

Title	Maintain building integrity and weather tightness of building penetrations		
Level	4	Credits	8

Purpose	<p>This unit standard is for people who work in the plumbing or gasfitting industries.</p> <p>People credited with this unit standard are able to: install flashings for pipework or flue penetrations through exterior claddings; and maintain integrity of cladding underlays when installing roof and wall penetrations.</p>
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Classification	Plumbing, Gasfitting and Drainlaying > Core Plumbing, Gasfitting, and Drainlaying
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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:
- Building Act 2004;
 - New Zealand Building Code (Building Regulations 1992 – Schedule 1);
 - Health and Safety at Work Act 2015;
 - Plumbers, Gasfitters, and Drainlayers Act 2006;
 - Plumbers, Gasfitters, and Drainlayers Regulations 2010.

The following standards, which are available at <http://www.standards.govt.nz>:
 NZS 3604:2011, *Timber-framed buildings*;
 NZS 4219:2009, *Seismic performance of engineering systems in buildings*.

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 B1 Structure,
 New Zealand Building Code Clause B2 Durability,
 New Zealand Building Code Clause C Protection from fire,
 New Zealand Building Code Clause E2 External moisture,
 New Zealand Building Code Clause E3 Internal moisture,
 New Zealand Building Code Clause G11 Gas as an energy source.

The following guide, which is available at <https://www.metalroofing.org.nz/>
 New Zealand Metal Roof and Wall Cladding Code of Practice.

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 Definition

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.

3 Candidates must hold a current limited certificate trainee authorisation or exemption under supervision as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.

4 Range

Two differing roofing penetrations (metal profile roofing and other), two differing wall penetrations.

5 Level of performance

To achieve this standard, the candidate must be capable of consistently performing the requirements:

- to current and relevant legislation, standards and codes (including safety);
- in an environmentally sustainable manner;
- within an acceptable timeframe;
- in the workplace;
- in different and unfamiliar contexts.

Outcomes and performance criteria

Outcome 1

Install flashings for pipework or flue penetrations through exterior claddings.

Performance criteria

- 1.1 Select suitable materials with regard to the penetration size and roofing or cladding material being penetrated.
- 1.2 Check to ensure penetrations meet the requirements of New Zealand Building Code Acceptable Solution E2/AS1.
- 1.3 Form flashing to job specifications.
- 1.4 Install flashing to job specifications.

Outcome 2

Maintain integrity of cladding underlays when installing roof and wall penetrations.

Performance criteria

- 2.1 Seal penetrations in underlays appropriately in accordance with job specifications and the New Zealand Building Code Acceptable Solution E2/AS1.

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	28 September 2017	31 December 2026
Review	2	12 December 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 Waihangara Ara Rau Construction and Infrastructure Workforce Development Council qualifications@waihangaararau.nz if you wish to suggest changes to the content of this unit standard.