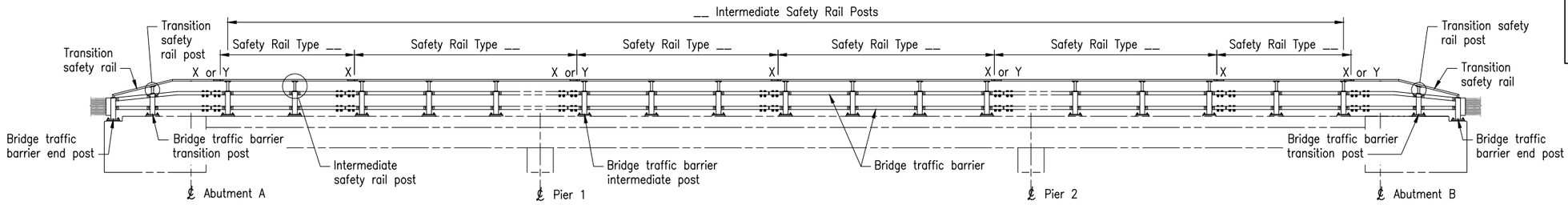
Note: The purpose of this drawing is to provide typical standard details.
The fit for propose requirements and project specific details shall be included on the Project Drawings.

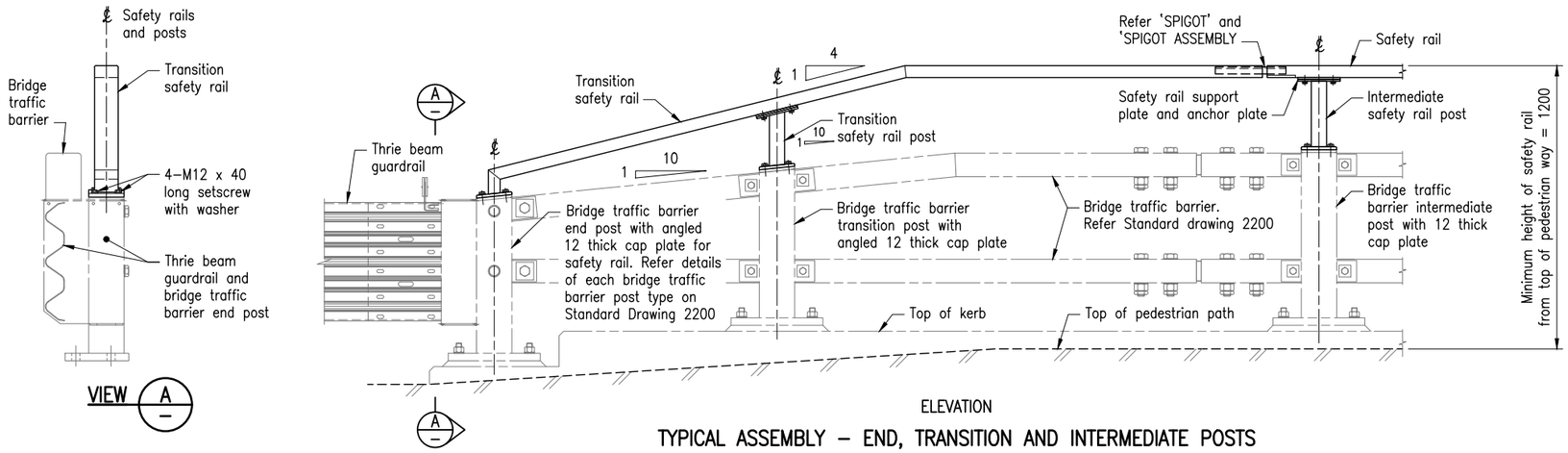


ELEVATION

TYPICAL SAFETY RAIL LAYOUT

'X' denotes 20 nominal installation gap at 25°C
(±1°C = ±1mm) – Fixed and Continuous Joints
'Y' denotes 40 nominal installation gap at 25°C
(±1°C = ±1mm) – Expansion Joints

__ denotes project specific information that shall be shown on the project drawings



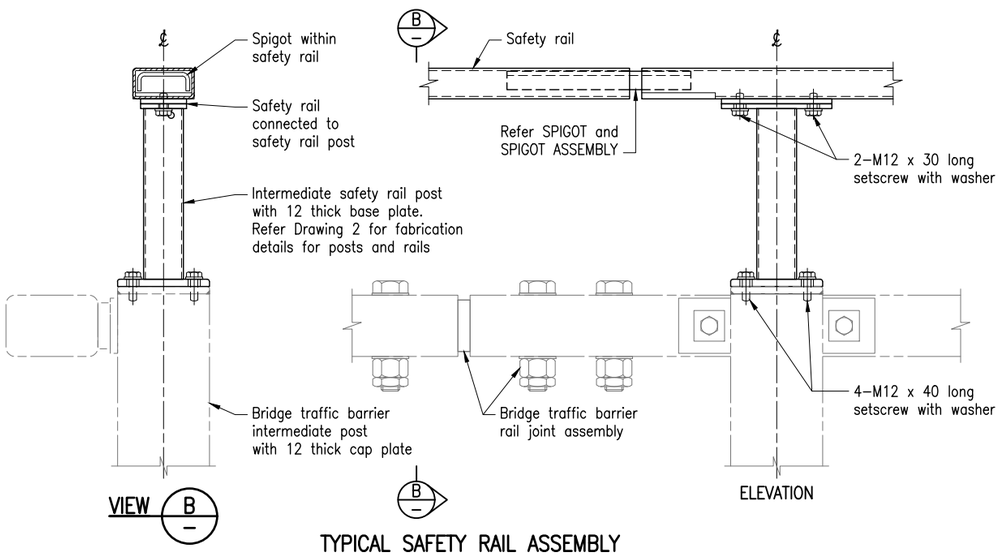
ELEVATION

TYPICAL ASSEMBLY – END, TRANSITION AND INTERMEDIATE POSTS

NOTES:

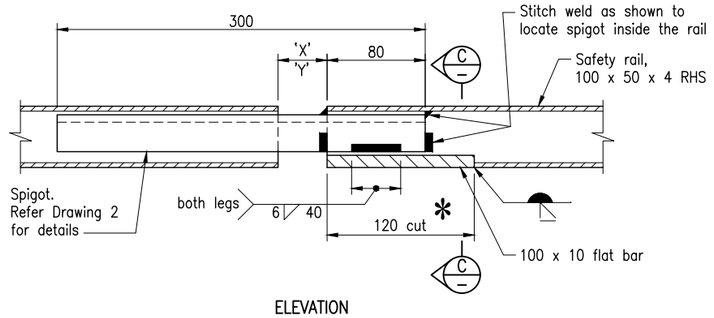
1. SCOPE: This Standard Drawing provides details of bridge safety rail for use with regular performance post and rail bridge traffic barriers.
   Refer Standard Drawing 2200 for regular performance bridge traffic barriers. The modifications required for the bridge traffic barrier posts to incorporate safety rails are shown on Standard Drawing 2200.
   Refer to Standard Drawing 2204 for bridge balustrade details for use on outside edge of pedestrian only path.
2. DESIGN CRITERIA : The bridge safety rail shall be designed in accordance with the Bridge Traffic Barrier Design Criteria 2 to 7 on Standard Drawing 2200.
   The safety rail post spacings and rail lengths shall suit the dimensions of the corresponding bridge traffic barrier elements that the safety rail is attached to. Each rail type is project specific and shall be fully detailed in the project drawings.
3. STEELWORK shall be fabricated to the requirements of MRTS78.
   RHS and SHS shall be Grade C450L0 to AS/NZS 1163.
   Steel plate shall be Grade 250 to AS/NZS 3678.
   Flat bar shall be Grade 300 to AS/NZS 3679.1.
   All hollow sections, plate and flat bar will require abrasive blasting to develop a surface profile of 50μm prior to hot dip galvanizing.
   Setscrews Class 4.6 to AS 1111.2.
   Washers for Class 4.6 setscrews to AS 1237.1.
   All setscrews and washers shall be hot dip galvanized to AS 1214.
   All other steelwork to be hot dip galvanized to AS/NZS 4680.
   Prior to galvanizing all weld splatter and welding slag is to be removed.
   Members to be branded with suitable type number after fabrication.
4. WELDING symbols conform to AS 1101.3.
   All welding to AS/NZS 1554.1.
   All welds except location tack welds to be SP category.
   Welding consumables to be controlled hydrogen type:
   G493 to AS/NZS ISO 14341–B or T493 to AS/NZS ISO 17632–B.
5. DIMENSIONS are in millimetres.

