

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 327 (US 50)
SECTION 3BR-1-I-1
BRIDGE REPAIR
ST. CLAIR COUNTY

C-98-043-13

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	3BR-1-I-1	ST. CLAIR	20	1
ILLINOIS			CONTRACT NO. 76G41	

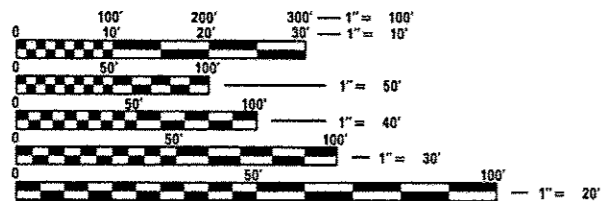
FOR INDEX OF SHEETS, SEE SHEET NO. 2

TRAFFIC DATA

2013 ADT = 8850 (ACTUAL)
2014 ADT = 8950 (ESTIMATED)
2024 ADT = 10000 (ESTIMATED)
2034 ADT = 10900 (ESTIMATED)
SU = 4.5% MU = 7.1%

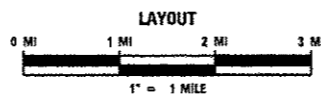
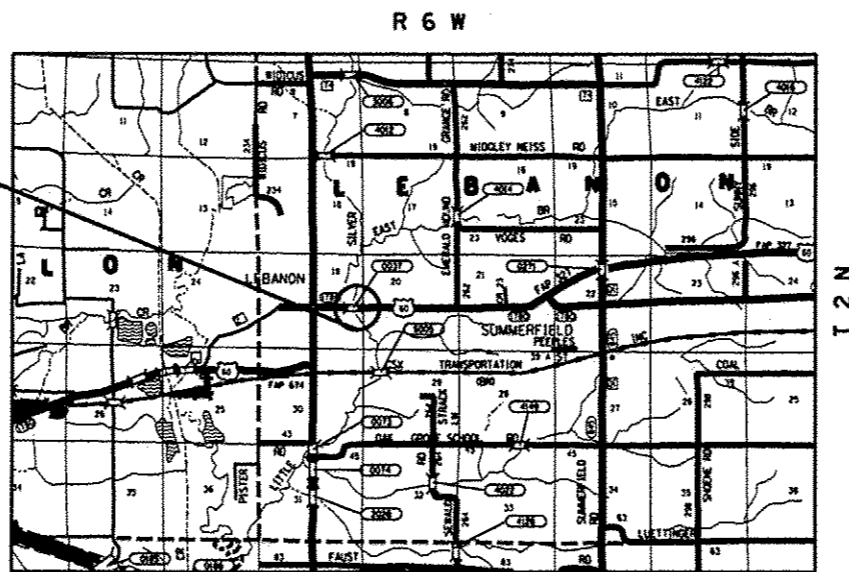


**BRIDGE REPAIR
OVER LITTLE SILVER CREEK**
STA 20+51.28
SN 082-0037
BEGIN STA 19+17.11
END STA 21+25.39



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

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



PROJECT ENGINEER PATTI LEBEAU (618-346-3179)
PROJECT MANAGER REBECCA THARP (618-346-3323)

DESIGN DESIGNATION
N/A

GROSS LENGTH = 148.27 FT. = 0.028 MILE
NET LENGTH = 148.27 FT. = 0.028 MILE

CONTRACT NO. 76G41

LATITUDE 38.60380 LONGITUDE 89.80081

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Dec 17 20 13
Jeffrey T. Kane
DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER

Jan 24 20 14
John D. Baranzelli
ENGINEER OF DESIGN AND ENVIRONMENT

Jan 24 20 14
Omer Osman
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

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001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-13	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS \geq 45 MPH
701901-03	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
780001-04	TYPICAL PAVEMENT MARKINGS

GENERAL NOTES

- ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:
 - AMEREN ILLINOIS
 - AT&T ILLINOIS-COMMUNICATIONS
 - CHARTER COMMUNICATIONS, INC.
 - CITY OF LEBANON
 MEMBERS OF J.U.L.I.E. CALL TOLL FREE (800) 892-0123 OR 811 AND ARE INDICATED BY *. NON- J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.
- THE CONTRACTOR AND THE ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED FOR THIS PROJECT. THE STATIONING, TOPOGRAPHY, AND QUANTITIES SHOWN IN THE PLANS WERE CREATED USING MICROFILM AND FIELD MEASUREMENTS. ALL SHALL BE ASSUMED TO BE APPROXIMATE. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- ACCESS SHALL BE MAINTAINED TO ALL PROPERTIES UNLESS OTHERWISE NOTED IN THE PLANS.
- THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION-RELATED SKILLS. E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL-TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.
- THE THICKNESS OF HOT-MIX ASPHALT SURFACE MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.
- A QUANTITY OF 775 FEET OF TEMPORARY PAVEMENT MARKING - LINE 6" WHITE HAS BEEN INCLUDED IN THE PLANS FOR PAINTING THE BOTTOM 6" OF THE TEMPORARY CONCRETE BARRIER.
- THE PROPOSED PAVEMENT MARKING SHALL MATCH THE LOCATIONS OF THE EXISTING PAVEMENT MARKING, AS DIRECTED BY THE ENGINEER.
- ALL TURF AREAS DISTURBED BY THE CONTRACTOR SHALL BE SEEDED WITH THE APPROPRIATE EROSION CONTROL, AS DIRECTED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.
- EXISTING PAVEMENT MARKING SHALL BE TEMPORARILY COVERED PRIOR TO APPLICATION OF THE DECK SURFACE TREATMENT, TO PREVENT THE MATERIAL FROM BEING APPLIED TO THE MARKINGS AND TO PROTECT THE REFLECTIVE PROPERTIES OF THE MARKINGS. THE TEMPORARY COVERING MATERIAL USED SHALL BE SUCH THAT IT WILL NOT AFFECT THE MARKINGS REFLECTIVITY WHEN REMOVED AFTER APPLICATION OF THE DECK SURFACE TREATMENT AND PRIOR TO OPENING TO TRAFFIC. COST IS INCLUDED WITH THE BRIDGE DECK CONCRETE SEALER SURFACE TREATMENT SPECIFIED.

COMMITMENTS

NONE

FILE NAME =	USER NAME = tharp1	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, & COMMITMENTS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
es:\pwork\pudat\tharp1\024004\087864\sheeta.plm.dgn	DRAWN -	REVISED -	327			38R-1-1-1	ST. CLAIR	20	2	
PLOT SCALE = 100.0000' / 1" =	CHECKED -	REVISED -	CONTRACT NO. 76G41							
PLOT DATE = 12/28/2013	DATE -	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
					SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				URBAN	100% STATE
				BRIDGE	
				0014	
				S. N. 082-0037	
28100107	STONE RIPRAP, CLASS A4	SO YD	695	695	
28200200	FILTER FABRIC	SO YD	695	695	
35501320	HOT-MIX ASPHALT BASE COURSE, 9"	SO YD	145	145	
44004250	PAVED SHOULDER REMOVAL	SO YD	145	145	
50102400	CONCRETE REMOVAL	CU YD	4	4	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	3.8	3.8	
50300260	BRIDGE DECK GROOVING	SO YD	431	431	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	290	290	
50800515	BAR SPLICERS	EACH	8	8	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	78	78	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4	
67100100	MOBILIZATION	L SUM	1	1	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				URBAN	100% STATE
				BRIDGE	
				0014	
				S. N. 082-0037	
70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	16	16	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	337	337	
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	775	775	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	118	118	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	387.5	387.5	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	387.5	387.5	
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	337	337	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	6	6	
* 78200430	GUARDRAIL MARKERS, TYPE C	EACH	12	12	
78300100	PAVEMENT MARKING REMOVAL	SO FT	27	27	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	6	6	

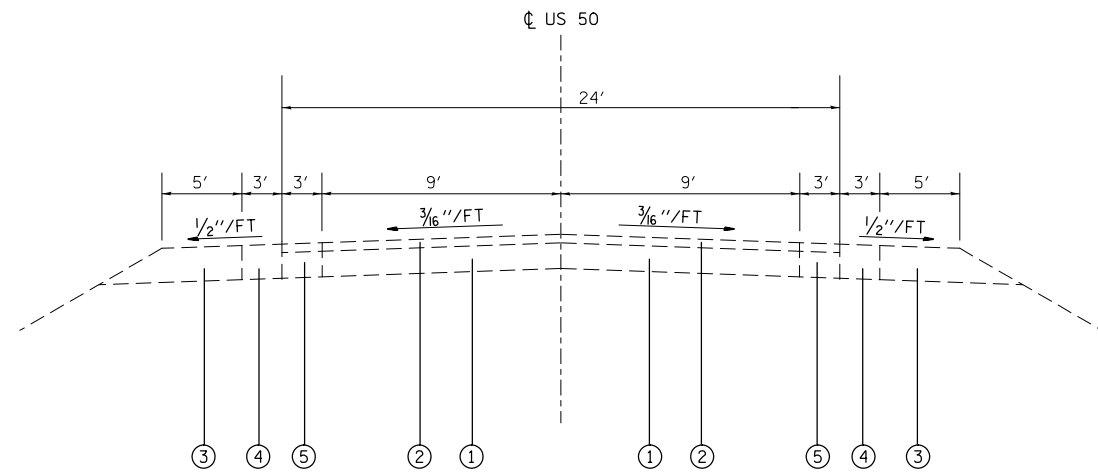
* SPECIALTY ITEM

FILE NAME =	USER NAME = tharpri	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE = 100.0000' / 1" =		CHECKED -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.				CONTRACT NO. 76G41				
PLOT DATE = 12/28/2013		DATE -	REVISED -		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT								

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				100% STATE
				URBAN
				BRIDGE
				0014
				S. N. 082-0037
X5870015	BRIDGE DECK CONCRETE SEALER	SQ FT	5459	5459
X7010202	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1	1
X7200200	WIDE LOAD SIGNING	L SUM	1	1
Z0012148	BRIDGE DECK SCARIFICATION 3"	SQ YD	480	480
Z0012168	BRIDGE DECK MICROSILICA CONCRETE OVERLAY 3"	SQ YD	480	480
Z0015802	PLUG EXISTING DECK DRAINS	EACH	34	34

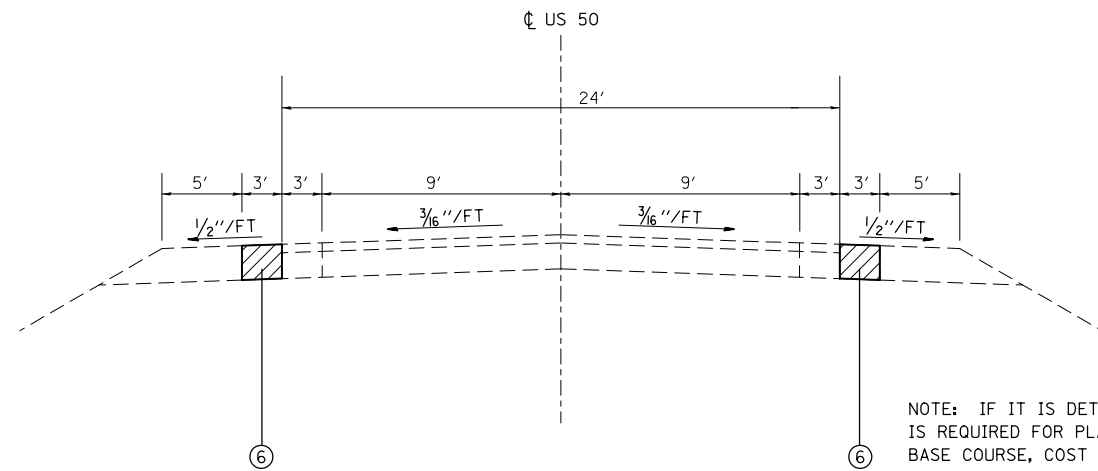
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c:\pwork\pwork\therrp1\034084\10870	1-shaete.plan.dgn	DRAWN -	REVISED -			327	3BR-1-1-1	ST. CLAIR	20	4	
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	PLOT DATE = 12/28/2013	DATE -	REVISED -			SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	



EXISTING TYPICAL SECTION

STA. 14+60 TO STA. 19+77.11
STA. 21+25.39 TO STA. 26+70



PROPOSED TYPICAL SECTION

STA. 14+60 TO STA. 19+77.11
STA. 21+25.39 TO STA. 26+70

NOTE: IF IT IS DETERMINED THAT EARTHWORK IS REQUIRED FOR PLACEMENT OF PROPOSED HMA BASE COURSE, COST OF EARTHWORK SHALL BE INCLUDED IN THE COST OF HMA BASE COURSE, 9".

