

DB80 K150 Concrete Safety Barrier - Temporary

Product summary

Status	Accepted
Category	Temporary – Concrete Longitudinal Barriers
Test Level	Test Level 3 (MASH): 100 km/h
Supplier	Jaybro
Description	Temporary barrier (2, 4 and 6m units) consisting of Type F shape steel reinforced concrete barriers with tension bar coupling system, joint rotation limiting wedges and without intermediate ground attachment



Introduction and purpose

This detail sheet supplements *VicRoads' Road Design Note 06-04 - Accepted Safety Barrier Products*. Please refer to RDN 06-04 for the current VicRoads acceptance status, information on the product assessment process and general acceptance conditions.

The technical details within this document have been extracted from information submitted to VicRoads by the Supplier and the recommended 'Conditions for Use' from the Austroads Safety Barrier Assessment Panel (ASBAP).

VicRoads requirements take precedence over the product manual and Austroads conditions. Where a departure from these requirements is required, users should understand the risks and document their engineering decisions.

For more detailed product information, refer to the individual product manual or contact the System Supplier.

Technical information

The DB80 K150 Concrete Safety Barrier should be designed, installed and maintained in accordance with the following VicRoads conditions for use.

These conditions for use have been based on an Austroads assessment of technical performance against AS/NZS 3845 and contain VicRoads specific requirements when necessary.

Summary Conditions for Use

Accepted configuration	DB80 K150 Concrete Safety Barrier - Temporary
Variants	Nil
Deflection	1.44m
Product manual reviewed	Revision 01A – 15 March 2019
ASBAP issue	5 September 2019

Refer VicRoads conditions for use (below).

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VicRoads Conditions for Use

Tested design requirements

Containment level	Vehicle mass (kg)	Point of Redirection (m)*		Tested article length (m)	Anchor/Pin Spacing (m)*	Dynamic deflection (m)	Working width (m)	Notes
		Leading	Trailing					
MASH TL-3	2270	29.2	29.2	61.17	N/A	1.44	1.94	Working width is the dynamic deflection plus system width

Approved Terminals and Connections

<i>Crash Cushions or Terminals must be fitted to both ends of a barrier</i>	
Public Domain Products	
W-Beam Guardrail	Not permitted
Thrie-Beam Guardrail	Not permitted
Concrete Barrier	Not permitted
Proprietary Products	
QUADGUARD CZ Crash Cushion	<ul style="list-style-type: none"> See QUADGUARD CZ Crash Cushion acceptance document for conditions of use. The QUADGUARD CZ 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. Leading and trailing points of redirection are considered to be 0. Not permitted as a terminal on a flare.
UNIVERSAL TAU-II Crash Cushion	<ul style="list-style-type: none"> See Universal Tau-II acceptance document for conditions of use. The Universal TAU-II transition to DB80 Barrier 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. Leading and trailing points of redirection are considered to be 0.
ABSORB 350 PLASTIC TERMINAL - TEMPORARY	<ul style="list-style-type: none"> The installation is restricted to a speed of 70 km/h or less. Refer ABSORB 350 Plastic Terminal acceptance document for conditions of use. The ABSORB350 transition to DB80 Barrier must be used to connect the terminal to the barrier. Not permitted as a terminal on a flare.
SLED PLASTIC TERMINAL - TEMPORARY	<ul style="list-style-type: none"> The installation is restricted to a speed of 80 km/h or less. Refer SLED Plastic Terminal acceptance document for conditions of use. The SLED End transition to DB80 Barrier must be used to connect the terminal to the barrier. Not permitted as a terminal on a flare.
SMART CRASH CUSHION	<ul style="list-style-type: none"> Refer SMART Crash Cushion acceptance document for conditions of use. The Level III System Complete F shape barrier transition must be used to connect the crash cushion to the barrier. Leading and trailing points of redirection are considered to be 0. Not permitted as a terminal on a flare.

Design Guidance

Minimum installation length	For 4m units: 61 metres between crash cushions/terminals (tested article) For 6m units: 66 metres between crash cushions/terminals (tested article)
System width	0.57 metres
Installation	This product must be installed and maintained in accordance with the Product Manual and Road Agency specifications. Road Agency specifications and standards shall have precedence.

Minimum distance to excavation	Recorded dynamic deflection
Slope limit	Side slope limit: 15 Horizontal to 1 Vertical (7%). Side slopes must be considered to minimise manual handling risks and site conditions.
Systems conditions	1. Use of 2 metre units is restricted to light radius curves and emergency openings. 2. Flaring across the clear zone without a terminal listed is NOT permitted. 3. 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	Refer to appropriate approved terminal conditions.
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

Submitted Foundation Pavement Conditions					
Pavement	Use	Accepted Speed (max)	Post/pin spacing (m)	Pavement construction	Post/pin type
Concrete	Permitted	100 km/h			<div>Freestanding</div> <div>Foundation pavement conditions must be smooth and free of snag points, kerbs or obstructions that may interfere with the operation of the product</div> <div>Refer to the Product Manual</div>
Deep lift asphaltic concrete	Permitted				
Asphaltic concrete over granular pavement	Permitted				
Flush seal over granular pavement	Permitted				
Unsealed compacted formation	Permitted				

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

Other considerations and comments

Damaged Components

Damaged components must be replaced and repaired components must not be used.

