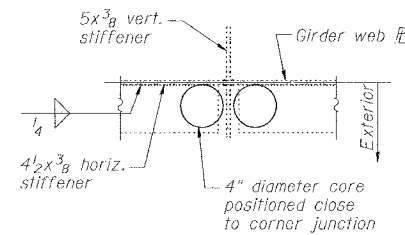
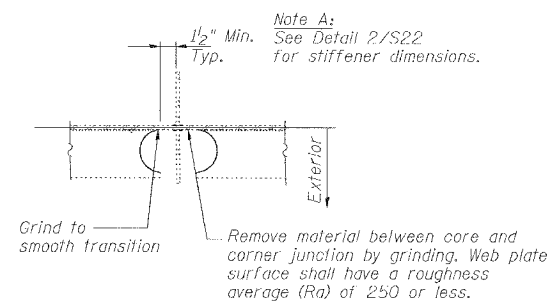


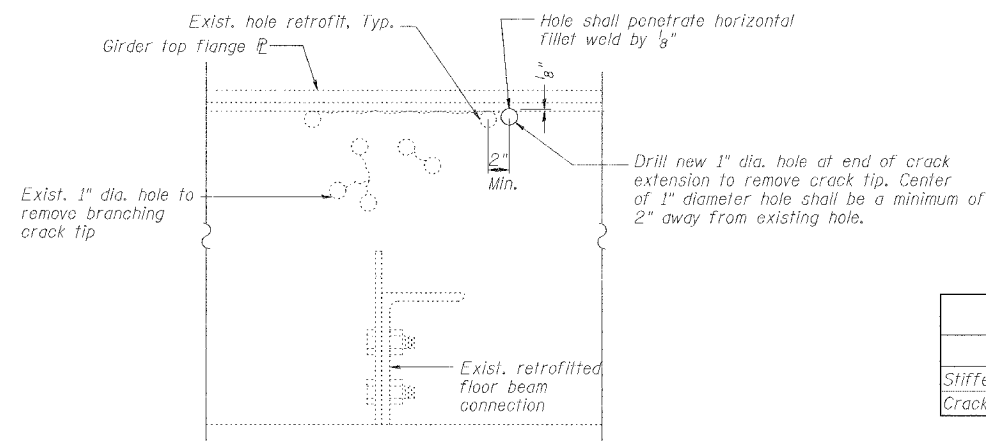
1 GIRDER 2 ELEVATION INDICATING TYPICAL FATIGUE RETROFIT LOCATIONS
S22 GIRDER 1 - OPPOSITE HAND



2 STIFFENER INTERSECTION MODIFICATION DETAIL
S22



3 STIFFENER INTERSECTION MODIFICATION DETAIL
S22



4 CRACK EXTENSION RETROFIT AT FIRST INTERIOR FLOOR BEAMS
S22

Note A: No crack extension retrofits identified at this time. An allowance of 5 retrofits for Ramp T have been included in the Contract.

Procedure - Detail 4/S22:

- At location directed by the Engineer, inspect girder web plate in region of existing retrofits to determine location of crack extension and crack tip using magnetic particle inspection (MT) methods (Cost included with crack extension retrofit at first interior floor beam).
- Drill 1" diameter hole at end of crack extension to remove crack tip. Center of 1" diameter hole shall be positioned in accordance with Detail 4/S22.
- Cored surfaces shall have a roughness average (Ra) of 500 or less.
- Re-inspect area using MT methods to verify crack does not extend past the newly drilled holes.
- Obtain approval of Engineer.
- Clean and paint steel surfaces adjacent to the repair in accordance with the Special Provisions.

BILL OF MATERIAL		
ITEM	UNIT	QUANTITY
Stiffener intersection modification	Each	280
Crack Extension Modifications	Each	5

Procedure - Detail 2/S22 and 3/S22:

- Core 4" diameter holes positioned close to corner junction through 3/8" thick horizontal stiffener.
- Remove material between core and intersection junction by grinding with carbide tools and a die grinder as shown in Detail 3/S22 Web plate surface shall have a roughness average (Ra) of 250 or less.
- Remove all burrs from cut edge and check for irregularities. Cored surface shall have an (Ra) equal to 500 or less.
- After burr removal the modification shall be inspected using magnetic particle (MT) methods. Notify Engineer if a crack is detected (Cost included with stiffener intersection modification).
- Obtain approval of Engineer.
- Clean and paint steel surfaces adjacent to the repair in accordance with the Special Provisions.

FATIGUE RETROFIT

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO.
SCALE: N.T.S.
DATE: 02/01/2007

DATE: 12/6/2007
FILENAME: P:\2001\1201-1800\2001.1240\Drafting\RoadwayRehab AT Ramp T\Fatigue T-FAT101.dgn

DESIGNED	DDC
CHECKED	JCM
DRAWN	CLK
CHECKED	DDC