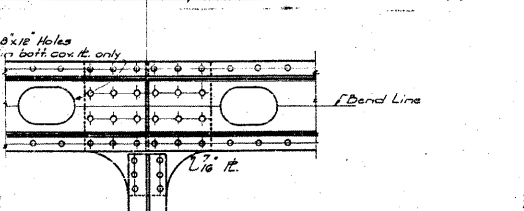
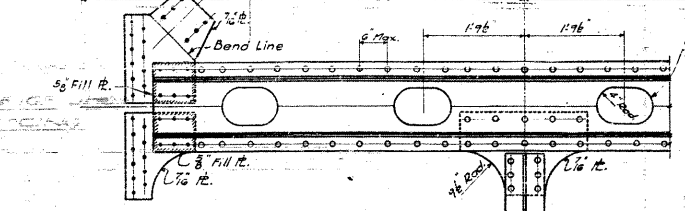
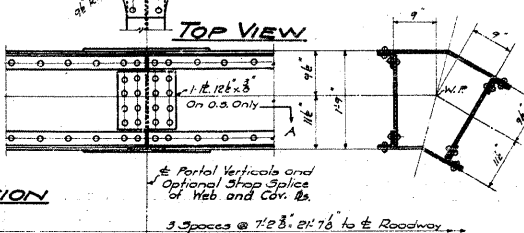
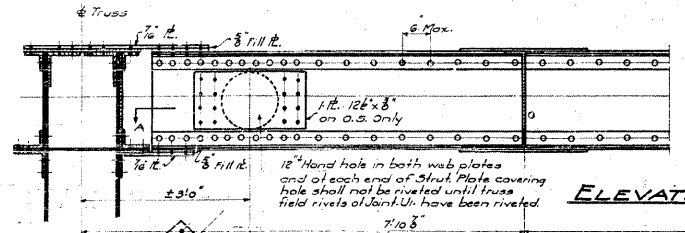
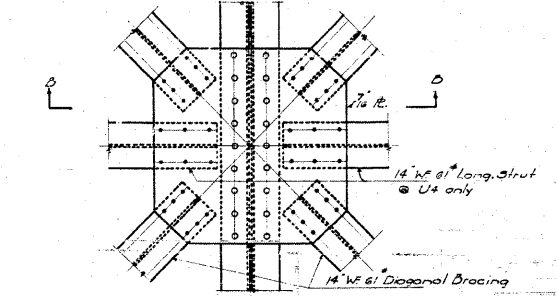


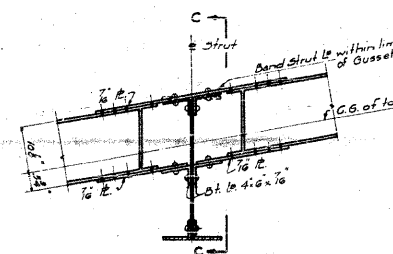
**TOP PORTAL STRUT**  
4 L<sub>2</sub> 3" x 3" x 1/2"  
2 Web Pls. 20" x 3"  
1 Pt. Top plate 20" x 3"  
1 Pt. Bot. plate 19" x 3"



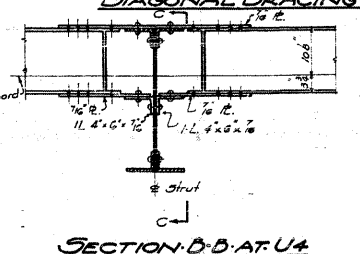
**SECTION A-A DEVELOPED VIEW**  
Optional shop splices shall be placed at portal verticals as required by the fabricator but not closer than two spaces.  
**PORTAL TOP STRUT DETAILS**



