



Australian Government

CPPBDN4004 Set up BIM-capable software and files for building design drafting projects

Release: 1

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Modification History

Release 1. New unit.

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

Application

This unit of competency specifies the outcomes required to set up digital project files in building information modelling (BIM)-capable industry-standard building design drawing software for residential, commercial and industrial building design projects as defined in the Building Code of Australia (BCA).

It covers installing BIM-capable design software and applying its functions and options to create, name and save project files and templates for different types of building design projects.

The unit supports the work of drafters who assist and work under the supervision and instruction of architects, building designers and other personnel, such as home sustainability assessors.

Licensing, legislative, regulatory or certification requirements apply to building design drafting in some states. Relevant state and territory regulatory authorities should be consulted to confirm those requirements.

Pre-requisite Unit

Nil

Competency Field

Drafting

Unit Sector

Building design

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.

- | | |
|-------------------|--|
| 1. Prepare to use | 1.1. <i>Building design drawing software</i> is installed and |
|-------------------|--|

building design drawing software to set up project files.	1.2.	configured following relevant instructions.
		Information to operate building design drawing software is accessed and interpreted to prepare for setting up project files.
		Support for software installation and interpretation and application of software functions and operations is obtained as required.
2. Plan software drawing file requirements.	2.1.	Project brief and designer's notes are reviewed and scope and nature of building design project are identified.
	2.2.	Naming protocols for digital drawing files are determined according to project and workplace requirements and systems.
	2.3.	Types of drawings required by client, project and relevant authorities are determined in consultation with designer.
	2.4.	Title block information is confirmed with designer.
	2.5.	Checklist of drawing files required for project is prepared with file-naming protocols applied.
	2.6.	Folder name and location for digital project drawing files are confirmed with designer.
3. Set up project templates.	3.1.	Building design drawing software support information is accessed to assist in adapting built-in templates to set up project template files.
	3.2.	Software support information is accessed to assist in creating original project template files.
	3.3.	Project template files are named according to file-naming protocols and saved in project folder in correct location.
	3.4.	Files are backed up according to workplace procedures.

Foundation Skills

This section describes core skills that are essential to performance and not explicit in the performance criteria. Employment skills essential to performance are explicit in the

performance criteria of this unit of competency.

Skill	Performance feature
Learning skills to:	• access a range of resources, professional development activities, information and support, including proprietary help tutorials and instructions, to assist in understanding the operation of building design drawing software, especially relating to new versions and functions • draw on experience with the functions and operations of building design software and apply to new work.
Numeracy skills to:	• interpret numerical information relating to building design project information and software options and functions including measurements of dimensions, scales, scale conversions and version control.
Oral communication skills to:	• participate in workplace discussions using specialised vocabulary relevant to building design drawing software and its functionality.
Reading skills to:	• interpret software operation manuals and building design project information with specialised vocabulary and technical content, sometimes in graphic form • apply strategies to clarify meaning of texts.
Writing skills to:	• make accurate notes of technical discussions with colleagues relating to digital building design drawings.

Range of Conditions

This section specifies work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Bold italicised wording, if used in the performance criteria, is detailed below.

Building design drawing software must include:

- BIM-capable current industry-standard software.

Software functions and operations for setting project parameters and templates must include those for:

- fundamental project information, including:
 - name
 - number
 - location
- project settings, including predefined elements
- view templates
- groups or families

- title blocks
- project views, including:
 - plan views
 - levels
 - schedules
 - legends
 - sheets
- visibility and graphic settings
- print settings
- project and shared parameters.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>

Assessment Requirements for CPPBDN4004 Set up BIM-capable software and files for building design drafting projects

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Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit, and must be able to provide evidence of the ability to set up project template files for the following three different types of building design projects, as defined by the Building Code of Australia (BCA). At least one of the building design projects must include a Class 10 component:

- one Class 1 building
- one Class 2 building
- one building selected from Classes 3 to 9.

Within the context described above, a person must provide evidence of:

- installing and configuring building information modelling (BIM)-capable building design drawing software
- accessing and interpreting software operation information when setting up digital building design drawing files
- planning project file creation, including confirming project details and preparing a checklist of templates and required elements
- applying software functions and options to create project templates for the range of drawings required for the three building design projects, including:
 - using in-built proformas
 - creating original templates
- using workplace protocols and systems to name, save and back up building design templates and files.

Knowledge Evidence

A person demonstrating competency in this unit must be able to demonstrate knowledge of:

- construction and technical terminology required to discuss digital building design drafting project templates and files with work colleagues, designer and external personnel
- functions and options of building design drawing software relevant to creating project templates and files
- strategies for developing knowledge of building design drawing software
- systems for naming, saving and backing up digital drawing files

- types of digital drawing templates and files required for building design projects.

Assessment Conditions

Assessment must be conducted in the workplace or a close simulation of the workplace.

Suitable assessment of performance requires:

- equipment:
 - computer with internet access and BIM-capable building design drawing software
- relationships with team members and supervisor:
 - tasks must be completed individually but may rely on information sourced from team members and supervisor as relevant to the task
- specifications:
 - architect's or building designer's notes, sketches and instructions for digital building design project template and file requirements for three building design projects as specified in the performance evidence
 - building design drawing software specifications and manuals.

Assessor requirements

As a minimum, assessors must satisfy SNR/AQTF assessor requirements.

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