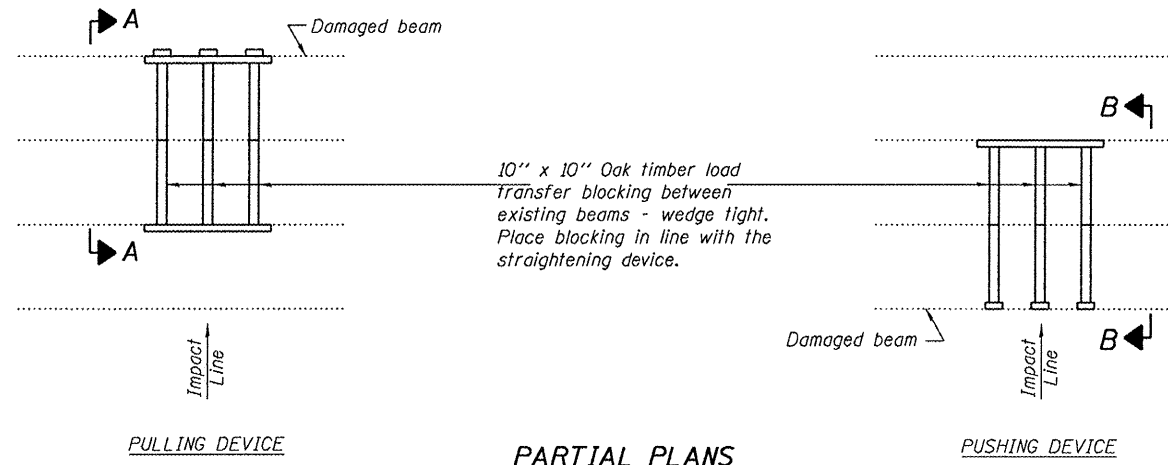
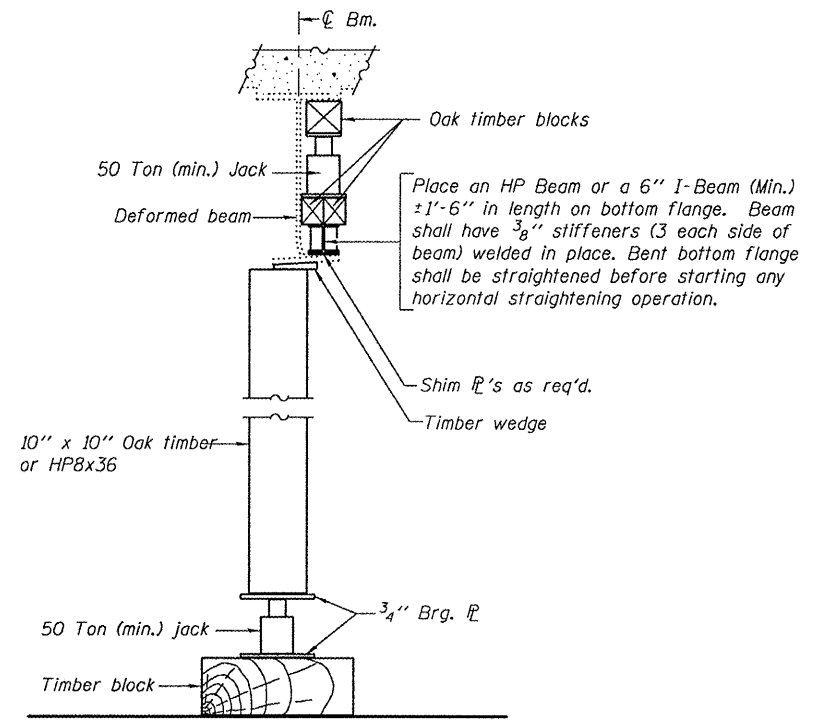


