

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

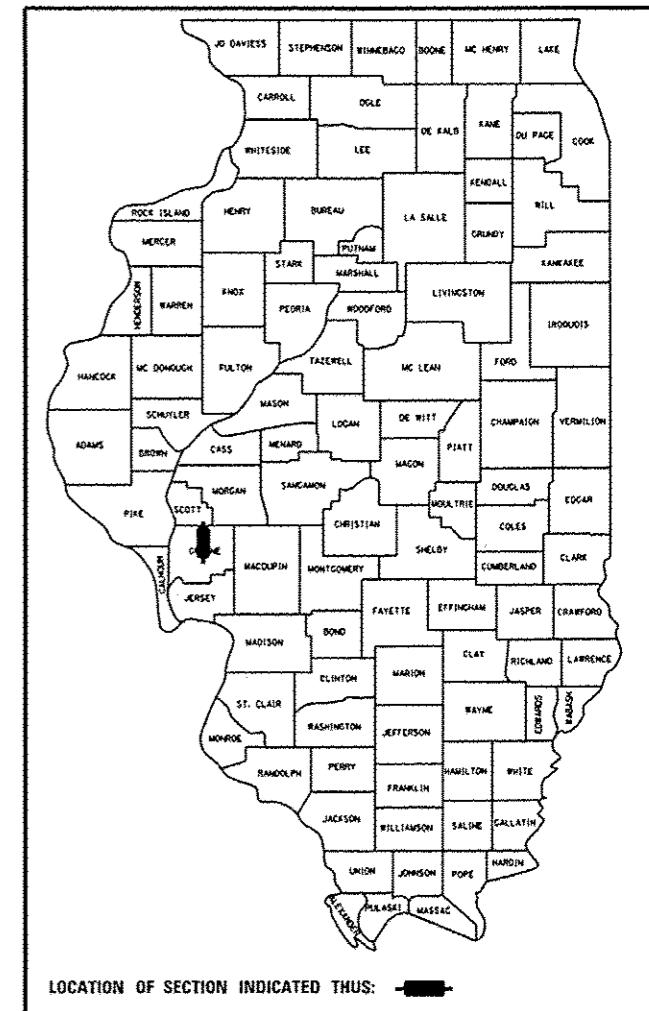
FAS ROUTE 733 (US 67)
SECTION 51B-2

BRIDGE REPAIR
GREENE COUNTY

C-98-055-14

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
733	51B-2	GREENE	20	1
ILLINOIS			CONTRACT NO. 76H28	

D-98-054-14



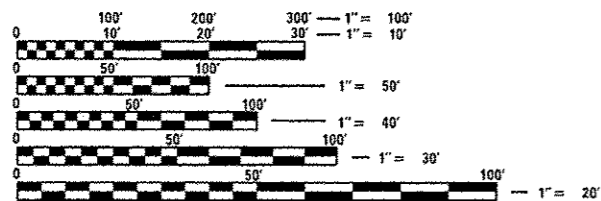
FOR INDEX OF SHEETS, SEE SHEET NO. 2

TRAFFIC DATA

ADT: 3700 (2013)
3750 (2014) EST.
4125 (2034) EST.
SU: 3.2%
MU: 6.1%

FUNCTIONAL CLASSIFICATION:

MAJOR COLLECTOR

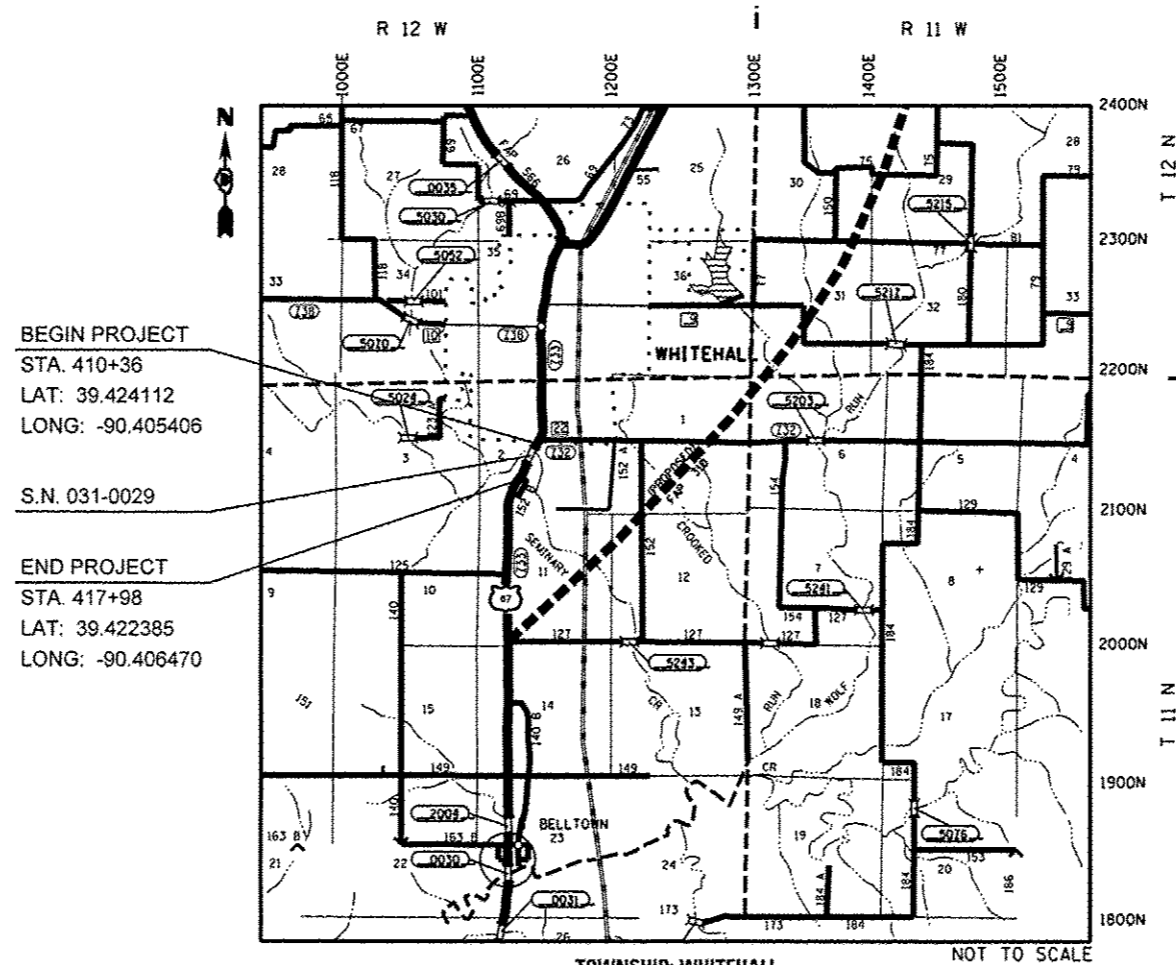


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: MICHAEL PRITCHETT (618) 346-3180
PROJECT MANAGER: JUAN LOPEZ (618) 346-3141

CONTRACT NO. 76H28



GROSS LENGTH = 762.00 FT. = 0.144 MILE
NET LENGTH = 762.00 FT. = 0.144 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *October 24 20 14*
Jeffrey Z. Kemmer
DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER

John D. Branzeoni, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

Jan 30 20 15
Omer Osman, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

SUMMARY OF QUANTITIES

100% STATE

100% STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0014 RURAL	_____	_____
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	1723	1723		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	550	550		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	375	375		
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1997	1997		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	3	3		
* 78100300	REPLACEMENT REFLECTOR	EACH	7	7		
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	30	30		
* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	56	56		
78300100	PAVEMENT MARKING REMOVAL	SO FT	666	666		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	10	10		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0014 RURAL	_____	_____
X5030530	FLOOR DRAIN EXTENSION	EACH	16	16		
X5870015	BRIDGE DECK CONCRETE SEALER	SO FT	1694	1694		
Z0015802	PLUG EXISTING DECK DRAINS	EACH	28	28		
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SO YD	4	4		
Z0016200	DECK SLAB REPAIR (PARTIAL)	SO YD	75	75		

12 * SPECIALTY ITEM

FILE NAME *	USER NAME * Lopezja	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.S. RTE. 733	SECTION 51B-2	COUNTY GREENE	TOTAL SHEETS 20	SHEET NO. 4
cd:\pvc\work\pav\dot\lopezja\03289102\ad876	28-shr-plan.dgn	DRAWN -	REVISED -							
	PLOT SCALE * 1/8"=1'-0"	CHECKED -	REVISED -							
	PLOT DATE * 10/27/2014	DATE -	REVISED -							
						SCALE: _____ SHEET 2 OF 2 SHEETS STA. _____ TO STA. _____		CONTRACT NO. 76428 ILLINOIS FED. AID PROJECT		

TRAFFIC CONTROL SCHEDULE													
BRIDGE LOCATION	STRUCTURE NUMBER	CONSTRUCTION STAGE	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	TEMPORARY BRIDGE TRAFFIC SIGNALS	TEMPORARY RUMBLE STRIPS	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE C	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	TEMPORARY PAVEMENT MARKING LINE 6" WHITE	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL (LENS ONLY)	REPLACEMENT REFLECTOR (BIDIRECTIONAL)
			FOOT	FOOT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FOOT	EACH
US 67 OVER SEMINARY	SN 031-0029	1	375		1	6	15	28	2		200	7	
	SN 031-0029	2	175	375			15	28		2	200		7
TOTAL QUANTITY			550	375	1	6	30	56	2	2	400	7	7

SHOULDER SCHEDULE								
LOCATION			LENGTH	OFFSET (NORTHBOUND)	HMA SHOULDERS, 10.5"	PAVED SHOULDER REMOVAL	AGGREGATE WEDGE SHOULDER, TYPE B	EARTH EXCAVATION
STATION	TO	STATION	FT	RT/LT	SQ YD	SQ YD	TONS	CU YD
411+00	TO	413+40	240	LT	266.1	106.5	3.5	46.6
414+87	TO	416+04	117	LT	129.5	51.8	1.7	22.7
412+35	TO	413+40	105	RT	116.3	46.5	1.5	20.4
414+87	TO	416+36	148	RT	164.8	65.9	2.2	28.8
TOTAL QUANTITY					677	271	9	118

HMA SURFACE SCHEDULE					
LOCATION			BITUMINOUS MATERIAL PRIME COAT	HMA SURFACE COURSE MIX "C", N70, IL 9.5	HMA SHOULDER MIX "B", N70, IL 19.0,
STATION	TO	STATION	POUNDS	TONS	TONS
412+86.9	TO	413+36.9	110.0	14.9	12.4
413+43.9	TO	414+83.3		55.0	
414+90.3	TO	415+40.3	110.0	14.9	12.4
TOTAL QUANTITY			220	85	25

PAVEMENT MARKING SCHEDULE													
LOCATION		LENGTH	THERMOPLASTIC PAVEMENT MARKING -LINE 4"				TEMPORARY PAVEMENT MARKING LINE 4"	SHORT TERM PAVEMENT MARKING LINE 4"	WORK ZONE PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	RAISED REFLECTIVE PAVEMENT MARKER	
			SOLID EDGE LINE (WHITE)	SOLID LINE (YELLOW)	CENTER LINE SKIP DASH (YELLOW)	NO PASSING ZONE							
STATION	TO	STATION	FOOT	FOOT	FOOT	FOOT	NB/SB	FOOT	FOOT	SQ FT	SQ FT	EACH	EACH
410+36	TO	417+98	762	1524	283	190	NB	1997	125	1723	666	3	3
TOTAL QUANTITY				1997				1997	125	1723	666	3	3

BUTT JOINT SCHEDULE	
LOCATION	HMA SURFACE REMOVAL BUTT JOINT
STATION	SQ YD
413+36.9	244.4
414+90.3	244.4
TOTAL QUANTITY	489



