

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

**PROPOSED
 HIGHWAY PLANS**

FAP ROUTE 301 (US 20)
 SECTION (29B-1)M-1

BRIDGE REPAIR
 JO DAVIESS COUNTY

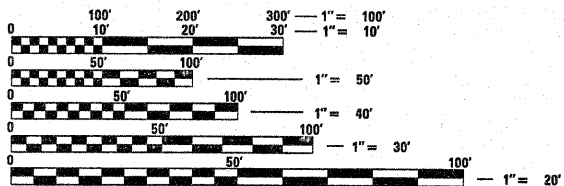
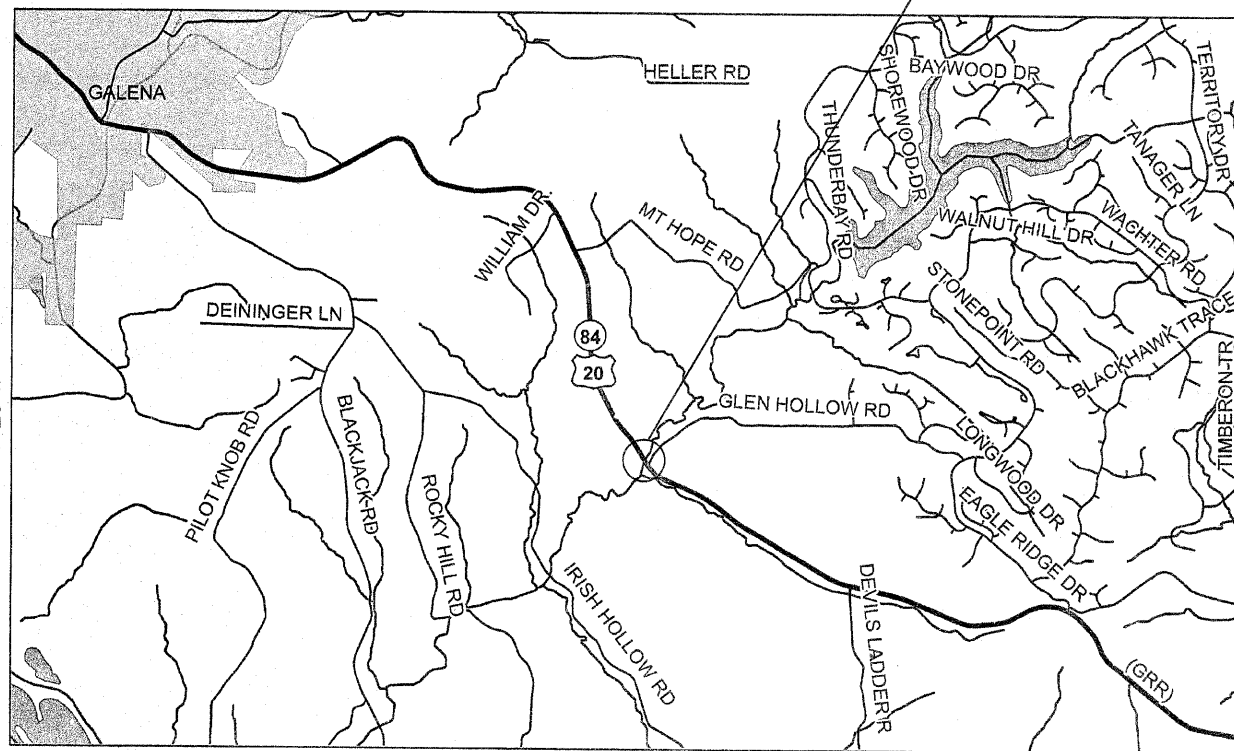
C-92-061-11

Project Location
 Structure No. 043-0035

FOR INDEX OF SHEETS, SEE SHEET NO. 3

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	(29B-1)M-1	Jo Davless	17	1
		ILLINOIS	CONTRACT NO. 64G81	

D-92-032-11



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

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

BRIDGE MAINTENANCE ENGINEER: Mahmoud Etemadi 815/284-5393
 PLAN TECHNICIAN: Dan Link 815/284-5416

CONTRACT NO. 64G81

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED December 8 2010
George F. Kyan
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

February 4 2011
Scott E. Stitt P.E. Ia
 acting ENGINEER OF DESIGN AND ENVIRONMENT

February 4 2011
Christine M. Reed P.E.
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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 OF THE STATE OF ILLINOIS**

SUMMARY OF QUANTITIES

PAY ITEM #	DESCRIPTION	UNIT	100% State 0014 QUANTITY
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	69.5
Z0004556	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	705.8
50102400	CONCRETE REMOVAL	CU YD	24.8
50300255	CONCRETE SUPERSTRUCTURE	CU YD	24.6
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3,680
50800515	BAR SPLICERS	EACH	22
52000110	PREFORMED JOINT STRIP SEAL	FOOT	83
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	705.8
67100100	MOBILIZATION	L SUM	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70106700	TEMPORARY RUMBLE STRIPS	EACH	6
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	2
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	285
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2,463
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	873

PAY ITEM #	DESCRIPTION	UNIT	100% State 0014 QUANTITY
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	36
70400100	TEMPORARY CONCRETE BARRIER	FOOT	412.5
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	362.5
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	3,425
78300100	PAVEMENT MARKING REMOVAL	SQ FT	280
X0322194	POLYMER MODIFIED PORTLAND CEMENT MORTAR	SQ FT	180
XZ030256	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2
XZ030260	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2
X5030530	FLOOR DRAIN EXTENSION	EACH	24
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	125
Z0015802	PLUG EXISTING DECK DRAINS	EACH	42
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2
X5080600	MECHANICAL SPLICERS	EACH	10

*specialty items

FILE NAME =	USER NAME = linkdj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES Structure No. 043-0035	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D:\BR\CADD plans\Jo Davless County\0430035\PLANeng.dgn	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED -			301	(298-1)M-1	Jo Davless	16	2
PLOT DATE = Wed Dec 28 10:57:40 2010	DATE -	CHECKED -	REVISED -			CONTRACT NO. G4G81				
						ILLINOIS FED. AID PROJECT				

GENERAL NOTES

The final top four inches of soil in any right-of-way area disturbed by the Contractor must be capable of supporting vegetation. The soil must be from the A horizon (zero to 2' deep) of soil profiles of local soils.

All Borrow/Waste/Use sites must be approved by the Department prior to removing any material from the project or initiating any earthmoving activities, including temporary stockpiling outside the limits of construction.

The Contractor shall seed all disturbed areas within the project limits. Seeding Class 4 or 2A shall be used, except in front of properties where the grass will be mowed, then use Seeding, Class 1. Class 2A shall be used on front slopes and ditch bottoms. Class 4 shall be used behind Type A gutter, on all backslopes and areas behind the backslope, and beyond the toe of front slope on fill sections without ditches. This work will be included in the contract unit price per Cubic Yard for CONCRETE REMOVAL.

Fertilizer shall be applied to all disturbed areas and incorporated into the seedbed prior to seeding or placement of sod at the rate specified in Sections 250 and 252 of the Standard Specifications. This work shall be included in the cost of CONCRETE REMOVAL.

Mulch Method II shall be applied over all seeded areas. This shall be included in the cost of the CONCRETE REMOVAL.

At bridge expansion joints, if temporary expansion joint bulkheads are attached to adjacent deck slabs or abutments for support, the Contractor shall cut the attachments as soon as the concrete has set to prevent joint damage due to horizontal contraction or expansion.

The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.31 of the Standard Specifications. A minimum of 48 hours advance notice is required for non-emergency work. The JULIE number is 800-892-0123.

One section of temporary concrete barrier wall either side of the expansion joints replacement shall be pinned to the pavement/bridge deck. Cost included in Temporary Concrete Barrier.

The following Mixture Requirements are applicable for this project:

Mixture Uses(s):	Surface	Sand Layer
PG:	PG 64-22	PG 64-22
Design Air Voids	4.0 @ N70	4.0 @ N50
Mixture Composition (Gradation Mixture)	IL 9.5 or 12.5	IL 4.75
Friction Aggregate	D	N/A
20 Year ESAL	0.0	
Mix Unit Weight	112 lbs/sy/in	

INDEX OF SHEETS

1. Cover sheet
2. Summary of Quantities
3. General Notes, Index of Sheets, Standards
4. Informational Warning Sign, Stop Line Sign
5. Traffic Control Plan Stage I
6. Traffic Control Plan Stage II
7. Staging Cross Sections

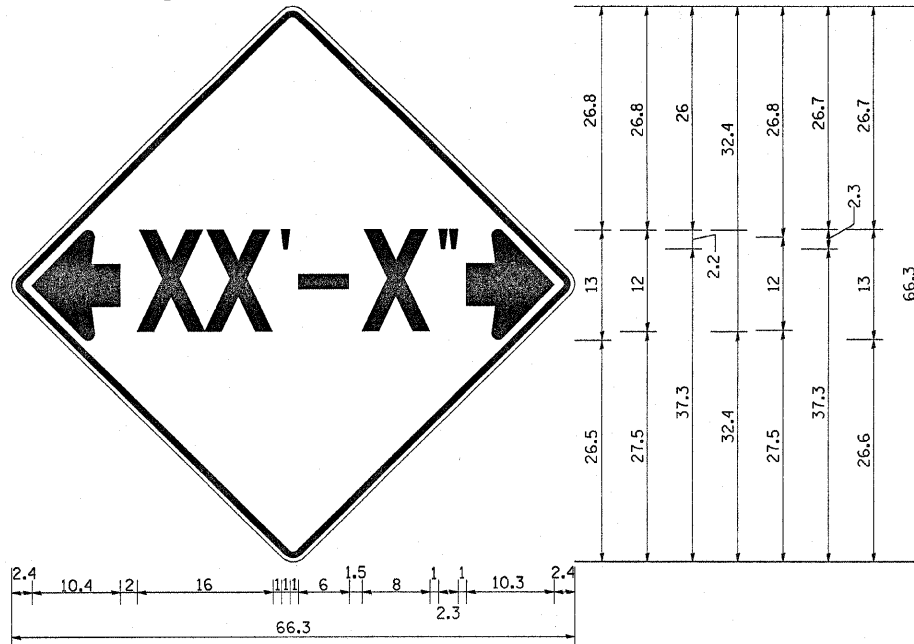
- Bridge Plans
8. General Plan & Elevation
 9. Cross Sections
 10. Concrete Removal at Abutments
 11. Concrete Replacement at Abutments
 12. Preformed Joint Strip Seal
 13. Wearing Surface Replacement & Drain Details
 14. P.P.C. I-Beam Repairs at Abutments
 15. P.P.C. I-Beam Fascia Repairs
 16. P.P.C. I-Beam Fascia Repairs
 17. Bar Splicer and Mechanical Splicer Details

STANDARDS

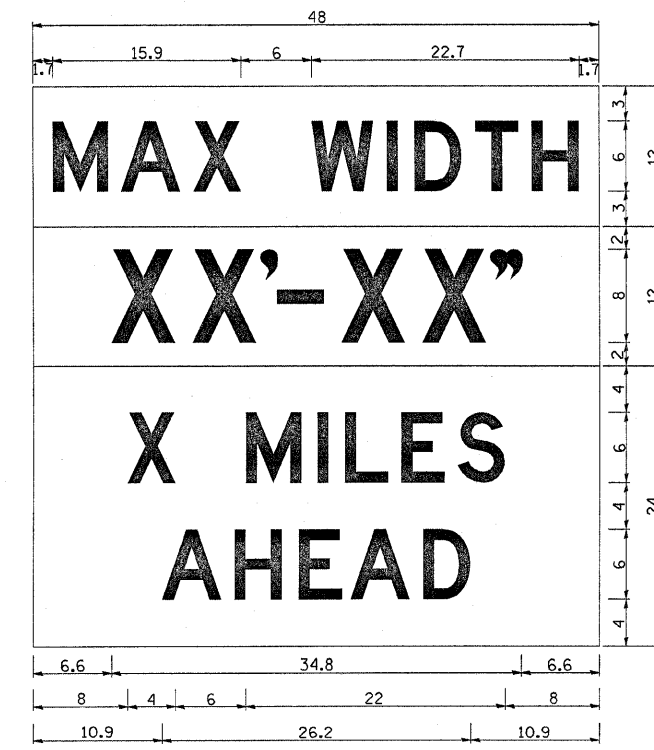
- 701006-03 Off-Road Operations, 2L, 2W, 15' (4.5 m) to 24" (600 mm) From Pavement Edge
- 701011-02 Off-Road Moving Operations, 2L, 2W, Day Only
- 701201-04 Lane Closure, 2L, 2W, Day Only, for Speeds > 45 MPH
- 701301-04 Lane Closure, 2L, 2W, Short Time Operations
- 701311-03 Lane Closure, 2L, 2W, Moving Operations - Day Only
- 701321-11 Lane Closure, 2L, 2W, Bridge Repair with Barrier
- 701901-01 Traffic Control Devices
- 704001-06 Temporary Concrete Barrier
- 720011-01 Metal Posts for Signs, Markers and Delineators
- 728001-01 Telescoping Steel Sign Support
- 729001-01 Applications of Types A and B Metal Posts (For Signs & Markers)

