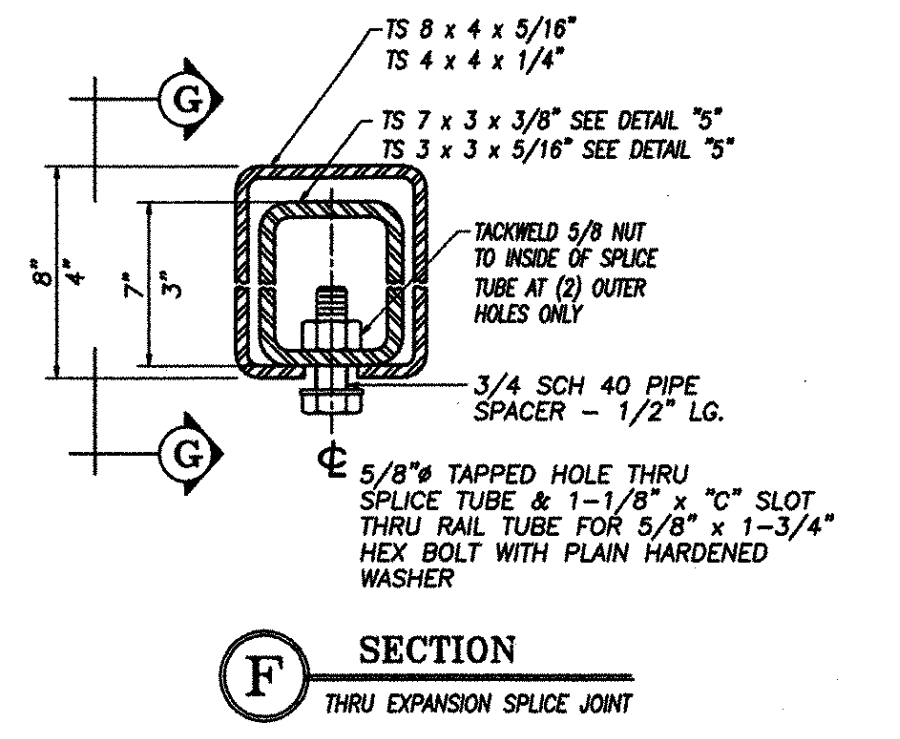
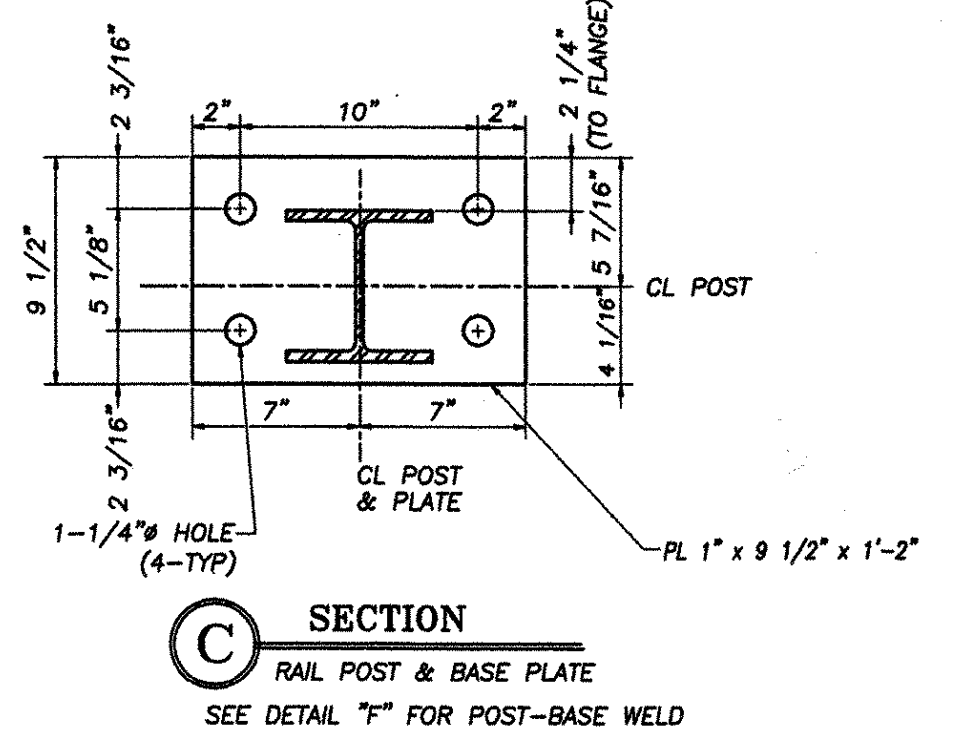
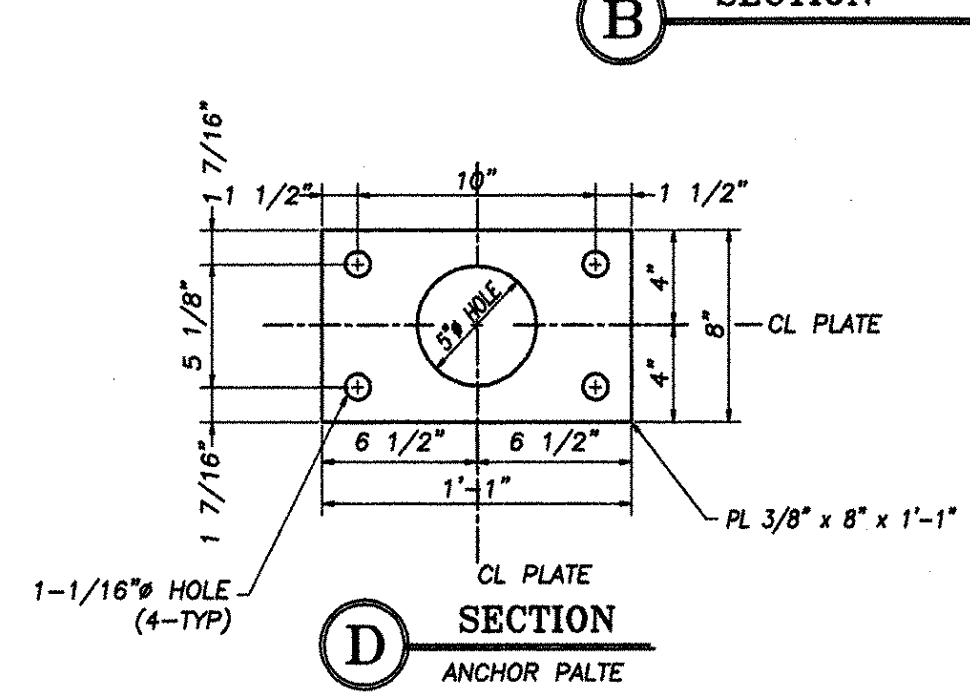


