

INDEX OF SHEETS: 1-18-13 LETTING ITEM 075

1. COVER SHEET
2. SUMMARY OF QUANTITIES, GENERAL NOTES
3. TRAFFIC CONTROL PLAN
4. DISTRICT STANDARD
5. FRAMING PLAN & GENERAL NOTES
- 6 - 46 EXISTING BRIDGE PLANS

**STANDARDS:**

- 701101-02 OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
- 701400-05 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701401-06 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701402-09 LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
- 701411-08 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS > 45 MPH
- 701901-02 TRAFFIC CONTROL DEVICES
- 704001-07 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 AND MARKERS)

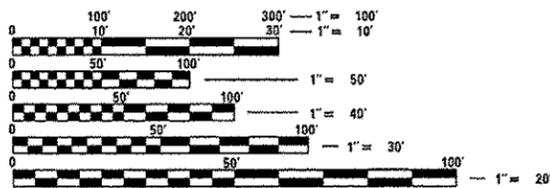
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PROPOSED**  
**HIGHWAY PLANS**

**FAI ROUTE 80 (I-80)**  
**SECTION D2 BRIDGE PAINTING 2012-2**  
**ROCK ISLAND COUNTY**  
**C-92-087-12**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 Bridge Painting 2012-2	ROCK ISLAND	46	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 64H81	

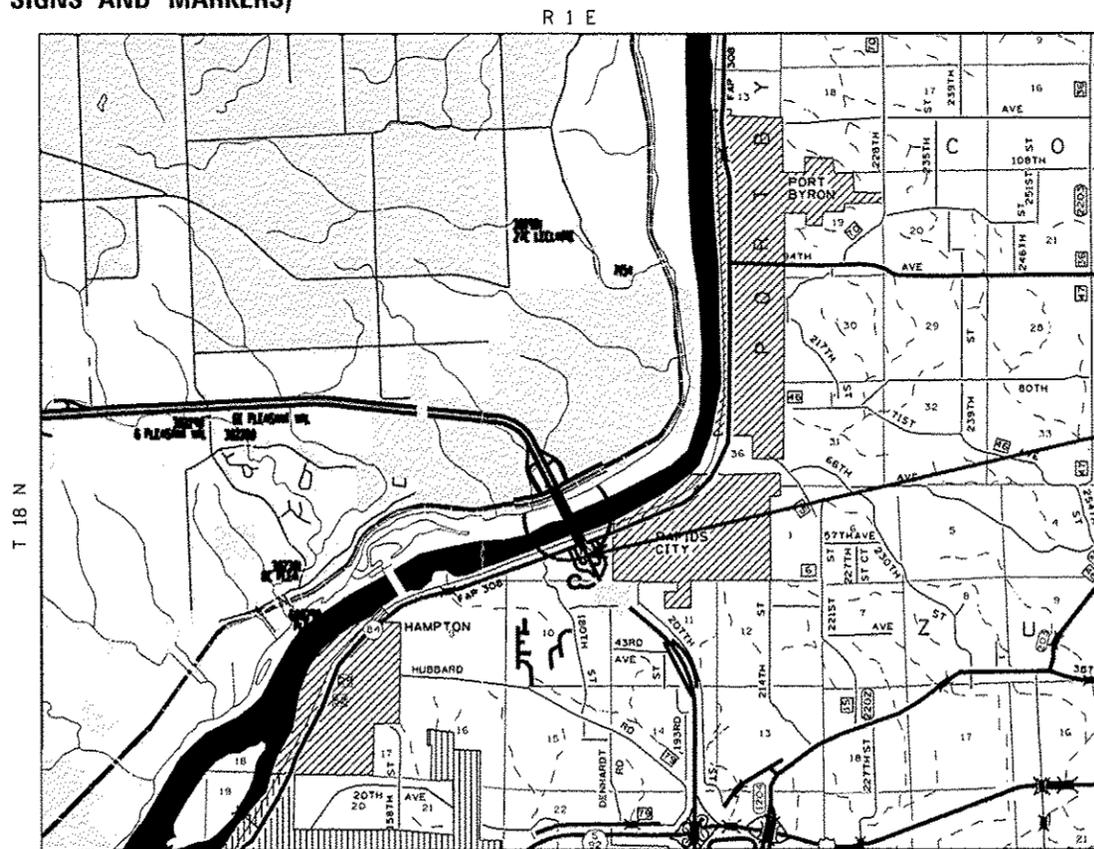


**PROJECT LOCATION**  
**SN: 081-0011**



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



NET LENGTH OF IMPROVEMENT = 3,487 FEET = 0.66 MILES  
 GROSS LENGTH OF IMPROVEMENT = 3,487 FEET = 0.66 MILES

**PROJECT ENGINEER: Mahmoud Etemadi (815)-284-5393**  
 HAMPTON TOWNSHIP, SECTION 3  
**CONTRACT NO. 64H81**

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

SUBMITTED Oct 15 2012  
Paul Roeten  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Dec 7 2012  
John D. Baranzoli PE  
 ENGINEER OF DESIGN AND ENVIRONMENT

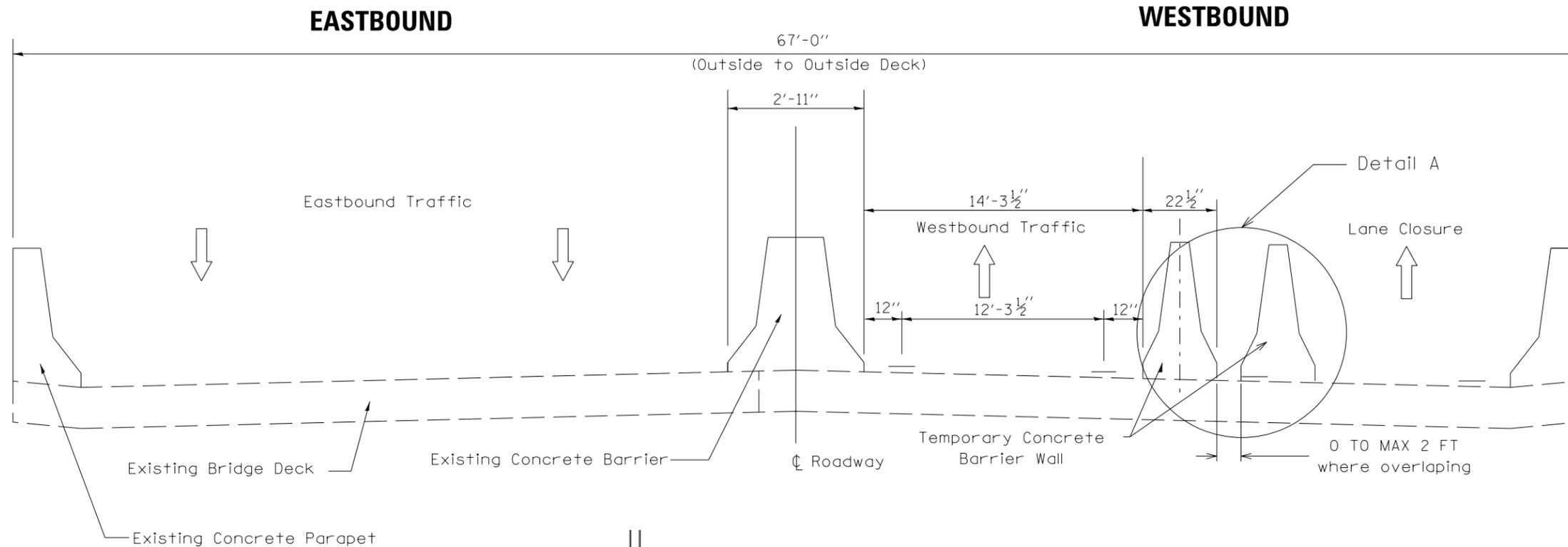
Dec 7 2012  
William R. Frey  
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

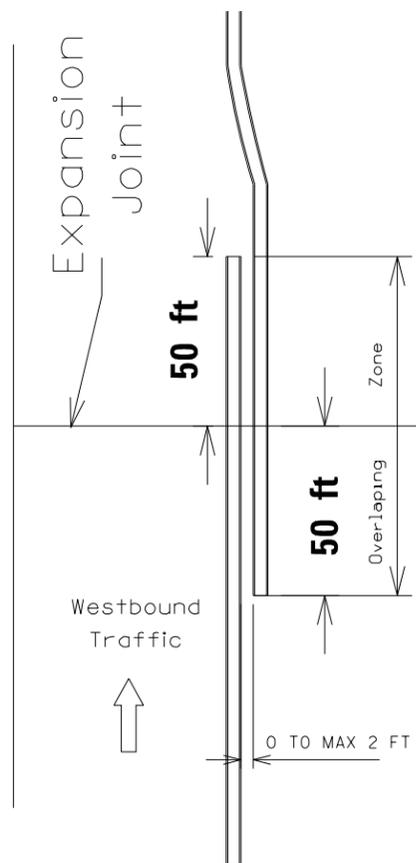


# Traffic Control

(Looking from Illinois to Iowa)



## WESTBOUND Detail A



### Note:

Concrete barrier walls shall overlap 50 ft on each side of the following expansion joints at mentioned locations:

Neoprene expansion joint 4" at Pier No. 4

Finger joints at Piers No. 8, 19, 24 and between Spans 11-12, 13-14, 15-16

Dimensions with Pavement Markings are center-to-center

The ends of the barrier walls at these overlaps shall not be pinned

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

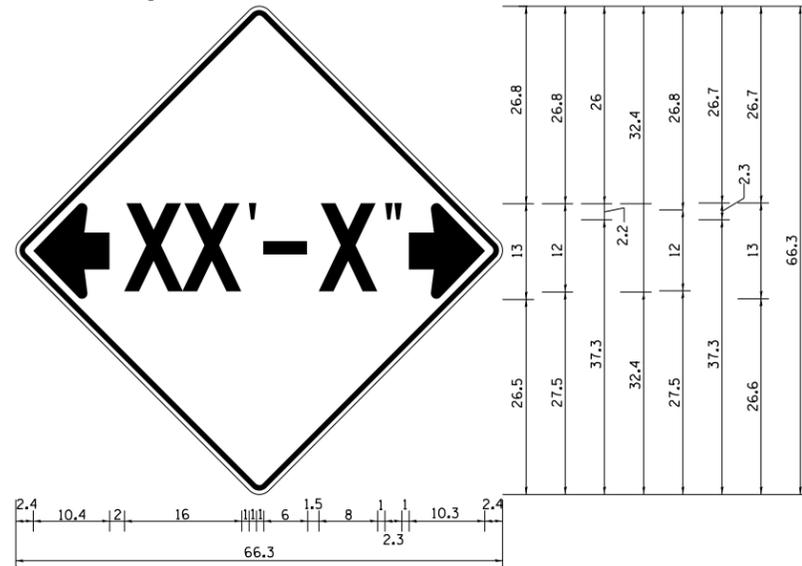
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SHEET NO. OF SHEETS

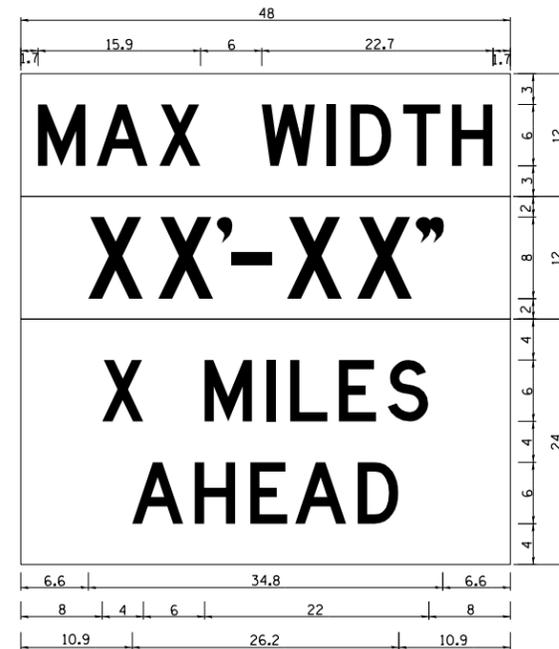
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-80	D2 Bridge Painting 2012-2	Rock Island	46	3
CONTRACT NO. 64H81				

ILLINOIS FED. AID PROJECT

# INFORMATIONAL WARNING SIGN (FOR NARROW TRAVEL LANES)



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



W12-1103 (Width is 80);  
 No border, Black on White;  
 [MAX WIDTH] D;

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

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

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

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 5-15-09

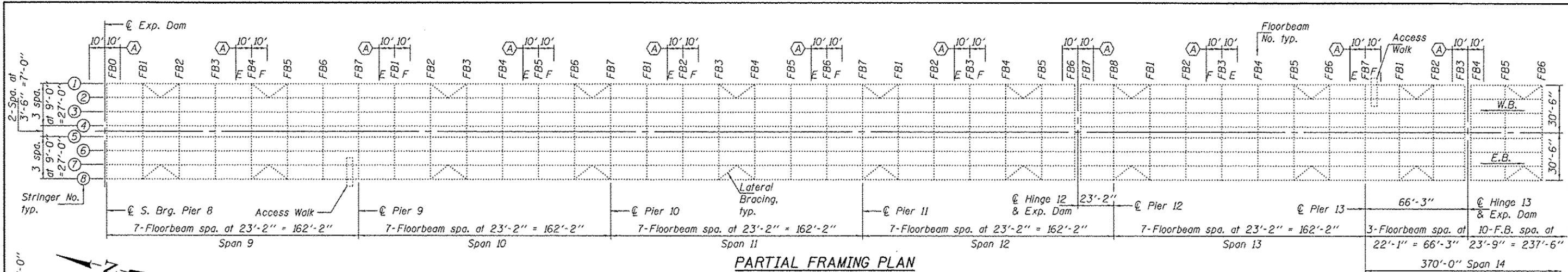
## INFORMATIONAL WARNING SIGNS (FOR NARROW TRAVEL LANES) 39.2

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

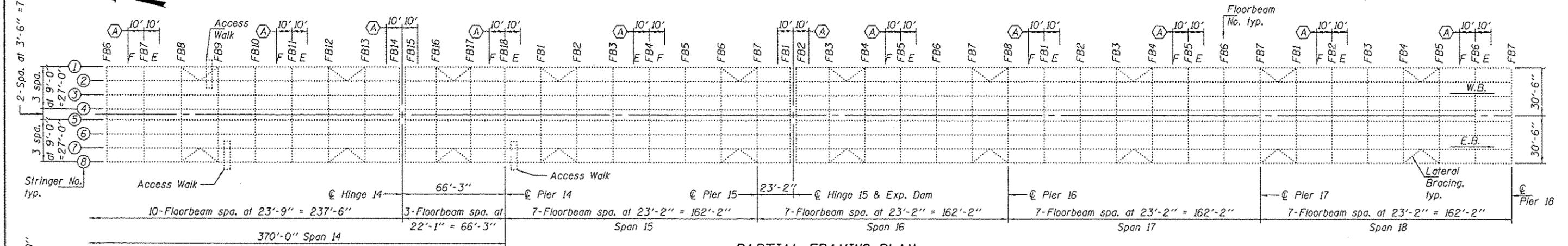
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SHEET NO. OF SHEETS

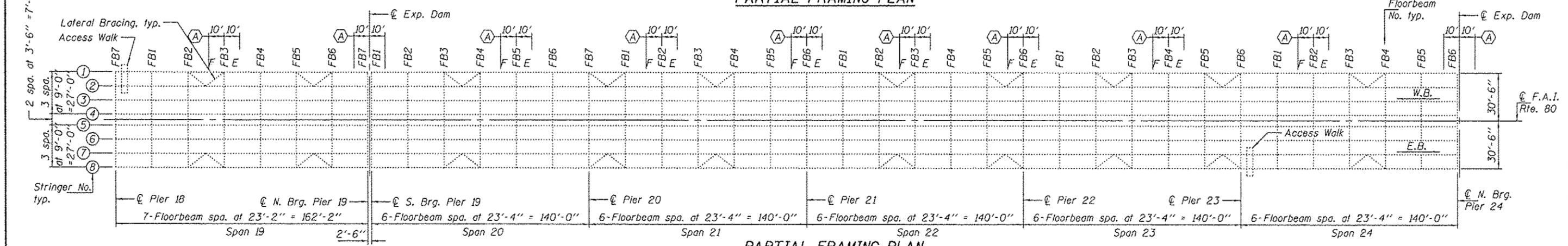
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	D2 Bridge Painting 2012-2	Rock Island	46	4
CONTRACT NO. 64H81			ILLINOIS FED. AID PROJECT	



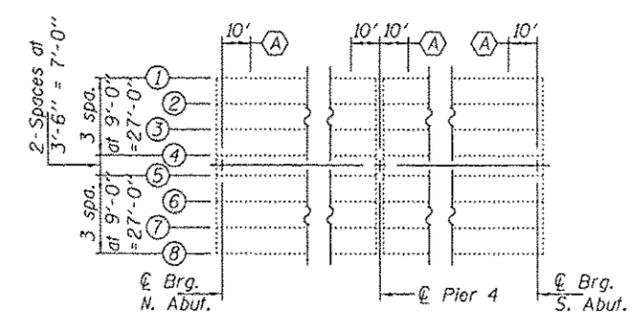
**PARTIAL FRAMING PLAN**



**PARTIAL FRAMING PLAN**



**PARTIAL FRAMING PLAN**



**PARTIAL PLAN AT ABUTS. & PIER 4**

(A) - Clean & Paint Steel (10' each side of joint)

**GENERAL NOTES**

Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings and other structural steel within 10 ft. (measured along beam) of either side of deck joints shall be cleaned per Near White Blast Cleaning - SSPC-SPI0. The exterior surfaces and bottom of the bottom flange of the fascia beams shall be cleaned per Commercial Grade Power Tool Cleaning - SSPC-SPI5.

The designated areas cleaned per Near White Blast Cleaning and per Commercial Grade Power Tool Cleaning shall be painted according to the requirements of Paint System 1 - OZ/E/U. The color of the final finish coat for all interior and exterior steel surfaces shall be Interstate Green, Munsell No. 7.5G 4/8.

Original existing Structural Steel details have been included in sheets 2 thru 22 of 42, to aid the contractor in estimating quantities. Also included in sheets 23 thru 42 of 42, are recent Structural Steel repair details. These recent repair areas are to be omitted from the areas to be cleaned and painted under this contract. However, at the discretion of the contractor to reduce cost where appropriate, areas of recently repaired steel that are limited in size may be included to be cleaned and painted.

A minimum of 4 air monitors will be required to monitor abrasive blasting operations at this site, see special provision for "Containment and Disposal of Lead Point Cleaning Residues."

Note:  
Girders, lateral bracing between girders and inspection walkway not shown for clarity.

**TOTAL BILL OF MATERIAL**

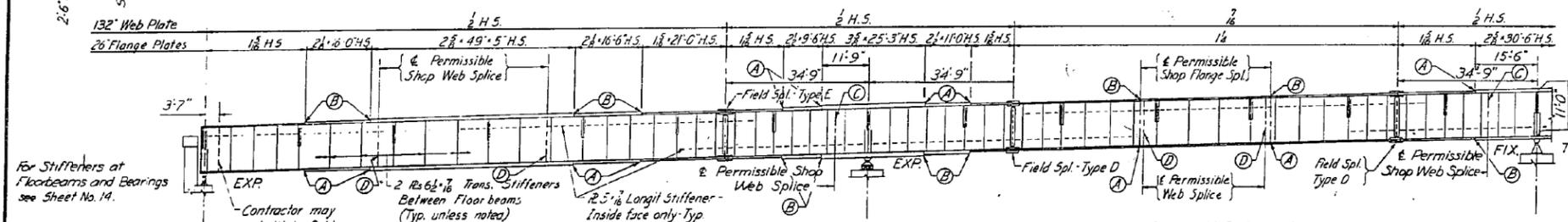
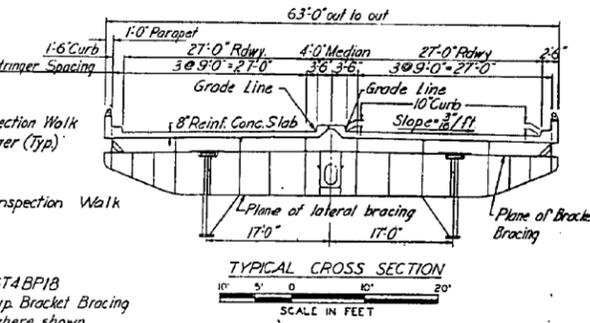
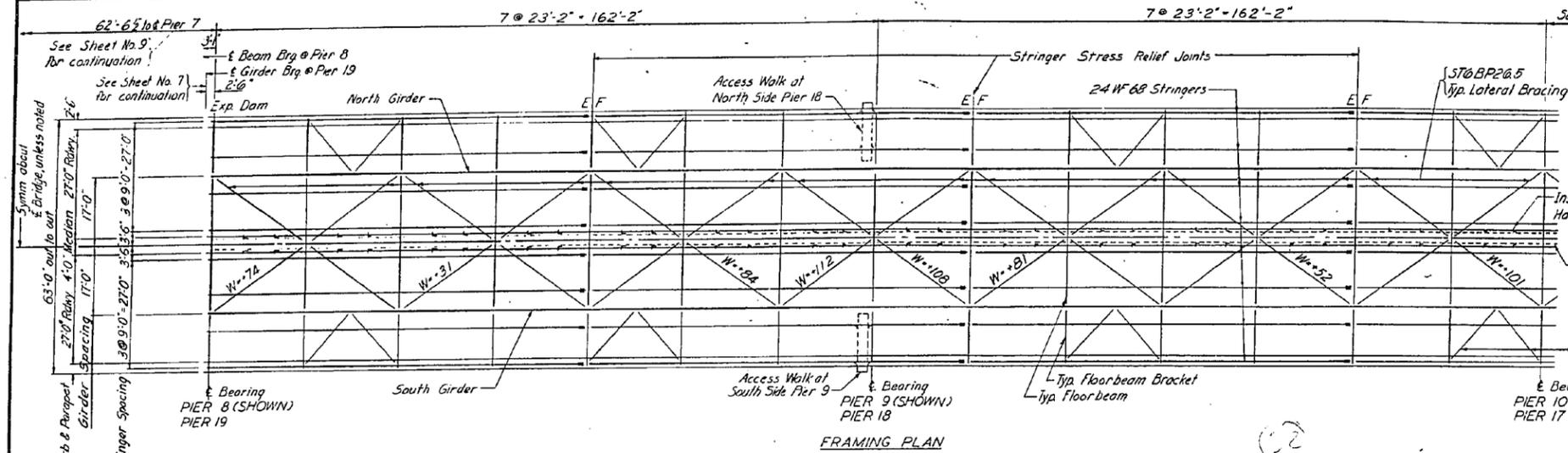
ITEM	UNIT	QUANTITY
Cleaning and Painting Steel Bridge	L.S.	1
Containment and Disposal of Lead Paint Cleaning Residuals	L.S.	1

DESIGNED - ATH <i>Adrian T. Halloway</i>	EXAMINED - <i>Timothy A. Auld</i>	DATE - DECEMBER 11, 2012
CHECKED - MKC <i>Kyle M. Steffen</i>	PASSED - <i>Timothy A. Auld</i>	
CHECKED - ATH MKC	ACTING ENGINEER OF STRUCTURAL SERVICES	ACTING ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION  
I-80 OVER THE MISSISSIPPI RIVER  
SN 081-0011  
SHEET NO. 1 OF 42 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	5
CONTRACT NO. 64H81			ILLINOIS FED. AID PROJECT	



**STRINGERS**  
 (Composite in Positive Moment Area)

REACTION	SUPPORT MOMENT	SECTION
D 32	-71	S.M. Req'd.
L 47	-114	+132 in. <sup>3</sup>
I 14	-34	
TOTAL 93	-219	24 W68

INTERMEDIATE FLOORBEAMS		END FLOORBEAMS	
SHEAR	MOMENT	SHEAR	MOMENT
D 68	-118	D 49	D +99
L 61	+572	L 48	L +444
I 19	+172	I 15	I +134
TOTAL 148	TOTAL +862	TOTAL 112	TOTAL +677

INTERMEDIATE FLBM BRACKETS		END FLBM BRACKETS	
SHEAR	MOMENT	SHEAR	MOMENT
D 69	-617	D 49	-433
L 59	-408	L 46	-316
I 18	-123	I 14	-95
TOTAL 146	-1148	TOTAL 109	-844

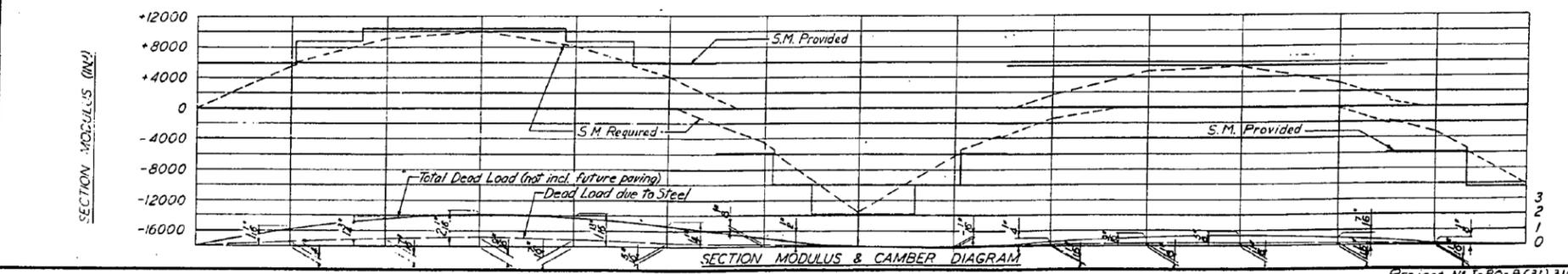
REACT SHEAR SHEAR

D	+366	+304	+158	+33	-117	-226	-370	-497	+1069	+411	+301	-157	-107	-212	-358	+864
L	+153	+127	+93	+64	-75	-104	-136	-170	+321	+164	+97	+69	-89	-121	-156	+303
I	+26	+24	+19	+15	-19	-24	-28	-32	+56	+31	+27	+18	-20	-25	-30	+53
TOTAL	+545	+455	+270	+112	-211	-354	-534	-699	+1446	+606	+457	+276	+124	-216	-358	+1220

MOMENT MOMENT

D	0	+7055	-10727	+11482	+8783	+5534 (-3212)	-4616	-18616	-7097	-117 (-119)	+3512 (-3154)	+4355	+1880 (+1681)	-3036	-11348
L	0	+2640	+4265	+4896	+4569	+3330 (2182)	-2864	-5779	+2433 (1836)	+3206 (-1792)	+3335	+2556 (-1704)	-2469	-5122	
I	0	+459	+742	+852	+795	+579 (-380)	-556	-1006	+378 (-319)	+588 (-312)	+580	+445 (-296)	-479	-891	
TOTAL	0	+10154	+15734	+17230	+14147	+7443 (-650)	-8036	-23401	-10572	+2694 (-2274)	+7276 (1050)	+8270	+4881 (-319)	-5984	-17361



**NOTES:**  
 For General Notes and Design Criteria, see Sheet No. 3.  
 Reactions and Shears are in Kips.  
 Moments are in Foot-Kips.  
 Structural metalwork noted as "H.S." shall be Low Alloy High Strength Steel, ASTM A441-63T. Metalwork not otherwise noted shall conform to ASTM A36-62T.  
 All floorbeams and transverse stiffeners shall be set normal to profile grade, except for vertical floorbeam at Pier 8.

IOWA STATE HIGHWAY COMMISSION  
 AND ILLINOIS DIVISION OF HIGHWAYS  
 INTERSTATE BRIDGE  
 OVER MISSISSIPPI RIVER AT LE CLAIRE, IOWA  
 CONTRACT NO. 2-SUPERSTRUCTURE

STRESS SHEET-1

SCALE IN FEET, UNLESS NOTED  
 MODJESKI & MASTERS, ENGINEERS  
 SHEET NO. 4 OF 41  
 MAY 1964

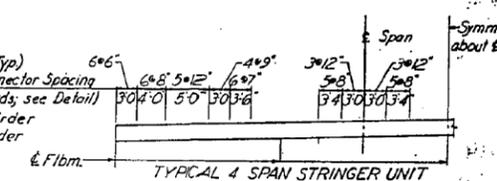
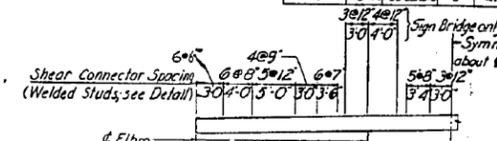
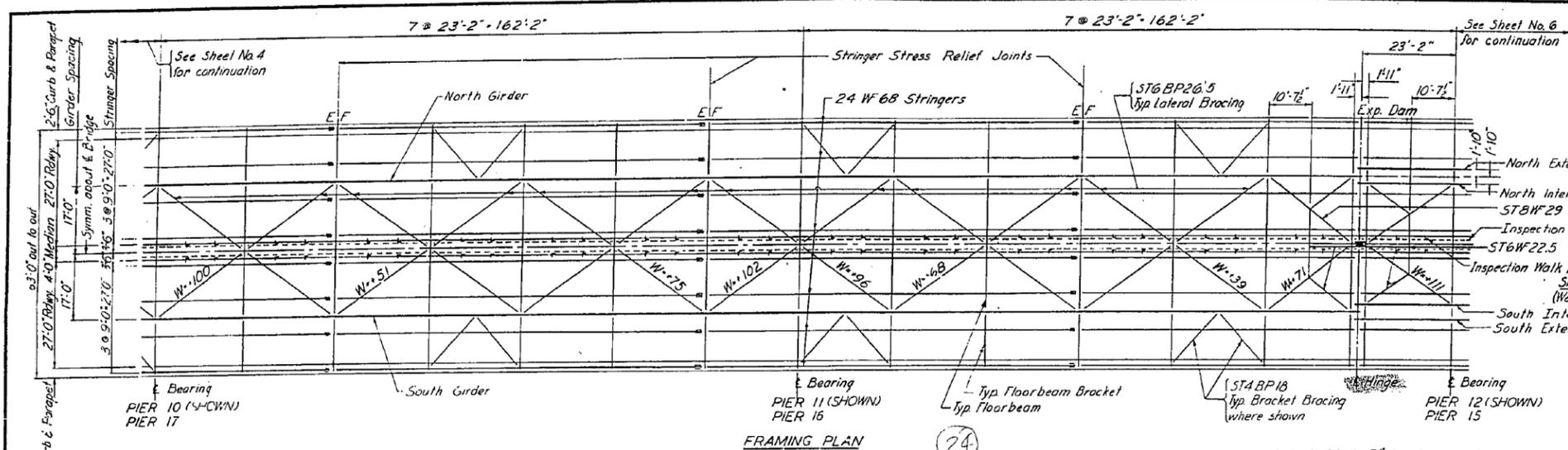
DESIGNED VHV  
 CHECKED DAB  
 DRAWN baliva  
 CHECKED VHV DAB

EXAMINED *Timothy A. Daulton*  
 ACTING ENGINEER OF STRUCTURAL SERVICES  
 PASSED *Carl Berger*  
 ACTING ENGINEER OF BRIDGES AND STRUCTURES  
 DATE - OCTOBER 12, 2012

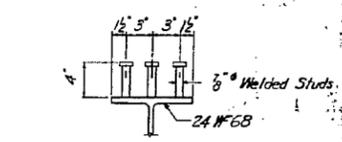
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY  
 SN 081-0011  
 SHEET 2 OF 42 SHEETS

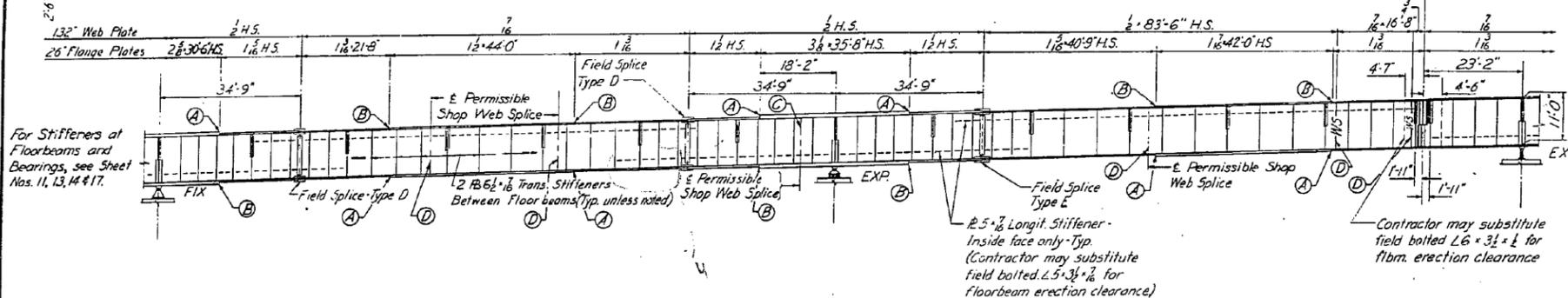
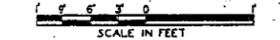
F.A. R.T.E. SECTION COUNTY TOTAL SHEETS SHEET NO.  
 80 D2 BRIDGE PAINTING 2012-2 ROCK ISLAND 46 6  
 CONTRACT NO. 64H81  
 ILLINOIS FED. AID PROJECT



SHEAR CONNECTORS FOR GIRDER SPANS



WELDED STUD SHEAR CONNECTOR DETAIL



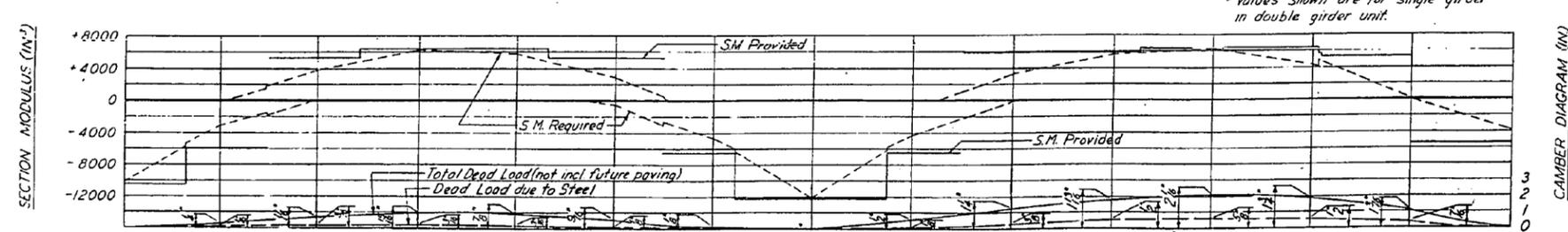
EXTERIOR ELEVATION, SOUTH GIRDER

	REACT	SHEAR	SHEAR	SHEAR	SHEAR	SHEAR	SHEAR	REACT	SHEAR	HINGE	SHEAR*	REACT*						
D	.864	.372	.225	.120	.25	.146	.290	.399	.988	.430	.305	.159	.54	.87	.227	.287	.177	.290 (257)
L	.303	.158	.123	.91	.67	.94	.126	.161	.305	.155	.120	.87	.59	.78	.113	.139	.77	.146 (-.02)
I	.53	.30	.26	.21	.17	.22	.26	.31	.53	.29	.25	.20	.15	.18	.23	.26	.15	.26 (-.11)
TOTAL	.1220	.560	.374	.232	.109	.262	.442	.591	.1346	.614	.450	.266	.128	.183	.363	.452	.269	.462 (.184)

	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT*
D	-11348	-2727(-2445)	-2497(-2230)	+5276	+4709	+1334(+1166)	-5392	-14629	-4682	+2381(+2119)	+6070	+7292	+5271	0	0	-4107	
L	-5122	-2479(-1634)	-2898(-1877)	+3721	+3626	-2687(-1791)	-2408	-5106	-2463	+3014(+1941)	+3761	+3574	+2305	0	0	-1610	
I	.891	.503(+284)	.504(+326)	.647	.631	+454(+311)	.488	-808	-480	+524(+338)	+654	+617	+401	0	0	-206	
TOTAL	-17361	-5709(-527)	-5899(+27)	+9644	+8966	+4475(-936)	-8288	-20623	-7623	+5919(+160)	+10485	+11483	+7977	0	0	-5923	

NOTES:  
 For General Notes and Design Criteria, see Sheet No. 3.  
 Reactions and Shears are in Kips.  
 Moments are in Foot-Kips.  
 Structural metalwork noted as "H.S." shall be Low Alloy High Strength Steel, ASTM A441-63T. Metalwork not otherwise noted shall conform to A.S.T.M. A36-62T.  
 All floorbeams and transverse stiffeners shall be set normal to profile grade.  
 -WS- Denotes required Shop Web Splice.  
 For Single Girder Cross-Section, see Sheet No. 4.  
 For Double Girder Cross-Section, see Sheet No. 6.  
 For Girder Web Geometry, see Sheet No. 16.  
 (A) Denotes butt weld radiographing. See Sheet No. 7 for description of notation.



SECTION MODULUS & CAMBER DIAGRAM

IOWA STATE HIGHWAY COMMISSION  
 AND ILLINOIS DIVISION OF HIGHWAYS  
 INTERSTATE BRIDGE  
 OVER MISSISSIPPI RIVER AT LE CLAIRE, IOWA  
 CONTRACT NO. 2-SUPERSTRUCTURE  
 STRESS SHEET - 2  
 SCALE IN FEET, UNLESS NOTED  
 MODJESKI & MASTERS, ENGINEERS  
 SHEET NO. 5 OF 41  
 MAY 1954

Project N°: I-80-B(31)310 Design N°: 163A Scott County File N°: 21704



NO.	REV.	DATE	BY	CHKD.	SHEET	TOTAL
5					7	41

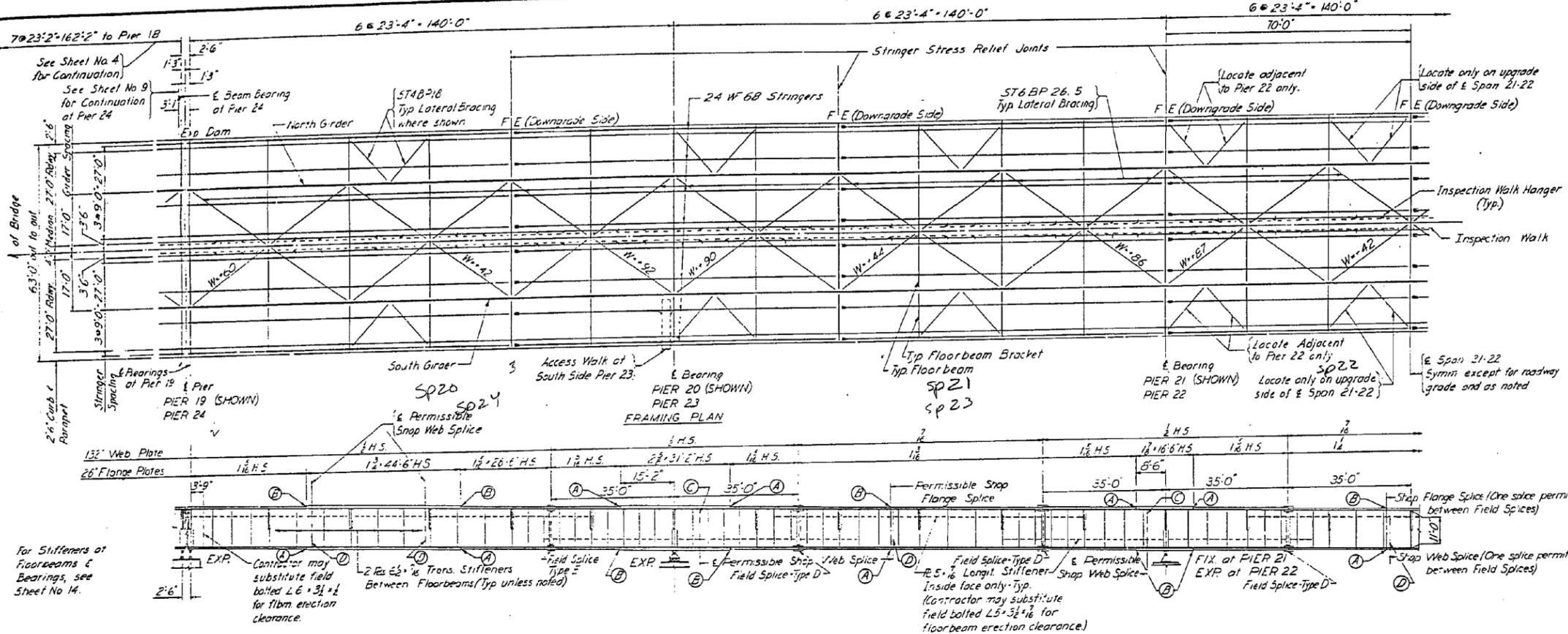


TABLE OF FILLS FOR GIRDER SPAN BEARINGS

PIERS	FILL THICKNESS
8	1/2
9	1/2
10	1/2
11	0
12	1/2
13	0
14	0
15	1/2
16	0
17	1/2
18	1/2
19 (Back Sta)	1/2
19 (Ahead Sta)	1/2
20	1/2
21	1/2
22	1/2
23	1/2
24	1/2

EXTERIOR ELEVATION, SOUTH GIRDER

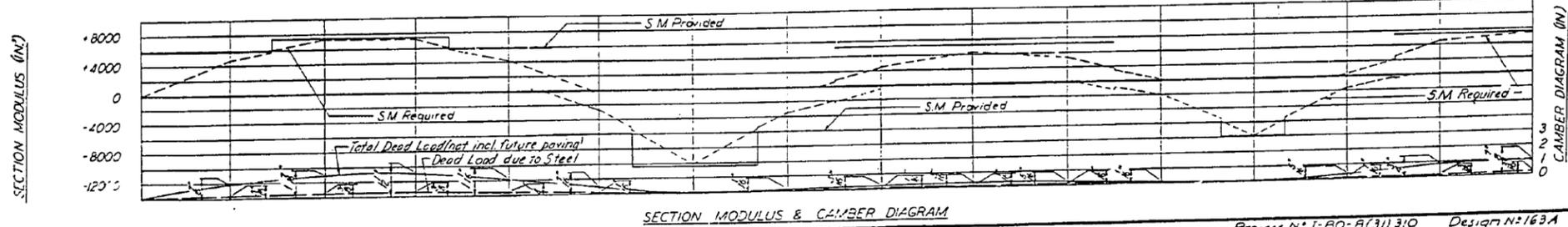
	REACT	SHEAR	SHEAR	SHEAR	SHEAR	SHEAR	SHEAR	EFECT	SHEAR	SHEAR	SHEAR	SHEAR	SHEAR	REACT	SHEAR	SHEAR	SHEAR
D	-311	+250	-104	-19	-167	-273	-421	+910	+356	+208	+102	-42	-164	-311	-759	+336	-194
L	+139	+112	+78	-53	-82	-114	-150	+285	+144	+108	+76	-69	-101	-137	-272	+141	+105
I	+26	+23	+18	-16	-21	-26	-31	+54	+30	+25	+19	-18	-23	-28	+51	+29	+24
TOTAL	+476	+385	+200	-88	-270	-413	-602	-1249	+530	+341	-197	-129	-288	-476	+082	+506	+323

	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT	MOMENT
D	0	+5922	+8256	-7800	+3926	-2434(-2207)	-12261	-3910	+892(+770)	-3271	+2286(2060)	-1543(-1381)	-8786	-939(-829)	+3592	+4836	
L	0	+2400	+3645	+3763	+2962	-1963(-1379)	-4398	-1981	+2371(+425)	-2816	-2425(-1389)	-1690(-1285)	-3907	-1645(-1380)	+2607	-3095	
I	0	+453	+690	+705	-565	-442(-260)	-830	-420	+448(+269)	-532	+458(+263)	-367(+243)	-738	-357(-261)	+492	+585	
TOTAL	0	+8675	+12591	+12268	+7473	-4859(-568)	-17489	-6311	+3711(+924)	-6619	+5169(+400)	-3600(-147)	-13431	-2941(+812)	+6691	-8316	

NOTES:  
 For General Notes and Design Criteria, see Sheet No. 3.  
 Reactions and Shears are in Kips.  
 Moments are in Foot-Kips.  
 Structural metalwork noted as 'HS' shall be Low Alloy High Strength Steel, A.S.T.M. A441-63T.  
 Metalwork not otherwise noted shall conform to A.S.T.M. A36-62T.  
 All floorbeams and transverse stiffeners shall be set normal to profile grade, except for vertical floorbeam at Pier 24.  
 For typical Cross Section, see Sheet No. 4.  
 (A) : Denotes bull weld radiographing. See Sheet No. 4 for description of notation.

0221 67 190X  
 0221 60 0749 917.8 4835 2143



IOWA STATE HIGHWAY COMMISSION  
 AND ILLINOIS DIVISION OF HIGHWAYS  
 INTERSTATE BRIDGE  
 OVER MISSISSIPPI RIVER at LE CLAIRE, IOWA  
 CONTRACT NO 2- SUPERSTRUCTURE

STRESS SHEET-4

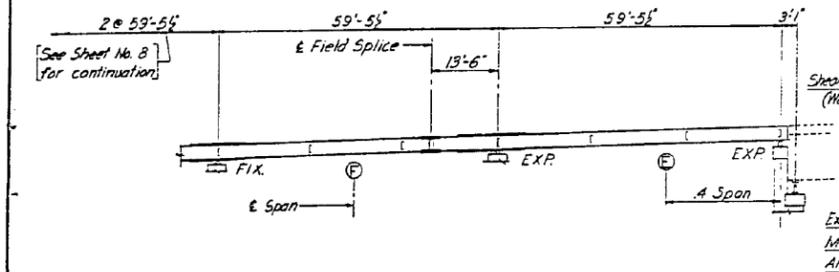
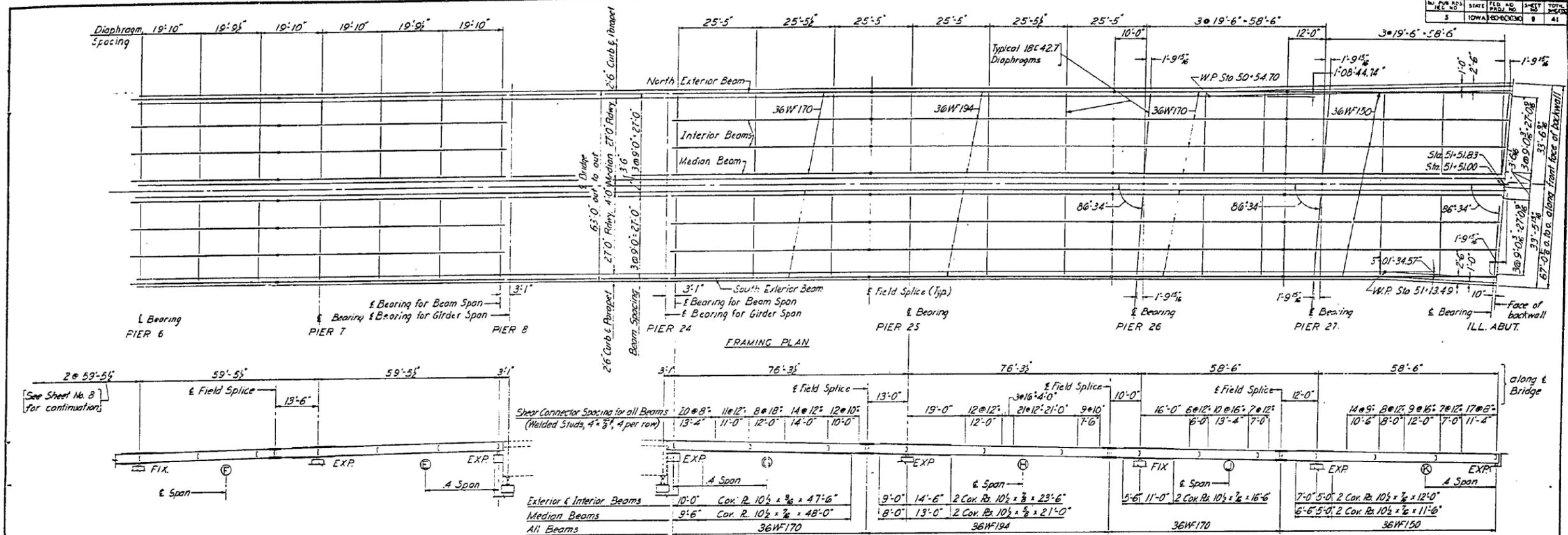
SCALE IN FEET, UNLESS NOTED  
 MODJESKI & MASTERS, ENGINEERS

MAY 1964 SHEET NO 7 OF 41

Project No: I-80-B(31)310 Design No: 163A Scott County File No: 21704



9 of 55



Shear Connector Spacing for all Beams (Welded Studs, 4" x 3/8", 4 per row)

20 @ 8"	11 @ 12"	8 @ 18"	14 @ 12"	12 @ 10"	19'-0"	12 @ 12"	21 @ 12"	21'-0"	9 @ 10"	16'-0"	6 @ 12"	10 @ 16"	7 @ 12"	14 @ 9"	8 @ 12"	9 @ 16"	7 @ 12"	17 @ 8"
13'-4"	11'-0"	12'-0"	14'-0"	10'-0"	12'-0"	12'-0"	21'-0"	7'-6"	7'-0"	16'-0"	13'-4"	7'-0"	10'-6"	8'-0"	12'-0"	7'-0"	11'-4"	

Note:  
For Section Selections, Shear Connectors, Moments, Reactions and Camber between Piers 6 & 8, see Sheet No. 8.

BEAMS	REACT. PIER 24			+MOM @ G			-MOM PIER 25			REACT. PIER 25			+MOM @ H			-MOM PIER 26			REACT. PIER 26			+MOM @ J			-MOM PIER 27			REACT. PIER 27			+MOM @ K			REACT. ILL. ABUT.														
	D	L	T	D	L	T	D	L	T	D	L	T	D	L	T	D	L	T	D	L	T	D	L	T	D	L	T	D	L	T	D	L	T	D	L	T												
Exterior	43	53	13	109	638	625	155	1416	932	500	130	1562	128	61	15	204	365	505	125	995	513	359	103	1015	93	55	115	163	132	363	99	594	495	337	92	924	93	53	15	161	393	443	121	957	34	51	14	99
Interior	39	56	14	109	594	710	175	1469	952	571	142	1565	118	69	18	205	328	571	140	1039	465	449	116	1030	85	62	116	163	119	412	113	644	452	383	104	939	84	60	17	161	362	502	138	1002	31	54	15	100
Median	38	53	13	104	569	625	156	1350	930	494	123	1447	114	61	15	190	307	494	123	924	443	394	102	935	82	55	115	152	110	364	99	573	441	338	92	871	83	53	15	151	353	43	121	917	31	51	14	96

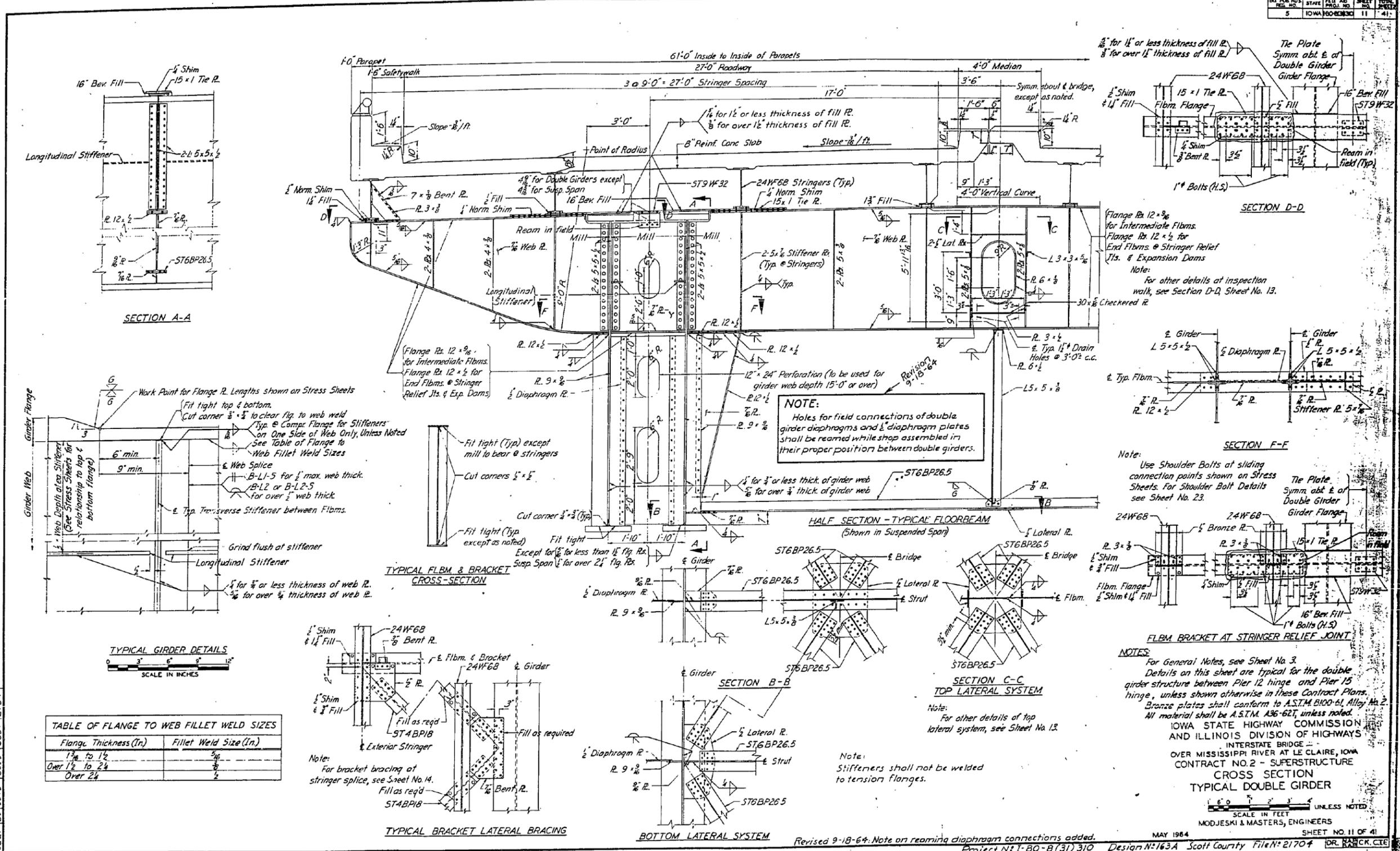
	L/15	L/10	L/8	L/6	L/5	L/4	L/3	L/2	L/1	L/1	L/2	L/3	L/4	L/5	L/6	L/8	L/10	L/15
CAMBER FOR STEEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CAMBER FOR CONCRETE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL CAMBER - IN.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

NOTES:  
For General Notes and Design Criteria, see Sheet No. 3.  
Reactions are in Kips.  
Moments are in Foot-Kips.  
Structural metalwork shall conform to A.S.T.M. A36-62T.  
For Typical Cross-Section, see Sheet No. 15.

IOWA STATE HIGHWAY COMMISSION  
AND ILLINOIS DIVISION OF HIGHWAYS  
INTERSTATE BRIDGE  
OVER MISSISSIPPI RIVER AT LE CLAIRE, IOWA  
CONTRACT NO. 2 - SUPERSTRUCTURE

STRESS SHEET - 6  
SCALE IN FEET, UNLESS NOTED  
MODJESKI & MASTERS, ENGINEERS

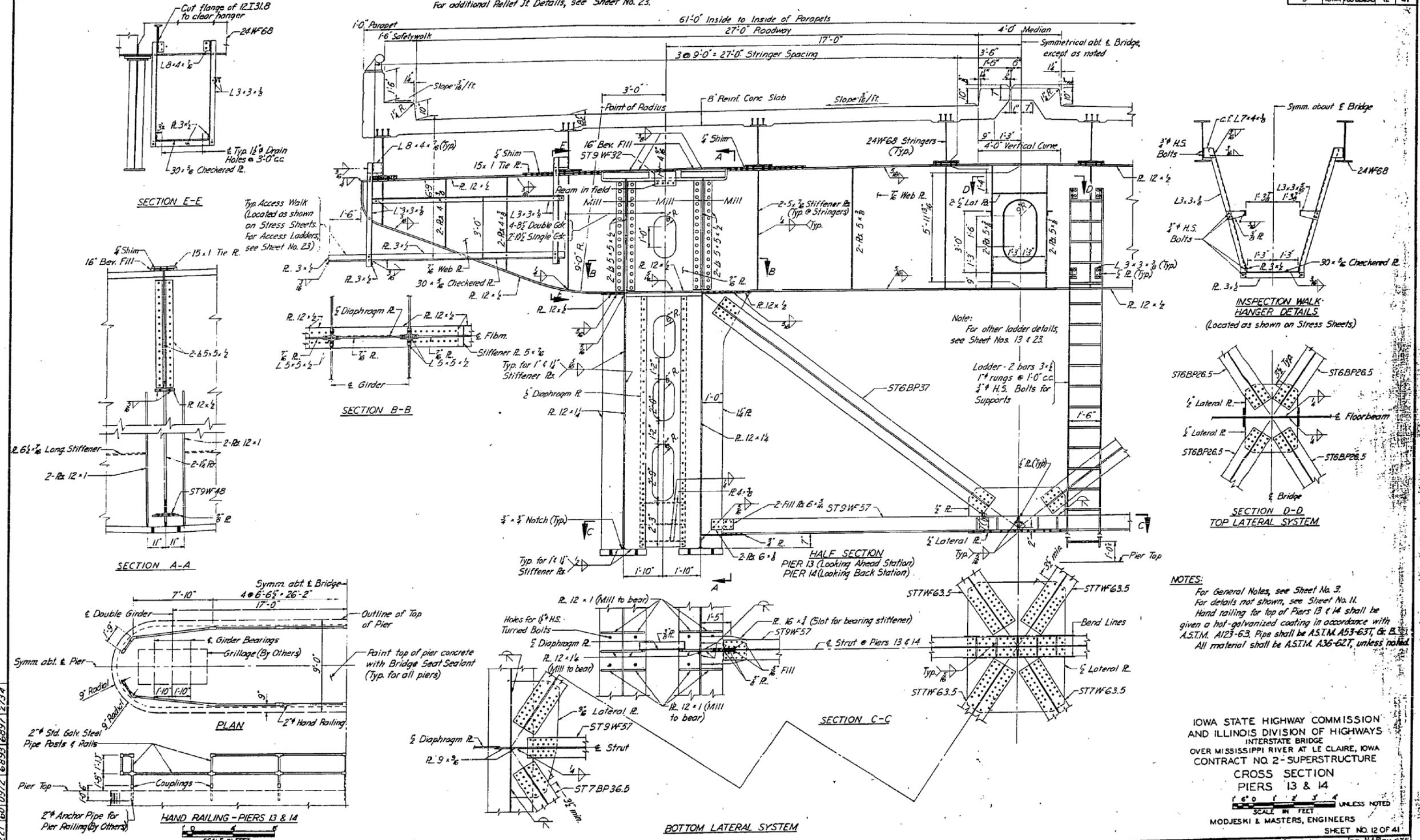
MAY 1964 SHEET NO. 9 OF 41  
Project N: I-80-B(31)310 Design N: 163A Scott County File N: 21704



0221 60 0979 6893 12134

FED. PROJ. NO.	STATE	FED. AID DIST. NO.	SHEET NO.	TOTAL SHEETS
5	IOWA	MOB-BO-BC	12	41

Note:  
For additional Relief Jt Details, see Sheet No. 23.



NOTES:  
For General Notes, see Sheet No. 3.  
For details not shown, see Sheet No. 11.  
Hand railing for top of Piers 13 & 14 shall be given a hot-galvanized coating in accordance with A.S.T.M. A123-63. Pipe shall be A.S.T.M. A53-63T, Gr. B. All material shall be A.S.T.M. A36-62T, unless noted.

IOWA STATE HIGHWAY COMMISSION  
AND ILLINOIS DIVISION OF HIGHWAYS  
INTERSTATE BRIDGE  
OVER MISSISSIPPI RIVER AT LE CLAIRE, IOWA  
CONTRACT NO. 2-SUPERSTRUCTURE  
CROSS SECTION  
PIERS 13 & 14  
SCALE IN FEET  
MODJESKI & MASTERS, ENGINEERS  
SHEET NO. 12 OF 41  
DR. K. B. C. I. E.

Project No: I-80-B(31)310 Design No: 163A Scott County File No: 21704

DESIGNED VHV	EXAMINED	DATE	OCTOBER 12, 2012
CHECKED DAB	ACTING ENGINEER OF STRUCTURAL SERVICES		
DRAWN baliva	PASSED	ACTING ENGINEER OF BRIDGES AND STRUCTURES	
CHECKED VHV DAB			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY  
SN 081-0011

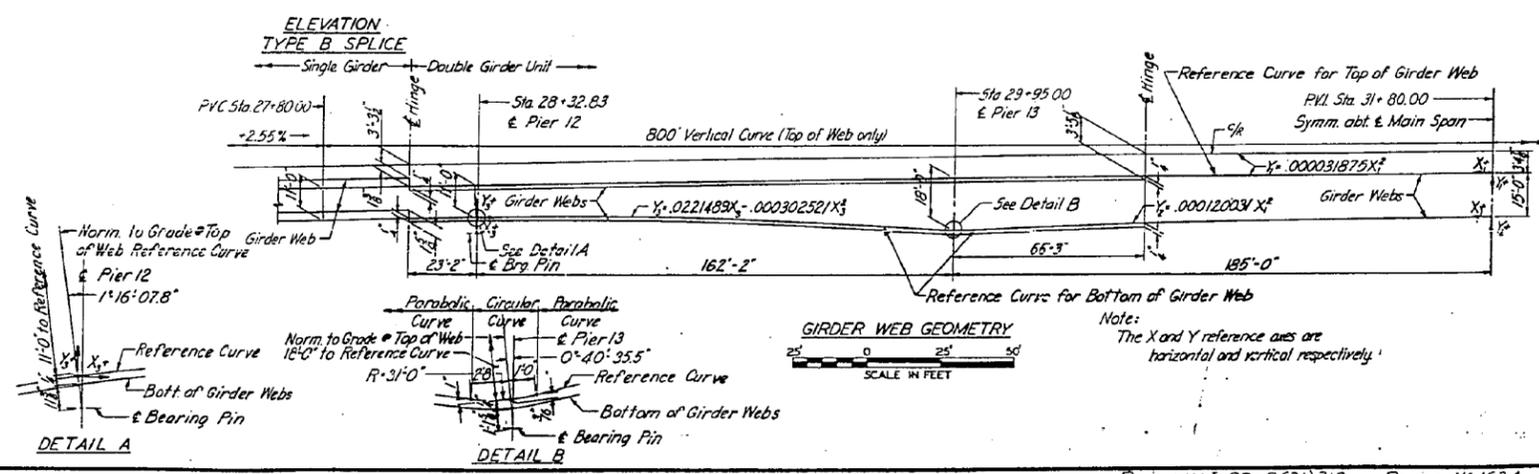
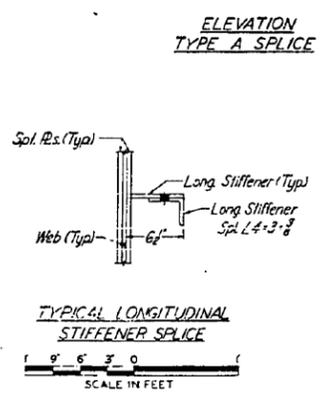
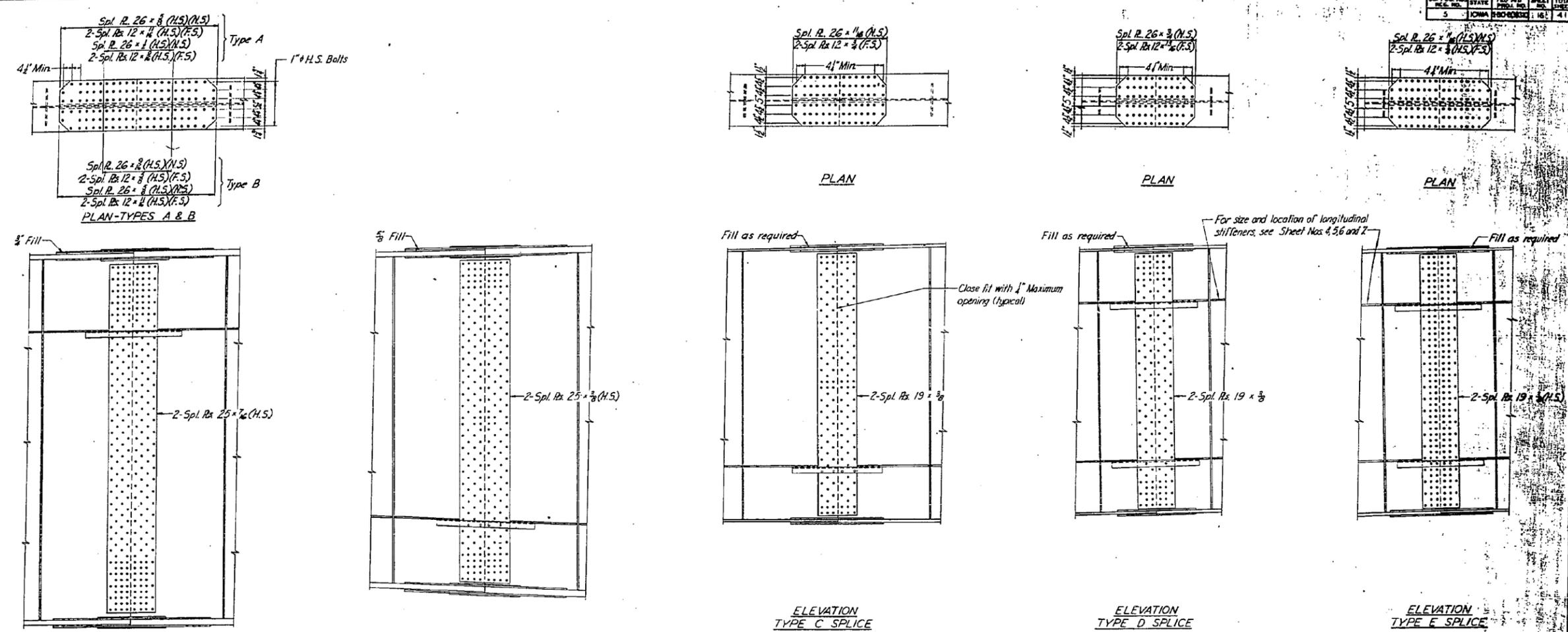
SHEET 9 OF 42 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	13
CONTRACT NO. 64H81			ILLINOIS FED. AID PROJECT	









**NOTES:**  
 For General Notes and Design Criteria, see Sheet No. 8.  
 Splice material noted as "H.S." shall be Low Alloy High Strength Steel, A.S.T.M. A441-63T. Splice material not noted as "H.S." shall conform to A.S.T.M. A36-62T.  
 For the location of various types of girder splices see Sheet Nos. 4, 5, 6 and 7.

