

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

\* 21-1 = 20 TOTAL SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	D2 BDR 2017-1	ROCK ISLAND	21	1
ILLINOIS CONTRACT NO. 64L79				

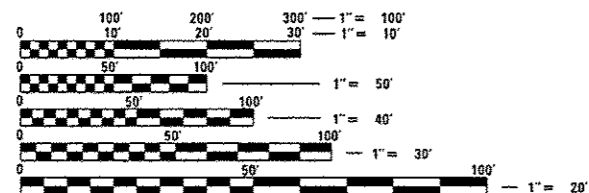
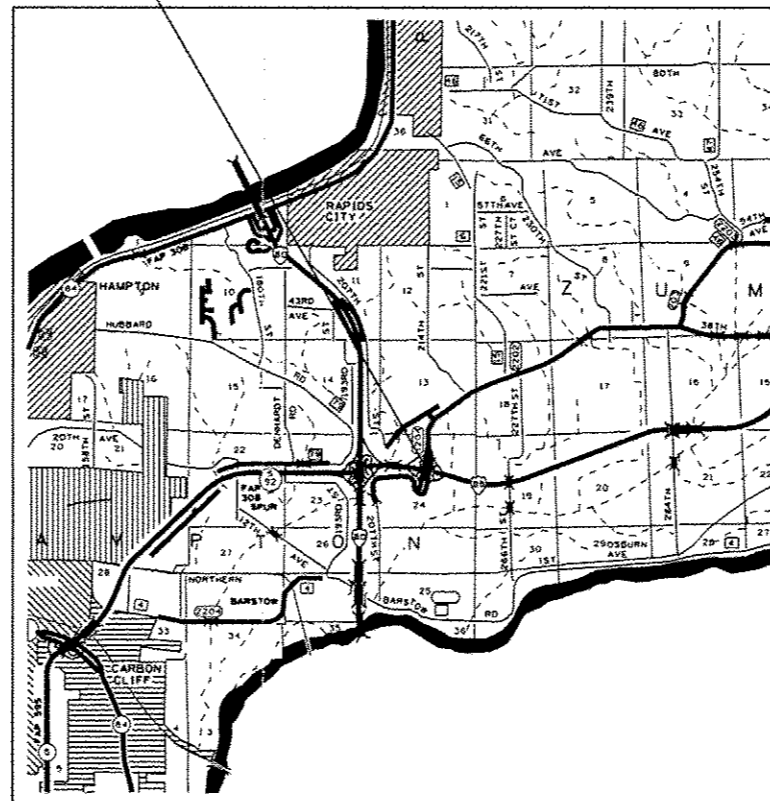
FOR INDEX OF SHEETS, SEE SHEET NO. 2  
FOR STATE STANDARDS, SEE SHEET NO. 2

# PROPOSED HIGHWAY PLANS

FAI ROUTE 88 (I-88)  
SECTION D2 BDR 2017-1  
TYPE OF IMPROVEMENT: BRIDGE REPAIRS  
ROCK ISLAND COUNTY

SN 081-0119

C-92-118-16



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: DAVID DOSS (815) 284-5416  
PROJECT MANAGER: MAHMOUD ETEMADI (815) 284-5393

CONTRACT NO. 64L79



LOCATION OF SECTION INDICATED THIS: - [black rectangle] -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED Oct 12 2016  
K. March  
REGIONAL ENGINEER

Dec 9 2016  
Margaret M. Addis, P.E.  
ENGINEER OF DESIGN AND ENVIRONMENT

Dec 9 2016  
David Doss  
DIRECTOR OF PROGRAM DEVELOPMENT

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

# INDEX OF SHEETS

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\* SHEET 4 DELETED.

# STATE STANDARDS

- 701001 - 02 OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15'(4.5m) AWAY
- 701006 - 05 OFF-RD OPERATIONS, 2L, 2W, 15'(4.5m) TO 24"(600mm) FROM PAVEMENT EDGE
- 701101 - 05 OFF ROAD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701400 - 09 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701406 - 11 LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
- 701901 - 06 TRAFFIC CONTROL DEVICES
- 704001 - 08 TEMPORARY CONCRETE BARRIER
- 720011 - 01 METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
- 728001 - 01 TELESCOPING STEEL SIGN SUPPORT
- 729001 - 01 APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
- 701106 - 02
- 780001 - 05

# GENERAL NOTES

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 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. The following listed utilities located within the project limits or immediately adjacent to the project construction limits are members of JULIE:

(Type name & phone number of JULIE companies from attached utility form.)

Electric:

MIDAMERICAN ENERGY  
ATTN: NATE TEAGER (563) 333-8706  
5955 FENNO ROAD  
BETTENDORF, IA 52722

Gas:

MIDAMERICAN ENERGY COMPANY  
ATTN: MATT KOVACIC (309) 793-3704  
2811 5TH AVENUE  
ROCK ISLAND, IL 61201

Telephone:

FRONTIER LEGACY  
ATTN: DAVID DAY (815) 772-2078  
124 EAST LINCOLNWAY  
MORRISON, IL 61270

CATV:

MEDIACOM  
ATTN: DENNIS JARDING (309) 743-4750  
3900 26TH AVENUE  
MOLINE, IL 61265

Water and Sewer:

CITY OF EAST MOLINE  
ATTN: TIM KAMMLER (309) 752-1595  
1200 13TH AVENUE  
EAST MOLINE, IL 61244

IDOT is not a member of JULIE. If you are near any overhead lighting, intersection lighting or traffic signals, contact the IDOT Traffic Office at 815/284-5469 at least 48 hours prior to work.

Hazards behind Temporary Concrete Barrier Wall

No materials, equipment, vehicles or other hazards shall be within 2'-0" of the temporary concrete barrier wall, measured from the closest point of the barrier wall perpendicular to the hazard. Equipment that is actively working with 2'-0" of the barrier wall may be allowed for a short duration, if approved by the engineer, required for the work activity, and there is not another method to complete the work. No materials equipment, vehicles or other hazards shall be stored within 25' of the impact attenuators.

FILE NAME : D:\BR\Bosa\Rock Island\64L79 Repairs	USER NAME : dssdd 081-0119\CA00V64L79-shs-cover.dgn	DESIGNED - DRAWN -	REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, STATE STANDARDS &amp; GENERAL NOTES</b>	F.A.I. RTE. 88	SECTION 02 BDR 2017-1	COUNTY ROCK ISLAND	TOTAL SHEETS 21	SHEET NO. 2	
Default	PLOT SCALE = 100.0000 1/16"	CHECKED -	REVISED -			SCALE: _____	SHEET _____ OF _____ SHEETS	STA. _____ TO STA. _____	CONTRACT NO. 64L79		
	PLOT DATE = Dec-12-2016 01:11:36 PM	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

# SUMMARY OF QUANTITIES

0014  
100%  
State Funds

CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	-
40603545	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	TON	103
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	1,296
50102400	CONCRETE REMOVAL	CU YD	19.5
50300255	CONCRETE SUPERSTRUCTURE	CU YD	19.2
50300300	PROTECTIVE COAT	SQ YD	38.5
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2,470
52000110	PREFORMED JOINT STRIP SEAL	FOOT	136
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	1,312
67100100	MOBILIZATION	L SUM	1
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1
70400100	TEMPORARY CONCRETE BARRIER	FOOT	405.44
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,016
X0550300	SLOPE WALL BREAKING	SQ YD	49
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1
Z0001905	STRUCTURAL STEEL REPAIR	POUND	850
Z0007112	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	1,600
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	120
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	5
Z0041895	POLYMER CONCRETE	CU FT	3.7

\* SPECIALTY ITEM

21

FILE NAME *	USER NAME * dowedd	DESIGNED - _____	REVISED - _____	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
D:\BR\Draws\Rock Island\64L79 Repairs	001-0119\CADD\64L79-ent-cover.dgn	DRAWN - _____	REVISED - _____			88	02 BDR 2017-1	ROCK ISLAND	21	3	
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# BRIDGE CLOSURE FOR SN 081-0119



(A) CHANGEABLE MESSAGE BOARD

OLD IL 2  
OVER I-88  
CLOSED

(B) CHANGEABLE MESSAGE BOARD

OLD IL 2  
OVER I-88  
CLOSED

(C) CHANGEABLE MESSAGE BOARD

OLD IL 2  
OVER I-88  
CLOSED

(D) SIGNING ACCORDING TO  
DISTRICT STANDARD 40.1

## SYMBOLS

☐ Portable changeable message sign

⊥ Sign

⊕ Type II barricade, drum, or vertical  
barricade with monodirectional flashing light

FILE NAME =	USER NAME = dosddd	DESIGNED - _____	REVISED - _____
D:\BR\Doss\Rock Island\64L79 Repairs S	081-0119\CADD\64L79-sht-cover.dgn	DRAWN - _____	REVISED - _____
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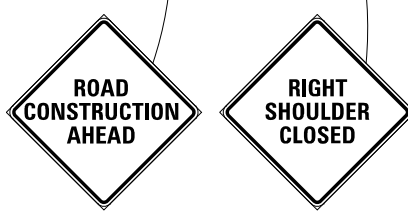
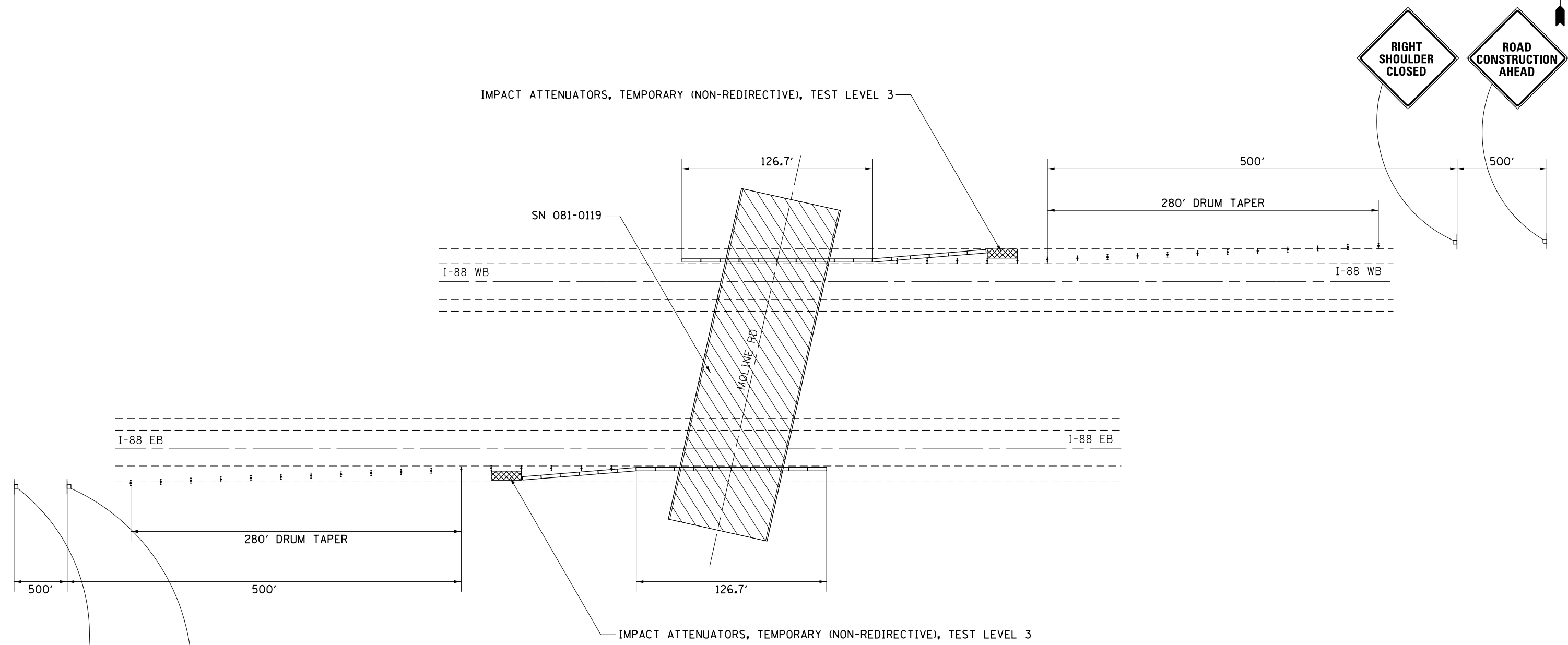
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BRIDGE CLOSURE FOR SN 081-0119






SCALE: \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	D2 BDR 2017-1	ROCK ISLAND	21	5
CONTRACT NO. 64L79			ILLINOIS FED. AID PROJECT	

# SHOULDER CLOSURE DETAIL



## SYMBOLS

-  Work area
-  Sign
-  Type II barricade, drum, or vertical barricade with steady burn monodirectional light
-  Temporary concrete barrier
-  Impact attenuator

FILE NAME =	USER NAME = dossed	DESIGNED - _____	REVISED - _____
D:\BR\Draws\Rock Island\64L79 Repairs S	081-0119\CADD\64L79-sht-cover.dgn	DRAWN - _____	REVISED - _____
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

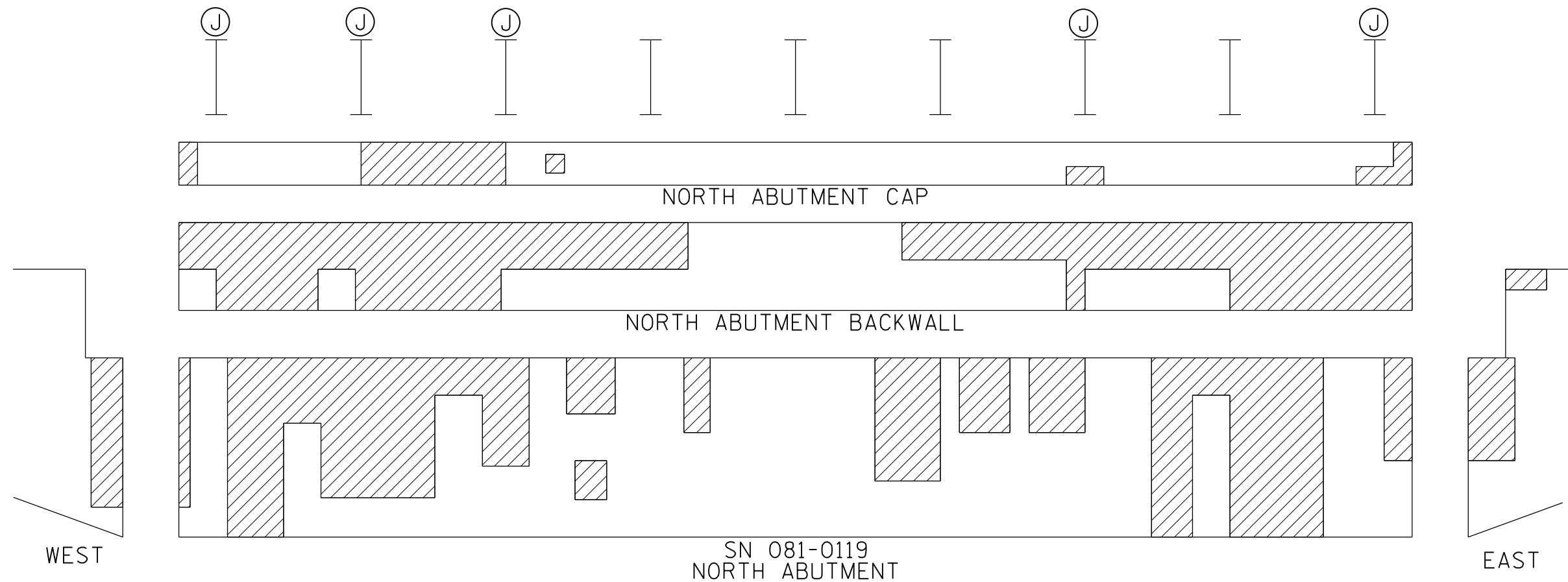
**SHOULDER CLOSURE DETAIL**

SCALE: \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	D2 BDR 2017-1	ROCK ISLAND	21	6
CONTRACT NO. 64L79			ILLINOIS FED. AID PROJECT	

