

24	64-3B-1-3	32	19
F.A.I. ROUTE 24 (INTERSTATE 24) OVER OHIO RIVER MASSAC COUNTY ILLINOIS			

**RETROFIT TYPE F1**

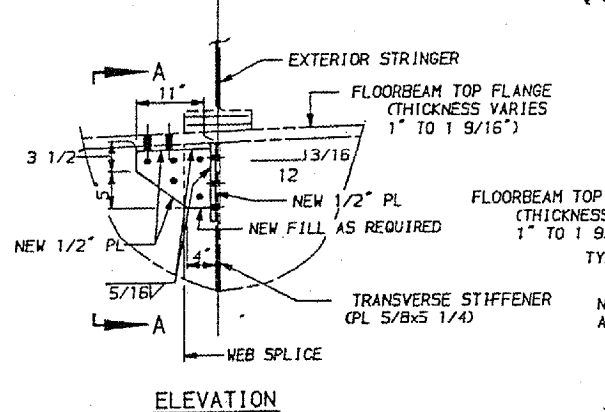
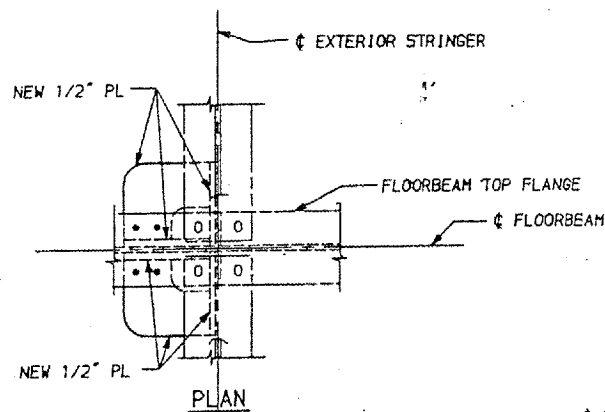
**GENERAL PROCEDURE:**

1. SANDBLAST TO REMOVE PAINT FROM THE UNDERSIDE OF THE TOP FLANGE AND THE CONTACT SURFACE ON THE TRANSVERSE STIFFENER. PAINT SHOULD BE REMOVED FROM THE TOP FLANGE APPROXIMATELY 15" FROM THE TRANSVERSE STIFFENER AND FROM THE TRANSVERSE STIFFENER APPROXIMATELY 12" FROM THE TOP FLANGE ON BOTH SIDES OF THE WEB.
2. USE DYE PENETRANT TO CHECK THE FLOORBEAM WEB FOR CRACKS IN THE GAP BETWEEN THE END OF THE TRANSVERSE STIFFENER AND THE TOP FLANGE (SEE DYE PENETRANT AREAS). IF THE WEB IS CRACKED, DRILL A 15/16" DIAMETER HOLE AT THE CRACK TIP AND DEBURR HOLE. USE DYE PENETRANT ON THE NEWLY EXPOSED (DRILLED) SURFACE OF THE FLOORBEAM WEB TO ENSURE THAT THE CRACK DOES NOT EXTEND PAST THE HOLE. IF THE CRACK EXTENDS PAST THE HOLE, GRIND TO REMOVE CRACK OR DRILL ANOTHER HOLE. REPEAT DYE PENETRANT CHECK.
3. SECURE HORIZONTAL PLATE OF WELDMENT TO TOP FLANGE IN ITS FINAL POSITION SO THAT THE VERTICAL PLATE IS TIGHT AGAINST THE TRANSVERSE STIFFENER. USING THE NEW PLATES AS A TEMPLATE, DRILL HOLES IN THE TOP FLANGE, TRANSVERSE STIFFENER AND WEB.
4. SECURE WELDMENT TO OTHER SIDE OF WEB USING HOLES IN WEB. DRILL HOLES IN TRANSVERSE STIFFENER AND TOP FLANGE USING THE WELDMENT AS A TEMPLATE.
5. REMOVE WELDMENT AND SOLVENT CLEAN ENTIRE RETROFIT AREA TO REMOVE CUTTING OIL. ALSO REMOVE OIL FROM FAYING SURFACES OF WELDMENT.
6. PLACE WELDMENTS IN THEIR FINAL POSITION AND INSTALL BOLTS.
7. PAINT ENTIRE RETROFIT AREA.

