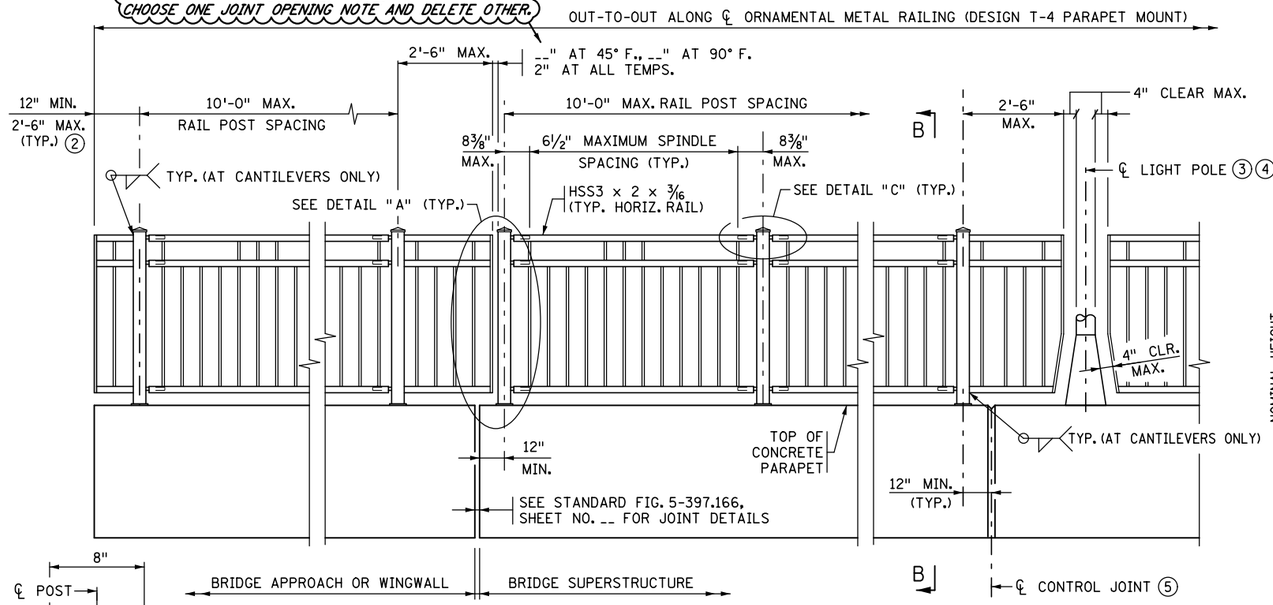
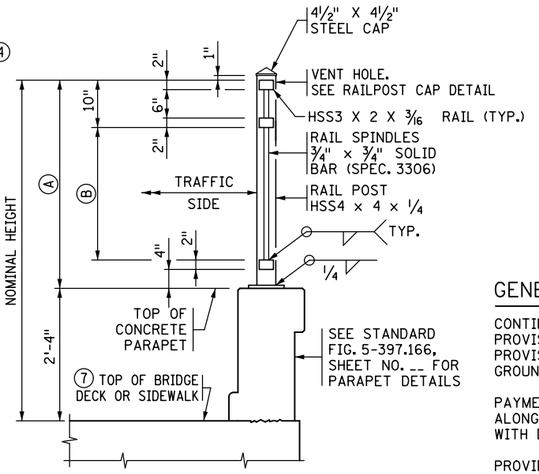
DESIGNER NOTE:
CHOOSE ONE JOINT OPENING NOTE AND DELETE OTHER.



INSIDE ELEVATION OF RAILING



SECTION B-B

(6'-0" TALL OPTION SHOWN)

RAILING HEIGHT TABLE		
NOMINAL HEIGHT	Ⓐ	Ⓑ
4'-6"	2'-2"	10"
6'-0"	3'-8"	2'-4"
8'-0"	5'-8"	4'-4"

DESIGNER NOTE
(REMOVE PRIOR TO PLOTTING FINAL PLAN):
CHOOSE ONE HEIGHT FROM RAILING HEIGHT TABLE ABOVE AND CROSS OUT OTHER HEIGHTS. RAIL HEIGHTS GREATER THAN SHOWN REQUIRE REDESIGN.

DESIGNER NOTE
(REMOVE PRIOR TO PLOTTING FINAL PLAN):
FOR ROADWAY DESIGN SPEEDS GREATER THAN 35 MPH T-4 ORNAMENTAL RAILINGS MUST BE PROTECTED BY A TRAFFIC BARRIER.

DESIGNER NOTE
(REMOVE PRIOR TO PLOTTING FINAL PLAN):
DESIGNER SHALL CONSULT WITH BRIDGE OFFICE ARCHITECTURAL SPECIALIST. CHANGE NOTE ACCORDINGLY.

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. ALL OTHER STEEL SHALL CONFORM TO SPEC. 3306.

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

COAT THE GALVANIZED RAILING, BASE PLATES, AND PROTRUDING PORTIONS OF BOLTS, NUTS, ANCHORS, AND WASHERS.

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 ½" DIA. MAX. VENT HOLES ON THE UNDERSIDE OF RAIL TUBES AS NECESSARY TO FACILITATE GALVANIZING.

(1) 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 ½" DIA.

(2) PLACE ℄ OF END POST 12" FROM END OF CONCRETE PARAPET IF GUARDRAIL CONNECTION PLATE IS PRESENT.

(3) IF LIGHT POLE IS MOUNTED ON BLISTER, RAILING MAY BE CONTINUOUS IN FRONT OF LIGHT POLE (SEE PARAPET & LIGHT POLE DETAILS).