↑
WHITE HALL

BEGINING PROJECT
STA. 410+36

10.5" HMA SHOULDER (LIMITS)
STA. 411+00 TO STA. 413+40
STA. 412+35 TO STA. 413+40

CEMETERY ENTRANCE

BRIDGE REHAB (SN 031-0029)
STA. 413+44 TO STA. 414+83

BRIDGE CONCRETE JOINT
STA. 413+37 TO STA. 413+44

BRIDGE CONCRETE JOINT
STA. 414+83 TO STA. 414+90

END PROJECT
STA. 417+98

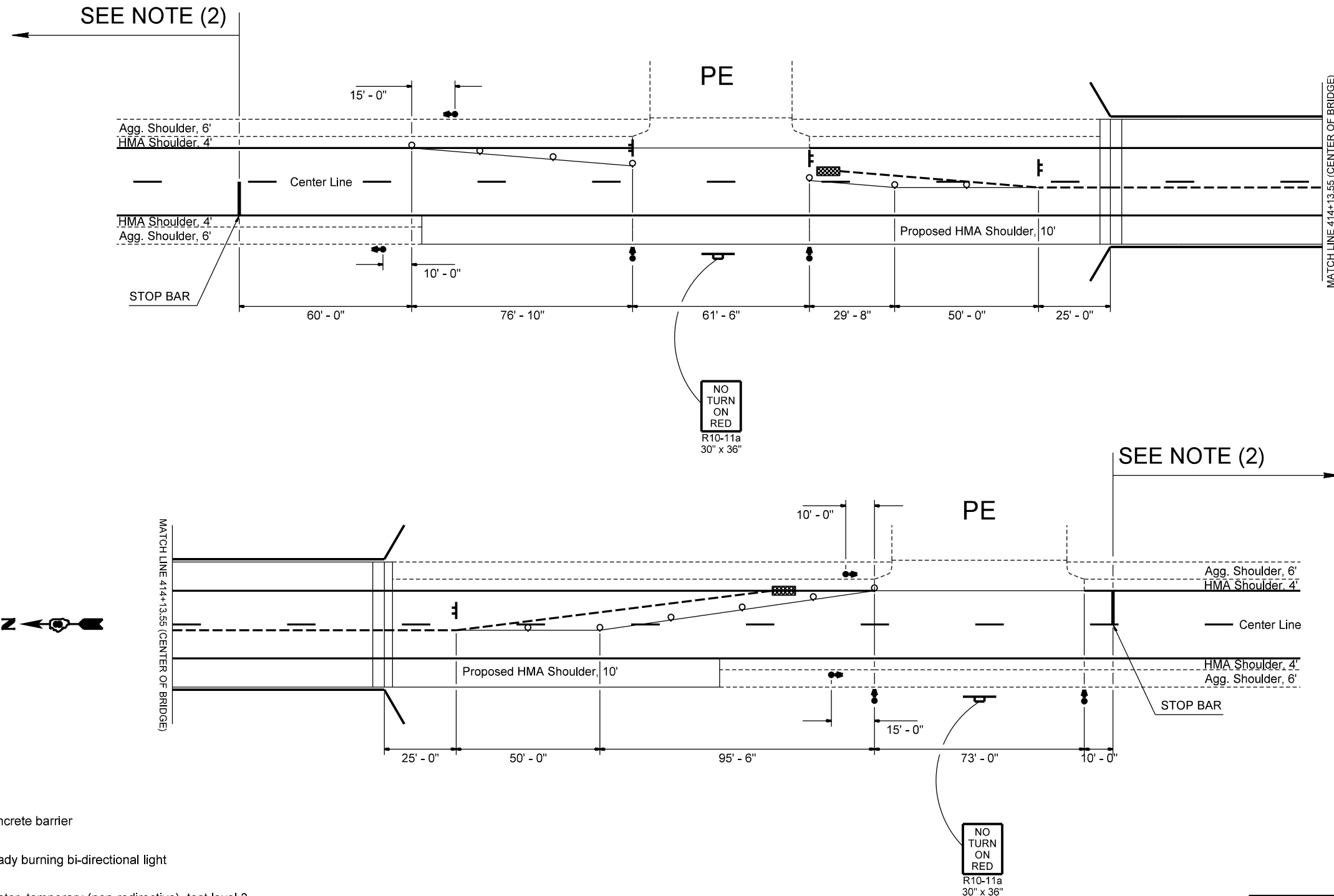
RESIDENTIAL ENTRANCE







10.5" HMA SHOULDER (LIMITS)
STA. 414+87 TO STA. 416+04
STA. 414+87 TO STA. 416+36

NOT TO SCALE

FILE NAME =	USER NAME = lopez_jc	DESIGNED -	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOCATION MAP			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\lopez_jc\d0389102\d876	28-sh-t-plen.dgn	DRAWN -	REVISD -		733	51B-2	GREENE	20	7			
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISD -	SCALE: NIS		SHEET NO. 1 OF 1 SHEETS	STA. _____ TO STA. _____	CONTRACT NO. 76H28		FED. ROAD DIST. NO. -	ILLINOIS FED. AID PROJECT		
PLOT DATE = 10/28/2014	DATE -	REVISD -										

STAGE 1 TRAFFIC CONTROL AT BRIDGE



-  Sign
-  Temporary concrete barrier
-  Drum with steady burning bi-directional light
-  Impact attenuator, temporary (non-redirective), test level 3
-  Type III barricade
-  Traffic signal

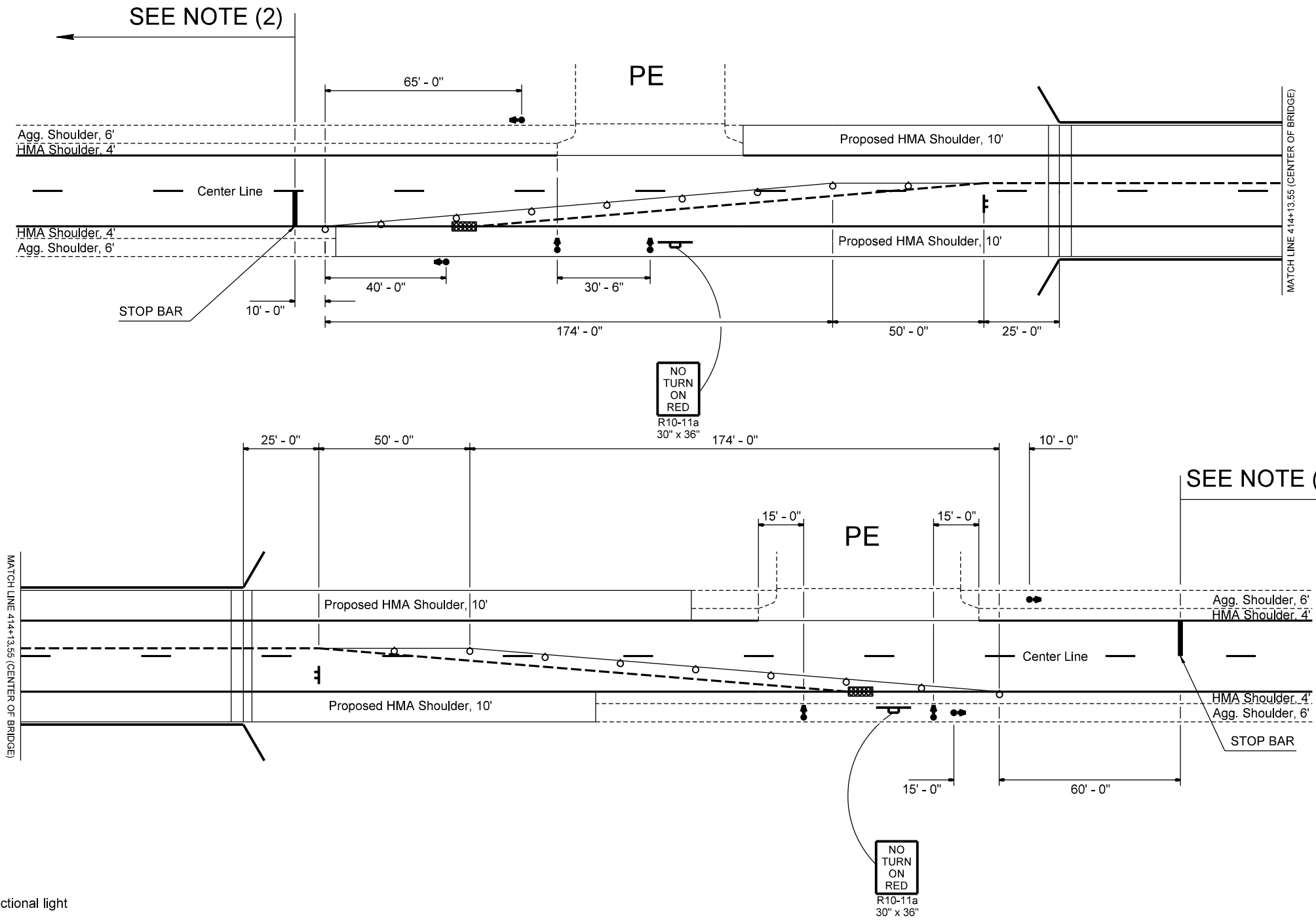
NOTE (1):
 THE MEASUREMENTS PROVIDED ARE ESTIMATED AND THEREFORE ONLY TO BE USED AS GUIDELINES.
 FINAL TRAFFIC CONTROL LAYOUT AND/OR TRAFFIC LIGHT LOCATIONS SHOULD BE APPROVED BY THE ENGINEER.

NOTE (2):
 ALL TRAFFIC CONTROL WORK SHALL COMPLY WITH HIGHWAY STANDARD 701321 EXCEPT AS SHOWN ON THIS DETAIL.

NOT TO SCALE

FILE NAME =	USER NAME = lopez_jc	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAIL		F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISED -	CONTRACT NO. 76H28								
PLOT DATE = 10/28/2014	DATE -	REVISED -	FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT								

STAGE 2 TRAFFIC CONTROL AT BRIDGE



- Sign
- Temporary concrete barrier
- Drum with steady burning bi-directional light
- Impact attenuator, temporary (non-redirective), test level 3
- Type III barricade
- Traffic signal

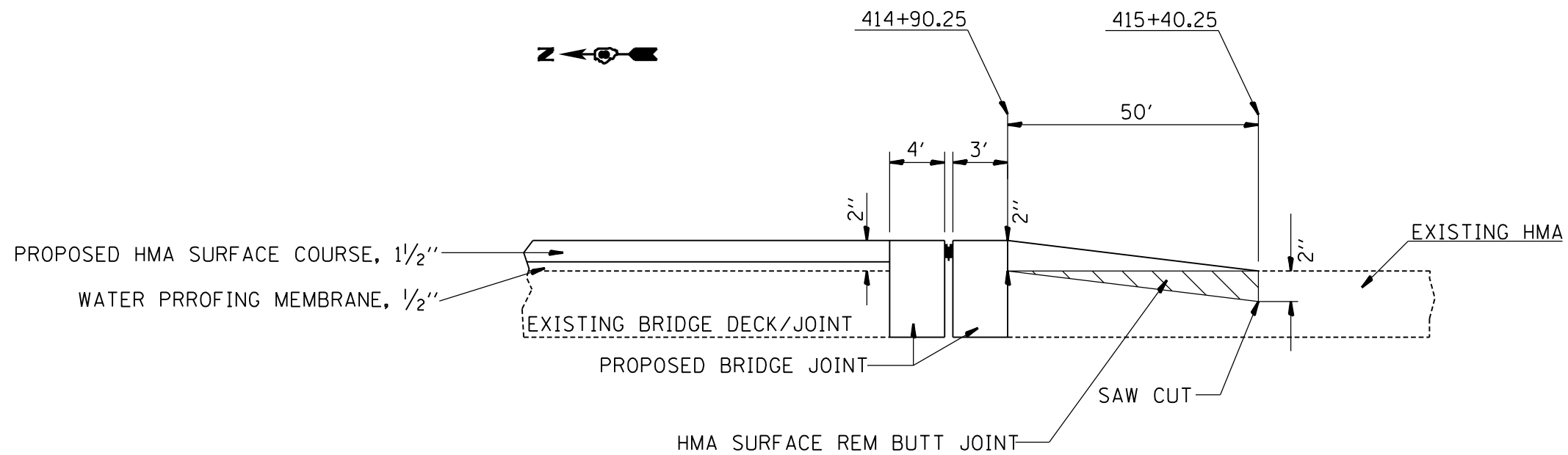
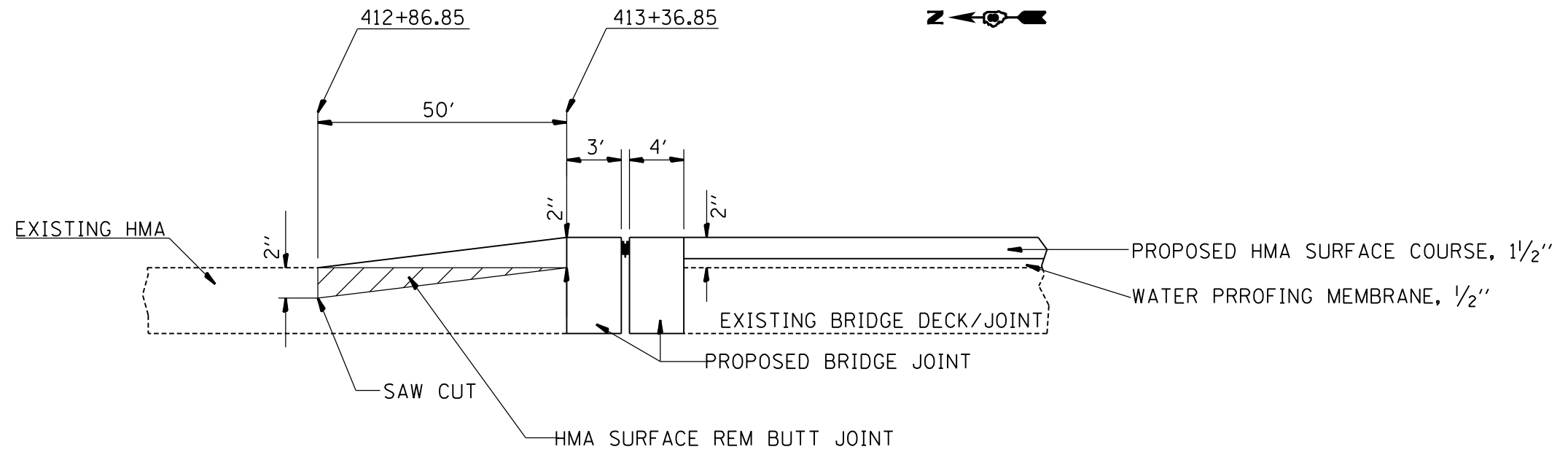
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NOT TO SCALE

