



# 8512 Rubber Bike Lane Delineators

REVISION 23/01/2024

## 8512.1 Introduction

This supplementary requirement applies to the supply and installation of bicycle lane delineators as per the location detailed on the project drawings.

Mackay Regional Council nominates ‘Saferoads’ Caterpillar Safe Cycle as the preferred product for installation. If the Contractor wishes to supply and install an equivalent product, a copy of the manufacturer’s specifications shall be submitted to the Superintendent for consideration.

### 8512.1.1 Definitions of Terms

This section describes any term which are specific to this specification or requires clarification due to an ambiguous understanding.

The terms used in this Technical Specification shall be as defined in Clause 2 of MRTS01 *Introduction to Technical Specifications*. Additional terms used in this Technical Specification are defined in the Table below.

Term	Definition
Bike lane delineators	Defined as a proprietary product which separates the bike lane from the traffic/vehicular lanes and/or pedestrian only paths

## 8512.2 Referenced Documents

This supplementary specification shall be read in conjunction with the following:

- MRS01 and MRTS01 *“Introduction to Technical Specifications”*;
- MRS45 and MRTS45 *“Road Surface Delineation”*;
- Austroads – Guide to Road Design
  - Art 3 Geometric Design
  - Part 6 Roadside Design, Safety and Barriers
  - Part 6A Pedestrian and Cyclist Paths
  - Cycling Aspects of Austroads Guides
- TMR Manual of Uniform Traffic Control Devices
  - Part 2 Traffic Control Devices for General Use
  - Part 9 Bicycle Facilities



- QGTM Pt 10 Guideline – Bicycle lane separation devices
- Preferred supplier’s specifications; and
- the Project Drawings.

### 8512.3 Description of Work

Work items incorporated by this supplementary specification are identified in Section 8512.6 and 8512.7 with individual activities/tasks for measurement and payment sourced from the Bill of Quantities and listed in MRC Supplementary Specification Annexure 8512\_1 Rubber Bike Lane Delineators Section 1

### 8512.4 Quality Systems Requirements

#### 8512.4.1 Std Test Methods (Testing Regime)

The following minimum testing regime applies to this specification:

Unless otherwise stated the manufacturer certification of the bike lane delineators and end caps form the basis of the requirements.

#### 8512.4.2 Hold Points, Witness Points and Milestones

The following table represents the minimum inspection requirements for this specification;

Activity	Inspection Type	When
Construction Procedure and Traffic management plan (with TGS’s) and other submissions as required by Clause 8512.5	Milestone	4 Weeks prior to works commencing
Inspection of materials and documentation	Hold Point	As delivered to site
Prepare surface to manufacturers specification	Witness Point	Prior to spot marking exact location of delineators
Layout survey through spot marking surface	Hold Point	During site layout survey prior to works commencing.
Installation of rubber bike lane delineators as required by design drawings	Witness Point	After location layout approval by the Superintendent
Placing of Endcaps as required by the design drawings	Witness Point	During installation of rubber bike lane delineators
Geometric survey for compliance with manufacturers specification and design drawing requirements	Hold Point	At completion of works
Fixings inspection and testing	Hold Point	After manufacturers specified time for epoxy set
Works as Executed documentation	Hold Point	4 weeks prior to practical completion being requested.



#### **8512.4.3 Construction Tolerances**

Unless noted on the design drawings or otherwise approved by the Superintendent the following construction tolerances shall apply to this Specification;

The construction activity outcome shall not depart from the widths, lengths, heights, and shapes specified by design drawings as applies to this specification;

- Manufacturers dimensions and tolerances for installation of rubber bike lane delineators and end caps including spacing of each delineator

Tolerances specific to the project are detailed on the design drawings and are included in Clause 2 of MRC Supplementary Specification Annexure 8512\_1 Rubber Bike Lane Delineators

#### **8512.5 Preliminary**

The Contractor is to submit or ensure the following documentation is in place 4 weeks prior to delivery or a prestart is conducted. (MILESTONE):

- Construction procedure
- Approved traffic management plan and TGS's

Other requirements unique to the project will be listed in the MRC Supplementary Specification Annexure 8512\_1 Rubber Bike Lane Delineators (MILESTONE)

##### **8512.5.1 Materials**

Supply of all materials to site is the responsibility of the Contractor at their cost, where items are Principal supplied the nominated storage site shall be obtained from MRC Supplementary Specification Annexure 8512\_1 Rubber Bike Lane Delineators Section 3 and shall be the point of supply.

Unless instructed otherwise by the Superintendent existing components to be salvaged and the nominated storage site will be detailed in MRC Supplementary Specification Annexure 8512\_1 Rubber Bike Lane Delineators Section 4. This will also include any reuse of existing items.