FILE NAME =	USER NAME = lmkd	DESIGNED - ---	REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, INDEX OF SHEETS, STANDARDS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Q:\BR\CADD plans\Jo Davless County\043075\PLANS\dgn		DRAWN - ---	REVISED - ---			301	(298-1M-1)	Jo Davless	17	3	
PLOT SCALE = 50,0000' / IN.		CHECKED - ---	REVISED - ---			CONTRACT NO. 64G81					
PLOT DATE = Wed Dec 08 10:44:14 2010		DATE - ---	REVISED - ---			ILLINOIS FED. AID PROJECT					
						SCALE: _____	SHEET NO. _____ OF _____ SHEETS	STA. _____ TO STA. _____			

INFORMATIONAL WARNING SIGN (FOR NARROW TRAVEL LANES)



NOTES
 W12-2 - Horizontal Clearance Sign
 48.0" across sides, 1.9" Radius,
 0.8" Border, 0.5" Indent, Black on
 Orange; Standard Arrow Custom
 10.4" X 8.1" 180° Black 11 Inch
 D Series Lettering; Standard Arrow
 Custom 10.4" X 8.1" 0°



W12-1103 (Width is 8D);
 No border, Black on White;
 [MAX WIDTH] D;

 No border, Black on Orange;
 [XX'-XX''] D;

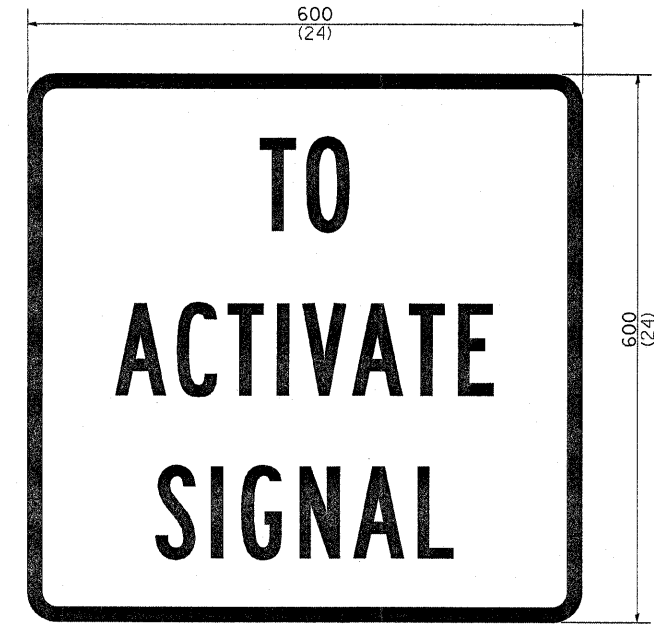
 No border, Black on White;
 [X MILES] D; [AHEAD] D;

All work to furnish and install these signs shall be included in the cost of the Traffic Control Standards and shall not be paid for separately.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 5-15-09

STOP LINE SIGN FOR TEMPORARY SIGNALS



SIZE: 600(24) x 600(24)
 100(4) CAPITAL LETTERS - BLACK
 13 (1/2) BORDER - BLACK
 WHITE REFLECTIVE - TYPE AP
 HIGH INTENSITY PRISMATIC SHEETING

GENERAL NOTE:

THIS SIGN SHALL BE INSTALLED AT THE STOP LINE AS DIRECTED BY ENGINEER.
 ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

REVISED - 1-22-07

STOP LINE SIGN FOR TEMPORARY SIGNALS

99.4

REVISED - ---	REGION 2 / DISTRICT 2 STANDARD	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED - ---		301	(29B-1)M-1	Jo Daviess	17	4
REVISED - ---		CONTRACT NO. 64G81				
REVISED - ---		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

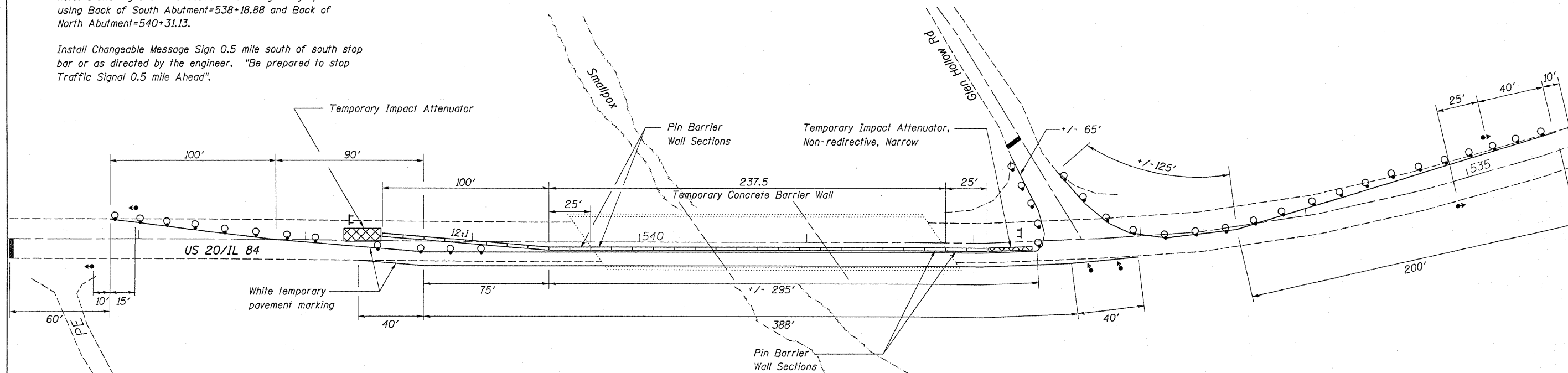
Traffic Control Plan STAGE I

Refer to Standard 701321 for additional signs, details & devices

Notes:

Note: Stationing shown is based on existing bridge plans using Back of South Abutment=538+18.88 and Back of North Abutment=540+31.13.

Install Changeable Message Sign 0.5 mile south of south stop bar or as directed by the engineer. "Be prepared to stop Traffic Signal 0.5 mile Ahead".



Temporary Pavement Marking Line 4"	
Stage I	Feet
Right Edgeline	40
	388
	40
	100
Left Edgeline	90
	75
	295
	65
	125
	200
Stage II	180
Right Edgeline	315
	50
	115
	40
Left Edgeline	315
	30
Total 2,463 Feet	

Temporary Pavement Marking Line 24"	
Stop Bars	Feet
US 20 EB	12
US 20 WB	12
Glen Hollow Rd	12
Total 36 Feet	

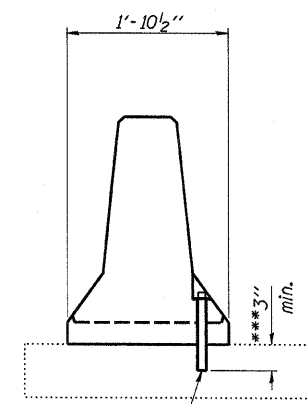
Temporary Concrete Barrier	
Stage I	Feet
North Taper	100
Bridge Tangent	237.5
South Taper	25
Stage II	
Add'l qty. needed	50
Total 412.5 Feet	

Temporary Rumble Strips	
North	3
South	3
Total 6 Each	

Temporary Impact Attenuator	
Stage I	Each
	2
Total 2 Each	

Pavement Marking Removal	
	Sq Ft
Stage I Edgeline	160
Stage II Edgeline	120
Total 280 Sq Ft	

Temporary Bridge Traffic Signals	
Stage I & II	1
Total 1 Each	



Drill 3-1 1/4" ϕ Holes in existing slab for 1" ϕ x 11" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

EXISTING SLAB

FILE NAME =	USER NAME = linkdj	DESIGNED -	REVISD -
D:\BRV\CADD plans\Jo Davless County\0430035\PLANeng.dgn		DRAWN -	REVISD -
PLOT SCALE = 3/8"=1' / IN.		CHECKED -	REVISD -
PLOT DATE = Wed Dec 08 10:41:01 2010		DATE -	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE I TRAFFIC CONTROL PLAN
STRUCTURE NO. 043-0035

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	(29B-1)M-1	Jo Davless	17	5
CONTRACT NO. 64GB1			ILLINOIS FED. AID PROJECT	

SCALE: _____ SHEET NO. ____ OF ____ SHEETS STA. _____ TO STA. _____

Traffic Control Plan STAGE II

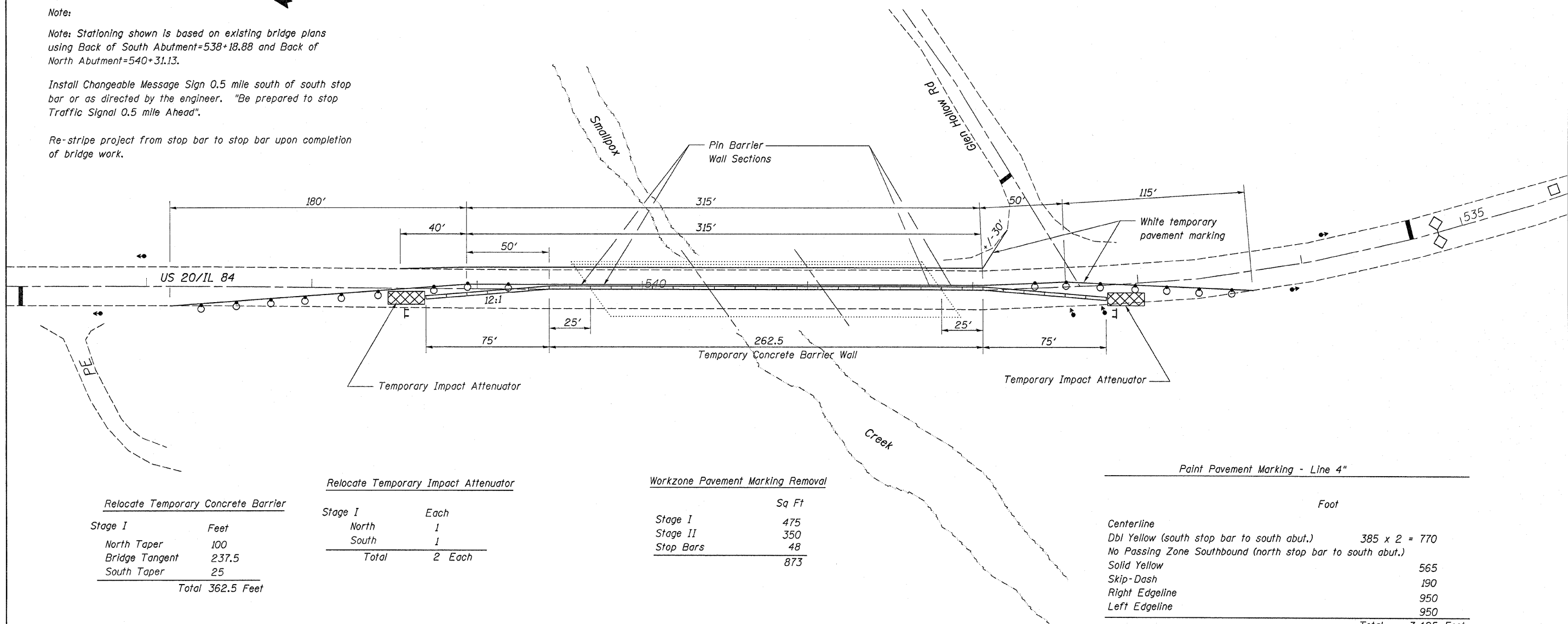
Refer to Standard 701321 for additional signs, details & devices

Note:

Note: Stationing shown is based on existing bridge plans using Back of South Abutment=538+18.88 and Back of North Abutment=540+31.13.

Install Changeable Message Sign 0.5 mile south of south stop bar or as directed by the engineer. "Be prepared to stop Traffic Signal 0.5 mile Ahead".

Re-stripe project from stop bar to stop bar upon completion of bridge work.



