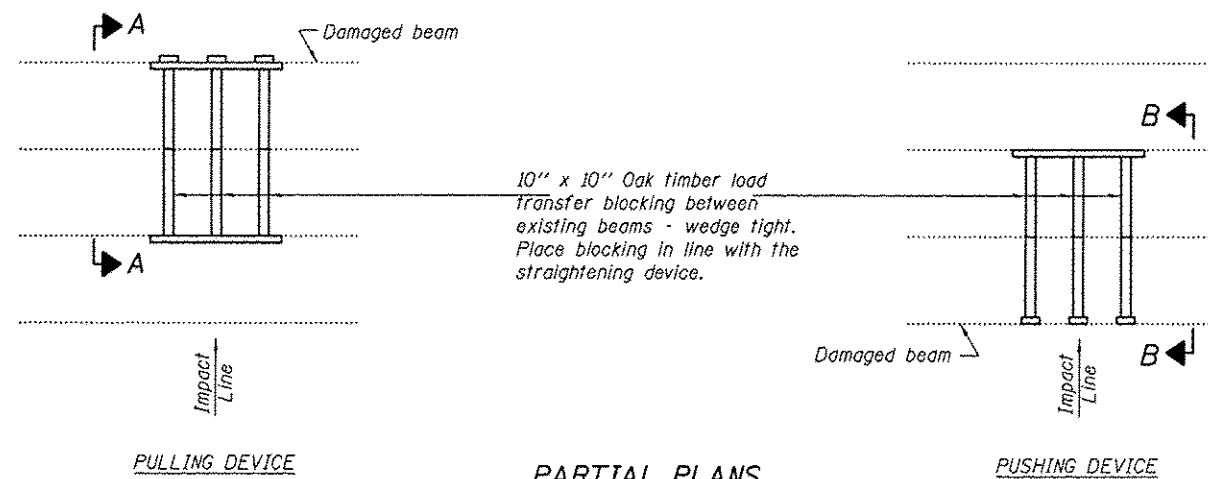
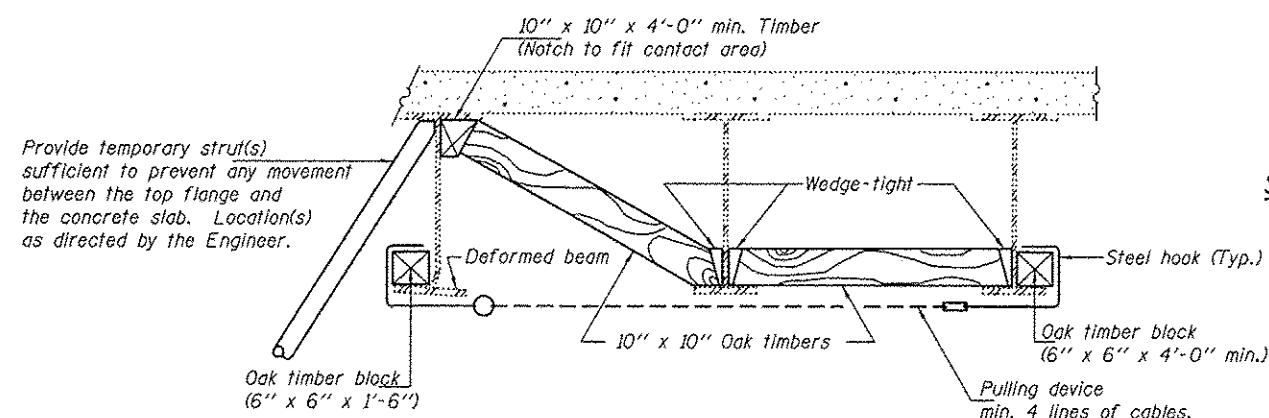


