# **REDIWELD** Traffic Products

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# Don't Compete, Share the street

## Welcome to our range of innovative Cycle Lane Products

Rediweld is a UK manufacturer of an extensive range of Road Safety Products, which we have been expanding to include a new series of Cycle Lane Separators. This has been made possible through indepth research and development.

It is well documented that if you improve safety for cyclists then more people will cycle. If more people cycle it reduces the number of vehicle journeys, which in turn reduces air (NO2, CO & PM) and noise pollution.

Active travel is an essential part of creating sustainable cities to live in. The Orca range has features that reduce accidents and lead to more people using cycles in the UK and countries around the world.

This comes from a sustainable product which accounts for part of the 40 tonnes of recycled material that we process every month, using a unique low energy manufacturing process. At the end of its life the rubber modules can themselves be recycled and used in many different ways.

This makes it both a transferable asset and a 'future proof' product for a global market.

As traffic management requirements change the products can be repositioned. This might happen if the volume of cyclists increase and the cycle lane needs to be wider or moved to another road, as part of an expanding network.

In terms of design quality, we know that the appearance and aesthetics of our products are important to our customers. This is enhanced by the use of cast iron moulds that give a soft, organic surface finish. Also we offer a granite colour which is suited to sensitive/heritage locations.

The Rediweld Orca range of cycle safety products has evolved rapidly. In addition to the original Orca we now offer the Greenwich Wand Orca, Mini Orca & Kerb Orca. We also have a range of Splitter Islands that are 400, 500 & 600 mm wide.

These products are used with Mini Holland schemes in Waltham Forest, Royal Borough of Kingston and Enfield. The original Orca is now in use by Newcastle, Glasgow, Dundee, Camden, Norwich, Greenwich, and Croydon.

Initial feedback from cyclist for the Greenwich Wand Orca suggest the following;

- 63% felt safer using the cycle lane with new separators
- 77% thought the separators an improvement on just having lane markings
- 74% would like to see more of these separators being used to improve safety and comfort



XCAVATION

VEARING

ISTALLATION

HANDLING

ALC: UP

#### This supports the comments from the Greenwich Traffic Group team;

'The safety and comfort of the cycle route network is key to getting more people to cycle, but this often presents many issues on the existing street network, with competing demands for road space. Cycle lanes exist in the street environment where other day to day street activities like sweeping are the responsibility of Councils. Residents also want to feel that they live in a pleasing street environment free of clutter and visual intrusion.'

Green innovation is at the centre of our product development programme and cycle safety is our primary focus. The Lane Separators and Splitter Islands are the result of extensive consultation with engineers, planners, cycling groups and local authorities, including TfL. It is this degree of collaboration that has helped us develop successful products that have met our objectives.



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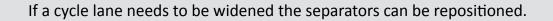


Since the launch of the Orca cycle lane product it was found that no one product would be suitable for every location. As these various schemes such as the Mini Holland projects and others have grown throughout the UK, we have introduced a wider innovative range of cycle lane products. These offer both light and full segregation. The products are a permanent solution by offering a simpler method of installation by being surface mounted, causing minimum disruption, a reduction in Traffic Management measures, no spoil, reduced permit costs and operatives being off site quicker after installation.

The range includes the original Orca, with its unique cycle friendly profile offering a standalone solution, the smaller version called Mini Orca which offers a lower height of 50mm ideal for junctions, driveway and crossovers locations, The Kerb Orca which provides a SP/HB face, the Greenwich Wand Orca which offers both a vertical and horizontal measure for light segregation and incorporates Jislon Pole Cones also known as "Wands". These can segregate not only cyclists but also traffic, which has already been installed on a number of locations in the UK.

We also have our range of Splitter Islands offering a more segregated solution with 600mm, 500mm and 400mm wide versions which can be used with our Orcas to offer a suitable solution to providing protection for cyclists. These can be provided in Granite or Black colour, with or without white markings which are moulded in at time of manufacture.

These products are made from recycled rubber for durability. They can be manually handled, for ease of installation.



## INTRODUCING THE REDIWELD



The Orca is designed to provide light segregation and protection for cyclists as a stand alone product. The Orca should be placed within the cycle lane and positioned up to the white marking which highlights the edge of the carriageway.

The product is classed as a kerb and must not sit on the line otherwise this will conflict with current TSRGD guidelines.

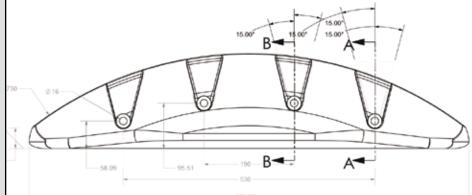
Typical spacings are from 2.5m up to 10m depending on the application and location. A key feature is that the Orca products are made from recycled rubber, which is durable and will absorb energy on impact without cracking or fracturing, unlike some alternative materials which might cause a puncture on a vehicle or cycle tyre.

