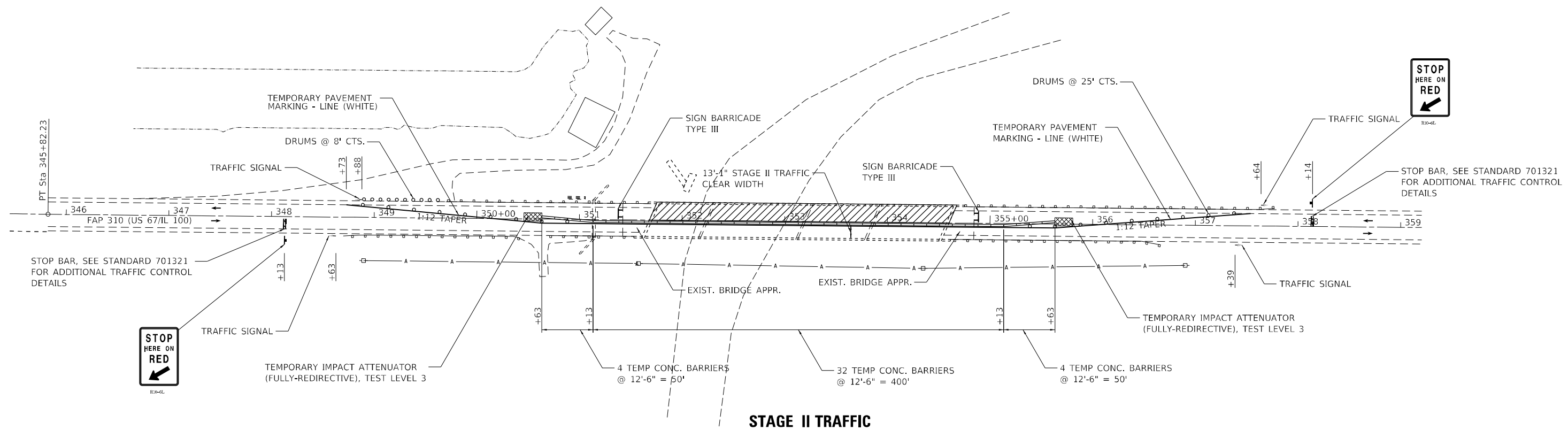
ROADWAY PLAN

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(114)BDR,BJR	CASS	21	8
CONTRACT NO. 72M67				
ILLINOIS FED. AID PROJECT				



STAGE I TRAFFIC



STAGE II TRAFFIC

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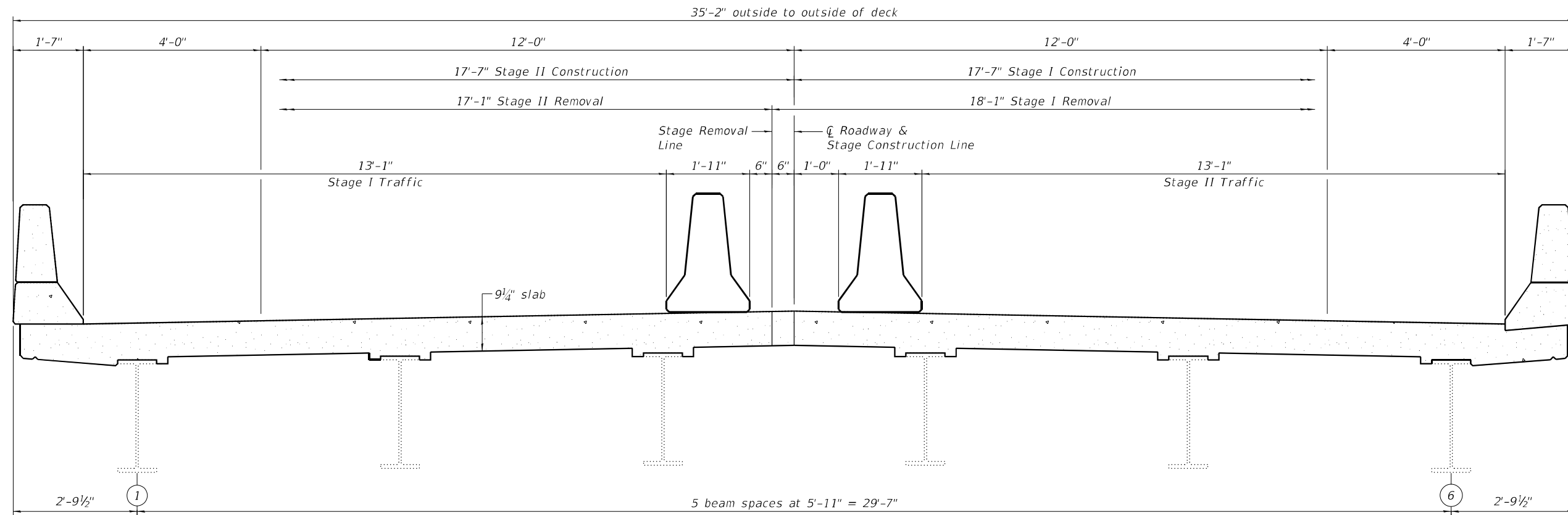


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PLOT DATE = 10/15/2021		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGING PLAN	
SCALE:	SHEET OF SHEETS STA. TO STA.

F.A.P. RTE. 310	SECTION (114)BDR,BJR	COUNTY CASS	TOTAL SHEETS 21	SHEET NO. 9
CONTRACT NO. 72M67				
ILLINOIS FED. AID PROJECT				



STAGING CROSS SECTION
(Looking South)

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KT **KUHN & TRELLO**
 CONSULTING ENGINEERS
 A Limited Liability Company
 100 N. 7th Street, 3rd Floor
 Springfield, IL 62702
 Phone: 217-618-0244
 Professional Design Firm No. 284-006516

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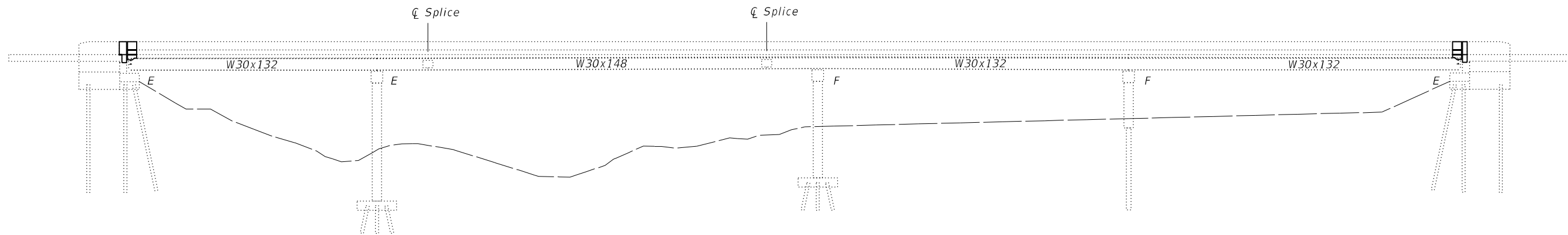
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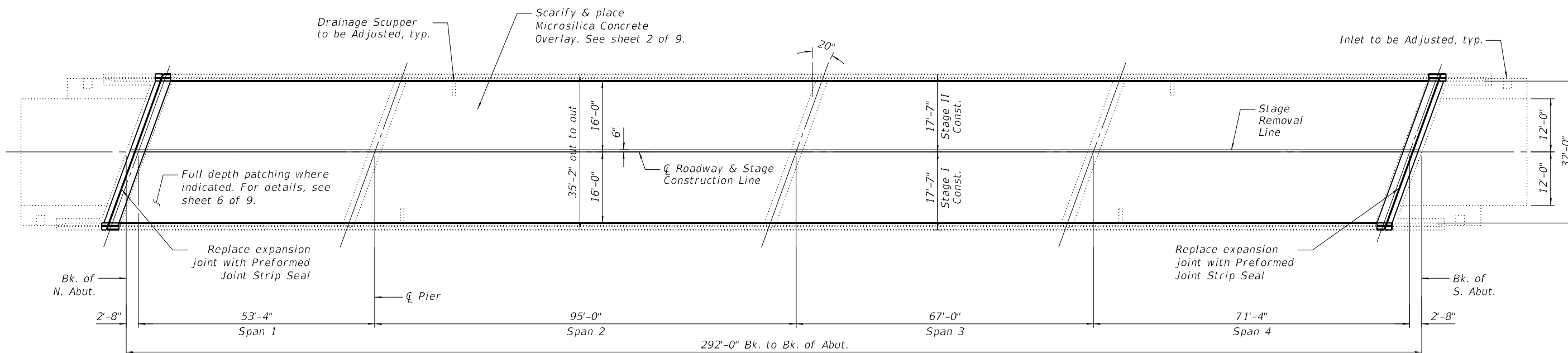
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING CROSS SECTION			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(114) BDR, BJR	CASS	21	10
CONTRACT NO. 72M67				
ILLINOIS FED. AID PROJECT				



ELEVATION



PLAN

GENERAL NOTES

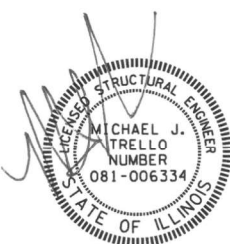
All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
 Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
 Reinforcement bars designated (E) shall be epoxy coated.
 Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
 Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
 Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.
 Areas of deck slab repair and structural repair of concrete shown are estimated. The Engineer shall show actual locations of deck repairs and substructures on As-Built plans.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	10.8
Concrete Superstructure	Cu. Yd.	11.8
Bridge Deck Microsilica Concrete Overlay, 2 1/2"	Sq. Yd.	1010
Reinforcement Bars, Epoxy Coated	Pound	1180
Bar Splicers	Each	16
Bridge Deck Scarification, 3/4"	Sq. Yd.	1010
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1.3
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	9.3
Preformed Joint Strip Seal	Foot	72
Structural Repair of Concrete, Depth ≤ 5"	Sq. Ft.	30
Bridge Deck Grooving	Sq. Yd.	970
* Protective Coat	Sq. Yd.	1038
Drainage Scuppers to be Adjusted	Each	4

