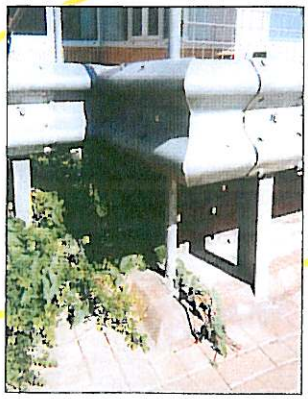
ABC

Avon Barrier Company Ltd

# SAFETY BARRIER SYSTEMS



# Edge Protection Safety Barrier

The standards adopted in edge protection and MSCP design are BS6399 part 1 and BS6180. However, following an enquiry by SCOSS into an incident in Canterbury, the DETR commissioned a report by the Transport Research Laboratory (TRL) to provide a single defined standard.

Avon Barrier safety barrier systems are designed to both exceed the British Standards and to comply with the recommendations of the DETR report which it is anticipated will become the defined standard for MSCP edge protection in years to come.

The standard edge protection safety barrier system is designed to withstand the head-on impact of a 1500kg car travelling at 16kph, the resultant design impact force, from the calculation $F = 0.5mv^2(Dc + Db)$, is 130KN. The impact design height is 445mm and not the 375mm detailed in earlier standards and all posts, rails and fixings have been reassessed to confirm their compliance.

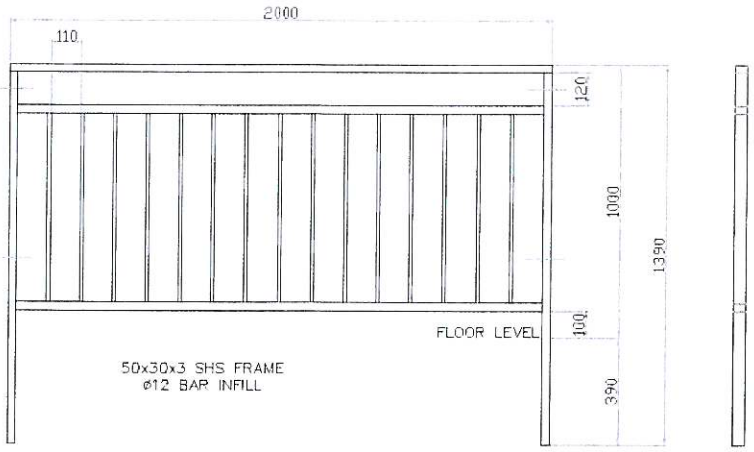
The system incorporates 310 × 85 × 3mm sine wave untensioned crash rail mounted on either sub-surface or base plate mounted 127 × 76 × 13mm RSJ posts set at 1600mm centres. Enhanced strenghtening in areas affording a straight approach run up of 20m is provided by reducing the post centres to 800mm.

Where preformed, reinforced car park decks are used, fixing cradles in conjunction with specially designed posts can be provided to fix directly to the car park structure, keeping the integrity of the preformed deck intact.

We would always recommend that advice is sought on the design of any edge protection system as every environment is different and will require careful consideration to maximise the safety of the system.

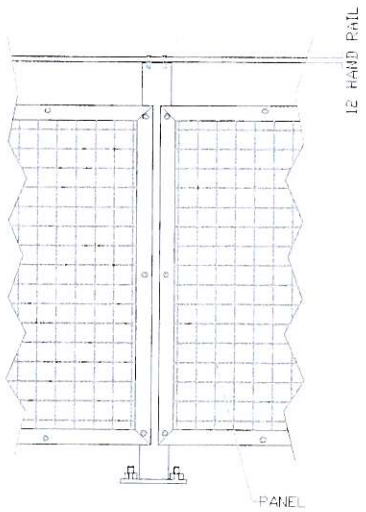
# Pedestrian Protection

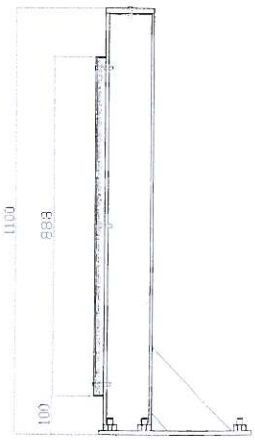
In addition to the combined safety rail and pedestrian guard panel, Avon Barrier Company manufacture stand-alone pedestrian guard rails with either sub-surface or baseplate mounting.




Railing panels are constructed from mild steel sections which are then fully galvanised to protect against oxidisation and can be painted to give an aesthetically enhanced finish.

