


Safety Barrier Technical Conditions for Use

IRONMAN HYBRID Steel Safety Barrier - Temporary

	Issue Date: 17 September 2021	Proponent: Saferoads Pty Ltd
	<p>These conditions take precedence over any instructions in the Product Manual.</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	Recommended for Acceptance
Product accepted	<p>IRONMAN HYBRID Steel Safety Barrier - Temporary</p> <p><u>Variants</u></p> <p>4 metre steel freestanding Ironman Barrier with the addition of 4 precast concrete blocks placed inside at the base of the barrier. The concrete blocks are attached using steel straps and can be retrofitted to standard Ironman to produce the IRONMAN HYBRID Steel Safety Barrier – Temporary.</p> <p>Variants that are NOT listed above are NOT recommended for acceptance.</p>
Accepted impact speed	70 km/h
Product manual reviewed	Australian Version 2.0 May 2021
Product Manual	https://www.saferoads.com.au/ironman-hybrid-barrier

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 TL2	22.5	22.5	114.3	freestanding	1.49	2.04	

Approved Connections

<i>An accepted end treatment must be provided at both ends of all barrier installations</i>	
Public Domain Products	
W-Beam Guardrail	Not permitted
Thrie-Beam Guardrail	Not permitted
Concrete	Not permitted

Proprietary Products	
<p>LEGACY: QUADGUARD CZ Crash Cushion</p>	<ul style="list-style-type: none"> • LEGACY status recommended from 1 January 2021. • Refer QUADGUARD CZ Crash Cushion Technical Conditions for Use. • The Ironman Hybrid barrier adjacent to the Quadguard CZ Crash Cushion must be anchored to the pavement as required by the Product Manual. • The Ironman Hybrid to Quadguard CZ Crash Cushion transition must be used to connect the crash cushion to the barrier. • Leading and trailing points of redirection are considered to be 0. • Reverse impacts into the transition section can produce a greater occupant severity value than preferred. Where reverse impacts are possible (e.g. bi-directional traffic), a risk assessment must be completed and steps to mitigate the likelihood of reverse impact should be implemented.
<p>LEGACY: ABSORB 350 Plastic Terminal</p>	<ul style="list-style-type: none"> • LEGACY status recommended from 1 January 2021. • The installation is restricted to an impact speed of 70 km/h or less. • Refer to ABSORB 350 Terminal Technical Conditions for Use. • The Ironman Hybrid to AB350 Terminal transition must be used to connect the terminal to the barrier. • This is a gating device.
<p>SLED Plastic Water Filled Crash Cushion</p>	<ul style="list-style-type: none"> • Refer to SLED Plastic Water Filled Crash Cushion Technical Conditions for Use. • The Ironman Hybrid to SLED Crash Cushion transition must be used to connect the crash cushion to the barrier. • This is a gating device.

Design Guidance

Minimum installation length	57.5 metres between crash cushions/terminals
System width (m)	0.55
Minimum distance to excavation (m)	1.49 measured from the face of the barrier on the works side
Side slope limit	5%
System conditions	Installation on top of a kerb is not recommended
Gore area use	Permitted
Pedestrian area use	Permitted
Cycleway use	Permitted
Frequent impact likely	Permitted
Remote location	Permitted
Median use	Permitted

Foundation Pavement Conditions					
Pavement Type	Use	Max Accepted Impact Speed (km/h)	Post/Pin Spacing (m)	Post/Pin Type	Pavement Construction
Concrete	Permitted	70			<p align="center"><u>Freestanding</u></p> <p>Foundation pavement conditions must be smooth and free of snag points, kerbs or obstruction that may interfere with the operation of the product</p>
Deep lift asphaltic concrete					
Asphaltic concrete over granular pavement					
Flush seal over granular pavement					
Unsealed compacted formation	Not Permitted				

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