TYPICAL BRIDGE TRAFFIC BARRIER LAYOUT

NEAR SIDE BARRIER – AS SHOWN
FAR SIDE BARRIER – OPPOSITE HAND

The purpose of this Standard Drawing is to provide typical standard details. The bridge barrier details in this drawing are designed to AS 5100 (2017) for Regular performance level and the fitness for purpose of these details for a specific project shall be designed and certified by an NFP and shown on the project specific drawings.

BRIDGE TRAFFIC BARRIER DESIGN CRITERIA

1. Design Criteria
   AS 5100 “Regular” Barrier Performance Level

2. Post Spacing
   a) The average spacing of any 3 adjacent posts (Hollow) shall not exceed 2400
   b) The maximum spacing of any 3 adjacent posts shall not exceed 2400
   c) The diagonal post spacing across each span shall be no more than
   d) For continuous bays on PSC deck units, the post spacing should be at 2050
   e) For continuous concrete decks, the maximum post spacing should be at 2050

3. Minimum Rail Length = 0.8 metres

4. Each rail shall be supported by a minimum of 2 posts

5. Only one rail joint permitted between successive posts

6. Provide a rail joint adjacent to each adjustment in pier

7. Rail expansion joint gap of 2000

8. Refer to Design Criteria for Bridges and other Structures for minimum NFP values.

INDEX – BRIDGE TRAFFIC BARRIER

DESCRIPTION
Typical Layout and Sections, Design Criteria Notes
Plan and Rail Joint Assemblies, Rail Connectors, Post Assemblies
Rail
Transverse and Intermediate Posts
End Posts

DRAWING REFERENCE
2200 Drawing of 2
2200 Drawing of 3
2200 Drawing of 3
2200 Drawing of 3

NOTES: This Standard Drawing provides details of Regular performance level post and rail bridge traffic barriers.

1. This Standard Drawing reflects the requirements of AS 5100 (2017). All relevant performance levels shall be included in the load and the spacing shown in the drawing. Information shall be consistent with the requirements specified in AS 5100.

2. The bridge traffic barriers system shall be fabricated in accordance with the requirements of AS 5100.

3. All pipe material manufactured to AS 5100 shall be fabricated in accordance with the requirements specified in AS 5100.

4. All materials shall be in accordance with AS 5100.

5. All steel plate used shall be of a material that is consistent with the requirements of AS 5100.

6. All other steel used shall be of a material that is consistent with the requirements of AS 5100.

7. All structural components shall be in accordance with AS 5100.

8. All welded joints shall be in accordance with AS 5100.

ASSOCIATED DOCUMENTS
- Design Criteria for Bridges and other Structures
- Referenced Standards

REFERENCE DOCUMENTS
- Departmental Standard Drawings
- Design Criteria for Bridges and other Structures
- Referenced Standards
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DRAWING 1 OF 5
TRAFFIC BARRIER POST MODIFICATION FOR SAFETY RAIL ASSEMBLY
Refer Standard Drawing 2203

PART ELEVATION
ASSEMBLY OF TRANSITION POST WITH TRANSITION SAFETY POST

PART ELEVATION
ASSEMBLY OF INTERMEDIATE POST WITH INTERMEDIATE SAFETY POST

SECTION
12 THICK CAP PLATE, TYPICAL FOR INTERMEDIATE POSTS FOR BRIDGE SAFETY RAIL

DETAIL
FOR 12 THICK CAP PLATE TO SHS POST

SECTION
6 THICK CAP PLATE, TYPICAL FOR POSTS WITHOUT BRIDGE SAFETY RAIL

DETAIL
FOR 6 THICK CAP PLATE TO SHS POST

DETAIL
WELD PREPARATION FOR SHS POST TO BASE PLATE

DETAIL
WELD PREPARATION FOR SHS POST TO BASE PLATE

TRANSITION POST TYPE 2
No Off = __

TRANSITION POST TYPE 1
No Off = __

INTERMEDIATE POSTS
No Off = __

BASE PLATE
For all other details refer to TRANSITION POSTS ELEVATION AND END VIEW

BASE PLATE
For all other details refer to INTERMEDIATE POSTS ELEVATION AND END VIEW

Type 1 No Off = ___ AS SHOWN
Type 2 No Off = ___ OPPOSITE HAND

TRANSITION POSTS - TYPES 1 AND 2

1-10 dia vent holes diagonally opposite vent holes in base plate. Drilled prior to hot dip galvanizing.

END, TRANSITION OR INTERMEDIATE POST TOP COP, TERMINAL BLOCK TOP CAP

Wall of SHS

140 x 140 x 8 thick plate Grade 350
10 rad. radius corners

2-20 dia vent holes diagonally opposite vent holes in base plate. Drilled prior to hot dip galvanizing.

2-24 dia x 32 (enter cut) slotted holes

110 x 12 base plate

110 x 12 base plate

2-20 dia vent holes diagonally opposite vent holes in base plate. Drilled prior to hot dip galvanizing.

377 x 377 x 10 thick plate Grade 350
5-32 dia slotted holes

Outside face of SHS post

377 x 377 x 10 thick plate Grade 350
5-32 dia slotted holes

END, TRANSITION OR INTERMEDIATE POSTS

Safety rail post cap, typical

Wall of SHS

END, TRANSITION OR INTERMEDIATE POSTS