# SUBSTRUCTURE REPAIR DETAIL

## SN 081-0119 NORTH ABUTMENT



<b>RQ</b>	<b>= 58.8<sup>k</sup></b>
<b>R<sub>L</sub></b>	<b>= 45.3<sup>k</sup></b>
<b>IMP</b>	<b>= 9.9<sup>k</sup></b>
<b>TOTAL</b>	<b>= 114.0<sup>k</sup></b>

ITEM	QUANTITY
(*) STRUCTURAL REPAIR OF CONCRETE ≤ 5"	1,300 (SQ FT)
(*) STRUCTURAL REPAIR OF CONCRETE > 5"	70 (SQ FT)
TEMPORARY SHORING AND CRIBBING	5 (EACH)

J TEMPORARY SHORING AND CRIBBING  
 DELAMINATED AREA

(\*) THIS IS AN ESTIMATED QUANTITY. THE ACTUAL LOCATION OF DELAMINATED AREAS AND QUANTITIES WILL BE DETERMINED BY THE RESIDENT ENGINEER IN THE FIELD.

FILE NAME =	USER NAME = dossed	DESIGNED - _____	REVISED - _____
Q:\BR\Doss\Rock Island\64L79 Repairs S	081-0119\CADD\64L79-sht-cover.dgn	DRAWN - _____	REVISED - _____
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

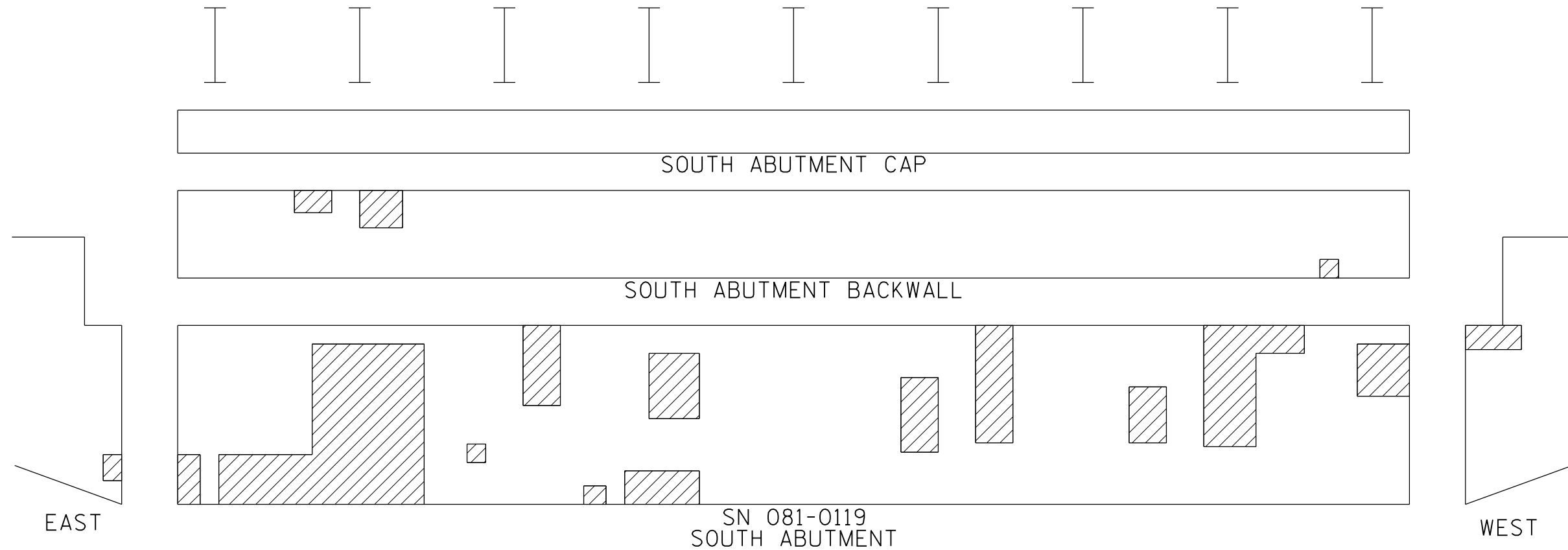
**SUBSTRUCTURE REPAIR DETAIL  
SN 081-0119 NORTH ABUTMENT**

SCALE: \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	D2 BDR 2017-1	ROCK ISLAND	21	7
CONTRACT NO. 64L79				
ILLINOIS FED. AID PROJECT				

# SUBSTRUCTURE REPAIR DETAIL

## SN 081-0119 SOUTH ABUTMENT



ITEM	QUANTITY
(* ) STRUCTURAL REPAIR OF CONCRETE $\leq$ 5"	300 (SQ FT)
(* ) STRUCTURAL REPAIR OF CONCRETE $>$ 5"	50 (SQ FT)

J TEMPORARY SHORING AND CRIBBING  
 DELAMINATED AREA

(\* ) THIS IS AN ESTIMATED QUANTITY. THE ACTUAL LOCATION OF DELAMINATED AREAS AND QUANTITIES WILL BE DETERMINED BY THE RESIDENT ENGINEER IN THE FIELD.

**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.  
Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

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

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.

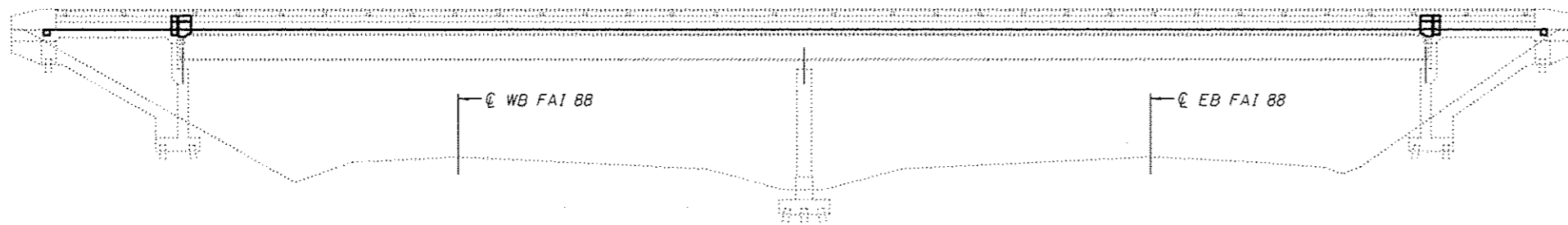
Fasteners shall be high strength bolts. Bolts 3/4"φ, open holes 5/16"φ, unless otherwise noted.

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

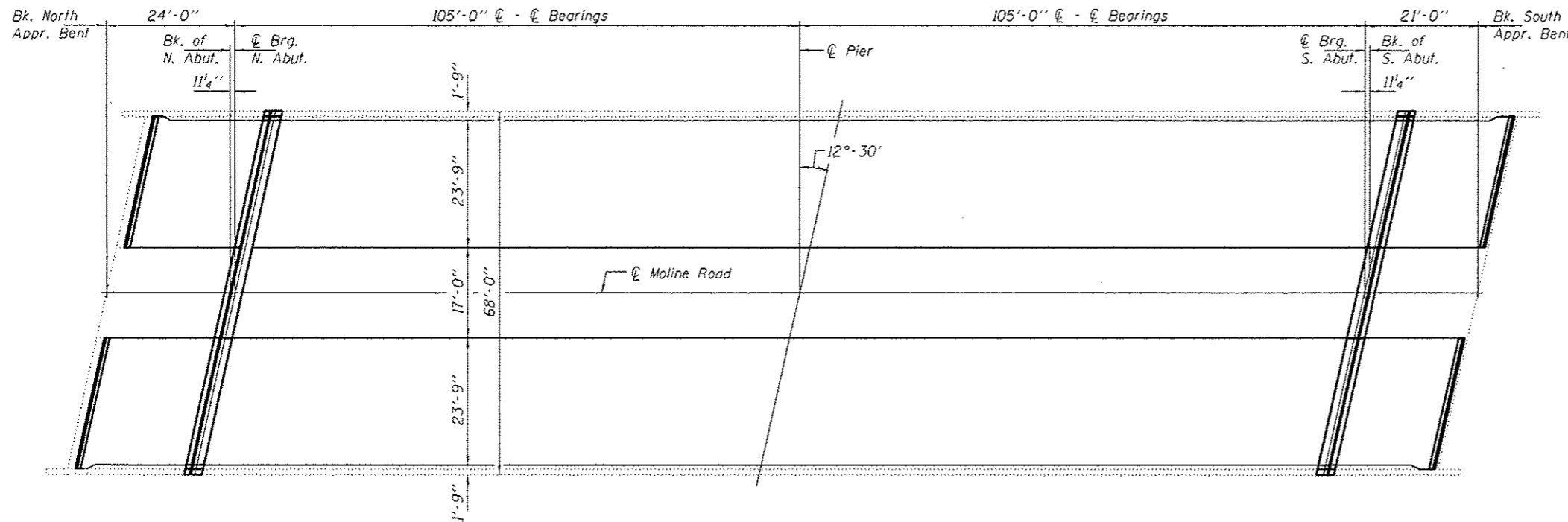
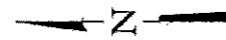
Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the GBSP "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type I. Cost included with Structural Steel Repair.

Work to be completed under road closure.



**ELEVATION**



**PLAN**

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	19.5
Concrete Superstructure	Cu. Yd.	19.2
Reinforcement Bars, Epoxy Coated	Pound	2470
Preformed Joint Strip Seal	Foot	136
Polymer Concrete	Cu. Ft.	3.7
Structural Steel Repair	Pound	850
HMA Surface Removal 1 1/2"	Sq. Yd.	1296
Polymerized Hot-Mix Asphalt Surface Course, Mix "D", N90	Tons	103
Waterproofing Membrane System	Sq. Yd.	1312
* Protective Coat	Sq. Yd.	38.5

\* New concrete superstructure areas only



EXPIRES 11-30-2018

DESIGNED *W. S. B.*  
CHECKED *W. S. B.*  
DRAWN *balvo*  
CHECKED *SMR*

PASSED *David Carl Puzey*  
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE NOVEMBER 29, 2016

REVISED  
REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

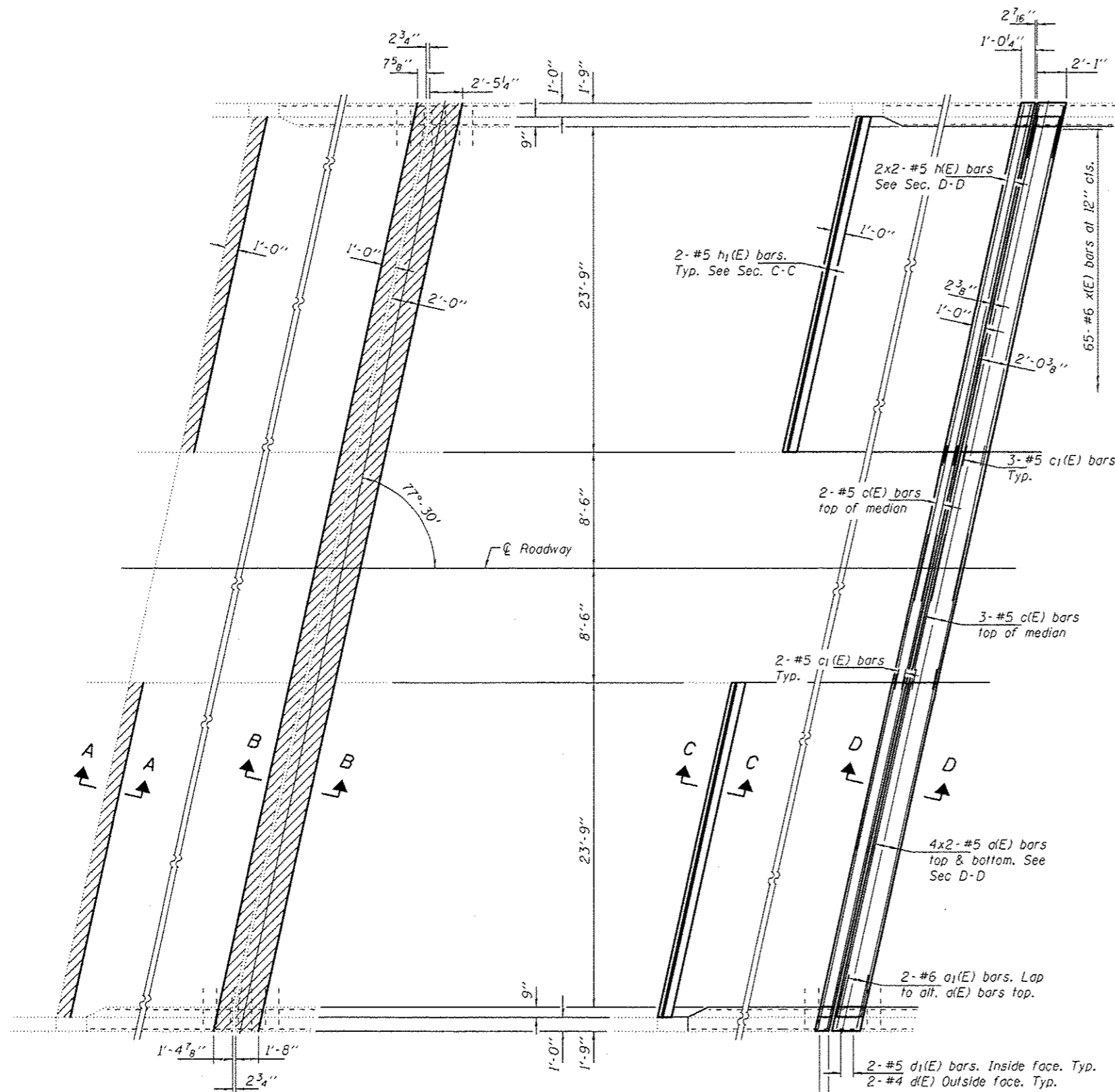
PLAN AND ELEVATION  
MOLINE ROAD (FAS 1204) OVER FAI 88  
SN 081-0119

SHEET NO. 1 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	D2 BDR 2017-1	ROCK ISLAND	21	9

CONTRACT NO. 64L79  
ILLINOIS FED. AID PROJECT





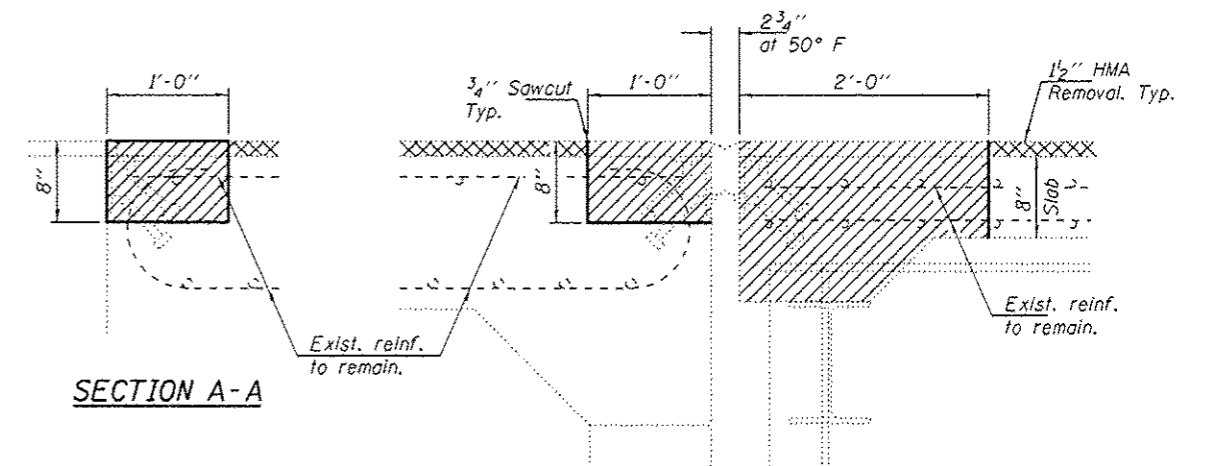
**REMOVAL PLAN**

**REPLACEMENT PLAN**

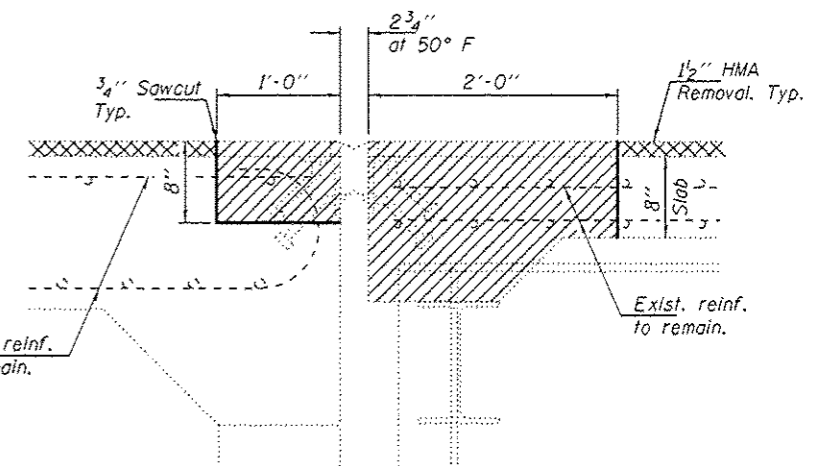
Hatched areas indicate concrete removal. 1/2" HMA removal and 1/2" Polymerized HMA & Waterproofing Membrane System not shown for clarity. North abutment shown. South abutment similar.

**MINIMUM BAR LAP**

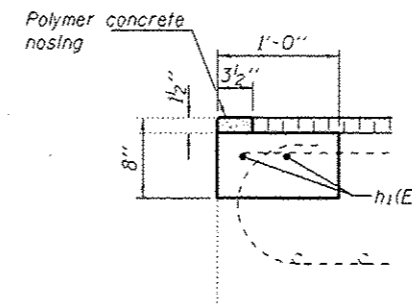
#5 bar = 3'-6"



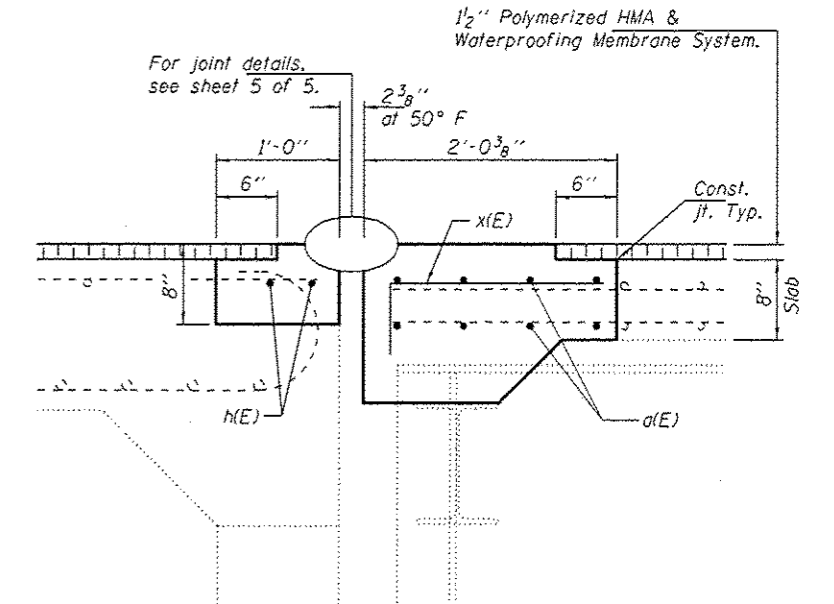
**SECTION A-A**



**SECTION B-B**  
(Dimensions are at Rt. L's)



**SECTION C-C**



**SECTION D-D**  
(Dimensions are at Rt. L's)

DESIGNED JSB  
CHECKED SMR  
DRAWN baliva  
CHECKED JSB SMR

PASSED

*Carl Perry*  
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE NOVEMBER 29, 2016

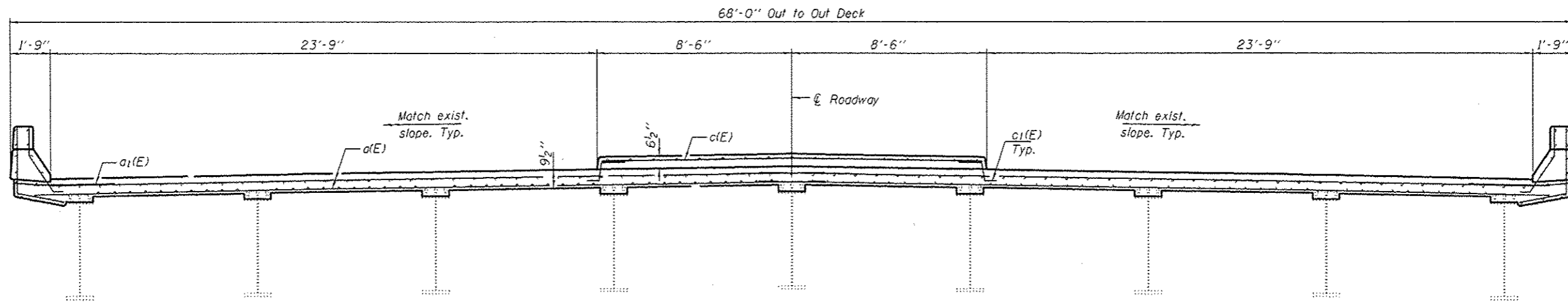
REVISED  
REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

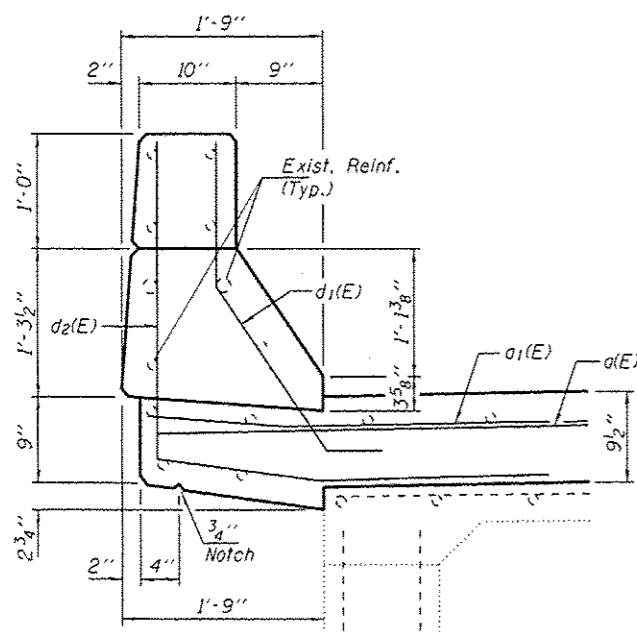
REPAIR DETAILS  
SN 081-0119

SHEET NO. 2 OF 5 SHEETS

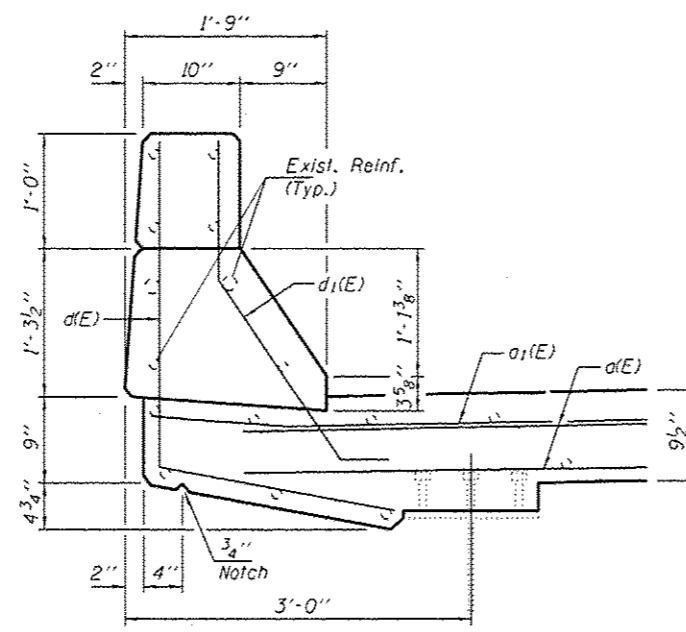
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	D2 BDR 2017-1	ROCK ISLAND	21	10
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64L79	



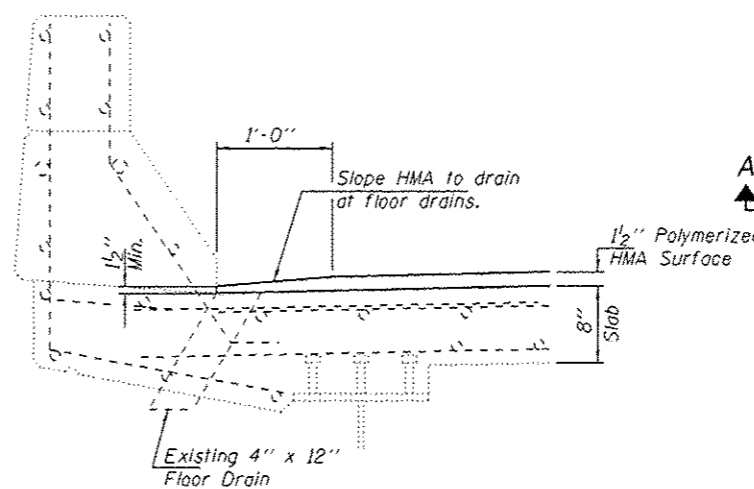
DECK CROSS SECTION



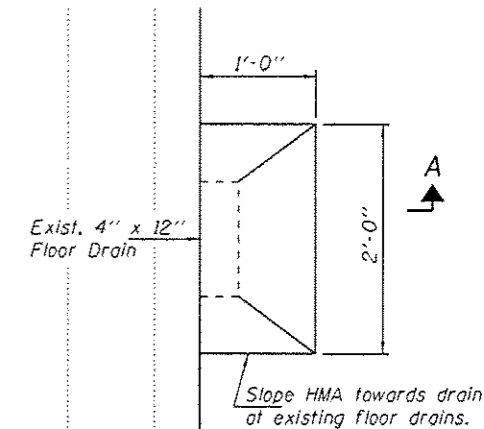
SECTION THRU APPROACH PARAPET



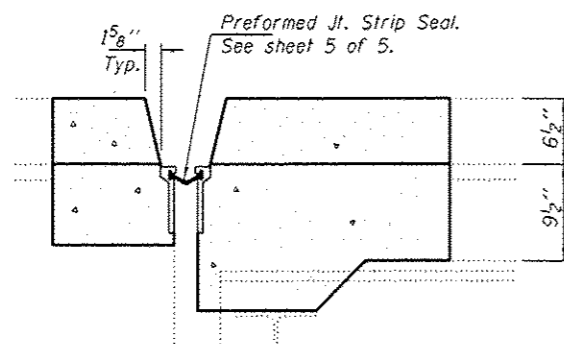
SECTION THRU BRIDGE PARAPET



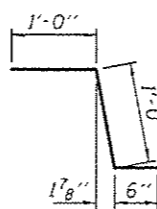
SECTION A-A



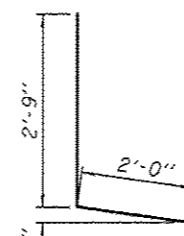
HMA SURFACE DETAIL AT DRAIN



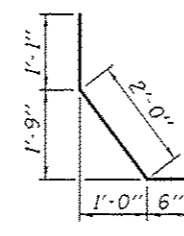
TYPICAL SECTION THRU JOINT AT MEDIAN



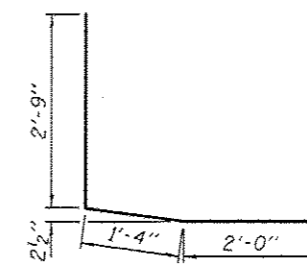
BAR c<sub>1</sub>(E)



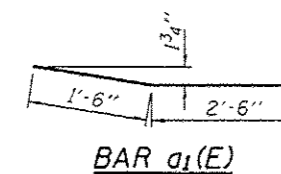
BAR d(E)



BAR d<sub>1</sub>(E)



BAR d<sub>2</sub>(E)



BAR x(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	32	#5	35'-9"	—
a <sub>1</sub> (E)	8	#6	4'-0"	—
c(E)	10	#5	17'-0"	—
c <sub>1</sub> (E)	20	#5	2'-6"	┌
d(E)	8	#4	4'-9"	└
d <sub>1</sub> (E)	16	#5	3'-7"	└
d <sub>2</sub> (E)	8	#4	6'-1"	└
M(E)	8	#5	36'-9"	—
h <sub>1</sub> (E)	8	#5	24'-9"	—
x(E)	130	#5	2'-9"	┌
Concrete Removal		Cu. Yds.	19.5	
Concrete Superstructure		Cu. Yds.	19.2	
Reinforcement Bars, Epoxy Coated		Pound	2470	

Bars indicated thus 4 x 2-#5 etc. indicates 4 lines of bars with 2 lengths per line.

