


# Safety Barrier Technical Conditions for Use

## Ramshield High Containment Safety Barrier - Permanent

	<b>Issue Date:</b> 7 March 2024	<b>Proponent:</b> Safe Direction
	<b>Status:</b> Recommended for acceptance	<b>Accepted Impact Speed:</b> 100 km/h

This document is a summary of the Austrroads 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 Austrroads Safety Barrier Assessment Panel may at any time, withdraw or modify this document without notice.

These Technical Conditions for Use do not imply that this product may be used on roads under the care and control of individual Road Agencies. Users should refer to individual Road Agency websites to determine whether this product is accepted for use within that jurisdiction, and if the Road Agency has adopted any additional or specific requirements.

**These conditions do not take precedence over Road Agency specifications and standards.**

**These conditions take precedence over instructions in the Product Manual**, refer Austrroads Technical Advice SBTA 22-001. Product manual current at time of TCU: PM 030/03 Ramshield HC Safety Barrier, PM 025-05 – Bikershield MPR

### Design Requirements

Containment Level	MASH TL3	MASH TL4
Accepted Impact Speed	100 km/h	100 km/h
Point of Redirection – Leading (m)	Interface between the barrier and the end treatment	10
Point of Redirection – Trailing (m)	Interface between the barrier and the end treatment (20 from the interface between the barrier and a non-redirection terminal)	40
Tested Article Length (m)	82	82
Anchor/Post Spacing (m)	2.0	2.0
Dynamic Deflection (m)	1.00	1.10
Working Width (m)	1.10	2.20
System Width (m)	0.23	0.23
Minimum Support Width (m) <i>measured from the face of the barrier</i>	1.00	1.10
Minimum Installation Length (m) <i>between crash cushions/terminals - tested article</i>	82	82
System Conditions	<ul style="list-style-type: none"> <li>Only to be installed with system designed driving head.</li> <li>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.</li> </ul>	

### Approved Variants

Variant	Functional Purpose	Conditions
Ramshield Edge	Constrained locations where minimal cross-sectional width is available (e.g. mountainous terrain)	<ul style="list-style-type: none"> <li>Requires site specific design.</li> <li>Acceptance of design at the discretion of road controlling authority.</li> <li>Must be accompanied by site specific ground investigation.</li> </ul>
Baseplate Installation	Allow attachment to ground beam to avoid underground utilities or assets	<ul style="list-style-type: none"> <li>Requires engineered concrete footing.</li> <li>Minimum ground beam length of 12 metres.</li> <li>Should be limited to constrained locations where a driven post cannot be installed.</li> <li>Permitted in all pavement types – refer drawings.</li> </ul>
<i>Variants that are not listed above are NOT recommended for acceptance. Alterations to or combinations of the variants listed above are not recommended unless noted.</i>		

## Approved Connections

<b>An accepted end treatment must be provided at both ends of all barrier installations</b>	
<b>End Treatments</b>	
MSKT	<ul style="list-style-type: none"> <li>Refer MSKT Technical Conditions for Use.</li> </ul>
<b>Transitions</b>	
Public Domain W-Beam Guardrail	<ul style="list-style-type: none"> <li>Permitted</li> </ul>
Public Domain Thrie-Beam Guardrail	<ul style="list-style-type: none"> <li>Permitted</li> </ul>
Public Domain Permanent Concrete	<ul style="list-style-type: none"> <li>Permitted using Austroads Transition (refer Austroads Technical Advice SBTA 21-005).</li> <li>Permitted using Ramshield Transition.</li> </ul>
Ramshield Safety Barrier	<ul style="list-style-type: none"> <li>Refer Ramshield Safety Barrier Technical Conditions for Use.</li> </ul>
<b>Attachments</b>	
BikerShield Motorcyclist Protection Device	<ul style="list-style-type: none"> <li>Motorcyclist Protection Device.</li> <li>Tested to EN-1317.8 – Class C60 with Severity Level 2.</li> <li>Not permitted on kerbed roads.</li> </ul>
<i>Connections that are not listed above are NOT recommended for acceptance.</i>	

## Foundation Pavement Conditions

<b>Pavement Type</b>	<b>Post/Pin Spacing (m)</b>	<b>Post/Pin Type</b>	<b>Pavement Construction</b>
Concrete	2.0	Baseplate post or Driven post with coring holes	Refer drawings
Deep lift asphaltic concrete	2.0	Driven post	Min AASHTO standard soil strength
Asphaltic concrete over granular	2.0	Driven post	Min AASHTO standard soil strength
Flush seal over granular	2.0	Driven post	Min AASHTO standard soil strength
Unsealed compacted formation	2.0	Driven post	Min AASHTO standard soil strength
<i>Installation in pavement conditions not permitted above have not been justified to the Panel's satisfaction.</i>			