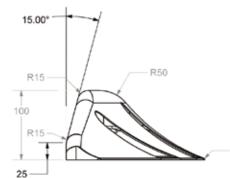














#### **Technical Information**

#### **Measurements:**

Length - 920mm Width - 200mm Height - 100mm Weight - 6.5kg

#### Markings:

Zig Zag Tip Toe

#### **Colours:**

Black

Red

Grey

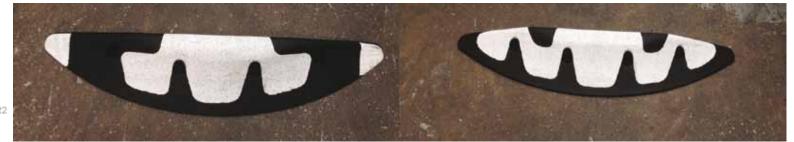
Granite

**Fixing:** 4x Unique Rediweld

## Environmental Benefits

Environmental and safety benefits from the design features;

- Intuitive interaction with cyclists, drivers, motorcyclists and pedestrians
- Recycled rubber is tough but safer on impact, reducing risk of injury
- Suitable for manual handling with no mechanical lifting required
- Surface mounted minimising disruption with no spoil and reduced exposure to risk
- Re-locatable to 'future proof' against changes in highway layout and width of cycle lanes
- High visibility markings
- Unique fixing with Stainless Steel screw, washer and super tough nylon plug, make for a durable product
- Low carbon footprint, with recycled material and low energy manufacturing process.



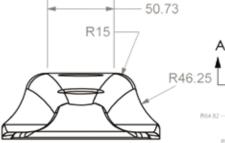
The Mini Orca Cycle Lane Separator is designed with a low profile to provide light segregation where you require vehicles access, unloading locations, private driveways and junctions. These can be used in conjunction with the other Orca cycle lane products by providing standalone light segregation.

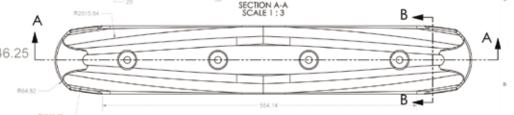
The Mini Orca is 50mm high, 720mm long, 120mm wide so can easily be driven over without any obstruction for vehicular access when needed on a particular location, but still providing a clear distinctive cycle lane boundary.

Typical spacing's are from 2.5m up to 10m depending on the application and location.













### **Technical Information**

#### **Measurements:**

Length - 720mm Width - 120mm Height - 50mm Weight - 3kg

#### Markings:

White

#### **Colours:**

Black

Red

Grey

Granite

## Fixing:

4x Unique Rediweld

#### **Environmental Benefits**

The Mini Orca is made from recycled rubber, which is durable and will absorb energy on impact without cracking or fracturing, unlike some alternative materials which might cause a puncture on a vehicle or cycle tyre;

- Low profile to allow vehicular access if required, but still demarking cycle lane
- Recycled rubber is tough but safer on impact, reducing risk of injury
- 3kg weight suitable for manual handling
- Surface mounted minimising disruption with no spoil and reduced exposure to risk
- Re-locatable to 'future proof' against change in highway layout and width of cycle lane
- High visibility markings
- Unique fixing with Stainless Steel screw, washer and super tough nylon plug, make for a durable product
- Low carbon footprint, with recycled material and low energy manufacturing process

The Greenwich Wand Orca offers vertical and horizontal measures intergrated into one product.

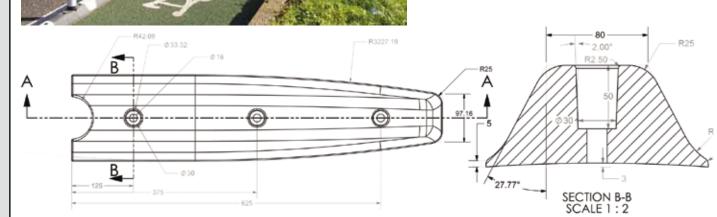
The Wand Orca combines vertical Jislon Pole Cones (Wands) with reflective TSRGD markings, with horizontal rubber modules. This is ideal for segregation over longer distances where vehicle speeds may be higher.

A rubber bung with a reflective glass dome can be used instead of a Jislon Pole Cone. Spacings for the Greenwich Wand Orca will depend on the location and application but typically 10m to 25m, however, they can be spaced to allow for cleaning vehicles to access the cycle lane.

Jislon Pole Cones are available in 800mm or 1000mm heights and in black with TSRGD reflective banding and offer an NSE fixing for quick installation.

