



Australian Government

MEM09218 Participate in drafting projects for building services

Release: 1

MEM09218 Participate in drafting projects for building services

Modification History

Release 1. Supersedes and is equivalent to MEM09218A Participate in drafting projects for building services.

Application

This unit of competency defines the skills and knowledge required to participate in drafting projects for building services and is primarily for draftspersons providing detailed engineering drawings that must be integrated with other building services.

It covers the coordination of services within building sites, interpreting drawings and specifications from a variety of services and application of knowledge of building construction components and types to drawing development.

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

Pre-requisite Unit

MEM09204 Produce basic engineering detail drawings

MEM09229 Read and interpret technical engineering drawings

Competency Field

Drawing, drafting and design

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Examine site information	1.1 Follow standard operating procedures (SOPs) and comply with work health and safety (WHS) requirements at all times 1.2 Identify building features and types of building services from drawings and project information 1.3 Identify functions of building services, requirements for installation of components and implications for drawing work 1.4 Extract all required information from services and project documentation
2. Integrate information	2.1 Prepare drawings that incorporate protocols for a multi-service site

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
from other services	2.2 Facilitate sequencing and coordination with other services 2.3 Integrate the functions of other building services into drafting work practices 2.4 Ensure installation plans are appropriate for building types and components
3. Participate in site and coordination meetings	3.1 Identify and apply meeting procedures and objectives 3.2 Present points of view and comments, including agreement and dissent, in a logical, persuasive and orderly manner 3.3 Obtain and consider points of view of other members 3.4 Submit drawings to project supervisor 3.5 Integrate feedback into drawings and prepare final draft
4. Complete drawing	4.1 Check final drawing and documentation to ensure all required specifications, symbols, dimensions and components are included according to standards and the design specification 4.2 Present and store drawing and documentation in accordance with SOPs

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different 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.

Types of services in a building includes:	• structural • electrical • lighting Plus one or more of the following:
---	---

	• architectural • power • fire • hydraulic • mechanical • communications • lift • siphonic drawings.
Building construction components include one or more of the following:	• concrete • block • tilt panel • in-situ • pre-cast • formed • reinforcement and ceiling system for concrete slabs • hollow core.
Sources of information include one or more of the following:	• floor plans, elevations, sections and site layout drawings • construction documents • building and coordination information • work specifications • information for plant services equipment • industry codes, standards and regulations • project brief.
Protocols for a multi-service site include one or more of the following:	• sequencing of installation • consultations • meetings.
Codes, standards and industry regulations include one or more of the following:	• Australian Standards (AS): • AS/NZS 1668 The use of ventilation and air conditioning in buildings • AS 1682.1 Fire dampers – Specification • AS 4254 Ductwork for air-handling systems in buildings • building codes • gas, water and electricity regulations • standards for smoke alarms • work health and safety (WHS) codes of practice.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM09218A Participate in drafting projects for building services.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>

Assessment Requirements for MEM09218 Participate in drafting projects for building services

Modification History

Release 1. Supersedes and is equivalent to MEM09218A Participate in drafting projects for building services.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- determining purpose and scope for drafting project utilising all available information
- identifying building types and types of building services available for inclusion in drawings
- consulting with other services in a multi-service worksite on at least two occasions
- modifying drafting plans and sequences on at least two occasions to integrate information from other services, and in response to delays
- participating in site and coordination meetings
- submitting drawings to supervisor and integrating feedback into final draft on at least two occasions
- confirming final drawings accurately reflect specifications
- documenting and storing drawings in accordance with SOPs
- complying with organisational policies and procedures including quality requirements.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- safe work practices and procedures
- different approaches to drawing
- sources of information
- copyright and intellectual property issues and legislation in relation to drawing
- codes, standards and industry regulations including AS/NZS 1668 The use of ventilation and air conditioning in building Set, AS 1682.1 Fire dampers – Specification, AS 4254 Ductwork for air-handling systems in buildings, building codes, gas, water and electricity regulations, standards for smoke alarms and work health and safety (WHS) codes of practice

- types and functions of building services and building construction components and requirements for installation
- location of building services on drawings
- protocols for coordination of building services
- strategies for cooperative practices
- building types including concrete, timber, block work and steel-framed
- construction types including slabs, walls, ceilings and roofs
- architectural and structural features.

Assessment Conditions

- Assessors must:
 - have vocational competency to participate in drafting projects for building services at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the Standards for Registered Training Organisations 2015 or its replacement and comply with the National Vocational Education and Training Regulator Act 2011, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Where possible, assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
-

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>