

NOTES

INTENDED USE: This drawing is to be used to retrofit ODOT BTA Type I which has been upgraded to NCHRP Report 350 criteria, but does not have the required concrete curb. The fabricated Curb Assembly shown here is attached to the BTA posts and concrete barrier at the ground line.

This sheet is only valid with BTA's constructed in compliance with SCD GR-3.1 dated either 4/18/03 or 1/19/07 or 10/16/09 (or GR-3.5 for barrier installation dated 4/18/03 or 04/16/10). Those drawings depict a crashworthy BTA consisting of (1) concrete curb installed underneath the three beam rail section; and (2) a single 10 gauge three beam to w-beam rail section. The rail section is 6'3" long and is installed between posts 3 and 5. The gauge is marked on the back of the panel. The assembly shown on this sheet is a substitute only for the missing concrete curb.

This sheet is not valid for (1) new BTA construction, or (2) with those BTA's constructed to earlier drawings, in which the 10 gauge panel is not installed.

This retrofit is not needed if there is at least a 10 foot length of concrete curb underneath the three beam rail element of the BTA.

COMPONENTS AND FABRICATION: The Curb Assembly consists of a steel tube assembly which becomes a substitute for the missing concrete curb. This tube is attached to the foot of the concrete barrier at one end and to three guardrail posts at ground line. This assembly is attached to the barrier by thru-bolting or concrete anchors.

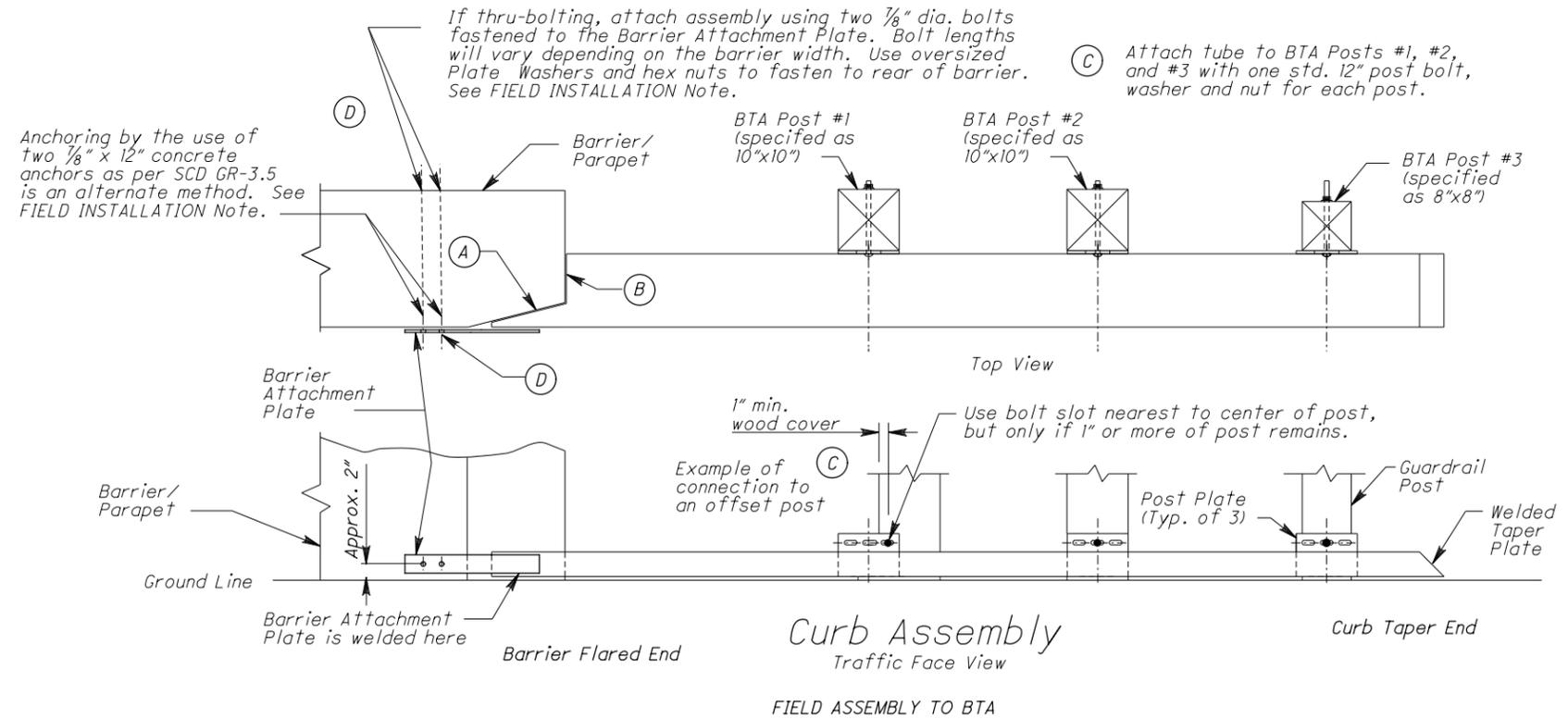
- Components:**
- 1**--- TS 4"x12"x3/16" thick by 150" long Steel Tube (cut to shape at both ends).
 - 2**--- 5.6"x12"x3/16" steel Taper Plate welded to curb taper end of tube.
 - 3**--- 7"x10"x3/16" thick steel Post Attachment Plate welded to tube at points shown. (3 req'd.)
 - 4**--- 3"x22"x3/16" steel Barrier Attachment Plate, welded to outside of tube on barrier flared end.

Shop fabricate the Curb Assembly (cut, drilled and welded as per CMS 513) and then hot-dipped galvanized per ASTM A123, prior to field installation to the BTA.

FIELD INSTALLATION: Install to the existing BTA according to the the FIELD ASSEMBLY TO BTA Detail. All four attachment points (barrier, posts #1, #2 & #3) are required. The only exception is Post #1 does not have to be attached to its Post Plate if the other three points are connected and Post #1 is not in alignment to accept bolting. If these two attachment conditions cannot be met, do not use this drawing. Also, do not use this drawing if the Engineer determines that an existing unsound concrete, BTA flare, radius or other conditions makes the application of this drawing difficult. In these cases, the Engineer may ask the contractor to rebuild the BTA using the original method of construction and paid for as shown on the standard drawings.

All fasteners will be standard galvanized guardrail components such as post bolts, hex nuts, washers and oversized plate washers. Anchor to the barrier by either 7/8" thru-bolting or 1/8" x 12" concrete anchors as shown on either SCD GR-3.1 or GR-3.5, or a method approved by the Engineer.

PAYMENT: Payment will be Item 606 - Bridge Terminal Assembly, Type 1, Steel Curb Retrofit, Each, and will include all parts, fabrication, removal of curb stub (if present), all fasteners and complete installation to existing BTA.



See SCD GR-3.1 for BTA detail (GR-3.5 for median applications).

Steel Tube Curb Components