

Specification (Measurement)

**Transport and Main Roads Specification
MRS302 Fabrication and Construction of pontoons**

July 2017

Copyright



<http://creativecommons.org/licenses/by/3.0/au/>

© State of Queensland (Department of Transport and Main Roads) 2017

Feedback: Please send your feedback regarding this document to: tmr.techdocs@tmr.qld.gov.au

Contents

- 1 Introduction1**
- 2 Measurement of work1**
 - 2.1 Standard Work Items 1
 - 2.2 Work Operations 1
 - 2.3 Calculation of quantities 3
 - 2.3.1 *Item 77301 Preparation and implementation of the Construction Plan*.....3
 - 2.3.2 *Item 77302 Establishment of plant and equipment (with exception of the piling equipment)*.....3
 - 2.3.3 *Item 77303 Detailed design*.....4
 - 2.3.4 *Item 77304 Fabricate and supply (ex-factory) all components (excluding piles and lighting)* 4
 - 2.3.5 *Item 77305 Supply and drive piles (including establishment of piling rig)*.....4
 - 2.3.6 *Item 77306 Supply and install solar lighting*.....4
 - 2.3.7 *Item 77307 Transport (ex-factory) and install all components*4
 - 2.3.8 *Item 77308 Site civil works (including abutment)*4

1 Introduction

This Specification applies to the design and construction of pontoons.

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 *Specification (Measurement)*, the Standard Work Items incorporated in this Specification are listed in Table 2.1.

Table 2.1 – Standard Work Items

Standard Item No.	Description	Unit of measurement
77301	Preparation and implementation of the Construction Plan	lump sum
77302	Establishment of plant and equipment (with exception of the piling equipment)	lump sum
77303	Detailed design	lump sum
77304	Fabricate and supply (ex-factory) all components (excluding piles and lighting)	lump sum
77305	Supply and drive piles (including establishment of piling rig)	lump sum
77306	Supply and install solar lighting	lump sum
77307	Transport (ex-factory) and install all components	lump sum
77308	Site civil works (including abutment)	lump sum

2.2 Work Operations

Item 77301 Preparation and implementation of the Construction Plan

Work Operations incorporated in this Item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Specification (Measurement)*
- b) preparation of the Environmental Management Plan amended by the Contractor (EMP (C)), Safety Plan and Works Program
- c) amendments of the Safety Plan as advised by the Safety Officer to be deemed acceptable
- d) amendments of the EMP (C) and Works Program
- e) revision of the Works Program during construction to reflect the as-progressed program, and
- f) monitoring, implementation and revision of the Safety Plan during construction activities.

Item 77302 Establishment of plant and equipment (with exception of the piling equipment)

Work Operations incorporated in this Item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Specification (Measurement)*

- b) transport to site and preparation of all plant and equipment with the exception of piling plant and equipment required for floating walkways
- c) establishment of a site compound if required
- d) supply and installation of signage required by approvals and permits
- e) establishment of traffic control (if required) and worksite delineation
- f) removal of the site compound, temporary set outs and signage as required by the permits and approvals
- g) repair or reinstatement of damage caused by the Contractor's operations, and
- h) removal of construction wastes not elsewhere defined.

Item 77303 Detailed design

Work Operations incorporated in this Item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Specification (Measurement)*
- b) preparation and delivery of the Design Deliverables defined in Clause 8 of *Design Criteria for Floating Walkways and Pontoons*, and
- c) amendments required to meet Design Criteria or Design Deliverables.

Item 77304 Fabricate and supply (ex-factory) all components (excluding piles and lighting)

Work Operations incorporated in this Item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Specification (Measurement)*
- b) supply of all materials and fabrication of flotation modules, deck furniture, gangway and pile cages
- c) Work Operations for supply, testing and placement of concrete in accordance with MRTS70 *Concrete* and *Design Criteria for Floating Walkways and Pontoons*, and
- d) Work Operations for fabrication of aluminium components in accordance with MRTS79 *Fabrication of Aluminium Components* and *Design Criteria for Floating Walkways and Pontoons*.

Item 77305 Supply and drive piles (including establishment of piling rig)

Work Operations incorporated in this Item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Specification (Measurement)*
- b) supply of all piles, sleeves and pile caps
- c) painting of piles
- d) establishment and disestablishment of piling rigs
- e) establishment and disestablishment of specialist piling plant including augers, rock breakers and other plant to prebore or drive piles for site specific geotechnical conditions
- f) handling, pitching and driving piles and sleeves to nominated depth

- g) pile cutoff to design height, and
- h) fitting steel pile endplates, sleeve endplates, retroreflective tape and pile caps.

Item 77306 Supply and install solar lighting

Work Operations incorporated in this Item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Specification (Measurement)*
- b) supply of all lights
- c) fabrication as required, and
- d) installation.

Item 77307 Transport (ex-factory) and install all components

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Specification (Measurement)*
- b) transport of all components from factory to worksite, and
- c) installation of components.

Item 77308 Site civil works (including abutment)

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Specification (Measurement)*
- b) clearing, grubbing and earthworks for the abutment and gangway clearance (if required), and
- c) construction of the abutment.

2.3 Calculation of quantities

2.3.1 Item 77301 Preparation and implementation of the Construction Plan

This Item shall be paid on meeting the performance criteria defined in the following table:

Table 2.3.1 – Item 77301 Performance criteria

Amount to be paid for Establishment	Time for Payment
80 %	Progress Payment 1 when the requirements for Work Operations (a) to (d) have been fulfilled
Balance	On issue of the Certificate of Practical Completion

2.3.2 Item 77302 Establishment of plant and equipment (with exception of the piling equipment)

Establishment shall be measured on meeting the performance criteria defined in the following table:

Table 2.3.2 – Item 77302 Performance criteria

Amount to be paid for Establishment	Time for Payment
10 %	For each subsequent progress payment until a total of 80 % has been reached
50 %	Progress Payment 1 when the requirements for Work Operations (a) to (e) have been fulfilled
Balance	When the requirements of Work Operations (a) and (f) to (g) have been fulfilled

2.3.3 Item 77303 Detailed design

Detailed design shall be paid as a single Item when the design has been approved by the Superintendent.

2.3.4 Item 77304 Fabricate and supply (ex-factory) all components (excluding piles and lighting)

Fabricated components but not on site shall be paid as a single Item, subject to the additional security requirements.

2.3.5 Item 77305 Supply and drive piles (including establishment of piling rig)

This Item shall be paid as a single Item when all of the Work Operations have been completed.

2.3.6 Item 77306 Supply and install solar lighting

This Item shall be paid as a single Item when all of the Work Operations have been completed.

2.3.7 Item 77307 Transport (ex-factory) and install all components

This Item shall be paid as a single Item when all of the Work Operations have been completed.

2.3.8 Item 77308 Site civil works (including abutment)

This Item shall be paid as a single Item when all of the Work Operations have been completed.

