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**Specification (Measurement)**

**Transport and Main Roads Specifications  
MRS16B Vegetation Ground Works**

**April 2012**

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## 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*.

This specification shall 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 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	Clause Reference in MRTS16B
<b>GROUND PREPARATION</b>			
3729P	Mechanical herbicide application prior to ground preparation [ <i>knock-down   residual</i> ].	m <sup>2</sup>	6
3730P	Manual herbicide application prior to ground preparation [ <i>knock-down   residual</i> ].	m <sup>2</sup>	6
3731P	Hand removal of weeds prior to ground preparation.	lump sum	6
3732P	Target herbicide application prior to ground preparation [ <i>additional rate to items 3729P   3730P</i> ].	m <sup>2</sup>	6
3719	Spreading of amelioration agent prior to ground preparation.	m <sup>2</sup>	6
3720	Roughening.	m <sup>2</sup>	6
3721	Ripping.	m <sup>2</sup>	6
3722	Ploughing.	m <sup>2</sup>	6
3723	Cultivation.	m <sup>2</sup>	6
<b>PLANTING MEDIA</b>			
3708	Preparation of a PMMP-C.	lump sum	4
3709	Soil testing [ <i>proforma C   proforma D   proforma E</i> ].	item	7
3710	Screening of stockpiled topsoil for use as planting media.	m <sup>3</sup>	7
3711	Amelioration of stripped site soil.	m <sup>3</sup>	7
3713	Loading, haulage and placement of site planting media.	m <sup>2</sup>	7
3714	Supply and placement of imported planting media.	m <sup>2</sup>	7

Standard Work Item No.	Landscape and Revegetation Works Description	Unit of Measurement	Clause Reference in MRTS16B
<b>MULCHING</b>			
3752	Loading, haulage and placement of site organic mulch – [ <i>chipped site mulch   tub ground site mulch   other mulch</i> ].	m <sup>2</sup>	8
3753	Supply and placement of imported organic mulch – [ <i>Hoop Pine mulch   other mulch</i> ]	m <sup>2</sup>	8
3754	Loading, haulage and placement of site rock mulch – [ <i>type and size of rock</i> ].	m <sup>2</sup>	8
3755	Supply and placement of imported rock mulch – [ <i>type and size of rock</i> ].	m <sup>2</sup>	8
<b>ENVIRONMENTAL MATTING AND PLANT MATS</b>			
3760	Environmental matting – [ <i>type</i> ].	m <sup>2</sup>	9
3761	Plant mats – [ <i>type</i> ].	each	9

## 2.2 Work Operations

### 2.2.1 Ground preparation

#### **Item 3729P Mechanical herbicide application prior to ground preparation – [*knock-down / residual*]**

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 herbicide, and
- c) the mechanical application of knock-down or residual herbicide using boom spray or high volume power applicator.

#### **Item 3730P Manual herbicide application prior to ground preparation – [*knock-down / residual*]**

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 herbicide, and
- c) the manual application of knock-down or residual herbicide from knapsack or similar applicator.

#### **Item 3731P Hand removal of weeds prior to ground preparation**

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 manual removal and disposal of weeds.

**Item 3732P Target herbicide application prior to ground preparation – [additional rate to Items 3729 / 3730]**

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 herbicide, and
- c) the application of specific herbicides.

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

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 amelioration agent, and
- c) spreading of amelioration agent prior to ground preparation.

**Item 3720 Roughening**

The roughening of areas for the incorporation of ameliorants and / or in preparation for, placement of planting media or mulch.

**Item 3721 Ripping**

The ripping of areas, in preparation for additional passes of ground preparation.

**Item 3722 Ploughing**

The ploughing of areas for the incorporation of ameliorants and / or in preparation for seeding.

**Item 3723 Cultivation**

The cultivation of areas for the incorporation of ameliorants and / or in preparation for, placement of planting media or mulch.

**2.2.2 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 and updating of a PMMP-C.

**Item 3709 Soil testing – [proforma C / proforma D / proforma E]**

Work operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) sampling and testing of site soil
- c) completion of proforma, and
- d) preparation of a Soil Assessment Report.

**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 from stockpile
- c) haulage, and
- d) screening of stripped site soil.

**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) supply of ameliorants, and
- c) amelioration of stripped site soil in stockpiles.

**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 from stockpile
- 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 imported planting media, and
- c) grading and raking of finished surface.

**2.2.3 Mulching**

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

Work operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) processing of site vegetation into mulch
- c) stockpiling and management of mulch
- d) loading from stockpile
- e) haulage
- f) placement, grading and raking of site organic mulch, and
- g) supply, placement and activation of pre-emergent herbicide.

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

Work operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) supply, placement, grading and raking of imported organic mulch, and
- c) supply, placement and activation of pre-emergent herbicide.

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

Work operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) loading from stockpile
- c) haulage
- d) supply and installation of geofabric, including allowance for overlap
- e) placement, grading and raking of site rock mulch, and
- f) supply, placement and activation of pre-emergent herbicide.

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

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 geofabric, including allowance for overlap
- c) supply, placement, grading and raking of imported rock mulch, and
- d) supply, placement and activation of pre-emergent herbicide.

**2.2.4      Environmental matting and plant mats**

**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, including allowance for overlap, and / or plant mats.

**3      Payment**

**3.1      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.



### **3.2 Placement of planting media**

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. No additional payment shall be made for the corrective actions required to planting media during the installation of landscape and revegetation (LR) treatments.

No additional payment shall be made for the corrective actions required to planting media due to delay in the installation of LR treatments.

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