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03-06-2020 LETTING ITEM 078

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

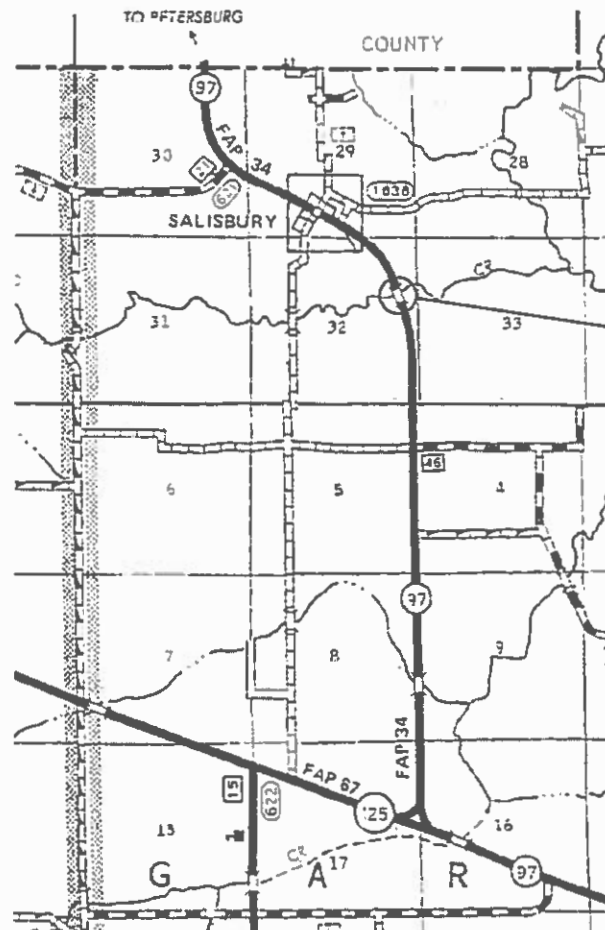
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34	(34) BDR	SANGAMON	12	1
CONTRACT NO. 72L43				

FOR INDEX OF SHEETS, SEE SHEET NO. 2

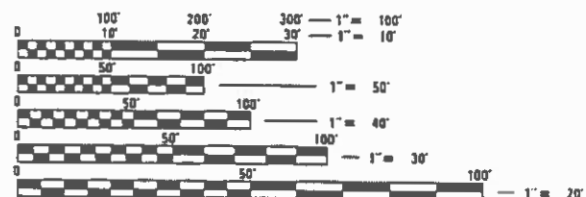
# PROPOSED HIGHWAY PLANS

FAP ROUTE 34 (IL 97)  
SECTION (34) BDR  
PROJECT STP-J70Y(562)  
BRIDGE DECK OVERLAY  
SANGAMON COUNTY

C-96-021-20



PROJECT LOCATION  
SN 084-0067  
IL 97 OVER RICHLAND CREEK  
0.5 MI S SALISBURY



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

BRIDGE MAINTENANCE ENGINEER: BRANDON DUDLEY - (217) 785-9290

GROSS LENGTH = 409 FT. = 0.08 MILE  
NET LENGTH = 409 FT. = 0.08 MILE

CONTRACT NO. 72L43

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED Dec 11 2019  
[Signature] REGIONAL ENGINEER

[Signature] ENGINEER OF DESIGN AND ENVIRONMENT

Jan 31 2020  
[Signature] DIRECTOR OF HIGHWAYS / PROJECT IMPLEMENTATION

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INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX, STANDARDS, SIGNATURES, GENERAL NOTES, & SCHEDULES
- 3-4 SUMMARY OF QUANTITIES
- 5 TYPICAL SECTIONS & ROADWAY PLAN
- 6 STAGING PLAN
- 7 TRAFFIC CONTROL PLAN
- 8-12 SN 084-0067 BRIDGE PLANS

GENERAL NOTES:

AREAS OF DECK REPAIRS SHOWN ARE ESTIMATED. THE ENGINEER SHALL SHOW ACTUAL LOCATIONS OF DECK REPAIRS ON AS-BUILT PLANS.

STANDARDS

- 000001-07
- 001001-02
- 001006
- 701001-02
- 701006-05
- 701201-05
- 701301-04
- 701321-18
- 701901-08
- 704001-08
- 780001-05
- 782006-01


PAVING SCHEDULE				
STA	TO	STA	BIT MATL (TACK CT) (POUND)	HMA SURF COURSE (TON)
329+73	-	331+23	240	55
332+32	-	333+82	240	55
TOTALS			480	110

PAVEMENT MARKING REMOVAL SCHEDULE					
STA	TO	STA	LOC.	LINE TYPE	PAVT MARK REM (SQ FT)
STAGE I					
327+76	-	329+73	℄	SOLID/SKIP	103
329+98	-	333+58	LT	SOLID	150
333+82	-	335+80	℄	SOLID/SKIP	103
STAGE II					
329+98	-	331+23	RT	SOLID	52
332+32	-	333+58	RT	SOLID	53
TOTAL					461


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

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
DISTRICT 6**


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EXAMINED 11/20 20 19  
  
 ENGINEER OF OPERATIONS

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EXAMINED 11-27 20 19  
  
 ENGINEER OF PROJECT IMPLEMENTATION

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EXAMINED 12/6 20 19  
  
 ENGINEER OF PROGRAM DEVELOPMENT

REV. - MS

MODEL: I241011  
 FILE: I241011  
 USER: I241011  
 DATE: 12/10/19

USLR NAME = dudleybm	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, STANDARDS, GENERAL NOTES, SIGNATURES, &amp; QUANTITY SCHEDULES</b>	F.A.P. RTE. = 34	SECTION = (34) BDR	COUNTY = SANGAMONI	TOTAL SHEETS = 12	SHEET NO. = 2	
PLOT SCALE = 100.0000' in.	DRAWN -	REVISED -			CONTRACT NO. 72L43					
PLOT DATE = 12/10/2019	CHECKED -	REVISED -			ILLINOIS FED. RD. PROJECT					

6-01414-0030  
SN 084-0067  
STP 80/20

6-01414-0030  
SN 084-0067  
STP 80/20

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	RURAL-BRIDGE
				0047 SANGAMON
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	480	480
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	711	711
40600990	TEMPORARY RAMP	SQ YD	85	85
40604050	HOT-MIX ASPHALT SURFACE COURSE, IL 9.5, MIX "C", N50	TON	110	110
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	25	25
50102400	CONCRETE REMOVAL	CU YD	3.5	3.5
50300255	CONCRETE SUPERSTRUCTURE	CU YD	4.1	4.1
50300260	BRIDGE DECK GROOVING	SQ YD	347	347
50300300	PROTECTIVE COAT	SQ YD	387	387
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	680	680
50800515	BAR SPLICERS	EACH	12	12
52000110	PREFORMED JOINT STRIP SEAL	FOOT	68	68
67100100	MOBILIZATION	L SUM	1	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	RURAL-BRIDGE
				0047 SANGAMON
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	100	100
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	33	33
70400100	TEMPORARY CONCRETE BARRIER	FOOT	400	400
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	400	400
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	1400	1400
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	4	4
X0327979	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	461	461
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1	1