* On new deck surface & top & inside face of new parapet concrete only

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Expires: November 30, 2022

KUHN & TRELLO
 CONSULTING ENGINEERS
 A Limited Liability Company
 109 N. 7th Street, 3rd Floor
 Springfield, IL 62701
 Phone: 217-455-0244
 Professional Design Firm No. 284-006516

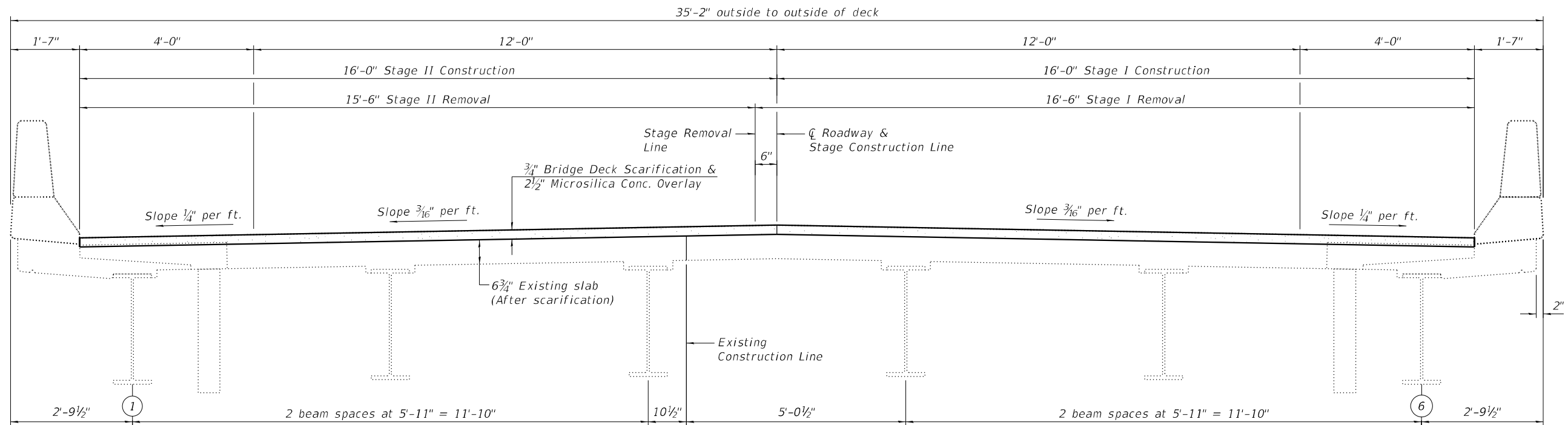
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

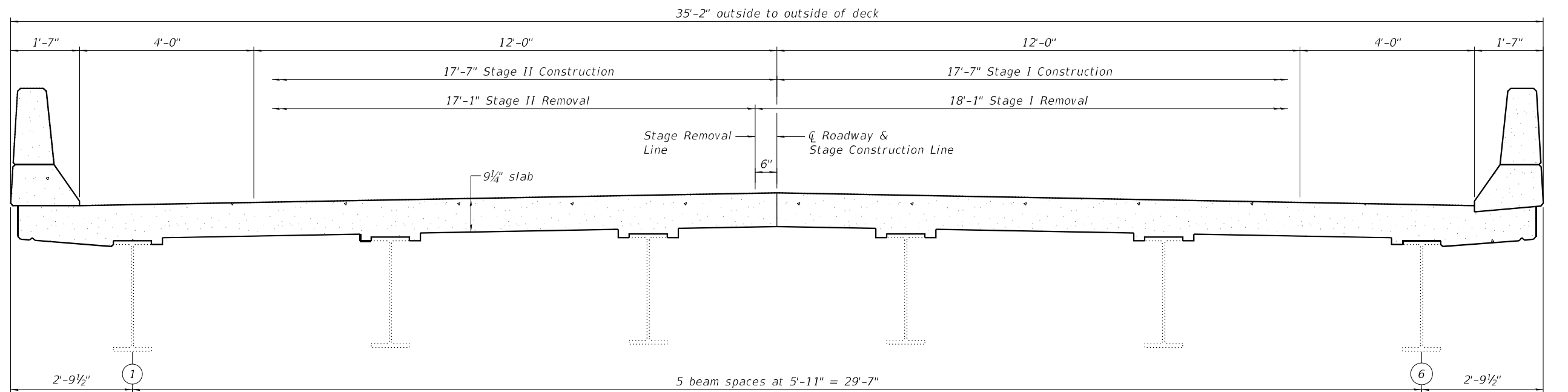
GENERAL PLAN & ELEVATION
 STRUCTURE NO. 009-0012

SHEET 1 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(114) BDR,BJR	CASS	21	11
CONTRACT NO. 72M67				
ILLINOIS FED. AID PROJECT				



CROSS SECTION AT MID SPANS
(Looking South)



CROSS SECTION AT JOINT REPLACEMENT LOCATIONS
(Looking South)

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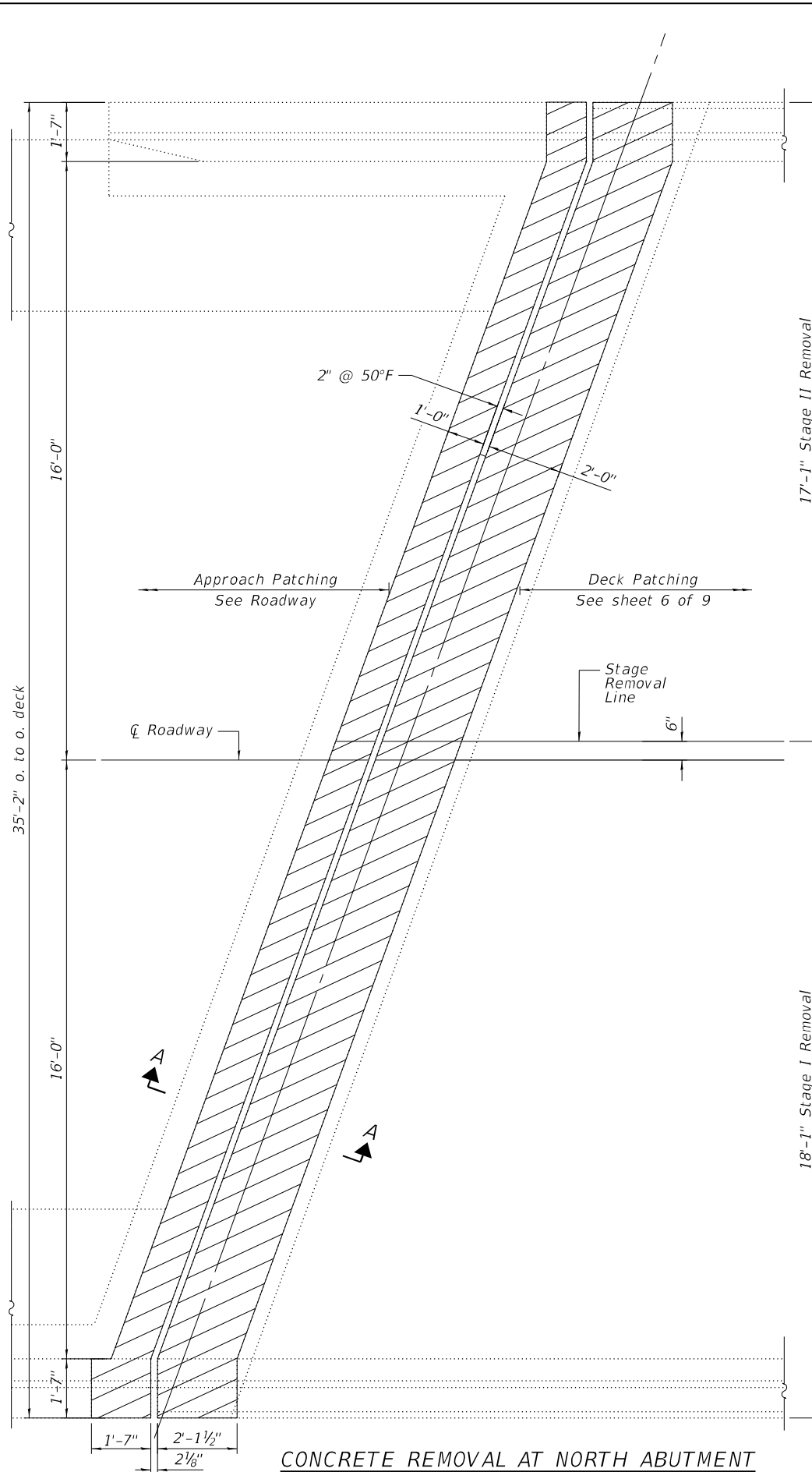
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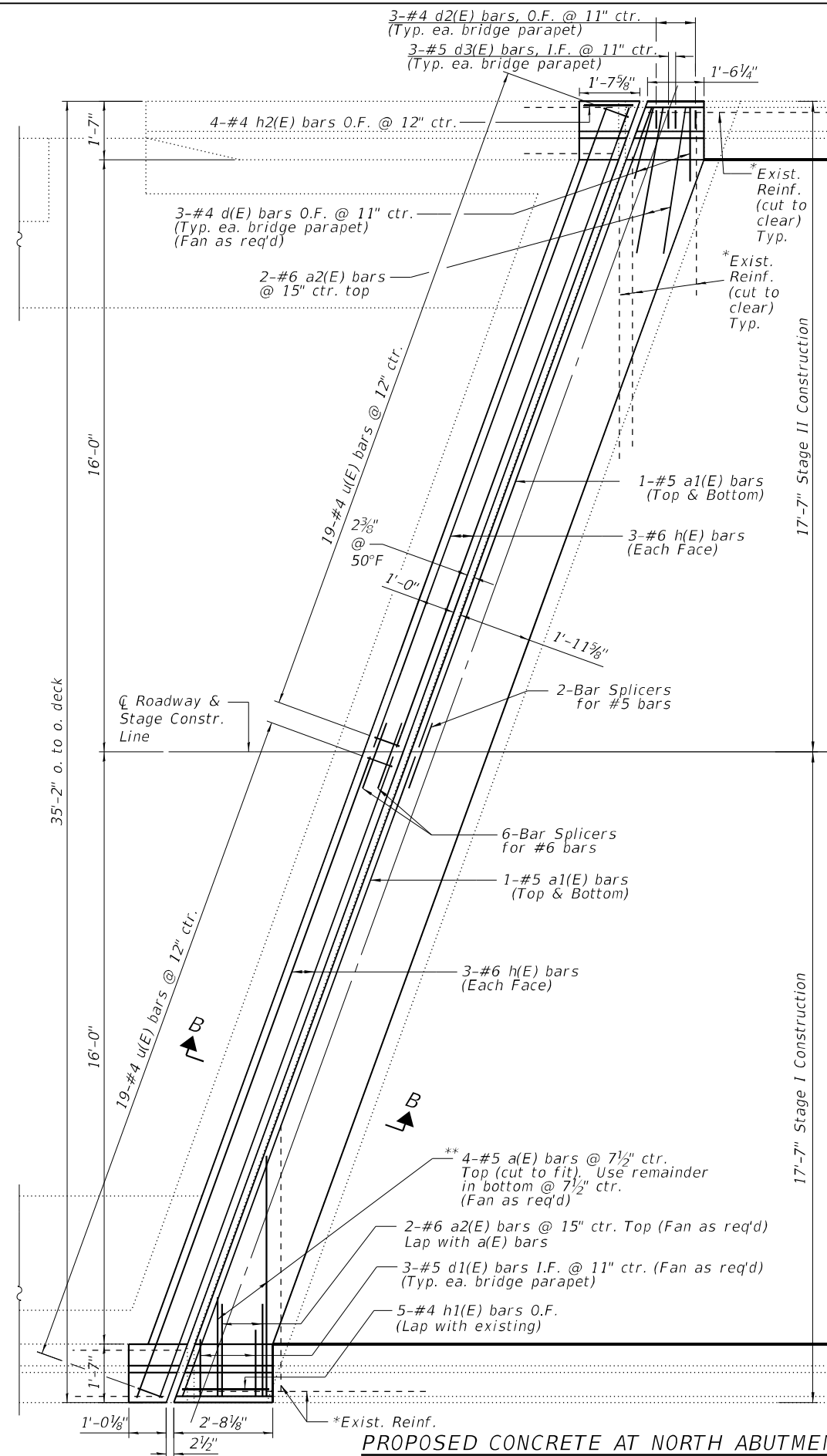
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DEPARTMENT OF TRANSPORTATION

