

**Specification (Measurement)**

**Transport and Main Roads Specifications  
MRS39 Lean-Mix Concrete Subbase**

**May 2026**

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## 1 Introduction

This Specification applies to the construction of lean-mix concrete subbase.

This Specification shall be read in conjunction with MRS01 *Introduction to Specifications*, MRS50 *Specific Quality System Requirements* and other Specifications as appropriate.

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

## 2 Measurement of work

### 2.1 General

All requirements in this Specification are the responsibility of the Contractor and are a cost to the Contractor unless specifically stated otherwise.

### 2.2 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 2.2.

**Table 2.2 – Standard Work Items**

Standard Item No.	Description	Unit of measurement
<b>Lean-Mix Concrete Subbase</b>		
42801	Trim substrate to tolerance	m <sup>2</sup>
42802	Supply of additional materials	m <sup>3</sup>
42803	Supply and place lean-mix concrete subbase	m <sup>3</sup>
42804	Finish and cure lean-mix concrete subbase	m <sup>2</sup>
42805	Supply and place bitumen de-bonding treatment	m <sup>2</sup>
42806	Supply and place subgrade beams	m <sup>3</sup>

### 2.3 Work Operations

Work Operations include the removal from the Site and safe disposal of Work and materials which do not conform and are not accepted for a reduced level of service, and their replacement with Work and materials that conform to the requirements for the project.

#### Item 42801 Trim substrate to tolerance

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*

- b) placing and compacting additional material if required
- c) trimming the layer beneath the lean-mix concrete subbase to the tolerance specified, and
- d) removal and disposal of the trimmed material.

**Item 42802 Supply of additional materials**

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 and delivery of additional material.

**Item 42803 Supply and place lean-mix concrete subbase**

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 costs of mix design and trials, paving trials, construction joints, outer edges and all concrete required to produce paved concrete.

The width and length are as specified on the Drawings or as directed by the Administrator. The width for payment will include the additional width 50 mm beyond the plan position of an overlying concrete pavement base or additional width 25 mm beyond the plan position of other base types. No account will be taken of any allowable tolerances.

The thickness is the thickness specified or as directed by the Administrator across each section.

Where the underlying layer has been constructed by others, the specified LCS thickness across any section is the difference between the design LCS surface level and the actual level of the underlying layer.

**Item 42804 Finish and cure lean-mix concrete subbase**

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 achievement of conforming finish and cure.

The width and length are as specified on the Drawings or as directed by the Administrator. The width for payment will include the additional width 50 mm beyond the plan position of an overlying concrete pavement base or additional width 25 mm beyond the plan position of other base types. No account will be taken of any allowable tolerances.

The sides of the subbase must not be included in the measurement of surface area.

This Work Item includes rain protection.

### **Item 42805 Supply and place bitumen de-bonding treatment**

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 supply and placement of surface debonding / bonding treatment.

The width and length are as specified on the Drawings or as directed by the Administrator. The width for payment will include the additional width 50 mm beyond the plan position of an overlying concrete pavement base or additional width 25 mm beyond the plan position of other base types. No account will be taken of any allowable tolerances.

This Work Item includes all associated activities such as supply and spreading of aggregate, where applicable.

### **Item 42806 Supply and place subgrade beams**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*, and
- b) excavation, reinforcement, concreting, protection and curing of subgrade beams.

The width, length and depth are taken from the Drawings or as directed by the Administrator.

## **3 Utilisation of a nonconforming lot for a reduced level of service**

Where approved by the Administrator, a nonconforming production lot may be utilised for a reduced level of service provided that:

- a) the Contractor takes the necessary action to prevent recurrence of the nonconformance and states, on the non-conformance report, what action is to be taken, and
- b) the Contractor accepts payment for the lot at a reduced value.

### **3.1 Standard Work Item 42803**

#### **3.1.1 Core compressive strength**

The Administrator may elect to accept a nonconforming Sub-Lot with insitu compressive strength of between 4.0 MPa and 5.0 MPa within 42 days of placement, in which case a deduction to the applicable rate in the payment schedule of 2% for each 0.1 MPa (or part thereof) deficiency below 5.0 MPa.

#### **3.1.2 Thickness**

The Administrator may elect to accept a nonconforming Sub-Lot with a thickness deficiency, in which case a deduction to the applicable rate in the payment schedule must be made in accordance with Table 3.1.2.

**Table 3.1.2 – Deductions for LCS thickness deficiency**

Deficiency in mean thickness <sup>(1)</sup> (mm)	Deduction to payment item (%), where overlying base type is	
	Concrete	Asphalt
5	0	0
10	12	25
15	25	Remove and replace
20	50	Remove and replace
> 20	Remove and replace	

Notes:

<sup>(1)</sup> Thickness deficiency is the calculated difference between the rounded mean thickness and the design thickness.