\*

\* SPECIALTY ITEM

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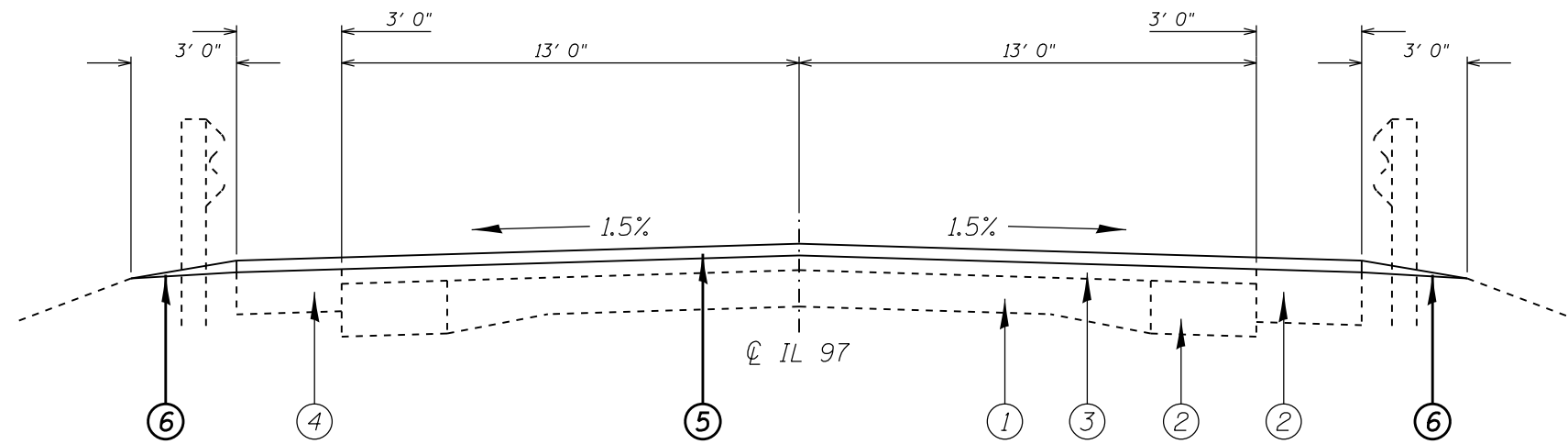
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34	(34) BDR	SANGAMON	12	3
CONTRACT NO. 72L43				
ILLINOIS FED. AID PROJECT				

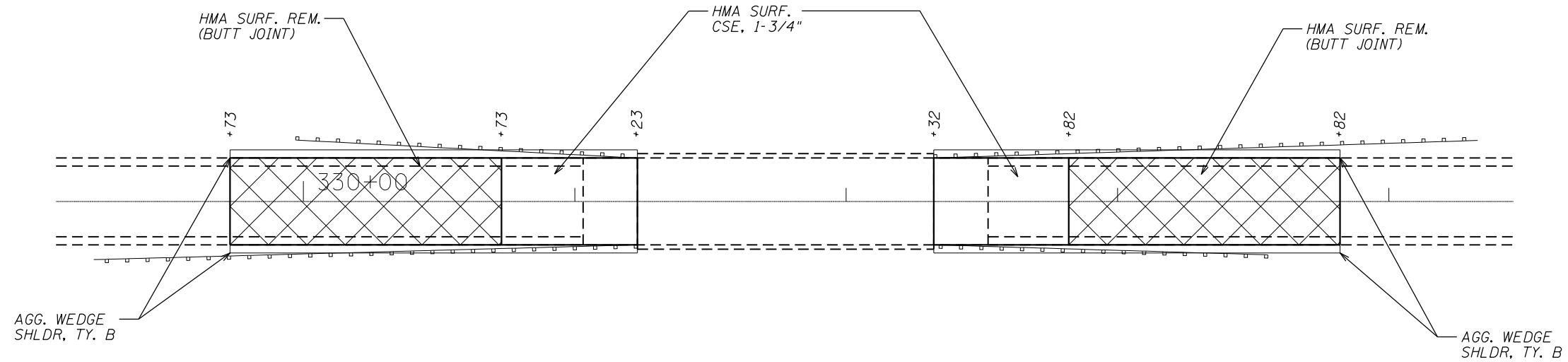




- ① EXISTING PCC PAVEMENT (9-7-9)
- ② EXISTING HMA BASE COURSE WIDENING, 9"
- ③ EXISTING HMA OVERLAYS, ± 2-1/2"
- ④ EXISTING HMA SHOULDER, 8"
- ⑤ PROPOSED HMA SURFACE COURSE, 1-3/4"
- ⑥ PROPOSED AGGREGATE WEDGE SHOULDER - TYPE B

