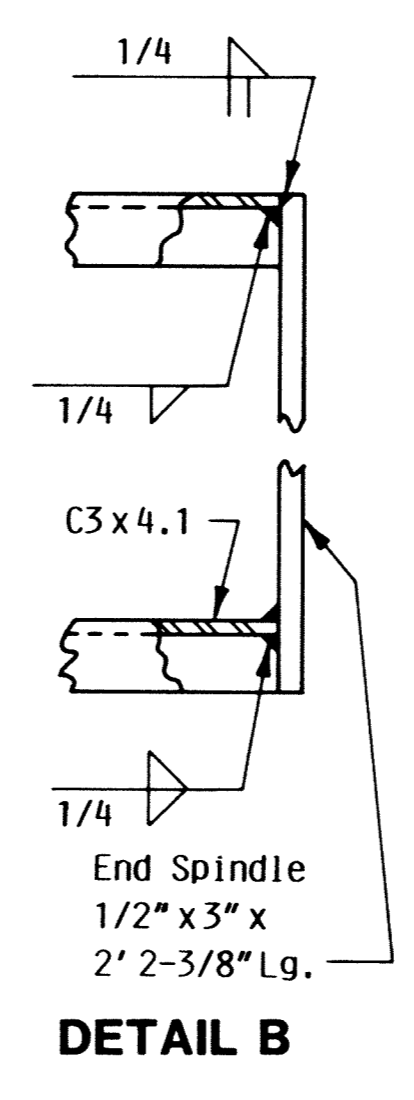
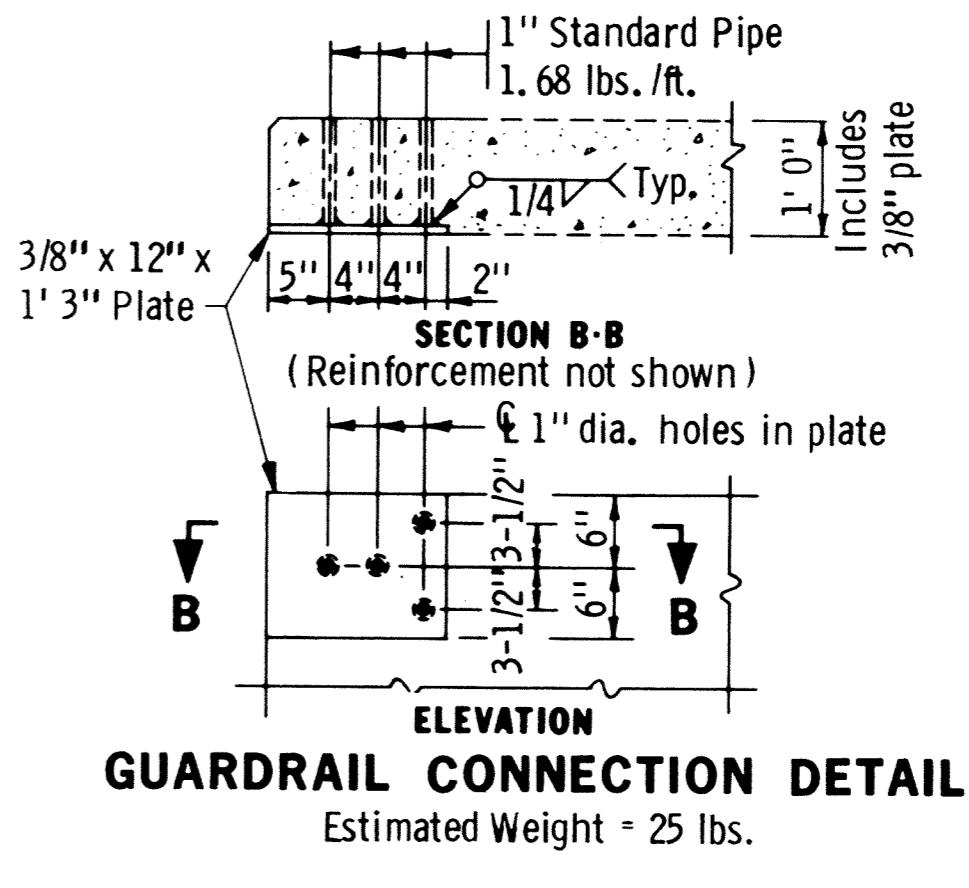


