

Title	Use measurements and calculations in concrete construction work		
Level	3	Credits	5

Purpose	<p>This unit standard is intended for those working in the concrete construction industry.</p> <p>People credited with this standard are able to use measurements and calculations in concrete construction work to commercial standards.</p>
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Classification	Concrete > Concrete Core Skills
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Available grade	Achieved
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Guidance Information

1 Assessment

This unit standard is intended to align with the *New Zealand Certificate in Concrete Construction Skills Specifications* and the *New Zealand Certificate in Concrete Construction Skills (Level 3)* [Ref: 4189].

Evidence for this standard must reflect commercial standards.

Commercial standards refer to verbal and written information covering company policy, standard operating procedures and processes, and job-specific instructions.

Working to commercial standards refers to the ability to consistently:

- perform standard processes to current industry standards, on demand and within a commercially acceptable timeframe;
- perform non-standard processes to current industry standards, on demand and within a commercially acceptable timeframe, under the supervision of a commercially competent practitioner.

Working to commercial standards must be confirmed by a person with current expertise in concrete construction.

2 Definition

Concrete construction refers to any of these; formwork construction, fixing reinforcing, placing and finishing concrete, applying specified finishes to concrete surfaces, precast concrete manufacture, concrete product manufacture, sawing or drilling concrete.

- 3 Legislation, standards and guidance information relevant to this standard includes the following; and any subsequent amendments and replacements.

New Zealand Certificate in Concrete Construction Skills – Specifications, BCITO, May 2021, accessed at www.bcito.org.nz.

Legislation accessed at www.legislation.govt.nz

- Building Act 2004
- Health and Safety at Work Act 2015
- Resource Management Act 1991
- Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Standards accessed at www.standards.govt.nz

- NZS 3101.1&2:2006 *Concrete structures*
- NZS 3109:1997 *Concrete construction*
- NZS 3124:1987 *Specification for concrete construction for minor works*
- NZS 4230:2004 *Design of reinforced concrete masonry structures*
- AS/NZS 4671:2019 *Steel for the reinforcement of concrete*
- NZS 3114:1987 *Specification for concrete surface finishes*.

Guidelines and Approved Codes of Practice accessed at www.worksafe.govt.nz for the following topic:

- *Load-lifting rigging*.

Skill specification and performance level guidance

Skill specification

Use measurements and calculations in concrete construction work.

Knowledge

The different units of measurement and how they are used in concrete construction.

Range length, area, volume and time (hours and minutes).

The methods for finding centres and spacings in concrete construction work.

The methods for calculating area and volume for concrete construction work.

Skills

Use measurements and calculations in one, two and three dimensions to complete concrete construction work to design specification.

Use time measurements to complete concrete construction work to design specification.

Performance level guidance

Performance must reflect current regulatory, industry and commercial standards relevant to a specific concrete construction process in a concrete construction workplace.

Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	28 October 2021	N/A

Consent and Moderation Requirements (CMR) reference	0048
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact the Building and Construction Industry Training Organisation national.office@bcito.org.nz if you wish to suggest changes to the content of this unit standard.