STA 329+73.00 TO STA 331+23.09 \*  
 STA 332+52.26 TO STA 333+82.00 \*

\* BRIDGE APPROACH PAVEMENT  
 STA 331+03.09 TO STA 331+23.09  
 STA 332+32.26 TO STA 332+52.26



**ROADWAY PLAN**

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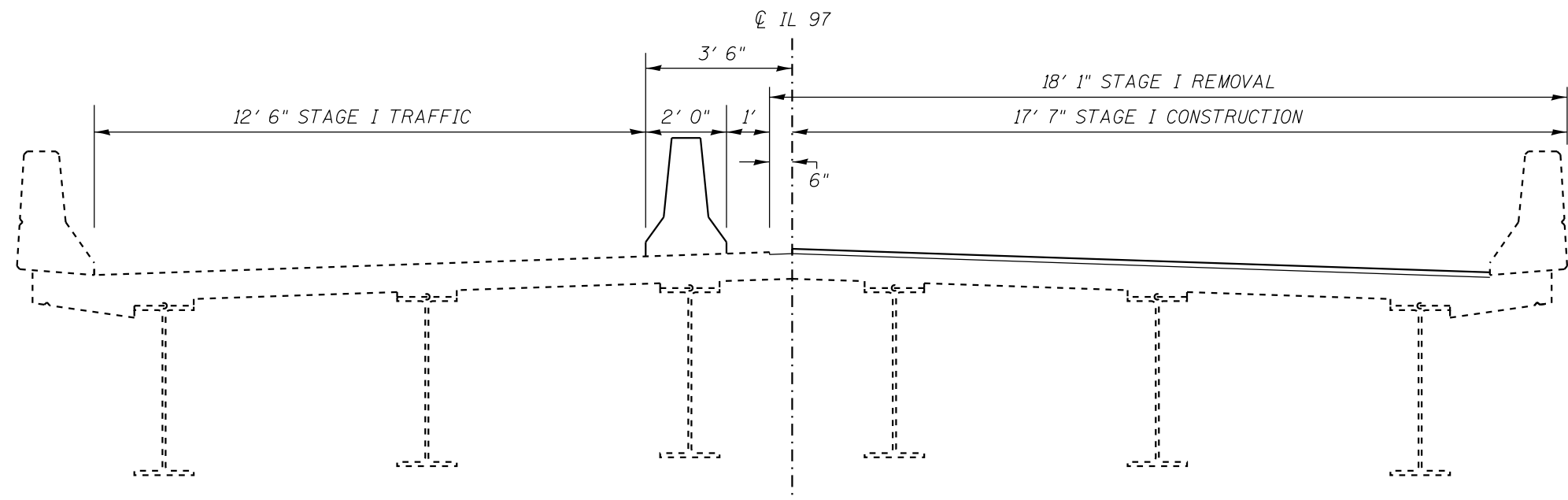
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

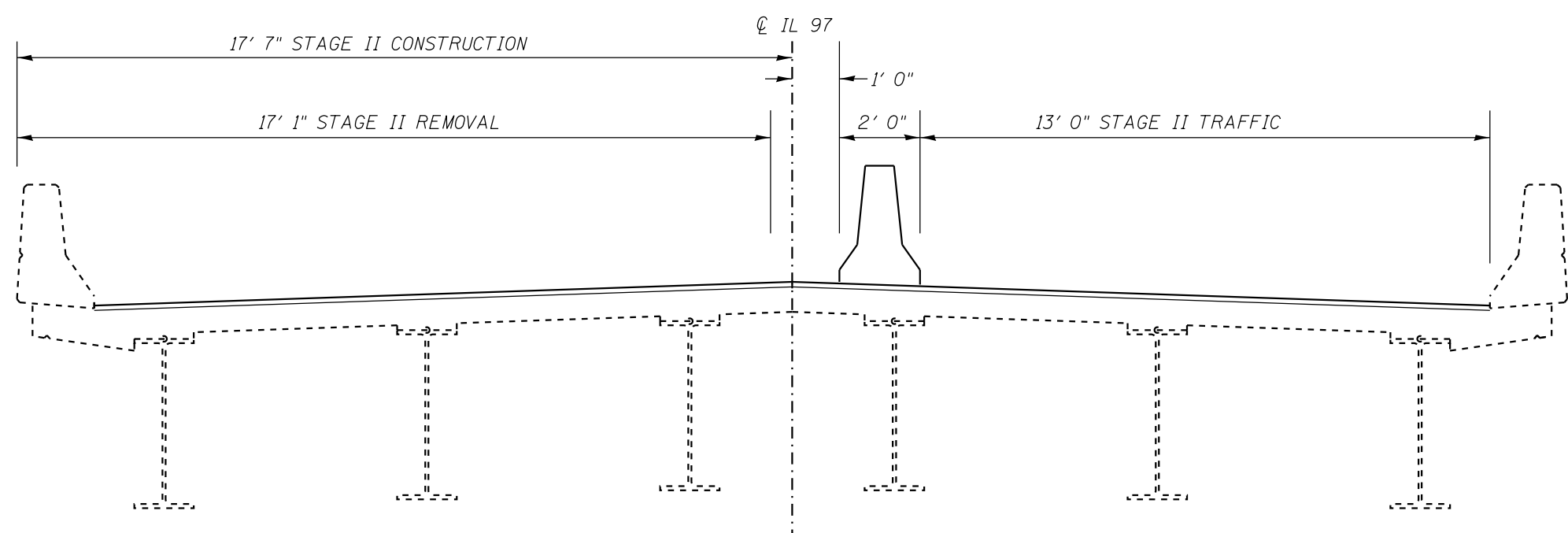
**TYPICAL SECTION & ROADWAY PLAN**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34	(34) BDR	SANGAMON	12	5
CONTRACT NO. 72L43				
ILLINOIS FED. AID PROJECT				