FILE NAME =	USER NAME = lopez_jc	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAIL			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE = 100.0000' / 1" =		CHECKED -	REVISED -		CONTRACT NO. 76H28							
PLOT DATE = 10/28/2014		DATE -	REVISED -		SCALE: NIS SHEET NO. 2 OF 2 SHEETS		STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			

PROPOSED BUTT JOINTS

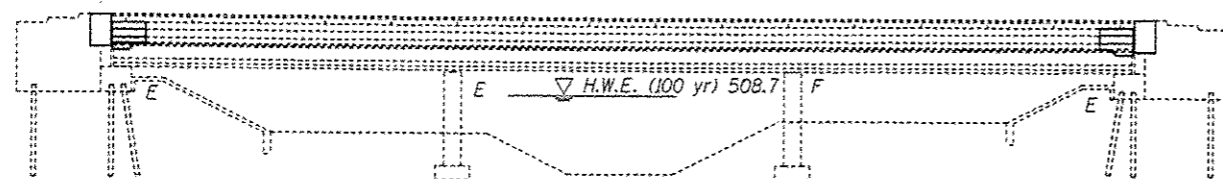


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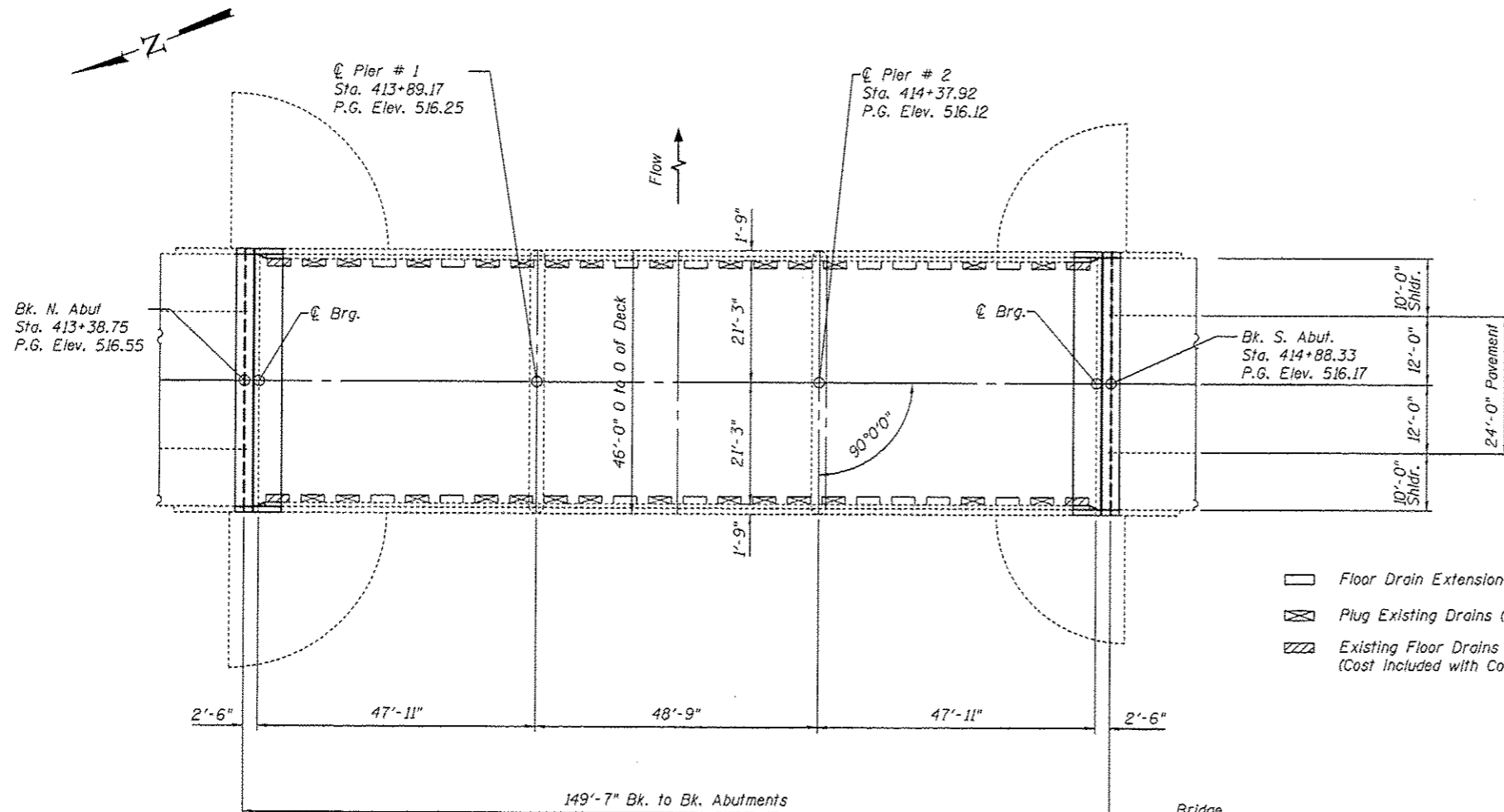
FILE NAME =	USER NAME = lopez jc	DESIGNED -	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUTT JOINT DETAIL			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ca:\pwork\pwork\lopez jc\d0389102\d876128-sh1-plen.dgn	DRAWN -	REVISD -	REVISD -					733	51B-2	GREENE	20	10
PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISD -	REVISD -		SCALE: NIS SHEET NO. 1 OF 1 SHEETS STA. TO STA.			CONTRACT NO. 76H28				
PLOT DATE = 10/27/2014	DATE -	REVISD -	REVISD -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

Existing Structure: Built in 1970 as a 3 span PCI structure supported on pile bent abutments and spread footing piers.

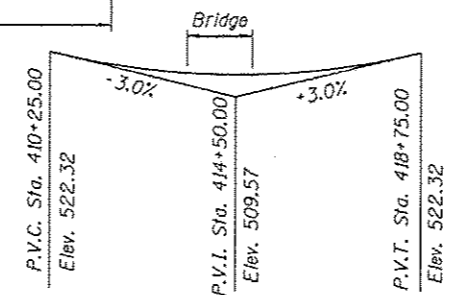
Traffic control: Stage Construction



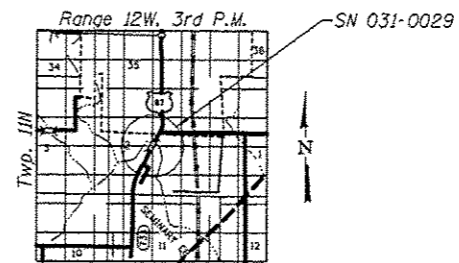
ELEVATION



PLAN



PROFILE GRADE
(From existing plans)



LOCATION SKETCH

GENERAL NOTES

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

Reinforcement bars designated (E) shall be epoxy coated.

The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beams. Any damage to the PPCI-Beams must be repaired to the satisfaction of the Engineer at the contractor's expense.

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

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

Bridge deck concrete sealer shall be placed on top/inside faces of parapets (full length)/wingwalls and on top of new concrete at joints.

INDEX OF SHEETS

1. General Plan & Elevation
2. Deck Cross Section & Joint Details
3. Joint Removal & Replacement
4. Rail Anchorage Details
5. Deck Patching Survey (Sketch)
6. Deck Patching Survey (Data)
7. Drain Details & Waterproofing Staging
8. Strip Seal Details
9. Temporary Concrete Barrier
10. Bar Splicers

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	35.4
Concrete Superstructure	Cu. Yd.	39.1
Preformed Joint Strip Seal	Foot	90
Waterproofing Membrane System	Sq. Yd.	646
Reinforcement Bars, Epoxy Coated	Pound	5180
Floor Drain Extensions	Each	16
Plug Existing Deck Drains	Each	28
Bar Splicers	Each	52
HMA Surface Course, Mix "C" N70	Ton	55
Bridge Deck Concrete Sealer	Sq. Ft.	1694
Deck Slab Repair (Partial)	Sq. Yd.	75
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	4



Expires 11/30/16

SCOPE OF WORK

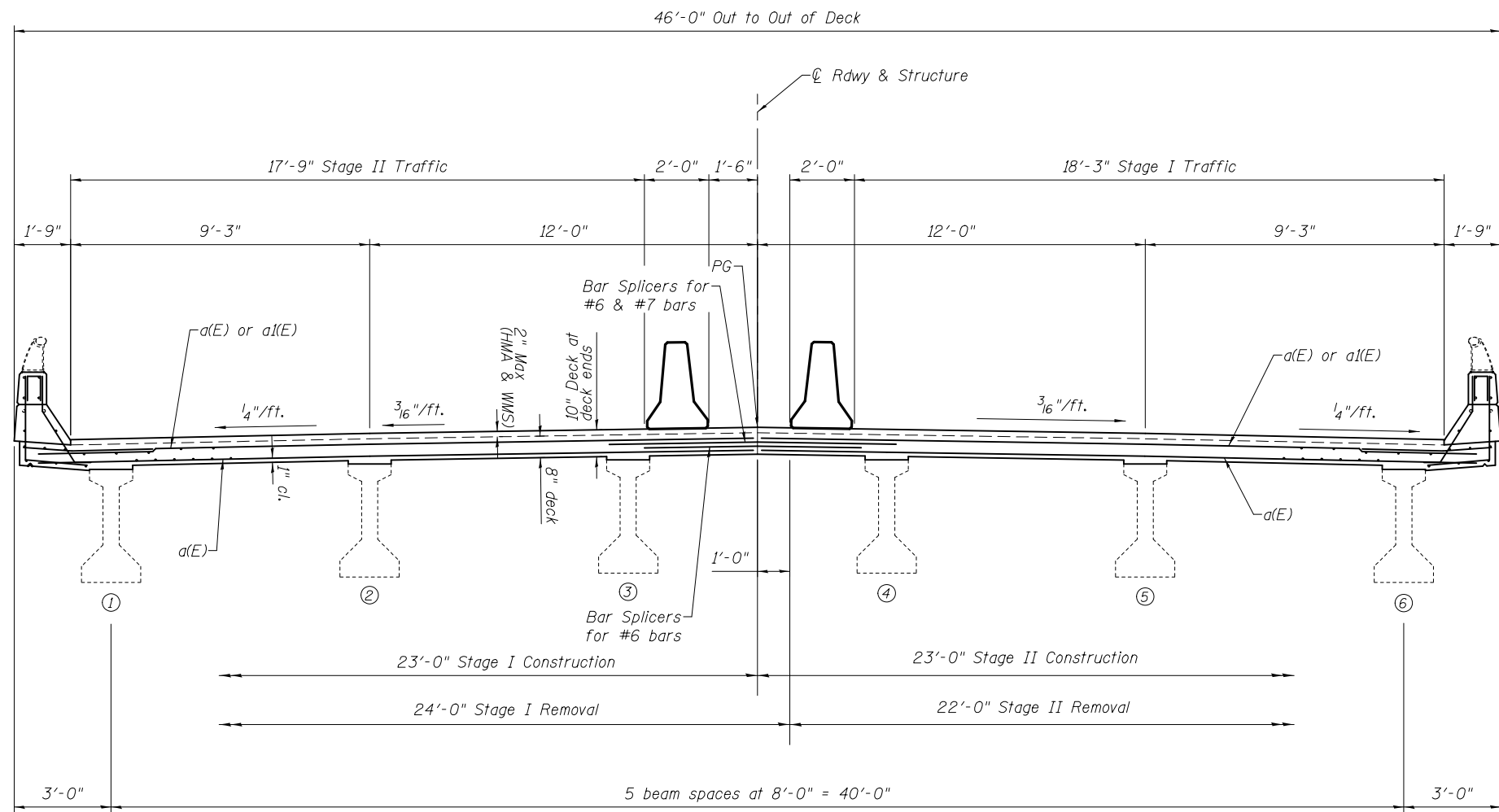
- Replace deck ends, hatchback and install Preformed Joint Strip Seals.
- HMA overlay with WMS
- Deck Slab Repair
- Floor Drain Extensions & Plug Existing Drains