DESIGNED JSB  
 CHECKED SMR  
 DRAWN balva  
 CHECKED JSB SMR

PASSED

*D. Carl Perry*  
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE NOVEMBER 29, 2016

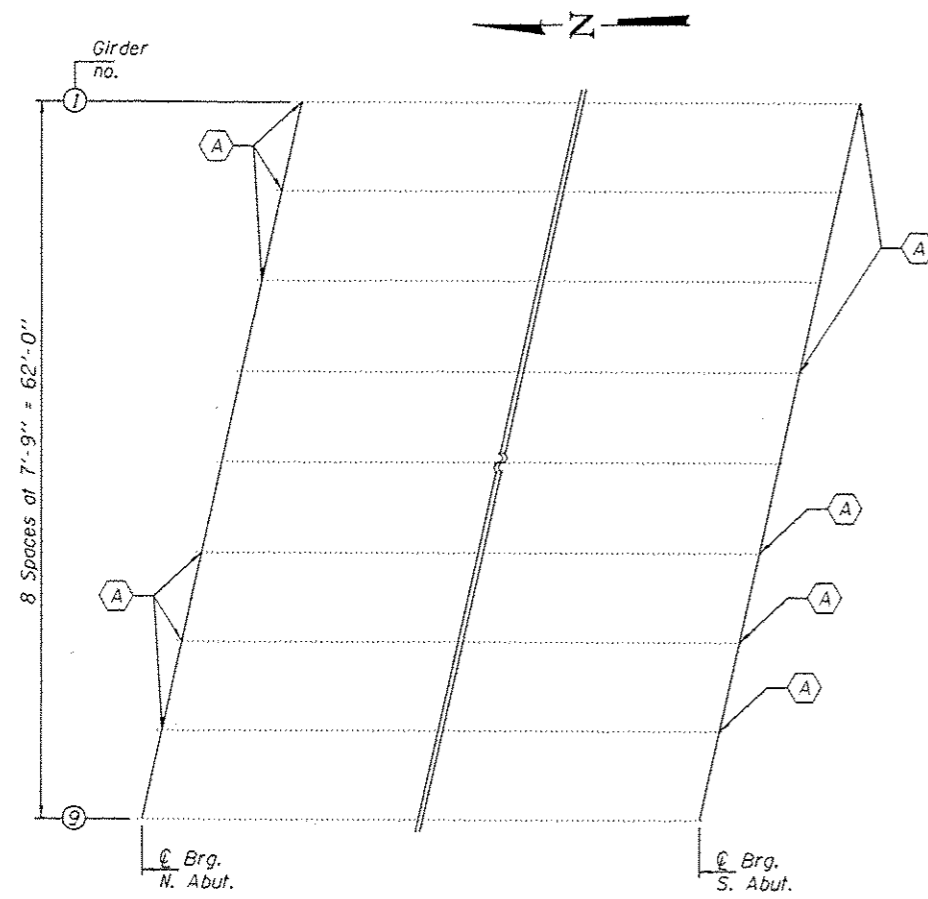
REVISED  
 REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

REPAIR DETAILS  
 SN 081-0119

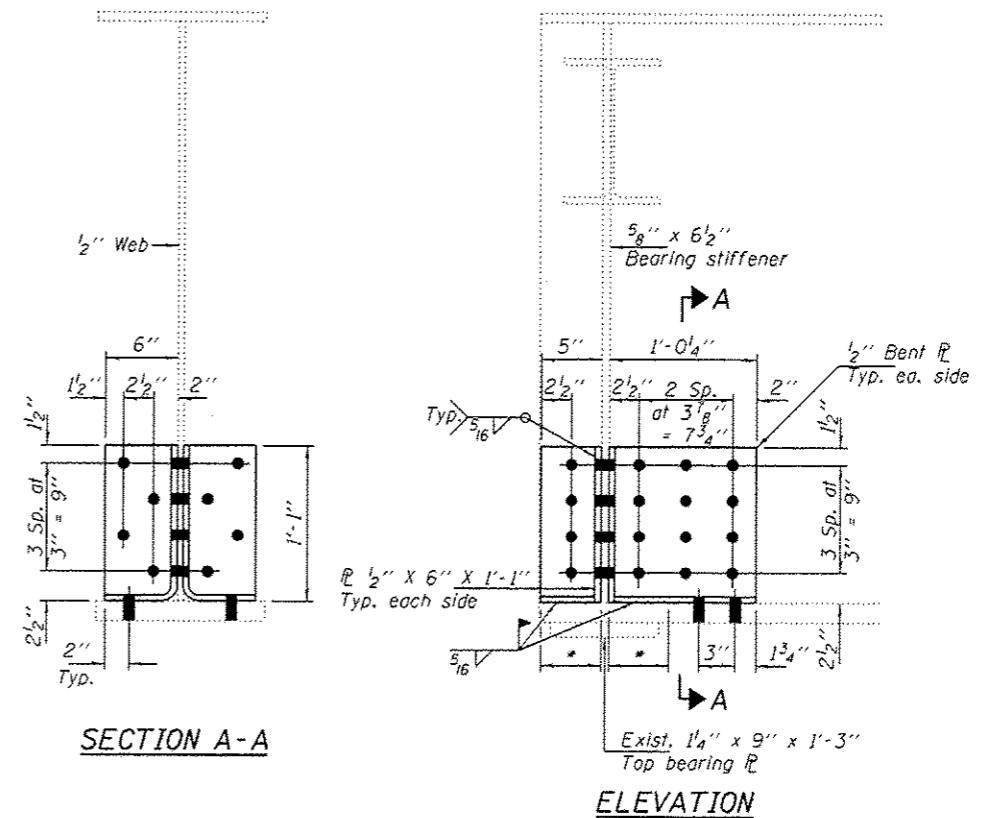
SHEET NO. 3 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	02 BOR 2017-1	ROCK ISLAND	21	11
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64L79	



**PARTIAL FRAMING PLAN**

⬡ - Beam end repair



**REPAIR A**

\* 5" Long weld length

DESIGNED	JSB
CHECKED	SMR
DRAWN	baliva
CHECKED	JSB SMR

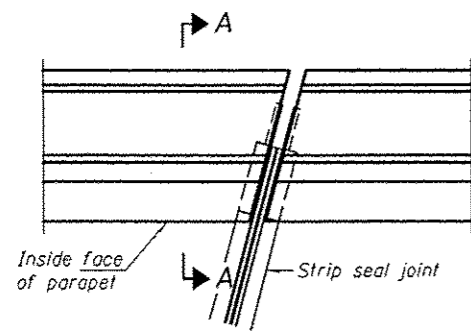
PASSED		DATE	NOVEMBER 29, 2016
		REVISED	
		REVISED	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

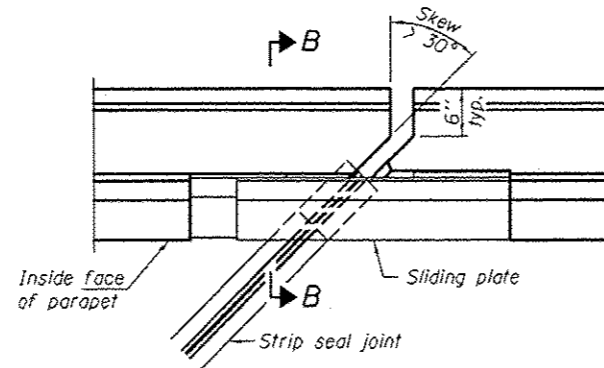
STEEL REPAIR DETAILS  
SN 081-0119

SHEET NO. 4 OF 5 SHEETS

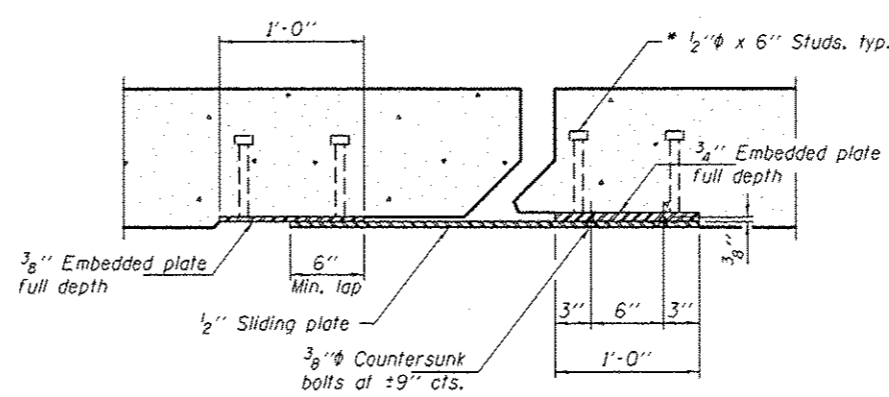
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	02 BDR 2017-1	ROCK ISLAND	21	12
CONTRACT NO. 64L79			ILLINOIS FED. AID PROJECT	



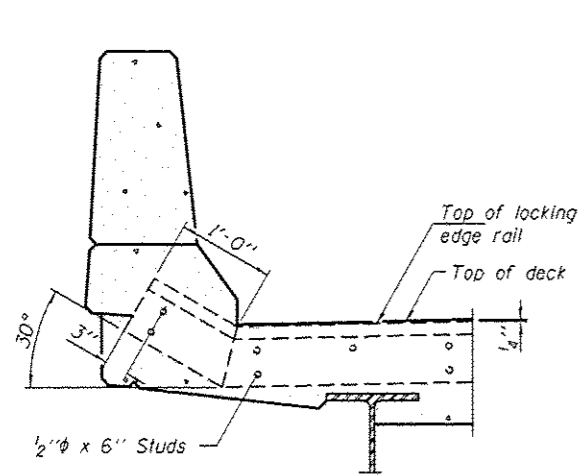
**PLAN**  
(For skews  $\leq 30^\circ$ )



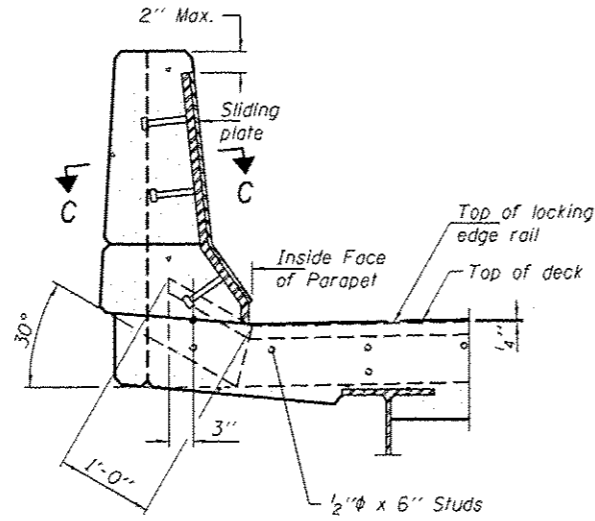
**PLAN**  
(For skews  $> 30^\circ$ )  
Showing point block



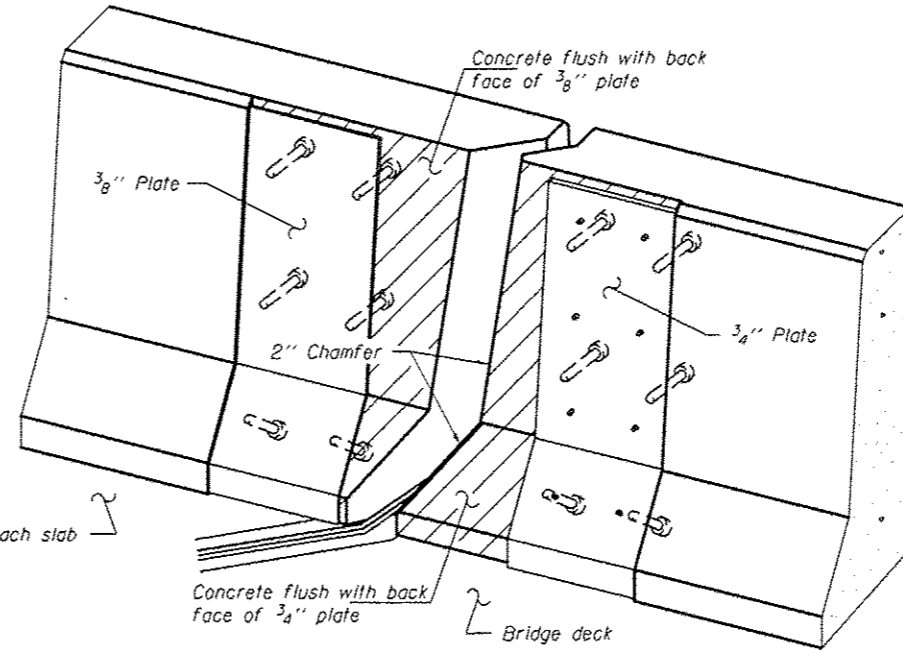
**SECTION C-C**



**SECTION A-A**

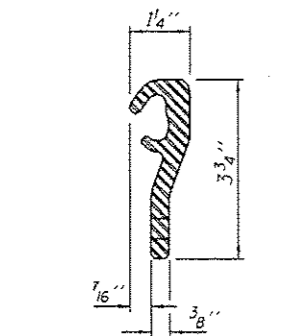


**SECTION B-B**

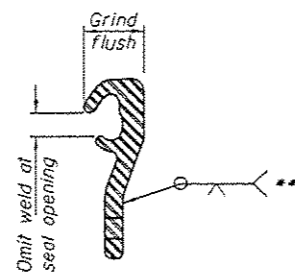


**TRIMETRIC VIEW**  
(Showing back plates only)

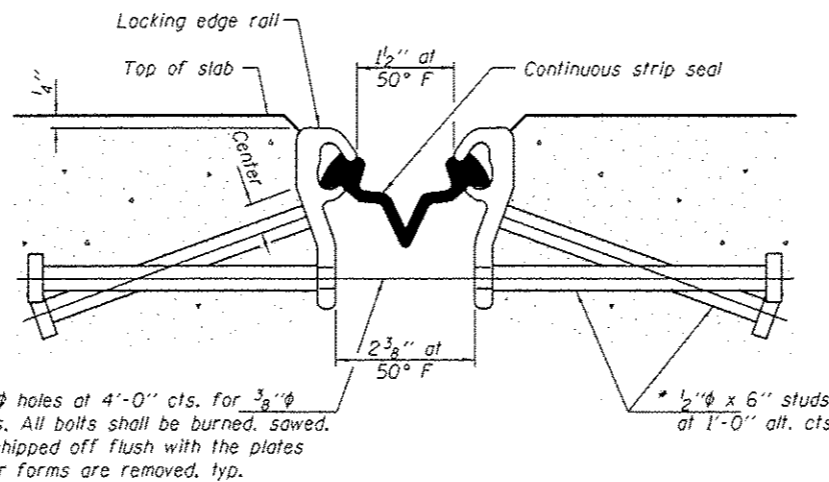
\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



**LOCKING EDGE RAIL**



**LOCKING EDGE RAIL SPLICE**



**SECTION THRU STRIP SEAL JOINT**

**Notes:**  
 The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.  
 The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.  
 The inside of the Locking Edge Rail groove shall be free of weld residue. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.  
 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  $> 30^\circ$  included in the cost of Preformed Joint Strip Seal.  
 The manufacturer's recommended installation methods shall be followed.

