

<b>Title</b>	<b>Demonstrate knowledge of materials used to construct formwork for concrete structures and foundations</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>5</b>

<b>Purpose</b>	<p>This unit standard is intended for those working in the concrete construction industry.</p> <p>People credited with this standard are able to demonstrate knowledge of materials used to construct formwork for concrete structures and foundations to commercial standards.</p>
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<b>Classification</b>	Concrete > Concrete Construction
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<b>Available grade</b>	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 formwork construction.

### 2 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](http://www.bcito.org.nz).

Legislation accessed at [www.legislation.govt.nz](http://www.legislation.govt.nz)

- Building Act 2004
- Construction Contracts Act 2002
- Health and Safety at Work Act 2015
- Resource Management Act 1991
- Health and Safety at Work (General Risk and Workplace Management) Regulations 2016
- The New Zealand Building Code.

Standards accessed at [www.standards.govt.nz](http://www.standards.govt.nz)

- NZS 3101:1&2:2006 *Concrete structures*
- NZS 3109:1997 *Concrete construction*
- NZS 3114:1987 *Specification for concrete surface finishes*
- NZS 3124:1987 *Specification for concrete construction for minor works.*

Guidelines and Approved Codes of Practice accessed at [www.worksafe.govt.nz](http://www.worksafe.govt.nz) for the following topics:

- *Load-lifting rigging*
- *Manual handling*
- *Management of noise*
- *Powder-actuated, hand-held fastening tools*
- *Power-operated elevating work platforms.*

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## Skill specification and performance level guidance

### Skill specification

Demonstrate knowledge of materials used to construct formwork for concrete structures and foundations.

### Knowledge

The types and purpose of materials used to construct formwork for concrete structures and foundations.

The types and purpose of cast-in elements used in the construction of formwork for concrete structures and foundations.

Range cast in elements include reinforcing chairs, brackets, ties, waffle slab components, and conduits for services, bolts, plates, rods, pipes, penetrations, and ducting.

The purpose of release and cleaning agents used with formwork.

### Performance level guidance

Performance must reflect current regulatory, industry and commercial standards relevant to formwork construction.

The range of materials and accessory knowledge must reflect those commonly specified for formwork construction in a commercial environment. Example materials are: timber, steel, coated plywood, glass reinforced cement or plastics, cardboard, rubber, thermoplastics and polystyrene.

<b>Planned review date</b>	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

<b>Consent and Moderation Requirements (CMR) reference</b>	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](mailto:national.office@bcito.org.nz) if you wish to suggest changes to the content of this unit standard.