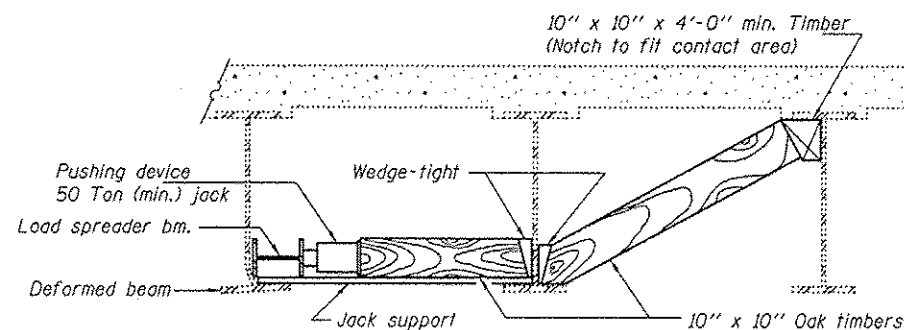


PARTIAL PLANS SUGGESTED BEAM STRAIGHTENING METHODS

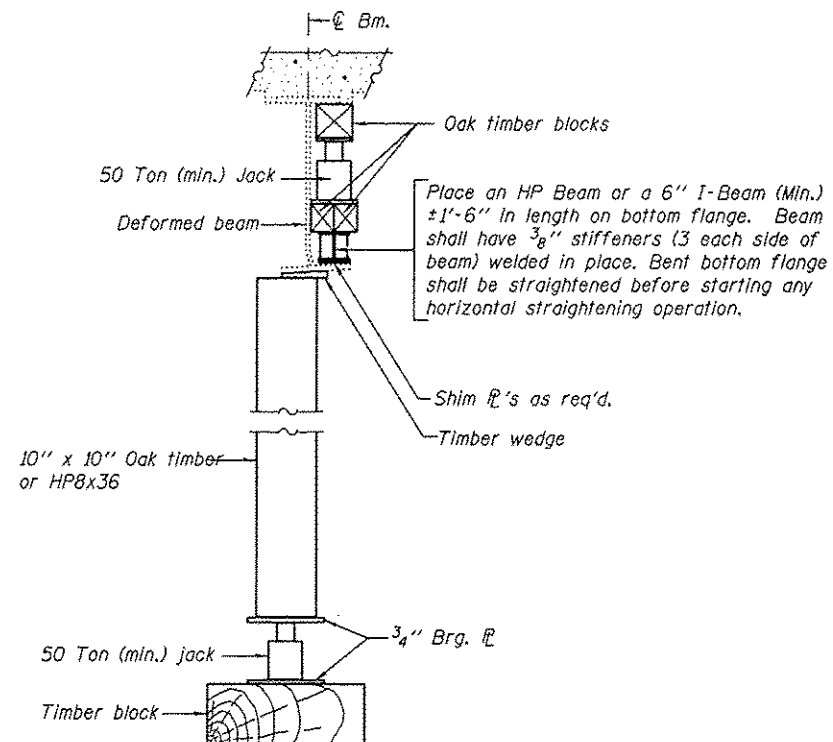
Straightening force shall be maintained on all load transfer blocking during beam straightening.



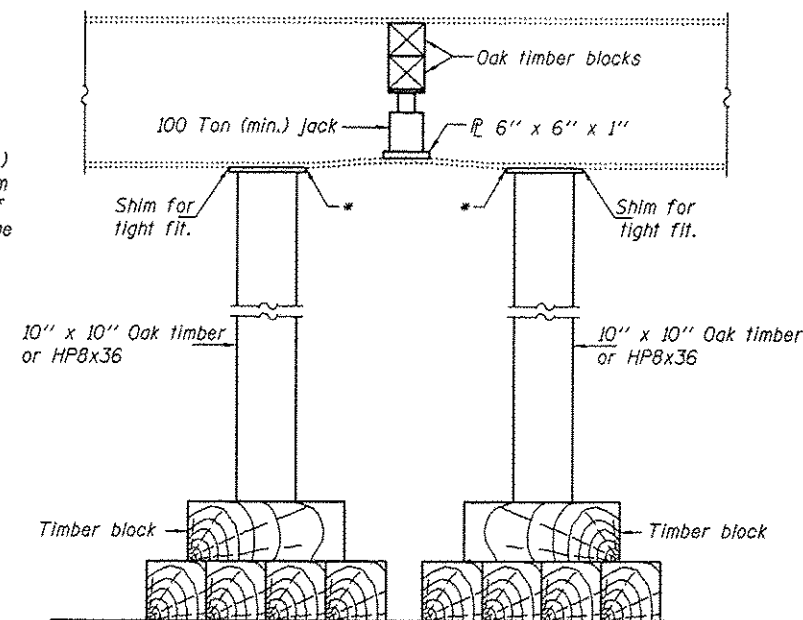
SECTION A-A



SECTION B-B



SUGGESTED VERTICAL STRAIGHTENING DETAIL
(To correct flange rotation.)



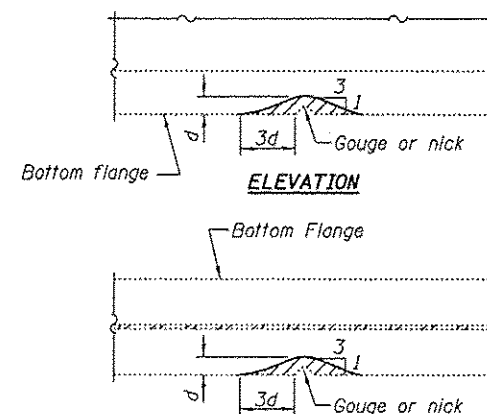
SUGGESTED VERTICAL STRAIGHTENING DETAIL
(To correct localized vertical flange deformations.)

* 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.



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"
6E	7/8"	2 3/8"	6'-0"
7E	3/8"	1 13/16"	2'-0"
8E	1/2"	1 1/8"	7'-6"
10	1/16"	7/8"	3'-0"
12	1/2"	1/2"	7'-0"

EXISTING DEFORMATION TO BE STRAIGHTENED

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

REP-1 1-14-2005

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

EXAMINED
PASSED
ACTING ENGINEER OF STRUCTURAL SERVICES
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE JUNE 26, 2012
REVISED 7/18/2012 DAB
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 [90-1490-1180]1-1 TAZEWELL 16 11
CONTRACT NO. 68B19
ILLINOIS FED. AID PROJECT