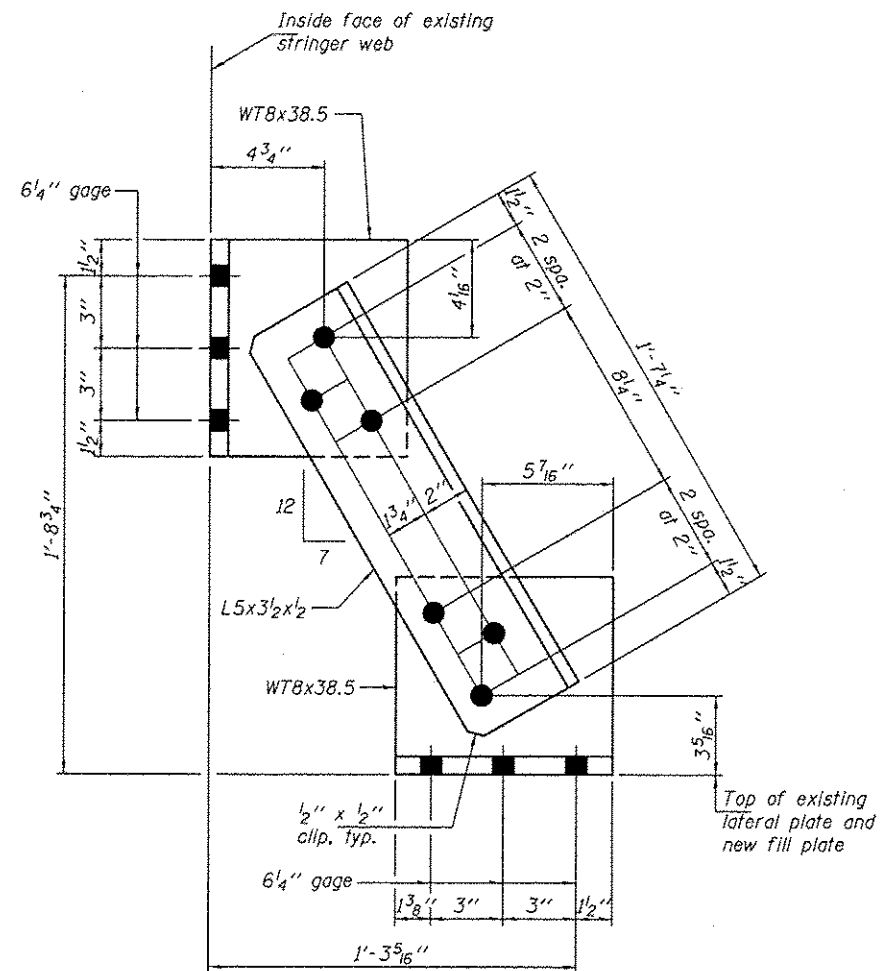
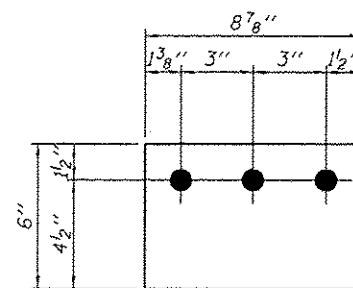