STAGING DETAILS & CROSS SECTION
STRUCTURE NO. 009-0012
 SHEET 2 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(114) BDR,BJR	CASS	21	12
CONTRACT NO. 72M67				
ILLINOIS FED. AID PROJECT				

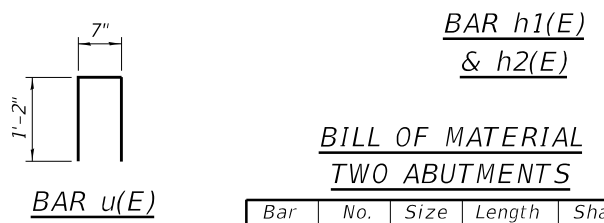
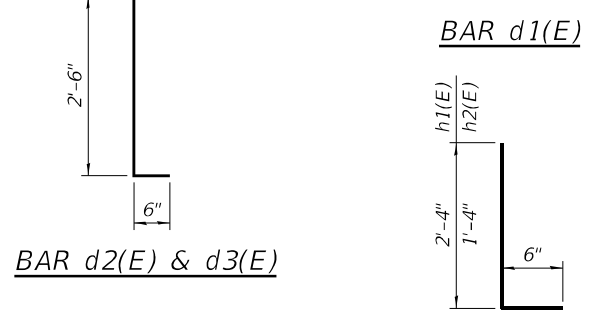
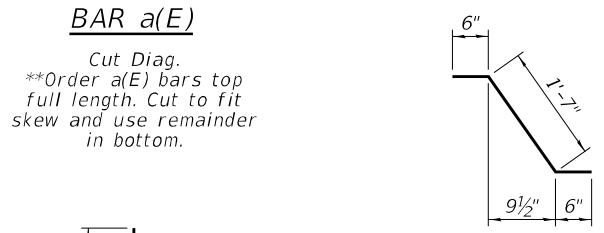
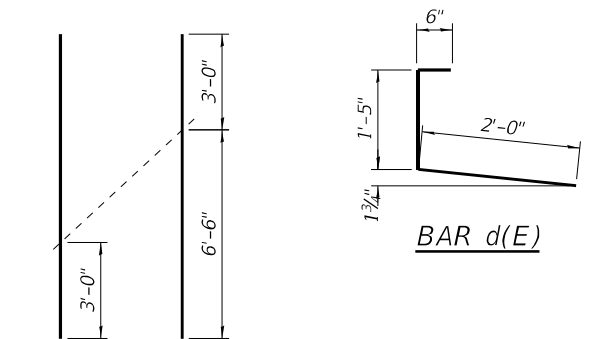


CONCRETE REMOVAL AT NORTH ABUTMENT
(South Abutment Similar)



PROPOSED CONCRETE AT NORTH ABUTMENT
(South Abutment Similar)

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



BILL OF MATERIAL
TWO ABUTMENTS

Bar	No.	Size	Length	Shape
a(E)	8	#5	9'-6"	—
a1(E)	8	#5	18'-6"	—
a2(E)	8	#6	4'-0"	—
d(E)	12	#4	3'-11"	┌
d1(E)	12	#5	2'-7"	┌
d2(E)	12	#4	3'-0"	┌
d3(E)	12	#5	3'-0"	┌
h(E)	24	#6	18'-6"	—
h1(E)	10	#4	2'-10"	┌
h2(E)	8	#4	1'-10"	┌
u(E)	38	#4	2'-11"	┌
Concrete Removal		Cu. Yd.	10.8	
Concrete Superstructure		Cu. Yd.	11.8	
Reinforcement Bars, Epoxy Coated		Pound	1180	
Bar Splicers		Each	16	

MIN. LAP
#4 bars = 2'-5"
#5 bars = 3'-0"
#6 bars = 4'-0"

(Sheet 1 of 2)

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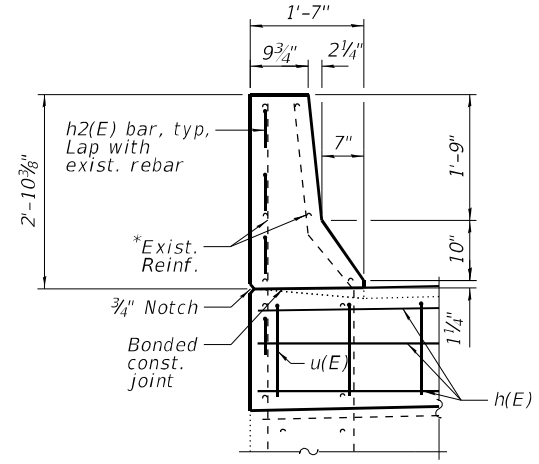
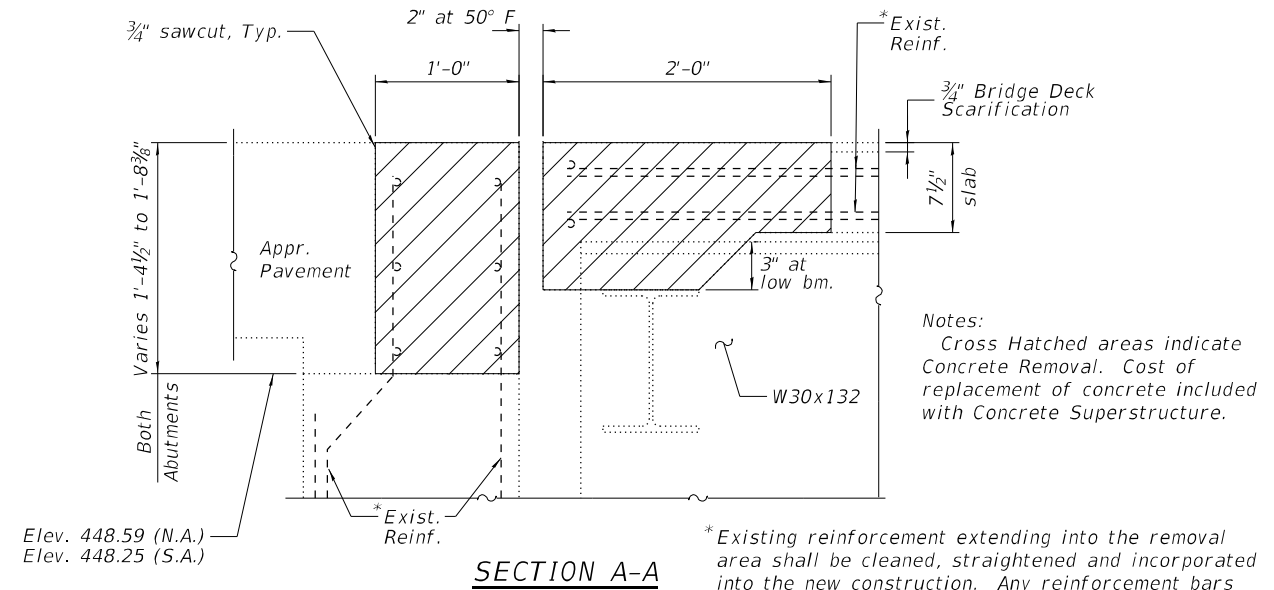