DESIGNED - AYY	EXAMINED - [Signature]	DATE - 12/4/14
CHECKED -	PASSED - [Signature]	REVISED -
DRAWN - AYY	ENGINEER OF STRUCTURAL SERVICES	REVISED -
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION (US 67 over SEMINARY CREEK)
SN 031-0029

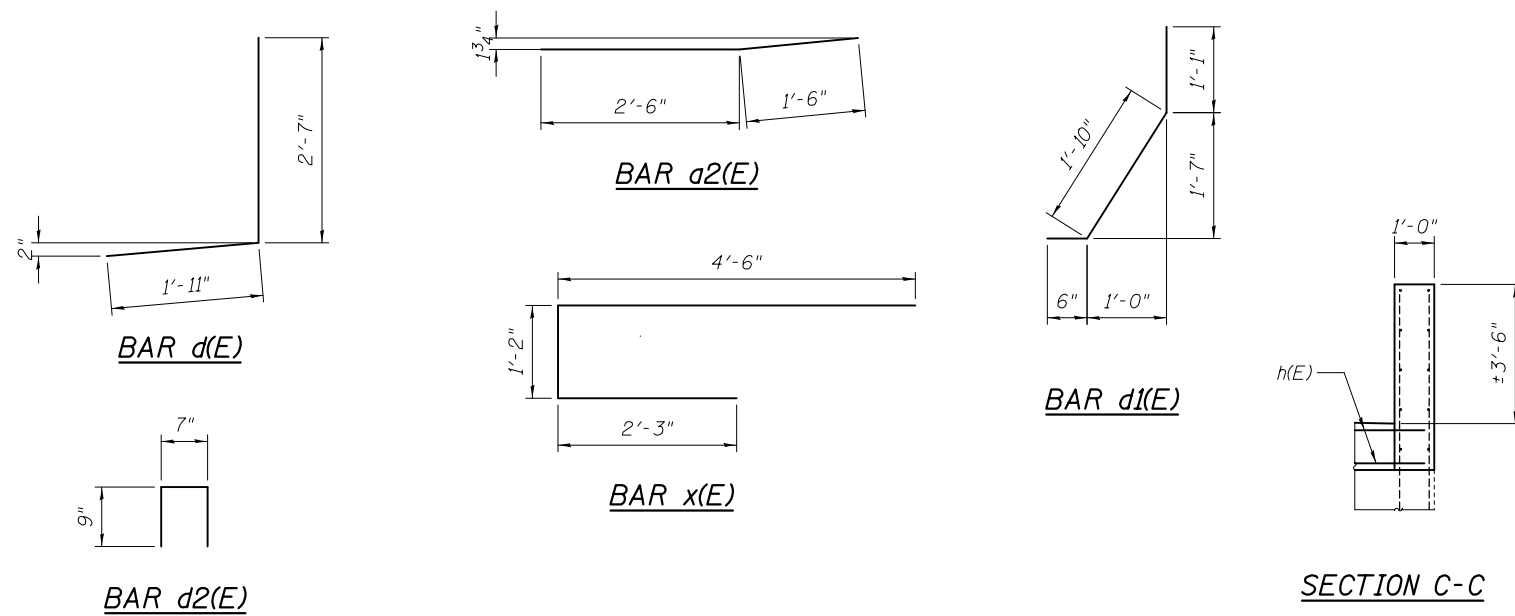
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
733	518-2	Greene	20	11
			CONTRACT NO. 76H28	
ILLINOIS FED. AID PROJECT				



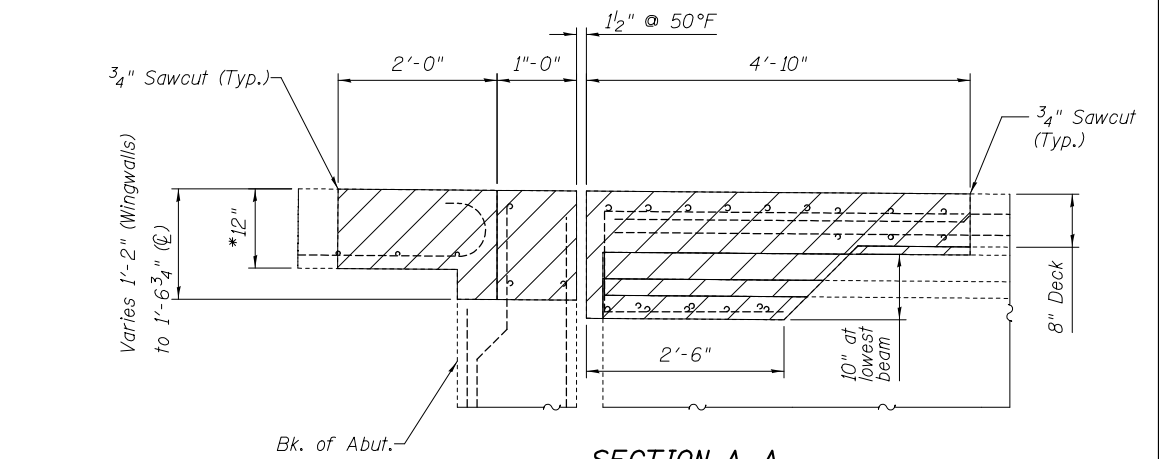
DECK CROSS SECTION

Looking South
 ● Joint Locations

▨ Concrete Removal

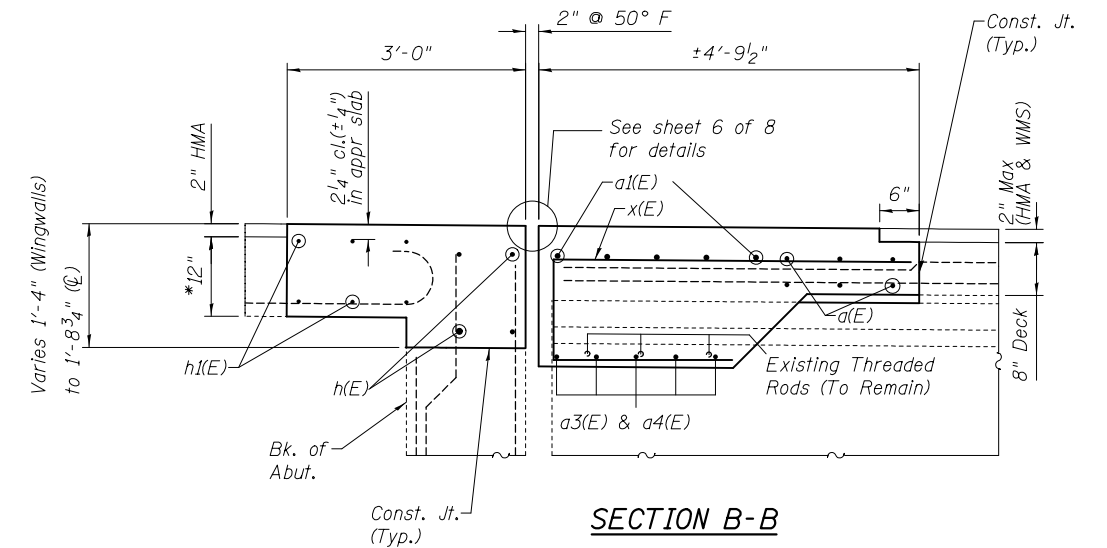


SECTION C-C



SECTION A-A

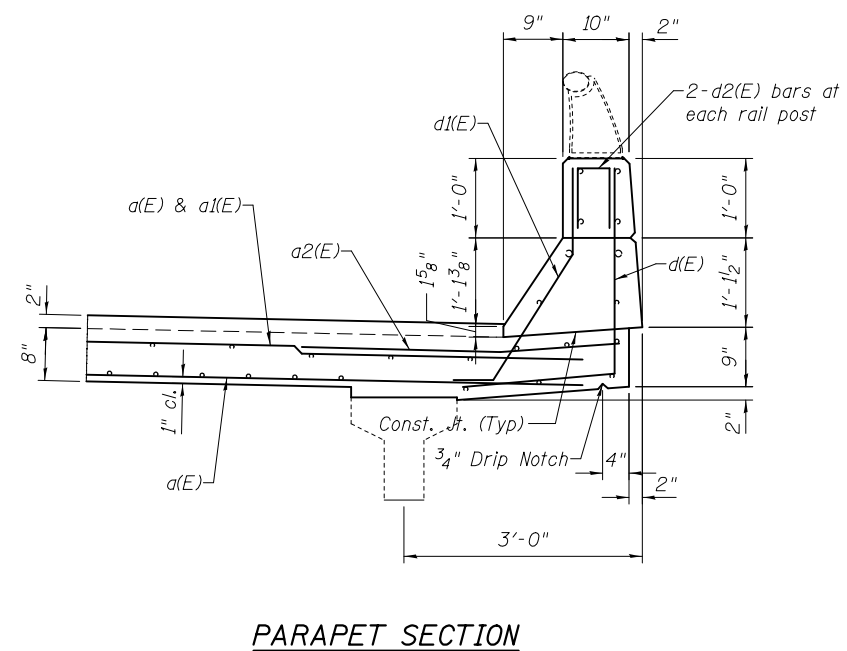
* If existing approach pavement isn't 12" thick, match existing depth.



SECTION B-B

**BOTH ABUTMENTS
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	
a(E)	24	#6	22'-2"	—	
a1(E)	20	#7	22'-2"	—	
a2(E)	16	#6	4'-0"	—	
a3(E)	40	#6	7'-3"	—	
a4(E)	10	#6	3'-6"	—	
d(E)	20	#4	4'-6"	J	
d1(E)	12	#5	3'-5"	J	
d2(E)	8	#4	2'-1"	Π	
h(E)	16	#6	22'-8"	—	
h1(E)	24	#5	22'-8"	—	
x(E)	140	#6	7'-11"	—	
Reinforcement Bars, Epoxy Coated				Pound	5180
Waterproofing Membrane System				Sq. Yd.	646
HMA Surface Course, Mix "C" N70				Ton	55
Bridge Deck Concrete Sealer				Sq. Ft.	1694
Concrete Superstructure				Cu. Yds.	39.1
Concrete Removal				Cu. Yds.	35.4