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

**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	136

7-1-10

DESIGNED JSB  
 CHECKED SMR  
 DRAWN boliva  
 CHECKED JSB SMR

PASSED

*A. Carl Perry*  
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE NOVEMBER 29, 2016

REVISED  
 REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL  
 SN 081-0119

SHEET NO. 5 OF 5 SHEETS

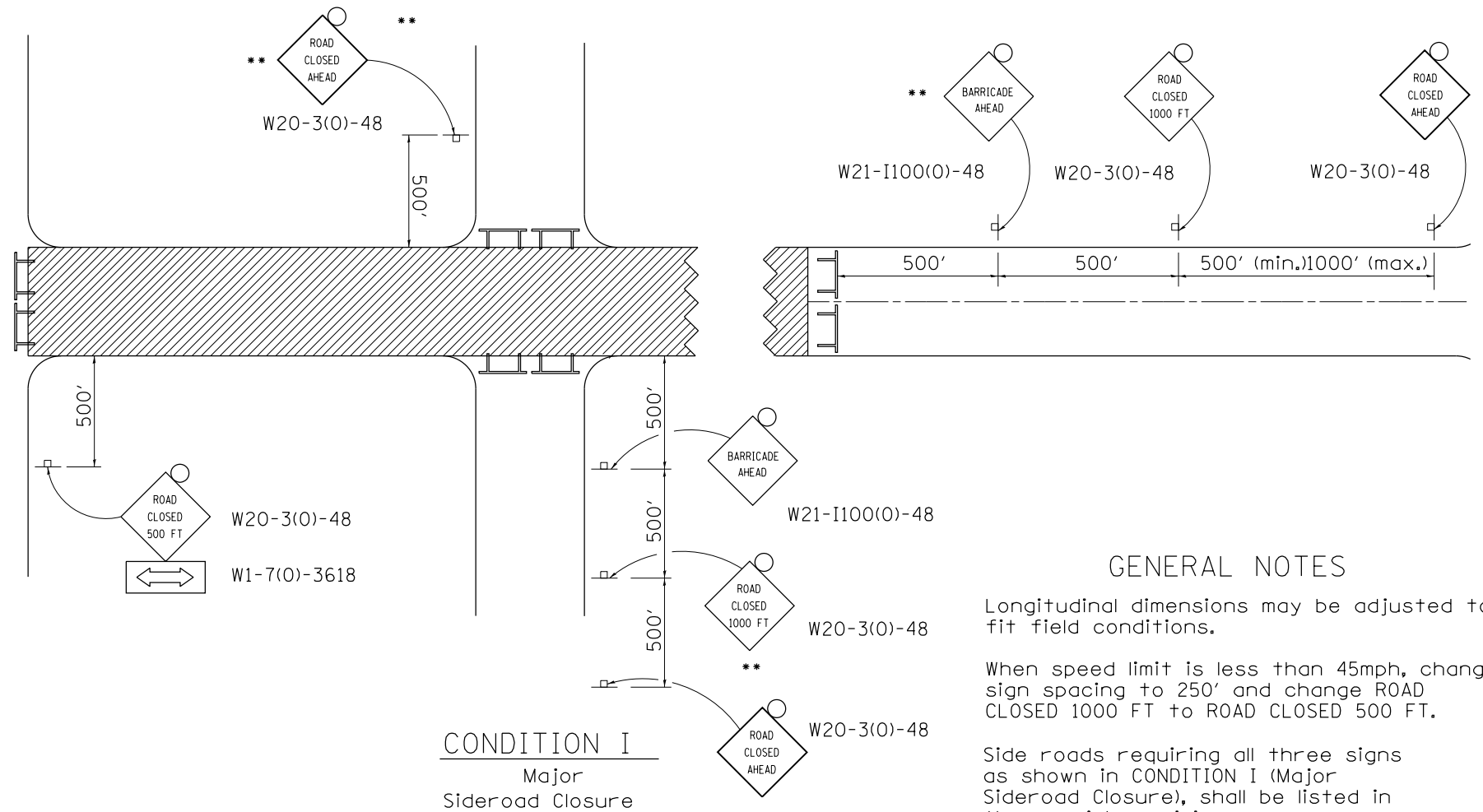
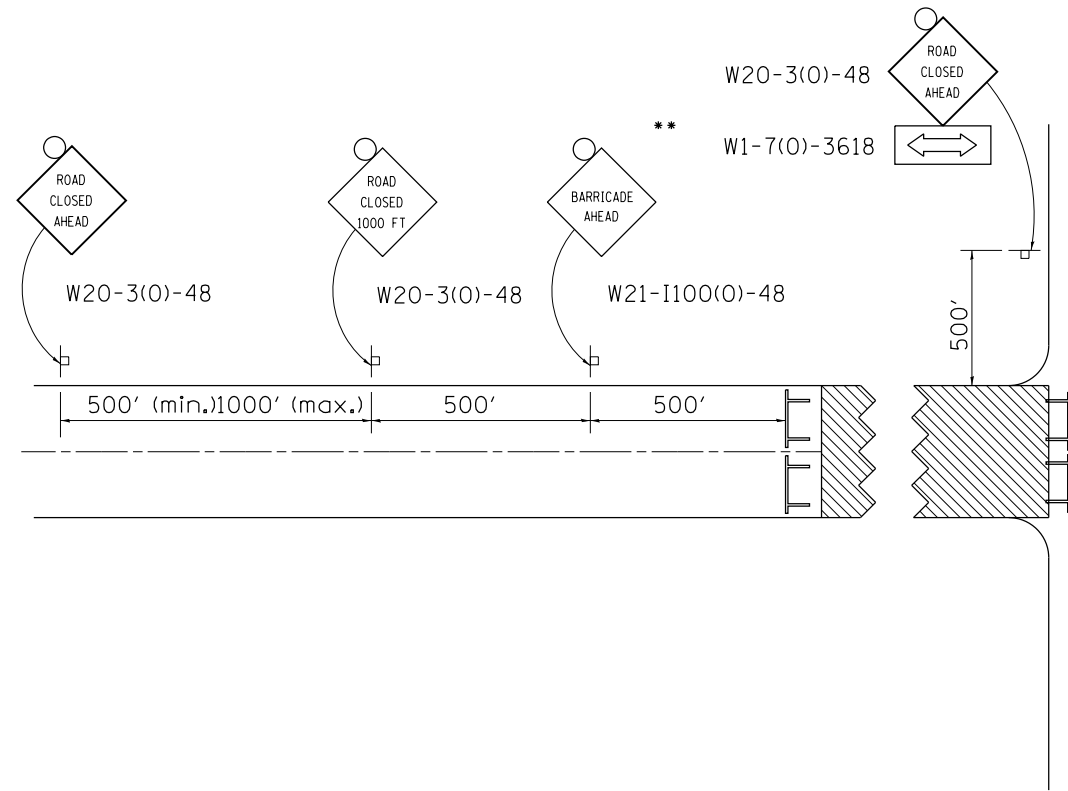
F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BB	02 BDR 2011-1	ROCK ISLAND	21	13

CONTRACT NO. 64L79  
 ILLINOIS FED. AID PROJECT

# TRAFFIC CONTROL FOR ROAD CLOSURE

## CONDITION II

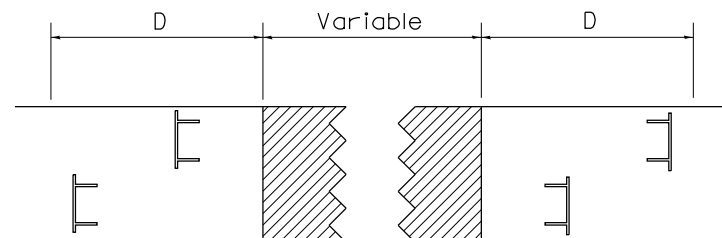
Minor Sideroad Closure



## CONDITION I

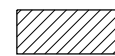
Major Sideroad Closure

### ROAD CLOSED TO THRU TRAFFIC BARRICADE SET UP



Type III Barricades and R11-4-4830 signs shall be as shown in "Road Closed To Thru Traffic" detail on Highway Standard 701901. If the distance "D" exceeds 2000' an additional set of barricades and R11-4-4830 shall be placed at each end of the work area.

### SYMBOLS



Work area



Type III Barricade with Flashers



Sign with flashing light

### GENERAL NOTES

Longitudinal dimensions may be adjusted to fit field conditions.

When speed limit is less than 45mph, change sign spacing to 250' and change ROAD CLOSED 1000 FT to ROAD CLOSED 500 FT.

Side roads requiring all three signs as shown in CONDITION I (Major Sideroad Closure), shall be listed in the special provision.

\*\* Where local access is to be maintained, barricades are to be set up as shown in Road Closed to thru traffic. Type III Barricades and R11-2-4830 signs shall be as shown in "Road Closed To All Traffic" detail on Highway Standard 701901.

All dimensions are in inches unless otherwise shown.

TYPICAL APPLICATION FOR ROAD CLOSURE

FILE NAME =	USER NAME = dosddd	DESIGNED -	REVISED - 10-17-11	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>REGION 2 / DISTRICT 2 STANDARD</b>			F.A.I. RTE.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0:\BR\Draws\Rock Island\64L79 Repairs S	081-0119\CADD\64L79-sht-cover.dgn	DRAWN -	REVISED -					88	D2 BDR 2017-1	ROCK ISLAND	21	14
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		SCALE: _____ SHEET NO. ____ OF ____ SHEETS STA. _____ TO STA. _____			FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT				
	PLOT DATE = Oct-12-2016 01:33:31 PM	DATE -	REVISED -					CONTRACT NO. 64L79				

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
403	161-1	ROCK ISLAND	545	215
SHEET NO. 15 SHEETS				

**GENERAL NOTES**

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of  $\pm 1/8$  inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two  $1/8$ " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

All Reinforcement bars shall be lapped 24 diameters unless otherwise shown.

Field connections shall be bolted using high strength bolts. Bolts  $3/4"$   $\phi$ , open holes  $1/16"$   $\phi$ , unless otherwise noted.

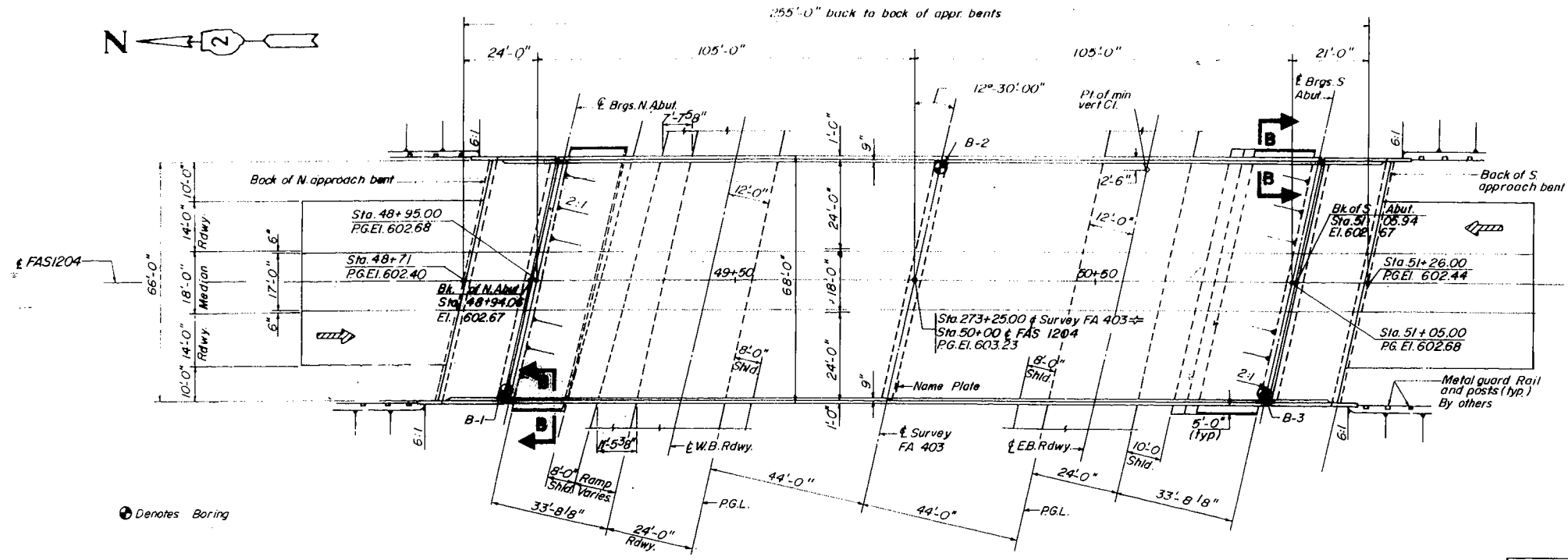
Field welding of construction accessories will not be permitted to the bottom of flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the engineer.

Anchor bolts shall be set before bolting cross frames over supports.

Slope wall shall be reinforced with welded wire fabric  $6" \times 6"$  mesh, weighing  $58$  per  $100$  Sq. Ft.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

The contractor shall drive three steel test piles in a permanent location, one each at the north and south abutments and pier as directed by the engineer before ordering the remainder of the piles.



