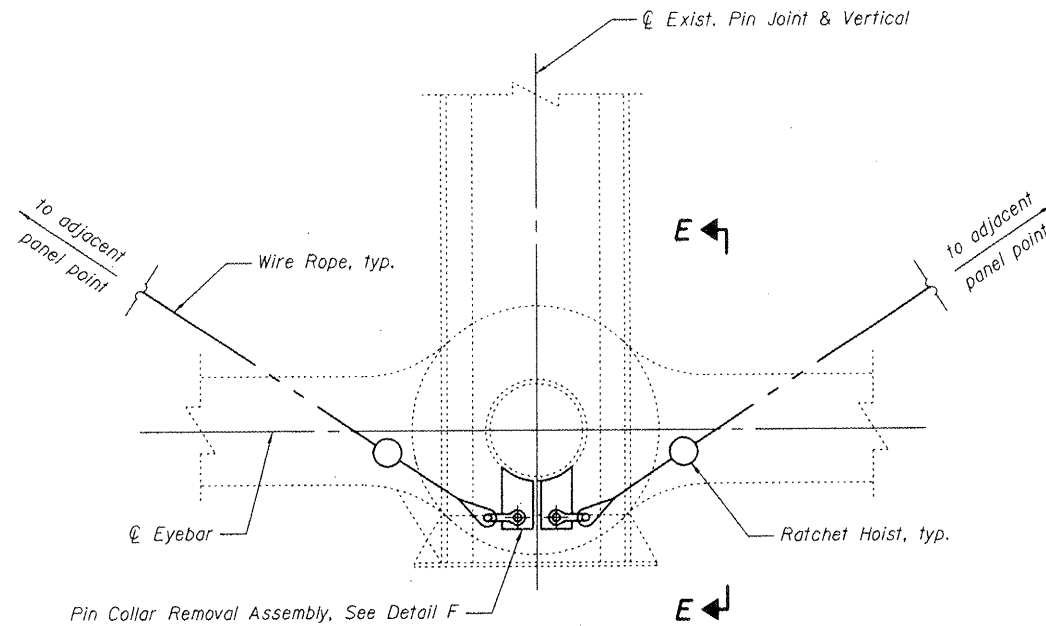
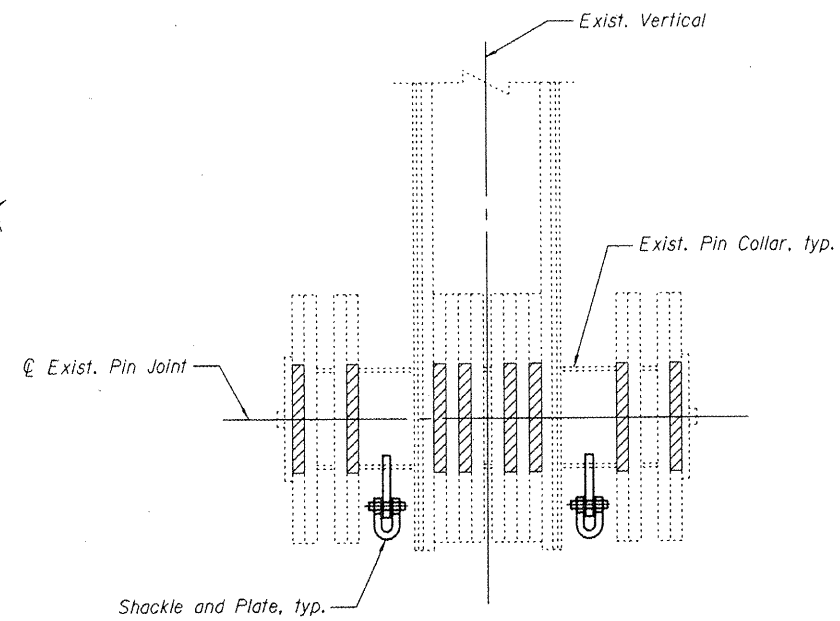


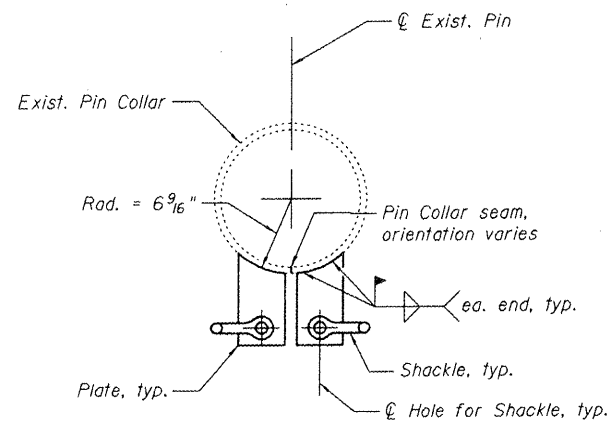
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