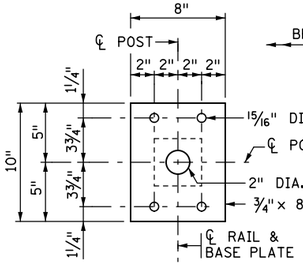
(4) CONTRACTOR TO COORDINATE LIGHT POLE DETAILS WITH THE RAILING FABRICATOR TO ENSURE PROPER CLEARANCES AND RAILING CONFIGURATION ADJACENT TO THE POLE.

(5) SEE SUPERSTRUCTURE SHEETS AND STANDARD FIGURE 5-397.166 FOR CONTROL JOINT SPACING AND DETAILS.

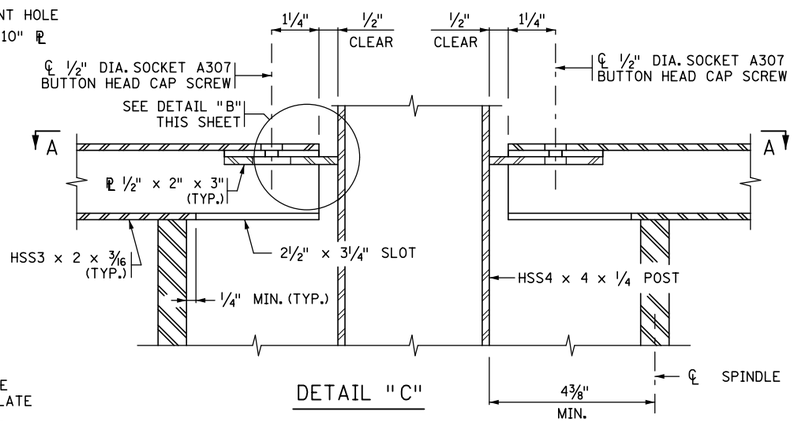
(6) PROVIDE A PYRAMID TOP STYLE STEEL CAP WELDED TO TOP OF POST WITH A SURFACE FINISH OF 1000 MICRO-INCH, OR SMOOTHER, PRIOR TO GALVANIZING.

(7) IF TOP OF RAISED SIDEWALK, SEE SECTION D-D ON STANDARD FIGURE 5-397.166.

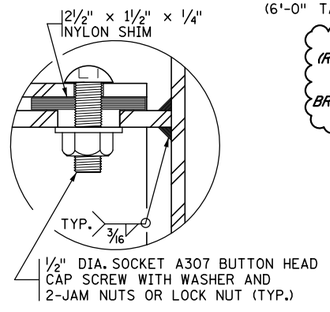
(8) ADHESIVE ANCHORAGE WITH ⅝" DIA. ANCHOR ROD PER SPEC. 3385, TYPE A WITH HEX NUT AND WASHER. PROVIDE AN ADHESIVE WITH A MINIMUM CHARACTERISTIC BOND STRENGTH IN UNCRACKED CONCRETE OF 1.5 KSI. EMBED THE ANCHORAGE NO LESS THAN 5" REGARDLESS OF CHARACTERISTIC BOND STRENGTH. DRILL THROUGH REINFORCEMENT (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 6.9 KIPS. SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.



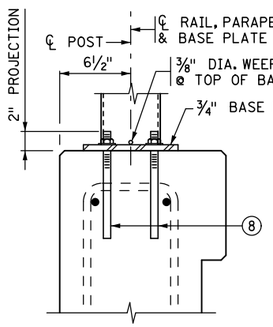
BASE PLATE



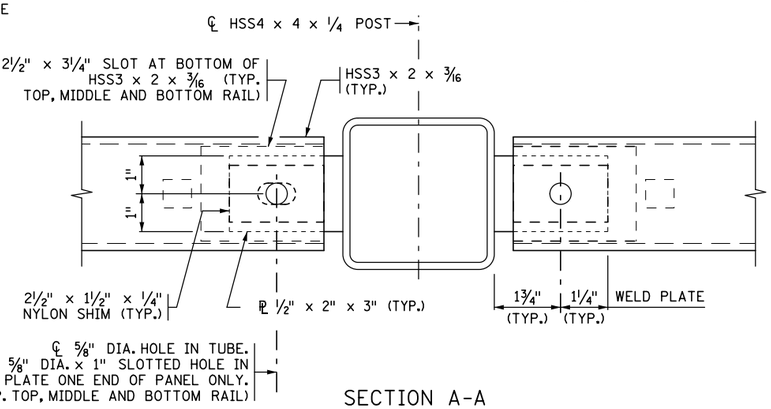
DETAIL "C"



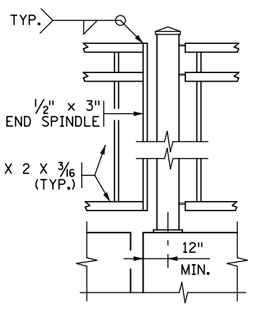
DETAIL "B"



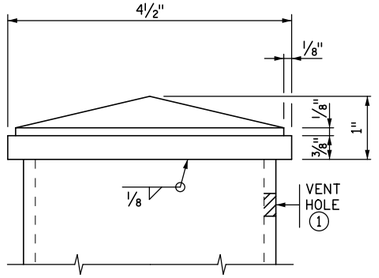
ANCHOR DETAIL



SECTION A-A



DETAIL "A"



RAILPOST CAP DETAIL (6)

REVISION: 05-25-2016

APPROVED: NOVEMBER 6, 2013
Nancy Dorbenberger
STATE BRIDGE ENGINEER

CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER _____ DATE

NAME: LIC. NO.

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

DES:	DR:	APPROVED:	BRIDGE NO.
CHK:	CHK:		

FIG. 5-397.162

SHEET NO. OF SHEETS