

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.P. ROUTE 327 (U.S. 50)
SECTION D7 BRIDGE REPAIRS 2014-1

BRIDGE REPAIRS
CLAY COUNTY

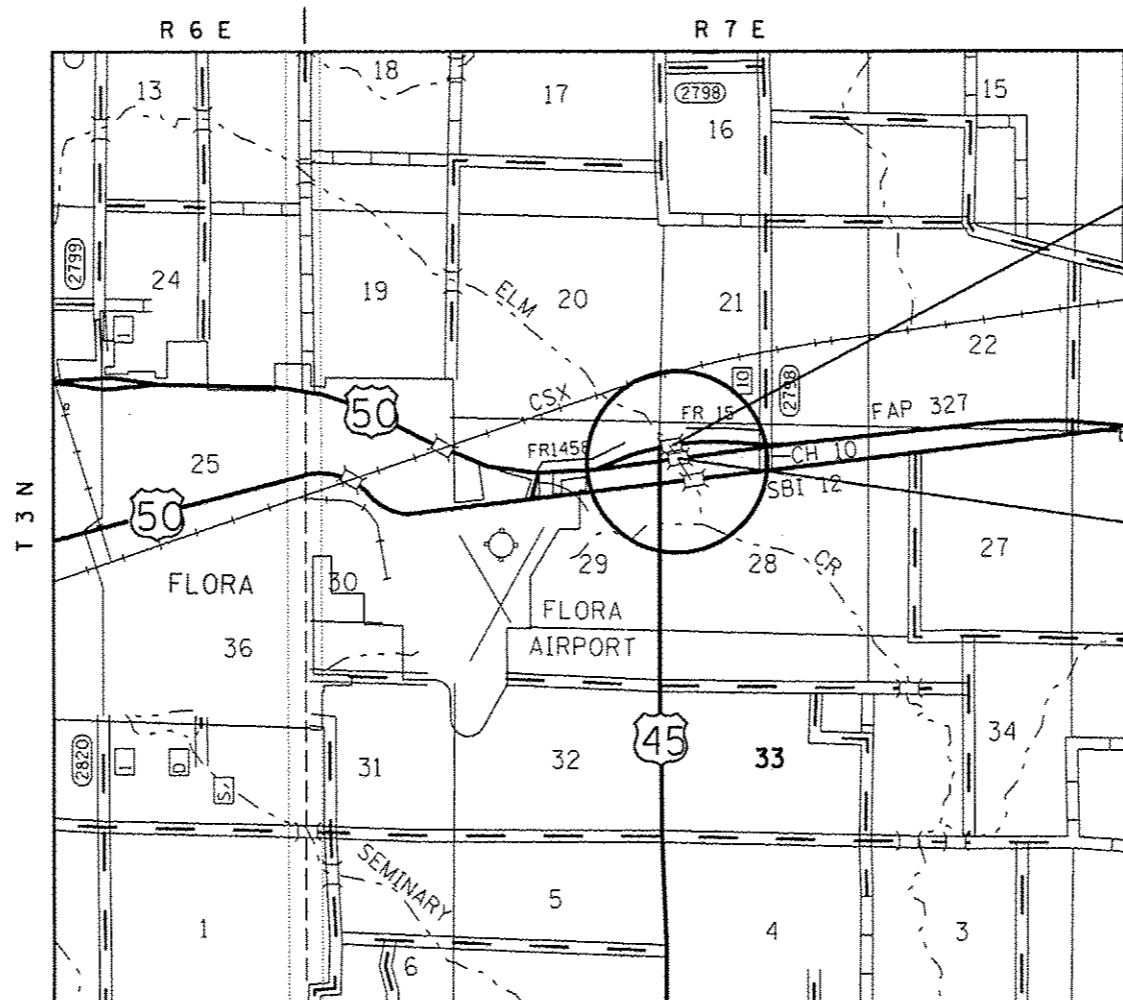
C-97-131-12

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327		CLAY	49	1
		ILLINOIS	CONTRACT NO. 74600	

• D7 Bridge Repairs 2014-1

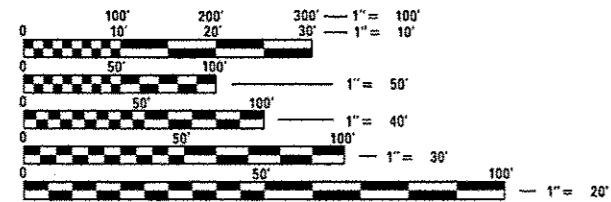
FOR INDEX OF SHEETS, SEE SHEET NO. 2

ADT = 5100



S.N. 013-0003 (WB)

S.N. 013-0002 (EB)



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: TOM RONAN
PROJECT MANAGER: ROSS BIERMAN
PHONE: 217-342-8320

CONTRACT NO. 74600

GROSS LENGTH = 190 FT. = .036 MILE
NET LENGTH = 190 FT. = .036 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED MARCH 28 20 13
Roger L. Oriskany
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 10 20 13
John D. Baranzelli PE
acting ENGINEER OF DESIGN AND ENVIRONMENT

May 10 20 13
Orker Osman PE
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS AND GENERAL NOTES
3-4	SUMMARY OF QUANTITIES
5	SCHEDULE OF QUANTITIES
6	TYPICAL CROSS SECTIONS
7-12	STAGE I TRAFFIC CONTROL
13-18	STAGE II TRAFFIC CONTROL
19-30	TRAFFIC CONTROL AND PROTECTION, STD. 701422 DETAILS
31-34	PAVEMENT MARKING DETAILS
35-49	STRUCTURE REPAIR PLANS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 49:

STD. NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
420701-02	PAVEMENT FABRIC
701001-02	OFF-ROAD OPERATIONS, 2L2W, 15' MINIMUM AWAY FROM PAVEMENT EDGE
701006-04	OFF-ROAD OPERATIONS, 2L2W, 15' AWAY TO EDGE OF PAVEMENT
701011-03	OFF-ROAD MOVING OPERATION, 2L2W, DAY ONLY
701101-03	OFF-ROAD OPERATIONS, MULTI-LANE, 15' TO 24" FROM PAVEMENT EDGE AWAY
701106-02	OFF-ROAD, MULTI-LANE, 15' MINIMUM AWAY FROM PAVEMENT EDGE
701201-04	LANE CLOSURE, 2L2W, DAY ONLY
701301-04	LANE CLOSURE, 2L2W, SHORT TIME OPERATIONS
701422-05	LANE CLOSURE, MULTILANE, FOR SPEED 45 MPH TO 55 MPH
701423-06	LANE CLOSURE, MULTILANE, WITH BARRIER, FOR SPEED GREATER THAN OR EQUAL TO 45 MPH TO 55 MPH
701901-02	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
780001-03	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATION RAISED REFLECTIVE PAVEMENT MARKERS

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS; THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2012; AND THE SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

THIS PROJECT IS LOCATED ON FAP 327 (US ROUTE 50) AT STRUCTURE NUMBERS 013-0002 AND 013-0003. THE BRIDGES ARE LOCATED 0.2 MILES EAST OF THE JUNCTION OF US ROUTE 45 SOUTH AND US ROUTE 50 IN CLAY COUNTY. THE WORK INCLUDED IN SECTION 07 BRIDGE REPAIRS 2014-1 CONSISTS OF PCC BASE COURSE WIDENING, TRAFFIC CONTROL, BRIDGE DECK REPAIRS, PAVEMENT MARKING, AND ANY OTHER WORK NECESSARY TO COMPLETE THE SECTION.

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIAL. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. THE CONTRACTOR WILL BE PAID FOR THE QUANTITY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

THE SAW CUT REQUIRED FOR THE PAVED SHOULDER REMOVAL SHALL BE INCLUDED IN THE COST OF PAVED SHOULDER REMOVAL AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. ANY EXCAVATION NECESSARY FOR CONSTRUCTION OF THE PCC BASE COURSE WIDENING, 10" SHALL BE INCLUDED IN THE COST OF THE PCC BASE COURSE WIDENING, 10" AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. THE PCC BASE COURSE WIDENING, 10" SHALL BE REINFORCED WITH PAVEMENT FABRIC. THE REINFORCEMENT WILL BE PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR PAVEMENT FABRIC.

THE CONTRACTOR WILL NEED TO DETACH OR REMOVE GUARDRAIL TERMINAL SECTIONS AND HANDRAIL TO COMPLETE CONCRETE REMOVAL AND TO CONSTRUCT THE NEW EXPANSION JOINTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DETACHING, REMOVING, AND REATTACHING ANY GUARDRAIL OR HANDRAIL TO THE STRUCTURES. THIS WORK WILL BE CONSIDERED INCLUDED IN THE PAY ITEMS INVOLVED.

PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SECTION 780 OF THE STANDARD SPECIFICATIONS.

THE TOTAL QUANTITY OF MODIFIED URETHANE PAVEMENT MARKING-LINE 4" CONSISTS OF 1300 FEET OF WHITE AND 1300 FEET OF YELLOW.

THE TOTAL QUANTITY OF MODIFIED URETHANE PAVEMENT MARKING-LINE 6" CONSISTS OF 325 FEET OF WHITE.

REMOVAL OF THE EXISTING RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE INCLUDED IN THE COST OF REMOVING THE EXISTING HOT-MIX ASPHALT WEARING SURFACE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

IN ADDITION TO THE REQUIREMENTS FOR PORTABLE CHANGEABLE MESSAGE SIGNS IN ARTICLE 701.15(1), A LAPTOP COMPUTER TO CONTROL THE MESSAGE SIGNS SHALL ALSO BE SUPPLIED BY THE CONTRACTOR.

THE PAY ITEM TEMPORARY RAMP HAS BEEN INCLUDED FOR THE CONSTRUCTION OF TEMPORARY RAMPS IN ACCORDANCE WITH ARTICLE 406.08 OF THE STANDARD SPECIFICATIONS. THE COST PER SQUARE YARD SHALL INCLUDE BOTH THE INSTALLATION AND THE REMOVAL OF THE TEMPORARY RAMPS.

LENSES ON THE RAISED REFLECTIVE PAVEMENT MARKERS IN THE TAPER AREAS SHALL BE REMOVED. REMOVING, STORING, AND REINSTALLATION OF THE LENSES SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION STANDARD 701423.

NO PINNING OF THE TEMPORARY CONCRETE BARRIER WALL WILL BE REQUIRED EXCEPT FOR THE END SECTIONS. WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PLACED IN THE LOCATION SHOWN ON THE TYPICAL SECTIONS.

THE FOLLOWING MIXTURE REQUIREMENT IS APPLICABLE TO THIS PROJECT:

MIXTURE USE:	SURFACE COURSE (1 1/2")
APPLICATION:	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90
PG GRADE:	PG 64-22
DESIGN AIR VOIDS:	4.0% @ NDESIGN = 90
MIXTURE COMPOSITION:	IL-9.5
FRICTION AGGREGATE:	MIXTURE D

• 07 Bridge Repairs 2014-1

FILE NAME	USER NAME	DESIGNED	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		INDEX OF SHEETS AND GENERAL NOTES		P.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	4600-shs-index.dgn	DRAWN	REVISED					327		CLAY	49	2
Default	PLOT SCALE = 100.0000' / in.	CHECKED	REVISED									
	PLOT DATE = 3/29/2013	DATE	REVISED									
											CONTRACT NO. 74600	

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0014		
35300500	PORTLAND CEMENT CONCRETE BASE COURSE 10"	SO YD	931	931		
35400500	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 10"	SO YD	658	658		
40600990	TEMPORARY RAMP	SO YD	107	107		
40603345	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	TON	15	15		
42001200	PAVEMENT FABRIC	SO YD	1589	1589		
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SO YD	172	172		
44004250	PAVED SHOULDER REMOVAL	SO YD	1589	1589		
50102400	CONCRETE REMOVAL	CU YD	28	28		
50300100	FLOOR DRAINS	EACH	32	32		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	28	28		
50300260	BRIDGE DECK GROOVING	SO YD	916	916		
50300300	PROTECTIVE COAT	SO YD	78	78		
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3020	3020		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0014		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3920	3920		
50800515	BAR SPLICERS	EACH	56	56		
52000110	PREFORMED JOINT STRIP SEAL	FOOT	174	174		
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	14	14		
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	14	14		
52100520	ANCHOR BOLTS, 1"	EACH	56	56		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	11	11		
67100100	MOBILIZATION	L SUM	1	1		
70100320	TRAFFIC CONTROL AND PROTECTION, STANDARD 701422	L SUM	1	1		
70100325	TRAFFIC CONTROL AND PROTECTION, STANDARD 701423	EACH	2	2		
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	12	12		

FILE NAME :	USER NAME : staffanmk	DESIGNED -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N/A SHEET 1 OF 2 SHEETS STA. TO STA.

* 07 Bridge Repairs 2014-1

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	*	CLAY	49	3
CONTRACT NO. 74600			ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0014		
* 70300100	SHORT TERM PAVEMENT MARKING	FOOT	234	234		
* 70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2600	2600		
* 70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	325	325		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	78	78		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	740	740		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	740	740		
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	2600	2600		
* 78009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	FOOT	325	325		
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	4	4		
78300100	PAVEMENT MARKING REMOVAL	SO FT	956	956		
X0322469	PLUG EXISTING FLOOR DRAINS	EACH	32	32		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0014		
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	42	42		
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	28	28		
Z0004556	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SO YD	924	924		
Z0012113	BRIDGE DECK FLY ASH OR GGBF SLAG CONCRETE OVERLAY, 3	SO YD	924	924		
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SO YD	924	924		
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SO FT	40	40		
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SO YD	13	13		
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SO YD	43	43		

***SPECIALTY ITEM**

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
SCALE: N/A	SHEET 2 OF 2 SHEETS	STA.	TO STA.

F.A.P. RTE. 327	SECTION -	COUNTY CLAY	TOTAL SHEETS 49	SHEET NO. 4
CONTRACT NO. 74600				
ILLINOIS FED. AID PROJECT				

• 07 Bridge Repairs 2014-1

WIDENING SCHEDULE

STATION TO STATION	LOCATION	PORTLAND CEMENT CONCRETE BASE COURSE, 10"	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING, 10"	PAVEMENT FABRIC	PAVED SHOULDER REMOVAL
	CORNER	SQ YD	SQ YD	SQ YD	SQ YD
S. N. 013-0002 (EB)					
	NE		141	141	141
	NW		186	186	186
	SE	197		197	197
	SW	268		268	268
S. N. 013-0003 (WB)					
	NE	268.4		268.4	268.4
	NW	197.0		197.0	197.0
	SE		189.1	189.1	189.1
	SW		142.2	142.2	142.2
TOTALS		931	658	1589	1589

PAVING SCHEDULE

STATION TO STATION	HOT MIX ASPHALT SURFACE COURSE, MIX D, N90	HOT MIX ASPHALT SURFACE REMOVAL 1 1/2"	TEMPORARY RAMP
	TON	SQ YD	SQ YD
S. N. 013-0002 (EB)			
	EAST	3.75	43
	WEST	3.75	43
S. N. 013-0003 (WB)			
	EAST	3.75	43
	WEST	3.75	43
TOTALS	15	172	107

TRAFFIC CONTROL DEVICES SCHEDULE

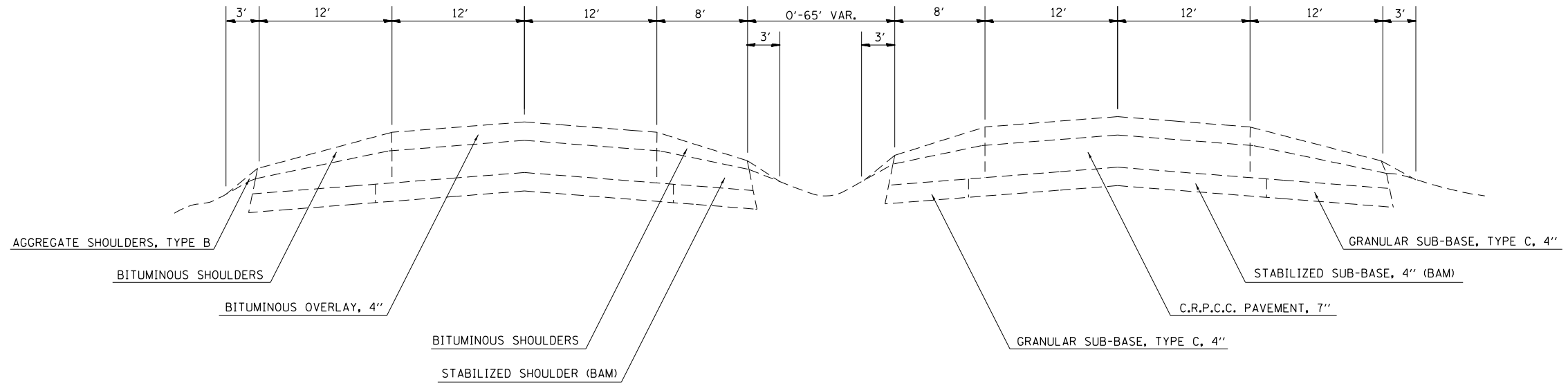
LOCATION	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3
	FOOT	FOOT	EACH	EACH
S. N. 013-0002 (EB)	370.0	370.0	1.0	1.0
S. N. 013-0003 (WB)	370.0	370.0	1.0	1.0
TOTALS	740.0	740.0	2.0	2.0

PAVEMENT MARKING SCHEDULE

STATION TO STATION	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	PAVEMENT MARKING REMOVAL	TEMPORARY PAVEMENT MARKING 4"	TEMPORARY PAVEMENT MARKING 6"	WORK ZONE PAVEMENT MARKING REMOVAL
	FOOT	FOOT	SQ FT	FOOT	FOOT	SQ FT
S. N. 013-0002 (EB)						
798+55 TO 805+05	1300	163	478	1300	163	117
S. N. 013-0003 (WB)						
798+55 TO 805+05	1300	163	478	1300	163	117
TOTALS	2600	325	956	2600	325	234

EXISTING TYPICAL CROSS SECTION

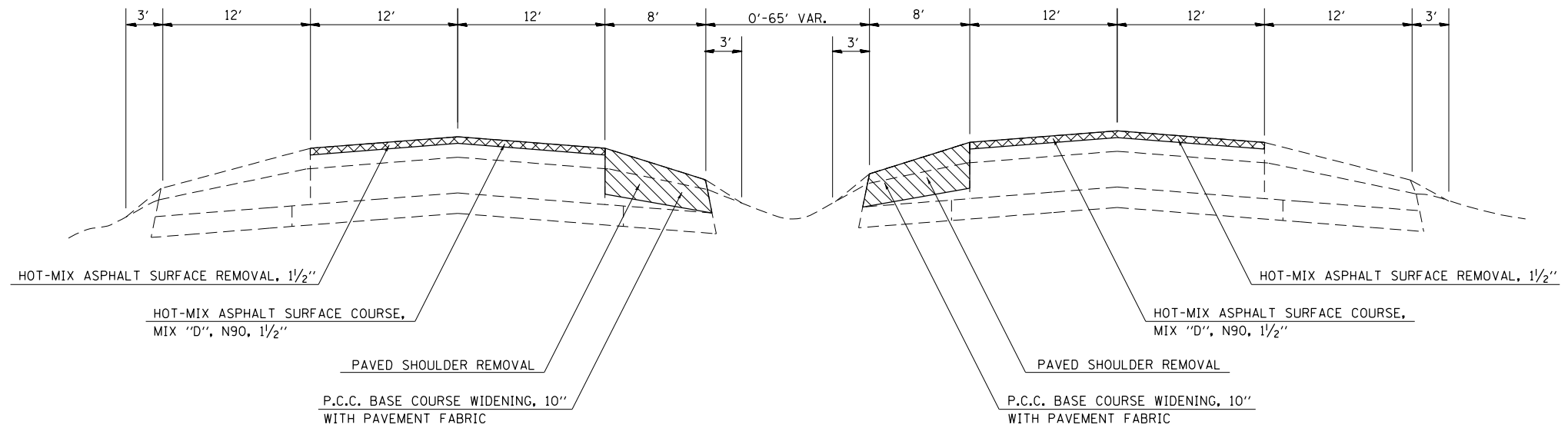
U.S. ROUTE 50
 STA. 776+53.81 TO STA. 812+63 (EBL) AND STA. 812+71 (WBL)
 WBL-BRIDGE OMISSION STA. 800+99.77 TO STA. 802+18.27
 EBL-BRIDGE OMISSION STA. 801+41.73 TO STA. 802+60.23



NOTE: NOT TO SCALE

PROPOSED TYPICAL CROSS SECTION

U.S. ROUTE 50
 STA. 776+53.81 TO STA. 812+63 (EBL) AND STA. 812+71 (WBL)
 WBL-BRIDGE OMISSION STA. 800+99.77 TO STA. 802+18.27
 EBL-BRIDGE OMISSION STA. 801+41.73 TO STA. 802+60.23



PAVED SHOULDER REMOVAL
 HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"

NOTE: NOT TO SCALE

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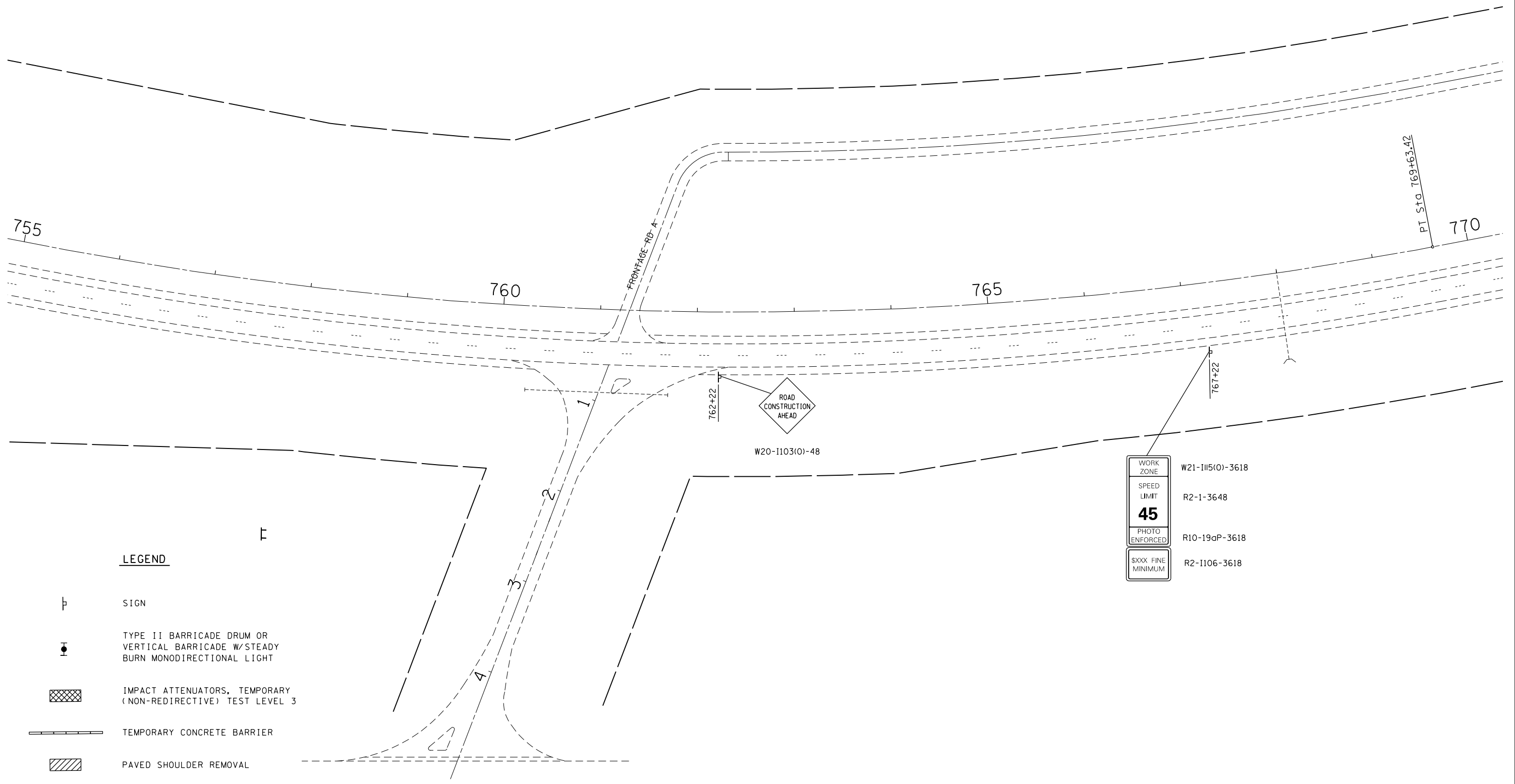
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS







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• 07 Bridge Repairs 2014-1

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	6
CONTRACT NO. 74600				
ILLINOIS FED. AID PROJECT				



LEGEND

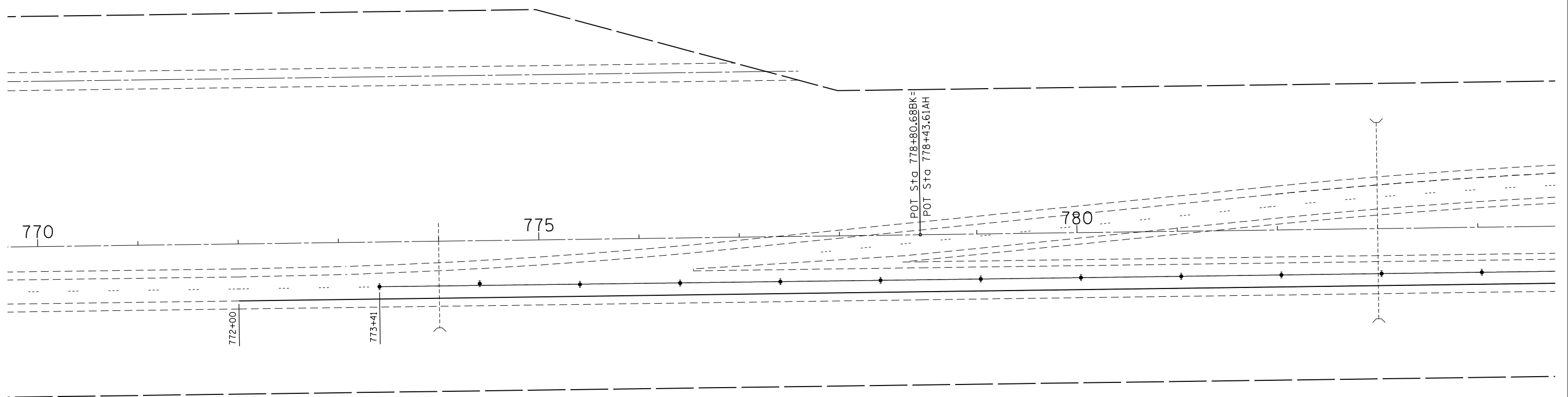
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-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  PAVED SHOULDER REMOVAL
-  TYPE III BARRICADE

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





**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE 1			
SCALE: 50	SHEET 1	OF 6 SHEETS	STA. 755+00 TO STA. 770+00

• D7 Bridge Repairs 2014-1				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	7
CONTRACT NO. 74600				
ILLINOIS FED. AID PROJECT				



