

Title	Design, erect, and dismantle hanging scaffolds		
Level	5	Credits	15

Purpose	<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"> – design hanging scaffolds; – erect a single drop hanging scaffold; – erect a multiple drop hanging scaffold; – check the structure is compliant and complete a GPG inspection report; and – dismantle hanging scaffolds.
----------------	---

Classification	Lifting Equipment > Advanced Scaffolding
-----------------------	--

Available grade	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 Act 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

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.

Hangers are sometimes also called 'hanging tubes' or 'droppers', are the vertical hung members that form the 'skeleton' of a hung scaffold around which hanging scaffolds are constructed.

Hanging scaffolds refer to scaffolds hung from a scaffold or structure that is static. The design, erection, and dismantling of hanging scaffolding is an advanced scaffolding function.

Multiple drop hanging scaffold is a hanging scaffold hung from a single drop hanging scaffold.

Restore and repair refer to the steps taken to ensure the end state of the supporting structure in accordance with site requirements.

Scaffold plan is a key design document prepared by the candidate and used as a basis for the erection of a particular scaffold.

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

Single drop hanging scaffold is a hanging scaffold hung from a structure or conventional scaffold which has a vertical length (or 'drop') of no more than a single member. It may have more than one working lift.

4 Training and assessment

During assessment against this unit standard, design, erection and dismantling of scaffolds and scaffolding 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 for one single drop scaffold and one multiple drop scaffold, one of which is erected from a standing scaffold and one of which is erected from an existing structure (two scaffolds in all). Multiple drop hanging scaffolds must consist of at least two drops with at least one working lift beyond the first drop.

6 Recommended skills and knowledge

New Zealand Certificate in Scaffolding (Level 4) [Ref: 2632], or demonstrate equivalent knowledge and skills.

Outcomes and performance criteria

Outcome 1

Design hanging scaffolds.

Performance criteria

- | | |
|-------|--|
| 1.1 | Confirm hanging scaffold requirements with the client, or Chartered Professional Engineer. |
| Range | includes – establishing maximum load, bracing requirements; may include but is not limited to – load calculations, access to points of attachment. |
| 1.2 | Check the supporting structure or scaffold for its capacity to support the hanging scaffold. |
| Range | includes but is not limited to – confirmation of structural integrity; identification of attachment, tie, and bracing points. |

- 1.3 Determine design parameters, and where necessary, in accordance with the Chartered Professional Engineer's requirements.
- Range includes but is not limited to – number of working lifts, load to be supported, attachment points, tie and bracing points, direction and magnitude of forces, bracing methods.
- 1.4 Prepare design documents, including where necessary, advice from a chartered engineer.
- Range includes – scaffold plan, gear list, and, where necessary, engineer's requirements; may include but is not limited to – computer-aided design printouts, work schedules, staffing allocation, WorkSafe New Zealand and local authority approvals, workplace-specific documentation.
- 1.5 Submit where necessary, the scaffold plan and associated design documents to a Chartered Professional Engineer for checking and make adjustments as required.

Outcome 2

Erect a single drop hanging scaffold.

Performance criteria

- 2.1 Confirm design parameters on-site before work begins in accordance with the scaffold plan.
- Range includes but is not limited to – drop distances, number of working lifts supported, bracing and tie points and their structure, load weights, bracing methods, direction and magnitude of forces.
- 2.2 Source the necessary equipment in accordance with the scaffold plan.
- 2.3 Install hangers in accordance with the scaffold plan.
- 2.4 Descend a hanger attach ledgers and transoms in accordance with the scaffold plan.
- 2.5 Lock hangers, brace the structure using chase or heel and toe bracing in accordance with the scaffold plan.
- 2.6 Check the scaffold is square, and erect transoms, bracing and planking to form the base lift in accordance with the scaffold plan.
- 2.7 Erect, brace and plank subsequent scaffolding components progressively from the bottom up to form the remainder of the hanging scaffold in accordance with the scaffold plan.

Outcome 3

Erect a multiple drop hanging scaffold.

Performance criteria

- 3.1 Confirm design parameters on-site before work begins in accordance with the scaffold plan.
- Range includes but is not limited to – drop distances, number of working lifts supported, bracing and tie points and their structure, load weights, bracing methods, direction and magnitude of forces.
- 3.2 Source the necessary equipment in accordance with the scaffold plan.
- 3.3 Check additional fittings in accordance with the scaffold plan.
- 3.4 Descend hangers attach components in accordance with the scaffold plan.
- Range descent and component attachment for all drops.
- 3.5 Lock hangers, brace the structure using chase or heel and toe bracing in accordance with the scaffold plan.
- 3.6 Check the scaffold is square, erect transoms, bracing, and planking to form the base lift, in accordance with the scaffold plan.
- 3.7 Erect, brace and plank subsequent scaffolding components progressively from the bottom up to form the remainder of the hanging scaffold in accordance with the scaffold plan.

Outcome 4

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

Performance criteria

- 4.1 Check the scaffold for compliance in accordance with the scaffold plan.
- 4.2 Complete a GPG inspection report.
- 4.3 Make changes to the scaffold to ensure compliance and amend the GPG inspection report accordingly.

Outcome 5

Dismantle hanging scaffolds.

Performance criteria

- 5.1 Clear the scaffold of load from the bottom up.

- 5.2 Remove scaffolding components, bracing, and ties progressively back to the supporting hangers.
- 5.3 Ascend hangers to the next drop up or, in the case of the first drop, the supporting structure or scaffold.
- 5.4 Remove and retrieve fittings and hangers.
- 5.5 Restore and repair attachment points.

Replacement information	This unit standard, unit standard 26598, unit standard 26600, unit standard 26601, and unit standard 26602 replaced unit standard 4209 and unit standard 4211.
--------------------------------	--

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	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

Consent and Moderation Requirements (CMR) reference	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 if you wish to suggest changes to the content of this unit standard.