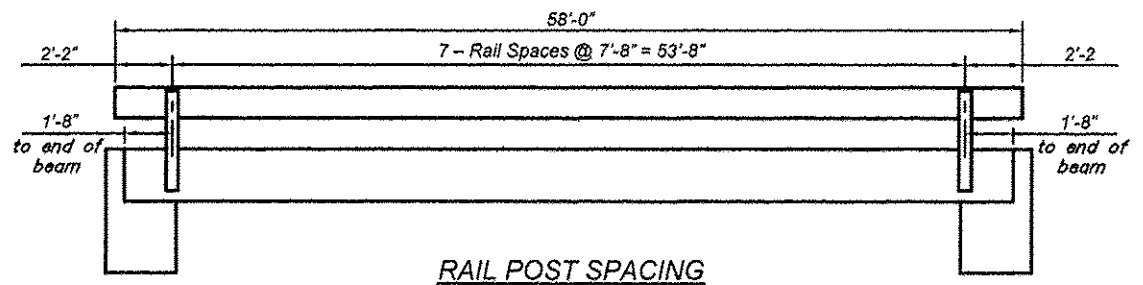
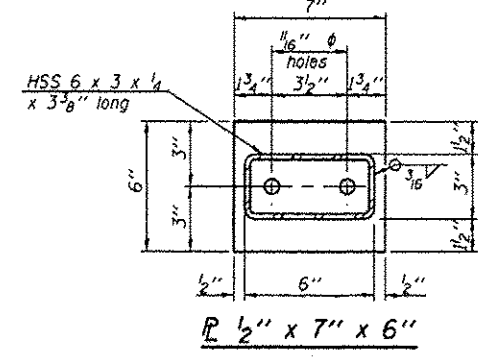
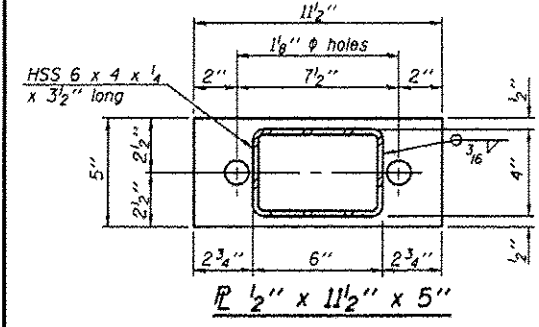


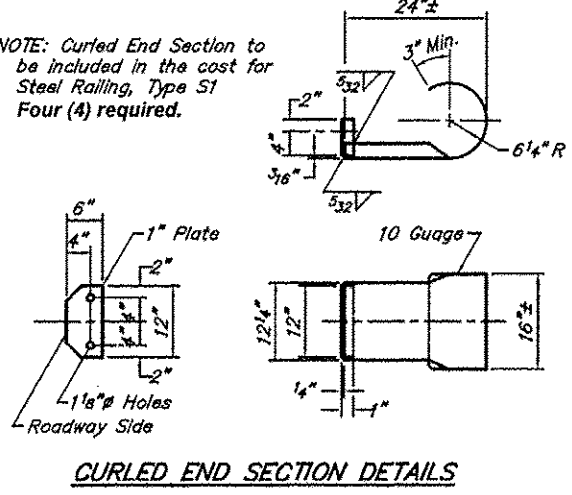
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 51	11-01200-00-BR	UNION	12	9
PROJECT NO. BROS-181(57)			CONTRACT NO. 99481	



