Key features
- Modular flexibility
- No-weld assembly
- Flat pack delivery
- Reduced corrosion
- Colour options
- BIM & CAD Support

Applications suited to
- Cycle paths and bikeways
- Shared pedestrian paths
- Protection over culverts
- Footbridges
- Refer to applicable Aust Standards and Building Codes.

Specification Summary
Supply and install the proprietary Bridgerail™ BR20 barrier system to substrate according to Moddex specifications, or by a Moddex accredited installer.

Technical Data
Material
Stanchions, rails & balustrades Steel/grade 250 & C350
Clamp fittings Ductile iron
Clamp locking screws Stainless steel (304)
Protective coating
Stanchions, rails and balustrades G390 Hot-dip Galvanized (min 390g/m²)
Clamp fittings Hot-dip Galvanized with patented protective coating on threads

Optional
Powder coating and paint specs

Dimensions
Variable depending on building/application/code
Stanchions
Dimensions 1155mm high
Nominal Thickness 16.0mm plate
Rails (Balustrade Panel)
Diameter 48.3mm OD
Nominal Thickness 3.25mm (medium wall applications) 4.0mm (heavy wall applications)
Base Plate
Nominal Thickness 16.0mm
Balustrade
Heavy Duty Baluster 16mm
Baluster Centres 100mm (84mm gap)
Clamp fittings
Thickness 5.0mm (approx)
Locking screws M12 x 1.75 x 11mm - DEXX ® Drive
Expansion Joint
Diameter 39 mm
Length 300.0mm
Material Steel Hollow Bar

Fixings
Stanchion attachment to
Concrete M16 mechanical concrete anchors or cast in studs/ferries as specified.
Structural steel M16 galvanized high tensile bolt set

Compliance
Moddex balustrades and handrails are designed and manufactured in accordance with Austroads Guide to Road Design and relevant statutory WHS Codes of Practice/Guidelines, including AS5100.2.2017 CL12.5. Galvanized to AS 4792 and AS/NZS 4680:2006 (where applicable).
The manufacture of Bridgerail proprietary systems is in accordance with Moddex specifications and manufacturing processes, and this may differ to some jurisdictional specifications for steelwork fabrication, bridges and related structures.

Testing
Stringent vibration endurance tests have been performed and independent testing has been carried out to confirm the suitability of the Moddex system in maritime conditions.

Warranty
5 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer’s specifications and recommendations, unless otherwise negotiated at the time of purchase.
— Refer maintenance manual

Inspection & Maintenance
Visual inspection for any damage or loose fixings must be done periodically and prior to use. No certified maintenance required. Basic wear and tear preventative maintenance is recommended, as per manufacturer’s specifications and recommendations.
— Refer maintenance manual

Design Life
Standard design life of barrier is 100 years in C2 corrosivity zones.
### Technical Information

**Mount Dimensions**

**T4 - Top Mount (4 Fixings)**

*Face mount and custom mounting options available.*

**Expansion Detail**

**Standard References**

**Austroads Guide To Road Design; Part 6A**

5.5.3 The installation of a fence at the side of a path used by cyclists is desirable where:
- there is a steep batter or large vertical drop located in close proximity to the path;
- the path is adjacent to an arterial road and it is necessary to restrict cyclist access to the road;
- a bridge or culvert exists on a path;
- a hazard exists adjacent to a particular bicycle facility;
- cyclists are likely to be ‘blazing a separate trail’ at an intersection between paths or around a path terminal.

**Australian Standard Bridge Design; Part 2**

This Standard was prepared by the Standards Australia Committee BD-090, Bridge Design, to supersede AS 5100.2—2004.

This Standard is also designated as Austroads publication AP-G51.2-17.

The objectives of the AS(AS/NZS) 5100 series are to provide nationally acceptable requirements for—
- (a) the design of road, rail, pedestrian and cyclist path bridges;
- (b) the specific application of concrete, steel, timber and composite construction, which embody principles that may be applied to other materials in association with relevant standards;
- (c) the assessment of the load capacity of existing bridges; and
- (d) the strengthening and rehabilitation of existing bridges.

The objective of this Part (AS 5100.2) is to specify minimum design loads and load effects for road, rail, pedestrian and cyclist path bridges, and other associated structures.

The requirements of the AS(AS/NZS) 5100 series are based on the principles of structural mechanics and knowledge of material properties, for both the conceptual and detailed design, to achieve acceptable probabilities that the bridge or associated structure being designed will not become unfit for use during its design life.