



Australian Government

CPCLOC3005 Locate and manage the utility locating worksite

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Modification History

Release	Comments
1	This unit of competency was first released in CPC Construction, Plumbing and Services Training Package Release 11.0.

Application

This unit describes the skills and knowledge required to conduct locating activities and manage all aspects of the utility locating worksite.

It applies to individuals who take responsibility for their own work and for the quality of the work of others within known parameters. They use discretion and judgment to interpret worksite scopes and direct personnel to apply marking and use available utility locating technologies to locate and protect underground services.

Licensing, legislative and certification requirements that apply to this unit can vary between states, territories and utility operators. It is a requirement to check with the relevant body before applying this unit.

Licensing/Regulatory Information

A White Card must be attained when working on a construction site.

Pre-requisite unit(s)

No pre-requisite units

Competency field(s)

Utility Locating

Unit sector(s)

Construction

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. Prepare utility locating activity at the worksite.	1.1 Communicate effectively with utility asset owner(s) or appropriate person(s), relevant personnel and the general public to coordinate activities so as to ensure safety and compliance with duty of care and industry codes of practice. 1.2 Confirm worksite scope of utility locating services with the asset owner(s) or appropriate person(s) in accordance with workplace requirements. 1.3 Ensure ground disturbance plans from the relevant authority are correct for the worksite. 1.4 Conduct a worksite safety and environmental analysis and, in doing so, manage any risk and hazards and required changes to the worksite scope in accordance with work health and safety (WHS) requirements. 1.5 Select and correctly fit personal protective equipment (PPE) in accordance with manufacturer specifications. 1.6 Ensure worksite emergency contact details of asset owner(s) or appropriate person(s) are accessible in accordance with workplace requirements.
2. Manage, prepare and use utility locating technology.	2.1 Communicate utility location standards and specific requirements of service to site personnel or excavator operators in accordance with workplace requirements. 2.2 Confirm the utility locating technology to be used on the worksite is in working order by checking pre-test results. 2.3 Determine the appropriate locating device to be used for the service being located. 2.4 Confirm signal connections and transmitter connections for electromagnetic field (EMF) locating. 2.5 Determine if traceable rods, sondes or transponder locators are required. 2.6 Confirm soil conditions and determine if ground penetrating radar (GPR) should be used. 2.7 Locate services to required standards using appropriate technology in accordance with workplace requirements. 2.8 Confirm and mark location points using appropriate quality level (QL) and colours in accordance with regulations and codes of practice when performing locate.
3. Locate and manage the location of services in the worksite.	3.1 Monitor risks and hazards and take appropriate action in accordance with workplace requirements and WHS standards. 3.2 Manage changes to worksite locating requirements in accordance with the scope of the work.

	3.3 Ensure the appropriate methodology is used for quality levels A to D in accordance with worksite requirements. 3.4 Ensure services are marked in accordance with the regulations and codes of practice colours. 3.5 Manage the use of electromagnetic field (EMF) locating and GPR in accordance with the worksite scope to locate unknown services. 3.6 Ensure the worksite is cleared and that recyclable materials are disposed of as required. 3.7 Check the condition of the equipment and technology to ensure functionality and cleanliness in accordance with maintenance requirements.
4. Document and report services.	4.1 Document and report services found on plans and unknown services found in the worksite area in accordance with workplace requirements. 4.2 Maintain a log of the locate area and the time in accordance with workplace requirements. 4.3 Communicate findings to asset owner(s) or appropriate person(s) and issue utility location report in accordance with workplace requirements.

Foundation skills

Skill	Description
Numeracy	Adjusts activities given tolerances of plan details and equipment.
Oral communication	- Acquires details and advises what action is required to mitigate hazards. - Builds rapport with personnel. - Manages conflict and facilitates resolution of issues. - Provides feedback to foster confidence and appropriate workplace behaviours.
Reading	Identifies, interprets and implements requirements from at times complex workplace procedures, documentation, legislation and regulations
Writing	Records information relating to underground utility.

