**Reduce material waste in a construction environment
(Micro-credential)**

**Level 2, 3 credits**

**Micro-credential number** (ID: 129392-1)

**Reporting Code** [Ref: 5388-1]

**Waihanga Ara Rau Construction and Infrastructure
Workforce Development Council (6046)**

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# Listing

## Title

|  |
| --- |
| Reduce material waste in a construction environment (Micro-Credential) |

## Level and credits

|  |  |
| --- | --- |
| 2 | 3 |

## Classification (NZSCED)

|  |
| --- |
| 040399 Architecture and Building>Building>Building not elsewhere classified |

## Purpose

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| --- |
| The purpose of this micro-credential is to recognise the skills and knowledge needed to reduce material waste in a construction environment. A *construction environment* is any environment where construction, modification, or maintenance of buildings, structures, or infrastructure assets takes place. This micro-credential is suitable for both new learners and those already in the workforce who are looking to build or formalise their knowledge of waste reduction practices. It is designed for people working in or preparing to work in a construction environment, including apprentices, suppliers and anyone with an interest in reducing waste who want to adopt more sustainable approaches. |

## Outcome

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| On successful completion of this micro-credential, learners/ākonga will be able to reduce waste in a construction environment through their ability to identify recyclable materials, apply a waste reduction plan, and describe the environmental, social, and financial benefits of minimising waste. |

## Education pathway

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| This micro-credential builds upon foundational knowledge and skills in construction environments.This micro-credential may lead to further study in construction or infrastructure related qualifications at Level 3 or above. |

## Cultural, community or employment pathway

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| On successful completion of this micro-credential, learners/ākonga may:* be employed in construction or infrastructure settings with an understanding of waste minimisation and sustainability.
* contribute to environmentally responsible practices in a construction environment.
* support marae or community-led construction projects in reducing waste.
 |

## Assessment standards or skill standards

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Title | Level | Credit | Version |
| 40291 | Reduce material waste in a construction environment | 2 | 3 | 1 |

## Review period

|  |
| --- |
| August 2028 |

# Approval

## Learning outcomes

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| --- |
| On successful completion of this micro-credential, learners/ākonga will gain knowledge and practical skills to reduce waste in everyday tasks in a construction environment. They will be able to:* Understand the environmental, social, and financial benefits of reducing waste.
* Identify common recyclable construction materials.
* Use a waste reduction plan in a construction setting.

See - Appendix 1 - Component Descriptor. |

## Need and acceptability

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| This micro-credential is strongly supported by a diverse group of stakeholders representing construction, infrastructure, waste management, health and safety, research, local government, and training. Their endorsement demonstrates both the clear industry need for this training and the relevance and usefulness of its content.The support reflects core sector values, including sustainability, health and safety, innovation, and workforce development. It also aligns with kaupapa that uphold Te Tiriti o Waitangi and integrate Te Ao Māori, consistent with the principles of Te Hono o Te Kahurangi.Attestations from stakeholders are attached to this application. |

## Admission

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| There are no mandatory entry requirements for this micro-credential. However, learners should be engaged in or intending to work in a construction environment. |

## Credit recognition and transfer, recognition of prior learning

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| --- |
| It is expected those seeking accreditation for delivery of this micro-credential will develop and implement regulations, policies, and processes within a quality management system (QMS) that assist learners to have their relevant learning recognised and credited. The provisions for awarding credit will need to cover: * cross-crediting (from another assessment standard, micro-credential, or programme within the organisation)
* credit transfer (from another assessment standard, skill standard, micro-credential or programme awarded by another organisation)
* recognition of prior learning (credit awarded for informal or uncertificated learning).
 |

## Length and Structure

**Length**

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| This micro-credential involves 30 hours of learning and assessment, including practical application and self-reflection. Providers may determine duration in line with the notional hours implied by the credit value. |

**Structure**

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| This micro-credential has one component:1. Reduce waste in a construction environment.The learning journey may start by exploring why waste reduction matters—looking at environmental, economic, and social benefits. From there, learners can be introduced to the waste hierarchy: reducing at the source, upcycling, and recycling. They should have opportunities to apply waste minimisation practices in a construction environment andwork with a waste reduction plan in a real or simulated setting. The waste reduction plan may be either a generic example developed by the provider, or a real plan used in an actual workplace.Learners can be supported through peer-learning opportunities, such as watching videos that show experienced tradespeople using good waste reduction practices on-site. Practical learning can be woven throughout the programme, particularly when looking at how to reduce waste in a construction environment.Training tools such as videos and templates (e.g. from the Waste Hub) can help with learning and planning. Some councils also offer mentoring workshops.See details in – Appendix 1 - Component Descriptor. |

