



Australian Government

Department of Education, Employment and Workplace Relations

CPCCB4014A Prepare simple building sketches and drawings

Release: 1

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Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency specifies the outcomes required to produce sketches and drawings. The sketches may be used to clarify or communicate ideas to clients or other parties. They may also be simplified versions taken from architectural drawings, designed to capture design concepts or options. The sketches may be used for estimating purposes and to show measurements and other requirements for building and construction works. This unit does not describe more complex drafting skills.

Application of the Unit

Application of the unit

This unit of competency supports the needs of builders, experienced tradespersons, project managers and estimators with a responsibility for preparing sketches and drawings.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units Nil

Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare to make sketches and drawings.	<p>1.1. <i>Types of drawings required</i> and <i>key features</i> to be recorded are identified in compliance with the scope and standard of the job being undertaken.</p> <p>1.2. <i>OHS requirements</i> on site are identified and followed.</p> <p>1.3. <i>Tools and equipment</i> required for inspection and measurement and for producing drawings are gathered and checked for serviceability.</p>
2. Create simple sketches and drawings.	<p>2.1. Inspection of relevant area is carried out as required and measurements are taken and recorded.</p> <p>2.2. Simple two and three-dimensional sketches and drawings are created using <i>standard drawing conventions</i> and incorporating relevant codes and standards.</p> <p>2.3. Sectional drawings of simple structural elements are created using standard drawing conventions.</p>
3. Notate and process drawings.	<p>3.1. Essential information is recorded on the drawing with symbols and abbreviations according to standard drawing conventions.</p> <p>3.2. Drawings are labelled, dated and processed according to organisational administration and quality procedures.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills for this unit are:

- communication skills to:
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - use language and concepts appropriate to cultural differences
 - use and interpret non-verbal communication
- drawing techniques

REQUIRED SKILLS AND KNOWLEDGE

- interpret and apply relevant standards and codes
- numeracy skills to apply measurements and calculations.

Required knowledge

Required knowledge for this unit is:

- drawing conventions and features, including direction, scale, key, contours, symbols and abbreviations
- requirements of the relevant codes, standards, statutory and authority requirements
- safe work methods.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

This unit of competency could be assessed by creating a set of sketches and drawings for a small work project in the relevant field of expertise.

Measurements of components, sub-assemblies, products, models, equipment, layouts or facilities needed for the preparation of the required drawings and calculations of required dimensions and other drafting details based on the measurements and other relevant information should be made and recorded.

This unit of competency can be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of the ability to:

- produce clear and effective drawings and sketches with appropriate notations and labelling
- apply appropriate techniques for making inspections and taking measurements
- make good incursions into the fabric of a building
- comply with OHS regulations applicable to workplace operations
- apply organisational quality procedures and processes
- select and use appropriate processes, tools and equipment.

Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

EVIDENCE GUIDE

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include access to:

- an appropriate work site
- appropriate documentation and data related to tasks
- scaffolding and fall protection equipment
- tools and equipment relevant to activity process.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and

EVIDENCE GUIDE

separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge

- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Types of drawings required include:

- floor plan
- land boundaries and footprint of building
- orthographic drawings
- schematic drawings of wiring and pipe work
- sectional views.

Key features to be recorded may include:

- ceiling heights and variations
- doors
- light fittings and power supplies
- services
- wall penetrations
- walls.

RANGE STATEMENT

- OHS requirements*** include:
- detailing appropriate installation of scaffolding
 - detailing power supplies
 - details of all services
 - understanding hazards located in the area
 - use of personal protective equipment.
- Tools and equipment*** include:
- recording devices, including:
 - computer
 - digital camera
 - pen and paper.
- Standard drawing conventions*** include:
- standard design symbols common to the building and construction industries.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area