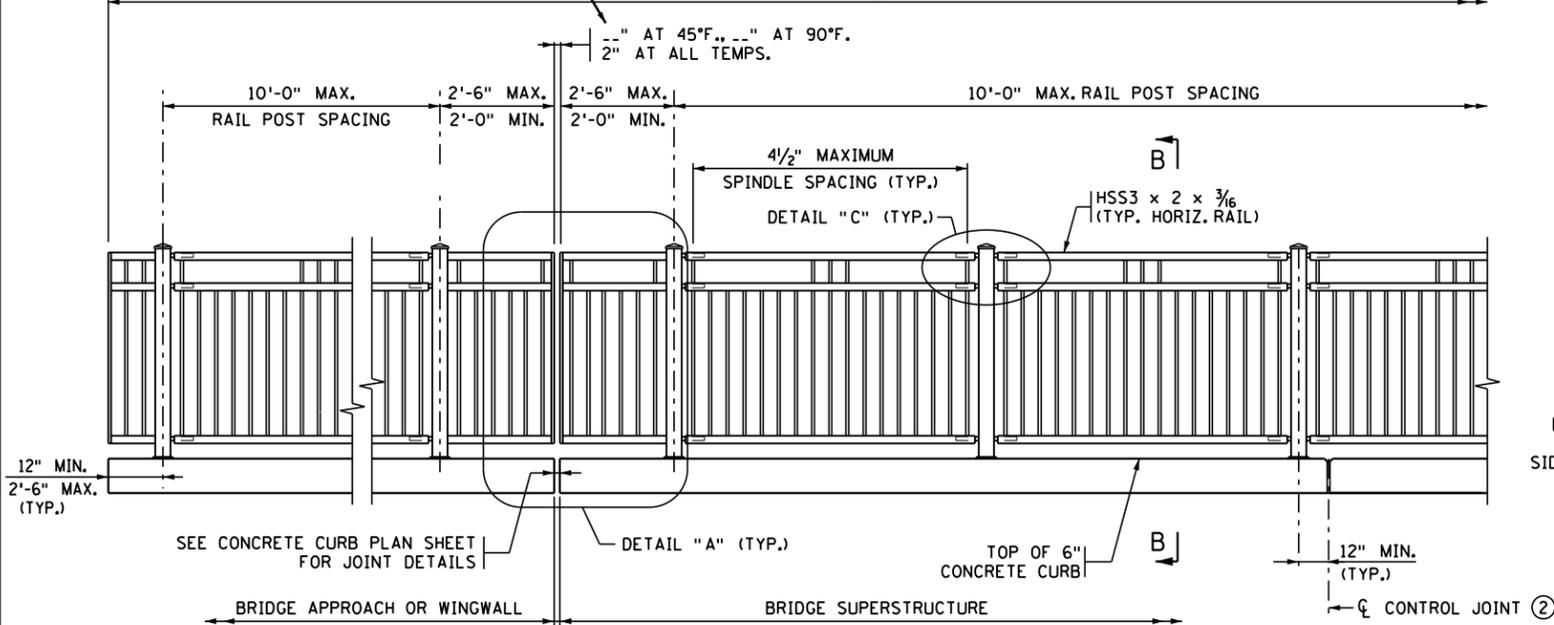
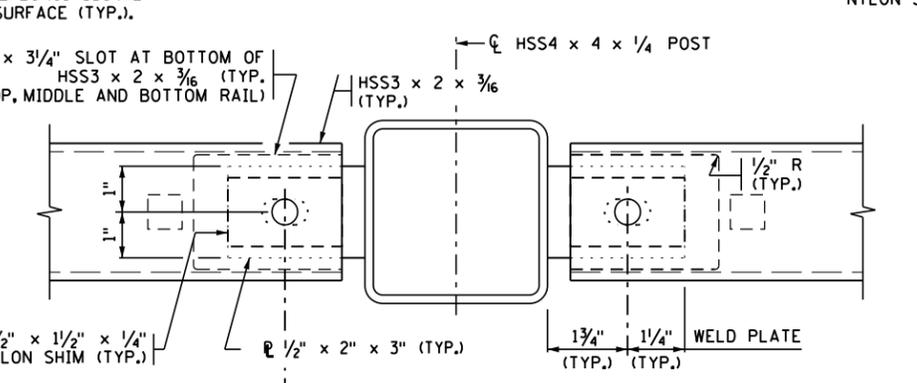
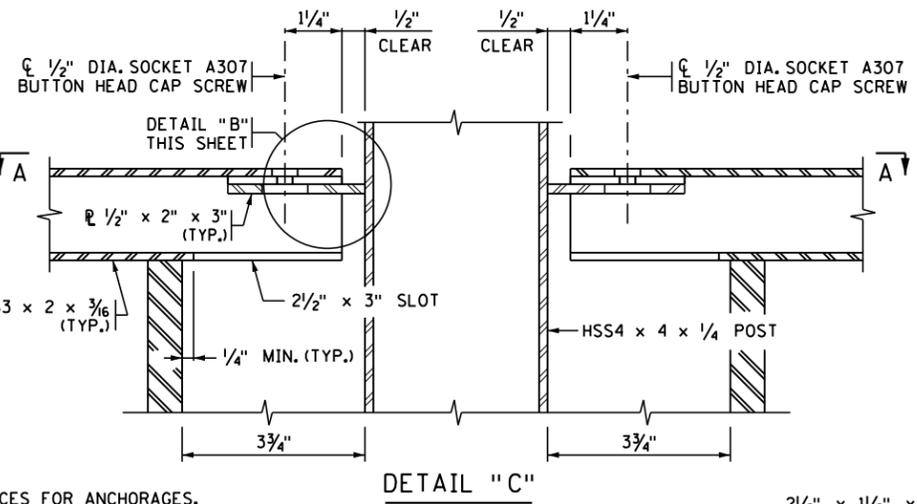