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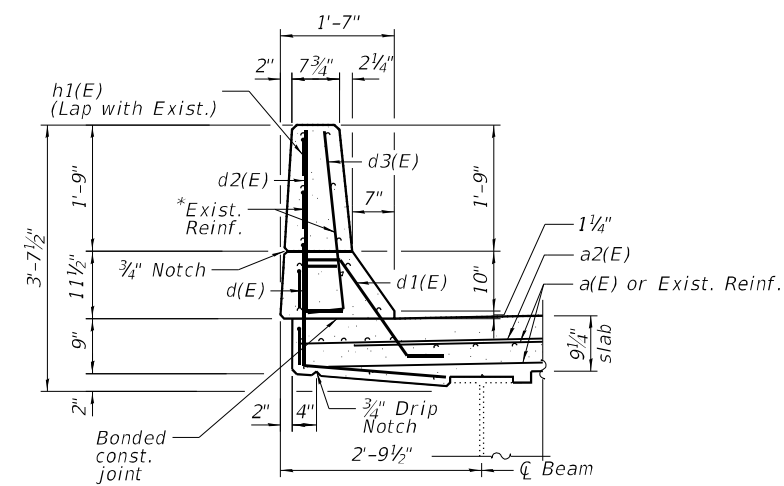
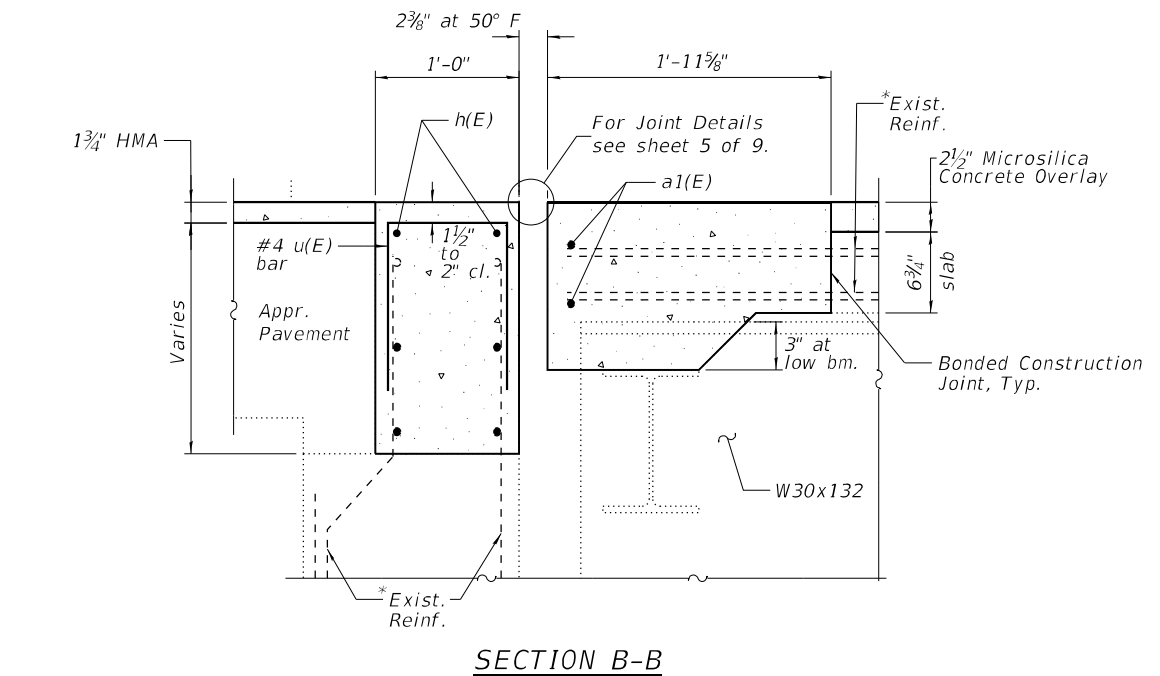
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT REMOVAL & REPLACEMENT DETAILS AT ABUTMENTS
STRUCTURE NO. 009-0012
SHEET 3 OF 9 SHEETS

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(114) BDR,BJR	CASS	21	13
CONTRACT NO. 72M67				
ILLINOIS FED. AID PROJECT				



TYPICAL SECTION AT APPROACH PARAPET



TYPICAL SECTION THRU BRIDGE PARAPET

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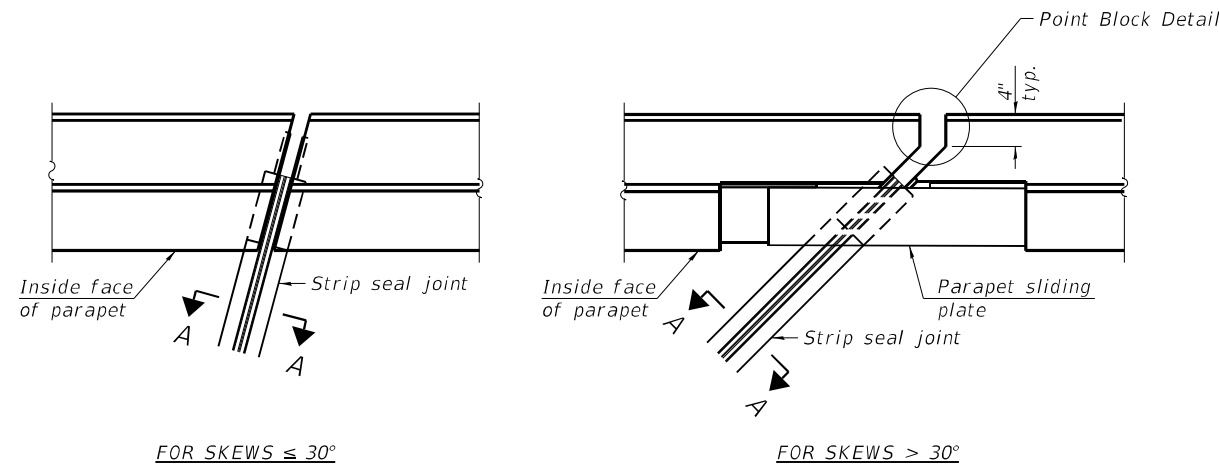
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT REMOVAL & REPLACEMENT DETAILS AT ABUTMENTS
STRUCTURE NO. 009-0012

SHEET 4 OF 9 SHEETS

F.A.P. RTE. 310	SECTION (114) BDR,BJR	COUNTY CASS	TOTAL SHEETS 21	SHEET NO. 14
CONTRACT NO. 72M67				
ILLINOIS FED. AID PROJECT				

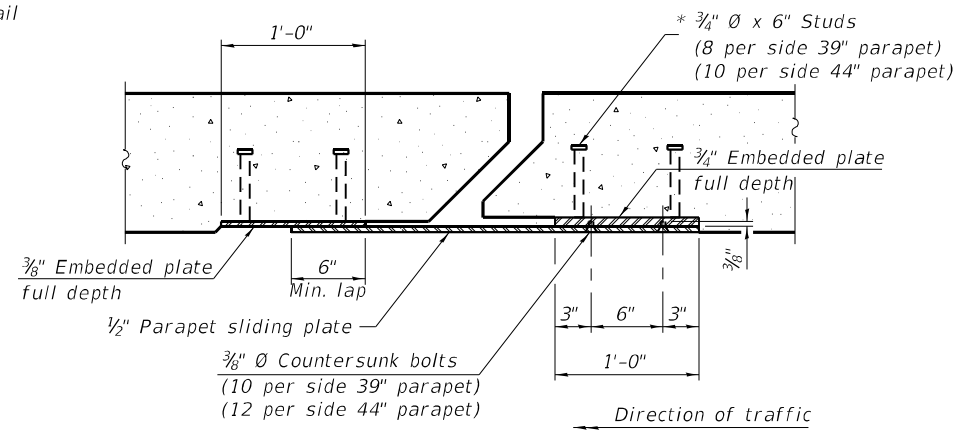
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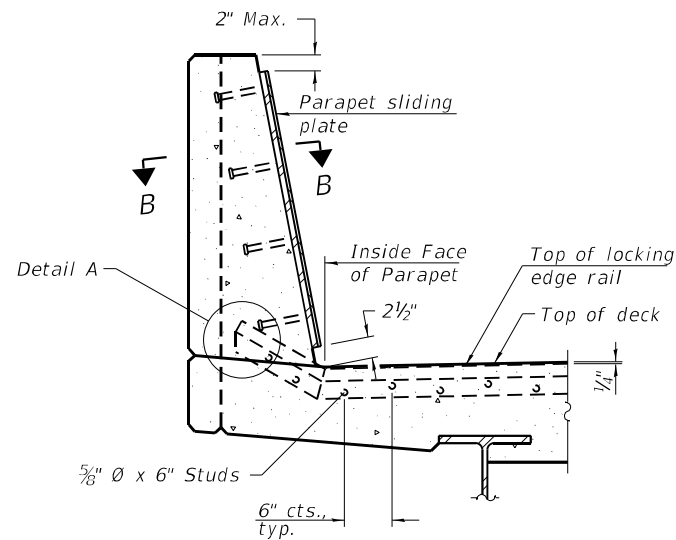
FOR SKEWS $\leq 30^\circ$

