

DETAIL SHEET

# IRONMAN HYBRID STEEL SAFETY BARRIER - TEMPORARY

## VicRoads Requirements

Refer to Austroads - Safety Barrier System Acceptance Conditions for the IRONMAN HYBRID Steel Safety Barrier. All requirements listed by Austroads have been adopted by VicRoads for use on the Victorian declared road network.

In this instance, VicRoads applies no additional requirements/conditions for use of IRONMAN HYBRID Steel Safety Barrier on the Victorian declared road network.

## References

- Product Installation Manual and Product Operational Manual [refer licensed product supplier website](#)
- VicRoads Road Design Note 06-04 Accepted Safety Barrier Products




## For further information please contact:

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**Accepted safety barrier products are subject to periodic review and the information provided in this document may be superseded. Please refer to *Road Design Note 06-04 – Accepted Safety Barrier products* for the current VicRoads acceptance status.**

# Safety Barrier System Conditions

## IRONMAN HYBRID Steel Safety Barrier - Temporary

	<b>Australian Distributor</b>	Saferoads Pty Ltd
	<b>New Zealand Distributor</b>	Saferoads Pty Ltd
	<b>Date Issued</b>	26 May 2015

<b>Status</b>	<b>Accepted</b> – May be used on the classified road network. These acceptance conditions take precedence over any instructions in the Product Manual.
<b>Variants accepted</b>	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.
<b>Variants NOT accepted</b>	<ul style="list-style-type: none"> <li>• 12 metre retrofitted units.</li> <li>• Variants that are not on the list above are not accepted.</li> <li>• Variants accepted in other jurisdictions, but not accepted in the local jurisdiction, are NOT permitted.</li> </ul>

<b>Speed limit (km/h)</b>	80 km/h (60 km/h if used with ABSORB 350 Plastic Terminal).	
<b>Tested containment (kg)</b>	2,000 kg at 100 km/h and 25°.	
<b>Adopted dynamic deflection (Nominal 2 tonne vehicle)</b>	100 km/h	Not applicable.
	80 km/h	1.6 metres.
	70 km/h	1.3 metres.
	50 km/h	Use 70 km/h deflection.
	Deflections shown may be exceeded with flared installations and/or high mass vehicles. Refer to Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers Section 6 for design advice.	
<b>Point of need</b>	At leading end when attached to a redirective cushion, otherwise the leading end of the IRONMAN HYBRID Steel Safety Barrier.	
<b>Development length</b>	Not applicable (QUADGUARD CZ). 44 metres (ABSORB 350 Plastic Terminal).	
<b>Minimum length of barrier between terminals</b>	28 metres (QUADGUARD CZ). 116 metres including two development lengths (ABSORB 350 Plastic Terminal).	
<b>System width (m)</b>	0.55 metres.	

