

MATERIAL REQUIREMENTS

HOLLOW STRUCTURAL STEEL TUBING SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. DESIGNATION A-500 GRADE B STRUCTURAL STEEL TUBING.

ALL OTHER STEEL SHAPES AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. M-183 EXCEPT POSTS AND ANGLES SHALL CONFORM TO A.A.S.H.T.O. M-223, GRADE 50.

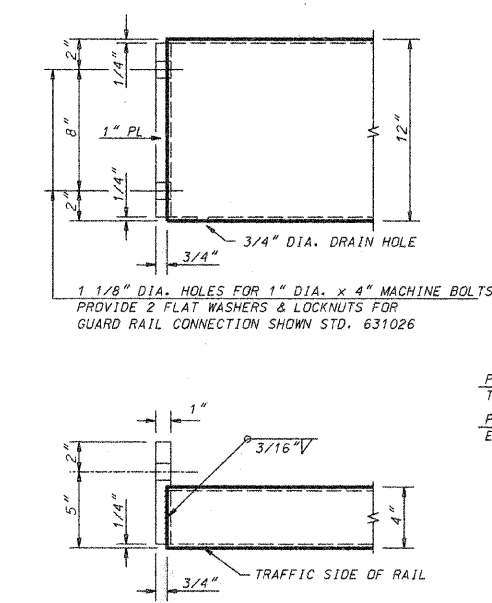
BOLTS, CAP SCREWS AND NUTS SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. DESIGNATION A-307 EXCEPT FOR HIGH STRENGTH BOLTS, NUTS AND WASHERS NOTED WHICH SHALL CONFORM TO A.A.S.H.T.O. M-164.

ALL BOLTS, NUTS, CAP SCREWS, WASHERS AND LOCK WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH A.A.S.H.T.O. M-232.

ALL POST, RAILING, RAIL SPLICES, ANCHOR DEVICES AND ANGLES SHALL BE GALVANIZED AFTER SHOP FABRICATION IN ACCORDANCE WITH A.A.S.H.T.O. M-111 AND A.S.T.M. A-385. GALVANIZED RAIL SHALL NOT BE PAINTED.

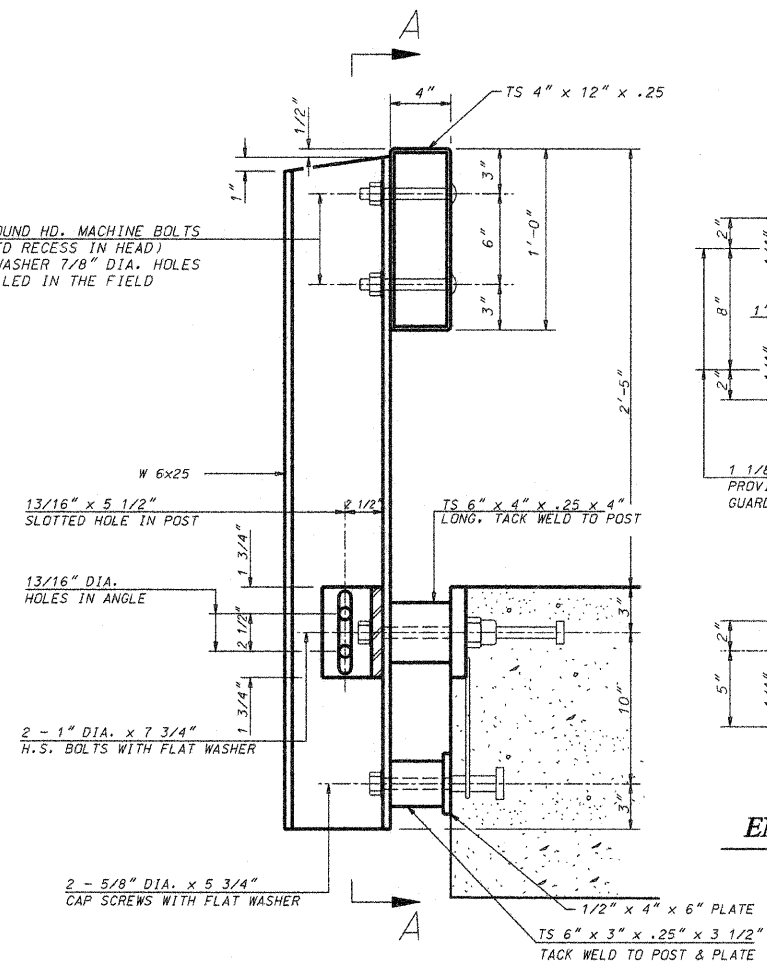
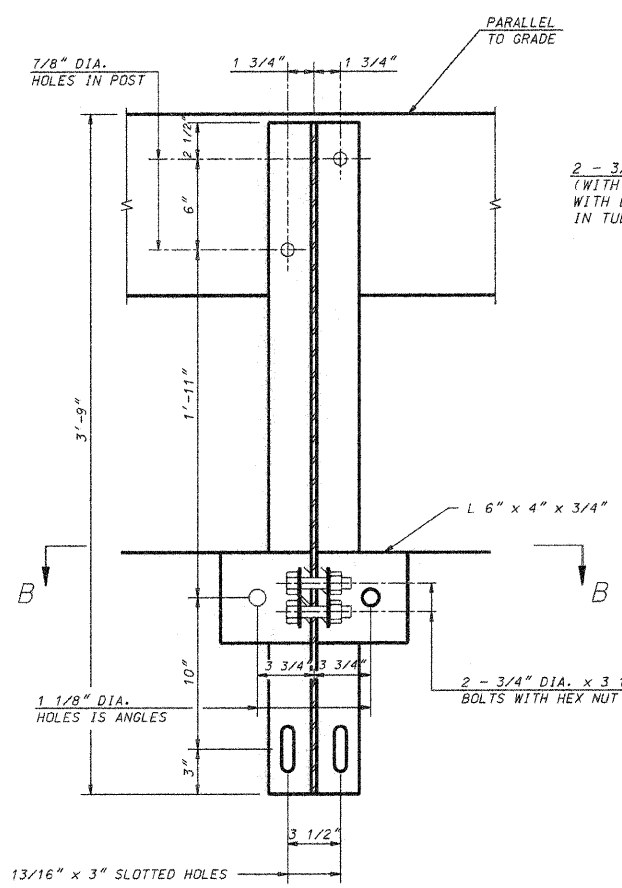
- INSTALLATION NOTES**
- Ⓐ FOR MULTI-SPAN BRIDGES, SUFFICIENT 1/4" x 6"x2" GALVANIZED STEEL SHIMS SHALL BE PROVIDED TO ALIGN RAIL BETWEEN ADJACENT SPANS. COST INCIDENTAL TO STEEL RAILING. ALL FIELD DRILLED HOLES SHALL BE COATED WITH AN APPROVED ZINC RICH PAINT BEFORE ERECTION. THE 1/2" x 4"x8" PLATES THAT COME IN CONTACT WITH CONCRETE SHALL RECEIVE TWO COATS OF ASPHALT PAINT CONFORMING TO SECTION 760.07 TYPE II OR PLACE 1/8" FABRIC BEARING PADS BETWEEN THE PLATES AND CONCRETE.
 - Ⓑ THE 3/4" DIA HIGH STRENGTH BOLTS USED TO CONNECT THE 6"x4"x 3/4" ANGLES TO THE POST SHALL BE TIGHTENED IN ACCORDANCE WITH ARTICLE 505.04 (FK3) OF THE STANDARD SPECIFICATIONS.
 - Ⓒ THE 1" DIA HIGH STRENGTH BOLTS CONNECTING THE ANGLES TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN. THE 5/8" DIA CAP SCREWS SHALL BE TIGHTENED TO A SNUG FIT ONLY.
 - Ⓓ THE MAXIMUM ALLOWABLE RAIL POST SPACING SHALL BE 10'-9".

CURLED END SECTION DETAILS
(INCLUDED IN COST OF STEEL RAILING)

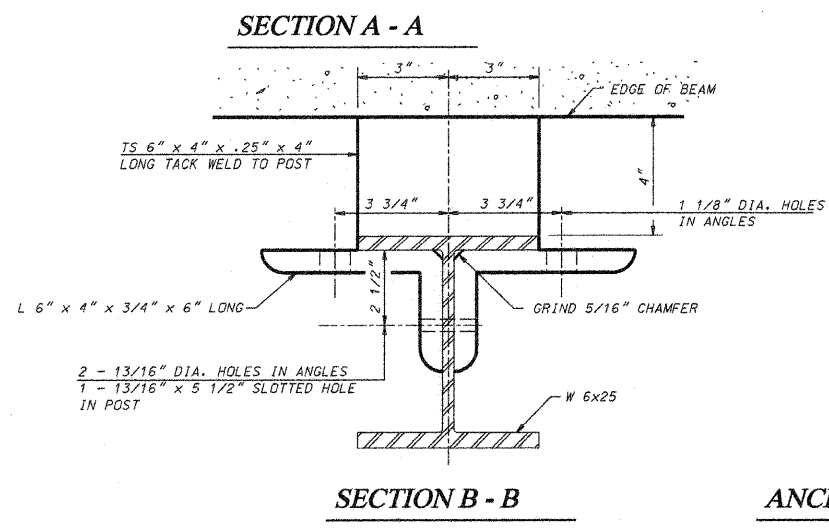
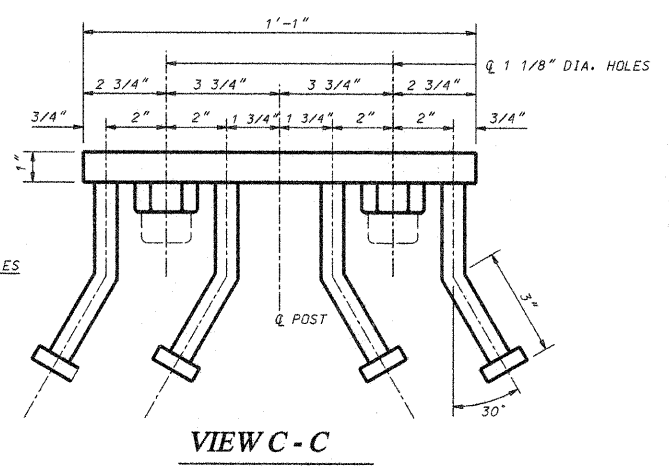
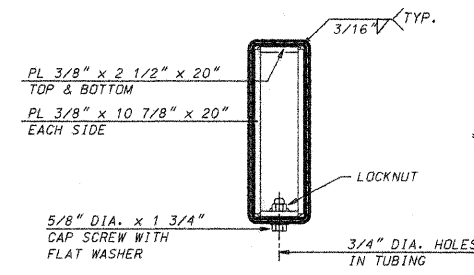


BILL OF MATERIAL

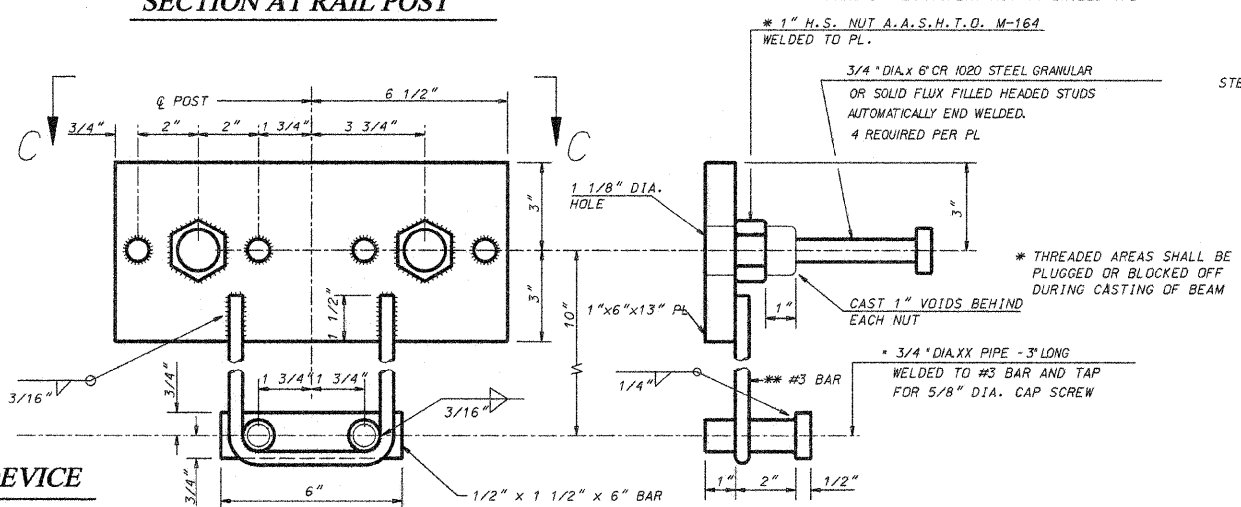
ITEM	UNIT	QUANTITY
STEEL RAILING, TYPE S1	FOOT	94



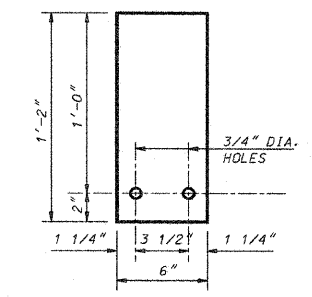
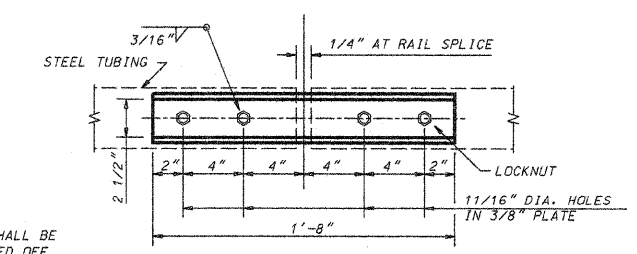
SECTION AT RAIL SPLICE



ANCHOR DEVICE



SECTION AT RAIL SPLICE



STEEL RAILING, TYPE S1

SEC. 92-00109-00-BR
HUTTON ROAD DISTRICT
COLES COUNTY

McCLINTOCK
CIVIL ENGINEERING SERVICE
404 SHAW AVE., PARIS, ILL. 61944
PHONE (217) 466-6110

DRN SEA DATE 7/5/98 SHEET 6 OF 12
REV. SDE DATE 1/6/11
APPR. JOB NO. 3137-362-96