STAGE I CROSS SECTION (LOOKING SOUTH)



STAGE II CROSS SECTION (LOOKING SOUTH)

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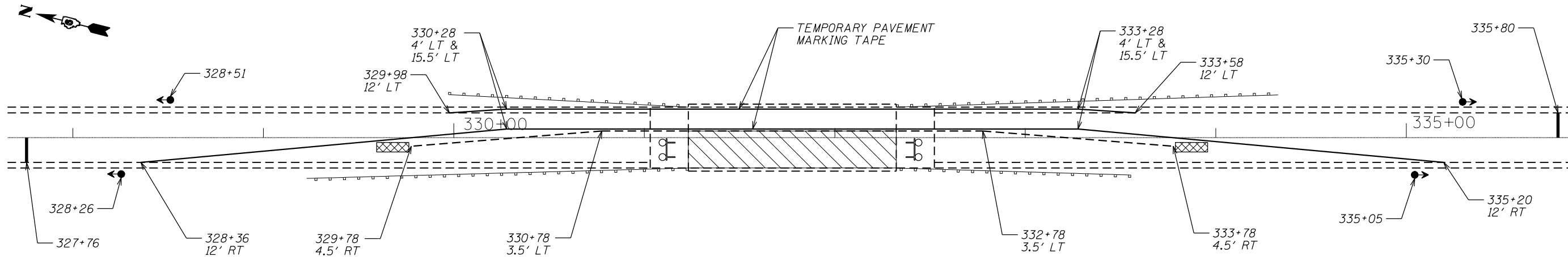
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

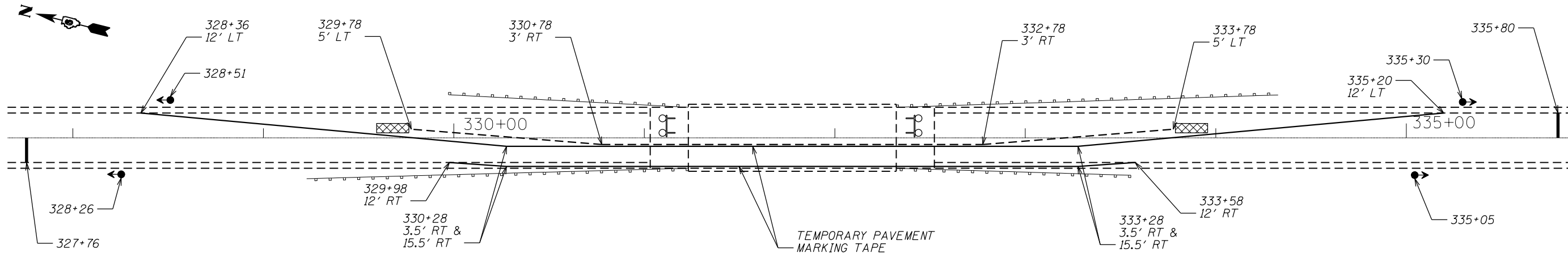
**TRAFFIC STAGING PLAN**

SCALE:      SHEET      OF      SHEETS      STA.      TO STA.

