

Build_L4_2 Describe strategies to manage environmental impact on buildings

Kaupae Level	4
Whiwhinga Credit	5
Whāinga Purpose	<p>This skill standard recognises the skills required to identify strategies for managing environmental impact on buildings.</p> <p>This skill standard contributes to qualification pathways across construction trades.</p>

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Explain environmental effects on materials and buildings.	a. The effects of environmental factors are described in relation to the impact on materials and buildings.
2. Identify strategies to manage environmental impact on materials and buildings.	a. Water penetrating principles and management strategies for buildings are described.
	b. Methods to manage the impact of environmental factors on materials and buildings are described.
	c. Methods to maintain the structural integrity of buildings or structures from the impact of loads is identified.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

Candidates must be capable of consistently recognising familiar strategies relevant to a construction trade to manage environmental conditions.

Environmental impacts refer to something either natural or man-made that causes a change in the physical or chemical properties of a building or building materials that may be harmful to people, animals, or the natural environment.

External impacts may include loads, metrological, air pollution, UV, noise, and subterranean conditions, seismic activity.

Internal impacts may include temperature, air quality, moisture, and noise.

Methods of maintaining structural integrity may include size and configuration of foundations and members, and types and configurations of fixings and bracing elements.

The level of knowledge required is that of a trade professional rather than that of an engineer, designer, or scientist.

Ngā momo whiwhinga | Grades available

Achieved.

Ihirangi waitohu | Indicative content

- Heat, moisture, airflow, corrosion
- Loading – load types.
- How loads work on and within a structure.
- How design and construction compensate for loads
- Subterranean conditions.
- Structural considerations.
- Water principles – capillary actions, hydrostatic pressure, gravity, wind pressure and surface tension.
- Watertightness – deflection, drying, drainage and durability of materials.
- Regional environmental variations.
- Materials suitable for managing different environmental impacts.
- Trade specific strategies to manage environmental effects.

Rauemi | Resources

Refer to the Core Construction Skills Guidance document which includes resources, definitions, and other information of relevance to this standard, available from qualifications@waihangaararau.nz.

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Waihanga Ara Rau Construction and Infrastructure Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Planning and Construction > Construction Trades > Core Construction
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0048

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	<type here>	[dd mm yyyy]	[dd mm yyyy]
Rā arotake Planned review date	[dd mm yyyy]		

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council at qualifications@waihangaararau.nz to suggest changes to the content of this skill standard.