

Reinforcing 3 Complete installation of reinforcing of moderate complexity for concrete structures

Kaupae Level	4
Whiwhinga Credit	10
Whāinga Purpose	This skill standard is for people working in or entering the concrete construction trade. People credited with this skill standard have the skills to complete installation of reinforcing of moderate complexity for concrete structures. This skill standard aligns with the New Zealand Certificate in Concrete Construction (Commercial and Civil Infrastructure) (Level 4) [Ref 4188] and may also contribute to other construction and infrastructure qualifications.

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Install reinforcing materials for concrete structures.	a. Reinforcing materials are confirmed and prepared to meet reinforcing steel plan and specifications and associated bar tags or schedules.
	b. Reinforcing steel is placed and secured to meet specified cover, centres, laps and acceptable industry tolerances.
	c. Supports and spacers are positioned to maintain alignment and stability.
2. Evaluate and confirm suitability of reinforcing work.	a. Installed reinforcing work is checked against reinforcing steel plans and specifications.
	b. Cast-in items and penetrations are verified and secured before concrete placement.
	c. Any installation defects are reported and rectified in readiness for concrete placement in accordance with industry standards.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

To achieve this standard, the candidate must complete installation of reinforcing of moderate complexity for concrete structures to industry standards.

Concrete structures may include slabs, walls, columns, beams, or other structural concrete elements.

Industry standards must reflect industry best practice, workplace procedures, and be within acceptable tolerances as defined in New Zealand codes, standards and regulations.

Plans and specifications can include working drawings, plan specifications, manufacturer specifications, installation instructions and demolition and project plans.

Moderate complexity refers to reinforcing installation work that involves a broad range of reinforcing types. Work includes placing, securing, and checking reinforcing steel and materials for concrete elements such as slabs, beams, columns, or walls where there may be variable bar sizes, congested layouts, multiple layers, cast-in items, or coordination with other trades.

Evidence for this standard must be demonstrated:

- to current and relevant Legislation, Standards, and Codes (including safety),
- in an environmentally sustainable manner,
- within an acceptable timeframe,
- with acceptable behaviours.

Ngā momo whiwhinga | *Grades available*

Achieved.

Ihirangi waitohu | Indicative content

Planning and site preparation

- Plans and specifications
- Reinforcing steel plans and specifications
- Bar tags
- Site layout, access and safety zones
- Equipment, tools and materials
- Environmental and safety considerations

Planning and site coordination

- Plans and specifications
- Reinforcing schedules and bar lists
- Access, storage, and delivery zones

Reinforcing systems and components

- Bars, mesh, fibres, ties, and supports
- Cast-in items, sleeves, couplers, penetrations, and inserts
- Spacers, chairs, and fixings

Calculation and installation

- Measurement, cutting lengths, and bar counts
- Setting out and sequencing
- Placing, securing, and spacing reinforcing
- Lap lengths, bends and cover
- Integration with formwork and embedded items

Inspection and verification

- Checks for placement, laps, and clearances
- Cast-in items and penetrations
- Recording and reporting of installation defects

Industry standards

Rauemi | Resources

Programme Guidance information available from qualifications@waihangaararau.nz.

Pārongo Whakaū Kouna | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Waihanga Ara Rau Construction and Infrastructure Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Concrete > Concrete Construction
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0120

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	dd mm 2025	N/A
Kōrero whakakapinga Replacement information	N/A		
Rā arotake Planned review date	[dd mm yyyy]		

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council at qualifications@waihangaararau.nz to suggest changes to the content of this skill standard.