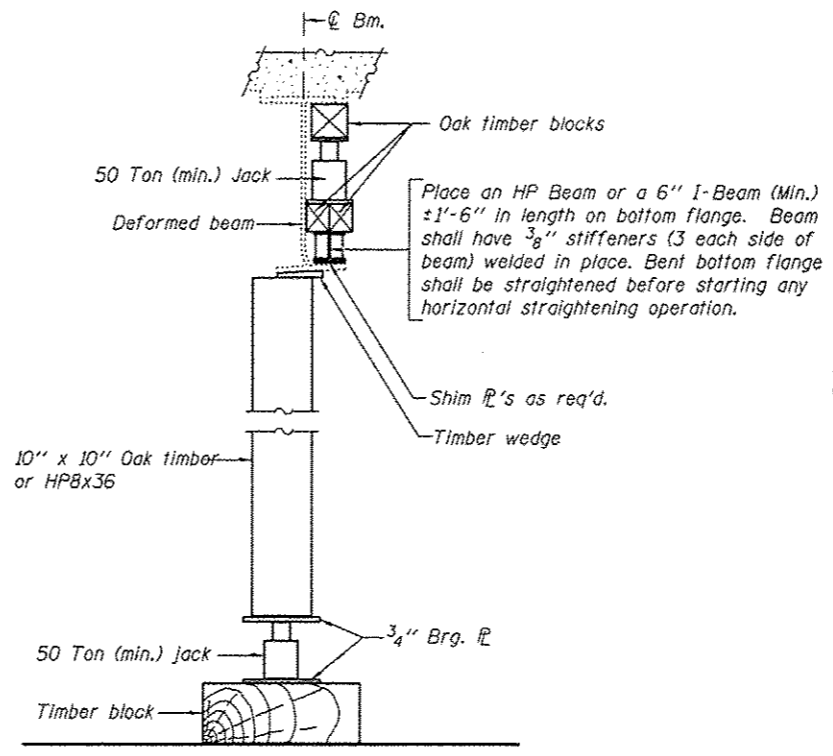
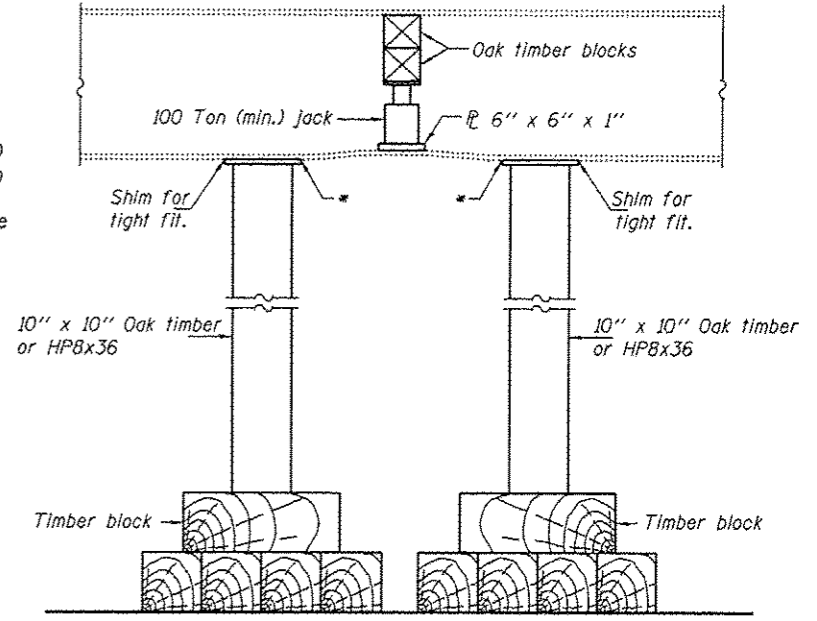


**PARTIAL PLANS**  
**SUGGESTED BEAM STRAIGHTENING METHODS**  
 Straightening force shall be maintained on all load transfer blocking during beam straightening.