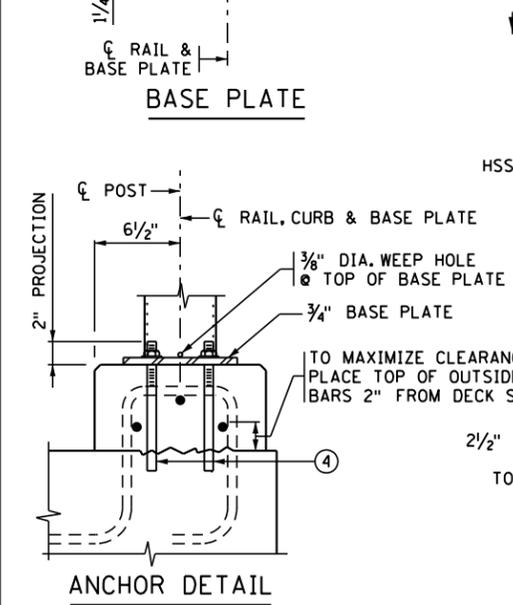
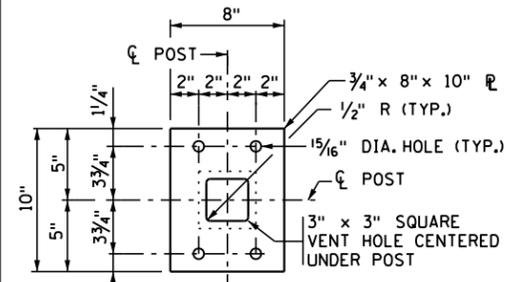


