

Batch Mark: Stainless Steel Plug Spike in Concrete, @ Median Sta. 275+00, Elev. 572.90

Existing Structure: #081-0026 & #081-0027 are each approximately ±213'-6" long by 35'-8" wide. Built as F.A.I. Rte. 280, Section 81-B-1 of Sta. 286+90.00 in 1964.

Traffic shall be maintained during the rehabilitation of the existing structures.

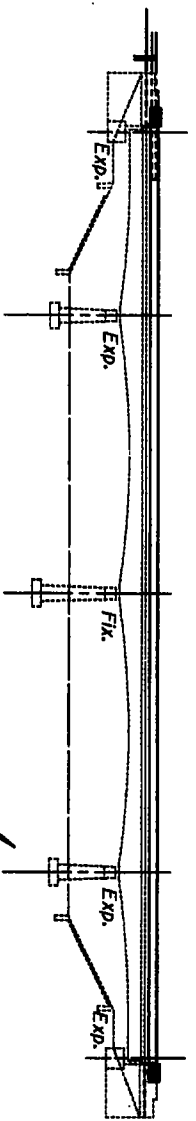
The existing aluminum rolling shall be salvaged and delivered to District Maintenance.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

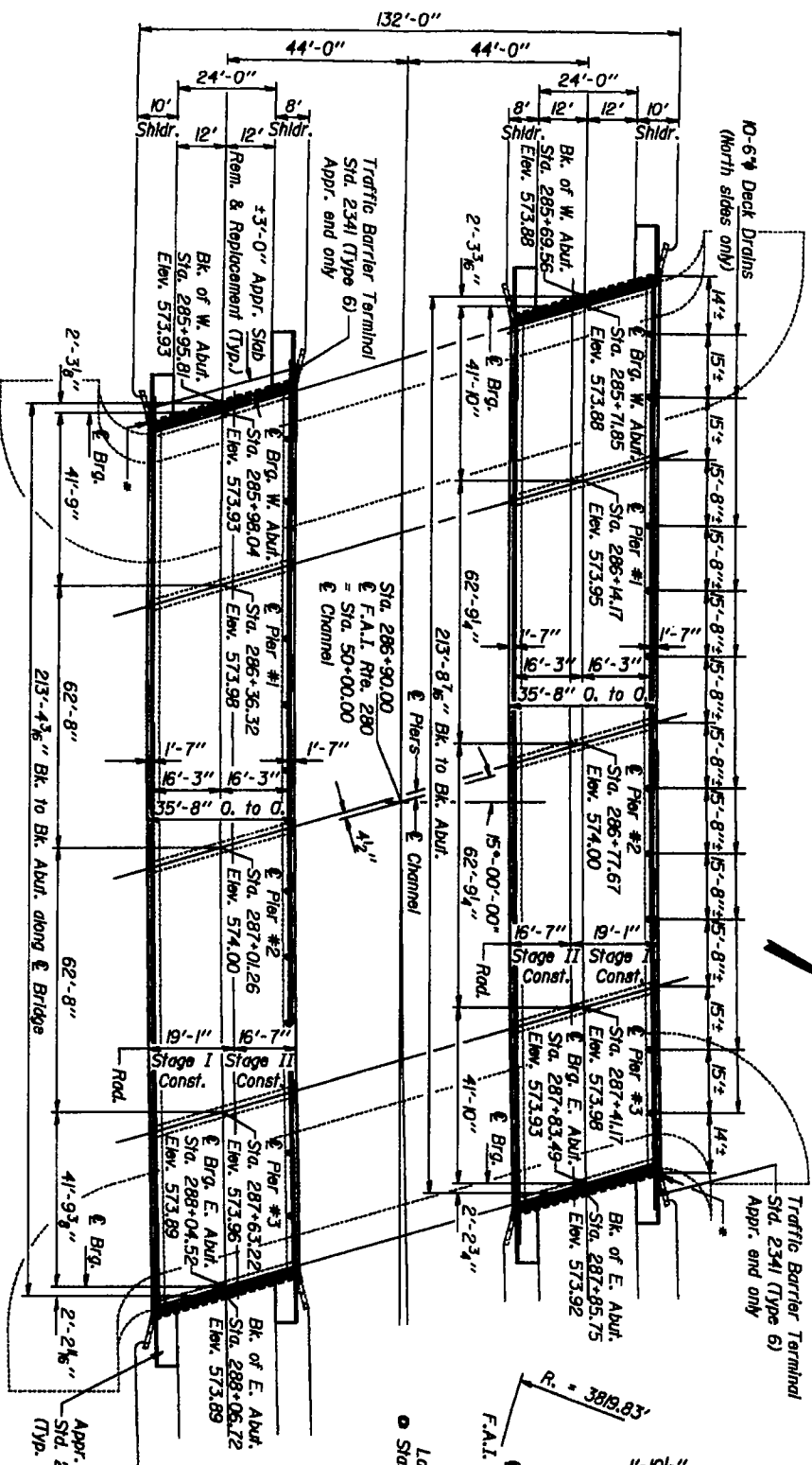
Sheet No.	1
Project No.	081-0026 & 0027
Scale	AS SHOWN
Drawn	R. D. Doy
Checked	K. R. R.
Design	AS SHOWN
Material	AS SHOWN
Quantity	AS SHOWN
Cost	AS SHOWN

**CURVE DATA**

Δ = 44°-36'-00"  
D = 1°-30'-00"  
T = 1566.63'  
L = 2973.33'  
E = 308.78'  
R = 389.83'  
S.E. = 0.0177'  
P.C. = 266+81.7  
P.T. = 282+47.80  
P.I. = 296+54.50

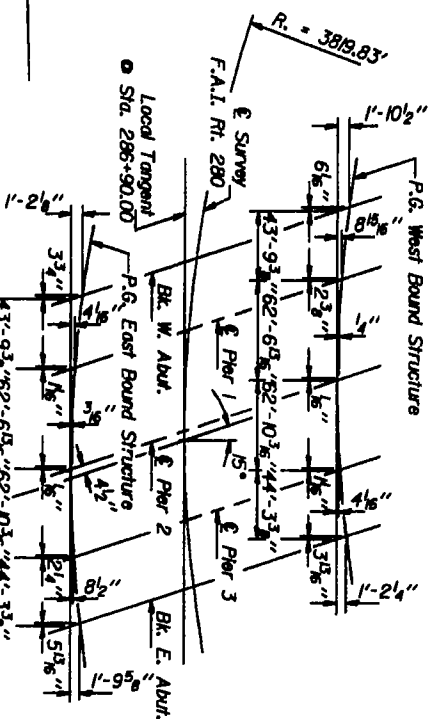


ELEVATION

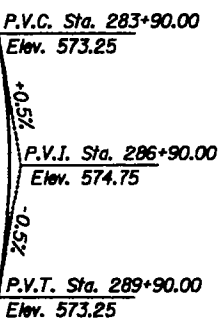


PLAN

Note: For removal of grout see Special Provisions.  
For pay item see Roadway Plans.



OFFSET SKETCH



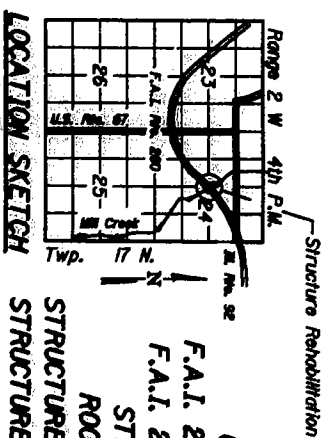
PROFILE GRADE F.A.I. RTE. 280  
Along & Roadway - Top of 1/2" Layer Concrete Overlay

**DESIGN SPECIFICATIONS**  
AASHTO (1983) and applicable Interims (1984 thru 1986)

**LOADING HS 20-44 & ALLT.**

**DESIGN STRESSES**

FIELD UNITS  
 $f'_c = 3,500$  psi  
 $f'_s = 60,000$  psi (Reinf.)  
 $f'_s = 36,000$  psi (Struct.) (AASHTO)



**GENERAL PLAN**  
F.A.I. 280 OVER MILL CREEK  
STATION 286+90.00  
ROCK ISLAND COUNTY  
STRUCTURE NUMBER 081-0026 (E.B.)  
STRUCTURE NUMBER 081-0027 (W.B.)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	CU Yd.	33		33
Floor Drains	Each	20		20
Reinforced Jolly Seal 4"	Lt. Ft.	46		46
Class X Concrete Superstructure	CU Yd.	103.4		103.4
Fasteners: Bearing Assembly, Type II	Each	24		24
Reinforcement Bars (Epoxy Coated)	Pound	560		560
Reinforcement Bars (Special)	Pound	12,540		12,540
Concrete Removal (Special)	CU Yd.	89		89
Deck and Remove Existing Bearings	Each	24		24
Brutinous Concrete Surface Removal	Sq. Yd.	1357		1357
Deck Slab Repair (Formal)	Sq. Yd.	69		69
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	69		69
Deck Slab Repair (Full Depth, Type III)	Sq. Yd.	45		45
Structural Steel	Pound	13,270		13,270
Bridge Deck Liner Concrete Overlay	Sq. Yd.	1471		1471
Bridge Deck Surfacing 1/4"	Sq. Yd.	1357		1357
Protective Coat	Sq. Yd.	354		354

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to normal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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 the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The existing structural steel, as noted, shall receive one coat of the lead and chromate free oilkyd point system primer and two coats of aluminum paint.

All new structural steel shall be shop primed with one coat of the lead and chromate free oilkyd point system primer and two coats of aluminum paint.

All bolted contact surface areas of new structural steel shall be free of point or lacquer.

GENERAL NOTES

\* Clean & relocate existing Home E. Cost incidental.

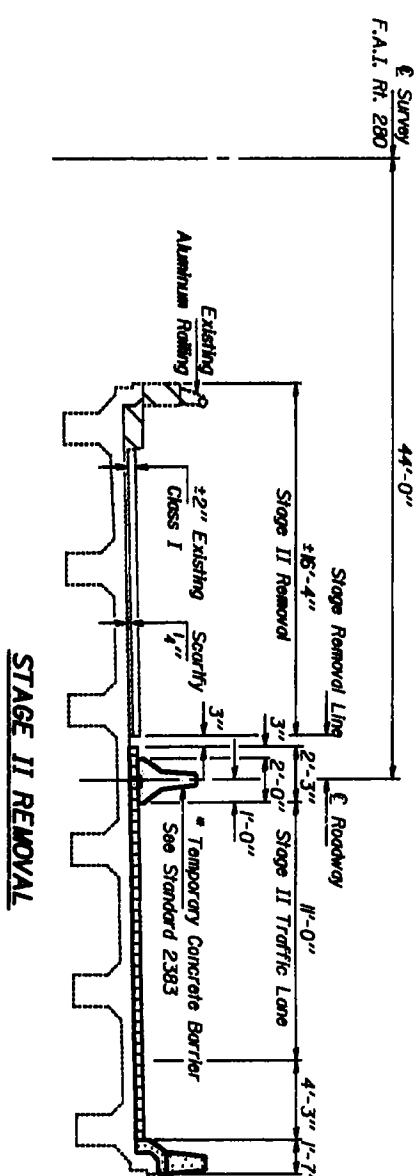
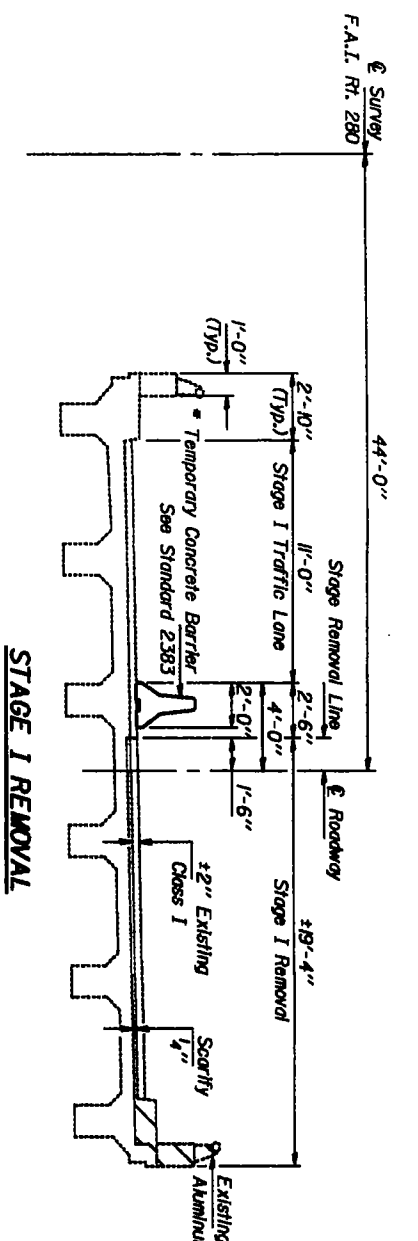
DESIGNED BY: R. D. Doy  
 CHECKED BY: K. R. R.  
 DRAWN BY: R. D. Doy  
 DATE: May 23, 1988

APPROVED BY: [Signature]  
 DATE: [Date]

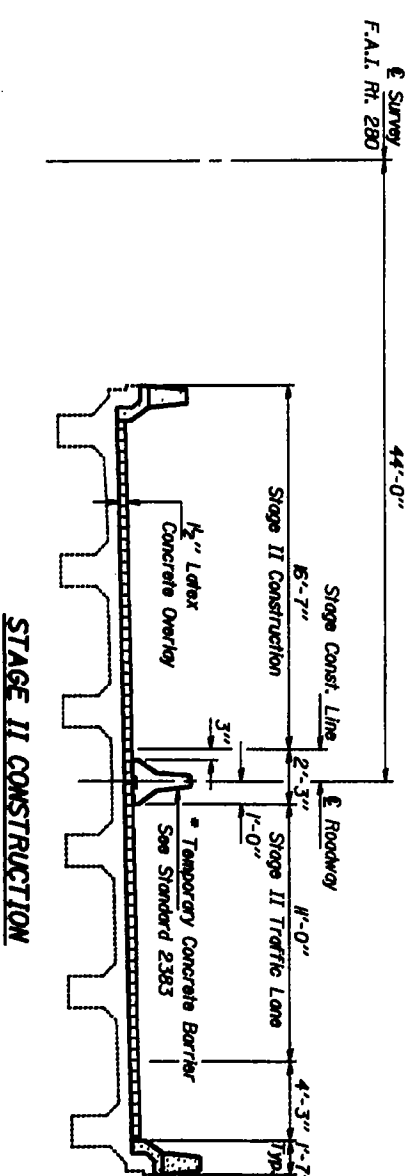
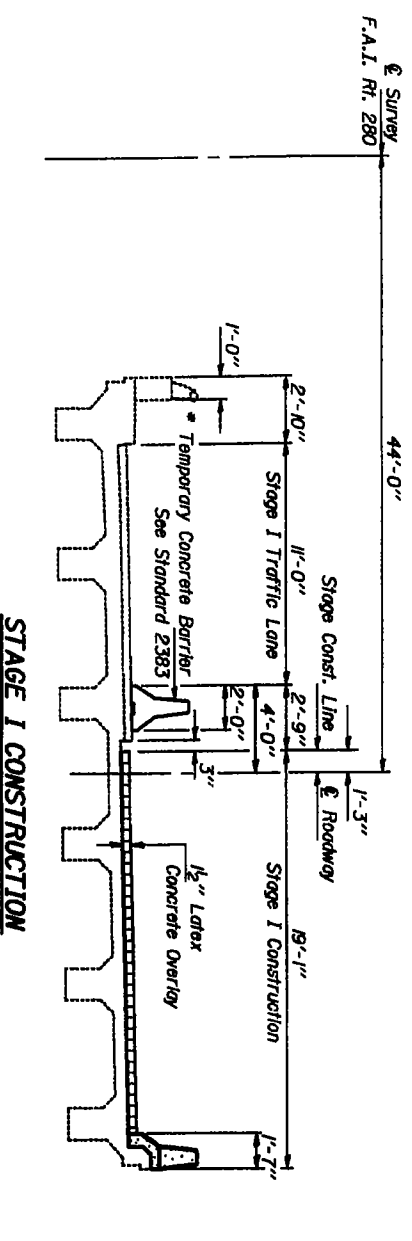
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DATE	BY	NO.	REV.
05/23/88	BL	1514	
05/23/88	RISLAND	45	365
05/23/88			

SHEET NO. 2  
16 SHEETS



\* For Item and quantity for Temporary Concrete Barrier is included in the Roadway Plans.



DESIGNED BY: *[Signature]*  
CHECKED BY: *[Signature]*  
DRAWN: R. Doy  
CHECKED: K.R.  
May 23, 1988

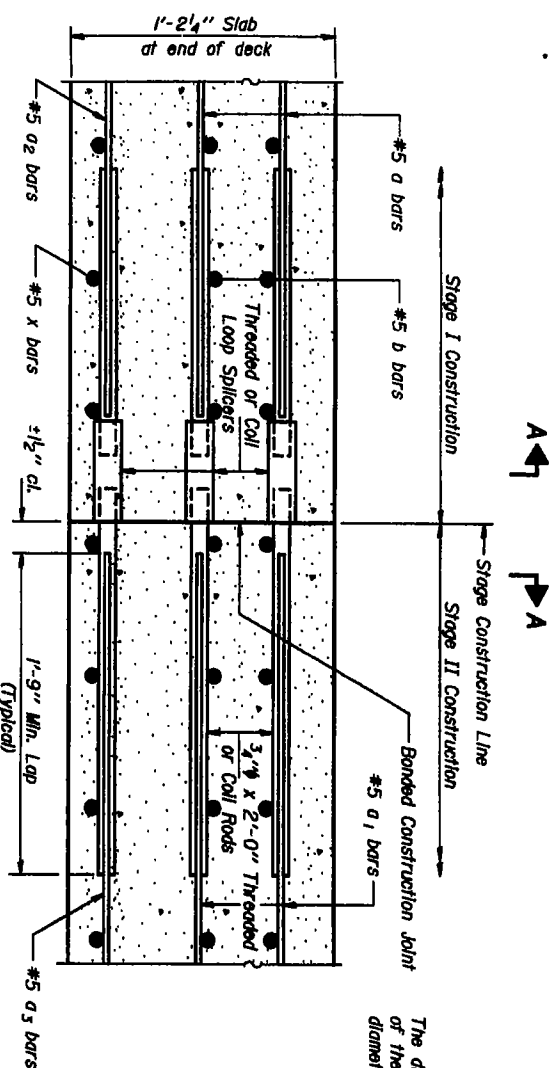
EXAMINED: *[Signature]*  
APPROVED: *[Signature]*  
MINIMUM 1/4" SCALE

Notes:  
All dimensions are given radii.  
Hatched areas indicate "Concrete Removal (Spec'd)".  
See sheet #8 of 16 for details.  
Removal of existing aluminum rolling is incidental to "Concrete Removal (Spec'd)".  
For details of Temporary Concrete Barrier see sheet #3 of 16.  
All Cross Sections are Looking East for E.B. Lanes and Looking West for W.B. Lanes.

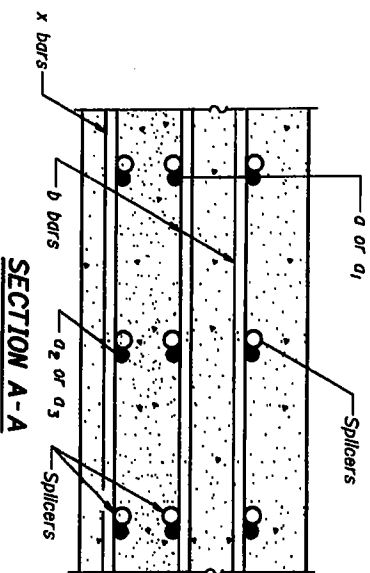
STAGE CONSTRUCTION  
F.A.I. RT. 280 SEC. 91-87-1  
ROCK ISLAND COUNTY  
STA. 285+50.00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	81-1	CONTRACT NO.	45	SHEET NO. 4
DISTRICT	15	SECTION	36D	16 SHEETS
DATE	12-1-83	BY		

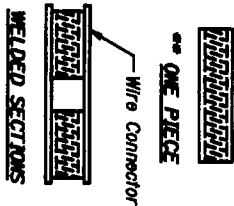
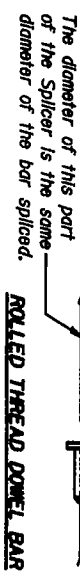


**SECTION THRU SLAB**  
No epoxy coating required.

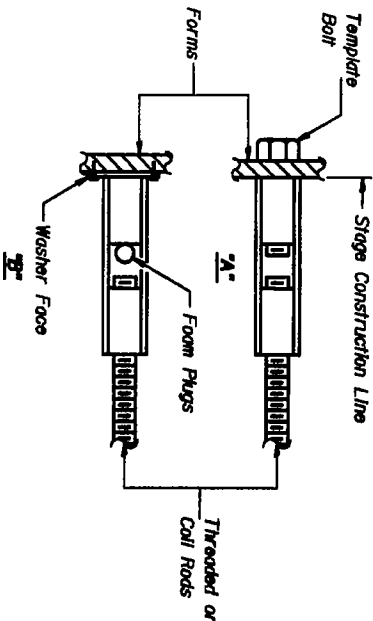


**SPLICER DETAILS**  
(No. Required = 60)

Cost Incidental to Reinforcement Bars.



