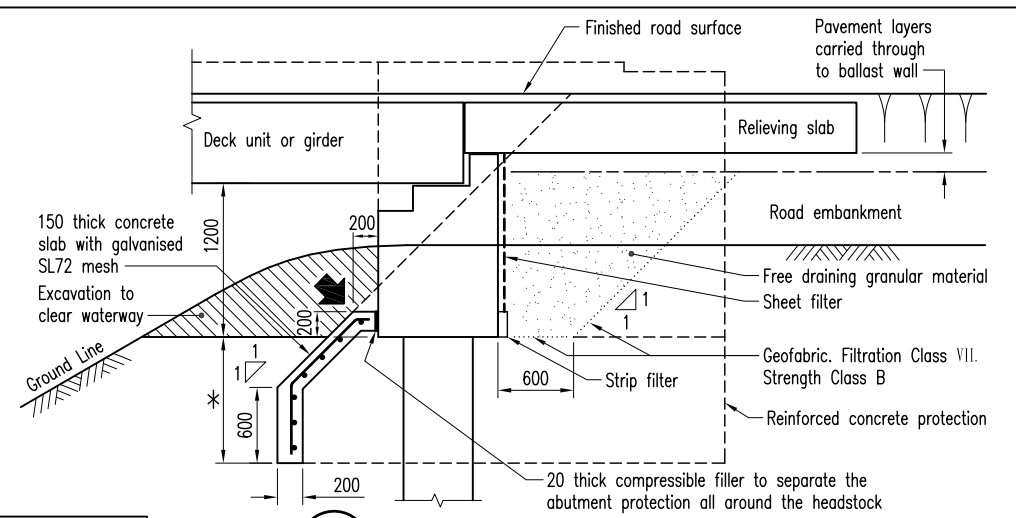


CONCRETE SLAB CONTRACTION JOINT

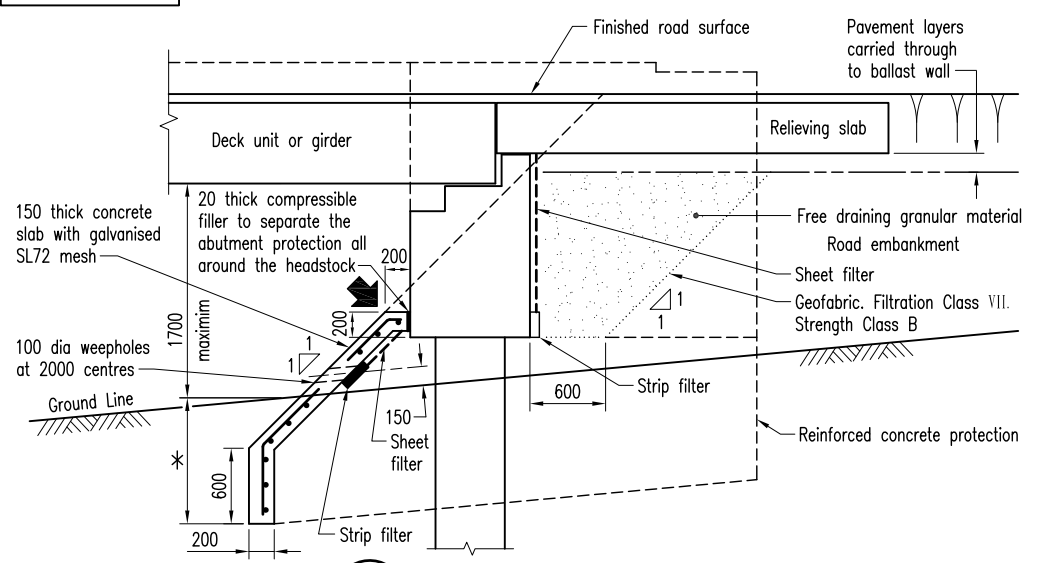
R20 galvanised dowels at 600 crs, debonded with bitumen or shrouds on one side of the joint

Contraction joints shall be provided at 5000 crs maximum. A minimum of 24 hours is to be allowed prior to placement of adjacent concrete