**PLAN**

STATION 273+25.00  
 BUILT 19 BY  
 STATE OF ILLINOIS  
 FA 403 SECTION 161-1HB  
 FA PROJECT EBRF-403-1(T)  
 LOADING HS 20

**NAME PLATE**  
 SEE STD. 2113

**DESIGN NOTES**

**DESIGN LOADING:**  
 HS 20-44 And Allowance For 25 P.S.F. Future Wearing Surface.

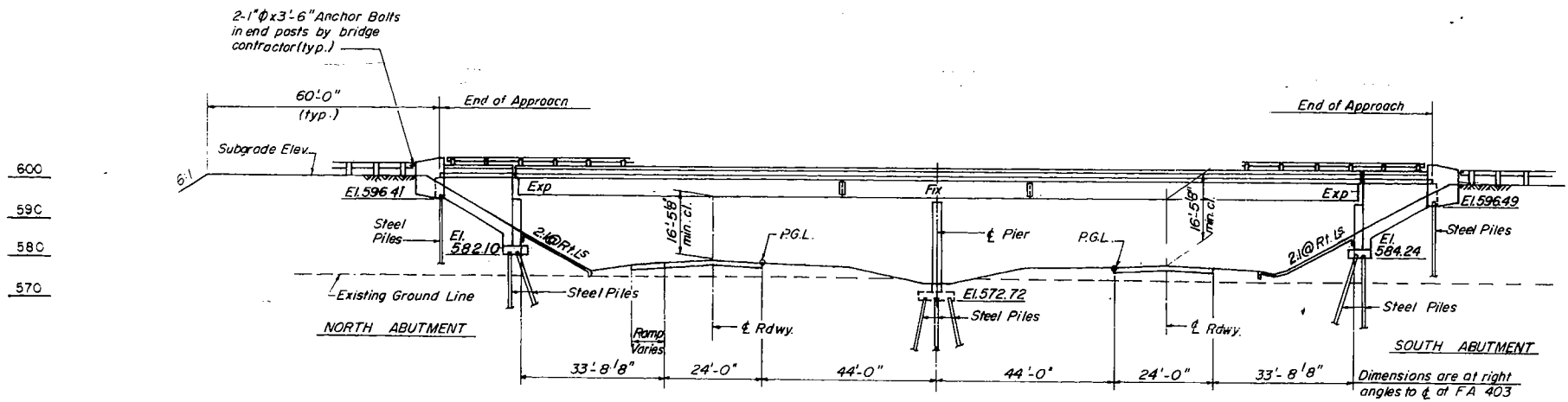
**DESIGN STRESSES:**  
 $f_c = 1400$  P.S.I. Except As Follows:  
 $f_c = 1200$  P.S.I. For Deck Slab.  
 $f_c = 1000$  P.S.I. For Conc. In Contact with Earth  
 $f_s = 20,000$  P.S.I. - M183 Structural Steel  
 $f_s = 20,000$  P.S.I. - Reinforcement Steel  
 $v = 75$  P.S.I. Allowable Shear in Footings.  
 $n = 10$   
 Allowable Live Load Deflection =  $L/1200$  (Composite)

**DESIGN SPECIFICATIONS:**  
 AASHTO 1969 As Applicable

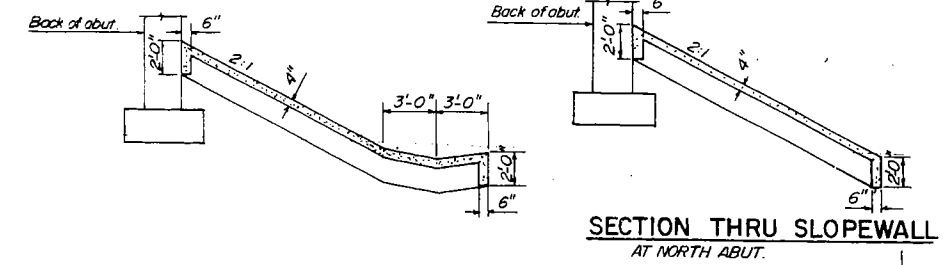
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER STRUCT.	SUB STRUCT.	TOTAL
Structure Excavation	Cu. Yds.	-	135	135
Protective Coat	Sq. Yds.	747	-	747
Class "X" Concrete	Cu. Yds.	665.7	426.6	1092.3
Structural Steel	L. Sum	0.29	-	0.29
Aluminum Railing	Lin. Ft.	499	-	499
Reinforcement Bars	Lbs.	162,630	52,570	215,200
Stud Shear Connectors	Each	3402	-	3402
Steel Piles HPB x 36	Lin. Ft.	-	3441	3441
Test Piles HPB x 36	Each	-	3	3
Name Plate	Each	-	1	1
Slope Wall 4"	Sq. Yds.	-	461	461
Bit. Conc. Surface Course Cl. I	Tons	113	-	113
Waterproofing Mem. System	Sq. Yds.	1338	-	1338
Sand Backfill	Cu. Yds.	-	561	561
Preformed Jt. Sealer (R.)	Lin. Ft.	139	-	139
Permanent B. M. Type I	Each	1	-	1

\* Calculated Weight of Structural Steel = 485,060 Lbs



**ELEVATION**



SECTION THRU SLOPEWALL AT NORTH ABUT.

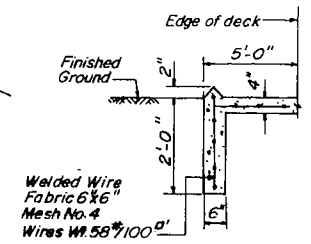
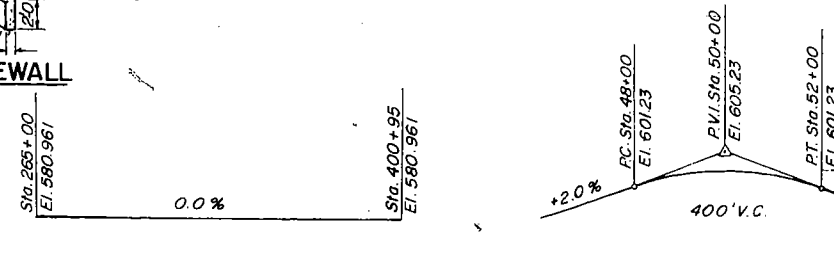


SECTION THRU SLOPEWALL AT SOUTH ABUT.

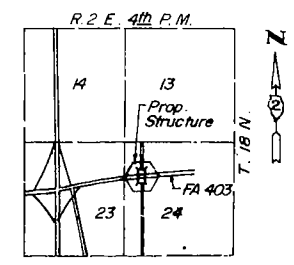
DESIGNED	D.M.P.
CHECKED	B.T.M.
DRAWN	A.M.
CHECKED	D.M.P.

**PROFILE FA-403 ALONG CENTERLINE SURVEY**

**PROFILE FAS 1204**  
 Top of Class I



**SECTION B-B**



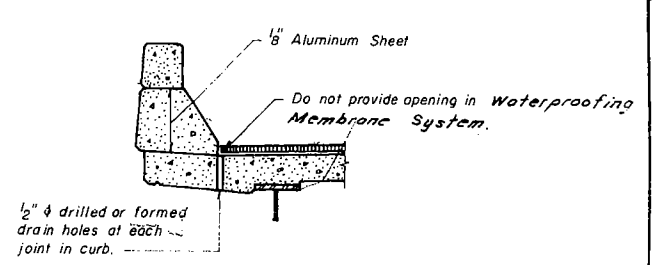
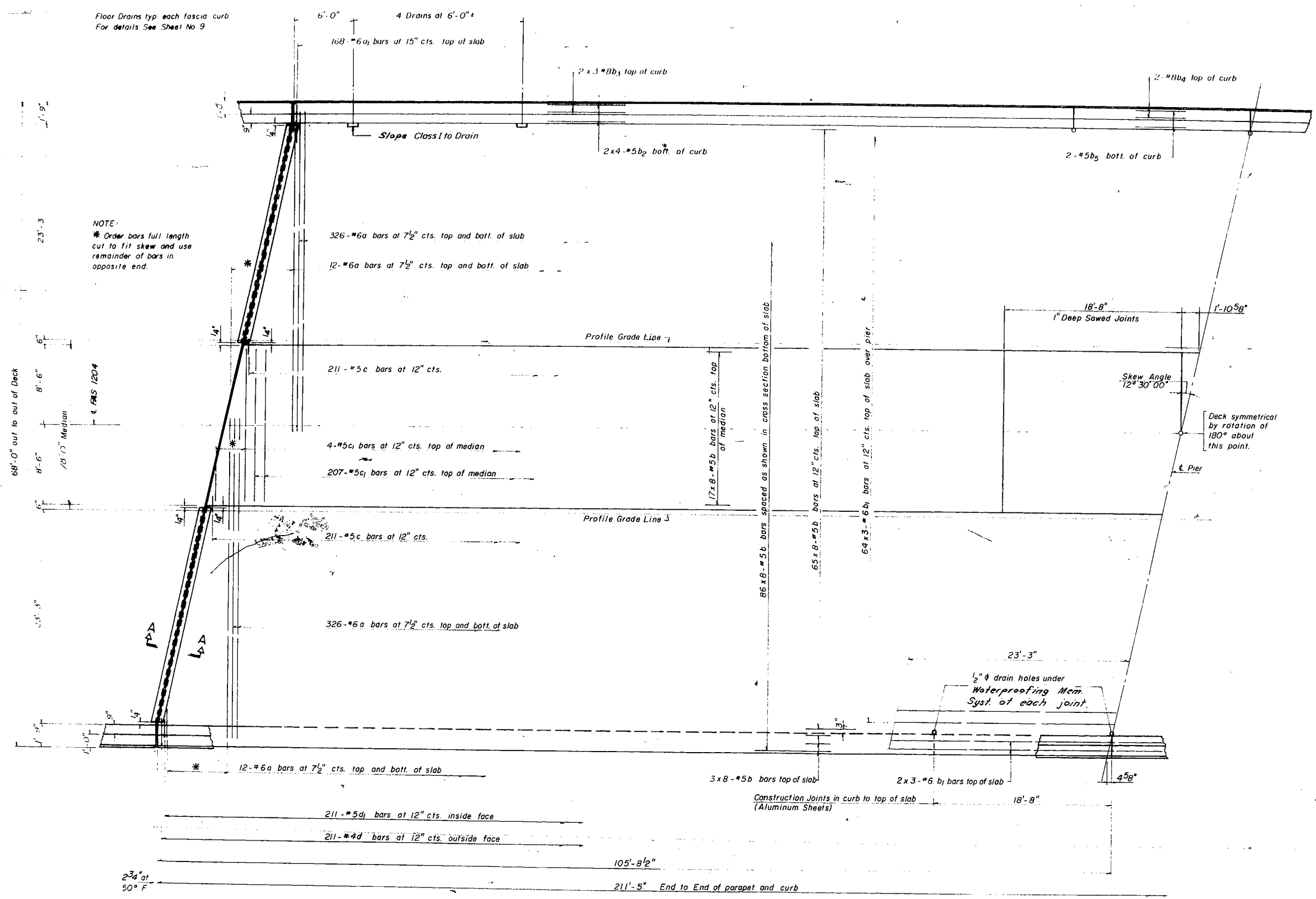
**LOCATION MAP**

APPROVED  
 FOR STRUCTURAL ADEQUACY ONLY  
 Engineer of Bridge & Traffic Structures

**GENERAL PLAN & ELEVATION**  
 FA 403 SECTION 161-1HB  
 FA 403 UNDER FAS 1204  
 ROCK ISLAND COUNTY  
 STATION 273+25.00

Rev. Reinf. Bars Sub from 52,330# to 52,570# Total from 214,960# to 215,200# 10-8-74 D.D.

**FOR INFORMATION ONLY**



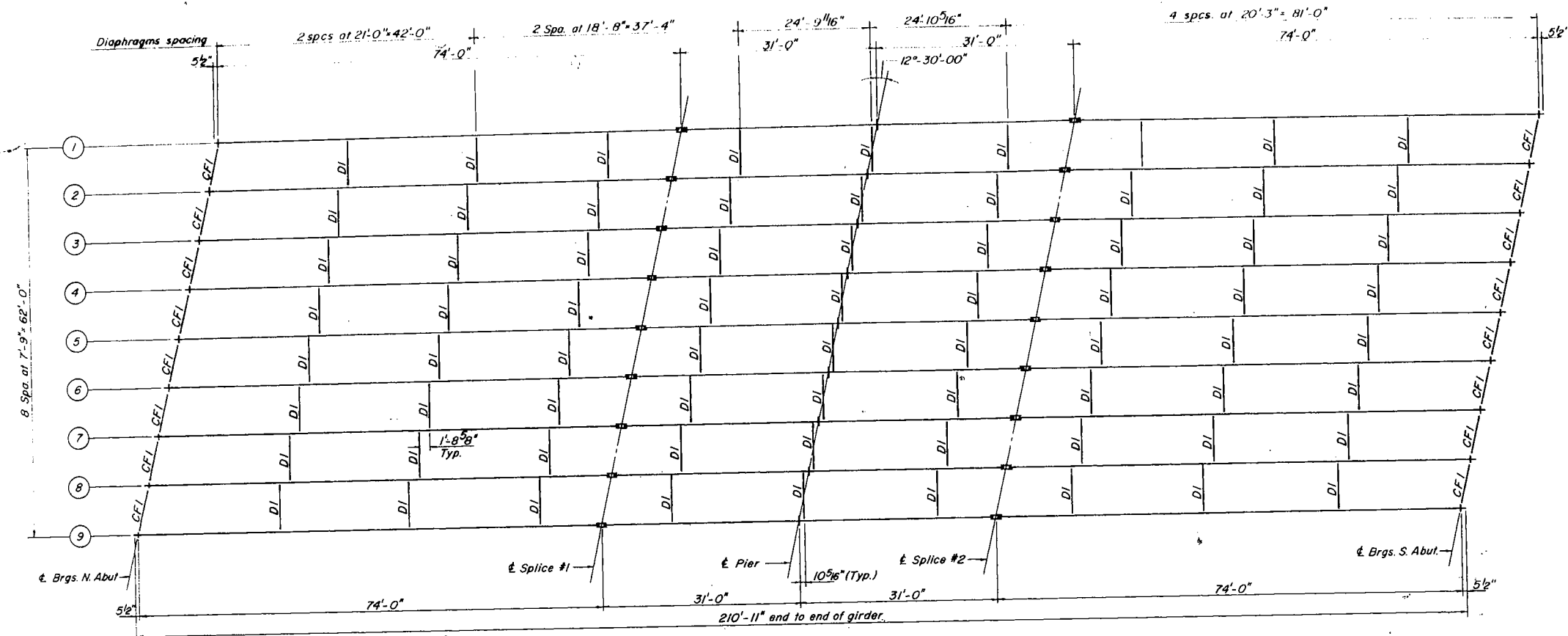
SECTION AT CURB JOINTS

NOTE:  
Bars indicated thus 17 x 8 #5 etc. indicates 17 lines of bars with 8 lengths per line.  
Min. bar laps = 24 dia.  
Work this sheet with sheet No. 5

DESIGNED	B.T.M.
CHECKED	H.P.S.
DRAWN	S.M.S.
CHECKED	H.R.S.