LEGEND

-  SIGN
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  PAVED SHOULDER REMOVAL
-  TYPE III BARRICADE

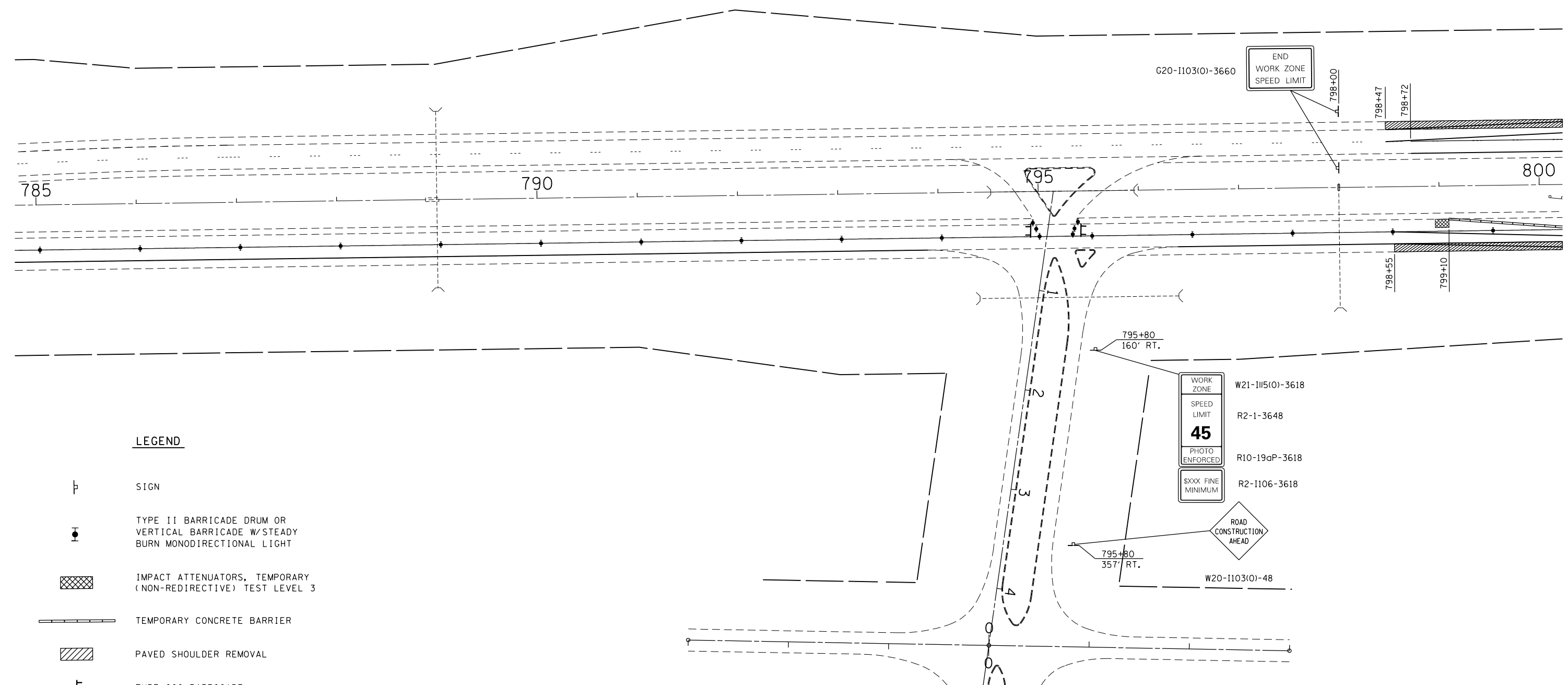
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**







STAGE 1			
SCALE: 50	SHEET 2	OF 6	SHEETS
STA. 770+00	TO STA. 784+75		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	.	CLAY	49	8
CONTRACT NO. 74600				
ILLINOIS FED. AID PROJECT				

• D7 Bridge Repairs 2014-1



LEGEND

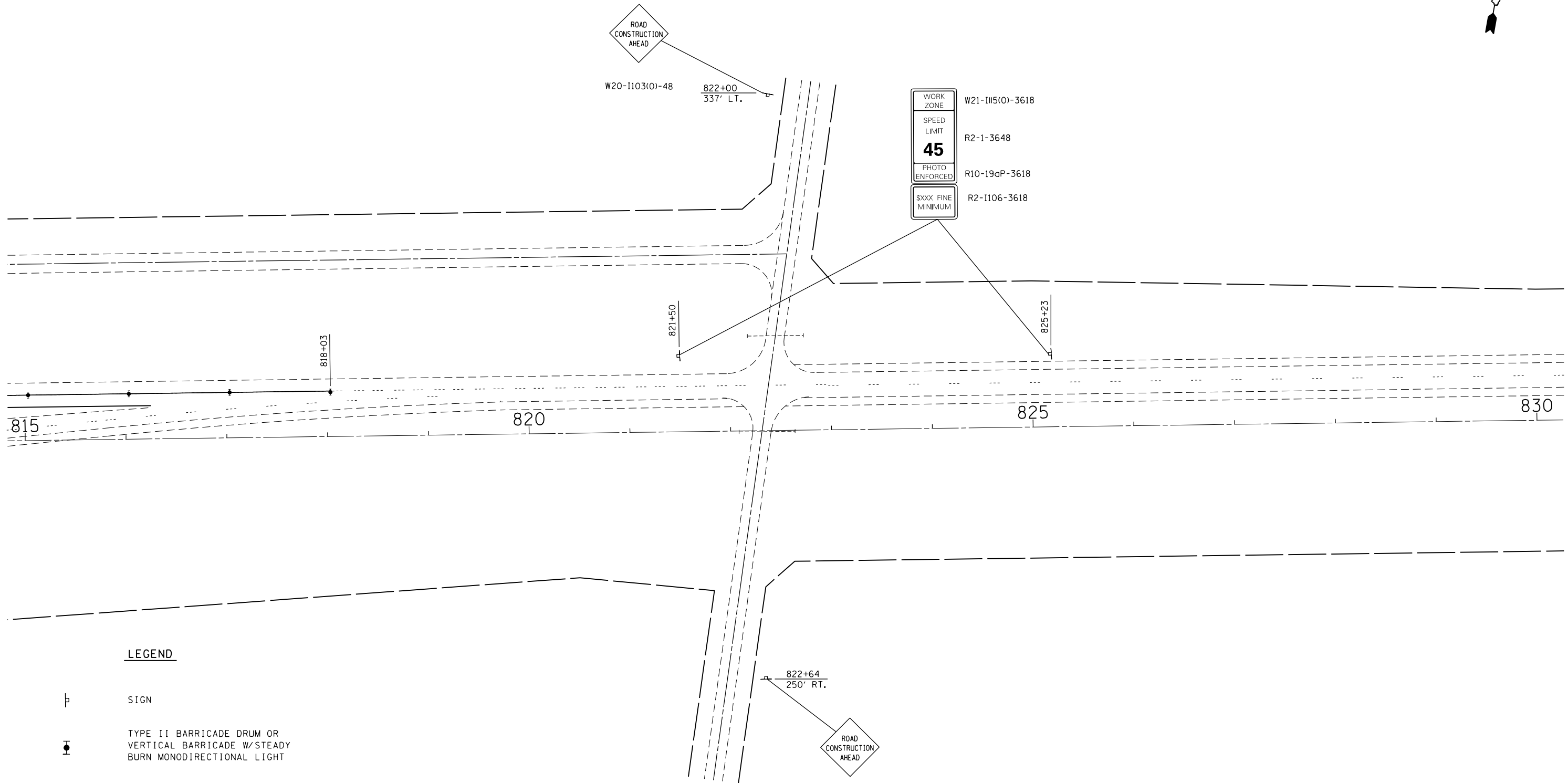
-  SIGN
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  PAVED SHOULDER REMOVAL
-  TYPE III BARRICADE

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





**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE 1			
SCALE: 50	SHEET 3	OF 6 SHEETS	STA. 784+75 TO STA. 800+00

• D7 Bridge Repairs 2014-1				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	9
CONTRACT NO. 74600				
ILLINOIS FED. AID PROJECT				



LEGEND

-  SIGN
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  PAVED SHOULDER REMOVAL
-  TYPE III BARRICADE

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE 1

SCALE: 50 SHEET 5 OF 6 SHEETS STA. 815+00 TO STA. 830+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	.	CLAY	49	11
CONTRACT NO. 74600				
ILLINOIS FED. AID PROJECT				

• D7 Bridge Repairs 2014-1



W20-1103(O)-48

830+50

830

835

840

845

LEGEND



SIGN



TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT



IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3



TEMPORARY CONCRETE BARRIER



PAVED SHOULDER REMOVAL



TYPE III BARRICADE

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -
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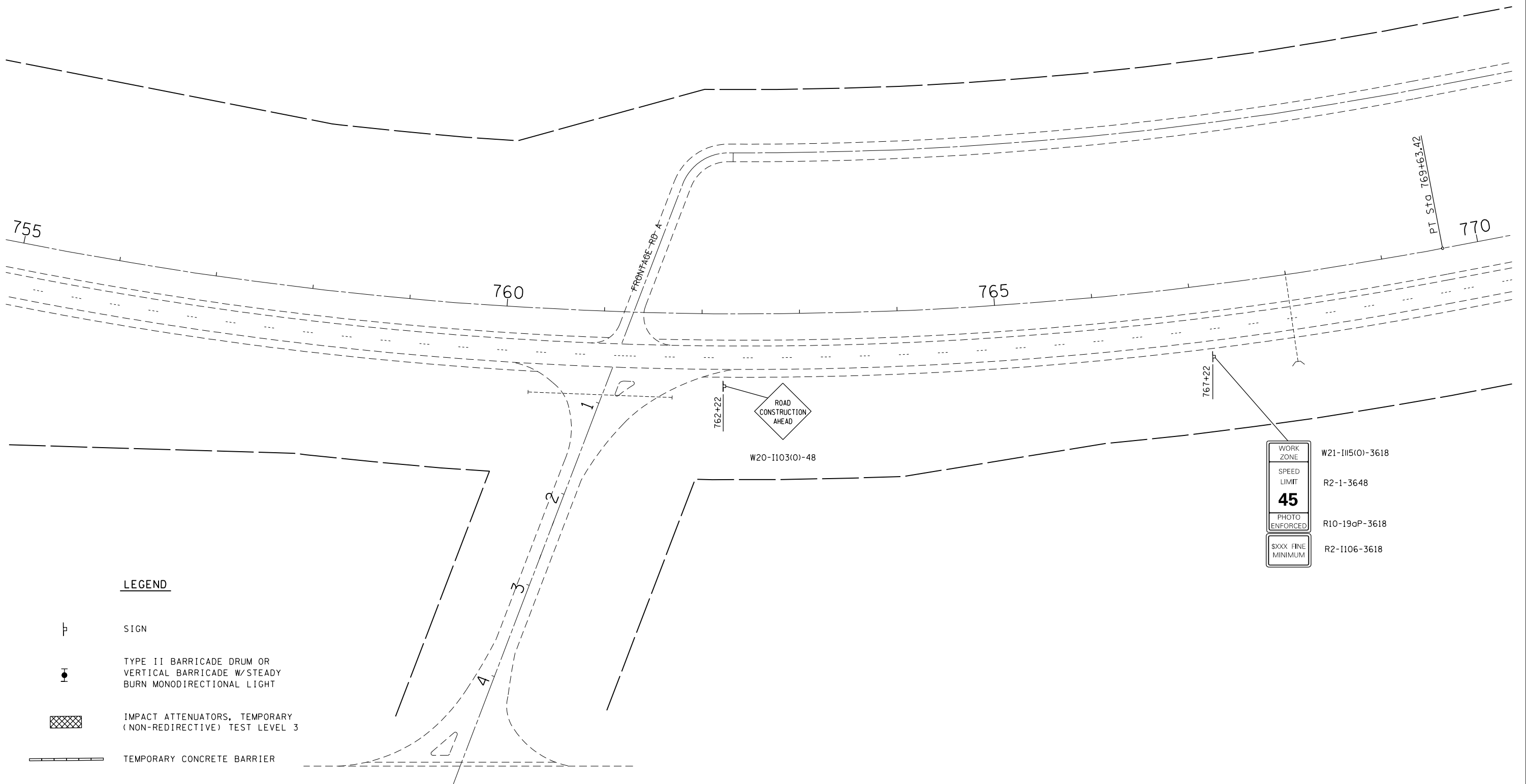
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE 1







SCALE: 50 SHEET 6 OF 6 SHEETS STA. 830+00 TO STA. 845+00

F.A.P. RTE.		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327		•	CLAY	49	12
				CONTRACT NO. 74600	
ILLINOIS FED. AID PROJECT					

• D7 Bridge Repairs 2014-1



LEGEND

-  SIGN
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  PAVED SHOULDER REMOVAL
-  TYPE III BARRICADE

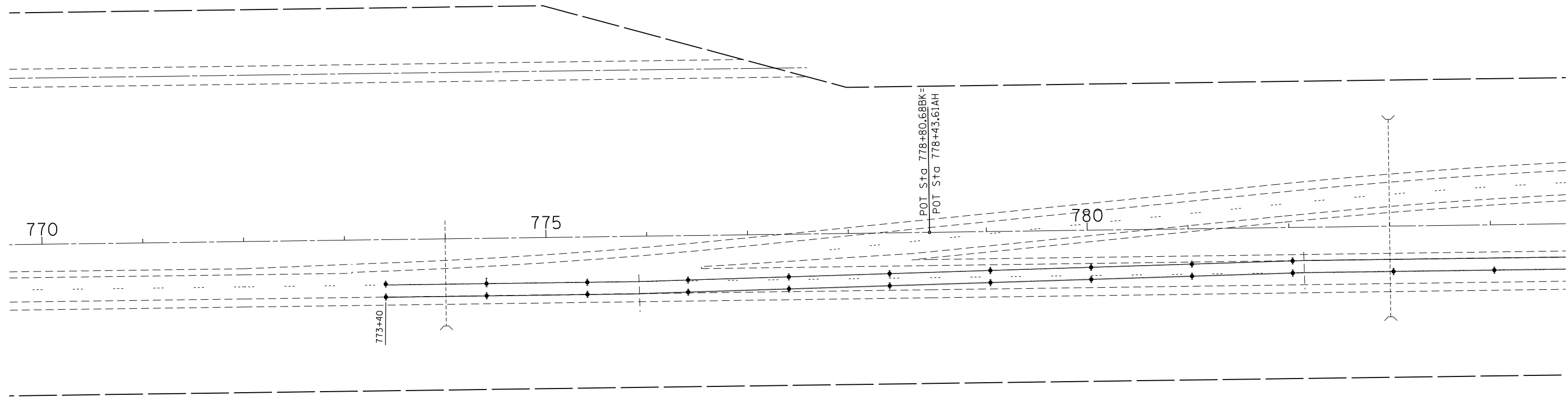
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SPEED LIMIT	R2-1-3648
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PHOTO ENFORCED	R10-19aP-3618
SXXX FINE MINIMUM	R2-1106-3618

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





**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE 2			
SCALE: 50	SHEET 1	OF 6 SHEETS	STA. 755+00 TO STA. 770+00

• D7 Bridge Repairs 2014-1				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	.	CLAY	49	13
			CONTRACT NO. 74600	
ILLINOIS FED. AID PROJECT				



LEGEND

-  SIGN
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  PAVED SHOULDER REMOVAL
-  TYPE III BARRICADE

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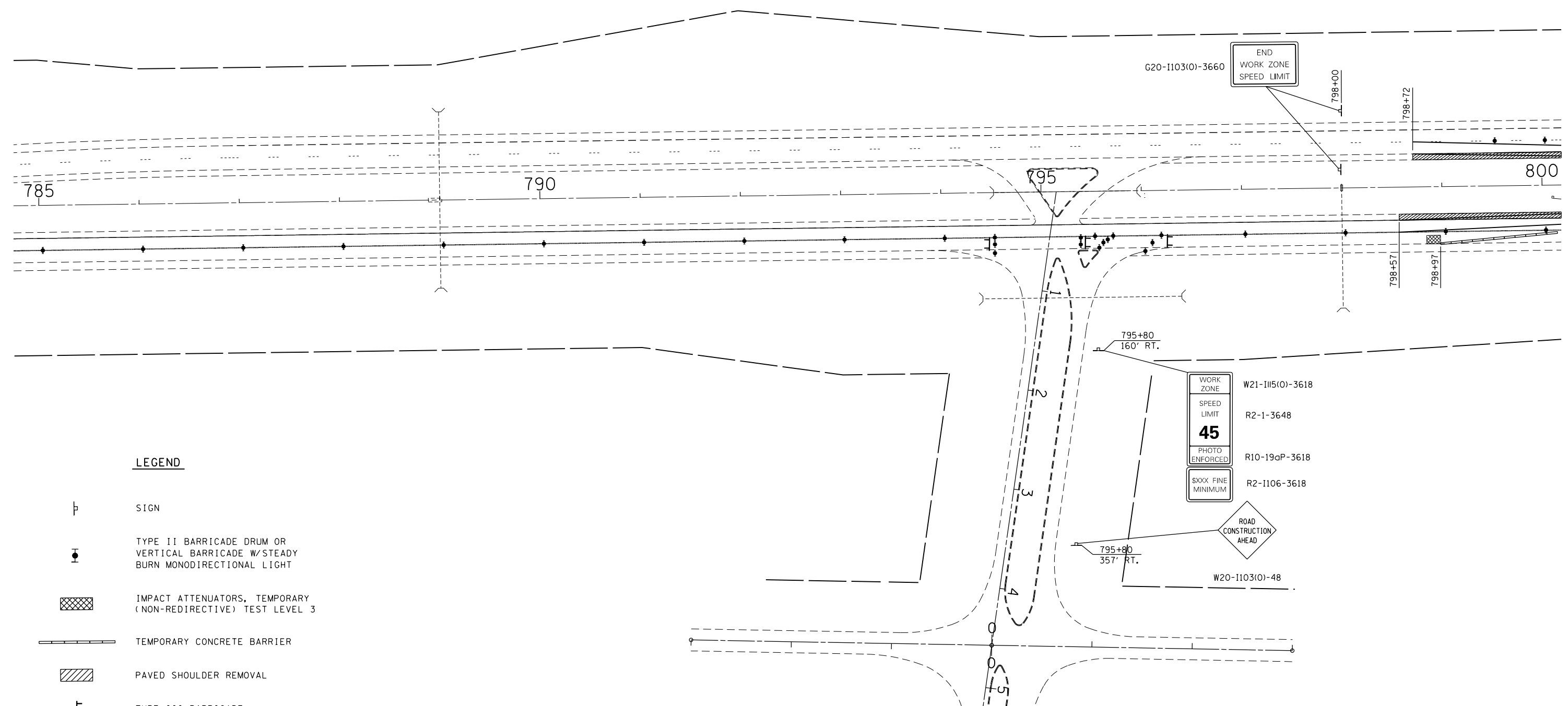
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE 2







SCALE: 50 SHEET 2 OF 6 SHEETS STA. 770+00 TO STA. 784+75

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	.	CLAY	49	14
CONTRACT NO. 74600			ILLINOIS FED. AID PROJECT	

• D7 Bridge Repairs 2014-1



LEGEND

-  SIGN
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  PAVED SHOULDER REMOVAL
-  TYPE III BARRICADE

WORK ZONE	W21-III(0)-3618
SPEED LIMIT	R2-1-3648
45	
PHOTO ENFORCED	R10-19aP-3618
SXXX FINE MINIMUM	R2-1106-3618



W20-1103(0)-48

• D7 Bridge Repairs 2014-1

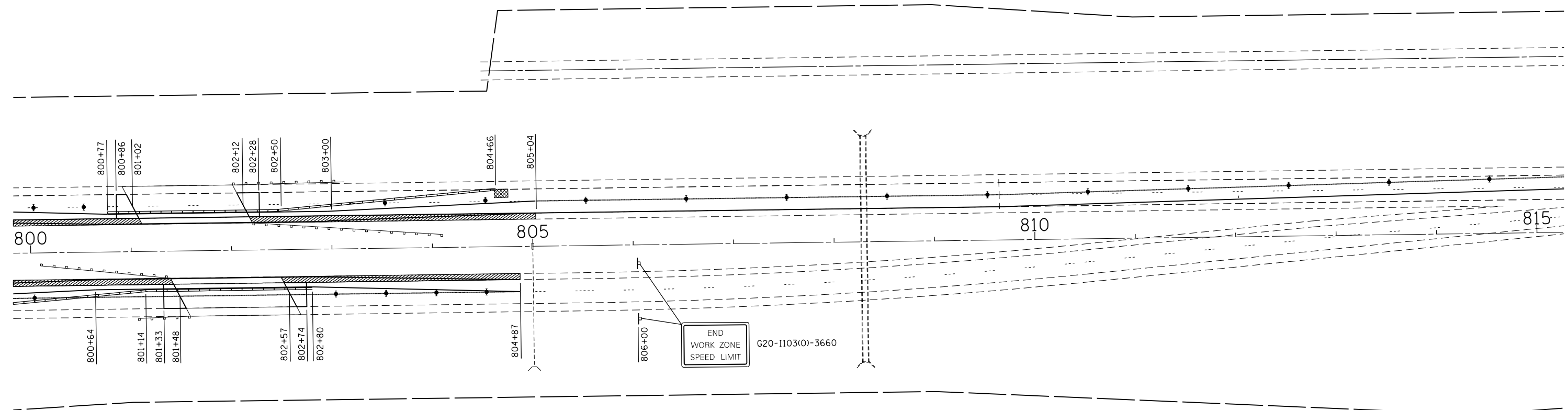
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**







STAGE 2

SCALE: 50 SHEET 3 OF 6 SHEETS STA. 784+75 TO STA. 800+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	15
CONTRACT NO. 74600			ILLINOIS FED. AID PROJECT	



LEGEND

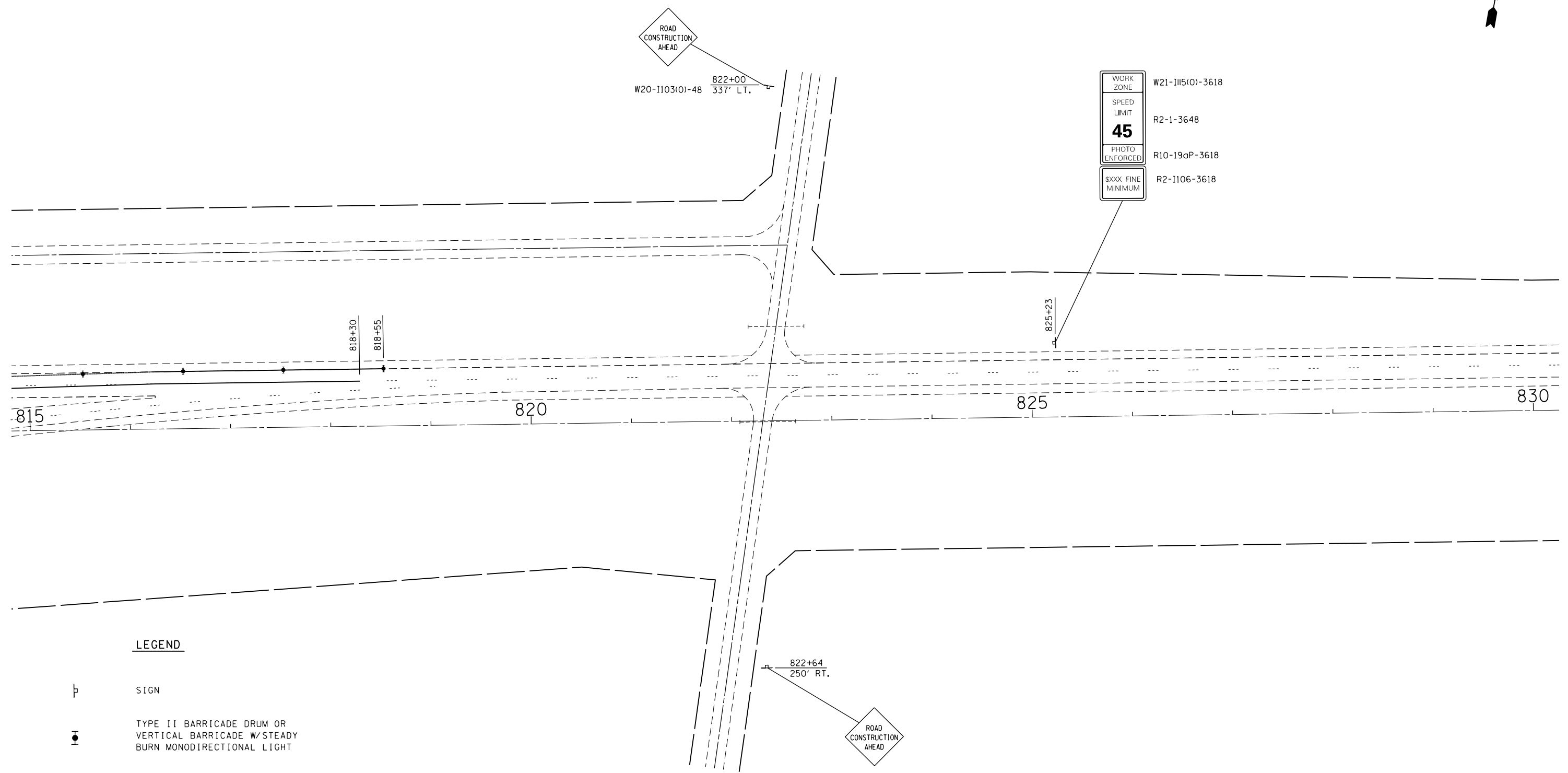
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-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  PAVED SHOULDER REMOVAL
-  TYPE III BARRICADE

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





**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE 2			
SCALE: 50	SHEET 4 OF 6 SHEETS	STA. 800+00	TO STA. 815+00

• D7 Bridge Repairs 2014-1				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	16
CONTRACT NO. 74600				
ILLINOIS FED. AID PROJECT				



LEGEND

-  SIGN
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  PAVED SHOULDER REMOVAL
-  TYPE III BARRICADE

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





**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE 2			
SCALE: 50	SHEET 5	OF 6 SHEETS	STA. 815+00 TO STA. 830+00

• D7 Bridge Repairs 2014-1				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	.	CLAY	49	17
			CONTRACT NO. 74600	
ILLINOIS FED. AID PROJECT				



LEGEND

-  SIGN
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  PAVED SHOULDER REMOVAL
-  TYPE III BARRICADE

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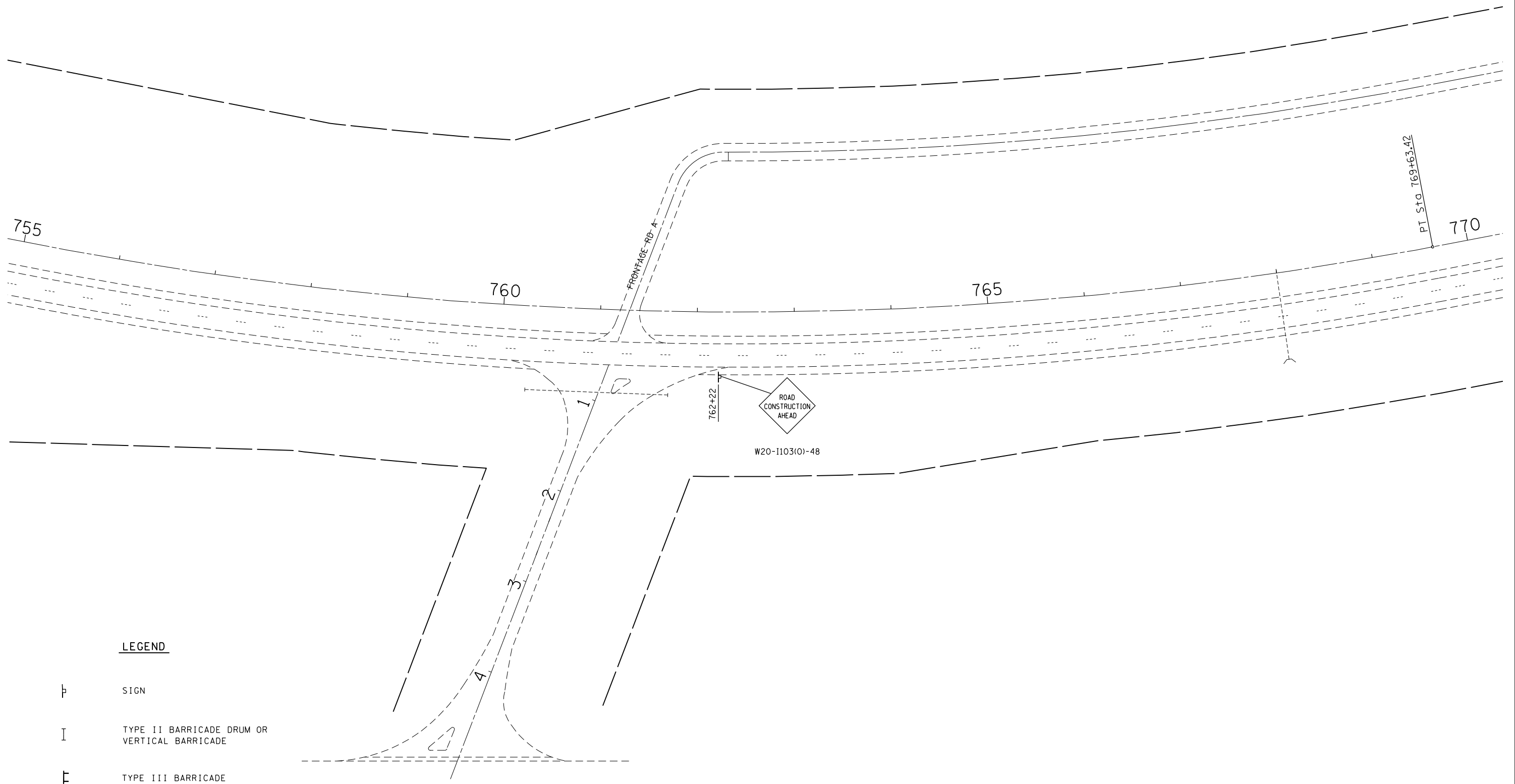
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE 2

