

Unit of Competency

CPCBIM4003 Contribute to BIM deliverables for construction work

Modification history

Release	Comments
1	New unit. No equivalent unit. This version first released with CPC Construction, Plumbing and Services Training Package Release 8.0.

Application

This unit of competency specifies the skills and knowledge required to contribute to Building Information Modelling (BIM) deliverables for construction work. It includes confirming handover requirements and deliverables, validating data for completed work, capturing data to record as-built conditions, and contributing information to enable a digital handover.

The unit applies to builders, tradespersons, project and site managers who work on construction projects that incorporate BIM interaction, collaboration and deliverables. It requires digital literacy skills to use software via information and communication technology (ICT), including applications on mobile devices to find, retrieve and communicate information.

A person who has achieved this unit of competency is able to work with autonomy and take responsibility for applying BIM processes to construction work.

Completion of the general construction induction training program specified by the model Code of Practice for Construction Work is required for any person who is to carry out construction work. Achievement of *CPCCWHS1001 Prepare to work safely in the construction industry* meets this requirement.

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

Prerequisite Unit

None.

Unit Sector

Construction.

Elements and Performance Criteria

1. Confirm deliverables and handover requirements.	1.1 Check plans and relevant documentation to clarify project deliverables and handover requirements to comply with BIM Execution Plan. 1.2 Prepare documentation necessary to enable model-based collaboration between project participants. 1.3 Consult with project participants to confirm project deliverables, including asset identifiers, tagging, classification and other requirements for digital handover.
2. Validate project information for	2.1 Check completed construction work to confirm compliance with plans, specifications and BIM Execution Plan.

completed construction work.	<p>2.2 Input information and data required to complete asset register and comply with project requirements for model and data deliverables.</p> <p>2.3 Verify currency and format of Common Data Environment (CDE) information and data associated with completed construction work to meet requirements of BIM Execution Plan.</p> <p>2.4 Implement actions required to address problems with data capture, information currency or format to meet BIM Execution Plan.</p>
3. Finalise handover for construction work.	<p>3.1 Capture data to record 'as-built' conditions according to BIM Execution Plan and workplace requirements.</p> <p>3.2 Contribute information to enable digital handover to be finalised to meet BIM Execution Plan, performance, quality, commissioning, regulatory and workplace requirements.</p>

Foundation skills

Candidates require:

- digital literacy skills to use software and applications on mobile devices to find, retrieve and communicate information.

Unit Mapping Information

New unit. No equivalent unit.

Links

The Companion Volume Implementation Guide for the CPC Construction, Plumbing and Services Training Package is available at:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>.

Assessment Requirements for CPCBIM4003 Contribute to BIM deliverables for construction work

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Performance Evidence

To demonstrate competency, a candidate must meet the elements and performance criteria of this unit contributing to Building Information Modelling (BIM) deliverables for completed construction work in compliance with project requirements specified in a BIM Execution Plan and, in doing so:

- use at least two different BIM technologies (tools and software)
- identify and correct two problems associated with data capture, information currency and/or format.

Knowledge Evidence

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

- BIM project delivery methods
- BIM standards relevant to planned construction work, including the BIM ISO 19650 *Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) - Information management using building information modelling* (or its successor)
- BIM uses relevant to construction phases
- common BIM tools and technologies
- common methods for identifying assets in a BIM asset register
- documentation used to enable model-based collaboration between project participants
- graphical and data communication methods when working with BIM
- meaning and benefits of visual communication and extended reality technologies during the construction phase of a BIM project
- meaning and purpose of 'digital twin', its relationship with BIM, and its context within the facets of the operations and maintenance phase
- meaning of open formats as distinct from proprietary formats and their role in interoperability and archiving of project information
- methods for confirming currency of construction documentation and data
- purpose and content of BIM Execution Plans and their relationship to project information requirements
- purpose and components of the Project Information Model (PIM) that can be expected at handover from using BIM tools and workflows for construction projects
- purpose and identification and classification to elements of a BIM model
- role of the Common Data Environment (CDE) in managing project information
- roles and responsibilities of BIM project participants across multiple disciplines
- types of drawings, models and documentation used for a BIM handover
- workplace requirements for finalising construction work to comply with BIM project requirements:

- compliance with relevant regulations and standards
- documentation
- quality control

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

Assessment must be conducted in the workplace or a simulated workplace using realistic conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Candidates must have access to documentation, technologies, equipment and other resources required to achieve the performance criteria and performance evidence.

Links

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<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>.