11-21-14 LETTING ITEM 092

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	WAYNE	34	1
	ILLINOIS	CONTRACT NO. 74365		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

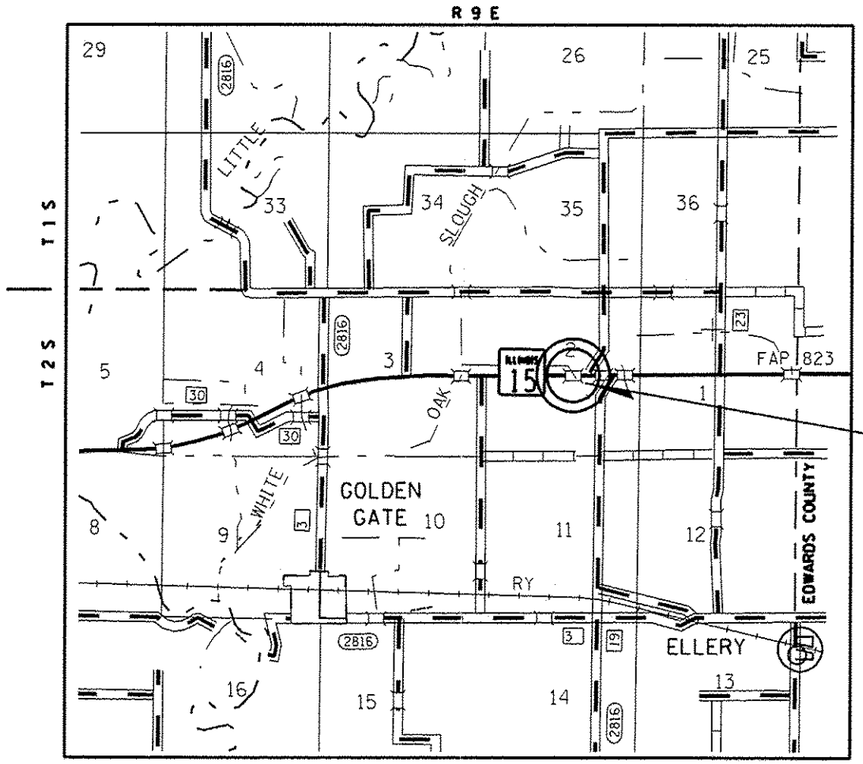
F.A.P. ROUTE 823 (IL. RTE. 15)
SECTION (22BR2)BR
PROJECT ACF-0823 (013)
BRIDGE DECK
WAYNE COUNTY

C-97-043-09

FOR INDEX OF SHEETS, SEE SHEET NO. 2

D-97-020-09

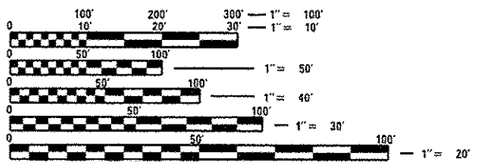
LOCATION OF SECTION INDICATED THUS:-



N

PROPOSED SN-096-0063
℄ STA. 310+85.00
115'-4 1/2" BK-BK ABUTMENTS
SKEW = 0°
DECK ROADWAY WIDTH=32'-0"

MINOR ARTERIAL (NON-URBAN)
ADT = 2300 (2013)



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: ROB MACKLIN
PROJECT MANAGER: LYNN McCLELLAN/ NEIL SANDSCHAFER
PHONE: (217)-342-8245
CONTRACT NO. 74365

GROSS LENGTH = 545 FT. = 0.103 MILE
NET LENGTH = 545 FT. = 0.103 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 15 20 14
Roger L. Purnell (KOS)
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
Oct 17 20 14
John D. Baranzelli P.E. /pr
ENGINEER OF DESIGN AND ENVIRONMENT
Oct 17 20 14
Omer Osman P.E. /pr
DIRECTOR OF HIGHWAYS/CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

GENERAL NOTES

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

THE WORK INCLUDED IN THIS SECTION CONSISTS OF A COMPLETE DECK REPLACEMENT OF EXISTING STRUCTURE 096-0063, APPROACH PAVEMENTS AND PAVEMENT CONNECTORS, GUARDRAIL AND OTHER WORK NECESSARY TO COMPLETE THE PROJECT.

FIELD MARKINGS OF UNDERGROUND UTILITIES IN CRITICAL AREAS MAY BE OBTAINED BY PROVIDING A MINIMUM OF 96 HOURS ADVANCE NOTICE THROUGH THE J.U.L.I.E. SYSTEM BY CALLING 800-892-0123.

THE TOTAL QUANTITY OF PAINT PAVEMENT MARKING - LINE 4" CONSISTS OF 243 FEET OF YELLOW AND 1090 FEET OF WHITE.

TEMPORARY PORTABLE TRAFFIC SIGNALS WILL ONLY BE ALLOWED FROM MARCH 1 TO NOVEMBER 1, UNLESS APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL PROVIDE INTERNET ACCESS TO THE BITUMINOUS PLANT QUALITY CONTROL LAB SO THAT BITUMINOUS PLANT REPORTS CAN BE E-MAILED TO THE DISTRICT HEADQUARTERS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICES FOR OTHER ITEMS IN THE CONTRACT.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE TO THIS PROJECT:

SURFACE COURSE
- APPLICATION: HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70
- AC/PG: PG 64-22
- DESIGN AIR VOIDS: 4.0% @ NDESIGN = 70
- MIXTURE COMPOSITION: IL-9.5
- FRICTION AGGREGATE: MIXTURE C

BASE COURSE WIDENING
- APPLICATION: HOT-MIX ASPHALT BASE COURSE WIDENING
- AC/PG: PG 64-22
- DESIGN AIR VOIDS: 4.0% @ NDESIGN = 70
- MIXTURE COMPOSITION: IL-19.0
- FRICTION AGGREGATE: N/A

INDEX OF SHEETS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 34 :

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND A FOOT
420401-10	BRIDGE APPROACH PAVEMENT CONNECTOR
515001-03	NAME PLATES
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE1 (SPECIAL) GUARDRAIL TERMINALS
631032-08	TRAFFIC BARRIER TERMINAL, TYPE 6A
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
643001-02	SAND MODULE IMPACT ATTENUATORS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24"" FROM PAVEMENT EDGE
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS >/= 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701321-13	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS >/= 45 MPH
701901-03	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIERS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS AND GENERAL NOTES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	Wayne	34	2
		CONTRACT NO. 74365		
	ILLINOIS FED. AID PROJECT			

80/20 FED/STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0014		
20200500	EARTH EXCAVATION (WIDENING)	CU YD	21	21		
28100209	STONE RIPRAP, CLASS A5	TON	458	458		
28200200	FILTER FABRIC	SQ YD	173	173		
35600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	SQ YD	75	75		
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	592	592		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	878	878		
40600990	TEMPORARY RAMP	SQ YD	49	49		
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	124	124		
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	43	43		
44000100	PAVEMENT REMOVAL	SQ YD	114	114		
44004250	PAVED SHOULDER REMOVAL	SQ YD	23	23		
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	18	18		
~~50100100~~	~~REMOVAL OF EXISTING STRUCTURES~~	~~EACH~~	~~1~~	~~1~~		
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1	1		
50102400	CONCRETE REMOVAL	CU YD	3.1	3.1		

80/20 FED/STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0014		
50300225	CONCRETE STRUCTURES	CU YD	19.8	19.8		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	95.8	95.8		
50300260	BRIDGE DECK GROOVING	SQ YD	574.7	574.7		
50300300	PROTECTIVE COAT	SQ YD	613	613		
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	3592	3592		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	30580	30580		
50800515	BAR SPLICERS	EACH	339	339		
50901050	STEEL RAILING, TYPE SM	FOOT	270	270		
51500100	NAME PLATES	EACH	1	1		
59000200	EPOXY CRACK INJECTION	FOOT	3	3		
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	25	25		
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	4		

* SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	Wayne	34	3
		CONTRACT NO. 74365		
	ILLINOIS FED. AID PROJECT			

80/20 FED/STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0014		
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4		
63200310	GUARDRAIL REMOVAL	FOOT	294	294		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6		
67100100	MOBILIZATION	L SUM	1	1		
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1		
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1		
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	6	6		
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	141	141		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	881	881		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	388	388		

80/20 FED/STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0014		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	263	263		
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	1		
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1	1		
70600332	IMPACT ATTENUATORS, RELOCATE (FULLYREDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1	1		
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	1		
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	1333	1333		
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	16	16		
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
78300100	PAVEMENT MARKING REMOVAL	SQ FT	366	366		
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	399.7	399.7		
* X6330725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	50	50		

* SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	Wayne	34	4
		CONTRACT NO. 74365		
		ILLINOIS FED. AID PROJECT		

80/20 FED/STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0014		
X7010202	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1	1		
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	28	28		
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	52	52		
Z0004552	APPROACH SLAB REMOVAL	SQ YD	143	143		
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	28	28		

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		

5

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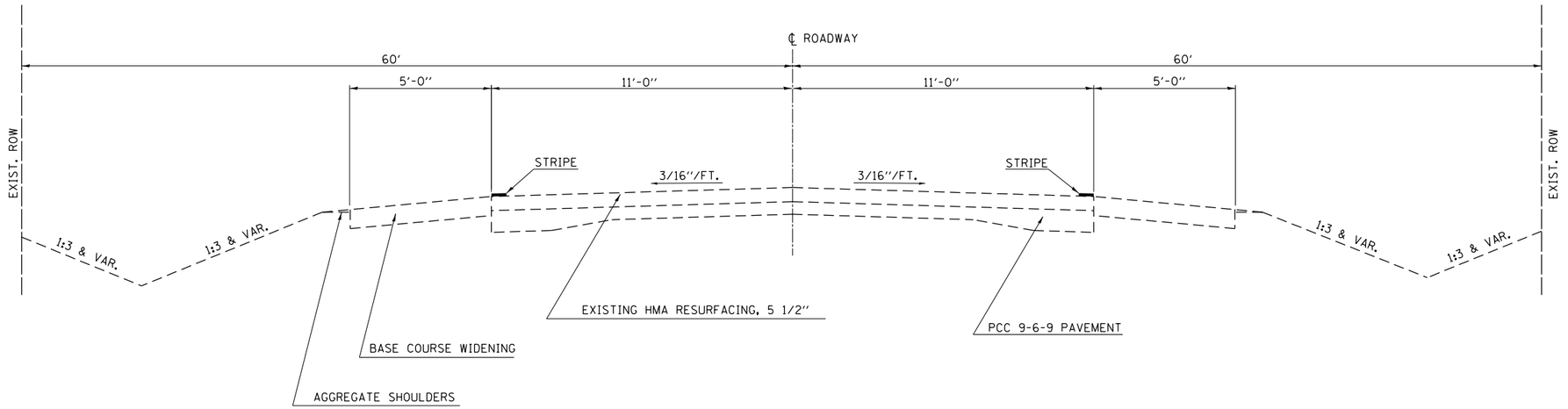
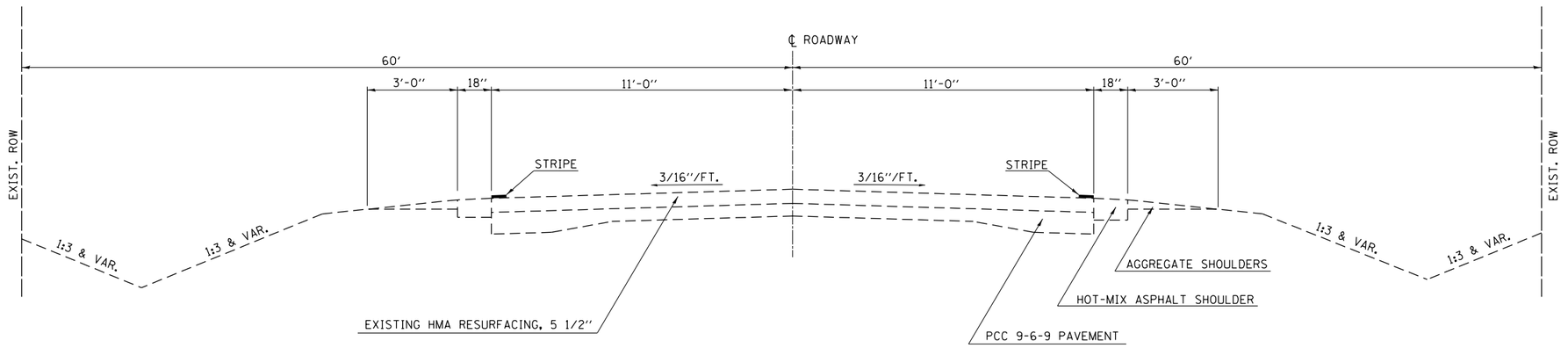
	PLOT SCALE = 100.0000 ' / in.	DRAWN -	REVISED -					CONTRACT NO. 74365		
Default	PLOT DATE = 8/15/2014	CHECKED -	REVISED -		SCALE:	SHEET 3 OF 3 SHEETS	STA.	TO STA.	ILLINOIS	FED. AID PROJECT
		DATE -	REVISED -							



EXISTING TYPICAL CROSS SECTION

STATION 307+75 TO STATION 309+98.79

STATION 311+71.21 TO STATION 312+53



EXISTING TYPICAL CROSS SECTION

STATION 312+53 TO STATION 313+10.00

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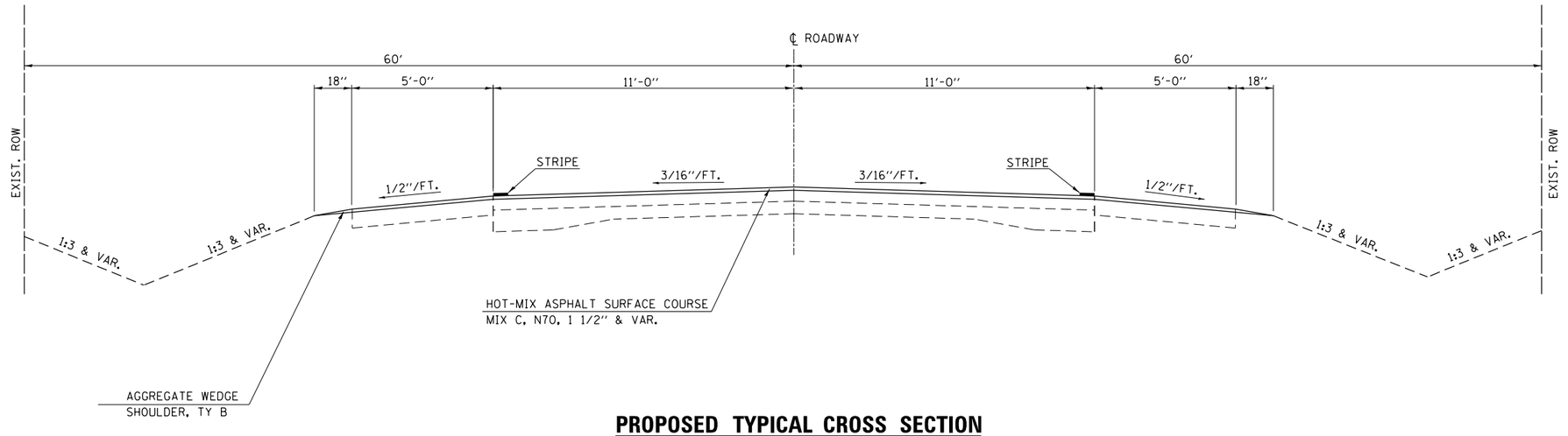
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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

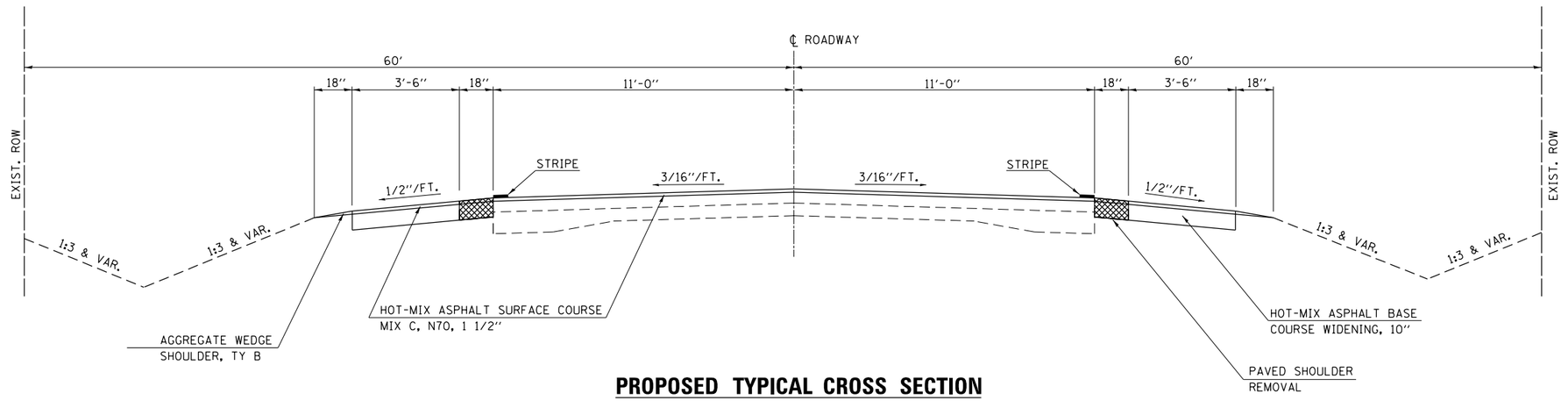
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	Wayne	34	6
		CONTRACT NO. 74365		
		ILLINOIS FED. AID PROJECT		



PROPOSED TYPICAL CROSS SECTION

STATION 307+75 TO STATION 309+98.79

STATION 311+71.21 TO STATION 312+53



PROPOSED TYPICAL CROSS SECTION

STATION 312+53 TO STATION 313+10.00

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	Wayne	34	7
		CONTRACT NO. 74365		
		ILLINOIS FED. AID PROJECT		

BUTT JOINT SCHEDULE

STATION TO STATION		LENGTH (FOOT)	WIDTH (FOOT)	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT (SQ YD)	TEMPORARY RAMP (SQ YD)
307+75.0	308+80.0	105	32	373	12.2
309+92.0	309+97.0	5.0	5	0	12.2
311+72.0	311+77.0	5.0	5	0	12.2
311+78.0	313+20.0	142	32	505	12.2
			TOTALS	878	48.8

HMA SCHEDULE

STATION TO STATION		LENGTH (FOOT)	WIDTH (FOOT)	BITUMINOUS MATERIALS (PRIME COAT) (POUND)	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70 (TON)
307+75.0	309+97.0	222	32	355	81.5
311+72.0	313+20.0	148	32	237	42.4
			TOTALS	592	123.9

PAVEMENT MARKING SCHEDULE

STATION TO STATION			LENGTH (FOOT)	MODIFIED URETHANE PAVEMENT MARKING LINE 4" (FOOT)	
305+00.0	314+72.0	C.L.	972	243	YELLOW
307+75.0	313+20.0	EDGE	545	1090	WHITE
			TOTAL	1333	

TEMPORARY TRAFFIC CONTROL

	STATION TO STATION		TEMPORARY CONCRETE BARRIER (FOOT)	RELOCATE TEMPORARY CONCRETE BARRIER (FOOT)	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 (EACH)	IMPACT ATTENUATORS, TEMPORARY (FULLY-REDIRECTIVE, NARROW), TEST LEVEL 3 (EACH)	IMPACT ATTENUATORS, RELOCATE (FULLY-REDIRECTIVE, NARROW), TEST LEVEL 3 (EACH)	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 (EACH)
STAGE 1	309+20.0	313+06.7	388	0	1	1	0	0
STAGE 2	310+22.0	312+87.0	0	263	0	0	1	1
		TOTALS	388	263	1	1	1	1

REMOVAL SCHEDULE

STATION TO STATION		LENGTH (FOOT)	WIDTH (FOOT)	PAVEMENT REMOVAL (SQ YD)	PAVED SHOULDER REMOVAL (SQ YD)
309+91.0	310+07.0	16	32	57	0.0
311+63.0	311+79.0	16	32	57	0.0
312+53.0	313+20.0	67	1.5	0	22.3
			TOTAL	114	22.3

PAVEMENT MARKING REMOVAL

	STATION TO STATION			LENGTH (FOOT)	PAVEMENT MARKING REMOVAL (SQ FT)
STAGE 1	305+00.0	307+00.0	C.L.	200	16.7
	313+00.0	314+72.0	EDGE	172	14.3
	306+84.0	313+20.0	EDGE	636	212.0
STAGE 2	307+78.0	309+97.0	EDGE	219	73.0
	311+72.0	313+20.0	EDGE	148	49.3
				TOTAL	365.3

WIDENING SCHEDULE

	STATION TO STATION		LENGTH (FOOT)	WIDTH (FOOT)	EARTH EXCAVATION (WIDENING) (CU YD)	HOT-MIX ASPHALT BASE COURSE WIDENING, 10" (SQ YD)
LT	312+53.0	313+20.0	67	5	10	37.2
RT	312+53.0	313+20.0	67	5	10	37.2
				TOTALS	21	74.4

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	Wayne	34	8
		CONTRACT NO. 74365		
		ILLINOIS FED. AID PROJECT		

GUARDRAIL REMOVAL		
LT STA 309+63.5	STA 310+27.3	64′
RT STA 309+76.0	STA 310+27.3	51′
LT STA 311+42.7	STA 312+06.7	64′
RT STA 311+42.7	STA 312+57.0	114′
	TOTAL:	293′

PROPOSED BRIDGE
S.N. 096-0063
℄ STA. 310+85
115′-4 1/2″ BK-BK ABUTMENTS
SKEW = 0°
DECK ROADWAY WIDTH = 32′-0″

N

EXISTING GUARDRAIL TO BE REMOVED

PROPOSED 30′ BRIDGE APPROACH PAVEMENT

PROPOSED 6′ BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)

PROPOSED PROJECT BEGINS STA. 307+75

PROPOSED GUARDRAIL

308 ℄ IL ROUTE 15 309 310+00 311 312 313

+93 +99 +71 +77 +33

EXISTING GUARDRAIL TO BE REMOVED

PROPOSED GUARDRAIL

PROP HMA BASE COURSE WIDENING 10″

PROPOSED PROJECT ENDS STA. 313+20

PROPOSED HMA SURFACE REMOVAL-BUTT JOINT
STA 307+75 TO STA 308+80
SEE BUTT JOINT DETAIL SHEET

15′ R 15′ R

STEEL PLATE BEAM GUARDRAIL END SECTION

PROPOSED GUARDRAIL

EXISTING GUARDRAIL TO BE REMOVED

EXISTING GUARDRAIL TO BE REMOVED

PROPOSED GUARDRAIL

PROPOSED HMA SURFACE REMOVAL-BUTT JOINT
STA 311+77 TO STA 313+20
SEE BUTT JOINT DETAIL SHEET

TRAFFIC BARRIER TERMINAL TYPE 6A		
LT STA 309+70.04	STA 310+13.79	1
*RT STA 309+83.72	STA 310+27.36	1
LT STA 311+56.21	STA 311+99.96	1
RT STA 311+56.21	STA 311+99.96	2
	TOTAL:	4

*PARTIAL RADIUS IN LAST 12.5′ SECTION

STEEL PLATE BEAM GUARDRAIL		
LT STA 311+99.96	STA 312+24.96	25′
	TOTAL:	25′

STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)		
RT STA 309+34.12	STA 309+50.96	25′
RT STA 309+74.60	STA 309+83.72	25′
	TOTAL:	50′

TRAFFIC BARRIER TERMAL, TYPE 1 SPL		
LT STA 309+20.04	STA 309+70.04	1
RT STA 308+84.12	STA 309+34.12	1
LT STA 312+24.30	STA 312+74.30	1
RT STA 311+99.96	STA 312+49.96	1
	TOTAL:	4

PLAN — SURVEYED; PLOTTED; CROSS SECTIONS CHECKED; BAR. NOTED; STRUCTURE NOTATNS CHKD; NOTE BOOK; NO.; BY; DATE

PROFILE — SURVEYED; PLOTTED; CROSS SECTIONS CHECKED; BAR. NOTED; STRUCTURE NOTATNS CHKD; NOTE BOOK; NO.; BY; DATE

396 394 392 390 388 386 384 382 380

125.00′ V.C. 125.00′ V.C. 100.00′ V.C.

