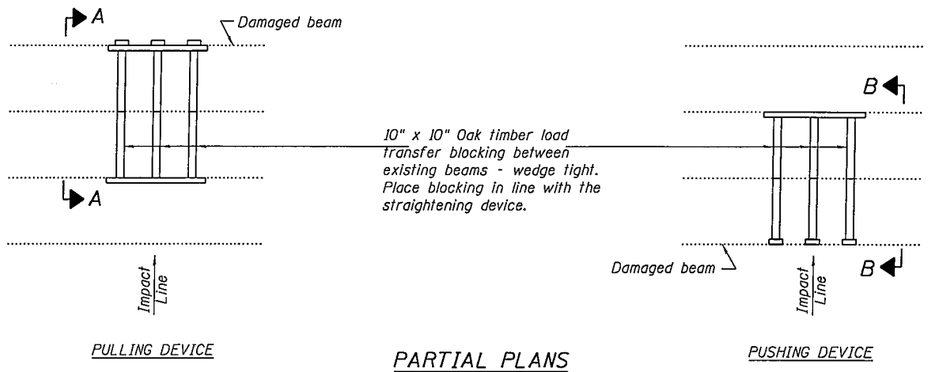
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

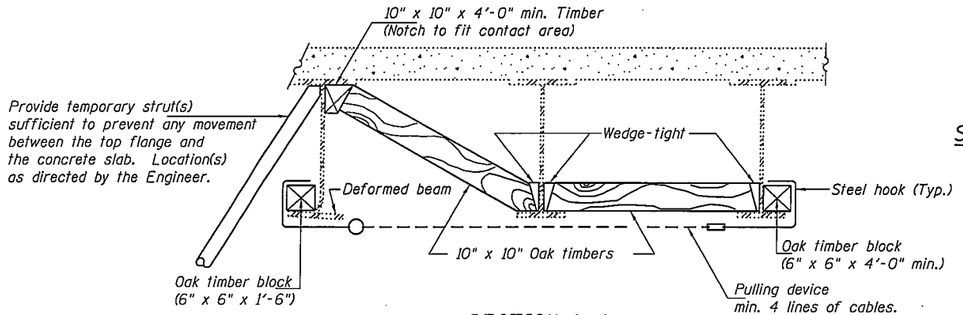


PULLING DEVICE

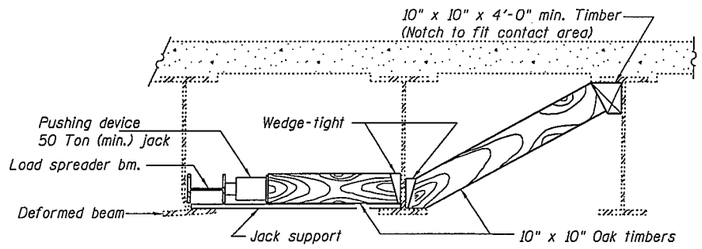
PUSHING DEVICE

PARTIAL PLANS
SUGGESTED BEAM STRAIGHTENING METHODS

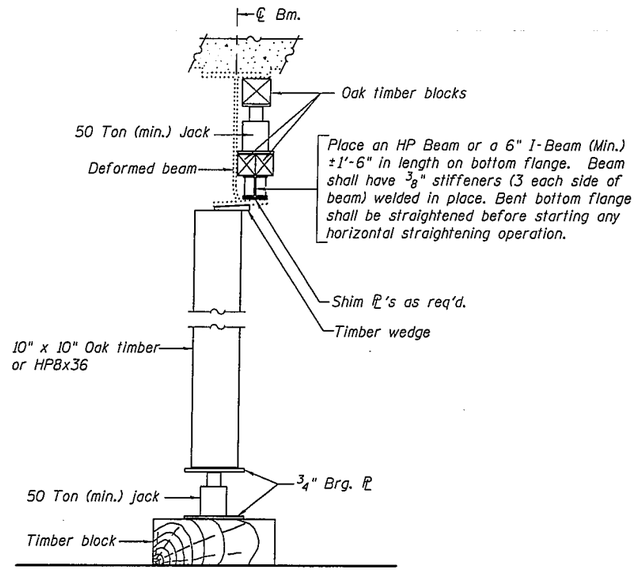
Straightening force shall be maintained on all load transfer blocking during beam straightening.



SECTION A-A

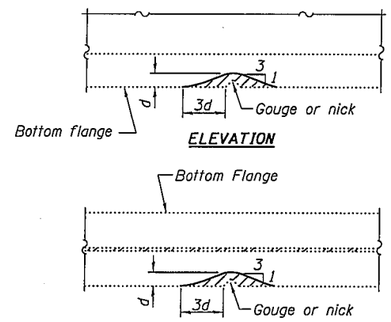


SECTION B-B



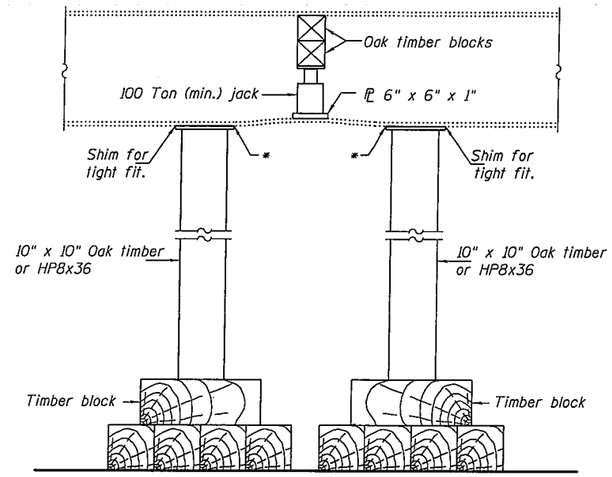
SUGGESTED VERTICAL STRAIGHTENING DETAIL

(To correct flange rotation.)



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.

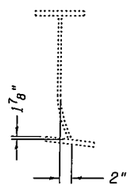


SUGGESTED VERTICAL STRAIGHTENING DETAIL

(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.



EXISTING DEFORMATION TO BE STRAIGHTENED

(Looking East)
(Approximate max. deflections)
Deflected length of beam to be straightened is approximately 9'-0" at Beams 1, 3, 5, 11, 12, 14, 15, 16 and 17 and 20'-0" at Beam 19. Additionally vertical deformation on Beam 5 over a length of ±4'-0" to be straightened.

BEAM STRAIGHTENING DETAILS
SN 084-0076 & 0077

DESIGNED	A.J.B.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	A.J.B. A.T.H.

SEPTEMBER 16, 2009
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 2	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	72	(84-3HB-4)I-1	Sangamon	17	12
			CONTRACT NO. 72C69		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

REP-1 1-14-2005
SLT-96-001-08