

Title	Position, excavate, and backfill excavations and trenches for plumbing, gasfitting, or drainlaying		
Level	3	Credits	4

Purpose	<p>This unit standard is for people who work in the plumbing, gasfitting, or drainlaying industries.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> – determine the position of the excavation or trench; – excavate to a stable sub-base; and – carry out backfilling and clear the site.
----------------	---

Classification	Plumbing, Gasfitting and Drainlaying > Core Plumbing, Gasfitting, and Drainlaying
-----------------------	---

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

Guidance Information

1 References

Building Act 2004;

Health Act 1956;

Health and Safety at Work Act 2015;

Plumbers, Gasfitters, and Drainlayers Act 2006;

Plumbers, Gasfitters, and Drainlayers Regulations 2010;

Resource Management Act 1991;

The following standards, which are available at <http://www.standards.govt.nz/>:

AS/NZS 1546.1:2008 *On-site domestic wastewater treatment units – Septic tanks*,

AS/NZS 1547:2012 *On-site domestic wastewater management*

AS/NZS 3500.2:2015 *Plumbing and drainage – Sanitary plumbing and drainage*;

The following guides, which are available at <http://www.worksafe.govt.nz/worksafe>:
Good practice guidelines – Excavation safety, Wellington: WorkSafe New Zealand, 2016

Guide for Safety with Underground Services, Wellington: Department of Labour, 2002;

The following clauses, and any related compliance documents, which are available at <https://www.building.govt.nz/>:

New Zealand Building Code Clause E1 Surface Water

New Zealand Building Code Clause G12 Water Supplies

New Zealand Building Code Clause G13 Foul Water;

and all subsequent amendments and replacements.

2 Definitions

Job specifications – instructions (oral, written, graphic) and may include any of the

following: manufacturer instructions; design drawing detail specifications; specifications from a specialist source such as an architect, designer, engineer, or a supervisor; and site or work specific requirements. Where job specifications are in conflict with applicable legislation, standards, and/or codes, such legislation, standards, and/or codes shall take precedence for the purpose of assessment. *Other services* – any existing installed services such as water, gas, electricity, or telephone network cables.

- 3 All practical activities must be carried out in a way that avoids harm to people and damage to property, environment, other services, materials, tools, and equipment.
- 4 Candidates must hold a current limited certificate or exemption under supervision as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.
- 5 Recommended skills and knowledge for the unit standard: Unit 30532, *Demonstrate knowledge of excavating and trenching for plumbing, gasfitting, or drainlaying.*

Outcomes and performance criteria

Outcome 1

Determine the position of the excavation or trench.

Performance criteria

- 1.1 Determine position and level by measurements in accordance with job specifications.

Range includes establishing line, level, and gradient.
- 1.2 Identify any need for the excavation to accommodate other services and incorporate into the position and size.
- 1.3 Locate other services and avoid, and protect them in accordance with the owning utility operator's working practice.
- 1.4 Identify other services by label and/or colour in accordance with job specifications and relevant standards and codes.
- 1.5 Avoid or remove any obstructions.

Outcome 2

Excavate to a stable sub-base.

Performance criteria

- 2.1 Remove surface material in accordance with job specifications.
- 2.2 Excavate spoil in accordance with calculations.

2.3 Identify stable sub-base by visual assessment and in accordance with job specifications.

2.4 Shore the excavation in accordance with job specifications and relevant standards and codes.

Range evidence of one method is required.

2.5 Determine quantity needed for bedding material.

2.6 Select, place, and level bedding material in accordance with site conditions and job specifications.

Outcome 3

Carry out backfilling and clear the site.

Performance criteria

3.1 Backfill the excavation and compact as necessary, in accordance with job specifications, codes and standards, selection of backfill material, method of compaction, rate of compaction, and expected finished surface.

3.2 Place or reinstate appropriate means of identifying below ground services.

Range may include but is not limited to – signal tape, trace wire.

3.3 Remove and dispose of debris, including excess spoil, associated with the completed work.

Replacement information	This unit standard and unit standard 30532 replaced unit standard 1099 and unit standard 1122.
--------------------------------	--

Planned review date	31 December 2022
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	28 September 2017	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 Skills Organisation reviewcomments@skills.org.nz if you wish to suggest changes to the content of this unit standard.