LEGEND

- ① EXISTING P.C.C. PAVEMENT (9'-6"-9')
- ② EXISTING RESURFACING
- ③ EXISTING AGGREGATE SHOULDER
- ④ EXISTING HMA SHOULDER ± 6"
- ⑤ EXISTING P.C.C. BASE COURSE WIDENING 9"
- ⑥ PROPOSED HMA BASE COURSE, 9"
- ▨ PROPOSED PAVED SHOULDER REMOVAL

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS CONTRACT:

MIXTURE USE	BASE COURSE
AC/PG	PG 64-22
RAP % (MAX)	SEE SPEC.
DESIGN AIR VOIDS	4.0% @ Ndes=90
MIX COMPOSITION	
(GRADATION MIXTURE)	IL 19.0 FG
FRICTION AGG	MIXTURE "B"

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

STAGING SCHEDULE						
LOCATION	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	TEMPORARY RUMBLE STRIP	TEMPORARY BRIDGE TRAFFIC SIGNALS
	FOOT	FOOT	EACH	EACH	EACH	EACH
STAGE I	387.5		2			
STAGE II		387.5		2		
STAGE I & II					6	1
TOTAL =	387.5	387.5	2	2	6	1

NOTE: TEMPORARY BRIDGE TRAFFIC SIGNAL QUANTITY IS FOR THE SYSTEM OF SIGNALS, PAID FOR AS EACH SYSTEM.

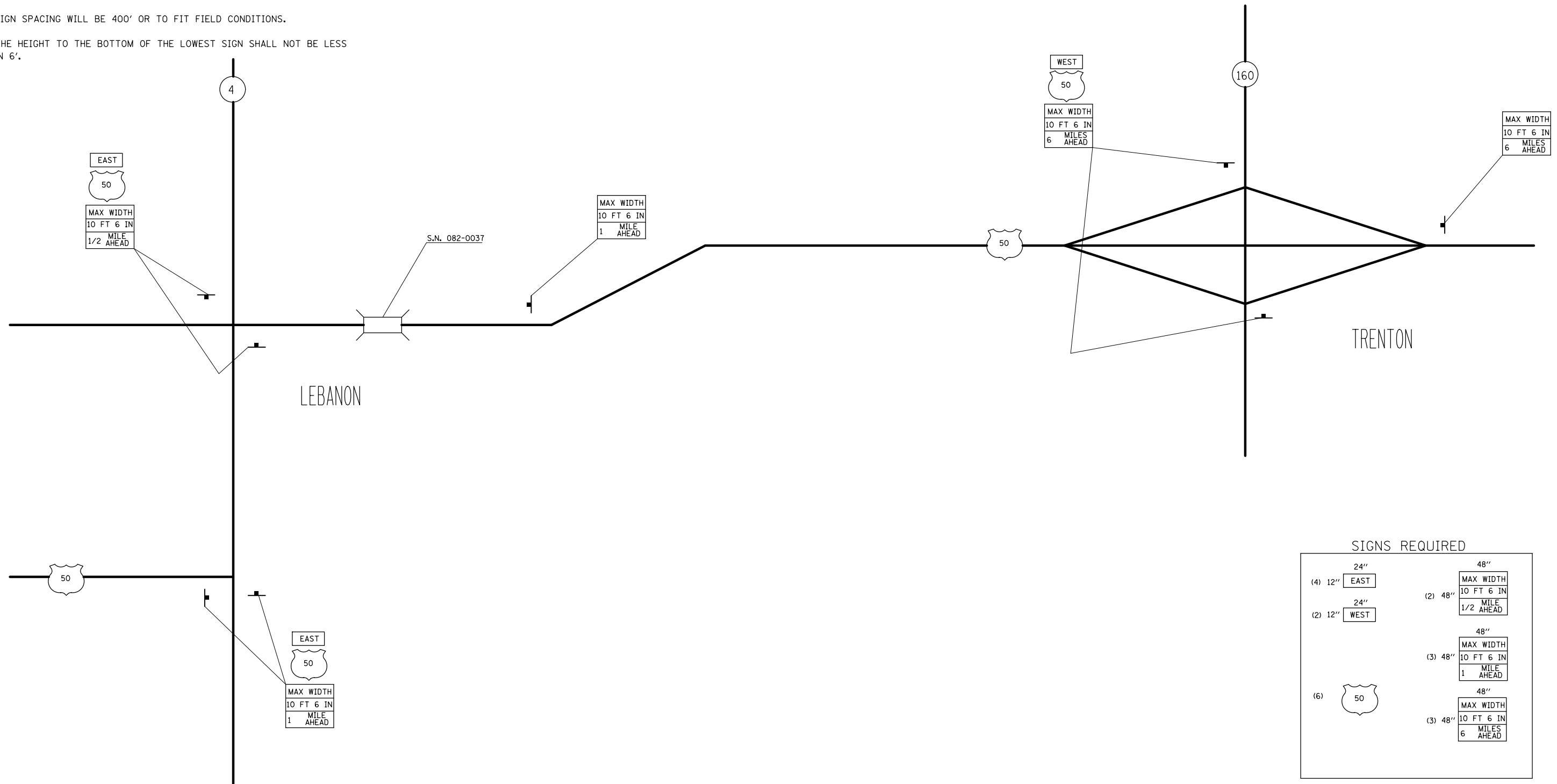
GUARDRAIL MARKERS				
LOCATION				GUARDRAIL MARKERS, TYPE C
STATION	TO	STATION	LT/RT	EACH
19+73.4	TO	21+20.7	LT	6
19+81.8	TO	21+29.1	RT	6
TOTAL =				12

WIDENING FOR STAGING SCHEDULE									
LOCATION		PAVED SHOULDER REMOVAL				HOT-MIX ASPHALT BASE COURSE, 9"			
		LEFT SHLD		RIGHT SHLD		LEFT SHLD		RIGHT SHLD	
		WIDTH	AREA	WIDTH	AREA	WIDTH	AREA	WIDTH	AREA
STATION TO	STATION	FOOT	SQ YD	FOOT	SQ YD	FOOT	SQ YD	FOOT	SQ YD
18+65	TO 19+81.8			3.0	38.9			3.0	38.9
21+29.1	TO 22+40			3.0	37.0			3.0	37.0
18+75	TO 19+73.4	3.0	32.8			3.0	32.8		
21+20.7	TO 22+30	3.0	36.4			3.0	36.4		
SUBTOTAL =			69.2		75.9		69.2		75.9
TOTAL =		145				145			

PAVEMENT MARKING SCHEDULE														
LOCATION			MODIFIED URETHANE PVMT MARKING - LINE 4"				SHORT TERM PVMT MARKING	TEMPORARY PVMT MARKING - LINE 4"			PAVEMENT MARKING REMOVAL	WORK ZONE PAVEMENT MARKING REMOVAL	RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL
			CENTERLINE		EDGE LINE			CENTERLINE SKIP-DASH	EDGE LINE					
			SKIP-DASH YELLOW	LEFT	RIGHT	SKIP-DASH YELLOW			LEFT	RIGHT				
STA	TO	STA	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	SQ FT	SQ FT	EACH	EACH	
19+77.1	TO	21+25.4	40	148.3	148.3	16	40	148.3	148.3	27	117.5	6	6	
TOTAL =			337			16	337			27	118	6	6	

NOTES

1. ALL SIGNS REQUIRED WILL BE SUPPLIED TO THE CONTRACTOR BY I.D.O.T.
2. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE RESIDENT ENGINEER/RESIDENT TECHNICIAN. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR SIGNS. THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE TRAFFIC MAINTENANCE BUILDING IN FAIRVIEW HGTS., AND RETURN THEM UPON COMPLETION OF THE CONTRACT. CONTACT JEAN SLAPE AT (618) 394-2189.
4. THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR WIDE LOAD SIGNING AND NO OTHER COMPENSATION WILL BE ALLOWED.
5. SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.
6. THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.



SIGNS REQUIRED

(4) 12"	24" EAST	(2) 48"	48" MAX WIDTH 10 FT 6 IN 1/2 MILE AHEAD
(2) 12"	24" WEST	(3) 48"	48" MAX WIDTH 10 FT 6 IN 1 MILE AHEAD
(6)	50	(3) 48"	48" MAX WIDTH 10 FT 6 IN 6 MILES AHEAD

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	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIDE LOAD SIGNING

SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	3BR-1-I-1	ST. CLAIR	20	7
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 76G41	

SUGGESTED SEQUENCE OF CONSTRUCTION

PRE - STAGE I:

REMOVE EXISTING HMA SHOULDERS (RIGHT) TO THE LIMITS DEFINED IN THE REMOVAL SCHEDULE.
 CONSTRUCT 3' HMA BASE CSE 9" IN THE SOUTHWEST AND SOUTHEAST QUADRANTS AS SHOWN ON THE PLANS.
 HMA BASE COURSE SHALL BE CONSTRUCTED WITHOUT DISTURBING THE EXISTING GUARDRAIL.
 TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION, STANDARD 701326.

STAGE I:

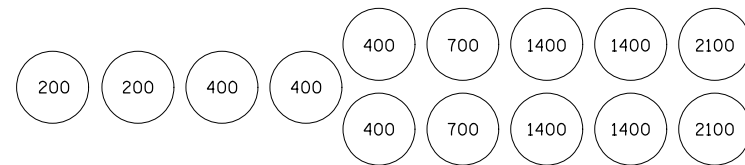
PLACE STOP BARS AS SHOWN ON PLANS.
 REMOVE CONFLICTING SKIP-DASH PAVEMENT MARKING BETWEEN STOP BARS.
 PLACE 387.5 FOOT TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS, TEMPORARY.
 SEE STANDARD 701321 FOR DETAILS NOT SHOWN ON PLANS.
 REMOVE EXISTING HMA SHOULDERS (LEFT) TO THE LIMITS DEFINED IN THE REMOVAL SCHEDULE.
 CONSTRUCT 3' HMA BASE CSE 9" IN THE NORTHWEST AND NORTHEAST QUADRANTS AS SHOWN ON PLANS.
 HMA BASE COURSE SHALL BE CONSTRUCTED WITHOUT DISTURBING THE EXISTING GUARDRAIL.
 PERFORM ALL STRUCTURAL WORK FOR STAGE I. SEE STRUCTURE PLANS.
 PERFORM ANY ADDITIONAL NECESSARY WORK FOR STAGE I CONSTRUCTION.

STAGE II:

RELOCATE 387.5 FT TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS, TEMPORARY.
 PLACE IMPACT ATTENUATOR, TEMPORARY.
 SEE STANDARD 701321 FOR DETAILS NOT SHOWN ON PLANS.
 PERFORM ALL STRUCTURAL WORK FOR STAGE II. SEE STRUCTURE PLANS.
 PERFORM ANY ADDITIONAL NECESSARY WORK FOR STAGE II CONSTRUCTION.