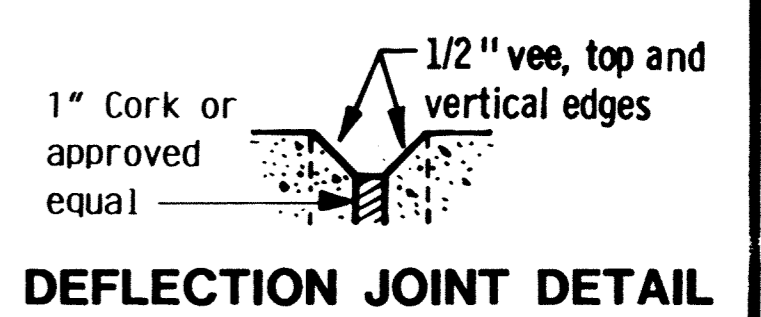
TYPICAL SECTION THRU RAIL



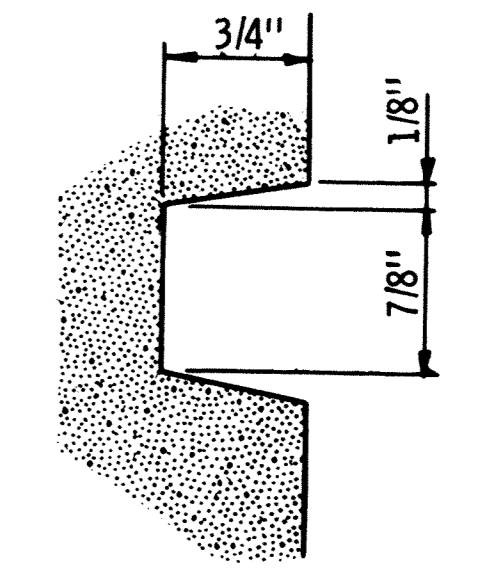
DETAIL B



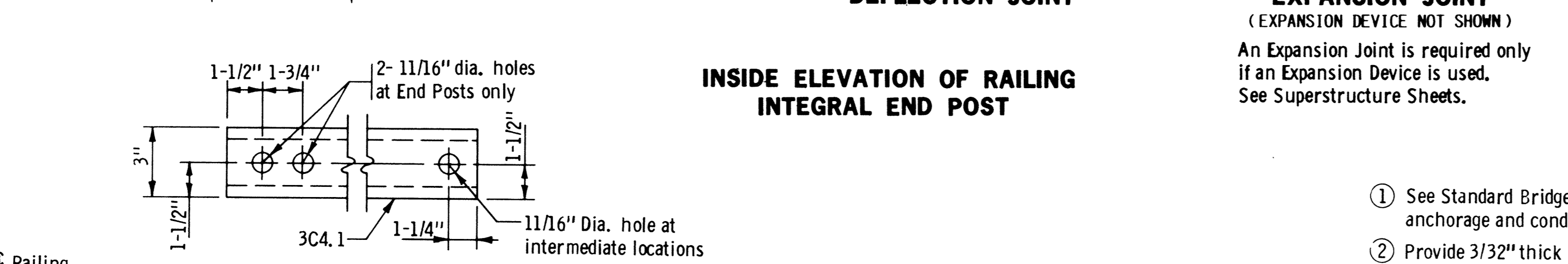
GUARDRAIL CONNECTION DETAIL  
Estimated Weight = 25 lbs.