SCALE: 50 SHEET 6 OF 6 SHEETS STA. 830+00 TO STA. 845+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	.	CLAY	49	18
CONTRACT NO. 74600			ILLINOIS FED. AID PROJECT	

• D7 Bridge Repairs 2014-1



LEGEND

- ⊥ SIGN
- I TYPE II BARRICADE DRUM OR VERTICAL BARRICADE
- ⌊ TYPE III BARRICADE

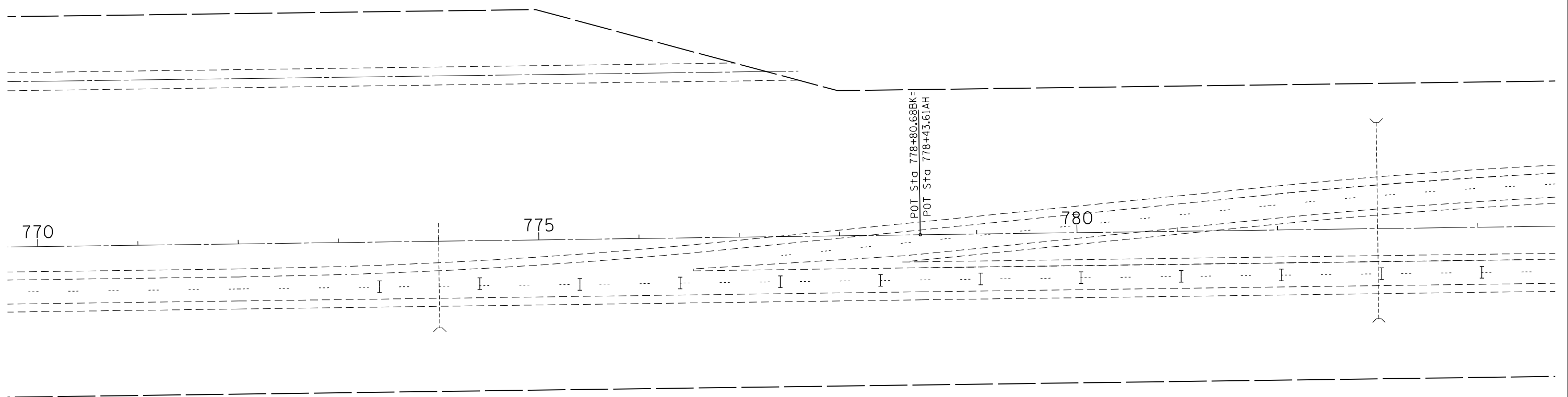
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL & PROTECTION, STD. 701422
FOR PASSING LANE CLOSURE**

SCALE: 50 SHEET 1 OF 12 SHEETS STA. 755+00 TO STA. 770+00

• D7 Bridge Repairs 2014-1				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	19
			CONTRACT NO. 74600	
ILLINOIS FED. AID PROJECT				



LEGEND

- ⊥ SIGN
- I TYPE II BARRICADE DRUM OR VERTICAL BARRICADE
- ⌊ TYPE III BARRICADE

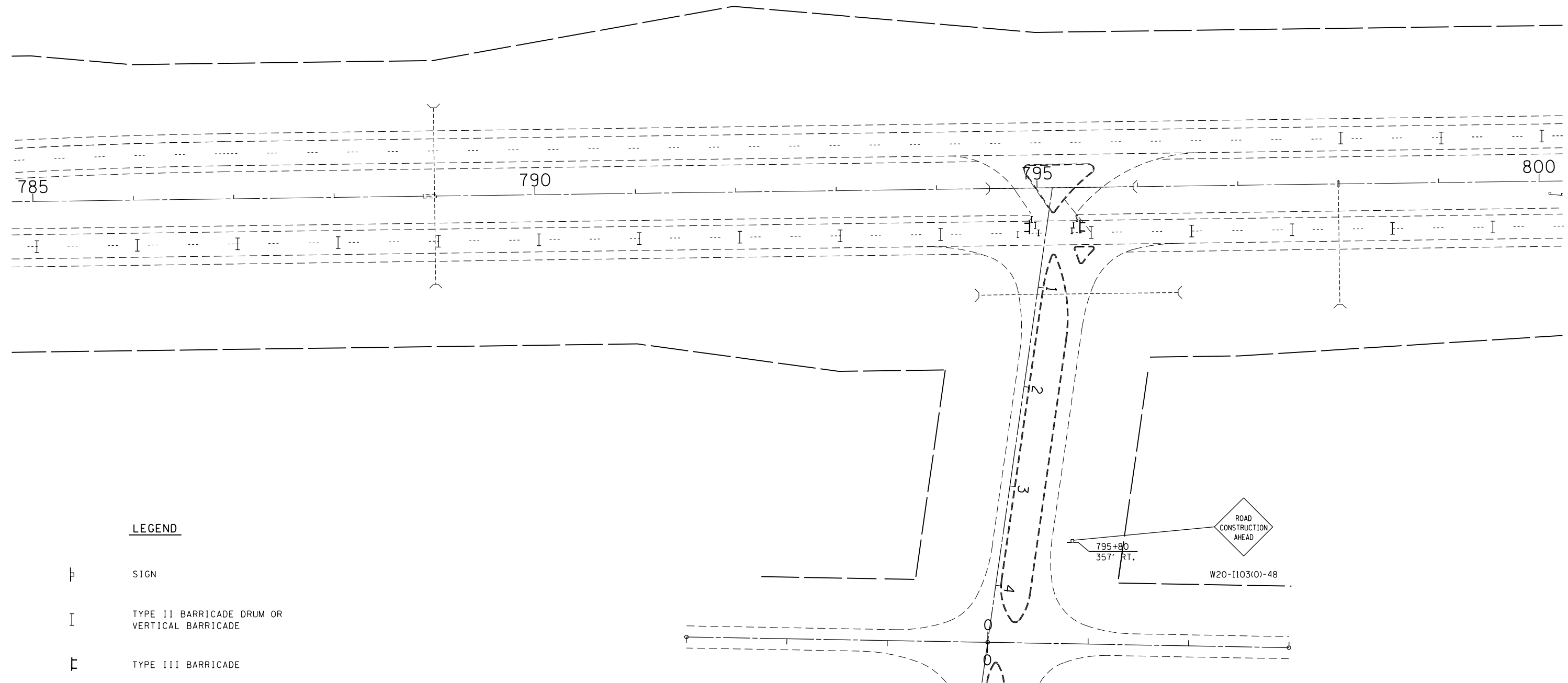
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**


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FOR PASSING LANE CLOSURE**


SCALE: 50 SHEET 2 OF 12 SHEETS STA. 770+00 TO STA. 784+75


• D7 Bridge Repairs 2014-1		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		327	•	CLAY	49	20
					CONTRACT NO. 74600	
ILLINOIS FED. AID PROJECT						



LEGEND

-  SIGN

-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE

-  TYPE III BARRICADE

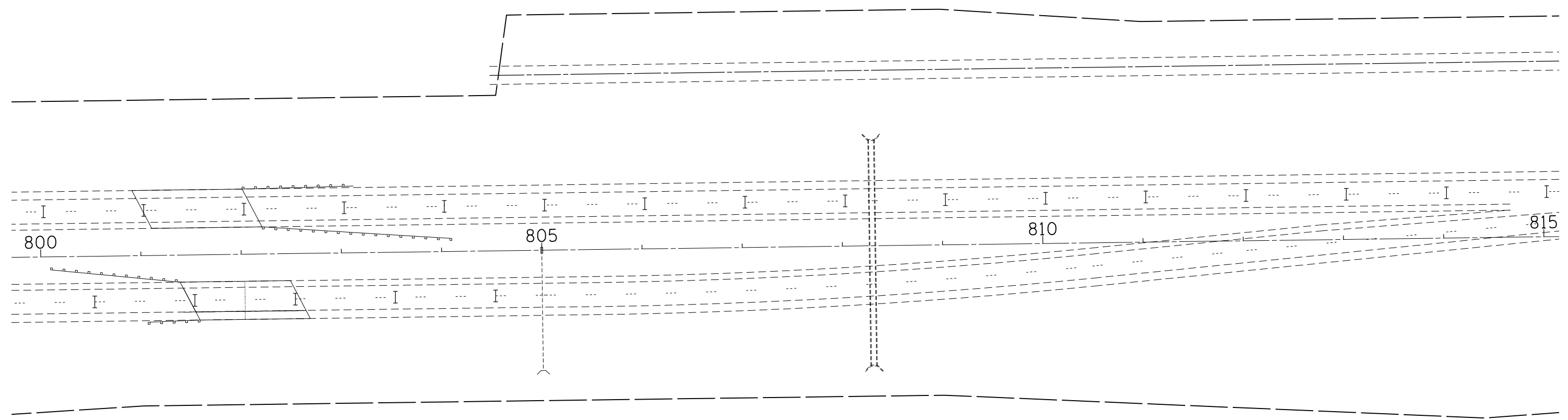
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**




**TRAFFIC CONTROL & PROTECTION, STD. 701422
FOR PASSING LANE CLOSURE**

SCALE: 50 SHEET 3 OF 12 SHEETS STA. 784+75 TO STA. 800+00

• D7 Bridge Repairs 2014-1				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	21
			CONTRACT NO. 74600	
ILLINOIS FED. AID PROJECT				



LEGEND

-  SIGN
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE
-  TYPE III BARRICADE

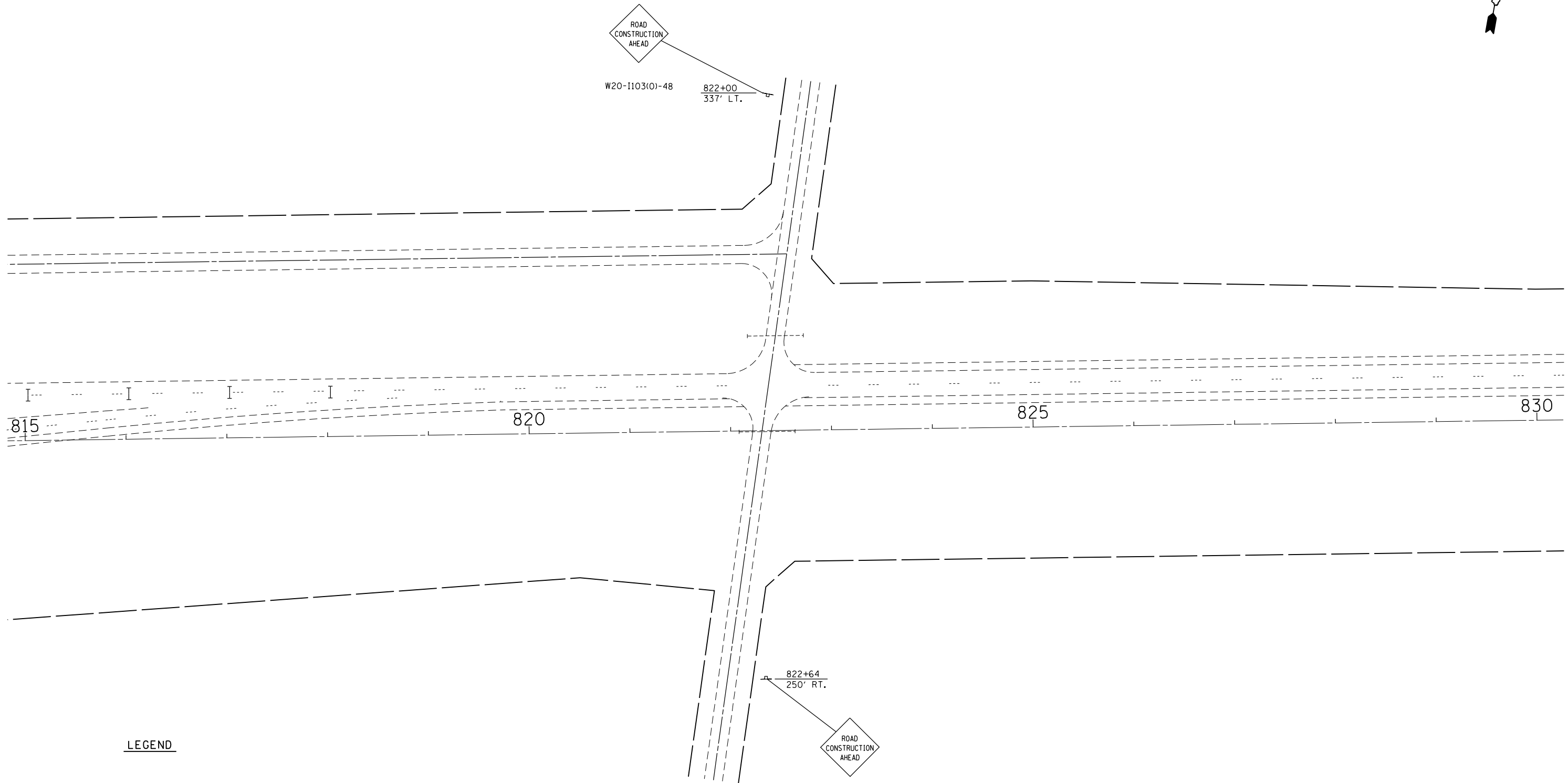
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**




**TRAFFIC CONTROL & PROTECTION, STD. 701422
FOR PASSING LANE CLOSURE**

SCALE: 50 SHEET 4 OF 12 SHEETS STA. 800+00 TO STA. 815+00

• D7 Bridge Repairs 2014-1				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	22
			CONTRACT NO. 74600	
ILLINOIS FED. AID PROJECT				



LEGEND

-  SIGN
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE
-  TYPE III BARRICADE

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL & PROTECTION, STD. 701422
FOR PASSING LANE CLOSURE**

SCALE: 50 SHEET 5 OF 12 SHEETS STA. 815+00 TO STA. 830+00

• D7 Bridge Repairs 2014-1				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	23
			CONTRACT NO. 74600	
ILLINOIS FED. AID PROJECT				



W20-1103(O)-48

830+50

830

835

840

845

LEGEND



SIGN



TYPE II BARRICADE DRUM OR
VERTICAL BARRICADE



TYPE III BARRICADE

• D7 Bridge Repairs 2014-1

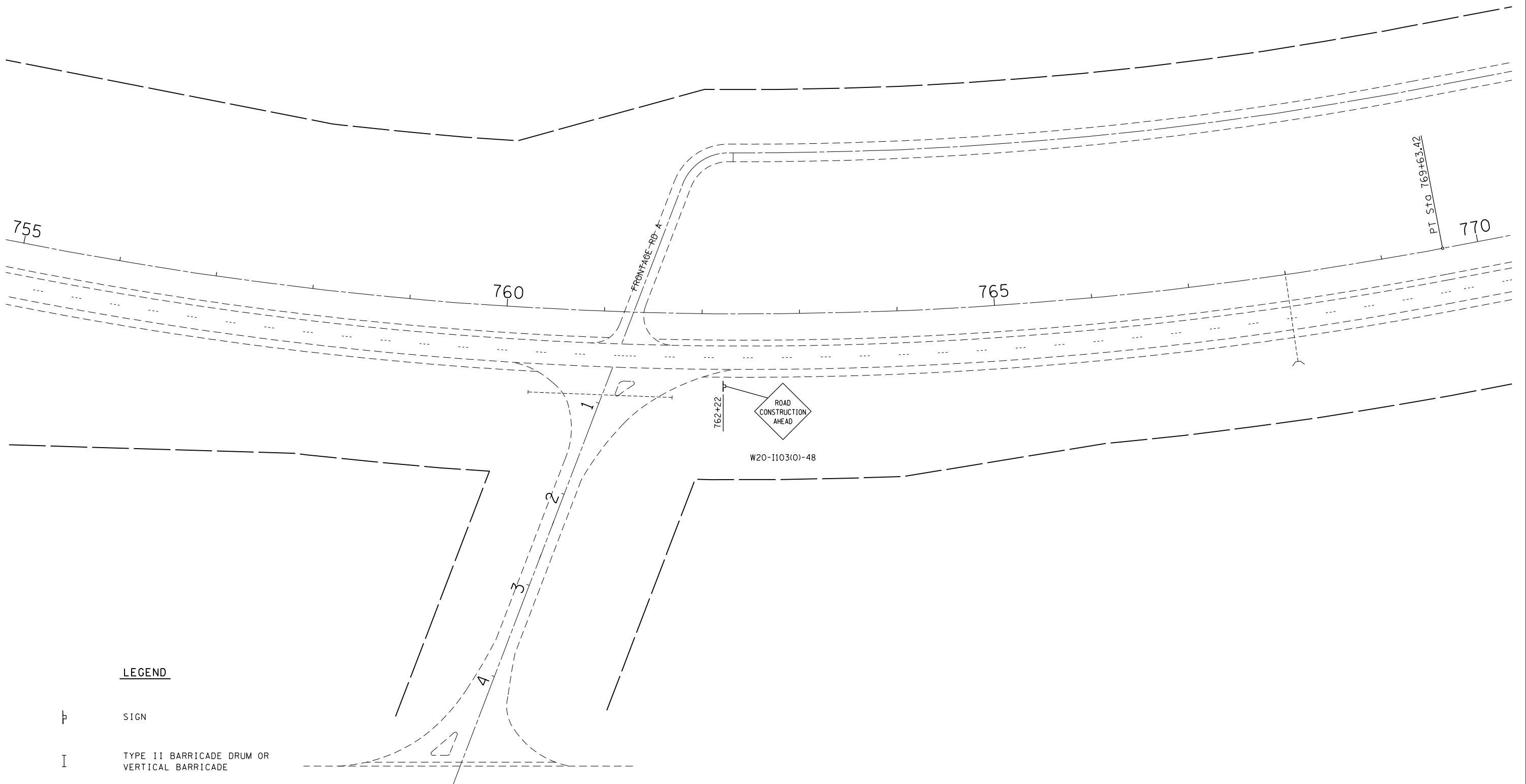
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**




**TRAFFIC CONTROL & PROTECTION, STD. 701422
FOR PASSING LANE CLOSURE**

SCALE: 50 SHEET 6 OF 12 SHEETS STA. 830+00 TO STA. 845+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	24
CONTRACT NO. 74600			ILLINOIS FED. AID PROJECT	



LEGEND

-  SIGN
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE
-  TYPE III BARRICADE

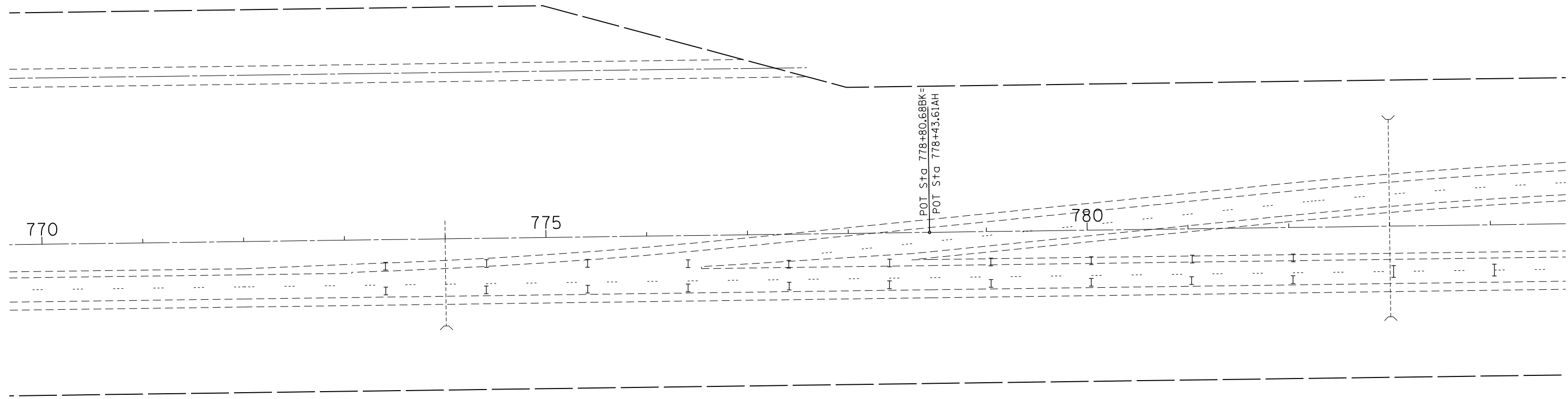
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Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL & PROTECTION, STD. 701422
FOR DRIVING LANE CLOSURE**

• D7 Bridge Repairs 2014-1			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
327	•	CLAY	49
			SHEET NO. 25
			CONTRACT NO. 74600
ILLINOIS FED. AID PROJECT			

SCALE: 50 SHEET 7 OF 12 SHEETS STA. 755+00 TO STA. 770+00



LEGEND



SIGN



TYPE II BARRICADE DRUM OR
VERTICAL BARRICADE



TYPE III BARRICADE

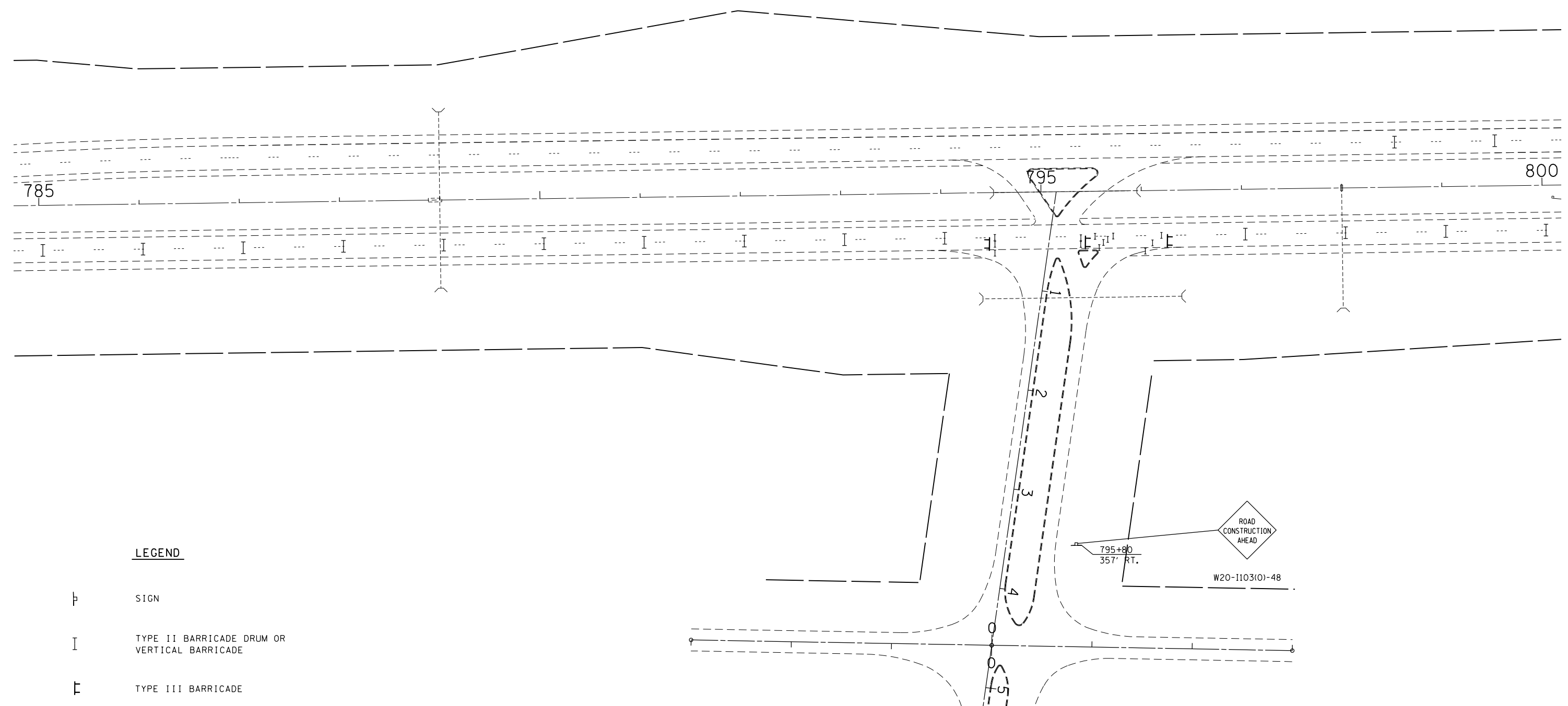
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	PLOT DATE = 3/29/2013	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**




**TRAFFIC CONTROL & PROTECTION, STD. 701422
FOR DRIVING LANE CLOSURE**

SCALE: 50 SHEET 8 OF 12 SHEETS STA. 770+00 TO STA. 784+75

• D7 Bridge Repairs 2014-1				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	26
			CONTRACT NO. 74600	
ILLINOIS FED. AID PROJECT				



LEGEND

-  SIGN
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE
-  TYPE III BARRICADE

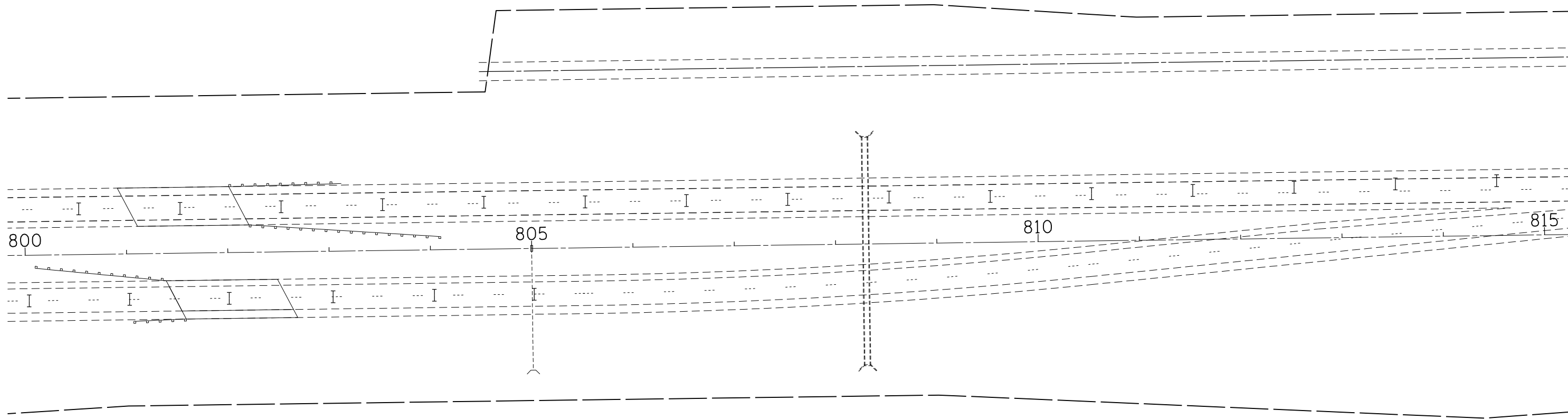
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Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 3/29/2013	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**




**TRAFFIC CONTROL & PROTECTION, STD. 701422
FOR DRIVING LANE CLOSURE**

SCALE: 50 SHEET 9 OF 12 SHEETS STA. 784+75 TO STA. 800+00

• D7 Bridge Repairs 2014-1				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	27
CONTRACT NO. 74600				
ILLINOIS FED. AID PROJECT				



LEGEND

-  SIGN
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE
-  TYPE III BARRICADE