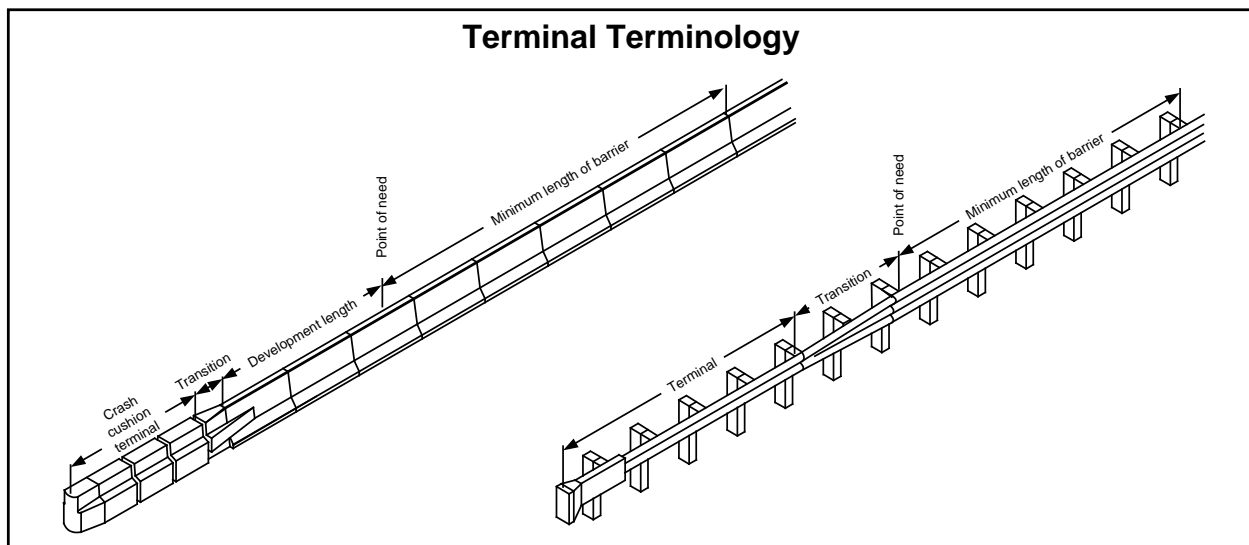
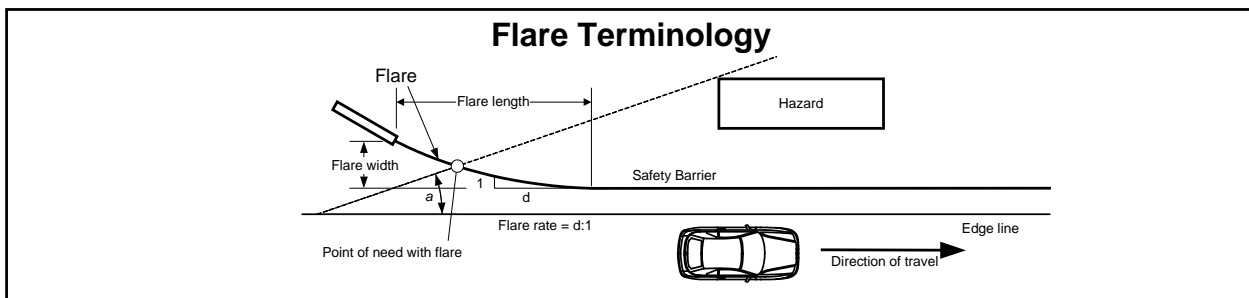
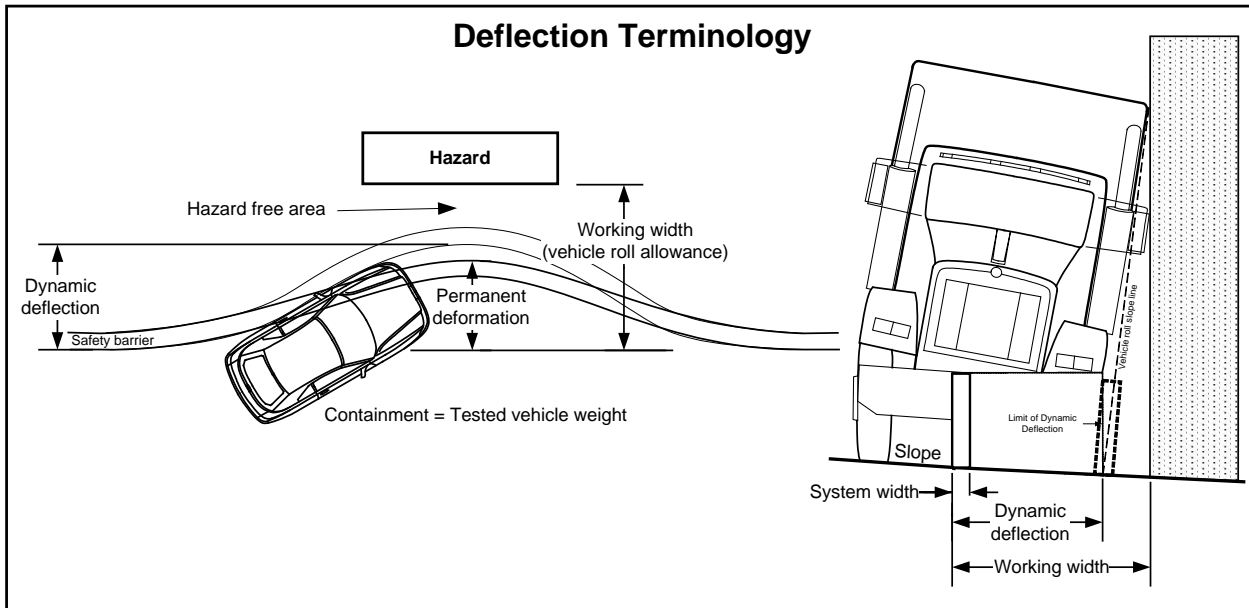
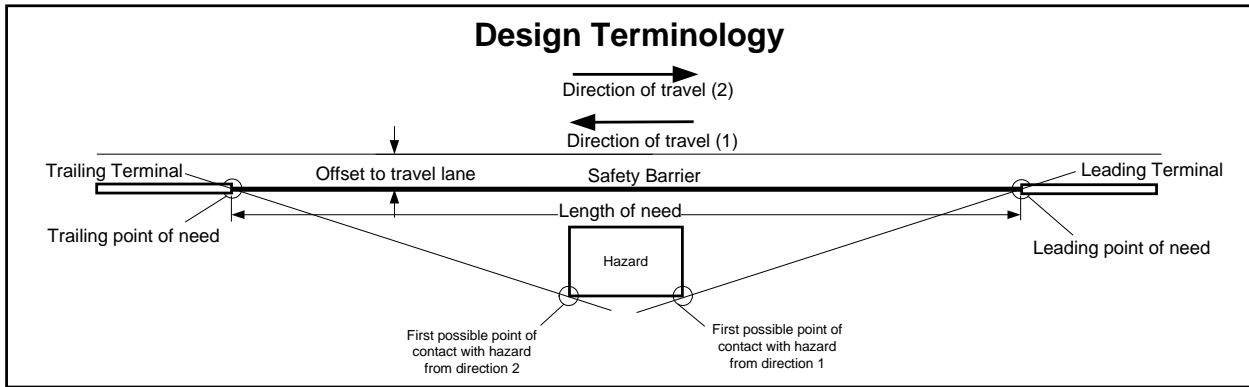
<b>System conditions</b>	<ol style="list-style-type: none"> <li>1. Flaring across the clear zone without a terminal listed below is NOT permitted.</li> <li>2. Installation on top of a kerb is not recommended, however if installed on top of a kerb, all system components must be free to operate.</li> <li>3. Installation in front of kerb is not permitted.</li> </ol>	
<b>Terminals and connections</b>	W-Beam guardrail	Not Permitted.
	Thrie-Beam guardrail	Not Permitted.