ASSOCIATED DOCUMENTS:
Design Criteria for Bridges and other Structures
REFERENCED DOCUMENTS:
Departmental Standard Drawings:
2200 Bridge Traffic Barriers – Post and Rail Traffic Barrier – Regular Performance Level
2204 Bridge Barriers – Bridge Balustrade for Pedestrian Only Path
Departmental Specifications:
MRTS78 Fabrication of Structural Steelwork
MRTS80 Supply and Erection of Bridge Barrier

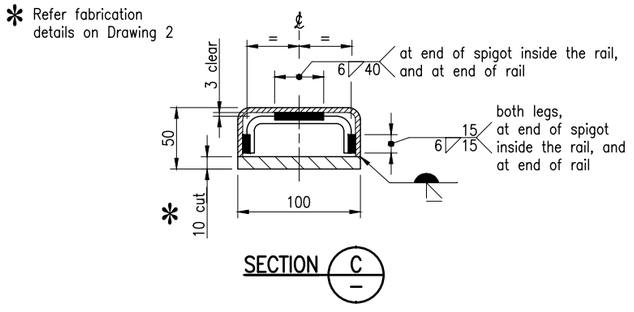


TYPICAL SAFETY RAIL ASSEMBLY

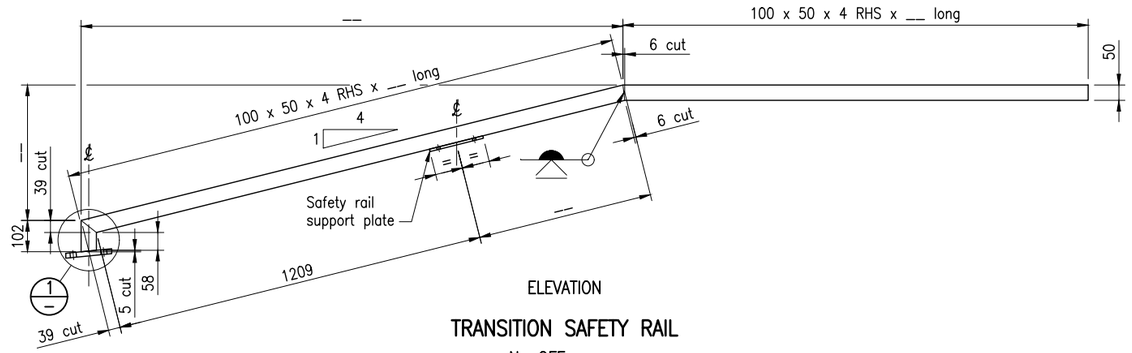
INTERMEDIATE POST SHOWN, TRANSITION POST AND CONNECTION TO BRIDGE TRAFFIC BARRIER END POST SIMILAR



SPIGOT ASSEMBLY



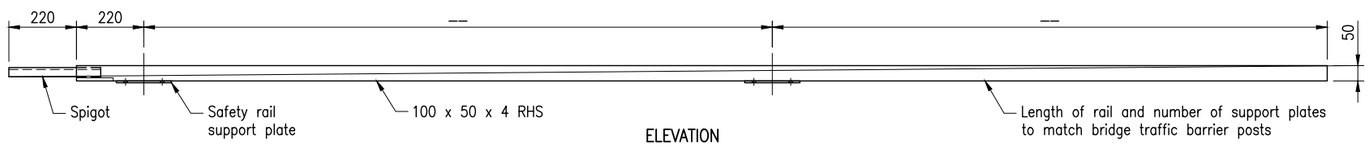
Department of Transport and Main Roads	
BRIDGE TRAFFIC BARRIERS	
BRIDGE SAFETY RAIL FOR PEDESTRIAN ONLY PATH	
DRAWING 1 OF 2	
A3 / Not to Scale	Standard Drawing No 2203 Date 3/2022
A / B / C	



