



Australian Government

Department of Education, Employment and Workplace Relations

DEFCA308B Assist in the construction and maintenance of field structures

Release: 1

DEFCA308B Assist in the construction and maintenance of field structures

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit covers the competency required to construct and maintain a range of field structures, such as bunkers, strongpoints, towers and shelters. Construction is usually of a temporary nature and is undertaken employing expedient construction methods using both commercially available and improvised materials. The individual will usually work as part of a team under supervision, but may undertake some autonomous tasks. Construction will normally be carried out in a *field environment*.

Application of the Unit

Application of the Unit

The application of this unit in the workplace - the environments, complexities and situations involved - will be written during Phase II of the Review of the PUA00 Public Safety Training Package. This text will be useful for the purposes of job descriptions, recruitment advice or job analysis; where possible, it will not be too job specific to allow other industries to import it into other Training Packages, where feasible.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite Unit/s	BCG1004A Carry out measurements and calculations BCG1006A Use small plant and equipment BCG1008A Use simple levelling devices BCG1009A Carry out excavation and install support BCG1010A Carry out concreti
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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 required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the Required Skills and Knowledge and/or 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. Plan and prepare work site	1.1 Appropriate personal protective equipment is selected and worn in accordance with OH&S requirements 1.2 Site layout and preparation is carried out in accordance with approved sketches, drawings, specifications and job instructions 1.3 All tools and equipment are inspected for serviceability and prepared for operation and defects are reported to the supervisor in accordance with standard procedures 1.4 Materials identified from job instructions and specifications are sourced, prepared and stockpiled in accordance with work schedule, design specifications and job instructions
2. Build and maintain field structures	2.1 Earthworks for hardstanding, pits and trenches are carried out manually or with the assistance of plant and operator support in accordance with specifications and site requirements 2.2 Fabricated/pre-fabricated components are correctly positioned for assembly 2.3 Jigs, fixtures and other equipment are assembled and applied to support construction 2.4 Scaffolding is erected as required in accordance with job requirements and OH&S requirements 2.5 Concrete, bricks/blocks, timber, wire mesh, matting, steel and other materials are laid/assembled according to job specifications 2.6 Horizontal and vertical construction/erection is carried out to specification using expedient methods and materials available 2.7 Site is progressively camouflaged and concealment is maintained 2.8 Assembly/construction is checked for compliance with specifications
3. Maintain and clean up site and equipment	3.1 Field structures are maintained, further developed and/or repaired to specification in accordance with standard procedures 3.2 Plant, vehicles, tools and other equipment are removed from the site, cleaned, serviced, maintained and stored in accordance with standard procedures and documentation is completed 3.3 Area is cleared and waste material is disposed of

safely in accordance with standard procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- work safely to instructions
- read drawings and interpret plans and sketches
- select construction materials
- measure relative to the construction process
- utilise expedient and improvised methods to construct field structures
- follow instructions/directives and report information
- participate in team
- encourage other team members
- use a variety of verbal and non-verbal communication techniques including language style, active listening

Required Knowledge

- workplace and equipment safety requirements
- materials handling and storage
- measurement relative to construction
- expedient and improvised construction methods
- types and use of field structures
- drawings, plans and graphic representation including lettering, symbols tables, charts, specifications
- techniques for supporting others
- composition of teams and roles and responsibilities of team members
- verbal and non-verbal communication techniques including language style, active listening

Evidence Guide

EVIDENCE GUIDE

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

Assessment must confirm the ability to construct at least three types of field structures included in the Range Statement using a variety of materials and expedient construction methods. At least one above and one below ground structure should be constructed.

Assessment must also confirm the ability to:

- interpret job instructions and plans, and layout a site
- prepare materials and equipment for construction
- apply appropriate expedient construction methods and procedures to the construction including accurate measuring and levelling
- use standard processes to handle and place materials
- complete the construction of field structures to the specified standard
- work in a team and interactively communicate with others

Consistency in performance

Competency should be demonstrated under field conditions over a time frame that allows for constructing and maintaining a number of field structures utilising expedient construction methods and a variety of materials.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in a field environment. Evidence should be gathered by observing the individual participating in the construction of various types of field structures requiring the application of a variety of expedient methods and materials.

Specific resources for assessment

Access to:

- construction materials relevant to the task
- hand tools, power tools, plant and other equipment appropriate to the construction process
- suitable training areas for construction.

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 in the Performance Criteria is detailed below.

Field environment may include	A range of terrain, soil and vegetation Under all weather conditions By day or night and under illumination
Personal protective equipment may include	Boots Safety glasses/goggles Ear plugs/muffs Dust masks/respirators Gloves Hard hat/cap
OH&S requirements may include	Workplace environment and equipment safety Use of protective clothing and equipment Manual handling of materials Safe use of scaffolding
Site layout and preparation may include	Setting out to dimensions contained in job instructions and technical specifications Identifying assembly method from job instructions and technical specifications Constructing jigs and other field machines Stockpiling materials Requesting plant support
Tools and equipment to be used in construction may include	Various types of plant Scaffolding Hand, power and explosive tools Concrete mixers Chain saws and paving breakers Explosives Measuring tape/rule Mechanical aids Crow bars Cordage Steel wire rope Anchorages
Standard procedures and instructions refer to	Written and verbal orders and job instructions Standing orders, routine orders, procedures manuals, field engineering pamphlets, job guides and other publications

RANGE STATEMENT

	Technical specifications, plans, sketches
Materials may include	Masonry Cement and sand Bricks/blocks Steel Timber Rock Wire mesh Rigid or flexible sheet materials Sandbags Pierced steel plank (PSP) Pierced aluminium plank (PAP) Other commercial or improvised materials including locally sourced materials
Field structures may include	Observation towers and posts Command posts, bunkers and strong points Weapon pits and trenches Gun emplacements Vehicle hides Sandbag structures including sangars Revetment Overhead protection (OHP) and overhead cover (OHC) for command posts, bunkers and shelters Light buildings and shelters Above ground water storage Piers Rocket screens

Unit Sector(s)

Not applicable.

Corequisite Unit/s

Co-requisite Unit/s Nil