PARAPET SECTION

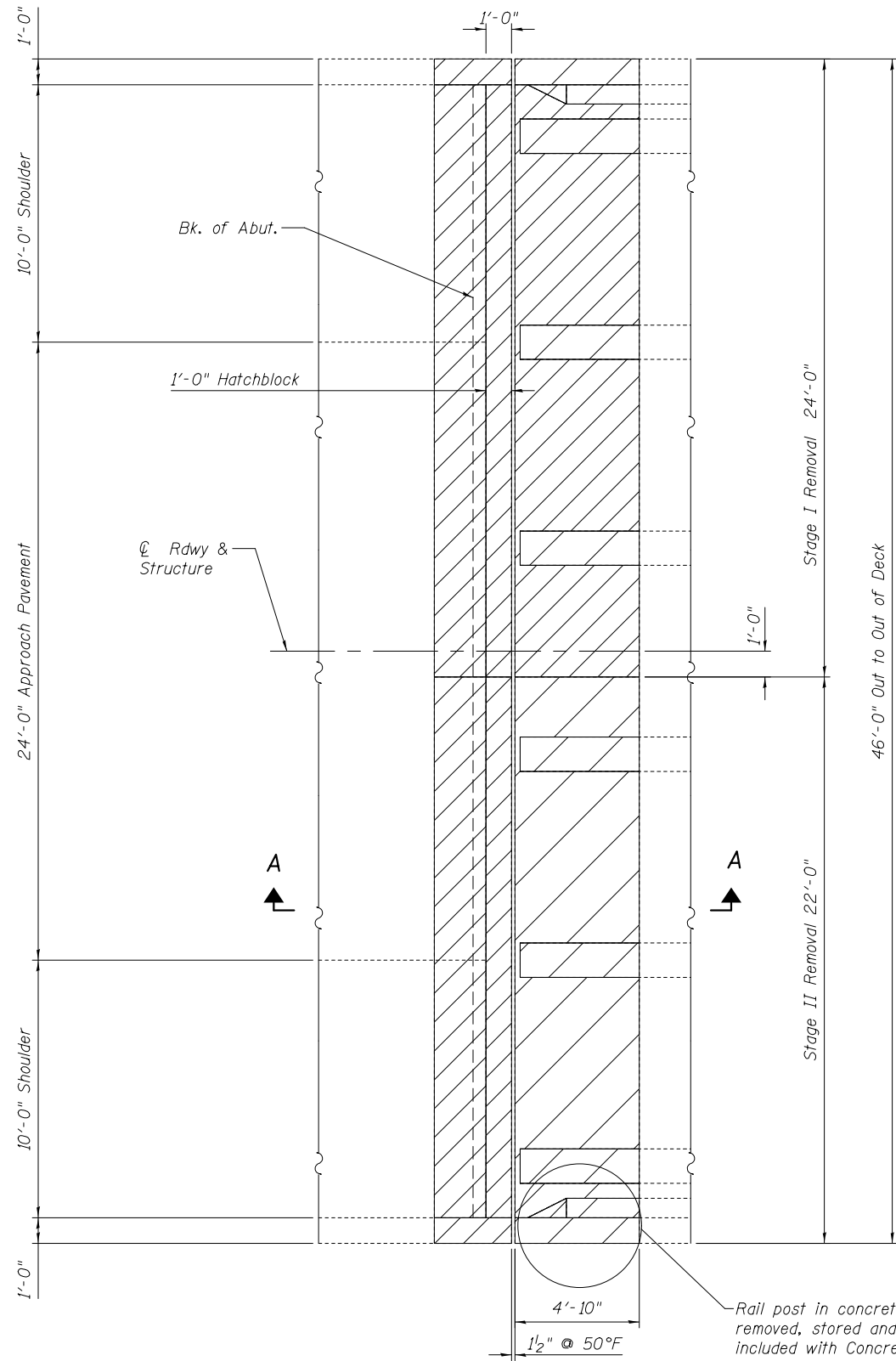
DESIGNED - A.Y.V.	EXAMINED	DATE -
CHECKED -	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - A.Y.V.	PASSED	REVISED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DECK CROSS SECTION & JOINT DETAILS
 SN 031-0029**

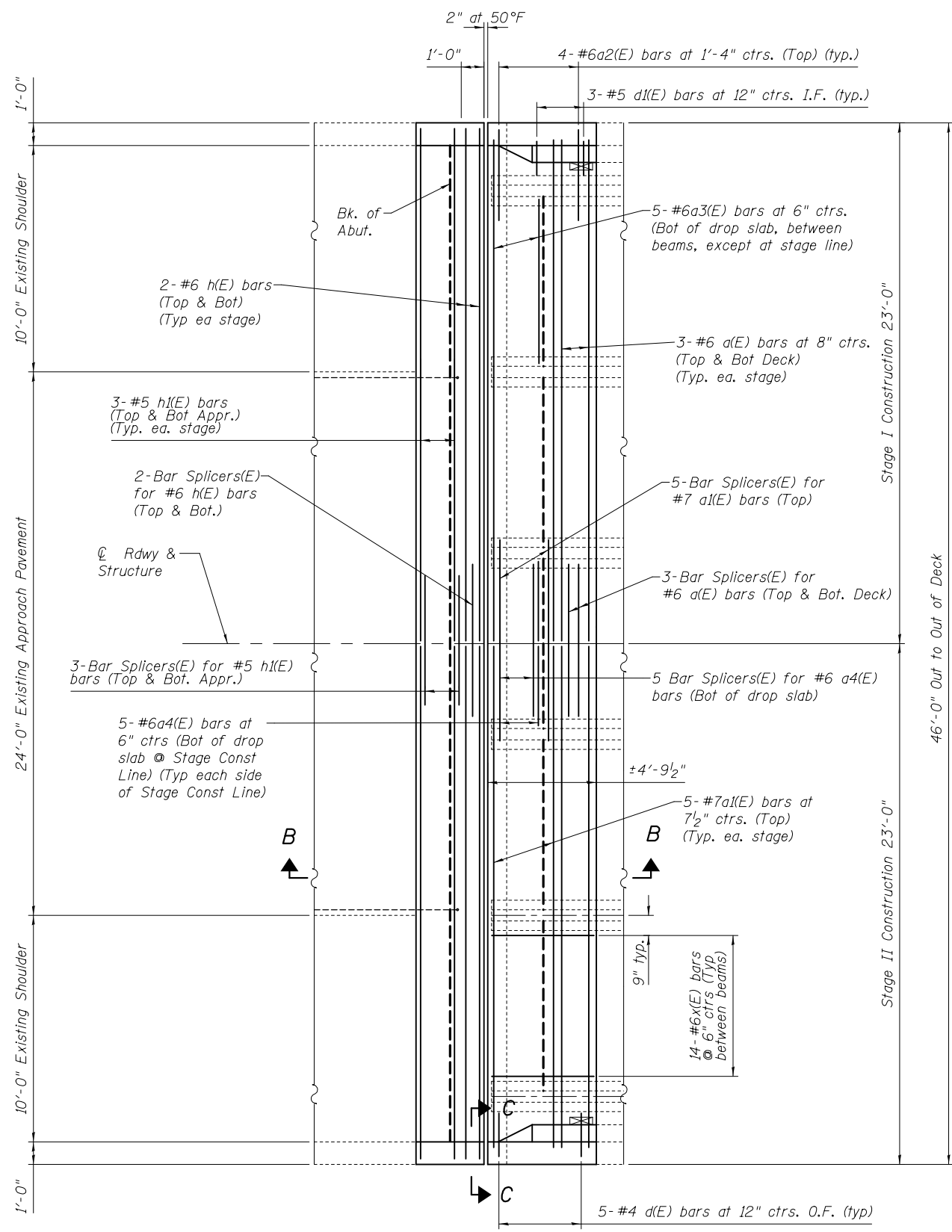
SHEET NO. 2 OF 10 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
733	51B-2	GREENE	20	12
CONTRACT NO. 76H28				
ILLINOIS FED. AID PROJECT				



CONCRETE REMOVAL

N Abut shown, S Abut opposite



CONCRETE REPLACEMENT

N Abut shown, S Abut opposite

Concrete Removal

Note:
See sheet 2 of 10 for Section A-A, B-B & C-C

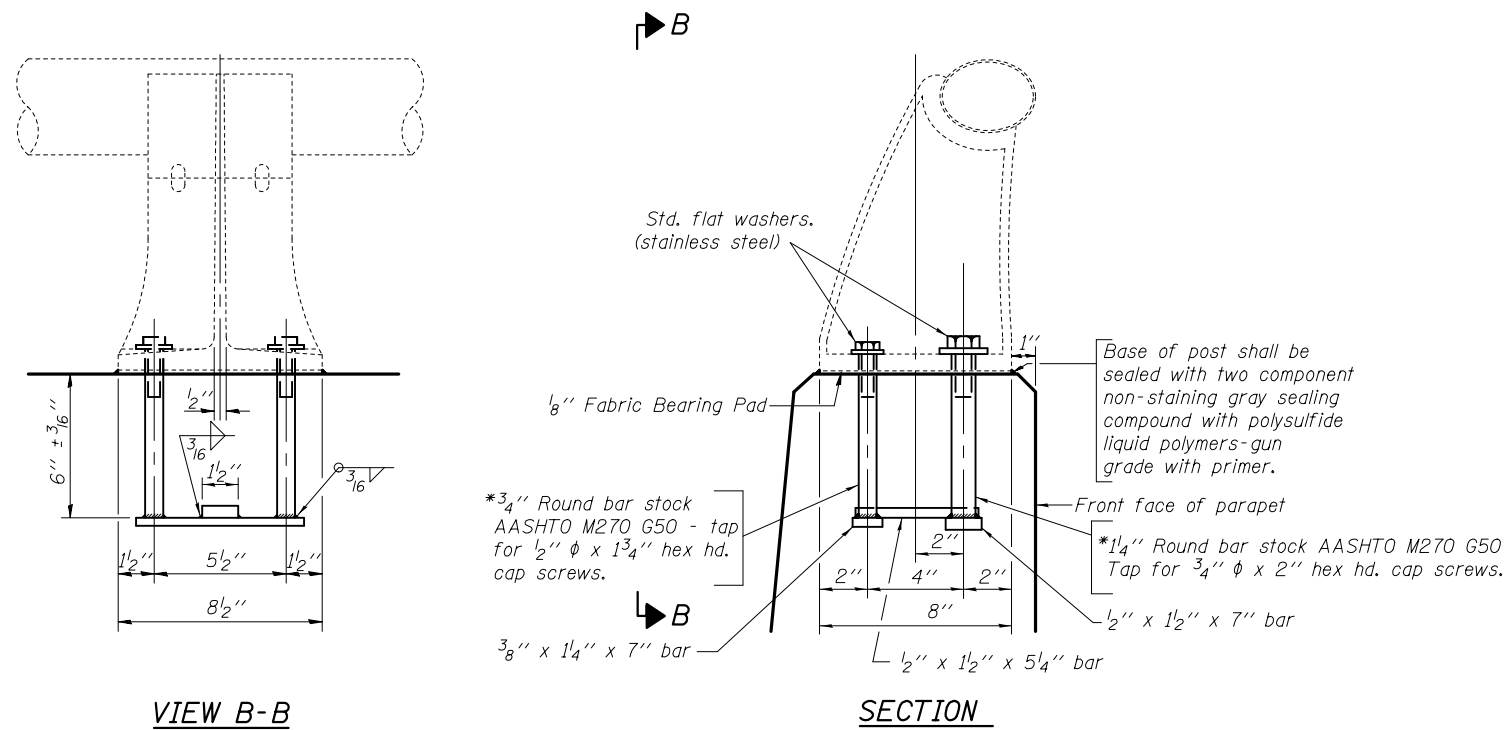
DESIGNED - A.Y.V.	EXAMINED	DATE -
CHECKED -	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - A.Y.V.	PASSED	REVISED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**JOINT REMOVAL & REPLACEMENT
SN 031-0029**

SHEET NO. 3 OF 10 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
733	51B-2	GREENE	20	13
CONTRACT NO. 76H28				
ILLINOIS FED. AID PROJECT				



VIEW B-B

SECTION

RAIL POST DETAILS

* 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. Cost of providing anchorages is included with Concrete Superstructure.