	Type F Concrete Safety Barrier	Not Permitted.
	Proprietary product	<p>1. QUADGUARD CZ</p> <ul style="list-style-type: none"> <li>Permitted for use with IRONMAN HYBRID Steel Safety Barrier - Temporary.</li> <li>See QUADGUARD CZ acceptance document for conditions of use.</li> <li>The QUADGUARD CZ TO IRONMAN HYBRID TRANSITION must be used to connect the terminal to the barrier.</li> <li>Permitted as a terminal on a flare.</li> </ul> <p>2. ABSORB 350 PLASTIC TERMINAL – TEMPORARY</p> <ul style="list-style-type: none"> <li>Permitted for use with IRONMAN HYBRID Steel Safety Barrier - Temporary.</li> <li>The installation is restricted to a Speed Limit of 60 km/h or less.</li> <li>See ABSORB 350 Plastic Terminal acceptance document for conditions of use.</li> <li>The ABSORB 350 TO IRONMAN HYBRID TRANSITION must be used to connect the terminal to the barrier.</li> <li>Not permitted as a terminal on a flare.</li> </ul>
	Other	A terminal must be fitted to both ends of the barrier.
<b>Gore area use</b>	Permitted – consider speed and deflection limitations.	
<b>Pedestrian area use</b>	Permitted – consider potential for snagging and deflection.	
<b>Cycleway use</b>	Permitted – consider potential for snagging and deflection.	
<b>Frequent impact likely</b>	Permitted.	
<b>Remote location</b>	Permitted.	
<b>Median use</b>	Not permitted.	
<b>Minimum median width (m)</b>	Not applicable.	
<b>Flare (See Explanation of Terms diagram)</b>	Refer to Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers Table 6.5 for design advice.	
<b>Offset to travel lane (m)</b>	Refer to Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers, Section 6.3.5.	
<b>Hazard free area beside barrier or terminal (Working Width)</b>	Refer to Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers, Section 6.3.16.	
<b>Installation</b>	The IRONMAN HYBRID Steel Safety Barrier - Temporary must be installed and maintained in accordance with the Product Manual and Road Agency specifications. The Road Agency specifications and standards shall have precedence.	
<b>Minimum distance to excavation</b>	1.6 metres minimum distance between the edge of the barrier and the edge of an excavation. (Being the largest adopted dynamic deflection).	
<b>Slope limit</b>	Side slope limit: 20 Horizontal to 1 Vertical (5%).	