*Refer to the project specific drawings for actual dimensions

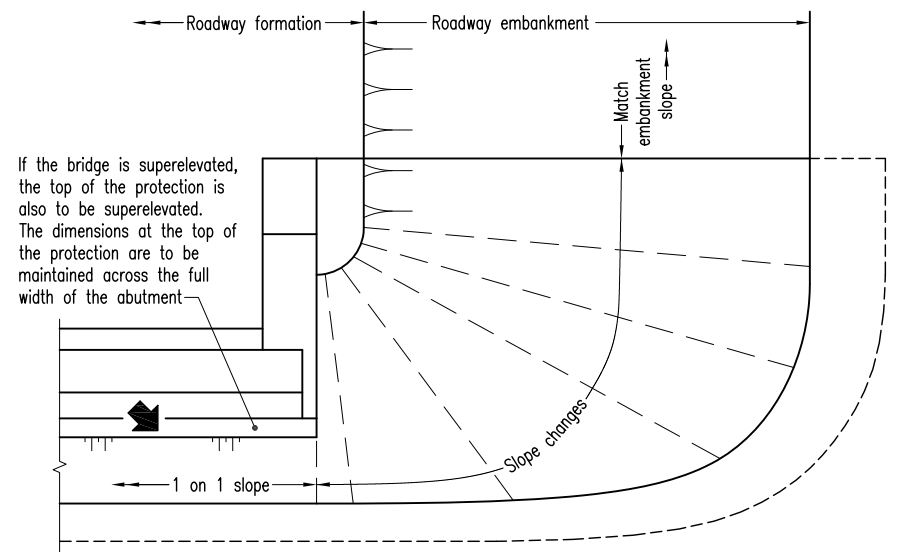
SECTION A EXCAVATION TO PROVIDE 1200 CLEARANCE



SECTION A CLEARANCE BETWEEN 1200 AND 1700

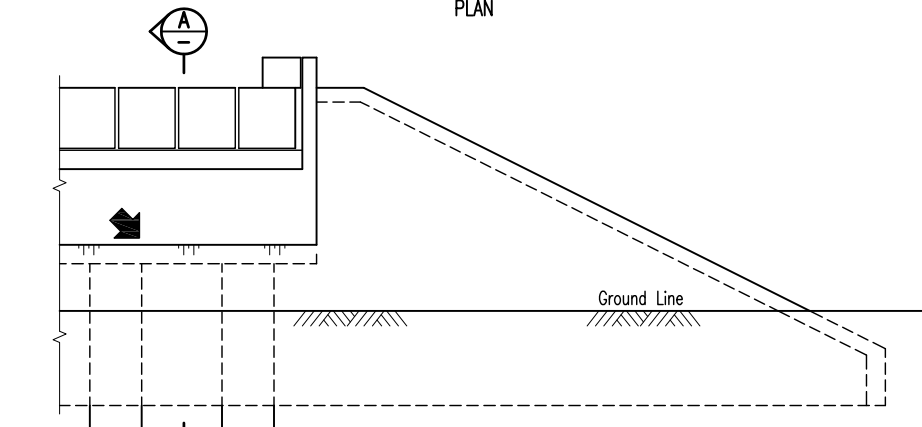
If the bridge is superelevated, the top of the protection is also to be superelevated. The dimensions at the top of the protection are to be maintained across the full width of the abutment

PLAN GENERAL LAYOUT (SKEWED BRIDGE)



If the bridge is superelevated, the top of the protection is also to be superelevated. The dimensions at the top of the protection are to be maintained across the full width of the abutment

PLAN



ELEVATION GENERAL LAYOUT (SQUARE BRIDGE)

DESIGN CRITERIA

The purpose of this drawing is to provide standard details only and fitness for purpose shall conform to AS 5100. The details shall be determined and certified by the bridge design engineer. Because every abutment protection is designed to suit its specific location, this drawing shall be read in conjunction with the project specific drawings.