FOR SKEWS $> 30^\circ$

PLAN AT PARAPET

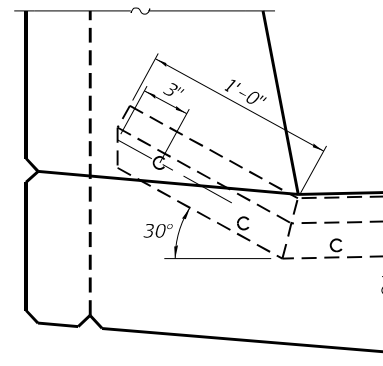


SECTION B-B

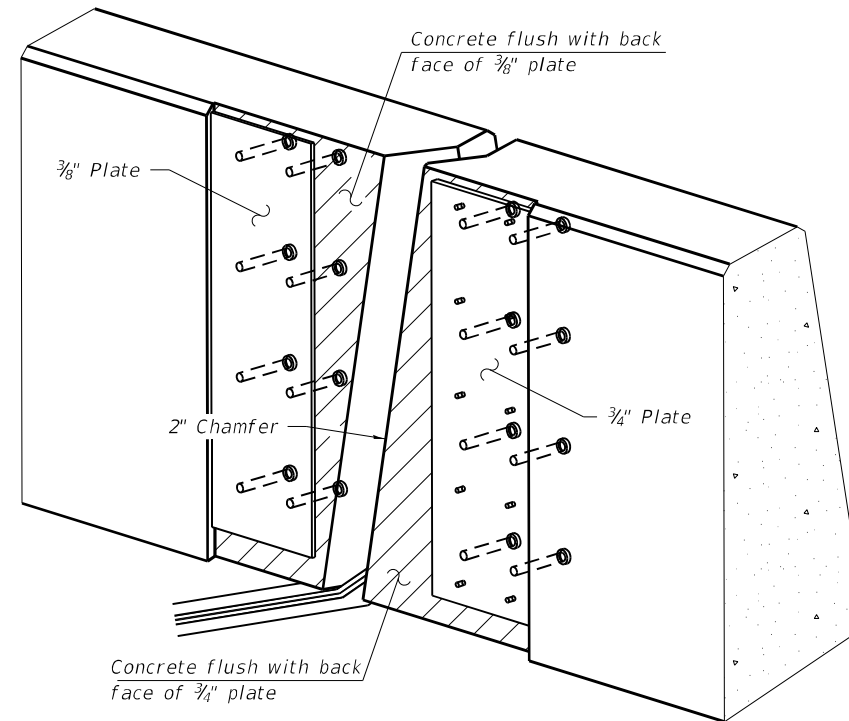


SECTION AT PARAPET

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

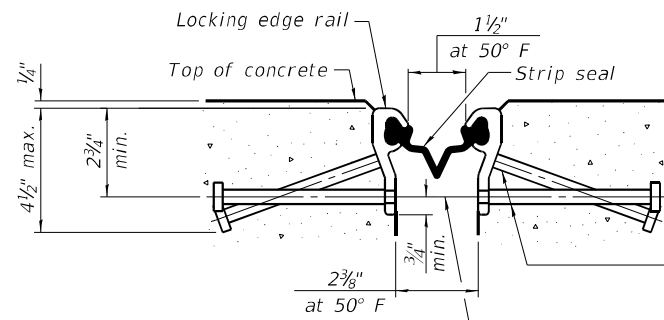


DETAIL A



TRIMETRIC VIEW

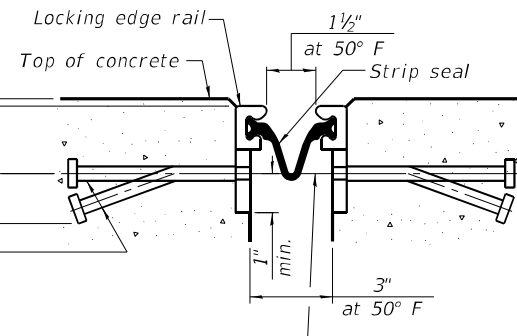
(Showing embedded plates only)



SHOWING ROLLED RAIL JOINT

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

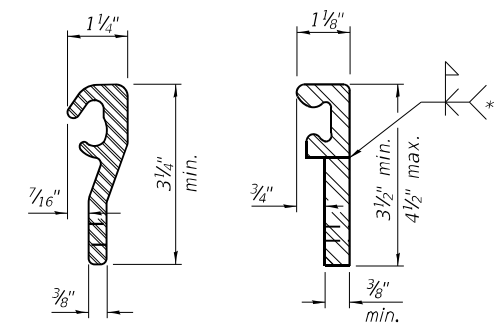
$3/8$ " ϕ threaded rods in $1/16$ " ϕ holes at ± 4 "-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.



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.

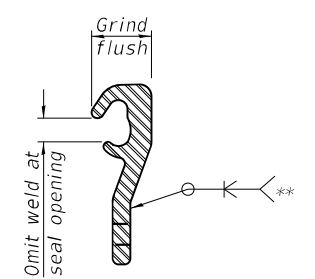


ROLLED (EXTRUDED) RAIL

WELDED RAIL

LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	72

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EJ-SS

1-1-2020



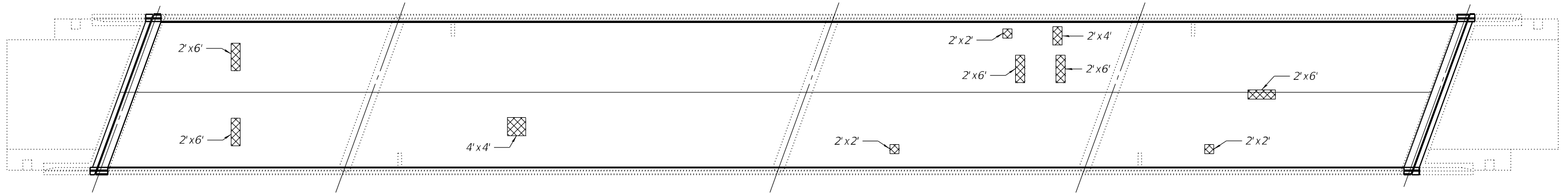
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DEPARTMENT OF TRANSPORTATION


PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 009-0012

SHEET 5 OF 9 SHEETS

F.A.P. RITE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(114) BDR,BJR	CASS	21	15
CONTRACT NO. 72M67				
ILLINOIS FED. AID PROJECT				



DECK PATCHING REPAIR PLAN

 Deck Slab Repair (Full Depth, Type I & II)

Note: 2'x2' areas are Deck Slab Repair (Full Depth, Type I)

**SUPERSTRUCTURE
BILL OF MATERIAL**

Item	Unit	Total
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	1.3
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	9.3

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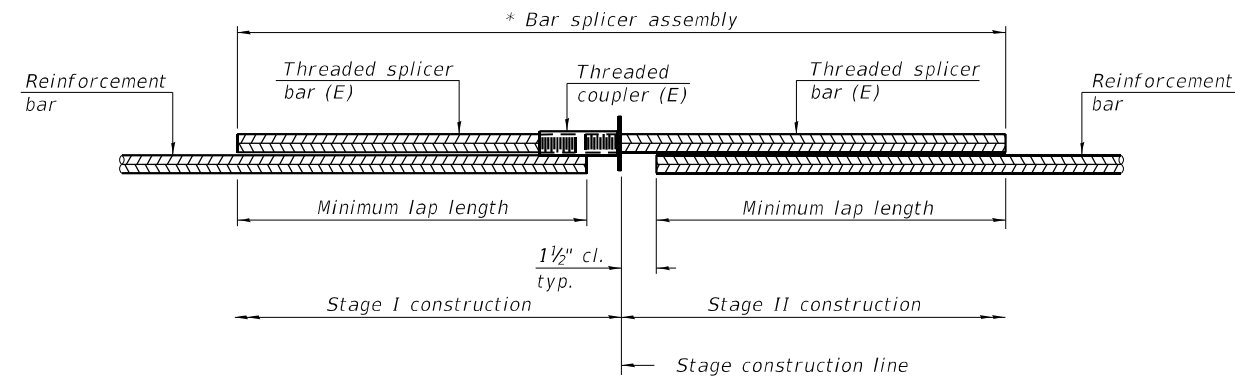
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK SLAB REPAIR DETAILS
STRUCTURE NO. 009-0012**

SHEET 6 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(114) BDR,BJR	CASS	21	16
			CONTRACT NO. 72M67	
		ILLINOIS	FED. AID PROJECT	