The Greenwich Wand Orca has 175 mm wide

modules, Middle (1000mm long, 10.5kg) and End (750mm long, 7.0kg) with moulded in markings, clamped around the base of the Pole Cones or reflective dome for added protection.











#### **Environmental Benefits**

Manufactured from recycled rubber for the Wand Orca and Polyurethane for the Jislon Pole Cones, these provide a passively safe product. These are both to absorb energy on impact without cracking or fracturing, unlike some alternative materials which might cause injury, punctures on a vehicle or cycle tyre.

- Innovative design to provide horizontal and vertical segregation measures
- Manufactured from recycled rubber providing a tough product, safer on impact, reducing risk of injury
- Suitable for manual handling with no mechanical lifting required
- Surface mounted minimising disruption with no spoil and reduced exposure to risk
- Can be used as short or longer lengths to provide protection.
- High visibility markings on both products, EN12899 Certified for Jislon Pole Cones
- Unique fixing with Stainless Steel screw, washer and super tough nylon plug, make for a durable product
- Low carbon footprint, with recycled material and low energy manufacturing process.

These products are used throughout the UK including Royal Borough of Greenwich, Croydon, London and Cardiff.



#### **Technical Information**

#### **Measurements:**

End Section: Length - 750mm Width - 175mm Height - 80mm Weight - 7.0kg

Middle Section: Length - 1000mm Width - 175mm Height - 80mm Weight - 10.5kg

> Markings: White

#### **Colour:**

Black Red Grey Granite

#### **Fixings:**

4x Unique Rediweld (4x per middle/3x per end) The Kerb Orca provides a horizontal measure and has a unique design with a SP (Splayed Face) for the cycle side and a HB (Half Battered) profile for the vehicle side. This provides a clear delineation with cyclist and traffic along a cycle lane and can be adjusted in length to suit location.

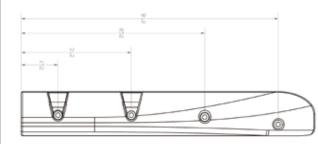


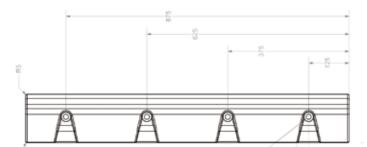
The Kerb Orca has 150mm wide modules, Middle (1000mm long, 11kg) and End (1000mm long, 9kg) with moulded in markings.

#### **Environmental Benefits**

Manufactured from recycled rubber and able to absorb energy on impact without cracking or fracturing, unlike some alternative materials which might cause injury, punctures on a vehicle or cycle tyre;

- Innovative design to provide horizontal segregation measures.
- Manufactured from recycled rubber providing tough and safer on impact, reducing risk of injury
- Suitable for manual handling with no mechanical lifting required
- Surface mounted minimising disruption with no spoil and reduced exposure to risk
- Can be used as short or longer lengths to provide protection.
- High visibility markings
- Unique fixing with Stainless Steel screw, washer and super tough nylon plug, make for a durable product
- Low carbon footprint, with recycled material and low energy manufacturing process





#### **Technical Information**

#### **Measurements:**

End Section: Length - 1000mm Width - 150mm Height - 100mm Weight - 9kg

Middle Section: Length - 1000mm Width - 150mm Height - 100mm Weight - 11kg

> Markings: White

Colours: Black Red Grey Granite

Fixing: 4x Unique Rediweld (4x per section)



Rediweld has developed a range of Orca Cycle Separators and RediPave Splitter Islands, offering a diversity that reflects the different types of cycle safety applications. Central to the development process has been the testing of these products for both safety and durability.

#### Vehicle testing

This was undertaken with a third party to assess the performance of Orcas with end on, side on and glancing impacts (kerb strike) as well as impact under heavy breaking, at speeds up to 40mph. We also performed scuffing and scrubbing tests.

#### **Bicycle testing**

Road, Hybrid and Brompton bikes were used to cycle along and across the Orca, Mini Orca and Wand Orcas as well as head on and glancing impacts. These were performed at Alton under different conditions.

#### **Motorcycle testing**

Working with an independent motorcycle group we tested Orcas, Mini Orcas and the Wand Orcas with end on and glancing impacts in both dry and wet conditions at speeds of 5 – 24 mph. Tests were performed at Hampshire County Council test facility at Micheldever.

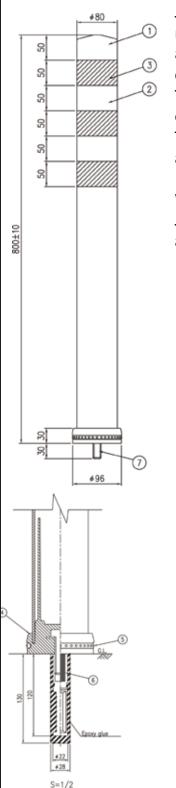


Jislon Pole Cones are a Passively Safe range of bollards offering a variety of segregation solutions. Manufactured from Polyurethane and tested to self-return after 1,000 impacts they are an ideal solution to lane dividing.

