

Title	Determine water supply requirements in buildings, install and support water supply pipework		
Level	3	Credits	6

Purpose	<p>This unit standard is for people who work, or intend to work, in the plumbing industry.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> – determine water supply requirements in buildings; and – install and support water supply pipework in buildings.
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Classification	Plumbing, Gasfitting and Drainlaying > Plumbing
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Available grade	Achieved
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Guidance Information

- 1 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the:
- 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 3500.1:2021 *Plumbing and drainage, Part 1: Water services*,
 AS/NZS 3500.4:2021 *Plumbing and drainage, Part 4: Heated water services*,
 NZS 3604:2011 *Timber-framed buildings*.

The following guides, which are available at <http://www.worksafe.govt.nz>:
Excavation Safety – Good practice Guidelines,
Underground services – Guide for safety with underground services.

The following Building Code clauses, and any related Acceptable Solution and Verification Method documents, which are available at <https://www.building.govt.nz>:
 New Zealand Building Code Clause G10 Piped Services,
 New Zealand Building Code Clause G12 Water Supplies.

Any new, amended or replacement referenced standards, codes of practice, guidelines, Building Code Acceptable Solutions and Verification Methods, or authority requirements affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.

2 Definitions

Job requirements refer to specific requirements of the job at hand not covered by job specifications.

Job specifications refer to 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.

Maintain may refer to all or any of – repair, upgrade, alter, remove.

Water supply pipework refers to pipe, fittings and associated valves and components used or intended to be used for the reticulation of water to sanitary fixtures, sanitary appliances and fittings within a building.

- 3 This unit standard applies to the installation of water supply pipework above and below the ground but does not apply to the installation of water mains under control of a network utility operator.

4 Assessment information

All work must be completed in accordance with job specifications and relevant standards and codes.

5 Range

Water supply pipework may include – copper, galvanised mild steel, polybutylene, polyethylene, unplasticised polyvinylchloride (uPVC), cross-linked polyethylene, polypropylene, and associated fittings;

evidence is required for copper and two other materials;

Joining methods – are determined according to the material being joined, and may include brazing/capillary, compression, crimp, crox, flange, fusion weld, solvent weld, press fit, push fit, screwed thread, sliding sleeve;

evidence is required for brazing and two other methods.

Outcomes and performance criteria

Outcome 1

Determine water supply requirements in buildings.

Performance criteria

- 1.1 Select size of pipe according to available pressure (head), delivery rate requirements, and job specifications.

Outcome 2

Install and support water supply pipework in buildings.

Performance criteria

- 2.1 Cut pipes to size accurately.
- 2.2 Support water supply pipework in accordance with the requirements of the Building Act 2004.

- 2.3 Joint pipes using methods and fittings appropriate to the material being joined.
- 2.4 Carry out soundness tests in accordance with the requirements of the Building Act 2004.
- 2.5 Protect water supply pipework against physical damage in accordance with the requirements of the Building Act 2004.

Range may include corrosion and erosion, ultra-violet light, expansion, contraction, vibration and impact, seismic activity, freezing, heating, abrasion resistance, other environmental factors – such as damage caused by vermin or rodents; evidence of four is required.

Replacement information	This unit standard and unit standard 30605 replaced unit standard 2143.
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Planned review date	31 December 2029
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 October 2017	31 December 2028
Review	2	30 May 2024	N/A

Consent and Moderation Requirements (CMR) reference	0003
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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 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.