Australian Government

CPPBDN8101 Advise on construction materials and methods for large and complex building design projects

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 equivalent to CPPBDN8001A Research and evaluate construction materials and methods for complex building design projects. Updated to meet the Standards for Training Packages 2012.

Application

This unit specifies the skills and knowledge required to provide advice based on research and evaluation of traditional, contemporary and emerging construction materials and methods for construction Type A, as defined in the National Construction Code (NCC), building design projects. It includes evaluating the application, performance and interaction of construction materials and methods and presenting recommendations to clients.

This unit is suitable for experienced building designers who apply broad and coherent theoretical and technical knowledge and highly specialised skills to manage building design projects with autonomy and judgement and to deal with sometimes complex and unpredictable contingencies.

This unit forms part of the licensing requirements for people engaged in building design in some states and territories. For further information, check with the relevant regulatory authority.

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 Determine the impact of building design project parameters.	1.1 Consult with client to determine impact of key business requirements of building project on construction materials and methods.

	1.2	Clarify size, breadth and complexity of building project and impact on construction materials and methods with client and planning authorities.
	1.3	Seek and interpret specialist advice from relevant professionals.
	1.4	Clarify impact of building site characteristics on potential construction materials and methods with client, planning authorities and other project professionals.
2 Evaluate alternative solutions.	2.1	Research NCC requirements for alternative and deemed-to-satisfy (DTS) solutions in the development of building design options.
	2.2	Research advantages and disadvantages of alternative solutions.
	2.3	Compare alternative and DTS design solutions.
	2.4	Determine impact of selected materials and methods on construction time and cost.
	2.5	Determine environmental impact and sustainability of selected construction materials and methods.
	2.6	Prepare advice on alternative solutions.
3 Evaluate materials and methods for structural elements.	3.1	Research characteristics and applications of materials used for structural elements.
	3.2	Interpret compliance requirements of materials used for structural elements.
	3.3	Research construction methods and systems for structural elements in different materials.
	3.4	Determine impact of selected materials and construction methods on construction time and cost.
	3.5	Determine environmental impact and sustainability of selected construction materials and methods.
4 Evaluate materials and	4.1	Research characteristics and applications of materials

	methods for building envelope.	used for building envelope.
		4.2 Interpret compliance requirements for materials used for building envelope.
		4.3 Research construction methods and systems for building envelope.
		4.4 Determine impact of selected materials and construction methods on construction time and cost.
		4.5 Determine environmental impact and sustainability of selected construction materials and methods.
5	Evaluate systems and components for services.	5.1 Research components and systems for services.
		5.2 Interpret compliance requirements for different types of services.
		5.3 Research installation methods in different types of components and systems for services.
		5.4 Research collection, treatment and disposal of prohibited discharges for non-domestic buildings.
6	Provide advice on construction methods and materials for building project.	6.1 Collate information on application, performance and interaction of materials and methods for structural elements of building.
		6.2 Collate information on application, performance and interaction of materials and methods for building envelope.
		6.3 Collate information on application, performance and interaction of systems and components for services.
		6.4 Document research and evaluation outcomes and present recommendations to client.

Foundation Skills

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

- reading skills to:
  - research construction materials and methods and interpret complex technical specifications
  - research cost-effectiveness of construction materials and methods
- numeracy skills to budget and manage finances
- written and oral skills to communicate appropriately for the audience and situation.

Unit Mapping Information

Supersedes and is equivalent to CPPBDN8001A Research and evaluate construction materials and methods for complex building design projects.

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