Relocate Temporary Concrete Barrier

Stage I	Feet
North Taper	100
Bridge Tangent	237.5
South Taper	25
Total	362.5 Feet

Relocate Temporary Impact Attenuator

Stage I	Each
North	1
South	1
Total	2 Each

Workzone Pavement Marking Removal

	Sq Ft
Stage I	475
Stage II	350
Stop Bars	48
Total	873

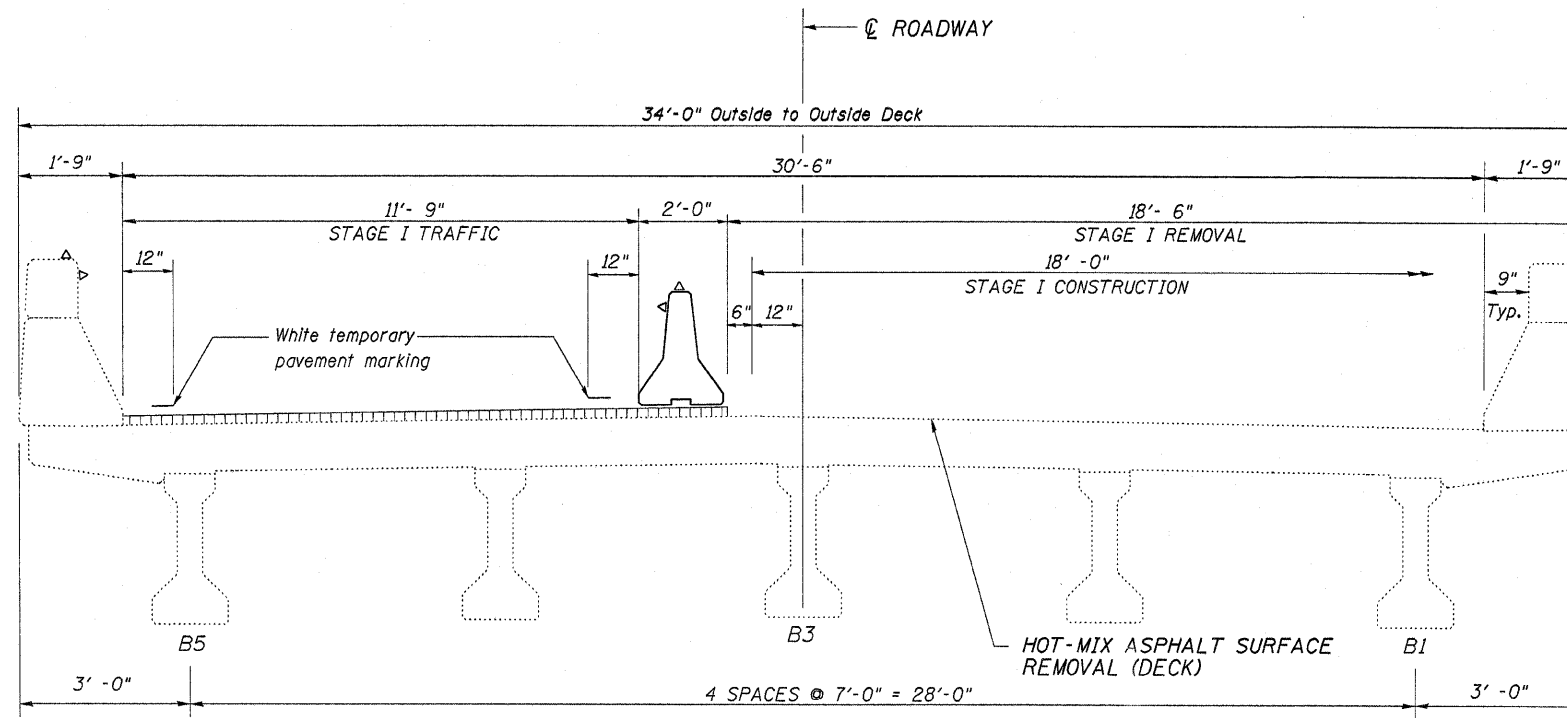
Paint Pavement Marking - Line 4"

	Foot
Centerline	
Dbl Yellow (south stop bar to south abut.)	385 x 2 = 770
No Passing Zone Southbound (north stop bar to south abut.)	
Solid Yellow	565
Skip-Dash	190
Right Edgeline	950
Left Edgeline	950
Total	3,425 Foot

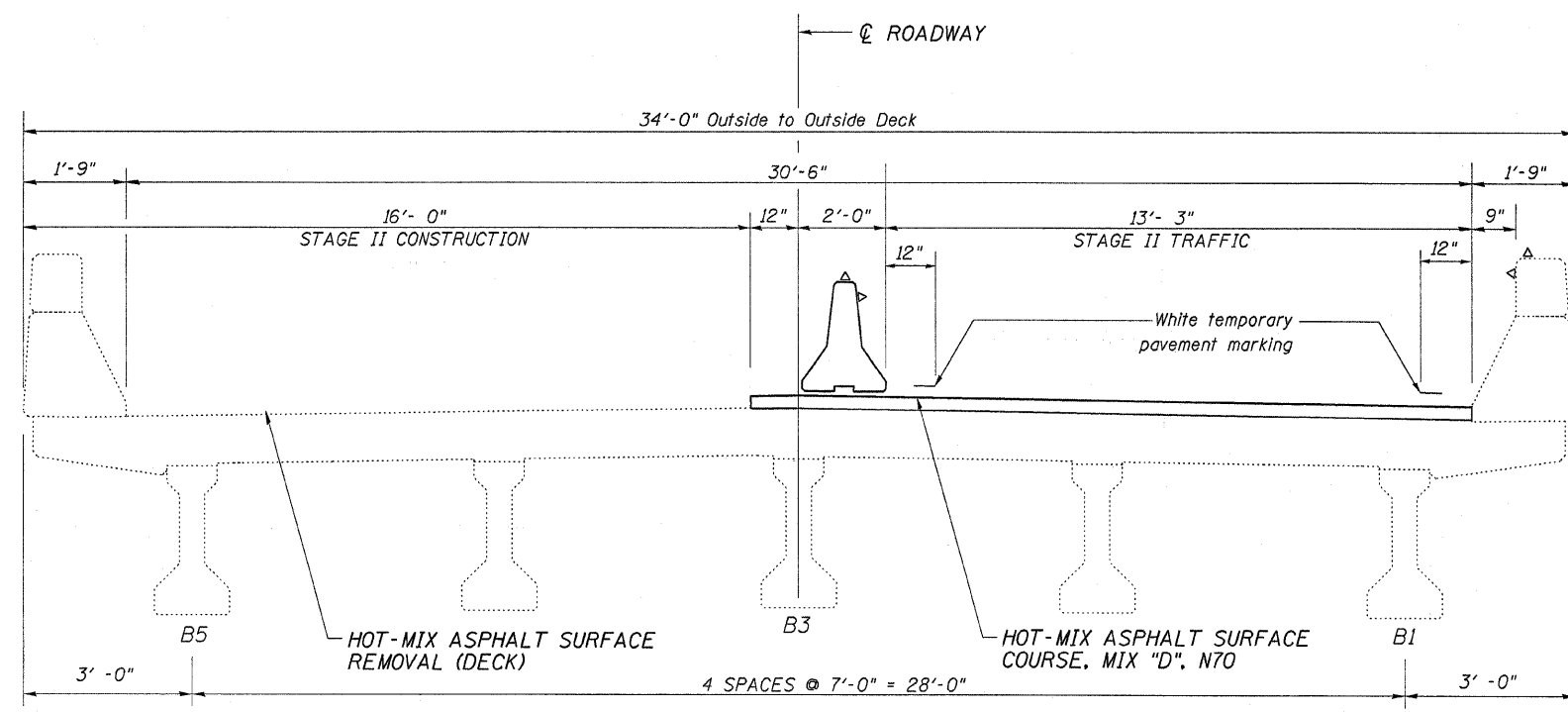
Short Term Pavement Marking

Bridge Deck (No Passing Zone Southbound)

	Feet
Solid Yellow	215
skip dash	70
Total	285 Feet



STAGE I
LOOKING NORTH



STAGE II
LOOKING NORTH

FILE NAME =	USER NAME = linkd	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	Staging Cross Sections Structure No. 043-0035	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D:\BR\CADD plans\Jo Daviess County\0430035\PLANeng.dgn	DRAWN -	REVISED -	301			(298-1M-1)	Jo Daviess	17	7	
PLOT SCALE = 30.0000' / IN.	CHECKED -	REVISED -	CONTRACT NO. 64681							
PLOT DATE = Wed Dec 08 10:40:49 2010	DATE -	REVISED -	ILLINOIS FED. AID PROJECT							
					SCALE: _____	SHEET NO. _____ OF _____ SHEETS		STA. _____ TO STA. _____		

GENERAL NOTES

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

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 shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

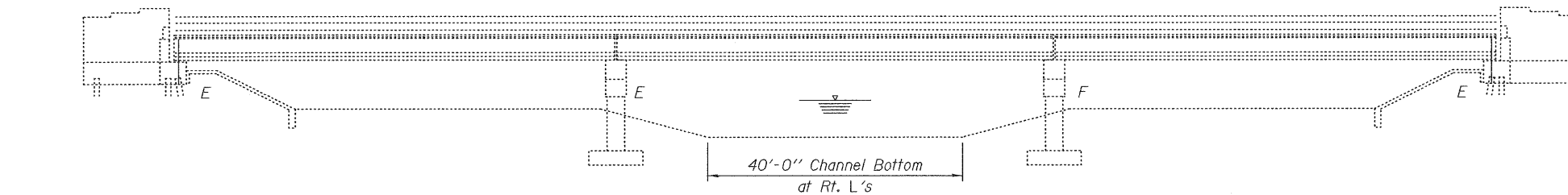
Reinforcement bars designated (E) shall be epoxy coated.

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

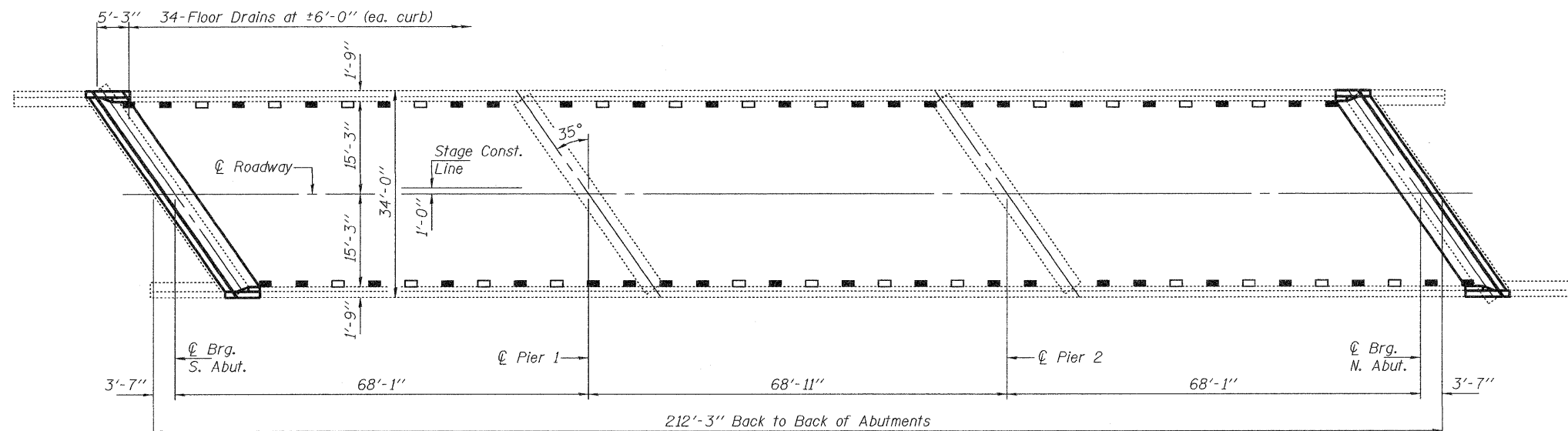
The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructures.

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

The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beam.



ELEVATION



PLAN

LEGEND

- Existing Drain to be Extended (See Detail sheet 6 of 10)
- Existing Drain to be Eliminated (See Detail sheet 6 of 10)

SCOPE OF WORK

1. Existing HMA Overlay & Water-Proofing Membrane System to be Removed & Replaced.
2. Eliminate Designated 4" x 12" Rectangular Drains (See Legend)
3. Extend Designated 4" x 12" Rectangular Drains (See Legend)
4. Repair PPC I-Beams
5. Replace Existing Neoprene Joints at Abutments with Preformed Joint Strip Seal

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	24.8
Concrete Superstructure	Cu. Yd.	24.6
Reinforcement Bars, Epoxy Coated	Pound	3680
Bar Splicer	Each	22
HMA Surface Removal (Deck)	Sq. Yd.	705.8
HMA Surface Course Mix "D" #70	Tons	69.5
Preformed Joint Strip Seal	Foot	83
Plug Existing Deck Drain	Each	42
Floor Drain Extension	Each	24
Polymer Modified Portland Cement Mortar	Sq. Ft.	180
Structural Repair of Concrete ≤ 5 inches	Sq. Ft.	3.4
Water-Proofing Membrane System	Sq. Yd.	705.8
Mechanical Splicer	Each	10

**U.S. ROUTE 20 / IL ROUTE 84
OVER SMALLPOX CREEK**



Expires: November 30, 2012

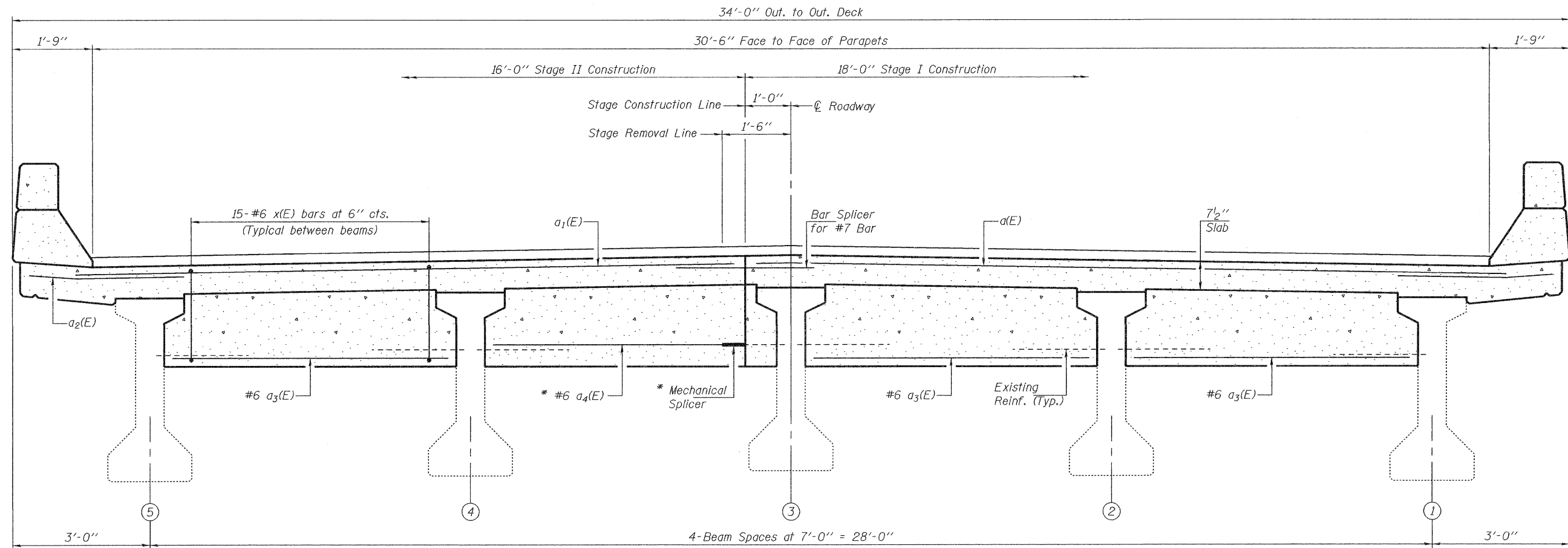
DESIGNED <i>[Signature]</i>	EXAMINED <i>[Signature]</i>	DATE	JANUARY 13, 2011
CHECKED <i>[Signature]</i>	ACTING ENGINEER OF STRUCTURAL SERVICES		
DRAWN <i>[Signature]</i>	PASSED <i>[Signature]</i>		
CHECKED <i>[Signature]</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN & ELEVATION
SN 043-0035**

SHEET NO. 1 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	(298-1)M-1	JoDAVIESS	17	8
CONTRACT NO. 64681			ILLINOIS FED. AID PROJECT	

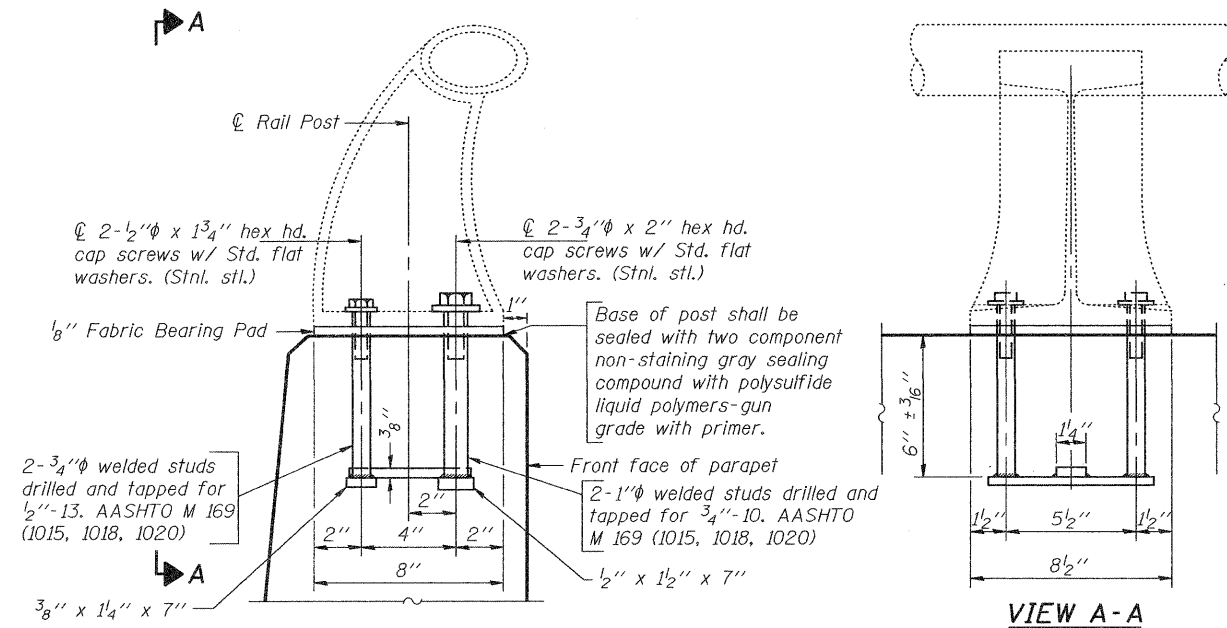


CROSS-SECTION AND STAGE CONSTRUCTION DETAILS

(Looking North)

* Attach to existing reinforcement with mechanical splicers. Existing reinforcement to extend 6" into the removal area to allow attachment of the mechanical splicers.

Note:
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.



RAIL POST ANCHOR DETAIL

VIEW A-A

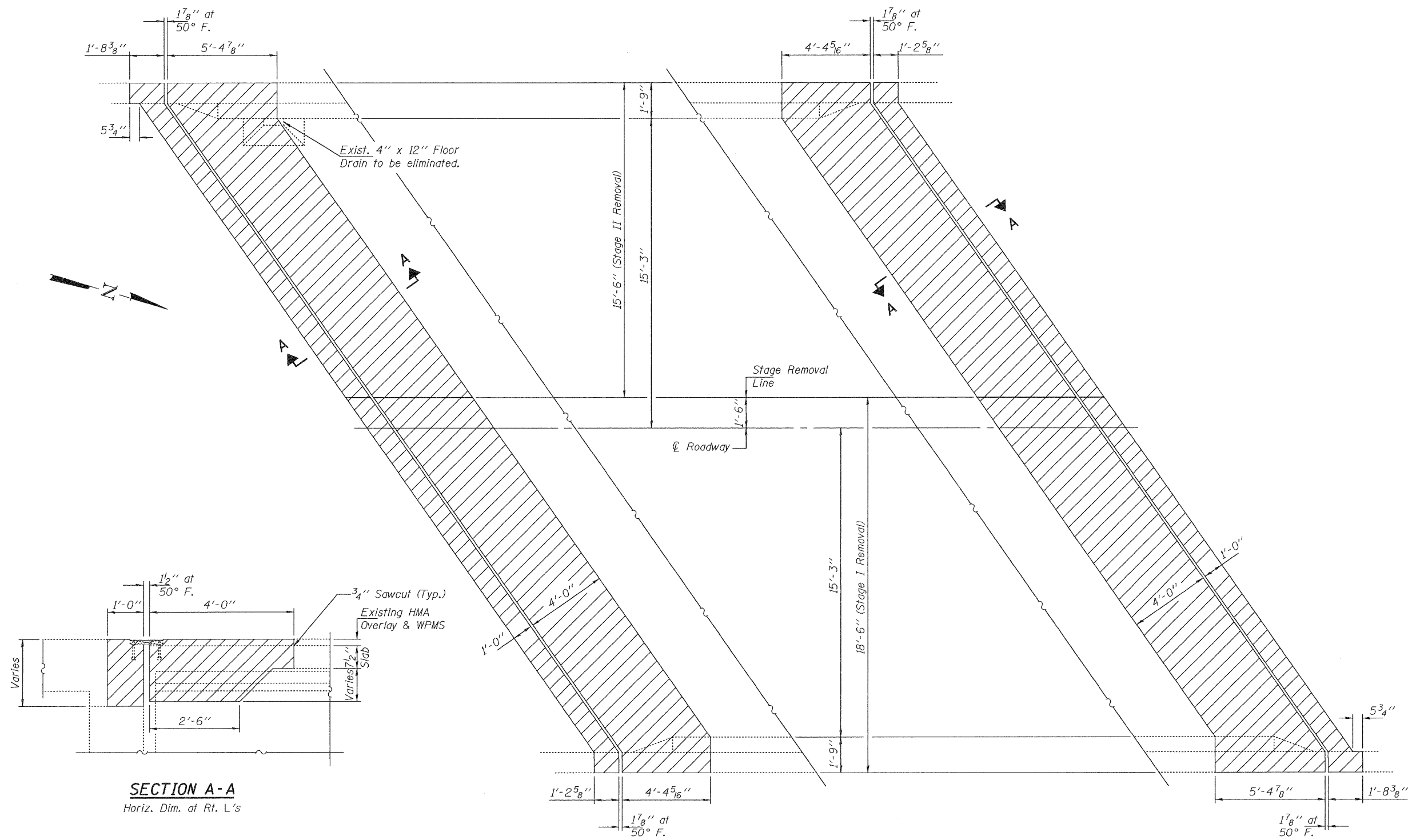
DESIGNED GGE	EXAMINED <i>James F. J...</i>	DATE JANUARY 13, 2011
CHECKED ADY	PASSED <i>Carl...</i>	
DRAWN Kyle M. Steffen		
CHECKED GGE ADY		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS-SECTION & STAGE CONSTRUCTION DETAILS
SN 043-0035**

SHEET NO. 2 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	(298-1M-1)	JoDAVIESS	17	9
CONTRACT NO. 64G81				
ILLINOIS FED. AID PROJECT				



SECTION A-A
Horiz. Dim. at Rt. L's

REMOVAL PLAN AT S. ABUT.

REMOVAL PLAN AT N. ABUT.

