Specification (Measurement)

Transport and Main Roads Specifications
MRS226 Telecommunications Field Cabinets

April 2017
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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 forms part of the Transport and Main Roads Specifications Manual. This Specification should be read in conjunction with MRS01 Introduction to Specifications and other Specifications as appropriate.

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

<table>
<thead>
<tr>
<th>Standard Item No.</th>
<th>Description</th>
<th>Unit of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plinth Base</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6966</td>
<td>Supply of [single</td>
<td>double] field cabinet plinth base</td>
</tr>
<tr>
<td>6967</td>
<td>Installation of [single</td>
<td>double] field cabinet plinth base</td>
</tr>
<tr>
<td>6968</td>
<td>Supply and Installation of [single</td>
<td>double] field cabinet plinth</td>
</tr>
<tr>
<td><strong>Field Cabinet Mounting Pole/Post</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6969</td>
<td>Supply of field cabinet mounting [pole</td>
<td>post]</td>
</tr>
<tr>
<td>6970</td>
<td>Installation of field cabinet mounting [pole</td>
<td>post]</td>
</tr>
<tr>
<td>6971</td>
<td>Supply and Installation of field cabinet mounting [pole</td>
<td>post]</td>
</tr>
<tr>
<td><strong>Plinth and Pole Mounted Field Cabinets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6972</td>
<td>Supply of [single plinth</td>
<td>double plinth</td>
</tr>
<tr>
<td>6973</td>
<td>Installation of [single plinth</td>
<td>double plinth</td>
</tr>
<tr>
<td>6974</td>
<td>Supply and Installation of [single plinth</td>
<td>double plinth</td>
</tr>
<tr>
<td><strong>Cabinet Ancillary Equipment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6975</td>
<td>Supply of field cabinet [fan</td>
<td>filter</td>
</tr>
<tr>
<td>6976</td>
<td>Installation of field cabinet [fan</td>
<td>filter</td>
</tr>
<tr>
<td>6977</td>
<td>Supply and Installation of field cabinet [fan</td>
<td>filter</td>
</tr>
<tr>
<td><strong>Removal of Existing Equipment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6978</td>
<td>Removal of [single plinth</td>
<td>double plinth</td>
</tr>
<tr>
<td>6979</td>
<td>Removal of field cabinet plinth base</td>
<td>each</td>
</tr>
</tbody>
</table>
2.2 Work Operations

Item 6966 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 6967 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 6968 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 6969 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 6970  **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 6971  **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 6972  **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 6973  **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 6974 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 6975 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 6976 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 6977 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 6978 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 6979 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.