**RETROFIT TYPE F2**

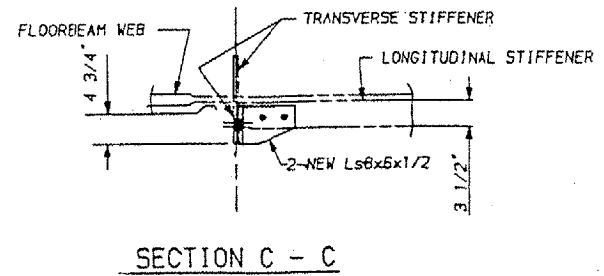
**GENERAL PROCEDURE:**

1. CUT PORTION OF LONGITUDINAL STIFFENER BETWEEN SUSPENDER AND EXTERIOR STRINGER. REMOVE REMAINING WELD MATERIAL BY GRINDING TO SMOOTH FINISH (ANSI J25 MIN.)
2. SANDBLAST TO REMOVE PAINT FROM BOTH SIDES OF THE LONGITUDINAL STIFFENER AND THE ADJACENT SIDE OF THE TRANSVERSE STIFFENER.
3. USE DYE PENETRANT TO CHECK THE FLOORBEAM WEB FOR CRACKS IN THE GAP BETWEEN THE END OF THE LONGITUDINAL STIFFENER AND THE TRANSVERSE STIFFENER. IF THE WEB IS CRACKED, DRILL A 15/16" DIAMETER HOLE AT THE CRACK TIP AND DEBURR HOLE. USE DYE PENETRANT ON THE NEWLY EXPOSED (DRILLED) SURFACE OF THE FLOORBEAM WEB TO ENSURE THAT THE CRACK DOES NOT EXTEND PAST THE HOLE. IF THE CRACK EXTENDS PAST THE HOLE, GRIND TO REMOVE CRACK OR DRILL ANOTHER HOLE. REPEAT DYE PENETRANT CHECK.
4. SECURE ONE ANGLE IN ITS FINAL POSITION AND DRILL HOLES IN THE TRANSVERSE AND LONGITUDINAL STIFFENER USING THE ANGLE AS A TEMPLATE.
5. REMOVE THE FIRST ANGLE AND PLACE THE REMAINING ANGLE IN ITS FINAL POSITION. USE BOLT HOLES IN LONGITUDINAL STIFFENER TO SECURE ANGLE AND DRILL HOLES INTO THE TRANSVERSE STIFFENER.
6. REMOVE BOTH ANGLES AND SOLVENT CLEAN THE ENTIRE RETROFIT AREA TO REMOVE CUTTING OIL. ALSO REMOVE OIL FROM FAYING SURFACES OF THE ANGLES.
7. INSTALL ANGLES AND TIGHTEN BOLTS.
8. PAINT ENTIRE RETROFIT AREA.

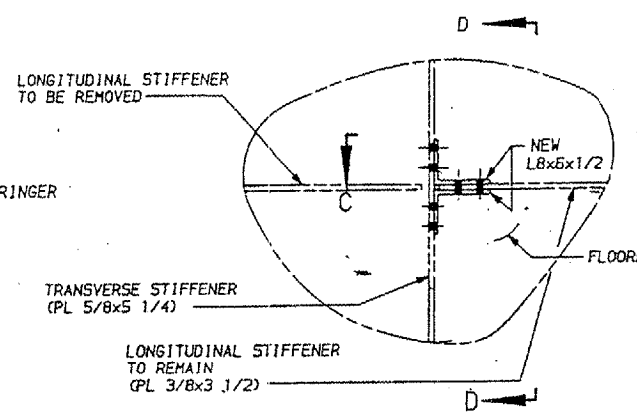


**RETROFIT TYPE F1**

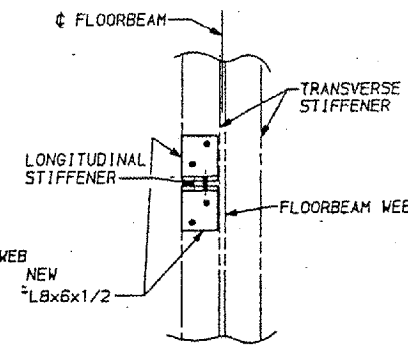
(EXPANSION POINT SHOWN ALL OTHERS SIMILAR)