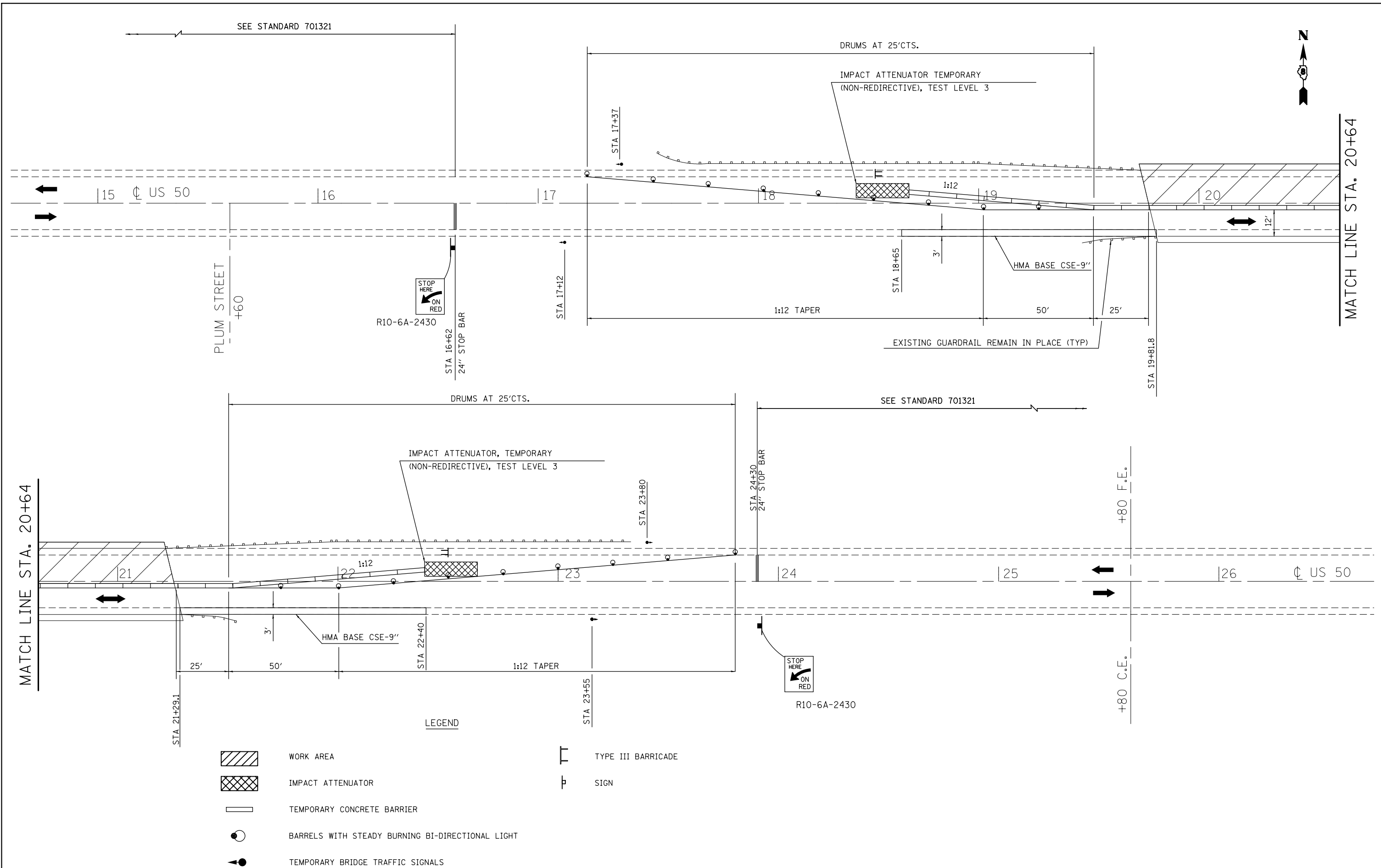
POST - STAGE II:








APPLY PAVEMENT MARKINGS UTILIZING TRAFFIC CONTROL AND PROTECTION, STANDARD 701311.
 PERFORM ANY ADDITIONAL WORK REQUIRED.



SAND MODULE IMPACT ATTENUATOR LAYOUT
 (IF OPTION USED)

FILE NAME =	USER NAME = tharp1	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE CONSTRUCTION DETAILS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\tharp1\d0340841\0876041-sheets-plan.dgn	DRAWN -	REVISED -	327					3BR-1-I-1	ST. CLAIR	20	8	
PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -	CONTRACT NO. 76G41									
PLOT DATE = 12/20/2013	DATE -	REVISED -	SCALE: N/A		SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT					



- LEGEND**
-  WORK AREA
 -  IMPACT ATTENUATOR
 -  TEMPORARY CONCRETE BARRIER
 -  BARRELS WITH STEADY BURNING BI-DIRECTIONAL LIGHT
 -  TEMPORARY BRIDGE TRAFFIC SIGNALS
 -  TYPE III BARRICADE
 -  SIGN

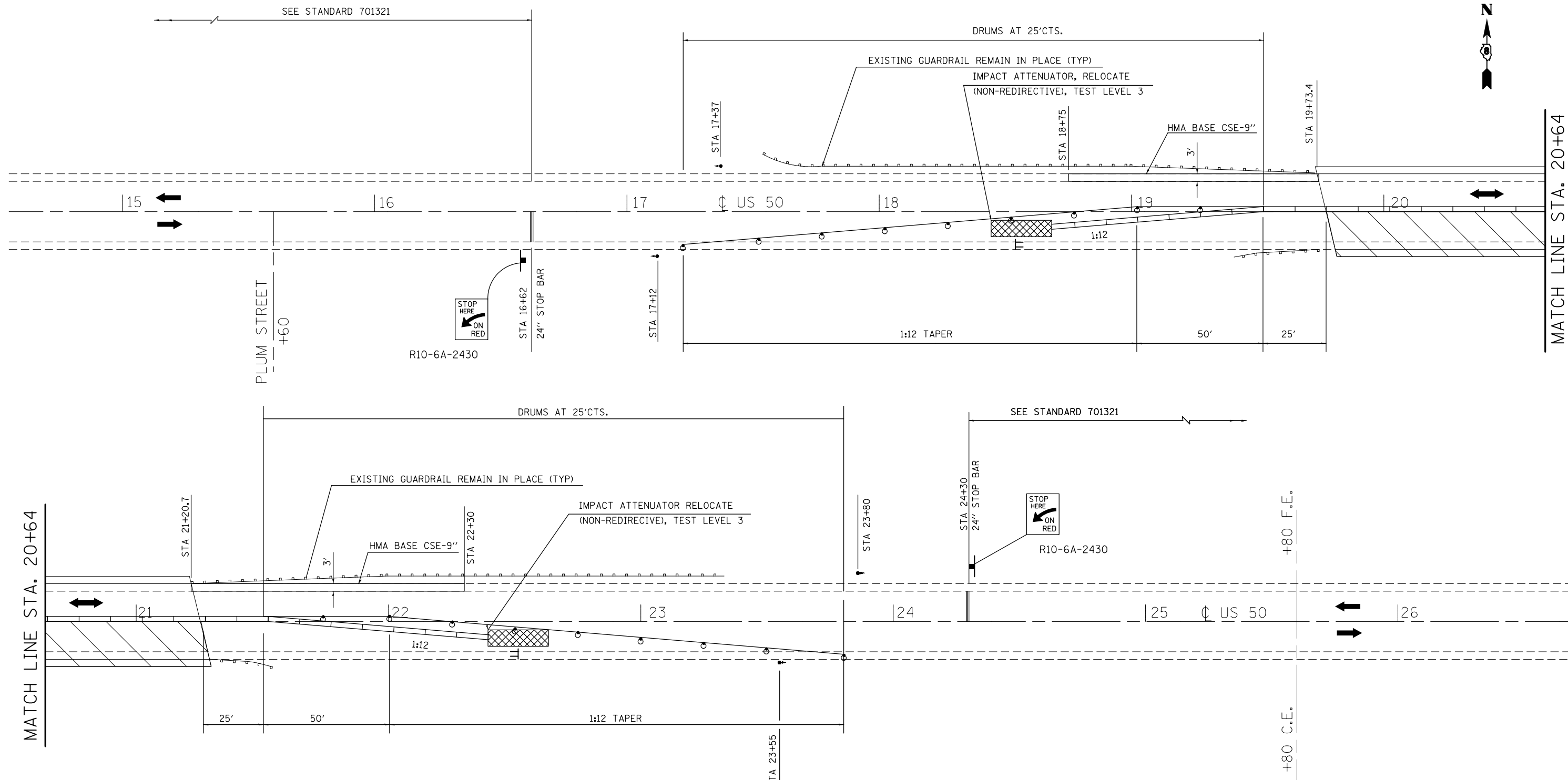
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#MODELNAME#	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2013	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE I CONSTRUCTION			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

NOTE: NOT TO SCALE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	3BR-1-I-1	ST. CLAIR	20	9
CONTRACT NO. 76G41				
ILLINOIS FED. AID PROJECT				



LEGEND

- WORK AREA
- IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER
- BARRELS WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TEMPORARY BRIDGE TRAFFIC SIGNALS
- TYPE III BARRICADE
- SIGN

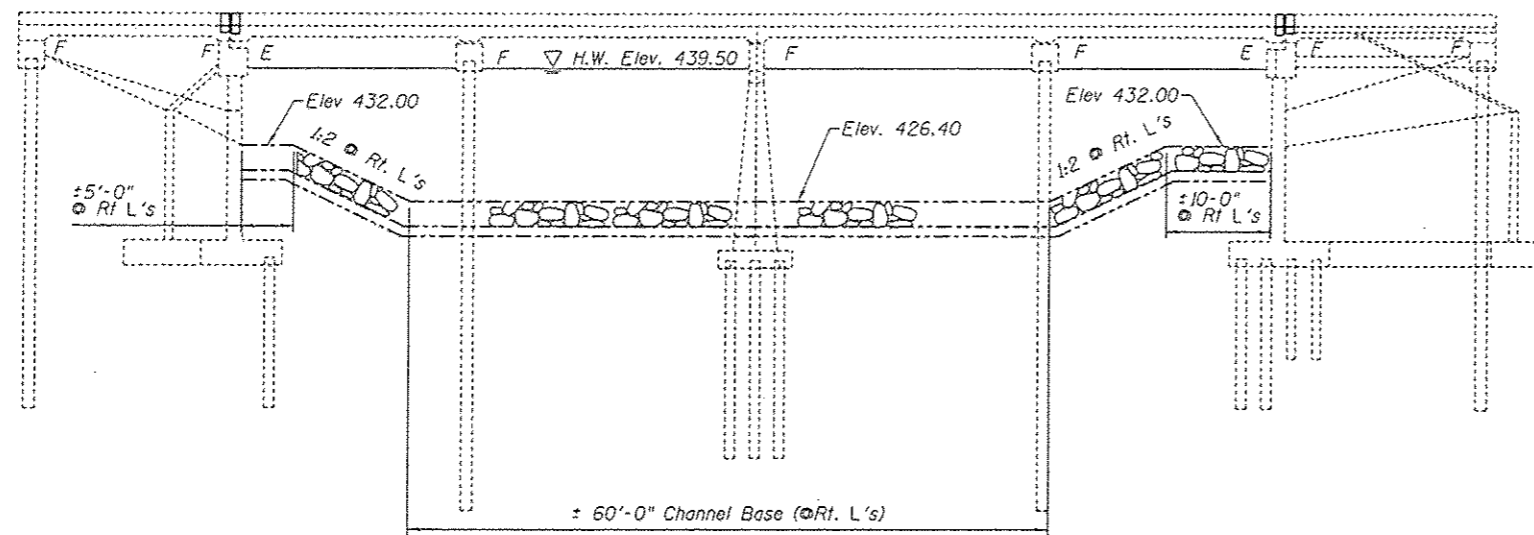
NOTE: NOT TO SCALE

FILE NAME =	USER NAME = tharp1	DESIGNED -	REVISED -
et:\pw\work\p1dot\tharp1\d0340841\0876041-sheets_pln.dgn		DRAWN -	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
#MODELNAME#	PLOT DATE = 12/20/2013	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE II CONSTRUCTION			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	3BR-1-I-1	ST. CLAIR	20	10
CONTRACT NO. 76G41				
ILLINOIS FED. AID PROJECT				



ELEVATION

GENERAL NOTES

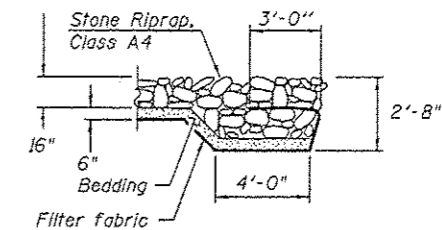
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall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

Reinforcement bars designated (E) shall be epoxy coated.

