

Title	Plan and carry out placing and finishing concrete for flatwork and in-situ structures		
Level	4	Credits	12

Purpose	<p>This unit standard is intended for people working in the concrete construction industry.</p> <p>People credited with this standard can plan and carry out placing and finishing concrete for flatwork and in-situ structures to the level of performance required of a commercially competent tradesperson.</p>
----------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Classification	Concrete > Concrete Construction
-----------------------	----------------------------------

Available grade	Achieved
------------------------	----------

Guidance Information

1 Assessment

This unit standard is intended to align with the *New Zealand Certificate in Concrete Construction (Commercial and Civil Infrastructure) – Specifications* and the *New Zealand Certificate in Concrete Construction (Commercial and Civil Infrastructure) (Level 4)* [Ref: 4188].

Evidence for this unit standard must reflect commercial competence.

Commercial competence refers to the ability to demonstrate knowledge and skills in the context of the currently accepted requirements of a business operating in a commercial environment.

Commercial competence must be confirmed by a person with current expertise in concrete construction.

2 Definitions

Design specifications refers to the detailed description, characteristics, quantity, and quality, ratio and formation method of the material used in construction work.

Workplace procedures refers to the documented procedures specific to a workplace that set out the standards and required practices of that workplace.

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

Specifications available from qualifications@waihanga.nz

- *New Zealand Certificate in Concrete Construction (Commercial and Civil Infrastructure) – Specifications*, BCITO, October 2020.

Legislation accessed at www.legislation.govt.nz

- Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Standards accessed at www.standards.govt.nz

- NZS 3109:1997 *Concrete construction*.

Guidelines and Approved Codes of Practice accessed at www.worksafe.govt.nz

- *Practical Guide for Working Safely With Hazardous Substances*
- *Best Practice Guidelines for Working at height in New Zealand*
- *The Absolutely Essential Health and Safety Toolkit*.

New Zealand Guide to Concrete Construction 2011 (Revised Edition) accessed at www.concretenz.org.nz.

Skill specification and performance level guidance

Skill specification

Plan and carry out placing and finishing for concrete flatwork and in-situ structures.

Knowledge

The pre-pour work requirements for concrete placement.

The procedures for reviewing concrete on-site prior to placing.

Methods used to distribute and place concrete on site for concrete structures.

Range methods include – barrows, chutes, crane and bucket, pumps and pump lines.

The range of finishes formed on the surface of fresh concrete and methods used to achieve them.

The methods for curing concrete.

Range includes – impermeable membrane curing, water curing, and accelerated curing.

The types of defects encountered in finished concrete and the associated repair and/or refinish methods used.

Skills

Review concrete supplied prior to placing.

Carry out pre-pour checks prior to concrete placing according to workplace procedures.

Range pre-pour checks include – access, completion of formwork, sufficient workers to undertake placing, availability of equipment, lighting, traffic control, positioning of truck, installation of damp proof membrane, and placement and securing of cast-ins and reinforcing, lines, levels, falls, integrity and stability of formwork, falsework and propping meet job specifications and are within acceptable tolerances according to NZS 3109:1997.

Distribute and place concrete on site according to design specifications.

Finish the surface of fresh concrete according to design specifications.

Apply techniques to repair finished concrete surface to achieve design specifications.

Apply concrete curing methods to achieve desired strength and durability according to design specifications.

Performance level guidance

Performance must reflect workplace procedures, current regulatory, industry and commercial standards relevant to concrete construction.

Placing and finishing concrete must meet design specifications.

Planned review date	31 December 2026
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 January 2022	N/A

Consent and Moderation Requirements (CMR) reference	0048
------------------------------------------------------------	------

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Waihangā Ara Rau Construction and Infrastructure Workforce Development Council at qualifications@waihanga.nz if you wish to suggest changes to the content of this unit standard.