EXISTING PIN COLLAR REMOVAL DETAIL
Lower Joint shown, Middle Joint similar



VIEW E-E
Wire Rope not shown

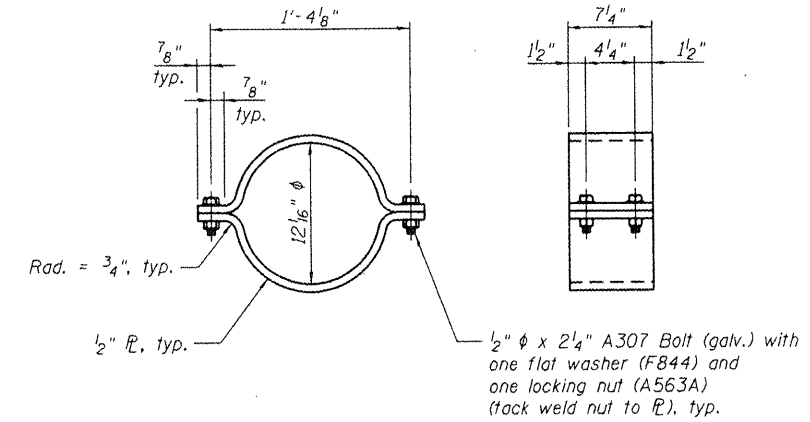


DETAIL F
Pin Collar Removal Assembly

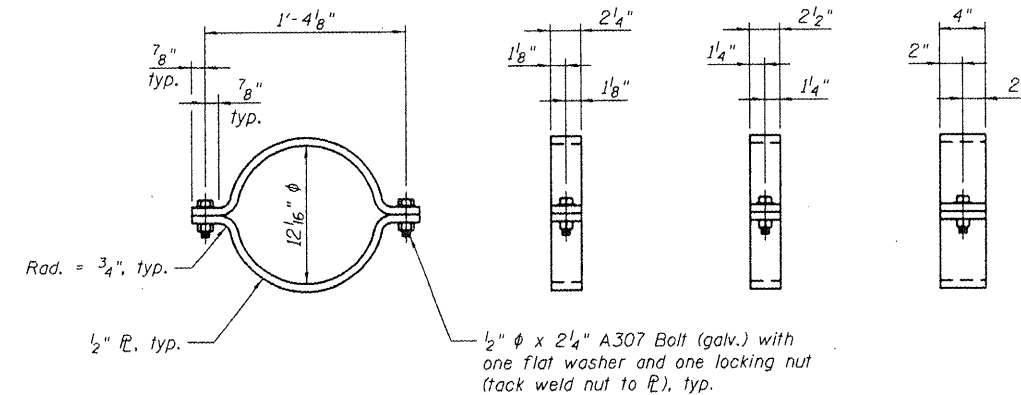
SUGGESTED PROCEDURE FOR PIN COLLAR REMOVAL

The suggested procedure is included for information only and may be used as a guide for the Contractor's required procedures, which shall be submitted to IDOT for review and approval. At some locations, rivet heads on adjacent pin plates may interfere with removal of the existing collar and the installation of the new split collar. Nevertheless, it is the Contractor's responsibility to account for this in his submitted procedure.

1. Clean the pin collars to remove existing paint in the anticipated area of field welding.
2. Shield the adjacent eyebar heads with a material with sufficient heat resistant properties to protect the heads from the induced heat from welding and from arc strikes.
3. Weld two plates to the pin collar with fillet welds; one on each side of seam. The plates shall be cut with an approximate 6 9/16" radius to fit up tight against the pin collar.
4. Attach shackles (appropriately sized) to the holes in the plates as shown on the detail.
5. Affix wire rope and additional shackles to attach to the adjacent panel points for prying the pin collars apart. Install a ratchet hoist as shown in the Existing Pin Collar Removal Detail.
6. Tighten the rigging and ratchet as needed to spread packing ring wide enough to remove from the pin.
7. Just prior to removing the pin collar from between the two adjacent eyebars, install two pieces of wood blocking on opposite sides of the pin. The blocking shall be a strong, good quality hardwood. It shall be cut to length at each location and it shall be fit tight enough against the eyebar such that it has to be driven into place.
8. Wrap tie wire tightly around both wood blocks and the pin to prevent them from becoming dislodged from traffic or wind induced vibration.
9. Blocking shall not be removed until the new split pin collars are installed.



7 1/4" PIN COLLAR DETAIL
A709 Grade 36



2 1/4\", 2 1/2\" AND 4\" PIN COLLAR DETAIL
A709 Grade 36

TABLE OF REQUIRED PIN COLLAR REPLACEMENTS

ITEM	UNIT	TOTAL
2 1/4" Pin Collar	Each	5
2 1/2" Pin Collar	Each	4
4" Pin Collar	Each	5
7 1/4" Pin Collar	Each	20

Note:
Cost for pin collar removals included with Structural Steel Repair.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Steel Repair	Pound	1209

EXISTING PIN COLLAR REMOVAL AND REPLACEMENT DETAILS
McKINLEY BRIDGE OVER MISSISSIPPI RIVER
BETWEEN VENICE, ILLINOIS AND ST. LOUIS, MISSOURI
MADISON COUNTY
STRUCTURE NO. 060-6002

SHEET NO. 4	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4 SHEETS	9105	119BR-I	MADISON	6	6
SN 060-6002			CONTRACT NO. 76E19		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					



DESIGNED - M.E.L.	200
CHECKED - D.W.P.	EXAMINED
DRAWN - P.R.C.	ENGINEER OF STRUCTURAL SERVICES
CHECKED - M.E.L.	PASSED
	ENGINEER OF BRIDGES AND STRUCTURES

11/23/2009