Safety Barrier System Acceptance Conditions

HighwayGuard Safety Barrier - Temporary

Issue Date: 16 December 2019

Supplier: Ingal Civil Products

These conditions take precedence over any instructions in the Product Manual.

These acceptance conditions should be read in conjunction with the Product Manual and Transport for NSW Specification R132 – Safety Barrier Systems and Austroads Guide to Road Design Part 6:Roadside Design, Safety and Barriers.

Transport for NSW may withdraw or modify this acceptance at any time without notice. Users should refer to the Transport for NSW website to ensure they have the latest version of the conditions related to this product.

Acceptance of this product does not place any obligation on Transport for NSW, or its contractors, to purchase or use the product.

Status	Accepted - may be used on the classified road network
Product accepted	HighwayGuard Safety Barrier Variants Variants Variants that are NOT listed above are NOT recommended for acceptance.
Accepted speed	100 km/h

Tested Outcomes

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 the barrier and the end treatment		120	58	1.93	2.47	
MASH TL4	30	30	120	58	2.16	3.51	

Approved Connections

Crash Cushions or Terminals must be fitted to both ends of a barrier	
Public Domain Products	
W-Beam Guardrail	Not Permitted
Thrie-Beam Guardrail	Not Permitted
Concrete	Not Permitted
Proprietary Products	
QUADGUARD CZ Steel Rail Crash Cushion	• Refer to QUADGUARD CZ Crash Cushion Technical Conditions for Use. • The HighwayGuard to Quadguard Crash Cushion transition must be used to connect the terminal to the barrier. • May only be installed where reverse impacts are highly improbable and a risk assessment has been completed and steps undertaken to mitigate any risks identified. • Not permitted as a terminal on a flare.

UNIVERSAL TAU-II Crash Cushion	• Refer to UNIVERSAL TAU-II Crash Cushion Technical Conditions for Use. • The HighwayGuard to Universal TAU-II transition must be used to connect the terminal to the barrier. • May only be installed where reverse impacts are highly improbable and a risk assessment has been completed and steps undertaken to mitigate any risks identified. • Not permitted as a terminal on a flare.

Design Guidance

This product must be installed and maintained in accordance with the Product Manual and Transport for NSW specifications	
Minimum installation length	120 metres between crash cushions/terminals (tested article)
System width (m)	0.54 metres
Minimum distance to excavation	Recorded dynamic deflection
Slope limit	Side slope limit: 12.5 Horizontal to 1 Vertical (8%)
Systems conditions	1. Installation without an end treatment listed above is NOT permitted. 2. Installation on top of a kerb is not recommended 3. Flaring across the clear zone without a terminal listed above is NOT permitted.
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

Foundation Pavement Conditions					
Pavement	**Use**	**Accepted Speed (max)**	**Post/Pin Spacing (m)**	**Post/Pin Type**	**Pavement Construction**
Concrete	Not Permitted				
Deep lift asphaltic concrete	Not Permitted				
Asphaltic concrete over granular pavement	Permitted	100 km/h	58	M30 x 365mm drop in pin, flat top pin	150mm asphalt concrete over granular subbase
Flush seal over granular pavement	Not Permitted				
Unsealed compacted formation	Not Permitted				

Note: Installation in pavement conditions not listed above have not been justified to the Transport for NSW's satisfaction.