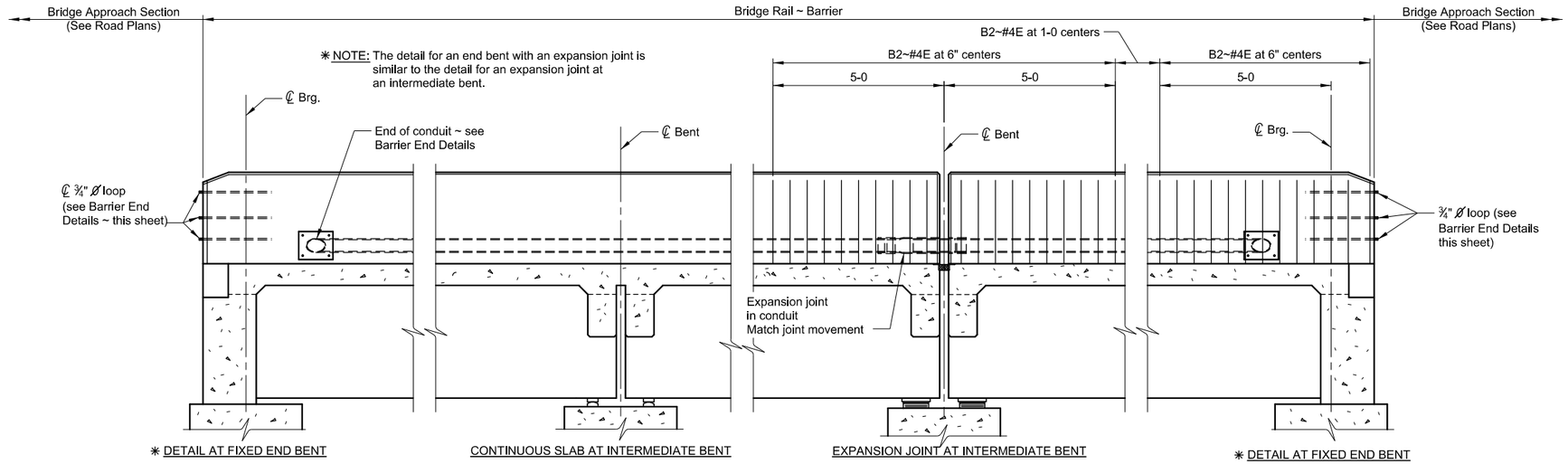
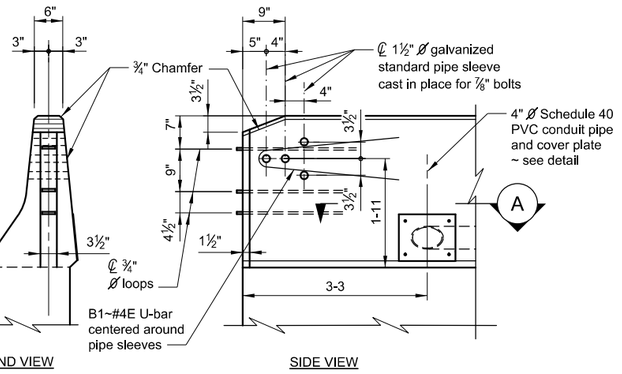
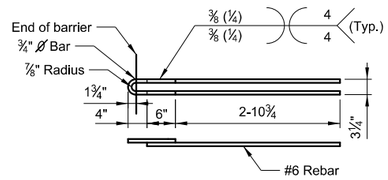



## ELEVATION OF RAIL




## BARRIER END DETAILS

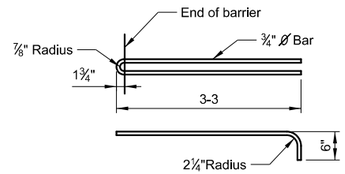



## LOOP DETAIL

NOTE: Use reinforcing steel conforming to ASTM A 706, Grade 60 for rebar being welded to loops.

NOTE: Loop ends and the optional loop detail consist of smooth round bars conforming to AASHTO M 270, Grade 36.

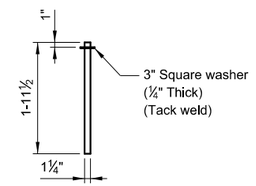
NOTE: Cold bend the loops by using a jig that will produce an accurate radius without marring the bar. Do not heat the bar to facilitate bending.




## OPTIONAL LOOP DETAIL

NOTE: Weld rebar to loops using ⅛" Ø E8018 rod. Do not tack weld the pieces together prior to welding. Use a certified welder in accordance with the current edition of AWS D1.4. Do not place the welded assembly in the form until it has been inspected.

NOTE: No additional welding is permitted on the smooth round bars or reinforcing steel.