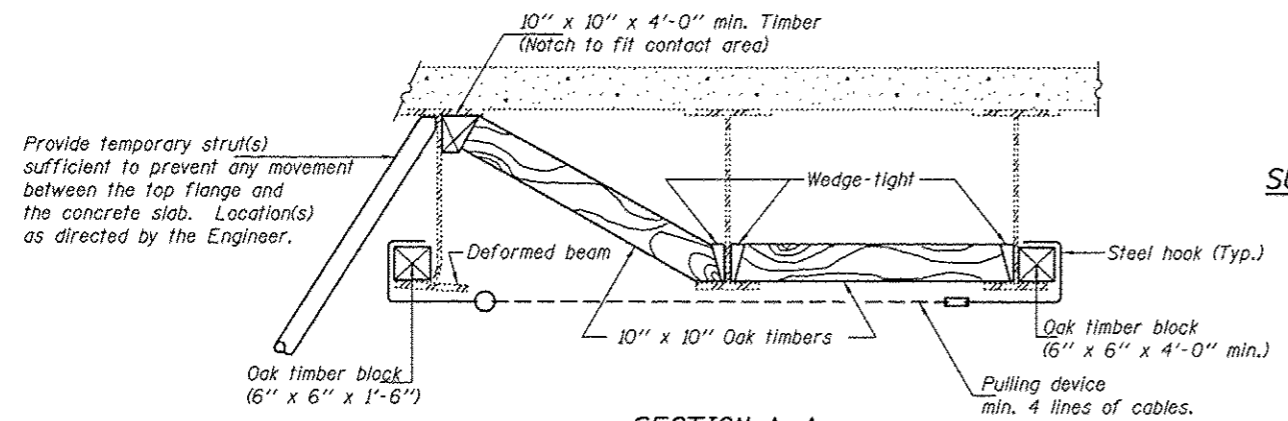


**SUGGESTED VERTICAL STRAIGHTENING DETAIL**  
 (To correct flange rotation.)

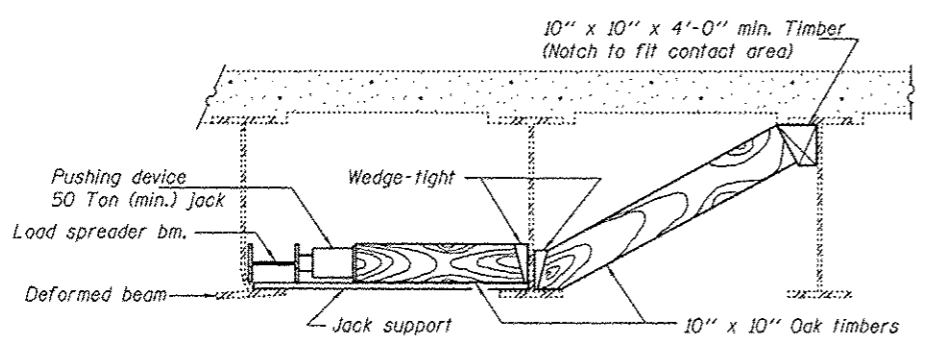


**SUGGESTED VERTICAL STRAIGHTENING DETAIL**  
 (To correct localized vertical flange deformations.)

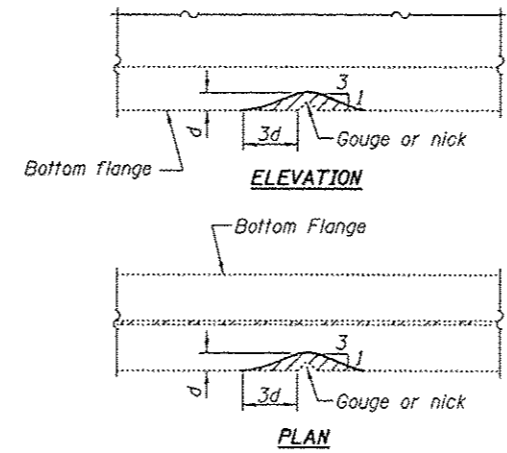
\* Edge of plate shall line up with edge of deformation.  
 Note:  
 Braces and jack assembly shall be placed on same side of web.  
 Bent bottom flange shall be straightened before starting any horizontal straightening operations.



**SECTION A-A**



**SECTION B-B**



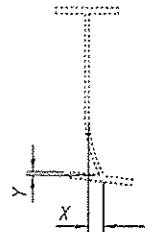
**GRINDING DETAIL**

Grind existing nicks, gouges and shallow cracks in the damaged beams as detailed. Ground surfaces shall be inspected for cracks using magnetic particle testing prior to initiating any beam straightening operations. Any cracks that cannot be removed by grinding approximately 1/4" deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Ground surfaces shall be spot cleaned and painted with an aluminum epoxy mastic primer followed by a finish coat to match the color of the existing beam. Cost of grinding, testing and spot painting included with Beam Straightening.

**TABLE OF DIMENSIONS**

BEAM	Dim. X	Dim. Y	Dim. L
4E	1/4"	1/16"	6'-0"
5E	1/8"	1/4"	6'-6"
6E	7/8"	2 3/8"	6'-0"
7E	3/8"	1 13/16"	2'-0"
8E	1/2"	1/8"	7'-6"
10	1/16"	7/8"	3'-0"

**EXISTING DEFORMATION TO BE STRAIGHTENED**  
 (Looking South)  
 (Approximate max. deflections)  
 Deflected length of beam to be straightened is approximately "L".



REP-1 J-14-2005

DESIGNED <b>DAB</b>	EXAMINED <b>Timothy A. ...</b>	DATE <b>JUNE 26, 2012</b>
CHECKED <b>GGE</b>	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN <b>Kyle M. Steffen</b>	PASSED <b>Carl ...</b>	REVISED
CHECKED <b>DAB GGE</b>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BEAM STRAIGHTENING DETAILS**  
**SN 090-0091**

SHEET NO. 2 OF 6 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(90-1448-18R)I-1	TAZEWELL	17	11
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				