Range of conditions

N/A

Assessment Requirements for CPCLOC3005 Locate and manage the utility locating worksite

Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- interpret worksite scopes and direct personnel to apply marking and use available utility locating technologies to locate and protect underground services on two occasions for two sites with different conditions.

During the above, the candidate must:

- access plans and identify scope and assets in the field
- supervise the implementation of the requirements, procedures and techniques to apply markings for underground services, including:
 - managing location works on the worksite
 - conducting an environmental analysis
 - managing worksite locating changes or contingency issues
 - communicating to relay instructions and information
 - ensuring work health and safety (WHS) requirements and codes of practice are adhered to
 - completing documentation
- communicate required techniques, plant and equipment and metrology to search for services and utilities, including:
 - appropriate technology for quality levels (QL) A to D
- document and report services found on plans and unknown services found in the worksite area to asset owner(s) or appropriate person(s)
- identify services and asset owner(s) or appropriate person(s) of that service.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- management obligations under industrial arrangements and training agreements in relation to the provision of (workplace) training and employee requirements
- supervisory methods to establish and maintain effective workplace relationships, including:
 - methods to foster confidence and appropriate workplace behaviours
 - conflict resolution strategies

- ways to promote effective teamwork with worksite crews
 - ways to maintain currency of knowledge and techniques through informal learning, regular professional development or personal research
 - methods to monitor individual performance and identify performance gaps
 - methods for providing structured feedback
- safety features of personal protective equipment (PPE), and when and how it should be used
- utility location documenting requirements, including:
 - format
 - presentation to asset owner(s) or appropriate person(s)
 - required inclusion
 - retention of records
- communication protocols for the approval and dissemination of utility locating reporting
- processes for planning and organising work activities
- locating equipment, including:
 - marking equipment
 - electromagnetic field (EMF) detectors and auxiliary equipment
 - ground penetrating radar (GPR)
 - other non-metallic technologies
- asset material types and how they affect the locate works using both EMF detectors and GPR
- work health and safety (WHS) requirements, including:
 - job safety analysis (JSAs)
 - job safety environmental analysis (JSEAs)
 - safe work method statements (SWMSs)
- worksite plans including supplied maps identifying key elements and asset types and materials
- duty of care and cover sheets for asset specific requirements and how they apply to the worksite
- key risks relating to underground utility services, including those associated with
 - traffic
 - confined spaces
 - falls
 - locating near other works in progress

- manual handling
- key standards, policies and procedures, legislation, codes of practice and established requirements for identifying, locating and protecting underground services, with the use of technology, including those for:
 - required information from utility asset owner(s) or appropriate person(s) and supporting organisations
 - damage to services and utilities
 - quality levels (QL) A to D and why locating services to the highest QL level possible is preferred
- disposal of recycle material appropriately
- key factors affecting work activities, including:
 - types of services, utilities and providers
 - working in a road reserve
 - communication with the general public to ensure safety
 - equipment types, characteristics, technical capabilities and limitations
 - awareness of overhead utility assets
 - asset specific clearance distances
 - non-destructive excavation methods for exposing underground services
 - environmental protection.

Assessment Conditions

Assessors are responsible for ensuring that the candidate demonstrating competency has access to:

- Australian Standards
- underground utility standards
- appropriate site, documents, equipment and personal protective equipment (PPE) currently used in industry
- requirements of workplace policies, procedures and plans.

Mandatory Workplace Requirements

Assessment of performance evidence may be in a workplace setting or an environment that accurately represents a real workplace.

Unit Mapping Information

Previous Code and Title	Equivalence	Comments
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	Newly created	This unit has been created to address a skill or task required by industry that is not covered by an existing unit of competency
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Links

Companion volumes, including implementation guides, are found on the national training register - <https://training.gov.au/training/details/CPC>.