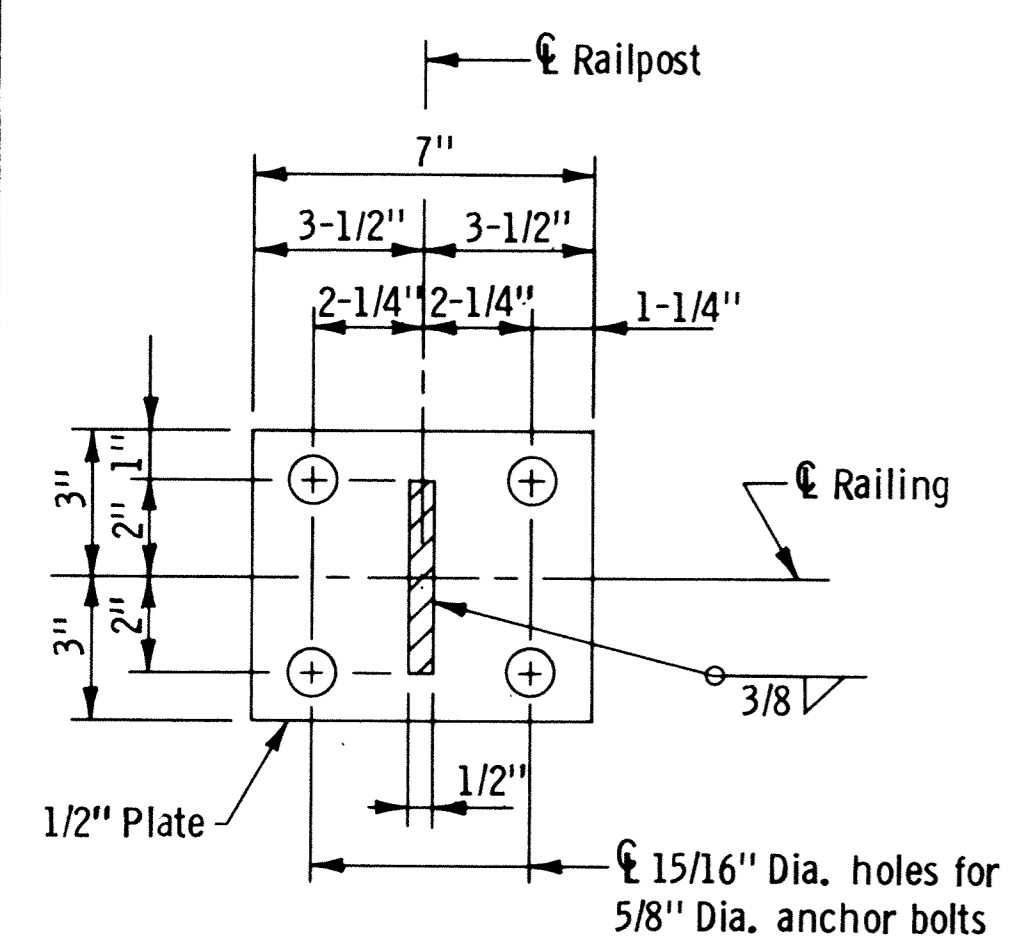
DEFLECTION JOINT DETAIL



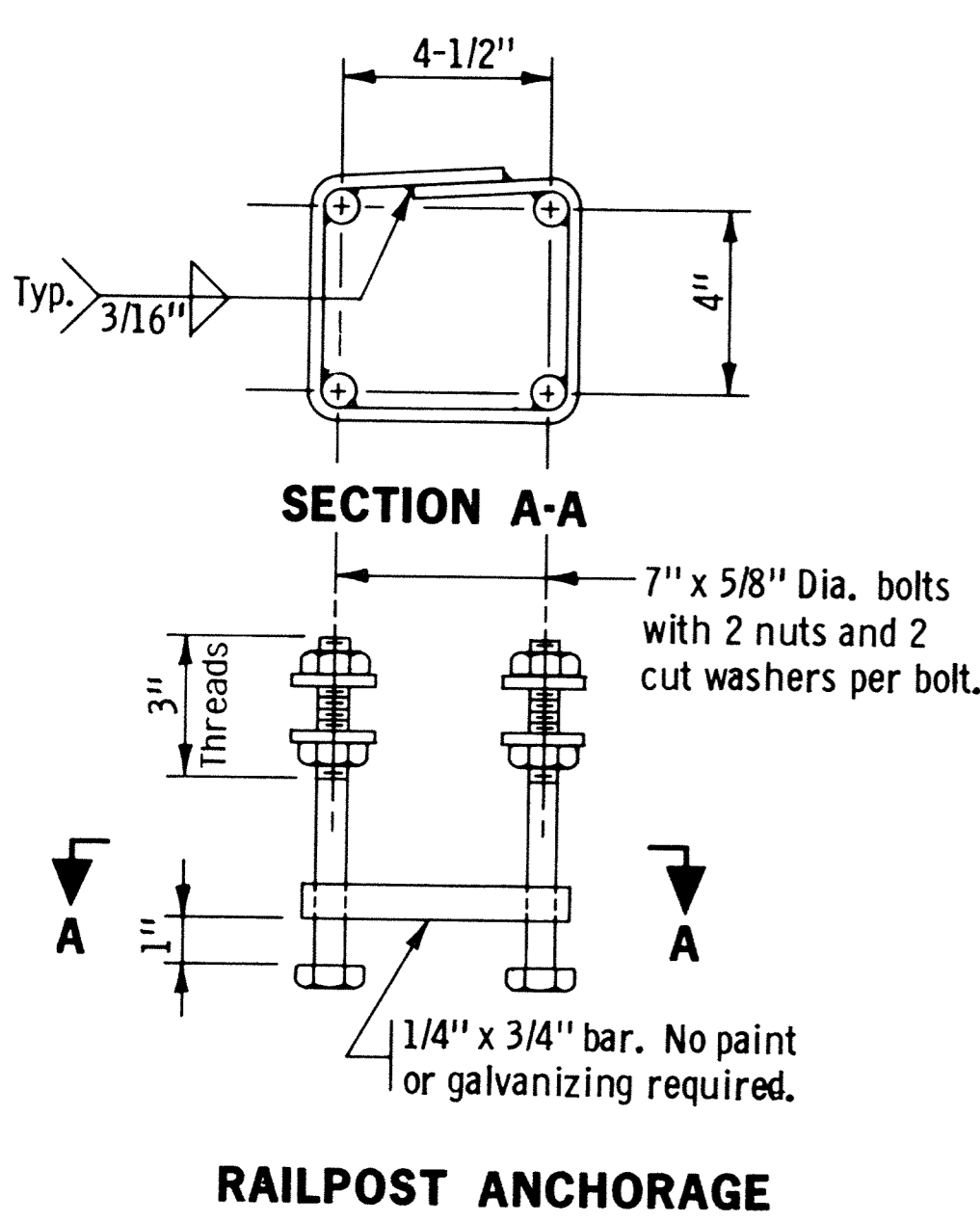
RAIL RUSTICATION