+75.00 EL. 391.36
-0.05%
+0.56%
VPI STA. 308+37.50
ELEVATION 391.33
+00.00 EL. 391.68
+0.56%
VPI STA. 309+62.50
ELEVATION 392.03
+0.00%
+25.00 EL. 392.03
+45.00 EL. 392.03
+0.00%
VPI STA. 311+95.00
ELEVATION 392.03
-0.27%
+45.00 EL. 391.90
391.75
391.74

391.41	391.36 391.36	391.35 391.36	391.34 391.39	391.39 391.43	391.44 391.50	391.48 391.58	391.52 391.68	391.57 391.78	391.66 391.87	391.73 391.94	391.80 391.98	391.88 392.02	391.96 392.03	392.03 392.03	392.02 392.03	392.02 392.03	392.02 392.03	392.02 392.03	392.02 392.03	391.99 392.03	391.98 392.01	391.94 391.99	391.90 391.95	391.84 391.91	391.79 391.86	391.77 391.80	391.75 391.75	391.74 391.74	391.74	391.74
308+00	308+50	309+00	309+50	310+00	310+50	311+00	311+50	312+00	312+50	313+00	313+50																			

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN VIEW
SN 096-0063

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	Wayne	34	9
		CONTRACT NO. 74365		
	ILLINOIS FED. AID PROJECT			

SUGGESTED STAGE 1 TRAFFIC

1. SET UP TEMPORARY TRAFFIC CONTROL UTILIZING THESE PLANS IN CONJUNCTION WITH TRAFFIC CONTROL AND PROTECTION, STANDARD 701321.

2. INSTALL TEMPORARY TRAFFIC SIGNALS AND LOOP DETECTORS AT LOCATIONS IN ACCORDANCE WITH THESE PLANS AND STANDARD 701321.

3. PLACE TEMPORARY CONCRETE BARRIERS AND PAVEMENT MARKING IN ACCORDANCE WITH THESE PLANS AND STANDARD 701321.

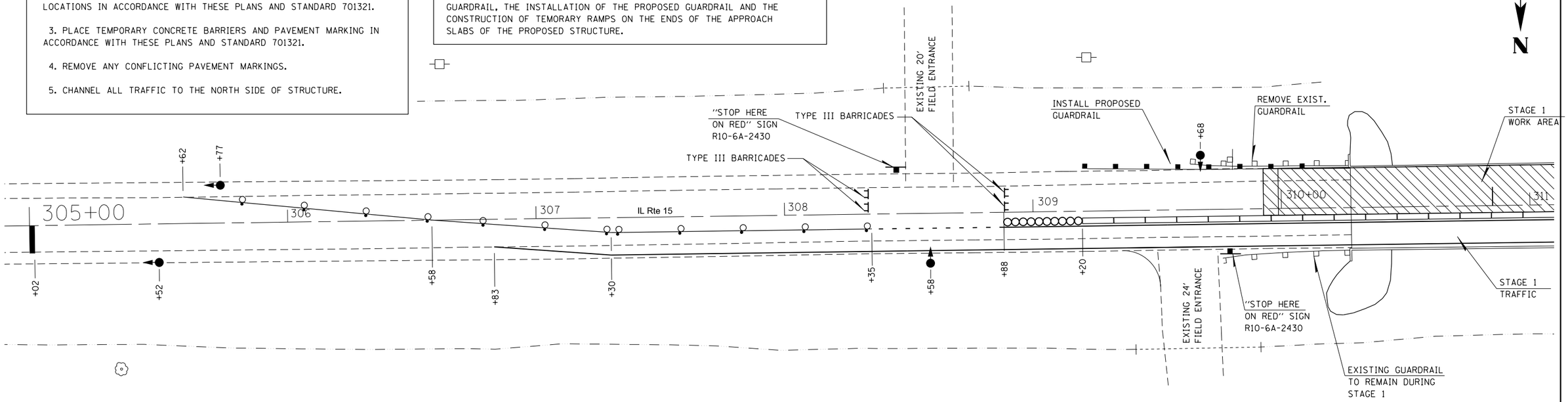
4. REMOVE ANY CONFLICTING PAVEMENT MARKINGS.

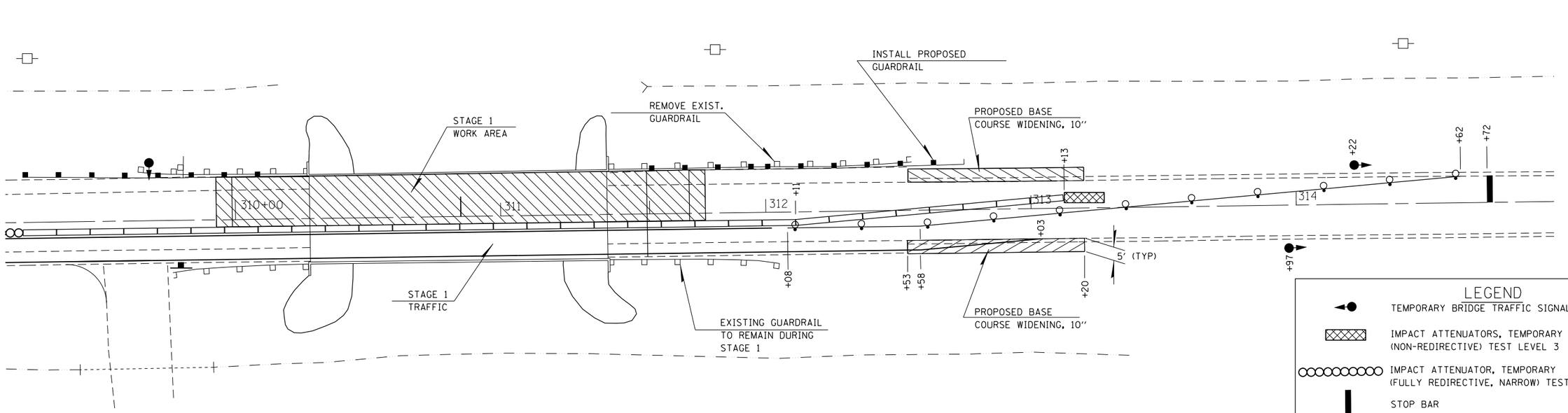
5. CHANNEL ALL TRAFFIC TO THE NORTH SIDE OF STRUCTURE.

SUGGESTED STAGE 1 CONSTRUCTION

1. STAGE 1 CONSTRUCTION SHALL INCLUDE THE REMOVAL AND REPLACEMENT OF THE SOUTH SIDE OF THE EXISTING BRIDGE DECK FOR SN 096-0063.

2. STAGE 1 CONSTRUCTION SHALL INCLUDE THE REMOVAL OF THE EXISTING GUARDRAIL, THE INSTALLATION OF THE PROPOSED GUARDRAIL AND THE CONSTRUCTION OF TEMORARY RAMPS ON THE ENDS OF THE APPROACH SLABS OF THE PROPOSED STRUCTURE.





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Default	PLOT DATE = 8/15/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN-096-0063
STAGE 1 CONSTRUCTION

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	Wayne	34	10
		CONTRACT NO. 74365		
		ILLINOIS FED. AID PROJECT		

SUGGESTED STAGE 2 TRAFFIC

1. SET UP TEMPORARY TRAFFIC CONTROL UTILIZING THESE PLANS IN CONJUNCTION WITH TRAFFIC CONTROL AND PROTECTION, STANDARD 701321.

2. RELOCATE TEMPORARY CONCRETE BARRIERS AND PAVEMENT MARKING IN ACCORDANCE WITH THESE PLANS AND STANDARD 701321.

3. REMOVE ANY CONFLICTING PAVEMENT MARKINGS.

4. CHANNEL ALL TRAFFIC TO THE SOUTH SIDE OF STRUCTURE.

SUGGESTED STAGE 2 CONSTRUCTION

1. STAGE 2 CONSTRUCTION SHALL INCLUDE THE REMOVAL AND REPLACEMENT OF THE NORTH SIDE OF THE EXISTING BRIDGE DECK FOR SN 096-0063.

2. STAGE 2 CONSTRUCTION SHALL INCLUDE THE REMOVAL OF THE EXISTING GUARDRAIL, THE INSTALLATION OF THE PROPOSED GUARDRAIL AND THE CONSTRUCTION OF TEMORARY RAMPS ON THE ENDS OF THE APPROACH SLABS OF THE PROPOSED STRUCTURE.

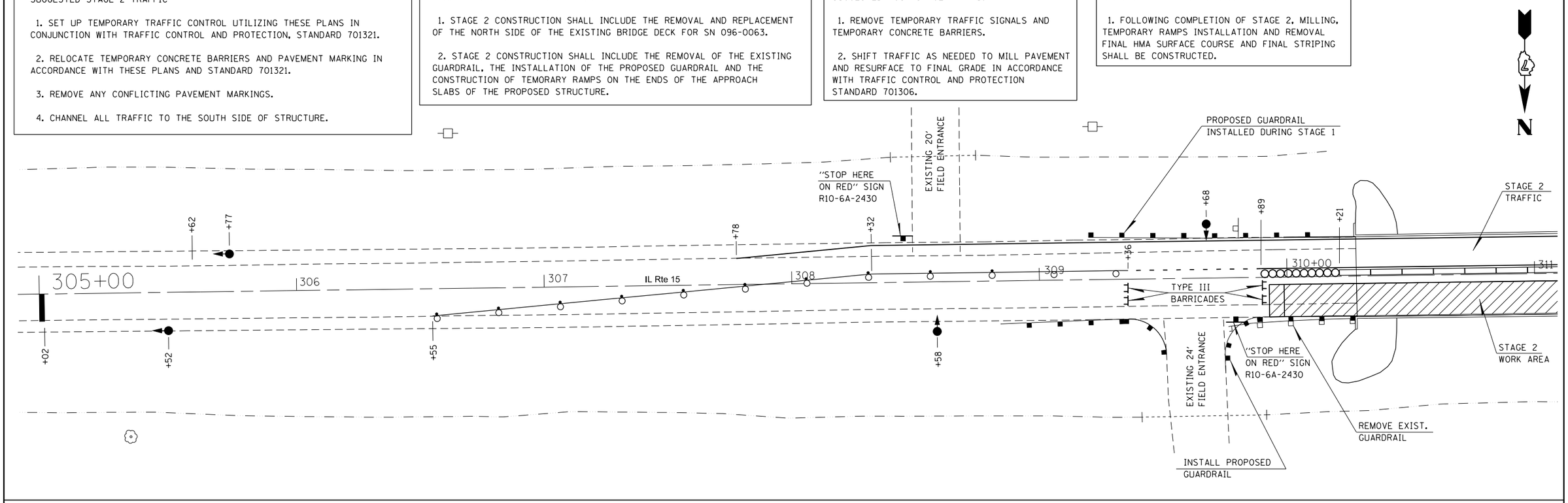
SUGGESTED POST-STAGE TRAFFIC

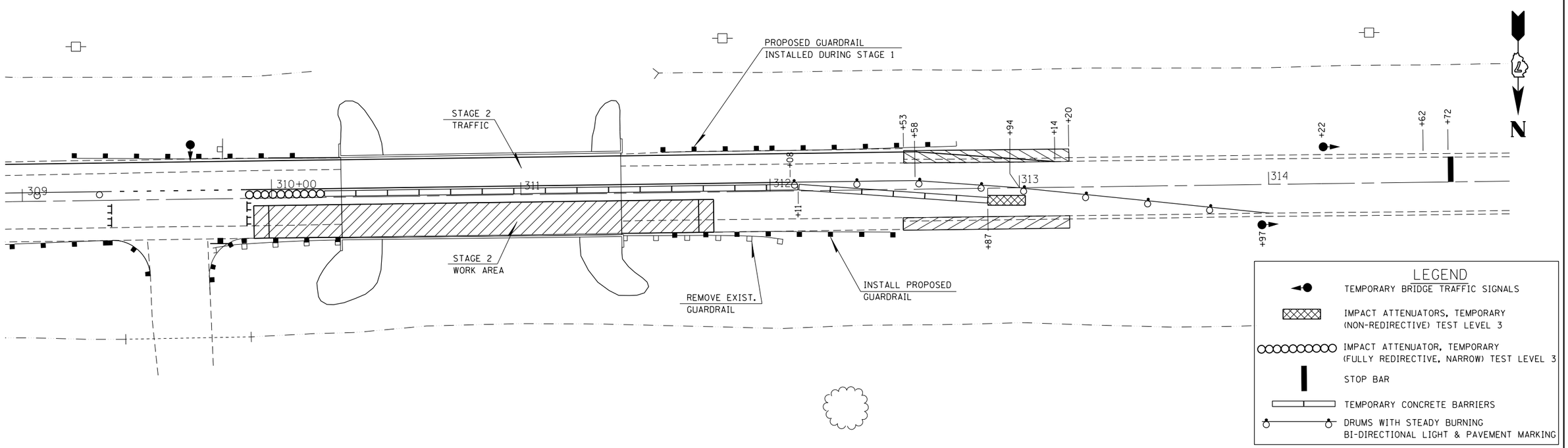
1. REMOVE TEMPORARY TRAFFIC SIGNALS AND TEMPORARY CONCRETE BARRIERS.

2. SHIFT TRAFFIC AS NEEDED TO MILL PAVEMENT AND RESURFACE TO FINAL GRADE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701306.

SUGGESTED POST-STAGE CONSTRUCTION

1. FOLLOWING COMPLETION OF STAGE 2, MILLING, TEMPORARY RAMPS INSTALLATION AND REMOVAL FINAL HMA SURFACE COURSE AND FINAL STRIPING SHALL BE CONSTRUCTED.





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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN 096-0063
STAGE 2 CONSTRUCTION

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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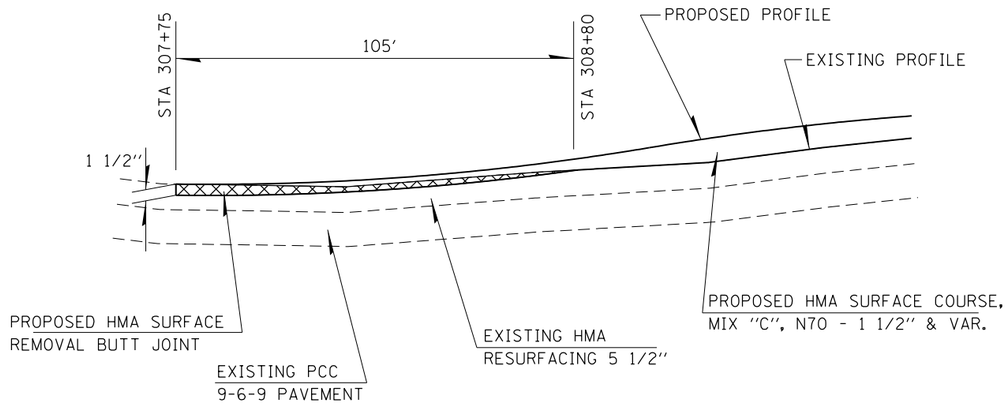
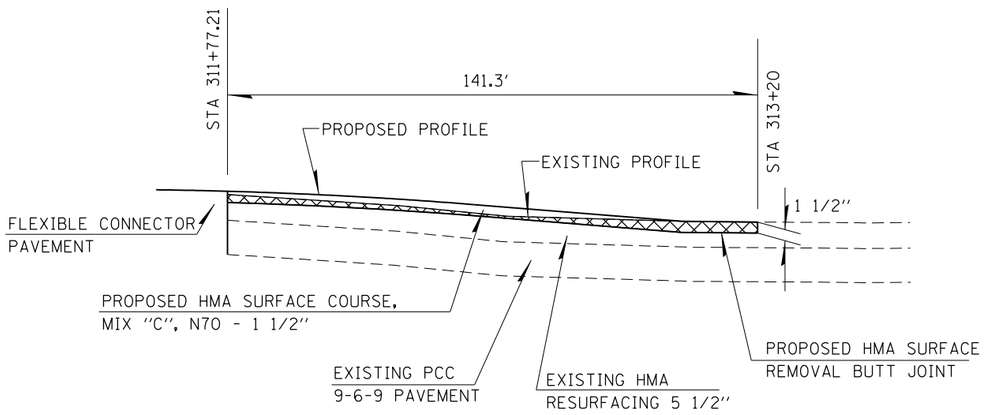
		CONTRACT NO. 74365		
		ILLINOIS FED. AID PROJECT		



BUTT JOINT STA 307+75 TO 308+80



BUTT JOINT STA 311+78.69 TO 313+20

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Default	PLOT DATE = 8/15/2014	DATE -	REVISED -

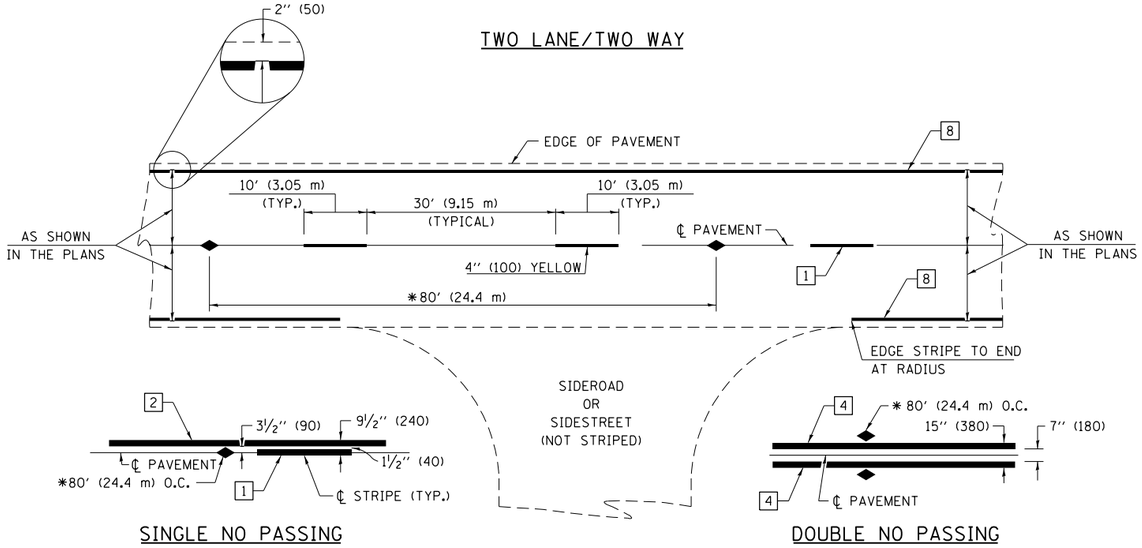
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT DETAIL

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	Wayne	34	12
		CONTRACT NO. 74365		
	ILLINOIS FED. AID PROJECT			

TWO LANE/TWO WAY



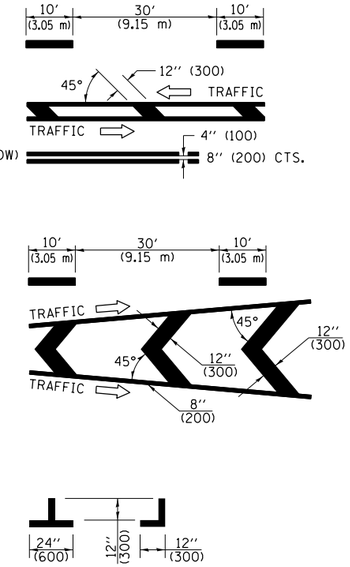
SINGLE NO PASSING

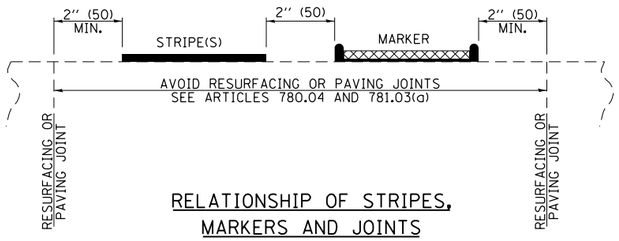
DOUBLE NO PASSING

∗ 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



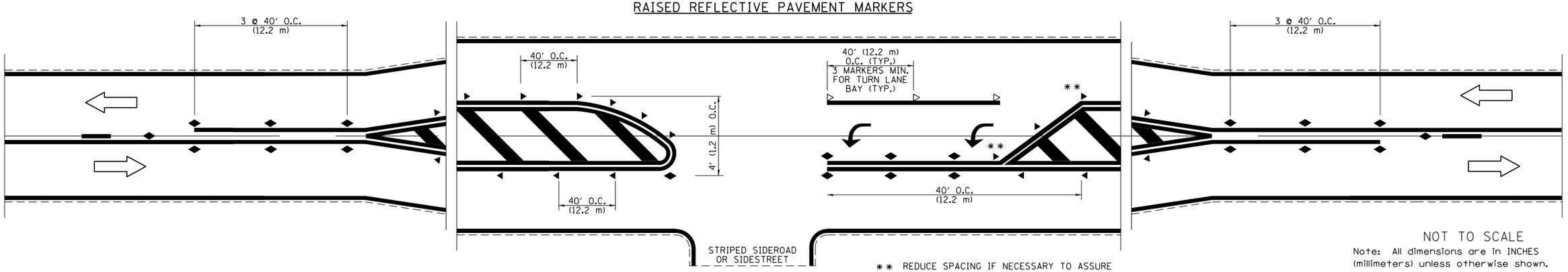


RELATIONSHIP OF STRIPES, MARKERS AND JOINTS

TYPICAL PAVEMENT MARKERS LEGEND

- TWO-WAY AMBER MARKER
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER

RAISED REFLECTIVE PAVEMENT MARKERS



∗∗ REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.