HALF DECK PLAN

DECK DETAILS  
FA 403 SECTION 161-1HB  
FA 403 UNDER FAS 1204  
ROCK ISLAND COUNTY  
STATION 273 + 25.00



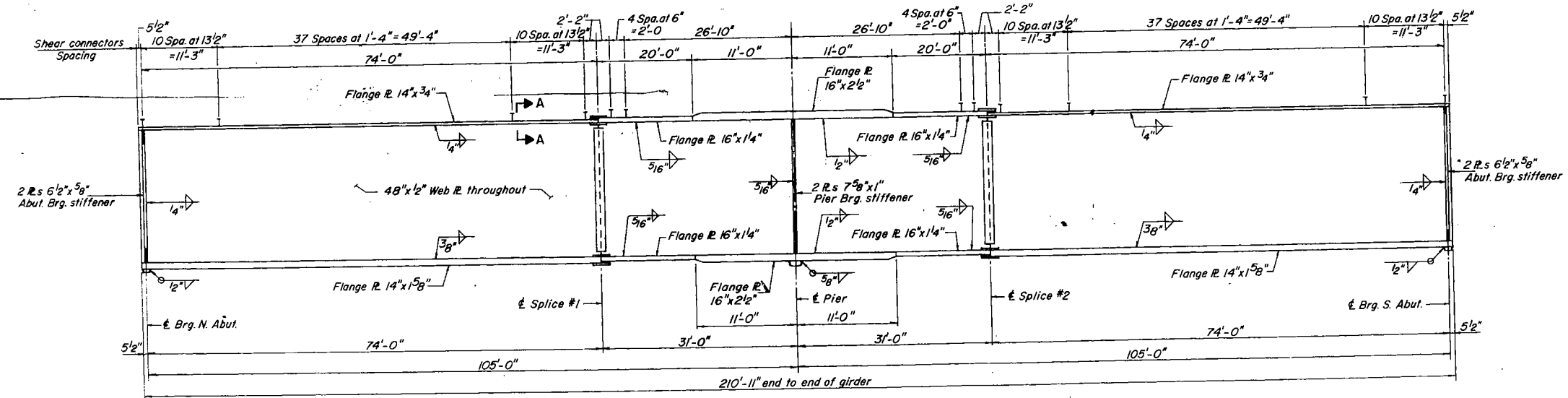
FRAMING PLAN

(Composite in Positive Moment Areas only)

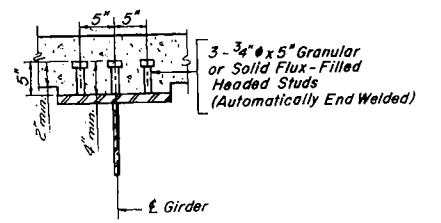
INTERIOR GIRDER MOMENT TABLE		
	0.4 SPAN 1	PIER
$I_s$ (in <sup>4</sup> )	23,189.40	55,613.0
$I_c$ (in <sup>4</sup> )	63,523.74	---
$S_s$ (in <sup>3</sup> )	1145.72	2098.6
$S_c$ (in <sup>3</sup> )	1584.13	---
$\phi$ (1/1)	1.075	1.075
$M_Q$ (ik)	687.83	1777.50
$f_s Q$ (ksil)	7.20	10.16
$S_Q$ (1/1)	0.51	0.51
$M_s Q$ (ik)	408.68	665.10
$M_{L+Imp}$ (ik)	1136.2	1010.10
$M_{L+I+S_Q}$	1544.88	1675.20
$f_s L$ (ksil)	11.70	9.58
$f_s Total$ (ksil)	18.90	19.74
$VR$ (k)	65.0	---

$I_s$  and  $S_s$  are the moment of inertia and section modulus of the steel section.  
 $I_c$  and  $S_c$  are the moment of inertia and section modulus of the composite section used in computing  $f_s$ .  
 $VR$  is the maximum  $L$  + Impact shear range in span.

INTERIOR GIRDER REACTION TABLE		
	ABUTMENT	PIER
$R_Q + S_Q$ (k)	58.80	210.7
$R_{L+Imp}$ (k)	55.2	93.7
$R Total$ (k)	114.0	304.4



GIRDER ELEVATION



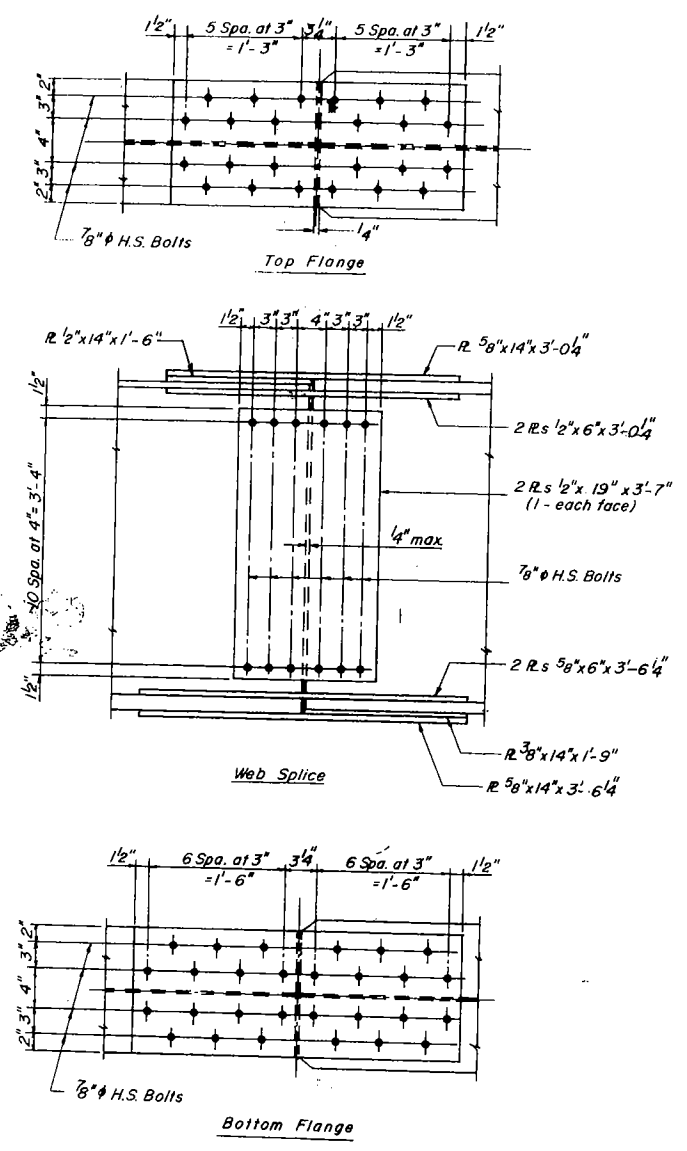
SECTION A-A  
No. Req'd = 3402

DESIGNED	B.T.M.
CHECKED	H.R.S.
DRAWN	I.P.
CHECKED	H.R.S.

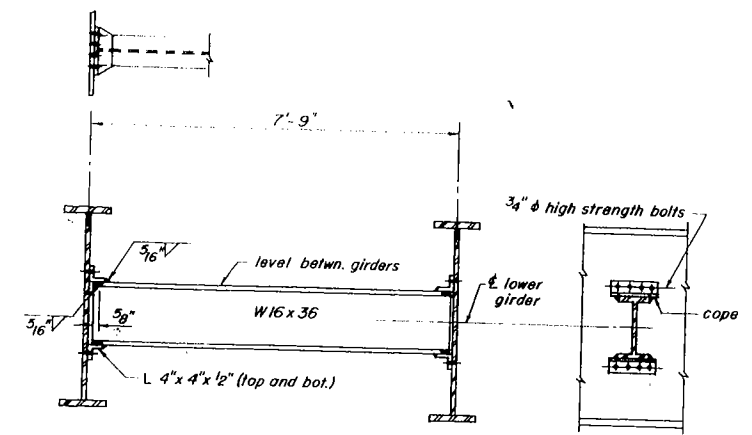
STRUCTURAL STEEL  
 FA 403 SECTION 161-1HB  
 FA 403 UNDER FAS 1204  
 ROCK ISLAND COUNTY  
 STATION 273 + 25.00

FOR INFORMATION ONLY

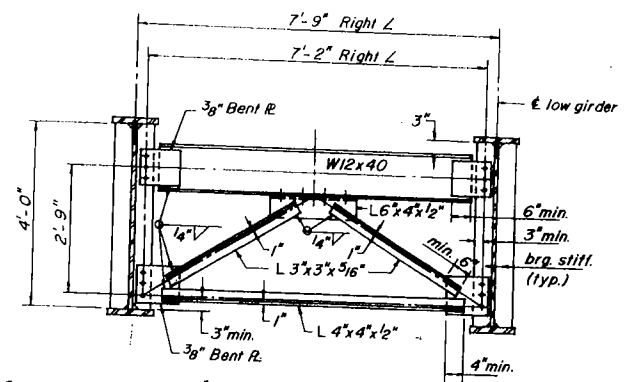




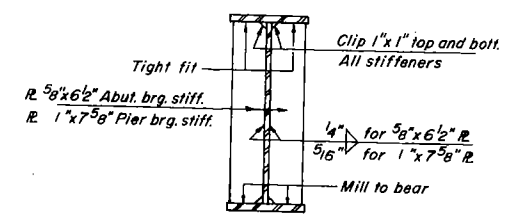
**DETAIL OF SPLICE #1**  
(Splice #2 opposite hand)



**TYPICAL DIAPHRAGM D-1**



**TYPICAL END CROSS FRAME CF-1**



**TYPICAL SECTION**  
(At Abut's and Pier)

Note: Hardened washers shall be req'd. over 1 1/16 inch holes.

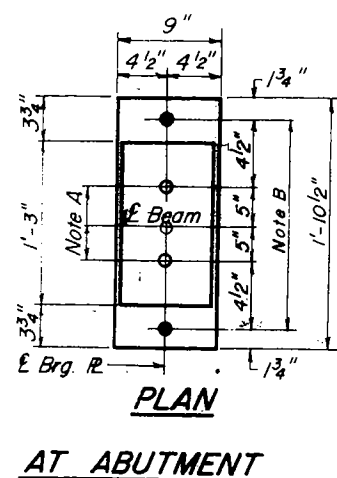
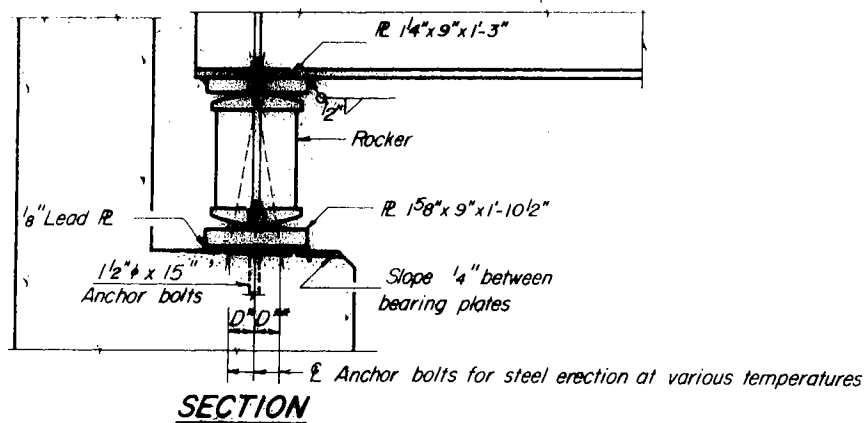
LOCATION	* TOP WEB ELEVATIONS				
	£ Brg. N Abut.	£ Splice 1	£ Pier	£ Splice 2	£ Brg. S. Abut.
Girder 1	601.467	601.800	601.800	601.800	601.323
Girder 2	601.611	601.962	601.962	601.962	601.503
Girder 3	601.716	602.086	602.086	602.086	601.644
Girder 4	601.820	602.207	602.207	602.207	601.784
Girder 5	601.923	602.328	602.328	602.328	601.923
Girder 6	601.784	602.207	602.207	602.207	601.820
Girder 7	601.644	602.086	602.086	602.086	601.716
Girder 8	601.503	601.962	601.962	601.962	601.611
Girder 9	601.323	601.800	601.800	601.800	601.467

\*For Fabrication Only.

DESIGNED	BTM
CHECKED	HRS
DRAWN	AM
CHECKED	HRS

STRUCTURAL STEEL  
FA 403 SECTION 161-IHB  
FA 403 UNDER FAS 1204  
ROCK ISLAND COUNTY  
STATION 273 + 25.00

**FOR INFORMATION ONLY**



**NOTE A**  
1 3/8" Holes - 1" deep in top R.  
for pintles. Thread or press fit  
pintles into bottom R.

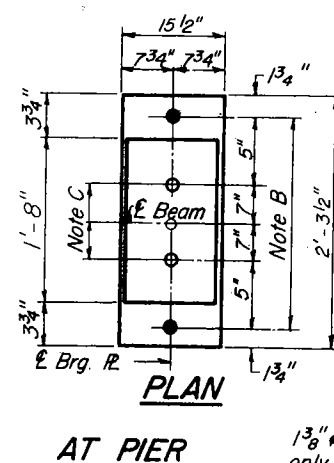
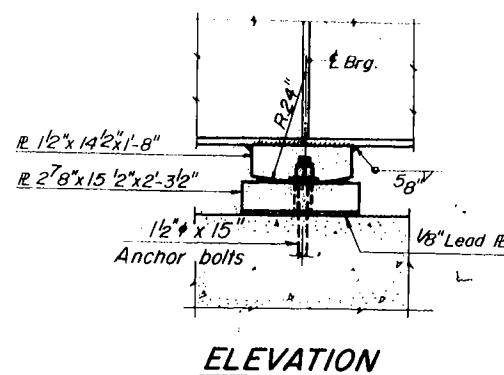
**NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.**

- a) D\* (Side of brg. away from fixed brg.)  
D\* = 1/8" per each 100' of expansion for every 15° fall below the normal temp. of 50°F.
- D\*\* (Side of brg. toward fixed brg.)  
D\*\* = 1/8" per each 100' of expansion for every 15° rise above the normal temp. of 50°F.

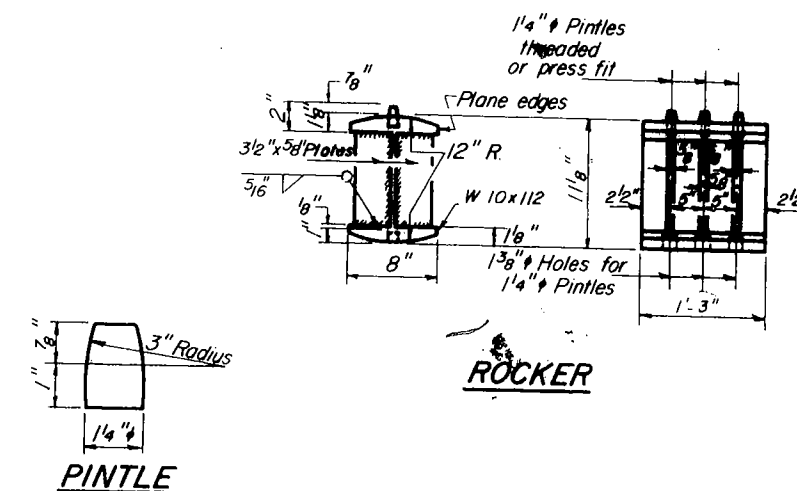
**NOTE B**  
2" Holes for 1/2" anchor bolts  
5/16" x 2 1/2" x 2 1/2" R. Washers  
under nut.

