

<b>Title</b>	<b>Design, erect, and dismantle advanced falsework</b>		
<b>Level</b>	<b>5</b>	<b>Credits</b>	<b>15</b>

<b>Purpose</b>	<p>This unit standard is for people who have intermediate scaffolding skills and who want to develop their scaffolding skills to an advanced level.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> <li>– design advanced falsework;</li> <li>– erect advanced falsework;</li> <li>– check the structure is compliant and complete a GPG inspection report; and</li> <li>– dismantle advanced falsework.</li> </ul>
----------------	--

<b>Classification</b>	Lifting Equipment > Advanced Scaffolding
-----------------------	--

<b>Available grade</b>	Achieved
------------------------	----------

### Guidance Information

- 1 This unit standard has been developed for learning and assessment on-job or off-job in a simulated environment.
- 2 All tasks must be carried out in accordance with:
  - a quality management systems;
  - b designer's requirements and manufacturers' operating instructions; legislation, regulations, bylaws, Health and Safety at Work 2015, and Health and Safety in Employment Regulations 1995;
  - c the most up to date version of the *Good Practice Guidelines - Scaffolding in New Zealand (GPG)*, 2016 available from <https://www.worksafe.govt.nz/topic-and-industry/working-at-height/scaffolding-in-new-zealand/>; and all subsequent amendments and replacements.
- 3 Definitions
 

*Advanced falsework* includes non-standard and specialist uses and the construction of unusual and irregular falsework structures. This incorporates propping on sloping ground, propping non-level loads, the addition to falsework of other scaffolding structures such as cantilever platforms and falsework to support concrete, both pre-cast and in situ. Advanced falsework is normally designed, erected, and dismantled to specifications prepared or checked by a chartered engineer.

*Client* refers to an individual or representative of a company who commissions a particular scaffold or scaffolding structure to be erected, or is an end user of the scaffold or scaffolding structure.

*Falsework* is defined in the GPG as scaffolding used to prop or support a load at height.

*Falsework plan* is a key design document prepared by the candidate and used as a basis for the erection of particular falsework.

*Scaffolding* is as defined in the GPG and in the Health and Safety in Employment Regulations 1995.

#### 4 Training and assessment

This unit standard covers the erection and dismantling of falsework and falsework structures must take place under the supervision of a certified scaffolder who holds a current Certificate of Competence for the scaffolding concerned.

#### 5 Range

Evidence is required of four instances of advanced falsework. For primary beam support only: shoreload frames, an individual proprietary falsework system, and tube and fitting falsework are all required. For primary and secondary beam support one of the following is required: shoreload frames, an individual proprietary falsework system, or tube and fitting falsework.

#### 6 Recommended skills and knowledge

New Zealand Certificate in Scaffolding (Level 4) [Ref: 2362], or demonstrate equivalent knowledge and skills.

## Outcomes and performance criteria

### Outcome 1

Design advanced falsework.

#### Performance criteria

1.1 Confirm falsework requirements with the client or chartered professional engineer.

Range includes – loading requirements; may include but is not limited to – nature of material(s) to be supported, equipment needs, timeframes.

1.2 Determine design parameters, where necessary, meeting chartered professional engineer's requirements.

Range includes but is not limited to – calculation of loads, duration of supporting requirements, consideration of environmental factors, regulatory requirements, safety margins.

1.3 Prepare design documents, including where necessary, advice from a chartered professional engineer.

Range includes falsework plan, gear list, and, where necessary, engineer's requirements; may include but is not limited to – CAD printouts, work schedules, staffing allocation, WorkSafe New Zealand and local authority approvals, workplace-specific documentation.

- 1.4 Submit where necessary, the falsework plan and associated design documents to a chartered professional engineer for checking and make adjustments as required.

## Outcome 2

Erect advanced falsework.

### Performance criteria

- 2.1 Confirm the design parameters work begins in accordance with the falsework plan.
- Range includes but is not limited to – ground conditions, bracing points and their structure, load weights, bracing methods, direction and magnitude of forces, movement of personnel and materials.
- 2.2 Source the necessary equipment in accordance with the falsework plan.
- 2.3 Erect falsework and associated bracing progressively in accordance with the falsework plan.
- 2.4 Attach additional scaffolding structures to falsework in accordance with the falsework plan.
- Range may include but is not limited to – cantilever platforms, provision of support for formwork construction.

## Outcome 3

Check the structure is compliant and complete a GPG inspection report.

### Performance criteria

- 3.1 Check the structure for compliance in accordance with the falsework plan.
- 3.2 Complete a GPG inspection report.
- 3.3 Make changes to the structure ensure compliance and amend the GPG inspection report accordingly.

## Outcome 4

Dismantle advanced falsework.

### Performance criteria

- 4.1 Confirm the structure supported by the falsework as self-supporting.
- 4.2 Remove scaffolding components, and their bracing and ties, progressively back to the supporting members.

- 4.3 Remove supporting members and their bracing progressively from the top down.

<b>Planned review date</b>	31 December 2026
----------------------------	------------------

#### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	21 July 2011	31 December 2016
Review	2	16 July 2015	31 December 2025
Review	3	24 February 2022	N/A
Revision	4	24 August 2023	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0003
--	------

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

#### Comments on this unit standard

Please contact the Waihanga Ara Rau Construction and Infrastructure Workforce Development Council [qualifications@waihangaararau.nz](mailto:qualifications@waihangaararau.nz) if you wish to suggest changes to the content of this unit standard.