MATERIALS; HOWEVER, THE CONTRACTOR WILL BE REQUIRED TO USE THE SAME RAIL MATERIAL ON ALL STRUCTURES.

ALTERNATE TO THE 2 BAR METAL RAIL, THE ALTERNATE RAIL SHALL MEET THE REQUIREMENTS OF THE AASHTO UNLESS OTHERWISE REQUIRED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR HAS THE OPTION TO USE AN ALUMINUM RAILS.

MATERIALS FOR RIVETS SHALL MEET THE REQUIREMENTS OF THE AASHTO

GALVANIZED STEEL RAILS

PERMITTED WELDING FOR RIVETS

HOLES PUNCHED IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. A CONTRACTION JOINT SHALL BE GROOVED, 5/16 IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE PARAPET STRUCTURE.

MINOR VARIATIONS IN DETAILS OF METAL RAIL WILL BE CONSIDERED. DETAILS OF SUCH VARIATIONS, IF DESIRED, SHALL BE SUBMITTED FOR APPROVAL.

GROUND CLEARANCE CURVE: ALL EXISTING FACES OF THE PARAPET AND RAILING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO CURVED RAIL USAGE: WHERE RAILS ARE TO BE USED ON BRIDGES ON HORIZONTAL AND/OR VERTICAL CURVATURE, THE RAILING SHALL BE CONTINUOUS FROM END POST TO END POST OF BRIDGE. EACH JOINT IN RAIL LENGTH SHALL BE ATTACHED TO A MINIMUM OF THREE POSTS.

MATERIAL FOR SHIMS TO BE ASTM B209 ALLOY 6061-T6. SHIMS SHALL MEET THE REQUIREMENTS OF ASTM A570 FOR GRADE 33 OR FOR GRADE C AND SHALL BE GD IN ACCORDANCE WITH AASHTO.

UNDERNOSE CAP SCREWS SHALL MEET THE REQUIREMENTS OF ASTM A502 FOR GRADE 1 RIVETS.
STRUCTURAL CONCRETE ANCHOR ASSEMBLY

THE STRUCTURAL CONCRETE ANCHOR ASSEMBLY SHALL CONSIST OF THE FOLLOWING COMPONENTS:

1. BOLTS SHALL BE MADE FROM STEEL MEETING THE REQUIREMENTS OF ASME WT-2 WELDABLE STEEL AND SHALL HAVE A MINIMUM LENGTH OF 3\(\frac{1}{2}\)" FOR 1/4" BOLTS.

2. 4 - 3/4" x 3/8" BOLTS WITH WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASME WT-2 STAINLESS STEEL AND SHALL BE INSTALLATION TYPED ALLOWABLE STAINLESS STEEL.

3. ALL THE BOLTS SHALL BE STAINLESS STEEL BOLTS AND WASHERS SHALL MEET THE REQUIREMENTS OF ASME WT-2 STAINLESS STEEL.

4. BOLTS SHALL BE INSTALLATION TYPED ALLOWABLE STAINLESS STEEL AND SHALL BE INSTALLATION TYPED ALLOWABLE STAINLESS STEEL.

5. BOLTS SHALL BE INSTALLATION TYPED ALLOWABLE STAINLESS STEEL AND SHALL BE INSTALLATION TYPED ALLOWABLE STAINLESS STEEL.

6. BOLTS SHALL BE INSTALLATION TYPED ALLOWABLE STAINLESS STEEL AND SHALL BE INSTALLATION TYPED ALLOWABLE STAINLESS STEEL.

EXPANSION BAR DETAILS

SECTION A - A

SECTION B - B

BAR SECTION

FRONT PLATE

REAR PLATE

SHIM DETAILS

SHIMS MAY BE CUT ALONG CONNECTED OUTLINE OR STACKED TO版件 PLATE TO FACILITATE INSTALLATION.

CLAMP BAR DETAIL

(4 REQUIRED) PER POST:

1/4" HOLE FOR 5/16" x 1" STAINLESS STEEL MOUNTING CAP WITH 1/4" THICK WASHER.

1/4" HOLE FOR 5/16" x 1" STAINLESS STEEL MOUNTING CAP WITH 1/4" THICK WASHER.

RAIL CAP