

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

**DESIGN CRITERIA**

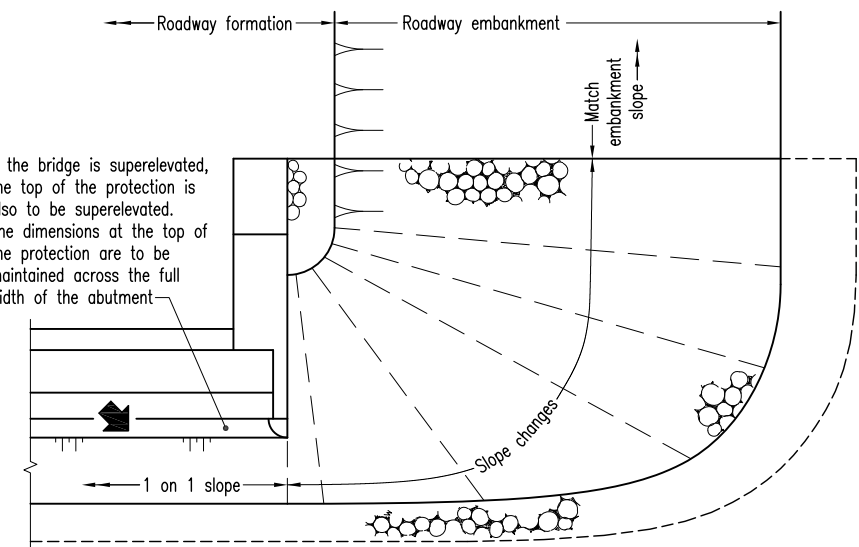
The purpose of this drawing is to provide standard details only and fitness for purpose shall conform to AS 5100. The details shall be determined and certified by the bridge design engineer. Because every abutment protection is designed to suit its specific location, this drawing shall be read in conjunction 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 2237).

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.

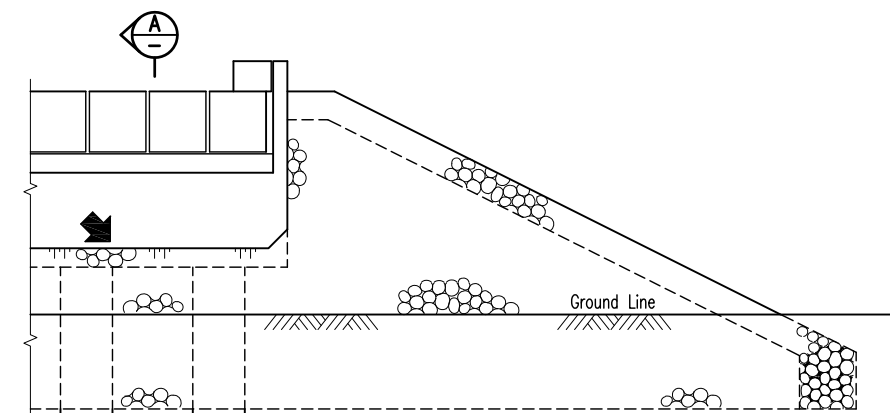
When designing abutment protection, consideration must be given to the strength of the subgrade material. The rockwork shall be placed to profile before the deck units/girders are erected on the end span. Once erected, the protection can then be constructed.

The possibility of scour at the protection must be assessed at each abutment. Toe walls (Type A and B) are only suitable for low scour situations. The protection may need to be modified in high scour situations.