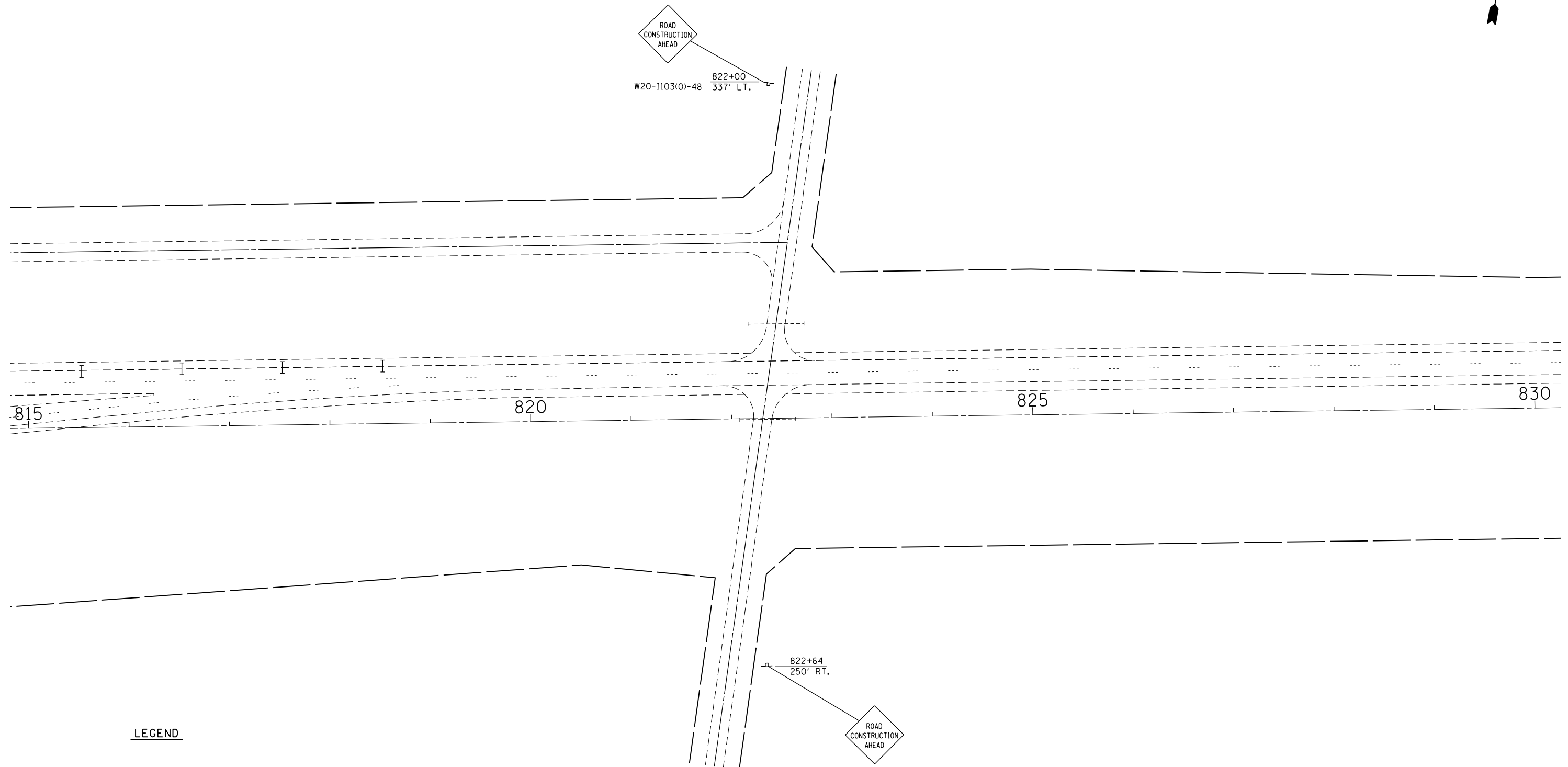
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	PLOT DATE = 3/29/2013	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**




**TRAFFIC CONTROL & PROTECTION, STD. 701422
FOR DRIVING LANE CLOSURE**

SCALE: 50 SHEET 10 OF 12 SHEETS STA. 800+00 TO STA. 815+00

• D7 Bridge Repairs 2014-1			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
327	•	CLAY	49
			SHEET NO. 28
			CONTRACT NO. 74600
ILLINOIS FED. AID PROJECT			



LEGEND

-  SIGN
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE
-  TYPE III BARRICADE

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Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 3/29/2013	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL & PROTECTION, STD. 701422
FOR DRIVING LANE CLOSURE**

SCALE: 50 SHEET 11 OF 12 SHEETS STA. 815+00 TO STA. 830+00

• D7 Bridge Repairs 2014-1			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
327	•	CLAY	49
			SHEET NO. 29
			CONTRACT NO. 74600
ILLINOIS FED. AID PROJECT			



W20-1103(O)-48

830+50

830

835

840

845

LEGEND



SIGN



TYPE II BARRICADE DRUM OR VERTICAL BARRICADE



TYPE III BARRICADE

• D7 Bridge Repairs 2014-1

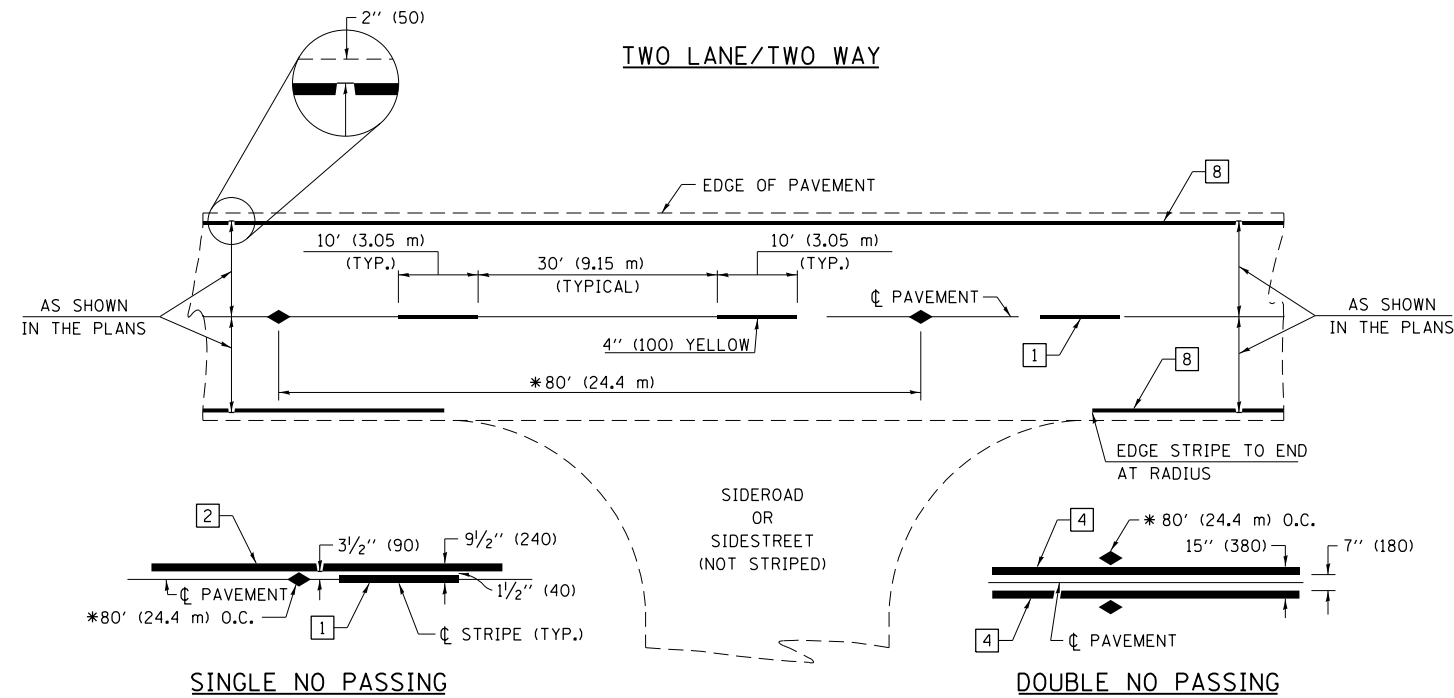
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Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 3/29/2013	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL & PROTECTION, STD. 701422
FOR DRIVING LANE CLOSURE**

SCALE: 50 SHEET 12 OF 12 SHEETS STA. 830+00 TO STA. 845+00

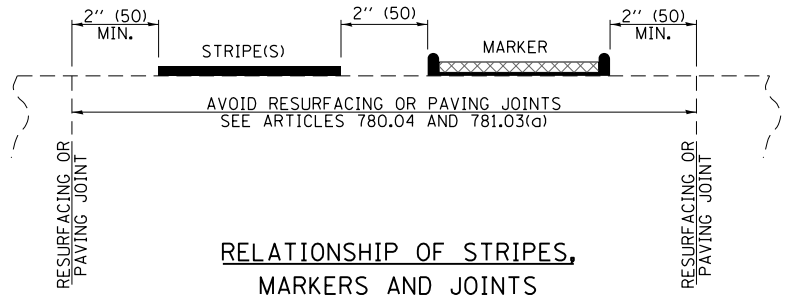
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	30
CONTRACT NO. 74600			ILLINOIS FED. AID PROJECT	



* REDUCE TO 40' (12.2 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS OF 45 mph (70 km/h) OR LESS.

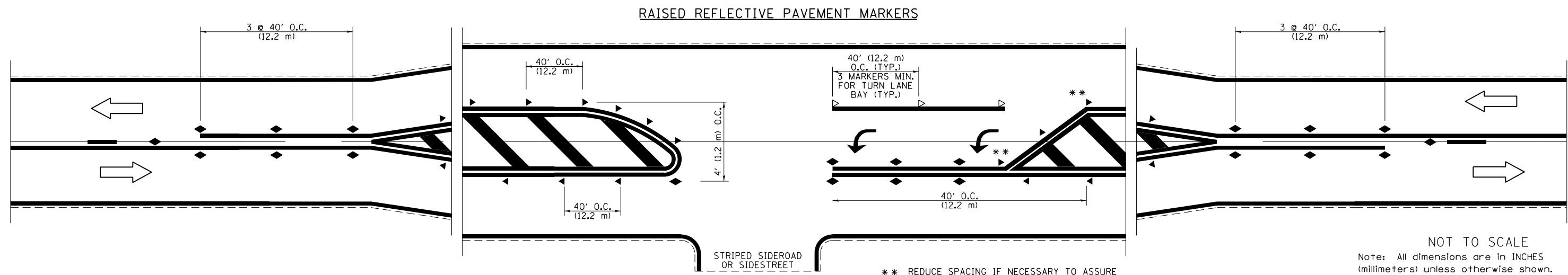
PAVEMENT MARKING LEGEND

- 1 4" (100) SKIP-DASH (YELLOW)
 - 2 4" (100) SOLID (YELLOW)
 - 3 12" (300) DIAGONAL (YELLOW)
 - 4 4" (100) DOUBLE YELLOW (NARROW)
 - 5 12" (300) SOLID WHITE
 - 6 RESERVED
 - 7 6" (150) SKIP-DASH (WHITE)
 - 8 4" (100) SOLID (WHITE)
 - 9 12" (300) DIAGONAL (WHITE)
 - 10 6" (150) SOLID (WHITE)
 - 11 24" (600) STOP BAR (WHITE)
 - 12 8" (200) SOLID (WHITE)
 - 13 4" (100) PARKING WHITE
-

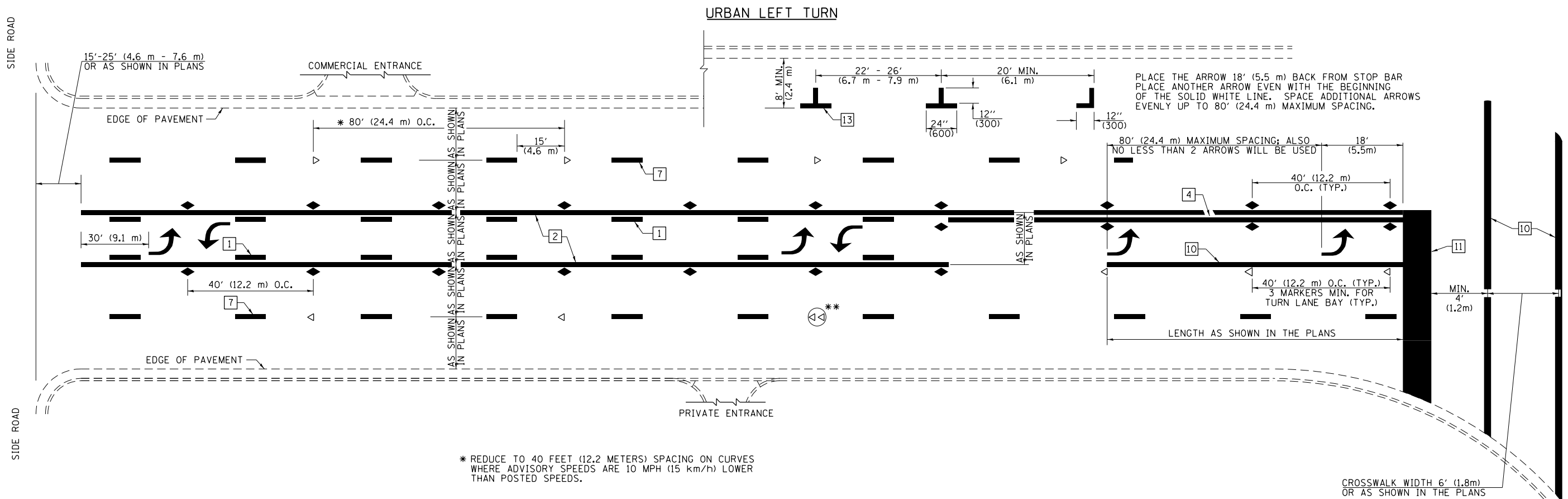


TYPICAL PAVEMENT MARKERS LEGEND

- ◆ TWO-WAY AMBER MARKER
- ▶ ONE-WAY AMBER MARKER
- ▷ ONE-WAY CRYSTAL MARKER



NOT TO SCALE
Note: All dimensions are in INCHES (millimeters) unless otherwise shown.



PLACE THE ARROW 18' (5.5 m) BACK FROM STOP BAR
 PLACE ANOTHER ARROW EVEN WITH THE BEGINNING
 OF THE SOLID WHITE LINE. SPACE ADDITIONAL ARROWS
 EVENLY UP TO 80' (24.4 m) MAXIMUM SPACING.

* REDUCE TO 40 FEET (12.2 METERS) SPACING ON CURVES
 WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER
 THAN POSTED SPEEDS.

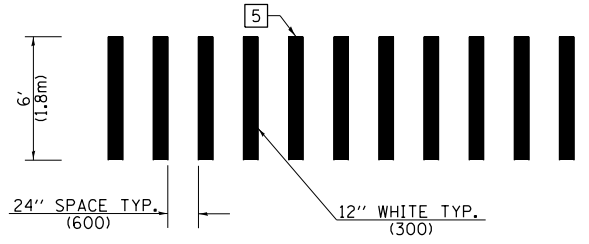
** DOUBLE LANE LINE MARKERS SHALL BE SPECIFIED
 AND SPACED AS SHOWN IN HIGHWAY STANDARD
 781001 FOR MULTI-LANE DIVIDED AND UNDIVIDED
 HIGHWAYS.

PAVEMENT MARKING LEGEND

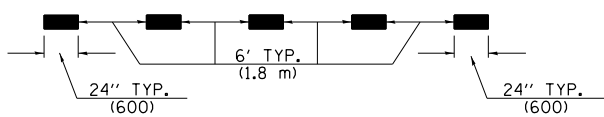
- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 12" (300) SOLID WHITE
- 6 RESERVED
- 7 6" (150) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) PARKING WHITE

GENERAL NOTES

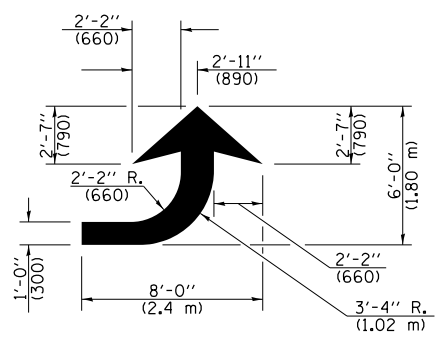
1. TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE. USE A MINIMUM OF TWO PAIRS PER BLOCK.
2. THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.
3. THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER.
4. USE LARGE ARROW SIZE FOR BOTH RURAL AND URBAN LOCATIONS. (SEE LAST PAGE OF SECTION 780x FOR SYMBOLS TABLE)
5. LANE LINE EXTENSIONS SHALL BE THE SAME COLOR AND WIDTH AS THE LANE LINE BEING EXTENDED.



**CROSSWALK DETAIL
 (DECATUR CITY LIMITS ONLY)**

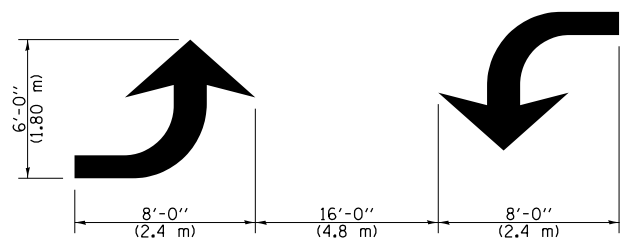


LANE LINE EXTENSIONS



LEFT ARROW

REVERSE FOR RIGHT ARROW
 AREA = 15.6 SQ. FT. (1.47 m²)
 (WHITE)



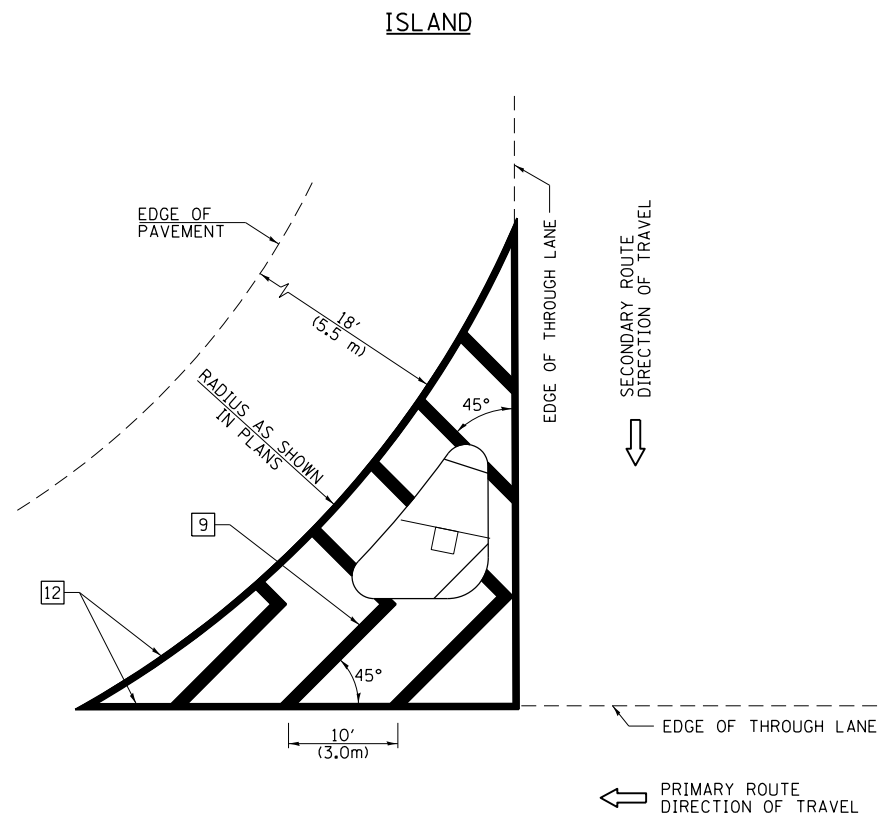
**TYPICAL DOUBLE
 TURN ARROWS (WHITE)**

NOT TO SCALE

Note: All dimensions are in INCHES
 (millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 7800001

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ci:\pw\work\p\idot\stevfenmk\d0312827\074600-sh1-detail.dgn	74600-sh1-detail.dgn	DRAWN -	REVISED -					327	07 Bridge Repairs 2014-1	CLAY	49	32	
PLOT SCALE = 100.0000' / 1in.		CHECKED -	REVISED -		SCALE: N/A			SHEET NO. 2 OF 4 SHEETS		STA. TO STA.		CONTRACT NO. 74600	
PLOT DATE = 3/29/2013		DATE -	REVISED -		ILLINOIS FED. AID PROJECT								

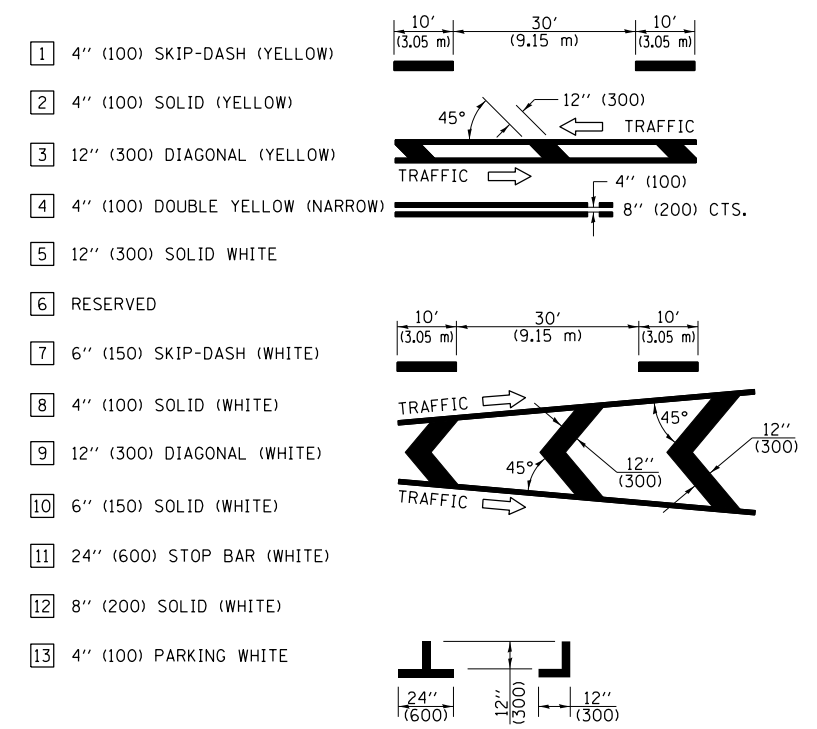


GENERAL NOTES

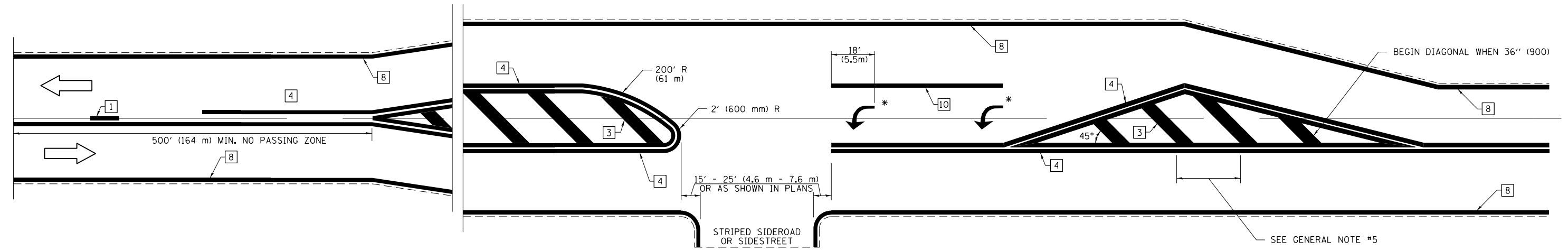
1. RAISED AND CORRUGATED MEDIANS SHALL BE OUTLINED WITH [2] IF PRESENT.
2. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
3. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
4. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
5. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING:

< 30 MPH (< 50 km/h)	15' (4.5 m)
30-45 MPH (50-75 km/h)	20' (6.0 m)
> 45 MPH (> 75 km/h)	30' (9.0 m)

PAVEMENT MARKING LEGEND



RURAL LEFT TURN STRIPING



* PLACE AN ARROW 18' (5.5 m) BACK FROM STOP BAR. PLACE ANOTHER ARROW EVEN WITH THE BEGINNING OF THE SOLID WHITE LINE. SPACE ADDITIONAL ARROWS EVENLY UP TO 80' (24.4 m) MAXIMUM SPACING. USE MINIMUM OF 2 ARROWS.

NOT TO SCALE
 Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 7800001

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -
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	PLOT DATE = 3/29/2013	DATE -	REVISED -

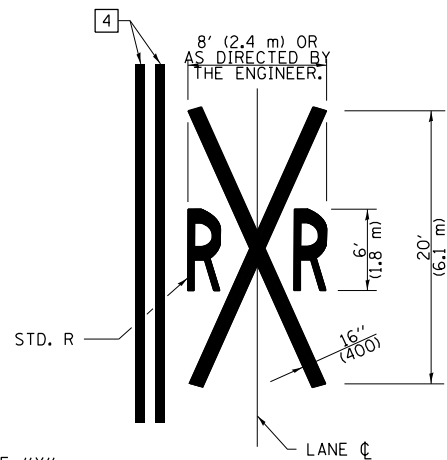
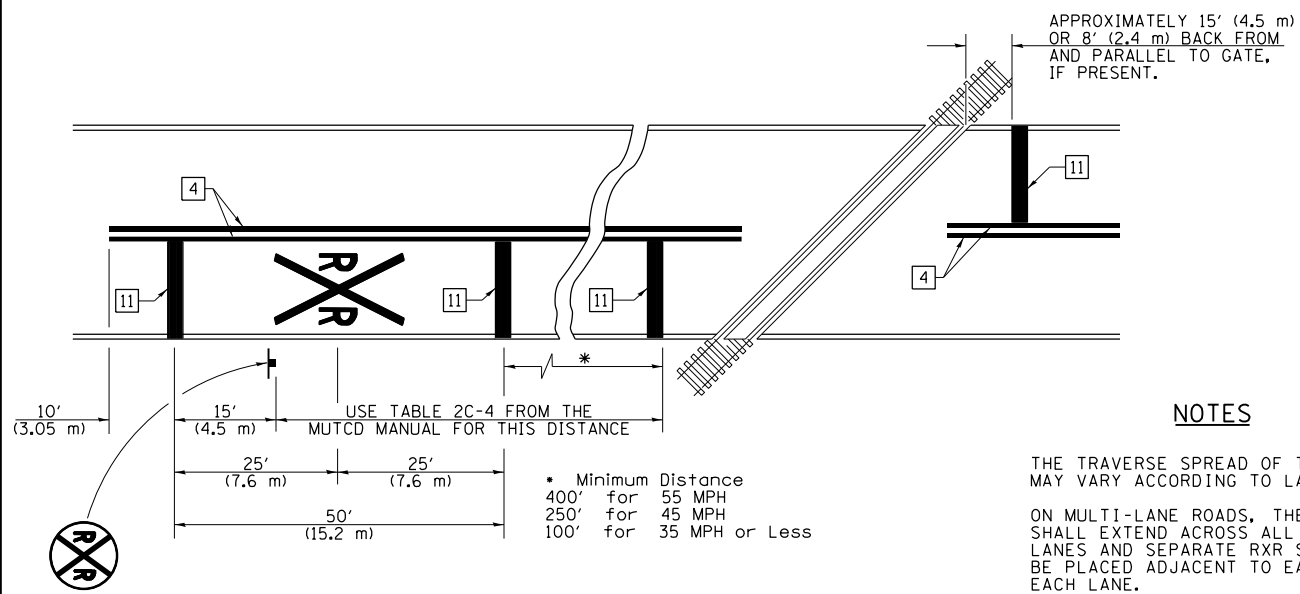
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS
 (RURAL & URBAN APPLICATIONS)**

SCALE: N/A SHEET NO. 3 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	07 Bridge Repairs 2014-I	CLAY	49	33
				CONTRACT NO. 74600
ILLINOIS FED. AID PROJECT				

PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING



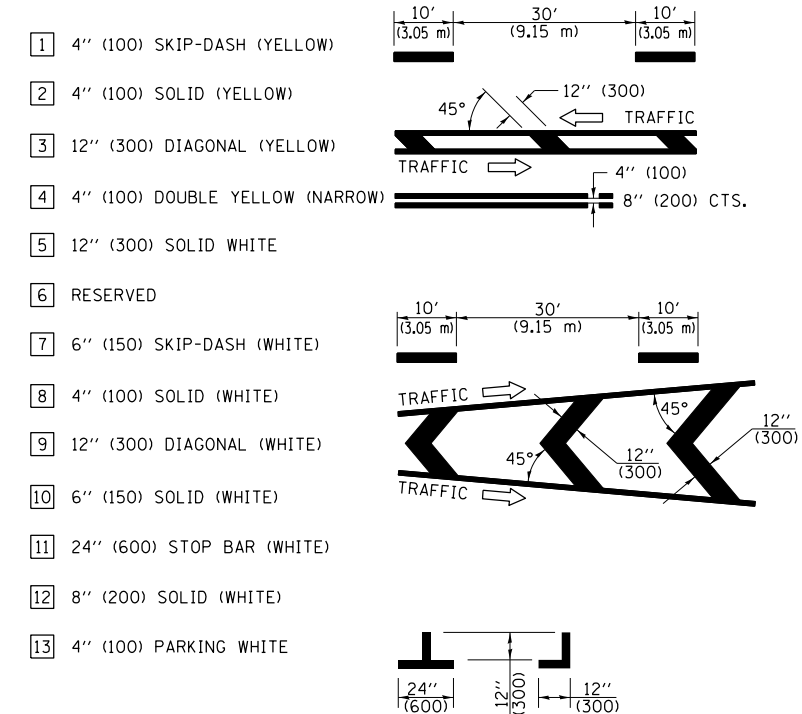
NOTES

THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

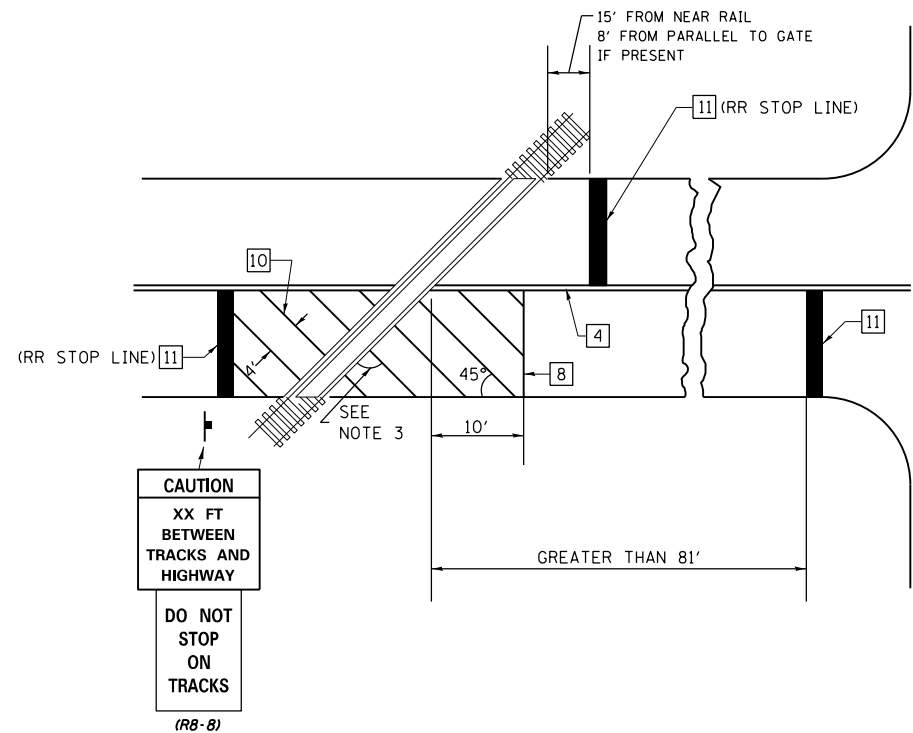
ON MULTI-LANE ROADS, THE STOP LINES SHALL EXTEND ACROSS ALL APPROACH LANES AND SEPARATE RXR SYMBOLS SHALL BE PLACED ADJACENT TO EACH OTHER IN EACH LANE.

