

**Specification (Measurement)**

**Transport and Main Roads Specifications  
MRS226 Telecommunications Field Cabinets**

**July 2018**

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## 1 Introduction

This Specification applies to the supply and installation of field cabinets for housing roadside Telecommunications field equipment as an integral part of Transport and Main Roads wider requirement for telecommunications systems.

This Specification should be read in conjunction with MRS01 *Introduction to Specifications* and other Specifications as appropriate.

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

## 2 Measurement of Works

### 2.1 Standard Work Items

In accordance with the provisions of Clause 2.1.3 of MRS01 *Introduction to Specifications*, the Standard Work Items covered by this Specification are listed in Table 2.1.

**Table 2.1 - Standard Work Items**

| Standard Item No.                             | Description                                                                                                                               | Unit of Measurement |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <b>Plinth Base</b>                            |                                                                                                                                           |                     |
| 64001                                         | Supply of [ <i>single   double</i> ] field cabinet plinth base                                                                            | each                |
| 64002                                         | Installation of [ <i>single   double</i> ] field cabinet plinth base                                                                      | each                |
| 64003                                         | Supply and Installation of [ <i>single   double</i> ] field cabinet plinth                                                                | each                |
| <b>Field Cabinet Mounting Pole/Post</b>       |                                                                                                                                           |                     |
| 64021                                         | Supply of field cabinet mounting [ <i>pole   post</i> ]                                                                                   | each                |
| 64022                                         | Installation of field cabinet mounting [ <i>pole   post</i> ]                                                                             | each                |
| 64023                                         | Supply and Installation of field cabinet mounting [ <i>pole   post</i> ]                                                                  | each                |
| <b>Plinth and Pole Mounted Field Cabinets</b> |                                                                                                                                           |                     |
| 64041                                         | Supply of [ <i>single plinth   double plinth   pole-mount   top-mount</i> ] [ <i>metered   unmetered</i> ] field cabinet                  | each                |
| 64042                                         | Installation of [ <i>single plinth   double plinth   pole-mount   top-mount</i> ] [ <i>metered   unmetered</i> ] field cabinet            | each                |
| 64043                                         | Supply and Installation of [ <i>single plinth   double plinth   pole-mount   top-mount</i> ] [ <i>metered   unmetered</i> ] field cabinet | each                |
| <b>Cabinet Ancillary Equipment</b>            |                                                                                                                                           |                     |
| 64061                                         | Supply of field cabinet [ <i>fan   filter   shelf</i> ]                                                                                   | each                |
| 64062                                         | Installation of field cabinet [ <i>fan   filter   shelf</i> ]                                                                             | each                |
| 64063                                         | Supply and Installation of field cabinet [ <i>fan   filter   shelf</i> ]                                                                  | each                |
| <b>Removal of Existing Equipment</b>          |                                                                                                                                           |                     |
| 64091                                         | Removal of [ <i>single plinth   double plinth   pole-mounted   top-mounted</i> ] field cabinet, [ <i>for salvage   for disposal</i> ]     | each                |
| 64092                                         | Removal of field cabinet plinth base                                                                                                      | each                |

## **2.2 Work Operations**

### **Item 64001 Supply of [single / double] field cabinet plinth base**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*, and
- b) supply of field cabinet plinth in accordance with Standard Drawing 1679 and MRTS226.

### **Item 64002 Installation of [single / double] field cabinet plinth base**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) localised excavation
- c) provision of formwork for concrete pad surrounding plinth base
- d) supply and installation of conduit from plinth base to electrical and communications pits, where necessary
- e) sealing of gap between enclosure and plinth, where necessary
- f) supply, placement and finishing of concrete pad surrounding plinth base, where necessary, and
- g) supply and installation of all fixing bolts, nuts and washers as appropriate.

### **Item 64003 Supply and installation of [single / double] field cabinet plinth base**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) supply of field cabinet plinth in accordance with Standard Drawing 1679 and MRTS226
- c) localised excavation
- d) provision of formwork for concrete pad surrounding plinth base
- e) supply and installation of conduit from plinth base to electrical and communications pits, where necessary
- f) supply and installation of plinth base
- g) sealing of gap between enclosure and plinth, where necessary
- h) supply, placement and finishing of concrete pad surrounding plinth base, where necessary, and
- i) supply and installation of all fixing bolts, nuts and washers as appropriate.

### **Item 64021 Supply of field cabinet mounting [pole / post]**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) supply of [fixed base / slip base / impact absorbent] field cabinet mounting pole, or
- c) supply of [fixed base / slip base / impact absorbent] field cabinet mounting post in accordance with Standard Drawing 1628.

