Australian Government

Assessment Requirements for CPCBIM4001 Plan to comply with BIM requirements for construction work

Release: 1

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Modification History

Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 6.0.

New unit.

Performance Evidence

To demonstrate competency, a candidate must meet the elements and performance criteria of this unit by planning to ensure that construction work activities comply with Building Information Modelling (BIM) project requirements specified in a BIM Execution Plan and, in doing so:

- use at least two different BIM technologies (tools and software)
- identify own role and responsibilities and that of three other participants in the BIM workflow and detailed in the BIM Execution Plan, including their relationship to the identified BIM uses
- access one 3D model and associated data within a Common Data Environment (CDE) and relevant to planned construction work activities.

Knowledge Evidence

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

- definition and purpose of BIM and its benefits and limitations relating to the lifecycle management of built assets
- common BIM definitions and terminology
- common BIM tools and technologies
- BIM uses relevant to construction phases
- commonly understood meanings of 3D, 4D, 5D and 6D relating to BIM
- benefits of BIM in improving construction efficiency and safety:
  - planning, scheduling and sequencing
  - services and trades coordination
  - fabrication and assembly
  - resource procurement
  - accurate ordering of materials and quantities
- BIM maturity levels
- BIM adoption barriers
- 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)
- graphical and data communication methods when working with BIM
- level of information need, incorporating definitions of level of development (LOD) and level of information (LOI) relevant to BIM project requirements
- 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
- purpose and content of BIM Execution Plans and their relationship to project information requirements
- role of the CDE in managing project information
- roles and responsibilities of BIM project participants across multiple disciplines.

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 and technologies required to achieve the performance criteria and performance evidence.

Links

Companion volumes to this training package are available at the VETNet website - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad