


# Safety Barrier Technical Conditions for Use

## SENTRY THRIE-BEAM Safety Barrier - Permanent

	<b>Issue Date:</b> 14 March 2022	<b>Supplier:</b> Australian Construction Products
	<p><b>These conditions take precedence over any instructions in the Product Manual.</b></p> <p>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.</p> <p>The Austroads Safety Assessment Panel may at any time, withdraw or modify this Technical Conditions for Use without notice.</p> <p>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.</p> <p>Acceptance of this product does not place any obligation on the Northern Territory Government or its contractors, to purchase or use the product.</p>	

Status	<b>Recommended for Acceptance</b>
Product accepted	<p>SENTRY THRIE-BEAM Safety Barrier</p> <p><u>Variants</u></p> <p>Base plate installation – should be limited to constrained locations where a driven post cannot be installed due to underground services.</p> <p>Variants that are NOT listed above are NOT recommended for acceptance.</p>
Accepted Speed	100 km/h
Product Manual reviewed	November 2020 – v1.3 IM 001 Rev 01 – dated 15 February 2021 – RiderPro
Product Manual	<a href="http://www.acprod.com.au/products/sentry-barrier-tl4-thriebeam-system-longitudinal-barrier">http://www.acprod.com.au/products/sentry-barrier-tl4-thriebeam-system-longitudinal-barrier</a>

### Design Requirements

Containment Level	Point of Redirection		Tested Article Length (m)	Anchor/Post Spacing (m)	Dynamic Deflection (m)	Working Width (m)	Notes
	Leading (m)	Trailing (m)					
MASH TL3	Interface between barrier and end treatment		86	2.0	1.45	1.53	
MASH TL4	18.67	18.67	86	2.0	1.53	2.80	

### Approved Connections

<b><i>An accepted end treatment must be provided at both ends of all barrier installations</i></b>	
<b>Public Domain Products</b>	
W-Beam Guardrail	Permitted
Thrie-Beam Guardrail	Not Permitted
Concrete	Permitted using ACP Drawing No: GA-TR26 & Austroads SBTA 21-005 Transition

Proprietary Products	
Sentry W-Beam Safety Barrier	<ul style="list-style-type: none"> <li>Refer to Sentry W-Beam Safety Barrier Technical Conditions for Use.</li> </ul>
Max-Tension Guardrail Terminal	<ul style="list-style-type: none"> <li>Refer to Max-Tension Guardrail Terminal Technical Conditions for Use.</li> </ul>
RiderPro	<ul style="list-style-type: none"> <li>Motorcyclist Protection Device</li> <li>Tested to EN1317:8 – Class C60 with Severity Level 1.</li> <li>Not permitted on kerbed roads</li> </ul>

## Design Guidance

Minimum installation length	86 metres between crash cushions/terminals (tested article)
System width (m)	0.2 (Sentry Thrie-Beam) 0.35 (with RiderPro attached)
Minimum distance to excavation (m)	1.45 (TL3) – measured from the face of the barrier 1.53 (TL4) – measured from the face of the barrier
Slope limit	10%
Systems conditions	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.
Gore area use	Permitted
Pedestrian area use	Permitted
Cycleway use	Permitted
Frequent impact likely	Permitted
Remote location	Permitted
Median use	Permitted – not suitable for impact on the post side

Foundation Pavement Conditions					
Pavement Type	Use	Max Accepted Impact Speed (km/h)	Post/Pin Spacing (m)	Post/Pin Type	Pavement Construction
Concrete	Permitted	100	2.0	Sentry Thrie-Beam base plate post	Refer to drawing Sentry TL4 BP FOOTING Max length 20 metres
Deep lift asphaltic concrete	Permitted	100	2.0	Sentry Thrie-Beam post	Minimum AASHTO standard soil strength
Asphaltic concrete over granular pavement					
Flush seal over granular pavement					
Unsealed compacted formation					

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