NOT TO SCALE

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

DISTRICT 7 DETAIL NO. 78000001

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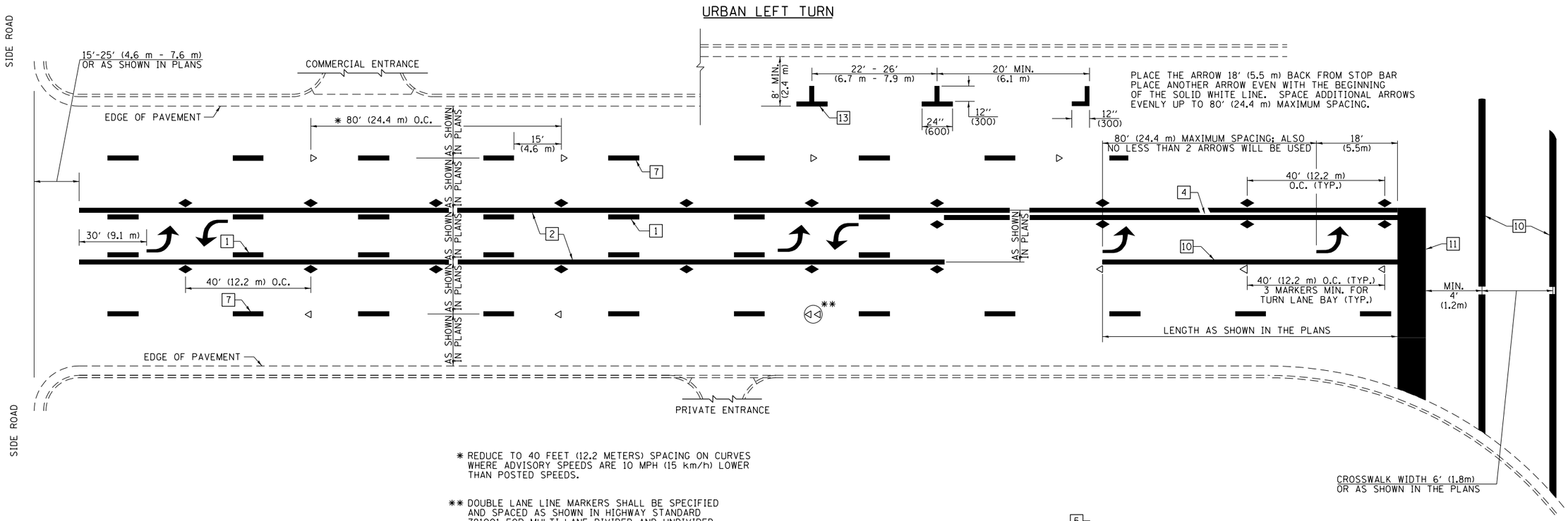
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	Wayne	34	13
		CONTRACT NO. 74365		
		ILLINOIS FED. AID PROJECT		

URBAN LEFT TURN

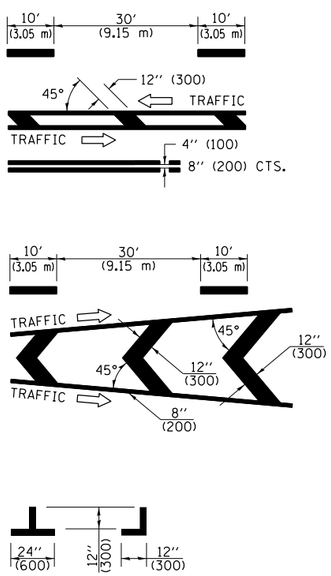


* REDUCE TO 40 FEET (12.2 METERS) SPACING ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER THAN POSTED SPEEDS.

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

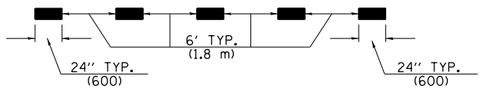
PAVEMENT MARKING LEGEND

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

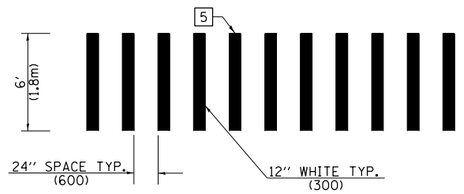


GENERAL NOTES

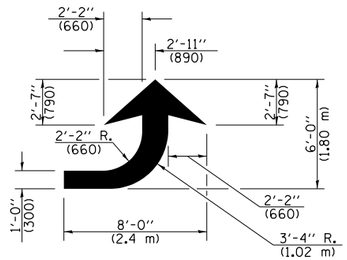
1. TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE. USE A MINIMUM OF TWO PAIRS PER BLOCK.
2. THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT 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.



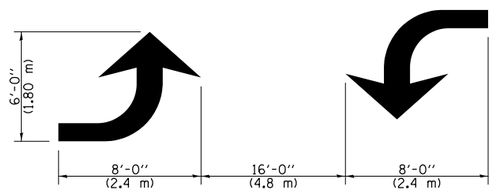
LANE LINE EXTENSIONS



CROSSWALK DETAIL
(DECATUR CITY LIMITS ONLY)



LEFT ARROW
REVERSE FOR RIGHT ARROW
AREA = 15.6 SQ. FT. (1.47 m^2)
(WHITE)



TYPICAL DOUBLE
TURN ARROWS (WHITE)

NOT TO SCALE

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

DISTRICT 7 DETAIL NO. 78000001

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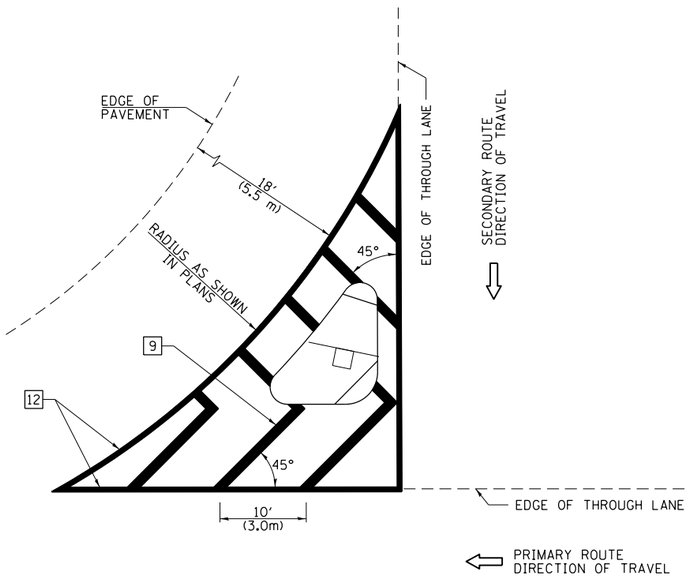
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	Wayne	34	14
		CONTRACT NO. 74365		
	ILLINOIS FED. AID PROJECT			

ISLAND

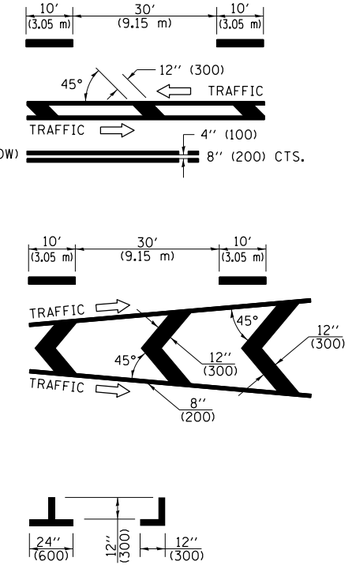


GENERAL NOTES

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:

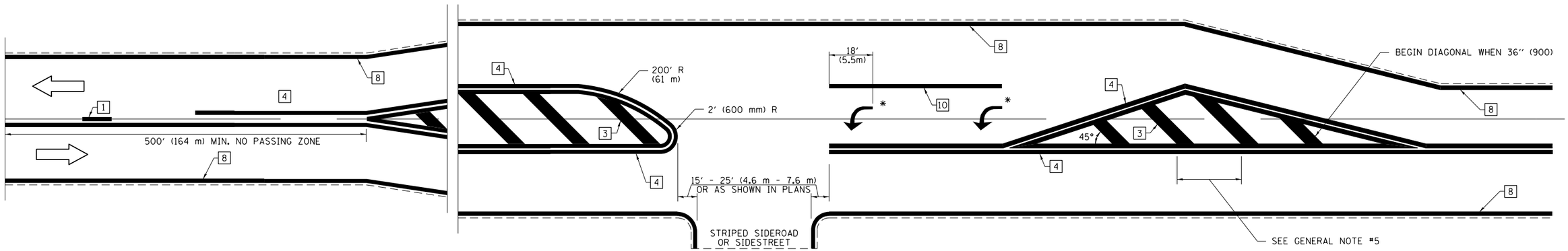
< 30 MPH	(< 50 km/h)	15′ (4.5 m)
30-45 MPH	(50-75 km/h	20′ (6.0 m)
> 45 MPH	(> 75 km/h	30′ (9.0 m)

PAVEMENT MARKING LEGEND



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

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. 78000001

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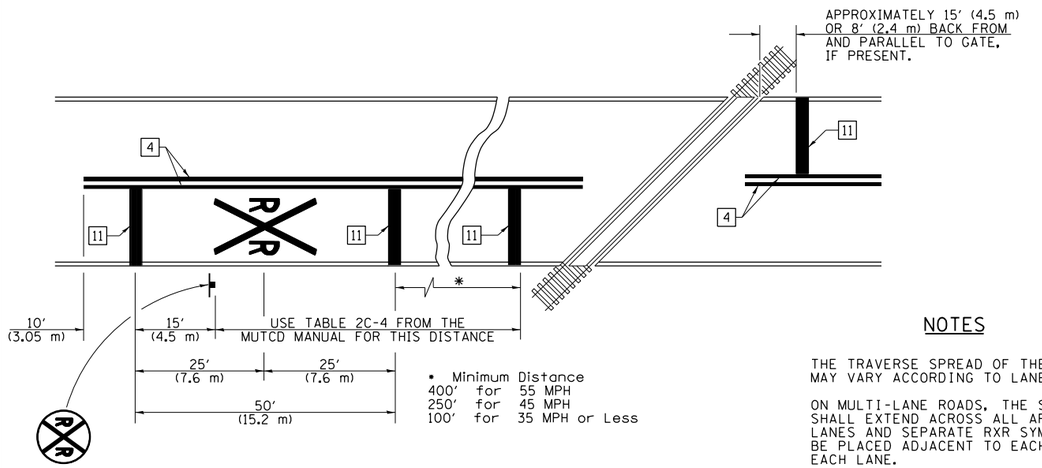
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

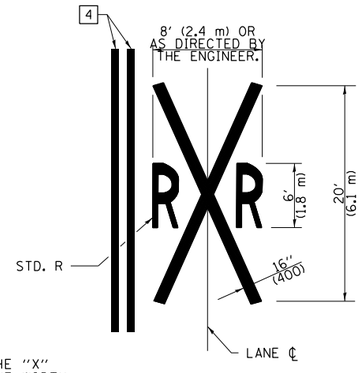
PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)

SCALE: | SHEET NO. 3 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	Wayne	34	15
		CONTRACT NO. 74365		
	ILLINOIS FED. AID PROJECT			

PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING





NOTES

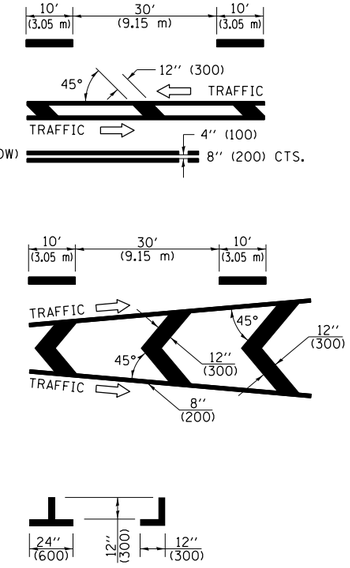
THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

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.

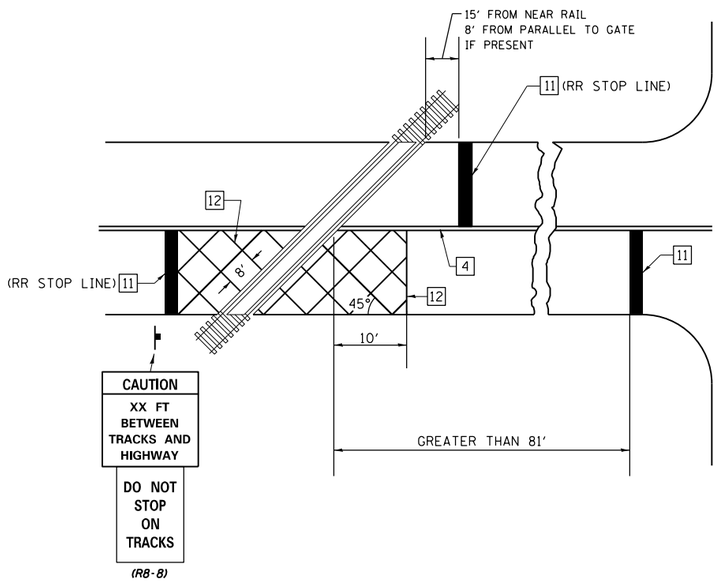
WHEN THE PAVEMENT MARKING SYMBOL IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B OF THE MUTCD.

PAVEMENT MARKING LEGEND

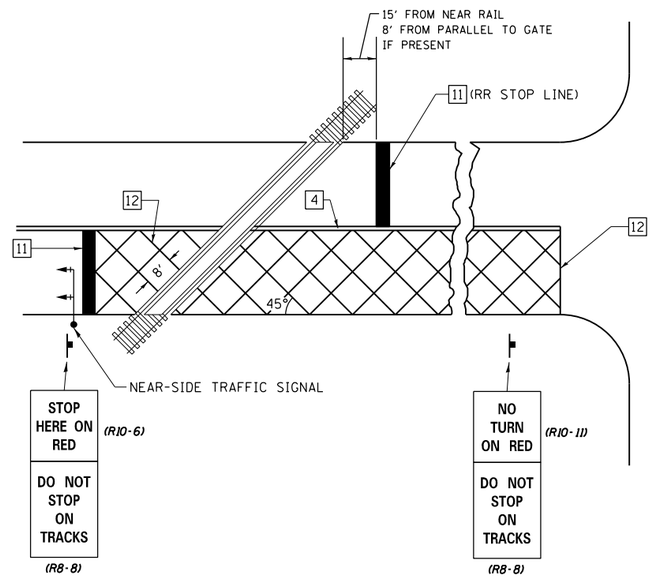
1. 4" (100) SKIP-DASH (YELLOW)
2. 4" (100) SOLID (YELLOW)
3. 12" (300) DIAGONAL (YELLOW)
4. 4" (100) DOUBLE YELLOW (NARROW)
5. 12" (300) SOLID WHITE
6. RESERVED
7. 6" (150) SKIP-DASH (WHITE)
8. 4" (100) SOLID (WHITE)
9. 12" (300) DIAGONAL (WHITE)
10. 6" (150) SOLID (WHITE)
11. 24" (600) STOP BAR (WHITE)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



RAILROAD CROSSING WITH INTERCONNECT ONLY



RAILROAD CROSSING WITH INTERCONNECT AND PRE-SIGNALS



GENERAL NOTES

1. SUPPLEMENTAL PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
2. EXTEND PAVEMENT MARKINGS TO THE INTERSECTION ONLY WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED.

SUPPLEMENTAL PAVEMENT MARKING TREATMENT FOR RAILROAD-HIGHWAY GRADE CROSSING

NOT TO SCALE

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

DISTRICT 7 DETAIL NO. 78000001

FILE NAME = c:\pw_work\pwidot\steffenmk\d0283030\D774365-sht-pavement markings.dgn	USER NAME = steffenmk	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/15/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

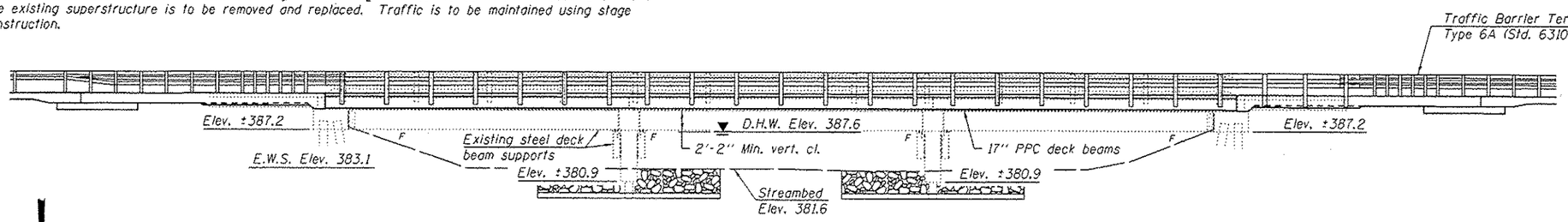
SCALE: | SHEET NO. 4 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	Wayne	34	16
		CONTRACT NO. 74365		
		ILLINOIS FED. AID PROJECT		

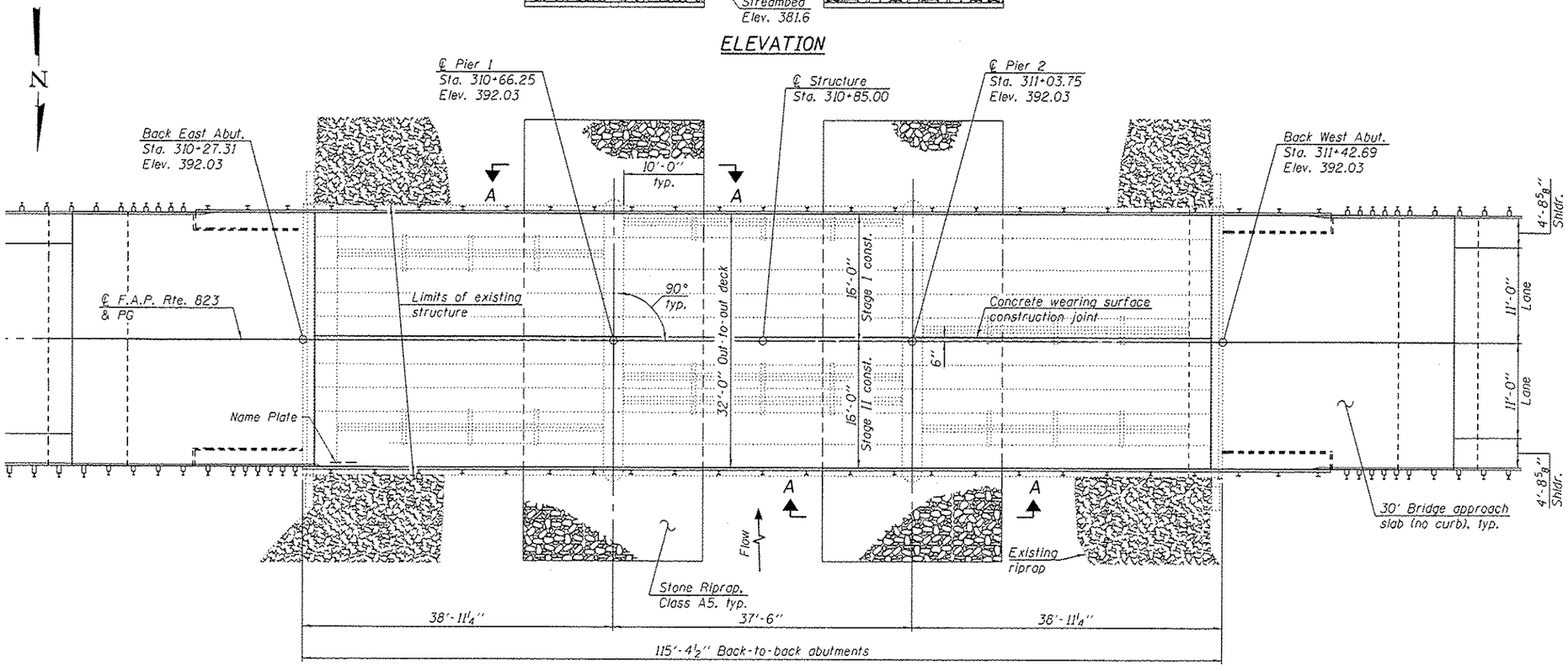
Benchmark: Chiseled "□" in the NE headwall of S.N. 096-0063, Station 310+27.1; offset 18.26' right; Elev. 391.677.