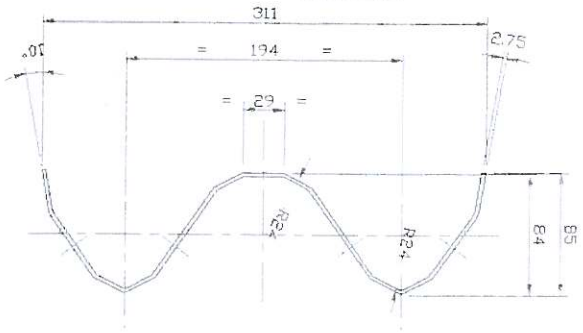
Pedestrian guard panels and hand rails can be added to the support posts to provide an integrated solution. Standard panels include 50mm × 50mm mesh and perforated, although any design to suit architectural requirements can be considered.



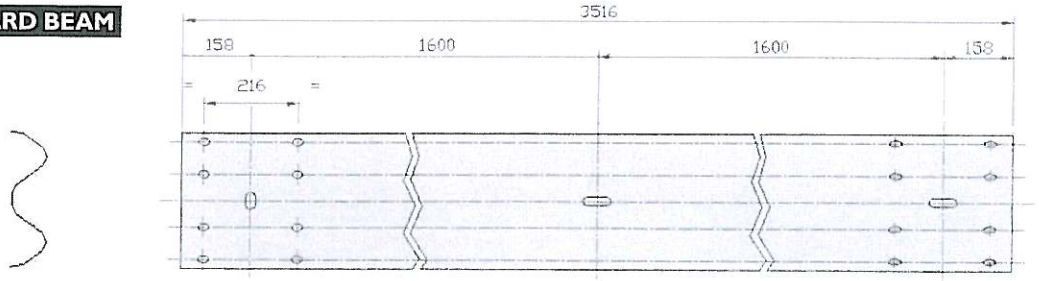
# Technical Specification

## CROSS SECTION THROUGH BEAM

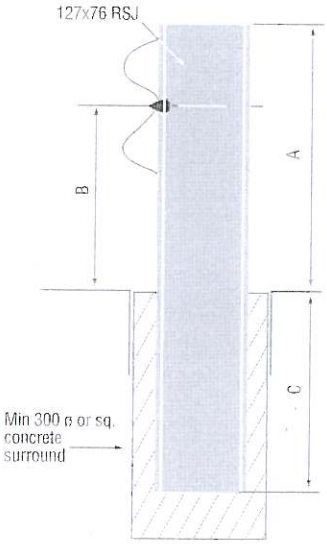



**Avon Crash Barrier Beams** are available in 3.5m lengths giving an effective length of 3.2m. The corrugated beam section has a thickness of 3mm with physical properties as per the table below. The RSJ type posts are available in bolt down and grout in form at different heights and can be installed at different post centres to suit site conditions (1.6m/3.2m).

