



Australian Government

CPPBDN4107 Investigate construction methods for Class 1 and 10 buildings

Release: 1

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Modification History

Release 1 This version first released with CPP Property Services Training Package Release 11.0.

Supersedes and is not equivalent to CPPBDN4001 Research and evaluate construction materials and methods for building design projects.

CPPBDN4001 Research and evaluate construction materials and methods for building design projects was split to create two units. This unit is based on the construction methods component.

Updated to meet the Standards for Training Packages 2012.

Application

This unit specifies the skills and knowledge required to investigate construction methods for Class 1 and 10 buildings as defined in the National Construction Code (NCC). It includes determining the application, performance and interaction of contemporary construction methods against compliance with relevant legislation, the NCC and Australian Standards.

The unit applies to drafters who work under the supervision of building designers or architects to identify and apply information and data on construction methods across building design projects. Drafters use specialised knowledge to complete routine and non-routine tasks and deal with predictable and sometimes unpredictable drafting problems.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Building Design

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe what needs to be done to demonstrate achievement of the element.

1 Assess and select

1.1 Interpret site classification report for foundation material

construction methods for site preparation, foundations and footings for building project.			and wind classification to identify implications for structural design of building.
	1.2		Evaluate implications of earthworks, vegetation and existing structures on construction methods.
	1.3		Investigate drainage methods required to manage surface water and subsoil drainage, during and post construction works.
	1.4		Select termite risk management systems to suit regional characteristics.
	1.5		Identify, select, sketch and annotate appropriate construction methods for common concrete footings and slabs.
	1.6		Identify, select, sketch and annotate appropriate construction methods for common sub-floor and suspended structural floor systems.
2 Assess construction methods for framing, cladding and lining systems for building project.	2.1		Sketch and annotate commonly used structural wall and roof framing systems.
	2.2		Sketch and annotate commonly used systems for structural masonry.
	2.3		Sketch and annotate commonly used cladding systems.
	2.4		Identify insulation systems appropriate for region and building type.
	2.5		Sketch and annotate common lining systems.
	2.6		Sketch and annotate construction details of eaves and box gutter supporting systems.
3 Determine compliance of selected construction methods.	3.1		Confirm NCC requirements for glazing methods for perimeter framed glazing, doors, showers and balustrades for a building design project.
	3.2		Confirm NCC requirements for fire separation in a building design project taking account of non-combustible materials, position of openings, boundary offsets and construction techniques.

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| | 3.3 | Identify NCC compliant construction methods for a building design project in a bushfire prone area. |
| | 3.4 | Confirm NCC requirements for health and amenity for wet areas, room heights, facilities, natural light and ventilation. |
| | 3.5 | Confirm NCC requirements for safe movement and access for stairs, balustrades and swimming pools. |
| 4 | Confirm internal fit-out of Class 1 and 10 buildings. | |
| | 4.1 | Identify, sketch and annotate commonly used joinery components for cabinetry, architraves, skirting boards and decorative finishes. |
| | 4.2 | Determine and record structural implications of options for placement and selection of internal fixtures, fittings and finishes. |

Foundation Skills

As well as the foundation skills explicit in the performance criteria of this unit, candidates require:

- reading skills to interpret:
 - key requirements of the NCC and Australian Standards
 - specifications for construction materials and methods
 - specialised vocabulary, acronyms and technical terminology used in construction documentation.

Unit Mapping Information

Supersedes and is not equivalent to CPPBDN4001 Research and evaluate construction materials and methods for building design projects.

CPPBDN4001 Research and evaluate construction materials and methods for building design projects was split to create two units. This unit is based on the construction methods component.

Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>

Assessment Requirements for CPPBDN4107 Investigate construction methods for Class 1 and 10 buildings

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Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by investigating and selecting construction methods to produce sketches and annotations of commonly used construction methods for three building design projects:

- each project must be a Class 1 building and at least one must incorporate an associated Class 10 building, as defined by the National Construction Code (NCC)
- at least one project must be a two-storey building
- at least one project must be a building in a bushfire-prone area.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- correct terminology to define building construction and methodologies for Class 1 and 10 buildings
- sketching and annotation methods
- types of construction relevant to Class 1 and 10 building designs
- construction methods associated with different geographical locations and climatic conditions, including strengths and weaknesses for different contexts
- basic principles of soil mechanics as outlined in *AS 2870 Residential slabs and footings*
- glazing methods for Class 1 and 10 buildings specified in *AS 1288 Glass in buildings - Selection and installation*
- quality and tolerance standards to industry guidelines for construction methods used in Class 1 and 10 buildings
- application, behaviour, performance and interactions of construction methods used in Class 1 and 10 buildings

- common hazards and risks associated with construction methods used in Class 1 and 10 buildings
- key requirements of engineer site classification reports:
 - foundation material
 - wind classification
- commonly used footing and slab construction methods, articulation, shrinkage control
- structural implications for provision of services
- typical structural wall and roof framing systems, bracing, tie-down and provision for services
- typical systems for structural masonry:
 - reinforced
 - unreinforced
 - retaining
- typical cladding systems, non-structural masonry, roofing and flashings.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations. Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting where these skills and knowledge would be performed. This includes access to:

- computer with internet access and word processing software
- relevant regulations, codes and standards
- technical references with current information on construction methods
- drafting equipment for computer or hand detail sketching.

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