Existing Structure: S.N. 096-0063 built in 1983 as F.A. Route 823, Section 22BR-2 at Sta. 310+85.00. The existing structure consists of three spans simply supported precast prestressed concrete deck beam superstructure supported on concrete abutments with metal shell piles and pile bent piers with precast concrete piles. Back-to-back of abutment length is 115'-4½" and out-to-out width of deck is 34'-0". The existing superstructure is to be removed and replaced. Traffic is to be maintained using stage construction.

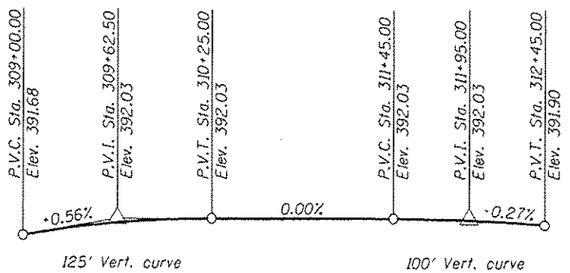
Salvage: The existing steel beams located underneath the existing deck beams shall be carefully removed and salvaged. They shall be transported to a site designated by the Engineer and placed on wood blocking.



ELEVATION



PLAN



PROFILE GRADE
(Along IL Rte. 15)

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition with 2013 Interims

DESIGN STRESSES

FIELD & EXISTING UNITS

f'c = 3,500 psi *
fy = 60,000 psi (reinforcement)

* Superstructure concrete shall have a 28-day mix design with a compressive strength of 5,000 psi.

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (½" ϕ low lax strands)
fpbt = 201,960 psi (½" ϕ low lax strands)

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface

SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = 0.129g
Site Coefficient (S) = 1.5

DESIGN SCOUR ELEVATION TABLE

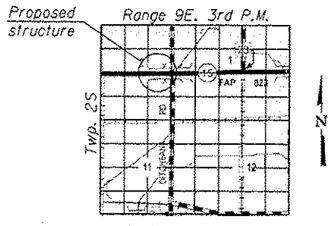
Design Scour Elevations (ft.)			
E. Abut.	Pier 1	Pier 2	W. Abut.
387.2	380.9	380.9	387.2

WATERWAY INFORMATION

Drainage Area = 1,803 mi.²
Existing Low Grade Elev. 390.59 @ Sta. 290+50
Proposed Low Grade Elev. 390.59 @ Sta. 290+50

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	528	276	276	385.9	0.5	0.5	386.4	386.4
Design	50	1349	442	442	387.6	0.6	0.6	388.1	388.1
Base	100	1789	508	508	388.2	0.6	0.6	388.8	388.8
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	2862	654	654	389.5	0.6	0.6	390.1	390.1

10 Year velocity through existing bridge = 1.87 ft/s.



GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 15 OVER
WHITE OAK OVERFLOW
F.A.P. RTE. 823 - SEC. (22BR2)BR
WAYNE COUNTY
STATION 310+85.00
STRUCTURE NO. 096-0063

LICENSED STRUCTURAL ENGINEER DAVID CARL PUZEY 081-005470 SPRINGFIELD ILLINOIS STATE OF ILLINOIS

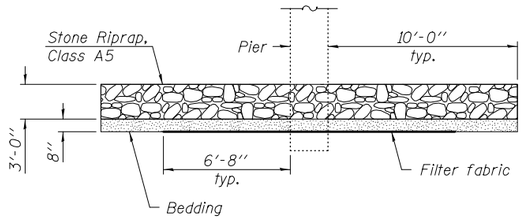
EXPIRES 11-30-2014

DESIGNED -	Irene Farbos	EXAMINED	Jay F. Hollis
CHECKED -	Dan Dyfcl		ACTING ENGINEER OF BRIDGE DESIGN
DRAWN -	MICHAEL B. MOSSMAN	PASSED	Carl Puzey
CHECKED -	IP/JOV/GRA		ACTING ENGINEER OF BRIDGES AND STRUCTURES
		DATE -	9/16/14
		REVISED	
		REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	WAYNE	34	17
		CONTRACT NO. 74365		
		ILLINOIS FED. AID PROJECT		



SECTION A-A

INDEX OF SHEETS

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

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.

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

The Contractor is advised that the existing PPC deck beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

Repair of the pier and abutment caps shall be completed prior to placement of the new deck beams.

The minimum thickness of concrete wearing surface shall be 5" and varies as required to adjust for new profile grade and beam camber.

STATION 310+85.00
RE-BUILT 2 BY
STATE OF ILLINOIS
F.A.P. RTE. 823 SEC. (22BR2)BR
LOADING HL-93
STRUCTURE NO. 096-0063

NAME PLATE

Existing name plate shall be cleaned and relocated next to new name plate. Cost included with Name Plates. See Standard 515001.

TOTAL BILL OF MATERIAL

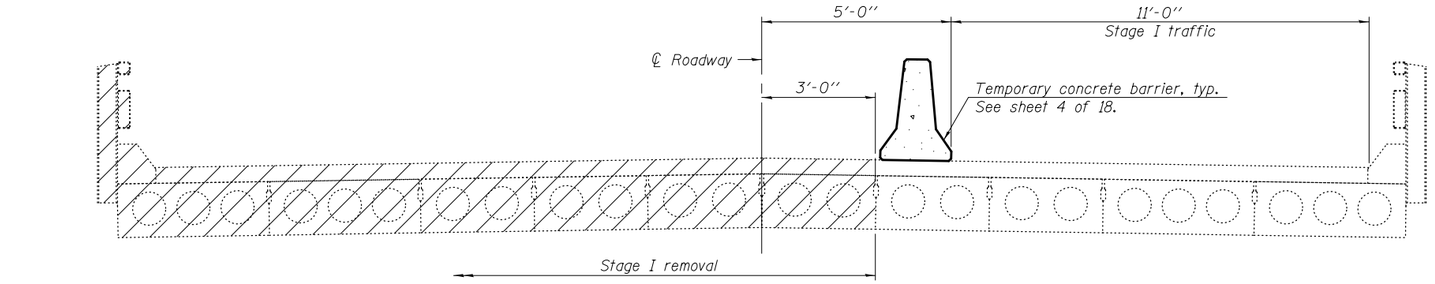
ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Ton		458	458
Filter Fabric	Sq. Yd.		173	173
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		3.1	3.1
Concrete Structures	Cu. Yd.		19.8	19.8
Concrete Superstructure	Cu. Yd.	95.8		95.8
Bridge Deck Grooving	Sq. Yd.	574.7		574.7
Protective Coat	Sq. Yd.	613.0		613.0
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	3,592.0		3,592.0
Reinforcement Bars, Epoxy Coated	Pound	30,580		30,580
Bar Splicers	Each	259	80	339
Steel Railing, Type SM	Foot	270		270
Name Plates	Each	1		1
Epoxy Crack Injection	Foot		3.0	3.0
Concrete Wearing Surface, 5"	Sq. Yd.	399.7		399.7
Asbestos Bearing Pad Removal	Each		52	52
Structural Repair Of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.		27.5	27.5

DESIGNED -	IRENE PANTOJA	EXAMINED	DATE - SEPTEMBER 16, 2014
CHECKED -	JOSUE D. ORTIZ-VARELA		REVISED ___
DRAWN -	MICHAEL B. MOSSMAN	PASSED	REVISED ___
CHECKED -	J.O.V. / I.P. / G.R.A.	ACTING ENGINEER OF BRIDGE DESIGN ACTING ENGINEER OF BRIDGES AND STRUCTURES	

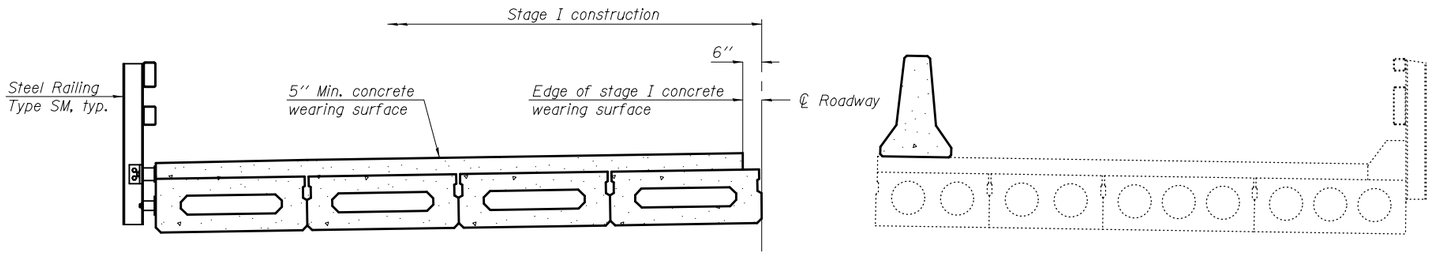
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 096 - 0063
SHEET NO. 2 OF 18 SHEETS

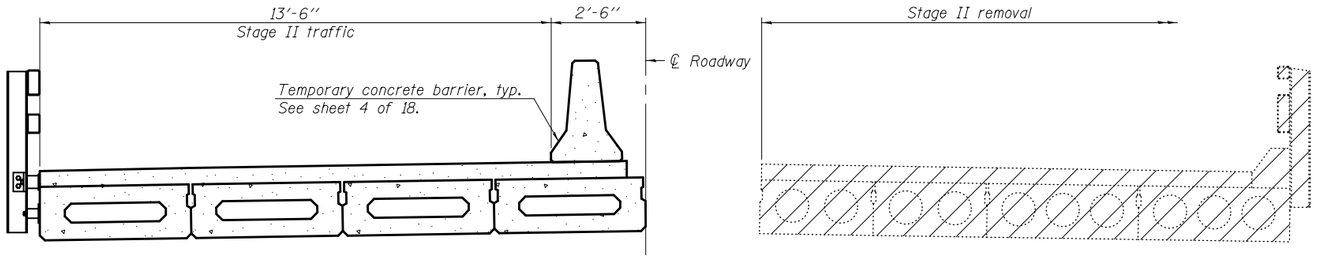
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	WAYNE	34	18
		CONTRACT NO. 74365		
	ILLINOIS	FED. AID PROJECT		



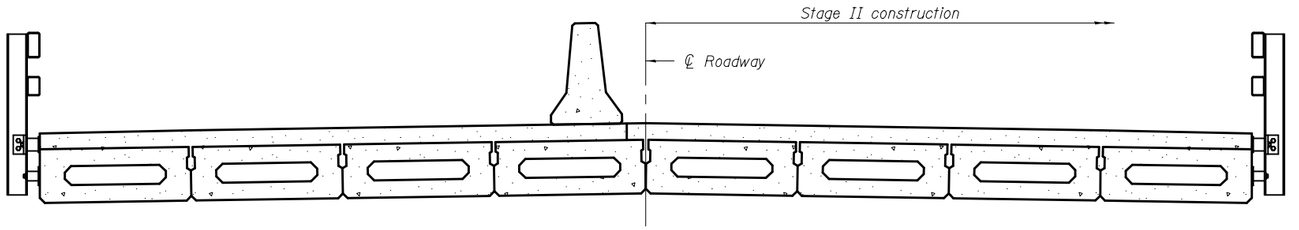
STAGE I REMOVAL



STAGE I CONSTRUCTION



STAGE II REMOVAL



STAGE II CONSTRUCTION

Notes:

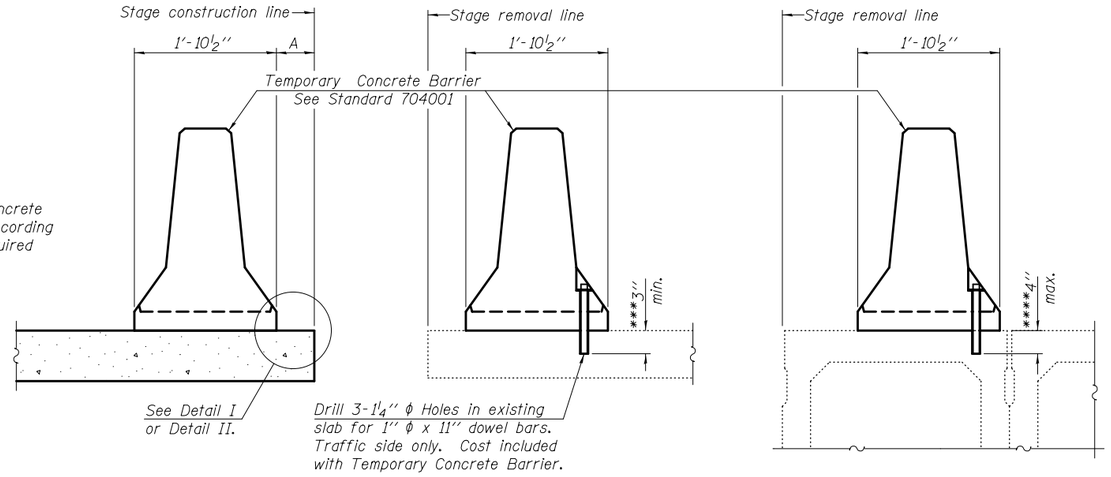
All staging cross sections are looking west.

For quantity of Temporary Concrete Barrier, see roadway plans.

Hatched area indicates Removal of Existing Superstructures.

DESIGNED - IRENE PANTOJA	EXAMINED	DATE - SEPTEMBER 16, 2014	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**STAGE CONSTRUCTION DETAILS STRUCTURE NO. 096 – 0063**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - JOSUE D. ORTIZ-VARELA					823	(22BR2)BR	WAYNE	34	19
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED					CONTRACT NO. 74365		
CHECKED - J.O.V. / I.P. / G.R.A.	ACTING ENGINEER OF BRIDGE DESIGN ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 3 OF 18 SHEETS	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".



NEW SLAB | EXISTING SLAB | EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1'' x 7' 'x ''W'' steel ℙ to the top layer of couplers with 2-$\frac{5}{8}$'' ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1'' x 7'' x ''W'' steel ℙ to the concrete slab or concrete wearing surface with 2-$\frac{5}{8}$'' ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

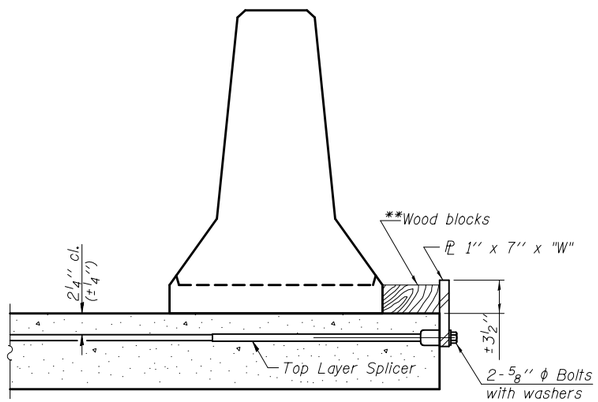
Cost of anchorage is included with Temporary Concrete Barrier.

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.

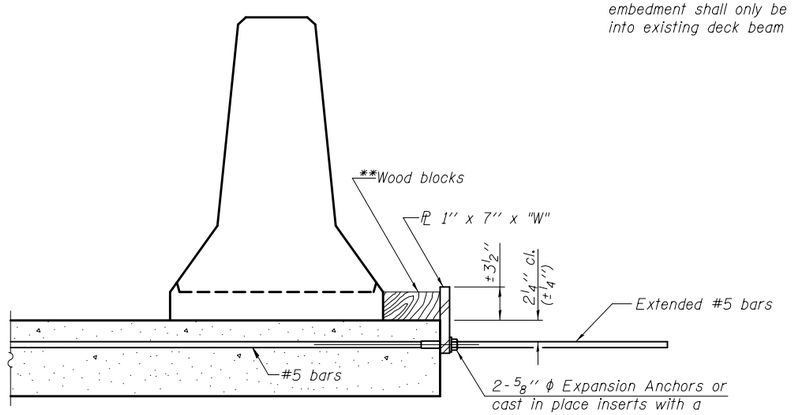
SECTIONS THRU SLAB OR DECK BEAM

*** 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.

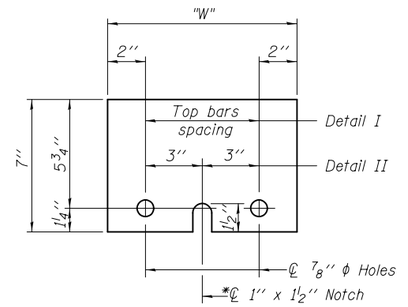
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER ℙ 1'' x 7'' x ''W''

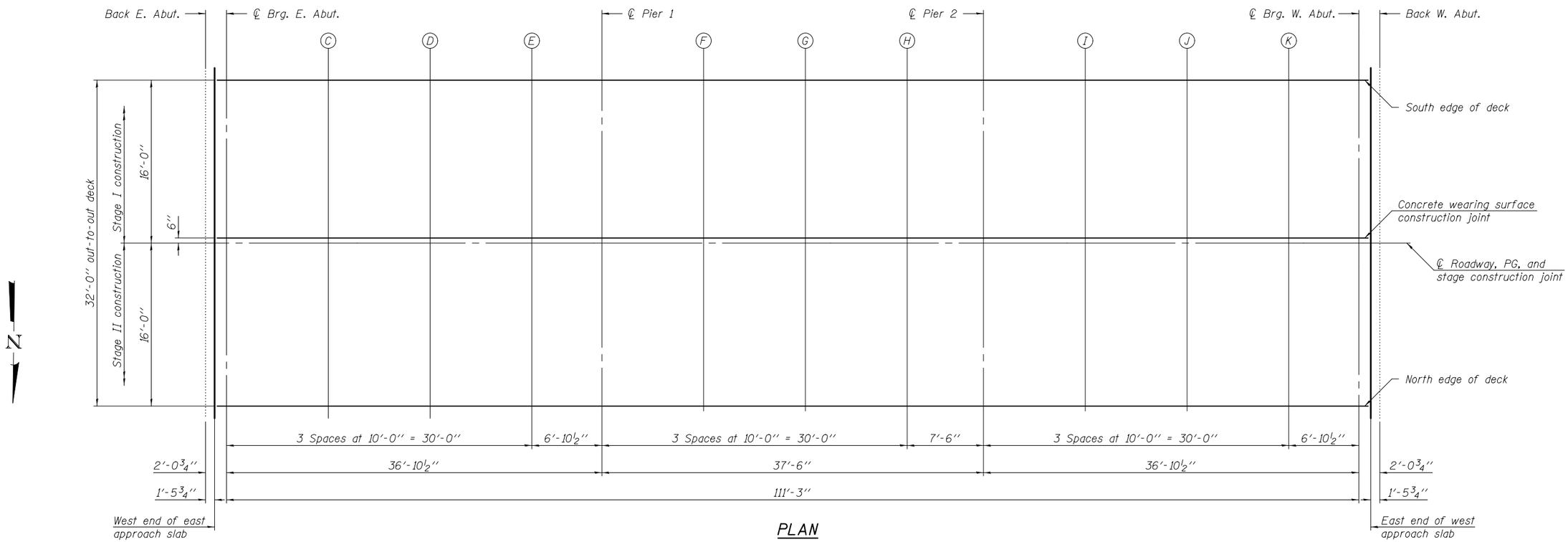
* Required only with Detail II

** 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 - IRENE PANTOJA	EXAMINED	DATE - SEPTEMBER 16, 2014	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 096 – 0063	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - JOSUE D. ORTIZ-VARELA					823	(22BR2)BR	WAYNE	34	20
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED		SHEET NO. 4 OF 18 SHEETS			CONTRACT NO. 74365		
CHECKED - J.O.V. / I.P. / G.R.A.	ACTING ENGINEER OF BRIDGE DESIGN ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED					ILLINOIS FED. AID PROJECT		



PLAN

SOUTH EDGE OF DECK

Location	Station	Offset	Theoretical Grade Elevations
Bk. E. Abut.	310+27.31	-16.00	391.78
W. End E. Appr.	310+28.79	-16.00	391.78
℄ Brg. E. Abut.	310+29.37	-16.00	391.78
C	310+39.37	-16.00	391.78
D	310+49.37	-16.00	391.78
E	310+59.37	-16.00	391.78
℄ Pier 1	310+66.25	-16.00	391.78
F	310+76.25	-16.00	391.78
G	310+86.25	-16.00	391.78
H	310+96.25	-16.00	391.78
℄ Pier 2	311+03.75	-16.00	391.78
I	311+13.75	-16.00	391.78
J	311+23.75	-16.00	391.78
K	311+33.75	-16.00	391.78
℄ Brg. W. Abut.	311+40.62	-16.00	391.78
E. End W. Appr.	311+41.21	-16.00	391.78
Bk. W. Abut.	311+42.69	-16.00	391.78

CONCRETE WEARING SURFACE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
Bk. E. Abut.	310+27.31	-0.50	392.02
W. End E. Appr.	310+28.79	-0.50	392.02
℄ Brg. E. Abut.	310+29.37	-0.50	392.02
C	310+39.37	-0.50	392.02
D	310+49.37	-0.50	392.02
E	310+59.37	-0.50	392.02
℄ Pier 1	310+66.25	-0.50	392.02
F	310+76.25	-0.50	392.02
G	310+86.25	-0.50	392.02
H	310+96.25	-0.50	392.02
℄ Pier 2	311+03.75	-0.50	392.02
I	311+13.75	-0.50	392.02
J	311+23.75	-0.50	392.02
K	311+33.75	-0.50	392.02
℄ Brg. W. Abut.	311+40.62	-0.50	392.02
E. End W. Appr.	311+41.21	-0.50	392.02
Bk. W. Abut.	311+42.69	-0.50	392.02

℄ ROADWAY, PG, & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
Bk. E. Abut.	310+27.31	0.00	392.03
W. End E. Appr.	310+28.79	0.00	392.03
℄ Brg. E. Abut.	310+29.37	0.00	392.03
C	310+39.37	0.00	392.03
D	310+49.37	0.00	392.03
E	310+59.37	0.00	392.03
℄ Pier 1	310+66.25	0.00	392.03
F	310+76.25	0.00	392.03
G	310+86.25	0.00	392.03
H	310+96.25	0.00	392.03
℄ Pier 2	311+03.75	0.00	392.03
I	311+13.75	0.00	392.03
J	311+23.75	0.00	392.03
K	311+33.75	0.00	392.03
℄ Brg. W. Abut.	311+40.62	0.00	392.03
E. End W. Appr.	311+41.21	0.00	392.03
Bk. W. Abut.	311+42.69	0.00	392.03

NORTH EDGE OF DECK

Location	Station	Offset	Theoretical Grade Elevations
Bk. E. Abut.	310+27.31	16.00	391.78
W. End E. Appr.	310+28.79	16.00	391.78
℄ Brg. E. Abut.	310+29.37	16.00	391.78
C	310+39.37	16.00	391.78
D	310+49.37	16.00	391.78
E	310+59.37	16.00	391.78
℄ Pier 1	310+66.25	16.00	391.78
F	310+76.25	16.00	391.78
G	310+86.25	16.00	391.78
H	310+96.25	16.00	391.78
℄ Pier 2	311+03.75	16.00	391.78
I	311+13.75	16.00	391.78
J	311+23.75	16.00	391.78
K	311+33.75	16.00	391.78
℄ Brg. W. Abut.	311+40.62	16.00	391.78
E. End W. Appr.	311+41.21	16.00	391.78
Bk. W. Abut.	311+42.69	16.00	391.78

DESIGNED - IRENE PANTOJA
CHECKED - JOSUE D. ORTIZ-VARELA
DRAWN - MICHAEL B. MOSSMAN
CHECKED - J.O.V. / I.P. / G.R.A.

EXAMINED
PASSED
ACTING ENGINEER OF BRIDGE DESIGN
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 16, 2014
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 096 - 0063
SHEET NO. 5 OF 18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	WAYNE	34	21
		CONTRACT NO. 74365		
	ILLINOIS FED. AID PROJECT			

SOUTH EDGE OF SHOULDER

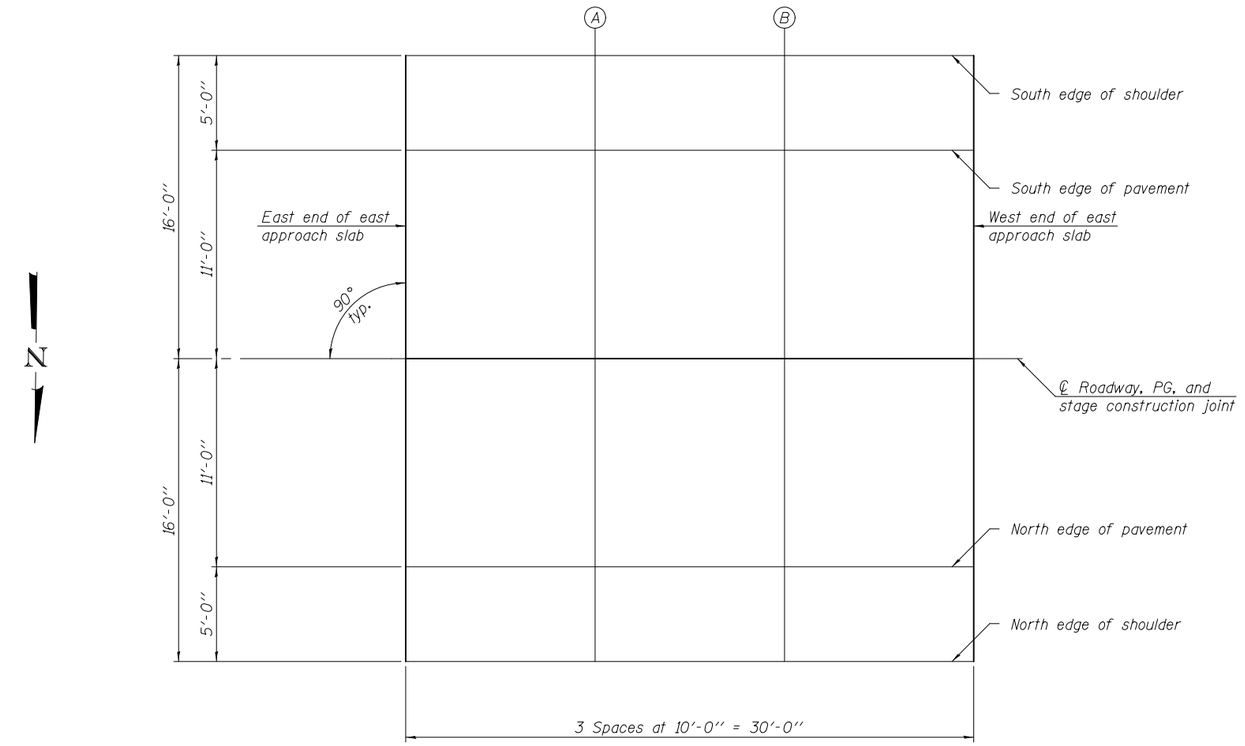
Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr. Slab	309+98.79	-16.00	391.76
A	310+08.79	-16.00	391.77
B	310+18.79	-16.00	391.78
W. End of E. Appr. Slab	310+28.79	-16.00	391.78

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr. Slab	309+98.79	-11.00	391.84
A	310+08.79	-11.00	391.85
B	310+18.79	-11.00	391.86
W. End of E. Appr. Slab	310+28.79	-11.00	391.86

℄ ROADWAY, PG, & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr. Slab	309+98.79	0.00	392.01
A	310+08.79	0.00	392.02
B	310+18.79	0.00	392.03
W. End of E. Appr. Slab	310+28.79	0.00	392.03



PLAN

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr. Slab	309+98.79	11.00	391.84
A	310+08.79	11.00	391.85
B	310+18.79	11.00	391.86
W. End of E. Appr. Slab	310+28.79	11.00	391.86

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr. Slab	309+98.79	16.00	391.76
A	310+08.79	16.00	391.77
B	310+18.79	16.00	391.78
W. End of E. Appr. Slab	310+28.79	16.00	391.78

DESIGNED -	IRENE PANTOJA	EXAMINED	DATE - SEPTEMBER 16, 2014
CHECKED -	JOSUE D. ORTIZ-VARELA		
DRAWN -	MICHAEL B. MOSSMAN	PASSED	REVISED
CHECKED -	J.O.V. / I.P. / G.R.A.		REVISED

ACTING ENGINEER OF BRIDGE DESIGN

ACTING ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF EAST BRIDGE APPROACH SLAB ELEVATIONS
STRUCTURE NO. 096 - 0063

SHEET NO. 6 OF 18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	WAYNE	34	22
		CONTRACT NO. 74365		
	ILLINOIS	FED. AID PROJECT		

SOUTH EDGE OF SHOULDER

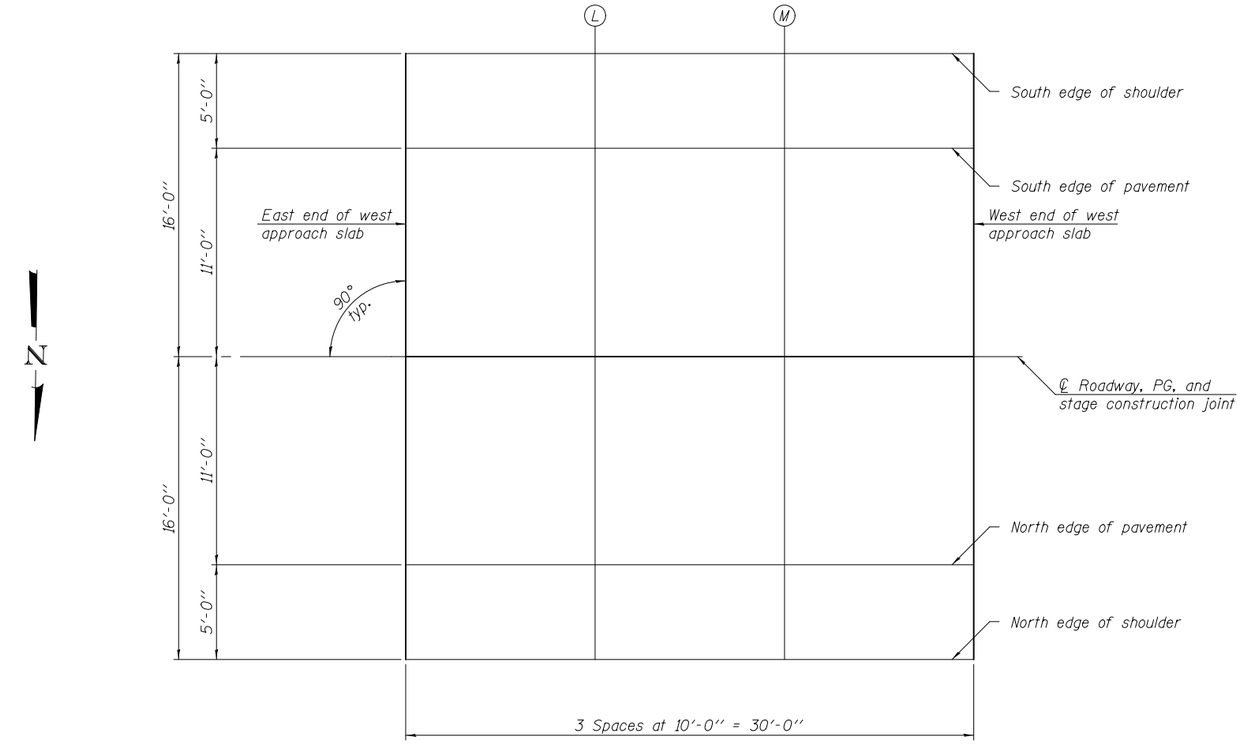
Location	Station	Offset	Theoretical Grade Elevations
E. End of W. Appr. Slab	311+41.21	-16.00	391.78
L	311+51.21	-16.00	391.78
M	311+61.21	-16.00	391.78
W. End of W. Appr. Slab	311+71.21	-16.00	391.77

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
E. End of W. Appr. Slab	311+41.21	-11.00	391.86
L	311+51.21	-11.00	391.86
M	311+61.21	-11.00	391.86
W. End of W. Appr. Slab	311+71.21	-11.00	391.85

℄ ROADWAY, PG, & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
E. End of W. Appr. Slab	311+41.21	0.00	392.03
L	311+51.21	0.00	392.03
M	311+61.21	0.00	392.03
W. End of W. Appr. Slab	311+71.21	0.00	392.02



PLAN

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
E. End of W. Appr. Slab	311+41.21	11.00	391.86
L	311+51.21	11.00	391.86
M	311+61.21	11.00	391.86
W. End of W. Appr. Slab	311+71.21	11.00	391.85

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
E. End of W. Appr. Slab	311+41.21	16.00	391.78
L	311+51.21	16.00	391.78
M	311+61.21	16.00	391.78
W. End of W. Appr. Slab	311+71.21	16.00	391.77

DESIGNED -	IRENE PANTOJA		
CHECKED -	JOSUE D. ORTIZ-VARELA		
DRAWN -	MICHAEL B. MOSSMAN		
CHECKED -	J.O.V. / I.P. / G.R.A.		

EXAMINED — ACTING ENGINEER OF BRIDGE DESIGN

PASSED — ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 16, 2014

REVISED

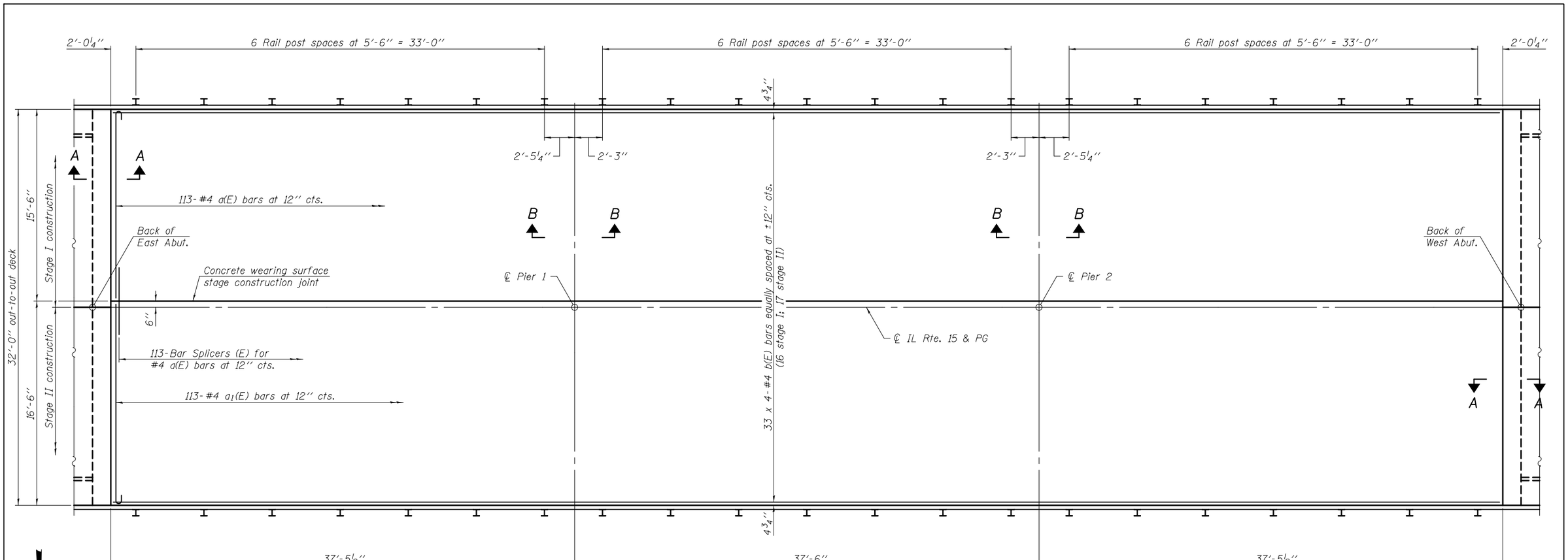
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

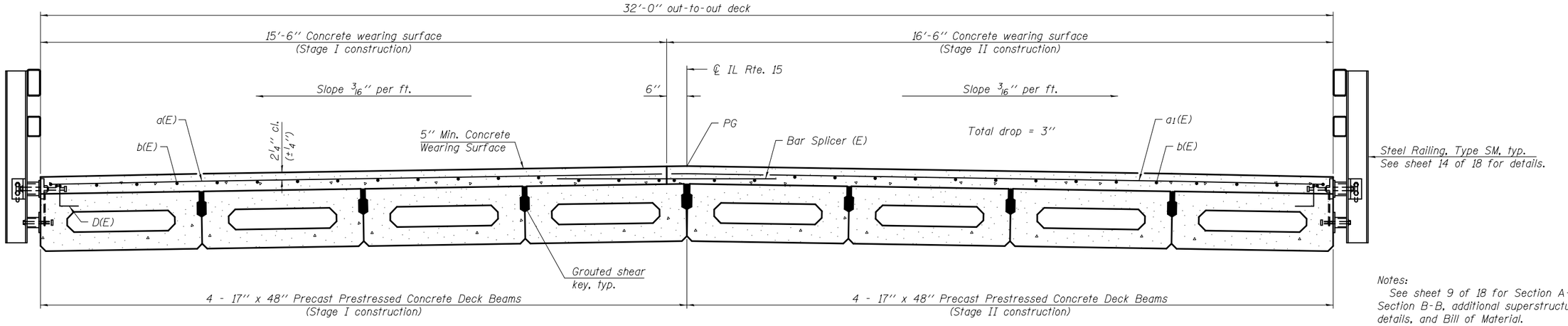
TOP OF WEST BRIDGE APPROACH SLAB ELEVATIONS
STRUCTURE NO. 096 - 0063

SHEET NO. 7 OF 18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	WAYNE	34	23
		CONTRACT NO. 74365		
	ILLINOIS	FED. AID PROJECT		



PLAN



MINIMUM BAR LAP

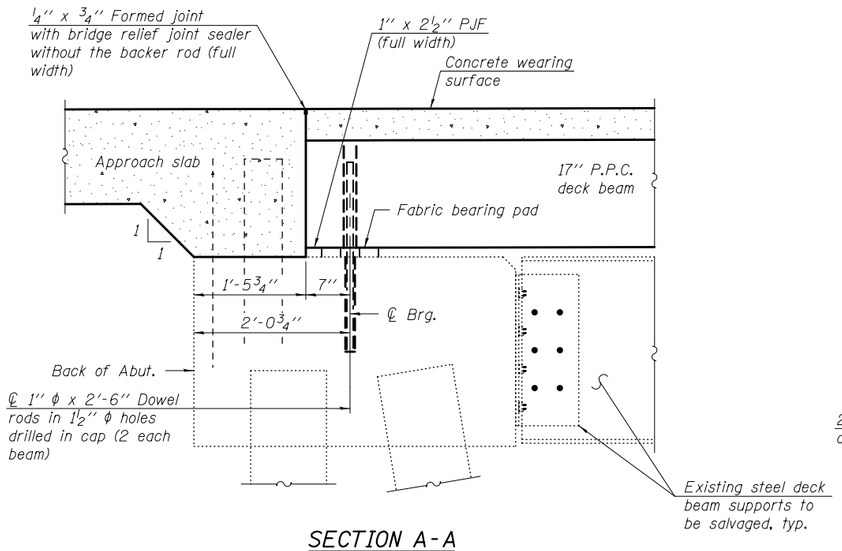
#4 bar = 2'-7"

CROSS SECTION

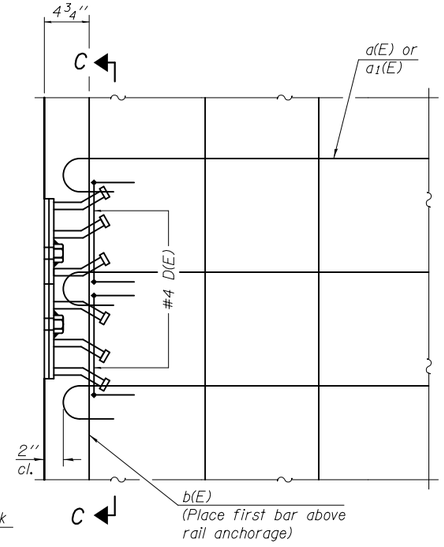
(Looking west)

Notes:
See sheet 9 of 18 for Section A-A, Section B-B, additional superstructure details, and Bill of Material.
Bars indicated thus, 33 x 4-#4 etc. indicates 33 lines of bars with 4 lengths per line.