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34	(34) BDR	SANGAMON	12	6
CONTRACT NO. 72L43				
ILLINOIS FED. AID PROJECT				








STAGE I TRAFFIC CONTROL PLAN



STAGE I TRAFFIC CONTROL PLAN

**SYMBOLS**

-  WORK AREA
-  TEMPORARY CONCRETE BARRIER
-  IMPACT ATTENUATOR
-  TRAFFIC SIGNAL
-  TYPE III BARRICADE WITH FLASHING LIGHTS

TRAFFIC CONTROL NOTES:

1. TRAFFIC CONTROL DEVICES NOT SHOWN IN THIS DETAIL SHALL BE PER STANDARD 701321. DEVICES AND TEMPORARY PAVEMENT MARKINGS SHOWN IN THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701321. IMPACT ATTENUATORS, TEMPORARY RUMBLE STRIPS, AND TEMPORARY CONCRETE BARRIER SHALL BE PAID SEPARATELY.
2. TEMPORARY CONCRETE BARRIER OFFSETS GIVEN IN THIS DETAIL REFER TO THE EDGE OF THE BARRIER NEAREST TO LIVE TRAFFIC. ALL BARRIER WALL TAPERS SHALL BE 12:1.
3. RUMBLE STRIPS SHOWN IN STANDARD 701321 WILL BE REQUIRED.

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN

SCALE: SHEET OF SHEETS STA. TO STA.

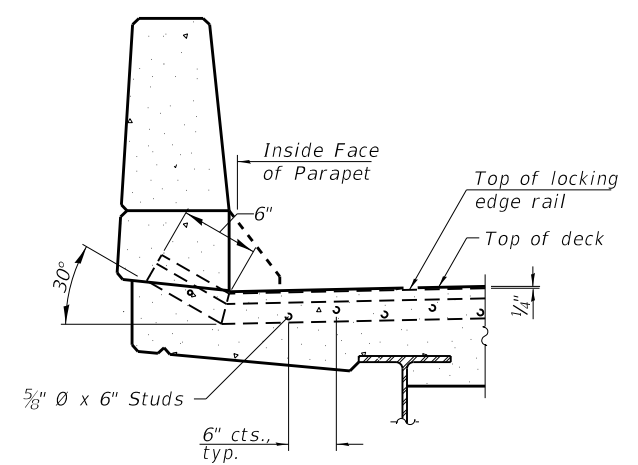
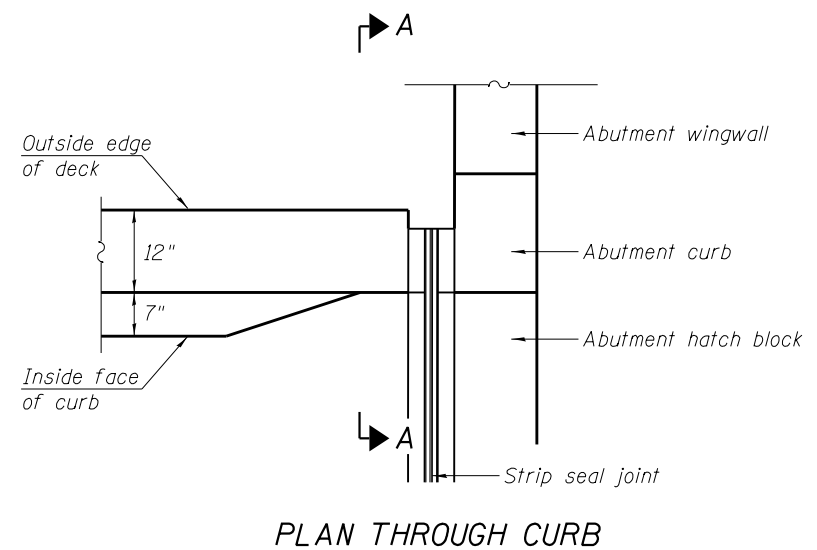
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34	(34) BDR	SANGAMON	12	7
CONTRACT NO. 72L43				
ILLINOIS FED. AID PROJECT				