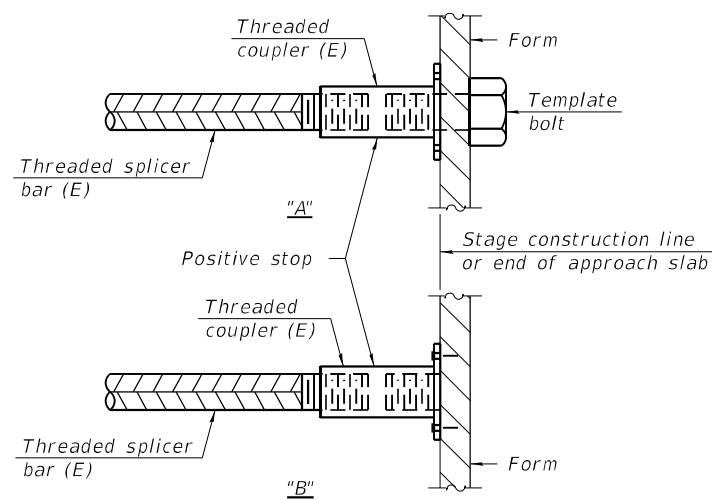


STANDARD BAR SPLICER ASSEMBLY PLAN
 (All components shall be provided from one supplier)

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
Bridge Deck	#5	4	3'-6"
Hatch Block	#6	12	4'-0"

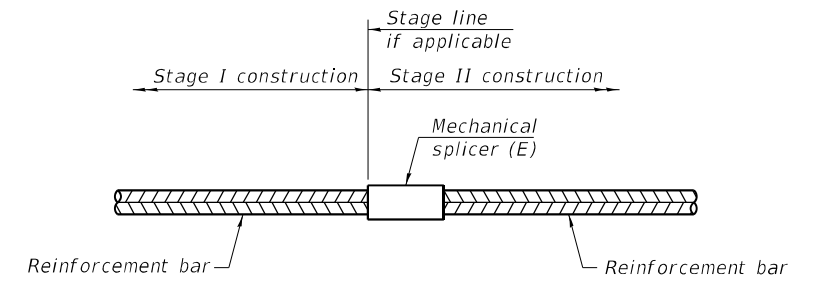


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

Notes:
 Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

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BSD-1

1-1-2020



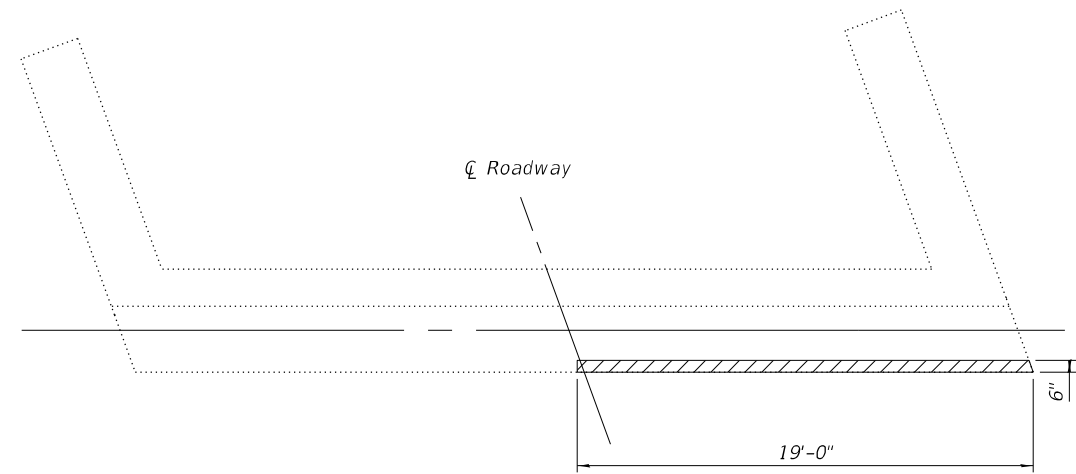
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STATE OF ILLINOIS
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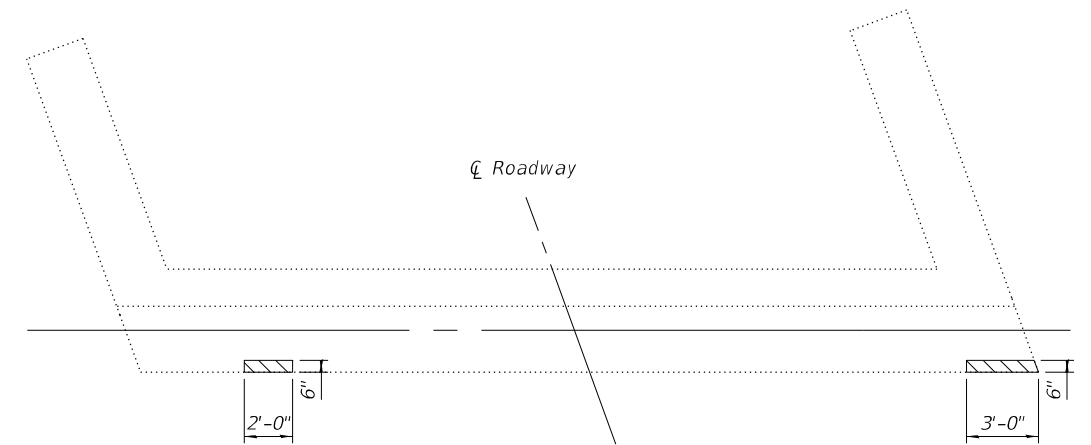
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 009-0012

SHEET 7 OF 9 SHEETS

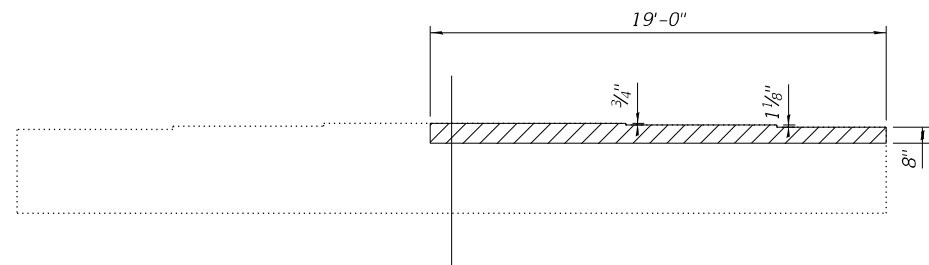
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310	(114) BDR,BJR	CASS	21	17
CONTRACT NO. 72M67				
ILLINOIS FED. AID PROJECT				



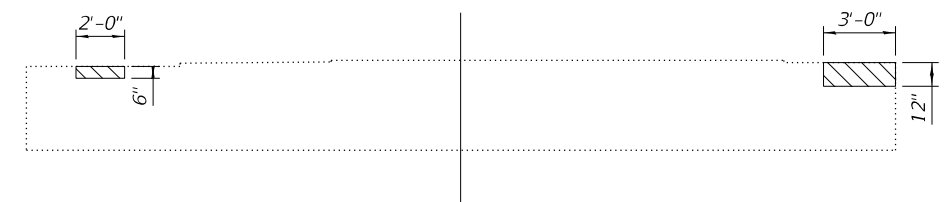
NORTH ABUT. PLAN



SOUTH ABUT. PLAN



NORTH ABUT. ELEVATION



SOUTH ABUT. ELEVATION

SUBSTRUCTURE REPAIR PLAN

 Substructure Repair (Less than 5")

SUBSTRUCTURE
BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete < 5"	Sq. Ft.	30

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KT KUHN & TRELLO
CONSULTING ENGINEERS
A Limited Liability Company
109 N. 7th Street, 3rd Floor
Springfield, IL 62702
Phone: 217-618-0244
Professional Design Firm No. 284-006516

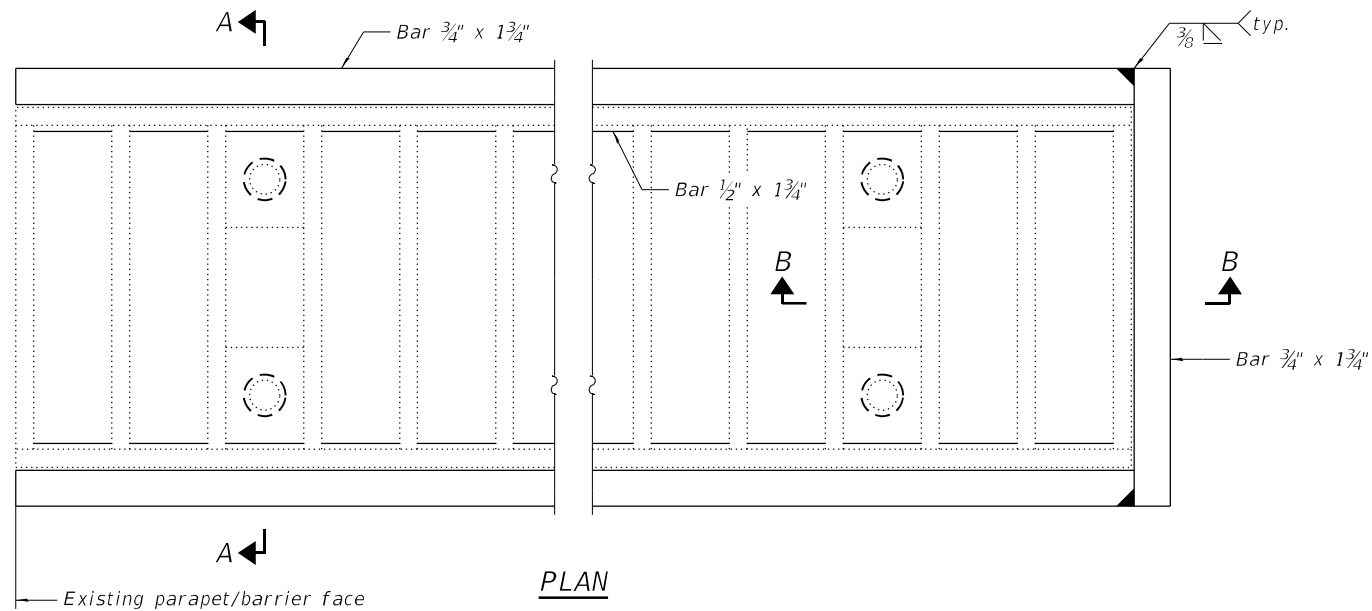
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE REPAIR DETAILS
STRUCTURE NO. 009-0012