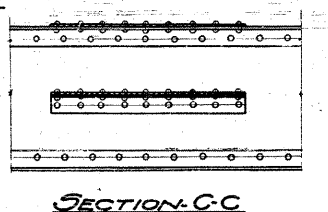
**PLAN OF INTERSECTION OF TOP CHORD  
DIAGONAL BRACING**



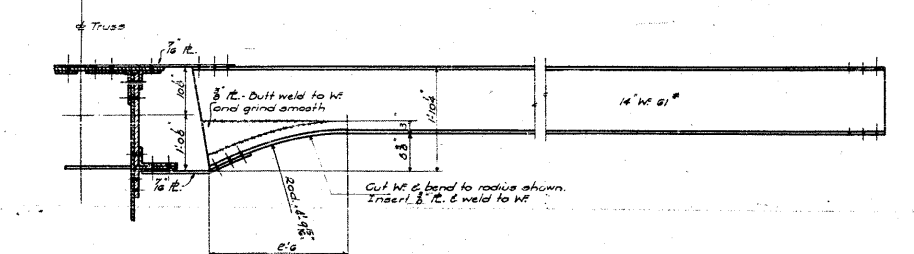
**SECTION B-B AT U4**



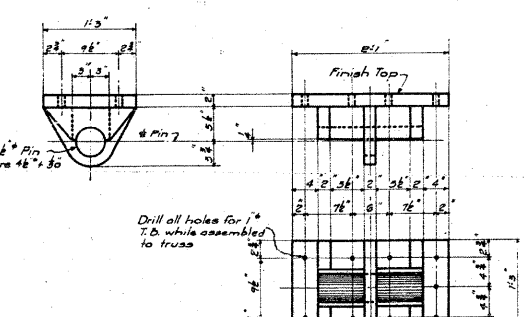
**SECTION D-D AT U4**



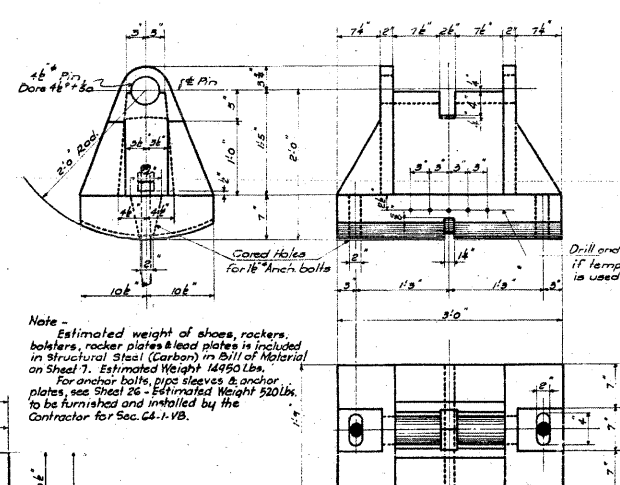
**SECTION C-C**



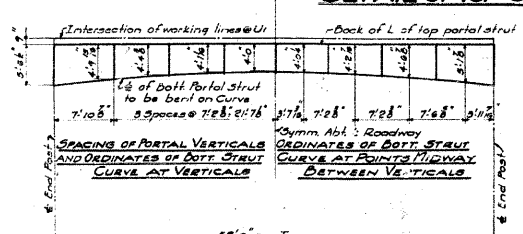
**DETAIL OF TOP CHORD DIAGONAL BRACING**



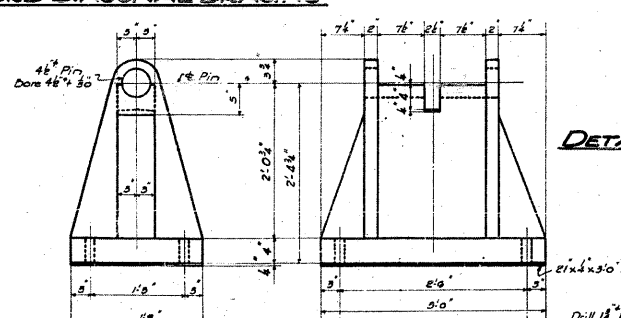
**DETAIL OF CAST STEEL UPPER SHOE**



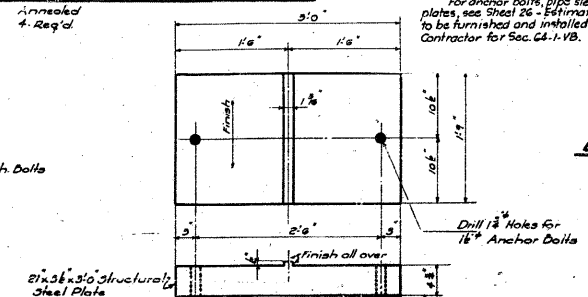
**DETAIL OF CAST STEEL ROCKER**



**SKETCH SHOWING PORTAL DIMENSIONS IN  
PLANE OF PORTAL**



**DETAILS OF CAST STEEL BOLSTER & LEAD PL.**

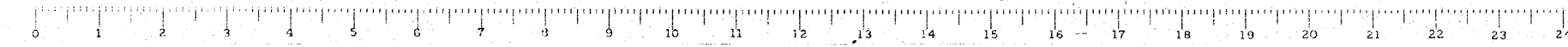


**DETAILS OF ROCKER PLATE & LEAD PLATE**

COMPUTED	EXAMINED	8-10	1954
CHECKED	W. B. Hanson		
DRAWN	ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES		
CHECKED	PASSED		
SPECIAL	APPROVED		
CHECKED			

Note - Estimated weight of shoes, rockers, bolsters, rocker plates & lead plates is included in Structural Steel (Carbon) in Bill of Material on Sheet 7. Estimated Weight 14950 Lbs. For anchor bolts, pipe sleeves & anchor plates see Sheet 26. Estimated Weight 300 Lbs. to be furnished and installed by the Contractor for Sec. 64-1-VB.

**DETAILS - SPAN 7  
GRADE SEPARATION  
MISSOURI PACIFIC R.R.  
NORTH OF DUPO  
FA. ROUTE 4 - SEC 64-1-VB.E.F.  
ST. CLAIR COUNTY**



FOR INFORMATION ONLY

**CB** Coombe-Bloxdorf P.C.  
- CIVIL ENGINEERS -  
- STRUCTURAL ENGINEERS -  
- LAND SURVEYORS -  
Design Firm License No. 184-002703