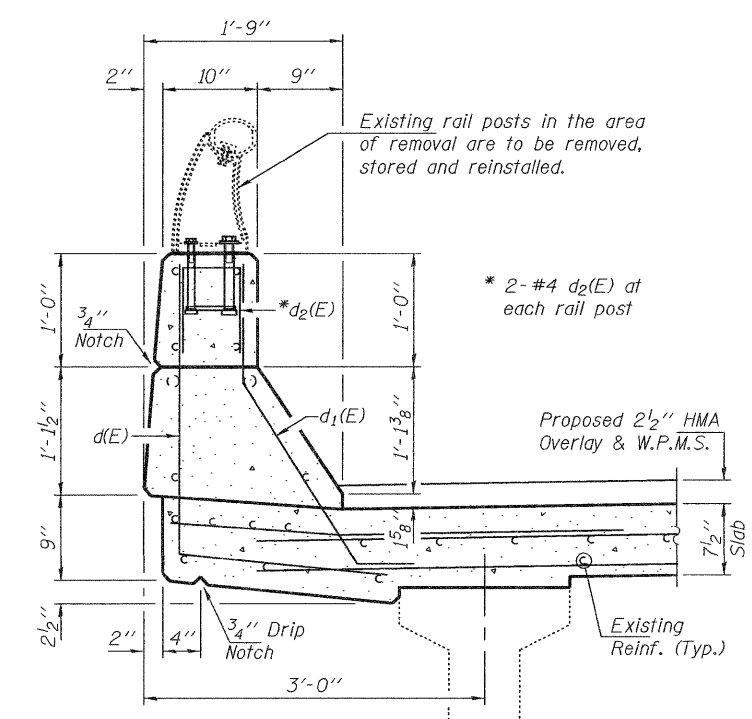
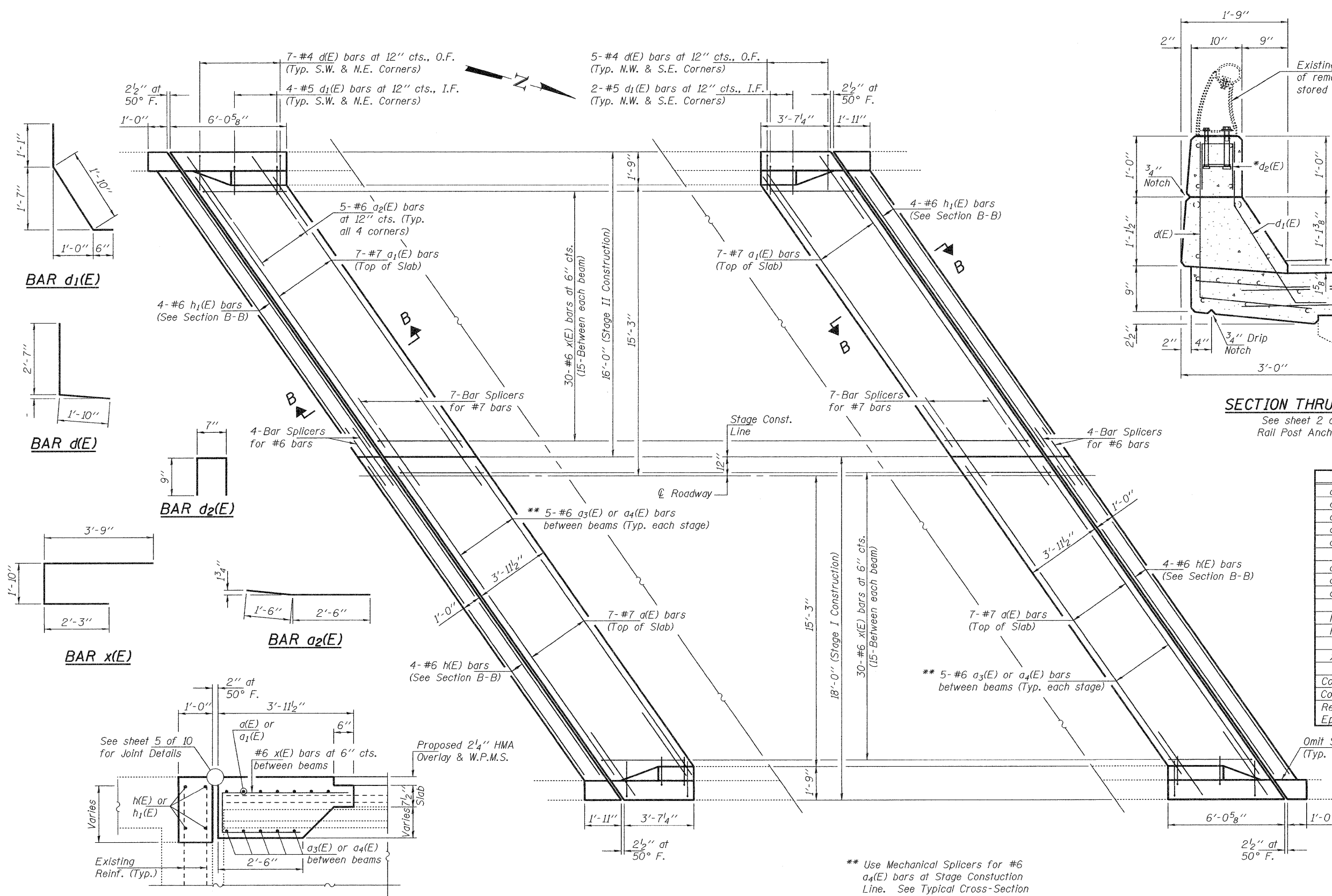
DESIGNED GGE	EXAMINED <i>Jaime F. J...</i>	DATE JANUARY 13, 2011
CHECKED ADY	PASSED <i>Carl...</i>	
DRAWN Kyle M. Steffen	ACTING ENGINEER OF BRIDGES AND STRUCTURES	
CHECKED GGE ADY		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE REMOVAL DETAILS AT ABUTMENTS
SN 043-0035

SHEET NO. 3 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	(29B-1M-1)	JO DAVIESS	17	10
CONTRACT NO. 64G81			ILLINOIS FED. AID PROJECT	



SECTION THRU PARAPET
See sheet 2 of 10 for Rail Post Anchor Details

BILL OF MATERIAL

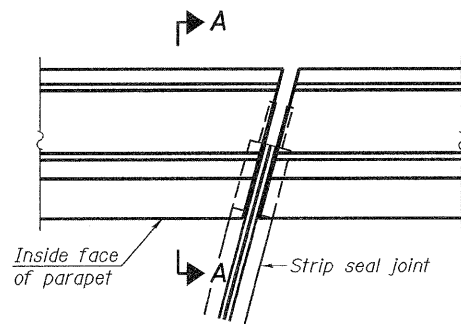
Bar	No.	Size	Length	Shape
a(E)	14	#7	21'-0"	—
a1(E)	14	#7	19'-0"	—
a2(E)	20	#6	4'-0"	—
a3(E)	30	#6	7'-3"	—
a4(E)	10	#6	6'-6"	—
d(E)	24	#4	4'-5"	L
d1(E)	12	#5	3'-5"	L
d2(E)	8	#4	2'-1"	□
h(E)	8	#6	19'-9"	—
h1(E)	8	#6	18'-3"	—
x(E)	120	#6	7'-10"	□
Concrete Removal			Cu. Yd.	24.8
Concrete Superstructure			Cu. Yd.	24.6
Reinforcement Bars, Epoxy Coated			Pound	3680

SECTION B-B
Horiz. Dim. at Rt. L's

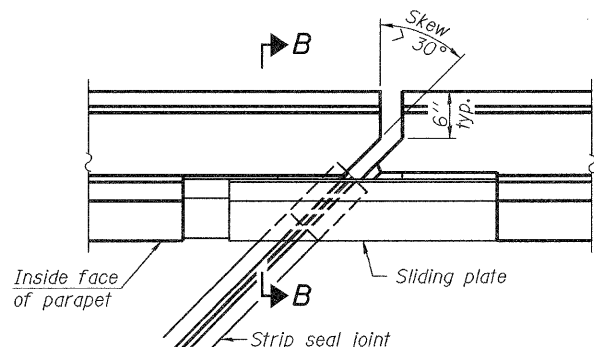
CONCRETE PLAN AT S. ABUT.

CONCRETE PLAN AT N. ABUT.

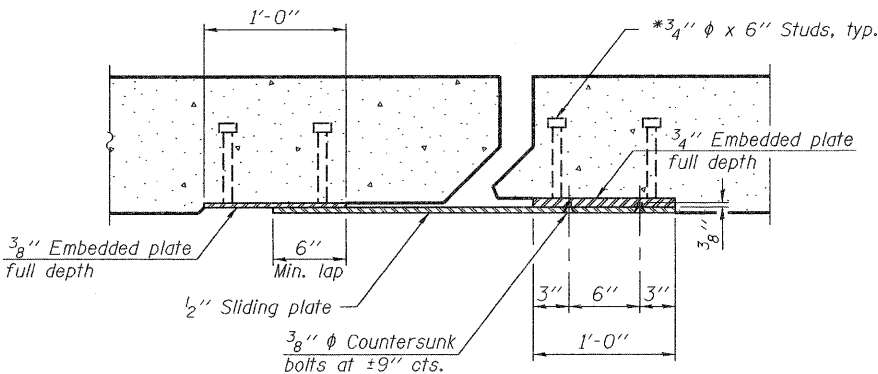
** Use Mechanical Splicers for #6 a4(E) bars at Stage Construction Line. See Typical Cross-Section sheet 2 of 10.



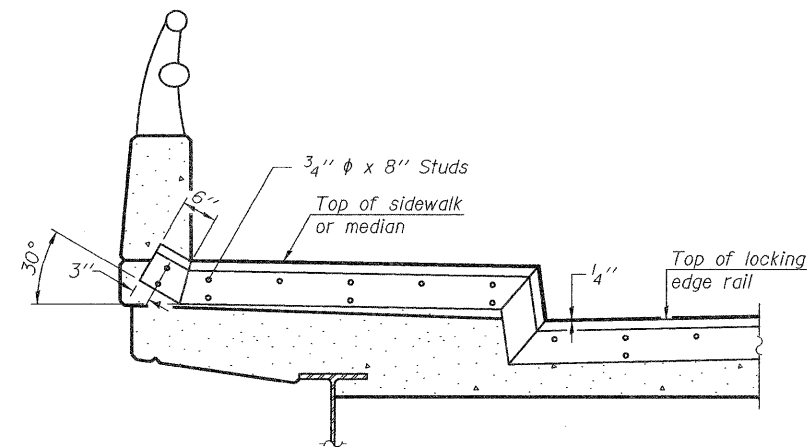
PLAN
(For skews $\leq 30^\circ$)



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

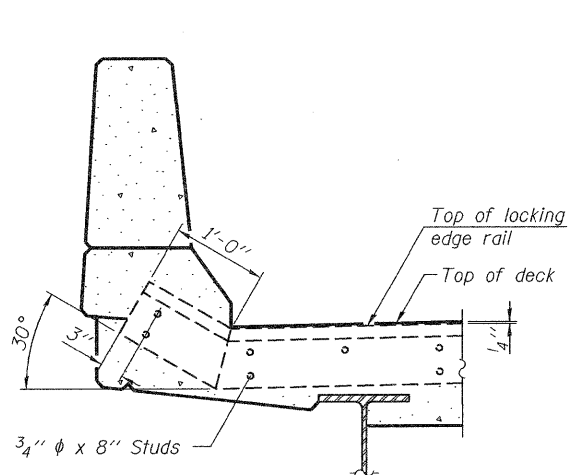


SECTION C-C

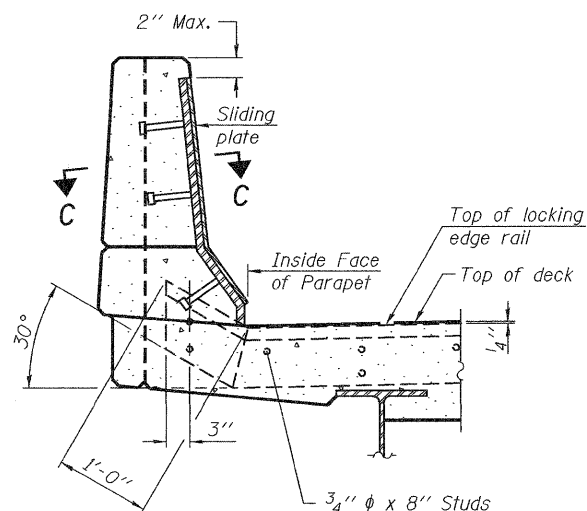


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

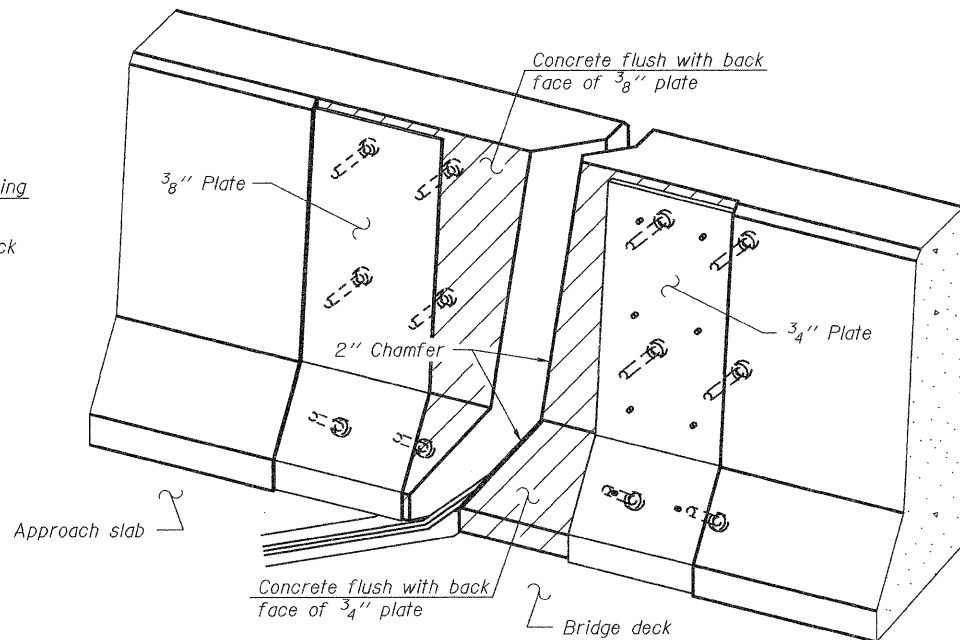
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A



SECTION B-B

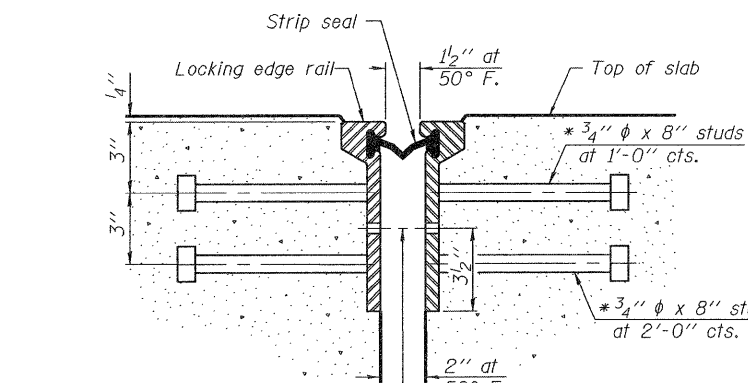


TRIMETRIC VIEW
(Showing back plates only)

Notes:
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.
The manufacturer's recommended installation methods shall be followed.

