



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **CPCBC4021A Minimise waste on the building and construction site**

**Release: 1**

## **CPCBC4021A Minimise waste on the building and construction site**

### **Modification History**

Not Applicable

### **Unit Descriptor**

#### **Unit descriptor**

This unit of competency specifies the outcomes required to support sustainable building practices by minimising waste on the building and construction site. The range of legislative and council planning requirements are addressed in addition to industry best practice in relation to the management of by-products generated and removed from demolition, renovation and construction sites.

### **Application of the Unit**

#### **Application of the unit**

This unit of competency supports the needs of builders, site managers and forepersons, and estimators in the building and construction industry.

### **Licensing/Regulatory Information**

Not Applicable

## Pre-Requisites

**Prerequisite units** Nil

## Employability Skills Information

**Employability skills** This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

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Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan a waste management strategy.	1.1. Current relevant state, territory and council requirements for managing and minimising building waste are identified. 1.2. Relative costs and savings associated with <i>strategies to minimise waste</i> are calculated and negotiated with client. 1.3. Effective communications are established with the architect, designer, engineer and other relevant professionals to ensure project plans incorporate waste minimisation strategies. 1.4. Relevant Australian standards are consulted to identify the implications of waste minimisation strategies for the conduct of the building project. 1.5. Waste management strategy to support the building and construction project is developed.
2. Manage materials procurement to minimise waste.	2.1. Building and construction materials are evaluated to identify high quality and more durable materials that will extend the life of the structure and simplify its future extension and refurbishment. 2.2. Recycled materials are used where appropriate and with regard to regulatory and standards' restrictions. 2.3. Procurement specifications are developed that seek to minimise <i>packaging waste</i> .
3. Manage the building process to reduce waste.	3.1. Demolition practices are determined and used to increase the recovery of materials for recycling and reuse. 3.2. Strategies are adopted to minimise the volume of site excavation and other materials that are disposed of in landfill. 3.3. Litter abatement strategies are adopted on site. 3.4. Safe and environmentally effective disposal of unavoidable waste is planned and implemented.

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

## **REQUIRED SKILLS AND KNOWLEDGE**

### **Required skills**

Required skills for this unit are:

- application of Australian standards and manufacturer specifications
- application of the Building Code of Australia (BCA)
- communication skills to:
  - communicate information to client
  - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
  - identify and negotiate client requirements
  - seek advice
  - read and interpret:
    - legislative and planning requirements
    - relevant Australian standards
  - use and interpret non-verbal communication
  - use language and concepts appropriate to cultural differences
  - written skills to produce a waste management strategy
- numeracy skills to apply calculations
- problem solving to determine optimum waste minimisation practices.

### **Required knowledge**

Required knowledge for this unit is:

- building and construction industry processes for building sustainability
- relevant state or territory building and construction codes, standards and government regulations
- workplace safety requirements.

# Evidence Guide

## EVIDENCE GUIDE

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The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

### Overview of assessment

This unit of competency could be assessed by the effective application of sustainable waste management principles and concepts on a construction work site.

This unit of competency can be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

### Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of the ability to:

- source and analyse legislative and planning requirements for waste minimisation in the building process
- calculate costs and savings of implementing alternative waste minimisation systems
- produce a strategy or plan for effective waste minimisation.

### Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- documentation that should normally be available in either a building or construction office
- relevant codes, standards and government regulations
- office equipment, including calculators, photocopiers and telephone systems

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- computers with appropriate software to view 2-D CAD drawings, run costing programs and print copies
- a technical reference library with current publications on measurement, design, building construction and manufacturers' product literature
- a suitable work area appropriate to the construction process.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

### Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge

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- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

## Range Statement

### RANGE STATEMENT

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The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

***Strategies to minimise waste*** include:

- procurement policies that encourage use of recyclable and recycled material
- building to standard sizes
- contracts with subcontractors that require implementation of waste minimisation
- materials salvage and recycling
- litter abatement
- use of reusable delivery and storage containers.
- metal strapping in place of shrink wrapping
- paper packaging in place of plastic
- shredded paper packing in place of foam
- recyclable or reusable containers.

***Packaging waste*** reduction methods include the use of:



## **Unit Sector(s)**

**Unit sector**                      Construction

## **Co-requisite units**

**Co-requisite units**              Nil

## **Functional area**

**Functional area**