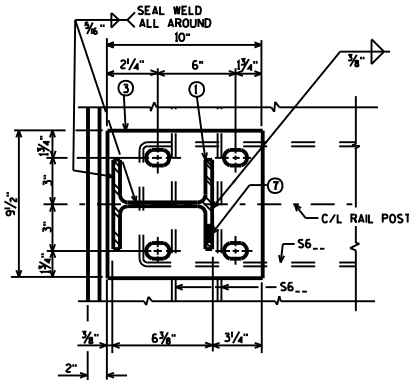
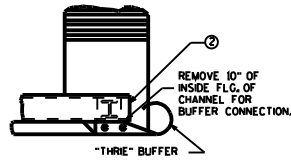


**SECTION THRU RAILING**



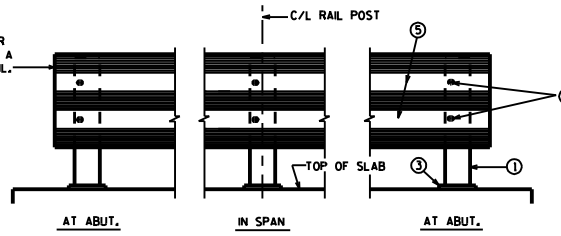
**SECTION A**

AT END POSTS, RAIL MEMBER SHALL HAVE PROVISIONS FOR A SPLICE TO A TRIPLE BEAM RAIL.

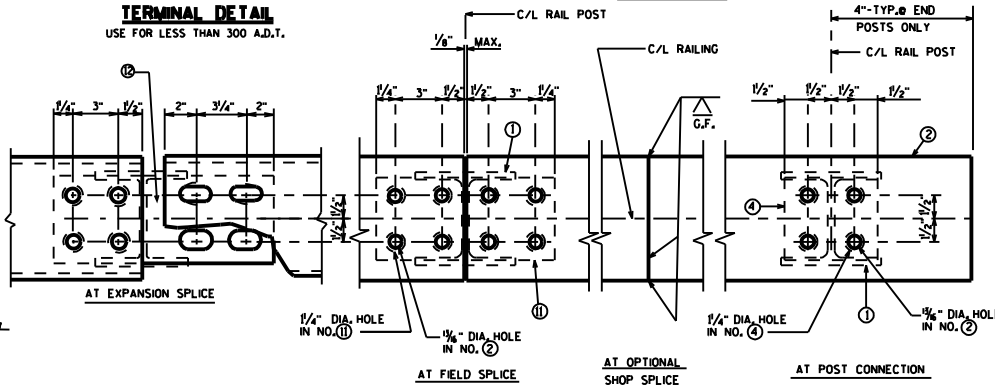


**TERMINAL DETAIL**

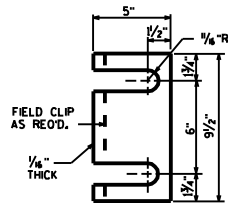
USE FOR LESS THAN 300 A.D.T.



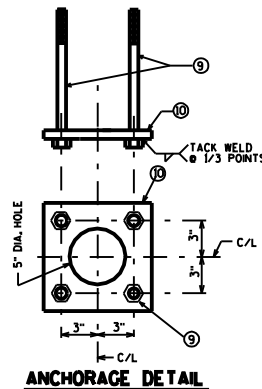
**ELEVATION**



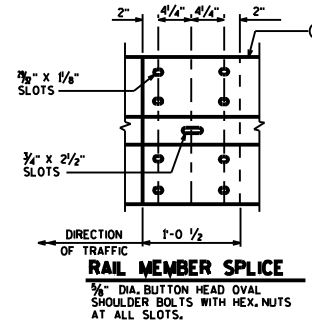
**CHANNEL MEMBER DETAILS**



**POST SHIM DETAIL**  
(4 PER POST)



**ANCHORAGE DETAIL**



**RAIL MEMBER SPLICE**  
5/8" DIA. BUTTON HEAD OVAL SHOULDER BOLTS WITH HEX. NUTS AT ALL SLOTS.

**LEGEND**

- ① W6X25 WITH 2 - 3/4" x 2 1/2" VERTICAL SLOTS ON ONE SIDE OF POST FOR BOLT NO.7. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF RDWY. PLACE POSTS VERTICAL AND NORMAL TO GRADE LINE.
- ② C8 x 11.5 WITH 1/4" DIA. HOLES. ATTACH TO NO. 4 WITH BOLTS NO.8. ATTACH CONTINUOUSLY TO A MIN. OF FOUR POSTS AND A MAX. OF EIGHT POSTS (EXCEPT AT ABUTMENTS).
- ③ BASE PLATE 1"x9 1/2"x0'-10" WITH 1/4"x1 1/2" SLOTTED HOLES FOR ANCHOR BOLTS NO. 9. WELD TO NO. 1 AS SHOWN.
- ④ PLATE 1/2" x 5 3/4" x 0'-6", WITH 1/4" DIA. HOLE FOR BOLTS NO.8. WELD TO NO. 1 AS SHOWN.
- ⑤ CORRUGATED SHEET BEAM, CONFORMING TO A.A.S.H.T.O. DESIGNATION M 180-CLASS A, TYPE 2. 'THREE' GUARD RAIL OR EQUAL MAY BE USED IN LIEU OF THE DOUBLE UNIT PLATE BEAM SHOWN. ATTACH TO NO. 1 WITH BOLTS NO.7.
- ⑥ 1 3/4" x 3" MOUNTING BOLT WASHER, EIGHT GAGE GALVANIZED.
- ⑦ 5/8" DIA. BUTTON HEAD RAIL MOUNTING BOLT WITH WASH AND NUT. 2 PER POST REQ'D.
- ⑧ 5/8" DIA. x 2" L.G. HEX. BOLTS WITH NUT AND TWO WASHERS EACH. 4 REQ'D. PER POST CONNECTION, 8 REQ'D. PER SPLICE.
- ⑨ A325 - 3/4" HEX BOLTS (GALVANIZED) WITH A325 NUT AND WASHER, 1 1/4" LONG AT END POSTS AND AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 15". USE 8" LONG AT ALL OTHER LOCATIONS. 4 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 3. CHAMFER TOP OF BOLTS BEFORE THREADING.
- ⑩ 1/4"x8"x8" FLAT BAR, WITH 5/8" DIA. HOLES FOR ANCHOR BOLTS NO. 9.
- ⑪ PLATE, 1/2" x 5 3/4" x 0'-11 1/2" WITH 1/4" DIA. HOLES FOR BOLTS NO.8. WELD THE SAME AS NO.4.
- ⑫ PLATE, 1/2" x 5 3/4" x 1'-2 1/2" WITH 1/4" DIA. HOLES IN PLATE. 1/4" DIA. HOLES IN CHANNEL, EXPANSION SLOTS ON JOINT SIDE OF POST. 1/4" x 2 1/4" IN PLATE, 1/4" x 2 1/4" IN CHANNEL (AT EXPANSION SPLICE).

**GENERAL NOTES**

- BID ITEM SHALL BE "RAILING STEEL TYPE W B-..." WHICH SHALL INCLUDE ALL ITEMS BETWEEN LONGIT. LIMITS OF NO.5 SHOWN IN ELEVATION. PAY LIMITS SHALL BE FROM € TO € OF END POSTS.
- POST BASE PLATES, NO. 3, SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
- ALL MATERIAL, EXCEPT ANCHORAGE DETAIL (NO. 9 & 10) SHALL BE GALVANIZED AFTER FABRICATION.
- FILL BOLT SLOT OPENINGS IN POST SHIMS AND AT POSTS WITH NO. 3 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
- ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709 GRADE 36 UNLESS NOTED OTHERWISE.
- SHIM PLATES 6" x 1/4" x 6" MAY BE USED BETWEEN TOP OF POST AND CHANNEL MEMBER TO ACHIEVE VERTICAL ALIGNMENT. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQUIRED FOR ALIGNMENT.
- PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & CHANNELS SHALL BE GIVEN A NO. 6 COMMERCIAL BLEASTING BY S.S.P.C. SPECIFICATIONS.
- AT EXPANSION SPLICES IN RAIL AND CHANNEL MEMBERS, TIGHTEN BOLTS, BACK OFF ONE HALF TURN AND BURR THREADS. RAIL MEMBERS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC AND THE UPPER RAIL SHALL LAP THE LOWER RAIL.
- ▲ TIE TO TOP MAT OF STEEL.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
<b>STRUCTURE</b>			
DRAWN BY		PLANS C&D	
<b>STEEL RAILING</b>			SHEET ---
<b>TYPE "W"</b>			