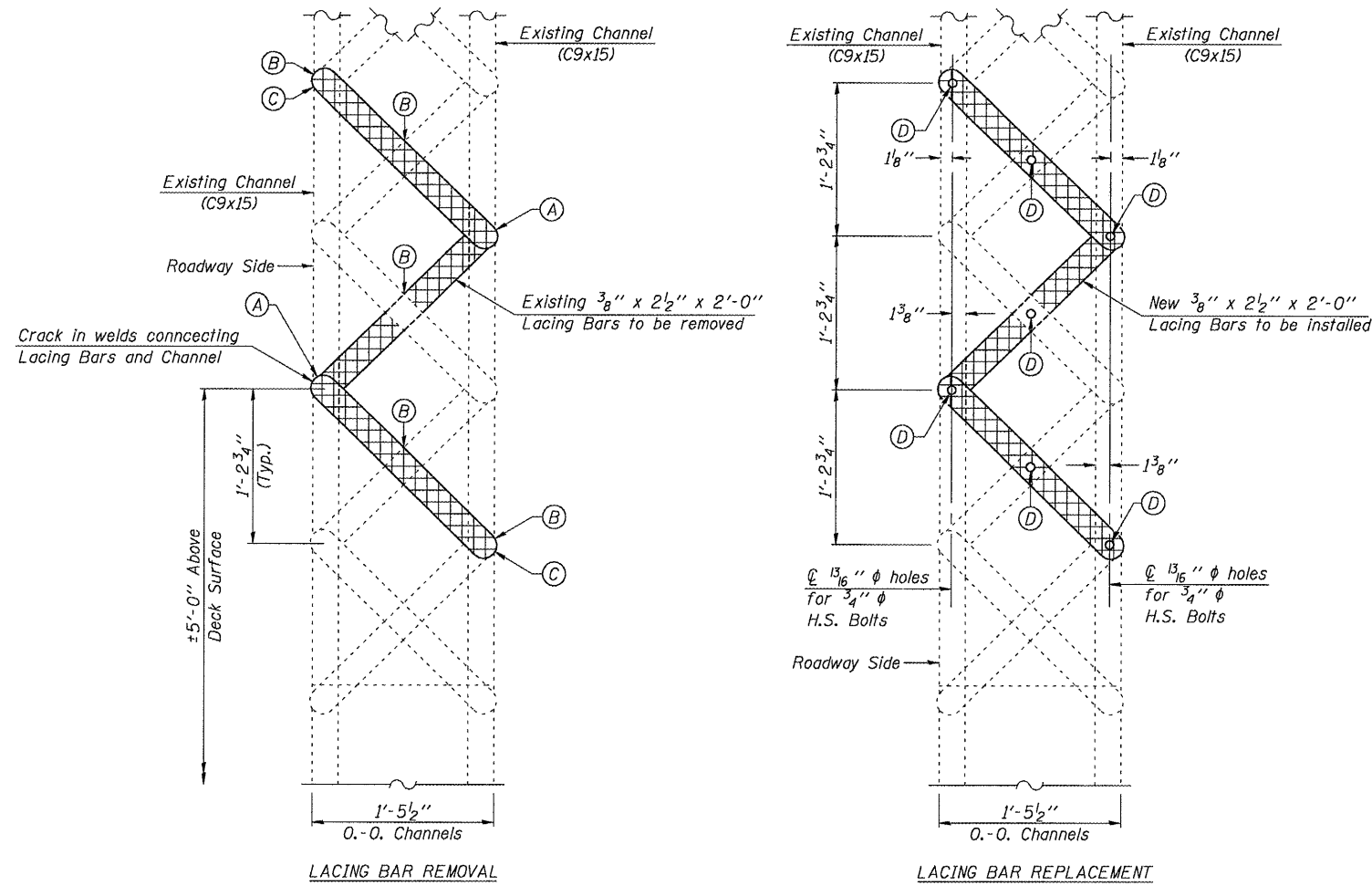


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 698 (IL 89)	(IB-D) I-2	BUREAU/ PUTNAM	8	7
FED. ROAD DIST. NO. 7	ILLINOIS	CONTRACT NO. 66727		

SHEET NO. 3
OF 4 SHEETS



LACING BAR REMOVAL LEGEND:

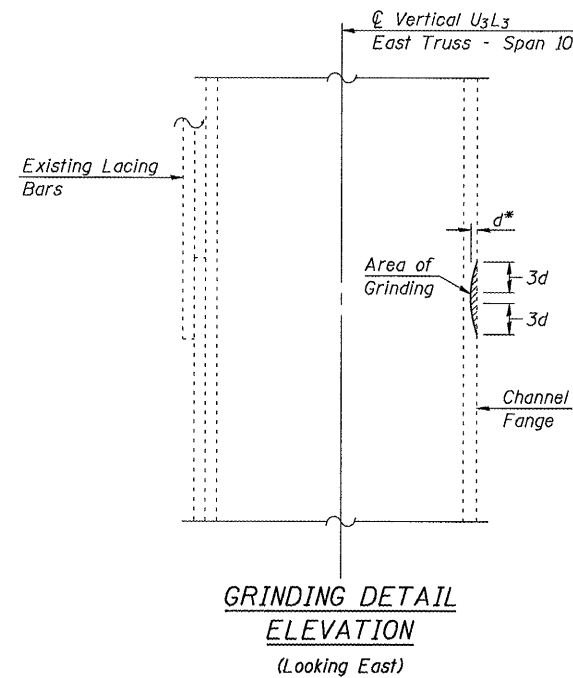
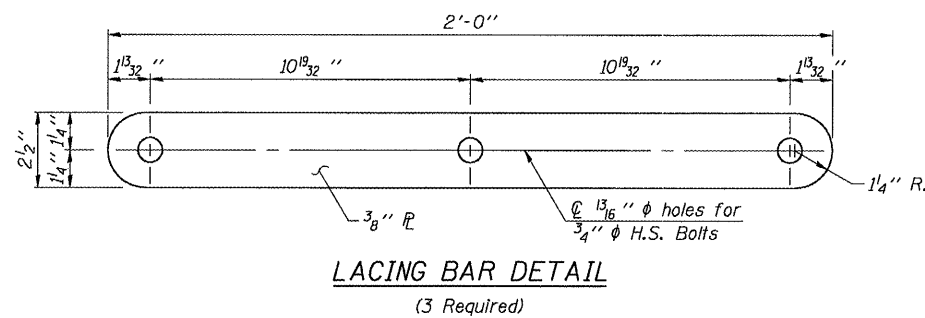
- (A) Remove the lacing bars and all weld material from the surface of the channel flange. All weld material at the location where the lacing bars were attached to the channel flange shall be removed by grinding. The grinding shall be sufficient to remove all cracks and defects in the surface of the channel section and should be done in a vertical direction parallel to the longitudinal axis of Vertical U₃L₃. The grinding shall provide a smooth transition from the deepest point of grinding to the original surface of the channel flange. After grinding, the surface shall be inspected using Magnetic Particle Testing to ensure that no cracking is present in the base metal of the channel section. If grinding to a depth of 1/8 inch is accomplished and cracks are identified in the base metal of the channel section, grinding operation shall be suspended and conditions reported to the Bureau of Bridges and Structures for further disposition.
- (B) The welds, connecting the lacing bars to be removed, to the lacing bars to remain, shall be removed by grinding. The grinding shall be sufficient to provide a flat and even contact surface to facilitate the installation of new lacing bars.
- (C) After the top lacing bar is removed, the weld material connecting the lower lacing bar to the channel section shall be ground to remove defects and inspected by Magnetic Particle Testing to verify that no cracks are present in the weld material or base metal of the channel section. If cracks are identified, the installation of new lacing bars and the drilling of bolt holes at the cracked location shall be suspended and conditions reported to the Bureau of Bridges and Structures for further disposition.
- (D) Using new lacing bars as a template, drill 13/16 inch dia. holes in existing lacing bars and channel flanges; connect lacing bars with 3/4 inch dia. H.S. bolts.

Notes: Cross hatching indicated lacing bars to be removed and replaced.

All existing lacing bars at Vertical U₃L₃ are welded to the vertical channel sections and to intersection lacing bars.

Cost of grinding and testing to ensure crack removal are included in the cost of Structural Steel Repair.

**LACING BAR RETROFIT AT
VERTICAL U₃L₃ - EAST TRUSS - SPAN 10**
(Looking North)
(Retrofit Applied Only to South Face of Vertical)



*Dimension "d" shall not exceed 1/8".
Grinding to be accomplished as shown at the locations designated "(A)" in the "Lacing Bar Removal" details.

DESIGNED	J.A.M.	200
CHECKED	A.R.K.	EXAMINED
DRAWN	S.A.P.	PASSED
CHECKED	A.R.K. & J.A.M.	ENGINEER OF BRIDGES AND STRUCTURES

LACING BAR REPAIR DETAILS
SPRING VALLEY BRIDGE OVER ILLINOIS RIVER
F.A.P. 698 (IL 89) SEC. (IB-D)I-2
BUREAU/PUTNAM COUNTIES
S.N. 078-0006