



Australian Government

CPPBDN8106 Implement new building design technologies

Release: 1

CPPBDN8106 Implement new building design technologies

Modification History

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

Supersedes and is equivalent to CPPBDN8006A Identify and manage new building design technologies. Updated to meet the Standards for Training Packages 2012.

Application

This unit specifies the skills and knowledge required to identify and implement new technologies to support building design practices. It includes using technology to enhance collaboration of different professionals during the life cycle management of a building (planning through to maintenance stages) and its services. It requires managing the application of new technologies such as building information modelling (BIM) and technologies to support three-dimensional (3-D) modelling and visualisation in building design.

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.

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|---|--|-----|---|
| 1 | Evaluate new building design technologies. | 1.1 | Analyse the range of new technologies that support building design practices. |
|---|--|-----|---|

- 1.2 Assess applications of new technologies and their potential benefits to building design practices.
 - 1.3 Evaluate costs of acquiring and using new technologies to inform purchase decisions.
 - 1.4 Determine optimum software and hardware solutions to meet the immediate and medium terms needs of the workplace.
 - 1.5 Analyse software and hardware functionality to enable purchase decision.
- 2 Introduce building design technologies.
 - 2.1 Plan and manage purchase, installation and commissioning of new and additional technologies to augment design practice.
 - 2.2 Implement staff training in the use of new technologies.
 - 2.3 Communicate to relevant persons the potential benefits and uses of acquired technologies.
 - 2.4 Describe benefits of using BIM for collaboration on the design, modelling, documentation and management of buildings during their life cycle.
 - 2.5 Complete documentation to support efficient and effective use of technologies.
- 3 Manage use of building design technologies.
 - 3.1 Develop BIM protocols and specifications for input and output parameters and communicate requirements to relevant persons.
 - 3.2 Develop and implement processes to manage the creation, naming, storage and sharing of files and materials.
 - 3.3 Develop protocols to manage the creation, storage, use and sharing of data.
 - 3.4 Implement resource and budget requirements to manage the ongoing use of building design technologies.

Foundation Skills

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

- reading skills to interpret and apply complex technical information in contracts, codes and standards, and system manuals and specifications
- writing skills to prepare logical and sequenced reports and documentation
- numeracy skills to calculate budget and financial requirements
- written and oral skills to communicate appropriately for the audience and situation.

Unit Mapping Information

Supersedes and is equivalent to CPPBDN8006A Identify and manage new building design technologies.

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 CPPBDN8106 Implement new building design technologies

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Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by presenting the features and uses of building information modelling (BIM) and documenting the implementation of BIM into one building design workplace.

Knowledge Evidence

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

- relevant local, state/territory and national legislative, industry and workplace requirements for applying new building design technologies:
 - contractual requirements and business implications
 - design of work processes to support the effective operation of new technologies
 - financial management and budgeting processes
 - risk management processes
- workplace resource requirements to introduce new technologies:
 - new or updated equipment
 - human resources
 - training and development
- digital file management procedures
- functions and operation of technologies that support 3-D modelling and visualisation in building design
- purpose, functions and operation of BIM
- BIM implementation:
 - process map
 - task list
 - schedule.

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
- technical references with current and relevant information on available building design technologies.

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