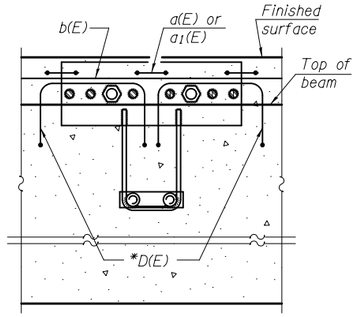
DESIGNED - IRENE PANTOJA	EXAMINED	DATE - SEPTEMBER 16, 2014	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**SUPERSTRUCTURE STRUCTURE NO. 096 – 0063**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - JOSUE D. ORTIZ-VARELA					823	(22BR2)BR	WAYNE	34	24
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED					CONTRACT NO. 74365		
CHECKED - J.O.V. / I.P. / G.R.A.	ACTING ENGINEER OF BRIDGE DESIGN ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 8 OF 18 SHEETS			ILLINOIS FED. AID PROJECT		



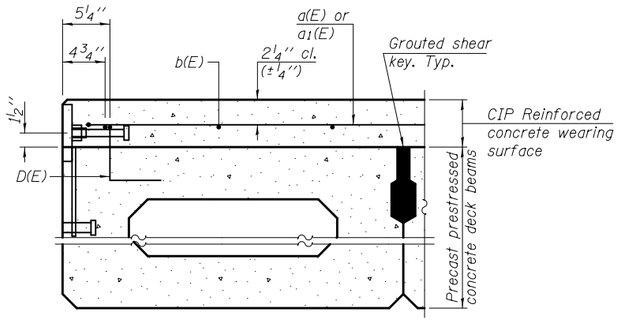
SECTION A-A



PLAN

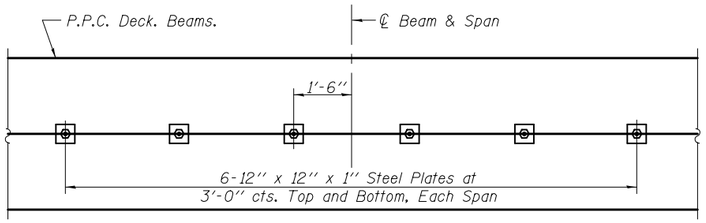


SECTION C-C

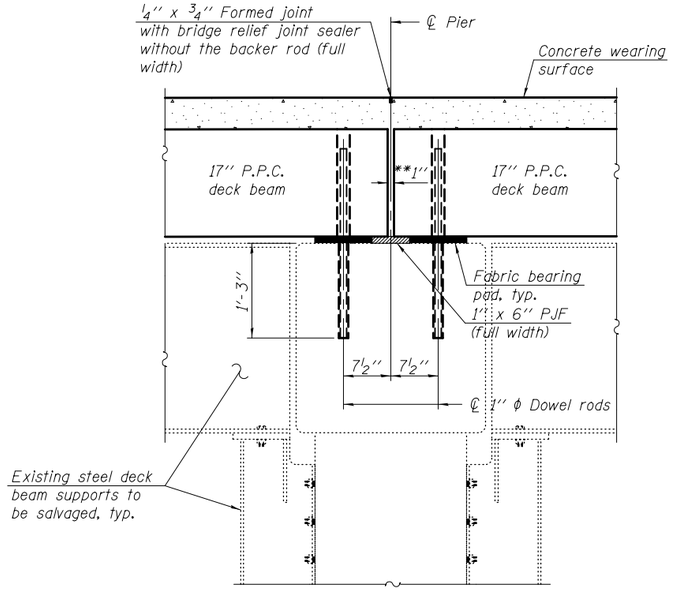


SECTION THRU FASCIA BEAM

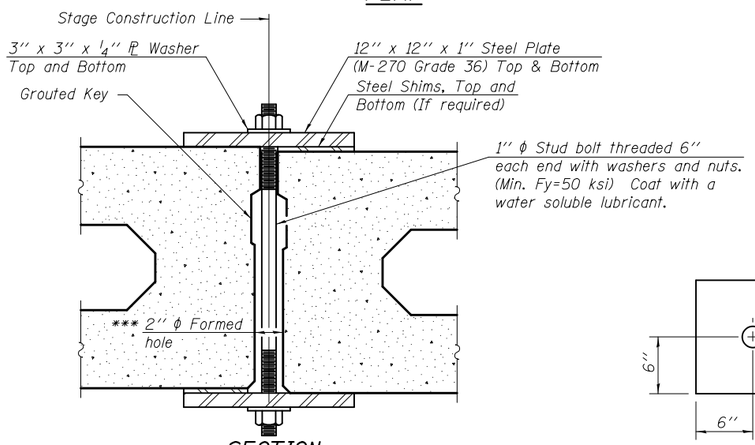
Notes:
The concrete wearing surface shall be placed prior to casting approach slabs.
See sheet 11 of 18 for fabric bearing pad details.
Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam.



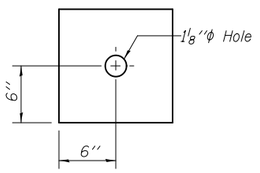
PLAN



SECTION B-B



SECTION



CLAMPING PLATE

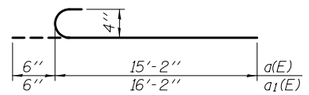
* Place 2-#4 D(E) bars in beam at each post location as shown. D(E) bar included in cost of beam.

** 1'' Joint shall be filled with non-shrink grout. 1'' dimension may vary to accomodate tolerance in beam lengths.

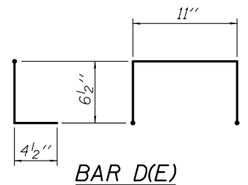
*** Cast semi-circular recesses in the sides of each beam adjacent to the stage construction line. These recesses should align to form a hole at the appropriate locations for the clamping device bolts.

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	113	#4	15'-2''	⊂——⊃
a1(E)	113	#4	16'-2''	⊂——⊃
b(E)	132	#4	30'-0''	——
Reinforcement Bars, Epoxy Coated			Pound	5,010
Concrete Wearing Surface, 5''			Sq. Yd.	399.7



BARs a(E) & a1(E)



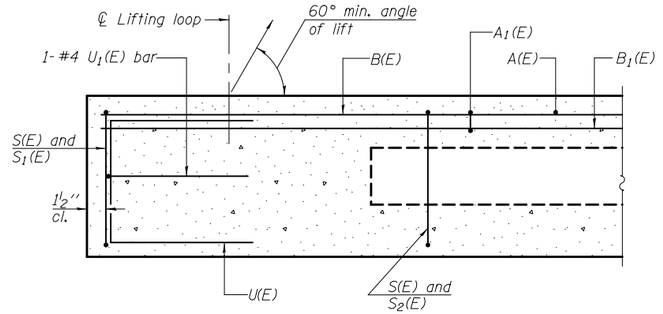
BAR D(E)

SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

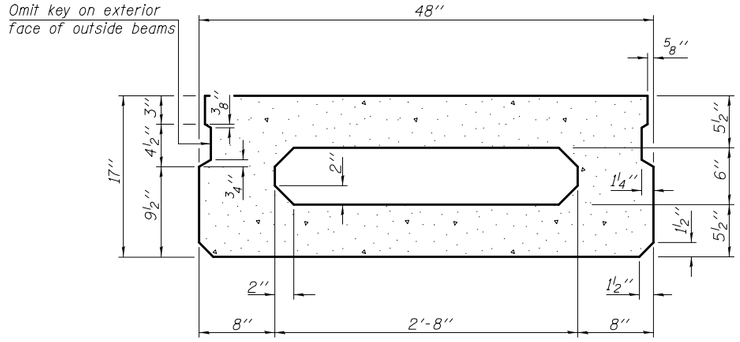
Cost included with Precast Prestressed Concrete Deck Beams.
See Stage Construction Details for traffic lanes.

DESIGNED - IRENE PANTOJA	EXAMINED	ACTING ENGINEER OF BRIDGE DESIGN	DATE - SEPTEMBER 16, 2014	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE DETAILS STRUCTURE NO. 096 - 0063
CHECKED - JOSUE D. ORTIZ-VARELA	PASSED	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 9 OF 18 SHEETS
DRAWN - MICHAEL B. MOSSMAN			REVISED		
CHECKED - J.O.V. / I.P. / G.R.A.			REVISED		

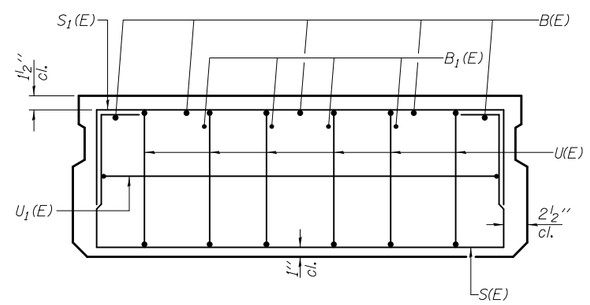
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	WAYNE	34	25
		CONTRACT NO. 74365		
	ILLINOIS FED. AID PROJECT			



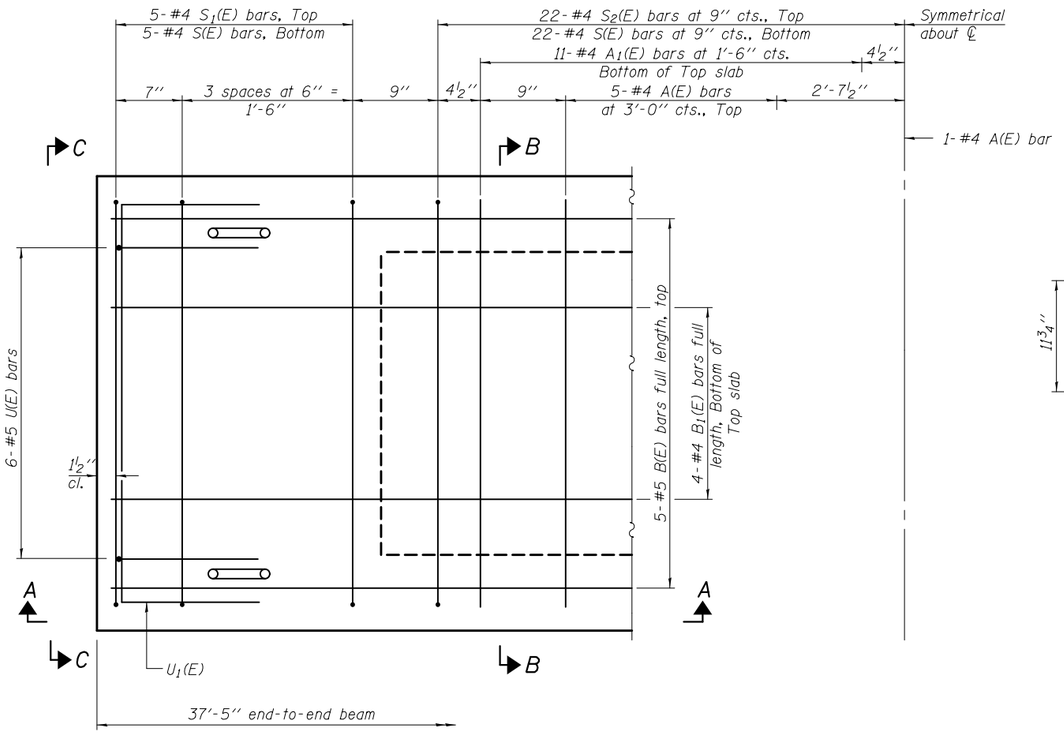
SECTION A-A



SECTION B-B
(Showing dimensions)

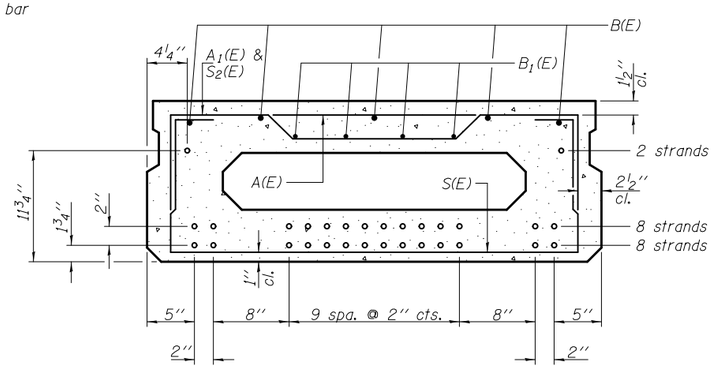


VIEW C-C



PLAN VIEW

Note: Spacing of S(E) and S_2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



SECTION B-B
(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

MINIMUM BAR LAP
#4 bar = 2'-0"
#5 bar = 2'-6"

BAR LIST
ONE BEAM ONLY
(For information only)

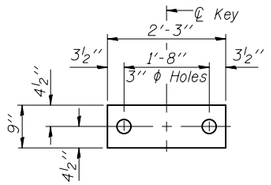
Bar	No.	Size	Length	Shape
A(E)	11	#4	3'-7"	—
A_1(E)	22	#4	3'-10"	~
B(E)	5	#5	37'-2"	—
B_1(E)	4	#4	37'-2"	—
S(E)	53	#4	6'-9"	⊔
S_1(E)	10	#4	5'-3"	⊓
S_2(E)	43	#4	5'-6"	⊓
U(E)	12	#5	3'-8"	⊏
U_1(E)	2	#4	6'-0"	⊓

Note: See sheet 11 of 18 for additional details and Bill of Material.

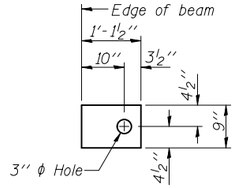
PD-1748-0 7-1-10

DESIGNED - IRENE PANTOJA	EXAMINED		DATE - SEPTEMBER 16, 2014	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	17" x 48" PPC DECK BEAM STRUCTURE NO. 096 – 0063
CHECKED - JOSUE D. ORTIZ-VARELA	PASSED	ACTING ENGINEER OF BRIDGE DESIGN	REVISED		SHEET NO. 10 OF 18 SHEETS
DRAWN - MICHAEL B. MOSSMAN		ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		
CHECKED - J.O.V. / I.P. / G.R.A.					

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	WAYNE	34	26
		CONTRACT NO. 74365		
		ILLINOIS FED. AID PROJECT		



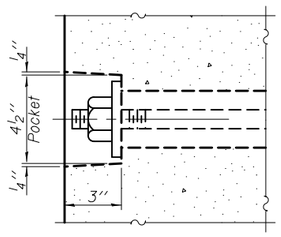
FABRIC BEARING PAD
(Interior)



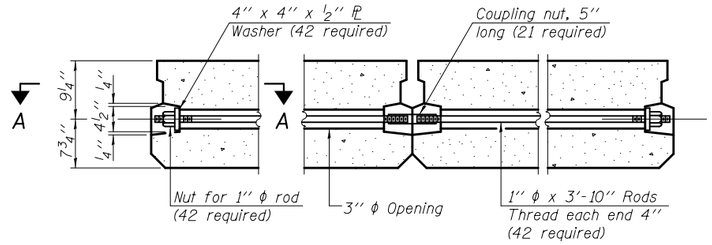
FABRIC BEARING PAD
(Exterior)

FIXED

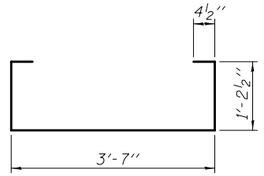
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



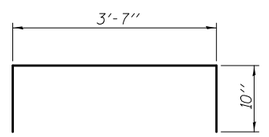
SECTION A-A



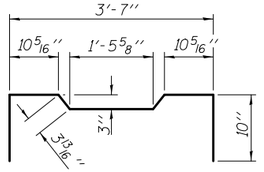
TYPICAL TRANSVERSE TIE ASSEMBLY



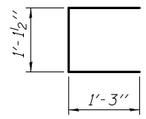
BAR S(E)



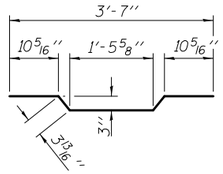
BAR S_1(E)



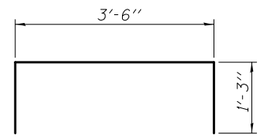
BAR S_2(E)



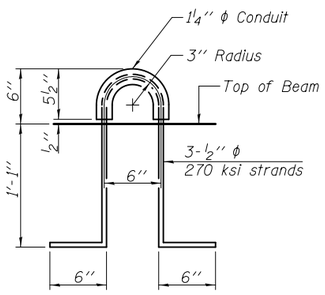
BAR U(E)



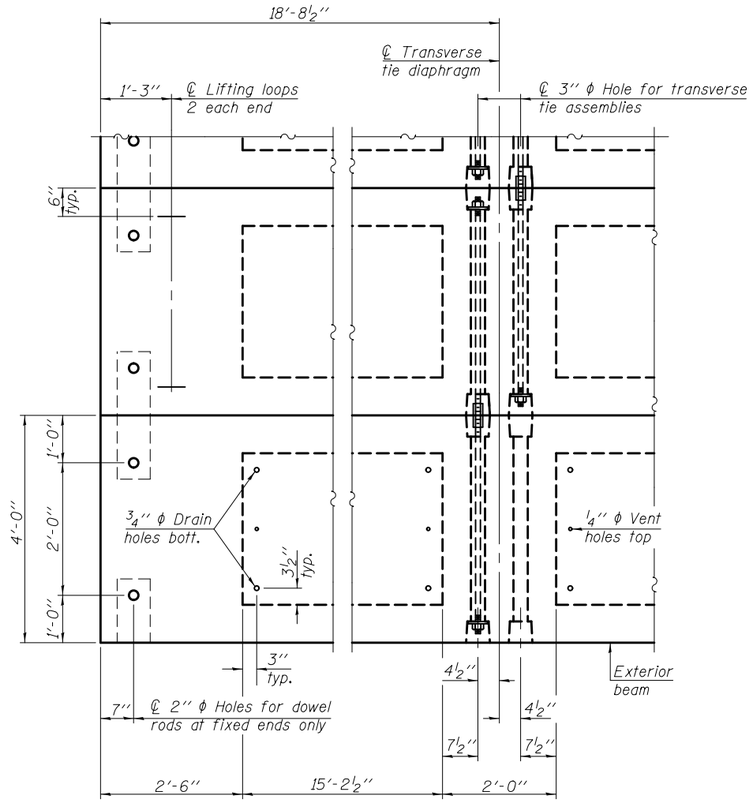
BAR A_1(E)



BAR U_1(E)



LIFTING LOOP DETAIL



PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Reinforcement bars shall conform to ASTM A 706, Grade 60.

Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2½" ϕ lifting pin shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

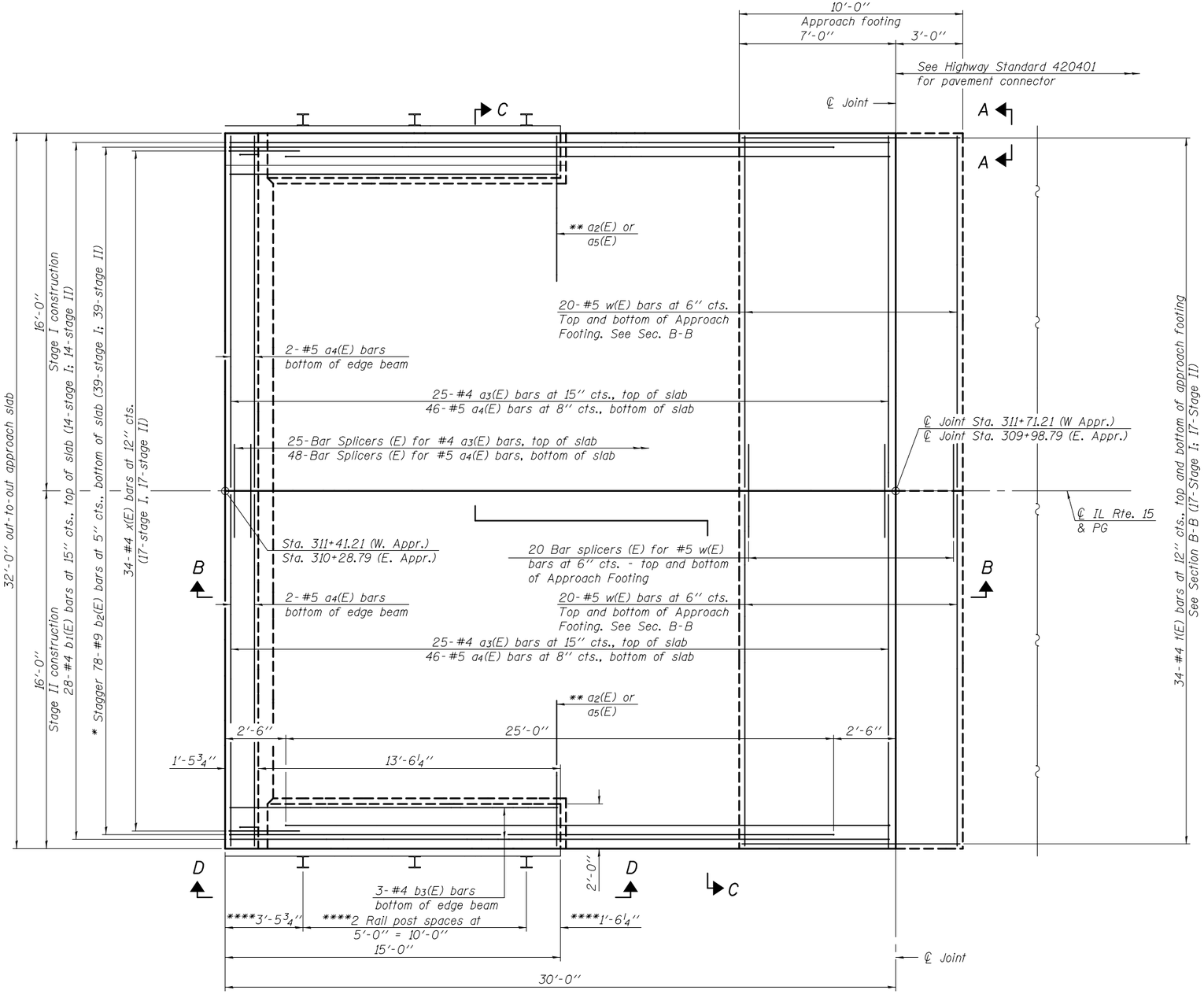
See Superstructure Details sheet for additional reinforcement required for parapet or railing connections.

See Shear Key Clamping Details on sheet 9 of 18 for locations of required semi-circular recesses in beams at the stage construction line.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	3,592

DESIGNED - IRENE PANTOJA	EXAMINED	DATE - SEPTEMBER 16, 2014	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	17" x 48" PPC DECK BEAM DETAILS STRUCTURE NO. 096 - 0063	F.A.P. RTE. 823 / SECTION (22BR2)BR / COUNTY WAYNE / TOTAL SHEETS 34 / SHEET NO. 27
CHECKED - JOSUE D. ORTIZ-VARELA		REVISED			CONTRACT NO. 74365
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED		SHEET NO. 11 OF 18 SHEETS	ILLINOIS FED. AID PROJECT
CHECKED - J.O.V. / I.P. / G.R.A.	ACTING ENGINEER OF BRIDGE DESIGN / ACTING ENGINEER OF BRIDGES AND STRUCTURES				



PLAN

(West approach slab shown; East approach slab similar by 180° rotation)

* Tilt #9 $b_2(E)$ bars as required to maintain clearance.