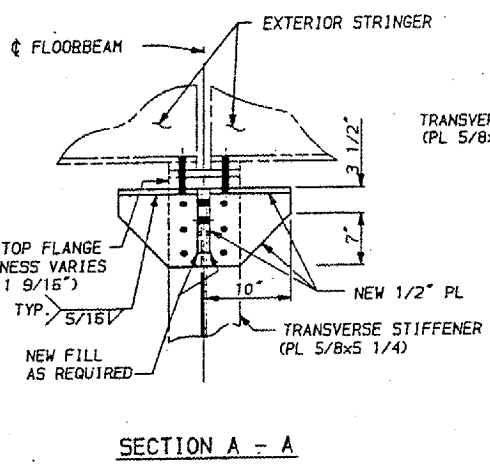
**SECTION C - C**



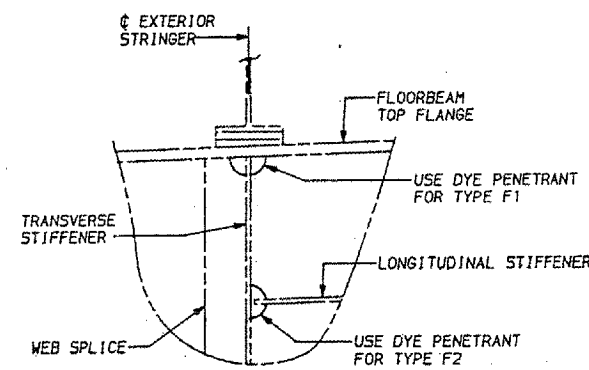
**RETROFIT TYPE F2**



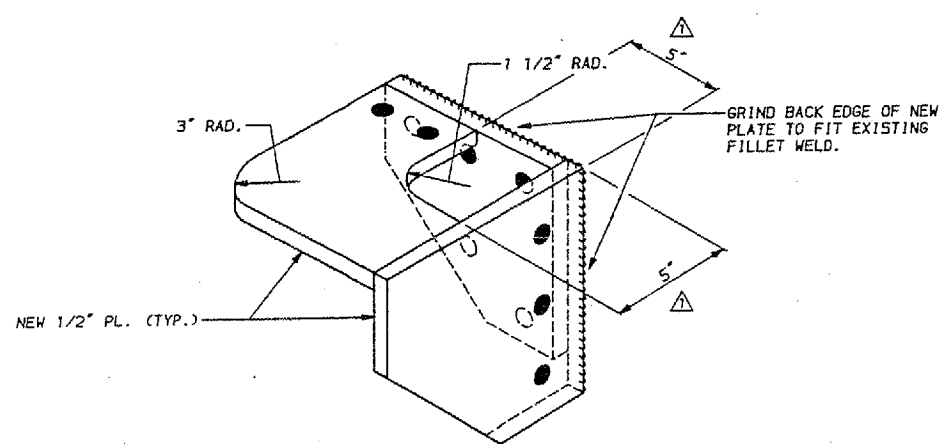
**SECTION D - D**



**SECTION A - A**



**DYE PENETRANT AREAS**



**ISOMETRIC VIEW  
RETROFIT TYPE F1**

**NOTES:**

- FOR GENERAL NOTES, SEE SHEET 3.
- FOR RETROFIT LOCATIONS, SEE SHEET 18.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
- DENOTES NEW 7/8" H.S. BOLT IN NEW HOLE.

QUANTITIES				
RETROFIT	ITEM	UNIT	UNIT I	UNIT V
TYPE F1	STRUCTURAL STEEL	LBS.	2,100	2,600
TYPE F2	STRUCTURAL STEEL	LBS.	600	700

PREPARED BY  
**MODJESKI AND MASTERS**  
 CONSULTING ENGINEERS

DATE: 10/11/98

SLH	REH	JEP	MISCELLANEOUS	10/24/98
REV. NO.	DRAWN	CHKD.	APPD.	DESCRIPTION

**F A I ROUTE 24 (INTERSTATE 24)  
 OVER OHIO RIVER  
 MASSAC COUNTY ILLINOIS**

**RETROFIT DETAILS 1**