ELEVATION

TRANSITION SAFETY RAIL

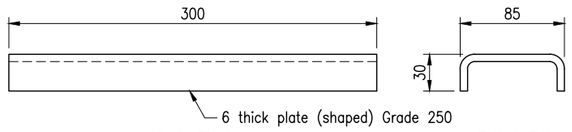
No OFF = __



ELEVATION

TYPICAL SAFETY RAIL – TYPE __

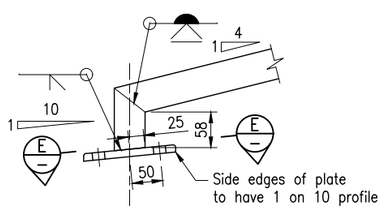
No OFF = __



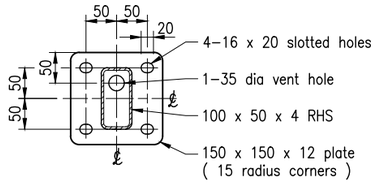
ELEVATION END VIEW

SPIGOT

No OFF = __

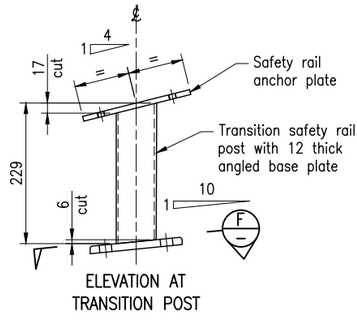


DETAIL 1

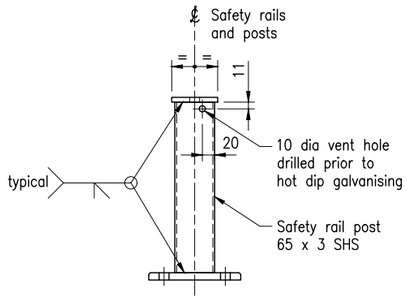


SECTION E

ANGLED BASE PLATE FOR TRANSITION SAFETY RAIL CONNECTION TO TRAFFIC BARRIER END POST

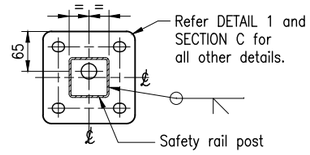


ELEVATION AT TRANSITION POST



TYPICAL END VIEW

SAFETY RAIL POST DETAILS

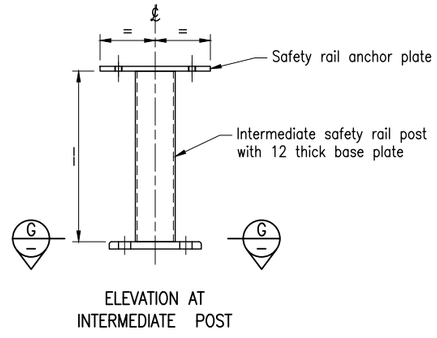


SECTION F

ANGLED BASE PLATE FOR TRANSITION SAFETY RAIL POST

SECTION G

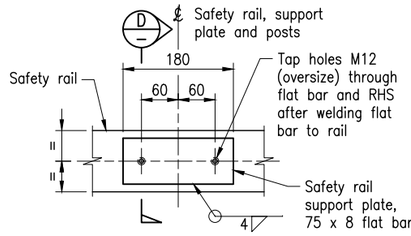
BASE PLATE FOR INTERMEDIATE SAFETY RAIL POST SIMILAR



ELEVATION AT INTERMEDIATE POST

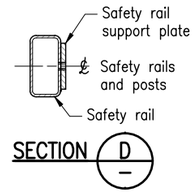
Tapping Procedure:

1. Drill holes through the support plates only (using the correct tapping drill to match bolt size or smaller size drill).
2. Position and weld the support plates to the rail.
3. Fill the holes in the support plates with natural silicone.
4. Hot dip galvanize the rail.
5. After galvanizing, drill and tap the required size holes through the support plates and the rail.

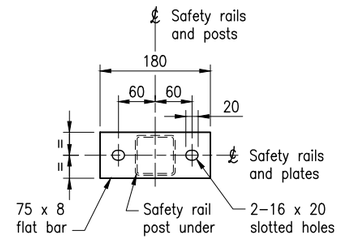


PLAN – LOOKING UP

SAFETY RAIL SUPPORT PLATE



SECTION D



PLAN – LOOKING DOWN

SAFETY RAIL ANCHOR PLATE

POST AND RAIL FABRICATION DETAILS

Department of Transport and Main Roads

BRIDGE TRAFFIC BARRIERS

BRIDGE SAFETY RAIL
FOR PEDESTRIAN ONLY PATH

DRAWING 2 OF 2

A3
Not to Scale

Standard Drawing No
2203
Date 3/2022

A | B | C