- NETC 4 RAIL NOTES**
- All work and materials shall conform to the provisions of Section 525 - Railings of the Vermont Standard Specifications for Construction.
 - Tubing & posts shall meet the requirements of Section 732 - Railing materials of the Standard Specifications for Construction.
 - All exposed cut or sheared edges shall be ground to a 1/16" radius & be free of burrs.
 - Rail posts shall be set normal to grade.
 - Sections of rail bar shall be attached to a minimum of two (2) posts and preferably to at least four (4) posts.
 - Rail bar expansion joints shall be provided in any rail bar spanning a superstructure expansion joint. Expansion joint width shall be "X" at 45° F and will be adjusted in the field by the engineer.
 - All parts shall be galvanized after fabrication in accordance with subsection 506.15, as modified by the special provisions.
 - Rail posts anchoring nuts shall be tightened to a snug-tight fit and given an additional 1/8 turn.
 - Rail bars shall be attached using 3/4" full diameter body head bolts AASHTO M164 (Type-I) inserted through the face of the bar. Holes in post shall be 1/16" larger than the bolt size.
 - Holes in rails for attachment to posts will be field-drilled. Holes shall be coated with an approved zinc-rich paint prior to erection.
 - Radiused rails (if required) will be shop-curved. No field-bending of rail tubes.
 - The drop-weight tear test in section 732 shall not apply to the structure tubing on this standard.
 - Delimitation devices shall be set approximately every 30 feet or to closest post.