All materials shall be supplied in accordance with their relevant manufacturers specification and requirements.

#### **8512.6 Construction**

This section lays out the works operations with more detail based on specific requirements of this supplementary specification. Some activities may appear to include items which are stated within other specifications, the purpose is to reinforce that requirement specific to this supplementary specification.

Specific construction requirements associated with these works is detailed in MRC Supplementary Specification Annexure 8512\_1 Rubber Bike Lane Delineators Section 5

##### **8512.6.1 Work Operations**

Work Operations incorporated in these items include:

- a) **Work operations included in Clause 2.1.5 of MRS01 "Introduction to Specifications";**
- b) **Supply of all materials;**



All materials, plant, and labour required to carry out the works under this Specification is to be supplied by the Contractor, where the rubber bike lane delineators, end caps, and fixings are Principal supplied the designated storage site will be the point of supply for the purposes of this Specification.

All items shall be inspected at delivery to site prior to use. Any items which are damaged or do not meet the required specification are not to be used and are to be returned to the supplier. (HOLD POINT)

**c) Existing bike lane delineator removal (as required)**

The removal of existing delineators shall be carried out prior to the surface preparation and spot marking of the new delineators where applicable. The Contractors chosen method of removal will be such that any impact on surrounding environment is minimised. Unless otherwise approved by the Superintendent all new surface fixings are not to be in the same location/hole as the existing.

Existing delineators and end caps to be salvaged are identified on the design drawings or as directed by the Superintendent. Refer to MRC Supplementary Specification Annexure 8512\_1 Rubber Bike Lane Delineators for items to be salvaged and the storage site location.

Disposal of any demolished delineators and end caps not identified as requiring storage shall be disposed of by the contractor at their cost to the nearest MRC waste disposal transfer station.

All existing fixings shall be removed with any surface holes being epoxy sealed as approved by the Superintendent. (WITNESS POINT)

**d) Preparation of surface in accordance to the manufacturer's specifications;**

New concrete surfaces shall be allowed to cure for 7 days, and asphalt surfaces shall be allowed to cure for 14 dry days prior to installations.

Existing surfaces shall be prepared and cleaned completely of dust, dirt and loose materials to provide debris free surface as per the manufacturer's specification. (WITNESS POINT)

**e) Spotting for placement of the lane delineators;**

The final location of the delineators and end caps is to be spot marked out on site and shall be inspected and approved by the Superintendent prior to installation activities commencing. (HOLD POINT)

**f) Installation of the delineators, including end caps, in accordance with the detail provided on the project drawings, and to the manufacturer's specification and Superintendent's approval**

Approval to proceed by the Superintendent shall be granted with the installation of the delineators and end caps shall be carried out as required by the manufacturers specification, this includes but not limited to drilling holes, cleaning of drill holes, epoxy application, insertion of nylon plugs, and tightening of fixings. (WITNESS POINT)

Any works associated with replacement of non-conforming material and/or unapproved construction procedures shall be carried out at no cost to the Principal.

**g) Testing for conformity with construction procedures and specifications.**

Prior to the rubber bungs being inserted all fixings are to be tested to ensure they have set solidly and no movement or rotation occurs as required by the manufactures specification. Any segments that move or rotate are to be replaced. (HOLD POINT)



A geometric survey of the installations will be required to ensure location of delineators are as required by the design drawings and manufacturers tolerances. (HOLD POINT)

**h) Clean up of Site**

The site is to be cleaned of all debris, excavated material, and construction materials

**8512.7 Post Construction**

Items which close out the project, and readies the project for Practical Completion inspection

**a) Collection and submission of all As Constructed data including QA data requirements.**

Contractor is to supply and submit Works as Executed documentation as required by *MRC D20 - Drawings and Documentation* for approval by the Superintendent 4 weeks prior to requesting a practical completion inspection. (HOLD POINT)

Certification of works shall be submitted with the “Works as Executed” Plans and documentation.

Format of submitted “As Constructed” documentation shall be compliant with MRC Supplementary Specification 8919.

**8512.8 Measurement and Payment**

Provision for these works shall be included in the scheduled unit rate for the items shown in Clause 8512.3 of this Supplementary Specification and Annexure. No separate payment will be made for the works specified in this Supplementary Specification. Any works associated with replacement of non-conforming material and/or construction procedures shall be at no cost to the Principal.

Version Control:

Version	Description	Reviewed / Endorsed	Date
1.0	Original issue	MRC	20/01/2022
2.0	Review of Specification	C. Sultana	23.01.2024