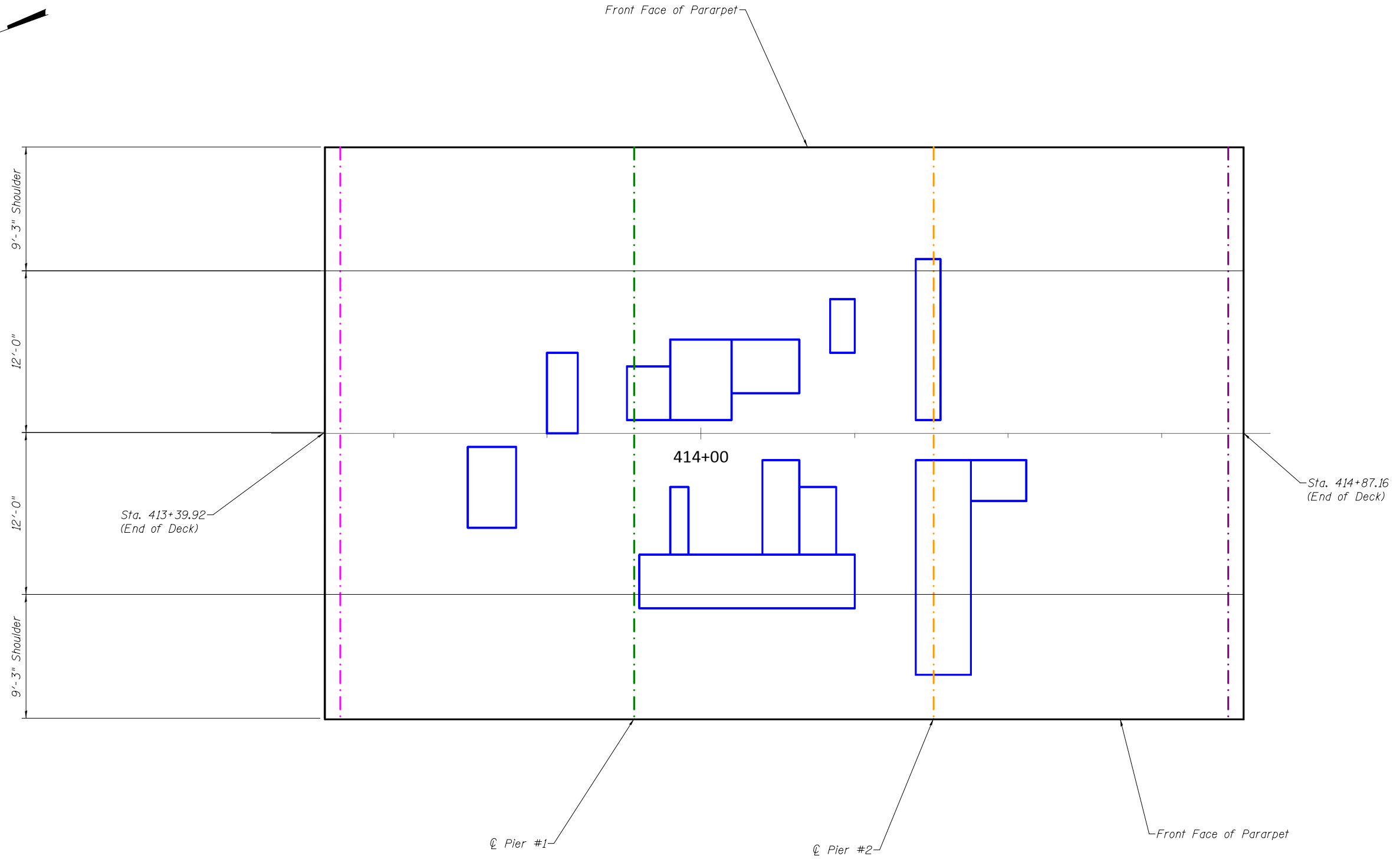
DESIGNED - A.Y.V.	EXAMINED	DATE -
CHECKED -	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - A.Y.V.	PASSED	REVISED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**RAIL ANCHORAGE DETAILS
SN 031-0029**

SHEET NO. 4 OF 10 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
733	51B-2	GREENE	20	14
CONTRACT NO. 76H28				
ILLINOIS FED. AID PROJECT				



- Deck Slab Repair (Partial) 75 sq. yd.
- Deck Slab Repair (Full Depth, Type I) 0 sq. yd.
- Deck Slab Repair (Full Depth, Type II) 0 sq. yd.

NOTES

The areas of deck repairs are estimated.
 The Engineer shall show actual patch locations on as-built plans.
 Deck Survey 9-24-14

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

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

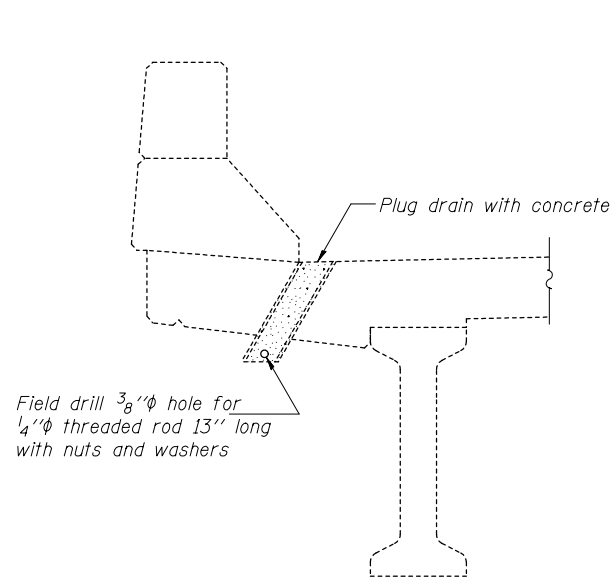
**DECK PATCHING SURVEY (SKETCH)
 SN 031-0029**

SHEET NO. 5 OF 10 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
733	51B-2	GREENE	20	15
CONTRACT NO. 76H28				

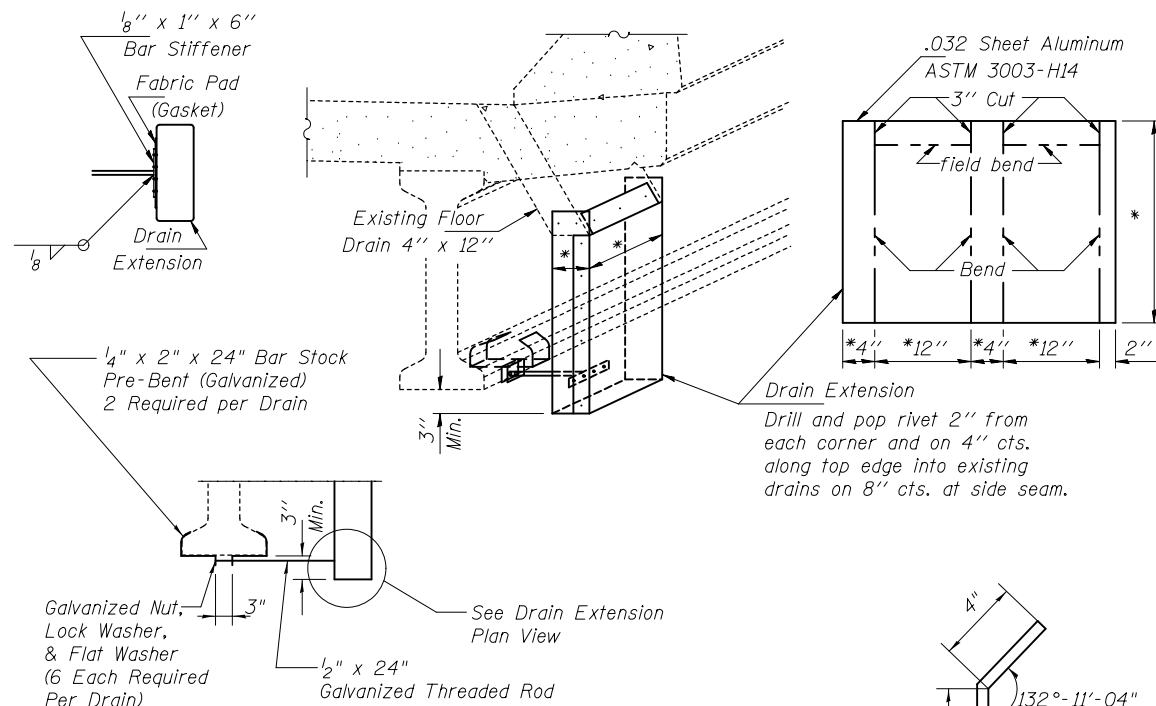
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Patch # on sketch	23		23		Cell		(Ctrl + D)		Full or Partial Depth	Type I or II (Full Depth)
	Patch #	Start Sta	End Sta	Offsets (ft)		Length (ft.)	Width (ft.)	Area (sy)		
				From	To					
1	1	413+75	413+80	0	Lt 6	Lt	5	6	3.33	P
2	2	413+88	413+95	1	Lt 5	Lt	7	4	3.11	P
3	3	413+95	414+05	1	Lt 7	Lt	10	6	6.67	P
4	4	414+05	414+16	3	Lt 7	Lt	11	4	4.89	P
5	5	414+21	414+25	6	Lt 10	Lt	4	4	1.78	P
6	6	414+35	414+39	1	Lt 13	Lt	4	12	5.33	P
7	7	413+62	413+70	1	Rt 7	Rt	8	6	5.33	P
8	8	413+90	414+25	9	Rt 13	Rt	35	4	15.56	P
9	9	413+95	413+98	4	Rt 9	Rt	3	5	1.67	P
10	10	414+10	414+16	2	Rt 9	Rt	6	7	4.67	P
11	11	414+16	414+22	4	Rt 9	Rt	6	5	3.33	P
12	12	414+35	414+44	2	Rt 18	Rt	9	16	16.00	P
13	13	414+44	414+53	2	Rt 5	Rt	9	3	3.00	P

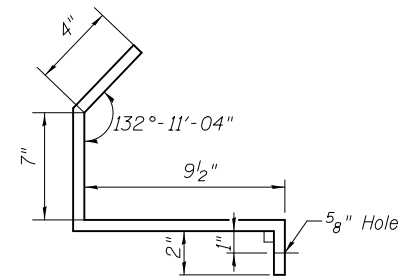


PLUG DRAIN DETAIL

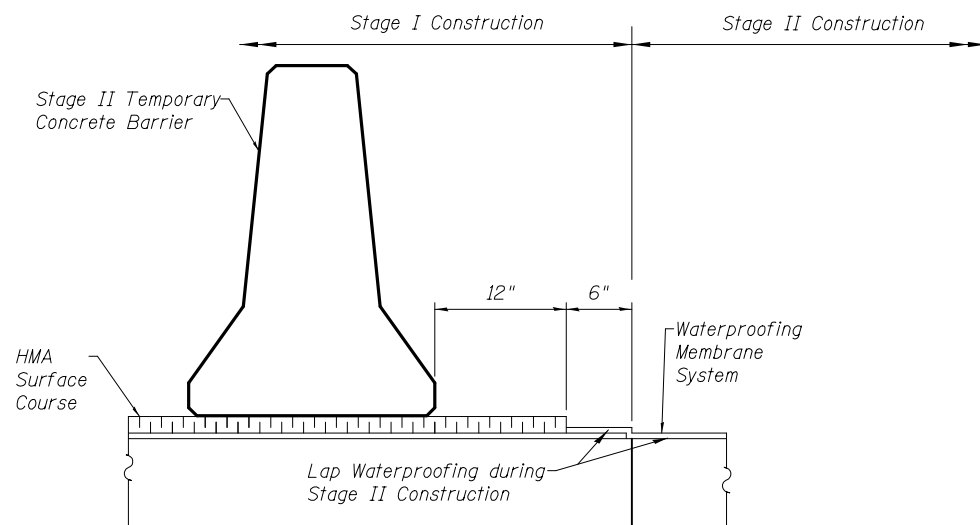
See sheet 1 of 10 for locations



Notes: Pop rivet the $\frac{1}{8}$ " x 1" bar to Drain Extension. Weld or securely attach rod to both the bracket and bar stiffener. Use $\frac{3}{16}$ " stainless steel pop rivets of sufficient length.
 * Field measure cut to fit existing drain.
 An aluminum extrusion drain extension of similar dimensions may be substituted.