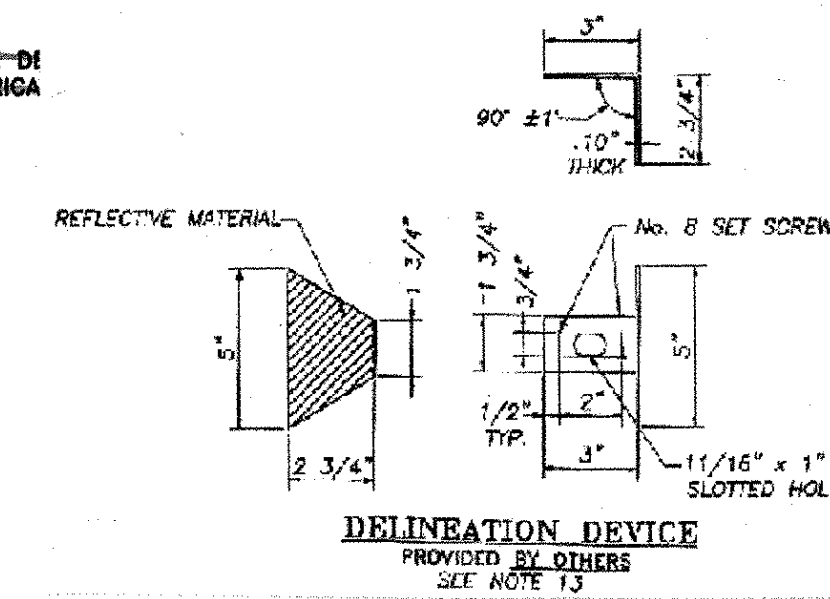
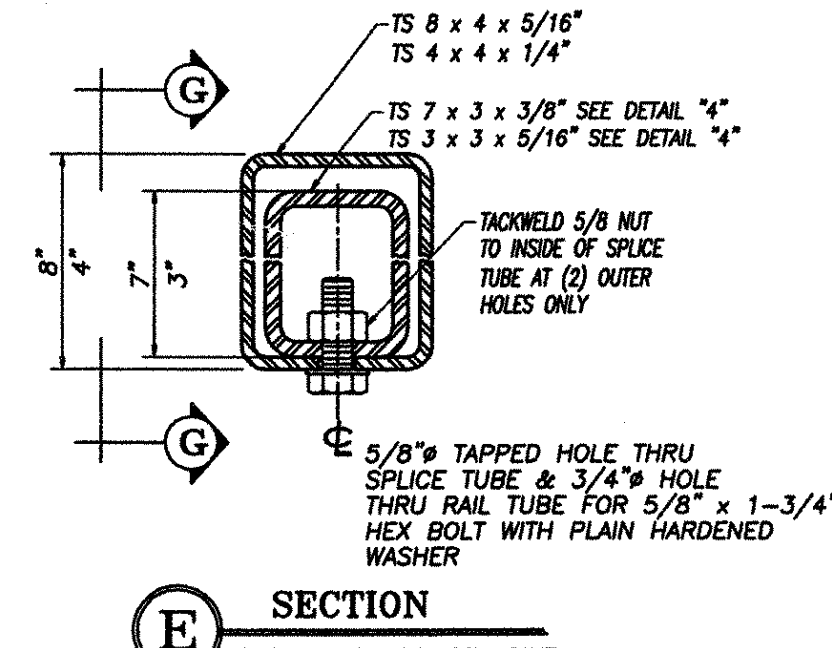
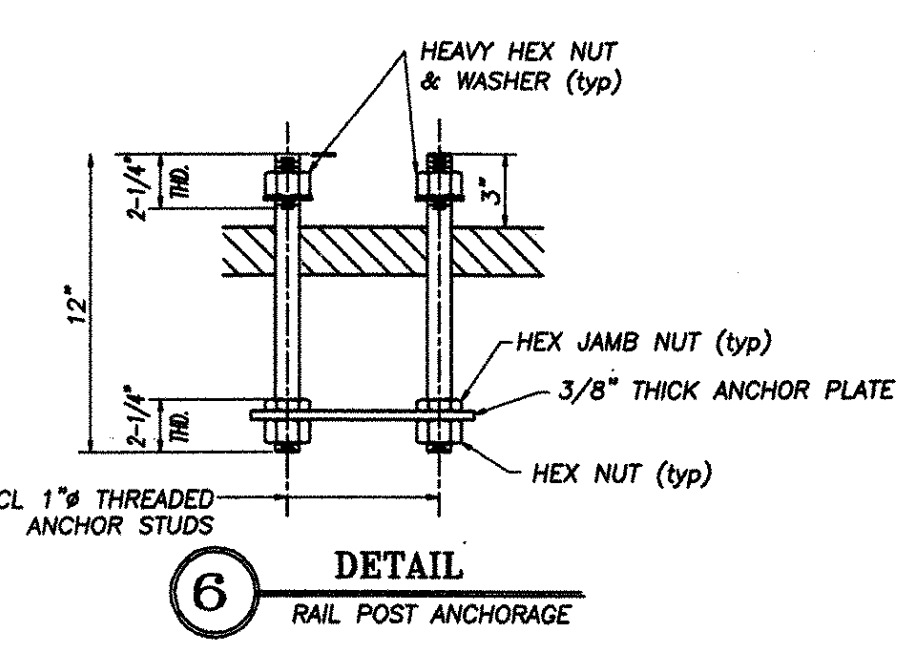
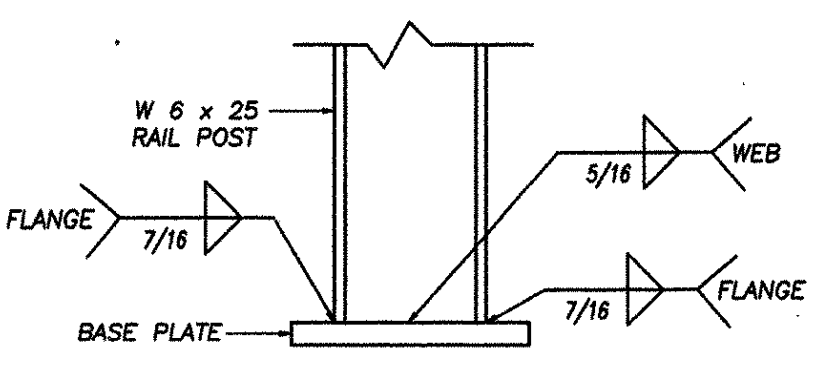
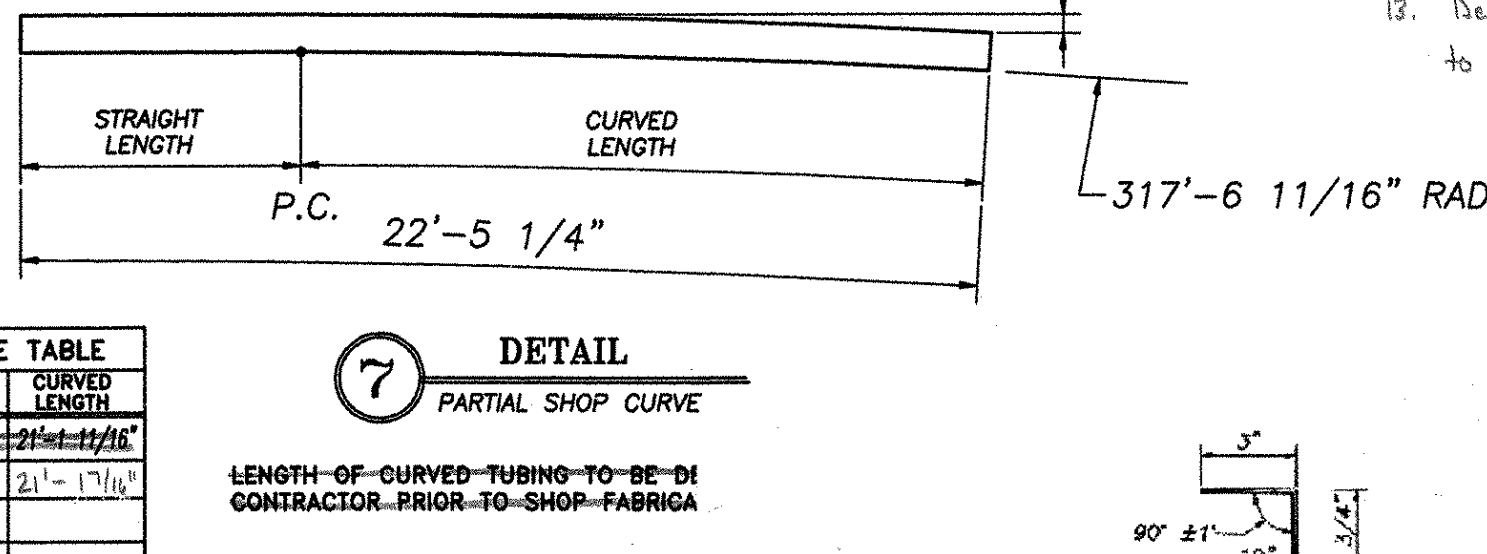
BILL OF MATERIAL

| Mk. | Qty. | Description |
|-----|------|--|
| 50 | | W6 x 25 POST W/BASE PLATE (3'-9 3/8" OAH) |
| 14 | | TS 8 x 4 x 5/16" (23'-9" OAL) |
| 42 | | TS 4 x 4 x 1/4" (23'-9" OAL) |
| 1 | | TS 8 x 4 x 5/16" (22'-5 1/4" OAL) |
| 2 | | TS 4 x 4 x 1/4" (22'-5 1/4" OAL) |
| TU1 | 1 | TS 8 x 4 x 5/16" (22'-5 1/4" OAL) W/PARTIAL SHOP CURVE |
| TU1 | 2 | TS 4 x 4 x 1/4" (22'-5 1/4" OAL) W/PARTIAL SHOP CURVE |
| 1 | | TS 4 x 4 x 1/4" (21'-6 11/16" OAL) W/1'-0" RAD. |
| 1 | | TS 4 x 4 x 1/4" (21'-6 11/16" OAL) W/1'-0" RAD. & PARTIAL CURVE |
| 1 | | TS 8 x 4 x 5/16" (17'-3 13/16" OAL) |
| 3 | | TS 4 x 4 x 1/4" (17'-3 13/16" OAL) |
| 50 | | ANCHOR PLATE (3/8" x 8" x 1'-1") |
| 16 | | TS 7 x 3 x 3/8" (20" LG.) SPLICE TUBE W/(2) TACKLED 5/8" HEX NUTS |
| 48 | | TS 3 x 3 x 5/16" (20" LG.) SPLICE TUBE W/(2) TACKLED 5/8" HEX NUTS |
| 200 | | 1" x 12" LG. ANCHOR BOLTS W/HEAVY HEX NUT & WASHER |
| 200 | | 1" JAMB NUT |
| 200 | | 1" HEX NUT |
| 400 | | 3/4" x 6" LG. M164 ROUND HEAD BOLT W/LOCKNUT & WASHER |
| 256 | | 5/8" x 1 3/4" LG. HEX BOLT W/WASHER |
| 2 | | 1/4" x 3 5/8" x 3 5/8" COVER PLATE |
| 50 | | 1/8" THICK NEOPRENE PAD |