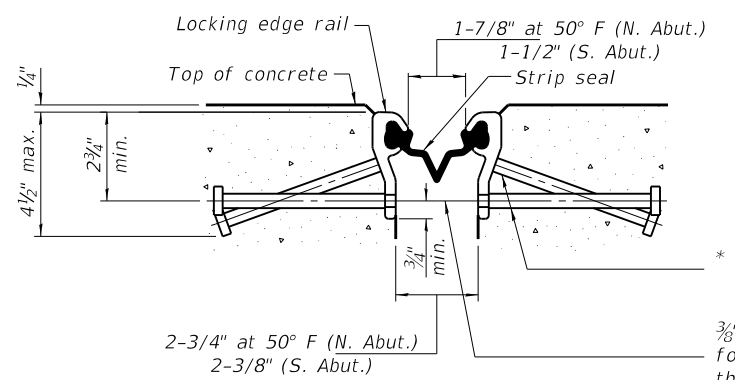




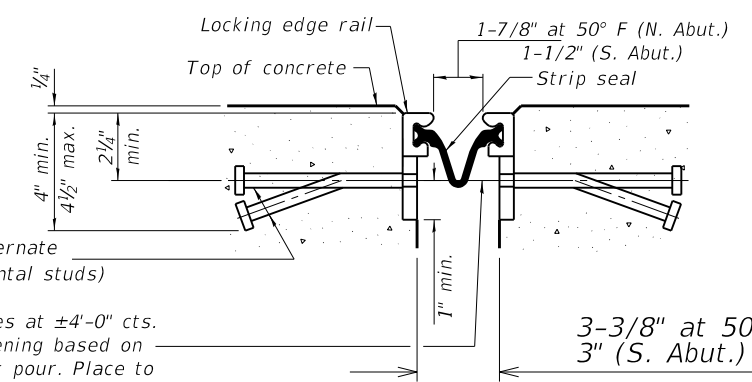


**SECTION A-A: ELEVATION AT PARAPET**

**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. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.  
 The manufacturer's recommended installation methods shall be followed.  
 All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.  
 The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.  
 Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.  
 34" F-shape barrier shown, 42" F-shape similar as noted.  
 The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



**SHOWING ROLLED RAIL JOINT**

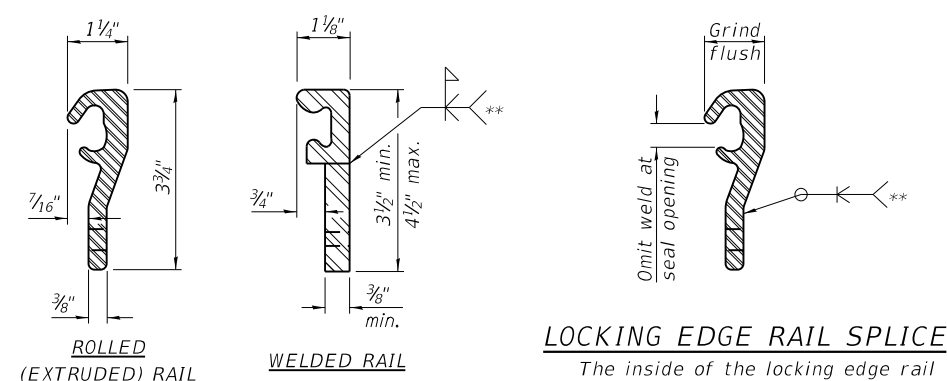


**SHOWING WELDED RAIL JOINT**

\* 5/8" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)  
 3/8" Ø threaded rods in 7/16" Ø holes at ±4"-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

**SECTION A-A**

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



**LOCKING EDGE 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	68

EJ-SS (MODIFIED) 8-11-17

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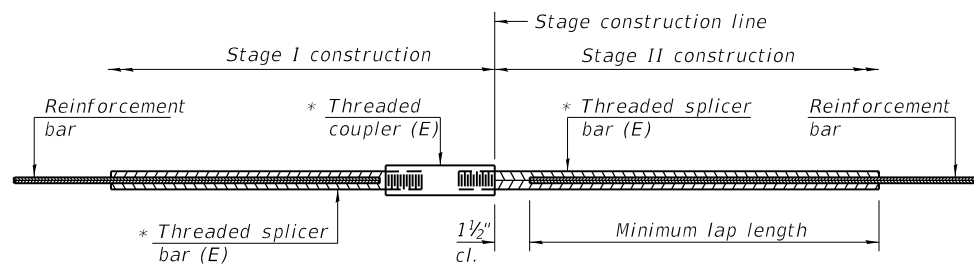
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL  
STRUCTURE NO. 084-0067**