WHEN THE PAVEMENT MARKING SYMBOL IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B OF THE MUTCD.

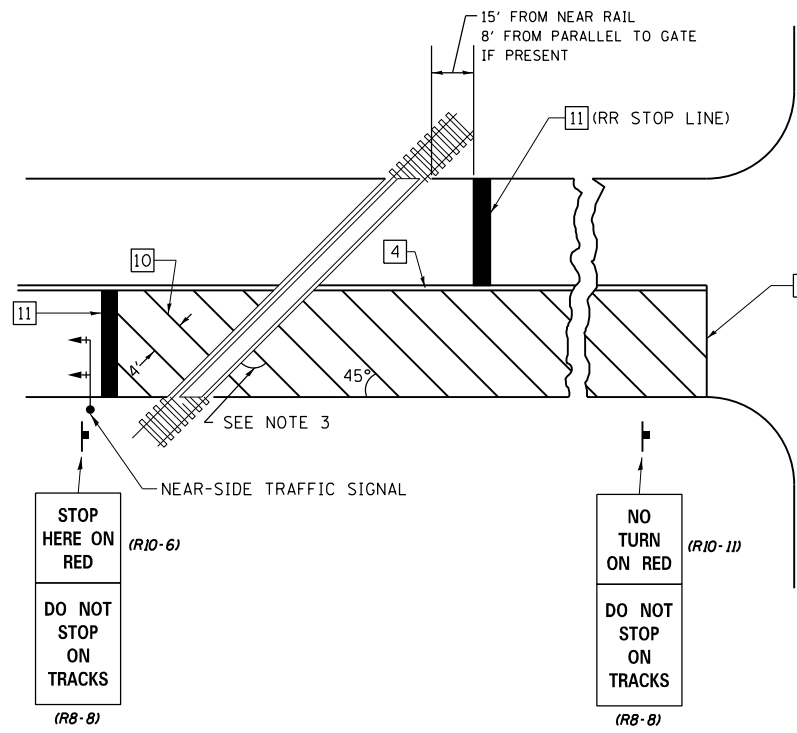
PAVEMENT MARKING LEGEND



RAILROAD CROSSING WITH INTERCONNECT ONLY



RAILROAD CROSSING WITH INTERCONNECT AND PRE-SIGNALS



GENERAL NOTES

- SUPPLEMENTAL PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
- EXTEND PAVEMENT MARKINGS TO THE INTERSECTION ONLY WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED.
- WHERE THE ANGLE BETWEEN THE DIAGONAL PAVEMENT MARKINGS AND THE TRACK WOULD BE LESS THAN 20°, THE PAVEMENT MARKINGS SHOULD BE PLACED IN THE OPPOSITE DIRECTION FROM THAT SHOWN.

SUPPLEMENTAL PAVEMENT MARKING TREATMENT FOR RAILROAD-HIGHWAY GRADE CROSSING

NOT TO SCALE

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

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	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -
	PLOT DATE = 3/29/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

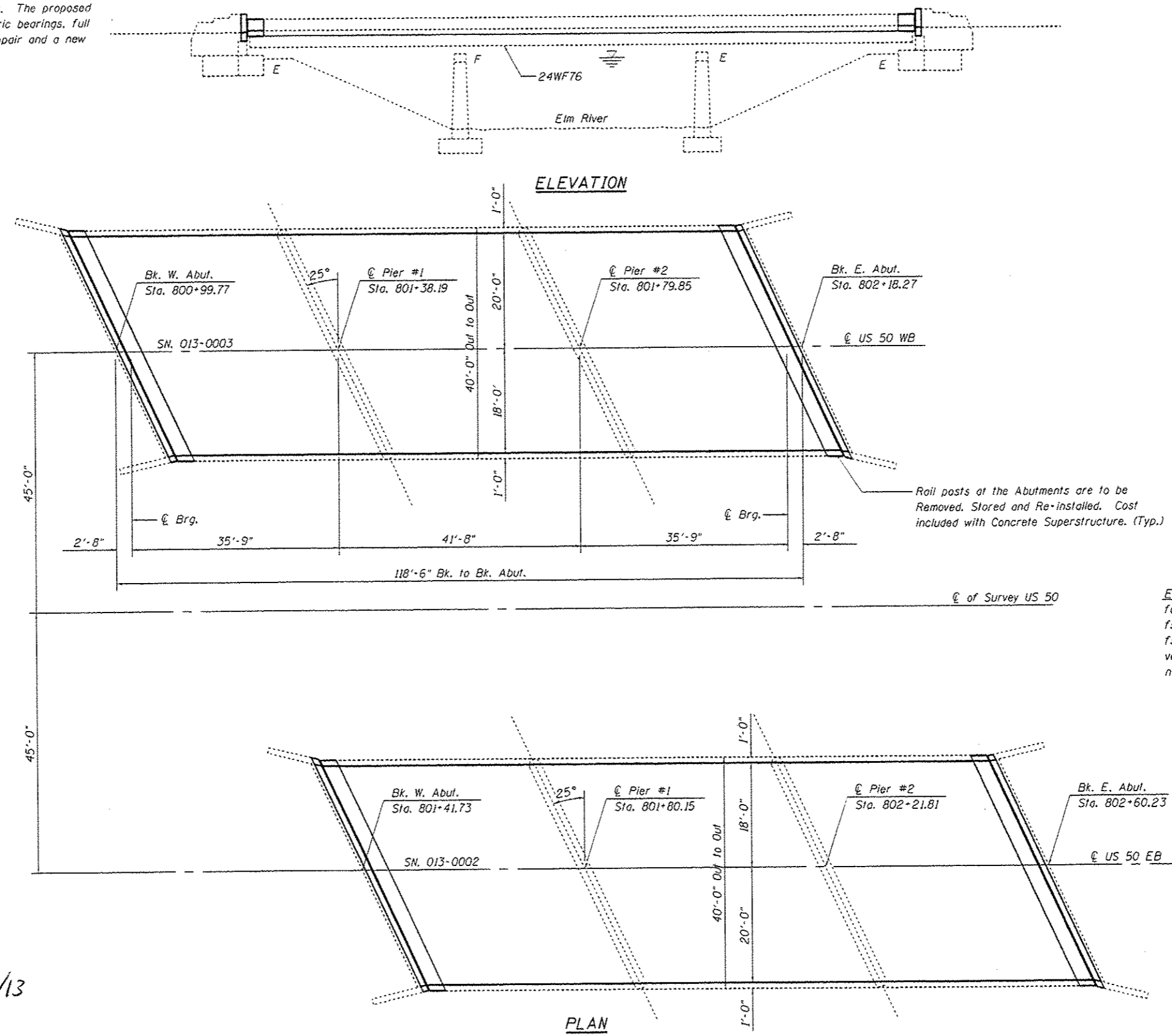
PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS
(RURAL & URBAN APPLICATIONS)

SCALE: N/A SHEET NO. 4 OF 4 SHEETS STA. TO STA.

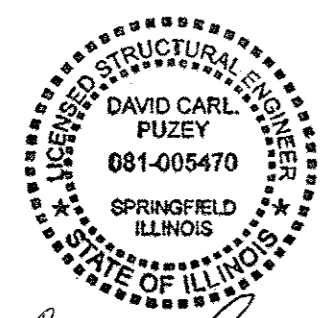
DISTRICT 7 DETAIL NO. 78000001

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	07 Bridge Repairs 2014-1	CLAY	49	34
CONTRACT NO. 74600				
ILLINOIS FED. AID PROJECT				

The existing three span continuous steel multi-beam dual structures were constructed in 1965 as FAP 13 section 8, 2B at Sta. 801+80. SN. 013-0002 carries FAP 327 (US 50 Eastbound) and SN. 013-0003 carries FAP 327 (US 50 Westbound) over the Elm River. The proposed project consists of new expansion joints, new elastomeric bearings, full depth deck repair, new deck drains, formed concrete repair and a new concrete wearing surface.



EXISTING DESIGN STRESSES
 $f_c = 1400$ psi. (Super & Sub)
 $f_s = 20,000$ psi. (Struct.)
 $f_s = 20,000$ psi. (Reinf.)
 $vc = 75$ psi. (Figs)
 $n = 10$



David Carl Puzey 5/10/13
 Expires 11/30/14

FILE NAME: USER NAME: DESIGNED - KLB DRAWN - KLB CHECKED - MEA DATE - 08/23/12				REVISIONS: REVISED - REVISED - REVISED - REVISED -				STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				GENERAL PLAN AND ELEVATION SN. 013-0002 (EB) & 013-0003 (WB)				F.A.P. 327 SECTION:		COUNTY: CLAY		TOTAL SHEETS: 49 SHEET NO.: 35		CONTRACT NO. 74600 ILLINOIS FED. AID PROJECT	
SCALE: N/A						SHEET 1 OF 15 SHEETS						STA. TO STA.											

07 Bridge Repairs 2014-1

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 work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

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

Reinforcement Bars designated (E) shall be epoxy coated.

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 operations shall be replaced using an approved bar splicer or anchorage system. Cost included with CONCRETE REMOVAL.

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

Areas of deck repairs shown are estimated. The Engineer shall show actual locations of deck repairs on as-built plans.

Removal and installation of the guardrail will be necessary for construction of the expansion joints. The existing guardrail sections shall be reused. All embedded anchors that are within the concrete removal area shall be cleaned and incorporated in the new construction or new approved alternatives shall be supplied and installed. This work and all materials shall be included in the contract unit price for CONCRETE SUPERSTRUCTURE.

Removal and installation of the handrail sections and support posts at both abutments will be necessary for construction of the expansion joints. The existing handrail sections and support posts shall be reused. New bolts, shim plates and post support anchor assemblies, as detailed in the plans, are to be provided and installed for the replacement of the handrail sections. This work and all materials shall be included in the contract unit price for CONCRETE SUPERSTRUCTURE.

Prior to pouring the new concrete deck, all heavy and 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.

All structural steel shall conform to AASHTO Classification M-270 Gr. 36 unless otherwise noted.

Protective Coat to be applied to areas of new concrete only.

TOTAL BILL OF MATERIALS

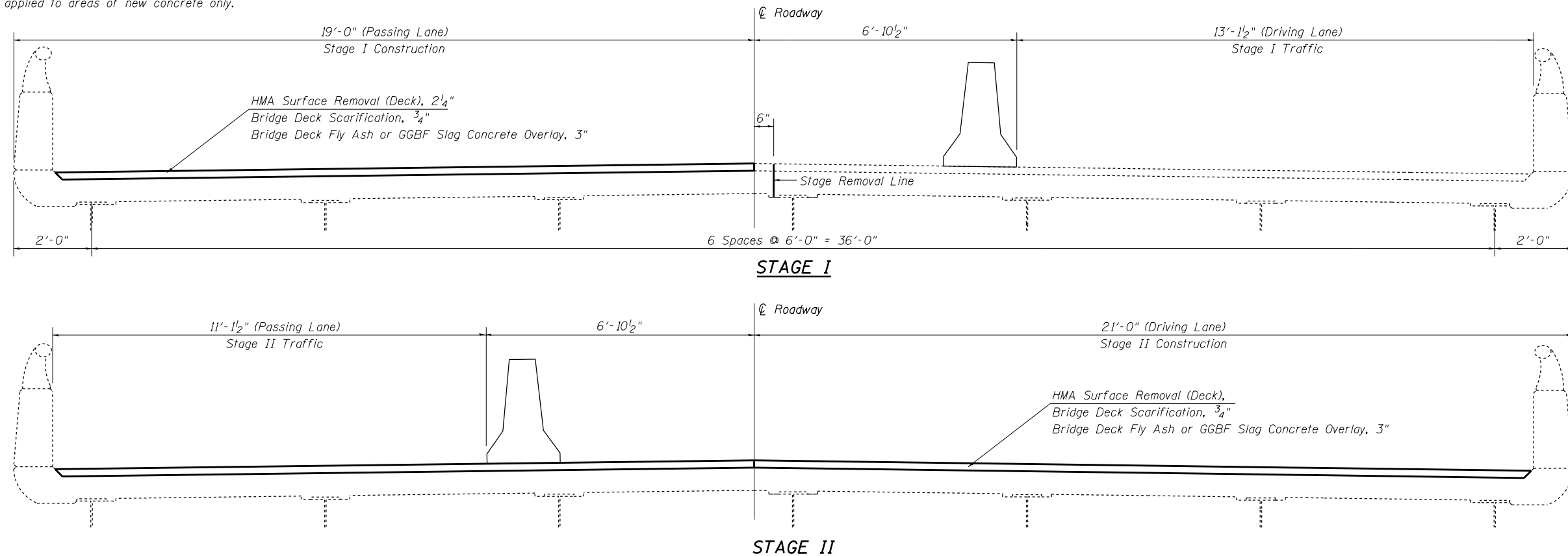
SN. 013-0002 (EB)

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	14.0
Concrete Superstructure	Cu. Yd.	14.0
Reinforcement Bars, Epoxy Coated	Pound	1960
Bar Splicers	Each	28
Preformed Joint Strip Seal	Foot	87.0
HMA Surface Removal (Deck)	Sq Yd	462
Bridge Deck Scarification, 3/4"	Sq Yd	462
Bridge Deck Fly Ash or GGBF Slag Concrete Overlay, 3"	Sq Yd	462
Bridge Deck Grooving	Sq Yd	458
Protective Coat	Sq Yd	39
Deck Slab Repair (Full Depth, Type I)	Sq Yd	7
Deck Slab Repair (Full Depth, Type II)	Sq Yd	29
Floor Drains	Each	16
Plug Existing Floor Drains	Each	16
Structural Repair of Concrete <5"	Sq Ft	18.0
Elastomeric Bearing Assembly, Type I	Each	7
Elastomeric Bearing Assembly, Type II	Each	7
Jack and Remove Existing Bearings	Each	14
Furnishing and Erecting Structural Steel	Pound	1510
Anchor Bolts 1"φ	Each	28

TOTAL BILL OF MATERIALS

SN. 013-0003 (WB)

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	14.0
Concrete Superstructure	Cu. Yd.	14.0
Reinforcement Bars, Epoxy Coated	Pound	1960
Bar Splicers	Each	28
Preformed Joint Strip Seal	Foot	87.0
HMA Surface Removal (Deck)	Sq Yd	462
Bridge Deck Scarification, 3/4"	Sq Yd	462
Bridge Deck Fly Ash or GGBF Slag Concrete Overlay, 3"	Sq Yd	462
Bridge Deck Grooving	Sq Yd	458
Protective Coat	Sq Yd	39
Deck Slab Repair (Full Depth, Type I)	Sq Yd	6
Deck Slab Repair (Full Depth, Type II)	Sq Yd	14
Floor Drains	Each	16
Plug Existing Floor Drains	Each	16
Structural Repair of Concrete <5"	Sq Ft	21.8
Elastomeric Bearing Assembly, Type I	Each	7
Elastomeric Bearing Assembly, Type II	Each	7
Jack and Remove Existing Bearings	Each	14
Furnishing and Erecting Structural Steel	Pound	1510
Anchor Bolts 1"φ	Each	28



FILE NAME =	USER NAME = steffenmk	DESIGNED - KLB	REVISED -
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	PLOT DATE = 3/29/2013	DATE - 08/23/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & BILL OF MATERIALS
SN. 013-0002 (EB) & 013-0003 (WB)

SCALE: N/A SHEET 2 OF 15 SHEETS STA. TO STA.

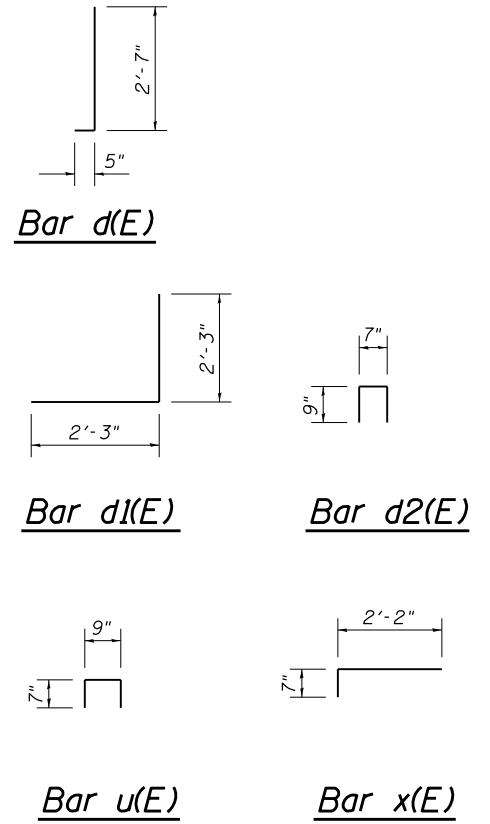
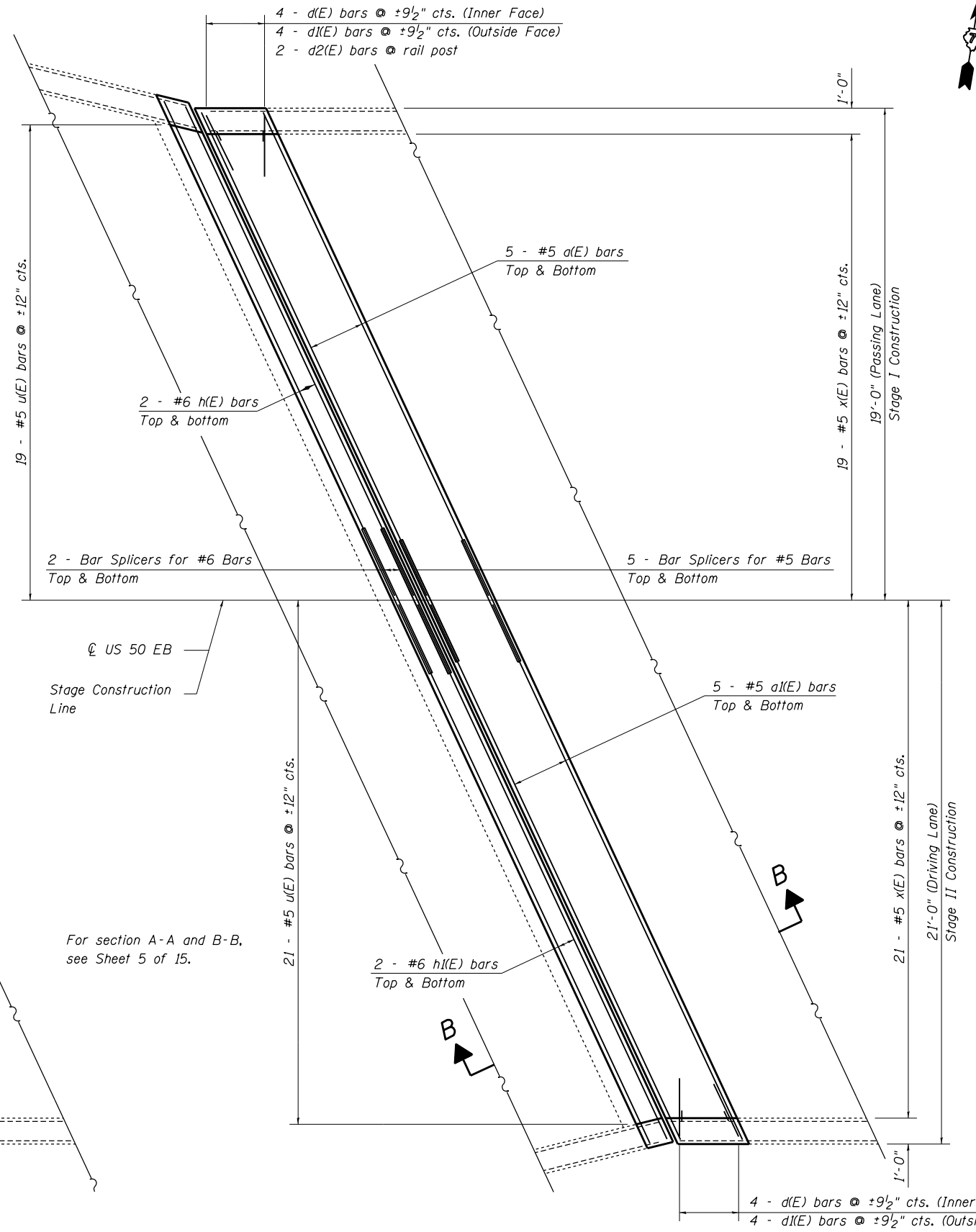
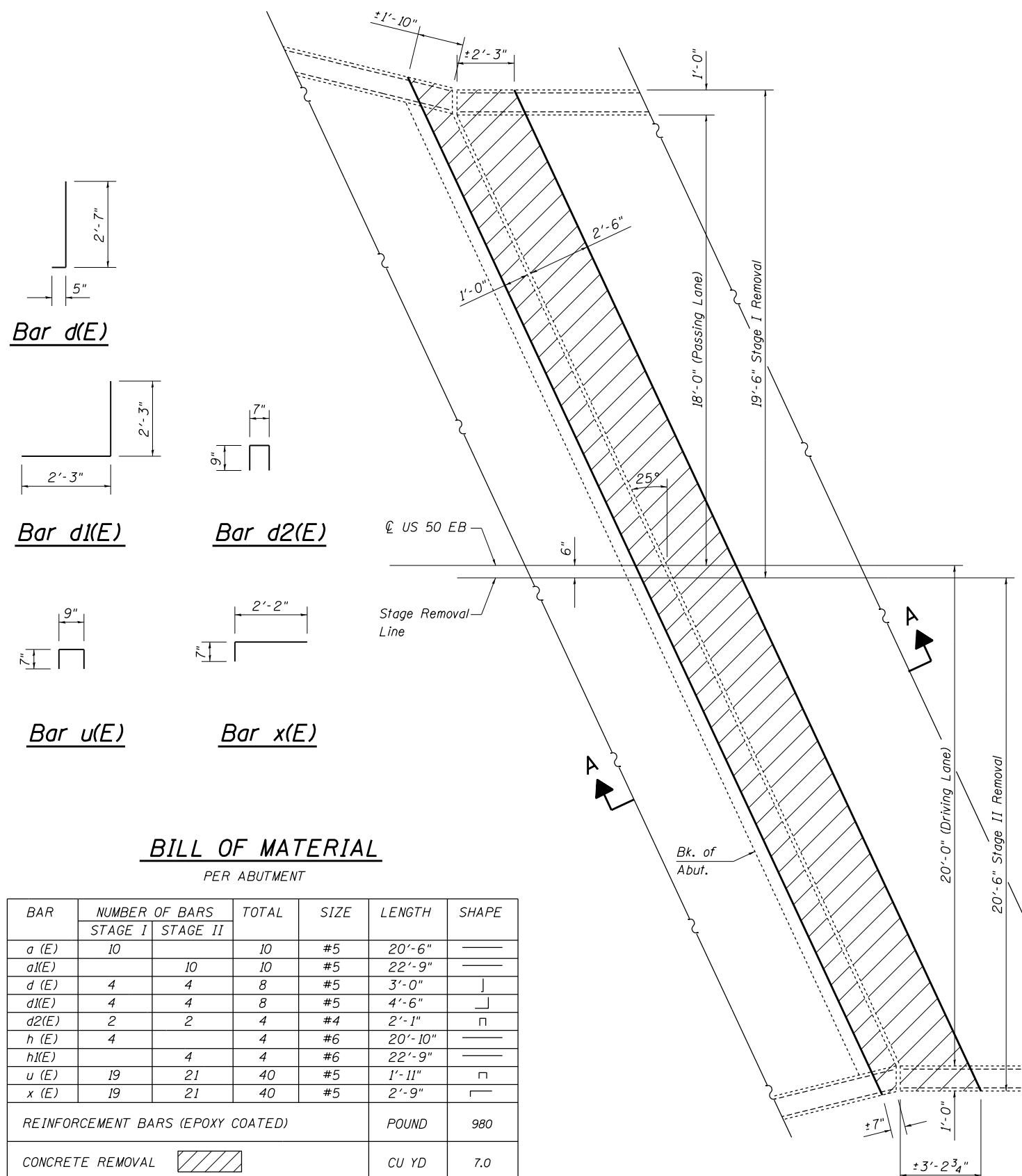
• 07 Bridge Repairs 2014-1

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	36

CONTRACT NO. 74600
ILLINOIS FED. AID PROJECT

Hatching indicates removal.

Note: Trim existing reinforcement to accommodate the new joint opening. (Typ.)