BRACKET DETAIL

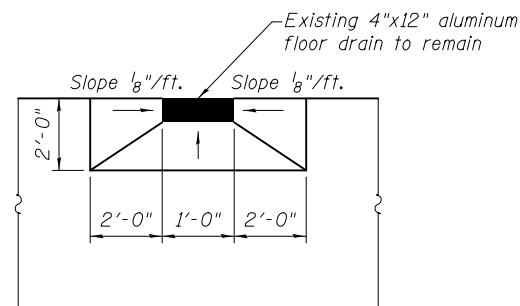


WATERPROOFING STAGING

Looking South

FLOOR DRAIN EXTENSION DETAIL

See sheet 1 of 10 for locations



DRAIN DETAIL

Slope to drain with 1" minimum HMA at drains

BILL OF MATERIAL

Floor Drain Extensions	Each	16
Plug Existing Deck Drain	Each	28

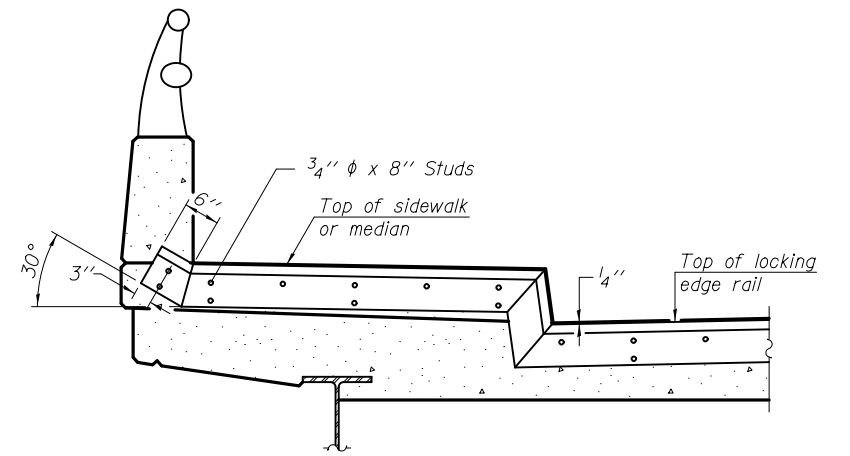
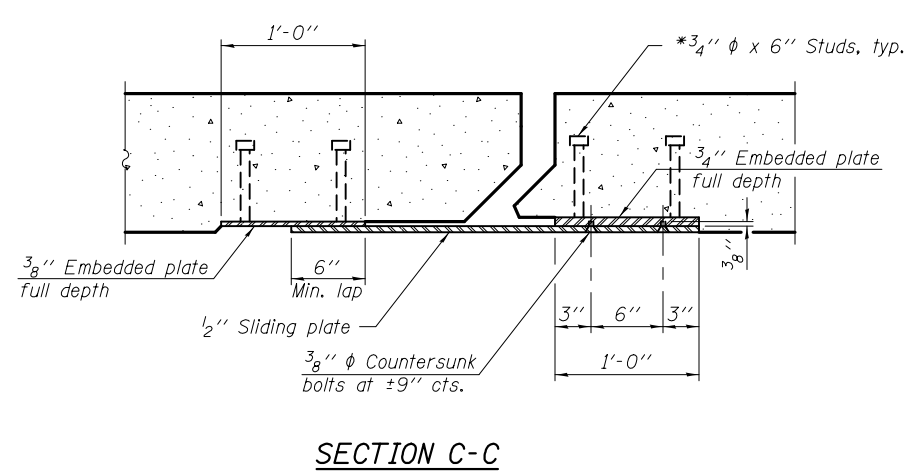
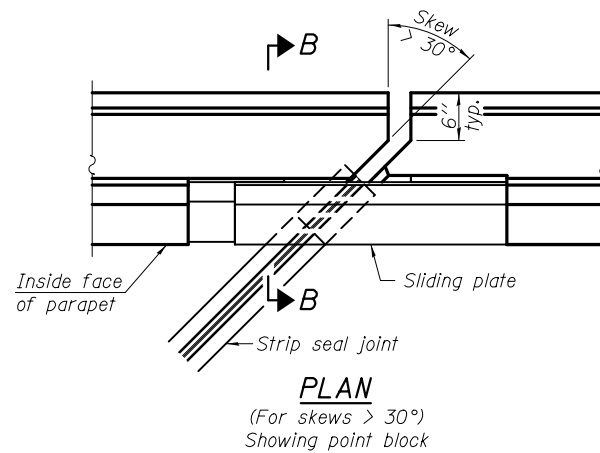
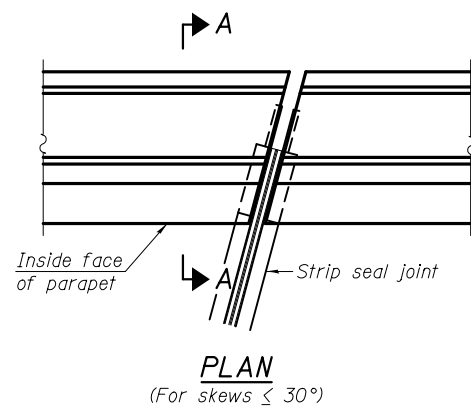
DESIGNED - AYV	EXAMINED	DATE -
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DRAWN - AYV	PASSED	REVISED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

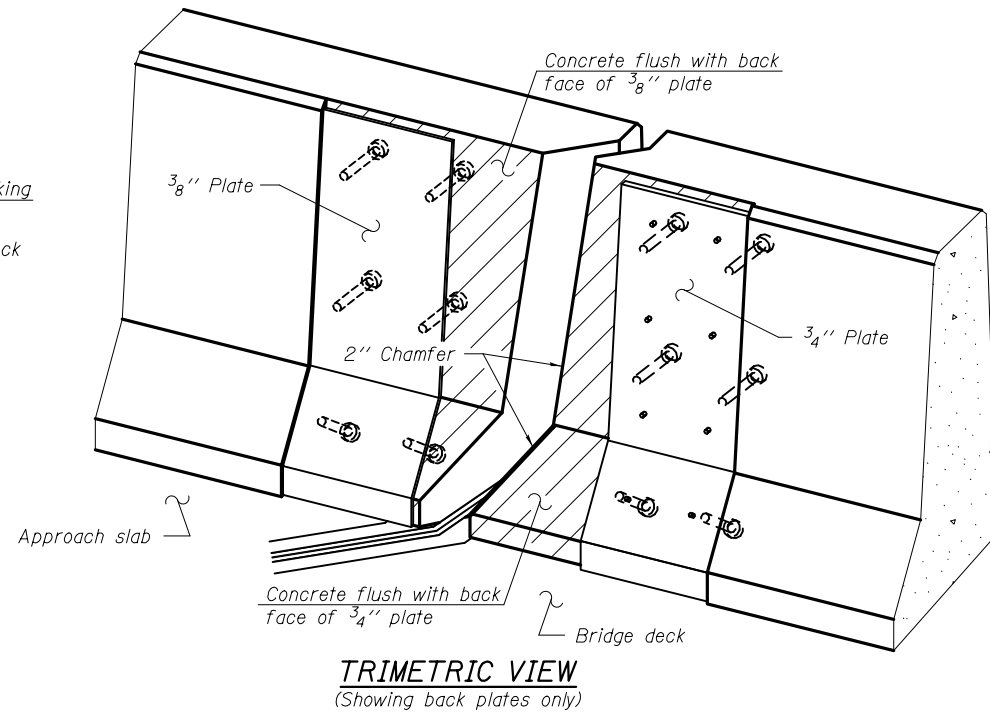
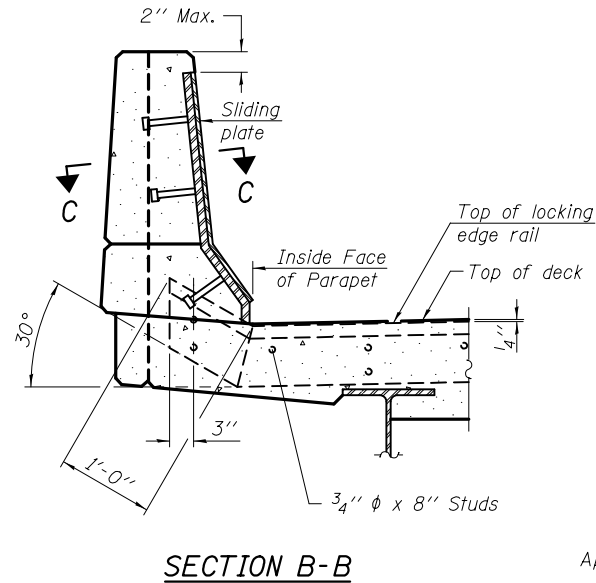
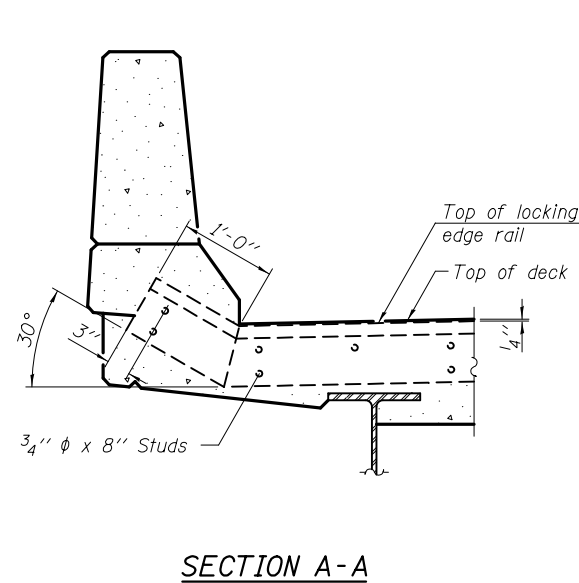
DRAIN DETAILS & WATERPROOFING STAGING
SN 031-0029

SHEET NO. 7 OF 10 SHEETS

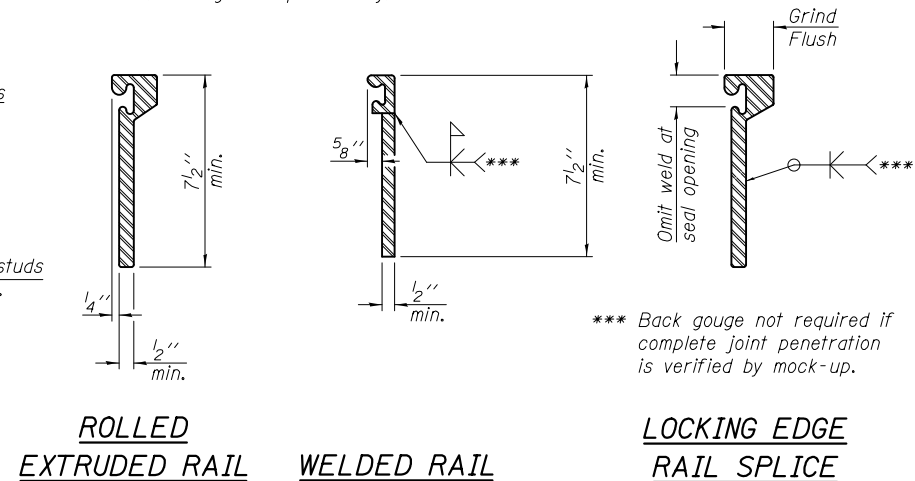
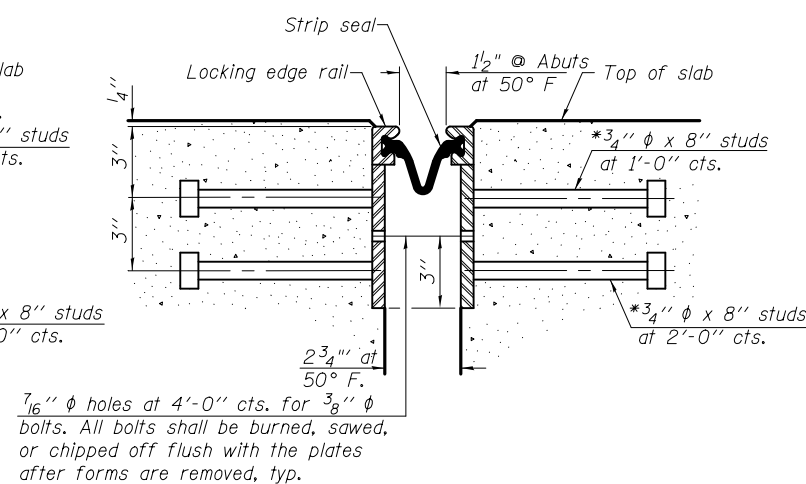
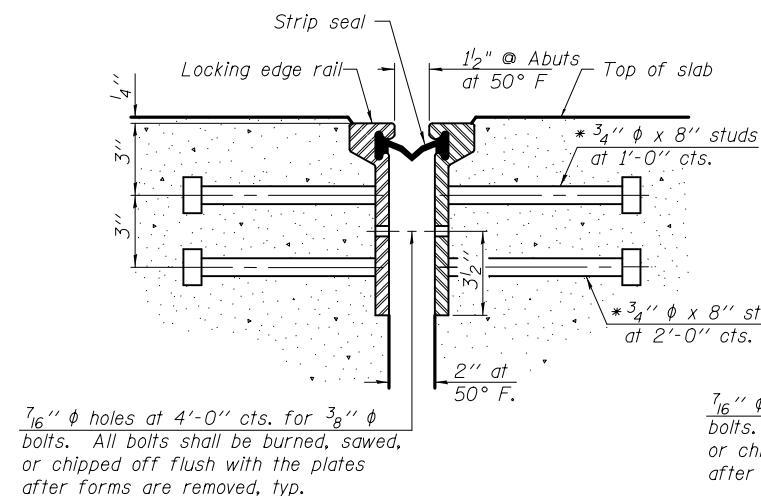
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
733	51B-2	GREENE	20	17
CONTRACT NO. 76H28				
ILLINOIS FED. AID PROJECT				



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.



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 $> 30^\circ$ included in the cost of Preformed Joint Strip Seal.