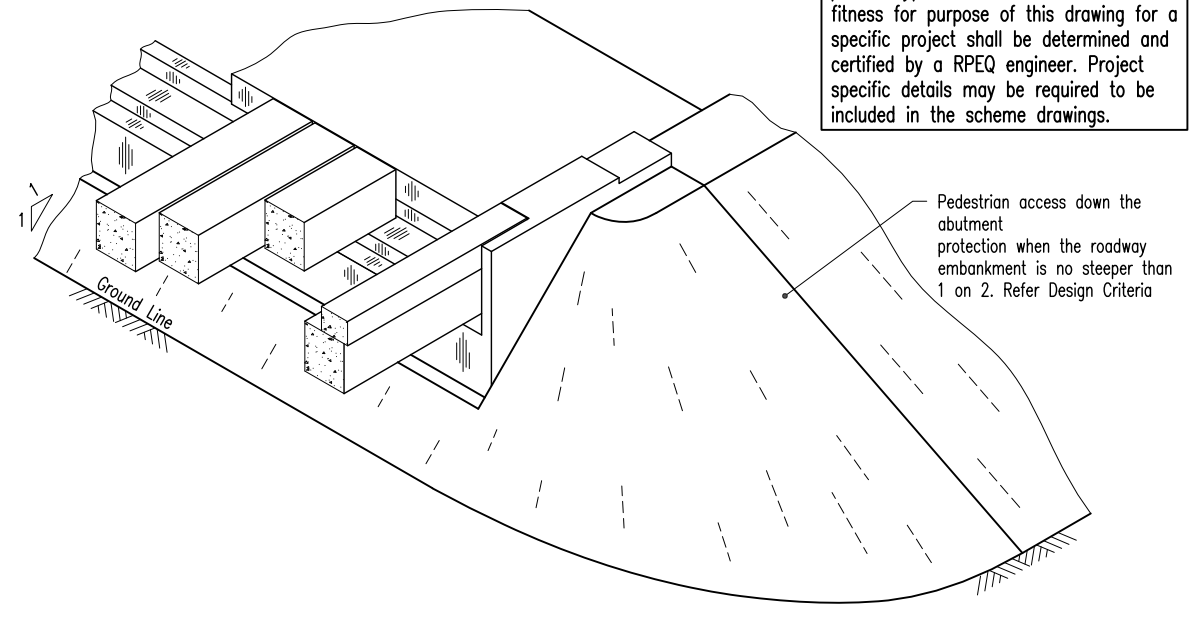
In accordance with Workplace Health and Safety requirements, abutment headstocks must be easily accessible to allow them to be inspected and maintained. Where the clearance is no greater than 1700 high, this can be done by walking around the base of the protection. If the clearance is greater than 1700, a platform shall be provided 1700 from the underside of the bridge (refer to Standard Drawing 2235).

Provided that the roadway embankment is no steeper than 1 on 2, access to the underside of the bridge shall be by walking down the side of the protection. If the embankment is steeper than 1 on 2, a risk assessment shall determine the best method of accessing the underside of the bridge. This may be by walking down the road embankment where it is not too steep, or by connecting a safety harness to a guardrail post for access down the protection. Roadway embankments steeper than 1 on 2 must be protected.

When designing abutment protection, consideration must be given to the strength of the subgrade material. The protection shall be constructed before the deck units/girders are erected on the end span.

The possibility of scour at the protection must be assessed at each abutment. The toe walls shown are only suitable for low scour situations. The protection may need to be modified in high scour situations.

Note: The purpose of this drawing is to provide typical standard details. The fitness for purpose of this drawing for a specific project shall be determined and certified by a RPEQ engineer. Project specific details may be required to be included in the scheme drawings.



REINFORCED CONCRETE PROTECTION (SQUARE BRIDGE SHOWN - SKEWED BRIDGE SIMILAR)

NOTES:

- This drawing was previously Standard Drawing No. 1542.
- Refer Design Criteria for Bridges and Other Structures for the abutment protection type selection criteria.
- CONCRETE class to be N25/20. Exposure classification B2.
- STEEL REINFORCEMENT to be read in conjunction with Std Drg 1044. Reinforcing steel to be in accordance with AS/NZS 4671. Round bars Grade R250N. All reinforcing steel to be ACRS certified. Cover to be 75 minimum to the embankment face and 55 minimum to the sides of the slab and the weepholes. Reinforcement to be hot dip galvanised to AS/NZS 4680 where shown.
- TACK WELDING for location purposes to AS/NZS 1554.3 Clauses 3.3.1 and 3.3.2. Welding consumables to be E4916, E4918 and W50X.
- DIMENSIONS are in millimetres unless shown otherwise.
- SETTING OUT POINTS shown thus

ASSOCIATED DEPARTMENTAL DOCUMENTS:
Standard Drawings; Specifications; Bridge Scour Manual; Design Criteria for Bridges and Other Structures

REFERENCED DOCUMENTS:
Departmental Standard Drawings:
1044 Reinforcing Steel-Standard Hook, Lap and Bend Details and Gen. Steel Reinforcement Information
2235 Abutment Protection-Type 2-Reinforced Concrete Over Spillthrough-Greater Than 1700 Clearance
Australian Standards:
AS/NZS 1554.3 Welding of Reinforcing Steel
AS 4671 Steel Reinforcing Materials
AS/NZS 4680 Hot-dip Galvanised (Zinc) Coatings on Fabricated Ferrous Articles
AS 5100 Set Bridge Design
Legislation: Work Health and Safety Act 2011; Work Health and Safety Regulations 2011

Department of Transport and Main Roads			
ABUTMENT PROTECTION			
TYPE 2 - REINFORCED CONCRETE OVER SPILLTHROUGH - UP TO 1700 CLEARANCE		A3	Standard Drawing No
		Not to Scale	2234
		A	Date 4/15