** See sheet 13 of 18 for View D-D showing additional reinforcement in edge beams for the side mount railing.

*** Cost included with Concrete Superstructure.

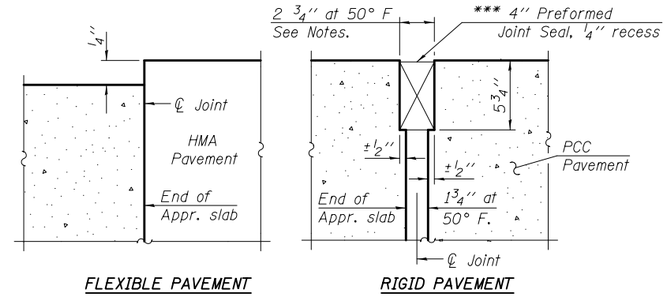
**** Type SM railing shall be used in all approach corners except N.E. corner. See sheet 1 of 18.

Notes:

See sheet 13 of 18 for Sections B-B & C-C and View D-D.

The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1 1/2" for installation purposes.

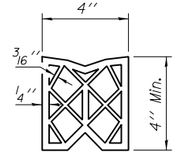
See sheet 14 of 18 for Steel Railing, Type SM details.



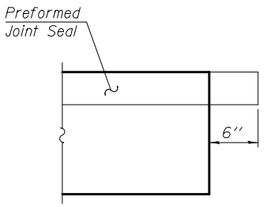
FLEXIBLE PAVEMENT

RIGID PAVEMENT

DETAIL A



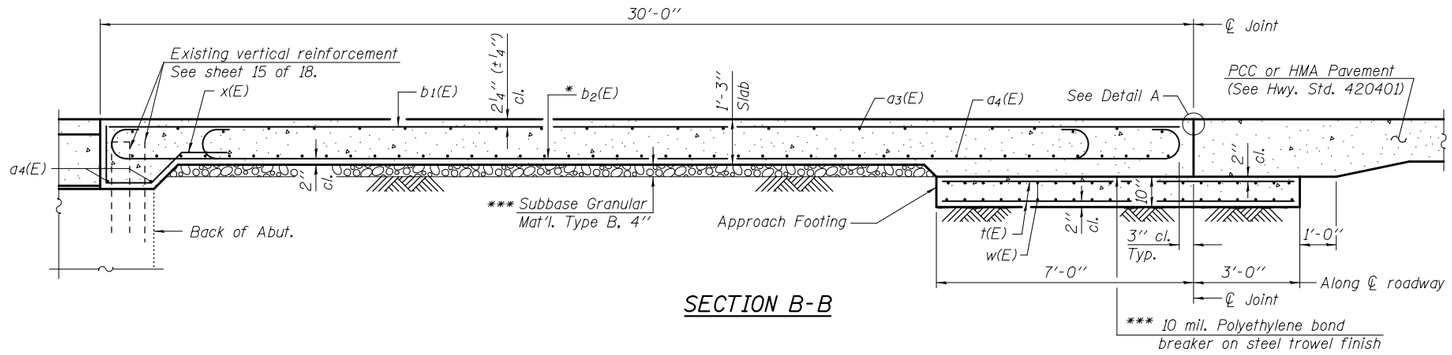
PREFORMED JOINT SEAL



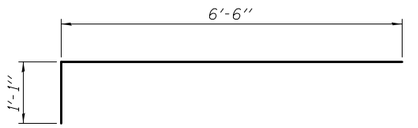
VIEW A-A

(Sheet 1 of 2)

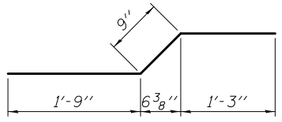
DESIGNED - IRENE PANTOJA	EXAMINED	DATE - SEPTEMBER 16, 2014	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**BRIDGE APPROACH SLAB DETAILS STRUCTURE NO. 096 - 0063**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - JOSUE D. ORTIZ-VARELA					823	(22BR2)BR	WAYNE	34	28
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED						CONTRACT NO. 74365	
CHECKED - J.O.V. / I.P. / G.R.A.	ACTING ENGINEER OF BRIDGE DESIGN ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 12 OF 18 SHEETS			ILLINOIS	FED. AID PROJECT	



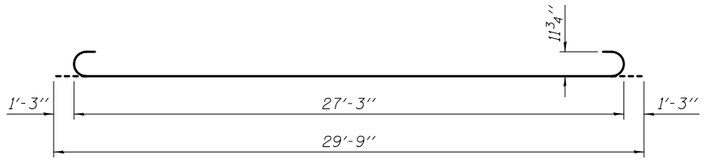
SECTION B-B



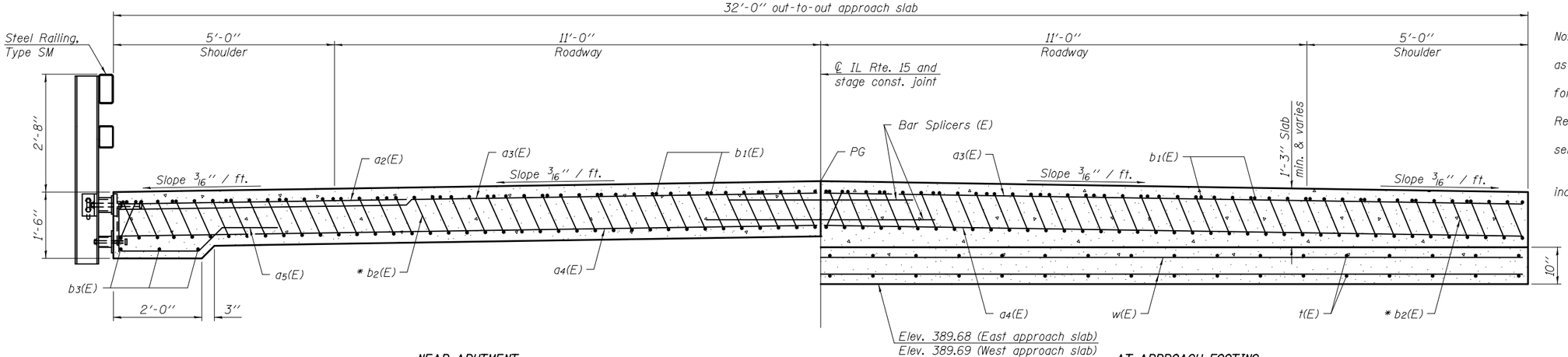
BAR a_2(E)



BAR a_5(E)



BAR b_2(E)

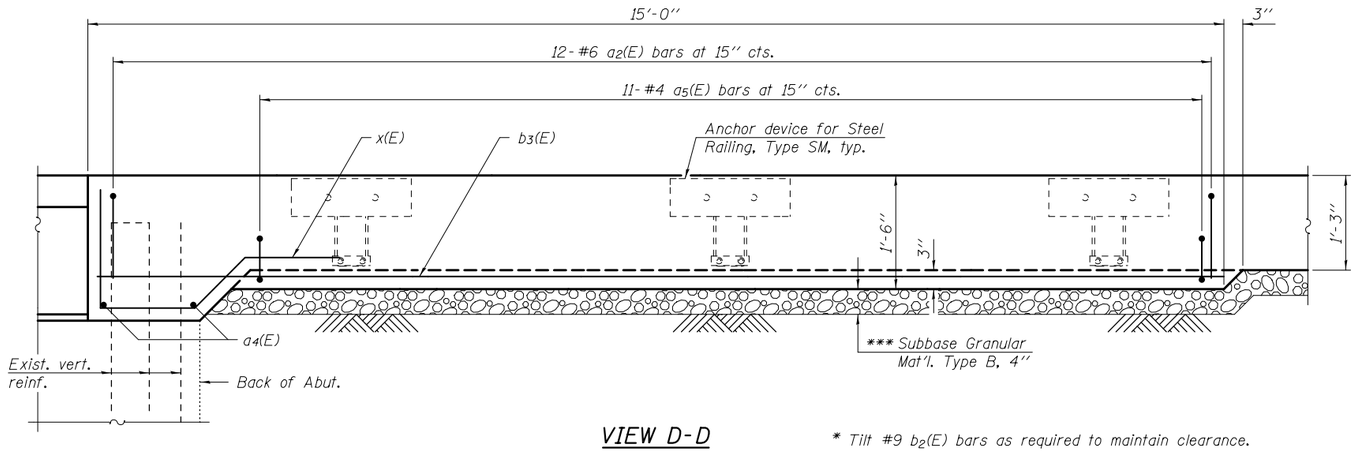


NEAR ABUTMENT

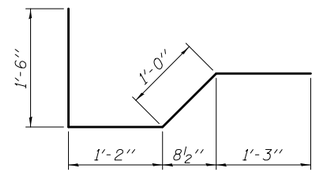
AT APPROACH FOOTING

SECTION C-C

(See Plan for dimensions not shown)



VIEW D-D



BAR x(E)

Notes:

Approach slab concrete shall be paid for as Concrete Superstructure.

Approach footing concrete shall be paid for as Concrete Structures.

Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.

The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

For bar splicer details, see sheet 18 of 18.

Cost of excavation for approach footing included with Concrete Structures.

TWO APPROACHES
BILL OF MATERIAL

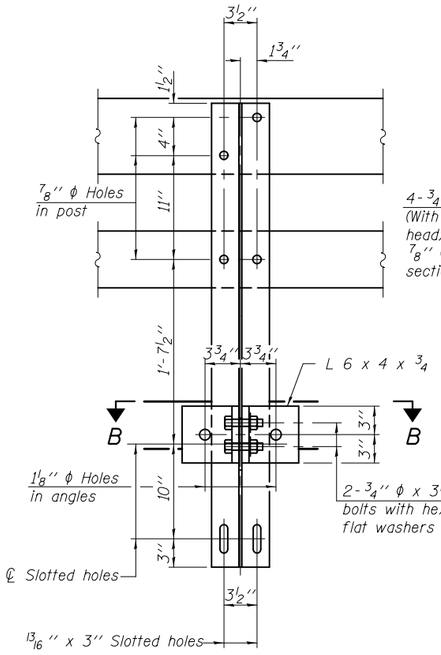
Bar	No.	Size	Length	Shape
a_2(E)	48	#6	7'-7"	
a_3(E)	100	#4	15'-8"	
a_4(E)	192	#5	15'-8"	
a_5(E)	44	#4	3'-9"	
b_1(E)	56	#4	29'-8"	
b_2(E)	156	#9	29'-9"	
b_3(E)	12	#4	14'-10"	
t(E)	136	#4	9'-8"	
w(E)	160	#5	15'-8"	
x(E)	68	#4	4'-11"	
Concrete Superstructure			Cu. Yd.	95.8
Concrete Structures			Cu. Yd.	19.8
Reinforcement Bars, Epoxy Coated			Pound	25,570

* Tilt #9 b_2(E) bars as required to maintain clearance.

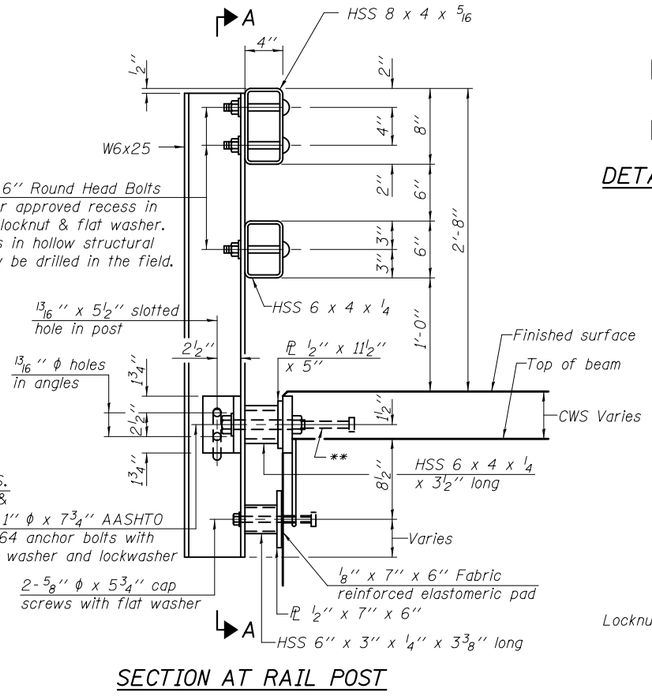
*** Cost included with Concrete Superstructure.

(Sheet 2 of 2)

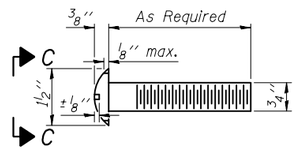
DESIGNED - IRENE PANTOJA	EXAMINED	DATE - SEPTEMBER 16, 2014	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE APPROACH SLAB DETAILS STRUCTURE NO. 096 - 0063	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - JOSUE D. ORTIZ-VARELA					823	(22BR2)BR	WAYNE	34	29
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED					CONTRACT NO. 74365		
CHECKED - J.O.V. / I.P. / G.R.A.	ACTING ENGINEER OF BRIDGE DESIGN ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 13 OF 18 SHEETS			ILLINOIS FED. AID PROJECT		



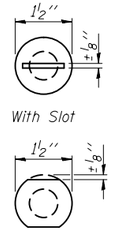
SECTION A-A



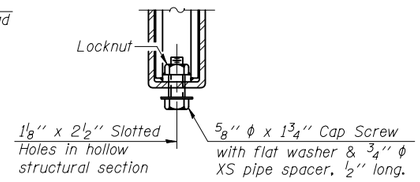
SECTION AT RAIL POST



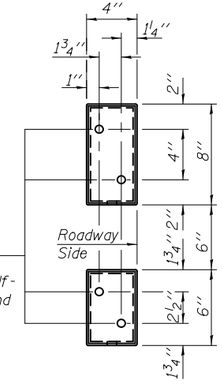
DETAIL OF 3/4" ϕ ROUND HEAD BOLT



VIEW C-C

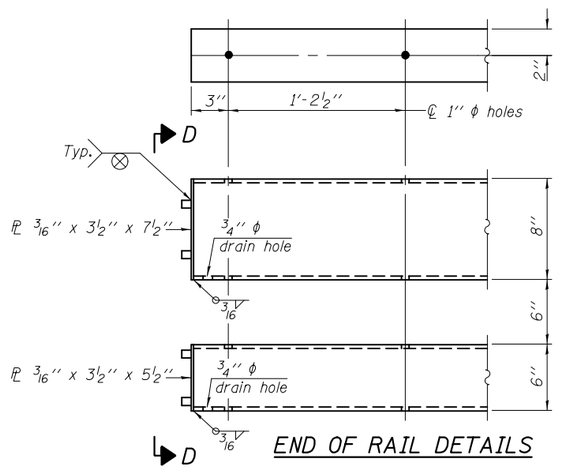


RAIL SPLICE CONNECTION AT EXPANSION JT.

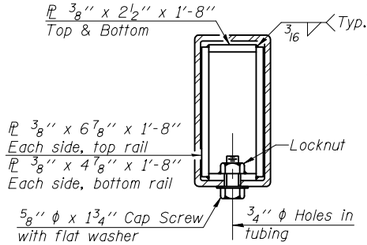


℄ - 5/8" reduced base welded studs. Provide 4-5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032 .

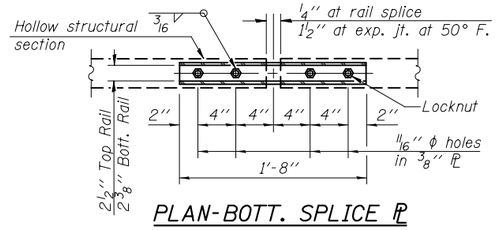
VIEW D-D



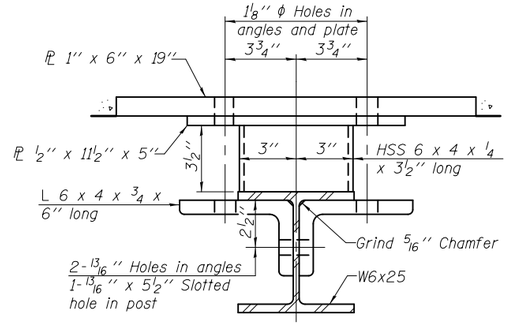
END OF RAIL DETAILS



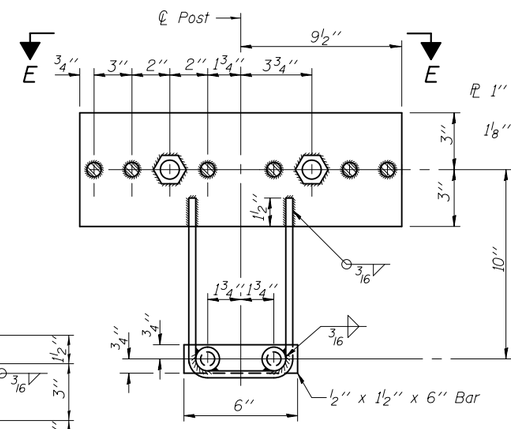
SECTION AT RAIL SPLICE



PLAN-BOTT. SPLICE PL TYPICAL



SECTION B-B



*1" H.S. Nut AASHTO M 164 welded to PL

Cast 1" voids behind each nut

1 1/8" ϕ Hole

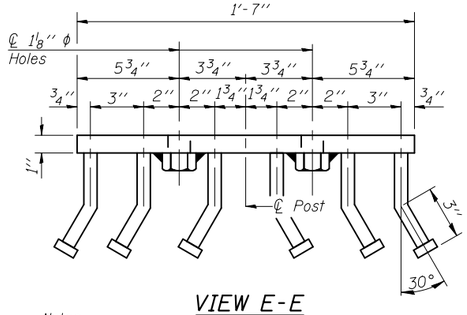
PL 1" x 6" x 19"

3/4" ϕ x 6" Granular or solid flux filled headed studs conforming to article 1006.32 of the Std. Specs. automatically end welded. (6 Required per PL)

* 1" Round bar stock AASHTO M270 G50 or hex coupler nuts conforming to AASHTO M291, Grade A - 3" long welded to #3 bar. Tap pipe for 5/8" ϕ cap screw.

ANCHOR DEVICE

*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.



VIEW E-E

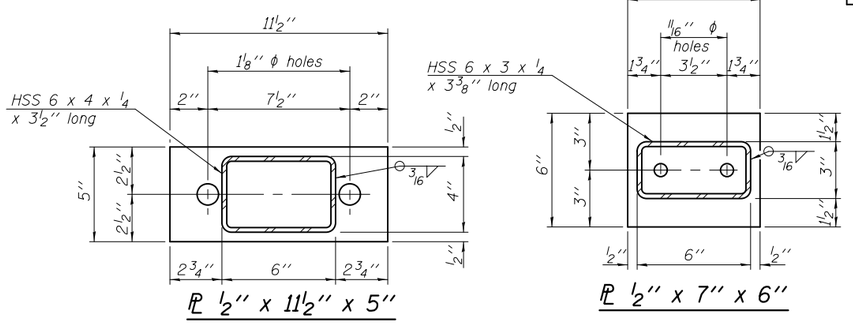
Notes:

All field drilled holes shall be coated with an approved zinc rich paint before erection.

For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.

Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



PL 1/2" x 11 1/2" x 5"

PL 1/2" x 7" x 6"

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	270

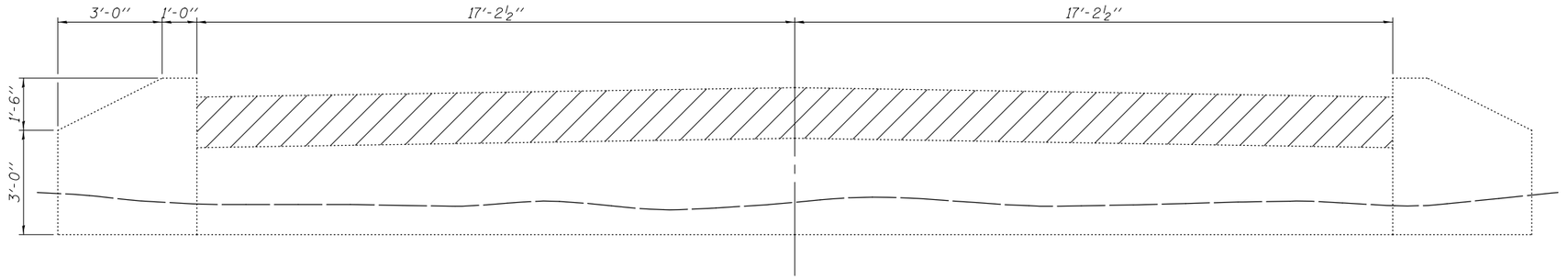
R-34CWS 7-1-10 (6'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)

DESIGNED - IRENE PANTOJA	EXAMINED	DATE - SEPTEMBER 16, 2014	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - JOSUE D. ORTIZ-VARELA			
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED	
CHECKED - J.O.V. / I.P. / G.R.A.	ACTING ENGINEER OF BRIDGE DESIGN / ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

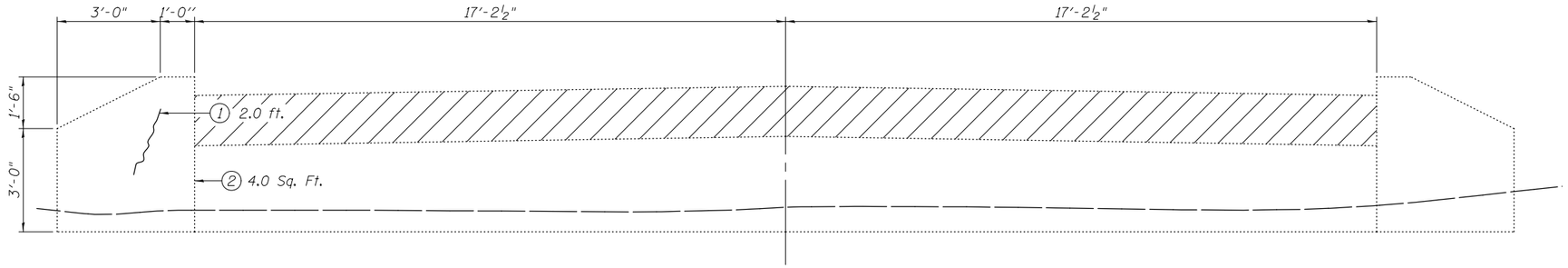
STEEL RAILING, TYPE SM WITH CONCRETE WEARING SURFACE
STRUCTURE NO. 096 – 0063

SHEET NO. 14 OF 18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	WAYNE	34	30
		CONTRACT NO. 74365		
		ILLINOIS FED. AID PROJECT		

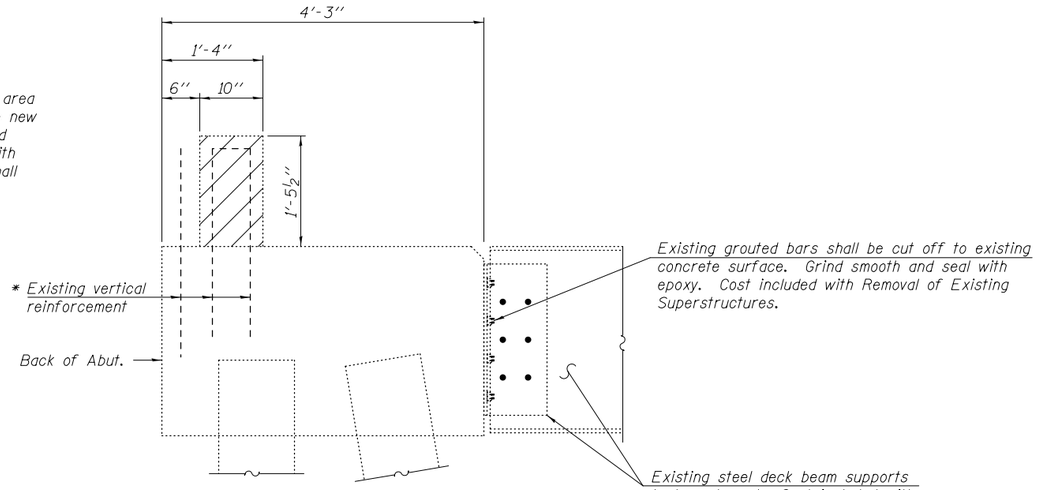


EAST ABUTMENT ELEVATION



WEST ABUTMENT ELEVATION

* 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 with an approved bar splicer or anchorage system. Cost shall be included in Concrete Removal.



