



8320 Landscape Footings

REVISION 13/03/2024

8320.1 Introduction

This Supplementary Specification relates to the construction of landscape footings work that is required and associated with the installation of landscape furniture as part of the Project.

8320.1.1 Definition of Terms

The terms used in this Technical Specification shall be as defined in Clause 2 of MRTS01 *Introduction to Technical Specifications*. Additional terms used in this Technical Specification are defined in the Table below.

Footing	Defined as the base to which the landscape furniture/feature is to be fixed to, it is also defined to include a slab where the type of furniture or feature incorporates this as part of its design and construction requirement.
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8320.2 Referenced Documents

This supplementary specification shall be read in conjunction with the following:

- MRS01 "Introduction to Specifications"
- MRTS01 "Introduction to Technical Specifications";
- MRS03 & MRTS03 " *Drainage Structures, Retaining Structures and Embankment Slope Protections*"
- MRS04 & MRTS04 " *General Earthworks*"
- MRS05 & MRTS05 " *Unbound Pavements*"
- MRS70 & MRTS70 " *Concrete*"
- MRS50 & MRTS50 " *Specific Quality System Requirements*"
- MRC Supplementary Specification 8320.1 Landscape footings Annexure
- MRC Supplementary Specification 8301, 8321, 8604, 8800,
- MRC List of Furniture and Materials
- AS3600 *Concrete Structures*
- AS3610 *Formwork for construction*
- Plumbing and Drainage Act 2018
- Plumbing and Drainage Regulation 2019,
- Nation Construction Code Volume 3 2022
- AS 3500 series of the Australian Standards Plumbing and Drainage.
- AS/NZS 3000 Electrical Installations
- MRC Std Drawings appropriate to the furniture or feature being installed
- MRC Std Drawing A3-09695 Picnic Setting with Rubbish Bin and Electric BBQ on Concrete Slab
- Manufacturers drawings and specification where MRC Std Drawings are not referenced
- Project Drawings.



8320.3 Description of Work

Work items incorporated by this supplementary specification are identified in Section 8320.6 and 8320.7 with individual activities/tasks for measurement and payment sourced from the Bill of Quantities and listed in MRC Supplementary Specification Annexure 8320_1 Landscape Footings Section 1

8320.4 Quality Systems Requirements

8320.4.1 Std Test Methods (Testing Regime)

The following minimum testing regime applies to this specification:

Civil works activities associated with the subgrade/floor of excavation, bed preparation, concrete pours, shall be tested as per the relevant MRTS specification MRTS03, MRTS04, MRTS05, and MRTS70 unless otherwise approved by the Superintendent.

8320.4.2 Hold Points, Witness Points and Milestones

The following table represents the minimum inspection requirements for this specification;

Activity	Inspection Type	When
Construction Procedure	Milestone	4 Weeks prior to works commencing
Confirmation of delivery date of associated furniture or fixture	Hold Point	Prior to excavation works commencing
Layout survey	Hold Point	During site survey layout.
Bed/Subgrade Excavation Floor	Hold Point	At completion of excavation and compacting
Installation of Electrical and Reticulated Water Conduiting and draw wire/rope, and Drainage (As required by Project Drawings)	Witness Point	Prior to backfilling and setting up of formwork
Formwork and Reinforcing Installation	Hold Point	Prior to concrete pour
Placing of Concrete	Witness Point	During pour activities
Finishing and Curing of Concrete	Witness Point	During Finishing of concrete surface
Removal of Formwork Approval	Hold Point	When Concrete has attained 70% strength
Approval to Backfill	Hold Point	After removal of formwork has occurred
Works as Executed documentation	Hold Point	4 weeks prior to practical completion being requested.



8320.4.3 Construction Tolerances

Unless otherwise approved by the Superintendent the following construction tolerances shall apply to this Specification;

- Earthworks tolerances in accordance with MRTS04 Earthworks General
- Concrete tolerances in accordance with MRTS70 Concrete

Tolerances specific to the project are detailed on the design drawings and are included in Clause 2 of MRC Supplementary Specification Annexure 8320_1 otherwise MRTS04 applies.

8320.5 Preliminary

The Contractor is to submit the following documentation 4 weeks prior to a request for a prestart meeting **(MILESTONE)**:

- Construction procedure
- Approved Plumbing permit for Sewerage, Water (hot and cold)
- Approved building permit for site (as required)

Other requirements unique to the project will be listed in the MRC Supplementary Specification Annexure 8320_1 **(MILESTONE)**

8320.5.1 Materials

Supply of all materials to site is the responsibility of the Contractor at their cost, where items are Principal supplied the nominated storage site shall be obtained from MRC Supplementary Specification 8320_1 Landscape Footings Annexure Section 3 and shall be the point of supply.

Unless instructed otherwise by the Superintendent existing components to be salvaged and the nominated storage site will be detailed in MRC Supplementary Specification 8320_1 Section 4. This will also include any reuse of existing items.

All civil items and materials shall be supplied in accordance with their relevant MRTS Specification as relates to this specification.

8320.6 Construction

This section lays out the works operations with more detail based on specific requirements of this supplementary specification. Some activities may appear to include items which are stated within other specifications, the purpose is to reinforce that requirement specific to this supplementary specification.