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

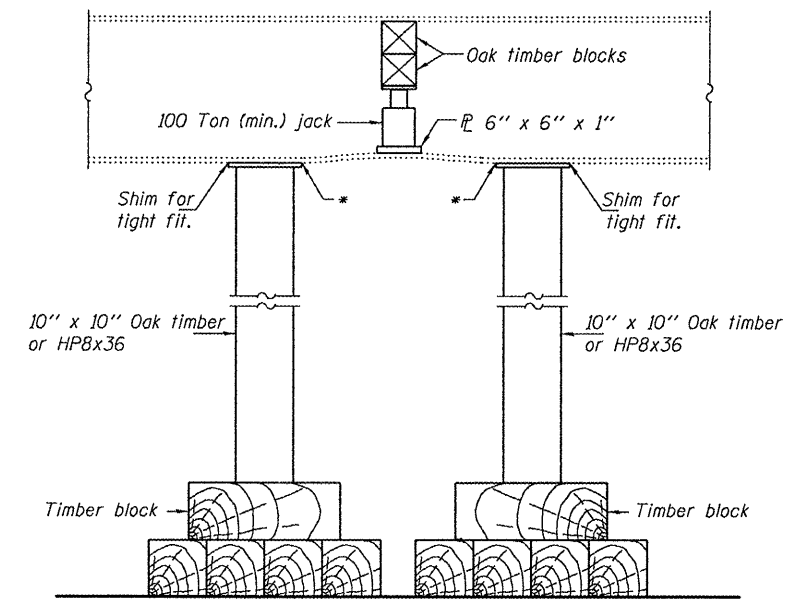


**PARTIAL PLANS**  
**SUGGESTED BEAM STRAIGHTENING METHODS**

Straightening force shall be maintained on all load transfer blocking during beam straightening.



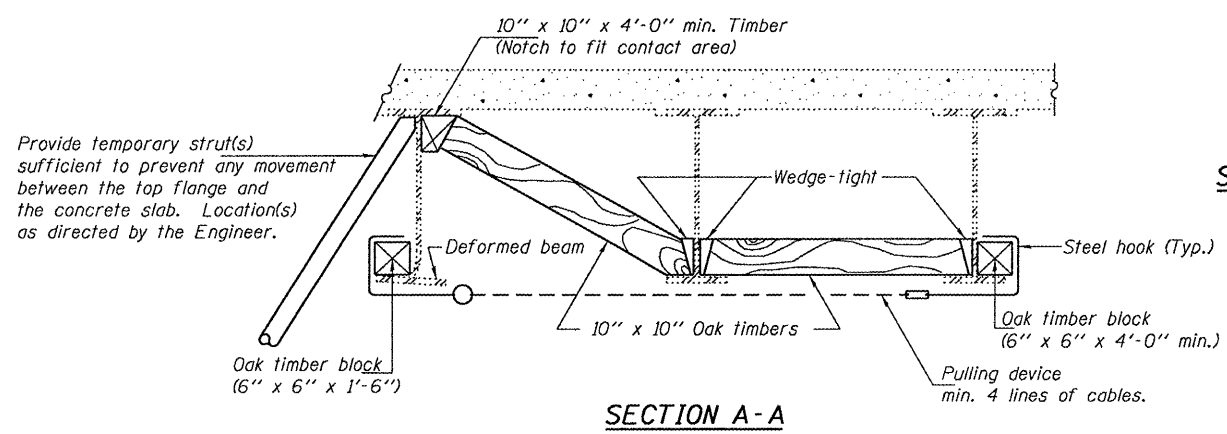
**SUGGESTED VERTICAL STRAIGHTENING DETAIL**  
(To correct flange rotation.)



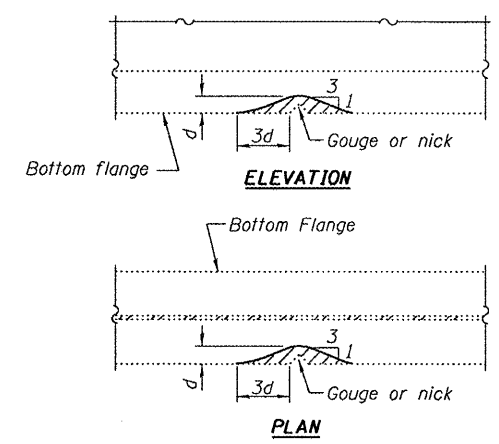
**SUGGESTED VERTICAL STRAIGHTENING DETAIL**  
(To correct localized vertical flange deformations.)

\* 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**



**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.

**EXISTING DEFORMATIONS**

Beam	A	B	C
1	1/4''	3/8''	3'-0''
4E	5/8''	3/4''	9'-0''
5E	1/8''	3/8''	3'-0''
9E	1/8''	1 5/16''	4'-0''
12	7/8''	2''	3'-9''

**EXISTING DEFORMATION TO BE STRAIGHTENED**

(Looking South)  
(Approximate max. deflections)  
Deflected length of beam to be straightened is approximately "C".

**BEAM STRAIGHTENING DETAILS**  
**PINECREST DRIVE OVER F.A.I. RTE. 74**  
**SN 090-0091**

DESIGNED	GGE
CHECKED	IJL
DRAWN	Kyle M. Steffen
CHECKED	GGE IJL

EXAMINED *Carl P. ...*  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

JUNE 15, 2010

SHEET NO. 2	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	74	[90-14HB-1(BR)]I	TAZEWELL	17	15
2 SHEETS			CONTRACT NO. 68976		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

REP-11-14-2005