SCALE: SHEET 4 OF 5 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34	(34) BDR	SANGAMON	12	11
CONTRACT NO. 72L43				
ILLINOIS FED. AID PROJECT				

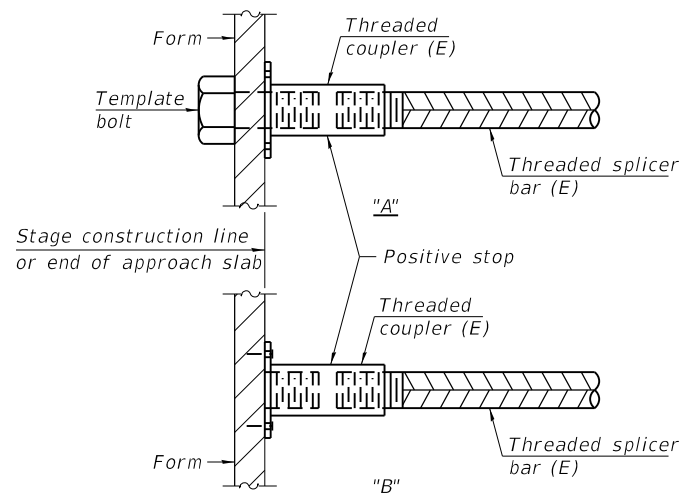


**STANDARD BAR SPLICER ASSEMBLY**

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

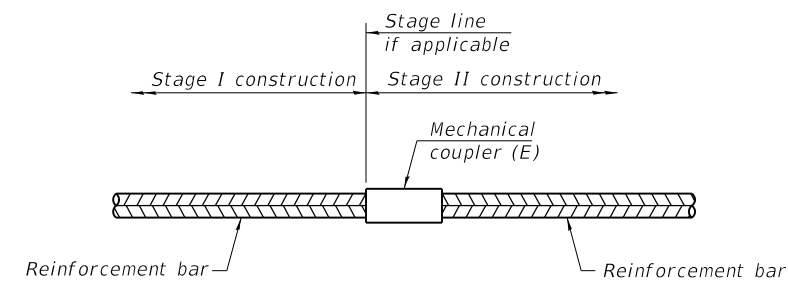
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Abuts. (deck side)	#5	8	3' 0"
Abuts. (appr. side)	#6	4	4' 0"



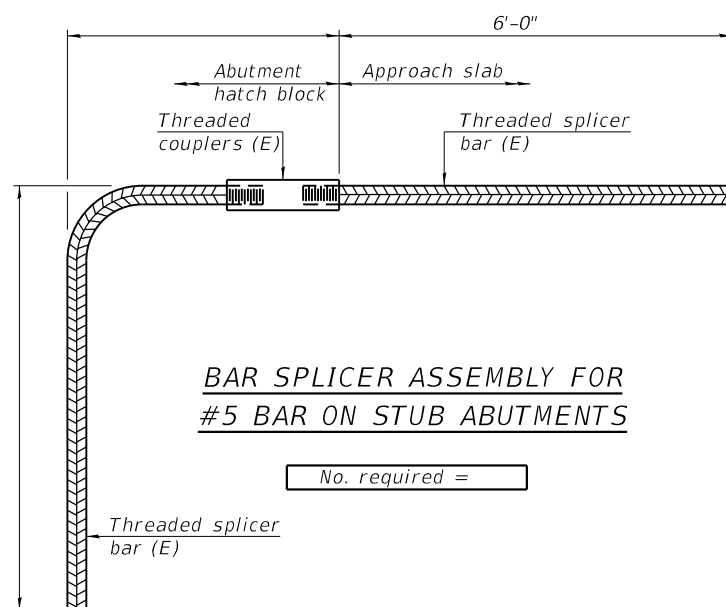
**INSTALLATION AND SETTING METHODS**

"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



**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.

BSD-1

2-17-2017

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
SN 084-0067**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34	(34) BDR	SANGAMON	12	12
CONTRACT NO. 72L43				
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