**SPLICER ALTERNATIVES**  
\*\* Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



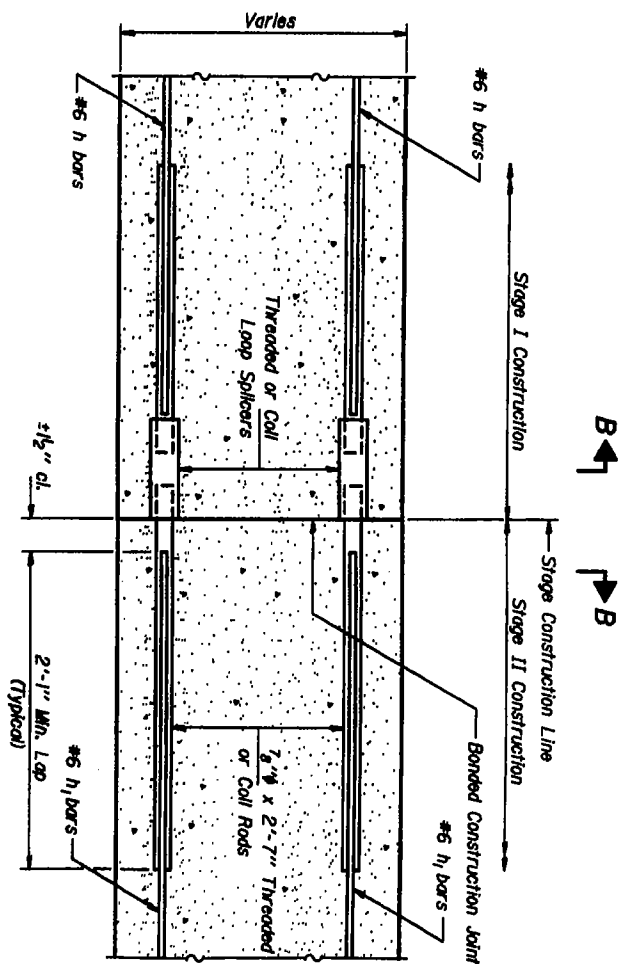
**INSTALLATION AND SETTING METHODS**  
"A": Set splicer by means of a template bolt.  
"B": Set splicer by nailing to wood forms or cementing to steel forms.

**NOTES**

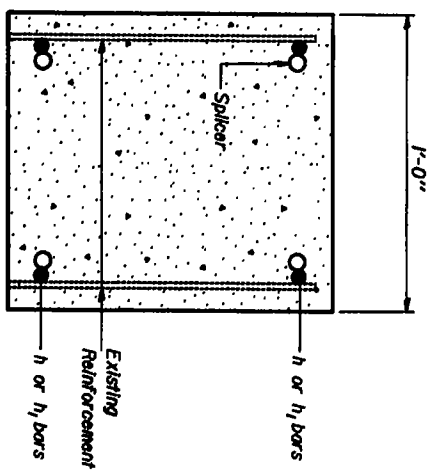
- Steel Splicer (Coupler) assembly shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
- Steel Splicer rods shall be of minimum 60 ksi yield strength, threaded or coated full length and have effective tensile stress area equal or greater than that of the lapped reinforcement bars.
- All reinforcement bars shall be lapped and tied to the splicer rods.
- Splicer (coupler) assembly in the slab shall be epoxy coated in accordance with the requirements for reinforcement bars.
- Other systems of similar design may be submitted to the Engineer for approval. Approved shall be based on certified test results from an approved testing laboratory that the proposed splicer (coupler) assembly satisfies the following requirements:
  - Minimum Capacity =  $1.25 \times f_y \times A_s$   
(Tension in kips)
  - Minimum "Pull-out" Strength =  $1.25 \times f_{c,sp} \times A_s$   
(Tension in kips)
- Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $f_{c,sp}$  = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)  
 $A_s$  = Tensile stress area of lapped reinforcement bars.  
 $t_s$  = 28 day concrete

Typical Splicer (Coupler) Assembly Sizes:

In Slabs	#5 bar lap with 3/4" Splicer (Coupler) x 2'-0" Splicer Rods	Minimum Capacity = 23.0 kips-tension Minimum "Pull-out" Strength = 9.2 kips-tension
In Hatched Block	#6 bar lap with 7/8" Splicer (Coupler) x 2'-7" Splicer Rods	Minimum Capacity = 33.1 kips-tension Minimum "Pull-out" Strength = 13.3 kips-tension



**SECTION THRU ABUTMENT HATCHED BLOCK**  
No epoxy coating required.



**SECTION B-B**  
**SPLICER DETAILS**  
(No. Required = 6)

**BAR SPLICER (COUPLER) DETAILS**

AT STAGE CONSTRUCTION

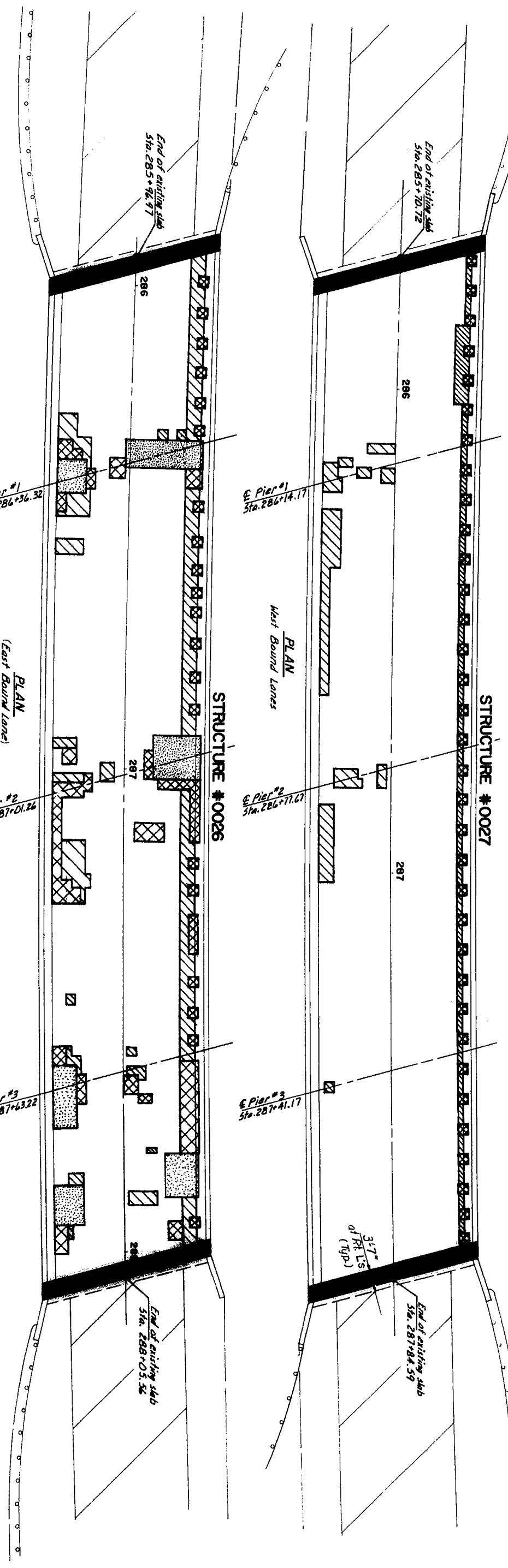
F.A.I. RT. 280 SEC. 81-1B1-1

ROCK ISLAND COUNTY

STA. 286+90.00

DESIGNED BY	J. J. Beckley	DATE	May 23, 1988
CHECKED BY	R. D. Doy	PROJECT NO.	286+90.00
DRAWN BY	R. Doy	APPROVED BY	J. J. Beckley
CHECKED BY	KLR	DESIGNER'S SIGNATURE	
BSD-1	12-1-83		

CONCRETE REMOVAL (ESTIMATED QUANTITY OF 16 CU YDS)  
 FULL DEPTH TYPE I (ESTIMATED QUANTITY OF 69 SQ YDS)  
 FULL DEPTH TYPE II (ESTIMATED QUANTITY OF 45 SQ YDS)  
 PARTIAL DEPTH (ESTIMATED QUANTITY OF 118 SQ YDS)



\* 81-181-1-181-1-2RS, 2-18Y-1

DATE	BY	CHECKED	SCALE	SHEET NO.	TOTAL SHEETS
280				45	36E

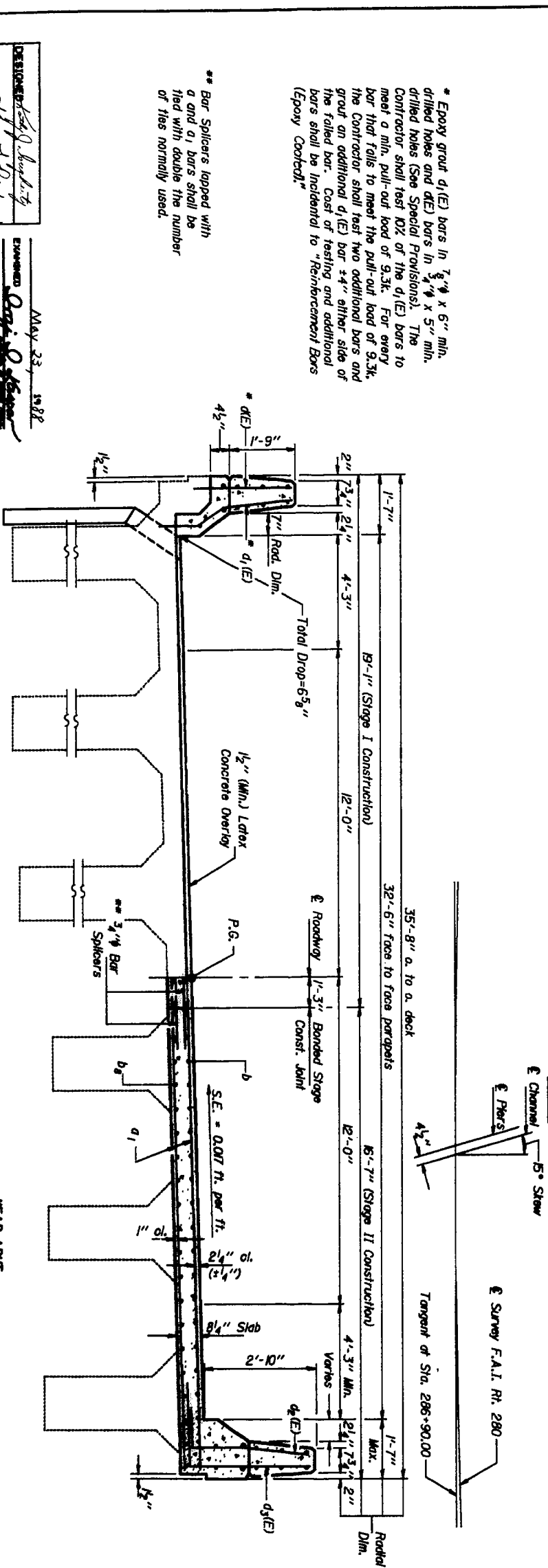
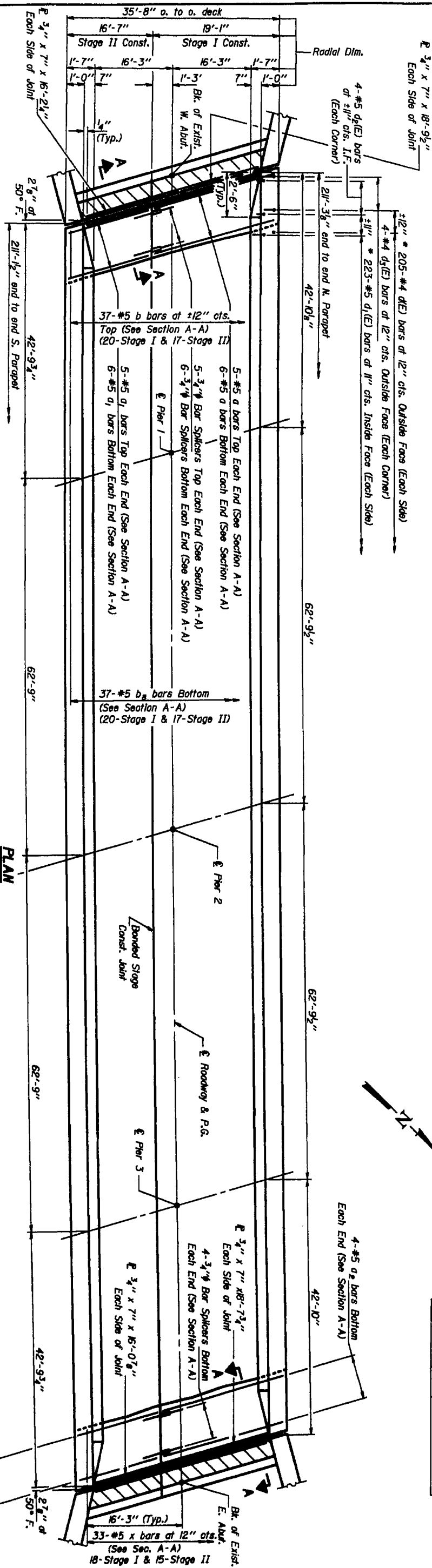
Shr. #507 16

DESIGNED: *[Signature]*  
 CHECKED: *[Signature]*  
 DRAWN: R. Sommer  
 CHECKED: *[Signature]* KLR

EXAMINED: \_\_\_\_\_  
 PASSED: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_

May 23, 1988

DECK SLAB REPAIR  
 FAL. RTE. 280 SEC. 81-18Y-1  
 ROCK ISLAND COUNTY  
 STA. 286+90.00



DESIGNED BY: *S. J. ...*  
CHECKED BY: *R. D. ...*  
DATE: May 23, 1988

\* Epoxy grout d(E) bars in 7/8" x 6" min. drilled holes and d(E) bars in 3/4" x 5" min. drilled holes (See Special Provisions). The Contractor shall test 10% of the d(E) bars to meet a min. pull-out load of 9.3k. For every bar that fails to meet the pull-out load of 9.3k, the Contractor shall test two additional bars and report on additional d(E) bar #4" either side of the failed bar. Cost of testing and additional bars shall be incidental to "Reinforcement Bars (Epoxy Coated)".

\*\* Bar Splicers lapped with a and d bars shall be tied with double the number of ties normally used.

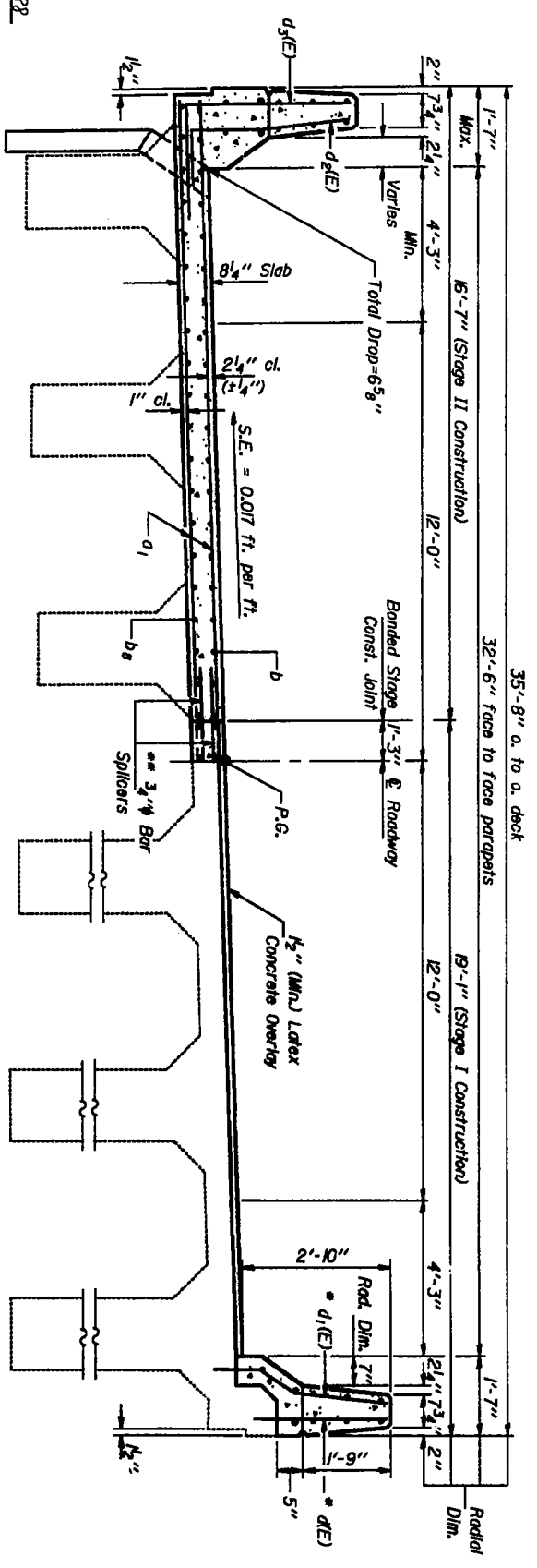
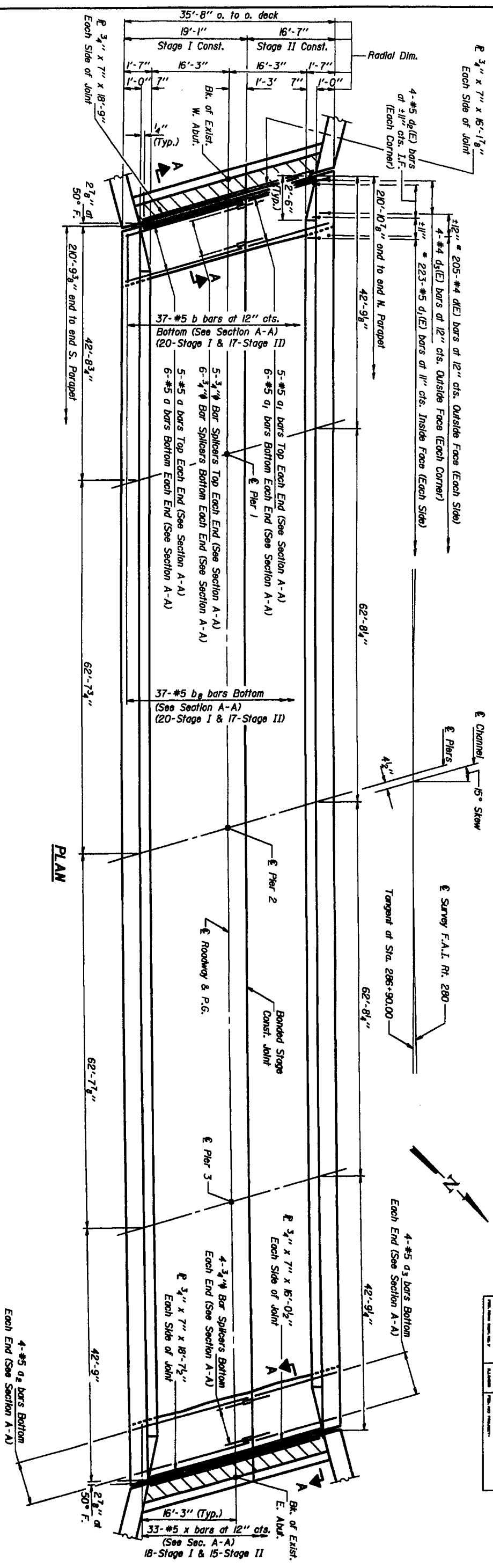
CROSS SECTION  
(Looking East)

SUPERSTRUCTURE  
WEST BOUND LANES  
F.A.I. RT. 200 SEC. 81-BY-1  
ROCK ISLAND COUNTY  
STA. 206+90.00

Notes: See sheet #10 of 16 for Section A-A and Bill of Material.  
Reinforcement bars designated (E) shall be epoxy coated.  
Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Class X Concrete Superstructure on sheet #10 of 16.  
See sheet #1 of 16 for Floor Drain spacing.  
For bar splicer details see sheet #4 of 16.  
Existing longitudinal reinforcement in the deck and the remaining portion of the safety walk shall be cleaned, straightened and incorporated into the new construction. Cost is incidental to Concrete Removal.  
For superstructure details see sheets #8, #9 and #10 of 16.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DATE	BY	CHKD.	APP'D.	NO.
11-20-84	RLH			15
PROJECT				36g
SHEET NO.				7
TOTAL SHEETS				16



\* Epoxy grout d(E) bars in 3/4" x 6" min. drilled holes and d(E) bars in 3/4" x 5" min. drilled holes (See Special Provisions). The contractor shall test 10% of the d(E) bars to meet a min. pull-out load of 9.3k. For every bar that fails to meet the pull-out load of 9.3k, the contractor shall test two additional bars and grout an additional d(E) bar 3/4" either side of the failed bar. Cost of testing and additional bars shall be incidental to "Reinforcement Bars (Epoxy Coated)."

\*\* Bar Splicers lapped with a and a1 bars shall be tied with double the number of ties normally used.

