Safety Barrier Technical Conditions for Use

Type F Concrete Safety Barrier - Permanent

Issue Date: 25 June 2019
Supplier: Public Domain

These conditions take precedence over any instructions in the Product Manual. This document is a summary of the Austroads Safety Barrier Assessment Panel’s assessment of the technical performance of the product against AS/NZS 3845 Parts 1 or 2 only. It does not consider procurement practices by individual Road Agencies.

The Austroads Safety Assessment Panel may at any time, withdraw or modify this Technical Conditions for Use without notice.

These acceptance conditions should be read in conjunction with the Product Manual and Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers.

Acceptance of this product does not place any obligation on the Northern Territory Government or its contractors, to purchase or use the product.

Status

Accepted – may be used on the classified road network

Product accepted
Profile = Type F – set in a continuous keyed foundation, dowelled or placed in front of compacted backfill in accordance with the Project Drawings and AS 5100 Parts and AS 3845 Parts.

Variants
• Single sided
• Double sided

Options
• Cast in-situ
• Slip formed

Variants that are NOT listed above are NOT recommended for acceptance.

Accepted speed
110km/h

Product manual reviewed
Product manual

Design Requirements

<table>
<thead>
<tr>
<th>Containment Level</th>
<th>Point of Redirection</th>
<th>Tested Article Length (m)</th>
<th>Anchor/Post Spacing (m)</th>
<th>Dynamic Deflection (m)</th>
<th>Working Width (m)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MASH TL3</td>
<td>Entirely redirective</td>
<td>30</td>
<td>n/a</td>
<td>0</td>
<td>0.6</td>
<td>820mm high</td>
</tr>
<tr>
<td>MASH TL4</td>
<td>8</td>
<td>8</td>
<td>45</td>
<td>n/a</td>
<td>1.6</td>
<td>920mm high</td>
</tr>
<tr>
<td>MASH TL5</td>
<td>30</td>
<td>30</td>
<td>100</td>
<td>n/a</td>
<td>2.0*</td>
<td>1100mm high</td>
</tr>
</tbody>
</table>

*estimated from crash test photographs

Approved Connections

Crash Cushions or Terminals must be fitted to both ends of a barrier

Public Domain Products
W-Beam Guardrail Not Permitted
Thrie-Beam Guardrail Permitted

Proprietary Products
• Refer to end treatment acceptance conditions for accepted connections.

For more information visit: www.dipl.nt.gov.au
**Design Guidance**

This product must be installed and maintained in accordance with the Product Manual and Road Agency specifications. Road Agency specifications and standards shall have precedence.

<table>
<thead>
<tr>
<th>Minimum installation length</th>
<th>TL3 – 30 metres between crash cushions/terminals (tested article)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TL4 – 45 metres between crash cushions/terminals (tested article)</td>
</tr>
<tr>
<td></td>
<td>TL5 – 100 metres between crash cushions/terminals (tested article)</td>
</tr>
<tr>
<td>System width (m)</td>
<td>0.6 metres</td>
</tr>
<tr>
<td></td>
<td>0.5 metres – single slope</td>
</tr>
<tr>
<td>Minimum distance to excavation</td>
<td>Recorded dynamic deflection – may require structural design to comply with AS5100</td>
</tr>
<tr>
<td>Slope limit</td>
<td>Side slope limit: 10 Horizontal to 1 Vertical (10%).</td>
</tr>
</tbody>
</table>

**Systems conditions**

1. The maximum upstand is 80mm.
2. Installation on top of a kerb is not recommended, however if installed on top of a kerb, all system components must be free to operate.
3. Flaring across the clear zone without an approved connection and terminal is NOT permitted.

**Gore area use**

Permitted

**Pedestrian area use**

Permitted – consider potential for snagging and deflection

**Cycleway use**

Permitted – consider potential for snagging and deflection

**Frequent impact likely**

Permitted

**Remote location**

Permitted

**Median use**

Permitted

### Foundation Pavement Conditions

<table>
<thead>
<tr>
<th>Pavement</th>
<th>Use</th>
<th>Accepted Speed (max)</th>
<th>Post/Pin Spacing (m)</th>
<th>Post/Pin Type</th>
<th>Pavement Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete</td>
<td>Permitted</td>
<td>110 km/h</td>
<td>Refer to standard drawings</td>
<td>Minimum AASHTO Standard Soil Strength</td>
<td></td>
</tr>
<tr>
<td>Deep lift asphaltic concrete</td>
<td>Permitted</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asphaltic concrete over granular pavement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flush seal over granular pavement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unsealed compacted formation</td>
<td>Not Permitted</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Installation in pavement conditions not listed above have not been justified to the Panel’s satisfaction.