

# Safety Barrier Technical Conditions for Use

## X-TENSION 350 Steel Rail Terminal - Permanent

	<b>Issue Date:</b> 1 July 2019	<b>Supplier:</b> Australian Construction Products Pty Ltd:
	<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. This Technical Conditions for Use does not imply that this product may be used on roads under the care and control of individual Road Agencies.</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	<p><b>Legacy</b> – Existing installations can remain in service until the end of service life. No new installations permitted.</p> <p>These acceptance conditions take precedence over any instructions in the Product Manual.</p>
Product accepted	<p>X-TENSION 350 Steel Rail Terminal – Permanent with nose cone.</p> <p><u>Variants</u></p> <ul style="list-style-type: none"> <li>• Nil.</li> </ul>
Product Manual accepted	Dated January 2015.
Variants NOT accepted	<ul style="list-style-type: none"> <li>• Wooden posts and blockouts.</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>
Product manual	<a href="http://www.acprod.com.au/products/xtension-350-terminal-end">http://www.acprod.com.au/products/xtension-350-terminal-end</a>

Speed limit (km/h)	<p>Tested at 100 km/h.</p> <p>May be used in 110 km/h speed zones (permanent installations only).</p>	
Tested containment	NCHRP 350 Test Level 3 (2,000 kg at 100 km/h and 20°).	
Tested dynamic deflection	100 km/h	1.0 metres.
	<p>Note that deflections are measured in crash tests performed under controlled conditions. Designers should be aware that the deflection figures published as a test result may not be the deflection values achieved in the field for all impacts by errant vehicles dependent upon foundation conditions and roadside geometry.</p>	

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Working width	Not specified for this system.	
	Working width may be determined following a site specific risk assessment based upon type and speed of vehicles on the adjacent roadway. Working width (refer diagram) is the minimum width that is required to prevent an impacting vehicle from colliding with an object behind a road safety barrier system and includes both the dynamic deflection of the road safety barrier and the extra width to allow for vehicle roll.	
Point of need	600mm downstream of Post 1.	
Development length	Not applicable.	
Minimum length of barrier between terminals	Not applicable.	
System width (m)	0.48 metres (straight) 0.76 metres (median)	
System conditions	Not specified.	
Terminals and connections	W-Beam guardrail	Permitted.
	Thrie-Beam guardrail	Permitted.
	Type F Concrete Safety Barrier	Not Permitted.
	Proprietary product	See barrier conditions.
	Other	1. A 2 metre wide hazard free area must be provided immediately behind and parallel to the full length of the terminal. 2. Installation on top of a kerb is not recommended.
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.	
Flare rate (See Explanation of Terms diagram)	Refer to Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers Table 6.5 for design advice.	
Offset to travel lane (m)	Refer to Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers, Section 6.3.5.	
Hazard free area beside barrier or terminal (Working Width)	Refer to Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers, Section 6.3.16.	

Installation	The X-TENSION 350 Steel Rail Terminal - Permanent must be installed and maintained in accordance with the Product Manual and Road Agency specifications. The Road Agency specifications and standards shall have precedence.	
Minimum distance to excavation	1 metre minimum distance between the edge of the barrier and the edge of an excavation. (Being the largest adopted dynamic deflection).	
Slope limit	Side slope limit: 15 Horizontal to 1 Vertical (7%).	
Foundation pavement conditions	Concrete	Permitted with coring holes.
	Deep lift Asphaltic Concrete	Permitted with coring holes.
	Asphaltic concrete over granular pavement	Permitted.
	Flush seal over granular pavement	Permitted.

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	Unsealed compacted formation	Permitted.
	Natural surface	Permitted.
	Foundation pavement conditions must be smooth and free of snag points, kerbs or obstructions that may interfere with the operation of the product.	
Attachments and screens	<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>	
Damaged components	Damaged components must be replaced. Repaired components must not be used.	
Delineation	The installed system shall include delineation as prescribed by Road Agency specifications and drawings.	
Traceability and markings	<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. Traceability must be in a form that will not be erased with use.</p>	
Notes	This is a gating terminal.	
	Conditions are based on drawings in the Product Manual supplied by the Proponent, dated January 2015. 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 X-TENSION 350 Steel Rail Terminal - Permanent does not place any obligation on the Road Agency, or its contractors, to purchase or use the product.	
	<p>The Austroads Safety Barrier Assessment Panel may periodically re- assess the X-TENSION 350 Steel Rail Terminal - Permanent.</p> <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>	