

# Main Roads Specification

## **MRS16B**

### **Vegetation Ground Works**

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**June 09**

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# Ground Works

## 1 INTRODUCTION

This Specification applies to landscape and revegetation ground work operations associated with road construction. This Specification shall be read in conjunction with MRTS16 *General Requirements – Landscape and Revegetation Works*, and the Annexure and Appendix of MRTS16B *Vegetation Ground Works*.

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

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

## 2 MEASUREMENT OF WORK

### 2.1 Standard Work Items

In accordance with the provisions of Clause 2 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 Work Item No.	Landscape and Revegetation Works Description	Unit of Measurement
<b>PLANTING MEDIA</b>		
3708	Preparation of a PMMP-C.	lump sum
3710	Screening of stripped site soil.	m <sup>3</sup>
3711	Amelioration of stripped site soil.	m <sup>3</sup>
3713	Loading, haulage and placement of site planting media.	m <sup>2</sup>
3714	Supply and placement of imported planting media.	m <sup>2</sup>
<b>GROUND PREPARATION</b>		
3716	Earth mounding.	m <sup>3</sup>
3719	Spreading of amelioration agent prior to ground preparation.	m <sup>2</sup>
3720	Roughening of batters – [cut batters   fill batters].	m <sup>2</sup>
3721	Ripping.	m <sup>2</sup>
3722	Ploughing.	m <sup>2</sup>
3723	Cultivation.	m <sup>2</sup>
3725	Excavation of subsoil.	m <sup>3</sup>
<b>MULCHING</b>		
3752	Loading, haulage and placement of site organic mulch – [chipped site mulch   tub ground site mulch   other mulch].	m <sup>2</sup>
3753	Supply and placement of imported organic mulch – [chipped mulch   tub ground mulch   Hoop Pine mulch   other mulch].	m <sup>2</sup>
3754	Loading, haulage and placement of site rock mulch – [type and size of rock].	m <sup>2</sup>

<b>Standard Work Item No.</b>	<b>Landscape and Revegetation Works Description</b>	<b>Unit of Measurement</b>
3755	Supply and placement of imported rock mulch – [type and size of rock].	m <sup>2</sup>
3756	Supply and / or blending and placement of organics blanket.	m <sup>2</sup>
3757	Supply and placement of filter sock – [200 mm   300 mm   450 mm].	m
<b>ENVIRONMENTAL MATTING</b>		
3760	Environmental matting – [type].	m <sup>2</sup>
3761	Plant mats – [type].	each

## **2.2 Work Operations**

### **2.2.1 Planting Media**

#### **Item 3708 Preparation of a PMMP-C.**

Work operations incorporated in the above item include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*; and
- b) The preparation of a PMMP-C including testing of site in situ soil and in stockpiles.

#### **Item 3710 Screening of stripped site soil.**

Work Operations incorporated in the above item include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*;
- b) Loading;
- c) haulage; and
- d) screening of stripped site soil relevant to intended use of planting media.

#### **Item 3711 Amelioration of stripped site soil.**

Work Operations incorporated in the above item include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*;
- b) Amelioration of stripped site soil including supply of ameliorant, testing of site soil in situ and in stockpiles; and
- c) re-testing of ameliorated site planting media.

#### **Item 3713 Loading, haulage and placement of site planting media.**

Work Operations incorporated in the above item include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*;
- b) Loading;
- c) haulage;
- d) placement of site planting media; and
- e) grading and raking of finished surface.

**Item 3714 Supply and placement of imported planting media.**

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 placement of certified imported planting media; and
- c) grading and raking of finished surface.

**2.2.2 Ground Preparation**

**Item 3716 Earth mounding.**

Work Operations incorporated in the above item include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*;
- b) Loading;
- c) haulage; and
- d) core filling of mounds with suitable fill material.

**Item 3719 Spreading of amelioration agent prior to ground preparation.**

Supply and spreading of amelioration agent prior to ground preparation.

**Item 3720 Roughening of batters – [*cut batters / fill batters*].**

The roughening of batters in preparation for placement of planting media, mulch or hydromulch cover.

**Item 3721 Ripping.**

The ripping of ground, in preparation for additional passes of ground preparation or seeding machinery, in areas beyond the road embankment.

**Item 3722 Ploughing.**

The ploughing of ground in preparation for seeding in areas beyond the road embankment.

**Item 3723 Cultivation.**

The cultivation of the ground in preparation for seeding, planting, turving and mulching in areas beyond the road embankment.

**Item 3725 Excavation of subsoil.**

The excavation of subsoil in preparation for the placement of rock mulch, planting media or other landscape and revegetation treatment.

Work Operations incorporated in 3720 – 3725 include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*;
- b) Removal of large stones and other deleterious material;
- c) Weed control;
- d) Trimming of surface to required design levels;
- e) Construction of temporary catch banks and other surface flow control devices; and
- f) Incorporation of amelioration agents where Item 3720 appears in the schedule.

**2.2.3 Mulching**

**Item 3752 Loading, haulage and placement of site organic mulch – [*chipped site mulch / tub ground site mulch / other mulch*].**

**Item 3753 Supply and placement of imported organic mulch – [*chipped mulch / tub ground mulch / Hoop Pine mulch / other mulch*].**

**Item 3754 Loading, haulage and placement of site rock mulch – [*type and size of rock*].**

**Item 3755 Supply and placement of imported rock mulch – [*type and size of rock*].**

Work operations incorporated in Items 3752 – 3755 –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*;
- b) Processing of site material;
- c) placement of mulch; and
- d) grading and raking of mulch.

Work operations incorporated in Items 3754 and 3755 –

- a) Supply of geofabric; and
- b) installation of geofabric.

**Item 3756 Supply and / or blending and placement of organics blanket.**

Work operations incorporated in the above item include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*; and
- b) Blending and / or placement of organics blanket.

**Item 3757 Supply and placement of filter sock – [200 mm | 300 mm | 450 mm].**

Work operations incorporated in the above item include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*; and
- b) Placement of filter sock.

## **2.2.4 Environmental Matting**

**Item 3760 Environmental matting – [type].**

**Item 3761 Plant mats – [type].**

Work operations incorporated in Items 3760 and 3761 include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*;
- b) Removal of protruding material; and
- c) Supply, installation and securing of environmental matting and / or plant mats.

## **3 PAYMENT**

### **3.1 Planting media**

No separate payment shall be made for soil testing requirements. Payment is included under Items 3708, 3711 and 3713.

### **3.2 Management of Stockpiles of Site and Imported Planting Media**

Payment for the management of stockpiles of site and imported planting media is included under the work Item 3103P *Stripping of Topsoil (Provisional Quantity as directed)* – MRTS04.

### **3.3 Placement of Planting Media**

Turfing, hydromulching, seeding and / or mulching –

- a) No additional payment shall be made for the corrective actions required; and
- b) Where planting media has been placed and subsequently disturbed by the Contractor, the planting media shall be restored to the specified depths and profiles at the Contractor's cost.

### **3.4 Ground Preparation**

Separate payment shall be made for the supply of the amelioration agent only under Item 3719. No additional payment for the incorporation of the amelioration agent shall be made. Payment for the incorporation of amelioration agents into in situ material is included under the specified ground preparation work item.

No payment shall be made for repairs of any damage to services caused by the Contractor.