<b>Foundation pavement conditions</b>	Concrete	Permitted.
	Deep lift Asphaltic Concrete	Permitted.
	Asphaltic concrete over granular pavement	Permitted.
	Flush seal over granular pavement	Permitted.
	Unsealed compacted formation	Not permitted.
	Natural surface	Not permitted.
	Foundation pavement conditions must be smooth and free of snag points, kerbs or obstructions that may interfere with the operation of the product.	
<b>Attachments and screens</b>	<p>In accordance with the requirements of Australian/New Zealand Standard AS/NZS 3845, road furniture such as headlight screens, signs, lighting posts and fences for pedestrians, visual screens, debris screens, platforms for workers and other non-product hardware must not be attached to the product.</p> <p>Screens may be placed adjacent to the side of the product not exposed to traffic. The distance between the screen and the product shall be determined by a site specific risk assessment that considers the deflection distance.</p> <p>Screens must not have horizontal members that present a risk of impaling errant vehicles that impact the product.</p>	
<b>Damaged components</b>	Damaged components must be replaced. Repaired components must not be used.	
<b>Delineation</b>	The installed system shall include delineation as prescribed by Road Agency specifications and drawings.	
<b>Traceability and markings</b>	<p>Product markings shall be in accordance with marking/s prescribed by the current Australian/New Zealand Standard AS/NZS 3845 Road Safety Barrier Systems and Road Agency specifications. Traceability details that must be permanently fixed to the product are:</p> <ul style="list-style-type: none"> <li>• Name of the product.</li> <li>• Manufacturer or distributor name.</li> <li>• Date of manufacture.</li> <li>• Model or version details of the product, if applicable.</li> <li>• Batch number, if applicable.</li> <li>• Serial number, if applicable.</li> </ul> <p>Traceability details must be easily visible but unobtrusive and not be in a form that becomes prominent advertising. No advertising shall be displayed on the installation.</p> <p>Traceability must be in a form that will not be erased with use.</p>	
<b>Notes</b>	Conditions are based on drawings 3569002-0000 (Sheets 1 to 4), SR0301072, SR0301073 and the Product Manual supplied by the Proponent, dated November 2014 (version 1.1.4). This acceptance will cease if there is any change in the product design or specifications.	
	Only the Product Manual authorised by the Proponent shall be used in any marketing of the product.	
	Acceptance of the IRONMAN HYBRID Steel Safety Barrier - Temporary does not place any obligation on the Road Agency, or its contractors, to purchase or use the product.	
	The Austroads Safety Barrier Assessment Panel may periodically re-assess the IRONMAN HYBRID Steel Safety Barrier - Temporary.	

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	<p>The Road Agency may withdraw or modify at any time, the acceptance status or conditions of use of the product without notice. Users should refer to the Road Agency web site to ensure they have the latest version of the conditions related to this product.</p>
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Safety Barrier terminology.vsd

For more information, refer to  
Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers