

2 DURABILILTY

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2.4 DESIGN FOR DURABILITY**2.4.2 Durability Requirements****2.4.2.5 Bridge Joints****2.4.2.5.1 Expansion and/or Fixed Joints in Decks**

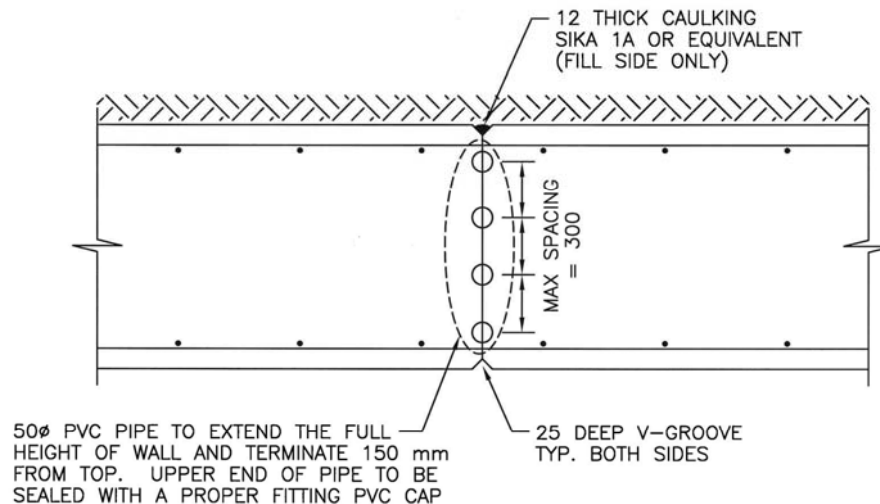
Joints shall be designed such that they can be easily accessed for flushing, maintenance, inspection and repair.

Commentary: Joint seals shall be assessed for serviceability throughout the full temperature range at the site. Only products listed in the Ministry Recognized Product List, or as Approved otherwise, shall be incorporated into the work. Refer to <http://www.gov.bc.ca/> and click sequentially on "Ministry and Organizations", "Transportation", "Report and Publications", "Engineering Publications", "Geotechnical and Pavement Engineering Publications", and "Recognized Product List".

2.4.2.5.2 Joints in Abutments, Retaining Walls, and Buried Structures

Typical details for concrete control joints are shown in Figure 2.4.2.5.2 below.

**Figure 2.4.2.5.2
Typical Control Joint**

**NOTES:**

- CAULKING IS TO BE PROTECTED WITH 12 THK x 150 WIDE ASPHALT IMPREGNATED FIBREBOARD
- MAXIMUM SPACING OF CONTROL JOINTS = 3.0 m

2.4.2.6 Drainage

Amend the second sentence in the second paragraph as follows:

Downspouts shall extend a minimum of 500 mm below adjacent members.

2.4.2.7 Utilities

The Ministry's "Utility Policy Manual" shall be followed for procedures and guidelines regarding the installation of utilities on or near bridges.

2.5 DURABILITY OF ALUMINUM STRUCTURES**2.5.3 Detailing for Durability****2.5.3.2 Inert Separators**

Aluminum railing post surfaces in contact with concrete shall be coated with an alkali resistant bituminous paint, and anchor bolt projections and washers shall be coated with an aluminum impregnated caulking.

2.6.3 Waterproofing Membranes

Only products listed in the Ministry Recognized Products List, or as Approved otherwise, shall be incorporated into the work.

Commentary: Refer to <http://www.gov.bc.ca/> and click sequentially on "Ministry and Organizations", "Transportation", "Report and Publications", "Engineering Publications", "Geotechnical and Pavement Engineering Publications", and "Recognized Product List".

2.6.4 Backfill Material

A drainage course shall be provided along the backside of all foundation walls located in cut providing positive drainage through 100 mm weep holes provided a minimum 4.0 m spacing along the footing line. Drains are not required for abutments located on compacted standard granular bridge end fills.

The gradation of drainage course material shall be as follows:

Sieve Size (mm)	Passing Per Nominal Maximum Size
40	100
20	0 - 100
10	0

2.6.5 Soil and Rock Anchors

Soil and rock anchors permanently incorporated into the structure shall be provided with a double corrosion protection system.

2.6.6 Other Materials

Premoulded joint fillers on bridge structures shall consist of 25 thick Evazote 50, or Ole-Tex XE-300, or equal as consented to by the Ministry, and shall be applied in accordance with the manufacturer's instructions.