IOWA STATE HIGHWAY COMMISSION  
 AND ILLINOIS DIVISION OF HIGHWAYS  
 INTERSTATE BRIDGE OVER MISSISSIPPI RIVER AT LE CLAIRE, IOWA  
 CONTRACT NO. 2 - SUPERSTRUCTURE

**BOLTED GIRDER SPLICES**

SCALE IN FEET UNLESS NOTED  
 MODJESKI & MASTERS, ENGINEERS  
 MAY 1964  
 SHEET NO. 16 OF 41

Project No: I-80-B(31)310 Design No: 163A Scott County File No: 21704 DR. BARCKBPS

DESIGNED VHV	EXAMINED <i>Timothy A. Dredger</i>	DATE - OCTOBER 12, 2012
CHECKED DAB	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN baliva	PASSED <i>Carl Kruger</i>	
CHECKED VHV DAB	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

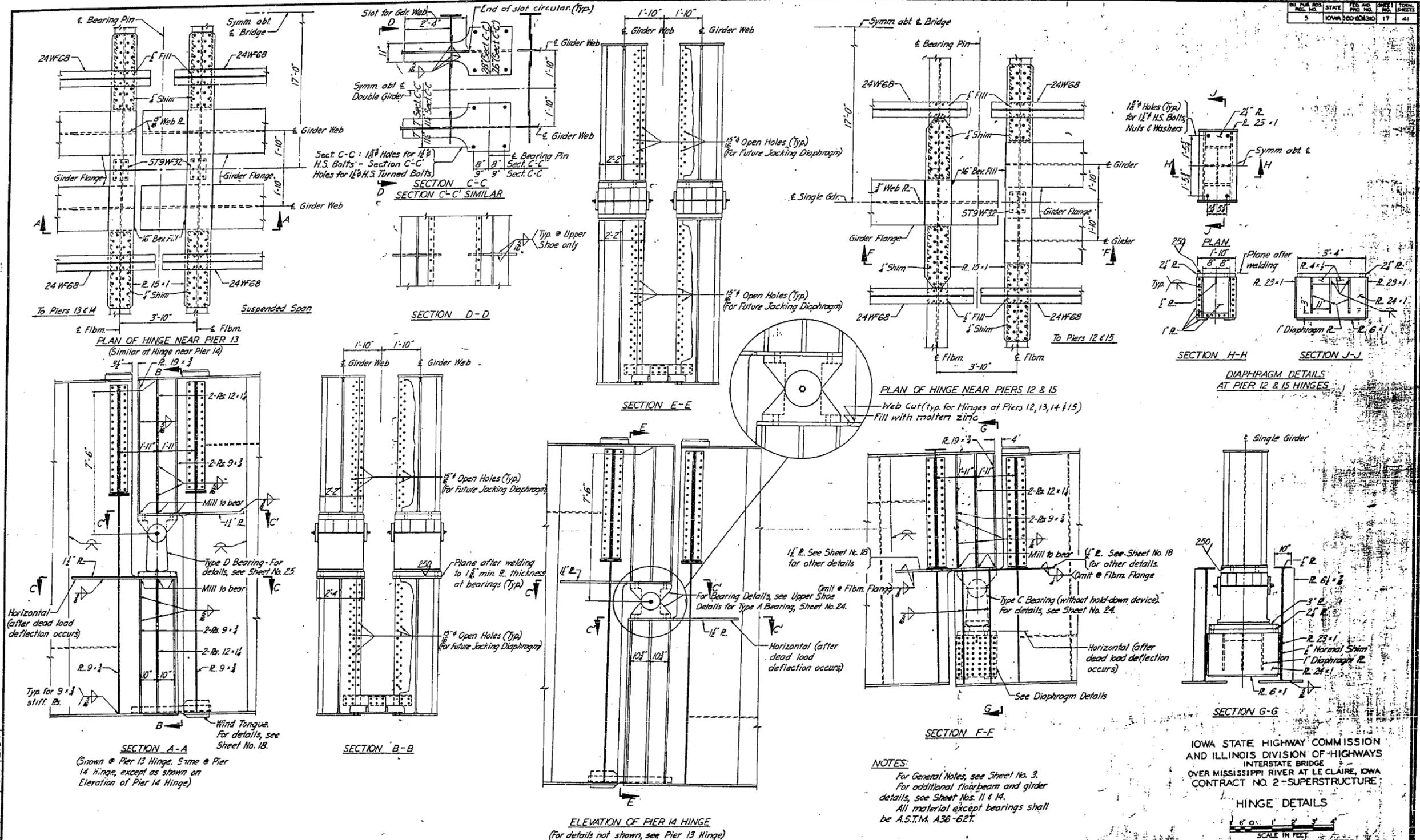
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY  
 SN 081-0011

SHEET 13 OF 42 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80 D2	BRIDGE PAINTING 2012-2	ROCK ISLAND	46	17
CONTRACT NO. 64H81			ILLINOIS FED. AID PROJECT	

NO.	DATE	BY	REVISION
1			
2			
3			
4			
5			



0271 601 6574 6897 2734

Revised 4-5-65: Web filled details corrected to eliminate notch in web plate.  
 Section C-C corrected by note to show end of slot circular.

DESIGNED	VHV	EXAMINED	<i>Timothy A. Dredger</i>	DATE	OCTOBER 12, 2012
CHECKED	DAB	PASSED	<i>Carl Kruger</i>		
DRAWN	baliva				
CHECKED	VHV DAB				

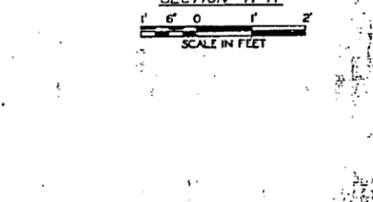
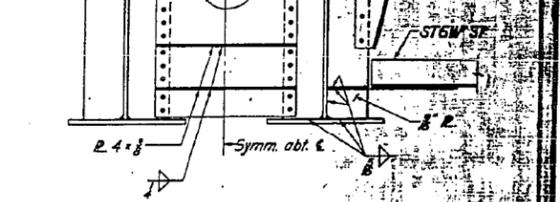
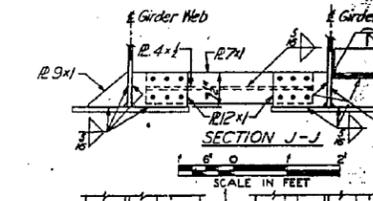
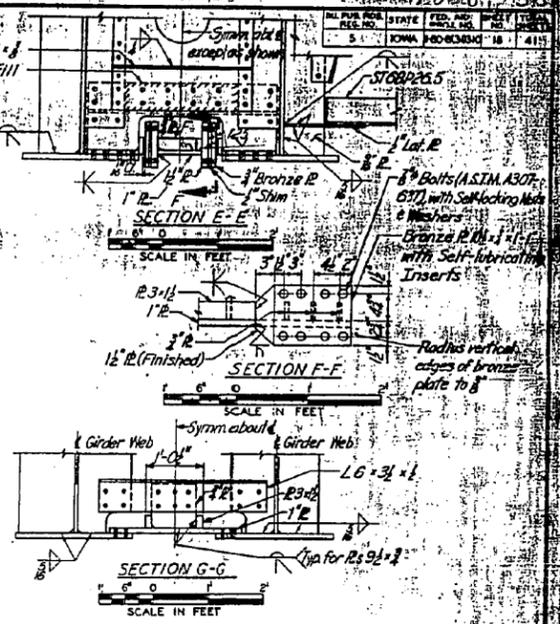
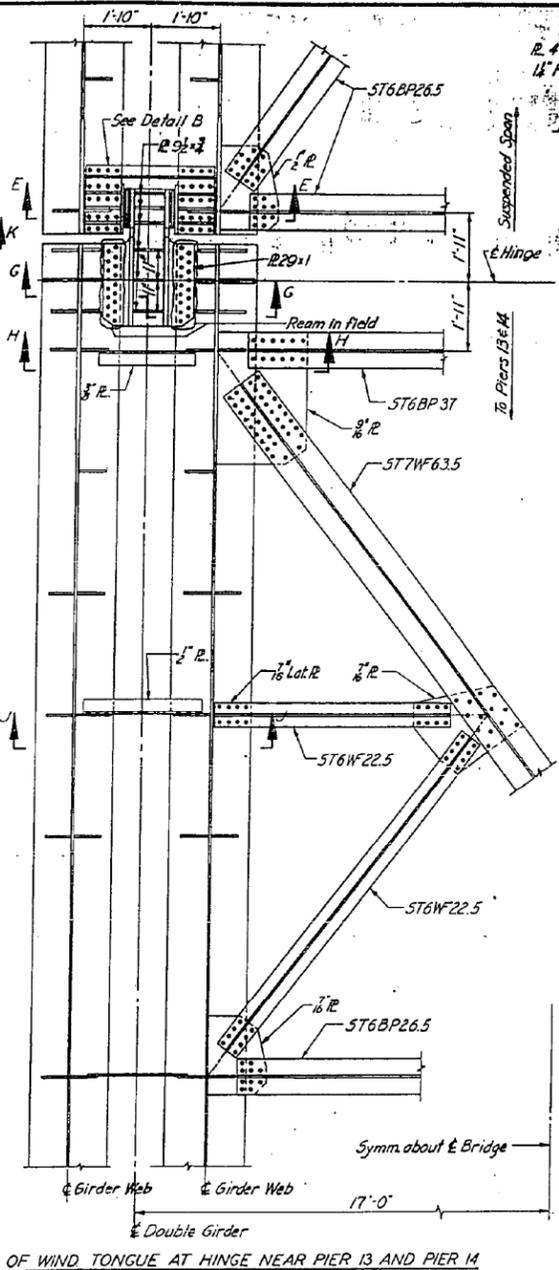
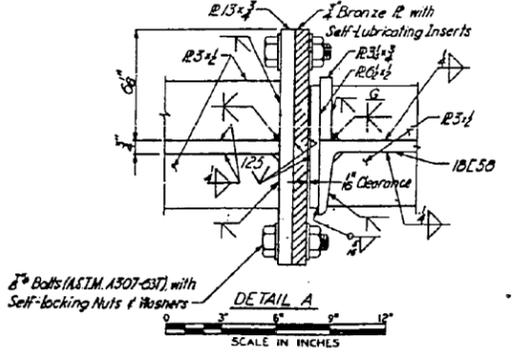
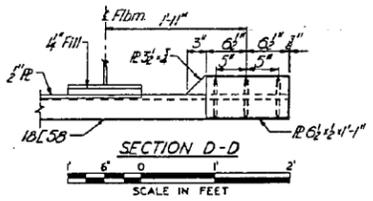
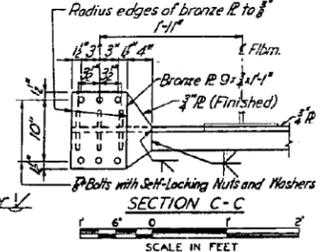
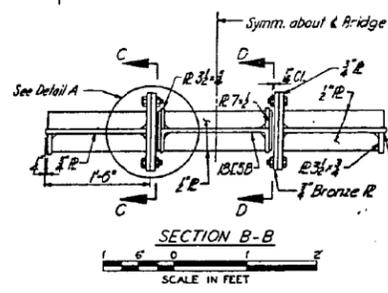
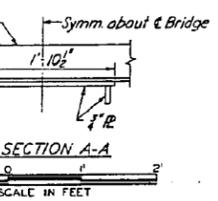
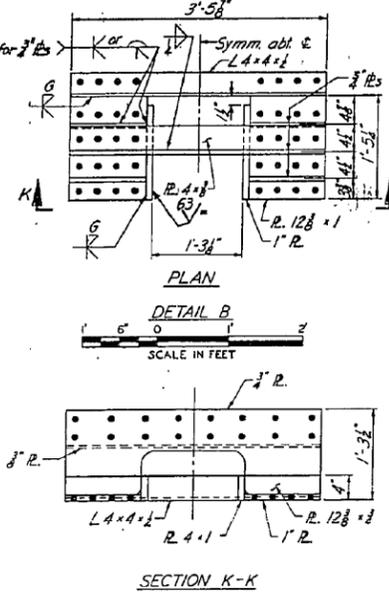
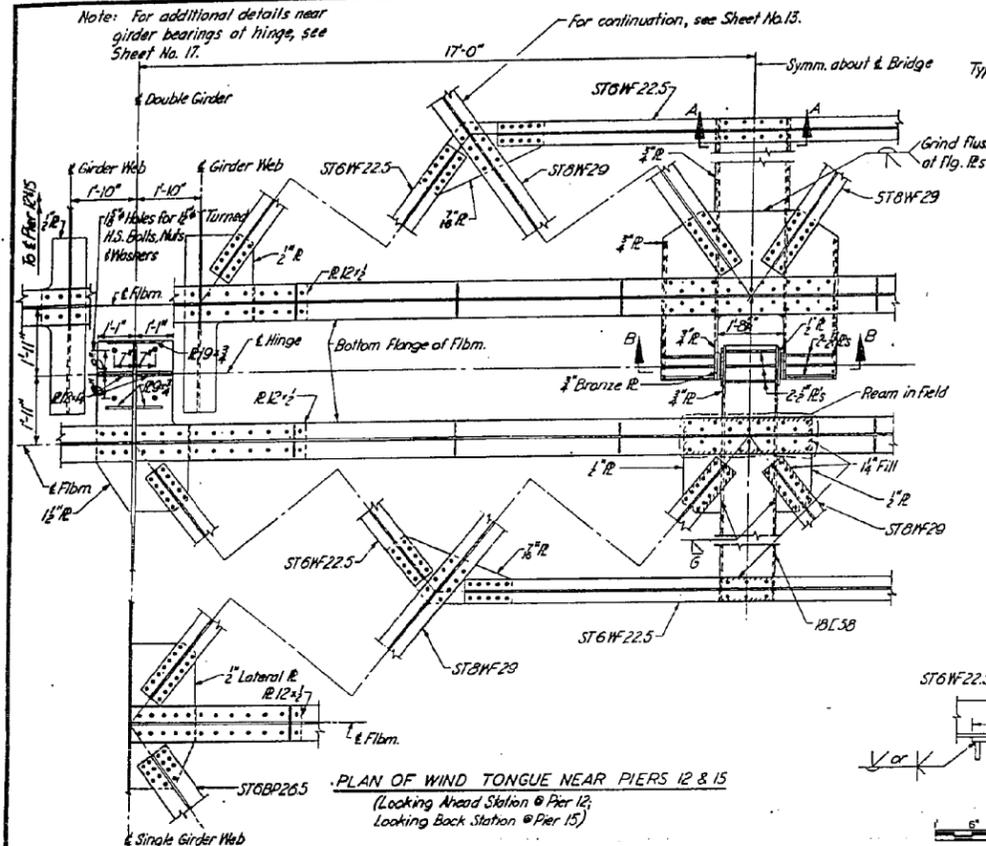
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY  
 SN 081-0011

SHEET 14 OF 42 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80 D2	BRIDGE PAINTING 2012-2	ROCK ISLAND	46	18
CONTRACT NO. 64H81			ILLINOIS FED. AID PROJECT	

Project N-I-80-B(31)310 Design N-165A Scott County File N-2704 DR BAROK CLE



**NOTES:**  
 For General Notes, see Sheet No. 3.  
 For additional floorbeam and girder details, see Sheet Nos. 11 & 14.  
 Bronze plates shall conform to ASTM B200-61, Alloy No. 2.  
 Finished surfaces shall be planed in the direction of movement after welding of connected plates is completed.  
 All material shall be ASTM A36-62T unless noted.

IOWA STATE HIGHWAYS COMMISSION  
 AND ILLINOIS DIVISION OF HIGHWAYS  
 INTERSTATE BRIDGE  
 OVER MISSISSIPPI RIVER AT LE CLAIRE, IOWA  
 CONTRACT NO 2- SUPERSTRUCTURE

**WIND TONGUE DETAILS**  
 SCALE IN FEET UNLESS NOTED  
 MOJESKI & MASTERS, ENGINEERS  
 MAY 1964 SHEET NO. 18 OF 41

Project N<sup>o</sup> I-80-B(31) 310 Design N<sup>o</sup> 163A Scott County File N<sup>o</sup> 21704 DR. RUCKER, CLF

0221 100 1673 3042 2119 1734  
 0221 100 1424 3042 1734

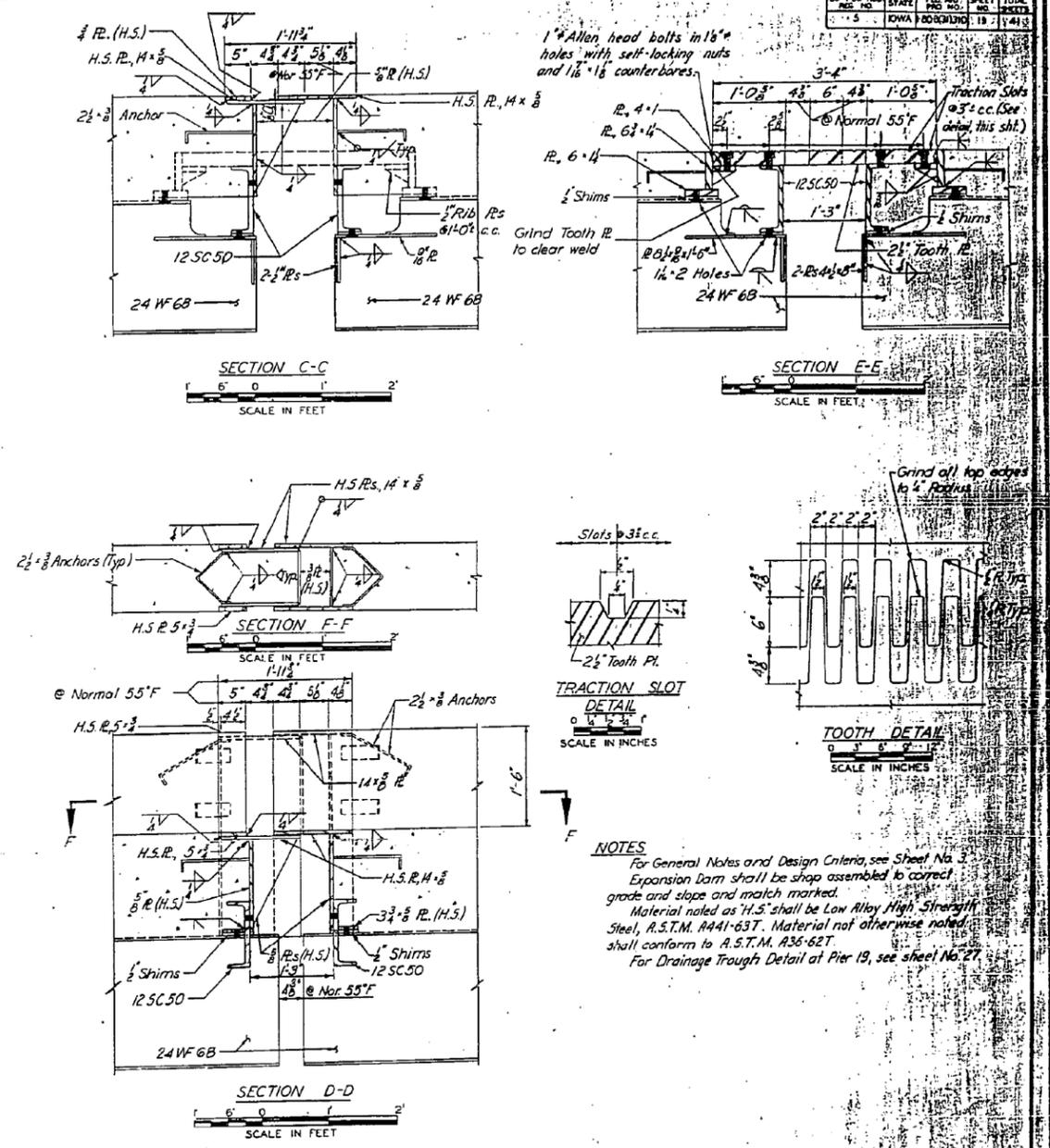
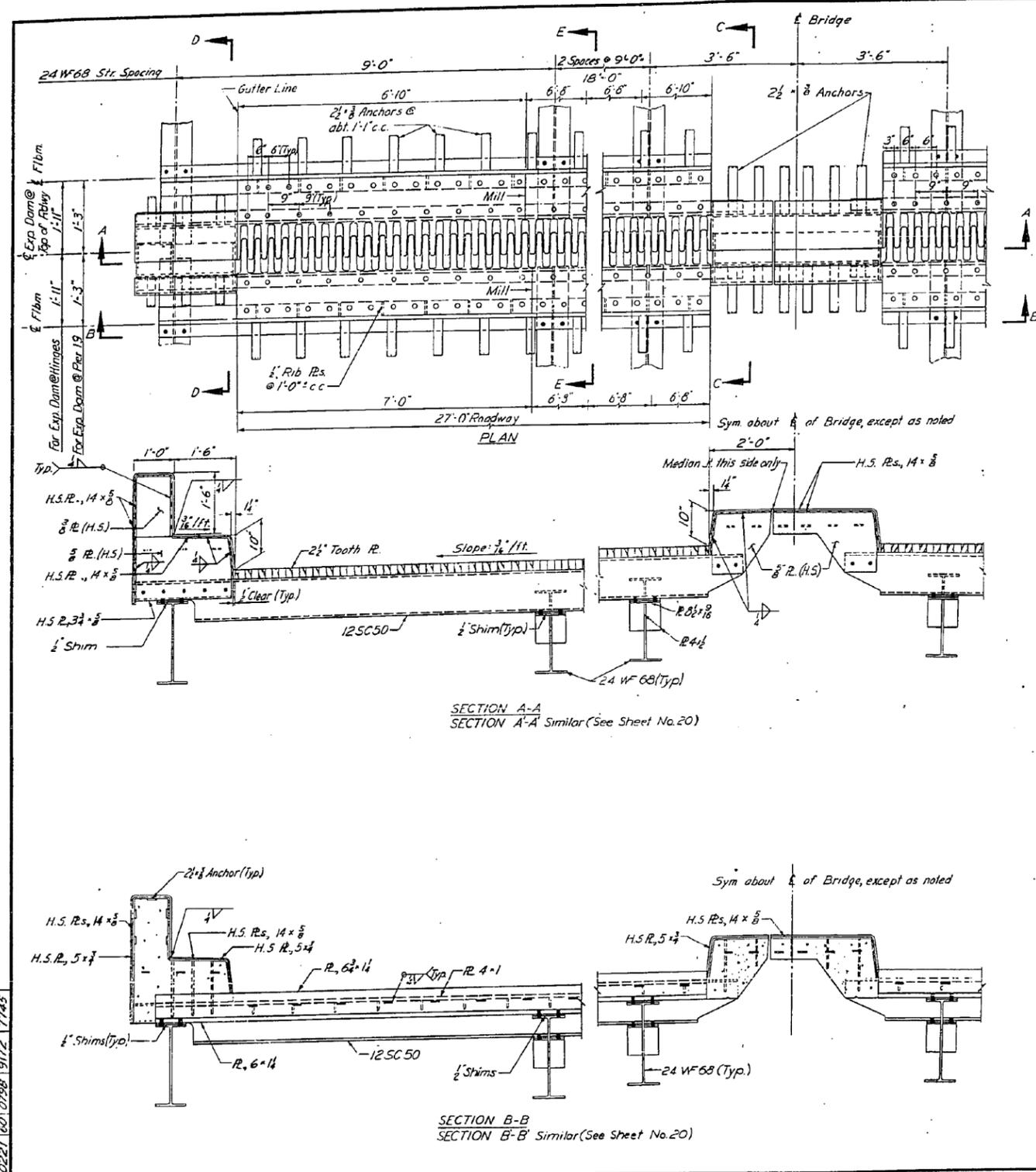
DESIGNED VHV	EXAMINED	DATE	OCTOBER 12, 2012
CHECKED DAB	ACTING ENGINEER OF STRUCTURAL SERVICES		
DRAWN baliva	PASSED		
CHECKED VHV DAB	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY  
 SN 081-0011

SHEET 15 OF 42 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2	BRIDGE PAINTING 2012-2	46	19
CONTRACT NO. 64H81			ILLINOIS FED. AID PROJECT	



**NOTES**  
 For General Notes and Design Criteria, see Sheet No. 3.  
 Expansion Dam shall be shop assembled to correct grade and slope and match marked.  
 Material noted as "H.S." shall be Low Alloy High Strength Steel, A.S.T.M. A441-63T. Material not otherwise noted shall conform to A.S.T.M. A36-62T.  
 For Drainage Trough Detail at Pier 19, see sheet No. 27.

IOWA STATE HIGHWAY COMMISSION  
 AND ILLINOIS DIVISION OF HIGHWAYS  
 INTERSTATE BRIDGE  
 OVER MISSISSIPPI RIVER AT LE CLAIRE, IOWA  
 CONTRACT NO. 2 - SUPERSTRUCTURE  
 EXPANSION DAM DETAILS  
 PIER 12, 13 & 15 HINGES & PIER 19

Project No: I-80-B(31)310 Design No: 163A Scott County File No: 21704

DESIGNED VHV	EXAMINED <i>Timothy A. Dredger</i>	DATE	OCTOBER 12, 2012
CHECKED DAB	ACTING ENGINEER OF STRUCTURAL SERVICES		
DRAWN baliva	PASSED <i>Carl Pinger</i>		
CHECKED VHV DAB	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

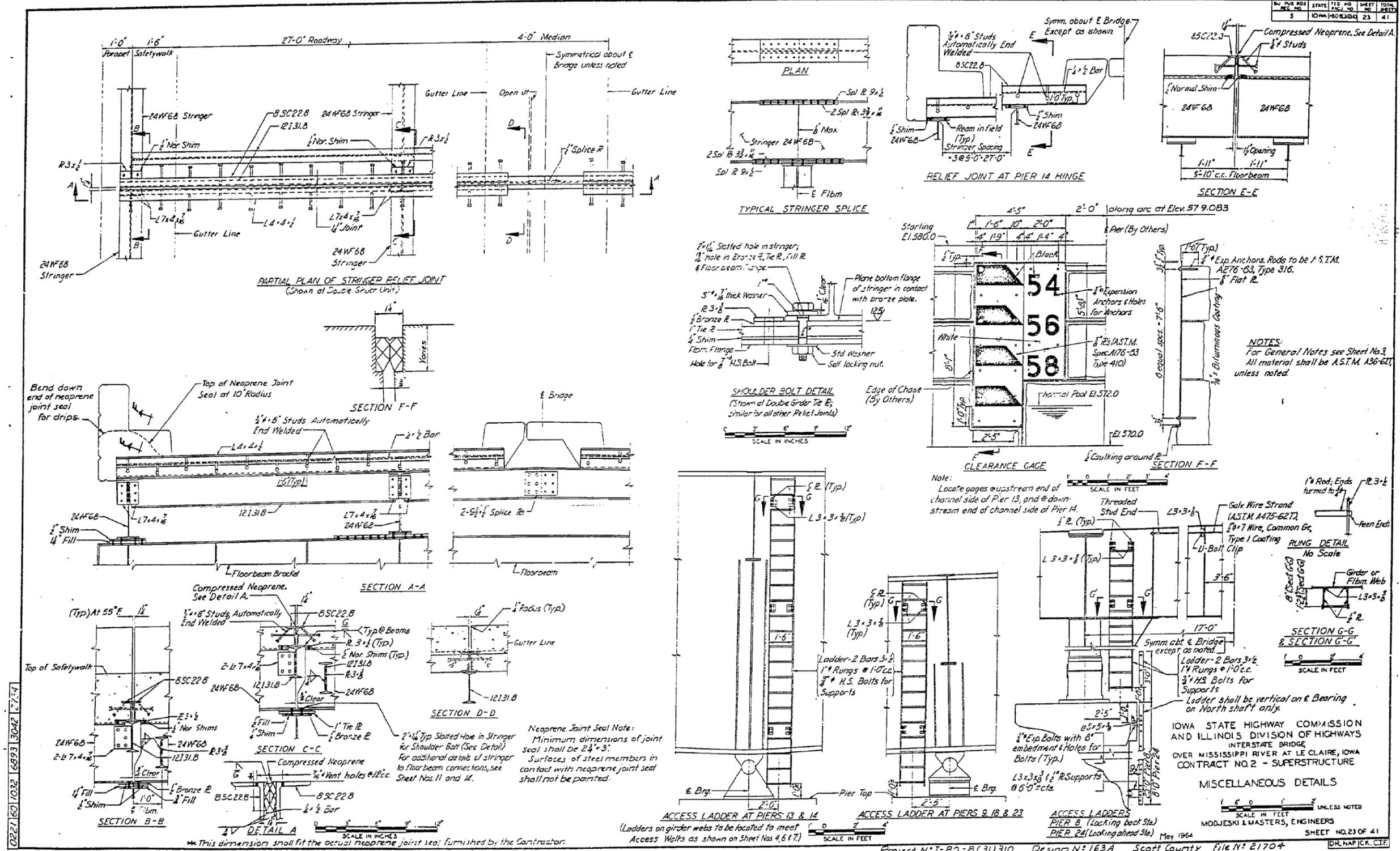
FOR INFORMATION ONLY  
 SN 081-0011

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	20
			CONTRACT NO. 64H81	
ILLINOIS FED. AID PROJECT				









**NOTES:**  
For General Notes see Sheet No. 3.  
All material shall be A.S.T.M. A36-62,  
unless noted.

IOWA STATE HIGHWAY COMMISSION  
AND ILLINOIS DIVISION OF HIGHWAYS  
INTERSTATE BRIDGE  
OVER MISSISSIPPI RIVER AT LE CLAIRE, IOWA  
CONTRACT NO. 2 - SUPERSTRUCTURE

MISCELLANEOUS DETAILS

SCALE IN FEET  
UNLESS NOTED  
MODJESKI & MASTERS, ENGINEERS

SHEET NO. 23 OF 41  
MAY 1964  
D.R. NAPJEK, C.E.P.

DESIGNED VHV	EXAMINED	DATE	OCTOBER 12, 2012
CHECKED DAB	ACTING ENGINEER OF STRUCTURAL SERVICES		
DRAWN baliva	ACTING ENGINEER OF BRIDGES AND STRUCTURES		
CHECKED VHV DAB			

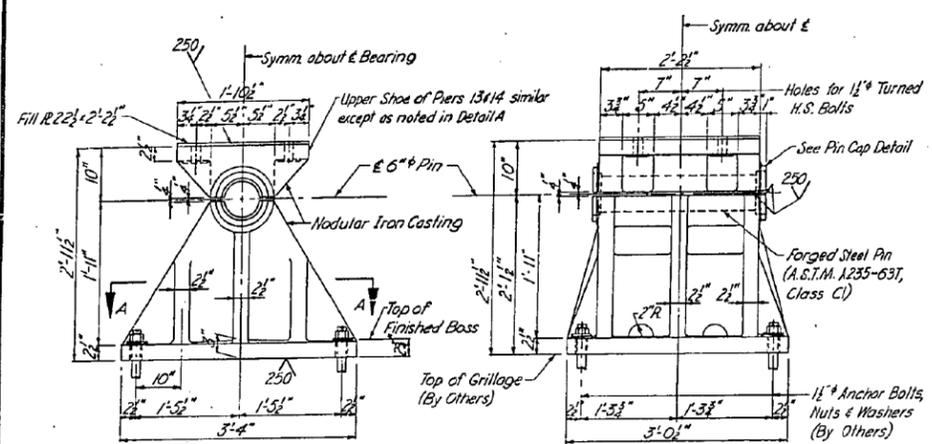
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY  
SN 081-0011

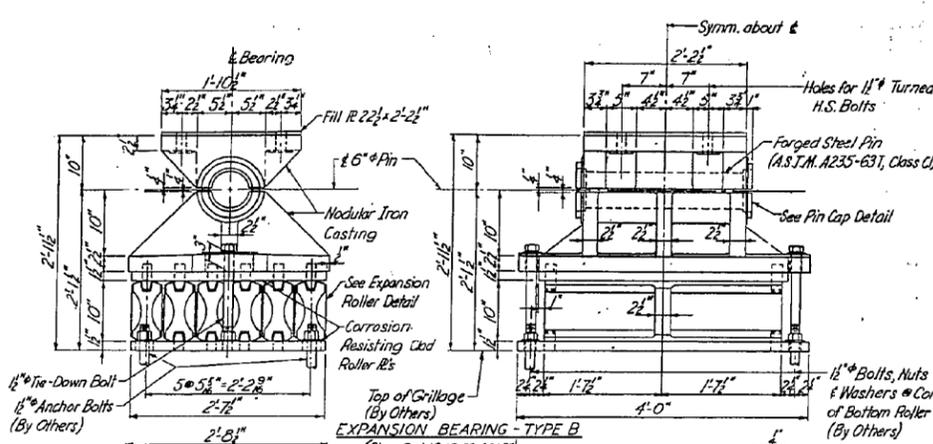
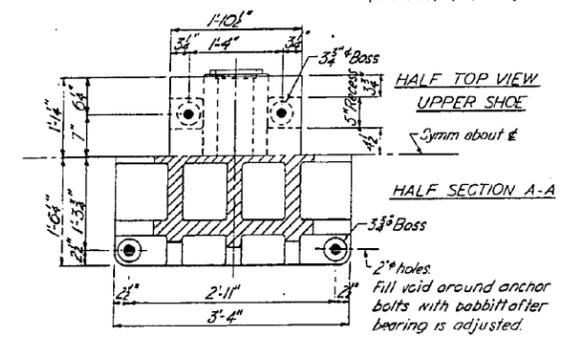
SHEET 20 OF 42 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	24
CONTRACT NO. 64H81			ILLINOIS FED. AID PROJECT	

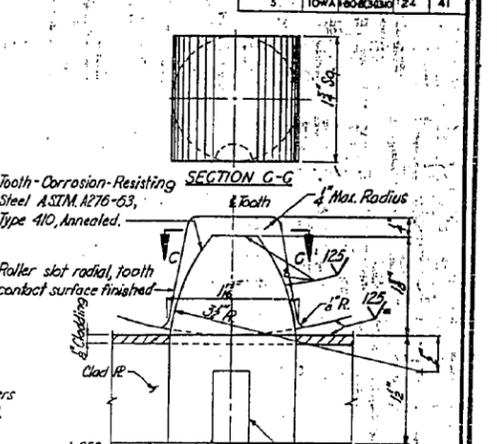
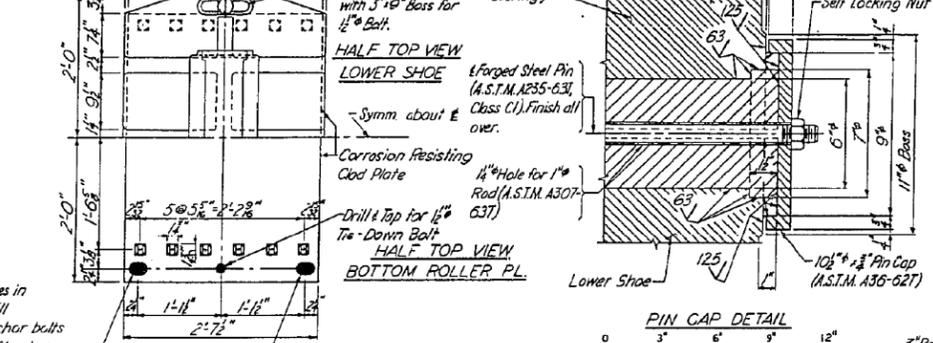
DESIGN NO.	DATE	REV. NO.	SHEET NO.	TOTAL SHEETS
5	IOWA 4008330	24	41	



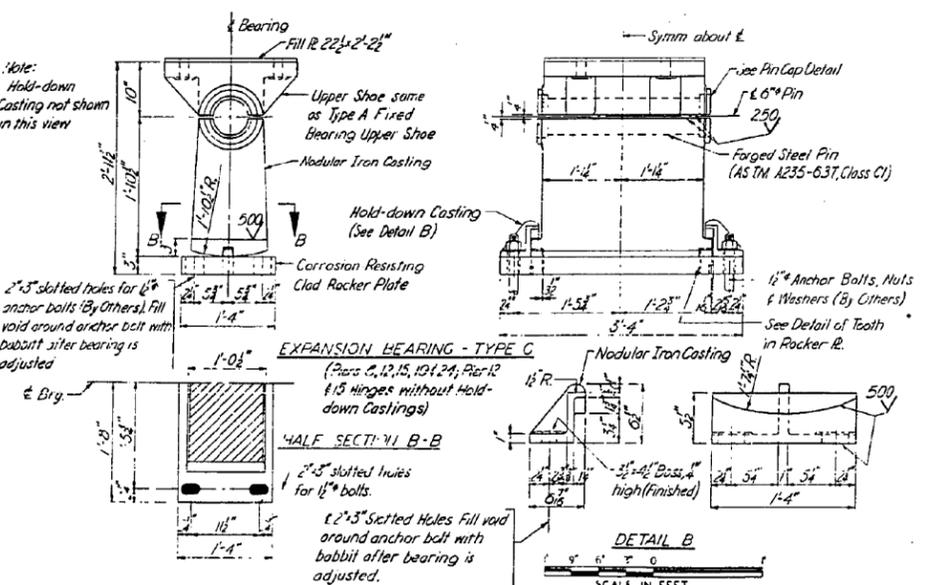
**FIXED BEARING - TYPE A**  
(Piers 10, 13, 14, 17&21)



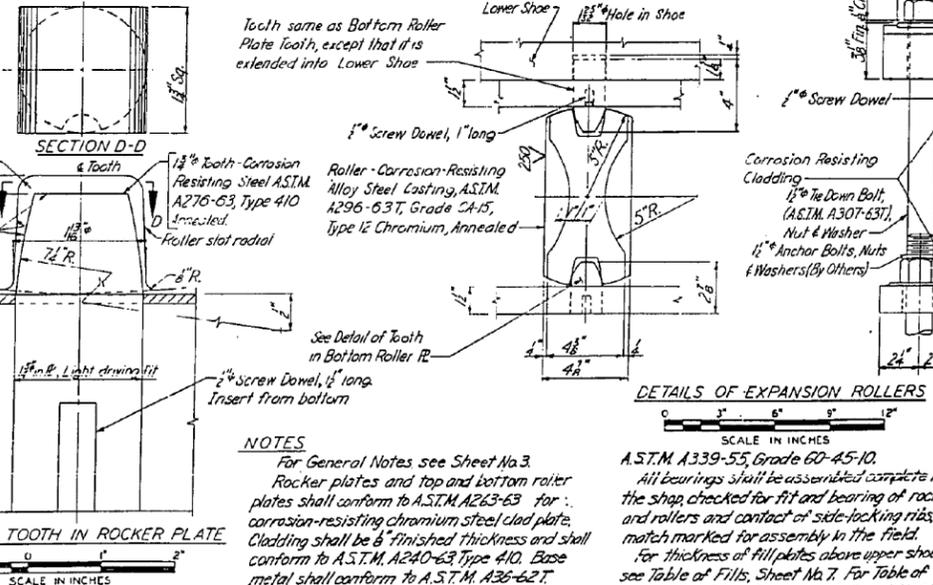
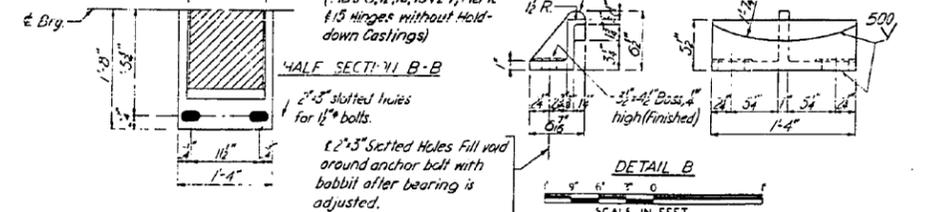
**EXPANSION BEARING - TYPE B**  
(Piers 9, 11, 15, 19, 20, 22&23)



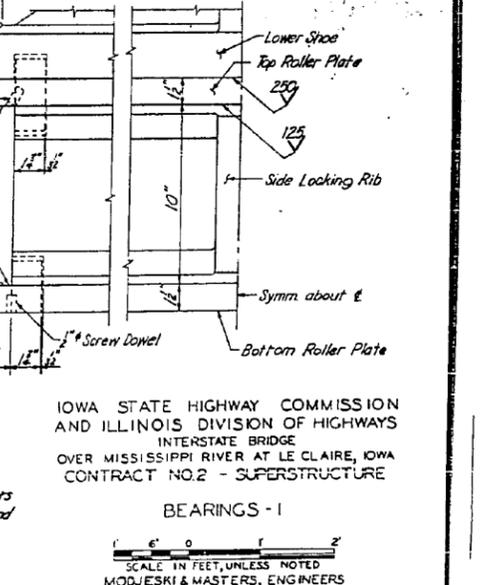
**DETAILS OF TOOTH IN BOTTOM ROLLER PLATE**



**EXPANSION BEARING - TYPE C**  
(Piers 2, 12, 15, 19&24; Pier 12 & 15 Hinges without Hold-down Castings)



**DETAILS OF TOOTH IN ROCKER PLATE**



**DETAILS OF EXPANSION ROLLERS**

**NOTES**  
For General Notes see Sheet No. 3  
Rocker plates and top and bottom roller plates shall conform to A.S.T.M. A263-63 for corrosion-resisting chromium steel clad plate. Cladding shall be 1/8" finished thickness and shall conform to A.S.T.M. A240-63 Type 410. Base metal shall conform to A.S.T.M. A36-62. Nodular iron castings shall conform to

A.S.T.M. A339-55, Grade 60-45-10.  
All bearings shall be assembled complete in the shop, checked for fit and bearing of rockers and rollers and contact of side locking ribs and match marked for assembly in the field.  
For thickness of fill plates above upper shoes, see Table of Fills, Sheet No. 7. For Table of Rocker and Roller Settings, see Sheet No. 25.

IOWA STATE HIGHWAY COMMISSION AND ILLINOIS DIVISION OF HIGHWAYS  
INTERSTATE BRIDGE  
OVER MISSISSIPPI RIVER AT LE CLAIRE, IOWA  
CONTRACT NO. 2 - SUPERSTRUCTURE  
BEARINGS - I  
SCALE IN FEET, UNLESS NOTED  
MODJESKI & MASTERS, ENGINEERS  
MAY 1964 SHEET NO. 24 OF 41

Project No: I-80-B(31)310 Design No: 163A Scott County File No: 21704 DR, RMG, CK, TCF

DESIGNED VHV	EXAMINED Timothy A. Daulton	DATE OCTOBER 12, 2012
CHECKED DAB	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN baliva	PASSED Carl Pinger	
CHECKED VHV DAB	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

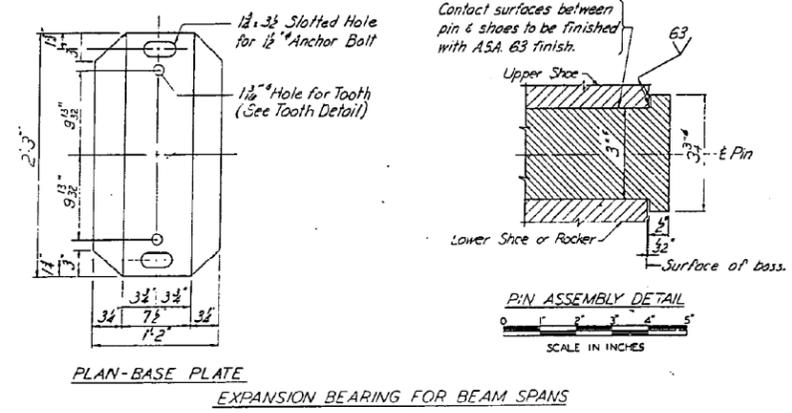
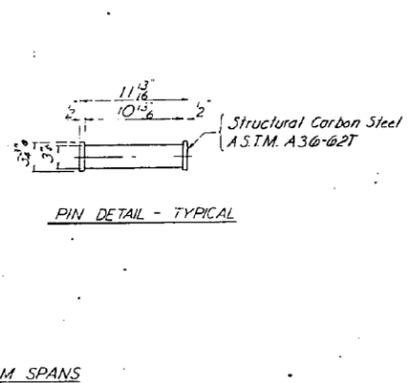
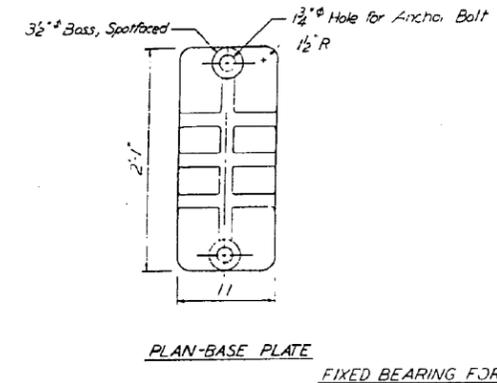
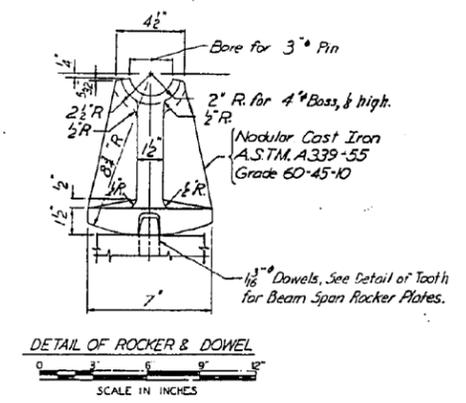
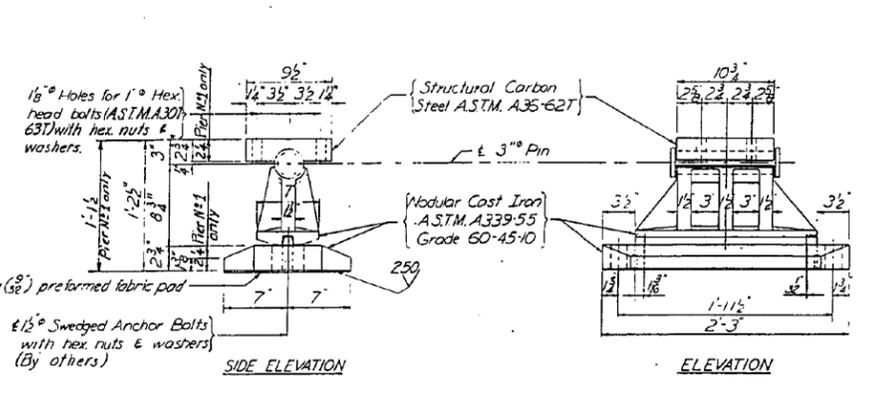
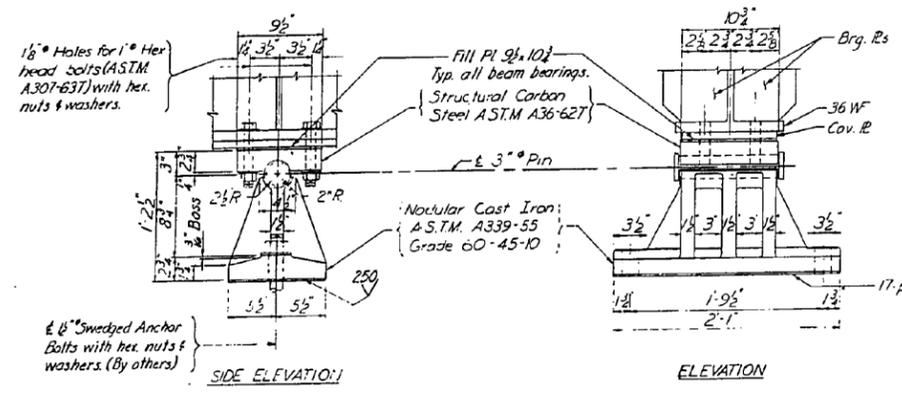
FOR INFORMATION ONLY  
SN 081-0011

SHEET 21 OF 42 SHEETS

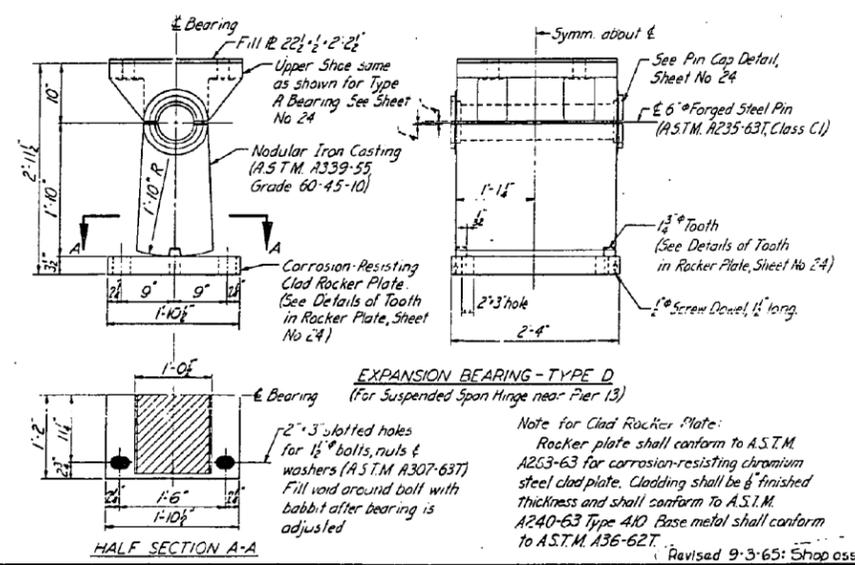
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	25
CONTRACT NO. 64H81			ILLINOIS FED. AID PROJECT	

REV.	DATE	BY	CHKD.	SHEET NO.	TOTAL SHEETS
5	10/14/1964	PROJ. ENGR.		25	41

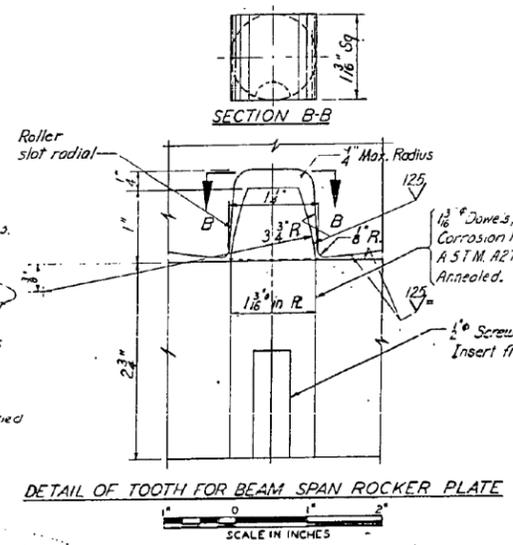
Note:  
For thickness of fill #s, see Table of Fills  
for Beam Span Bearings on Sheet No. 8



LOCATION	Dimension A for Temperature at Time of Setting		
	10°F	50°F	90°F
Tower Abutment	+ 3/8	0	- 3/8
Pier 1	+ 4	0	- 4
Pier 3	- 4	0	+ 4
Pier 4 (Back Sta)	- 3/8	0	+ 3/8
Pier 4 (Ahead Sta)	+ 3/8	0	- 3/8
Pier 5	+ 3/8	0	- 3/8
Pier 7	- 3/8	0	+ 3/8
Pier 8 (Back Sta)	- 3/8	0	+ 3/8
Pier 8 (Ahead Sta)	+ 3/8	0	- 3/8
Pier 9	+ 3/8	0	- 3/8
Pier 11	- 3/8	0	+ 3/8
Hinge near Pier 12	- 1/2	0	+ 1/2
Pier 12	+ 1/2	0	- 1/2
Hinge near Pier 13	+ 1/8	0	- 1/8
Pier 15	- 1/2	0	+ 1/2
Hinge near Pier 15	+ 1/2	0	- 1/2
Pier 16	+ 1/2	0	- 1/2
Pier 18	- 1/2	0	+ 1/2
Pier 19 (Back Sta)	- 1	0	+ 1
Pier 19 (Ahead Sta)	+ 1	0	- 1
Pier 20	+ 1/4	0	- 1/4
Pier 22	- 1/4	0	+ 1/4
Pier 23	- 3/8	0	+ 3/8
Pier 24 (Back Sta)	- 1 1/4	0	+ 1 1/4
Pier 24 (Ahead Sta)	+ 1 1/4	0	- 1 1/4
Pier 25	+ 1/4	0	- 1/4
Pier 27	- 3/8	0	+ 3/8
Illinois Abutment	- 3/8	0	+ 3/8



**NOTES.**  
For General Notes and Design Criteria see Sheet No. 3.  
All bearings shall be assembled complete in the shop, checked for fit and full bearing and match-marked for assembly in the field, except W beam span bearings.  
17-ply (3/8) preformed fabric pads to be placed under the base plate, shall be furnished in accordance with paragraph 4.31.1 of the I.S.H.C. standard specifications for construction.  
Nuts and/or anchor bolts shall be filled with zinc rich metal after adjustment of bearings.  
Anchor bolts, nuts and washers are to be supplied by the Substructure Contractor.

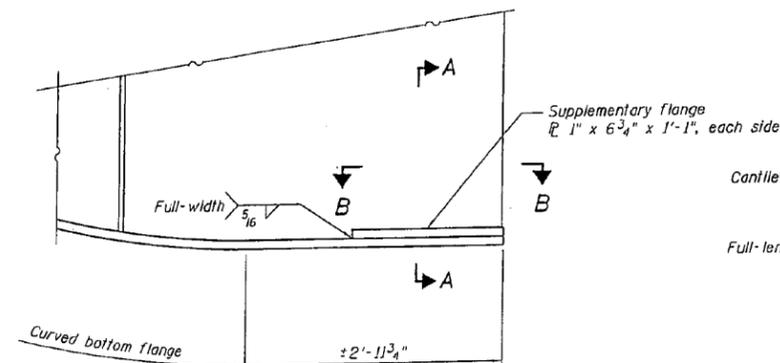


For temperatures other than those shown use proportional values of dimension 'A'.  
IOWA STATE HIGHWAY COMMISSION AND ILLINOIS DIVISION OF HIGHWAYS  
INTERSTATE BRIDGE OVER MISSISSIPPI RIVER AT LE CLAIRE, IOWA  
CONTRACT NO. 2 - SUPERSTRUCTURE  
BEARINGS - 2  
SCALE IN FEET  
UNLESS NOTED  
MAY 1964  
MODJESKI & MASTERS, ENGINEERS  
SHEET NO. 25 OF 41  
DR. F.L. KICKAPAS

02271601324148351745 7310

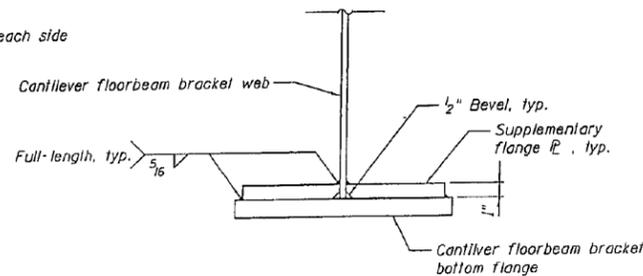


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



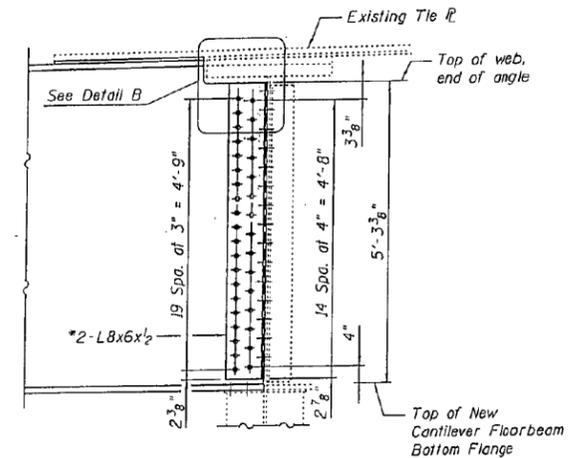
**SUPPLEMENTAL BOTTOM FLANGE PLATE  
AT CANTILEVER FLOORBEAM BRACKET  
SINGLE GIRDER SPANS**

Bottom of cantilever floorbeam web connection angles shall be trimmed  $\frac{3}{4}$ " to avoid conflict with supplementary flange plates. For the web connection angle details, see Sheet No. 8.



**SECTION A-A**

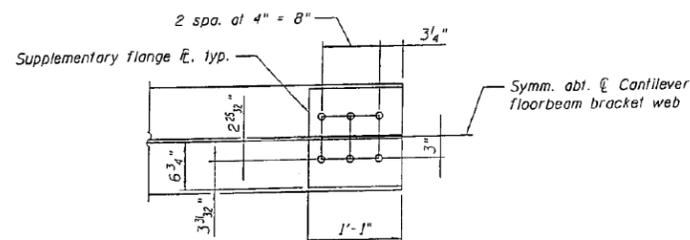
Note: Weld between bracket web and bottom flange not shown for clarity.



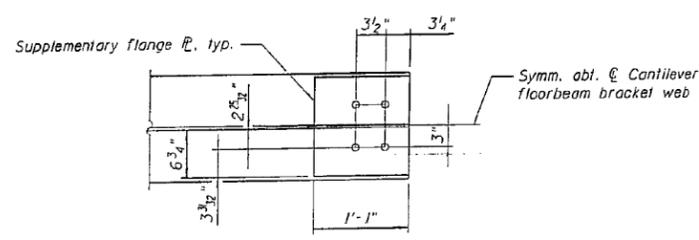
**CANTILEVER FLOORBEAM BRACKET  
MODIFICATION AT MARK NO. 306B**

\* Grade SOWT2, one coat shop primer

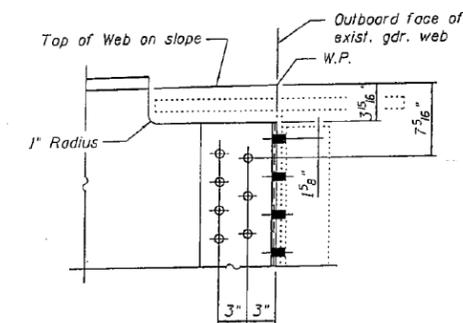
Span 12, Floorbeam 3, Westbound only



**SECTION B-B  
FLOORBEAM MARK NO. 306A, 328A,  
328B, 328C, 401A, AND 614B**



**SECTION B-B  
FLOORBEAM MARK NO. 306B**



**DETAIL B**

Notes:  
Reference to cantilever floorbeam mark numbers are from 1965 original shop drawings.  
For location of mark numbers, see Sheet No. 8.  
 $\frac{5}{16}$ "  $\phi$  Holes for  $\frac{7}{8}$ "  $\phi$  HS A325 bolts.

**PLATE LOCATIONS**

MARK NO.	SPAN	FLRBM NO.
306A	20	FB1
306B	20	FB5
328A	9	FB0
328B	19	FB7
328C	24	FB6
401A	16	FB2
614B	21	FB6

Note:  
Supplemental plates required on westbound Cantilever Floorbeam Brackets only.

DESIGNED YSS  
CHECKED DWP  
DRAWN PRC  
CHECKED YSS



02/17/11

**CANTILEVER FLOORBEAM REPLACEMENT  
SINGLE GIRDER SPANS - 2  
I-80 OVER  
MISSISSIPPI RIVER  
STRUCTURE NO. 081-0011**

SHEET NO. 8A	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
33 SHEETS	80	(81-1B)M-4	ROCK ISLAND		
		SN 081-0011		CONTRACT NO. 64F31	
		FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

New Sheet

Construction Change 02/17/11 P.R.C.

DESIGNED VHV  
CHECKED DAB  
DRAWN baliva  
CHECKED VHV DAB

EXAMINED *Timothy A. Daulton*  
ACTING ENGINEER OF STRUCTURAL SERVICES

PASSED *Carl Berger*  
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 12, 2012

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

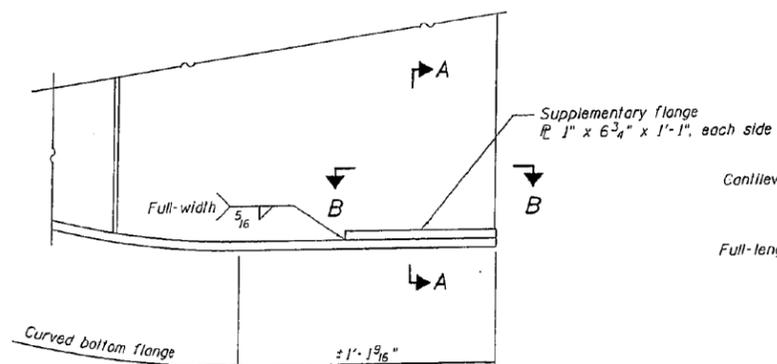
FOR INFORMATION ONLY  
SN 081-0011

SHEET 24 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	28
			CONTRACT NO. 64H81	
			ILLINOIS FED. AID PROJECT	

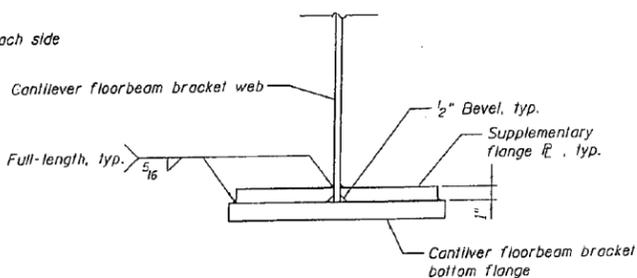


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



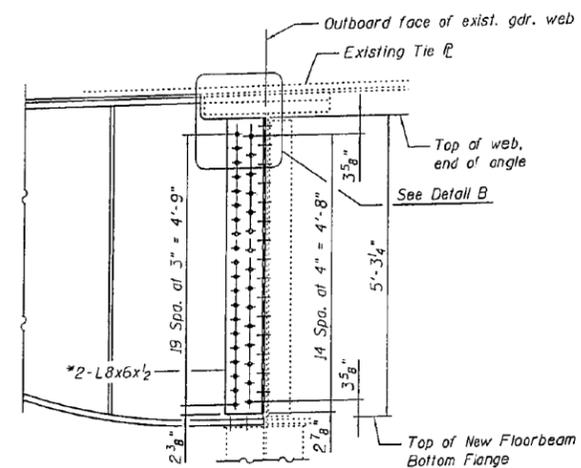
**SUPPLEMENTAL BOTTOM FLANGE PLATE  
AT CANTILEVER FLOORBEAM BRACKET  
DOUBLE GIRDER SPANS**

Bottom of cantilever floorbeam web connection angles shall be trimmed  $\frac{3}{4}$ " to avoid conflict with supplementary flange plates. For the web connection angle details, see Sheet No. 9.



**SECTION A-A**

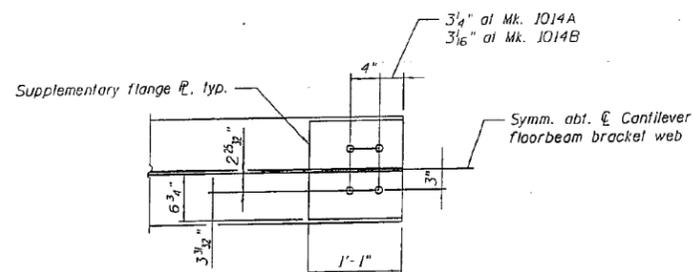
Note: Weld between bracket web and bottom flange not shown for clarity.



\* Grade 50WT2, one coat shop primer

**CANTILEVER FLOORBEAM BRACKET  
MODIFICATION AT MARK NO. 1014A, 1014D AND 1014E**

Mk. No. 1014A - Span 12, Floorbeam 7, Westbound only  
Mk. No. 1014A - Span 16, Floorbeam 1, Eastbound only  
Mk. No. 1014D - Span 15, Floorbeam 4, Eastbound only  
Mk. No. 1014E - Span 14, Floorbeam 18, Eastbound only

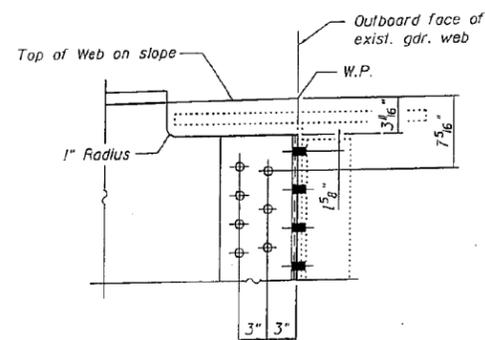


**SECTION B-B  
FLOORBEAM MARK NO. 1014A AND 1014B**

**PLATE LOCATIONS**

MARK NO.	SPAN	FLRBM NO.
1014A	12	FB7
	16	FB1
1014B	14	FB3
	14	FB15

Note: Supplemental plates required on westbound Cantilever Floorbeam Brackets only.



**DETAIL B**

Notes:  
Reference to cantilever floorbeam mark numbers are from 1965 original shop drawings.  
For location of mark numbers, see Sheet No. 9.  
 $1\frac{5}{16}$ "  $\phi$  Holes for  $\frac{7}{8}$ "  $\phi$  HS A325 bolts.

**CANTILEVER FLOORBEAM REPLACEMENT  
DOUBLE GIRDER SPANS - 2  
I-80 OVER  
MISSISSIPPI RIVER  
STRUCTURE NO. 081-0011**

DESIGNED YSS  
CHECKED DWP  
DRAWN PRC  
CHECKED YSS

02/17/11



New Sheet

SHEET NO. 9A	F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
33 SHEETS	80	(81-1B)M-4	ROCK ISLAND		
		SN 081-0011			CONTRACT NO. 64F31
		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT			

Construction Change 02/17/11 P.R.C.

DESIGNED VHV  
CHECKED DAB  
DRAWN baliva  
CHECKED VHV DAB

EXAMINED *Timothy A. Doolittle*  
ACTING ENGINEER OF STRUCTURAL SERVICES

DATE - OCTOBER 12, 2012

PASSED *Carl Berger*  
ACTING ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

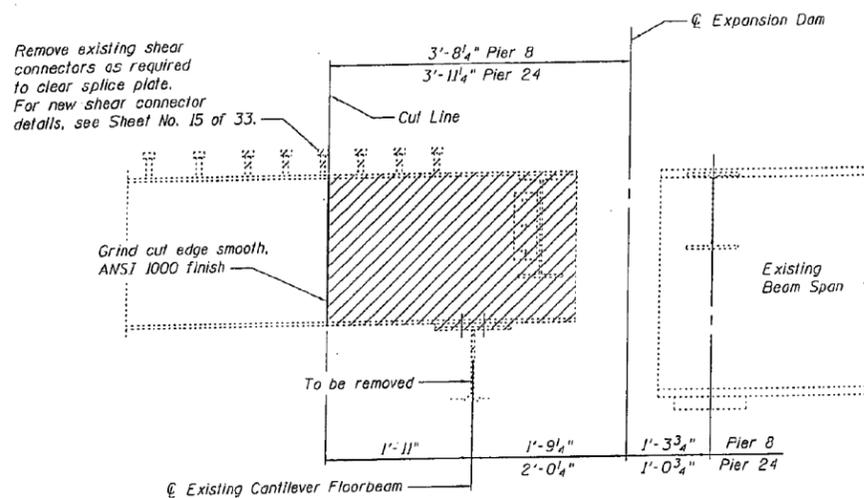
FOR INFORMATION ONLY  
SN 081-0011

SHEET 26 OF 42 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	30
				CONTRACT NO. 64H81
ILLINOIS FED. AID PROJECT				

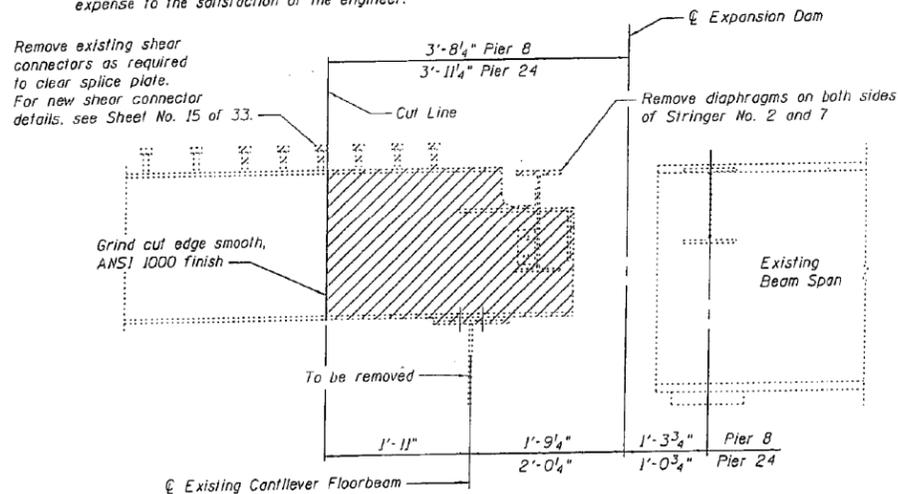
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Note: Expansion Dams not shown for clarity.

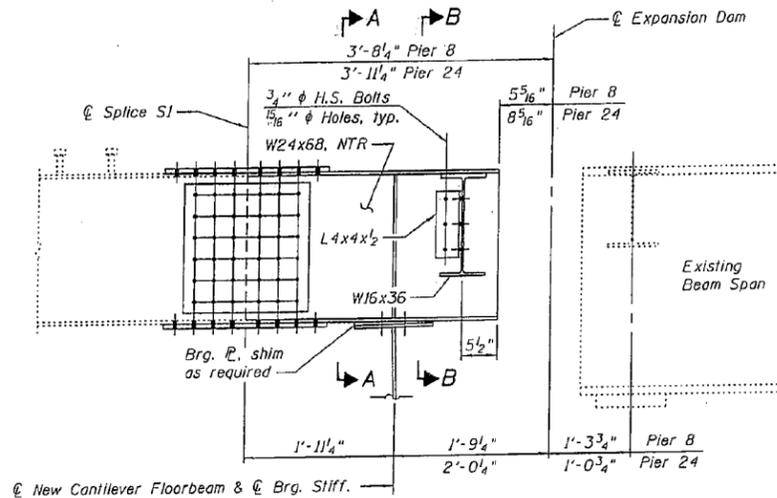


STRINGER END REPAIR AT EXPANSION DAM  
PIER 8 AND 24 - STRINGER LINES 1 AND 8  
TYPICAL REMOVAL ELEVATION

Note:  
Remaining exposed shear connectors damaged as a result of construction shall be replaced, at the contractor's expense to the satisfaction of the engineer.

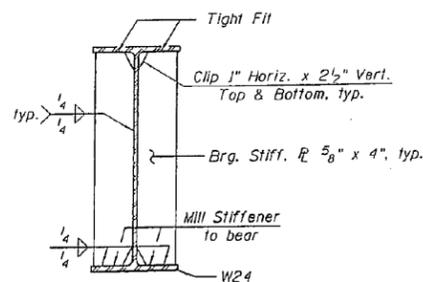


STRINGER END REPAIR AT EXPANSION DAM  
PIER 8 AND 24 - STRINGER LINES 2 AND 7  
TYPICAL REMOVAL ELEVATION

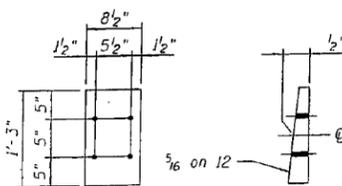


STRINGER END REPAIR AT EXPANSION DAM  
PIER 8 AND 24 - STRINGER LINES 1, 2, 7 AND 8  
TYPICAL ELEVATION

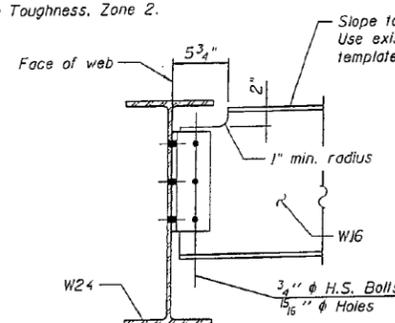
Note:  
Load carrying components designated "NTR" shall conform to the supplemental requirement for Notch Toughness, Zone 2.



SECTION A-A



BEARING P

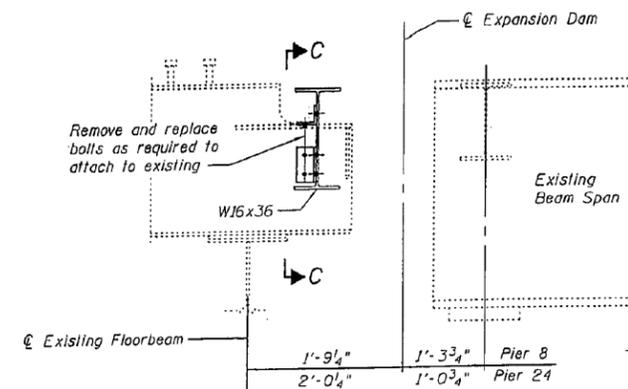


SECTION B-B

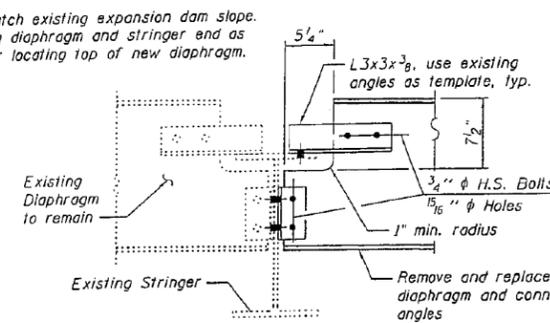
Stringer No. 1 & 8 shown,  
Stringer No. 2 & 7 similar

Notes:  
For General Notes, see Sheet No. 3 of 33.  
For Splice details, see Sheet No. 14 of 33.  
For deck removal, see Sheet No. 23 of 33.  
For Expansion Dam details, see Sheet No. 29 of 33.  
Two 5/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

3/4" dia. H.S. bolts (in 5/16" dia. holes) shall be provided with two hardened washers conforming to ASTM F436 installed under both the head and the nut.



DIAPHRAGM CONNECTION AT EXPANSION DAM  
PIER 8 AND 24 - STRINGER LINES 3 AND 6



SECTION C-C

BILL OF MATERIAL

Item	Unit	Total*
Structural Steel Repair	Pound	209,500

\* For all stringer end repairs.

STRINGER END REPAIR DETAILS - 1  
I-80 OVER  
MISSISSIPPI RIVER  
STRUCTURE NO. 081-0011

DESIGNED	YSS
CHECKED	ACK
DRAWN	PRC
CHECKED	YSS



09/17/09

SHEET NO. 11 33 SHEETS	F.A.I. RTE. 80	SECTION (81-1B)M-4 SN 081-0011	COUNTY ROCK ISLAND	TOTAL SHEETS	SHEET NO.
	FED. ROAD DIST. NO. 7   ILLINOIS   FED. AID PROJECT			CONTRACT NO. 64F31	

Construction Change 02/17/11 P.R.C.

DESIGNED	VHV	EXAMINED	Timothy A. [Signature]	DATE	OCTOBER 12, 2012
CHECKED	DAB	PASSED	[Signature]		
DRAWN	baliva				
CHECKED	VHV DAB				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

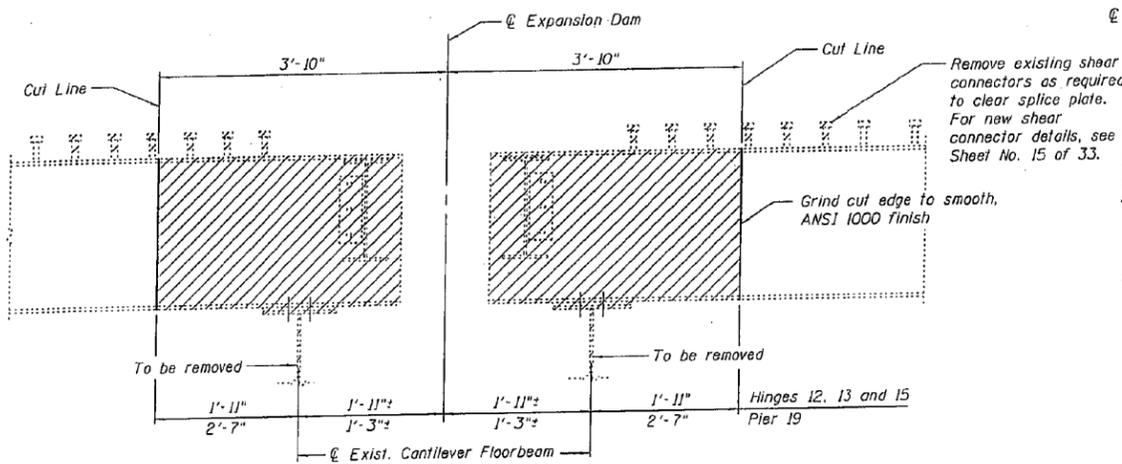
FOR INFORMATION ONLY  
SN 081-0011

SHEET 27 OF 42 SHEETS

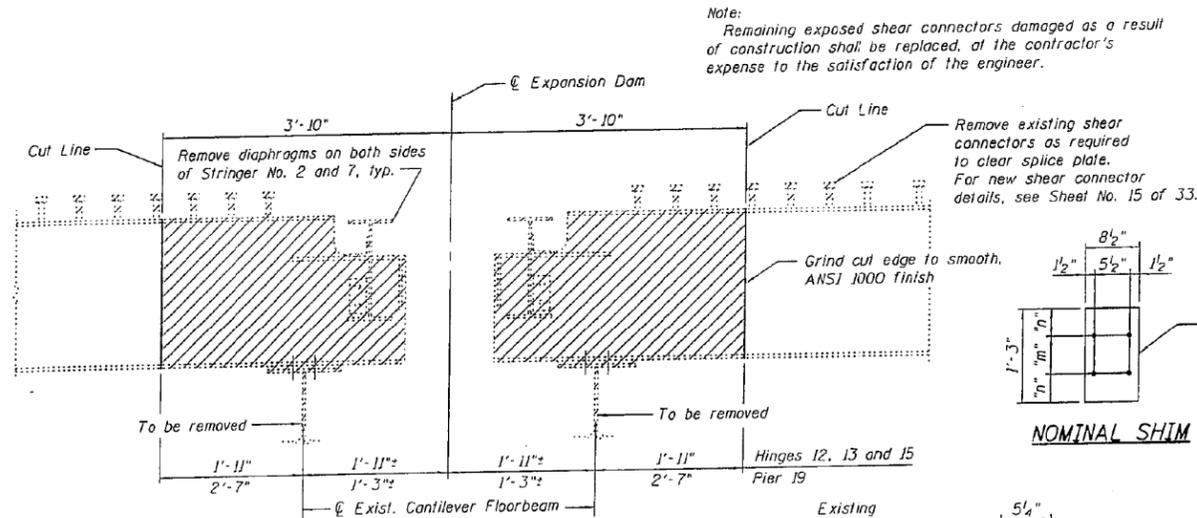
F.A.I. RTE. 80	D2 BRIDGE PAINTING 2012-2	SECTION	ROCK ISLAND	COUNTY	TOTAL SHEETS	SHEET NO.
ILLINOIS   FED. AID PROJECT			CONTRACT NO. 64H81		46	31

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

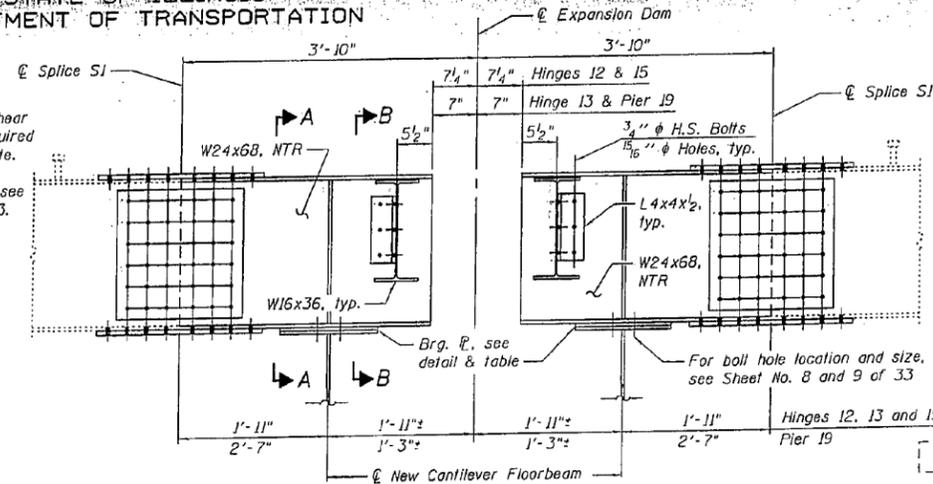
Note: Expansion Dams not shown for clarity.



**STRINGER END REPAIR AT EXPANSION DAM  
HINGES 12, 13, 15 AND AT PIER 19  
STRINGER LINES 1 AND 8 - TYPICAL REMOVAL ELEVATION**

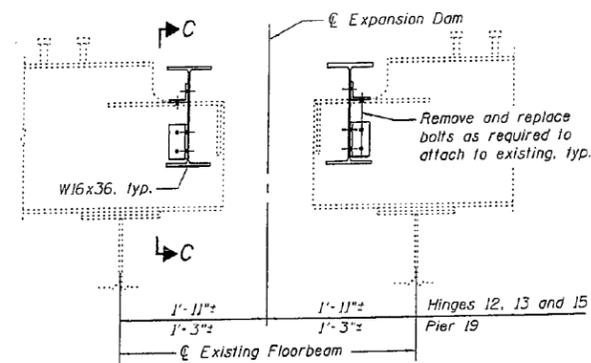


**STRINGER END REPAIR AT EXPANSION DAM  
HINGES 12, 13, 15 AND AT PIER 19  
STRINGER LINES 2 AND 7 - TYPICAL REMOVAL ELEVATION**

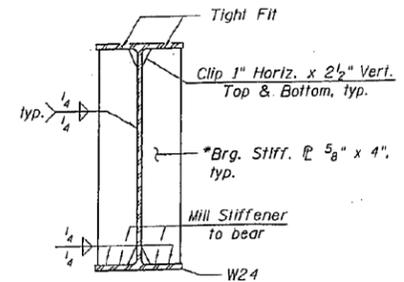


**STRINGER END REPAIR AT EXPANSION DAM  
HINGES 12, 13, 15 AND AT PIER 19  
STRINGER LINES 1, 2, 7 AND 8 - TYPICAL ELEVATION**

Note: Load carrying components designated "NTR" shall conform to the supplemental requirement for Notch Toughness, Zone 2.

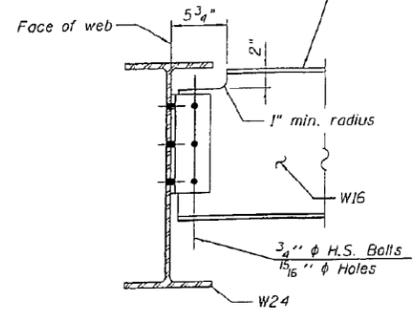


**DIAPHRAGM CONNECTION AT EXPANSION DAM  
HINGES 12, 13, 15 AND AT PIER 19  
STRINGER LINES 3 AND 6**



\* Bearing stiffener plates eliminated at Pier 19

Slope to match existing expansion dam slope. Use existing diaphragm and stringer end as template for locating top of new diaphragm

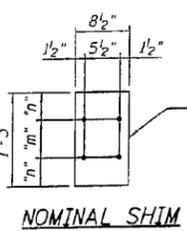


**SECTION B-B**  
Stringer No. 1 & 8 shown.  
Stringer No. 2 & 7 similar

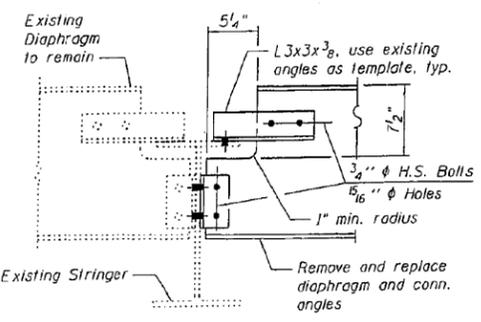
Notes:  
For General Notes, see Sheet No. 3 of 33.  
For Bill of Material, see Sheet No. 11 of 33.  
For Splice details, see Sheet No. 14 of 33.  
For deck removal, see Sheet No. 22 of 33.  
For Expansion Dam details, see Sheet No. 29 of 33.  
Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

3/4" dia. H.S. bolts (in 5/16" dia. holes) shall be provided with two hardened washers conforming to ASTM F436 installed under both the head and nut.

**STRINGER END REPAIR DETAILS - 2  
I-80 OVER  
MISSISSIPPI RIVER  
STRUCTURE NO. 081-0011**



**NOMINAL SHIM**

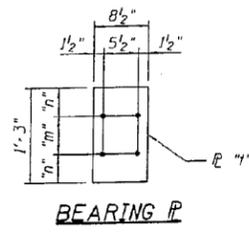


**SECTION C-C**

Note: See Sheet No. 20 of 33 for structural steel repair F for additional repair at Pier 19.

TABLE OF BEARING P's						
LOCATION	GDR. SPAN	STRINGER NO.	"m"	"n"	"u"	NOMINAL SHIM
Hinge 12 & 15	Single	1 & 8	5"	5"	---	Req'd.
	Single	2 & 7	5"	5"	---	---
	Double	1 & 8	5"	5"	1/2"	Req'd.
Hinge 13	Double	2 & 7	3 1/2"	5 3/4"	1/4"	---
	Double	1 & 8	5"	5"	1/4"	Req'd.
Pier 19	Single	1 & 8	5"	5"	1/2"	---
	Single	2 & 7	5"	5"	1/2"	---

DESIGNED YSS  
CHECKED ACK  
DRAWN PRC  
CHECKED YSS  
09/17/09



**BEARING P**

DESIGNED VHV  
CHECKED DAB  
DRAWN baliva  
CHECKED VHV DAB

EXAMINED *Timothy A. Daulton* DATE - OCTOBER 12, 2012  
ACTING ENGINEER OF STRUCTURAL SERVICES

PASSED *Carl Berger*  
ACTING ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY  
SN 081-0011

SHEET NO. 12	F.A.I. RTE. 80	SECTION (81-1B)M-4	COUNTY ROCK ISLAND	TOTAL SHEETS 46	SHEET NO. 32
33 SHEETS	SN 081-0011		CONTRACT NO. 64F31		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

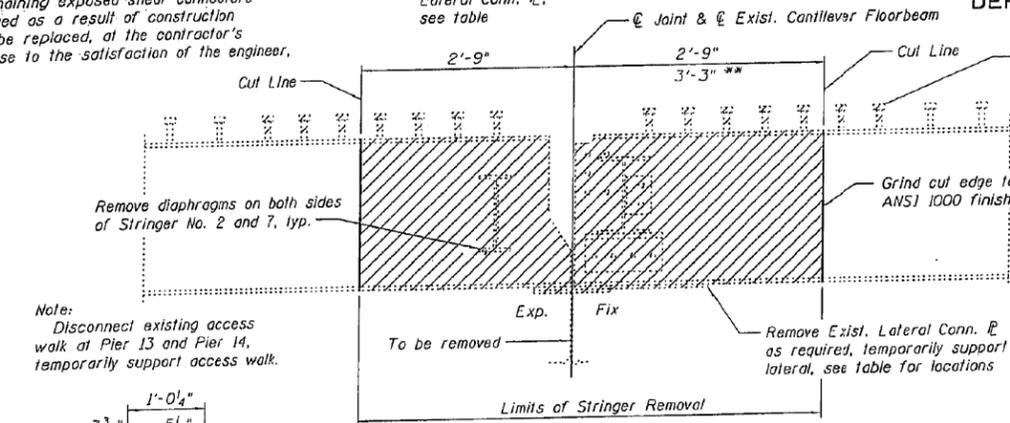
Construction Change 02/17/11 P.R.C.

F.A. RTE. 80 D2 BRIDGE PAINTING 2012-2  
SECTION COUNTY ROCK ISLAND  
TOTAL SHEETS 46  
SHEET NO. 32  
CONTRACT NO. 64H81  
ILLINOIS FED. AID PROJECT

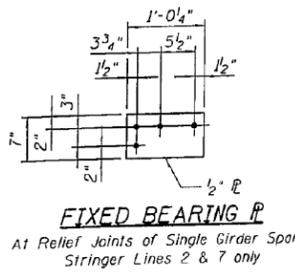
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Note: Remaining exposed shear connectors damaged as a result of construction shall be replaced, at the contractor's expense to the satisfaction of the engineer, typ.

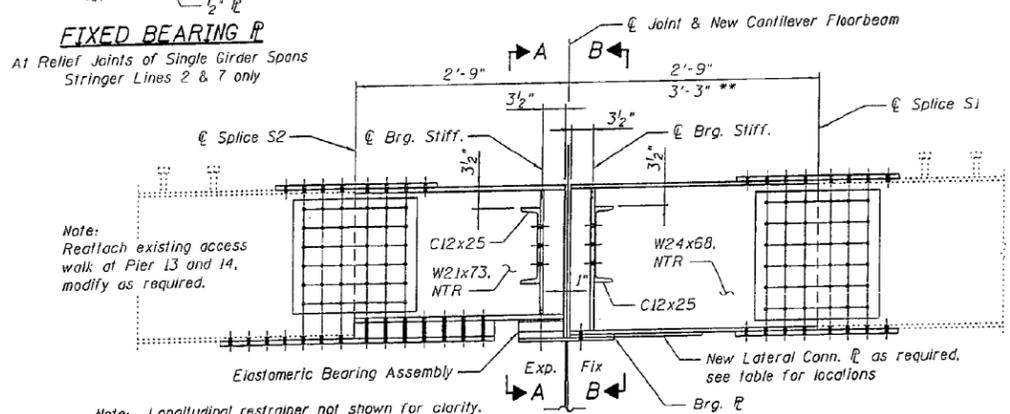
\*\*\*For location with Lateral Conn. R, see table



**STRINGER END REPAIR AT RELIEF JOINT  
STRINGER LINES 1, 2, 7 AND 8  
TYPICAL REMOVAL ELEVATION**



**FIXED BEARING R  
At Relief Joints of Single Girder Spans  
Stringer Lines 2 & 7 only**

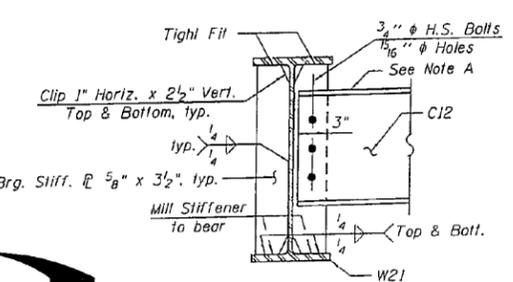


**STRINGER END REPAIR AT RELIEF JOINT  
STRINGER LINES 1, 2, 7 AND 8  
TYPICAL ELEVATION**  
25 relief joints

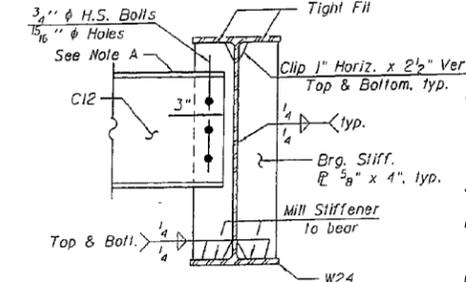
**TABLE OF  
LATERAL CONN. R LOCATIONS  
AT RELIEF JOINTS**

SPAN	FLRBM NO.	STRINGER NO.
9	FB4	1 & 8
19	FB3	1 & 8
22	FB3	1 & 8
22	FB6	1 & 8

DESIGNED YSS  
CHECKED ACK  
DRAWN PRC  
CHECKED YSS  
09/17/09

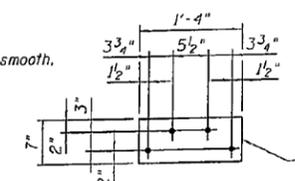


**SECTION A-A**  
Stringer No. 1 & 8 shown.  
Stringer No. 2 & 7 similar

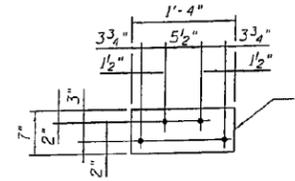


**SECTION B-B**  
Stringer No. 1 & 8 shown.  
Stringer No. 2 & 7 similar

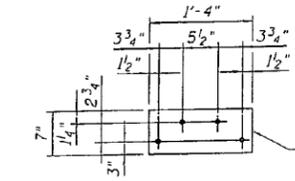
Remove existing shear connectors as required to clear splice plate. For new shear connector details, see Sheet No. 15 of 33.