SECTION THRU ABUTMENT

LEGEND

1. Epoxy Crack Injection
2. Structural Repair of Concrete (Depth equal to or less than 5 inches)

Concrete Removal

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	3.1
Epoxy Crack Injection	Foot	2.0
Structural Repair Of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	4.0

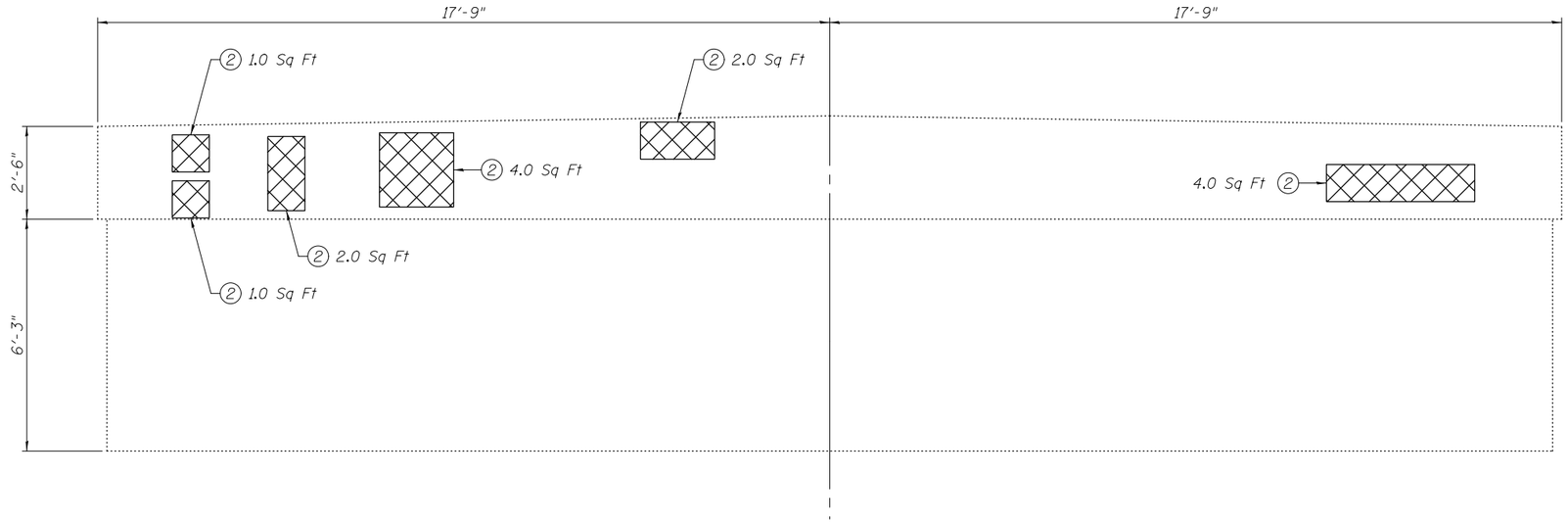
DESIGNED -	IRENE PANTOJA	EXAMINED	DATE - SEPTEMBER 16, 2014
CHECKED -	JOSUE D. ORTIZ-VARELA		REVISED
DRAWN -	MICHAEL B. MOSSMAN	PASSED	REVISED
CHECKED -	J.O.V. / I.P. / G.R.A.		

Joyce F. Schiff
ACTING PIONEER OF BRIDGE DESIGN
G. Carl Preuss
ACTING ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT REMOVAL & REPAIRS
STRUCTURE NO. 096 – 0063
SHEET NO. 15 OF 18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	WAYNE	34	31
		CONTRACT NO. 74365		
	ILLINOIS	FED. AID PROJECT		

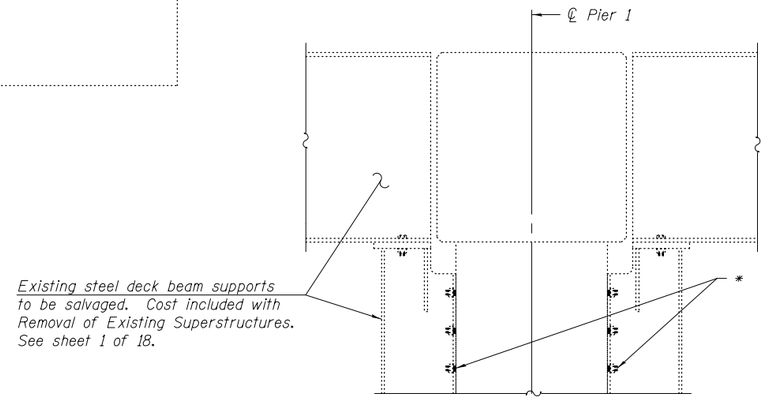


LEGEND

(2) Structural Repair of Concrete (Depth equal to or less than 5 inches)

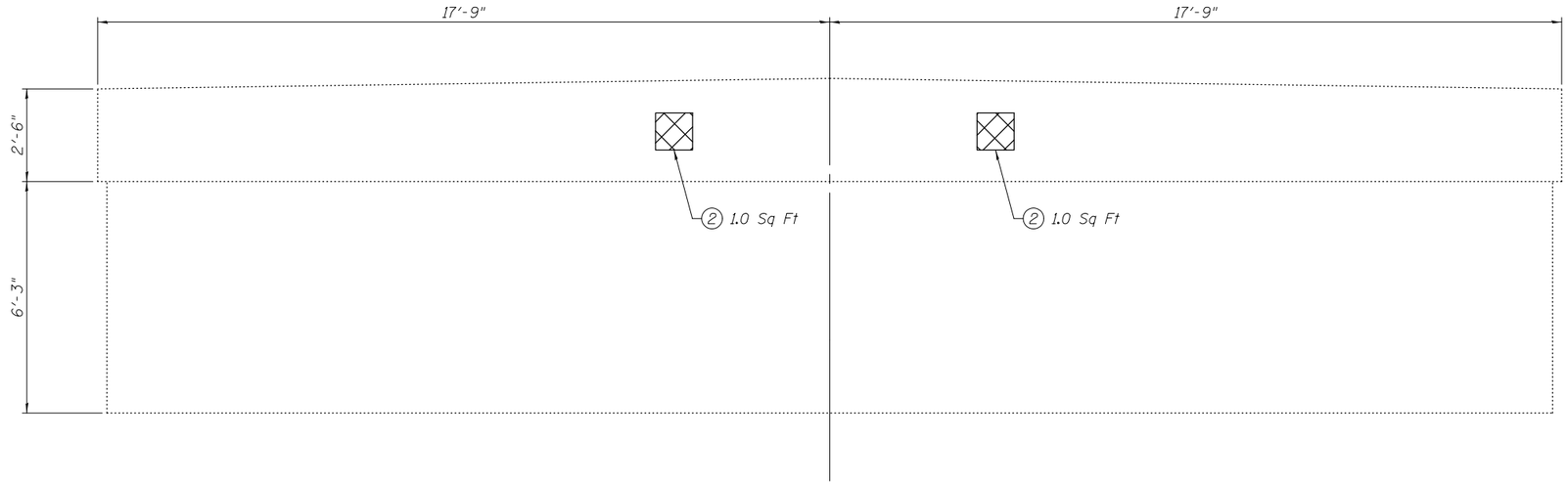
PIER 1 ELEVATION

(West face)



Existing steel deck beam supports to be salvaged. Cost included with Removal of Existing Superstructures. See sheet 1 of 18.

SECTION THRU PIER 1



PIER 1 ELEVATION

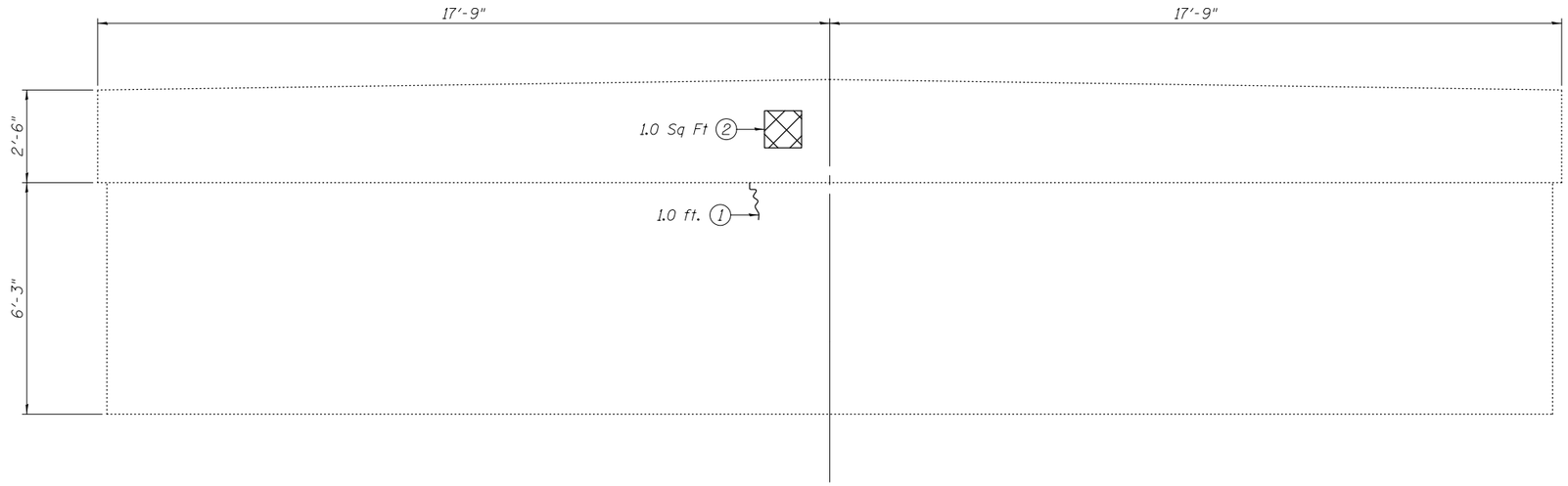
(East face)

* Existing grouted bars shall be cut off to existing concrete surface. Grind smooth and seal with epoxy. Cost included with Removal of Existing Superstructures.

BILL OF MATERIAL

Item	Unit	Quantity
Structural Repair Of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	16.0

DESIGNED - IRENE PANTOJA	EXAMINED	DATE - SEPTEMBER 16, 2014	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**PIER 1 REMOVAL & REPAIRS STRUCTURE NO. 096 – 0063**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - JOSUE D. ORTIZ-VARELA					823	(22BR2)BR	WAYNE	34	32
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED		SHEET NO. 16 OF 18 SHEETS			CONTRACT NO. 74365		
CHECKED - J.O.V. / I.P. / G.R.A.	ACTING ENGINEER OF BRIDGE DESIGN ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED					ILLINOIS FED. AID PROJECT		



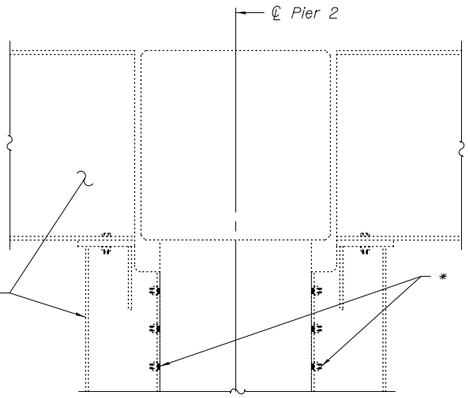
LEGEND

(1) Epoxy Crack Injection

(2) Structural Repair of Concrete (Depth equal to or less than 5 inches)

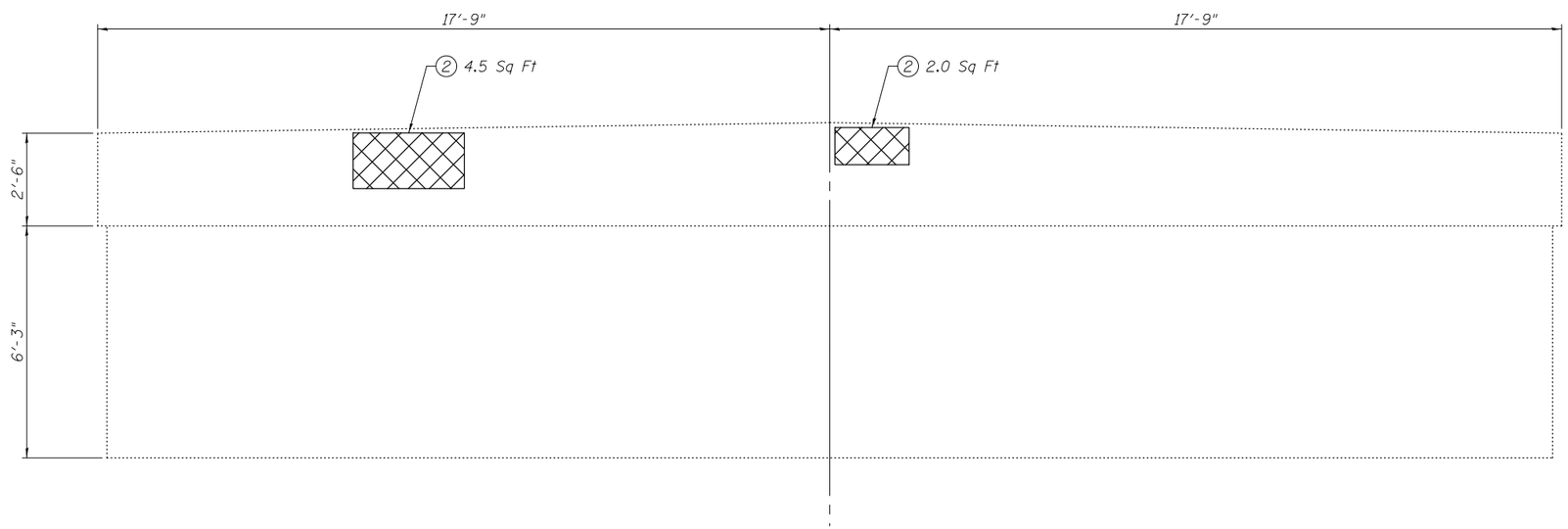
PIER 2 ELEVATION

(West face)



Existing steel deck beam supports to be salvaged. Cost included with Removal of Existing Superstructures. See sheet 1 of 18.

SECTION THRU PIER 2



PIER 2 ELEVATION

(East face)

* Existing grouted bars shall be cut off to existing concrete surface. Grind smooth and seal with epoxy. Cost included with Removal of Existing Superstructures.

BILL OF MATERIAL

Item	Unit	Quantity
Epoxy Crack Injection	Foot	1.0
Structural Repair Of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	7.5

DESIGNED -	IRENE PANTOJA	EXAMINED	DATE - SEPTEMBER 16, 2014
CHECKED -	JOSUE D. ORTIZ-VARELA		
DRAWN -	MICHAEL B. MOSSMAN	PASSED	REVISED
CHECKED -	J.O.V. / I.P. / G.R.A.		REVISED

ACTING ENGINEER OF BRIDGE DESIGN

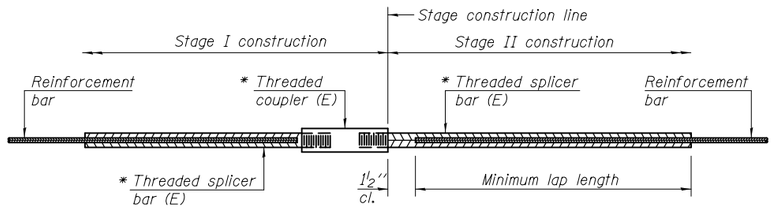
ACTING ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 REMOVAL & REPAIRS
STRUCTURE NO. 096 – 0063

SHEET NO. 17 OF 18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	(22BR2)BR	WAYNE	34	33
		CONTRACT NO. 74365		
	ILLINOIS	FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY

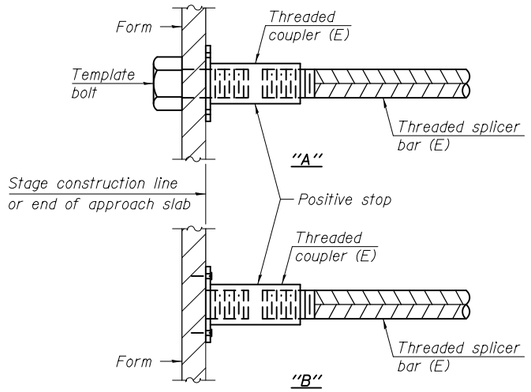
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	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 + 1½" + thread length

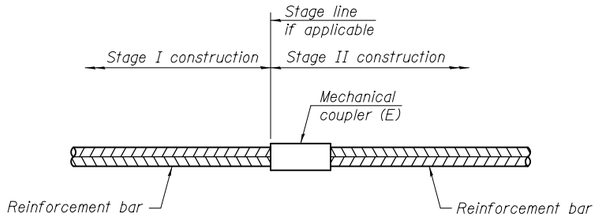
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Approach slab, top	#4	50	4
Approach slab, bottom	#5	96	3
Approach slab, footing	#5	80	3
Concrete wearing surface	#4	113	5



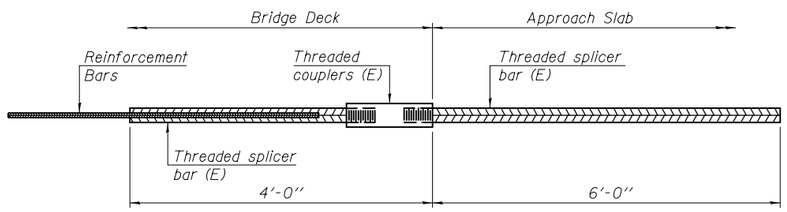
INSTALLATION AND SETTING METHODS

"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.



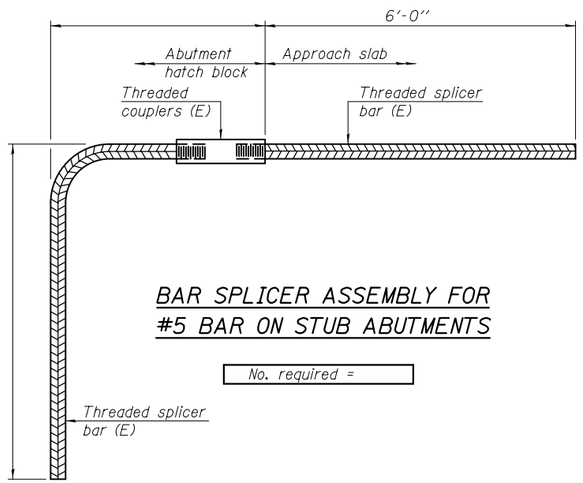
STANDARD MECHANICAL SPLICER

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 - IRENE PANTOJA	EXAMINED	DATE - SEPTEMBER 16, 2014	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS STRUCTURE NO. 096 - 0063	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - JOSUE D. ORTIZ-VARELA					823	(22BR2)BR	WAYNE	34	34
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED					CONTRACT NO. 74365		
CHECKED - J.O.V. / I.P. / G.R.A.	ACTING ENGINEER OF BRIDGE DESIGN ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 18 OF 18 SHEETS			ILLINOIS	FED. AID PROJECT	