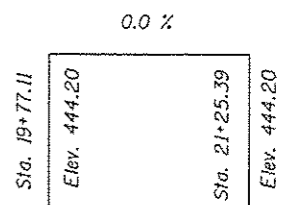
Joint opening shall be adjusted according to Article 520.04 of the Standard Specs. when the deck is poured at an ambient temperature other than 50° F.

Existing reinforcement bars extending into 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.

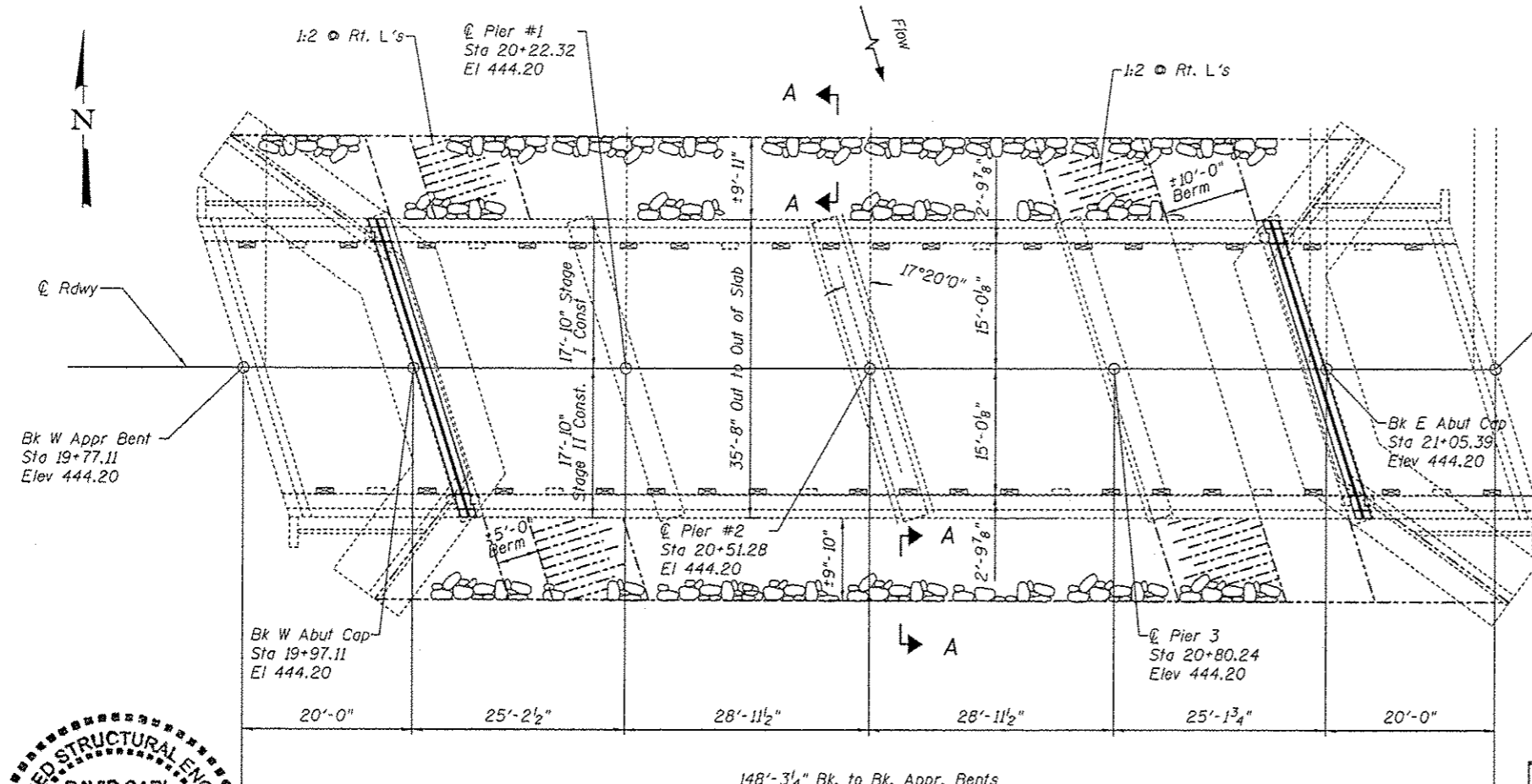
Bridge deck concrete sealer shall be placed on top/inside faces of curbs and on top of new concrete on bridge and approach slabs.



SECTION A-A



PROFILE GRADE



PLAN

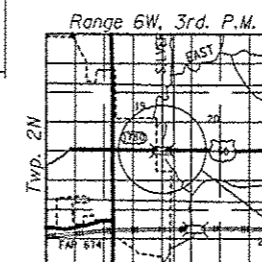
INDEX OF SHEETS

1. General Plan & Elevation
2. Deck Cross Section
3. Joint Removal
4. Joint Replacement (W. Abut.)
5. Joint Replacement (E. Abut.)
6. Joint Details
7. Strip Seal Details
8. Microsilica Rem. & Repl. Sequence
9. Temporary Concrete Barrier
10. Bar Splicers

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	4.0
Concrete Superstructure	Cu. Yd.	3.8
Bridge Deck Microsilica Concrete Overlay, 3" ✓	Sq. Yd.	480
Bar Splicers	Each	8
Bridge Deck Scarification, 3" ✓	Sq. Yd.	480
Bridge Deck Concrete Sealer	Sq. Ft.	5459
Preformed Joint Strip Seal	Foot	78
Plug Existing Deck Drains	Each	34
Bridge Deck Grooving	Sq. Yd.	431
Stone Riprap, Class A4	Sq. Yd.	695
Filter Fabric	Sq. Yd.	695
Reinforcement Bars, Epoxy Coated	Pound	290

* Including Bridge Appr. Bents ✓



LOCATION SKETCH



Expires 11/30/14

Replace slab ends and install Preformed Joint Strip Seals.

Replace microsilica overlay

Place riprap

Plug Existing Drains

DESIGNED - AYY	EXAMINED - <i>James A. Dept</i>	DATE - 1/21/14
CHECKED - SMR	PASSED - <i>David Puzey</i>	
DRAWN - AYY		
CHECKED - SMR		

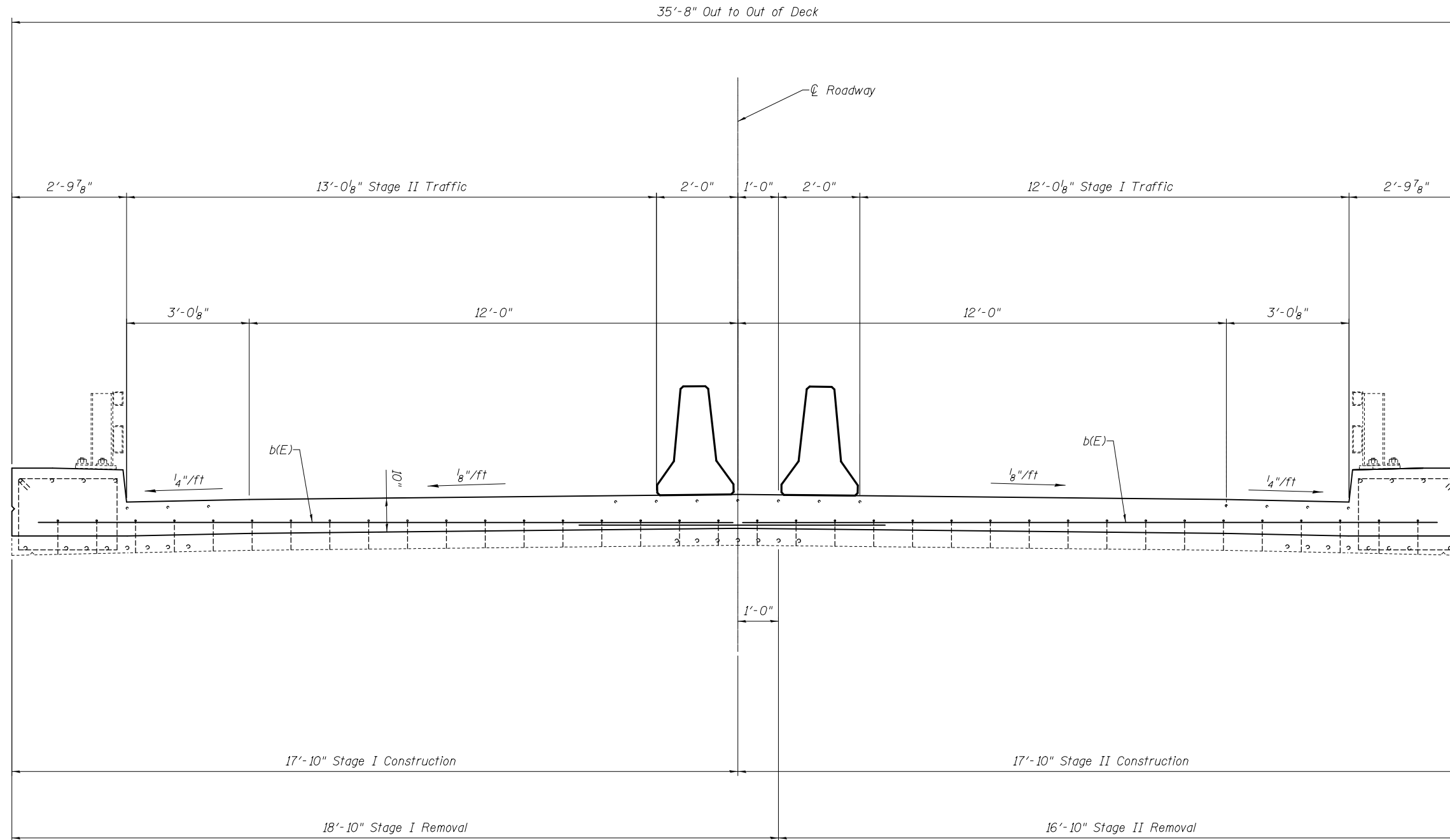
ENGINEER OF STRUCTURAL SERVICES	REVISOR
ENGINEER OF BRIDGES AND STRUCTURES	REVISOR

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
SN 082-0037

SHEET NO. 1 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	3BR-1-1-1	ST. CLAIR	20	11
CONTRACT NO. 76G41			ILLINOIS FED. AID PROJECT	



CROSS SECTION (DECK)

Looking East

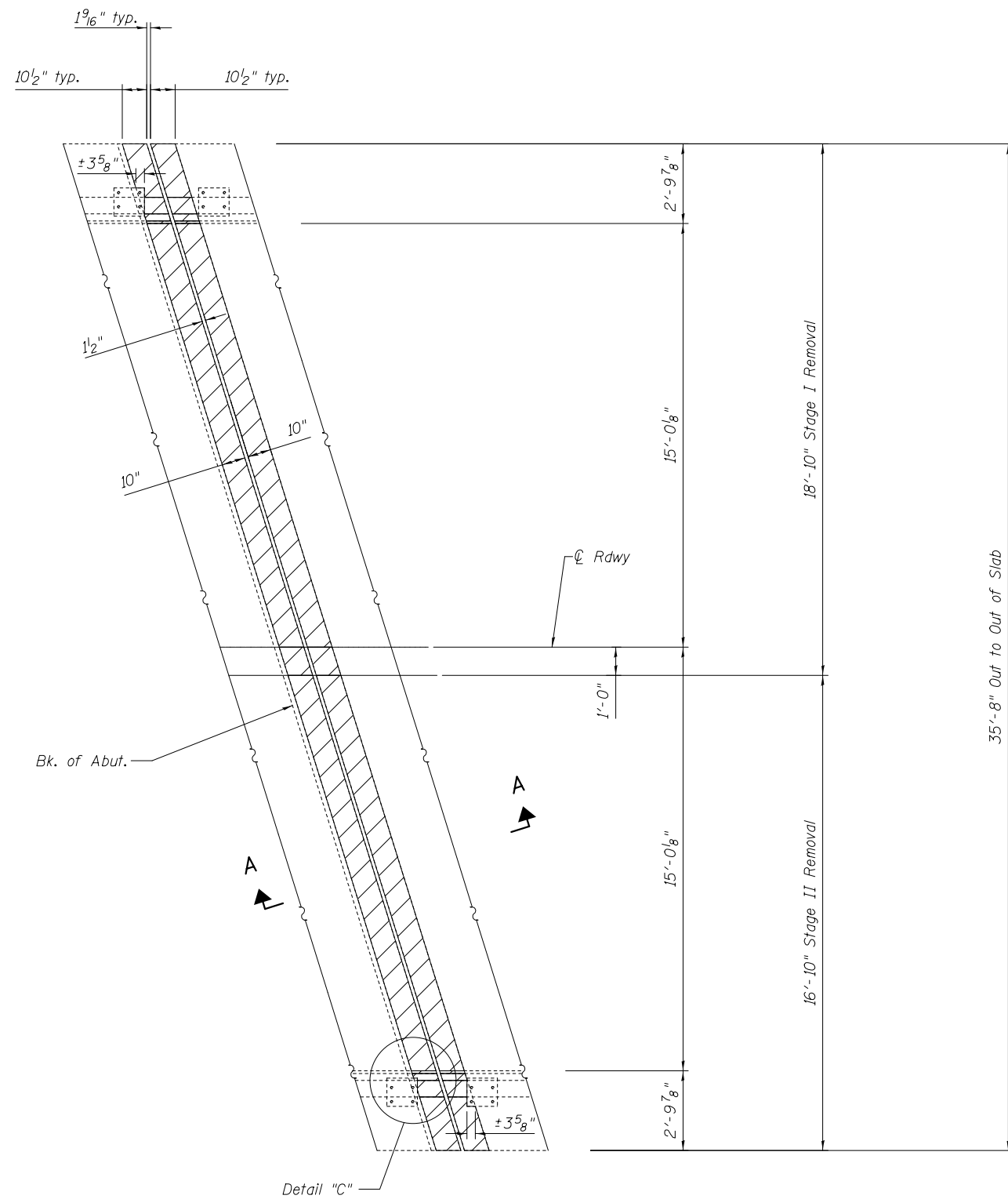
DESIGNED - AYV	EXAMINED _____	DATE - _____
CHECKED - _____	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - AYV	PASSED _____	REVISED _____
CHECKED - _____	ENGINEER OF BRIDGES AND STRUCTURES	REVISED _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

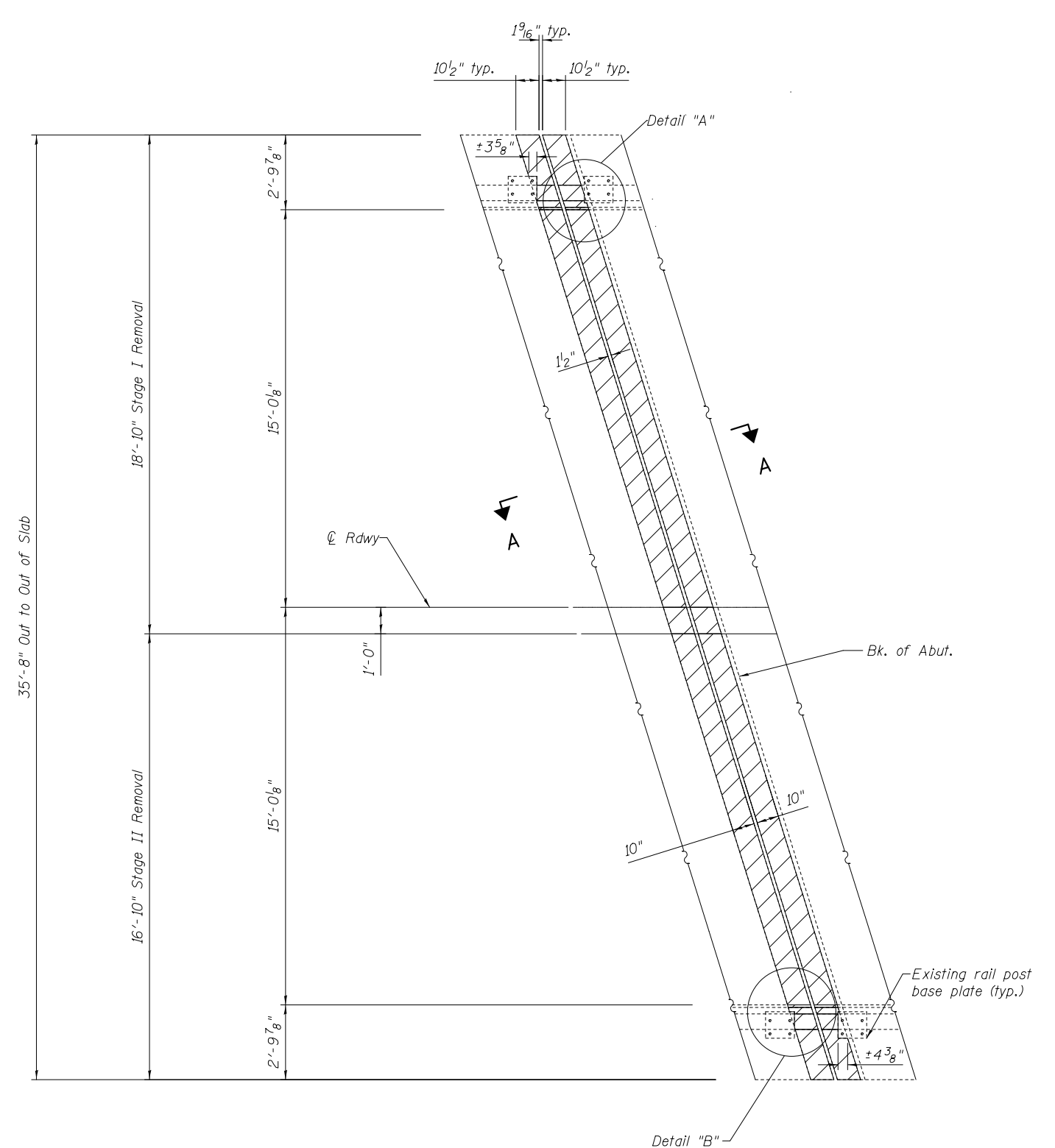
**CROSS SECTION
SN 082-0037**

SHEET NO. 2 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	3BR-1-I-1	ST. CLAIR	20	12
CONTRACT NO. 76G41				
ILLINOIS FED. AID PROJECT				



WEST ABUTMENT



EAST ABUTMENT

Note:

See sheet 6 of 9 for Section A-A

Don't remove concrete underneath existing rail post base plate.

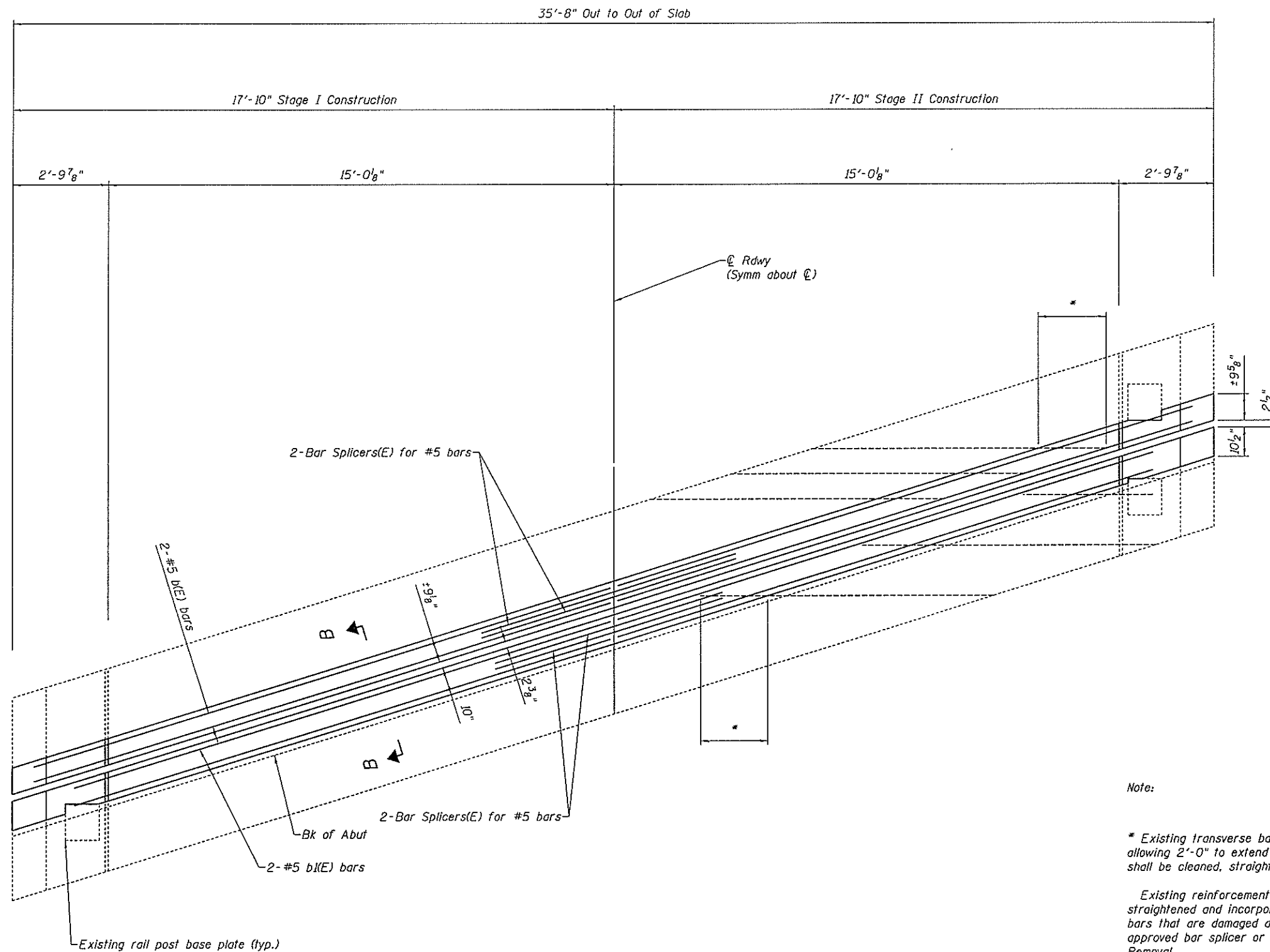
DESIGNED - AYV	EXAMINED _____	DATE - _____
CHECKED - _____	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - AYV	PASSED _____	REVISED _____
CHECKED - _____	ENGINEER OF BRIDGES AND STRUCTURES	REVISED _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONCRETE REMOVAL
SN 082-0037**

SHEET NO. 3 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	3BR-1-1-1	ST CLAIR	20	13
CONTRACT NO. 76G41				
ILLINOIS FED. AID PROJECT				



Note:

* Existing transverse bars extending from slab into removed area shall be cut allowing 2'-0" to extend into the removed area. In addition, these cut bars shall be cleaned, straighten, and incorporated into the new construction.

Existing reinforcement bars extending into 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.

See sheet 6 of 10 for Section B-B.

CONCRETE REPLACEMENT

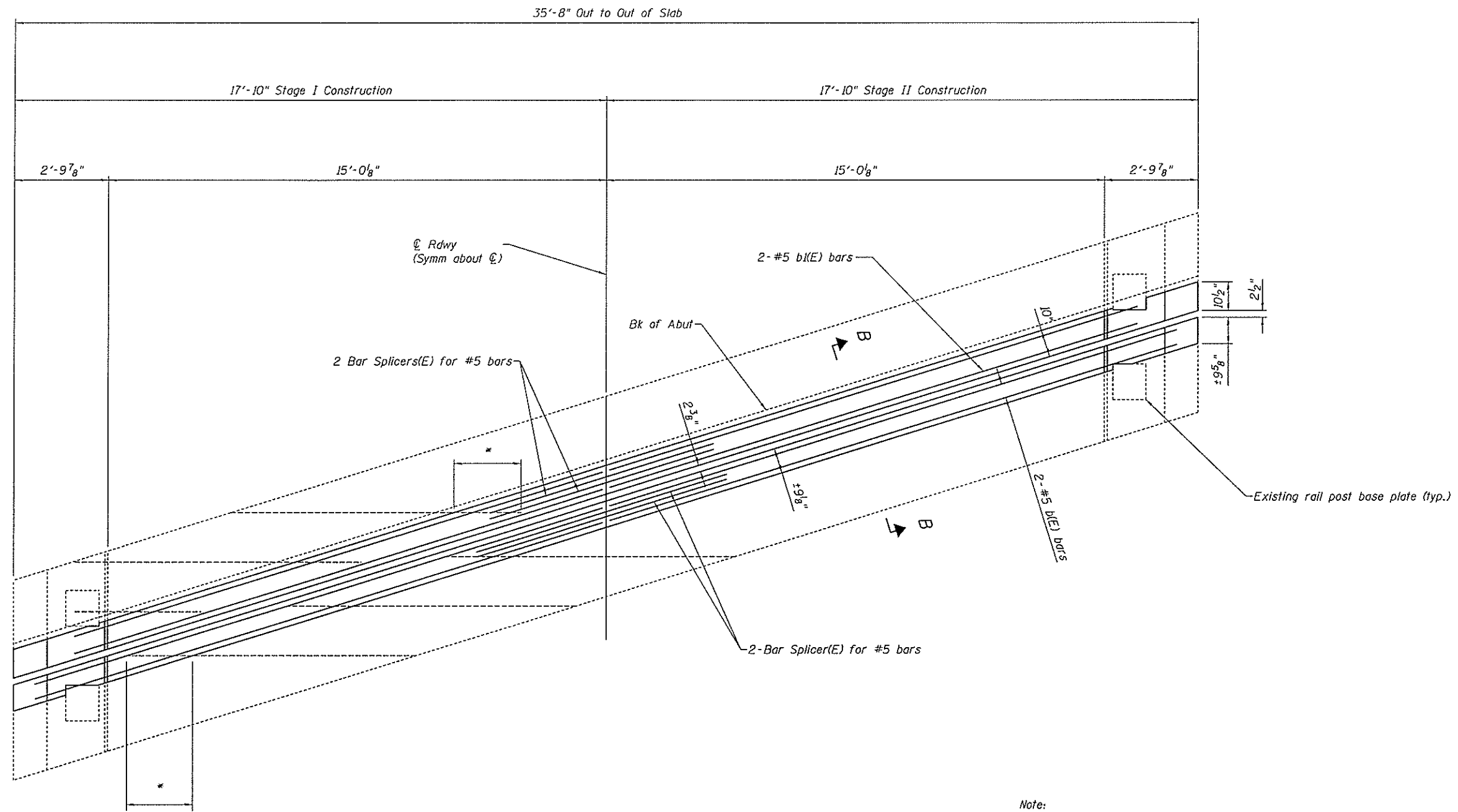
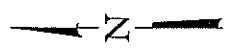
DESIGNED - AYY	EXAMINED _____	DATE - _____	
CHECKED - _____	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - AYY	PASSED _____	REVISED _____	
CHECKED - _____	ENGINEER OF BRIDGES AND STRUCTURES	REVISED _____	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**JOINT REPLACEMENT (W. Abut.)
SN 082-0037**

SHEET NO. 4 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	3BR-1-1-1	ST CLAIR	20	14
CONTRACT NO. 76G41				
ILLINOIS FED. AID PROJECT				



CONCRETE REPLACEMENT

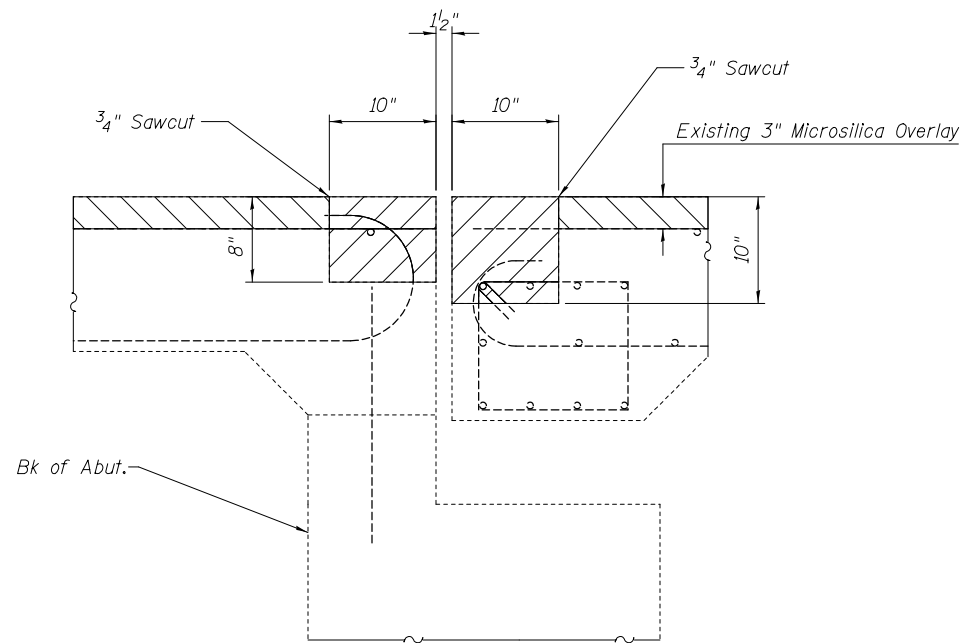
Note:

* Existing transverse bars extending from deck into removed area shall be cut allowing 2'-0" to extend into the removed area. In addition, these cut bars shall be cleaned, straighten, and incorporated into the new construction.

Existing reinforcement bars extending into 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.

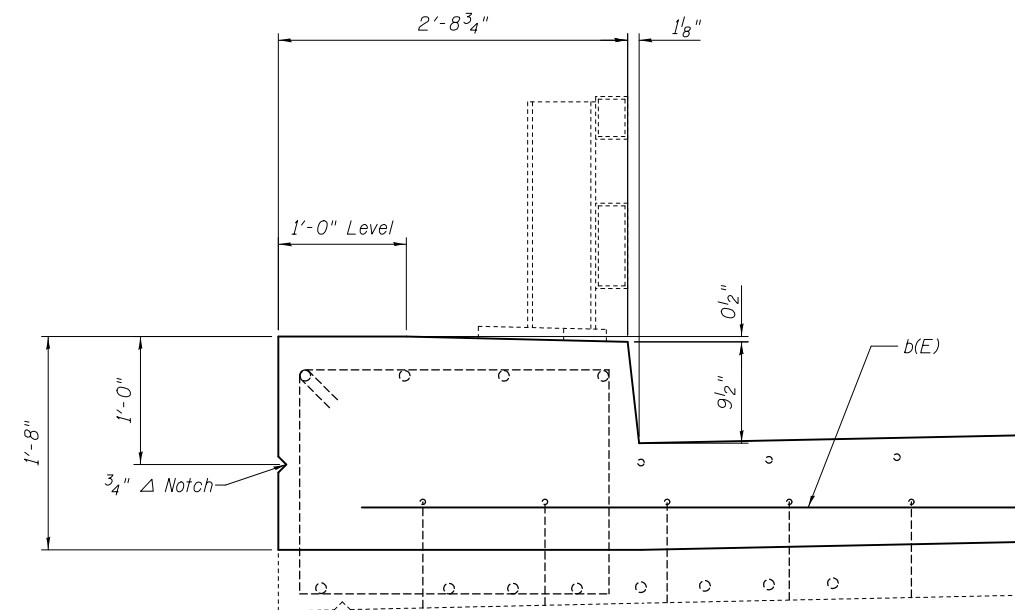
See sheet 6 of 10 for Section B-B.

DESIGNED - AYW	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	JOINT REPLACEMENT (E. Abut.) SN 082-0037		F.A.P. RTE. 327	SECTION 3BR-1-1-1	COUNTY ST. CLAIR	TOTAL SHEETS 20	SHEET NO. 15
CHECKED -	PASSED	REVISOR		SHEET NO. 5 OF 10 SHEETS		CONTRACT NO. 76G41				
DRAWN - AYW	ENGINEER OF STRUCTURAL SERVICES	REVISOR		ILLINOIS FED. AID PROJECT						
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR								

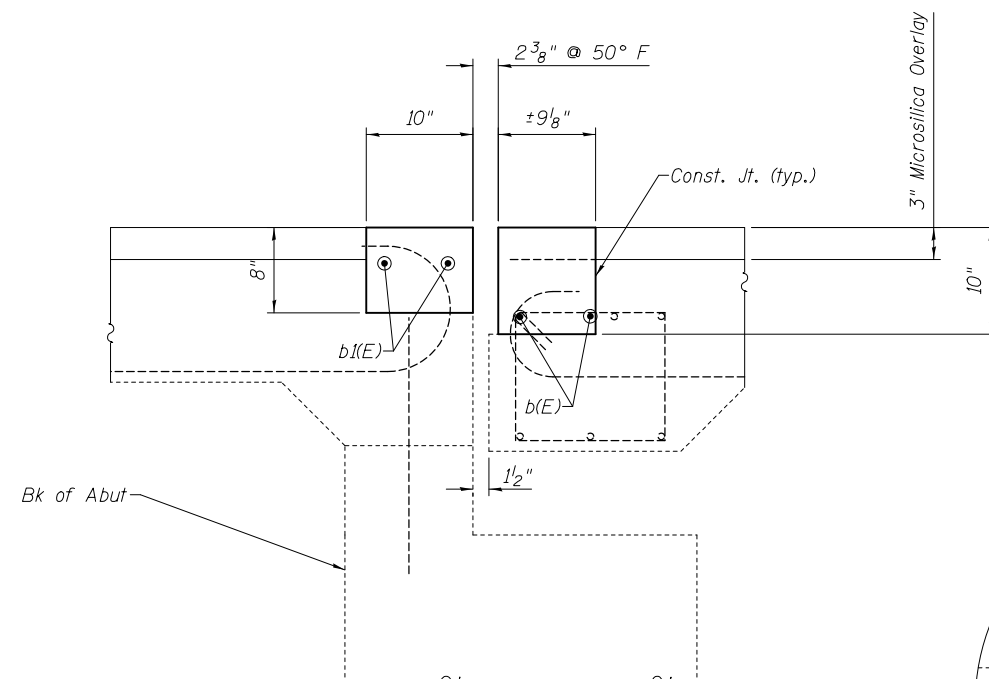


SECTION A-A

All dimensions are at right angles to jt.

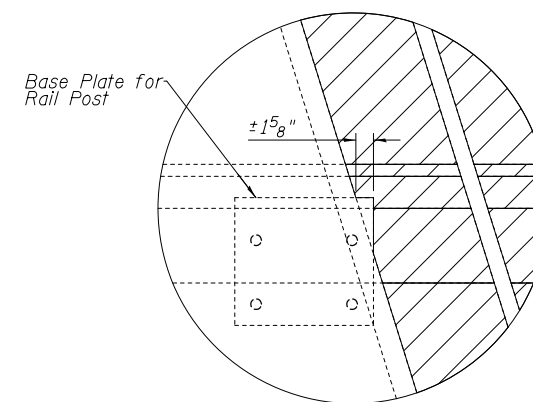


CURB SECTION (DECK)

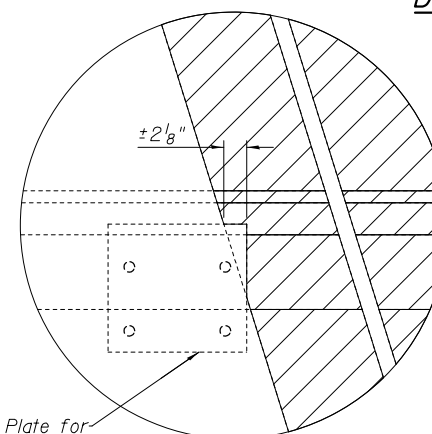


SECTION B-B

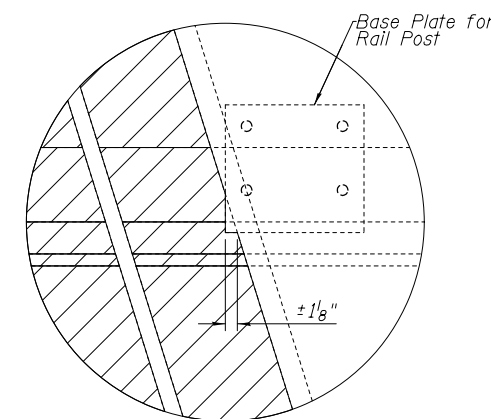
All dimensions are at right angles to jt.