These are a Passively Safe product and is Highways England approved with EN12899 certification.

Due to the material they are made from they do not get brittle in winter and do not crack or break, this makes them a low maintenance cost product.

A variety of On Highway, Off Highway and Urban bollards are available and a range of colours to suit from Black, Orange, Yellow, Green, Silver, Grey and Brown with NSE and NS anchor options. High visibility markings available in TSRGD, Off highway and Urban bandings available.



Jislon Pole Cones can be permanent or temporary and can be relocated if required. They offer a unique fixing system of the NSE or NS anchor and are ideal for depth restraints such as bridge decks, multi-story car parks, offering quick and easy installation with minimum disruption. They were used as part of the Olympic Games in London and then as part of the legacy on many cycle lane applications around London. They are ideal for cycle lane segregation and can be used in a number of applications along with the other Orca Products in the range.

We offer signs for the Jislon Pole Cones and these are mounted on a Jislon Sign Cap. We can offer the relevant signage to suit and these are available in 150mm and 220mm diameter signs.



#### **Environmental Benefits**

Manufactured from polyurethane they are able to absorb energy on impact without cracking or fracturing, unlike some alternative materials which might cause injury, punctures on a vehicle or cycle tyre and continued maintenance;

- Innovative design to provide verticle segregation measures.
- Passively Safe product providing tough and safer on impact, reducing risk of injury
- Suitable for manual handling
- Surface mounted minimising disruption with no spoil and reduced exposure to risk
- Typical Spacing's 1m to 2m
- High visibility markings, EN12899 Certified
- Unique fixing with NS and NSE Anchor Options
- Reduction in maintenance due to being able to self-return over 1,000 times







#### **Technical Information**

**Availble:** On Highway Off Highway Urban Bollards

#### Wand:

Height 1m Diameter - 80mm NSE Anchor Black with TSRGD white Markings

**City Pole Cones:** 

Diameter - 80mm & 130mm NS Anchor Grey with white or white and red markings

#### **Stainless Steel:**

Diameter - 80mm NS Anchor Silver with white or other markings RediPave Splitter Islands offer a full option for segregation and can be supplied in various lengths due to its flexible modular system.

The RediPave Splitter Islands are available in 400mm, 500mm and 600mm wide options and consist of middle and end sections. These offer quick and easy installation and ideal for depth restrictions such as bridge decks and we can provide shorter fixings if required. These are a permanent solution offering a different application to traditional materials but can also be used for temporary layouts as can be relocated if needed. These islands are available in colour Black or Granite, with or without white markings which are moulded in at time of manufacture.

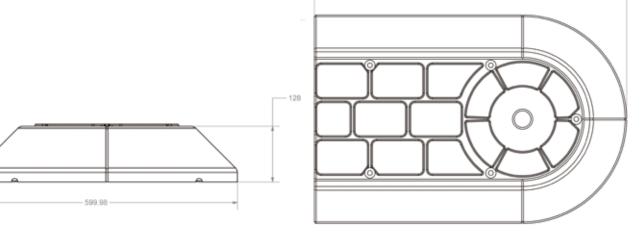
This product can also be incorporated with our range of Jislon Pole Cones as a full package, along with the required signage.











#### **Technical Information**

## Measurements: 400mm:

Middle Section: Length - 500mm Width - 400mm Height - 125mm Weight - 19kg

End Section: Length - 500mm Width - 400mm Height - 125mm Weight - 17kg

#### 500mm:

Middle Section: Length - 500mm Width - 500mm Height - 125mm Weight - 21.7kg

End Section: Length - 500mm Width - 250mm Height - 125mm Weight - 14kg

#### Jislon Satellite Island 600mm:

Length - 900mm Width - 600mm Height - 128mm Weight - 42kg

2x halves make 600mm wide x 1800mm long

#### **Environmental Benefits**

A key feature is that the RediPave Splitter Islands are made from recycled rubber, which is durable and will absorb energy on impact without cracking or fracturing, unlike some alternative materials which might cause a puncture on a vehicle or cycle tyre.

Environmental and safety benefits from design features are as follows;

- Recycled rubber safer on impact, reducing risk of injury
- Suitable for manual handling with no mechanical lifting required
- Surface mounted minimising disruption with no spoil and reduced exposure to risk
- Permanent solutions offering different solutions to traditional materials
- High visibility markings
- Unique fixing with Stainless Steel screw, anchor block, washer and super tough nylon plug, make for a durable product
- Low carbon footprint, with recycled material and low energy manufacturing process