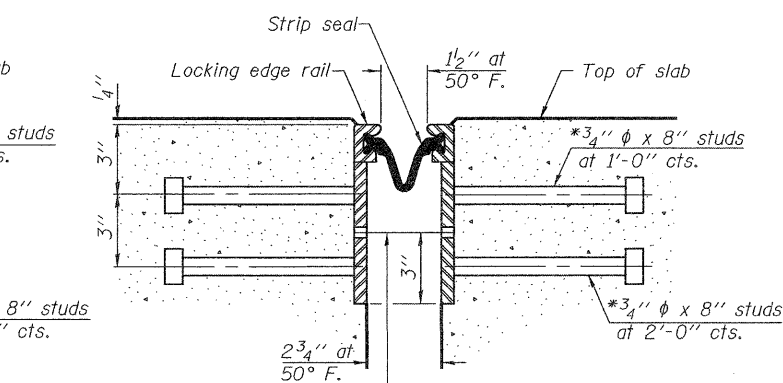
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant. Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.



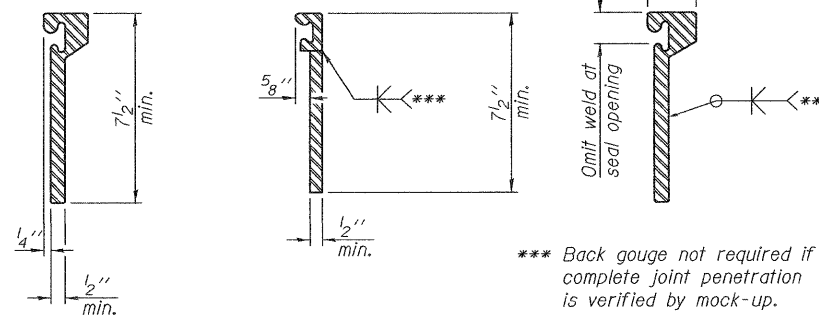
SECTION THRU ROLLED RAIL JOINT

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



SECTION THRU WELDED RAIL JOINT

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



ROLLED EXTRUDED RAIL WELDED RAIL

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

LOCKING EDGE RAIL SPLICE

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

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	83

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

EJ-SSJ

7-1-10

DESIGNED GGE
CHECKED ADY
DRAWN Kyle M. Steffen
CHECKED GGE ADY

EXAMINED *Jaime F. J...*
PASSED *Carl...*
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE JANUARY 13, 2011

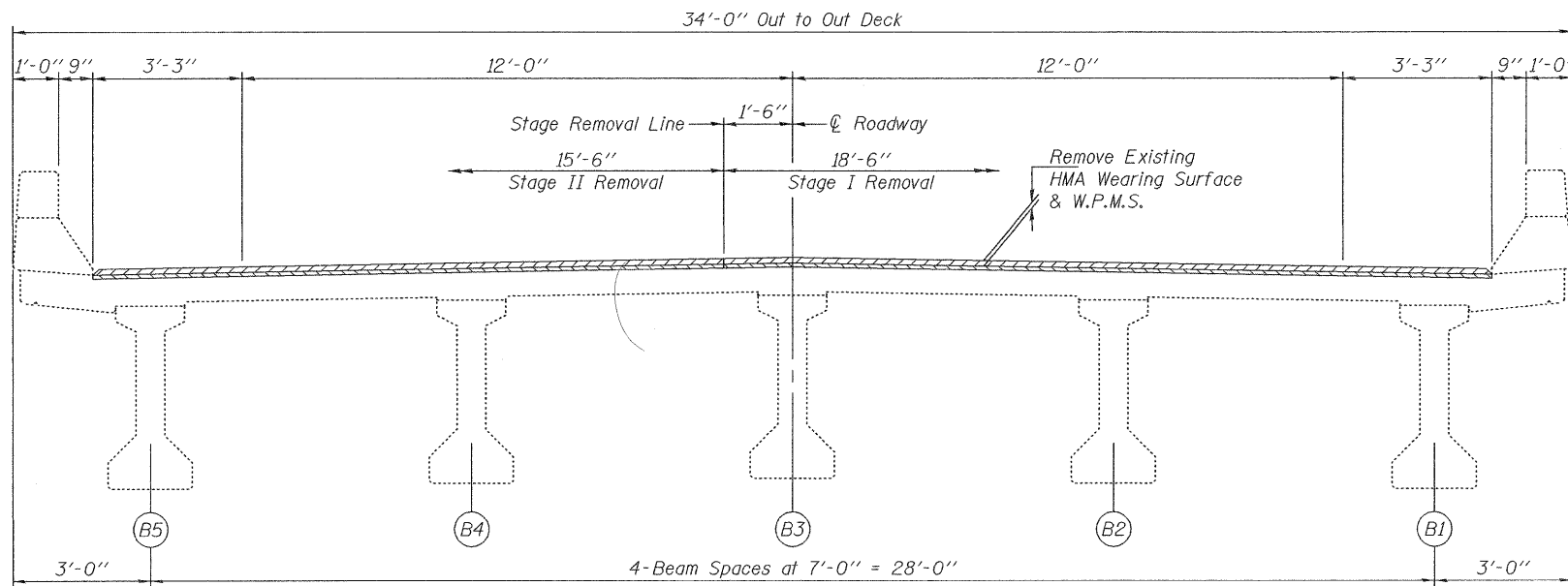
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL DETAILS
SN 043-0035

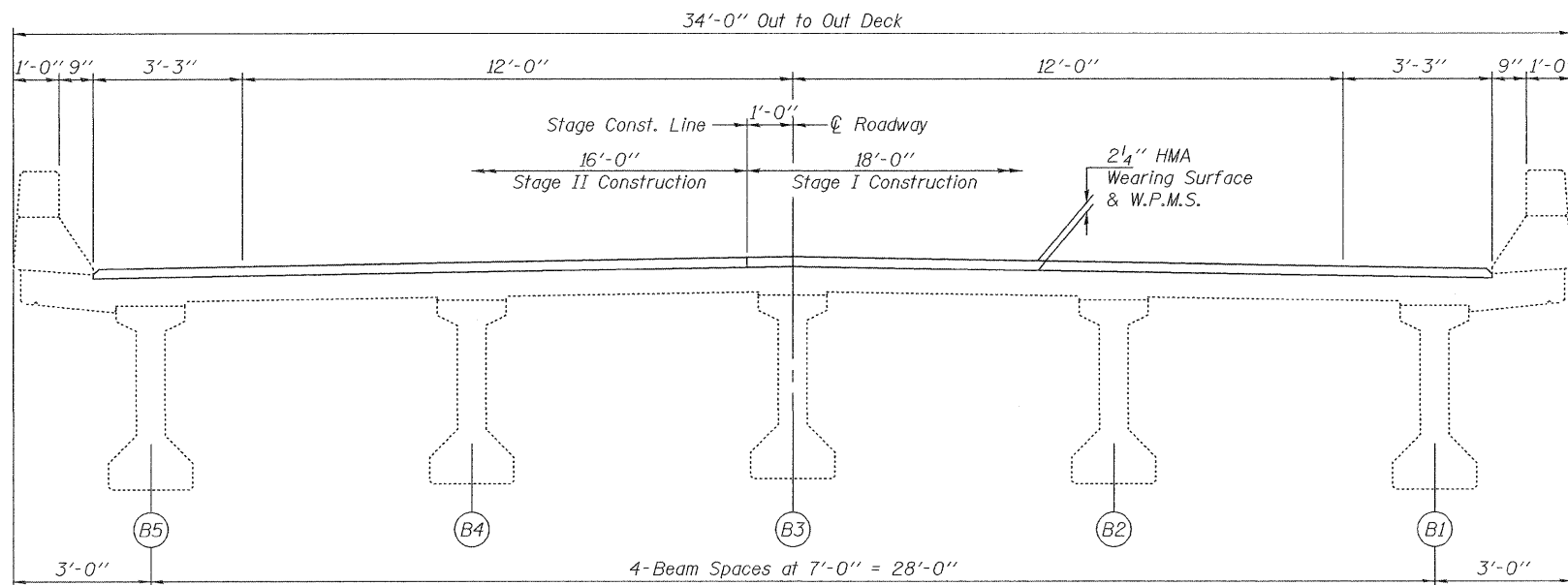
SHEET NO. 5 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	(29B-1M-1)	JoDAVIESS	17	12
				CONTRACT NO. 64G81

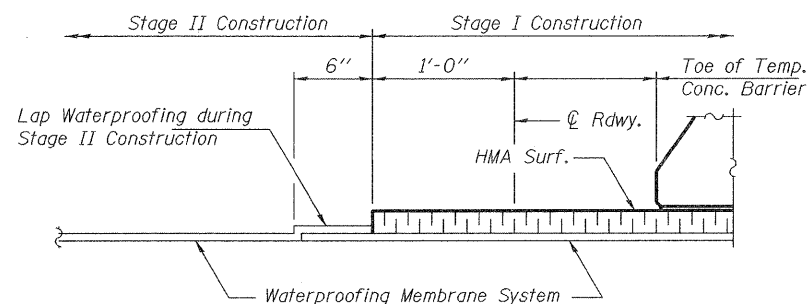
ILLINOIS FED. AID PROJECT



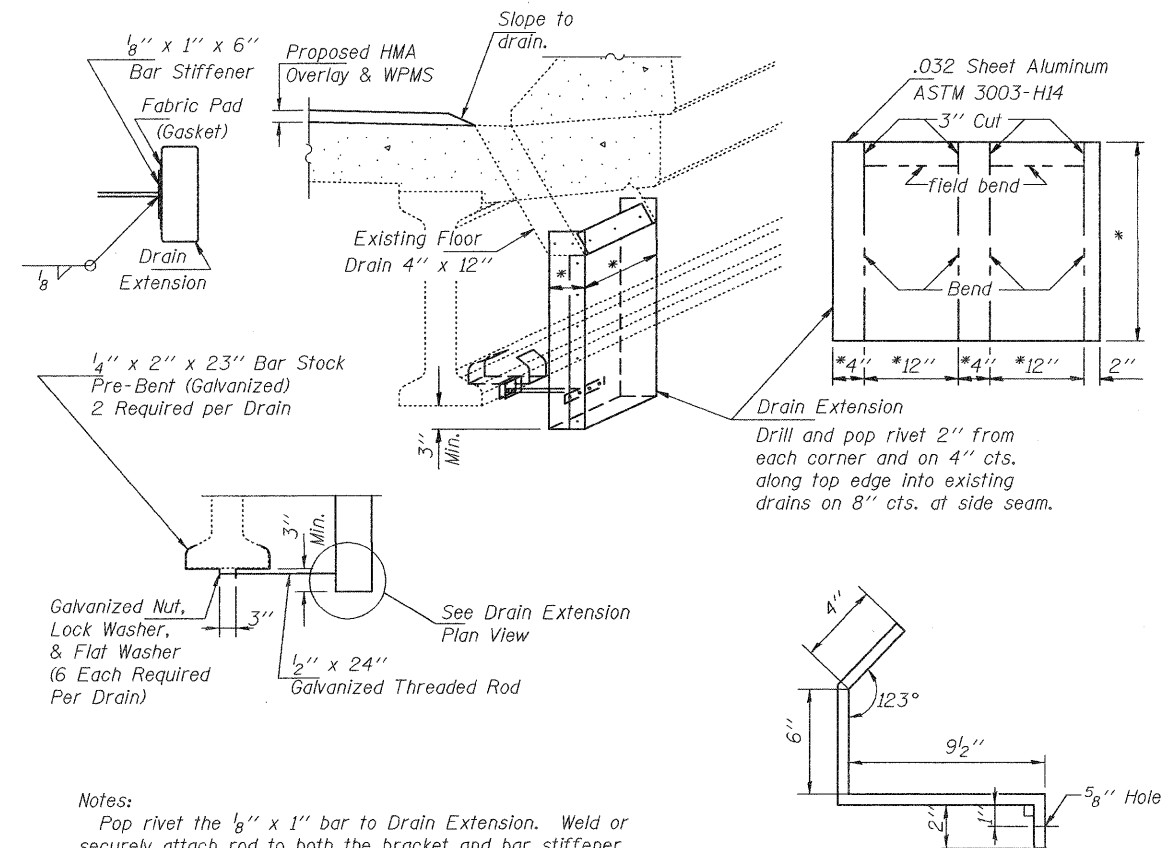
CROSS-SECTION SHOWING H.M.A. REMOVAL
(Looking North)



CROSS-SECTION SHOWING NEW WEARING SURFACE
(Looking North)



WATERPROOFING TREATMENT AT STAGE CONSTRUCTION

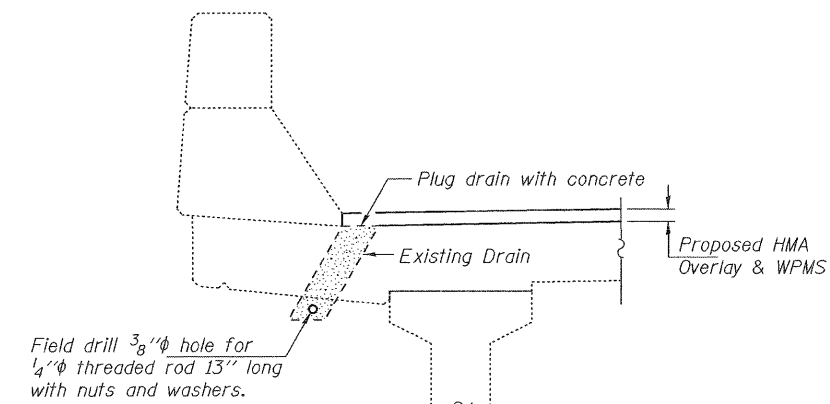


Notes:

Pop rivet the 1/8" x 1" bar to Drain Extension. Weld or securely attach rod to both the bracket and bar stiffener. Use 3/16" stainless steel pop rivets of sufficient length. An aluminum extrusion drain extension of similar dimensions may be substituted.

DRAIN EXTENSION DETAILS

* Field measure cut to fit existing drain.



DRAIN ELIMINATION DETAIL

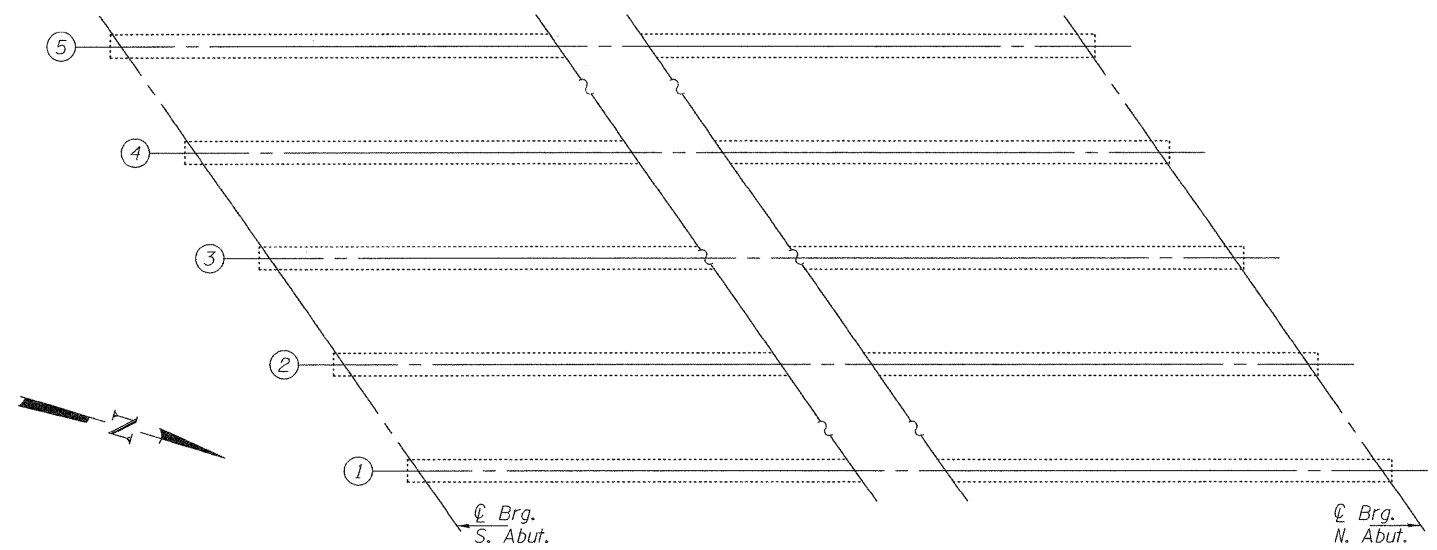
DESIGNED	GGE
CHECKED	ADY
DRAWN	Kyle M. Steffen
CHECKED	GGE ADY

EXAMINED	<i>Jaime F. J. [Signature]</i>	DATE	JANUARY 13, 2011
PASSED	<i>Carl [Signature]</i>		

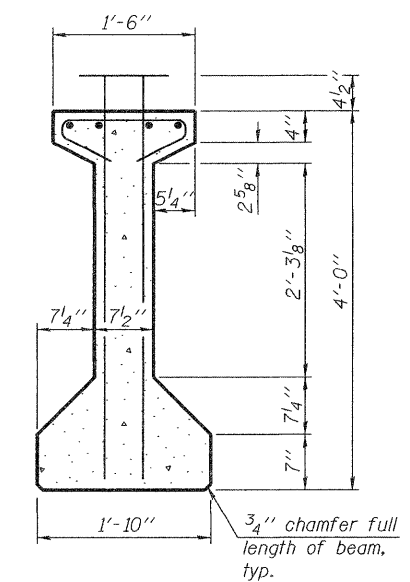
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WEARING SURFACE REMOVAL & REPLACEMENT AND
DRAIN EXTENSION & ELIMINATION DETAILS SN 043-0035**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	(29B-1M-1)	JoDAVIESS	17	13
CONTRACT NO. 64G81			ILLINOIS FED. AID PROJECT	

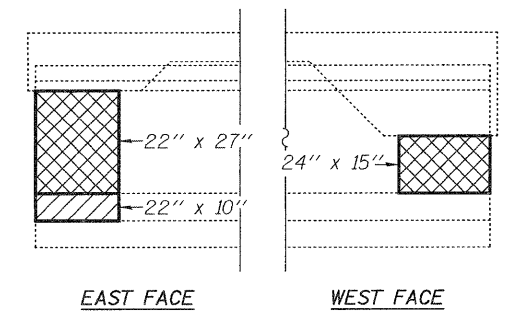


PARTIAL FRAMING PLAN

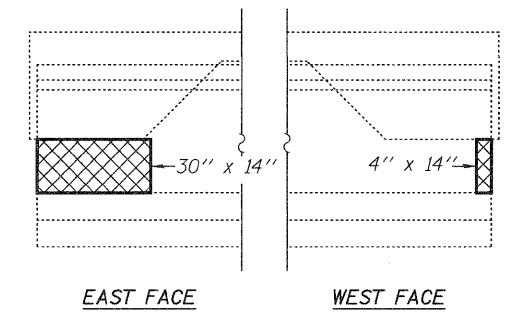


BEAM DIMENSIONS
FOR INFORMATION ONLY

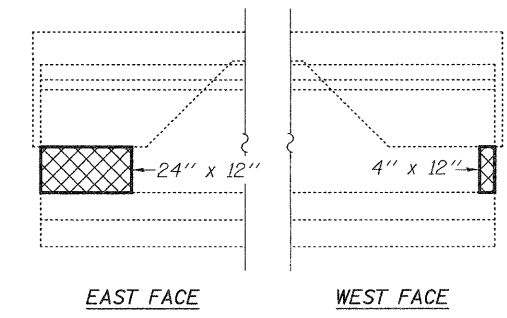
- Polymer Modified Portland Cement Mortar
- Structural Repair of Concrete ≤ 5 inches



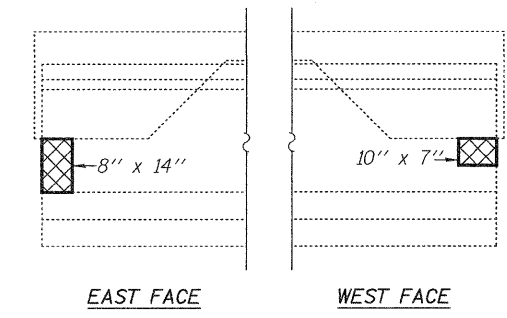
BEAM 1 - S. ABUT.



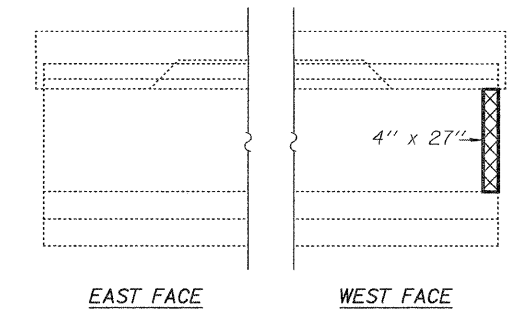
BEAM 2 - S. ABUT.



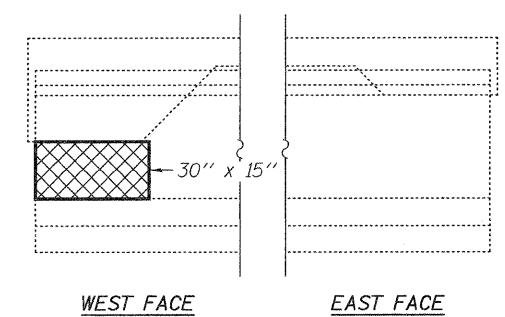
BEAM 3 - S. ABUT.



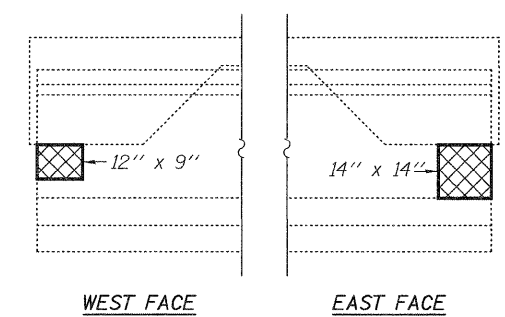
BEAM 4 - S. ABUT.



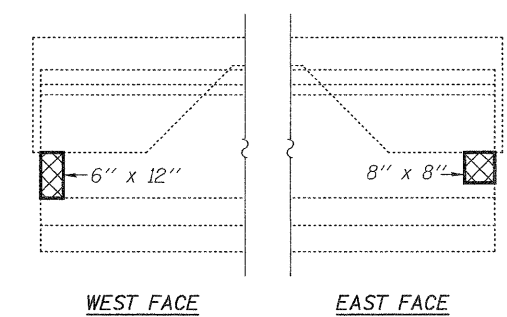
BEAM 5 - S. ABUT.



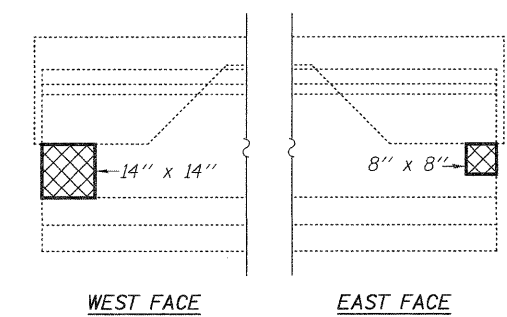
BEAM 1 - N. ABUT.



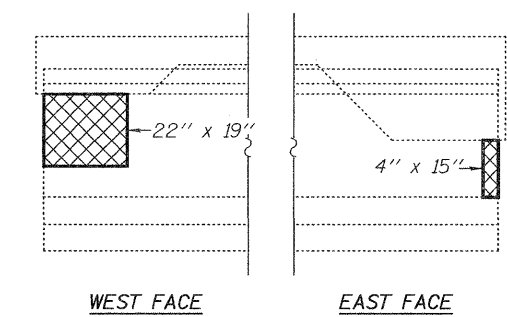
BEAM 2 - N. ABUT.



BEAM 3 - N. ABUT.



BEAM 4 - N. ABUT.



BEAM 5 - N. ABUT.