Specific construction requirements associated with these works is detailed in MRC Supplementary Specifications 8320_1 Landscape Footing Annexure Section 5

Delivery date of landscape furniture or fixture is to be confirmed by the Superintendent who is responsible for ensuring other associated footing works are completed prior to delivery. **(HOLD POINT)**

8320.6.1 Work Operations

Work operations incorporated in this item will include:

- a) Work Operations included in Clause 2.1.5 of MRS “Introduction to Specifications”;**
- b) Supplying all materials, plant, and labour;**



All materials, plant, and labour required to carry out the works under this Specification is to be supplied by the Contractor, where the subsoil drainage pipe and fittings are Principal supplied the designated storage site will be the point of supply for the purposes of this Specification.

c) Site layout requirements with the Superintendent;

The final location of the footing (including slab as required) is to be marked out on site and shall be inspected and approved by an MRC representative prior to excavation commencing. **(HOLD POINT)**

For Electric BBQ's, Picnic Setting with rubbish bin refer to MRC Std Drawing A3-09695 unless otherwise stated in design drawings.

Where there is an absence of an MRC Std Drawing for the particular furniture or fixture the manufacturers footing design drawings and specification shall apply.

Where electrical utilities, reticulated water supply, or drainage is required as part of the project works these are to be installed as identified in MRC Supplementary Specifications 8320_1 Landscape Footing Annexure Section 5 and located to match the requirements of the individual furniture or fixture proposed as detailed on the design drawings.

d) Carrying out excavations;

Excavation works shall be carried out in accordance with MRTS04, particular note to width of excavation.

Excavation of material to level and grade as per design drawings, vertical tolerances shall not exceed +/-10mm, horizontal tolerances +/- 50mm

If a slab is required as part of the footing works the area is to be excavated shall be +300mm of design width of the slab area only.

Bed/Subgrade is to be inspected for areas of unsuitable material **(HOLD POINT)**

If unsuitable material is identified this is to be removed and replaced with approved material as per the instructions of the Superintendent

e) Utilising or disposing of excavated material;

Excess excavated materials shall be disposed of or utilised as per Superintendents instructions. Material stockpiled shall ensure that all Environmental ESC measures are in place and maintained

f) Bottom of Excavations Compaction

Where project drawings require a footing only, the bottom of the excavation shall be firm and be representative of the surrounding material.

Where project drawings require a slab associated with the footing the area under the slab shall be compacted to 97% SDD and tested at a frequency of 1/200m²

All loose material is to be removed from footings and/or slab bed.

Bed/subgrade is to be presented for inspection by the Superintendent prior to polythene sheeting being laid **(HOLD POINT)**

Where a slab is required as per design drawings to be constructed on ground surfaces or foundation bedding a Polythene Sheeting is to be laid in accordance with MRTS70

g) Installation of Utilities and Drainage



This includes penetrations, conduits, and the like for services (as required) for installation in and through the footings.

Where required by the design drawings and/or manufacturers drawings and specifications utility conduiting and draw wire/rope for electrical power and reticulated water is to be installed.

Requirements for underground drainage to compliment the landscape furniture or fixture shall be installed as per Design Drawings, manufacturer's drawings, specification, and requirements.

h) Installation of formwork, steel reinforcing, and placing of concrete

All concrete works associated with the footings and slab shall be carried out in accordance with MRTS70, MRC standard drawings, and the design drawings with inspections, geotechnical testing and geometric requirements applying unless otherwise in MRC 8320_1 Landscape Footings Annexure.

Once in place a prepour inspection of reinforcing and formwork shall be carried out prior to placing concrete. **(HOLDPOINT)**

The Superintendent shall give the approval to proceed with the placing of concrete. Finishing of the concrete is to be in accordance with the design drawings. **(WITNESS POINT)**

Immediately after the initial set of the concrete, curing shall commence and continue for a minimum of seven days. Plastic sheeting shall not be used as part of the curing process. **(WITNESS POINT)**

Formwork is not to be stripped prior to 70% strength being gained or as per project plans as approved by the Superintendent **(HOLD POINT)**.

i) Clean up and backfilling against footing and/or slab;

Backfilling to slab is not to occur until after stripping has occurred. Where backfilling and turfing is required it shall be left 10mm below level of concrete finished level **(HOLD POINT)**.

Site is to be cleaned of all debris, excavated material, and construction materials.

8320.7 Post construction

a) Collection and submission of all As Constructed data including QA data requirements.

Contractor is to supply and submit Works as Executed documentation as required by *MRC D20 - Drawings and Documentation* for approval by the Superintendent 4 weeks prior to requesting a practical completion inspection. **(HOLD POINT)**

Certification of works as required shall be submitted with the "Works as Executed" Plans and documentation as required.

Format of submitted "As Constructed" documentation shall be compliant with MRC Supplementary Specification 8919.

8320.8 Measurement and Payment

Provision for these works shall be included in the scheduled unit rate for the items show in Clause 8320.3 of this Supplementary Specification and Annexure. No separate payment will be made for the works specified within this Supplementary specification or it's annexure.

Version Control:



Version	Description	Reviewed / Endorsed	Date
1.0	Original issue		20.09.2020
2.0	Review of specification	Colin Sultana	13.03.2024