BILL OF MATERIAL
PER ABUTMENT

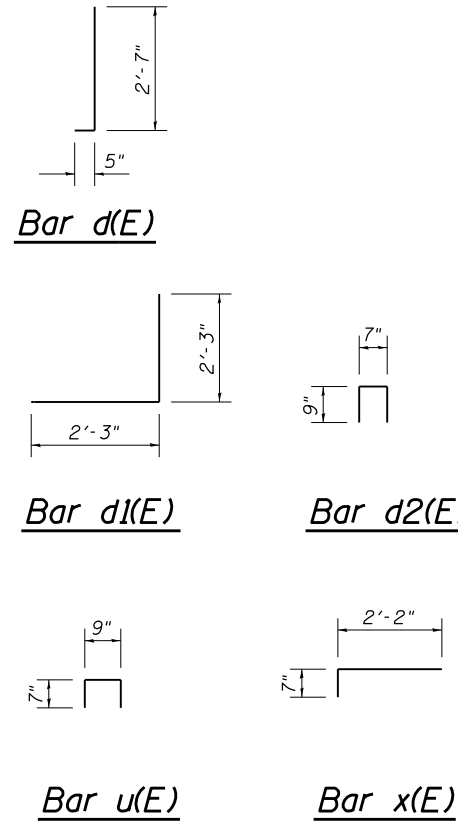
BAR	NUMBER OF BARS		TOTAL	SIZE	LENGTH	SHAPE
	STAGE I	STAGE II				
a (E)	10		10	#5	20'-6"	—
a1(E)		10	10	#5	22'-9"	—
d (E)	4	4	8	#5	3'-0"	J
d1(E)	4	4	8	#5	4'-6"	J
d2(E)	2	2	4	#4	2'-1"	□
h (E)	4		4	#6	20'-10"	—
h1(E)		4	4	#6	22'-9"	—
u (E)	19	21	40	#5	1'-11"	□
x (E)	19	21	40	#5	2'-9"	□
REINFORCEMENT BARS (EPOXY COATED)					POUND	980
CONCRETE REMOVAL					CU YD	7.0
CONCRETE SUPERSTRUCTURE					CU YD	7.0

EXISTING PARTIAL PLAN
(West Abutment shown; East Abutment similar)

PROPOSED PARTIAL PLAN
(West Abutment shown; East Abutment similar)

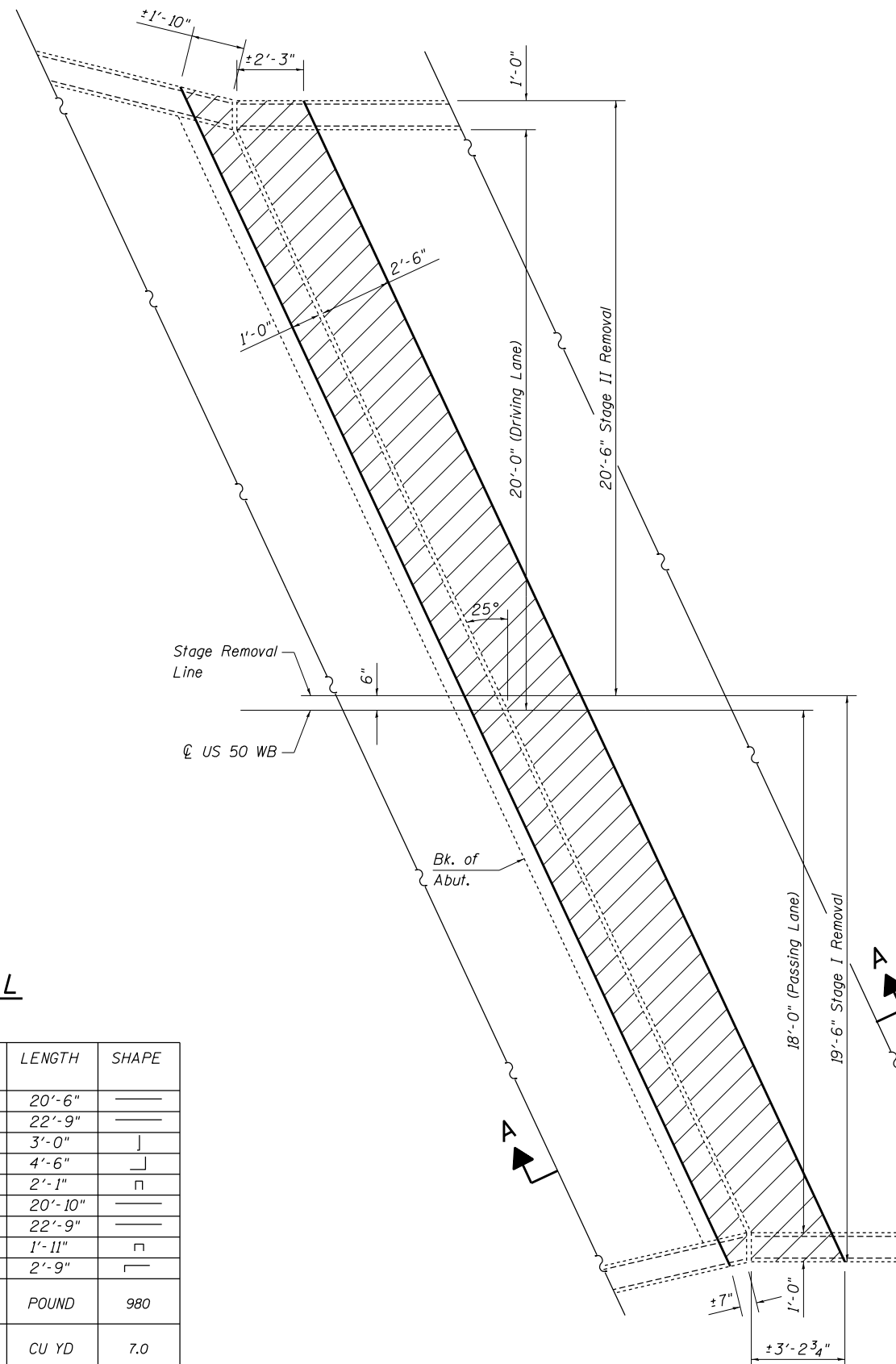
Hatching indicates removal.

Note: Trim existing reinforcement to accommodate the new joint opening. (Typ.)

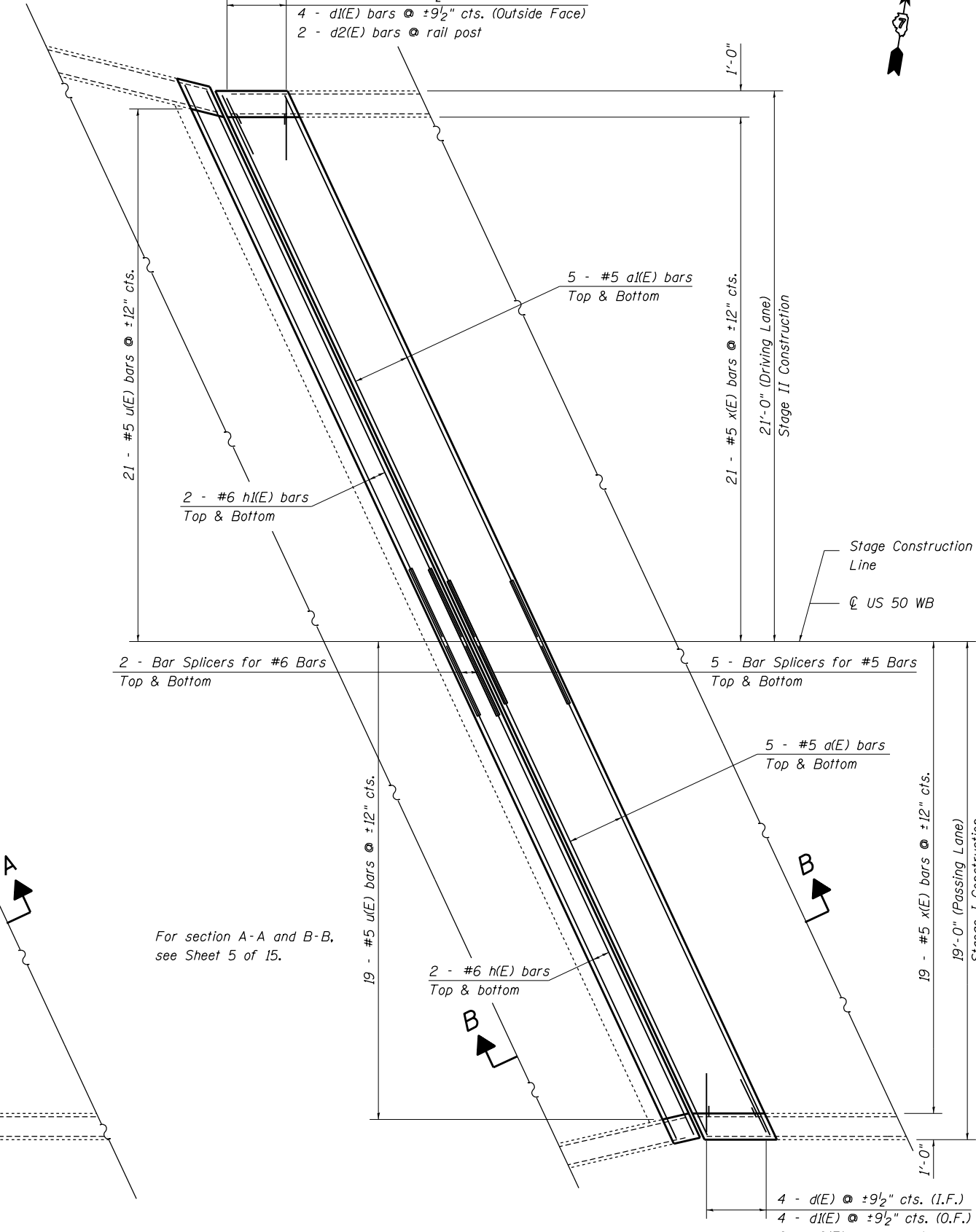


BILL OF MATERIAL
PER ABUTMENT

BAR	NUMBER OF BARS		TOTAL	SIZE	LENGTH	SHAPE
	STAGE I	STAGE II				
a (E)	10		10	#5	20'-6"	—
a1(E)		10	10	#5	22'-9"	—
d (E)	4	4	8	#5	3'-0"	J
d1(E)	4	4	8	#5	4'-6"	J
d2(E)	2	2	4	#4	2'-1"	□
h (E)	4		4	#6	20'-10"	—
h1(E)		4	4	#6	22'-9"	—
u (E)	19	21	40	#5	1'-11"	□
x (E)	19	21	40	#5	2'-9"	□
REINFORCEMENT BARS (EPOXY COATED)					POUND	980
CONCRETE REMOVAL					CU YD	7.0
CONCRETE SUPERSTRUCTURE					CU YD	7.0



EXISTING PARTIAL PLAN
(West Abutment shown; East Abutment similar)



PROPOSED PARTIAL PLAN
(West Abutment shown; East Abutment similar)

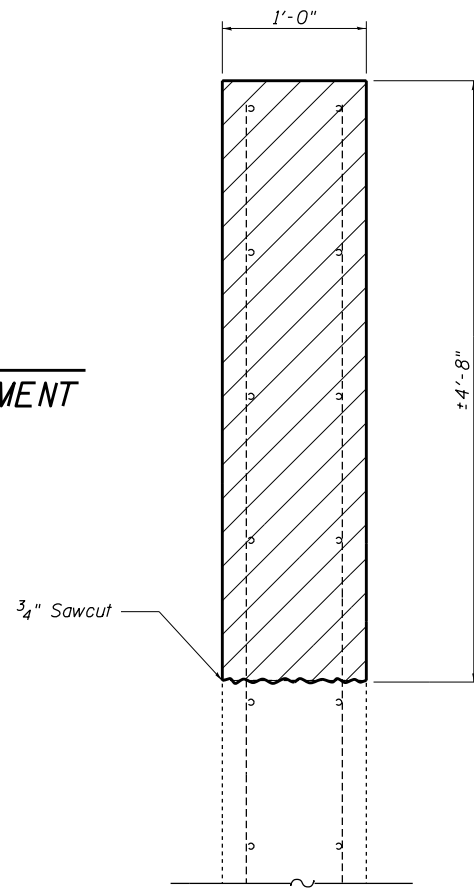
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -
	PLOT DATE = 3/29/2013	DATE - 8/23/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

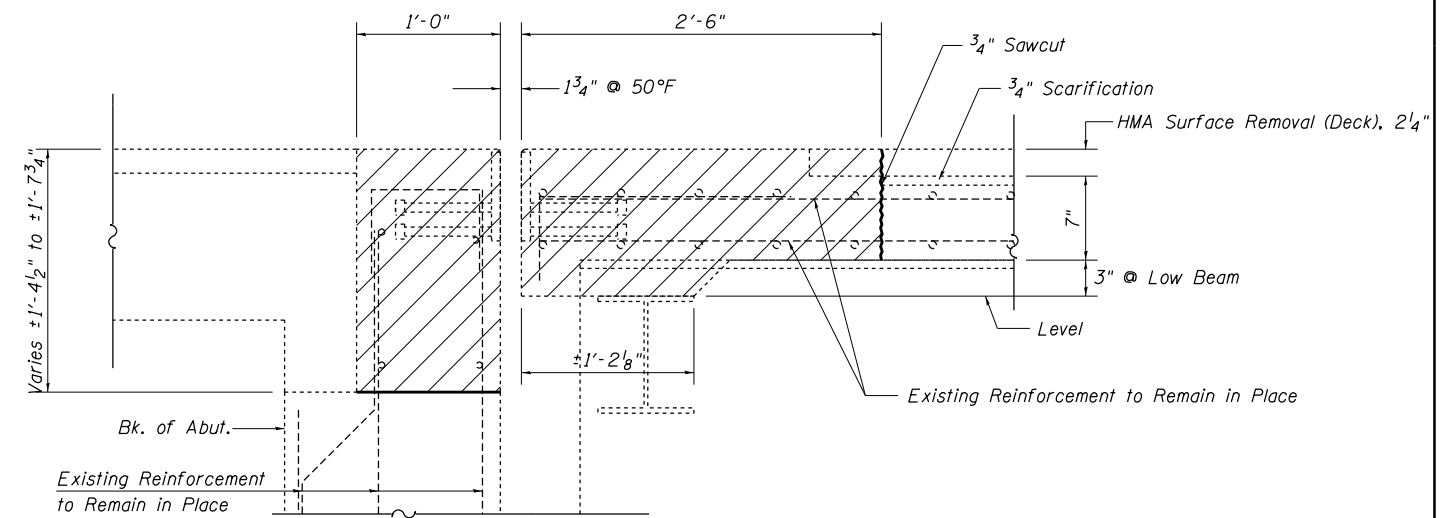
EXPANSION JOINT REPLACEMENT DETAILS
SN. 013-0003 (WB)
SCALE: N/A SHEET 4 OF 15 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	38
CONTRACT NO. 74600			ILLINOIS FED. AID PROJECT	

**TYPICAL WINGWALL
REMOVAL AND REPLACEMENT**

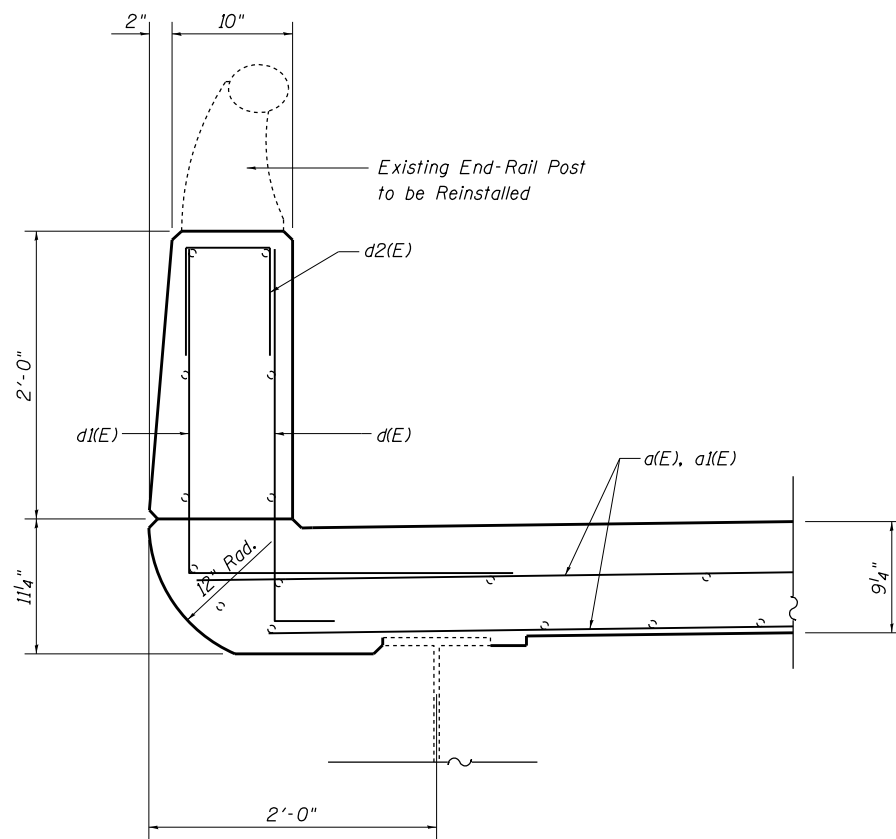


Hatching indicates Concrete Removal.

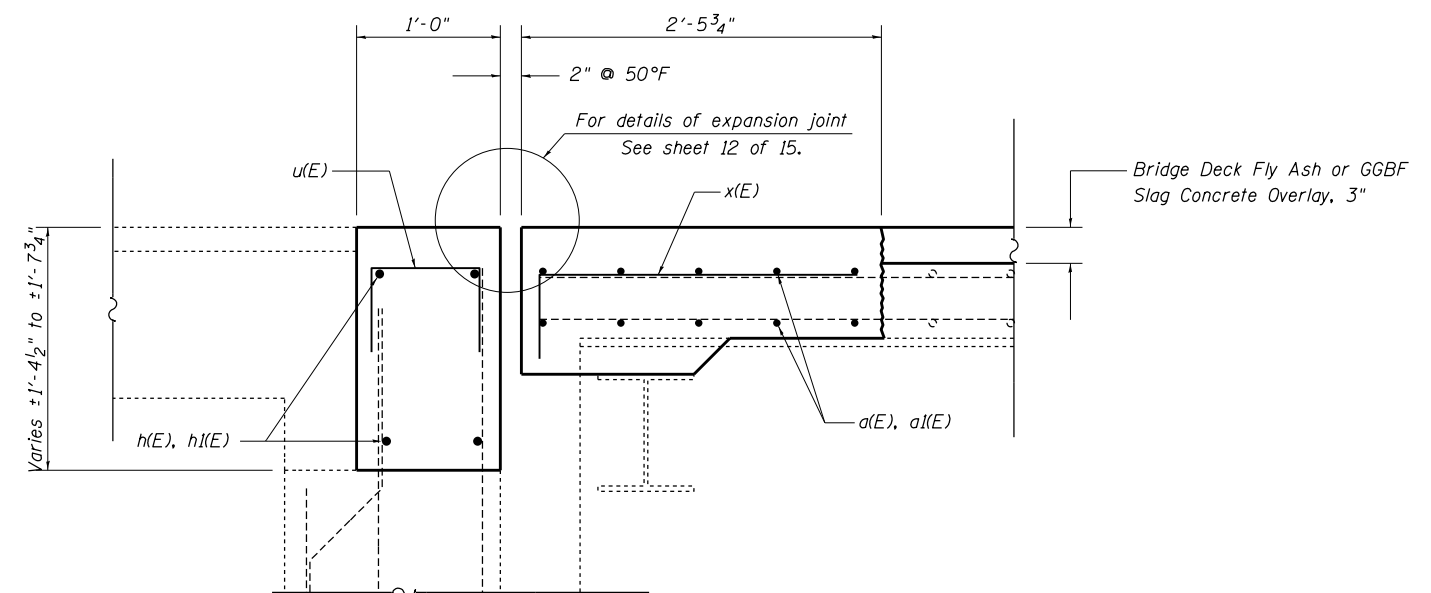


SECTION A-A
(Dimensions at Rt. L's to end of deck)

- Existing Reinforcement
- Proposed Reinforcement



SECTION THRU PARAPET



SECTION B-B
(Dimensions at Rt. L's to end of deck)

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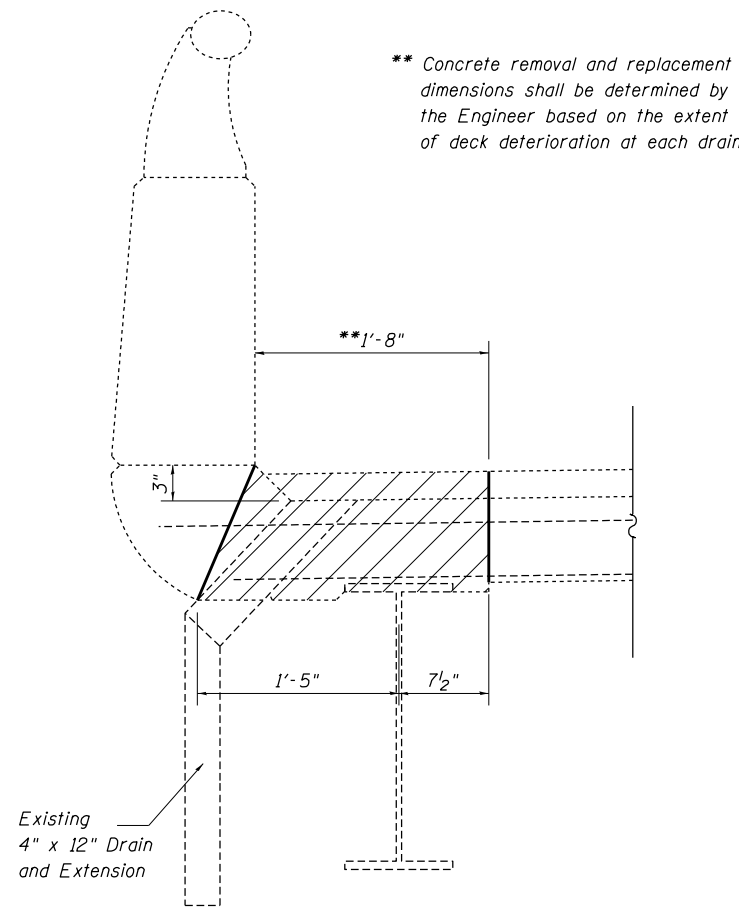
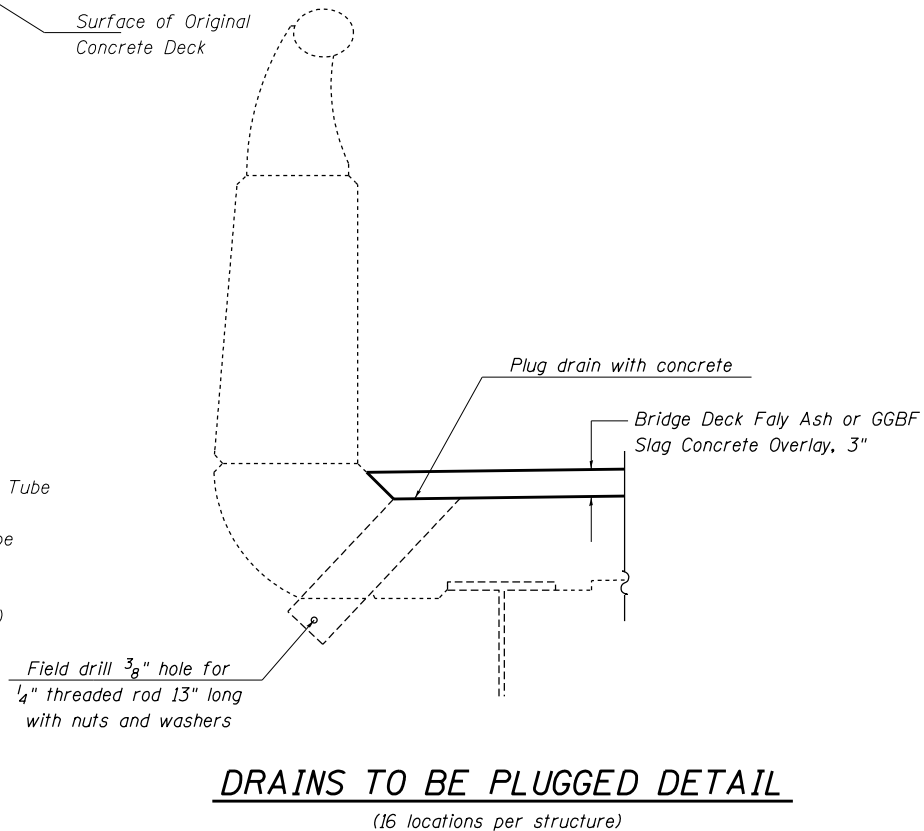
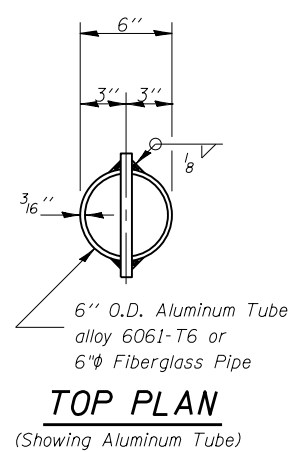
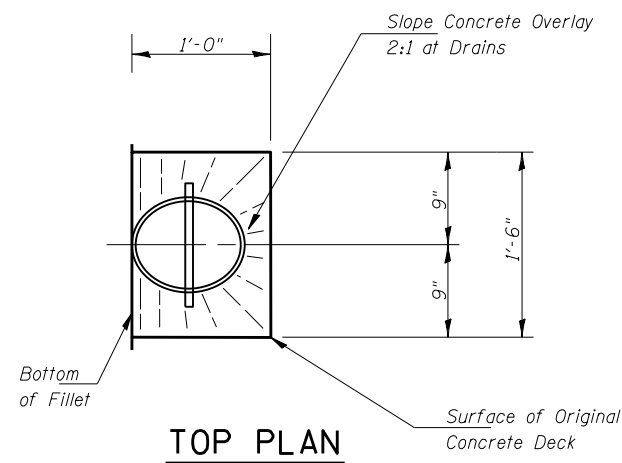
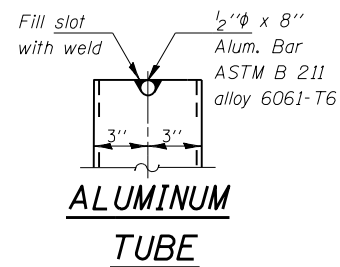
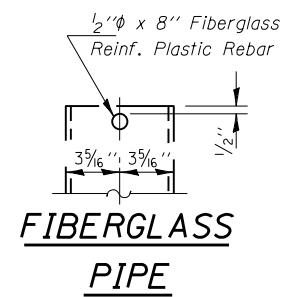
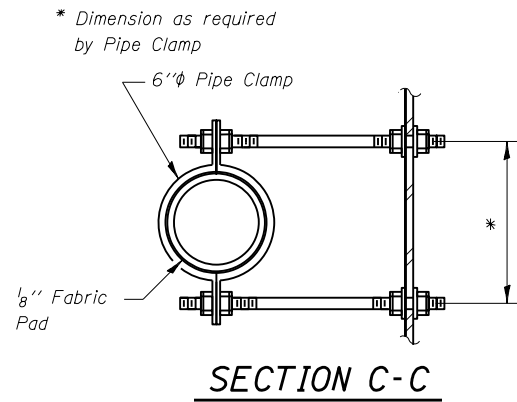
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXPANSION JOINT REPLACEMENT DETAILS
SN. 013-0002 (EB) & 013-0003 (WB)**

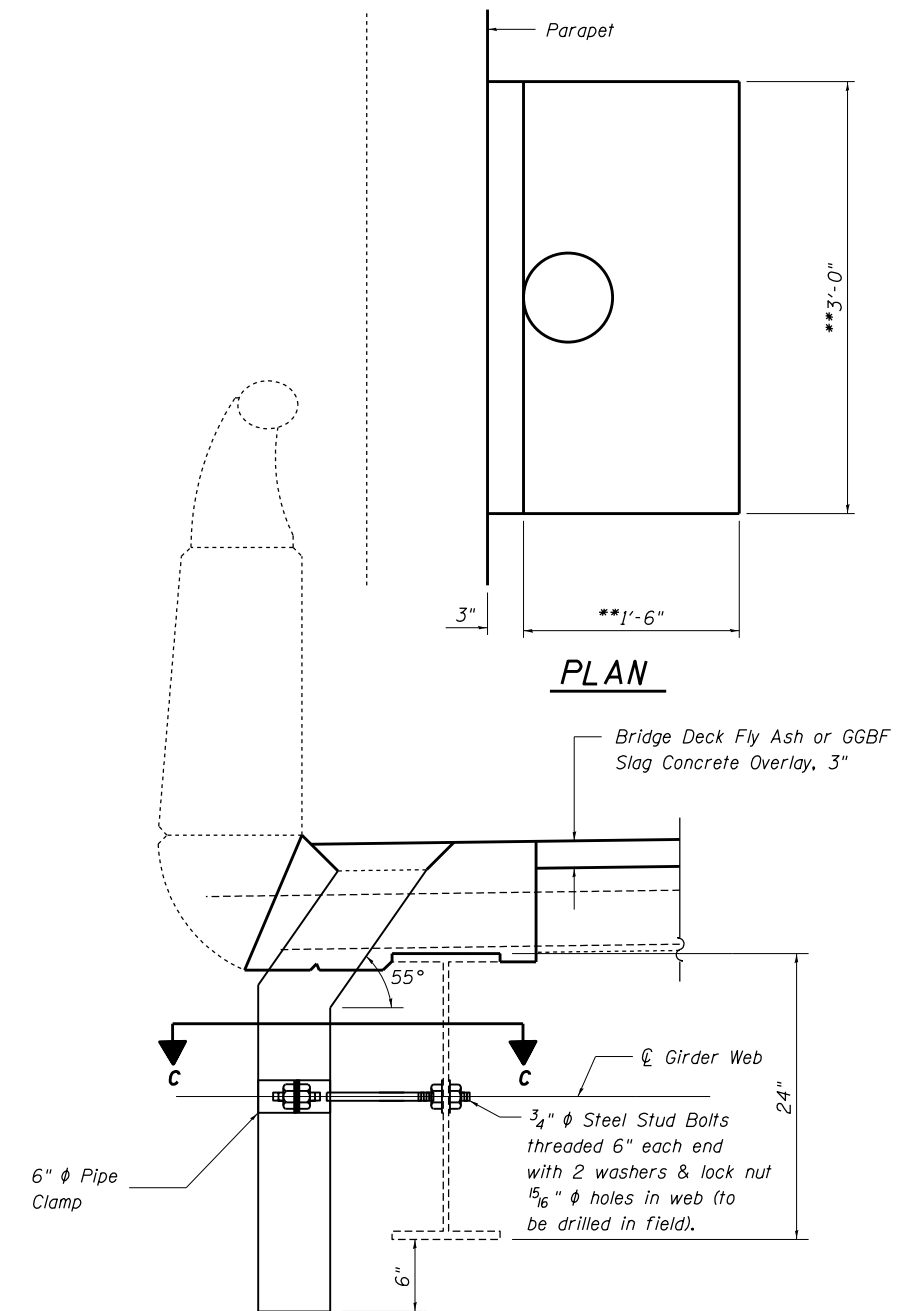
SCALE: N/A SHEET 5 OF 15 SHEETS STA. TO STA.