## STANDARD BEAM

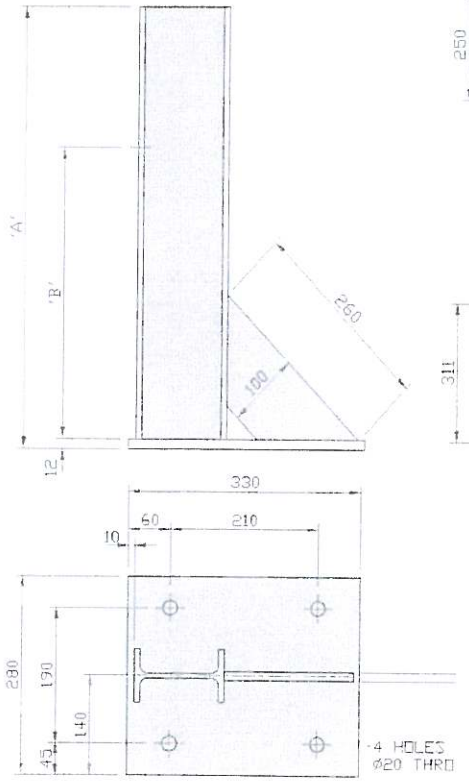



## GROUT-IN RSJ POST



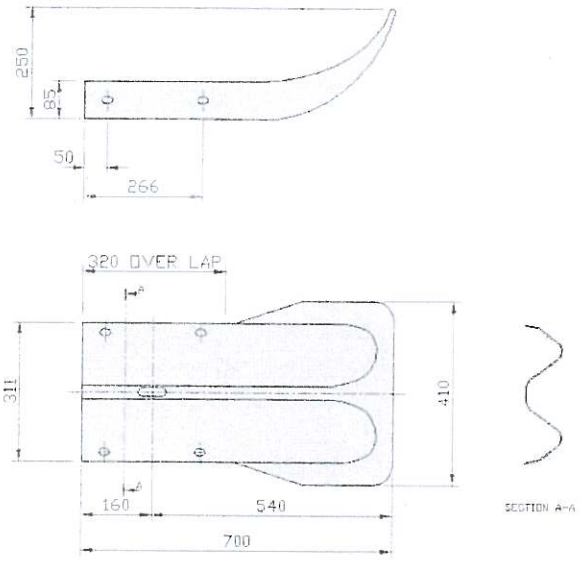

| | A | B | C |
|---|---|---|---|
| TYPE 1 | 600 | 412 | 500 |
| TYPE 2 | 800 | 612 | 700 |

## BOLT-DOWN RSJ POST




| | 'A' | 'B' |
|---|---|---|
| TYPE 1 | 560 | 370 |
| TYPE 2 | 760 | 570 |

## FISH-TAIL ENDS



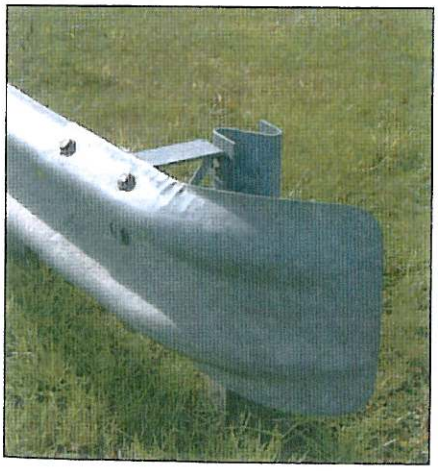

Base Plate mounted RSJ posts to comply with BS6399 Edge Protection. Posts are available in standard lengths (type 1 & 2) as well as non-standard to suit other environments.

# Standard Safety Barriers

This system is used for surface car park delineation, infrastructure protection and approach lane containment where there is a risk to the motorist.

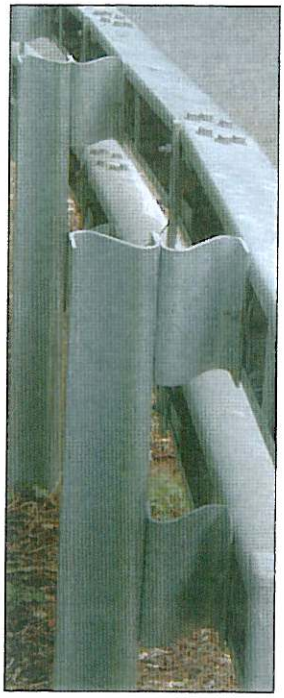
This system uses the same barrier rail as the edge protection system mounted on either base plate mounted rubber cushion posts or rigid RSJ posts. Sub-surface mounted RSJ or low cost sacrificial "Z" posts are also available if required and post centres can be extended to 3200mm.

Additional rigidity can be provided at specific points by reducing the rail post centres at these points to 1600mm or 800mm subject to site conditions.



Corrugated Sine Wave Crash Beam is available in both straight and curved sections with standard 90° internal and external angles for continuity of protection.

Other angles are available on request.



# Avon Barrier Company Ltd


## Company Profile

The aim of Avon Barrier Company is a simple one – to provide a comprehensive solution to our clients, in the field of vehicle and pedestrian control.

The company was formed in the 1980's by a group of engineers all of whom had considerable experience in vehicle control systems. Since its formation the company has evolved and developed into an authority in its specialist area.

By setting high standards of professionalism in its approach to providing solutions to its clients' needs, Avon Barrier Company has gained a reputation for quality project design, management and system implementation.

With thousands of projects successfully completed worldwide, Avon Barrier Company are well placed to provide solutions on both a national and international basis.

- *SAFETY BARRIER*
- *VARIABLE MESSAGE SYSTEMS*
- *AUTOMATIC BARRIERS*
- *REVENUE SYSTEMS*
- *SECURITY GATES*
- *MANUAL HEIGHT RESTRICTORS/BARRIERS*
- *COUNTING SYSTEMS*

**Avon Barrier Company Ltd**
**Head Office – Nova House, 193-195 South Liberty Lane, Ashton Vale Trading Estate, Bristol BS3 2TN United Kingdom.**
**Tel: (44) 0117 953 5252 Fax: (44) 0117 953 5373**
**Email: sales@avon-barrier.co.uk www.avon-barrier.co.uk**