**DESIGNER NOTE:**  
CHOOSE ONE JOINT OPENING NOTE AND DELETE OTHER, MAX. 4".

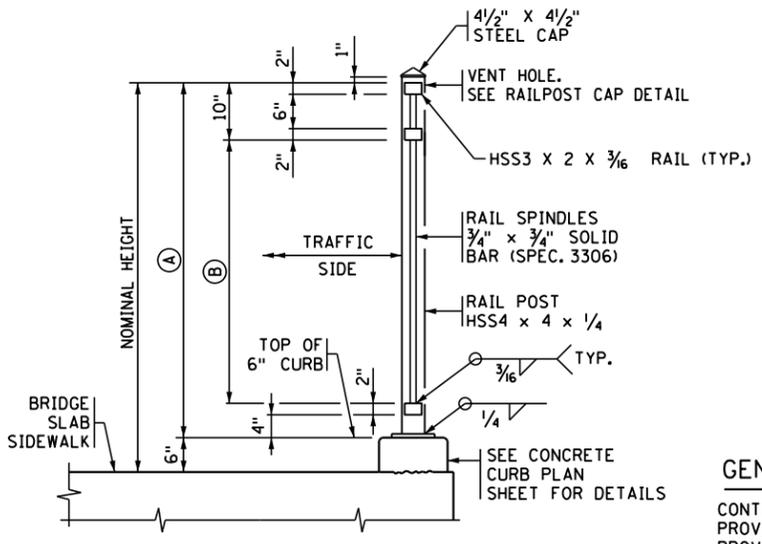


INSIDE ELEVATION OF RAILING



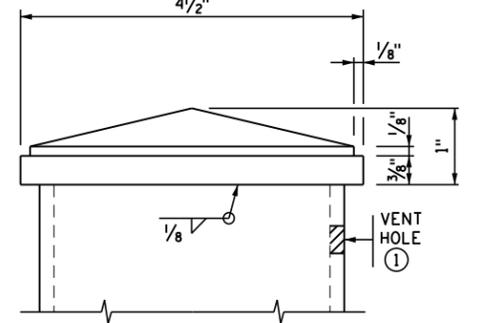
5/8" DIA. HOLE IN TUBE.  
5/8" DIA. x 1" SLOTTED HOLE IN  
PLATES ON BOTH SIDES OF POST.  
(TYP. TOP, MIDDLE AND BOTTOM RAILS)

SECTION A-A

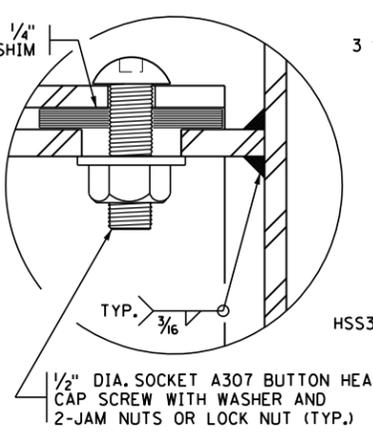


SECTION B-B  
(6'-0" TALL OPTION SHOWN)

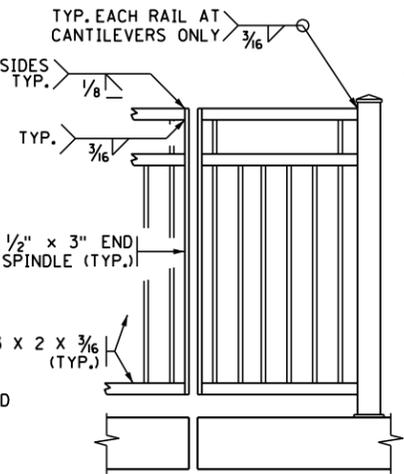
**DESIGNER NOTE**  
REMOVE PRIOR TO PLOTTING FINAL PLAN:  
DESIGNER SHALL CONSULT WITH  
BRIDGE OFFICE ARCHITECTURAL SPECIALIST  
TO CHOOSE ONE OPTION (NORMAL OR PLUMB)  
AND DELETE THE OTHER.



RAILPOST CAP DETAIL



DETAIL 'B'



DETAIL 'A'

RAILING HEIGHT TABLE		
NOMINAL HEIGHT	(A)	(B)
4'-6"	4'-0"	2'-8"
6'-0"	5'-6"	4'-2"
8'-0"	7'-6"	6'-2"

**DESIGNER NOTE**  
REMOVE PRIOR TO PLOTTING FINAL PLAN:  
CHOOSE ONE HEIGHT FROM RAILING HEIGHT  
TABLE AND CROSS OUT OTHER HEIGHTS.  
RAILING HEIGHTS GREATER THAN SHOWN  
REQUIRE SPECIAL DESIGN.

**DESIGNER NOTE**  
REMOVE PRIOR TO PLOTTING FINAL PLAN:  
T-4 ORNAMENTAL METAL RAILINGS  
MOUNTED ON A CURB MUST BE  
PROTECTED BY A TRAFFIC BARRIER.

