

BARRIERGUARD 800

REVISION REGISTER

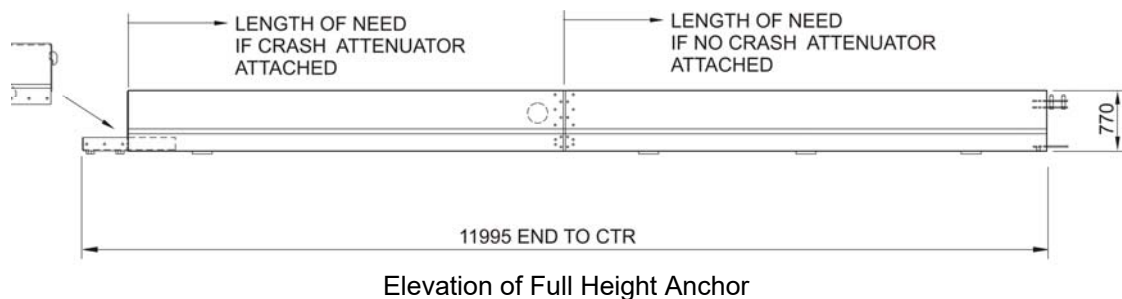
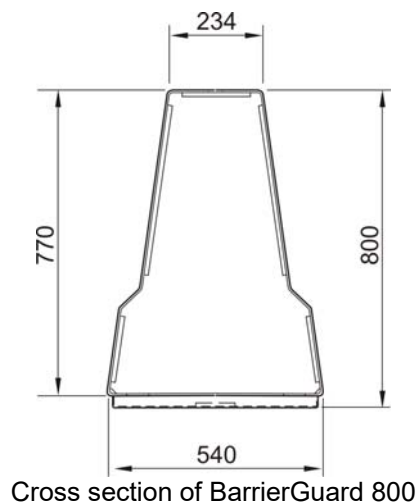
Revision	Description	Date
1	Issued for use.	11/11/2005.
1 A	Supplier details amended	15/06/2012
1 B	Requirement for intermediate anchors added. List of terminals permitted added.	23/11/2012
1 C	Details for additional Owner / Supplier added. Conditions updated.	6/11/2018

BarrierGuard 800 is a portable steel barrier, which is anchored to the pavement at the ends (and at intermediate anchors if required) and is considered a semi rigid system that was developed for temporary applications.

BarrierGuard 800 is approved for use in temporary applications.

BarrierGuard 800 may be considered for permanent installation. However, approval is required from MRWA Road & Traffic Engineering Branch prior to specifying this application.

Images:



BARRIERGUARD 800



Photograph from BarrierGuard 800 installation

Ownership:

Details for two owners and suppliers are provided:

Ownership
Highway Care International 3 Bullace Lane, Dartford, Kent DA1 1BB, United Kingdom
Supplier
Highway Care International Ph: 0428 492 204 www.highwaycare.com

Ownership
Laura Metaal Eyselshoven BV Rimburgerweg 40 6471 XX Kerkrade, The Netherlands
Supplier
Boylan Group 198 Power Street, Glendenning NSW 2761 www.boylan.net.au

Test Level: Approved to MASH TL 3 and NCHRP 350 TL 4.

Accepted Configuration:

- The BarrierGuard 800 system consists of 6 or 12m long units. Other components include 600mm long 5° and 10° radius sections and a Full Height Terminal End (6m or 12m long).
- As the barrier is designed to resist loadings by deflecting the units should be free to move but the system must be anchored at each end with 8 x 500 mm long by 32 mm dia pins and if required at intermediate locations.
- The location of pinned intermediate anchors shall be at intervals not greater than 60m.

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Design Considerations:

Design should be undertaken in accordance with relevant manual provided by the Supplier as listed below:

Supplier
Highway Care International
Manual
BarrierGuard 800 Temporary Applications Product Manual Australia & New Zealand Revision 2c July 2016
BarrierGuard 800 Permanent Applications Product Manual Australia & New Zealand Revision 5c July 2016

Supplier
Boylan Group
Manual
Laura Metaal Road Safety Barrier Guard 800 Installation Manual, Version 2.6

Products from the different suppliers shall be identifiable and traceable with markings prescribed in AS/NZS 3845.1 *Road Safety Barrier Systems*.

Deflections:

Note that the deflections were measured in crash tests performed under controlled conditions. The deflections measured are the horizontal offset between the face of the barrier measured prior to and following vehicle impact. Designers should be aware that the deflection figures published as a test result may not be the deflection value achieved in the field for all impacts by errant vehicles.

1.70m under MASH TL 3 conditions (2270kg vehicle at 100km/h impacting at 25°)

1.74m under NCHRP 350 TL 4 conditions (8000kg vehicle at 80km/h impacting at 15°)

1.60m under NCHRP 350 TL 3 conditions (2000kg vehicle at 100km/h impacting at 25°)

1.36m under NCHRP 350 TL 2 conditions (2000kg vehicle at 70km/h impacting at 25°)

In addition, allowance shall be made for the working width of the BarrierGuard 800 system.

Minimum Length:

60 m (i.e. minimum length tested)

The barrier length should be determined by "Length of Need" requirements and should be sufficient to adequately protect the hazard.

Length of Need:

The beginning of the length of need depends on the end configuration used and is illustrated in the "Elevation of Full Height Anchor" figure.

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Terminals permitted:

- Tau-II crash cushion
- Quadguard crash cushion (including CZ version)
- SMART crash cushion
- Absorb 350 (suitable for TL 2 conditions only)

Limitations:

- The connection of units from different Owners / Suppliers is not permitted.
- It is recommended that the barrier should be offset from the edge of traffic lane by:
 - 0.3m for roads with posted speed < 70km/h
 - 0.6m for roads with 70km/h ≤ posted speed ≤ 90km/h
 - 1.0m for roads with posted speed > 90km/h.
- The ends of the barrier should be shielded with a suitable end treatment (refer to the Product or Installation Manuals for more information) or by an overlapping barrier.
- The cross slope shall be not greater than 10% for the area immediately behind the barrier for the width of the deflection.
- Cannot be placed adjacent to kerbs or other objects within the deflection limits of the barrier, which may prevent lateral displacement.
- Not to be used on longitudinal slopes or crossfalls greater than 8%.
- To be used where pavement thickness is at least 350 mm and with an asphalt surfacing of 30 mm. For pavements not meeting these requirements design advice shall be sought from the Supplier.
- Cannot be used on radii less than 20 m and these smaller radii require 600 mm long special units.

Installation and Maintenance Requirements:

In accordance with the relevant Product or Installation Manual. The holes in the pavement for the anchors made to accommodate the anchor pins must be repaired to the satisfaction of the road authority.

Parts to be Replaced after Impact:

Units may need to be repaired after impact or replaced depending on the extent of damage.

Parts Typically Re-Useable after Impact:

Undamaged units.

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References:

Highway Care International, BarrierGuard 800 Temporary Applications Product Manual, Australia & New Zealand, Revision 2c July 2016

Highway Care International, BarrierGuard 800 Permanent Applications Product Manual, Australia & New Zealand, Revision 5c July 2016

Laura Metaal Road Safety, Barrier Guard 800 Installation Manual, Version 2.6

Relevant FHWA Approval Letters:

Refer to website

http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/listing.cfm

Code	Description
B131	TL 4 approval.