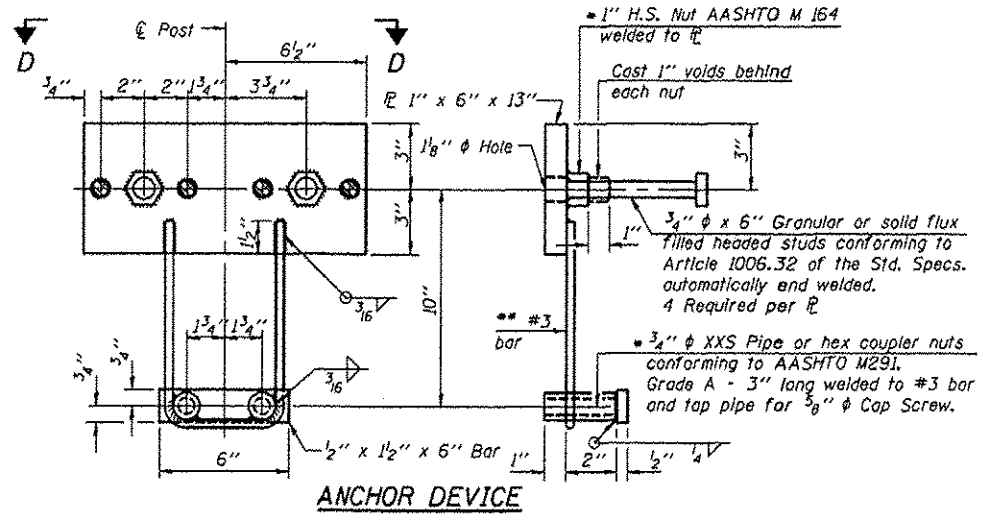
RAIL POST SPACING



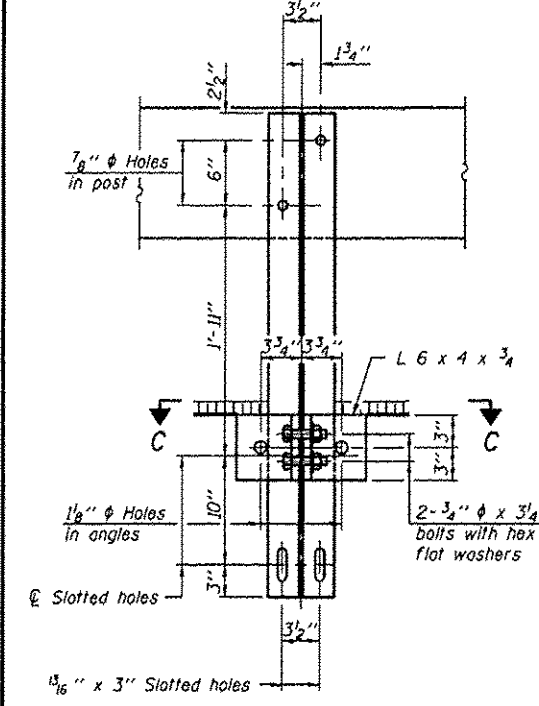
NOTE: Curled End Section to be included in the cost for Steel Railing, Type S1 Four (4) required.