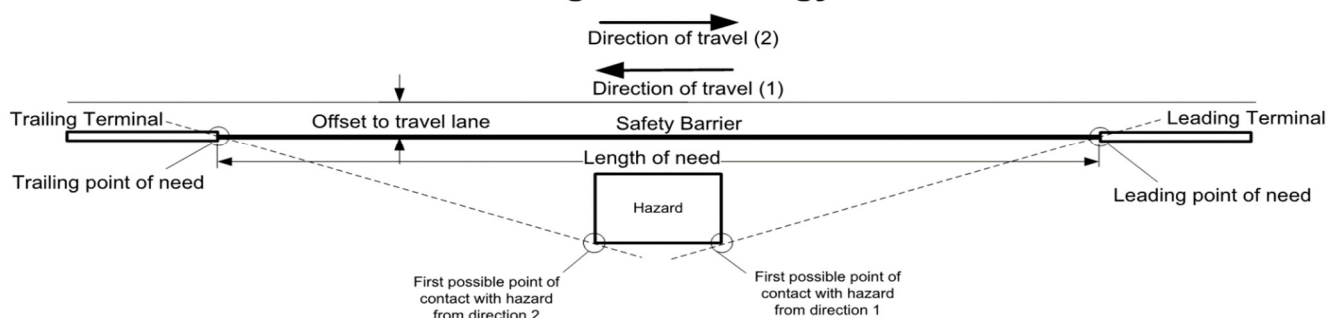
References

- Austroads Guide to Road Design – Part 6.
- VicRoads Supplement to Austroads Guide to Road Design – Part 6.
- VicRoads Road Design Note 06-04 Accepted Safety Barrier Products.
- Product Installation Manual and Product Operational Manual refer licensed product supplier website.

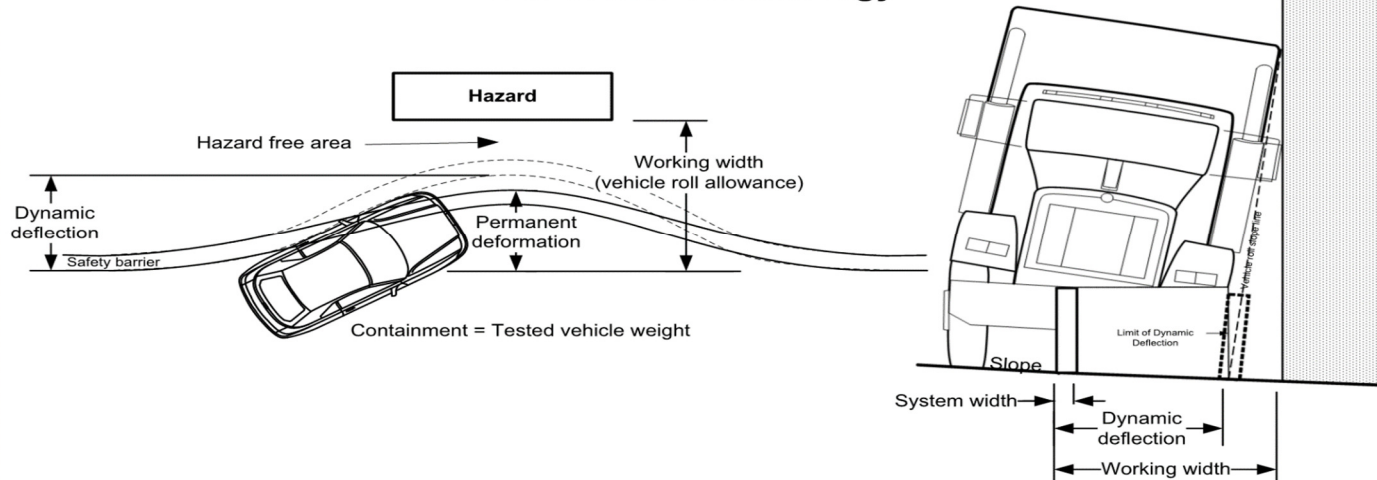
Detail Sheet – Update Summary

Issue	Approved	Amendment
June 2017	M-SSE	Minor Amendment - Name change First edition
Oct 2019	M-SSE	Major changes Second edition

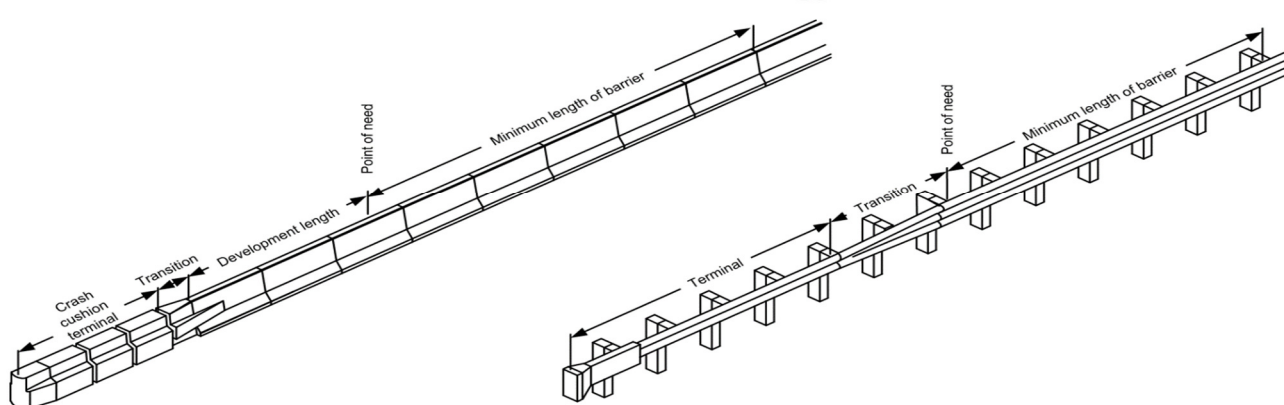
Design Terminology



Deflection Terminology



Terminal Terminology



Flare Terminology

