


# Safety Barrier Technical Conditions for Use

## EZY-GUARD 4 Steel Rail Safety Barrier - Permanent

	<b>Issue Date:</b> 14 March 2022	<b>Proponent:</b> Ingal Civil Products
	<p>This document is a summary of the Austroroads 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 Austroroads Safety Barrier Assessment Panel may at any time, withdraw or modify this document without notice.</p> <p>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.</p> <p><b>These conditions do not take precedence over Road Agency specifications and standards.</b></p> <p><b>These conditions do take precedence over instructions in the Product Manual.</b></p>	

Status	<b>Recommended for Acceptance</b>
Product accepted	EZY-GUARD 4 Steel Rail Barrier  <u>Variants</u> Back to back installation Base plate installation – may only be installed on concrete foundation pavements Ezy-Lift – only to be installed where the road surface has been overlaid Single 6 metre clear span – no closer than the system dynamic deflection from hinge point  Variants that are NOT listed above are NOT recommended for acceptance.
Accepted impact speed	100 km/h
Product manual reviewed	Release 08/17

### 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		90.8	2.0	1.65	1.65	

### 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	Permitted
Concrete	Permitted using SBTA 21-005 Transition from strong post W-Beam to rigid concrete barrier
<b>Proprietary Products</b>	
QUADGUARD M10 Crash Cushion	<ul style="list-style-type: none"> <li>Refer to QUADGUARD M10 Crash Cushion Technical Conditions for Use.</li> <li>The QUAD-BEAM transition to end terminal must be used to connect the crash cushion to the barrier.</li> <li>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.</li> </ul>
ET-SS Terminal	<ul style="list-style-type: none"> <li>Refer to ET-SS Terminal Technical Conditions for Use.</li> </ul>

### Design Guidance

Minimum installation length	60 metres between crash cushions/terminals (tested article)
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System width (m)	0.2 (standard) 0.3 (back to back)
Minimum distance to excavation (m)	1.65 – measured from the face of the barrier
Side slope limit	10%
System 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

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	Ezy-Guard 4 base plate post  Or  Ezy-Guard 4 driven post with coring holes	Refer to drawings
Deep lift asphaltic concrete	Permitted	100	2.0	Ezy-Guard 4 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.