**FIXED BEARING R  
At Relief Joints of Single Girder Spans  
Stringer Lines 1 & 8 only**

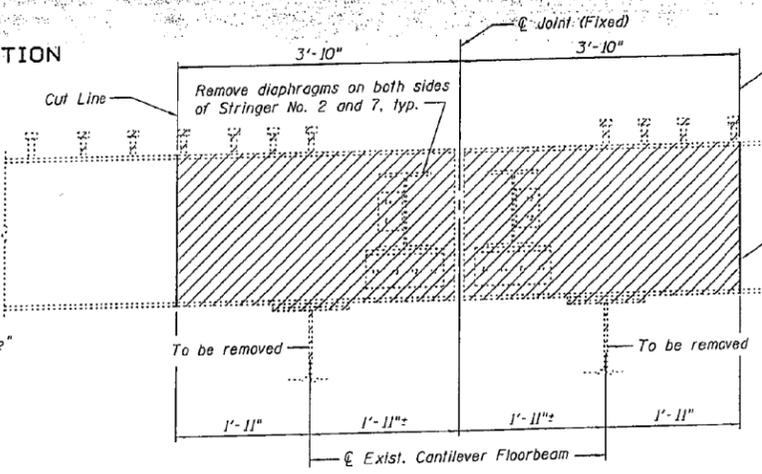


**FIXED BEARING R  
AND NOMINAL SHIM  
At Relief Joints of Double Girder Spans  
Stringer Lines 1 & 8 only**

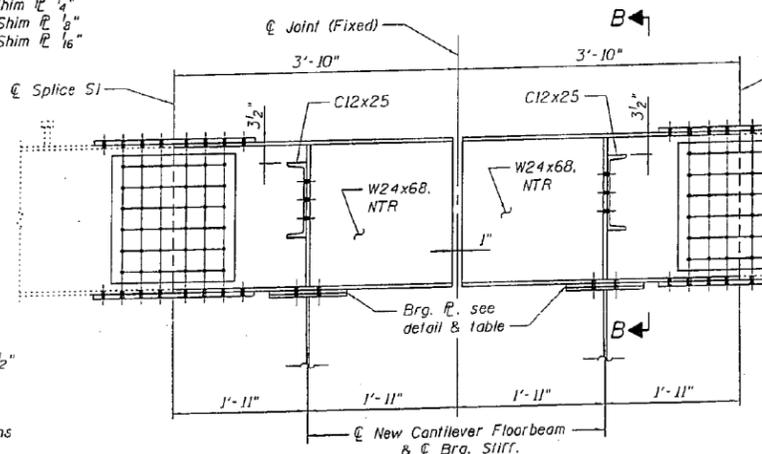


**FIXED BEARING R  
At Relief Joints of Double Girder Spans  
Stringer Lines 2 & 7 only**

Note: Load carrying components designated "NTR" shall conform to the supplemental requirement for Notch Toughness, Zone 2.



**STRINGER END REPAIR AT HINGE 14  
STRINGER LINES 1, 2, 7 AND 8  
TYPICAL REMOVAL ELEVATION**



**STRINGER END REPAIR AT HINGE 14  
STRINGER LINES 1, 2, 7 AND 8  
TYPICAL ELEVATION**

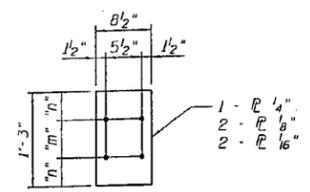
**TABLE OF BEARING R's AT HINGE 14**

LOCATION	STRINGER NO.	"m"	"n"	"i"	NOMINAL SHIM
Hinge 14	1 & 8	5"	5"	1/4"	Req'd.
	2 & 7	3 1/2"	5 3/4"	1/4"	---

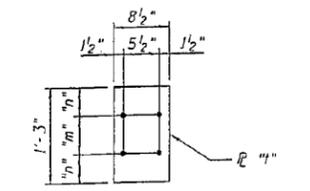
Notes:  
For General Notes, see Sheet No. 3 of 33.  
For Bill of Material, see Sheet No. 11 of 33.  
For Splice details, see Sheet No. 14 of 33.  
For diaphragm connection at stringer No. 3 and 6, see Sheet No. 14 of 33.  
For Elastomeric Bearing Assembly details, see Sheet No. 16 of 33.  
For deck removal, see Sheet No. 24 thru 26 of 33.  
Two 1/2" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

3/4" dia. H.S. bolts (in 1/2" dia. holes) shall be provided with two hardened washers conforming to ASTM F436 installed under both the head and the nut.

Remove existing shear connectors as required to clear splice plate. For new shear connector details, see Sheet No. 15 of 33.



**NOMINAL SHIM  
AT HINGE 14**



**BEARING R  
AT HINGE 14**

**STRINGER END REPAIR DETAILS - 3  
I-80 OVER  
MISSISSIPPI RIVER  
STRUCTURE NO. 081-0011**

SHEET NO. 13 33 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	80	(81-1B)M-4	ROCK ISLAND	46	33
SN 081-0011			CONTRACT NO. 64F31		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

Construction Change 02/17/11 P.R.C.

DESIGNED VHV  
CHECKED DAB  
DRAWN baliva  
CHECKED VHV DAB

EXAMINED *Timothy A. Daulton*  
ACTING ENGINEER OF STRUCTURAL SERVICES

PASSED *Carl Pinger*  
ACTING ENGINEER OF BRIDGES AND STRUCTURES

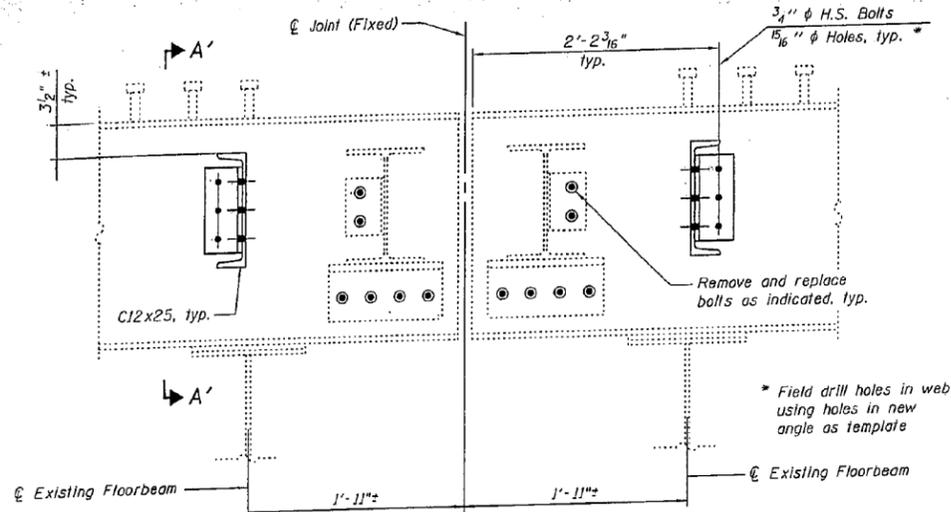
DATE - OCTOBER 12, 2012

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

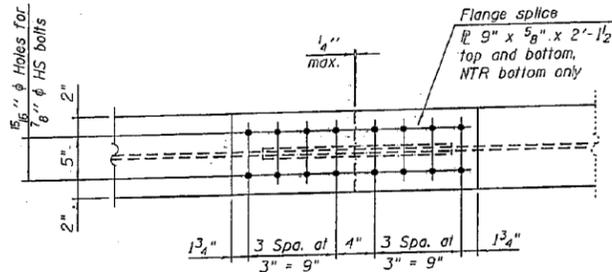
FOR INFORMATION ONLY  
SN 081-0011  
SHEET 29 OF 42 SHEETS

F.A.I. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.  
80 D2 BRIDGE PAINTING 2012-2 ROCK ISLAND 46 33  
CONTRACT NO. 64H81  
ILLINOIS FED. AID PROJECT

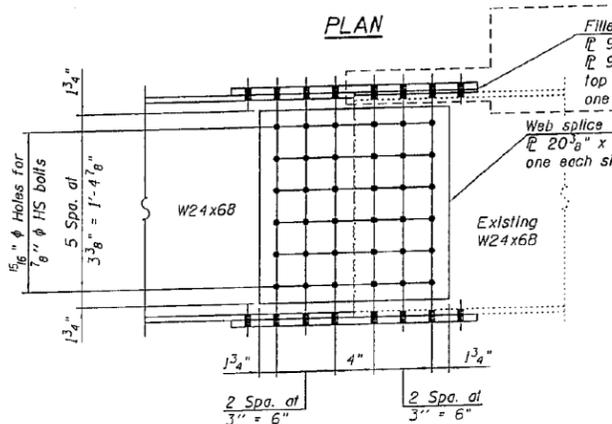
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



DIAPHRAGM AT PIER 14 HINGE  
STRINGER LINES 3 AND 6

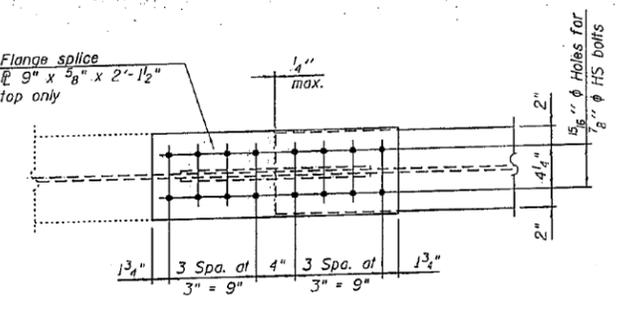


PLAN

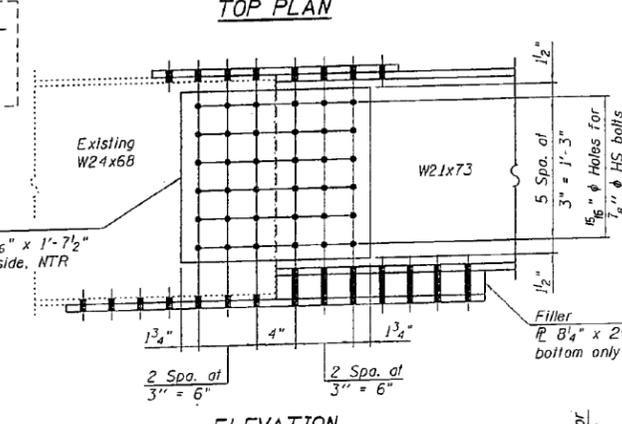


ELEVATION

SPLICE S1 DETAIL  
148 Required



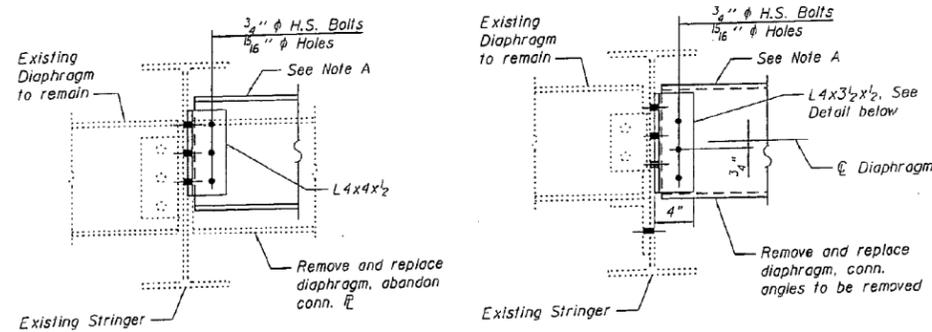
TOP PLAN



ELEVATION

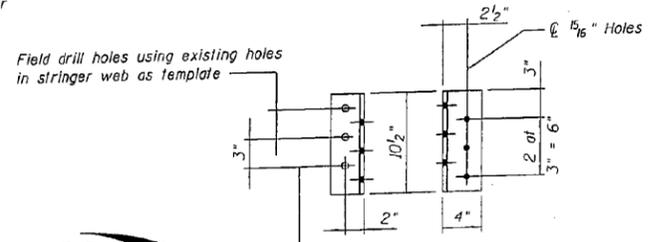
BOTTOM PLAN

SPLICE S2 DETAIL  
100 Required

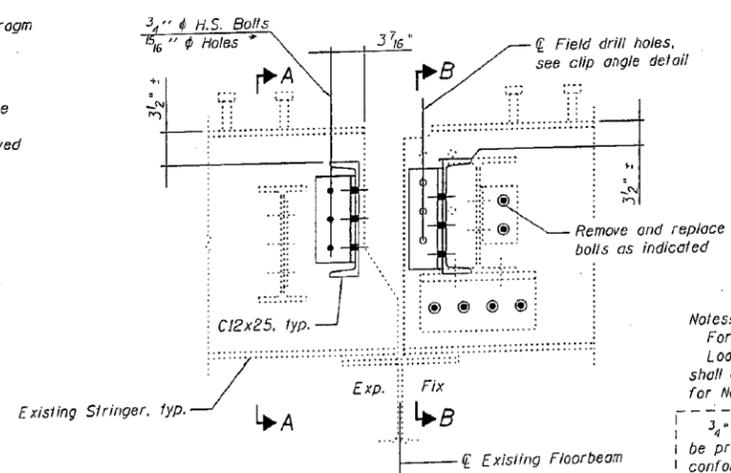


SECTION A-A  
Shown

SECTION B-B



CLIP ANGLE  
L4x3 1/2 x 1/2



DIAPHRAGM CONNECTION AT RELIEF JOINT  
STRINGER LINES 3 AND 6

Detail does not include the following locations:  
Span 13, Floorbeam FB3, Stringer Line 6  
Span 13, Floorbeam FB7, Stringer Line 6  
Span 16, Floorbeam FB5, Stringer Line 6  
For these locations see Sheet No. 14A for detail.

Notes:  
For Bill of Material, see Sheet No. 11 of 33.  
Load carrying components designated "NTR" shall conform to the supplemental requirement for Notch Toughness, Zone 2.

3/4" dia. H.S. bolts (in 1 5/16" dia. holes) shall be provided with two hardened washers conforming to ASTM F436 installed under both the head and the nut.

STRINGER END REPAIR DETAILS - 4  
I-80 OVER  
MISSISSIPPI RIVER  
STRUCTURE NO. 081-0011

DESIGNED	YSS
CHECKED	ACK
DRAWN	PRC
CHECKED	YSS

09/17/09



DESIGNED	VHV	EXAMINED	Timothy A. Daulton	DATE	OCTOBER 12, 2012
CHECKED	DAB	PASSED	ACTING ENGINEER OF STRUCTURAL SERVICES		
DRAWN	baliva		ACTING ENGINEER OF BRIDGES AND STRUCTURES		
CHECKED	VHV DAB				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY  
SN 081-0011

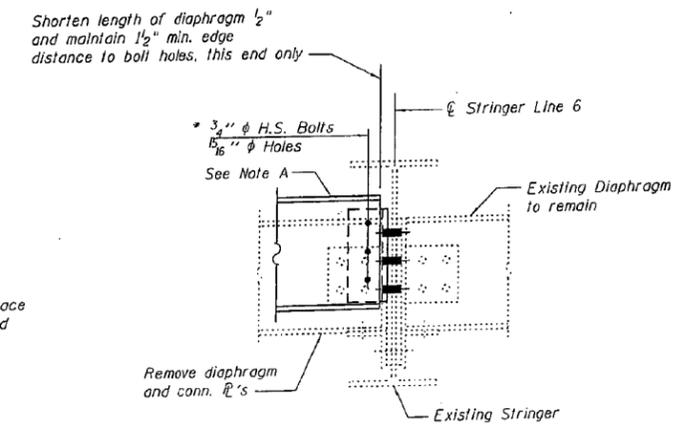
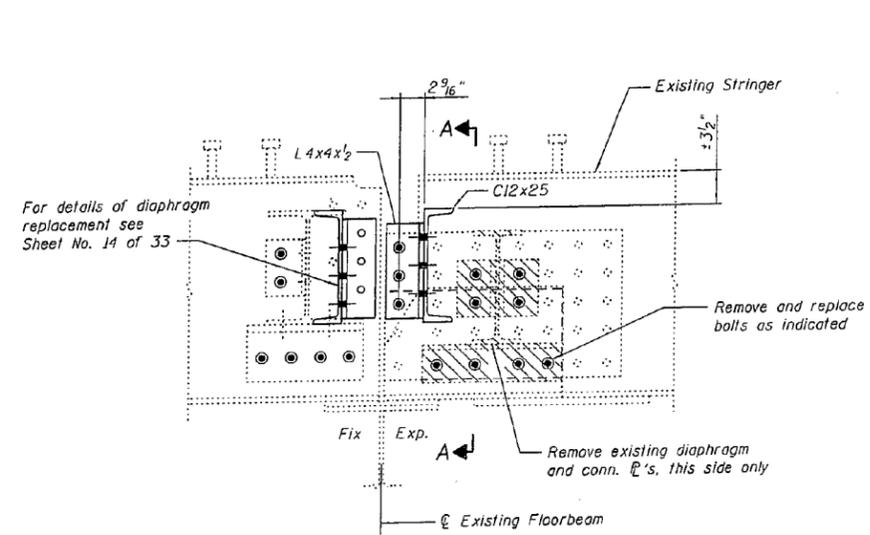
SHEET NO. 14	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
33 SHEETS	80	(81-18)M-4	ROCK ISLAND	46	34

SN 081-0011		CONTRACT NO. 64F31	
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT	

Construction Change 02/17/11 P.R.C.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	34
		CONTRACT NO. 64H81		
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**DIAPHRAGM CONNECTION AT RELIEF JOINT**  
 SPAN 13 AT FLOORBEAM FB3 - STRINGER LINE 6 Shown  
 SPAN 16 AT FLOORBEAM FB5 - STRINGER LINE 6 Shown  
 SPAN 13 AT FLOORBEAM FB7 - STRINGER LINE 6 Opposite Hand  
 View Looking East

Note: Replacement fasteners shall be 3/4" high strength bolts.

\* Two hardened washers shall be required, per bolt, at diaphragm connection.

**STRINGER END REPAIR DETAILS - 4A**  
 I-80 OVER  
 MISSISSIPPI RIVER  
 STRUCTURE NO. 081-0011

DESIGNED	YSS
CHECKED	DWP
DRAWN	PRC
CHECKED	YSS

02/17/11



New Sheet

SHEET NO. 14A	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	80	(81)-1B1M-4	ROCK ISLAND		
33 SHEETS	SN 081-0011		CONTRACT NO. 64F31		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT			

Construction Change 02/17/11 P.R.C.

DESIGNED	VHV	EXAMINED	<i>Timothy A. Daulton</i>	DATE	OCTOBER 12, 2012
CHECKED	DAB	PASSED	<i>Carl Berger</i>		
DRAWN	baliva				
CHECKED	VHV DAB				

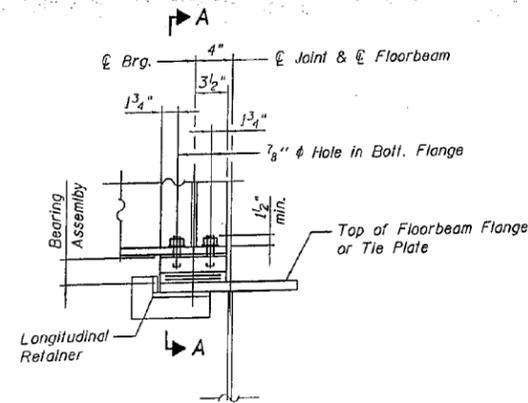
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY  
SN 081-0011

SHEET 31 OF 42 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	35
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64H81	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

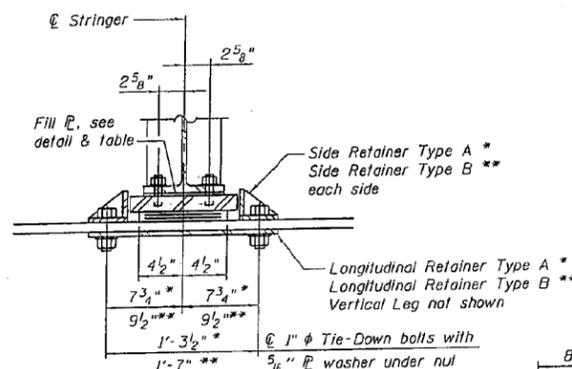


**ELEVATION AT RELIEF JOINT**

Adjacent stringer and fixed bearing not shown for clarity.

**TABLE OF FILL P's**

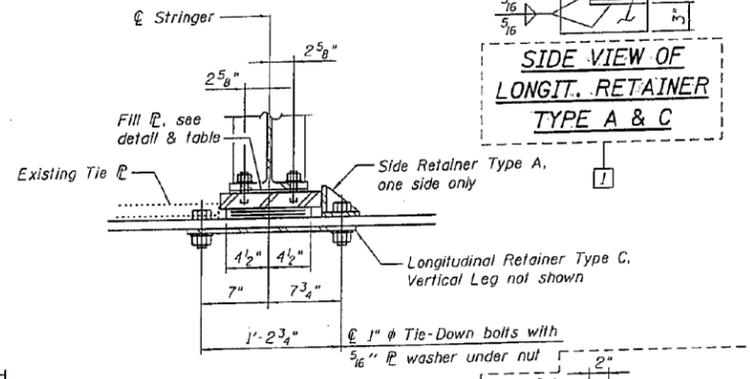
LOCATION	GDR. SPAN	STRINGER NO.	"#"	NOMINAL SHIM
Relief Joint Exp. Side	Single	1, 2, 7 & 8	3/16"	---
	Double	1 & 8	1/8"	Req'd.
	Double	2 & 7	3/16"	---



**SECTION A-A**

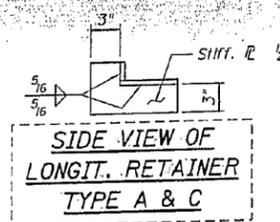
\* Stringer Lines 1 and 8 - All Girder Spans  
\*\* Stringer Lines 2 and 7 - Double Girder Spans only

**TYPE I ELASTOMERIC EXP. BRG.**

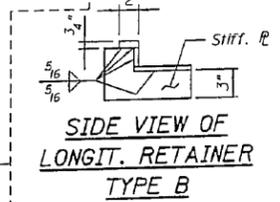


**SECTION A-A**

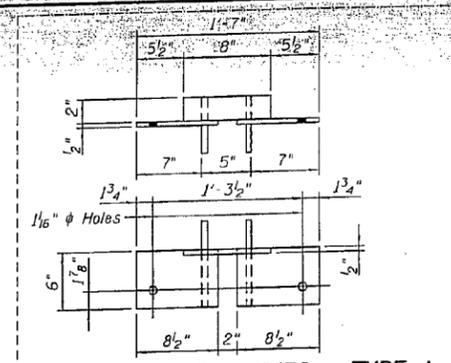
Stringer Lines 2 and 7 - Single Girder Spans only



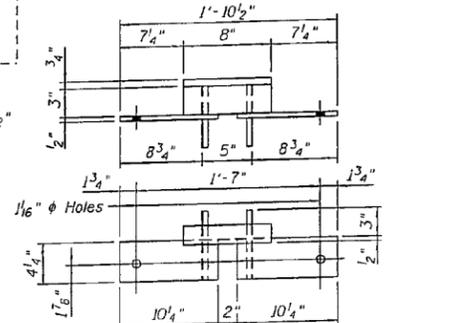
**SIDE VIEW OF  
LONGIT. RETAINER  
TYPE A & C**



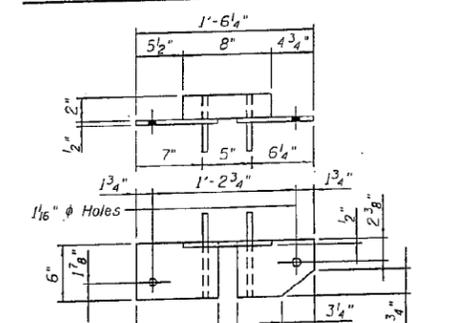
**SIDE VIEW OF  
LONGIT. RETAINER  
TYPE B**



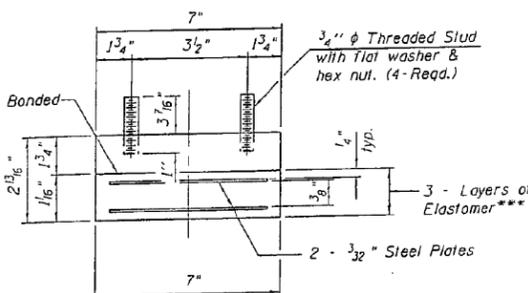
**LONGITUDINAL RETAINER - TYPE A**



**LONGITUDINAL RETAINER - TYPE B**



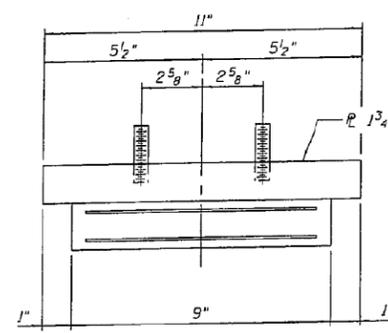
**LONGITUDINAL RETAINER - TYPE C**



**SIDE VIEW**

\*\*\* Elastomer shall have a specified shear modulus equal to 0.175ksi. The measured shear modulus shall lie with 15% of the specified value. Elastomer with minimum low-temperature Grade 3 is required.

Note:  
Shim plates shall not be placed under Bearing Assembly.

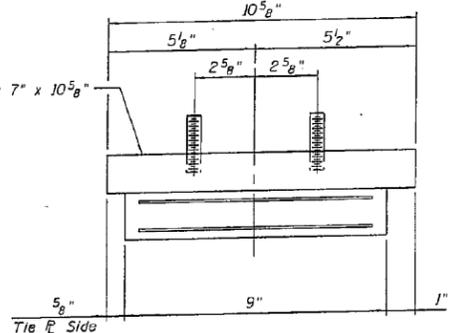


**ELEVATION**

Stringer Lines 1 and 8 - All Girder Spans  
Stringer Lines 2 and 7 - Double Girder Spans only

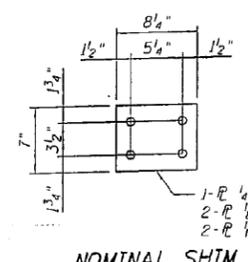
**BEARING ASSEMBLY DETAILS**

Note: Not to scale.



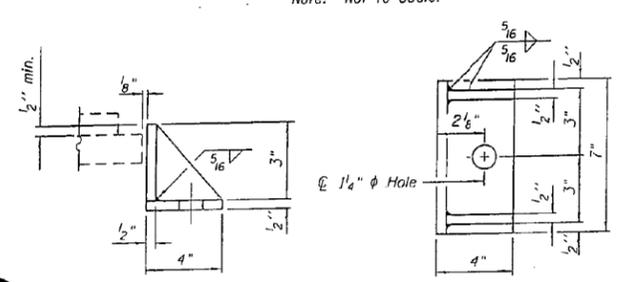
**ELEVATION**

Stringer Lines 2 and 7 - Single Girder Spans only



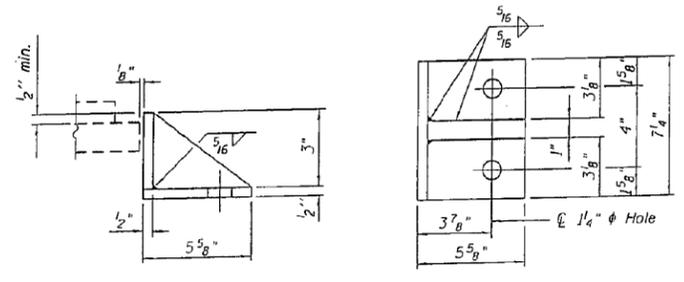
**NOMINAL SHIM**

Notes:  
Side and longitudinal retainers and steel plates required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I, Special.  
Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



**SIDE RETAINER - TYPE A**

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



**SIDE RETAINER - TYPE B**

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

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly, Type I (Special)	Each	100

**ELASTOMERIC BEARING ASSEMBLY**

**I-80 OVER  
MISSISSIPPI RIVER  
STRUCTURE NO. 081-0011**

DESIGNED	YSS
CHECKED	ACK
DRAWN	PRC
CHECKED	YSS



09/17/09

EXAMINED	<i>Timothy A. ...</i>	DATE	OCTOBER 12, 2012
PASSED	<i>Carl ...</i>		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY  
SN 081-0011

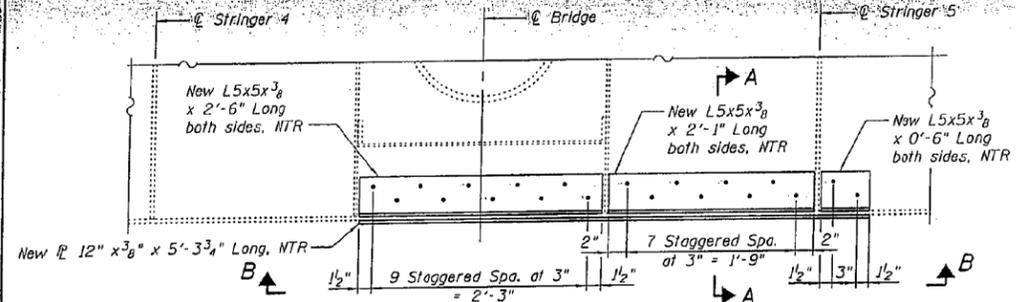
SHEET NO. 16	F.A.I. RTE. 80	SECTION (81-18)M-4	COUNTY ROCK ISLAND	TOTAL SHEETS 46	SHEET NO. 36
33 SHEETS	SN 081-0011		CONTRACT NO. 64F31		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

Construction Change 02/17/11 P.R.C.

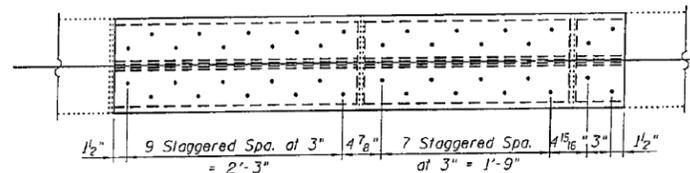
DESIGNED	VHV
CHECKED	DAB
DRAWN	baliva
CHECKED	VHV DAB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	36
CONTRACT NO. 64H81				
ILLINOIS FED. AID PROJECT				

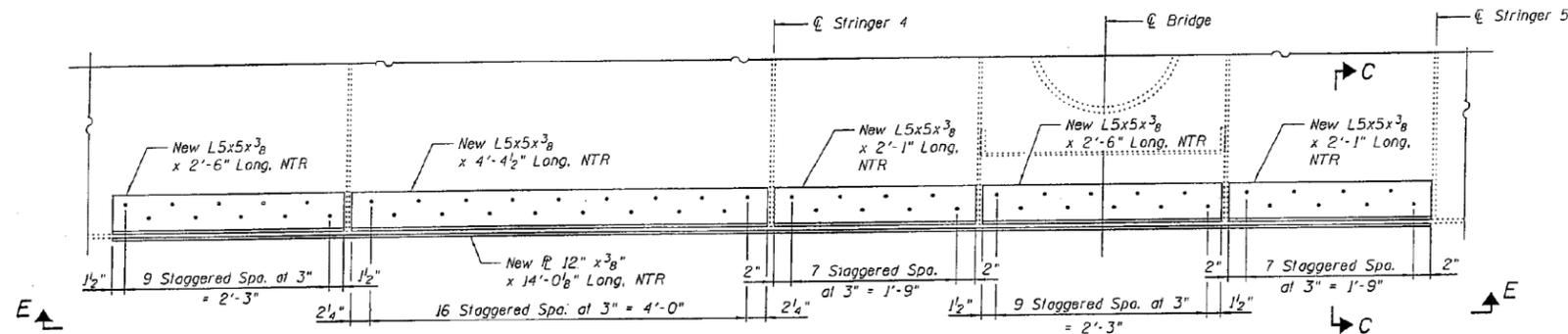
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



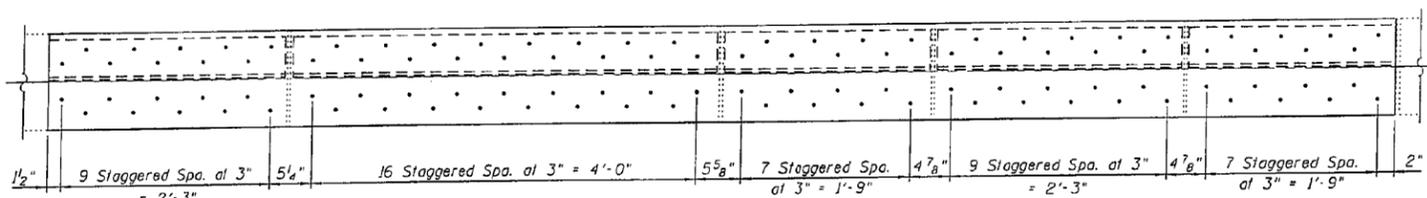
**STRUCTURAL STEEL REPAIR B**  
SPANS 13 AND 14, FLOORBEAM 7  
(Looking South)



VIEW B-B

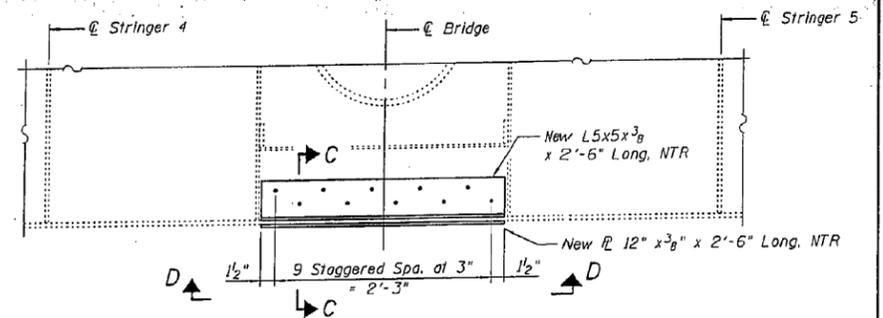


**STRUCTURAL STEEL REPAIR G**  
SPAN 20, FLOORBEAM 1  
(Looking South)

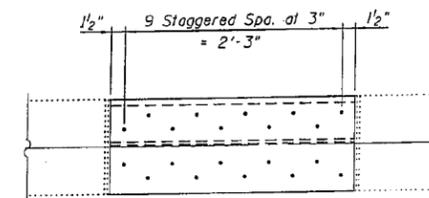


VIEW E-E

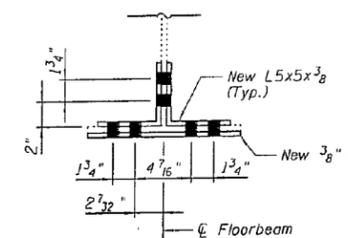
Note:  
Gaps between the existing steel and the new steel angles and/or cover plates shall be sealed with an approval polyurethane sealant. The sealant shall be compatible with the proposed paint system and shall be submitted to the Engineer for approval prior to use. All costs associated with the installation of the sealant shall be included with the cost for Structural Steel Repair.



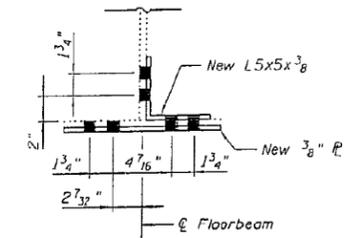
**STRUCTURAL STEEL REPAIR H**  
SPAN 24, FLOORBEAM 4  
(Looking South)



VIEW D-D



SECTION A-A



SECTION C-C

Notes:  
Grind heels of angles as required for installation.  
Field drill holes in existing floorbeams and new plates using new angles as templates.  
Load carrying components designated "NTR" shall conform to the supplemental requirement for Notch Toughness, Zone 2.

**BILL OF MATERIAL**

Item	Unit	Total
Structural Steel Repair	Pound	870

**MISCELLANEOUS STEEL REPAIR DETAILS - 2**  
I-80 OVER  
MISSISSIPPI RIVER  
STRUCTURE NO. 081-0011

DESIGNED RLM  
CHECKED DWP  
DRAWN AEC  
CHECKED RLM  
09/17/09



DESIGNED VHV  
CHECKED DAB  
DRAWN baliva  
CHECKED VHV DAB

EXAMINED *Timothy A. Daulton*  
ACTING ENGINEER OF STRUCTURAL SERVICES

PASSED *Carl Berger*  
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 12, 2012

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

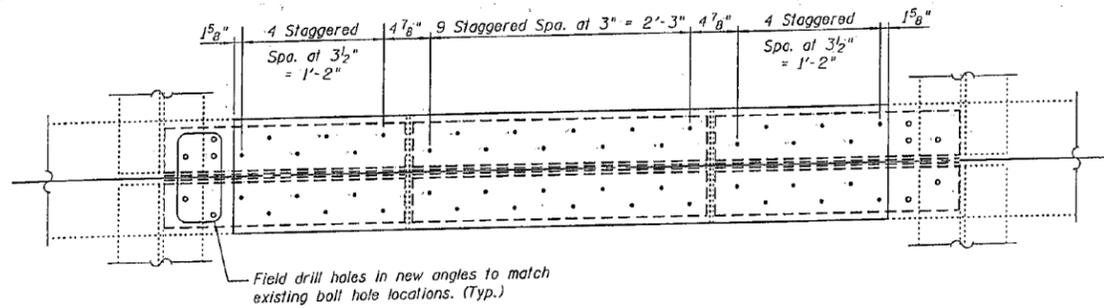
FOR INFORMATION ONLY  
SN 081-0011

SHEET 33 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(81-1B1M-4)	ROCK ISLAND	46	37
SN 081-0011			CONTRACT NO. 64F31	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

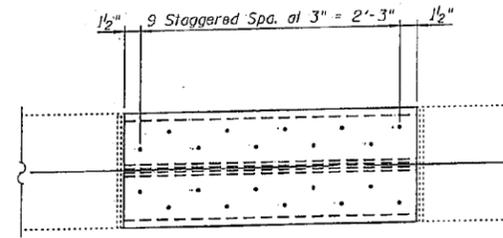
ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



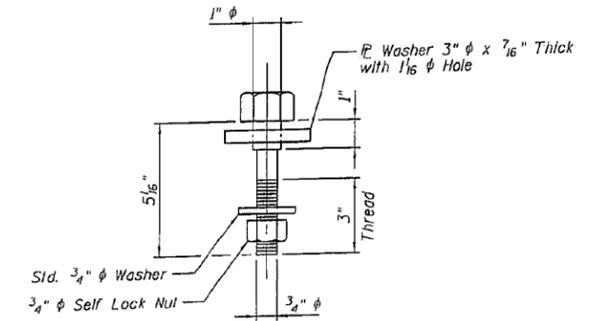
VIEW B-B

Note:  
Stringer base plates not shown for clarity.

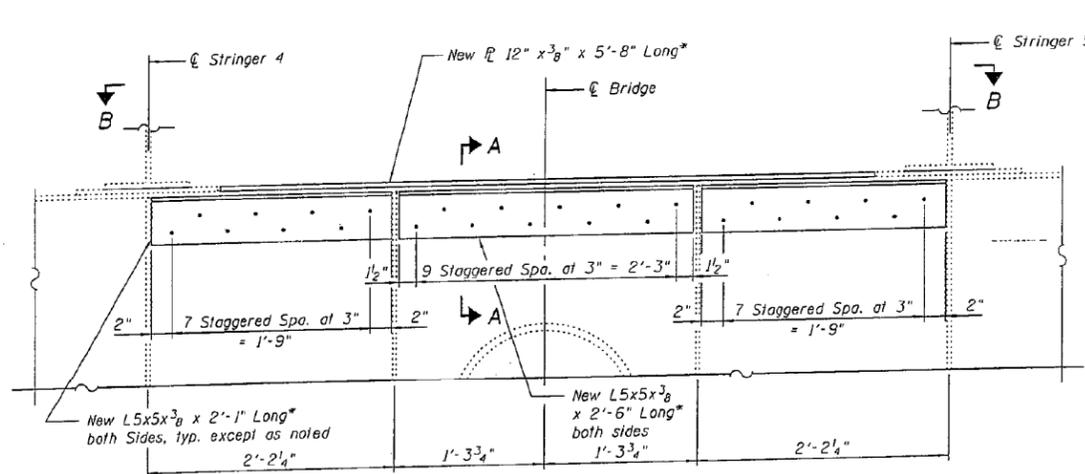


VIEW C-C

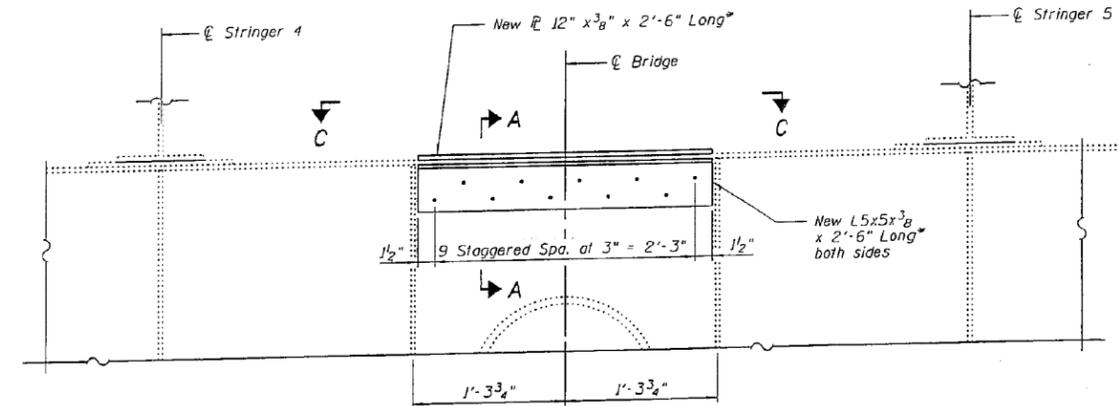
Note:  
Gaps between the existing steel and the new steel angles and/or cover plates shall be sealed with an approval polyurethane sealant. The sealant shall be compatible with the proposed paint system and shall be submitted to the Engineer for approval prior to use. All costs associated with the installation of the sealant shall be included with the cost for Structural Steel Repair.



NEW SHOULDER BOLTS TO ACCOMODATE REPAIR ANGLE  
AT EXPANSION SIDE STRINGER CONNECTIONS  
AT SPAN 18, FLOORBEAM 6  
(2 Required)



STRUCTURAL STEEL REPAIR C  
SPAN 18, FLOORBEAM 6  
(Looking South)

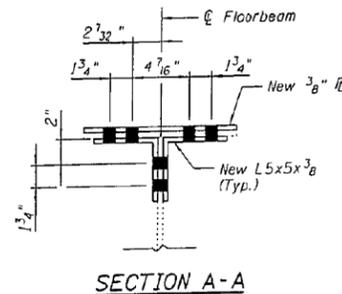


STRUCTURAL STEEL REPAIR D  
SPAN 19, FLOORBEAM 3  
(Looking South)

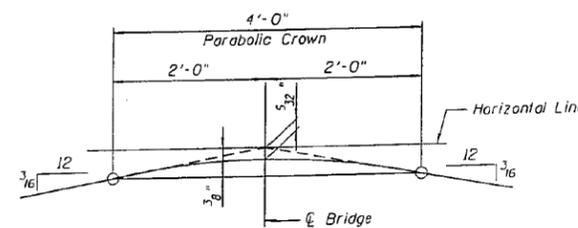
Notes:  
Grind heels of angles as required for installation.  
Field drill holes in existing floorbeams and new plates using new angles as templates.

\* Fabricate new plates and angles for top flange repairs to match existing top flange profile. See Floorbeam Top Flange Profile detail.

DESIGNED RLM  
CHECKED DWP  
DRAWN AEC  
CHECKED RLM  
09/17/09



SECTION A-A



FLOORBEAM TOP FLANGE PROFILE

BILL OF MATERIAL

Item	Unit	Total
Structural Steel Repair	Pound	450

MISCELLANEOUS STEEL  
REPAIR DETAILS - 3  
I-80 OVER  
MISSISSIPPI RIVER  
STRUCTURE NO. 081-0011

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
19	80	(81-18)M-4	ROCK ISLAND	46	38
33 SHEETS			SN 081-0011		CONTRACT NO. 64F31
			FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT

DESIGNED VHV  
CHECKED DAB  
DRAWN baliva  
CHECKED VHV DAB

EXAMINED  
PASSED  
ACTING ENGINEER OF STRUCTURAL SERVICES  
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 12, 2012

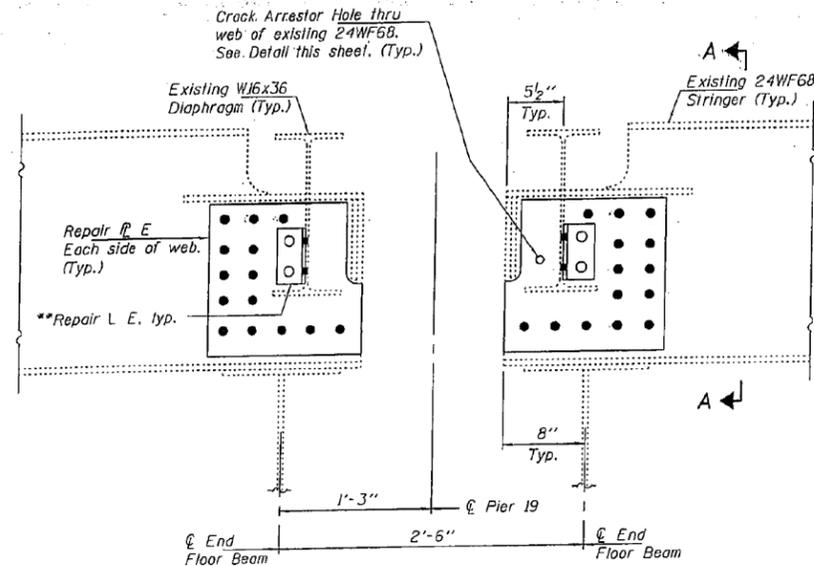
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY  
SN 081-0011

SHEET 34 OF 42 SHEETS

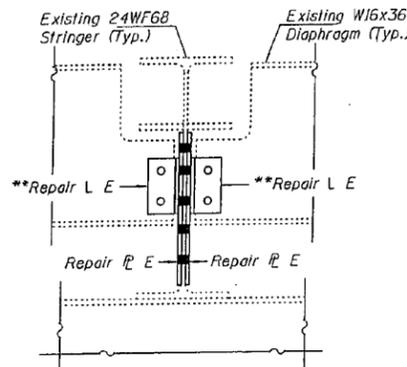
F.A. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.  
80 D2 BRIDGE PAINTING 2012-2 ROCK ISLAND 46 38  
CONTRACT NO. 64H81  
ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**STRUCTURAL STEEL REPAIR E**

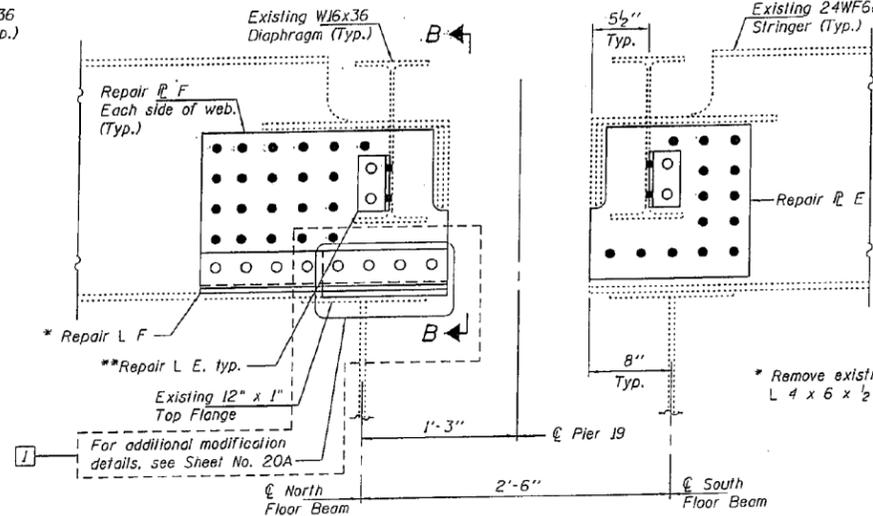
Typical Stringers 3 thru 6 except North side of Stringer 4 (See Repair F)



**SECTION A-A**

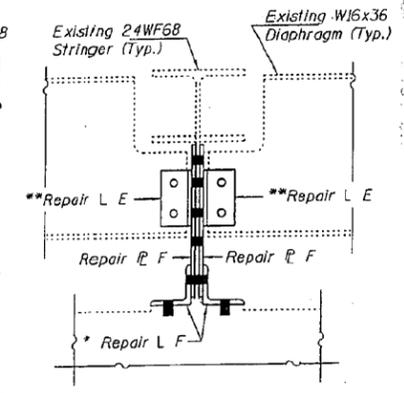
\*\* Remove existing L 3 x 3 x 3/8

Note A:  
Field drill holes using existing holes as template.  
Remainder of holes may be shop or field drilled.



**STRUCTURAL STEEL REPAIR F**

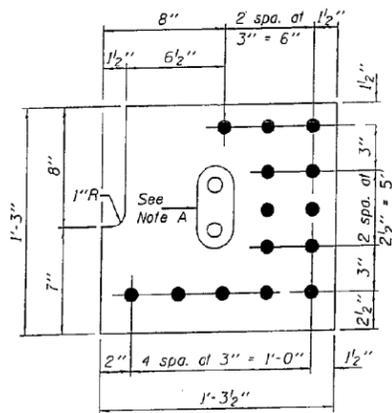
Looking East at Stringer 4



**SECTION B-B**

\* Remove existing L 4 x 6 x 1/2

Note:  
Gaps between the existing steel and the new steel angles and/or repair plates shall be sealed with an approval polyurethane sealant. The sealant shall be compatible with the proposed paint system and shall be submitted to the Engineer for approval prior to use. All costs associated with the installation of the sealant shall be included with the cost for Structural Steel Repair.

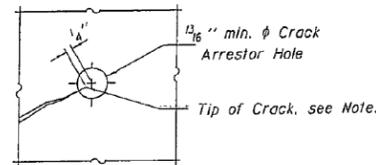


**REPAIR P E**

P 3/8\" x 1'-3\" x 1'-3 1/2\" (14 Required)

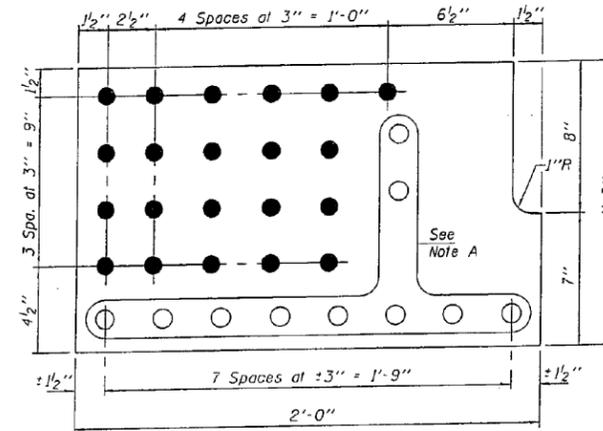
**REPAIR ANGLE E**

L 3 x 3 x 3/8 x 0'-5 1/2\" (16 Req'd)  
All Holes to be field drilled.



**CRACK ARRESTOR HOLE DETAIL**

Note: Locate crack tip using liquid dye penetrant or magnetic particle testing. Drill 1/8\" min.  $\phi$  Crack Arrestor hole at the crack tip. After crack arrestor hole has been drilled, dye penetrant or magnetic particle testing shall be used to verify that the drilled hole has captured the crack tip. Cost shall be included with Structural Steel Repair.



**REPAIR P F**

P 3/8\" x 1'-3\" x 2'-0\" (2 Required)

**BILL OF MATERIAL**

Item	Unit	Total
Structural Steel Repair	Pound	660

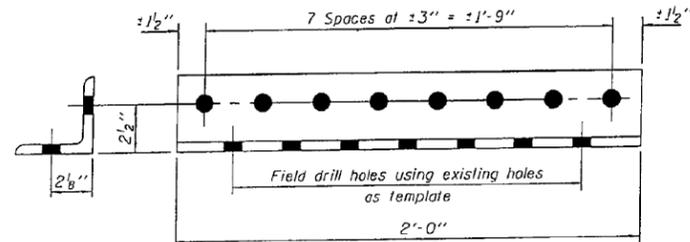
**MISCELLANEOUS STEEL REPAIR DETAILS - 4**

I-80 OVER  
MISSISSIPPI RIVER  
STRUCTURE NO. 081-0011

DESIGNED	IDOT
CHECKED	IDOT
DRAWN	IDOT
CHECKED	IDOT



09/17/09



**REPAIR ANGLE F**

L 4 x 4 x 1/2 x 2'-0\" (2 Req'd)  
All Holes to be field drilled.

SHEET NO. 20	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				80	
33 SHEETS		SN 081-0011	CONTRACT NO. 64F31		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

Construction Change 02/17/11 P.R.C.

DESIGNED VHV  
CHECKED DAB  
DRAWN baliva  
CHECKED VHV DAB

EXAMINED  
PASSED  
ACTING ENGINEER OF STRUCTURAL SERVICES  
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 12, 2012

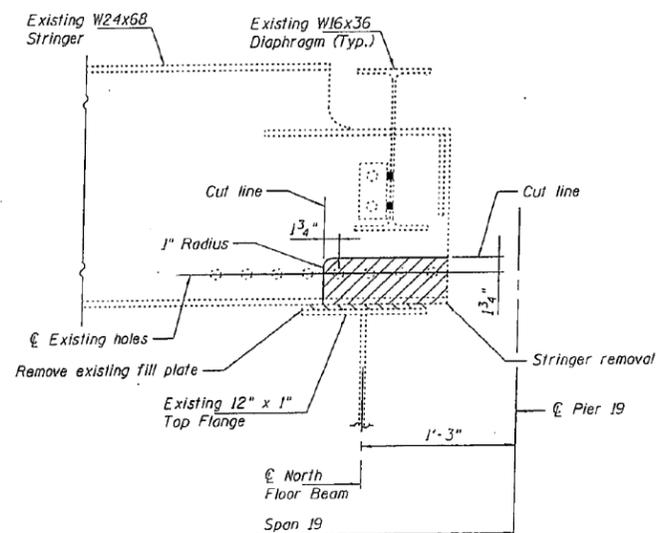
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY  
SN 081-0011

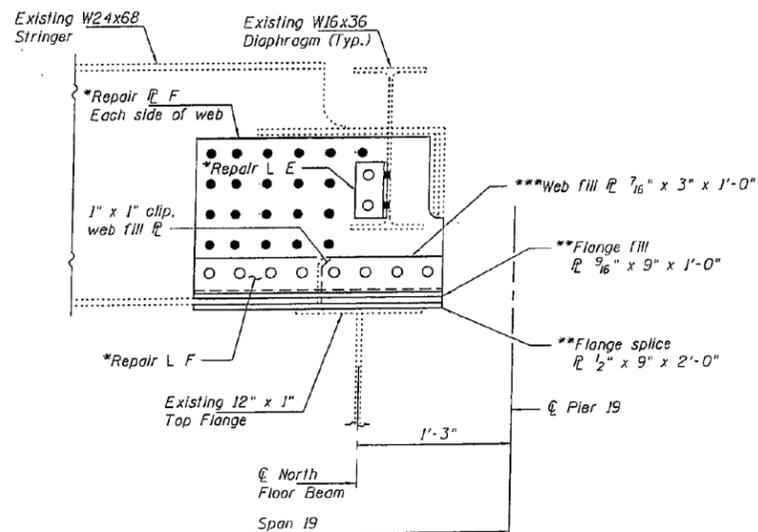
SHEET 35 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	39
				CONTRACT NO. 64H81
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**STRUCTURAL STEEL REPAIR F MODIFICATION**  
**STRINGER REMOVAL**  
Looking East at Stringer 4



**STRUCTURAL STEEL REPAIR F MODIFICATION**  
**ADDITIONAL FILL AND SPLICE PLATES**  
Looking East at Stringer 4

- \* For repair angle and plate details, see Sheet No. 20. All field drilled holes shall be done prior to stringer removal.
- \*\* Field drill holes using Repair Angle F as template.
- \*\*\* Field drill holes using Repair Plate F as template.

MISCELLANEOUS STEEL REPAIR DETAILS - 4A  
I-80 OVER  
MISSISSIPPI RIVER  
STRUCTURE NO. 081-0011

DESIGNED	YSS
CHECKED	DWP
DRAWN	PRC
CHECKED	YSS



02/17/11

New Sheet

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEET NO. 20A	80	(81-18)M-4	ROCK ISLAND		
33 SHEETS		SN 081-0011	CONTRACT NO. 64F31		
FED. ROAD DIST. NO. 7   ILLINOIS FED. AID PROJECT					

Construction Change 02/17/11 P.R.C.

DESIGNED	VHV	EXAMINED	<i>Timothy A. Doolittle</i>	DATE	OCTOBER 12, 2012
CHECKED	DAB	PASSED	<i>Carl Berger</i>		
DRAWN	baliva				
CHECKED	VHV DAB				

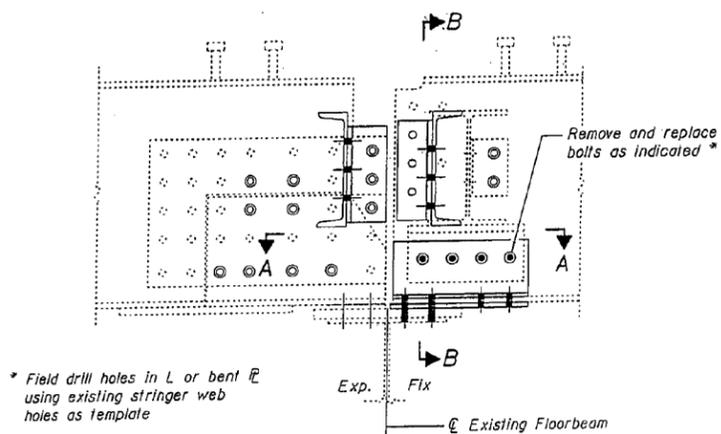
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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SN 081-0011

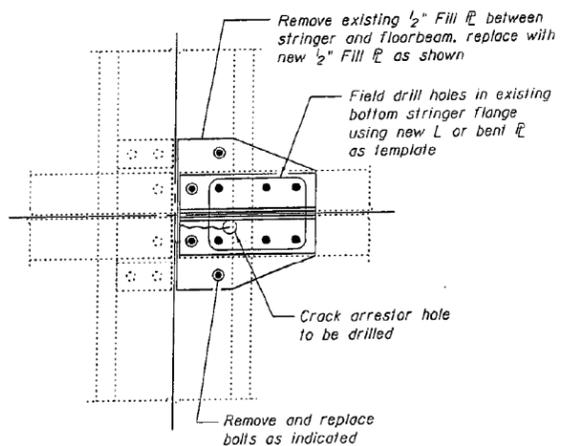
SHEET 36 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	40
CONTRACT NO. 64H81				
ILLINOIS FED. AID PROJECT				

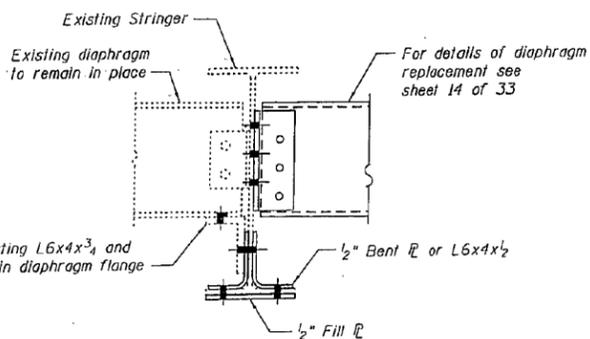
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**STRUCTURAL REPAIR J**  
**SPAN 13 AT FLOORBEAM FB7 - STRINGER LINE 6**  
View Looking East

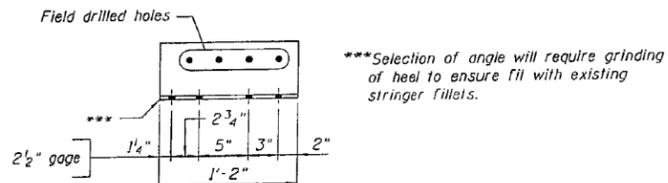


**SECTION A-A**



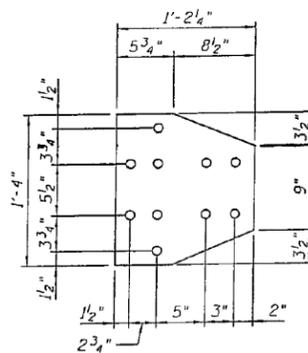
**SECTION B-B**

\*\* Provide two hardened washers per bolt.



**$\frac{1}{2}$ " BENT  $\bar{L}$  OR L6x4x $\frac{1}{2}$**

Required: 1-left and 1-right



**$\frac{1}{2}$ " FILL  $\bar{L}$**

1 - Required

Note:  
Replacement and new fasteners shall be  $\frac{3}{4}$ "  $\phi$  high strength A325 bolts.  
Holes shall be  $\frac{1}{8}$ "  $\phi$ , except as noted.  
Drill crack arrestor hole at crack tip in stringer bottom flange (per detail on sheet 20 of 33) prior to installation of repair plates.

**MISCELLANEOUS STEEL  
REPAIR DETAILS - 6**  
**I-80 OVER  
MISSISSIPPI RIVER  
STRUCTURE NO. 081-0011**

DESIGNED	YSS
CHECKED	DWP
DRAWN	PRC
CHECKED	YSS



02/17/11

New Sheet

SHEET NO. 2/A	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
33 SHEETS	80	(81-1B)M-4	ROCK ISLAND		
SN 081-0011			CONTRACT NO. 64F31		
FED. ROAD DIST. NO. 7   ILLINOIS   FED. AID PROJECT					

Construction Change 02/17/11 P.R.C.

DESIGNED	VHV	EXAMINED	<i>Timothy A. Daulton</i>	DATE	OCTOBER 12, 2012
CHECKED	DAB	PASSED	<i>Carl Berger</i>		
DRAWN	baliva				
CHECKED	VHV DAB				

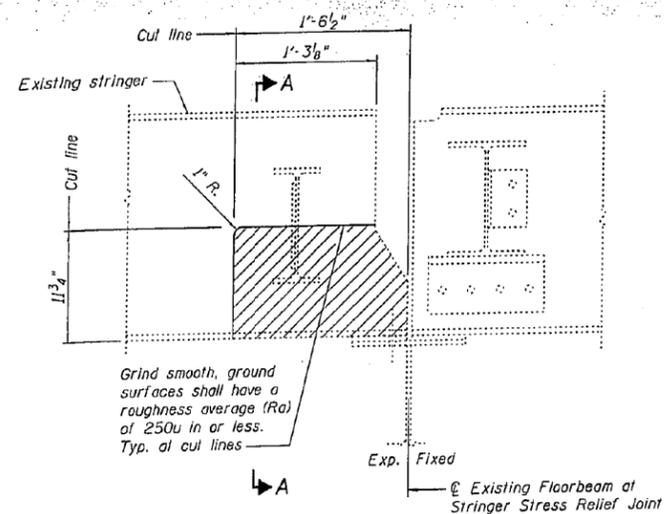
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY  
SN 081-0011

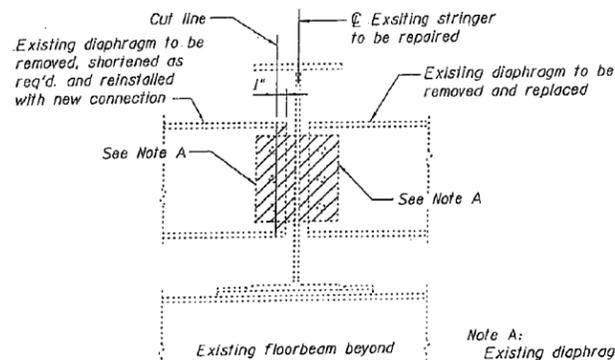
SHEET 37 OF 42 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	41
ILLINOIS   FED. AID PROJECT			CONTRACT NO. 64H81	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

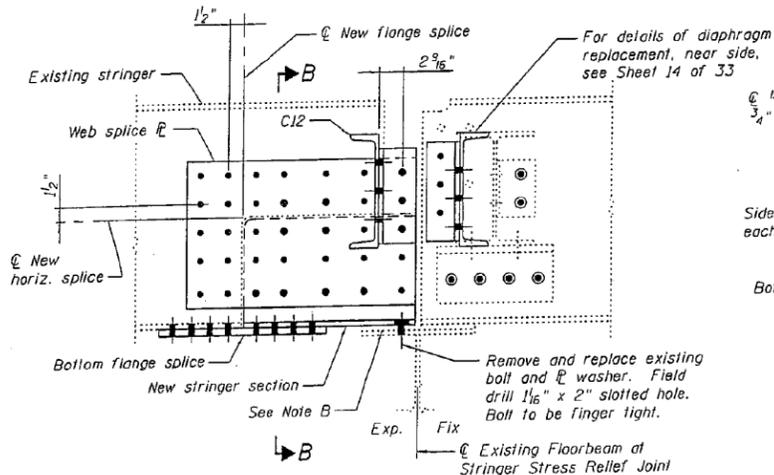
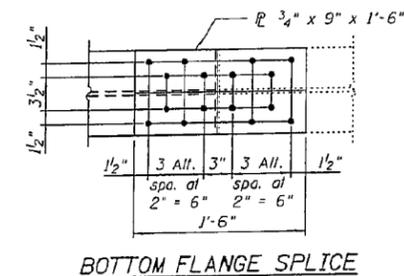
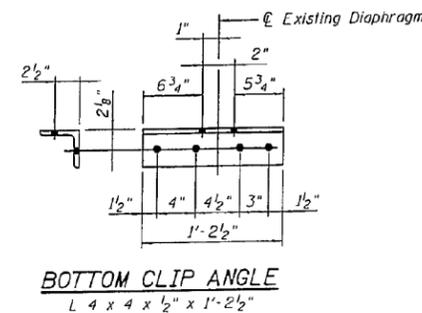
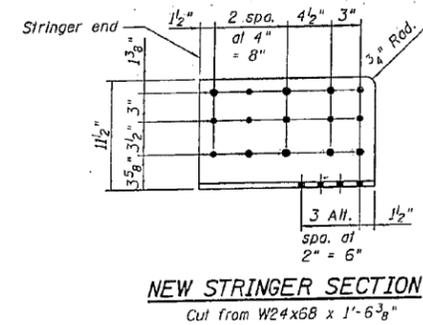
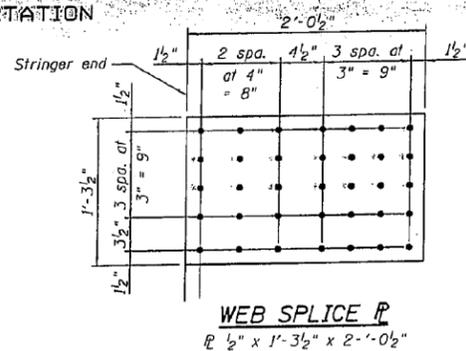


**STRUCTURAL REPAIR K**  
**TYPICAL REMOVAL ELEVATION**



**SECTION A-A**

Note A:  
Existing diaphragm connection to be removed using the air-arc method being careful not to damage the existing web of the stringer. Grind smooth and inspect using dye penetrant or magnetic particle (MT) methods

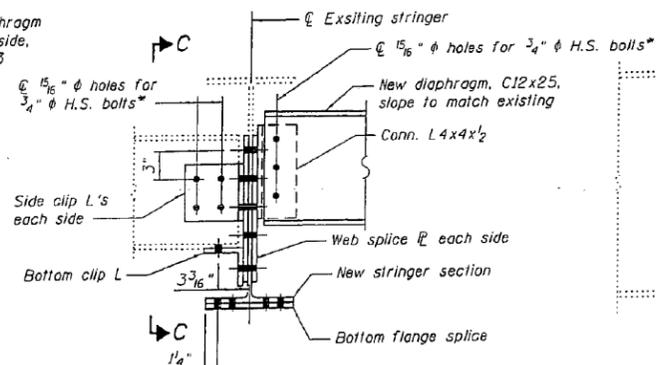


**STRUCTURAL REPAIR K**  
**TYPICAL ELEVATION**

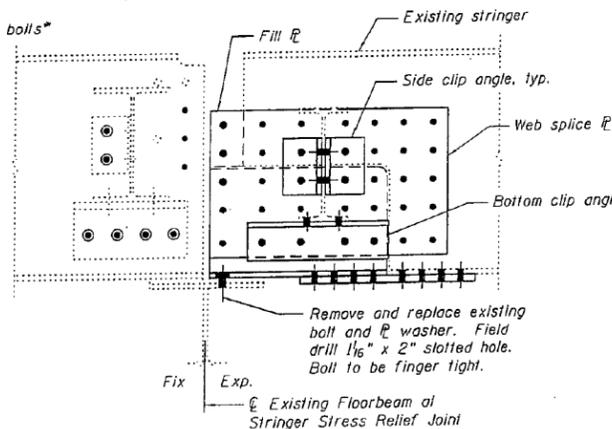
Note B:  
Fill gap between existing bronze plate and top of existing floorbeam with Chockfast epoxy to fill void.

DESIGNED	YSS
CHECKED	DWP
DRAWN	PRC
CHECKED	YSS

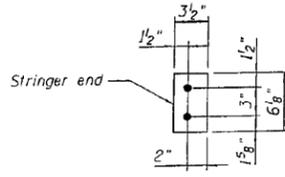
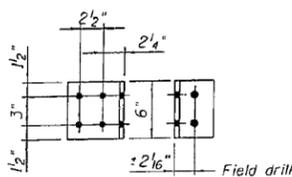
02/17/11



**SECTION B-B**



**SECTION C-C**



Notes:  
The web surface at the modification shall be inspected using dye penetrant or Magnetic particle (MT) methods. Any crack found shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The exposed steel surfaces shall be cleaned and painted using an aluminum epoxy mastic primer according to Article 506.5 of the Standard Specifications.  
All work described above should be included with Structural Steel Repair.  
Replacement and new fasteners shall be 7/8" φ H.S. A325 bolts, except as noted.

**LOCATIONS**

SPAN	FLOORBEAM	STRINGER
10	1	3
11	6	6

**MISCELLANEOUS STEEL REPAIR DETAILS - 7**  
**I-80 OVER MISSISSIPPI RIVER**  
**STRUCTURE NO. 081-0011**

SHEET NO. 218	F.A.I. RTE. 80	SECTION (81-18)M-4	COUNTY ROCK ISLAND	TOTAL SHEETS 46	SHEET NO. 42
33 SHEETS	SN 081-0011		CONTRACT NO. 64F31		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

1 New Sheet

7 Construction Change 02/17/11 P.R.C.

DESIGNED	VHV	EXAMINED	Timothy A. [Signature]	DATE	OCTOBER 12, 2012
CHECKED	DAB	PASSED	[Signature]		
DRAWN	baliva				
CHECKED	VHV DAB				

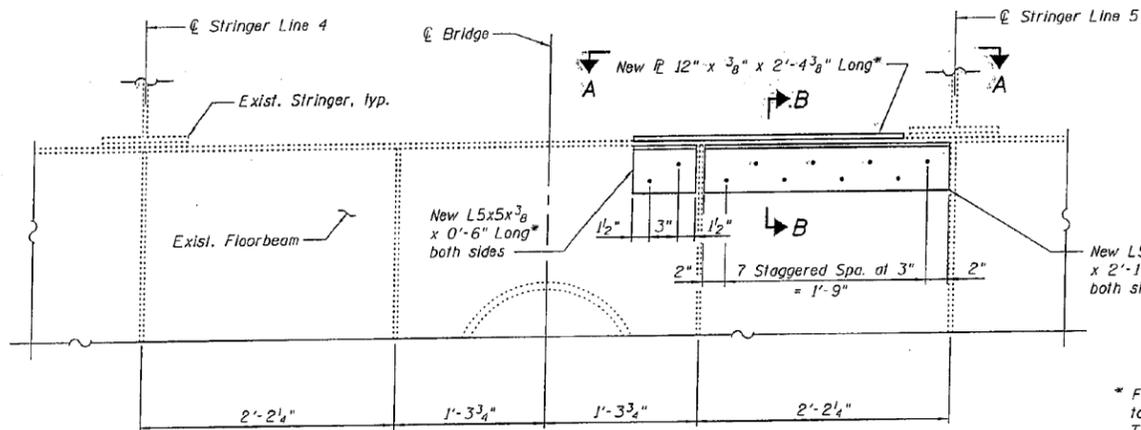
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY  
SN 081-0011

SHEET 38 OF 42 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	42
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64H81	

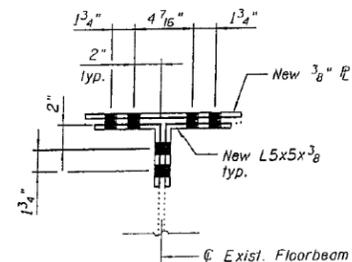
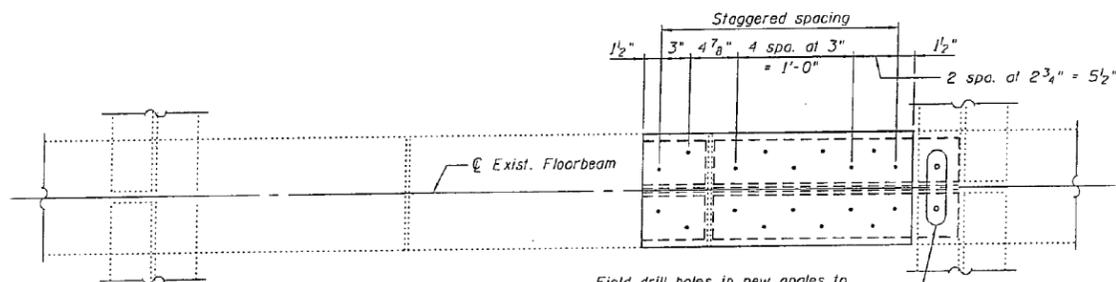
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



Note:  
After mechanically straightening flange any gaps between the existing steel and the new steel angles and/or cover plates shall be sealed with an approval polyurethane sealant. The sealant shall be compatible with the proposed paint system and shall be submitted to the Engineer for approval prior to use.

\* Fabricate new plate and angles for top flange repair to match existing top flange profile. See Floorbeam Top Flange Profile detail.

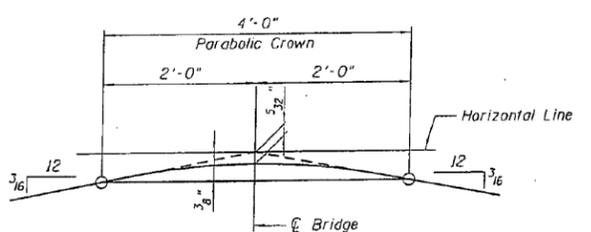
**STRUCTURAL REPAIR L**  
**FLOORBEAM 7 AT PIER 19**  
(Looking South)



**SECTION B-B**

Notes:  
Clip (1/2" x 1/2") heels of new angles to clear existing floorbeam flange to web weld.  
Field drill holes in existing floorbeams and new plate using new angles as templates.  
Open holes in new angles to be 15/16" φ for 7/8" φ H.S. A325 bolts.

**VIEW A-A**



**FLOORBEAM TOP FLANGE PROFILE**

**MISCELLANEOUS STEEL**  
**REPAIR DETAILS - 8**  
**I-80 OVER**  
**MISSISSIPPI RIVER**  
**STRUCTURE NO. 081-0011**

DESIGNED	YSS
CHECKED	DWP
DRAWN	PRC
CHECKED	YSS



02/17/11

SHEET NO. 2JC 33 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	80	(81-13)M-4	ROCK ISLAND		
	SN 081-0011		CONTRACT NO. 64F31		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

New Steel

Construction Change 02/17/11 P.R.C.

DESIGNED	VHV	EXAMINED	<i>Timothy A. ...</i>	DATE	OCTOBER 12, 2012
CHECKED	DAB	PASSED	<i>Carl ...</i>		
DRAWN	baliva				
CHECKED	VHV DAB				

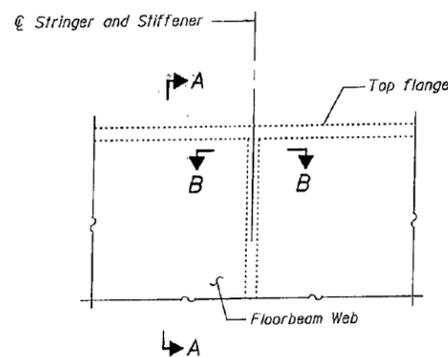
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY  
SN 081-0011

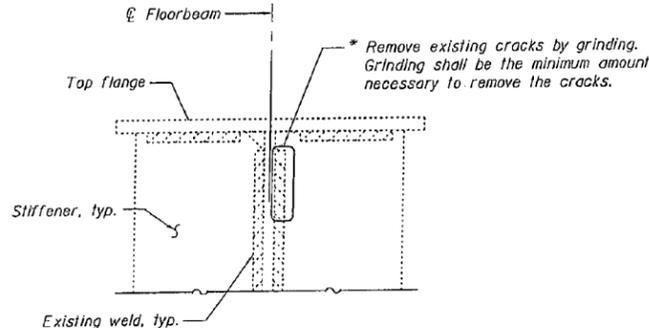
SHEET 39 OF 42 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	43
CONTRACT NO. 64H81			ILLINOIS FED. AID PROJECT	

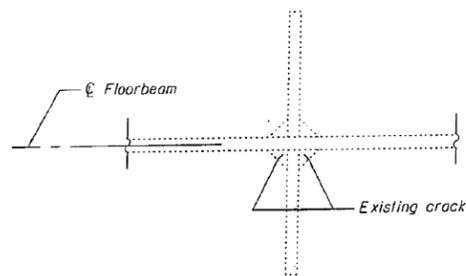
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**ELEVATION**  
Looking North, stringer not shown.



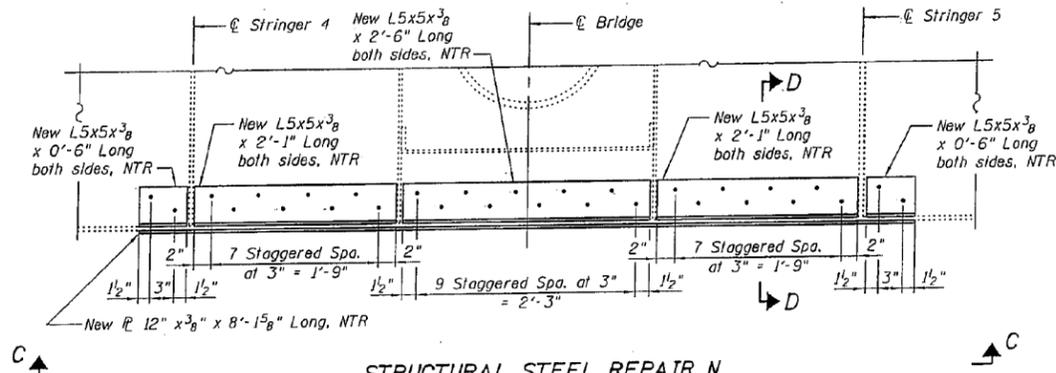
**SECTION A-A**  
Stringer not shown.



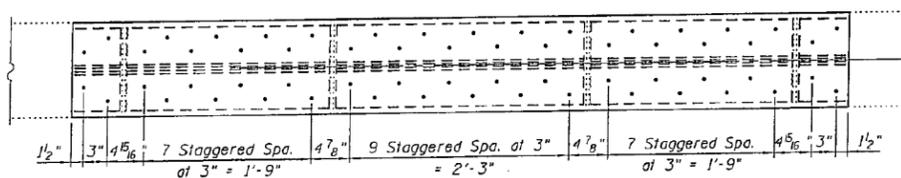
**SECTION B-B**

**STRUCTURAL STEEL REPAIR M**  
**SPAN 14, FLOORBEAM 10, STRINGER 3**

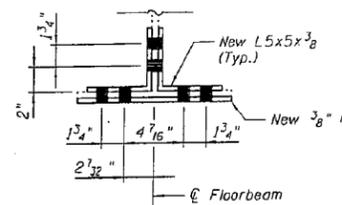
\* Grinding shall be done parallel to the longitudinal axis of the weld. Welds shall be removed by grinding the same distance on either side of the stiffener with the maximum distance required to remove the crack governing. Ground surfaces shall be inspected for cracks using dye penetrant or magnetic particle testing. Any cracks that can not be removed by grinding approximately 1/4" deep into the floorbeam web or 1/8" deep into the stiffener shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Ground surfaces shall meet ANSI surface roughness of 125 or better and be spot cleaned and painted with an aluminum epoxy mastic primer followed by a final coat to match the color of the existing beam. Contractor shall submit his removal procedure to the Engineer for approval prior to beginning work.



**STRUCTURAL STEEL REPAIR N**  
**SPAN 24, FLOORBEAM 6**  
(Looking South)



**VIEW C-C**



**SECTION D-D**

Notes:  
Gaps between the existing steel and the new steel angles and/or cover plates shall be sealed with an approved polyurethane sealant. The sealant shall be compatible with the proposed paint system and shall be submitted to the Engineer for approval prior to use.  
Grind heels of angles as required for installation.  
Field drill holes in existing floorbeams and new plates using new angles as templates.  
Load carrying components designated "NTR" shall conform to the supplemental requirement for Notch Toughness, Zone 2.

**MISCELLANEOUS STEEL**  
**REPAIR DETAILS - 9**  
**I-80 OVER**  
**MISSISSIPPI RIVER**  
**STRUCTURE NO. 081-0011**

DESIGNED	YSS
CHECKED	DWP
DRAWN	PRC
CHECKED	YSS



02/17/11

SHEET NO. 210	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
33 SHEETS	80	(81-1B)M-4	ROCK ISLAND		
		SN 081-0011	CONTRACT NO. 64F31		
	FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

New Sheet

Construction Change 02/17/11 P.R.C.

DESIGNED	VHV	EXAMINED	Timothy A. [Signature]	DATE	OCTOBER 12, 2012
CHECKED	DAB	PASSED	[Signature]		
DRAWN	baliva				
CHECKED	VHV DAB				

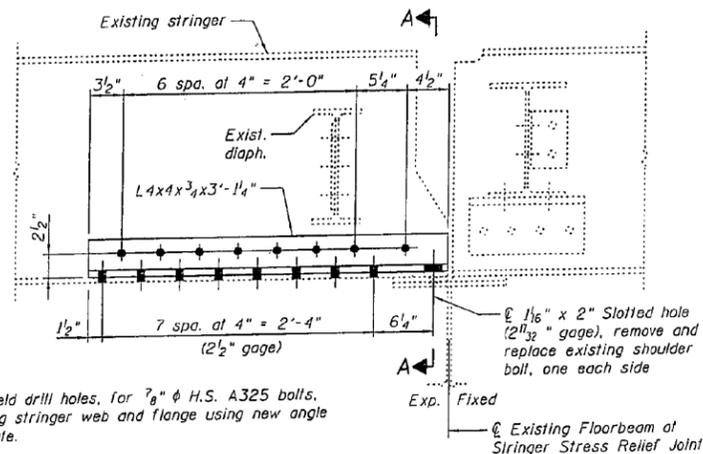
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY  
SN 081-0011

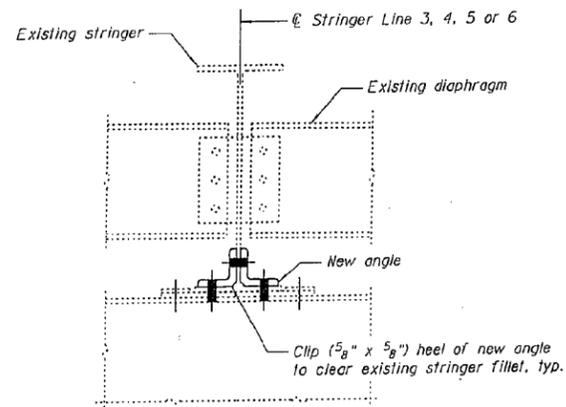
SHEET 40 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	44
			CONTRACT NO. 64H81	
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

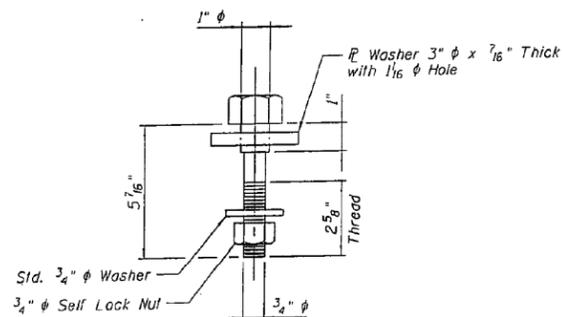


Note: Field drill holes, for 7/8"  $\phi$  H.S. A325 bolts, in existing stringer web and flange using new angle as template.



SECTION A-A

STRUCTURAL STEEL REPAIR 0  
STRINGER STRENGTHENING AT RELIEF JOINT



SHOULDER BOLT DETAIL

Note: Install shoulder bolts with 1/16" gap between bolt head and plate washer.

STRENGTHENING LOCATIONS

SPAN	FLOORBEAM	STRINGER
11	6	4
13	3	4
14	11	6
14	18	6
15	4	3
17	1	3
17	1	6

Notes:  
Open holes in new angle to be 1 5/8" diameter, unless noted otherwise.  
Threads for new 7/8"  $\phi$  H.S. A325 bolts shall be excluded from the shear plane.

MISCELLANEOUS STEEL  
REPAIR DETAILS - 10  
I-80 OVER  
MISSISSIPPI RIVER  
STRUCTURE NO. 081-0011

DESIGNED	YSS
CHECKED	DWP
DRAWN	PRC
CHECKED	YSS

02/17/11



SHEET NO. 2/E 33 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	80	(81)-1B/M-4	ROCK ISLAND		
	SN 081-0011			CONTRACT NO. 64F31	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

1 New Sheet

1 Construction Change 02/17/11 P.R.C.

DESIGNED VHV  
CHECKED DAB  
DRAWN baliva  
CHECKED VHV DAB

EXAMINED  
PASSED

Timothy A. [Signature]  
ACTING ENGINEER OF STRUCTURAL SERVICES

Carl [Signature]  
ACTING ENGINEER OF BRIDGES AND STRUCTURES

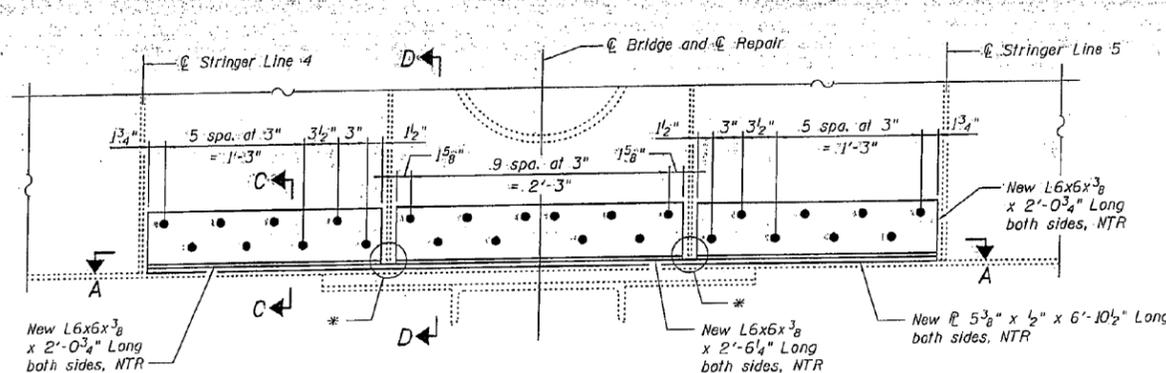
DATE - OCTOBER 12, 2012

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

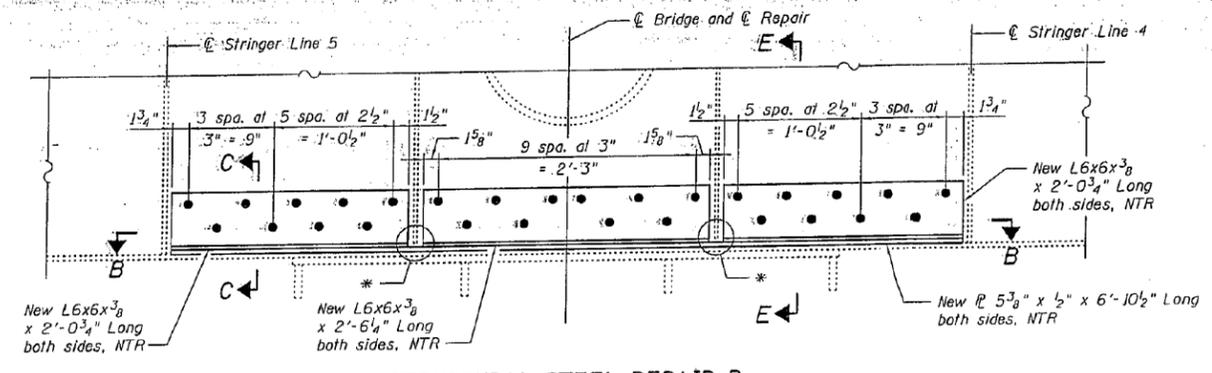
FOR INFORMATION ONLY  
SN 081-0011

SHEET 41 OF 42 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	45
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64H81	

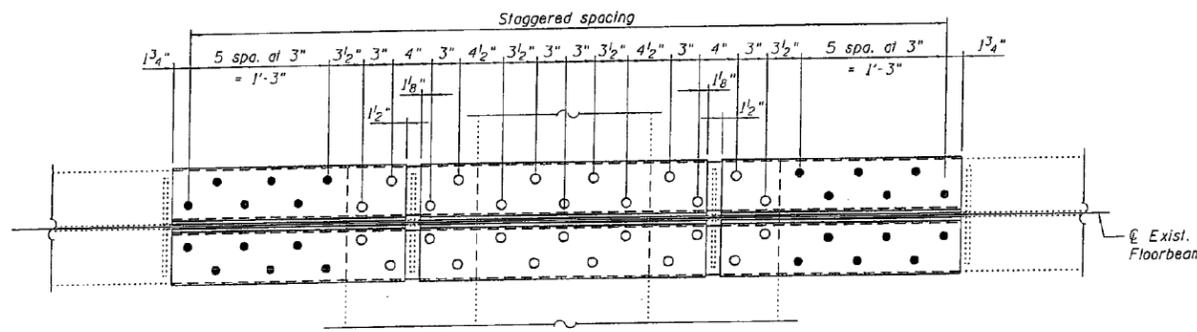


**STRUCTURAL STEEL REPAIR Q**  
**BOTTOM FLANGE - FLOORBEAM 6 AT HINGE 12**  
(Looking South)

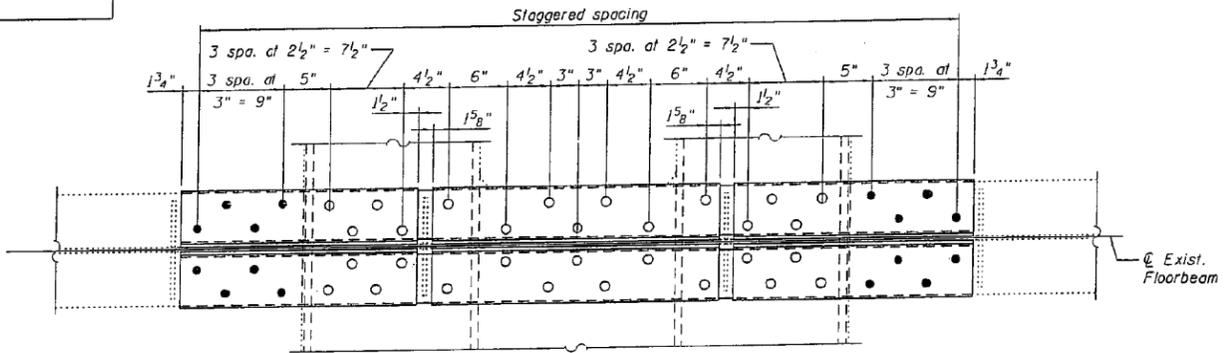


**STRUCTURAL STEEL REPAIR R**  
**BOTTOM FLANGE - FLOORBEAM 7 AT HINGE 12**  
(Looking North)

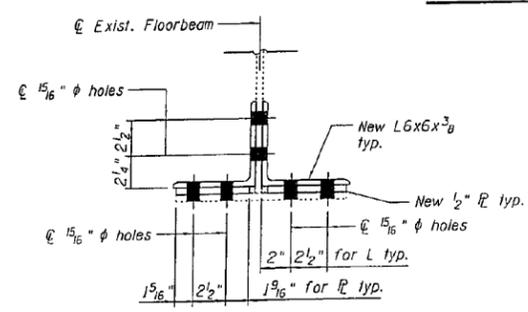
\* Trim existing stiffeners as required to install new plates.



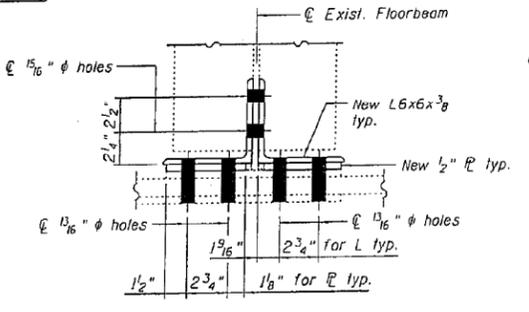
**SECTION A-A**



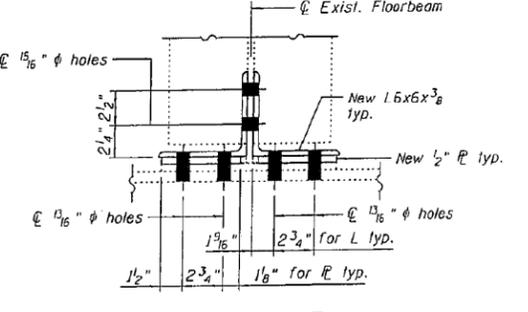
**SECTION B-B**



**SECTION C-C**



**SECTION D-D**



**SECTION E-E**

**LEGEND**

- Bolt for connecting new material and requiring a field drilled hole. Field drill holes in existing material using hole in new material as template to locate.
- Bolt for connecting new material to existing material using existing/new hole. Holes for new material shall be shop drilled 1 5/16" φ and reamed to 1 5/16" φ in field.

Notes:  
Staggered ball spacing as shown.  
Install 7/8" φ H.S. A325 bolts.  
Gaps between the existing steel and the new steel angles and/or cover plates shall be sealed with an approved polyurethane sealant. The sealant shall be compatible with the proposed paint system and shall be submitted to the Engineer for approval prior to use.  
Load carrying components designated "NTR" shall conform to the supplemental requirement for Notch Toughness, Zone 2.

**MISCELLANEOUS STEEL REPAIR DETAILS - 12**  
**I-80 OVER**  
**MISSISSIPPI RIVER**  
**STRUCTURE NO. 081-0011**

DESIGNED	YSS
CHECKED	DWP
DRAWN	PRC
CHECKED	YSS



02/17/11

SHEET NO. 216 33 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	80	(81-1B)M-4	ROCK ISLAND		
SN 081-0011			CONTRACT NO. 64F31		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

Construction Change 02/17/11 P.R.C.

DESIGNED	VHV	EXAMINED	Timothy A. Daulton	DATE	OCTOBER 12, 2012
CHECKED	DAB	PASSED	ACTING ENGINEER OF STRUCTURAL SERVICES		
DRAWN	baliva		ACTING ENGINEER OF BRIDGES AND STRUCTURES		
CHECKED	VHV DAB				

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	D2 BRIDGE PAINTING 2012-2	ROCK ISLAND	46	46
ILLINOIS FED. AID PROJECT			CONTRACT NO. 64H81	