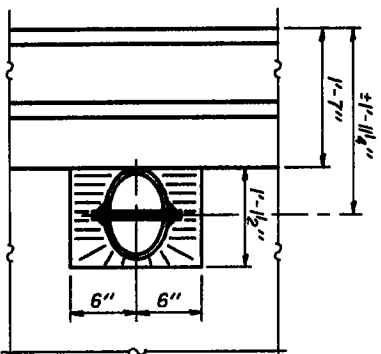
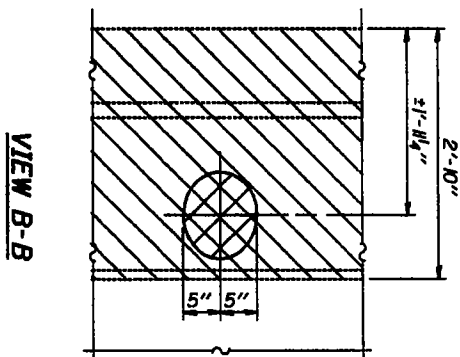
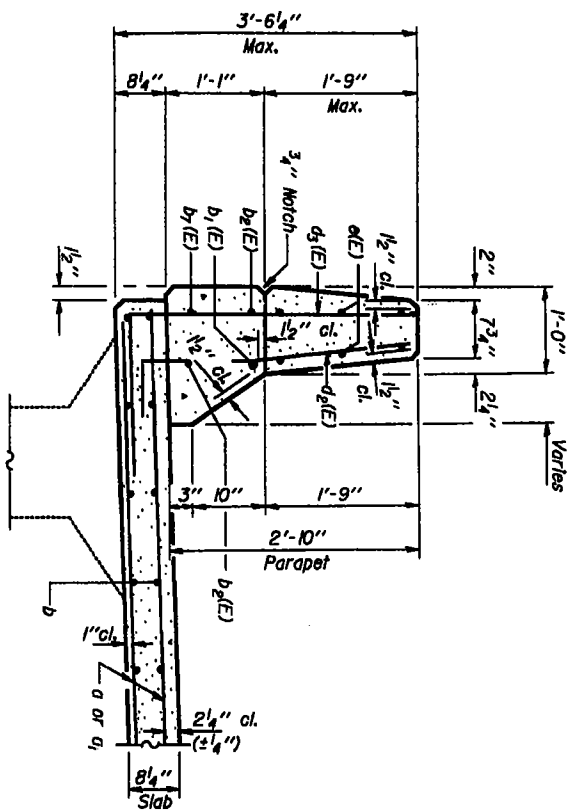
Notes: See sheet #10 of 16 for Section A-A and Bill of Material.  
Reinforcement bars designated (E) shall be epoxy coated.  
Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with "Class X Concrete Superstructure" on sheet #10 of 16.  
See sheet #1 of 16 for Floor Drain spacing.  
For bar splicer details see sheet #4 of 16.  
Existing longitudinal reinforcement in the deck and straddle and incorporated into the new construction. Cost is incidental to "Concrete Removal."  
For superstructure details see sheets #8, #9 and #10 of 16.

DESIGNED BY: *John G. Lambert*  
CHECKED BY: *John G. Lambert*  
DRAWN BY: *R. Dohy*  
CHECKED BY: *K.S.D. KLR*

EXAMINED BY: *David J. Steiner*  
APPROVED BY: *David J. Steiner*  
DATE: *May 23, 1988*

CROSS SECTION  
(Looking East)

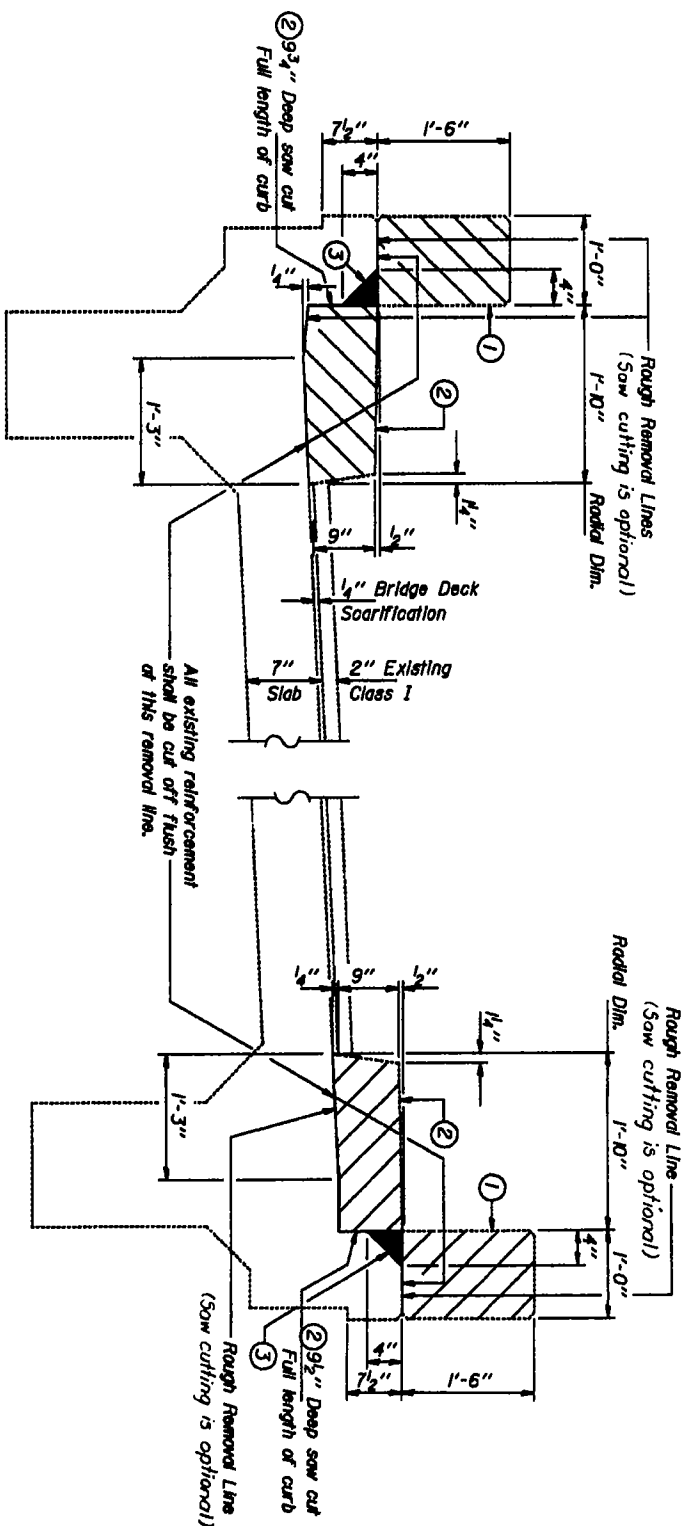
SUPERSTRUCTURE  
EAST BOUND LANES  
F.A.I. HT. 280 SEC. 81-BY-1  
ROCK ISLAND COUNTY  
STA. 286+90.00



SECTION THRU PARAPET  
At end of deck

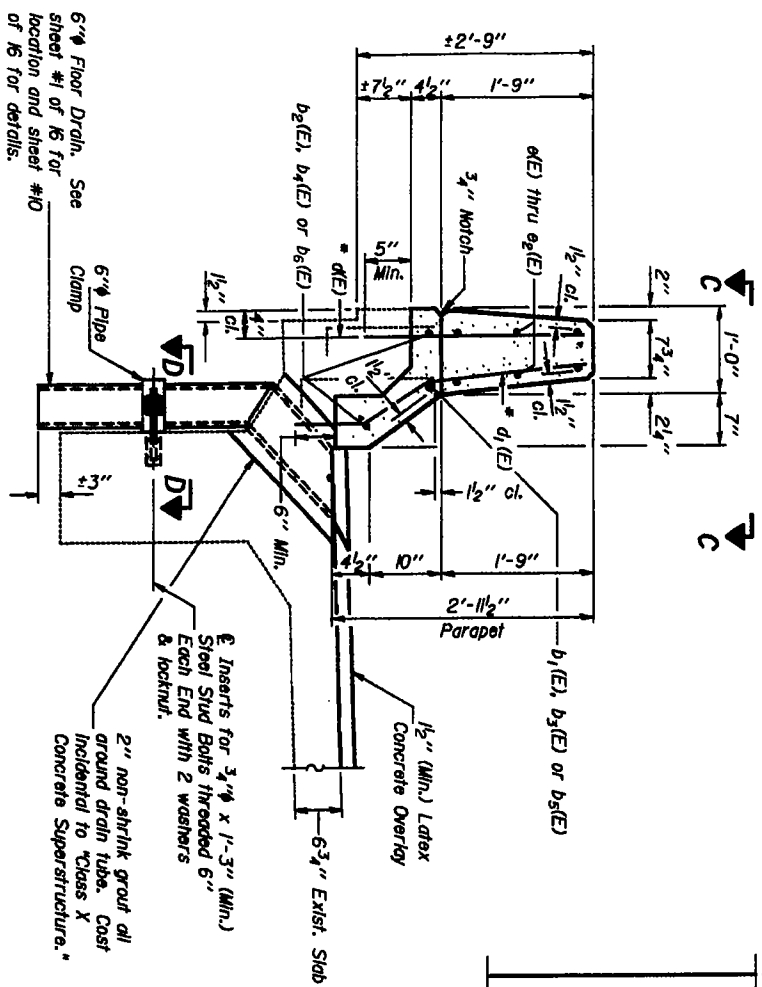
VIEW B-B

VIEW C-C



NORTH CURB  
SAFETY WALK & PARAPET  
REMOVAL DETAILS  
(Typ. except as shown in other sections)

SOUTH CURB  
SAFETY WALK & PARAPET  
REMOVAL DETAILS  
(Typ. except as shown in other sections)

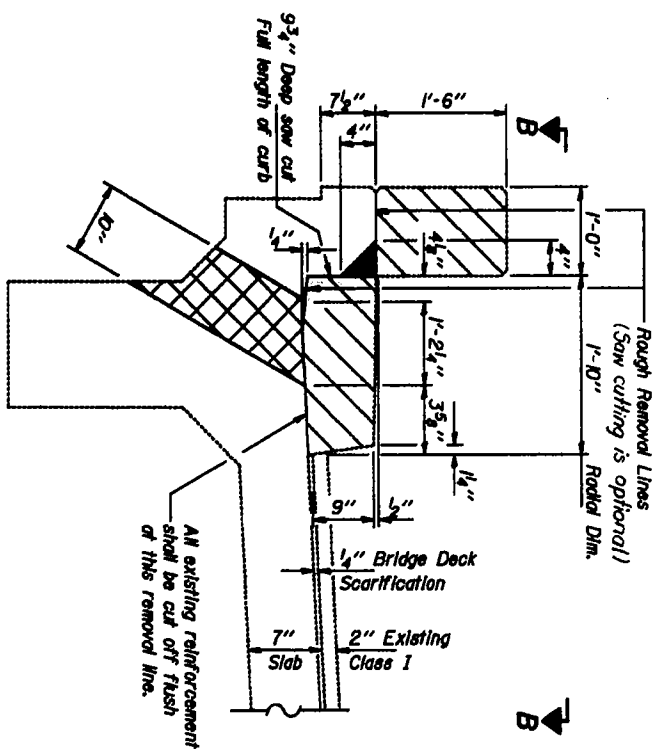


SECTION THRU PARAPET  
At Midspan

Notes:

- Hatched areas indicate "Concrete Removal (Special)".
- Shaded areas indicate concrete that shall be removed with a small hammer, (45# max.), waterjet or saw cut and shall be poled for CS Concrete Removal (Special).
- Cross hatched area indicates concrete that shall be poled for CS hammer, (45# max.), or a water jet and shall be poled for CS "Concrete Removal".
- Cur existing reinforcement as required to clear floor drains. For Section D-D, bar details and Bill of Material see sheet #10 of IS.

\* Epoxy grout  $d_1(E)$  bars in  $7/8"$  x  $6"$  min. drilled holes and  $d(E)$  bars in  $3/4"$  x  $5"$  min. drilled holes (See Special Provision). The Contractor shall test 10% of the  $d_1(E)$  bars to meet a min. pull-out load of 9.3k. For every bar that fails to meet the pull-out load of 9.3k, the Contractor shall test two additional bars and grout an additional  $d_1(E)$  bar x 4 either side of the failed bar. Cost of testing and additional bars shall be incidental to "Reinforcement Bars (Epoxy Grout)".



NORTH CURB  
SAFETY WALK & PARAPET  
REMOVAL DETAILS  
(At Floor Level)

- PARAPET & SAFETY WALK REMOVAL SEQUENCE**
- 1 Remove parapet above safety work.
  - 2 Saw cut safety work as shown & remove to rough removal line.
  - 3 Complete removal to finish line with light hammer (45# or less), waterjet or saw cut.

**SUPERSTRUCTURE DETAILS**

F.A.I. RT. 280 SEC. 8I-BY-1  
ROCK ISLAND COUNTY  
STA. 286+90.00

DESIGNED BY: *[Signature]*  
CHECKED BY: *[Signature]*  
DRAWN: R. Dohy  
CHECKED: *[Signature]*

DESIGNED BY: *[Signature]*  
CHECKED BY: *[Signature]*  
DRAWN: *[Signature]*  
CHECKED: *[Signature]*

May 23 1982

6" Floor Drain. See sheet #1 of IS for location and sheet #10 of IS for details.

6" Pipe Clamp

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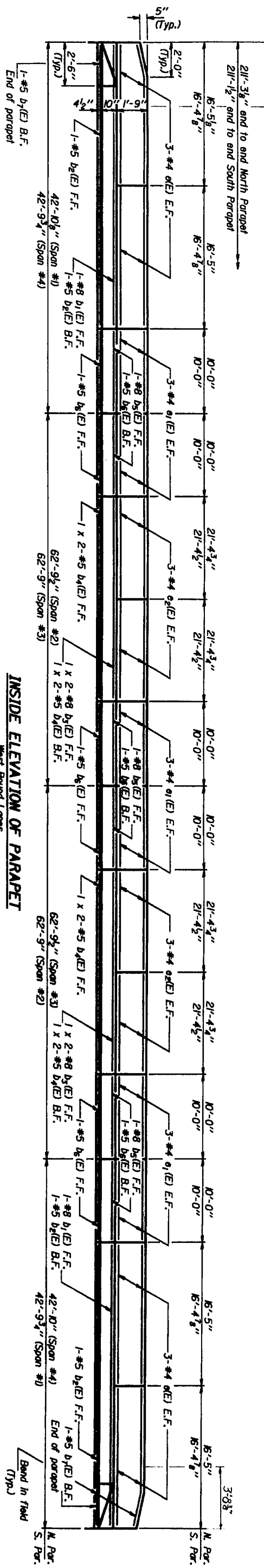
6" Pipe Clamp

6" Floor Drain. See sheet #1 of IS for location and sheet #10 of IS for details.

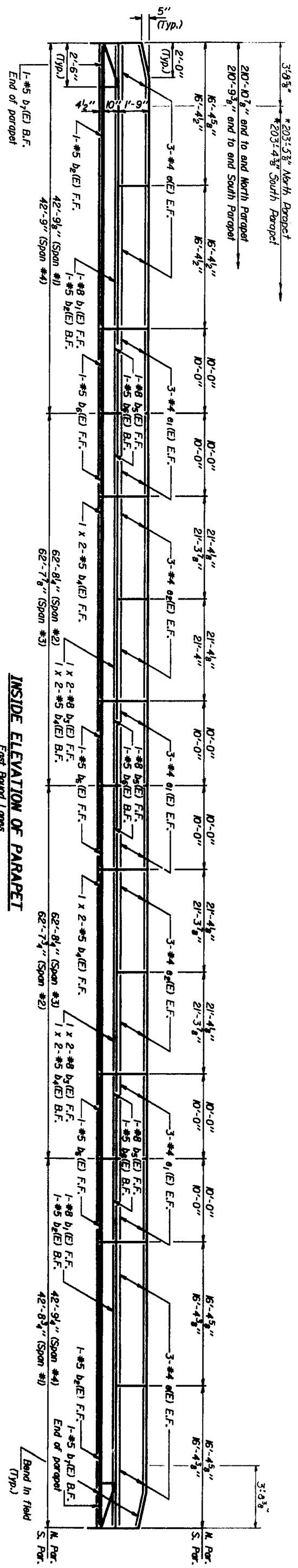
6" Pipe Clamp

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	DATE	BY	SCALE	SHEET NO.
200-100	12/21/11	R. ISLUND	1/8" = 1'-0"	9



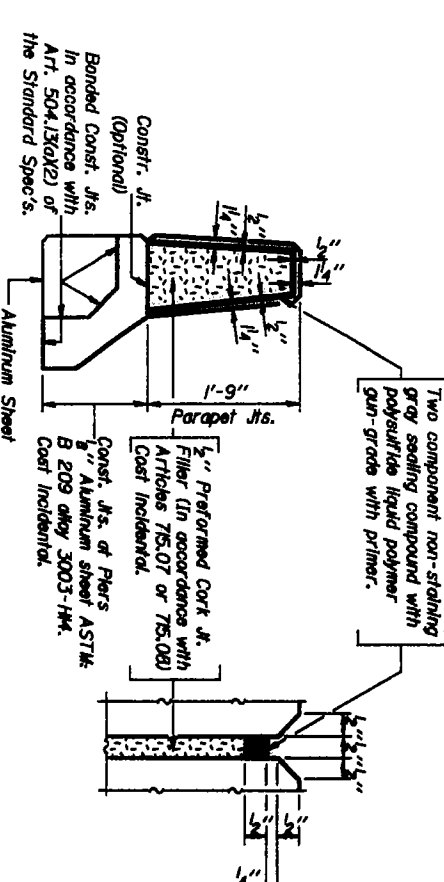
INSIDE ELEVATION OF PARAPET  
West Bound Lanes



INSIDE ELEVATION OF PARAPET  
East Bound Lanes

**MIN. BAR LAPS**  
#5 bars = 1'-8"  
#8 bars = 3'-5"

\* Limits of Concrete Removal (Special)."



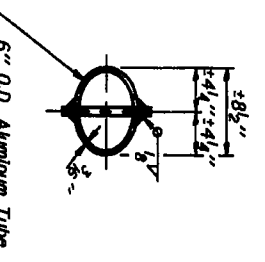
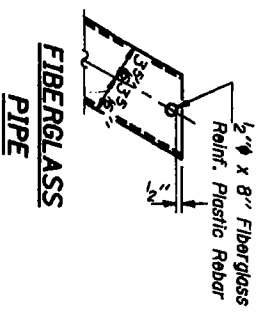
Notes:  
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.  
Reinforcement bars designated (E) shall be epoxy coated.  
See sheet #10 of 16 for BW of material.  
See sheet #8 of 16 for superstructure details.

DESIGNED BY	DATE
CHECKED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE

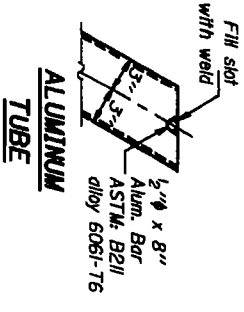
**SUPERSTRUCTURE DETAILS**  
F.A.I. RI. 200 SEC. 21-187-1  
ROCK ISLAND COUNTY  
STA. 206+90.00



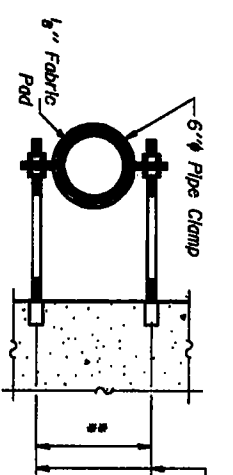
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



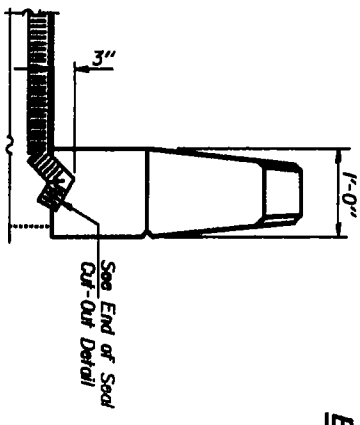
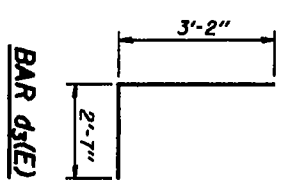
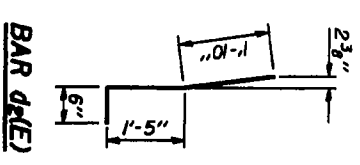
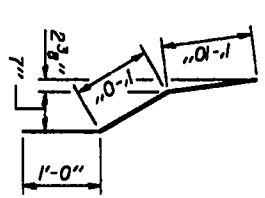
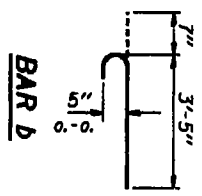
TOP PLAN  
(Showing Aluminum Tube of Deck Surface)



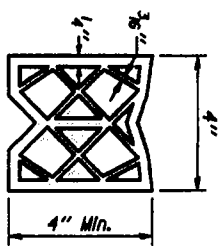
Notes: Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum. The surface of the Fiberglass pipe shall be free of bond inhibiting agents. The exterior surfaces of the Fiberglass Floor Drain shall be painted with one coat of Aluminum paint. Painting of the Fiberglass Floor Drains will not be required when the exterior surfaces of the furnished drains are coated by the manufacturer with silver pigment or a pigment that matches the color of the concrete beam. The clamping device and inserts shall be gonzonized in accordance with AASHTO M-232.



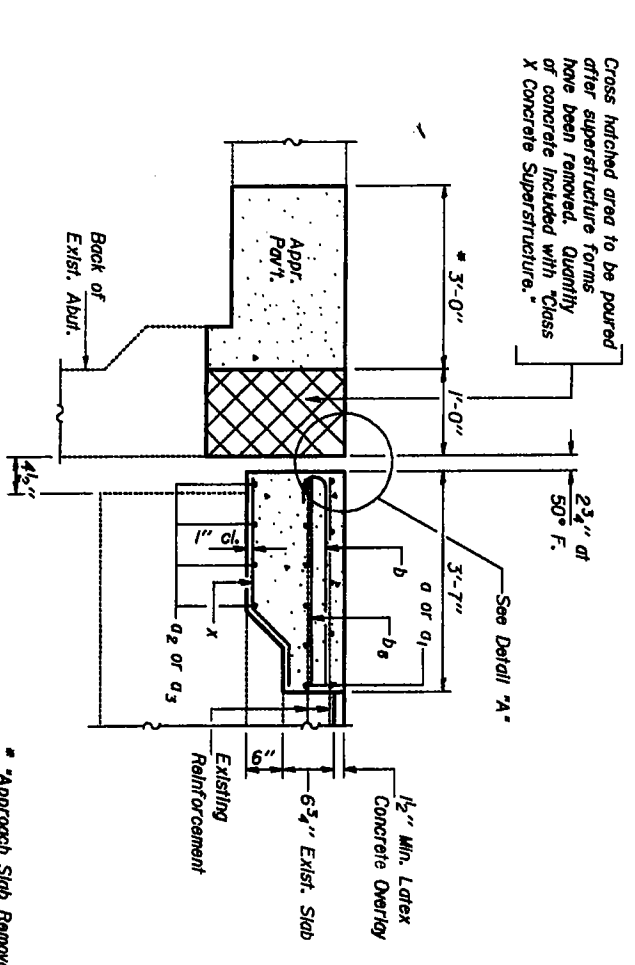
\*\* Dimension as required by pipe clamp.



TYPICAL END OF SEAL TREATMENT

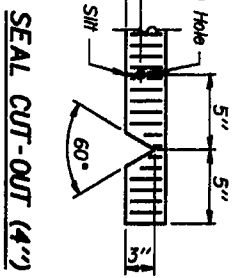


PREFORMED JOINT SEAL (4")



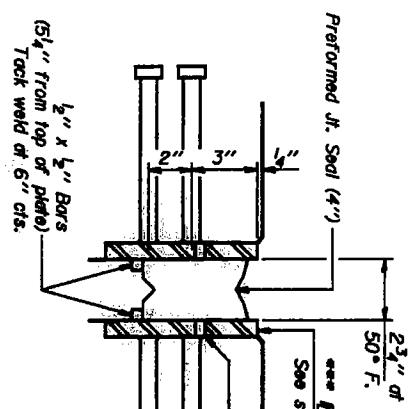
SECTION A-A  
Dimensions of Rt. L's

\* Approach Slab Removal and Replacement. See Roadway Plans for poy item and quantity.



SEAL CUT-OUT (4")

\*\* Maximum space between installed segments shall be 1/8 inch. Seal space with Silicone Sealant suitable for Structural Steel.



DETAIL "A"

3/4 inch x 8 inch Granular or solid Fluor filled headed studs conforming to Article 70.35 of the Std. Specs. automatically and welded at 12 inch dia. cts. 156 - Required (Stage II) and 156 - Required (Stage III).

Sheet No.	81-1	Sheet	15	Scale	3/4" = 1'
Project No.	1280	Location	R. ISLAND	Station	45
Drawn	AS	Checked	AS	Date	3-6-1
Design	AS	Reviewed	AS	By	AS

TWO SUPERSTRUCTURES  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
1	44	#5	8'-6"	—
2	44	#5	17'-0"	—
3	15	#5	8'-0"	—
4	15	#5	15'-3"	—
5	148	#5	4'-0"	—
6	8	#8	3'-6"	—
7	8	#5	3'-6"	—
8	15	#8	23'-0"	—
9	32	#5	28'-0"	—
10	24	#8	9'-9"	—
11	48	#8	9'-9"	—
12	8	#5	1'-9"	—
13	148	#5	3'-5"	—
14	84	#4	2'-5"	—
15	898	#5	3'-10"	—
16	32	#5	3'-10"	—
17	32	#4	5'-9"	—
18	95	#4	8'-1"	—
19	144	#4	9'-9"	—
20	95	#4	8'-1"	—
21	94	#4	8'-1"	—
22	95	#5	2'-9"	—
23	152	#5	2'-9"	—
Concrete Reinforced				
24	152	#5	2'-9"	2I
Class X Concrete				
25	103.4	—	—	103.4
Reinforcement Bars				
26	12390	—	—	12390
Epoxy Coated				
27	3730	—	—	3730
Reinforcement Bars				
28	—	—	—	—
Concrete Removal				
29	—	—	—	—
(See Detail)				

Reinforcement bars designated (E) shall be epoxy coated.

SUPERSTRUCTURE DETAILS  
F.A.I. 111. 200 SEC. 91-1  
NEW ISLAND COUNTY  
STA. 205+00.00

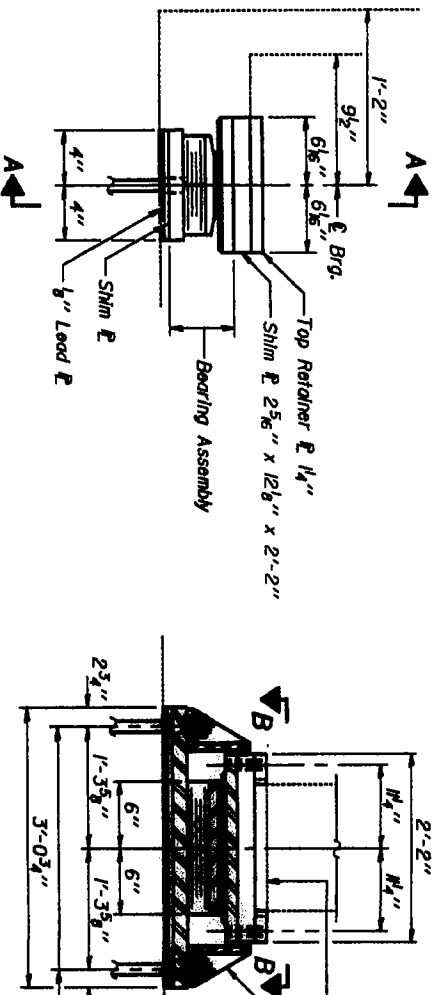
DESIGNED: *[Signature]*  
CHECKED: *[Signature]*  
DRAWN: R. Doby  
CHECKED: *[Signature]*

DESIGNED: *[Signature]*  
CHECKED: *[Signature]*  
DRAWN: *[Signature]*  
CHECKED: *[Signature]*

S-1-D 12-1-83

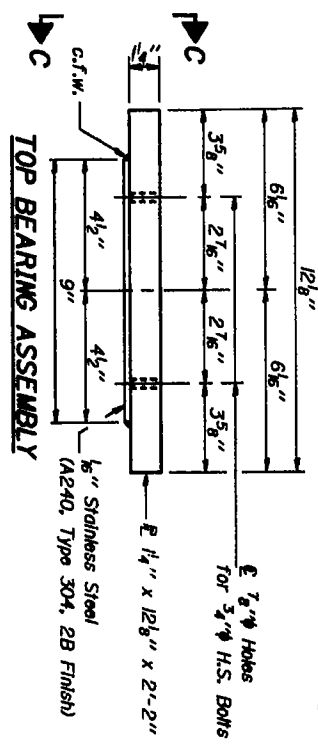
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Existing  $1\frac{1}{2}$ "  $\varnothing$  shall be cleaned by Method I and shall receive one coat of the lead and chromate free oil/lead paint system primer and two coats of aluminum paint. Coat shall be incidental to Elastomeric Bearing Assembly, Type II.

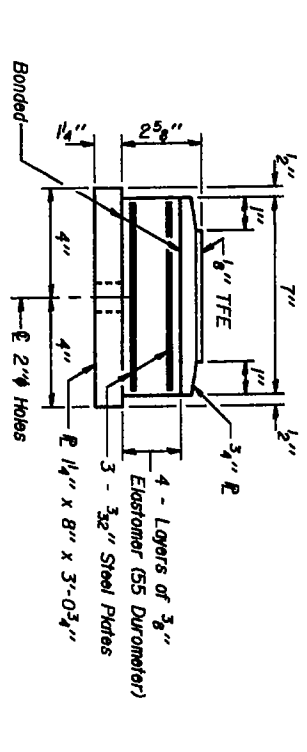


ELEVATION AT ABUT.

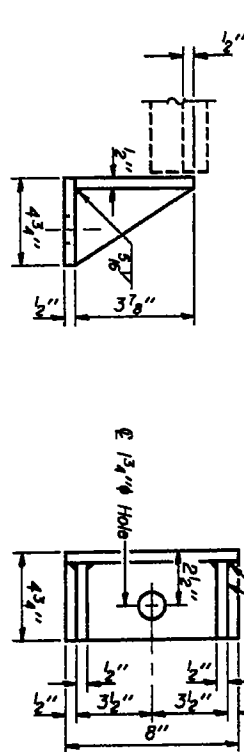
TYPE II TFE ELASTOMERIC EXP. BRG.  
(Dimensions are at right angles)



TOP BEARING ASSEMBLY

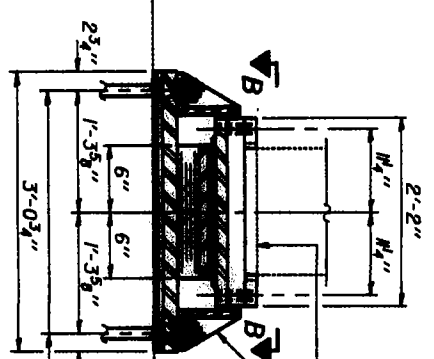


BOTTOM BEARING ASSEMBLY



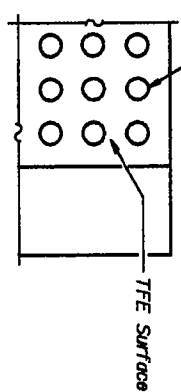
SIDE RETAINER

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

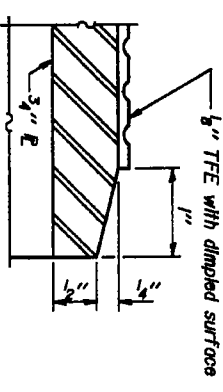


SECTION A-A

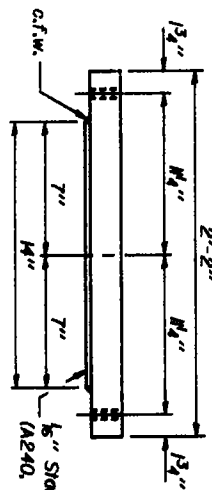
\* Note: For anchor bolt installation details see sheet #16 of IS.



PLAN-TFE SURFACE

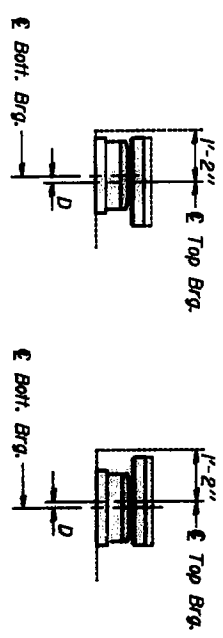


SECTION THRU TFE



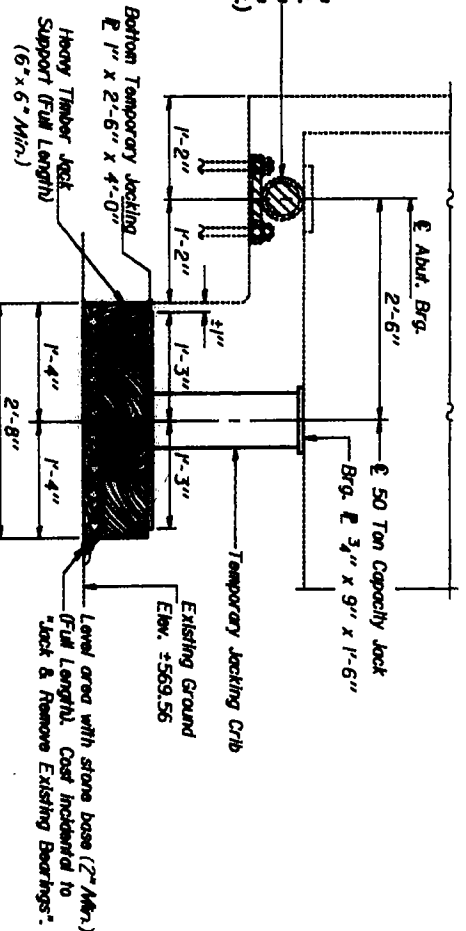
VIEW C-C

Note: The  $1\frac{1}{2}$ " TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MIL-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces. Bonding of  $1\frac{1}{2}$ " TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



SETTING ANCHOR BOLTS AT EXP. BRG.

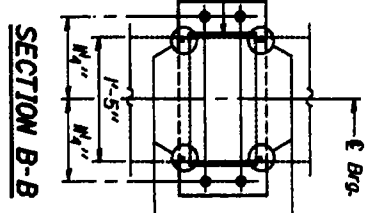
Hatched areas indicate removal of exist. bearing. Anchor bolts shall be cut off flush with the top of the abutment.



JACK AND REMOVE EXISTING BEARINGS  
(Dimensions are at Rt. L<sup>2</sup>)

Notes: Jacking, cribbing, and bearing replacement shall occur under Stage Construction. The maximum dead load reaction per bearing at each abutment is 25.6 kips. A 2'-8" x 3'-0" heavy timber jack support shall be placed along the front face of each abutment as shown above. The timbers shall be removed after the new bearings are in place. Each beam shall be raised  $\frac{1}{4}$ " Max.

Two component non-staining gray sealing compound with polysulfide liquid polymer grade with primer shall be used to fill & wide gap between existing plate and new retainer plate. (Fig.)



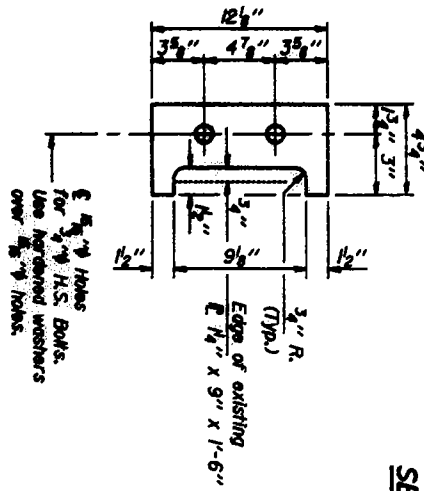
SECTION B-B

Chip existing concrete to clear top retainer plate. Non-stick grout shall be used to fill voids after placement of top retainer plate. Coat hatched.

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	24

TOP RETAINER PLATE



BEARING DETAILS  
F.A.I. AT 200 SEC. B-BRY-1  
MCK ISLAND COUNTY  
STA. 208+00.00

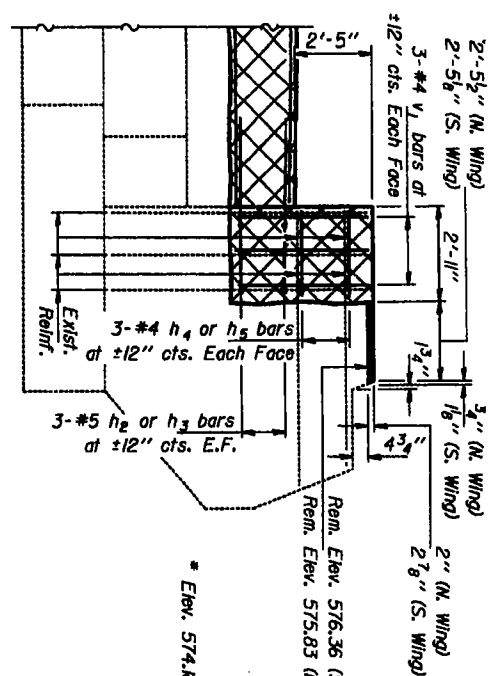
DATE	BY	CHKD	APP'D	SHEET NO. / # SHEETS
11/28/01	R. ISLAND	45	36 K	15 SHEETS

DESIGNED: *[Signature]*  
CHECKED: *[Signature]*  
DRAWN: R. DOTY  
CHECKED: *[Signature]*  
I-2-E2 12-1-85

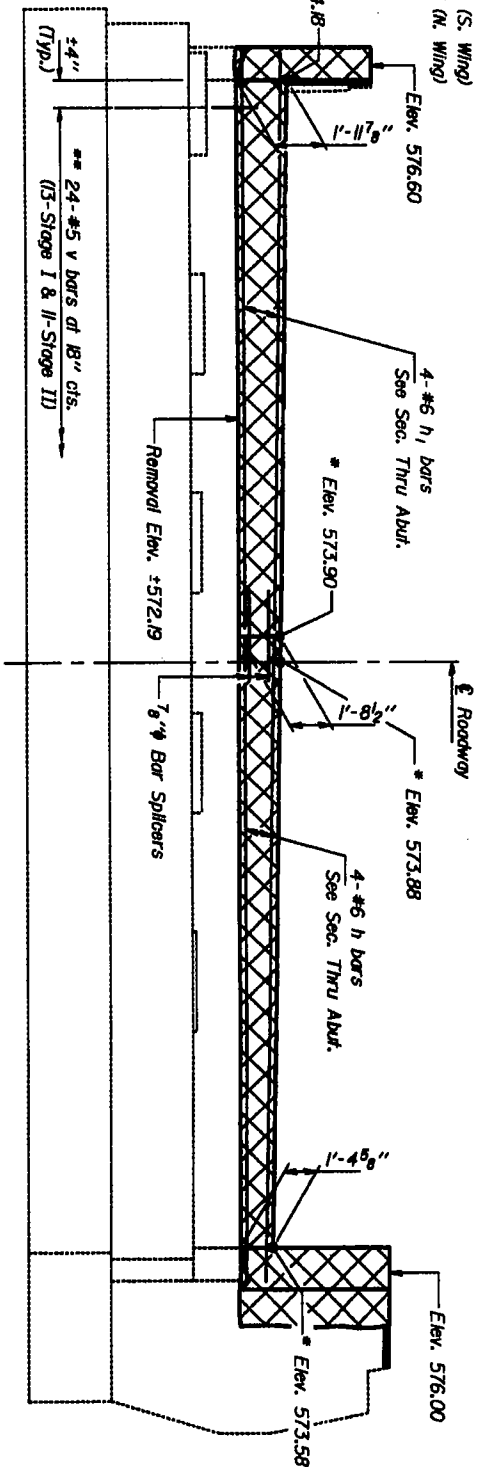
EXAMINED: *[Signature]*  
APPROVED: *[Signature]*  
DATE: May 23, 1988

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SHEET NO. 12  
OF SHEETS



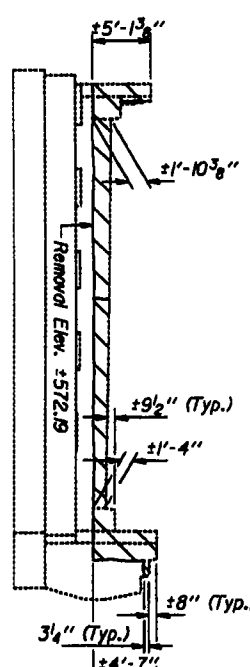
**WINGWALL ELEVATION**



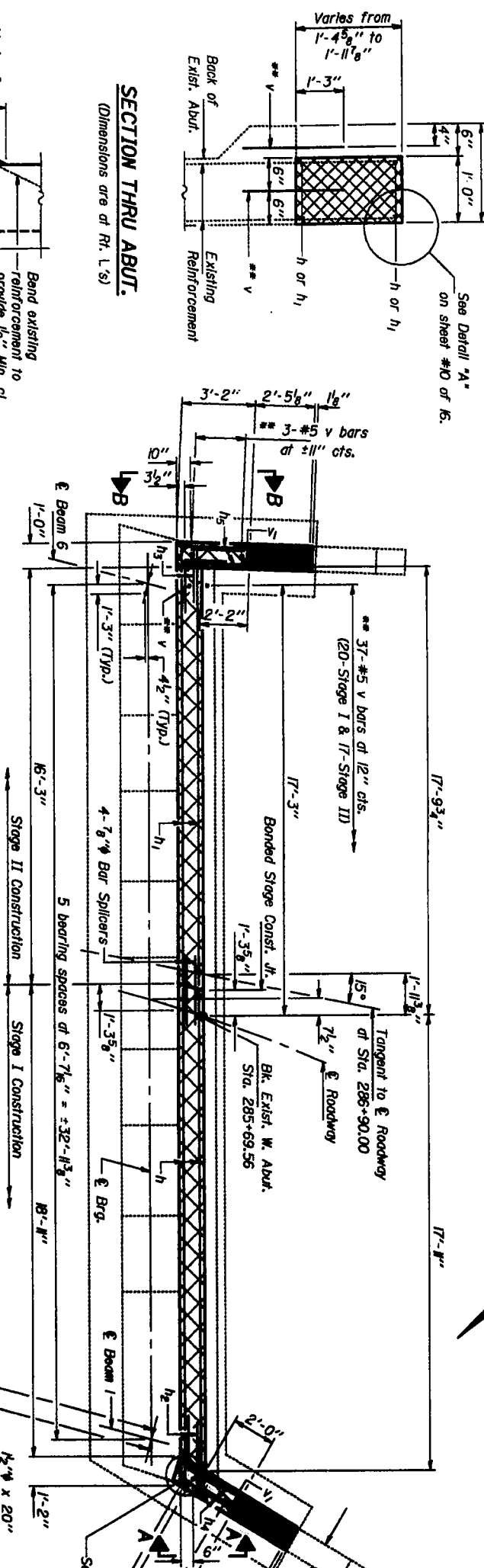
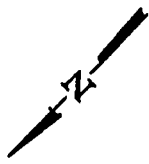
**ELEVATION**  
(Looking West)

\* Epoxy grout #5 v bars in 7/8\"/>

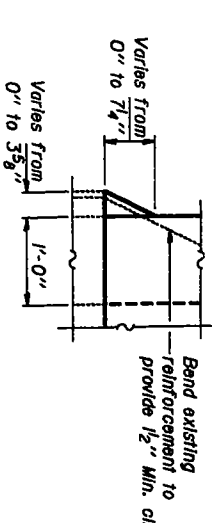
\* Elevation given at front face of hatched block.