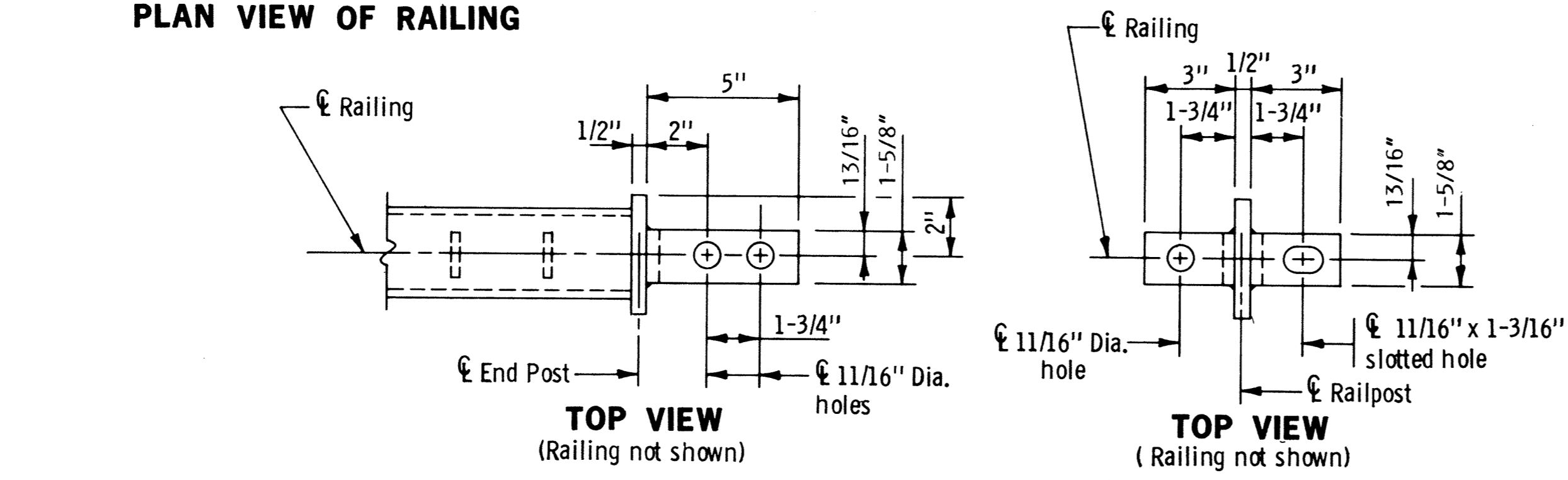
INSIDE ELEVATION OF RAILING  
INTEGRAL END POST



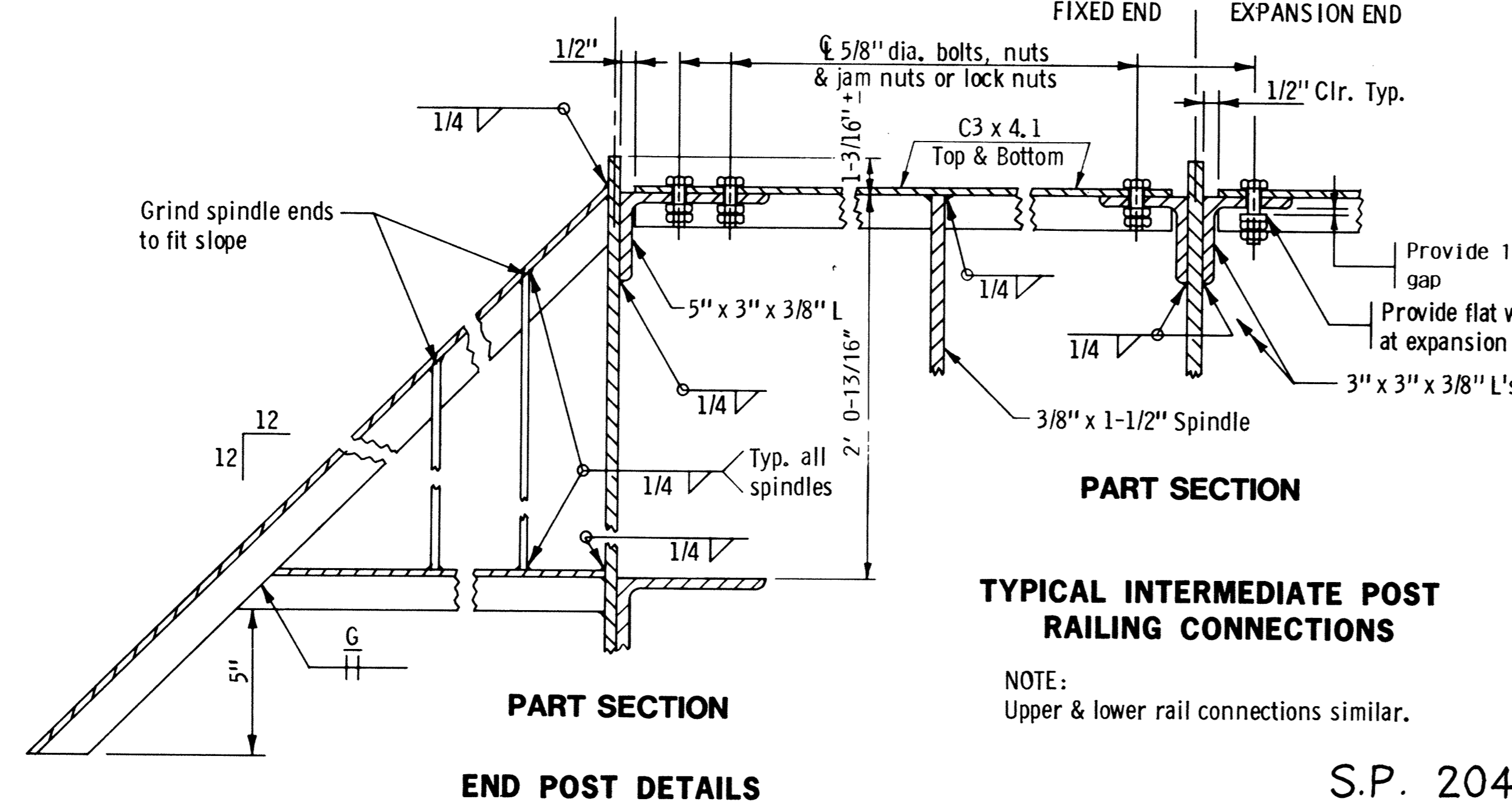