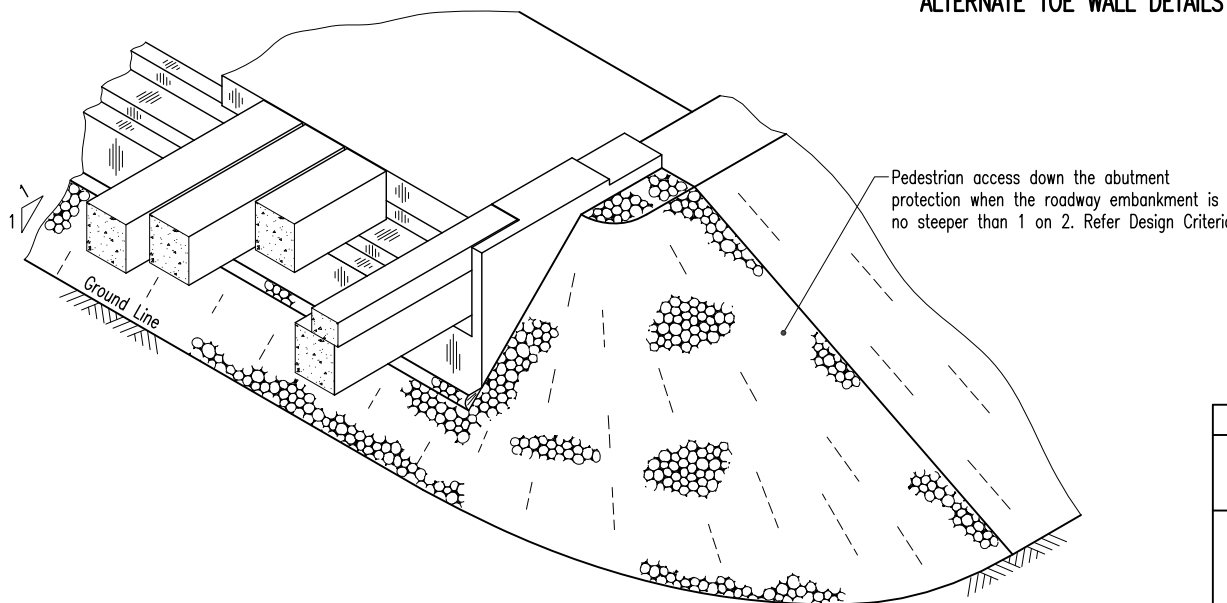


PLAN

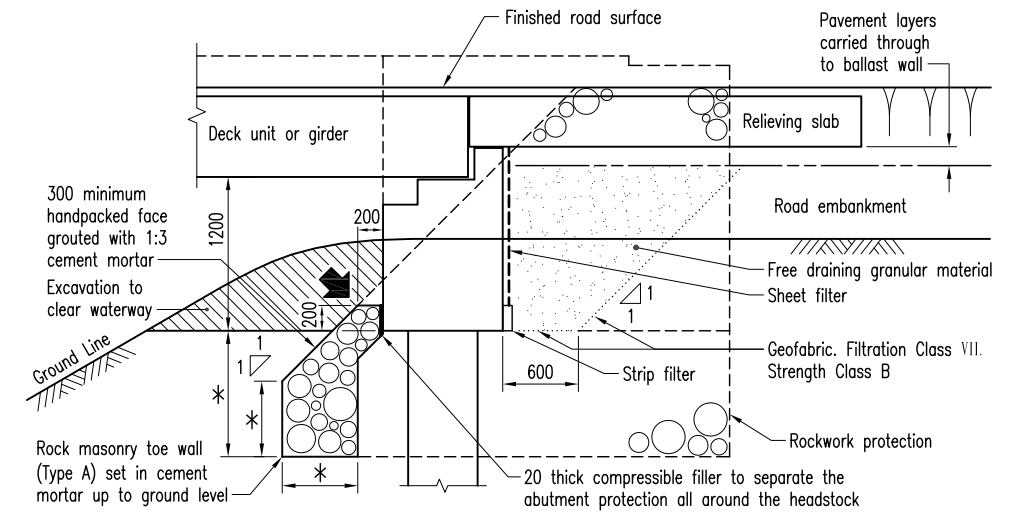
If the bridge is superelevated, the top of the protection is also to be superelevated. The dimensions at the top of the protection are to be maintained across the full width of the abutment



ELEVATION  
GENERAL LAYOUT (SQUARE BRIDGE)

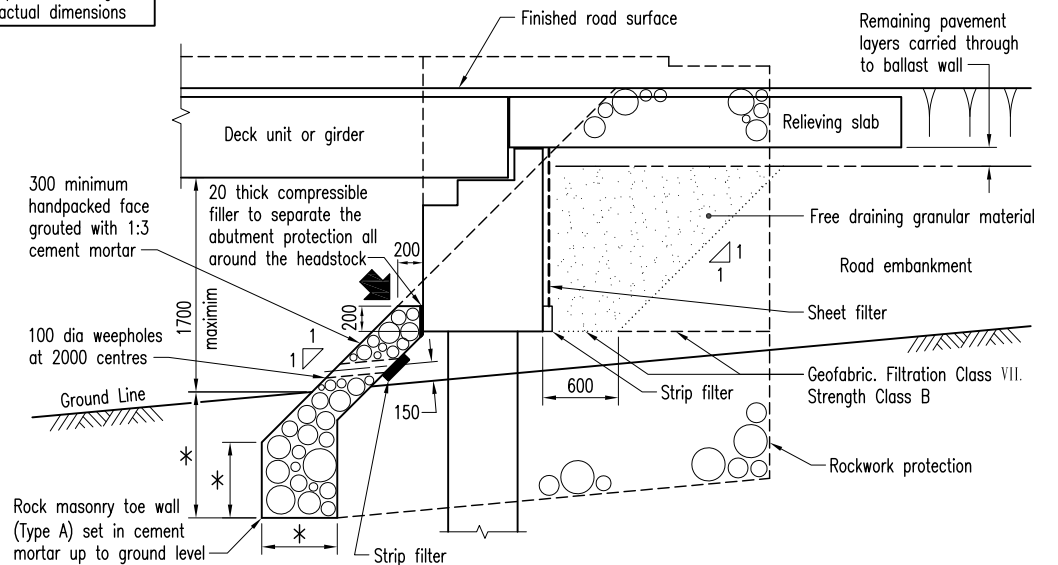


ROCKWORK PROTECTION (SQUARE BRIDGE SHOWN - SKEWED BRIDGE SIMILAR)



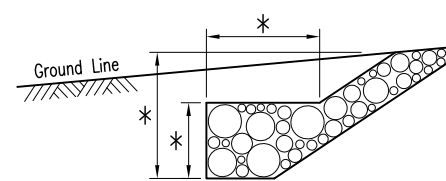
SECTION A EXCAVATION TO PROVIDE 1200 CLEARANCE

\* Refer to the project specific drawings for actual dimensions



SECTION A CLEARANCE BETWEEN 1200 AND 1700

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.



ALTERNATE TOE WALL DETAILS (TYPE B)

- NOTES:**
1. This drawing was previously Std Drg 1544.
  2. Refer Design Criteria for Bridges and Other Structures for the abutment protection type selection criteria.
  3. DIMENSIONS are in millimetres unless shown otherwise.
  4. 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: 2237 Abutment Protection - Type 4 - Rockwork Over Spillthrough - Greater than 1700 Clearance
  - Australian Standards: 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 4 - ROCKWORK OVER SPILLTHROUGH - UP TO 1700 CLEARANCE		A3	Standard Drawing No
		Not to Scale	2236
		A	Date 4/15