

Technical Specification

**Transport and Main Roads Specifications
MRTS80 Supply and Erection of Bridge Barrier**

July 2017

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1 Introduction

This Technical Specification applies to the supply and / or transport and erection of steel, stainless steel and aluminium bridge barrier including bridge traffic barrier, balustrade and safety rails.

This Technical Specification shall be read in conjunction with MRTS01 *Introduction to Technical Specifications*, MRTS50 *Specific Quality System Requirements* and other Technical Specifications as appropriate.

This Technical Specification forms part of the Transport and Main Roads Specifications Manual.

2 Definition of terms

The terms used in this Technical Specification shall be as defined in Clause 2.1.3 of MRTS01 *Introduction to Technical Specifications*.

3 Referenced documents

Table 3 lists departmental documents referenced in this Technical Specification.

Table 3 – Referenced documents

Reference	Title
MRTS01	<i>Introduction to Technical Specifications</i>
MRTS50	<i>Specific Quality System Requirements</i>
MRTS78	<i>Fabrication of Structural Steelwork</i>
MRTS78A	<i>Fabrication of Structural Stainless Steelwork</i>
MRTS79	<i>Fabrication of Aluminium Components</i>

4 Quality system requirements

4.1 Hold Points, Witness Points and Milestones

General requirements for Hold Points, Witness Points and Milestones are specified in Clause 5.2 of MRTS01 *Introduction to Technical Specifications*.

The Hold Points and Witness Points applicable to this Technical Specification are summarised in Table 4.1. There are no Milestones defined.

Table 4.1 – Hold Points, Witness Points and Milestones

Clause	Hold Point	Witness Point	Milestone
8	1. Confirmation of correct alignment and levels	1. Erection of bridge barrier	

4.2 Conformance requirements

The conformance requirements which apply to the work covered by this Technical specification are summarised in Table 4.2.

Table 4.2 – Conformance requirements

Clause	Conformance Requirement
8	Barrier alignment and levels

5 Supply and fabrication of bridge barrier

The provisions of the following departmental documents shall apply to the supply and fabrication of bridge barrier, as applicable:

1. MRTS78 *Fabrication of Structural Steelwork*
2. MRTS79 *Fabrication of Aluminium Components*
3. MRTS78A *Fabrication of Structural Stainless Steelwork*, if stainless steel is specified on Standard Drawings for balustrade and / or safety rails.

6 Transport to Site

At all stages fabricated components shall be handled with care to prevent any deformation, bending or twisting of the members or any of their parts or any damage to protective or decorative coatings.

Special lifting gear shall be provided by the Contractor for this purpose where necessary.

During transport, chains shall not be used to tie down hot-dipped galvanised or anodised items. Nylon or zinc rich primed steel strapping or similar shall be used during transport.

Loose parts shall be crated, tied or bolted in place to avoid loss or damage during transport. Temporary bolts and / or other material required to secure loose parts during transport shall be provided by the Contractor.

7 Storage at Site

Components shall be stored on the Site in such a manner as to prevent damage to members and / or coatings. Components shall be stored above ground on bearers or other supports and shall be kept free of dirt, grease and other foreign matter.

Components stored in the open shall be so arranged to be self-draining and shall be kept free of soil, ashes, vegetable matter and other corrosion-inducing substances.

8 Erection

The erection of the bridge barrier shall be a Witness Point. **Witness Point 1** After erection, the bridge barrier shall have smooth lines in both the horizontal and vertical planes which follow the design edge line of the bridge.

The bridge barrier shall be erected with the base plates engaging the holding down bolts. The barrier may be temporarily supported with temporary wedges. Use of levelling nuts are not permitted.

When the barrier is in position and properly aligned, confirmation of correct alignment and levels shall be undertaken by the Contractor prior to packing the bases with mortar. **Hold Point 1** Packing of bases shall not proceed until the barrier alignment and levels have been accepted by the Administrator. **Nonconformance** If barrier alignment and levels are not accepted, the Administrator may raise a corrective action request to the Contractor. **Corrective Action Request**

The bases shall be tightly packed with cement mortar. Cement mortar shall consist of one part of Type GP cement to three parts of clean sand with just sufficient water added to form a dry packing mortar.

When the mortar has cured, the temporary wedges shall be removed and the holding-down bolts shall be snug tightened. Gaps left by the temporary wedges shall be packed with cement mortar and the whole mortar pad trimmed neatly to the shape on the Standard Drawings.