DETAIL "C"



DETAIL "B"



DETAIL "A"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
b(E)	8	#5	17'-11"	—
b1(E)	8	#5	16'-8"	—
Concrete Removal			Cu. Yd.	4.0
Concrete Superstructure			Cu. Yd.	3.8
Reinforcement Bars, Epoxy Coated			Lbs.	290

Reinforcement bars designated (E) shall be epoxy coated.

DESIGNED - AYV	EXAMINED _____	DATE - _____
CHECKED - _____	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - AYV	PASSED _____	REVISED _____
CHECKED - _____	ENGINEER OF BRIDGES AND STRUCTURES	REVISED _____

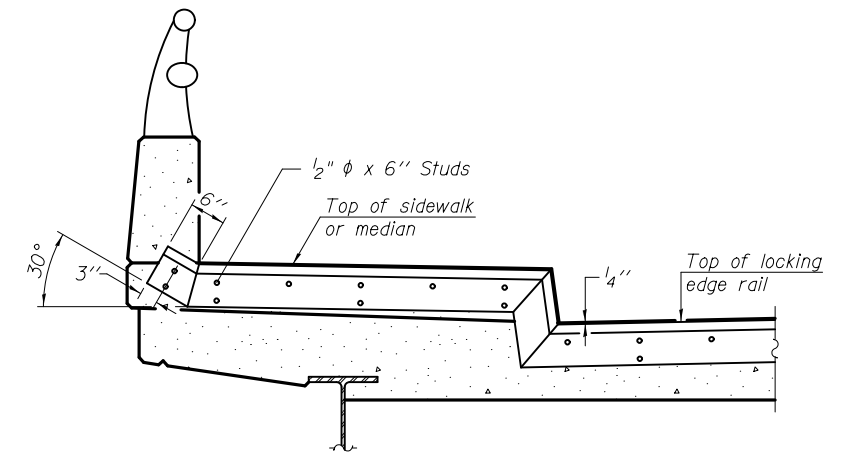
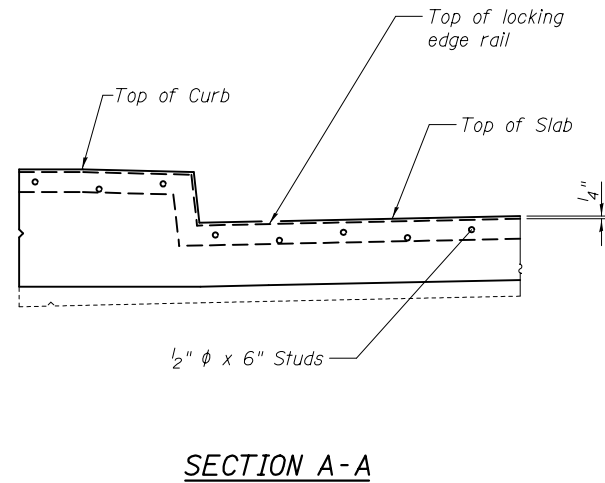
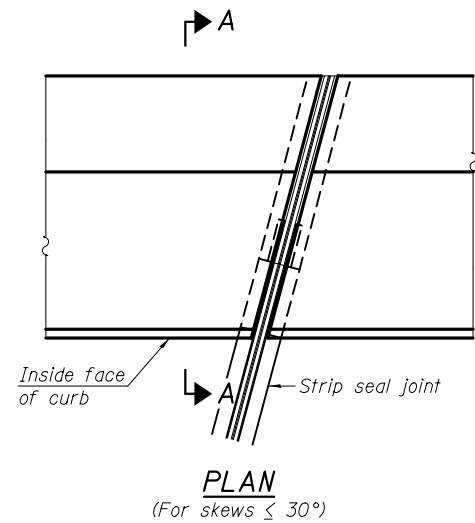
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**JOINT DETAILS
SN 082-0037**

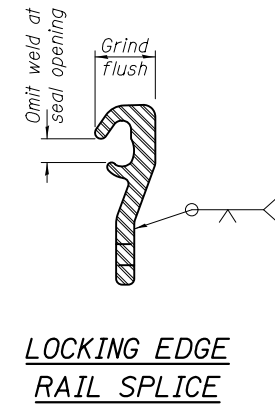
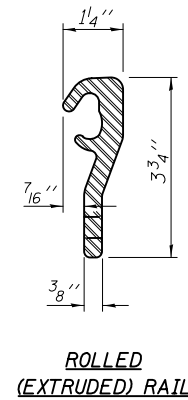
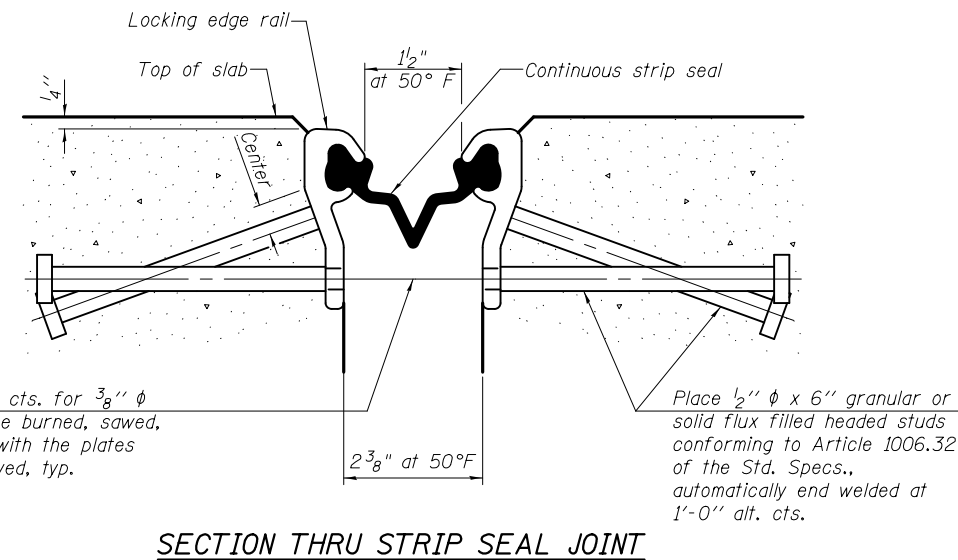
SHEET NO. 6 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	3BR-1-I-1	ST. CLAIR	20	16
CONTRACT NO. 76G41				

ILLINOIS FED. AID PROJECT



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



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.
 The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.
 The inside of the Locking Edge Rail groove shall be free of weld residue. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.
 The manufacturer's recommended installation methods shall be followed.

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	78

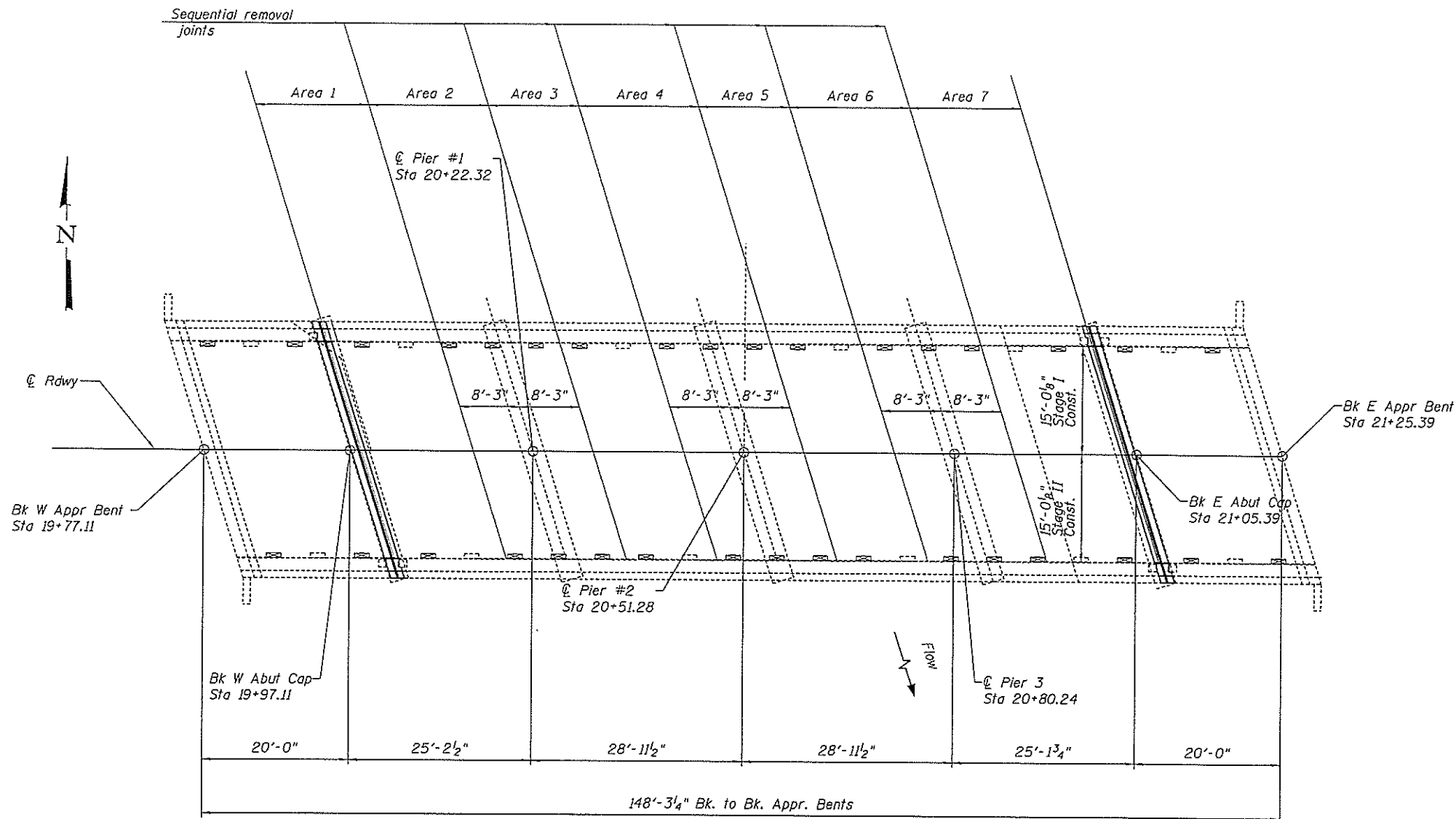
DESIGNED - AYV	EXAMINED	DATE -
CHECKED -	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - AYV	PASSED	REVISED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 082-0037**

SHEET NO. 7 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	3BR-1-I-1	ST. CLAIR	20	17
CONTRACT NO. 76G41				
ILLINOIS FED. AID PROJECT				