**Item 64022 Installation of field cabinet mounting [pole | post]**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) for slip base pole, installation of slip base mounts, shear washer, clamping bolts and nuts and cable clamping blocks
- c) for impact absorbent and slip base poles, supply and installation of cable clamping blocks
- d) supply, installation and termination of cabling from terminal panel to electrical and communication pits including supply and installation of pit junction box, if applicable
- e) for post mounted cabinets, installations in accordance with Standard Drawing 1627, and
- f) testing of the installation.

**Item 64023 Supply and installation of field cabinet mounting [pole | post]**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) supply of [*fixed base | slip base| impact absorbent*] field cabinet mounting pole
- c) for slip base pole, installation of slip base mounts, shear washer, clamping bolts and nuts and cable clamping blocks
- d) for impact absorbent and slip base poles, supply and installation of cable clamping blocks
- e) supply, installation and termination of cabling from terminal panel to electrical and communication pits including supply and installation of pit junction box, if applicable
- f) for post mounted cabinets, post shall be in accordance with Standard Drawing 1628 and installation in accordance with Standard Drawing 1627, and
- g) testing of the installation.

**Item 64041 Supply of [*single plinth | double plinth | pole-mount | top-mount*] [*metered | unmetered*] field cabinet**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) supply of [*metered | unmetered*] plinth-mounted field cabinet complete with all necessary components including cabinet switchboard and internal wiring as per MRTS226, and/or
- c) supply of [*metered | unmetered*] pole-mounted or post mounted field cabinet complete with all necessary components including cabinet switchboard and internal wiring as per MRTS201 *General Equipment Requirements*.

**Item 64042 Installation of [*single plinth | double plinth | pole-mount | top-mount*] [*metered | unmetered*] field cabinet**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) mounting of field cabinet on plinth or pole / post, as appropriate

- c) installation of [*metered* / *unmetered*] field cabinet, as appropriate, complete with all necessary components including cabinet switchboard and internal wiring
- d) earthing of installation including supply of earthing materials, and
- e) electrical testing of field cabinet.

**Item 64043      Supply and installation of [*single plinth* / *double plinth* / *pole-mount* / *top-mount*] [*metered* / *unmetered*] field cabinet**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) supply and installation of [*metered* / *unmetered*] field cabinet, as appropriate, complete with all necessary components including cabinet switchboard and internal wiring
- c) mounting of field cabinet on plinth or pole / post, as appropriate
- d) earthing of installation including supply of earthing materials, and
- e) electrical testing of field cabinet.

**Item 64061      Supply of field cabinet [*fan* / *filter* / *shelf*]**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*, and
- b) supply of field cabinet [*fan* / *filter* / *shelf*] complete with all necessary components.

**Item 64062      Installation of field cabinet [*fan* / *filter* / *shelf*]**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) installation of field cabinet [*fan* / *filter* / *shelf*] complete with all necessary components, and
- c) testing of the operation of installed fans.

**Item 64063      Supply and installation of field cabinet [*fan* / *filter* / *shelf*]**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) supply and installation of field cabinet [*fan* / *filter* / *shelf*] complete with all necessary components, and
- c) testing of the operation of installed fans.

**Item 64091      Removal of [*single plinth* / *double plinth* / *pole-mounted* / *post mounted*] field cabinet, [*for salvage* / *for disposal*]**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) de-energisation and disconnection of cabling to field cabinet
- c) removal of cabinet and all internal cabling and associated components, as appropriate

- d) for pole / post mounted field cabinets:
  - i. removal of [*pole / post*]
  - ii. dismantling of [*pole / post*] and components, where appropriate, and
  - iii. transporting of [*pole / post*] and associated components to designated storage facility or another station for re-use.
- e) for field cabinets to be salvaged:
  - i. dismantling of equipment, where appropriate, and
  - ii. transporting of field cabinets to designated storage facility or another station for re-use.
- f) for field cabinets to be disposed:
  - i. disposal of field cabinets, and
  - ii. disposal of components.

**Item 64092 Removal of field cabinet plinth base**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) removal of plinth base and associated surrounding concrete pad, as required
- c) removal of conduits from plinth to associated electrical and communications pits
- d) disposal of materials, and
- e) backfilling of hole.

**2.3 Method of Measurement of Telecommunication Field Cabinet Components**

This Specification provides Standard Work Items for:

- a) supply only
- b) installation only, and
- c) supply and installation.

of telecommunication field cabinet components.

Any combination of Standard Work Items relating to these methods of measurement may be used in the Schedule of Rates. However, where a Standard Work Item for supply and installation of a particular component or group of components is included in the Schedule of Rates, no supply only nor installation only Standard Work Item shall also apply to that component or group of components, as applicable.

**2.4 Supply of Materials**

Any materials to be supplied by the Principal will be as stated in the Principal Supplied Material List, Form C6827. All other material shall be supplied by the Contractor.

The responsibility for transport to the Site of materials supplied by the Principal shall be as stated in the Principal Supplied Material List, Form C6827. Transport to the Site of all other materials shall be the responsibility of the Contractor.