**GENERAL NOTES**

CONTINUOUSLY GROUND ALL METAL RAILINGS; SEE THE SPECIAL PROVISIONS. REFER TO THE ELECTRICAL PLANS AND ELECTRICAL SPECIAL PROVISIONS FOR DETAILS REGARDING BONDING MULTIPLE ELECTRICAL GROUNDING SYSTEMS.

PAYMENT LENGTH SHALL BE MEASURED AS THE OUT TO OUT LENGTH ALONG THE CENTERLINE OF THE RAILING BETWEEN THE OUTSIDE ENDS, WITH DEDUCTIONS FOR THE LENGTH OF CONCRETE POSTS, IF PRESENT.

PROVIDE A500, GRADE B STRUCTURAL STEEL TUBING (HSS) IN THE RAIL CONFORMING TO SPEC. 3361. PROVIDE ALL OTHER STEEL IN ACCORDANCE WITH SPEC. 3306.

GALVANIZE BOLTS, NUTS, WASHERS AND ANCHORS IN ACCORDANCE WITH SPEC. 3392. GALVANIZE ALL OTHER STRUCTURAL STEEL IN ACCORDANCE WITH SPEC. 3394, AFTER FABRICATION.

SEE SPECIAL PROVISIONS FOR COATING TO BE APPLIED TO METAL RAILING.

INSTALL RAIL POSTS AND SPINDLES [NORMAL TO GRADE OR PLUMB.]

CURVE HORIZONTAL RAILS WHERE APPLICABLE AND PLACE RAILS PARALLEL TO THE EDGE OF SIDEWALK PROFILE.

SEE SPECIAL PROVISIONS FOR REQUIREMENTS NOT INCLUDED ON THIS SHEET.

DRILL 1/2" DIA. MAX. VENT HOLES ON THE UNDERSIDE OF RAIL TUBES AS NECESSARY TO FACILITATE GALVANIZING.

- DRILL VENT HOLE IN THE RAIL POST WITHIN 2" OF THE UNDERSIDE OF THE CAP, ON THE NON-TRAFFIC SIDE OF THE POST AS NECESSARY TO FACILITATE GALVANIZING. MAXIMUM HOLE SIZE IS 1/2" DIA.
- SEE CONCRETE CURB PLAN SHEET FOR CONTROL JOINT SPACING AND DETAILS.
- PROVIDE A PYRAMID TOP STYLE STEEL CAP WELDED TO TOP OF POST WITH A SURFACE FINISH OF 1000 MICRO-INCH, OR SMOOTHER, PRIOR TO GALVANIZING.
- ADHESIVE ANCHORAGE WITH 5/8" DIA. ANCHOR ROD IN ACCORDANCE WITH SPEC. 3385, TYPE A WITH HEX NUT AND WASHER. PROVIDE AN ADHESIVE WITH A MINIMUM CHARACTERISTIC BOND STRENGTH IN UNCRACKED CONCRETE OF 1.5 KSI. EMBED THE ANCHORAGE NO LESS THAN 8" REGARDLESS OF CHARACTERISTIC BOND STRENGTH. DRILL THROUGH REINFORCEMENT (IF ENCOUNTERED) TO ACHIEVE MINIMUM EMBEDMENT. ENSURE HEX NUT IS IN CONTACT WITH THE ADJACENT SURFACE AND TORQUE TO 60 FT-LBS UNLESS A HIGHER TORQUE IS RECOMMENDED BY THE MANUFACTURER. PROOF LOAD TO 8.8 KIPS. SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.

REVISION: OCTOBER 22, 2019

APPROVED: NOVEMBER 6, 2013

*Nancy S. Ambarger*  
STATE BRIDGE ENGINEER

CERTIFIED BY \_\_\_\_\_ DATE \_\_\_\_\_  
LICENSED PROFESSIONAL ENGINEER  
NAME: \_\_\_\_\_ LIC. NO. \_\_\_\_\_

TITLE: ORNAMENTAL METAL RAILING  
(DESIGN T-4 CURB MOUNT)

DES: \_\_\_\_\_ DR: \_\_\_\_\_  
CHK: \_\_\_\_\_ CHK: \_\_\_\_\_  
APPROVED: \_\_\_\_\_  
SHEET NO. OF SHEETS

FIG. 5-397.163

BRIDGE NO.