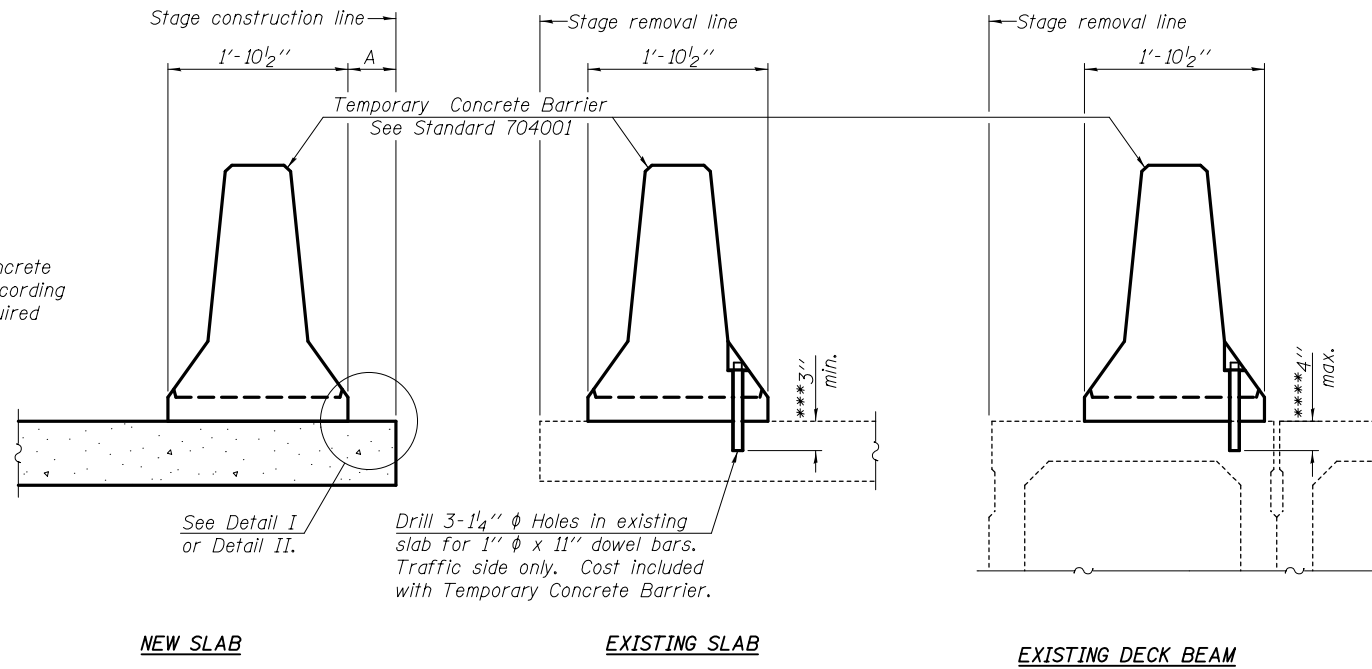
PLAN

MICROSILICA REMOVAL AND REPLACEMENT SEQUENCE (BRIDGE DECK)

Areas 2, 4, & 6 over the pier shall be done before areas 1, 3, 5 & 7 in order to maintain the structural integrity of the negative moment reinforcement bars. At least 72 hours shall have elapsed from the end of the previous pour and the concrete shall have attained a minimum modulus of rupture of 650 psi or a minimum compressive strength of 3500 psi. Care shall be taken not to deband the top mat of negative moment reinforcement during concrete removal. Any deviations from this sequence must be approved by the Engineer prior to removal operations.

DESIGNED - AYW	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MICROSILICA REMOVAL & REPLACEMENT SEQUENCE SN 082-0037		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES	REVISED				327	3BR-1-I-1	ST. CLAIR	20	18
DRAWN - AYW	PASSED	REVISED		SHEET NO. 8 OF 10 SHEETS		CONTRACT NO. 76G41		ILLINOIS FED. AID PROJECT		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED								

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

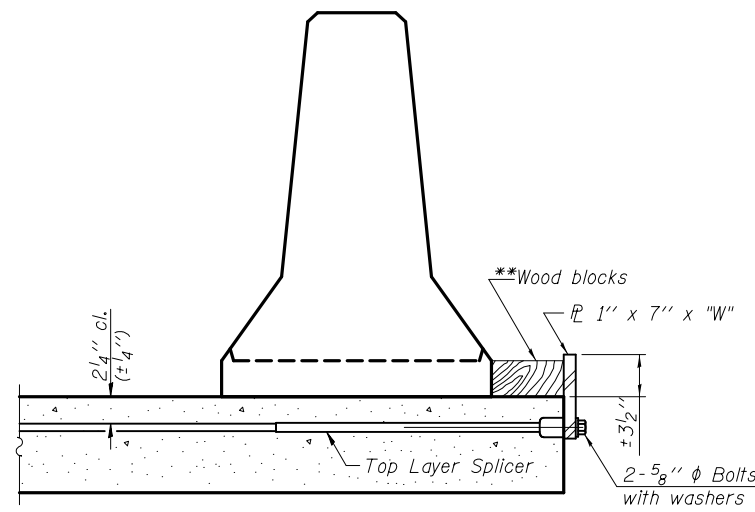
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

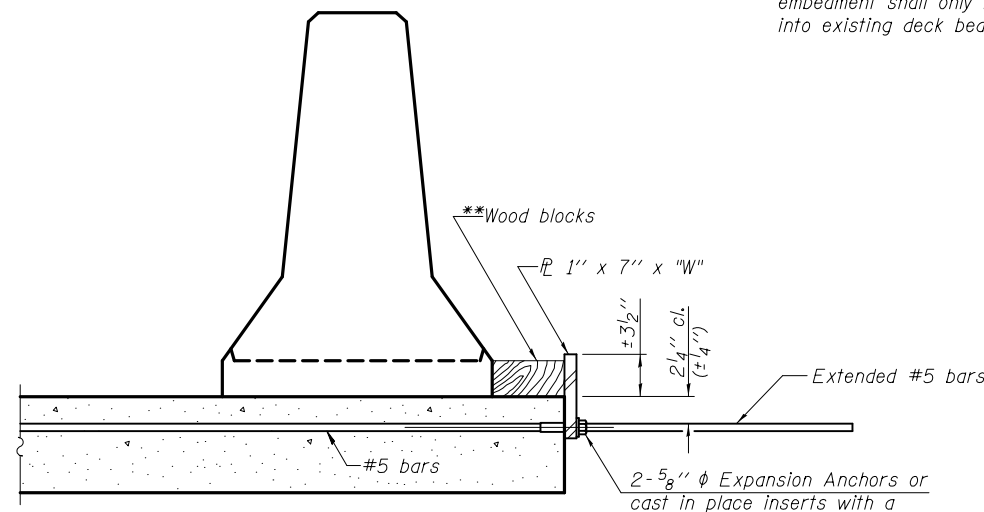
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

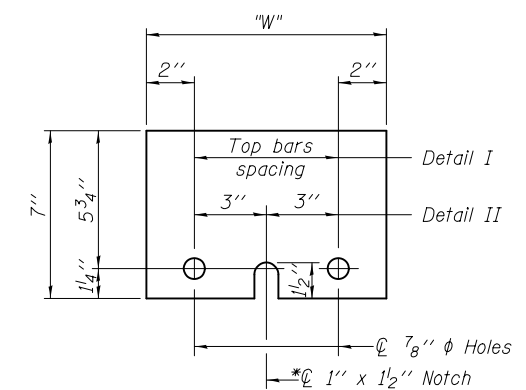
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x "W"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

R-27 7-1-10

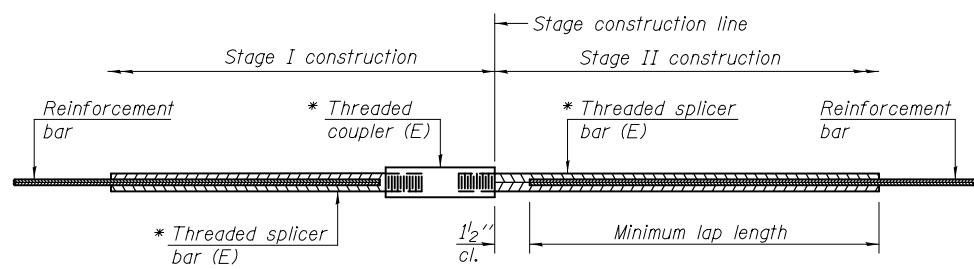
DESIGNED - AYV	EXAMINED	DATE -
CHECKED -	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - AYV	PASSED	REVISED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 082-0037**

SHEET NO. 9 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	3BR-1-I-1	ST. CLAIR	20	19
CONTRACT NO. 76G41			ILLINOIS FED. AID PROJECT	



STANDARD BAR SPLICER ASSEMBLY

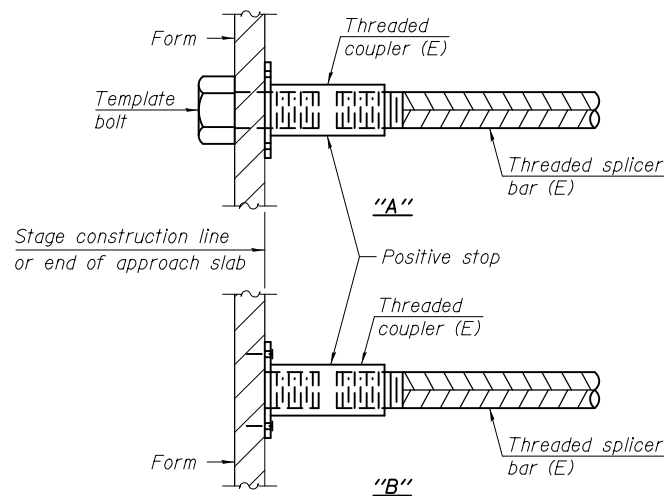
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

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

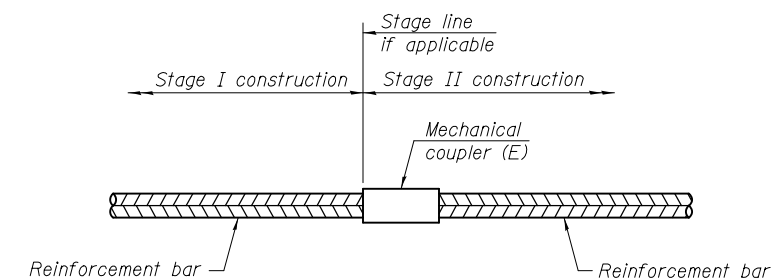
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Main Slab	#5	4	3
Approach Slab	#5	4	3



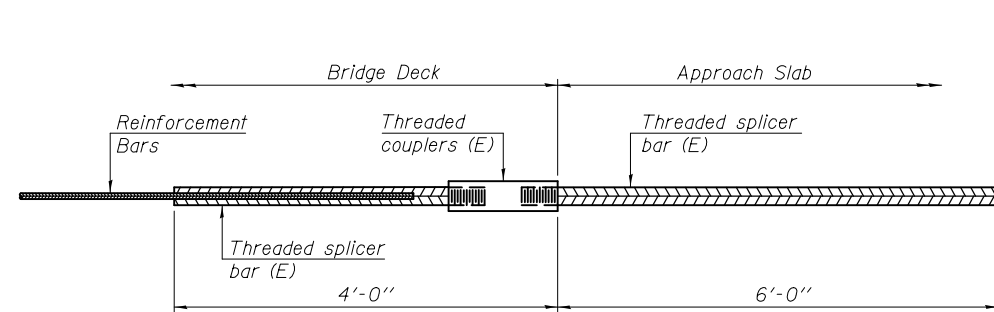
INSTALLATION AND SETTING METHODS

"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.



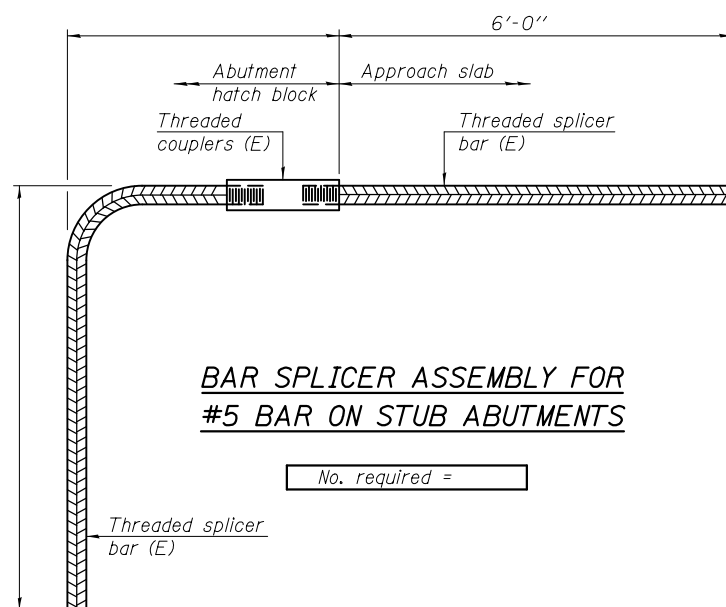
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. 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 1-27-12

DESIGNED - AYV	EXAMINED	DATE -
CHECKED -	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - AYV	PASSED	REVISED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 082-0037

SHEET NO. 10 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	3BR-1-I-1	ST. CLAIR	20	20
CONTRACT NO. 76G41				
ILLINOIS FED. AID PROJECT				