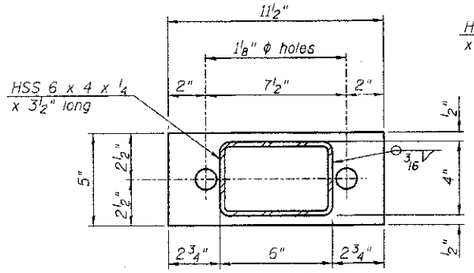
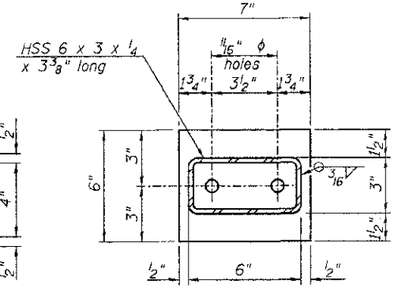
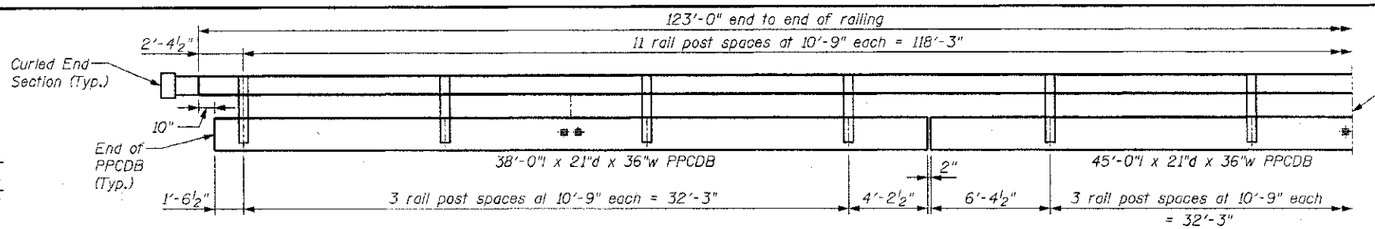



PL ½" x 11½" x 5"

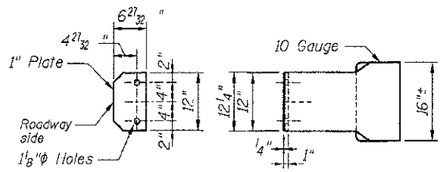


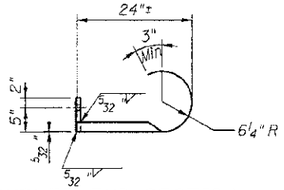

PL ½" x 7" x 6"



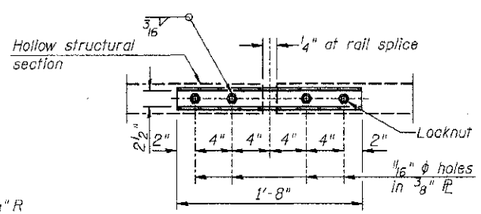

## RAIL POST SPACING

Note: The cost of the Curled End Sections shall be included in the contract unit price per foot for "STEEL RAILING, TYPE S1", and no additional compensation will be allowed.

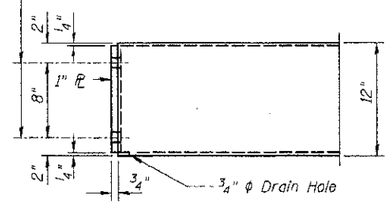


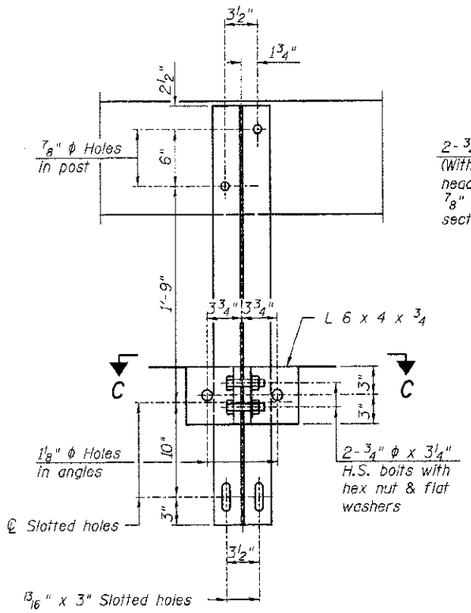




## CURLED END SECTION

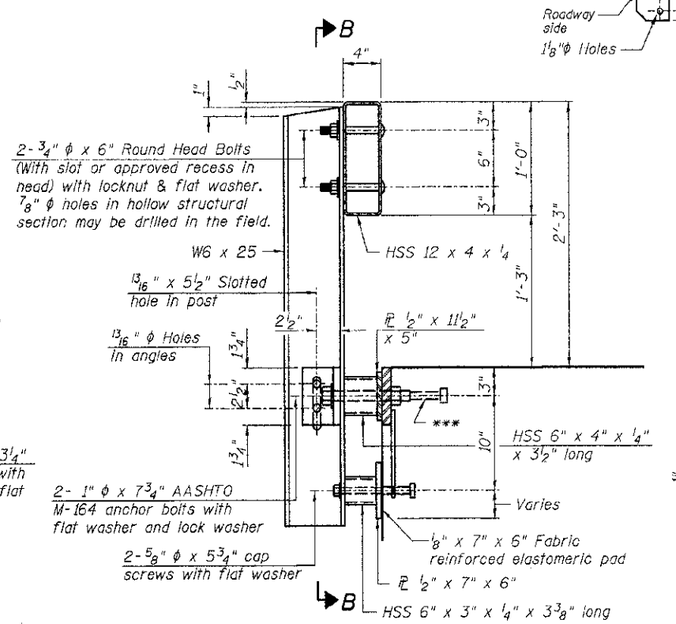



## PLAN-BOTT. SPLICE PL TYPICAL

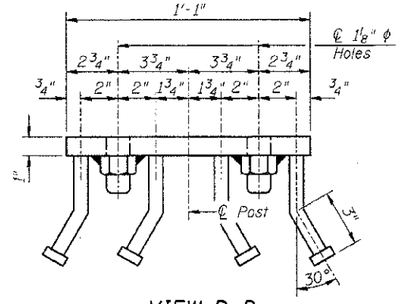


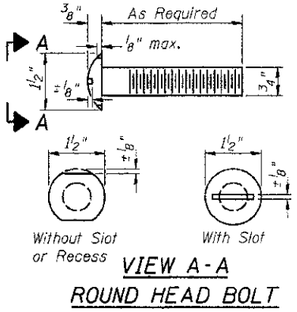

## SECTION B-B



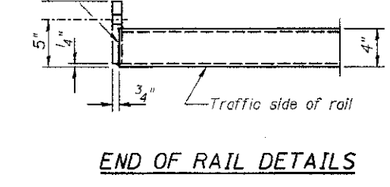

## SECTION AT RAILING POST




## VIEW D-D

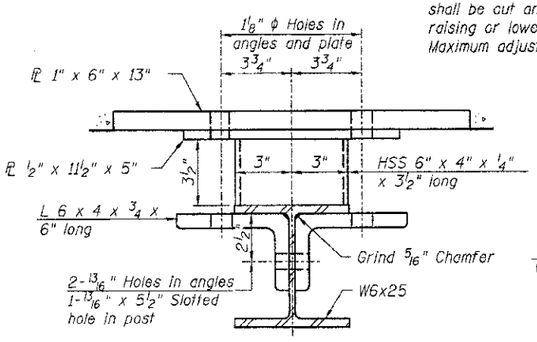



## VIEW A-A ROUND HEAD BOLT

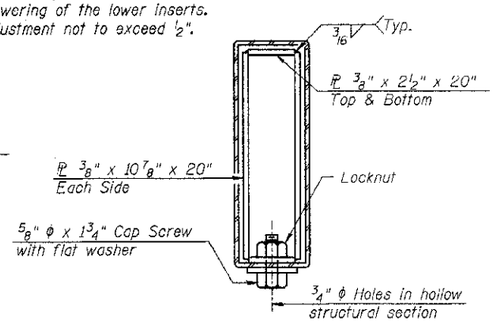



## END OF RAIL DETAILS

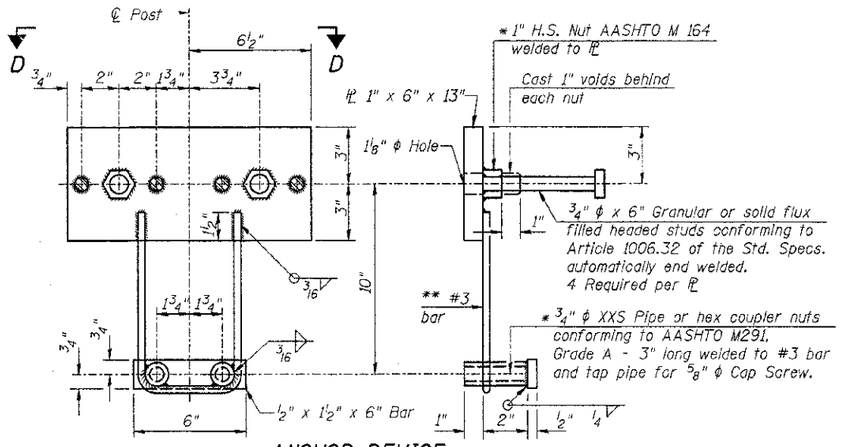
** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed ½".




## SECTION C-C




## SECTIONS AT RAIL SPLICE




## ANCHOR DEVICE

* Threaded areas shall be plugged or blocked off during casting of beam.

*** 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.

Notes:

All field drilled holes shall be coated with an approved zinc rich paint before erection.

For multi-span bridges, sufficient ¼" 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.

## BILL OF MATERIAL

| Item | Unit | Quantity |
|---|---|---|
| Steel Railing, Type S-1 | Foot | 246 |

RHUTASEL and ASSOCIATES, INC.
CONSULTING ENGINEERS • LAND SURVEYORS
CENTRALIA, ILLINOIS FREEBURG, ILLINOIS
ILLINOIS DESIGN FIRM LICENSE NO. 184-000287

| | | | |
|---|---|---|---|
| DESIGNED | BLT | REVISED | - |
| CHECKED | WDL | REVISED | - |
| DRAWN | JN | REVISED | - |
| DATE | 02/20/2013 | REVISED | - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**STEEL RAILING, TYPE S-1 DETAILS**
**STRUCTURE NO. 013-3239**

| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| TR 212A | 99-04125-00-BR | CLAY | 15 | 9 |
| | | CONTRACT NO. 95704 | | |
| RAAI JOB NO. 51611 | ILLINOIS FED. AID PROJECT | | | |