PARTIAL SHOP CURVE TABLE

| No. | RISE | STRAIGHT LENGTH | CURVED LENGTH |
|-----|---------|-----------------|---------------|
| 1 | 2 3/8" | 1'-3 13/16" | 2'-1 11/16" |
| 1/2 | 1 7/16" | 1'-3 13/16" | 2'-1 11/16" |



SPLICE & EXPANSION JOINT TABLE

| "T" | "A" | "B" | "C" | "L" | "X" |
|-------------------------------|------|-----|-----|-----------|------|
| SPLICE | 4" | 2" | --- | 20" | 3/4" |
| "T" = TOTAL REQUIRED MOVEMENT | ≤ 4" | 4" | 2" | 2'-1 1/2" | 20" |

REVISIONS

| No. | Remarks | Date |
|-----|-------------------|----------|
| 0 | Initial submittal | 10/16/01 |
| | Second submittal | 3/18/02 |
| | Third submittal | 4/9/02 |

RECEIVED
 CKD BY *WLD* OKD BY *KST*
 APR 23 2002
 RESUBMIT APPROVED *As noted*
 BY *CPW* DATE *4/30/02*

HIGHWAY SAFETY CORP.
 GLASTONBURY, CT

ITEM 525.34 - BRIDGE RAIL - 4 RAIL
 PROJECT No. AC BRZ 1444(22)
 TOWN OF ROYALTON
 TH1 OVER THE WHITE RIVER
 (BRIDGE No. 3) WINDSOR COUNTY

GENERAL CONTRACTOR
 SUB CONTRACTOR **F. R. LAFAYETTE, INC.**

CHECKED *J. Ruiz*
 DATE *10/15/01*
 SCALE *N.T.S.*
 SHEET NO. **1241**
 OF **2**