**ELEVATION**  
(Looking West)



**SECTION THRU ABUT.**  
(Dimensions are at Rt. L'S)

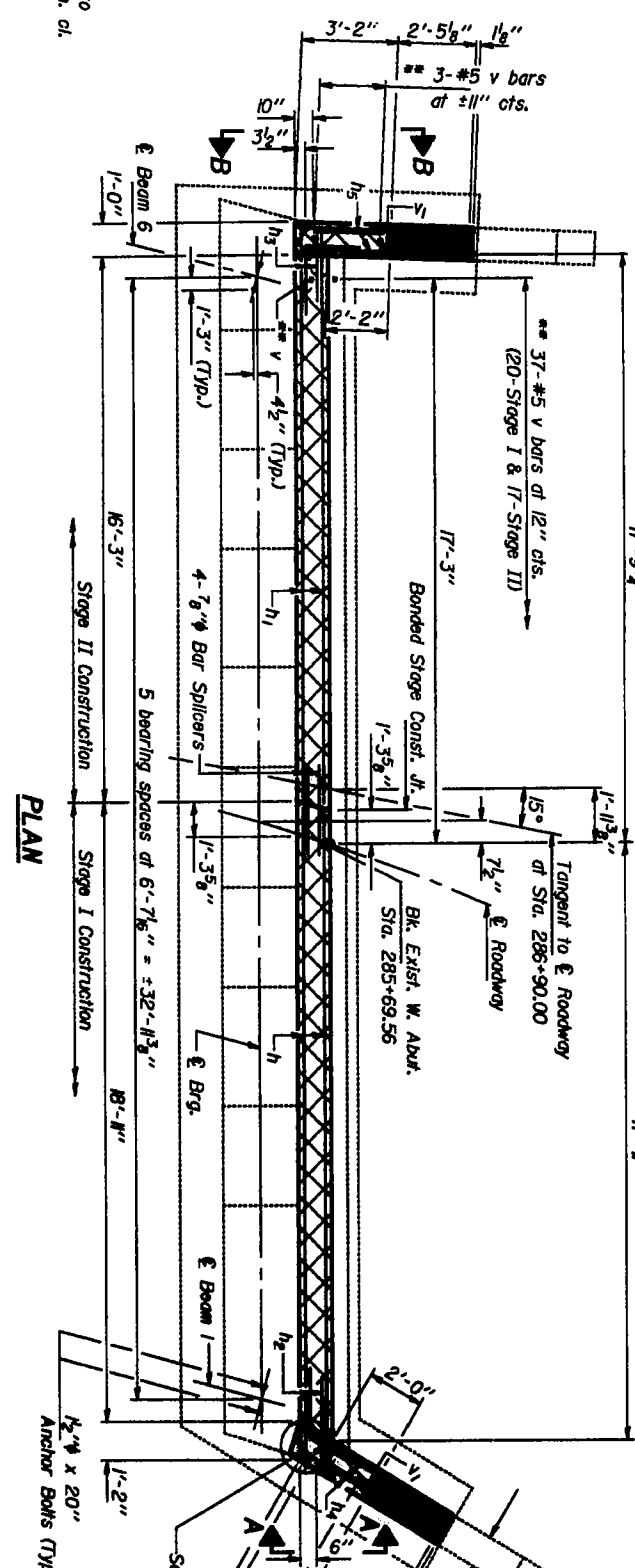


**VIEW A-A**

DESIGNED BY: *[Signature]*  
CHECKED BY: *[Signature]*  
DRAWN BY: R. Doby  
CHECKED BY: K.R.

EXAMINED BY: *[Signature]*  
PAIRED BY: *[Signature]*  
APPROVED BY: *[Signature]*

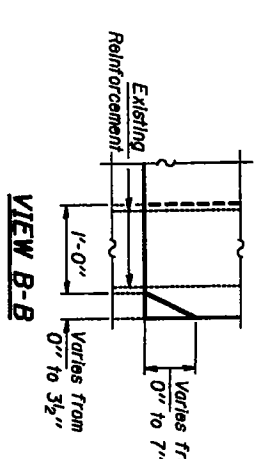
May 23, 1988



**PLAN**

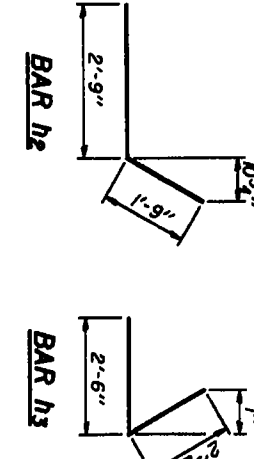
Notes:  
All edges shall have standard 3/4\"/>

Hatched areas shall indicate "Concrete Removal." Reinforcement extending into removed areas shall be cleaned, straightened and incorporated into the new construction. Cross hatched areas to be poured after superstructure forms have been removed. Quantity of concrete included with "Class X Concrete Superstructure" on sheet #10 of R. For details of bar splicers see sheet #4 of R. Shaded areas indicate Cement Mortar. Cost incidental to "Class X Concrete Superstructure."



**VIEW B-B**

**CONCRETE REMOVAL DETAILS**



**BILL OF MATERIAL**

Bar No.	Size	Length	Shape
h	#6	8'-6"	
h1	#6	7'-0"	
h2	#5	4'-6"	
h3	#5	4'-8"	
h4	#4	8'-4"	
h5	#4	2'-9"	
v	#5	2'-0"	
v1	#4	3'-6"	

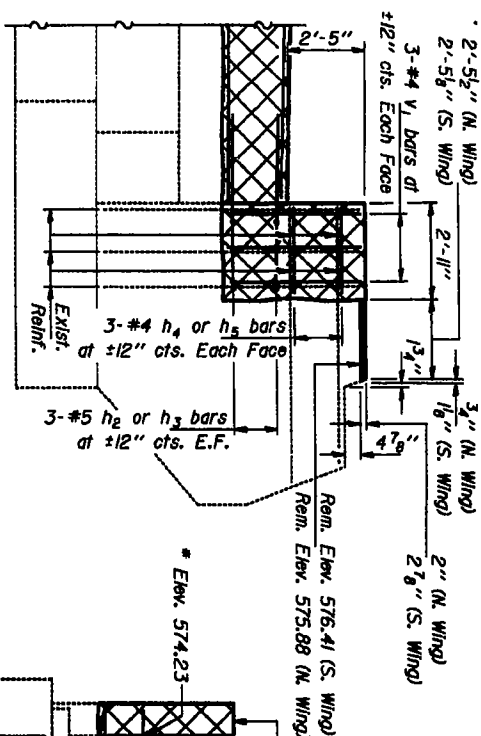
  

Concrete Removal Reinforcement Bars	Qt. Yd.
Found	3
	470

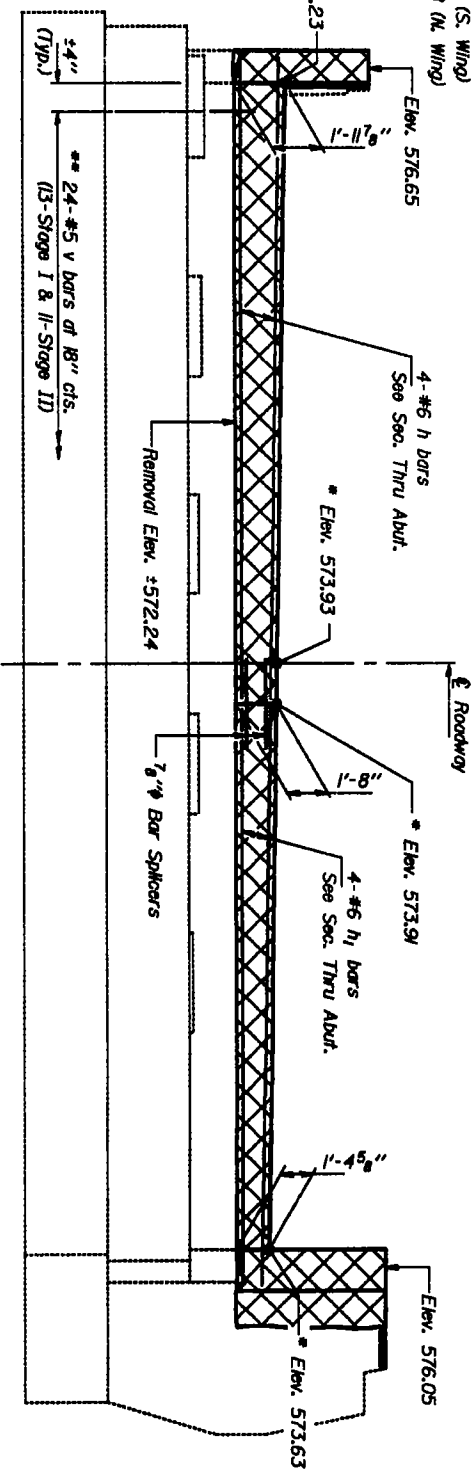
**WEST ABUTMENT**  
**WEST BOUND LANES**  
F.A.I. RT. 280 SEC. 81-8Y-1  
ROCK ISLAND COUNTY  
STA. 285+90.00

**DETAIL 'B'**

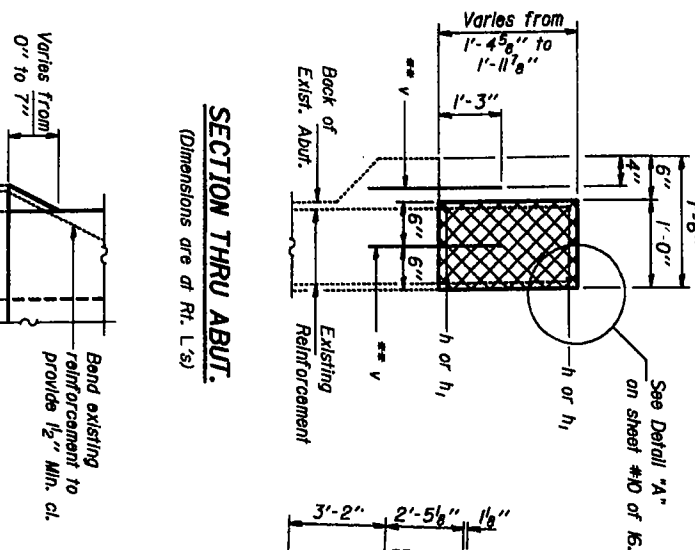
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



WINGWALL ELEVATION



ELEVATION  
(Looking West)

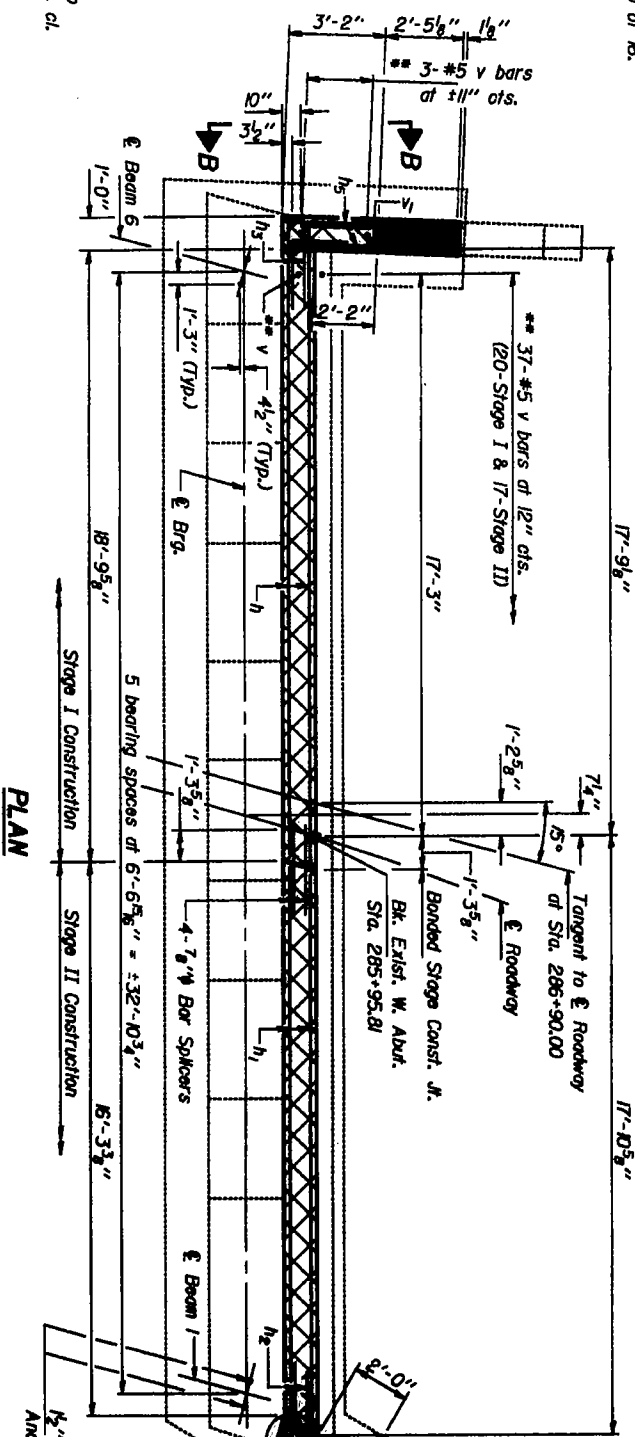


SECTION THRU ABUT.  
(Dimensions are at Rt. L's)

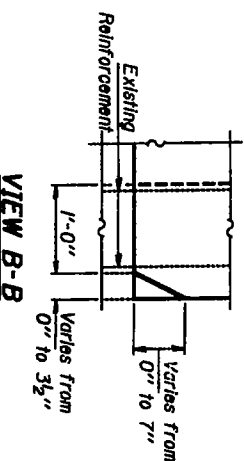
VIEW A-A

DESIGNED BY: *R. Dohy*  
CHECKED BY: *R. Dohy*  
DRAWN BY: *R. Dohy*  
CHECKED BY: *HR*

APPROVED BY: *R. Dohy*  
DATE: May 23, 1982

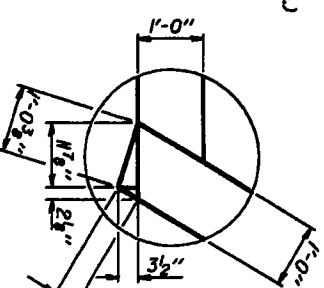


PLAN



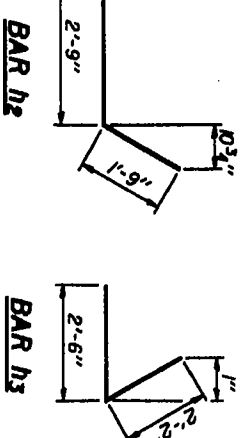
VIEW B-B

Notes:  
All edges shall have standard 3/4" chamfers.  
Hatched areas indicate "Concrete Removal" and reinforcement extending into removed areas shall be cleaned, straightened and incorporated into the new construction.  
Cross hatched areas to be poured after superstructure forms have been removed.  
Quantity of concrete included with "Class X Concrete Superstructure" on sheet #10 of B.  
For details of bar splicers see sheet #4 of B.  
Shaded areas indicate Cement Mortar. Cast incidental to "Class X Concrete Superstructures".

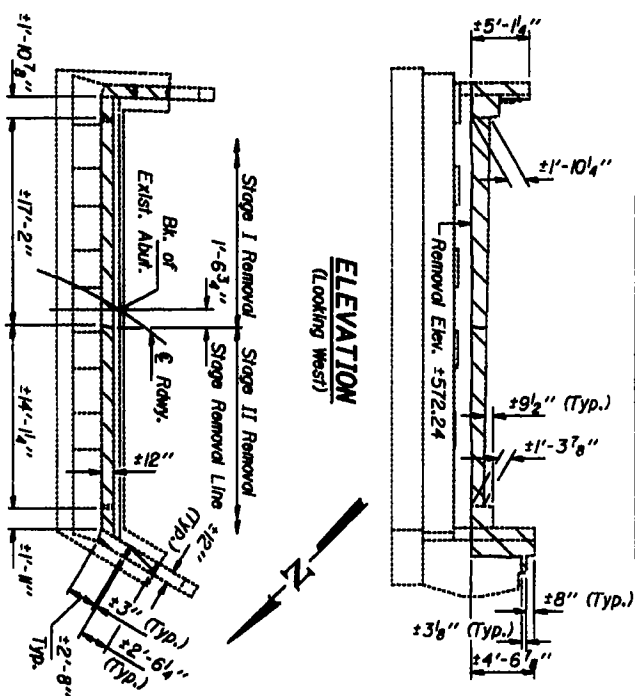


DETAIL 'B'

CONCRETE REMOVAL DETAILS



PLAN



ELEVATION  
(Looking West)

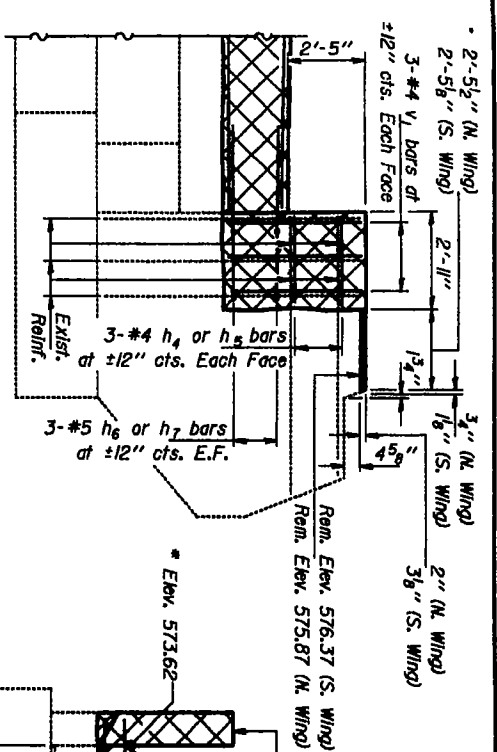
Bar No.	Size	Length	Shape
h	#6	8'-6"	
h1	#6	7'-0"	
h2	#5	4'-6"	
h3	#5	4'-8"	
h4	#4	2'-4"	
h5	#4	2'-9"	
v	#5	2'-0"	
v1	#4	3'-6"	
Concrete Removal			CL Yd.
Reinforcement Bars			Pound
			470

Sheet No.	Sheet	Scale	Date
180	31-1	1/8" = 1'-0"	5/21/82
180	31-2	1/8" = 1'-0"	5/21/82
180	31-3	1/8" = 1'-0"	5/21/82
180	31-4	1/8" = 1'-0"	5/21/82
180	31-5	1/8" = 1'-0"	5/21/82
180	31-6	1/8" = 1'-0"	5/21/82
180	31-7	1/8" = 1'-0"	5/21/82
180	31-8	1/8" = 1'-0"	5/21/82
180	31-9	1/8" = 1'-0"	5/21/82
180	31-10	1/8" = 1'-0"	5/21/82
180	31-11	1/8" = 1'-0"	5/21/82
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180	31-13	1/8" = 1'-0"	5/21/82
180	31-14	1/8" = 1'-0"	5/21/82
180	31-15	1/8" = 1'-0"	5/21/82
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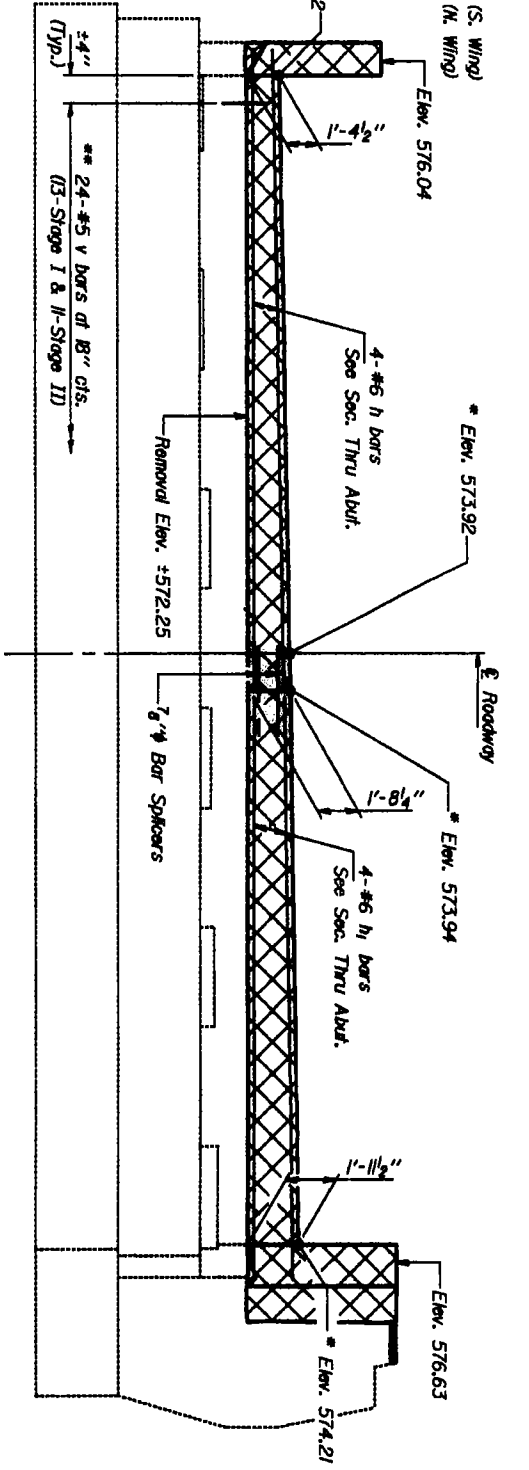
SHEET NO. 13  
6 SHEETS

WEST ABUTMENT  
EAST BOUND LANES  
F.A.I. RT. 280 SEC. 81-BY-1  
ROCK ISLAND COUNTY  
STA. 285+90.00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

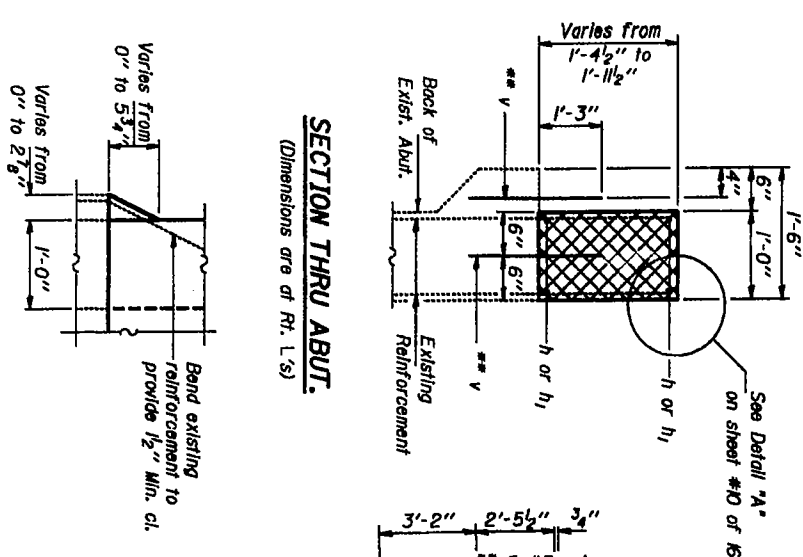


WINGWALL ELEVATION



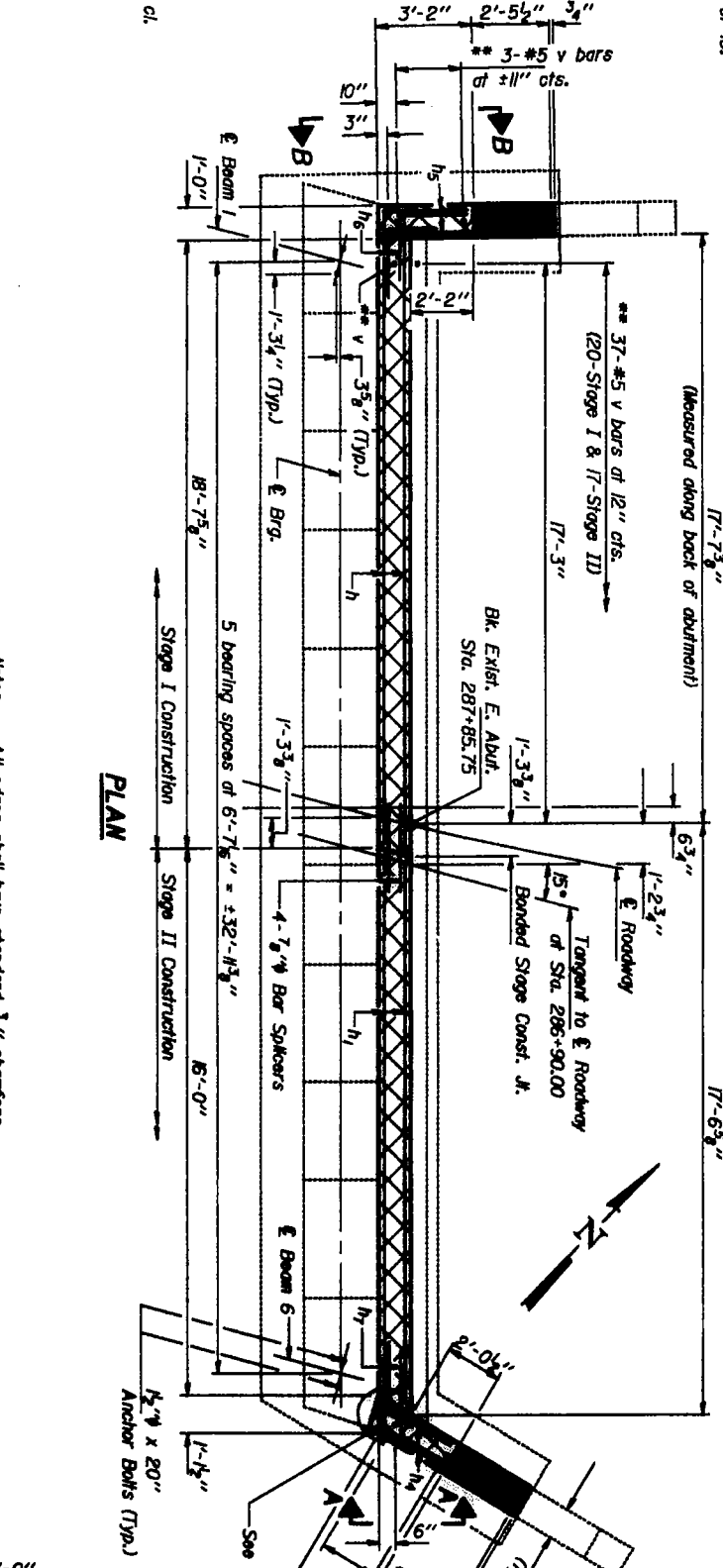
ELEVATION  
(Looking East)

\*\* Epoxy grout #5 v bars in 7/8" x 9" Min. drilled holes. See Special Provisions.



SECTION THRU ABUT.  
(Dimensions are at Rt. L's)

VIEW A-A

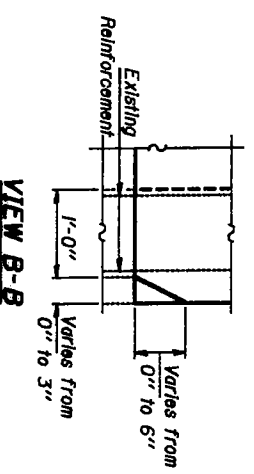


PLAN

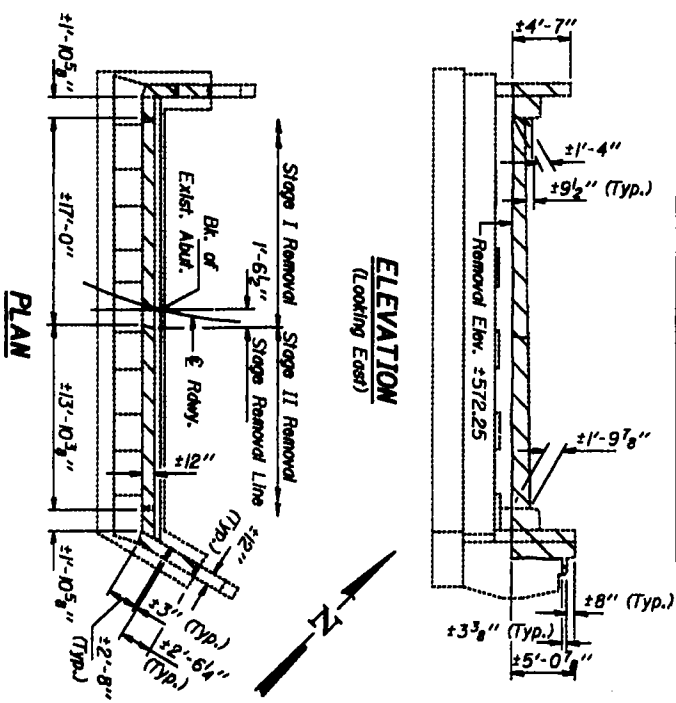
**Notes:**  
All edges shall have standard 3/4" chamfers.  
Hatched areas indicate "Concrete Removal." Reinforcement extending into removed areas shall be cleaned, straightened and incorporated into the new construction. Cross hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with "Class X Concrete Superstructure" on sheet #10 of B. For anchor bolt installation details see sheet #4 of B. Shaded areas indicate Cement Mortar. Cast incidental to "Class X Concrete Superstructures."

DESIGNED BY: *[Signature]*  
CHECKED BY: *[Signature]*  
DRAWN: R. Dohy  
CHECKED: KLR

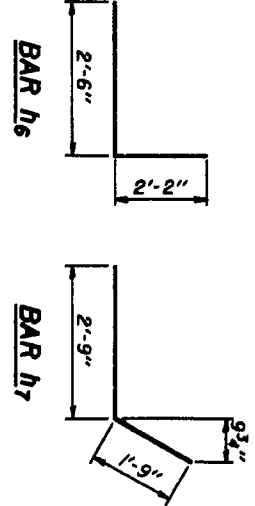
May 23, 1988  
APPROVED: *[Signature]*  
SUPERVISOR OF HIGHWAYS



VIEW B-B

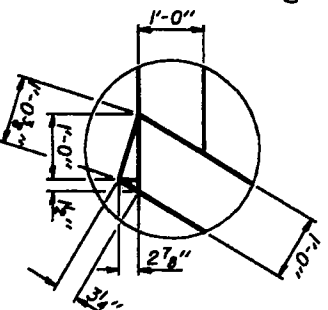


CONCRETE REMOVAL DETAILS



**BILL OF MATERIAL**

Bar No.	Size	Length	Stage
h	#6	8'-6"	
h1	#6	17'-0"	
h2	#4	2'-4"	
h3	#4	2'-9"	
h4	#5	4'-8"	
h5	#5	4'-6"	
h6	#5	2'-0"	
h7	#4	3'-6"	
Concrete Removal			
Reinforcement Bars Found			
		CL Yd.	3
		Found	470



DETAIL B-B

Sheet No.	Project No.	Project Name	Scale
15	280	RI ISLAND	45
16			36N

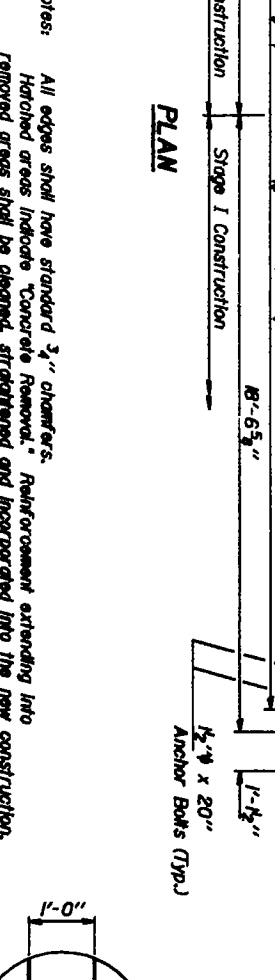
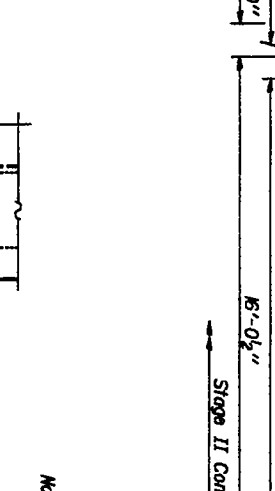
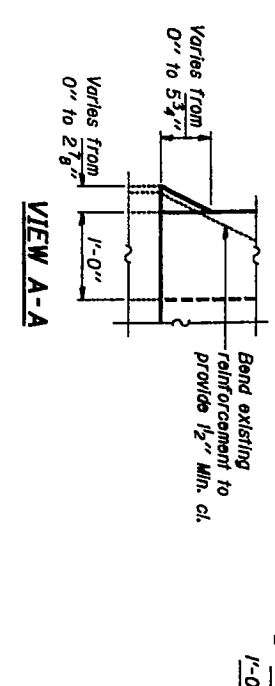
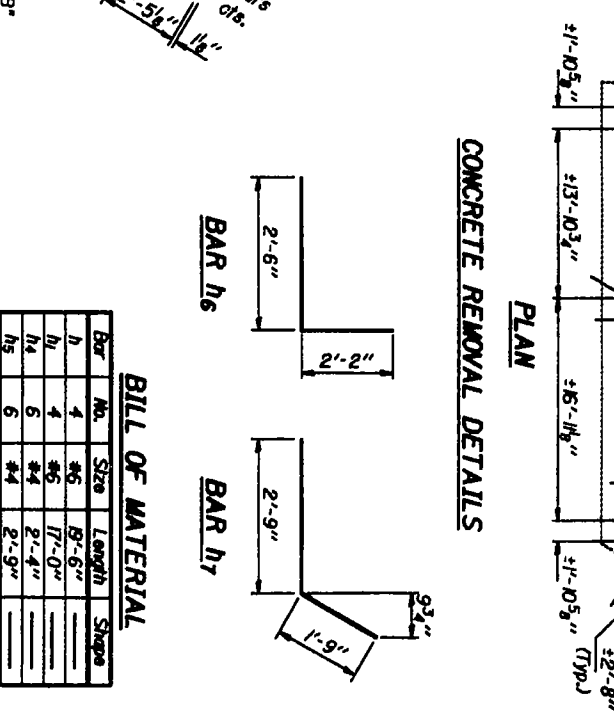
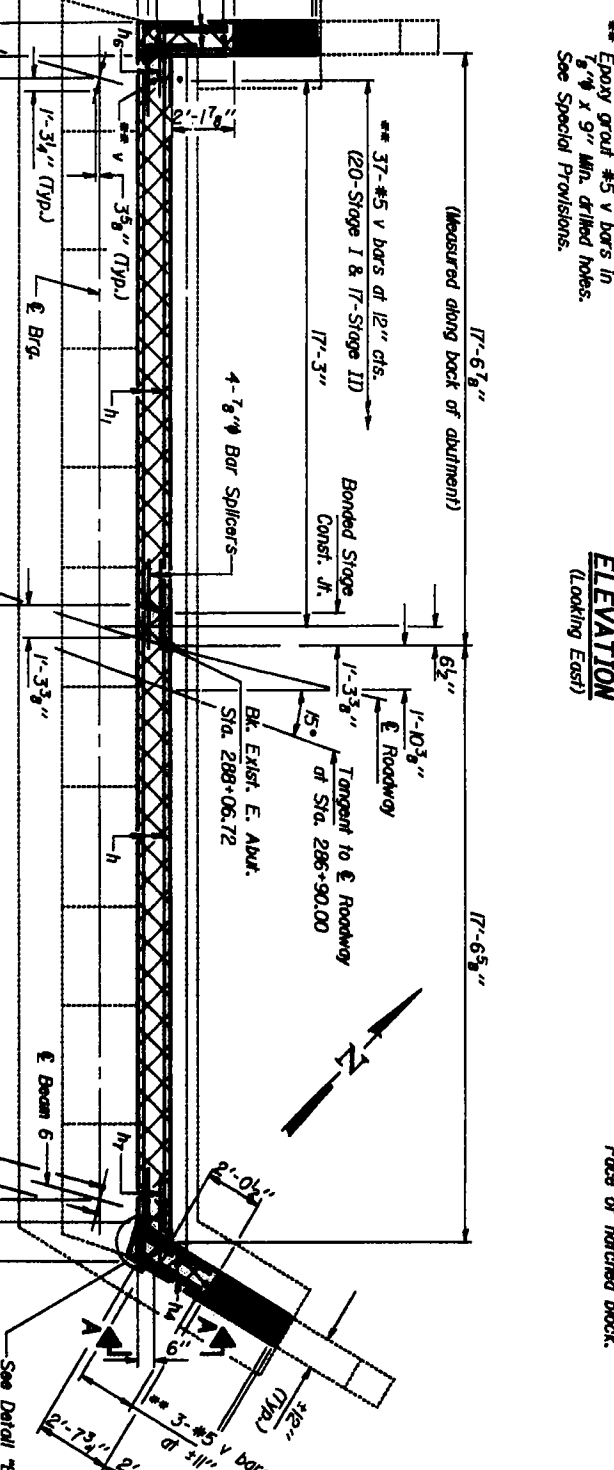
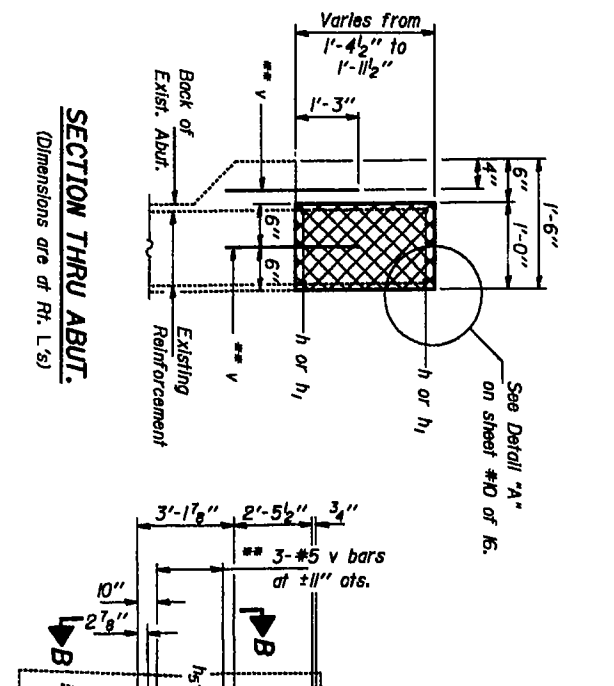
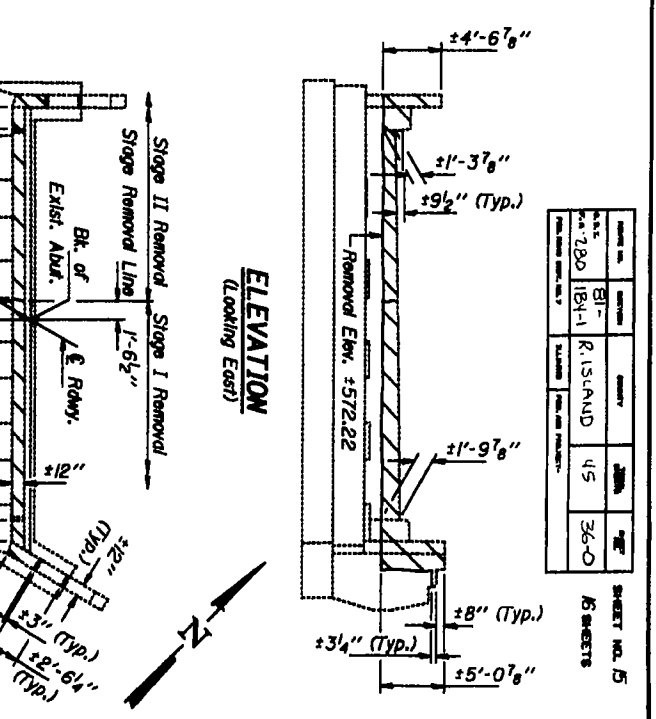
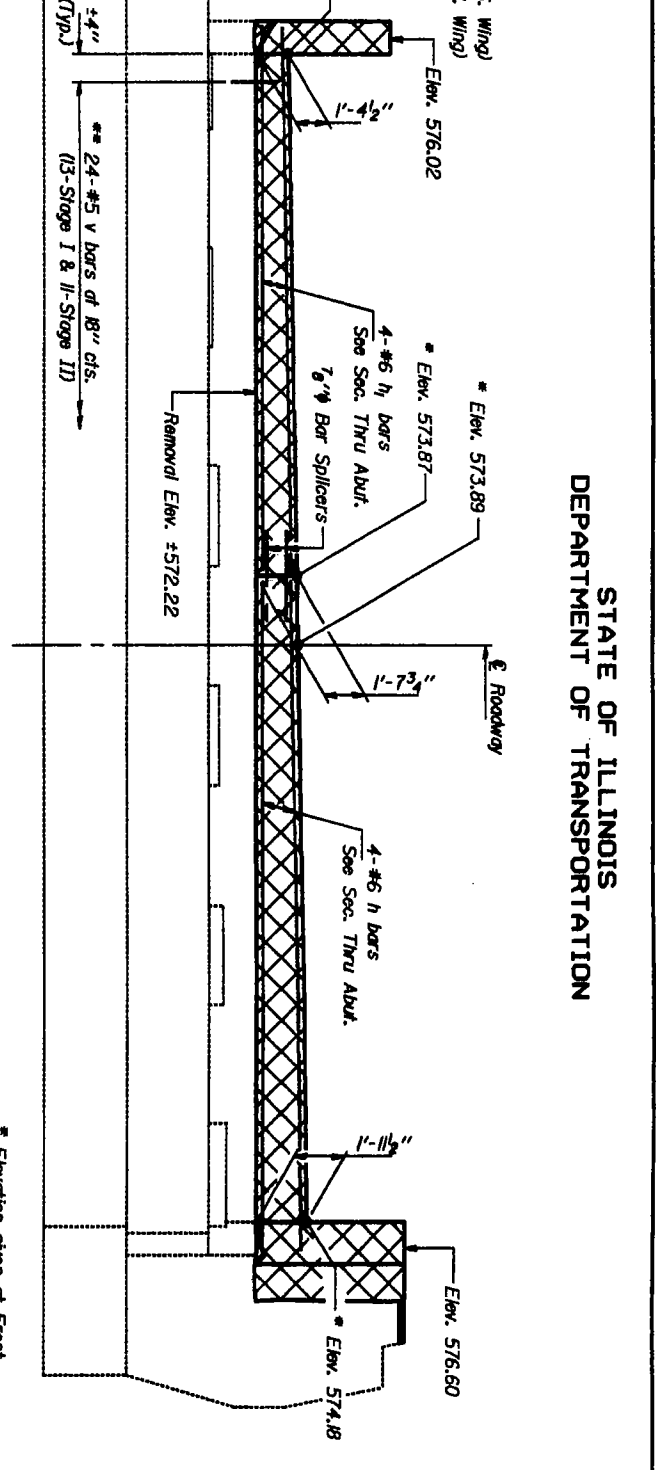
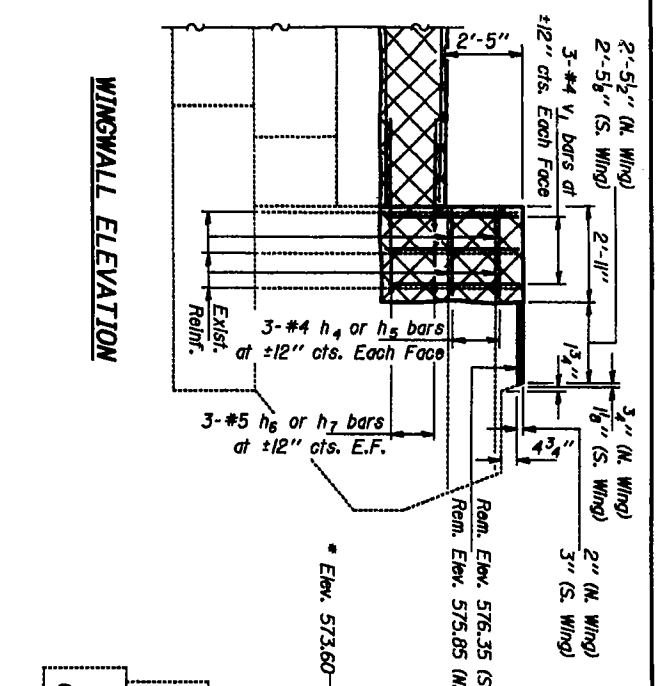
SHEET NO. 14  
16 SHEETS

EAST ABUTMENT  
WEST BOUND LANES  
F.A.I. RT. 280 SEC. 81-81-1  
ROCK ISLAND COUNTY  
STA. 206+90.00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	280	CONTRACT NO.	15
DISTRICT	1B-1	SECTION	36-0
DATE	5/23/88	SCALE	AS SHOWN
DRAWN BY	RISLAND	CHECKED BY	RISLAND

SHEET NO. 15  
16 SHEETS



Bar No.	Size	Length	Stages
1	#6	8'-6"	I
2	#6	17'-0"	I
3	#4	2'-4"	I
4	#4	2'-9"	I
5	#5	4'-8"	I
6	#5	4'-6"	I
7	#5	2'-0"	I
8	#4	3'-6"	I

Concrete Removal	Qt. Yd.
Reinforcement Bars	470
Found	3

DESIGNED BY *[Signature]*  
CHECKED BY *[Signature]*  
DRAWN BY *[Signature]*  
R. Dohy  
CHECKED *[Signature]* KR

APPROVED *[Signature]*  
MAY 23, 1988

NOTES:  
1. All edges shall have standard 3/4" chamfers.  
2. Hatched areas indicate "Concrete Removal." Reinforcement extending into removed areas shall be cleaned, straightened and incorporated into the new construction.  
3. Cross hatched area to be poured after superstructure forms have been removed.  
4. Quantity of concrete included with "Class X Concrete Superstructure" on sheet #10 of 16.  
5. For anchor bolt installation details see sheet #15 of 16.  
6. Shaded areas indicate Cement Mortar. Cast incidental to "Class X Concrete Superstructures."

CONCRETE REMOVAL DETAILS

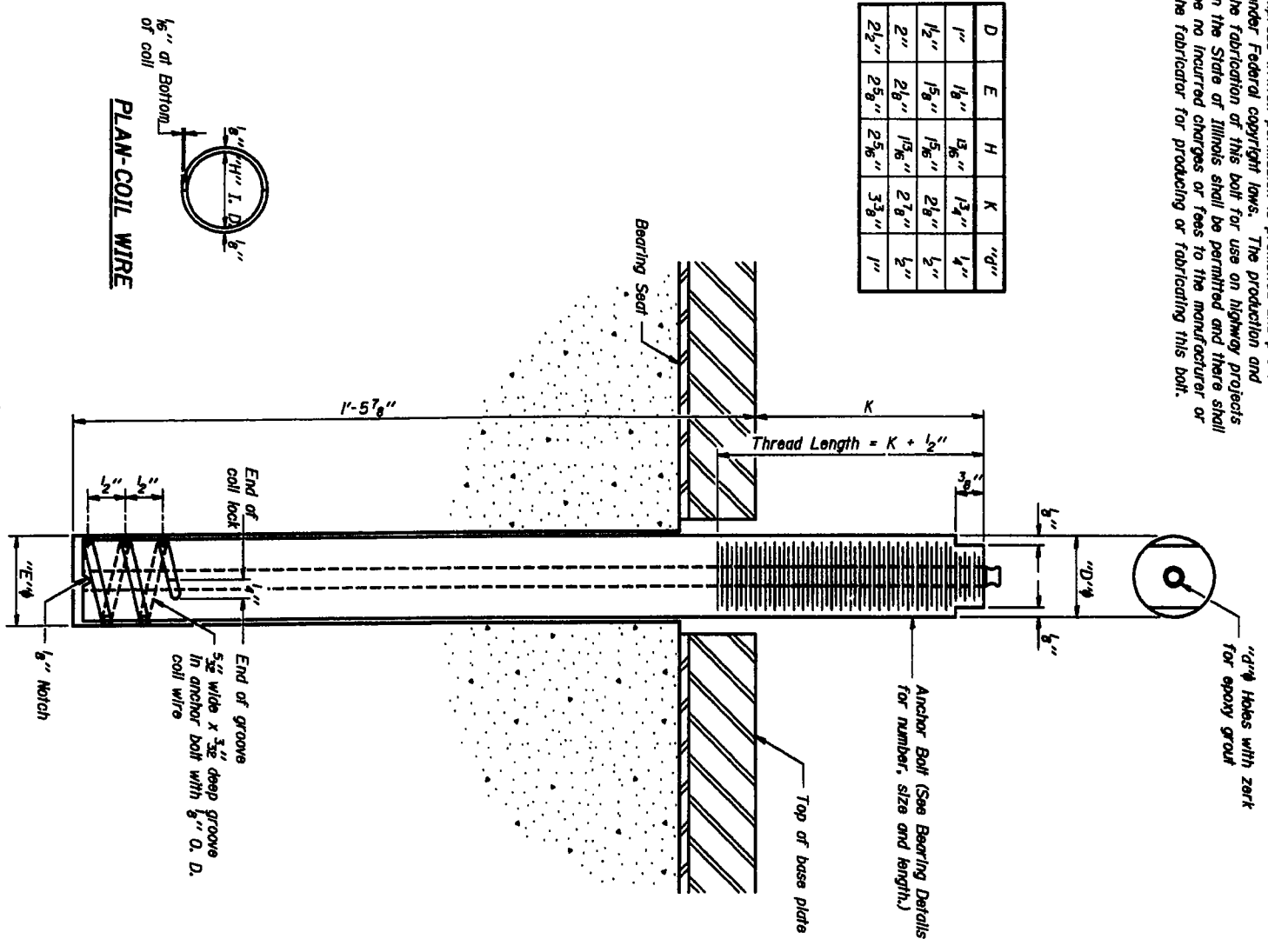
DETAIL "B"

EAST ABUTMENT  
EAST BOUND LANES  
E.A.I. RT. 200 SEC. B1-BY-1  
ROCK ISLAND COUNTY  
STA. 288+90.00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The protection and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"G"
1"	1 1/8"	1 3/8"	1 3/4"	1"
1 1/2"	1 5/8"	1 5/8"	2 1/8"	1 1/2"
2"	2 1/8"	1 3/4"	2 7/8"	2"
2 1/2"	2 5/8"	2 5/8"	3 3/8"	2 1/2"



ILLINOIS COIL-LOCK ANCHOR BOLT

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A513, Grade 126 and supplied with hexagonal nuts and cut washers.  
The coil wire shall be made of any suitable soft steel wire.  
The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.  
The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C881, Type I, Grade 1 and of a Class suitable for the temperature of installation.

INSTALLATION PROCEDURE FOR THE ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes in accordance with the manufacturer's recommendations and procedures.  
The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:  
1. A threaded rod stud with nut and washer conforming to ASTM A307.  
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or in accordance with the manufacturer's recommendation after beams or girders have been erected and adjusted.  
Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.  
The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel".  
Anchor bolts, nuts and washers shall be completely coated by either the hot-dipped process conforming with AASHTO M 232 or the mechanical plating method conforming to ASTM B 695, Class 50. Zinc-coated nuts shall be topped oversize in accordance with the requirements of AASHTO M 294 and shall meet the supplementary requirements SI1 thru SI.2.1 of the same specifications for lubricant and testing.

DATE	BY	CHKD	APP'D
12-1-83	KLK		

SHEET NO. 15  
15 SHEETS

DESIGNED: *[Signature]*  
CHECKED: *[Signature]*  
DRAWN: R. Doy  
CHECKED: *[Signature]*  
ABB-1 12-1-83

EXAMINED: *[Signature]*  
APPROVED: *[Signature]*  
MAY 23 1988

ANCHOR BOLT DETAILS

FOR BEARINGS  
F.A.I. RT. 200 SEC. 91-87-1  
ROCK ISLAND COUNTY  
STA. 285+90.00

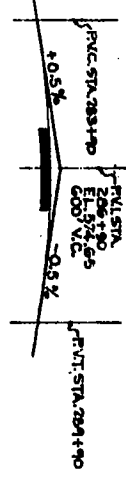
**CURVE DATA**

A = 44° 36' 00" LT  
 D = 1587.00'  
 R = 3819.83  
 L = 2973.53  
 T = 1566.63  
 E = 308.76  
 PC = 266+81.17  
 PT = 282+47.80  
 PI = 266+54.50

**WATERWAY INFORMATION**

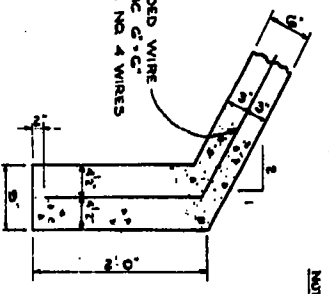
DRAINAGE AREA 41,800 ACRES  
 CHARACTER ROLLING, WOODED  
 REQUIRED OPENING 1,400 SQ. FT.  
 PROPOSED OPENING 1,445 SQ. FT.  
 \*\* 50 YEAR FLOOD

**PROFILE GRADE - FAI.280**



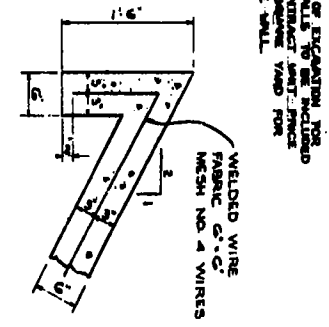
**TOE WALL DETAIL 1**

SCALE: 1"=1'-0"



**TOE WALL DETAIL 2**

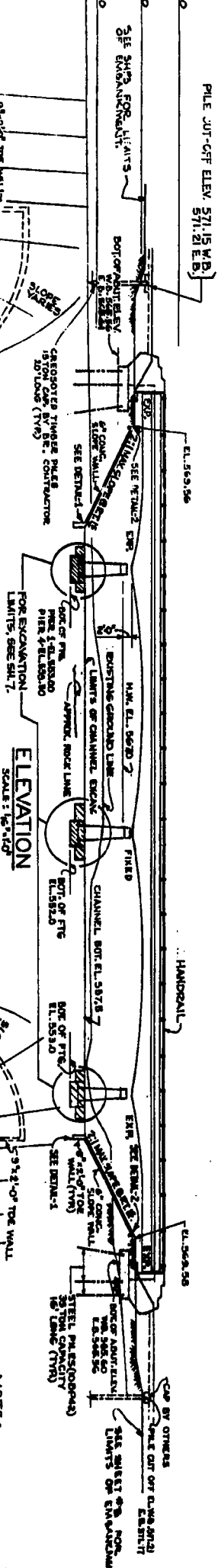
SCALE: 1"=1'-0"



NOTE: CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION, AS APPLICABLE TO THIS PROJECT.

**ELEVATION**

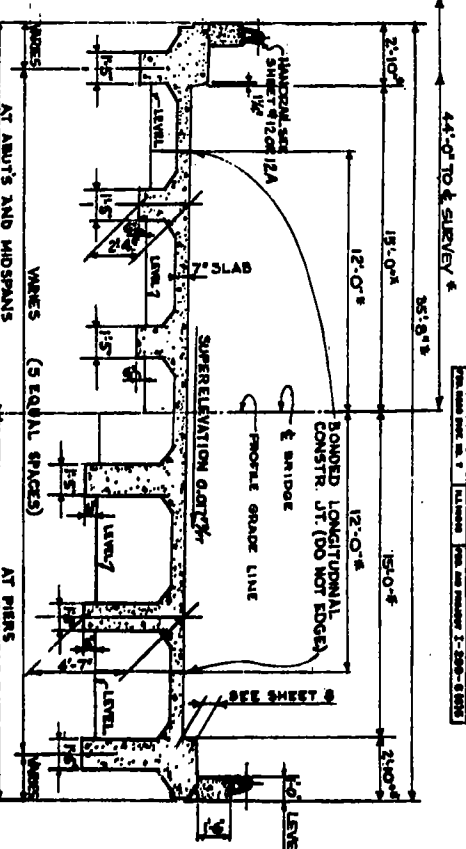
SCALE: 1"=4'-0"



- NOTES:**
1. LANDSCAPE AND SLOPE WALLS MAY BE VARIOUS TO SUIT THE GROUND CONDITIONS AT THE SITE AS DIRECTED BY THE ENGINEER.
  2. 6" x 6" WELDED WIRE MESH SHALL BE USED TO REINFORCE THE SLABS IN THE HEADS OF THE WALLS. WPT SHALL BE 100 SQ. FT. COB INSTEAD OF 50 SQ. FT. COB INSTEAD OF 25 SQ. FT. COB.
- NOTE:**  
 APPROACH SLABS AND PILE CAPS BY OTHERS.

**CROSS SECTION - WB LANES**

SCALE: 1"=4'-0"

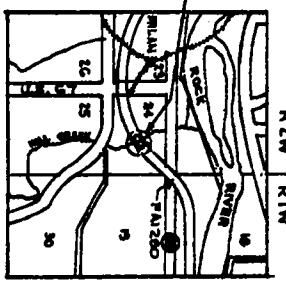


NO.	SECTION	DATE	BY	CHKD.
1	PLAN	10/1/85	E.B.S.	E.B.S.
2	ELEVATION	10/1/85	E.B.S.	E.B.S.
3	CROSS SECTION	10/1/85	E.B.S.	E.B.S.
4	GENERAL PLAN	10/1/85	E.B.S.	E.B.S.
5	ABUTMENT & PIER	10/1/85	E.B.S.	E.B.S.
6	LOCATION PLAN	10/1/85	E.B.S.	E.B.S.
7	GENERAL PLAN & ELEVATION	10/1/85	E.B.S.	E.B.S.

**BILL OF MATERIAL**

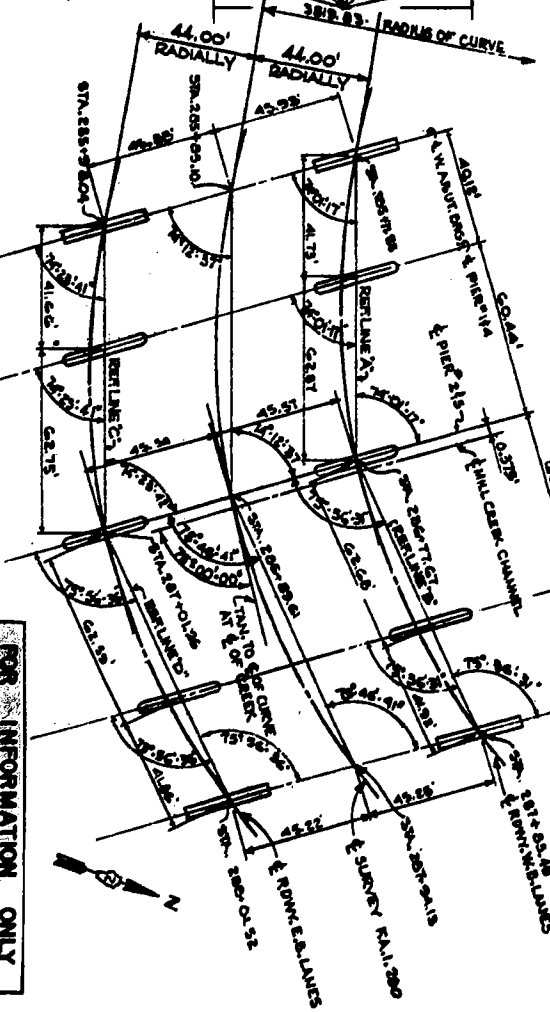
ITEM	QTY	UNIT	PRICE	TOTAL
FLYASH CEMENT PORTLAND CONCRETE	480	CU YD	4.80	2,304.00
PORTLAND CEMENT	480	CU YD	1.35	648.00
STEEL REINFORCEMENT	1,395	LBS	0.15	209.25
WELDED WIRE MESH	1,395	SQ YD	0.15	209.25

**LOCATION PLAN**



**ABUT. & PIER LOCATION PLAN**

NO SCALE



**GENERAL PLAN & ELEVATION**

SCALE: 1"=4'-0"

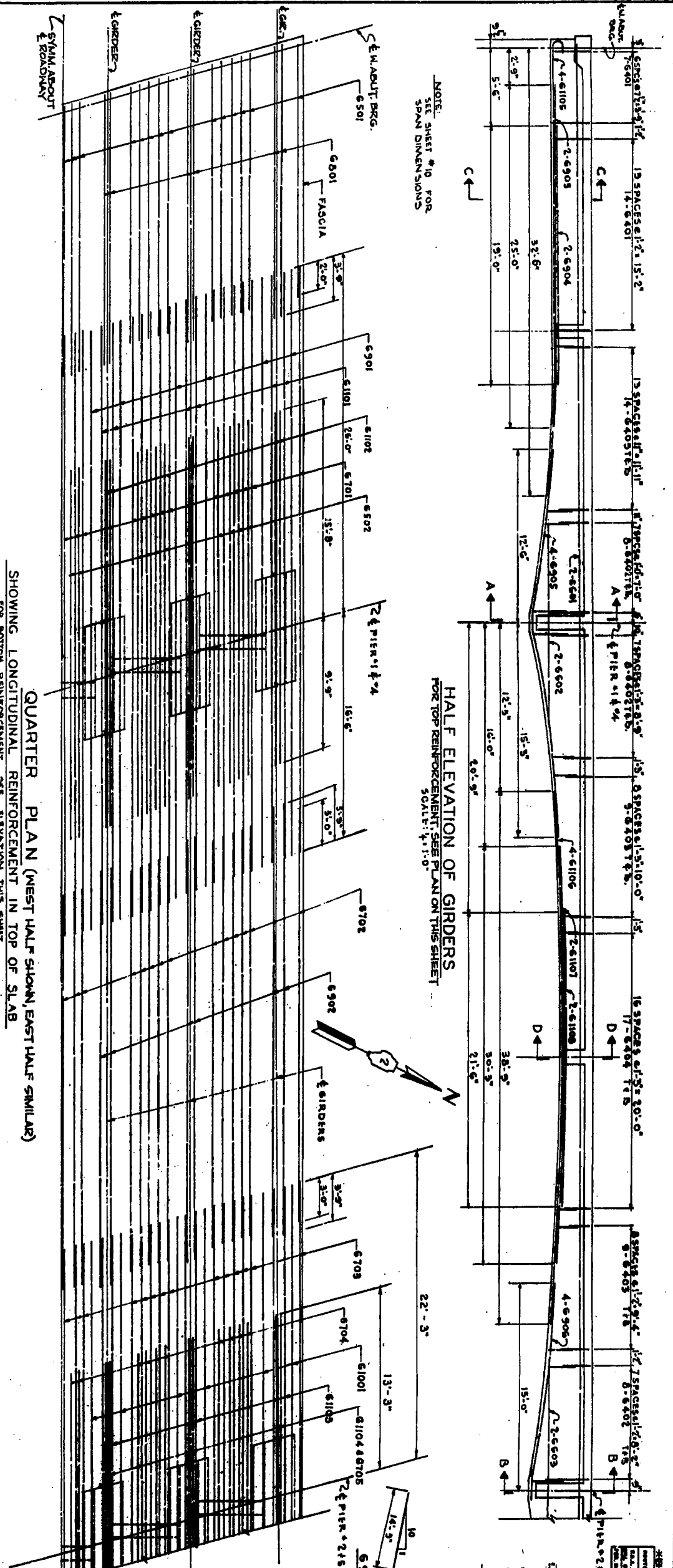
DESIGN LOADING:  
 HS20-S16 AND ALL TRUCKS.  
 1.2000 PER SQUARE FOOT.

DE LEW GATHER & CO. ENGINEERS  
 DESIGNED BY: W.A.C. & E.S.M.  
 DRAWN BY: J.A.S. & E.S.M.  
 CHECKED BY: E.S.M. & E.S.M.  
 IN CHARGE: L.H. RYAN

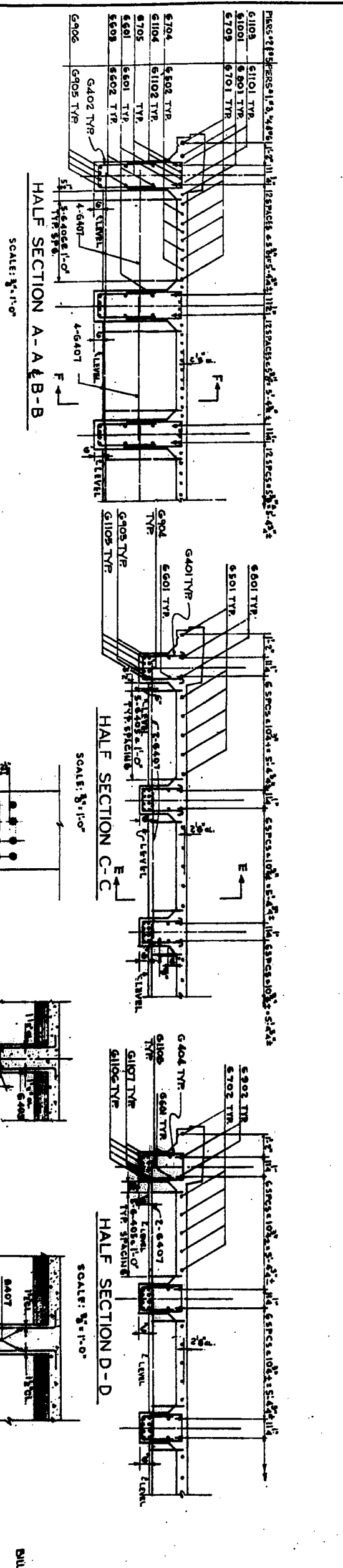


NOTE:  
SEE SHEET #10 FOR  
SPAN DIMENSIONS

HALF ELEVATION OF GIRDERS  
FOR TOP REINFORCEMENT (SEE PLAN ON THIS SHEET)  
SCALE: 1/4"=1'-0"



QUARTER PLAN (WEST HALF SHOWN, EAST HALF SIMILAR)  
SHOWING LONGITUDINAL REINFORCEMENT IN TOP OF SLAB  
FOR BOTTOM REINFORCEMENT SEE REVISION THIS SHEET  
SCALE: 1/4"=1'-0"



HALF SECTION A-A & B-B  
SCALE: 3/8"=1'-0"

HALF SECTION C-C  
SCALE: 3/8"=1'-0"

HALF SECTION D-D  
SCALE: 3/8"=1'-0"

GIRDER DETAIL  
SCALE: 1/2"=1'-0"

SECTION E-E  
SCALE: 1/2"=1'-0"

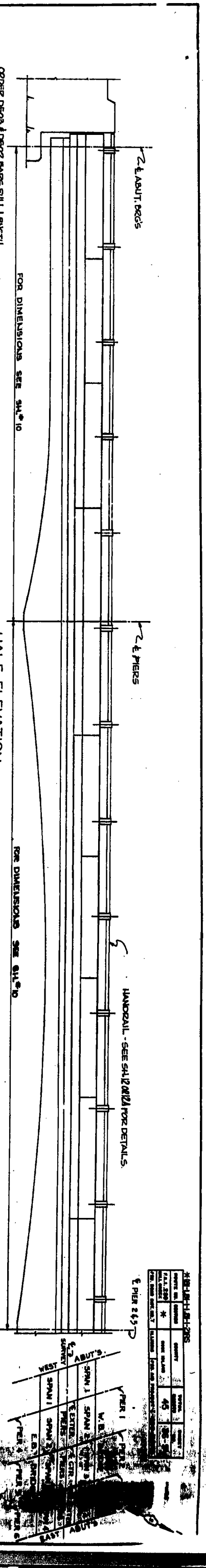
SECTION F-F  
SCALE: 1/2"=1'-0"

BAR	QUANTITY	SIZE	LENGTH	WEIGHT	SHAPE
G401	1134	#4	18'-0"	180.0	RECT
G402	1134	#4	18'-0"	180.0	RECT
G501	1134	#4	18'-0"	180.0	RECT
G502	1134	#4	18'-0"	180.0	RECT
G601	1134	#4	18'-0"	180.0	RECT
G602	1134	#4	18'-0"	180.0	RECT
G701	1134	#4	18'-0"	180.0	RECT
G702	1134	#4	18'-0"	180.0	RECT
G801	1134	#4	18'-0"	180.0	RECT
G802	1134	#4	18'-0"	180.0	RECT
G901	1134	#4	18'-0"	180.0	RECT
G902	1134	#4	18'-0"	180.0	RECT
G401	1134	#4	18'-0"	180.0	RECT
G402	1134	#4	18'-0"	180.0	RECT
G501	1134	#4	18'-0"	180.0	RECT
G502	1134	#4	18'-0"	180.0	RECT
G601	1134	#4	18'-0"	180.0	RECT
G602	1134	#4	18'-0"	180.0	RECT
G701	1134	#4	18'-0"	180.0	RECT
G702	1134	#4	18'-0"	180.0	RECT
G801	1134	#4	18'-0"	180.0	RECT
G802	1134	#4	18'-0"	180.0	RECT
G901	1134	#4	18'-0"	180.0	RECT
G902	1134	#4	18'-0"	180.0	RECT

BAR LIST - GIRDERS & DIAPHRAGMS (2 BRIDGES)

DILL OF MATERIAL ON SHEET #11  
SUPERSTRUCTURE GIRDER DETAILS  
R.I.L. AND SECTION SH-11  
R.I.L. AND OVER MILL OVER  
ROCK ISLAND COUNTY  
STATION 286+50.00  
SCALE AS SHOWN  
DATE

CE. LEWIS, CATHER & CO., ENGINEERS  
DESIGNED BY: K.A.  
DRAWN BY: K.H.C.  
CHECKED: E.E. MARTINE  
IN CHARGE: E.E. MARTINE  
APPROVED: L.B. BLAIR

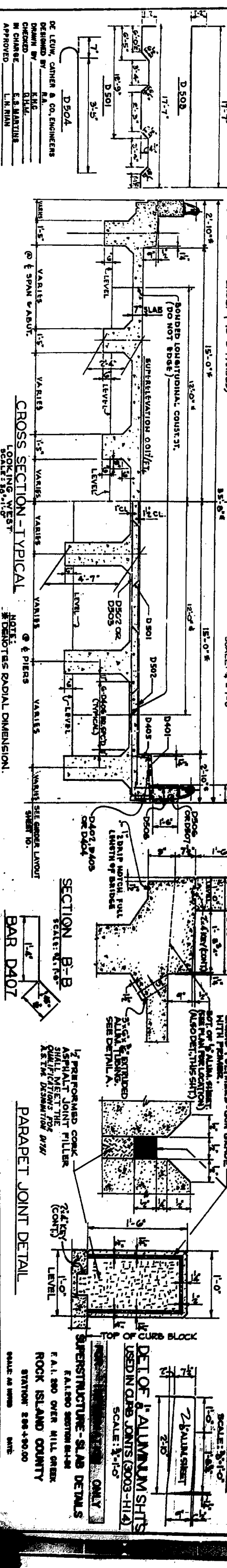
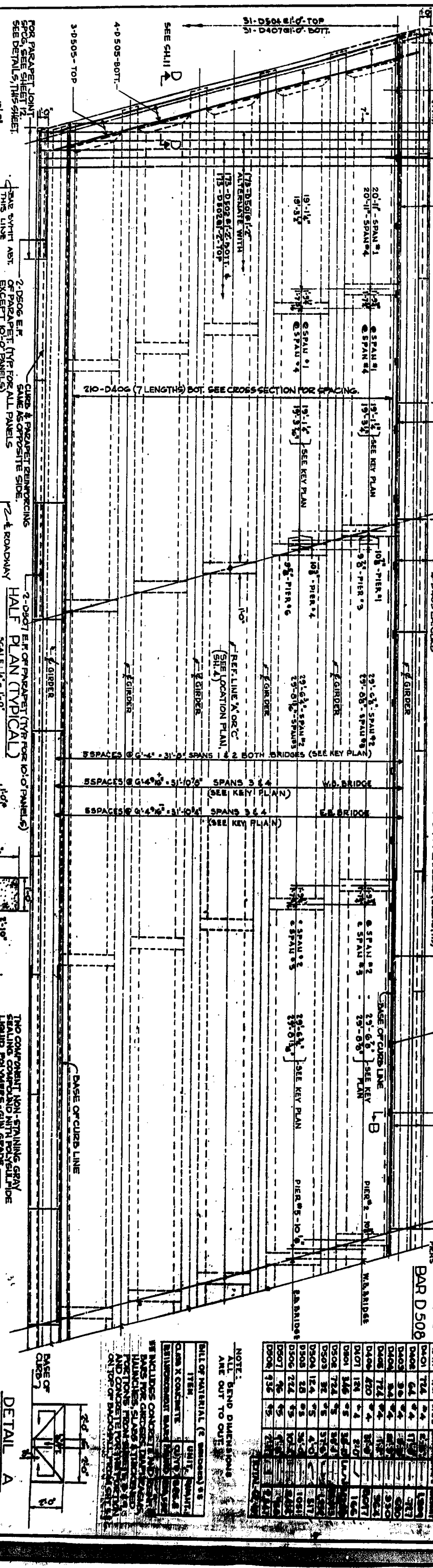


**HALF ELEVATION**

SCALE: 1/4"=1'-0"

ORDER D503 & D504 REBAR FULL LENGTH  
CUT TO FIT & USE REMAINDER OR B.W.K.  
AT OTHER END.

181-D401 & 181-D502 EA CURB 23'-0" MAX. EA FACE OF PARAPET (TYPE)  
181-D403 & 181-D504 EA CURB 23'-0" MAX. EA FACE OF PARAPET (TYPE)  
181-D402 EA CURB (LENGTHS)



**BAR LIST (2 BRIDGES)**

BAR NO.	SIZE	LENGTH	QUANTITY
D401	1/2"	1.5'	1
D402	1/2"	1.5'	1
D403	1/2"	1.5'	1
D404	1/2"	1.5'	1
D405	1/2"	1.5'	1
D406	1/2"	1.5'	1
D407	1/2"	1.5'	1
D501	3/8"	1.5'	1
D502	3/8"	1.5'	1
D503	3/8"	1.5'	1
D504	3/8"	1.5'	1
D505	3/8"	1.5'	1
D506	3/8"	1.5'	1
D507	3/8"	1.5'	1
D508	3/8"	1.5'	1
D509	3/8"	1.5'	1
D510	3/8"	1.5'	1

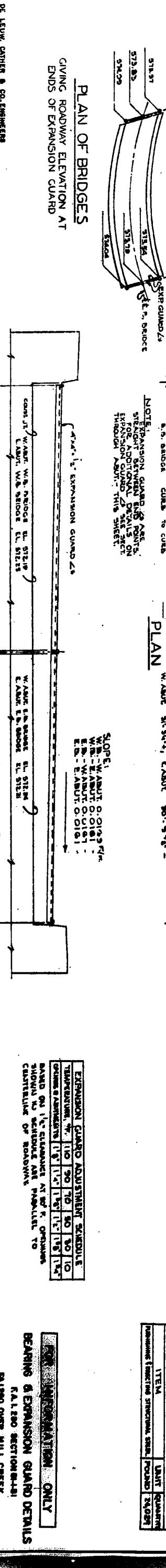
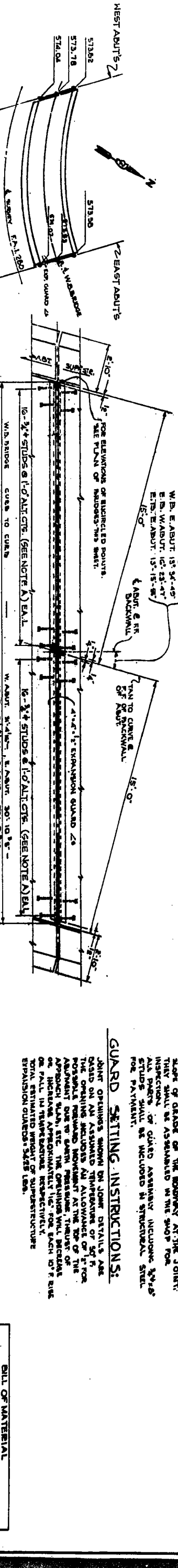
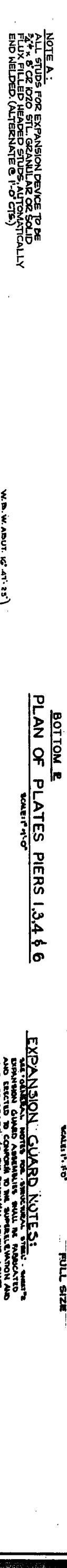
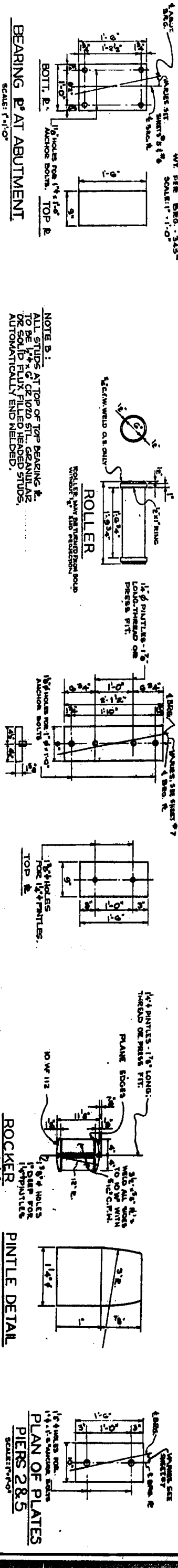
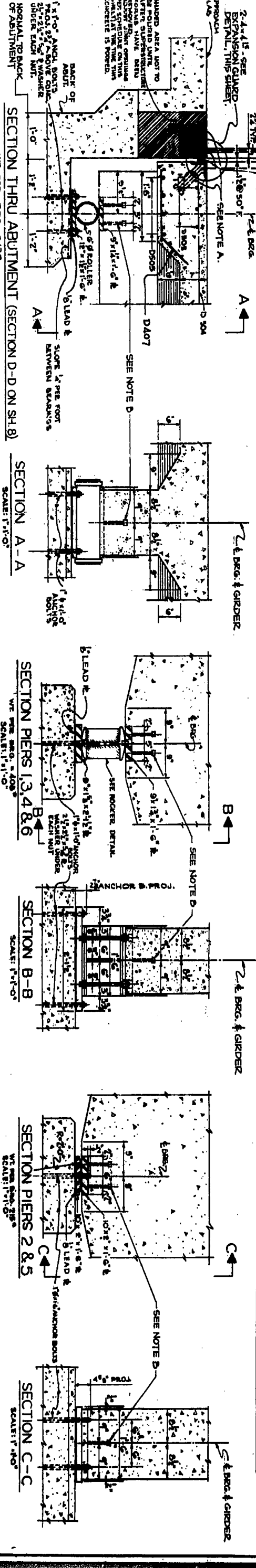
**NOTE:**  
ALL BEND DIMENSIONS  
ARE OUT TO CURB

**BILL OF MATERIAL (2 BRIDGES)**

ITEM	UNIT	QUANTITY
CLASS X CONCRETE	CY	100.0
REINFORCEMENT BARS (200)	LB	1000.0
3" X 3" ALUM. TRUNK	LB	100.0
3" X 3" ALUM. SHITS	EA	100.0

SE INCLUDES CONCRETE FILL AND  
REBAR FOR GIRDERS, PARAPETS,  
HANDRAILS, SLABS & CURBS,  
PORTIONS FROM SHEETS 12, 13, 14  
AND CONCRETE FOR THE JOINTS  
ON TOP OF PARAPETS FROM SHEET 12.

SECTION	NO.	LENGTH (FEET)	WEIGHT (LBS)	MARKING
SECTION 1	1	10	100	1-10
SECTION 2	2	10	100	2-10
SECTION 3	3	10	100	3-10
SECTION 4	4	10	100	4-10
SECTION 5	5	10	100	5-10
SECTION 6	6	10	100	6-10
SECTION 7	7	10	100	7-10
SECTION 8	8	10	100	8-10
SECTION 9	9	10	100	9-10
SECTION 10	10	10	100	10-10
SECTION 11	11	10	100	11-10
SECTION 12	12	10	100	12-10
SECTION 13	13	10	100	13-10
SECTION 14	14	10	100	14-10
SECTION 15	15	10	100	15-10
SECTION 16	16	10	100	16-10
SECTION 17	17	10	100	17-10
SECTION 18	18	10	100	18-10
SECTION 19	19	10	100	19-10
SECTION 20	20	10	100	20-10
SECTION 21	21	10	100	21-10
SECTION 22	22	10	100	22-10
SECTION 23	23	10	100	23-10
SECTION 24	24	10	100	24-10
SECTION 25	25	10	100	25-10
SECTION 26	26	10	100	26-10
SECTION 27	27	10	100	27-10
SECTION 28	28	10	100	28-10
SECTION 29	29	10	100	29-10
SECTION 30	30	10	100	30-10
SECTION 31	31	10	100	31-10
SECTION 32	32	10	100	32-10
SECTION 33	33	10	100	33-10
SECTION 34	34	10	100	34-10
SECTION 35	35	10	100	35-10
SECTION 36	36	10	100	36-10
SECTION 37	37	10	100	37-10
SECTION 38	38	10	100	38-10
SECTION 39	39	10	100	39-10
SECTION 40	40	10	100	40-10
SECTION 41	41	10	100	41-10
SECTION 42	42	10	100	42-10
SECTION 43	43	10	100	43-10
SECTION 44	44	10	100	44-10
SECTION 45	45	10	100	45-10
SECTION 46	46	10	100	46-10
SECTION 47	47	10	100	47-10
SECTION 48	48	10	100	48-10
SECTION 49	49	10	100	49-10
SECTION 50	50	10	100	50-10
SECTION 51	51	10	100	51-10
SECTION 52	52	10	100	52-10
SECTION 53	53	10	100	53-10
SECTION 54	54	10	100	54-10
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SECTION 56	56	10	100	56-10
SECTION 57	57	10	100	57-10
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SECTION 79	79	10	100	79-10
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SECTION 82	82	10	100	82-10
SECTION 83	83	10	100	83-10
SECTION 84	84	10	100	84-10
SECTION 85	85	10	100	85-10
SECTION 86	86	10	100	86-10
SECTION 87	87	10	100	87-10
SECTION 88	88	10	100	88-10
SECTION 89	89	10	100	89-10
SECTION 90	90	10	100	90-10
SECTION 91	91	10	100	91-10
SECTION 92	92	10	100	92-10
SECTION 93	93	10	100	93-10
SECTION 94	94	10	100	94-10
SECTION 95	95	10	100	95-10
SECTION 96	96	10	100	96-10
SECTION 97	97	10	100	97-10
SECTION 98	98	10	100	98-10
SECTION 99	99	10	100	99-10
SECTION 100	100	10	100	100-10



**NOTE A:**  
ALL STUDS FOR EXPANSION DEVICE TO BE 3/4" x 8" OR 1020 STL. GRANULAR OR SOLID FLUX FILLED HEADED STUDS AUTOMATICALLY END WELDED. (ALTERNATE @ 1" O.C.S.)

**NOTE B:**  
ALL STUDS AT TOP OF TOP BEARING & TO BE 1/2" x 6" OR 1020 STL. GRANULAR OR SOLID FLUX FILLED HEADED STUDS AUTOMATICALLY END WELDED.

**EXPANSION GUARD NOTES:**  
SEE OTHER NOTES FOR STRUCTURAL STEEL. EXPANSION GUARD ASSEMBLY SHALL BE FABRICATED AND ERECTED TO CONFORM TO THE SUPERELEVATION AND SLOPE OF GRADE OF THE ROADWAY AT THE JOINT. THEY SHALL BE ASSEMBLED IN THE SHOP FOR INSPECTION OF GUARD ASSEMBLY INCLUDING 3/4" x 8" ALL STUDS SHALL BE INCLUDED IN STRUCTURAL STEEL FOR PAYMENT.

**GUARD SETTING INSTRUCTIONS:**  
JOINT OPENINGS SHOWN ON JOINT DETAILS ARE DATED ON AN ASSUMED TEMPERATURE OF 50°F. THE OPERING INCLUDES AN ALLOWANCE OF 1/2" FOR POSITIVE REMAINING MOVEMENT AT THE TOP OF THE ABUTMENT DUE TO CURE SHRINKAGE. THUS, THE APPROX. SLAB, ETC. THE OPERING WILL BE LESS OR MORE APPROXIMATELY 1/2" FOR EACH 10°F RISE OR FALL IN TEMPERATURE RESPECTIVELY. TOTAL ESTIMATED WEIGHT OF SUPERSTRUCTURE EXPANSION GUARDS - 3425 LBS.

**EXPANSION GUARD ADJUSTMENT SCHEDULE**

TEMPERATURE	10	20	30	40	50	60	70	80	90	100
ADJUSTMENT	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
STRUCTURAL STEEL	POUND	3425

**FOR INFORMATION ONLY**  
RAISED OVER MILL CREEK  
ROCK ISLAND COUNTY  
STATION 288+90  
SCALE AS SHOWN DATE

OF LEUNG, CATHERS & CO. ENGINEERS  
DESIGNED BY: R.A. & D.H.M.  
DRAWN BY: M.M.M.  
CHECKED: D.H.M.  
M. CHANG  
APPROVED: E.S. MARTINE  
L.N. NIAN

JOE NO. 889-1100