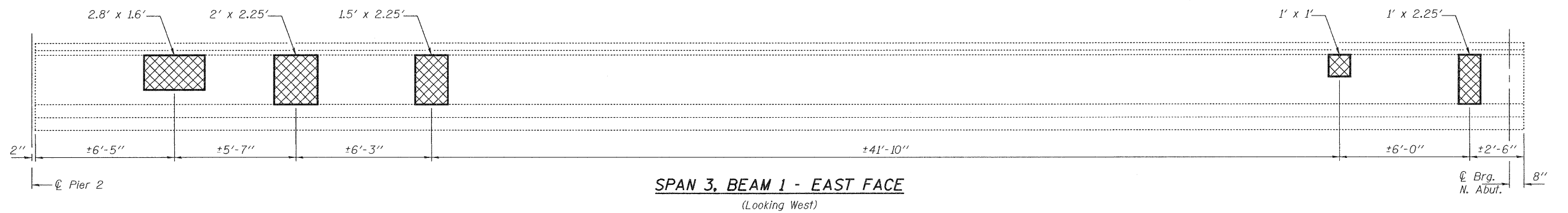
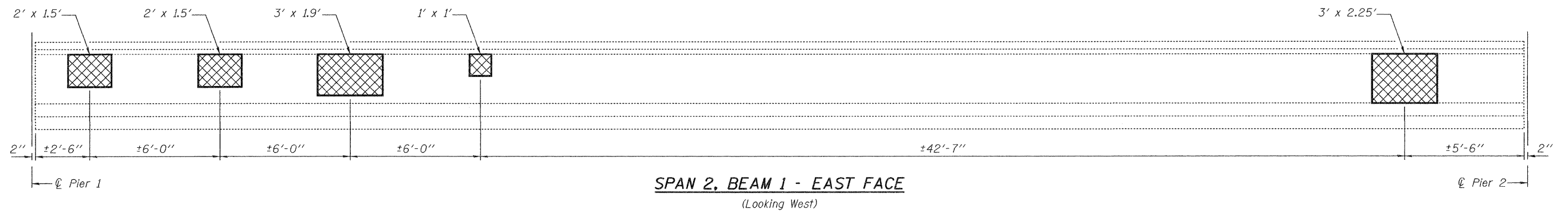
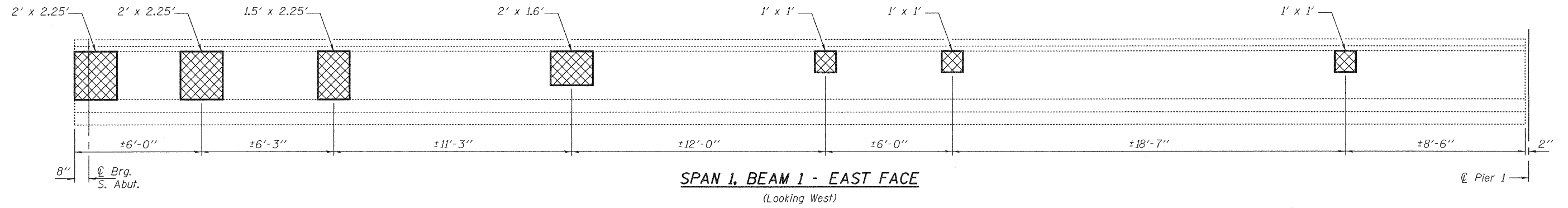
DESIGNED GGE	EXAMINED <i>Joanne F. J...</i>	DATE JANUARY 13, 2011
CHECKED ADY	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN Kyle M. Steffen	PASSED <i>Carl...</i>	
CHECKED GGE ADY	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

P.P.C. I-BEAM END REPAIRS
SN 043-0035

SHEET NO. 7 OF 10 SHEETS

F.A.P. RTE. 301	SECTION (29B-1M-1)	COUNTY JoDAVISS	TOTAL SHEETS 17	SHEET NO. 14
CONTRACT NO. 64G81			ILLINOIS FED. AID PROJECT	



 - Polymer Modified Portland Cement Mortar

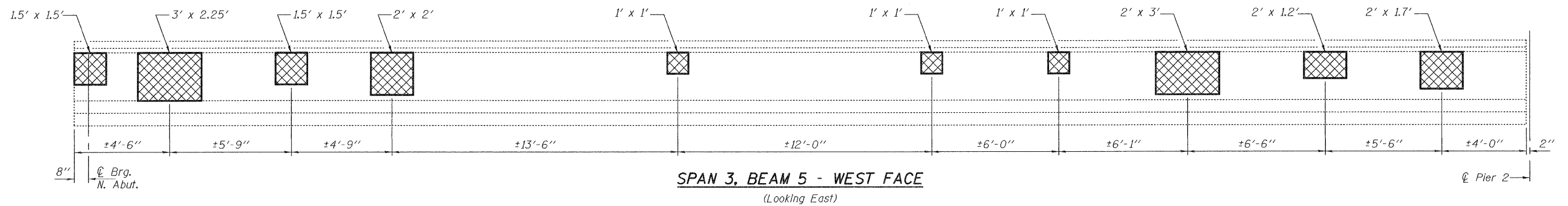
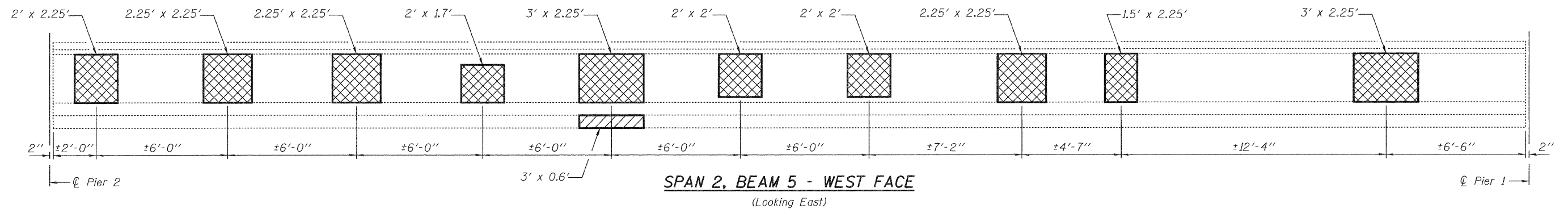
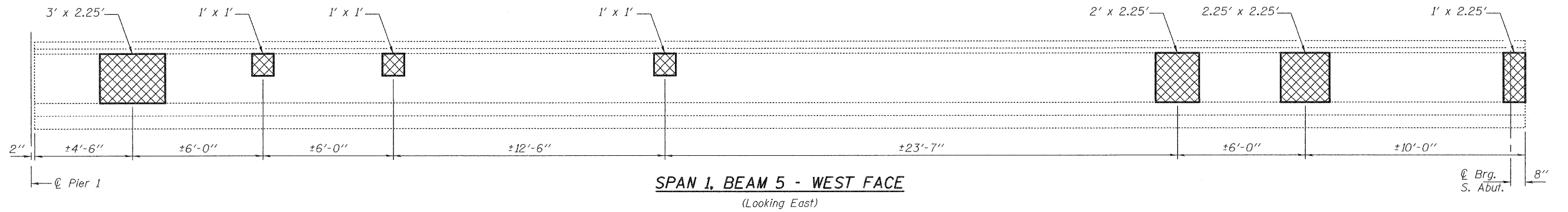
DESIGNED <i>GGE</i>	EXAMINED <i>Joanne F. J...</i>	DATE JANUARY 13, 2011
CHECKED <i>ADY</i>	<i>Joanne F. J...</i> ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN <i>Kyle M. Steffen</i>	<i>Carl...</i> ACTING ENGINEER OF BRIDGES AND STRUCTURES	
CHECKED <i>GGE ADY</i>		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**P.P.C. I-BEAM FASCIA REPAIRS
SN 043-0035**

SHEET NO. 8 OF 10 SHEETS

F.A.P. RTE. 301	SECTION (29B-1M-1)	COUNTY JoDAVIESS	TOTAL SHEETS 17	SHEET NO. 15
CONTRACT NO. 64G81			ILLINOIS FED. AID PROJECT	



- Polymer Modified Portland Cement Mortar
- Structural Repair of Concrete ≤ 5 inches

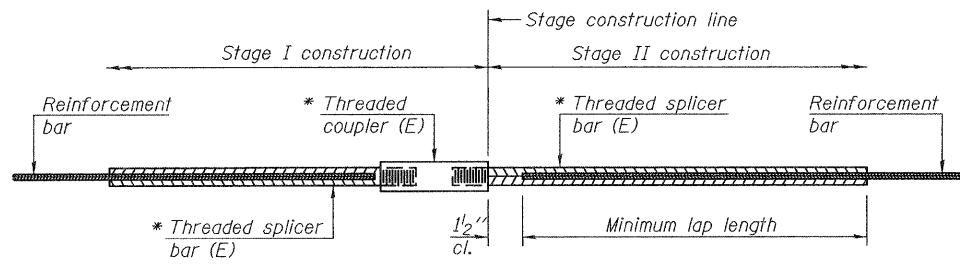
DESIGNED <i>GGE</i>	EXAMINED <i>Joey F. J...</i>	DATE JANUARY 13, 2011
CHECKED <i>ADY</i>	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN <i>Kyle M. Steffen</i>	PASSED <i>Carl...</i>	
CHECKED <i>GGE ADY</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**P.P.C. I-BEAM FASCIA REPAIRS
SN 043-0035**

SHEET NO. 9 OF 10 SHEETS

F.A.P. RTE. 301	SECTION (29B-1M-1)	COUNTY JoDAVISS	TOTAL SHEETS 17	SHEET NO. 16
CONTRACT NO. 64G81			ILLINOIS FED. AID PROJECT	



STANDARD BAR SPLICER ASSEMBLY

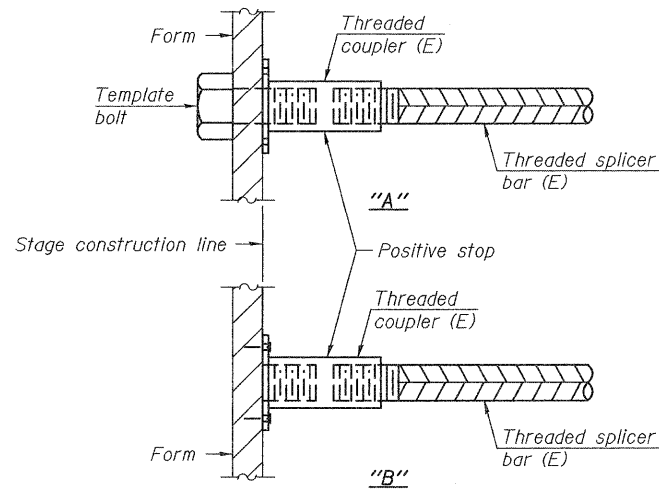
Bar size to be spliced	Minimum Lap Lengths				
	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- 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, Top bar lap, Class B

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

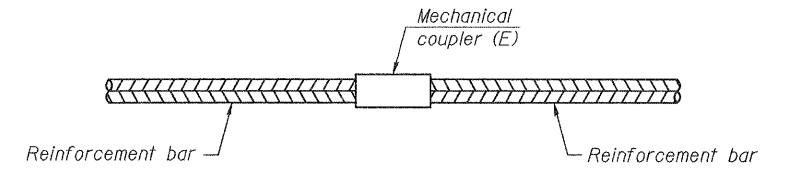
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#7	14	4
Abutment	#6	8	4



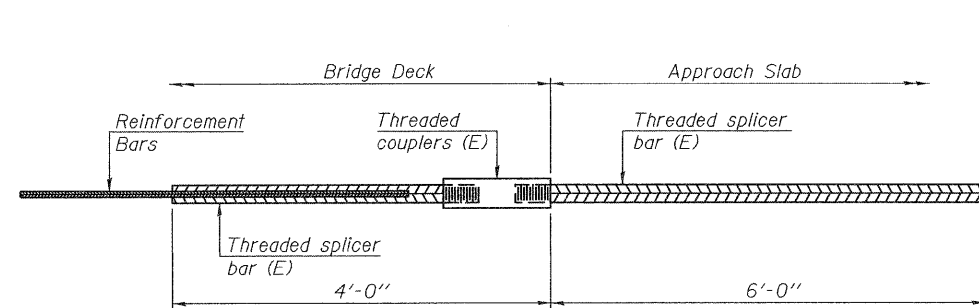
INSTALLATION AND SETTING METHODS

"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.



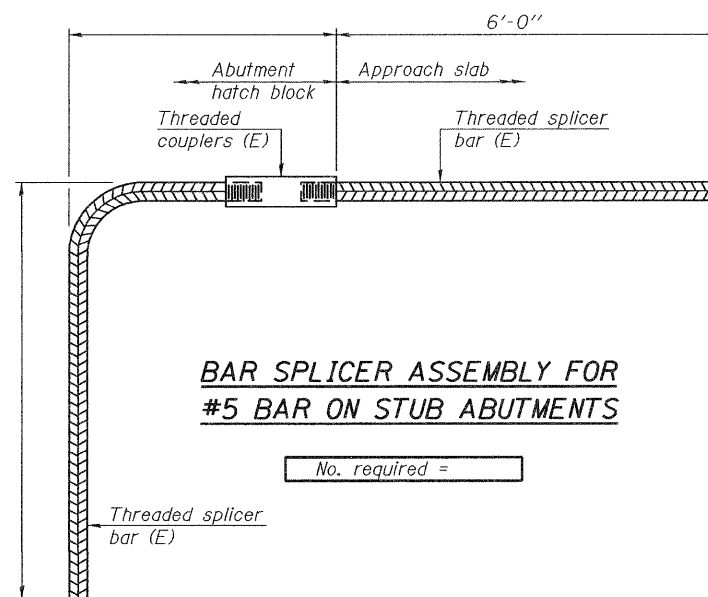
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Deck	#6	10



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 special provision for Mechanical Splicers.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

7-1-10

DESIGNED GGE
 CHECKED ADY
 DRAWN Kyle M. Steffen
 CHECKED GGE ADY

EXAMINED *James F. J...*
 PASSED *Carl...*
 ACTING ENGINEER OF STRUCTURAL SERVICES
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE JANUARY 13, 2011

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 SN 043-0035

SHEET NO. 10 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	(29B-1M-1)	JoDAVIESS	17	17
CONTRACT NO. 64G81			ILLINOIS FED. AID PROJECT	