RAILPOST BASE PLATE



RAILPOST ANCHORAGE



PLAN VIEW OF RAILING

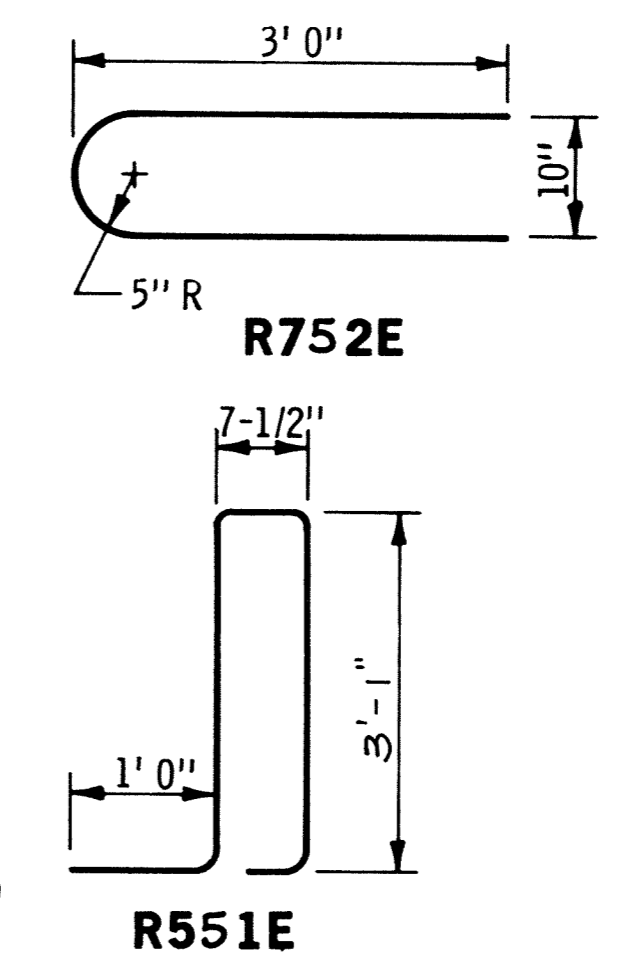


PART SECTION

TYPICAL INTERMEDIATE POST  
RAILING CONNECTIONS

NOTE:  
Upper & lower rail connections similar.