- b) After beams have been erected and dimensions D\* or D\*\* determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

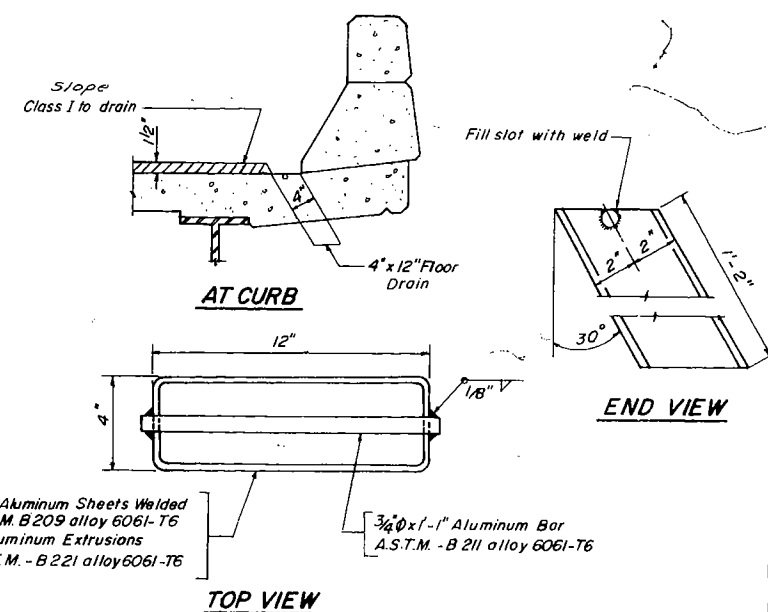
DESIGNED	B.T.M.
CHECKED	H.R.S.
DRAWN	A.M.
CHECKED	H.R.S.



**NOTE C**  
1 3/8" Holes 1" deep in top R.  
only for 1 1/4" pintles.  
Thread or press fit pintles in bottom R.



**BEARING ASSEMBLY DETAILS**



3/16" Aluminum Sheets Welded  
A.S.T.M. B209 alloy 6061-T6  
or Aluminum Extrusions  
A.S.T.M. - B221 alloy 6061-T6

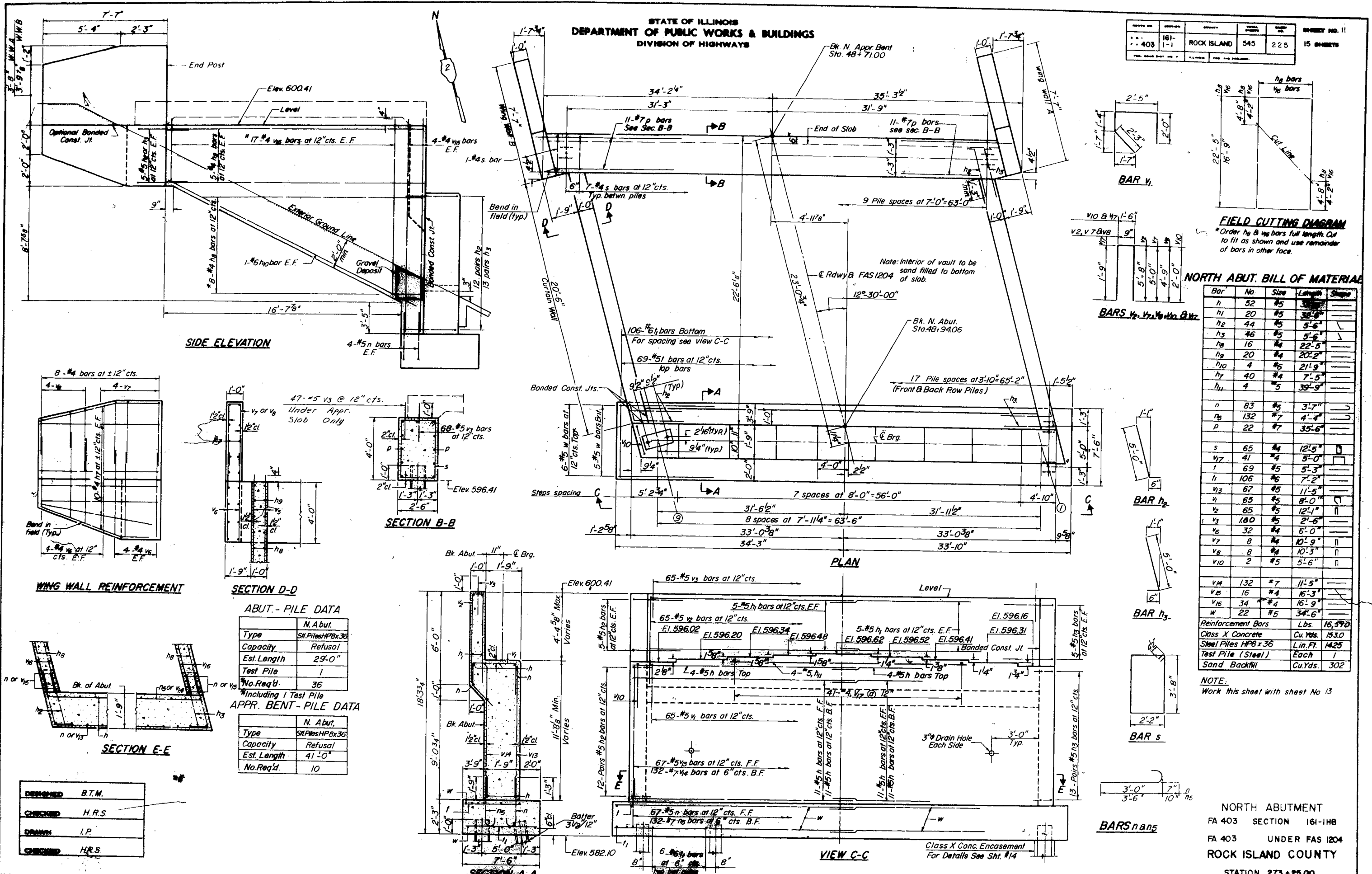
3/4" x 1" Aluminum Bar  
A.S.T.M. - B211 alloy 6061-T6

**FLOOR DRAINS**  
Cost Incidental

**BEARINGS**  
FA 403 SECTION 161-1HB  
FA 403 UNDER FAS 1204  
ROCK ISLAND COUNTY  
STATION 273 + 25.00

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	COUNTY	STATION	SHEET NO.
403	161-1	ROCK ISLAND	545	225
PROJECT TITLE				15 SHEETS



**FIELD CUTTING DIAGRAM**  
\*Order #8 & #6 bars full length. Cut to fit as shown and use remainder of bars in other face.

**NORTH ABUT. BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h	52	#5	3'-0"	
h1	20	#5	3'-0"	
h2	44	#5	5'-6"	
h3	46	#5	5'-6"	
h4	16	#4	22'-6"	
h5	20	#4	20'-2"	
h6	4	#6	21'-9"	
h7	40	#4	7'-5"	
h8	4	#5	3'-9"	
n	83	#5	3'-7"	
n1	132	#7	4'-4"	
p	22	#7	3'-6"	
s	65	#4	12'-5"	
v17	41	#4	5'-0"	
1	69	#5	5'-3"	
11	106	#6	7'-2"	
v13	67	#5	11'-5"	
v1	65	#5	8'-0"	
v2	65	#5	12'-1"	
v3	180	#5	2'-6"	
v4	32	#4	6'-0"	
v7	8	#4	10'-9"	
v8	8	#4	10'-3"	
v10	2	#5	5'-6"	
v14	132	#7	11'-5"	
v15	16	#4	16'-3"	
v16	34	#4	16'-9"	
w	22	#5	34'-6"	
Reinforcement Bars		Lbs.	16,592	
Class X Concrete		Cu Yds.	153.0	
Steel Piles HP8 x 36		Lin. Ft.	1425	
Test Pile (Steel)		Each	1	
Sand Backfill		Cu Yds.	302	

**NOTE:**  
Work this sheet with sheet No 13

**ABUT. - PILE DATA**

	N. Abut.
Type	SH Piles HP8x36
Capacity	Refusal
Est. Length	29'-0"
Test Pile	1
No. Req'd.	36

**APPR. BENT - PILE DATA**

	N. Abut.
Type	SH Piles HP8x36
Capacity	Refusal
Est. Length	41'-0"
No. Req'd.	10

DESIGNED	B.T.M.
CHECKED	H.R.S.
DRAWN	I.P.
CHECKED	H.R.S.

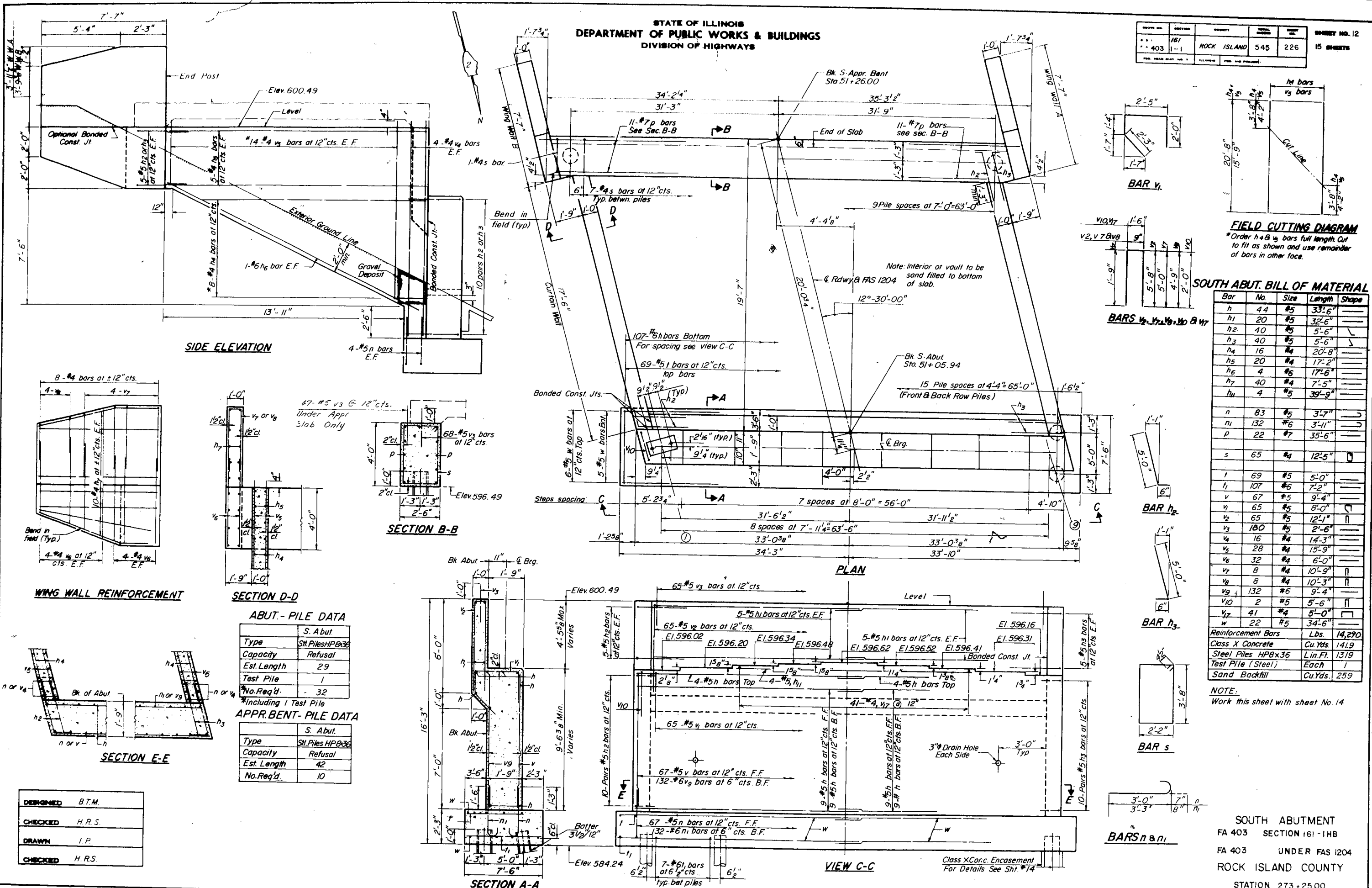
**NORTH ABUTMENT**  
FA 403 SECTION 161-IHB  
FA 403 UNDER FAS 1204  
ROCK ISLAND COUNTY  
STATION 273+25.00

Rev. Reinf. Bars from 16,470 to 16,590 10-3-74 D.D.

**FOR INFORMATION ONLY**

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	QUANTITY	SCALE	SHEET NO.
403	1-1	ROCK ISLAND	545	226
SHEET NO. 12				
15 SHEETS				



**FIELD CUTTING DIAGRAM**  
\*Order h 4 B  $\frac{1}{2}$  bars full length. Cut to fit as shown and use remainder of bars in other face.

**SOUTH ABUT. BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h	44	#5	33'-6"	—
h1	20	#5	32'-6"	—
h2	40	#5	5'-6"	—
h3	40	#5	5'-6"	—
h4	16	#4	20'-8"	—
h5	20	#4	17'-2"	—
h6	4	#6	17'-6"	—
h7	40	#4	7'-5"	—
h8	4	#5	39'-9"	—
n	83	#5	3'-7"	—
n1	132	#6	3'-11"	—
p	22	#7	35'-6"	—
s	65	#4	12'-5"	—
v	69	#5	5'-0"	—
v1	107	#6	7'-2"	—
v2	67	#5	9'-4"	—
v3	65	#5	8'-0"	—
v4	65	#5	12'-1"	—
v5	180	#5	2'-6"	—
v6	16	#4	14'-3"	—
v7	28	#4	15'-9"	—
v8	32	#4	6'-0"	—
v9	8	#4	10'-9"	—
v10	8	#4	10'-3"	—
w	132	#6	9'-4"	—
w1	41	#4	5'-0"	—
w2	22	#5	34'-6"	—
Reinforcement Bars				Lbs. 14,290
Class X Concrete				Cu.Yds. 1419
Steel Piles HP8x36				Lin.Ft. 1319
Test Pile (Steel)				Each 1
Sand Backfill				Cu.Yds. 259

**NOTE:**  
Work this sheet with sheet No. 14

**SOUTH ABUTMENT**  
FA 403 SECTION 161-1HB  
FA 403 UNDER FAS 1204  
ROCK ISLAND COUNTY  
STATION 273+25.00

DESIGNED	B.T.M.
CHECKED	H.R.S.
DRAWN	I.P.
CHECKED	H.R.S.

Per Rein. Bars from 14,170 to 14,290 \* 10-3-74 D.D.

**FOR INFORMATION ONLY**