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

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

SECTION THRU ROLLED RAIL JOINT

SECTION THRU WELDED RAIL JOINT

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	90

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

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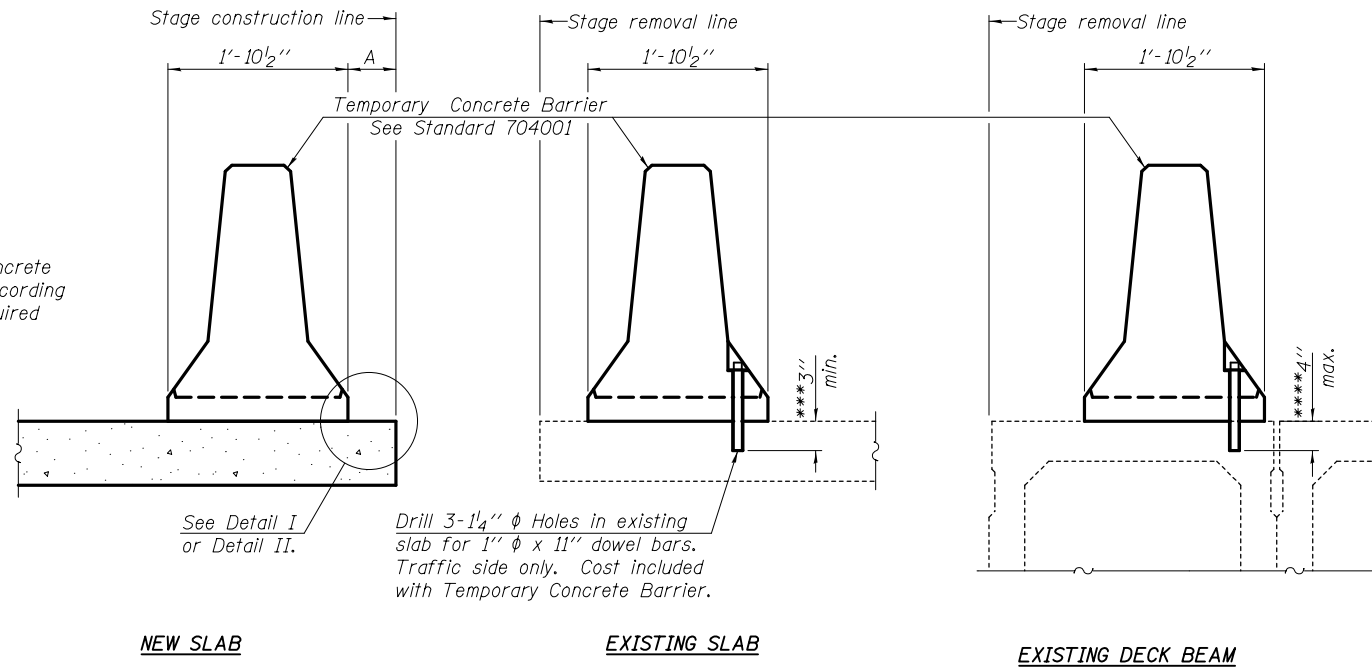
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 031-0029

SHEET NO. 8 OF 10 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
733	51B-2	GREENE	20	18
CONTRACT NO. 76H28				
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

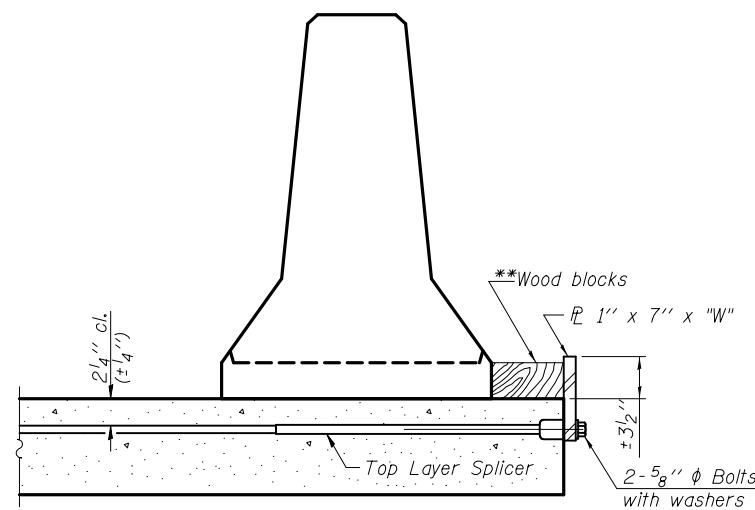
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

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.

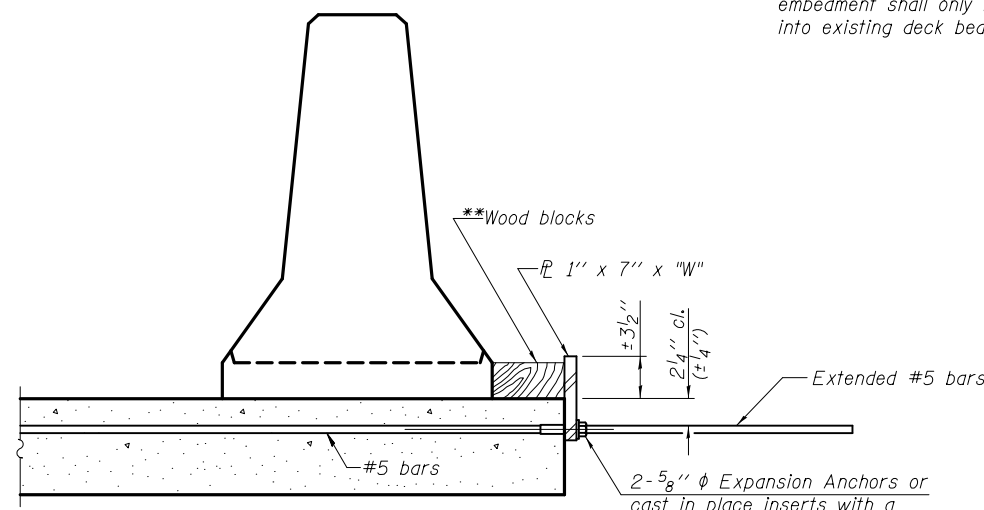
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** 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.

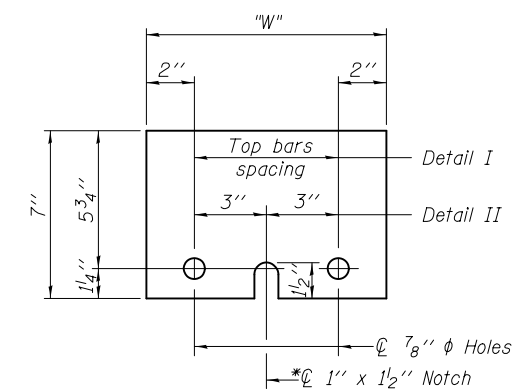
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



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

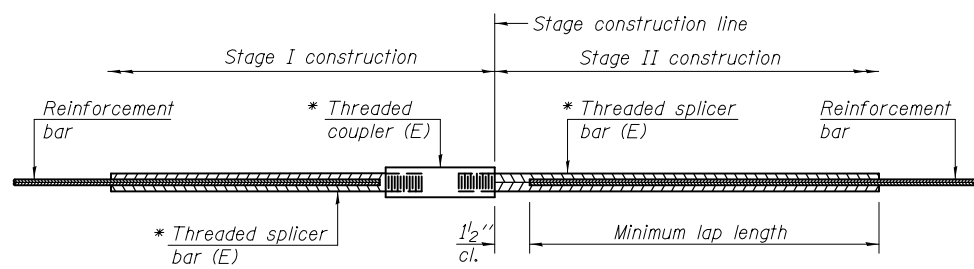
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 031-0029**

SHEET NO. 9 OF 10 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
733	51B-2	GREENE	20	19
CONTRACT NO. 76H28				
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

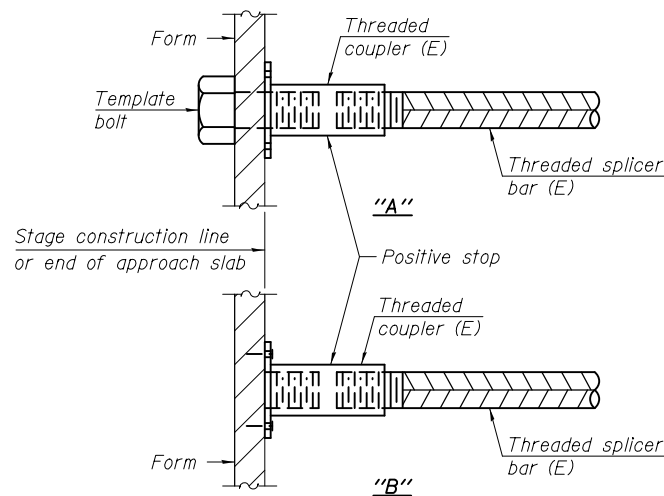
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

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

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

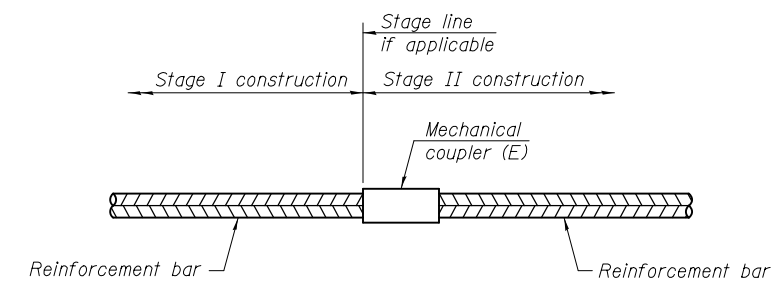
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Hatchblocks	#6	8	3
Approaches	#5	12	3
End of Deck, (except bot of drop slab)	#6	12	3
End of Deck (Top)	#7	10	3
End of Deck, (bot of drop slab)	#6	10	3



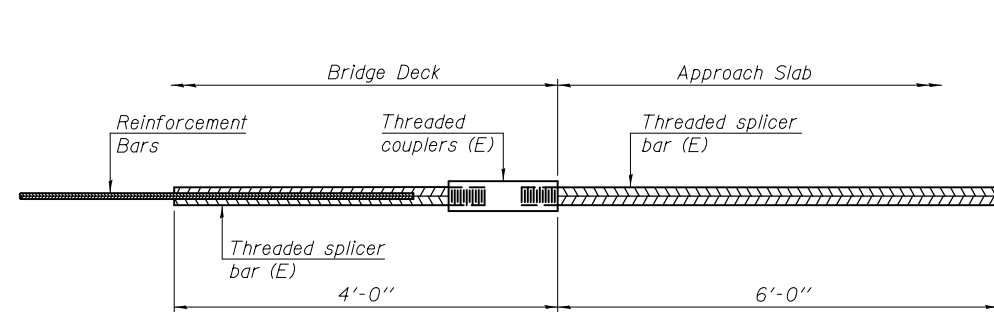
INSTALLATION AND SETTING METHODS

"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.



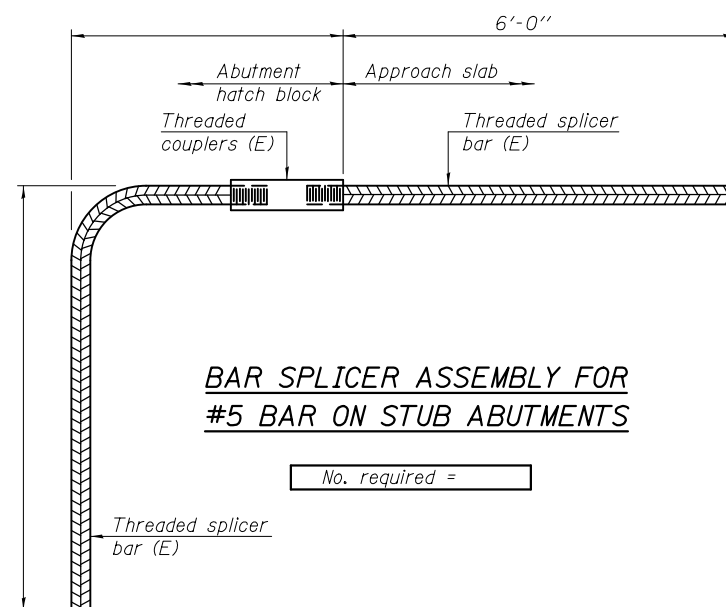
STANDARD MECHANICAL SPLICER

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

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DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 031-0029

SHEET NO. 10 OF 10 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
733	51B-2	GREENE	20	20
CONTRACT NO. 76H28				
ILLINOIS FED. AID PROJECT				