S.P. 204-113-03



R752E

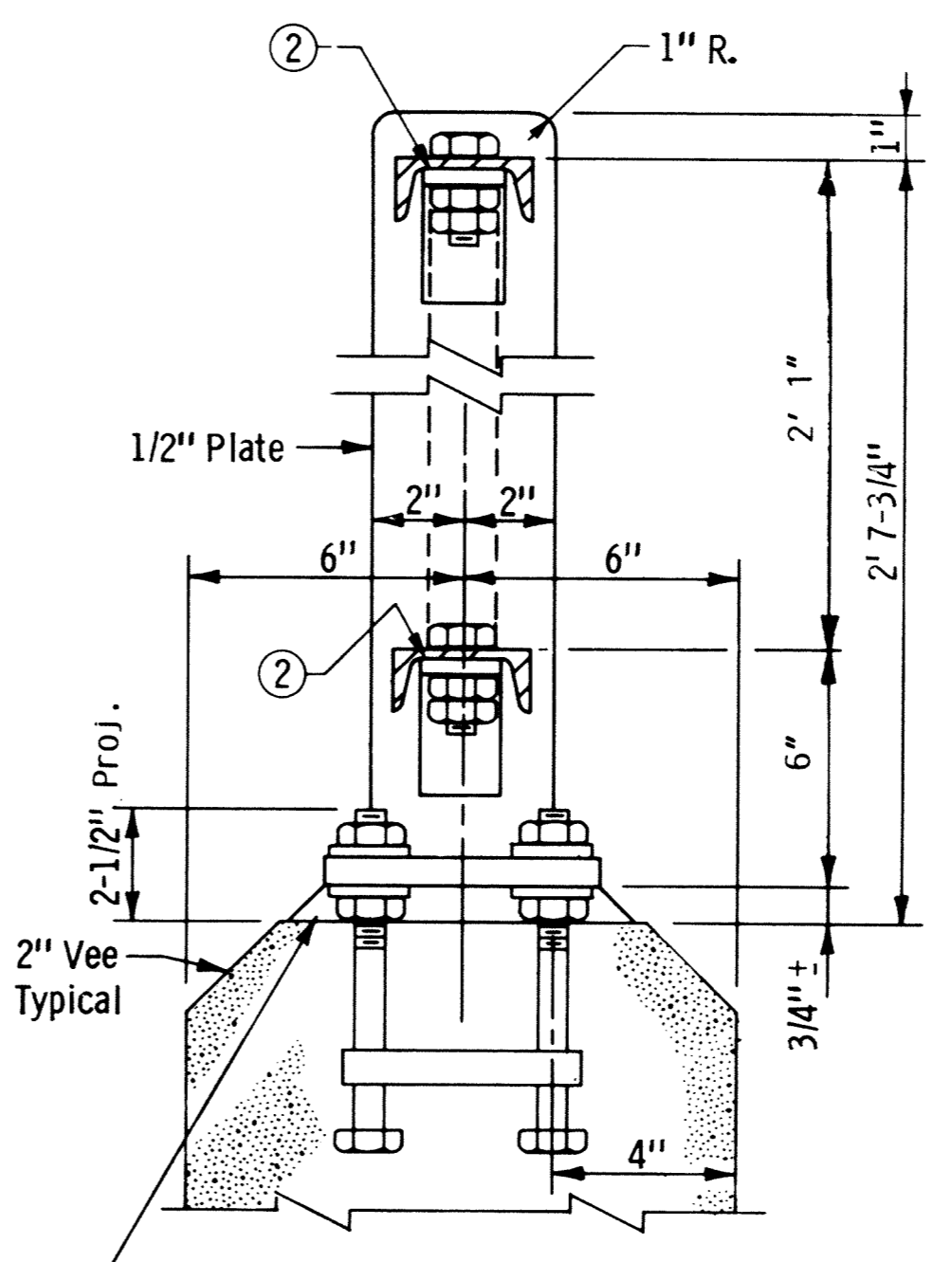
R551E

BAR	NO.	LENGTH	SHAPE	LOCATION
R551E	285	8'-3"	Bent	Rail Base Vertical
R752E	2	6' 6"	Bent	Integral End Post
R553E	12	18'-2"	Straight	Rail Base Longitudinal
R554E	12	18'-0"	Straight	Rail Base Longitudinal
R555E	60	19'-8"	Straight	Rail Base Longitudinal

Concrete Base = 0.086 Cubic Yards Per Foot  
Concrete Base = 350 Pounds Per Foot

GENERAL NOTES:

- Concrete in the rail base shall be Mix No. 3Y46.
- All material in the concrete base, is included in the superstructure quantities.
- The guardrail connection is included in the price bid for other items.
- Maximum spacing of deflection joints shall be 20' 0".
- Bars marked with the suffix "E" shall be Epoxy Coated in accordance with Spec. 3301
- Length of concrete and metal railing for payment is measured between the outside faces of concrete parapet.
- All railposts are to be set vertically.
- Anchorage shall be accurately placed to provide correct alignment of railing. Set vertically.
- All structural steel material shall comply with Spec. 3306
- Galvanize bolts, nuts, and washers per Spec. 3392
- Galvanize all other structural steel per Spec. 3394 after fabrication.
- Price bid for metal railing includes anchorage and all material above top of concrete parapet.
- All railing members shall be flat after fabrication and galvanizing to within 1/8" in 10 ft. by mechanical means without damage to the zinc coating.



TYPICAL RAILPOST

RECORD PLAN OCT. 1993

FIG. 5-397.154

Approved: September 18, 1989

TITLE:	CONCRETE PARAPET & METAL RAILING BIKEWAY RAILING WITH INTEGRAL END POST	DES. MnDOT CHK. RLD	DR. MnDOT/GLA CHK. RLD	APPROVED: 7-2-92	Bridge No. 71517
				Sheet No. 14 of 24 Sheets	