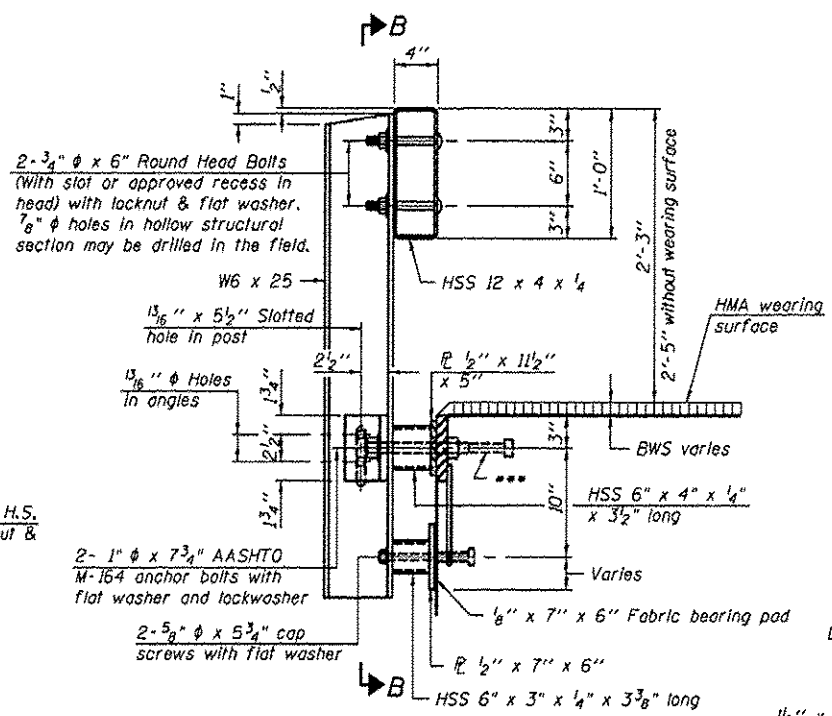
CURLLED END SECTION DETAILS



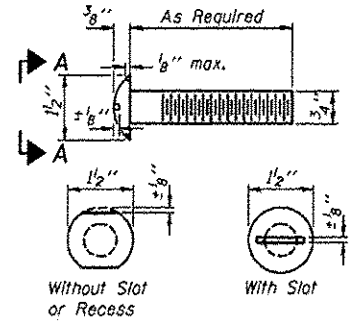
ANCHOR DEVICE



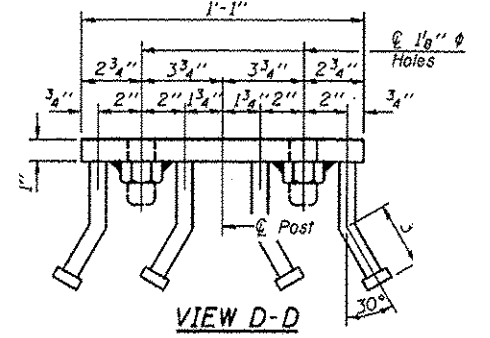
SECTION B-B



SECTION AT RAILING POST



VIEW A-A ROUND HEAD BOLT



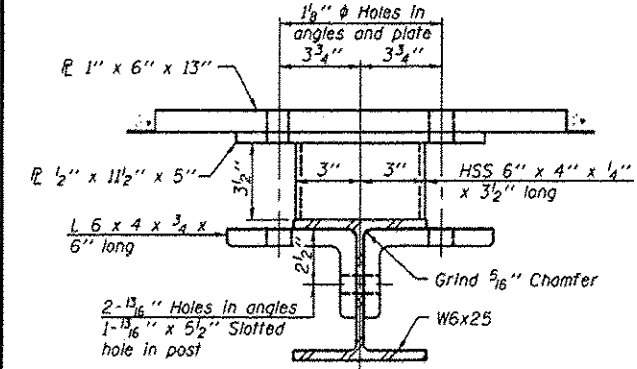
VIEW D-D

- Notes:
- All field drilled holes shall be coated with an approved zinc rich paint before erection.
 - For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1.
 - All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
 - Threaded areas shall be plugged or blocked off during casting of beam.
 - Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".
 - The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.
 - 10'-9" Maximum Post Spacing

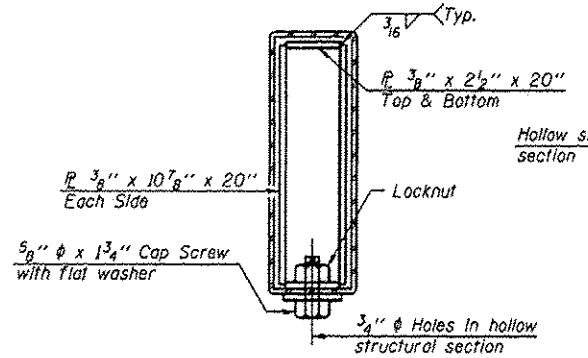
BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	116

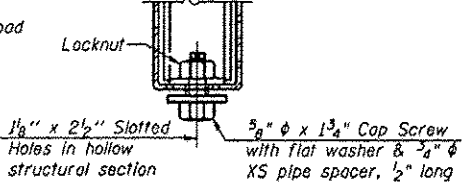
STEEL RAILING, TYPE S-1
TOWNSHIP ROUTE 51 (RHINE ROAD)
SEMINARY FORK
SECTION 11-01200-00-BR
UNION COUNTY
STRUCTURE NO. 091-3240



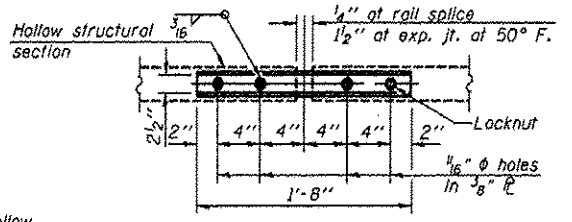
SECTION C-C



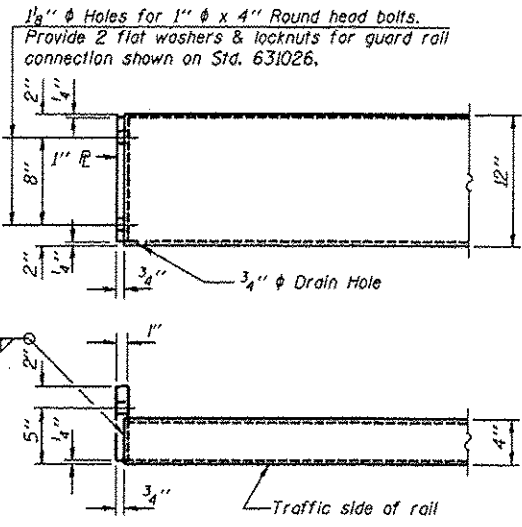
SECTIONS AT RAIL SPLICE



RAIL SPLICE CONNECTION AT EXPANSION JT.



PLAN-BOTT. SPLICE P TYPICAL



END OF RAIL DETAILS