

HIASA MOTORCYCLIST PROTECTION DEVICE FOR GUARDRAIL

REVISION REGISTER

Revision	Description	Date
1	Issued for use.	25/10/2016
2	Format updated.	3/04/2020
2A	Clarification that HIASA may only be installed on existing W-beam with existing steel channel blockouts added.	12/11/2021
2B	Supplier updated.	12/01/2024

The HIASA RAIL (MOTORCYCLIST PROTECTION DEVICE) is a safety device aimed at reducing the crash severity for errant motorcyclists impacting the posts of a W-Beam guardrail system. It is approved for use by Main Roads WA, under the following conditions:

Photographs:

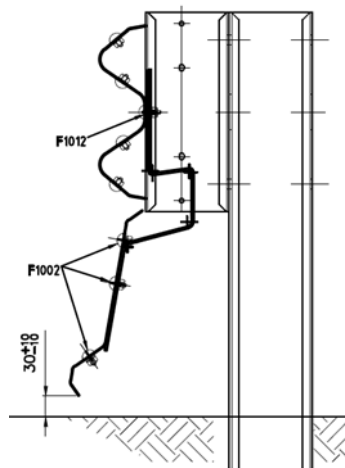


Photo 1: HIASA Rail Rolled End Section



Photo 2: HIASA W-Beam connection

Drawing:



Cross section of HIASA Rail

Ownership: HIASA

Supplier: Safe Direction Pty Ltd
5 Simpson Close, Smeaton Grange, NSW 2567
Ph: (02) 4648 0394
Website - <http://www.safedirection.com.au/>

HIASA MOTORCYCLIST PROTECTION DEVICE FOR GUARDRAIL

Test Level:

- This system is tested with a sliding dummy impacting the rail at 70km/h at an angle of 30° and falls within the UNE 135 900 Level I minimum impact severity class.
- The addition of the HIASA Rail does not adversely affect the performance of the W-Beam system.

Configuration:

- HIASA Rail consists of a continuous horizontal steel rail mounted onto brackets below W-Beam barriers at each posts location. The rail sections are spliced with bolts, washer and nuts. The barrier splices are to be lapped in the direction of the adjacent traffic (i.e. the same way as the W-Beam barrier).
- The length of each HIASA Rail section is 4.32 m.

Design Consideration:

- Design to be in accordance with the HIASA Product and Installation Manual, Dated April 2016.
- The rolled end section must be fitted to both ends of the rail.
- The gap between the bottom of the rail and the ground level should be 30mm.
- The HIASA Rail may only be installed on existing W-Beam barrier lengths with existing steel channel blockouts.
- The system should not be attached to the components of any end treatment.
- The cross slope shall be not greater than 10% for the area in front and below the system and this area should be free of humps or hollows.
- The batter hinge point should be a minimum of 600mm from the back of the posts.
- The system should not be installed behind or on top of kerbing.
- The rolled end sections must not be within a curve.

Terminal Permitted

- The rolled end section must be fitted to both ends of the rail.

Limitations:

- The system has only been tested on straight sections, the performance on curved sections is unknown.
- The HIASA Rail for median installation are only permitted where rear impact is not possible

Installation and Maintenance:

- In accordance with the HIASA Rail Product and Installation Manual (April 2016).

Parts to be Replaced after Impact:

- All damaged or deformed components must be replaced. Repaired components must not be used.

Parts Typically Re-Useable after Impact:

- Undamaged component

Reference:

- Main Roads WA file 13/6165