**1-KNEE BRACES C<sup>L</sup>**



**4-KNEE BRACES B<sup>R</sup>  
1-KNEE BRACES B<sup>L</sup>**



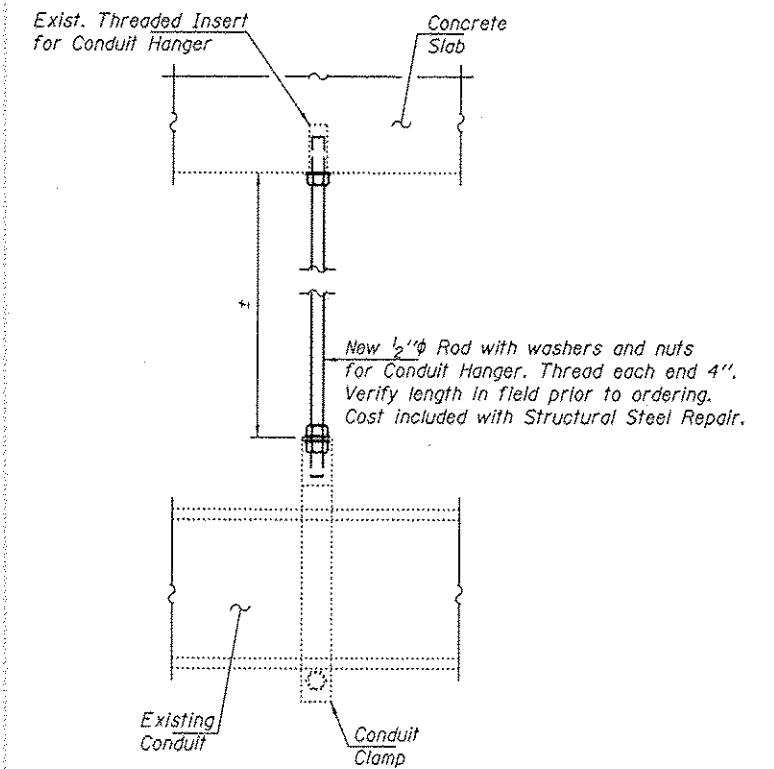
**5-FILL PLATES**  
@ 1/2" x 6" x 8 7/8"

**REPAIR E - TABLE OF BOLT REPAIRS**

Span	Member	Location	Deficiency
9	Floorbeam 3	Top flange btwn. Str. 6 & 7	1 Missing Bolt
10	Floorbeam 5	Top flange at Str. 5; S. Side	2 Misdrilled holes
10	Floorbeam 6	Btwn. Stringers 2 & 3	1 Loose Bolt
13	Lateral Bracing	Midpt. FB 5 to W. end FB 6	1 Loose Bolt
14	Floorbeam 2	South side at Stringer 2	1 Loose Bolt
14	Floorbeam 4	Conn. to inside N. Girder	1 Missing Bolt
14	Floorbeam 10	Conn. to inside N. Girder	2 Missing Bolts
14	Lateral Bracing	Center Conn. to FB 16	1 Missing Bolt
14	Floorbeam 16	West of Stringer 7	1 Loose Bolt
15	Floorbeam 6	Conn. to inside S. Girder	1 Missing Bolt
15	Floorbeam 7	Conn. to inside S. Girder	1 Missing Bolt
16	Joint	Btwn. Str. 1 & 2 at FB 1	1 Loose Bolt
16	Stringer 7	North side of FB 7	Bolt missing nut
17	Stringer 6	South side of FB 1	2 Loose Bolts
22	Floorbeam 3	Top flange btwn Str. 2 & 3	2 Missing Bolts
22	Diaphragm	Stringer 3, N. side of FB 4	2 Missing Bolts
22	Diaphragm	Stringer 3, N. side of FB 6	2 Missing Bolts

**Note:**

Loose bolts shall be removed and then replaced with bolts meeting the Standard Specifications. New bolts shall match the diameter and length of the existing bolts. New bolts shall be ASTM 325 High Strength Bolts. All work and material necessary to complete the bolt replacement as noted in the table shall be included in the pay item "Structural Steel Repair".



**REPAIR DETAIL F**

3 Locations  
Sp. 13, E. of Stringer 5, N. of FB 3 (1 Req'd)  
Sp. 14, E. of Stringer 5, Btwn. FB 13 & 14 (2 Req'd)

DESIGNED - ATH  
CHECKED - MKC  
DRAWN - Kyo M. Steffen  
CHECKED - ATH MKC

EXAMINED - *Timothy A. Doherty*  
ACTING ENGINEER OF STRUCTURAL SERVICES  
PASSED - *Carl Torg*  
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 19, 2012

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

KNEE BRACE DETAILS & REPAIR DETAILS E & F  
SN 081-0011

SHEET NO. 3 OF 6 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(81-18)M-3	ROCK ISLAND	9	6

CONTRACT NO. 64E33  
ILLINOIS FED. AID PROJECT