• 07 Bridge Repairs 2014-1

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	39
CONTRACT NO. 74600			ILLINOIS FED. AID PROJECT	



Note: Concrete removal and replacement quantities for drains are included in Deck Slab Repair as shown on "Bridge Deck Patching" plan sheets.



Note: See "Bridge Deck Patching" plan sheets for Floor Drain replacement location and Plug Existing Deck Drain locations. See "Total Bill of Materials" for each structure for quantities.

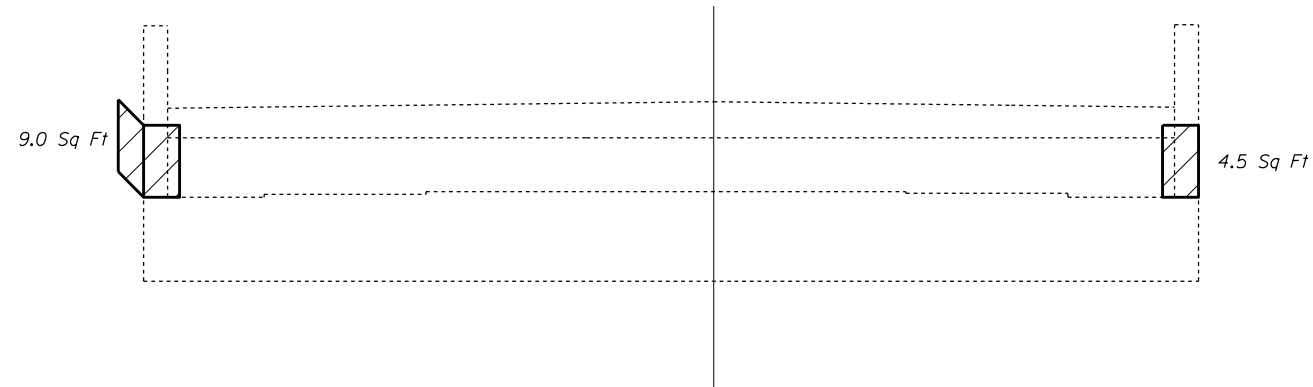
Notes: The floor drains shall be painted to match the outside of the fascia beams. The exterior surfaces of the drains shall be cleaned according to Society of Protective Coatings Specification SSPC-SP1 prior to painting. Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum. Galvanize clamping device according to AASHTO M232. Cost of clamping device and galvanizing is included with Floor Drains.

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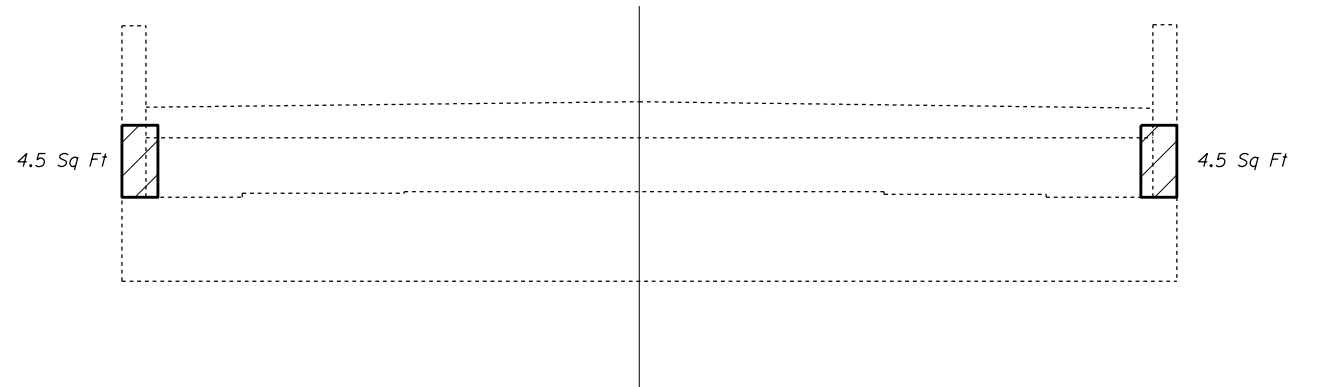
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FLOOR DRAIN DETAILS			
SN. 013-0002 (EB) & 013-0003 (WB)			
SCALE: N/A	SHEET 6	OF 15 SHEETS	STA. TO STA.

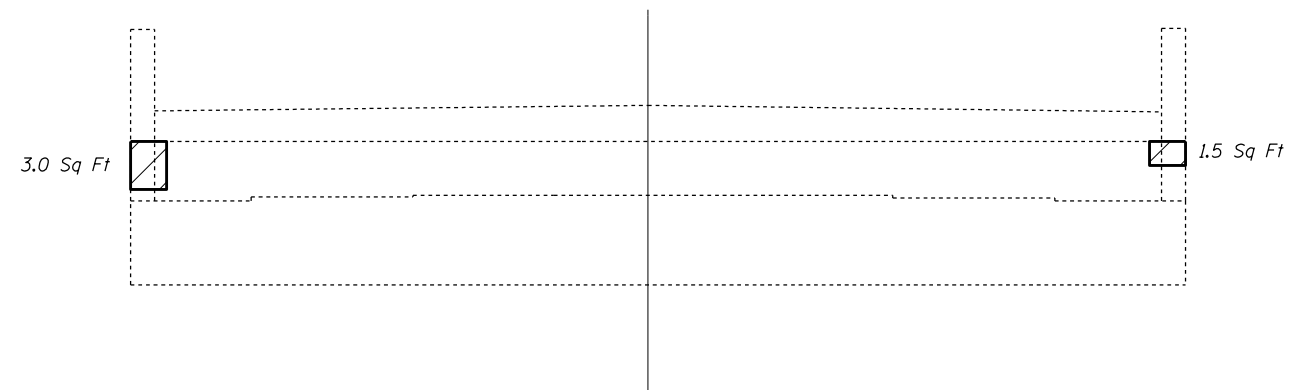
• D7 Bridge Repairs 2014-1			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
327	.	CLAY	49
			SHEET NO. 40
			CONTRACT NO. 74600
ILLINOIS FED. AID PROJECT			



SN. 013-0002 - WEST ABUTMENT



SN. 013-0003 - WEST ABUTMENT



SN. 013-0002 - EAST ABUTMENT



SN. 013-0003 - EAST ABUTMENT

Note: Quantities are estimated. Actual quantities to be determined in the field by the Engineer.



Structural Repair of Concrete (Depth < 5")

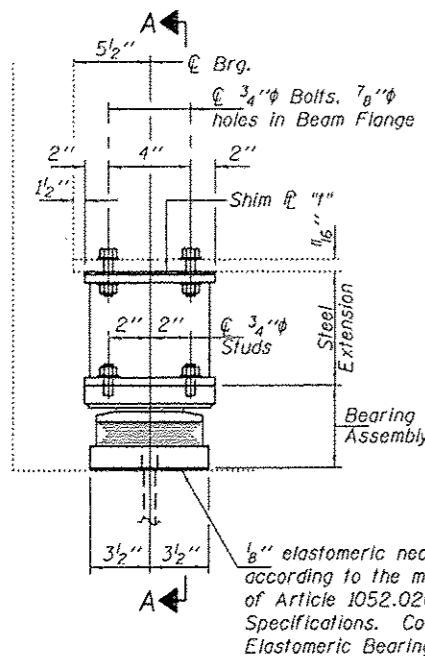
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	PLOT DATE = 3/29/2013	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STRUCTURAL REPAIR OF CONCRETE < 5"
SN. 013-0002 (EB) & 013-0003 (WB)

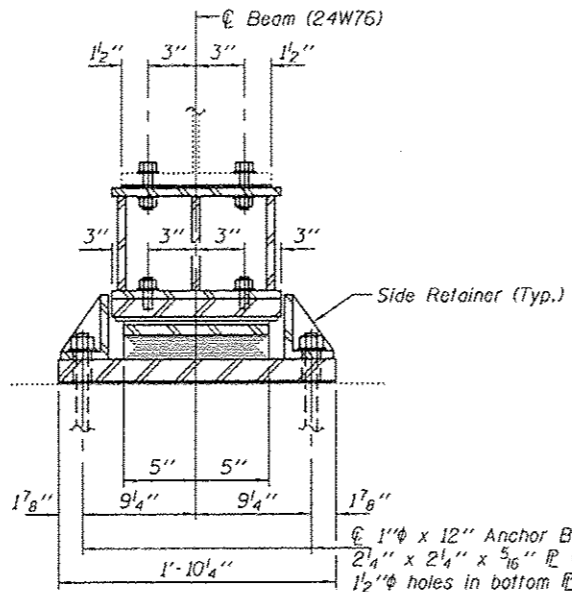
SCALE: N/A SHEET 7 OF 15 SHEETS STA. TO STA.

• 07 Bridge Repairs 2014-1				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	*	CLAY	49	41
			CONTRACT NO. 74600	
ILLINOIS FED. AID PROJECT				



ELEVATION AT ABUTMENT

TYPE II TFE ELASTOMERIC EXP. BRG.

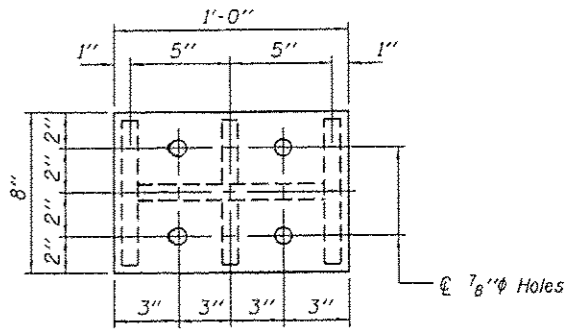


SECTION A-A

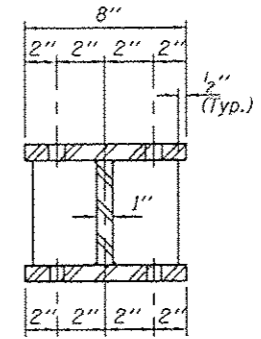
BEAM REACTIONS

R _P	(K)	11.1
R _L	(K)	27.4
Imp.	(K)	8.2
R (Total)	(K)	46.7

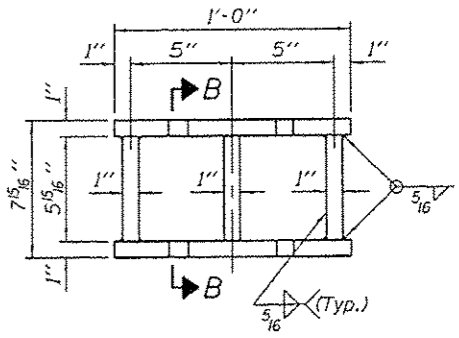
Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. Jack capacity = 22 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.
 The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
 Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



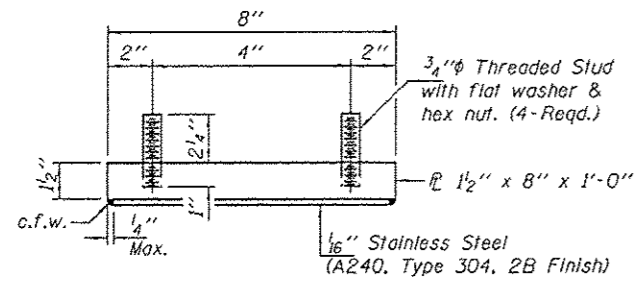
PLAN TOP AND BOTTOM PLATE



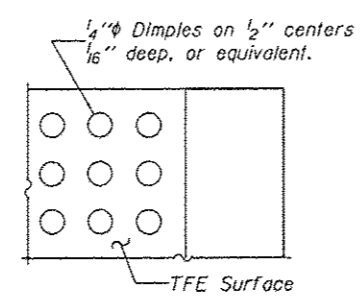
SECTION B-B



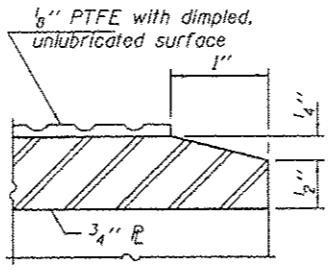
STEEL EXTENSION DETAIL



TOP BEARING ASSEMBLY (Looking North)



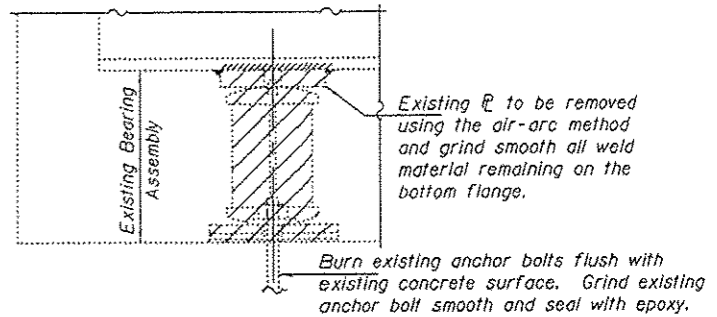
PLAN-TFE SURFACE



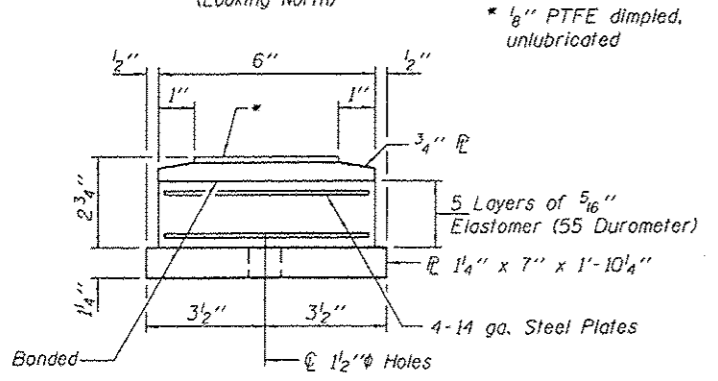
SECTION THRU TFE

SHIM P 4" (Typ.)

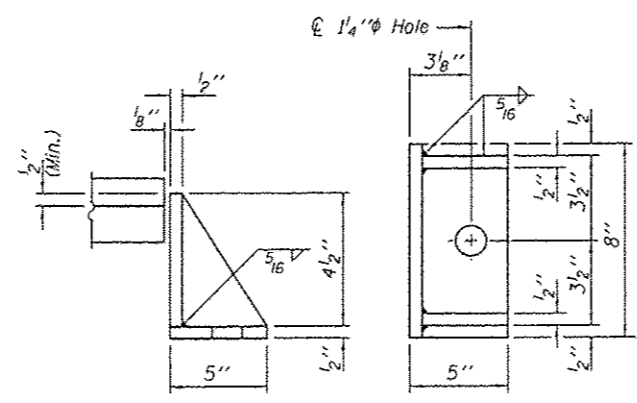
BEAM	"
1	1/2"
2	0
3	1/4"
4	1/2"
5	0
6	0
7	0



EXISTING BEARING REMOVAL DETAIL
 Cost included with Jack and Remove Existing Bearings.

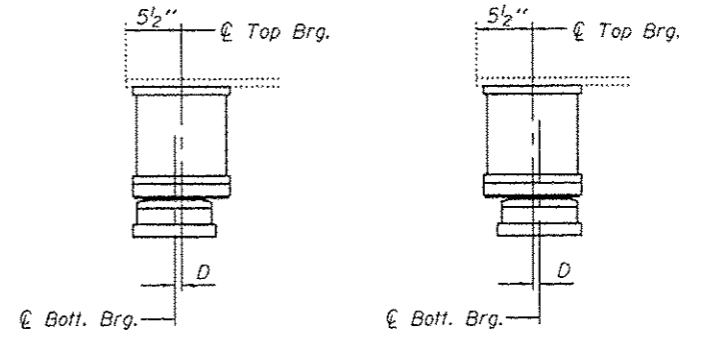


BOTTOM BEARING ASSEMBLY



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

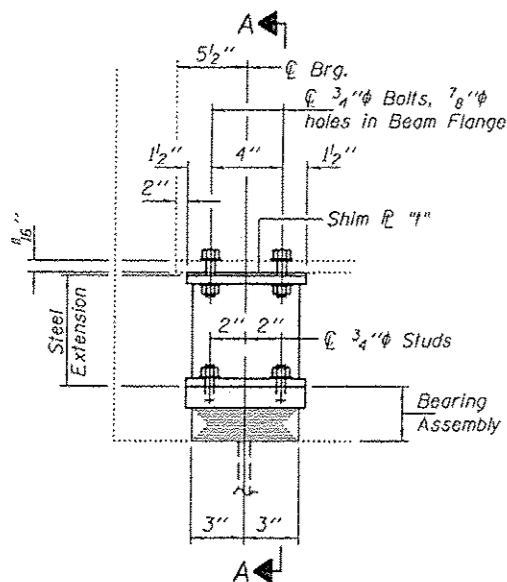


SETTING ANCHOR BOLTS AT EXP. BRG.

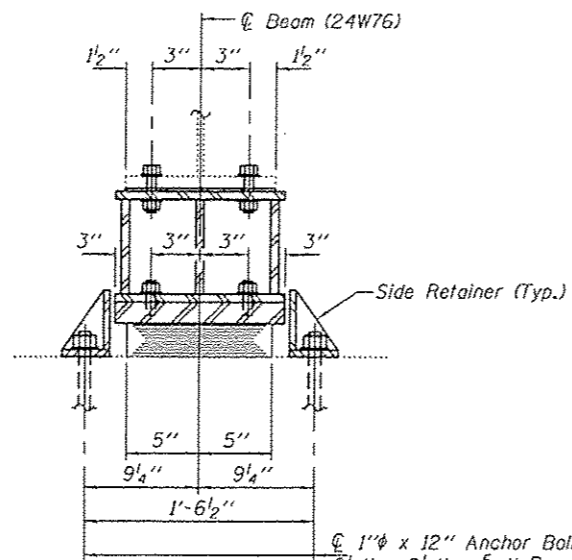
D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	14
Jack and Remove Existing Bearings	Each	14
Furnishing and Erecting Structural Steel	Pound	1440
Anchor Bolts 1" P	Each	28

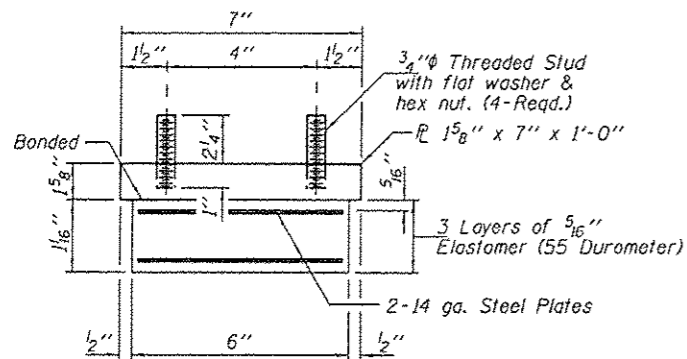


ELEVATION AT ABUTMENT



SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

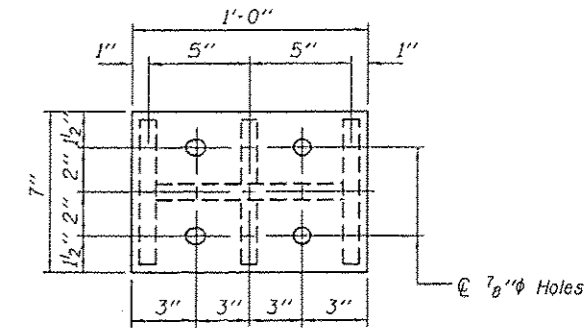
Note:
Shim plates shall not be placed under Bearing Assembly.

BEAM REACTIONS

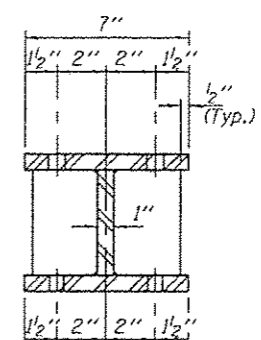
RP	(K)	11.1
Rt	(K)	27.4
Imp.	(K)	8.2
R (Total)	(K)	46.7

Notes:

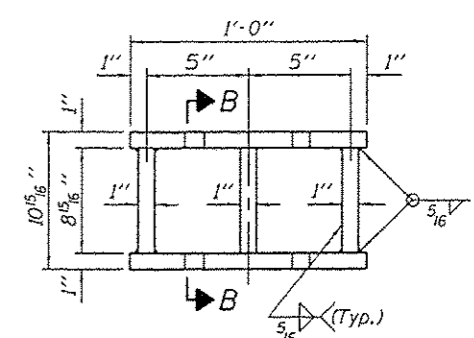
Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. Jack capacity = 22 Tons.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts of fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type I.



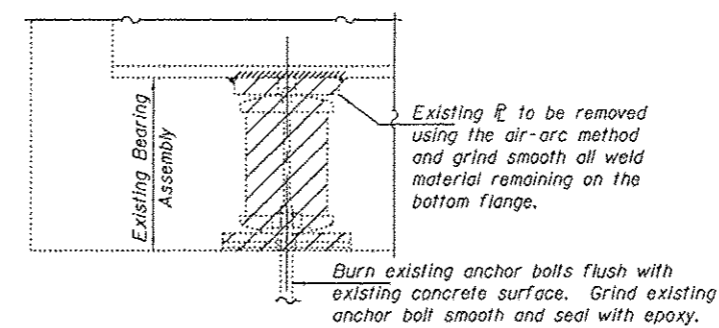
PLAN TOP AND BOTTOM PLATE



SECTION B-B



STEEL EXTENSION DETAIL

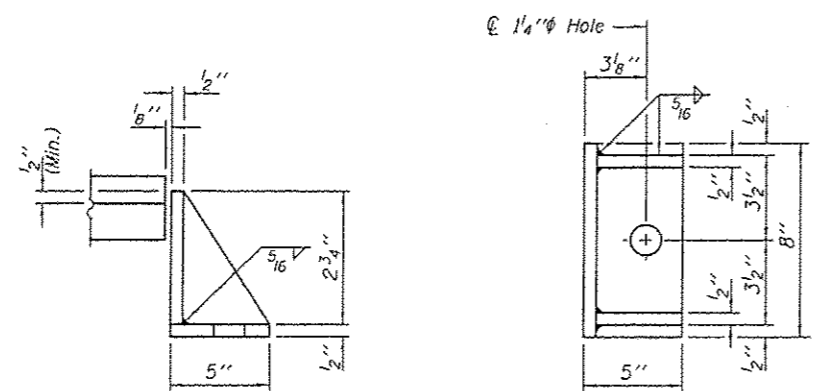


EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

SHIM PLATE 4" (Typ.)

BEAM	"4"
1	1/2"
2	0
3	1/4"
4	1/2"
5	0
6	0
7	0



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	14
Jack and Remove Existing Bearings	Each	14
Furnishing and Erecting Structural Steel	Pound	1580
Anchor Bolts 1"φ	Each	28

TYI/REPS 12-03-2008

DESIGNED DAB
CHECKED ARS
DRAWN bolivo
CHECKED DAB ARS

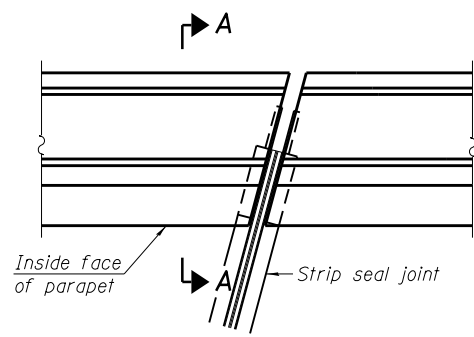
EXAMINED
PASSED
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - MAY 9, 2013

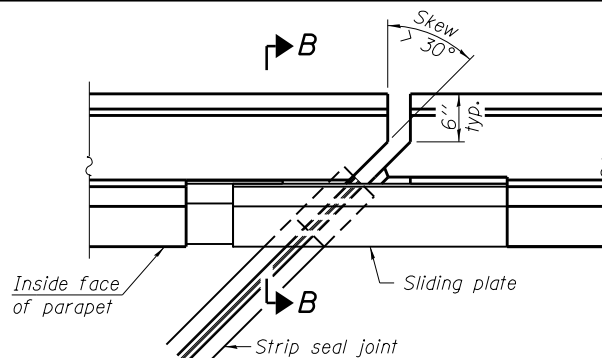
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

W. ABUTMENT BEARING REPLACEMENT DETAILS
SN 013-0002 (EB) & 013-0003 (WB)

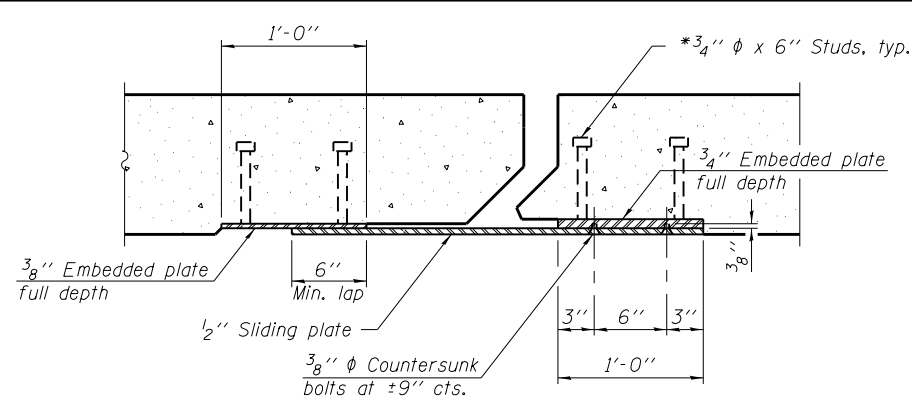
F.A.P. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
327 07 Bridge Repairs 2014-1 CLAY 49 45
CONTRACT NO. 74600
ILLINOIS FED. AID PROJECT



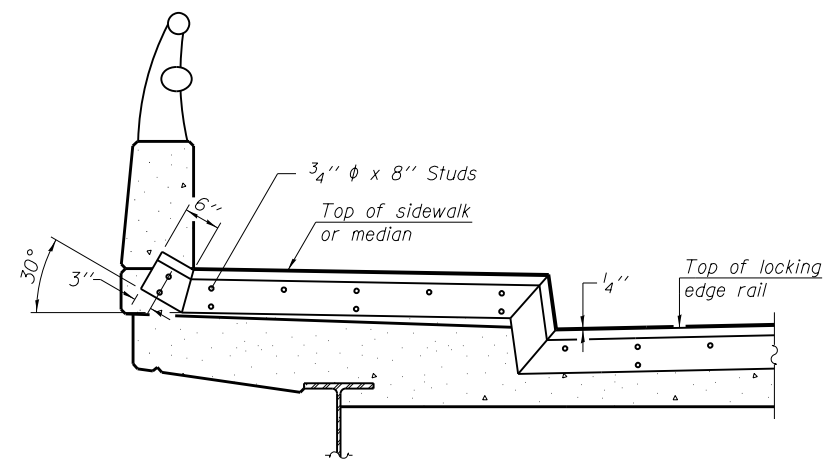
PLAN
(For skews $\leq 30^\circ$)



