



1 GIRDER 1 ELEVATION INDICATING TYPICAL FATIGUE RETROFIT LOCATIONS FOR FIVE-SPAN CONTINUOUS UNIT  
S44 GIRDER 2 - OPPOSITE HAND

2 CRACK EXTENSION RETROFIT AT FIRST INTERIOR FLOOR BEAMS  
S44

Note A:  
Fatigue retrofit locations also apply to three and four-span continuous units.

Note B:  
No Fatigue retrofits identified at this time for Ramp S/Roadway G an allocation has been included in the summary of quantities.

- Procedure - Detail 2/S44:
- At locations 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 beams).
  - 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 2/S44.
  - 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.

DATE: 4/9/2006  
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DESIGNED	DDC
CHECKED	JCM
DRAWN	CLK
CHECKED	DDC

REVISIONS		FATIGUE RETROFIT STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0142 (RAMP S) SCALE: DATE: 02/28/2006
NAME	DATE	