## Assessment methods

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| Please refer to Appendix 1 – Micro-credential Component Descriptor attached to this application for information on assessment methods.NZQA’s *Aromatawai and the Principles of Assessment* will guide the development of quality assessment practices for this micro-credential. All assessment must be fair, valid, consistent, and appropriate to the learning outcomes.To be awarded this micro-credential, learners must demonstrate competence in all learning outcomes.Assessment is through practical demonstration and self-reflection. Learners may complete a self-reflection on how well they have met the learning outcomes, including what they did differently or would improve.Assessment tasks may include identifying recyclable vs non-recyclable materials in typical worksite scenarios.Waihanga Ara Rau manages moderation requirements in accordance with the current, or any superseded versions of CMR 0048.[https://www.waihangaararau.nz/assurance/moderation](https://protect.checkpoint.com/v2/r04/___https%3A//www.waihangaararau.nz/assurance/moderation___.Y3A0YTpuenFhMTY0NDM1NzI0NDQxNTpjOm86MmIwYjk0YTk0NWY4MTcyMGUzZjhjNjg4YTEwYmZlMjY6Nzo3ZDMyOmVmNjYxMDQ3OTc2ZmE0M2M0OGFjMzgyM2NiOWRmN2NmMjlkNGYxMWRkYzk5YWI2YmQ1MDY5YTkwYzhhMjU1OGI6cDpUOk4).**Pre-assessment and post assessment moderation**Providers will meet the requirements of the skill standards and the current, or any superseded versions of CMR 0048 for pre and post assessment moderation of assessments.Providers will follow the assessment and moderation policies in their quality management system (QMS).National external moderation (NEM) of this micro-credential’s skill standard will be captured as part of the processes outlined in the Waihanga Ara Rau annual assurance plans.  |

## Completion

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| Component 1 must be completed to be awarded this micro-credential.Please refer to Appendix 1 – Micro-credential Component Descriptor attached to this application for further information on the sequential learner progression through this micro-credential. |

## Review process

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| Waihanga Ara Rau has regular engagement with industry stakeholders, to ensure the review of the content of the micro-credential and to ensure it remains fit for purpose. A report on the outcomes for stakeholders will be completed at the end of the review period, published, and shared with relevant stakeholders.To ensure this micro-credential is delivered as intended, Providers are expected to have review processes in place to ensure regular review of the provision of the micro-credential to measure and monitor the quality of outcomes for learners and stakeholders, particularly for Māori and Pāsifika learners. |

**Appendix 1 - Component Descriptor**

##### Component Title 1:

##### Reduce material waste in a construction environment

|  |  |  |  |
| --- | --- | --- | --- |
| **Level**  | 2 | **Credits** | 3 |
| **Mode** | Face to face / blended / online | **Duration (weeks)** | 2-4  |
| **Learning outcomes** | On successful completion, learners will be able to:LO1: Reduce waste in a construction environment.A *construction environment* is any environment where construction, modification, or maintenance of buildings, structures, or infrastructure assets takes place.  |
| **Topics**  | * Benefits of waste reduction:
	+ Environmental, social, and financial benefits
	+ Economic advantages of efficient resource use
	+ Social value of sustainable practices, particularly in community projects
	+ Relevance for Māori and Pasifika communities
	+ Benefits of repurposing and upcycling materials.
* Common types of waste in a construction environment.
* Recyclable materials on-site.
* Recycling practices:
	+ Sorting materials into bins
	+ Using clearly labelled recycling bins
	+ Following local recycling rules.
* Designing waste out of construction and practical ways to reduce waste:
	+ Following a waste reduction plan
	+ Using materials efficiently (e.g., measure twice, cut once)
	+ Reusing offcuts and surplus materials
	+ Storing materials properly to prevent damage
	+ Following site plans accurately to avoid mistakes.
* Waste prevention:
	+ Understanding how to prevent waste before it occurs
	+ Recognising practices that go beyond recycling and reuse.
* Identification and handling of hazardous materials.
* Material Safety Data Sheets (MSDS).
 |
| **Suggested resources** | * REBRI Waste Minimisation Toolkit
* Multilingual on-site waste sorting signage kits
* Resource recovery map
* Guidance on waste minimisation planning
* Trade Competency Profile on core sustainability capabilities
* BRANZ e-learning module on sustainable principles
 |
| **Methods** | Learning may take place through practical, work-based tasks, simulations, and guided instruction. Learners may also take part in discussions and reflections. Real-world videos and examples can be used to show best practice on-site. Providers are encouraged to support peer learning, reflective practice, and contextualise activities to suit specific construction environment settings. |
| **Standard** | Skill standard 40291: Reduce material waste in a construction environment (Level 2, 3 credits) |