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

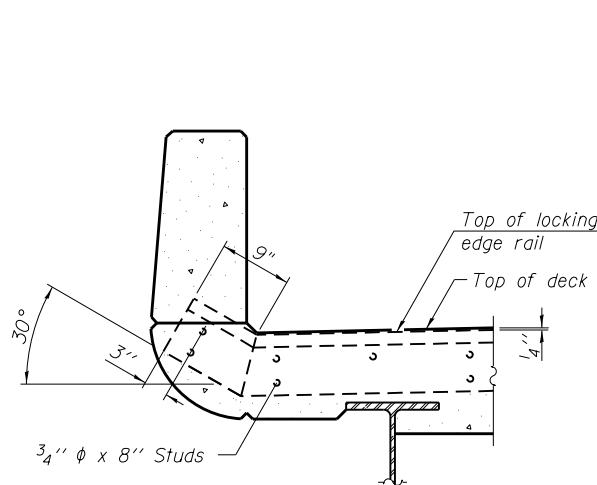


SECTION C-C

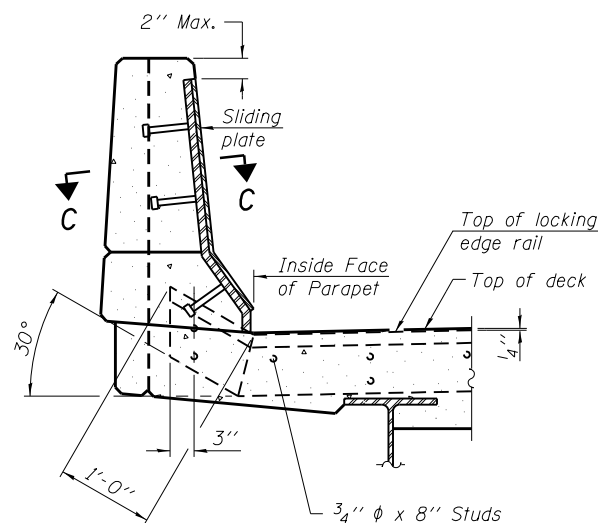


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

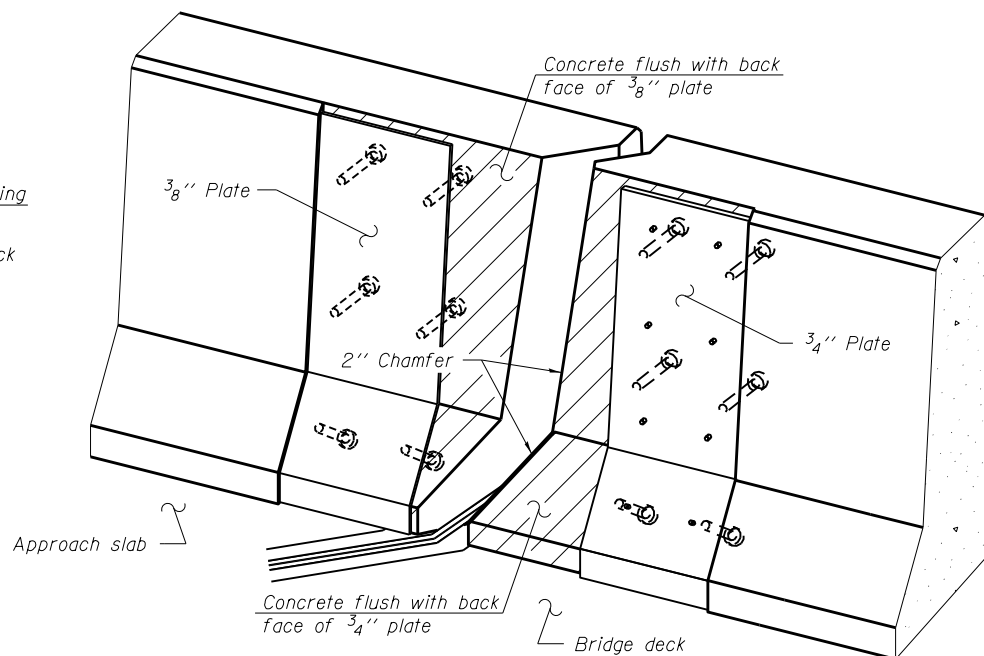
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A

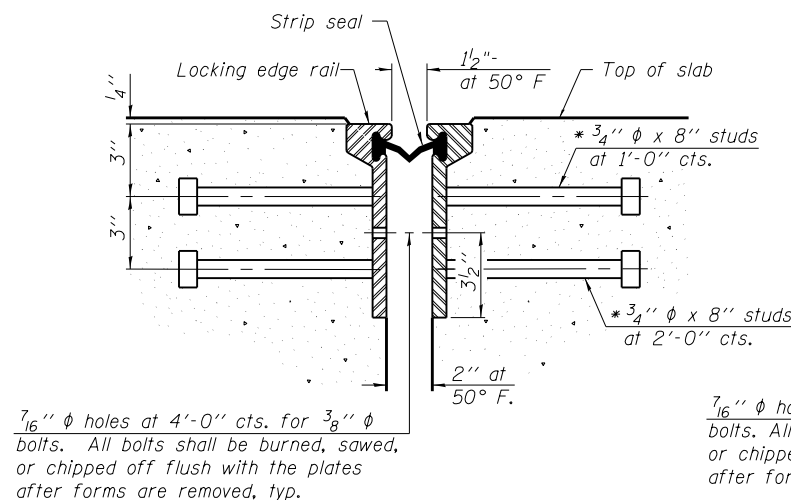


SECTION B-B



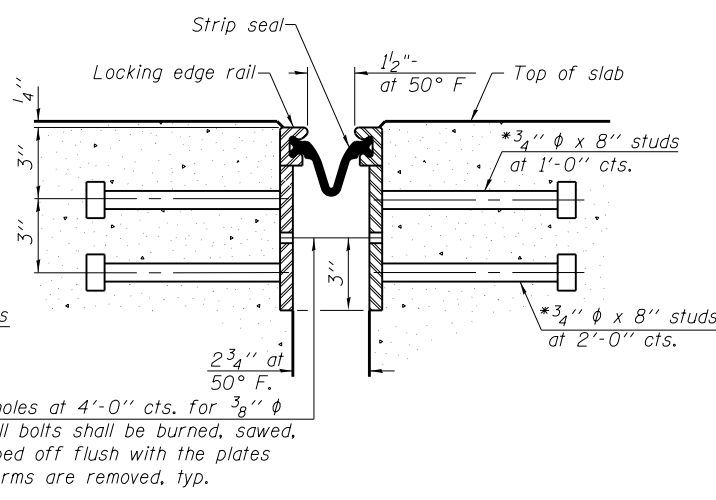
TRIMETRIC VIEW
(Showing back plates only)

Notes:
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.
The manufacturer's recommended installation methods shall be followed.
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.
Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.



SECTION THRU ROLLED RAIL JOINT

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



SECTION THRU WELDED RAIL JOINT

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

ROLLED EXTRUDED RAIL

WELDED RAIL

LOCKING EDGE RAIL SPLICE

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

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	174.0

EJ-SSJ

1-27-12

FILE NAME =	USER NAME = steffennk	DESIGNED - KLB	REVISED -
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -
	PLOT DATE = 3/29/2013	DATE - 08/23/12	REVISED -

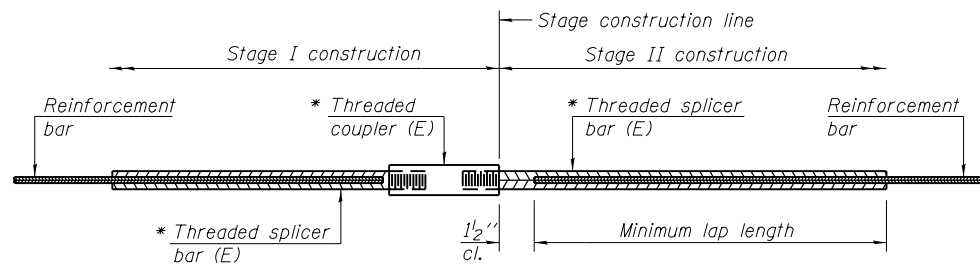
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 013-0002 (EB) & 013-0003 (WB)

SCALE: N/A SHEET 12 OF 15 SHEETS STA. TO STA.

• D7 Bridge Repairs 2014-1

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	.	CLAY	49	46
			CONTRACT NO. 74600	
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

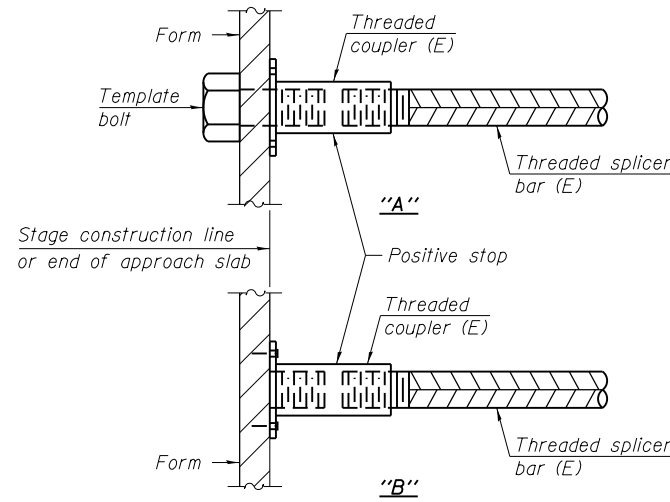
Bar size to be spliced	Minimum Lap Lengths					
	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

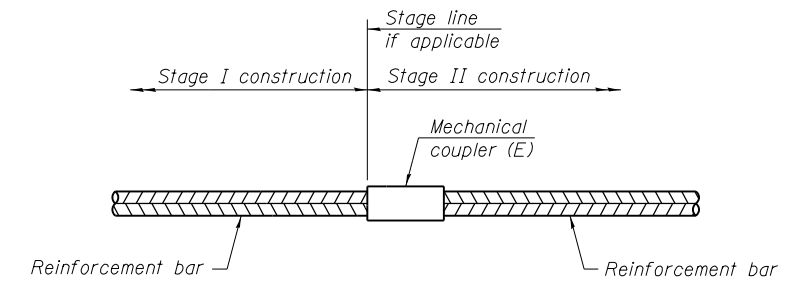
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
013-0002	#5	20	Table 3
013-0002	#6	8	Table 3
013-0003	#5	20	Table 3
013-0003	#6	8	Table 3



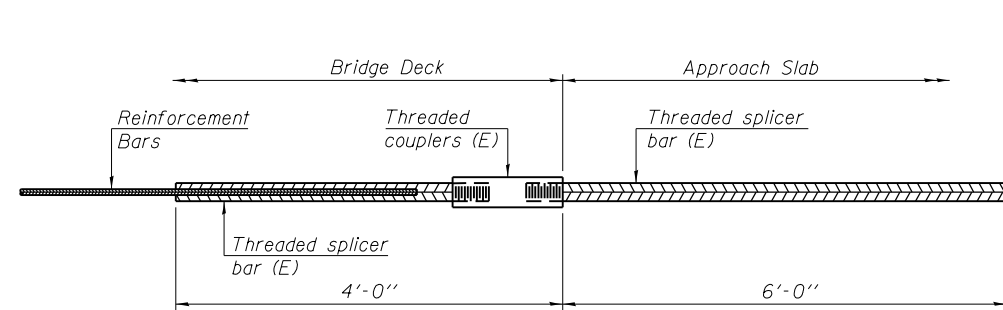
INSTALLATION AND SETTING METHODS

"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.



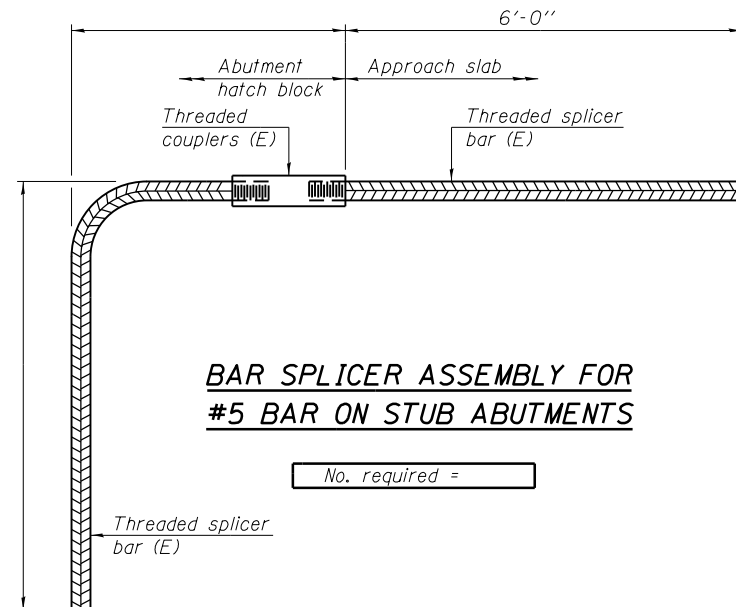
STANDARD MECHANICAL SPLICER

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

FILE NAME =	USER NAME = steffenmk	DESIGNED - KLB	REVISED -
		DRAWN - KLB	REVISED -
		CHECKED - MEA	REVISED -
		DATE - 08/23/12	REVISED -

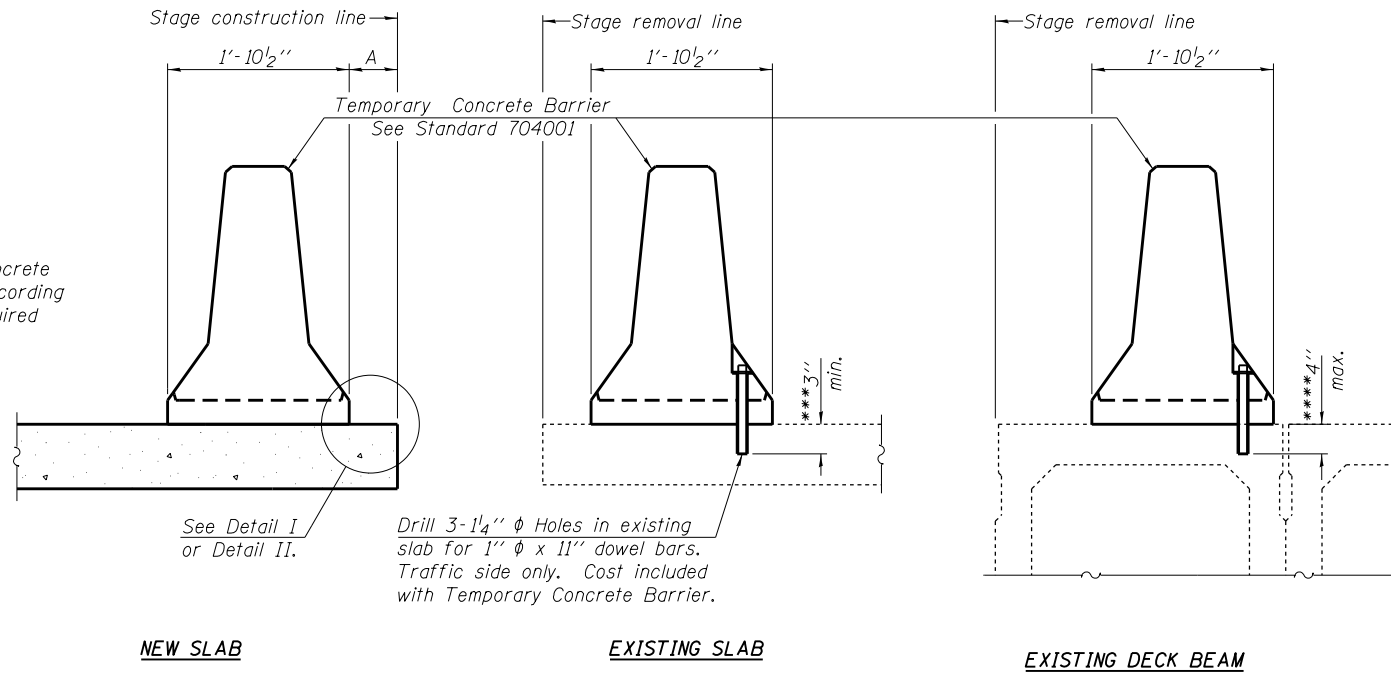
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 013-0002 (EB) & 013-0003 (WB)

SCALE: N/A SHEET 13 OF 15 SHEETS STA. TO STA.

• D7 Bridge Repairs 2014-1			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
327	•	CLAY	49
CONTRACT NO. 74600			SHEET NO. 47
ILLINOIS FED. AID PROJECT			

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

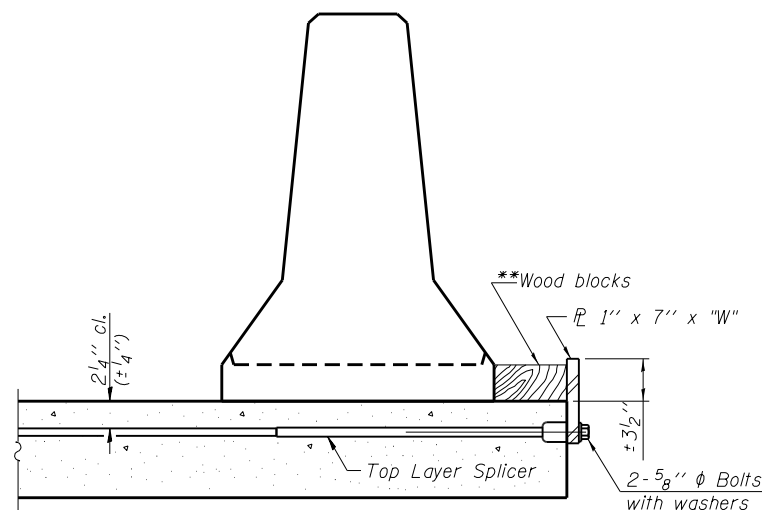
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

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.

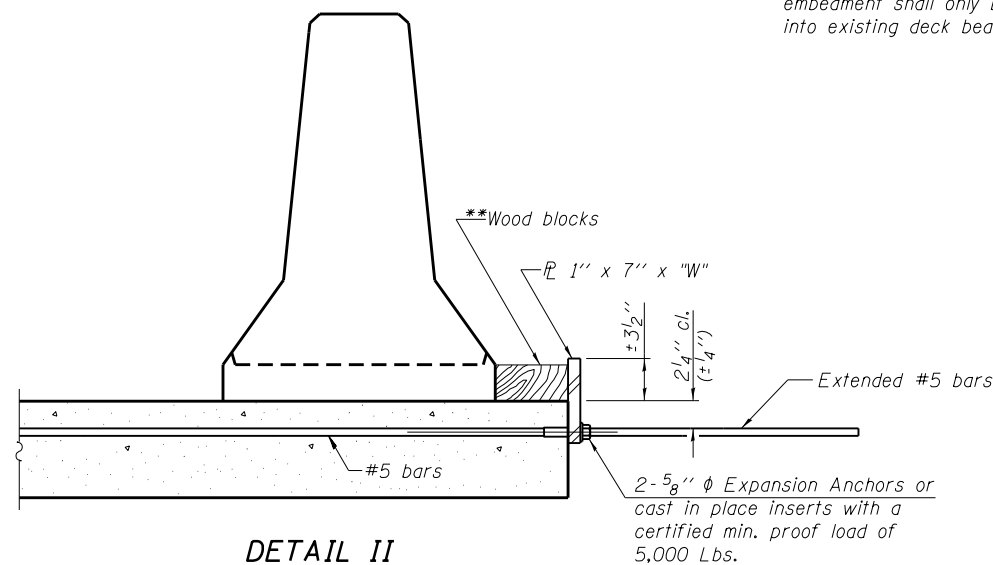
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** 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.

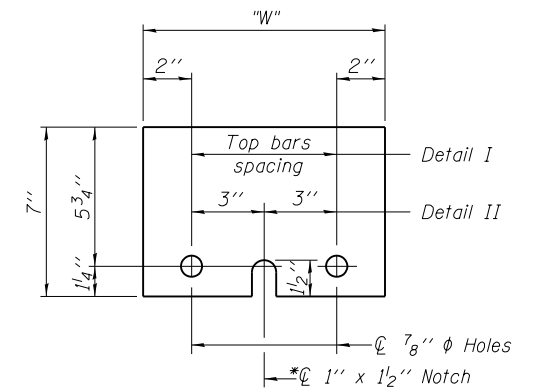
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



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.

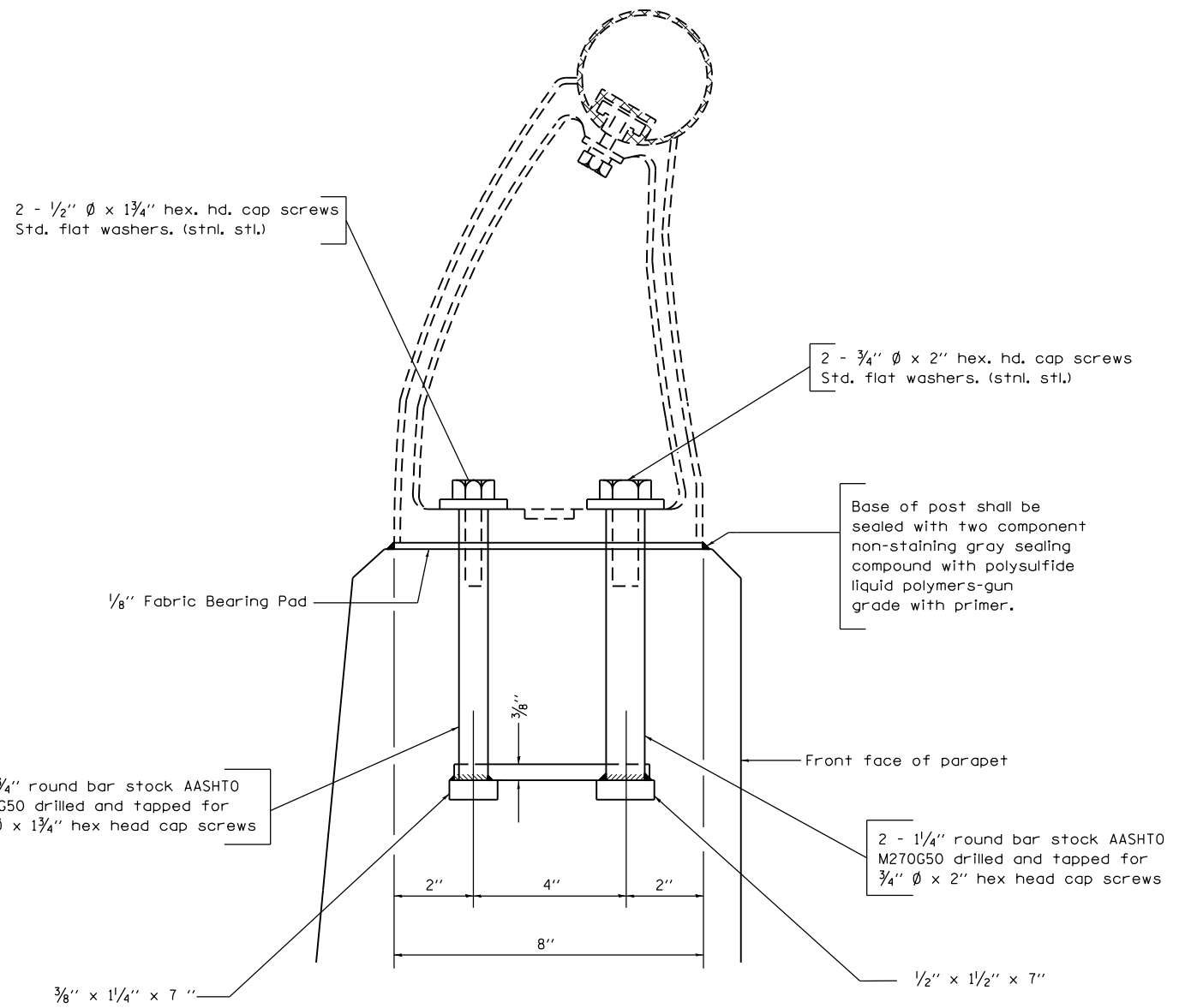
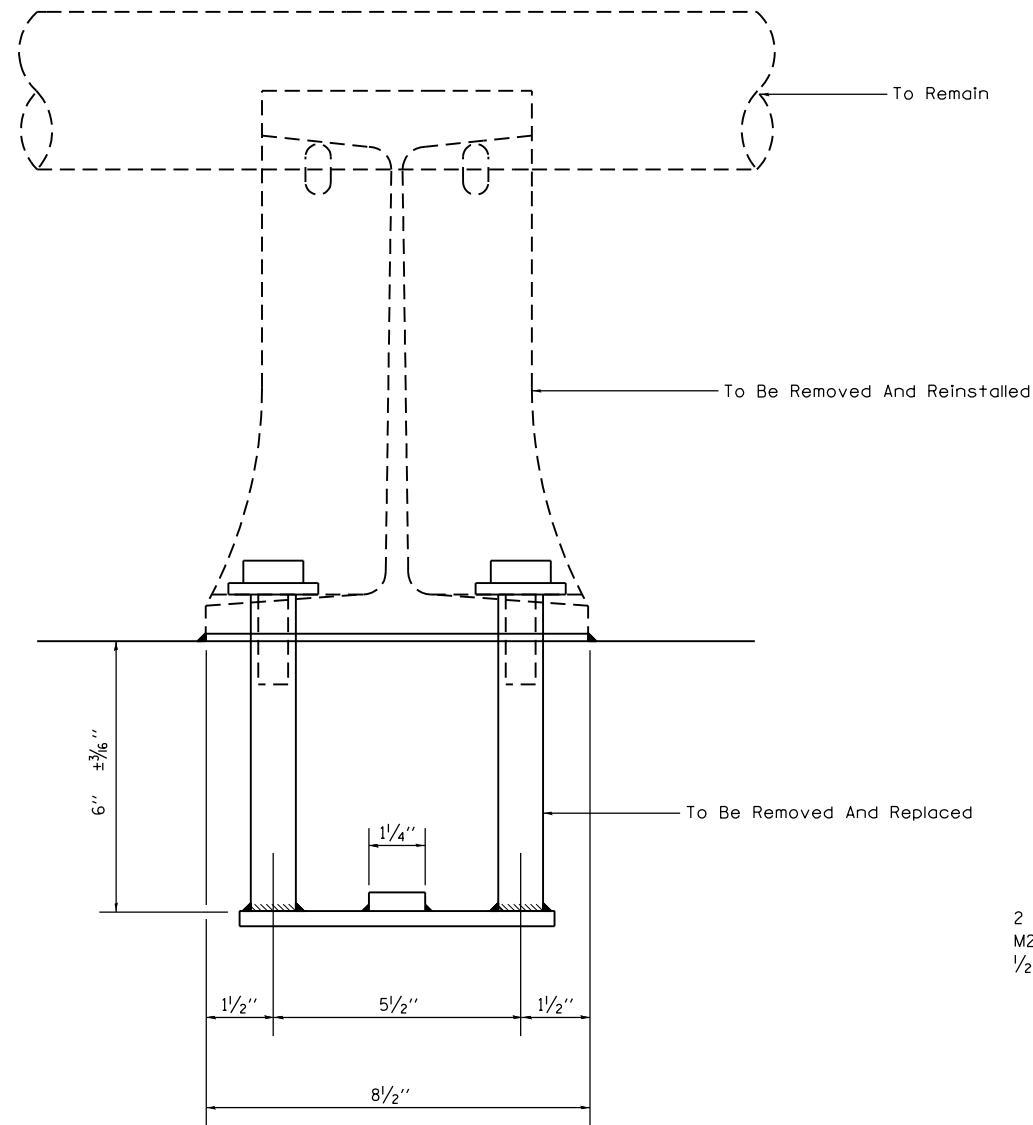
"W" = Top bars spacing + 4"

R-27

7-1-10

• 07 Bridge Repairs 2014-1

FILE NAME = c:\pwwork\pwwork\steffenmk\d0312827\074600-sht-brdetails-013000203.dgn	USER NAME = steffenmk	DESIGNED - KLB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 013-0002 (EB) & 013-0003 (WB)	F.A.P. RFE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -			327	•	CLAY	49	48
Default	PLOT DATE = 3/29/2013	DATE - 08/23/12	REVISED -	SCALE: N/A	SHEET 14 OF 15 SHEETS	STA.	TO STA.	CONTRACT NO. 74600		
ILLINOIS FED. AID PROJECT										



Note: New Rail Post anchorage devices will be required at each location where posts are connected to new construction. Cost shall be included with Concrete Superstructure.

• In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

FILE NAME =	USER NAME = steffenmk	DESIGNED - KLB	REVISED -
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	PLOT DATE = 3/29/2013	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**RAIL SUPPORT ANCHOR DETAILS
SN. 013-0002 (EB) & 013-0003 (WB)**

SCALE: N/A SHEET 15 OF 15 SHEETS STA. TO STA.

• D7 Bridge Repairs 2014-1				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	•	CLAY	49	49
			CONTRACT NO. 74600	
ILLINOIS FED. AID PROJECT				