



Australian Government

Department of Education, Employment and Workplace Relations

LMFKB4003A Identify and document services required to support fitted furniture designs

Release: 1

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Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to assess available services and determine service requirements to achieve new fitted furniture design proposals. It includes determining and documenting service requirements in order to achieve new designs such as those for a kitchen or bathroom application.
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Application of the Unit

Application of the unit	This unit of competency applies to work conducted by designers in the determination of service requirements for fitted furniture applications such as kitchens and bathrooms. This unit applies to the assessment of services such as plumbing, gas and electricity supply, air conditioning, ventilation, lighting and data to determine implications for new designs. The application of this unit is limited to determining the service requirements for a design including location, number and types of taps, power outlets, exhausts, and so on, for a kitchen or bathroom space. The unit does not include layout of service pipes, wiring, conduits, and so on, or installation of services.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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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.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and document available services	1.1. Access is arranged with client 1.2. On-site occupational health and safety (OHS) procedures are followed 1.3. Plumbing, water outlets and drainage features are located and documented on site diagrams or plans 1.4. Electrical and data outlets are located and documented on site diagrams or plans 1.5. Location and type of lighting sources are located and documented on site diagrams or plans 1.6. Type and capacity of services are identified and details documented 1.7. Measurements are taken to inform layout documentation 1.8. Industry symbols and protocols are used to document information about services
2. Examine implications of services on design	2.1. Design brief, drawings and plans are examined to determine intentions or options for services 2.2. Details obtained from site are assessed against design information 2.3. Appliances identified in the design brief are identified and implications on services examined 2.4. Compliance issues relating to the location of services are identified 2.5. Implications of current services on design are determined
3. Determine and document lighting and electrical system layout	3.1. Requirements of the lighting and electrical system layout are ascertained from the design brief 3.2. Lighting is assessed for effect and suitability to functional and ambience requirements 3.3. Performance and characteristics required of electrical products are assessed and reviewed 3.4. Environmental considerations are analysed in respect of the lighting and electrical system layout 3.5. Ergonomic, anthropometric and proxemic principles are assessed in respect of the lighting and electrical system layout and the intended products 3.6. Costs associated with purchasing and obtaining the products are analysed and documented 3.7. Electrical contractors are consulted as required to confirm implications on design 3.8. Lighting and electrical system layout is determined to meet the design brief
4. Determine and	4.1. Requirements of the plumbing system are

ELEMENT	PERFORMANCE CRITERIA
document plumbing system layout	ascertained from the design brief 4.2. Performance and characteristics required of plumbing products are assessed and reviewed 4.3. Gas requirements are determined and included in system layout 4.4. Environmental considerations are analysed in respect of the plumbing system layout 4.5. Ergonomic, anthropometric and proxemic principles are assessed in respect of the plumbing system layout and the intended products 4.6. Costs associated with purchasing and obtaining the products are analysed and documented 4.7. Plumbing contractors are consulted as required to confirm implications on design 4.8. Plumbing layout is determined to meet the design brief
5. Complete layout documentation	5.1. Sketches and drawings are completed to identify the layout of electrical and lighting system and products 5.2. Sketches and drawings are completed to identify the layout of plumbing system and products 5.3. Sketches and drawings are completed to industry standards 5.4. Specifications are documented according to industry standards

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- Accessing and interpreting workplace information
- Interpreting and applying workplace terminology and documentation protocols
- Measuring
- Accessing information on electrical, lighting and plumbing systems
- Interpreting user manuals
- Documentation skills
- Mathematical skills for estimating quantities
- Applying safety procedures
- Completing sketches and drawings
- Accessing contractors

Required knowledge

- Ergonomic, anthropometric and proxemic principles
- Industry symbols and protocols
- Planning processes
- State or territory OHS legislation, regulations, standards and codes of practice relevant to the full range of determining layout for kitchen and bathroom services
- Procedures for documenting workplace records and information
- Appropriate mathematical procedures for estimation and measurement
- Environmental protection requirements
- Basic building and architectural terminology
- Range of kitchen products and service requirements
- Range of bathroom products and service requirements
- Statutory planning regulations affecting services in kitchens and bathrooms

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

Assessment processes and techniques must be culturally appropriate and appropriate to the language, literacy and numeracy capacity of the candidate and the work being performed.

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

- Identify available services and determine issues that will impact on design
- Determine layout of services required to meet design brief
- Complete industry standard drawings to identify the layout of services to meet design requirements

Context of and specific resources for assessment

- The application of competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of essential underpinning knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to comply with relevant regulatory or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace
 - tools and equipment to determine and document layout requirements
 - plans, drawings and manuals relating to project

Method of assessment

- Assessment must satisfy the endorsed assessment guidelines of the Furnishing Industry Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of underpinning knowledge
- Assessment methods must be by direct observation of tasks and include questioning on underpinning knowledge to ensure correct interpretation and application
- Assessment may be applied under project related

EVIDENCE GUIDE

	conditions (real or simulated) and require evidence of process • Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances • Assessment may be in conjunction with assessment of other units of competency
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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.	
Lighting sources	Lighting sources may include: • incandescent • fluorescent • halogen or dichroic • natural light
Type and capacity of services	Type and capacity of services may include: • number of outlets, controls and switches • capacity to service kitchen appliances and products • capacity to service bathroom appliances and products • capacity of household electrical load • adequacy of lighting
Implications of current services on design	Implications of current services on design may include: • requirements for relocation • relative costs associated with relocation • requirements for capacity increase • relative costs associated with increasing capacity • changes required for fixtures and fittings
Performance and characteristics	Performance and characteristics may include: • assessment of products to determine if they meet the requirements of the intended end use application and how well they do it • the durability and composition of the product
Electrical products	Electrical products may include: • refrigerator • stove • appliances

RANGE STATEMENT	
	• air conditioners • ventilation systems • hot water systems

RANGE STATEMENT	
Environmental considerations	Environmental considerations may include: • how the use of raw materials effects the ecology and environment and how its continued use will affect the area it has been sourced from • energy consumption in achieving the material • greenhouse gases created • waste levels • resource utilisation and transport effects • what impact will be felt by reducing or stopping material from the source
Costs	Costs may include: • the cost of contractors, products and materials together with the cost of obtaining them either locally, interstate or overseas
Plumbing products	Plumbing products may include: • water filters • tap ware and sinks • drainage • dishwasher • shower recesses • baths and spas • toilet and bidet • washing machines
Sketches and drawings	Sketches and drawings may include: • hand drawn images or ideation drawings completed freehand • drafted technical drawings • drawings produced on computer using computer-aided drafting (CAD) software packages

Unit Sector(s)

Unit sector	Kitchens and bathrooms
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		