## CONNECTING PIN DETAIL

NOTE: Use connecting pins conforming to AASHTO M 270, Grade 36.

## NOTES

PLACEMENT: Do not place concrete barrier for at least 72 hours after concrete in slab has taken initial set.

REFLECTORS: Place a white reflector on top of concrete barrier at 30-0 spacing between ends of barrier. See Dtl. Dwg. No. 605-00 for reflector detail. Include the cost of reflectors in the unit price bid for Barrier Rail - Cast in Place - Br.

PAYMENT: Include all costs associated with reinforcing steel in the barrier in the unit price bid for Reinforcing Steel - Epoxy Coated. Include all other costs associated with the barrier in the unit price bid for Barrier Rail - Cast in Place - Br. See Specifications.

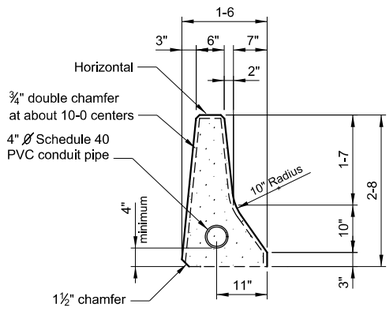
EXCEPTIONS: Use details shown on this drawing only as they apply to the project. Anchorage details may vary. Refer to other drawings for variations in these details.

RAIL WEIGHT: For informational purposes only, the rail weight is approximately 355.0 lb/ft.

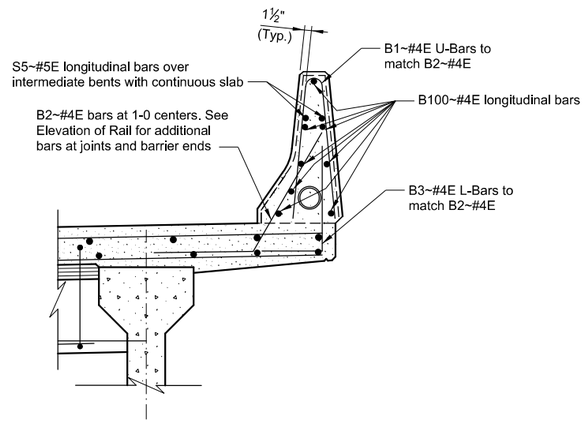
PVC CONDUIT PIPE: Omit 4" Ø PVC conduit pipe in barrier on interstate structures.

REINFORCING: The suffix E denotes epoxy coated reinforcing.

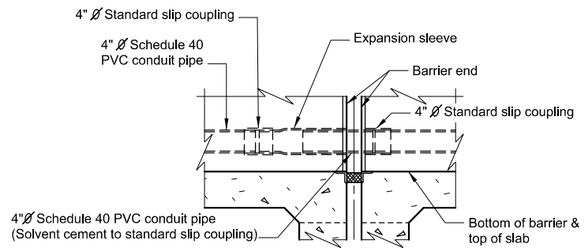
RAIL DESIGN CAPACITY
Rw = 55 kips
Le = 4'-9"
Mc = 106 Kip * in / ft



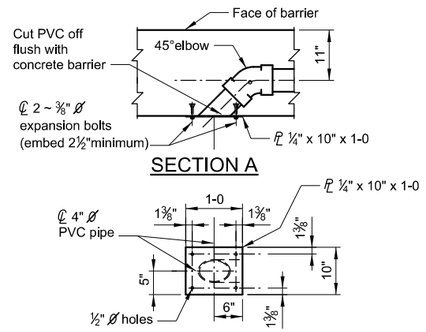

## BARRIER DETAIL




## BARRIER REINFORCING DETAILS




## CONDUIT EXPANSION JOINT DETAIL




## SECTION A

## CONDUIT COVER PLATE DETAIL

NOTE: Galvanize plates in accordance with AASHTO M 111. Galvanize expansion bolts, nuts and washers in accordance with ASTM A 653 or AASHTO M 111.

# STANDARD BRIDGE RAIL TYPE BARRIER

No Scale

MDT MONTANA DEPARTMENT OF TRANSPORTATION — BRIDGE BUREAU

| | | | |
|---|---|---|---|
| REVISED | 3-15-17 | D.F.J. | |
| REVISED | 6-18-14 | D.F.J. | |
| REVISED | 1-2-12 | S.L.F.B. | |
| REVISED | 2-1-11 | D.F.J. | |
| APPROVED | 3-26-08 | D.F.J. | |
| CHECKED | 3-12-08 | D.J.R. | |
| DRAWN | 3-3-08 | T.J.B. | $FILEABBREV$ |
| $DATE$ | | $TIME$ | |

DRAWING NO.
SBR-BRR