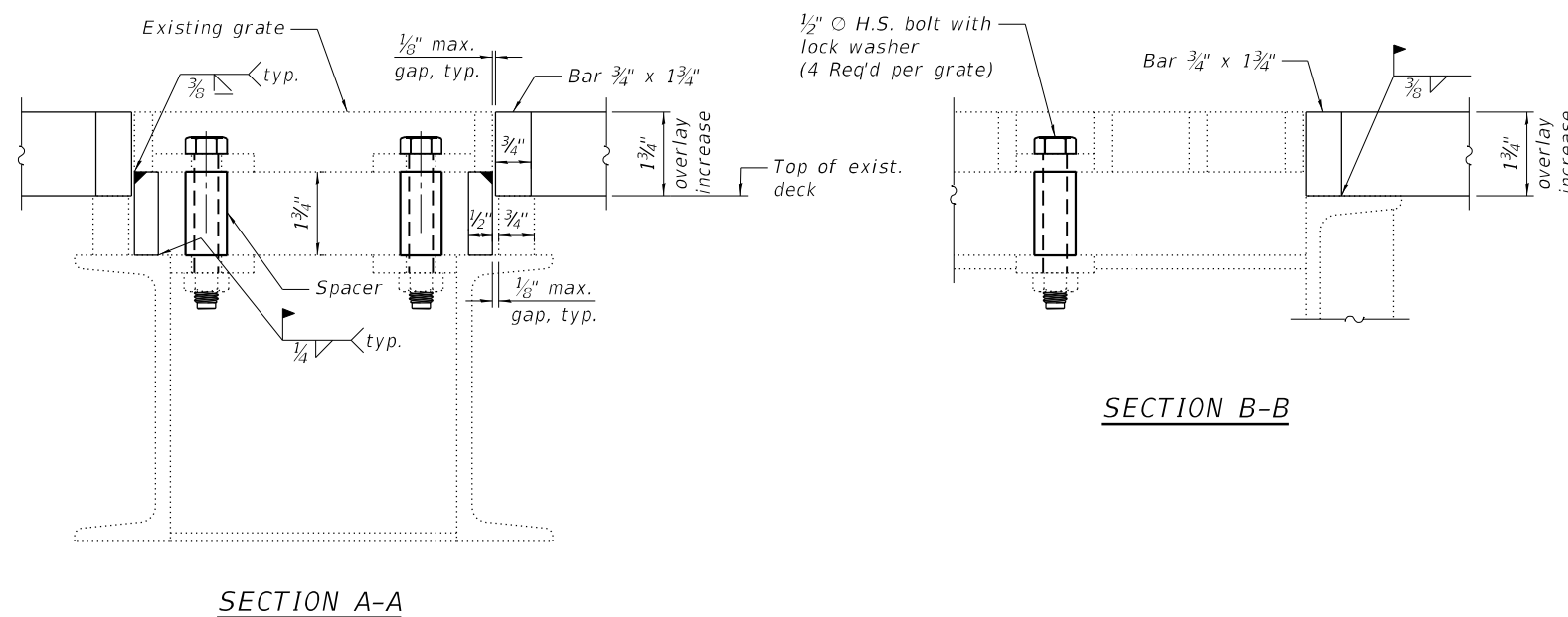
SHEET 8 OF 9 SHEETS

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(114) BDR,BJR	CASS	21	18
			CONTRACT NO. 72M67	
		ILLINOIS	FED. AID PROJECT	



Notes:

1. Existing drainage scupper grates shall be adjusted so that the top of the existing grate is flush with the top of the bridge deck overlay.
2. Proposed structural steel for adjusting the scupper grates shall conform to AASHTO Classification M-270 Gr. 36. All proposed componens adjusting the scupper grates shall be hot dipped galvanized.
3. Bolts shall be 1/2" \varnothing ASTM F3125 Grade a325 Type 1, mechanically galvanized. Spacer may be fabricated from round steel pipe.
4. The Contractor shall ensure that no damage is done to the existing grates to be reused.
5. Shop plans for the proposed scupper adjustment ring shall be submitted to the Engineer for approval prior to fabrication.
6. See existing scupper plans for details and dimensions not shown. The Contractor shall field verify the type of scupper present and the scupper dimensions.
7. Galvanizing for field welded areas shall be repaired per ASTM A 780.
8. Cost of all labor and materials necessary to remove existing grates, clean existing scuppers and downspouts, furnish and install scupper adjustment ring, and reinstalling the grates is included in the cost per unit each for Drainage Scupper to be Adjusted.
9. Clean existing scuppers and downspouts.



BILL OF MATERIAL

ITEM	UNIT	TOTAL
Drainage Scupper to be Adjusted	Each	4

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KUHN & TRELLO
 CONSULTING ENGINEERS
 A Limited Liability Company
 109 N. 7th Street, 3rd Floor
 Springfield, IL 62702
 Phone: 217-618-0244
 Professional Design Firm No. 284-006516

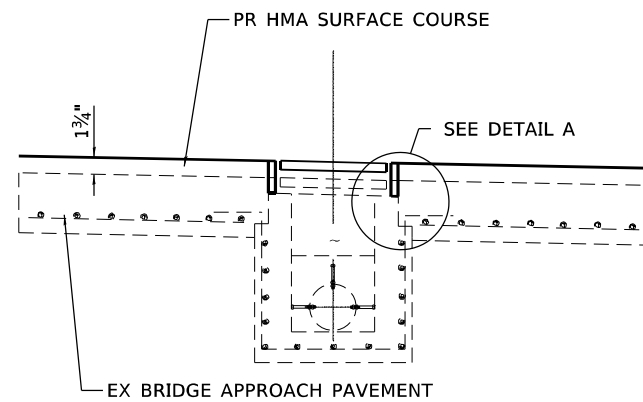
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

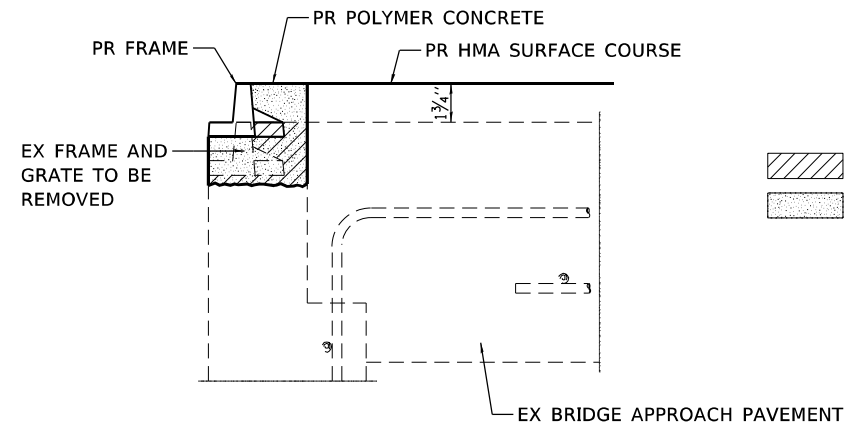
ADJUSTING EXISTING SCUPPER
STRUCTURE NO. 009-0012

SHEET 9 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(114) BDR,BJR	CASS	21	19
			CONTRACT NO. 72M67	
		ILLINOIS	FED. AID PROJECT	



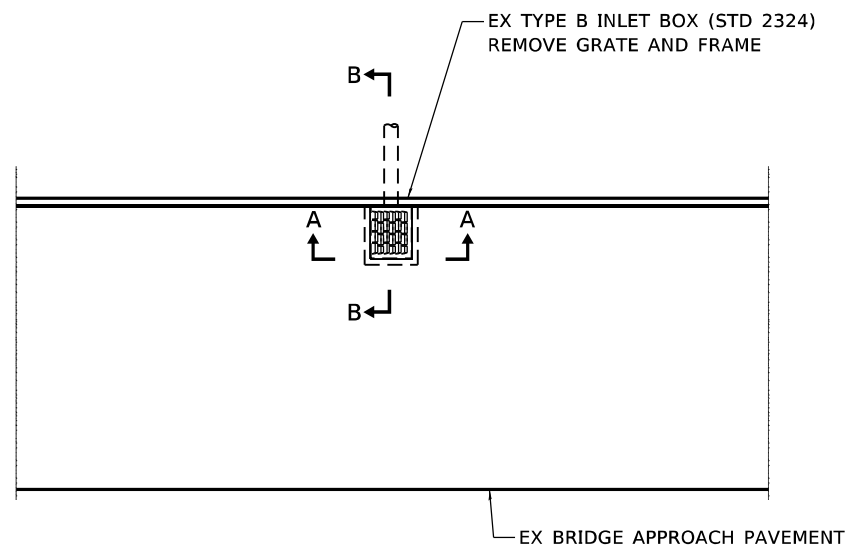
SEC A-A



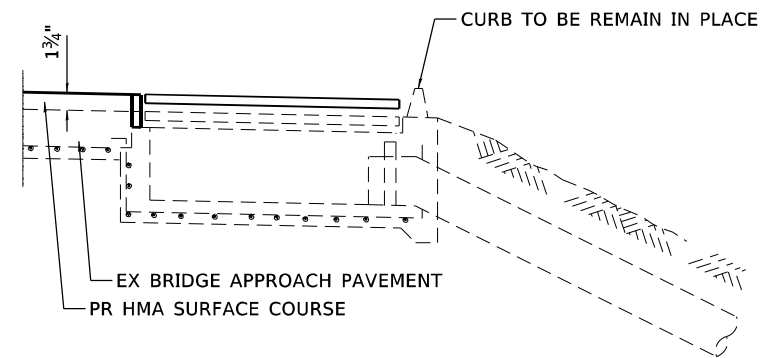
DETAIL A

GENERAL NOTES

THE CONTRACTOR SHALL FURNISH AND INSTALL A NEW CAST FRAME AND CAST GRATE AS SPECIFIED ON STANDARD 610001 FOR THE TYPE G INLET BOX



PLAN



SEC B-B

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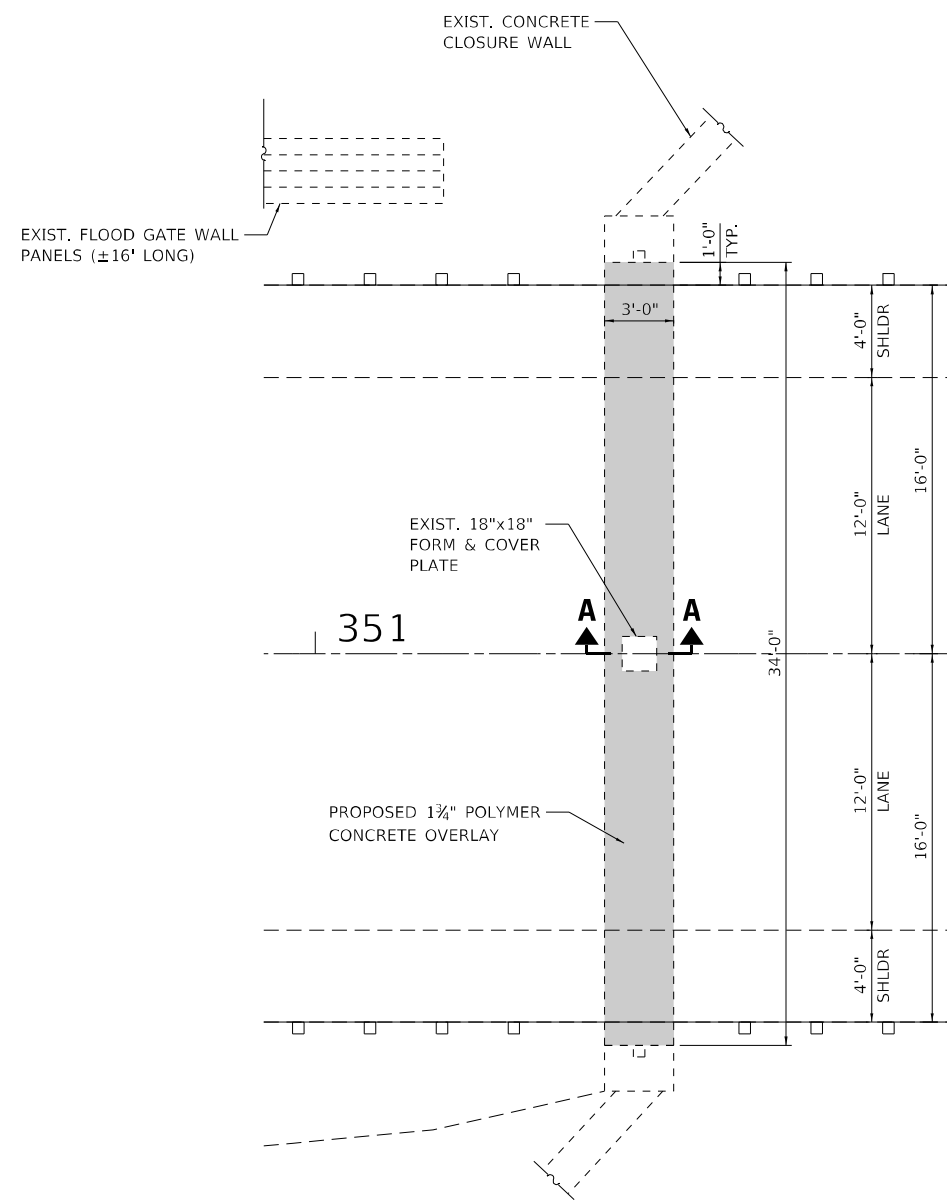
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

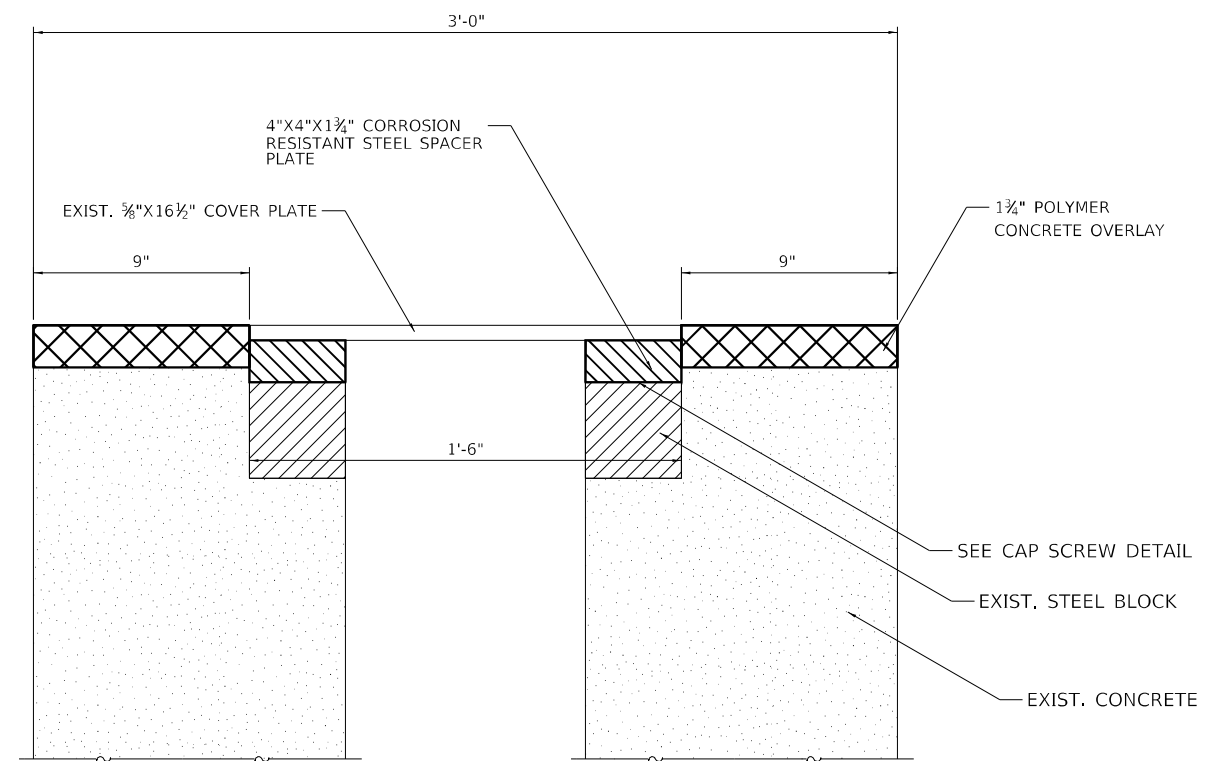
INLET BOX ADJUSTMENT DETAIL

SCALE: SHEET OF SHEETS STA. TO STA.

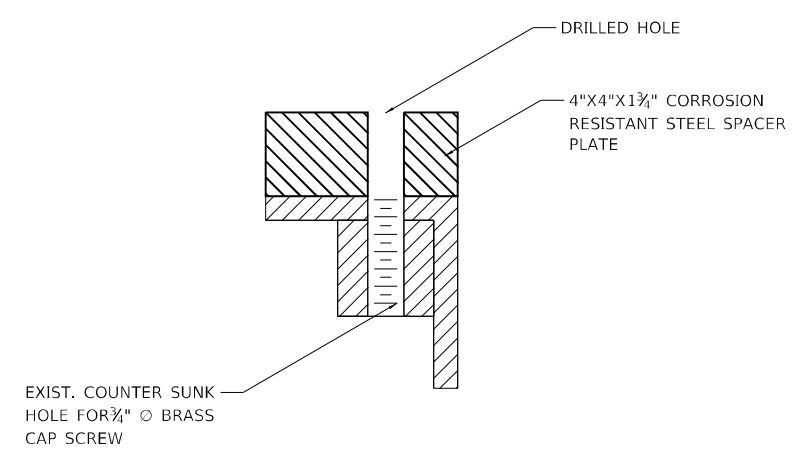
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310	(114)BDR,BJR	CASS	21	20
CONTRACT NO. 72M67				
ILLINOIS FED. AID PROJECT				



PLAN



COVER PLATE ADJUSTMENT SECTION A-A



CAP SCREW ANCHORAGE DETAIL

SCHEDULE OF QUANTITIES				
STATION	TO	STATION	Z0041895	X1200296
			POLYMER CONCRETE	FLOOD GATE CLOSURE EXTENSION
			CU FT	L SUM
351+13	-	351+16	15.0	1
351+14.50				
TOTAL			15.0	1

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

FLOOD GATE CLOSURE EXTENSION DETAIL

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 72M67				
ILLINOIS FED. AID PROJECT				