



Australian Government

ICTTEN210 Install underground telecommunications infrastructure

Release: 1

ICTTEN210 Install underground telecommunications infrastructure

Modification History

Release	Comments
Release 1	This version released with ICT Information and Communications Technology Training Package Version 5.0.

Application

This unit describes the skills and knowledge required to install underground telecommunications infrastructure using civil construction skills.

It applies to cablers who install, replace or maintain large size pits, manholes, large conduits and ducts.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Refer to the ICT Information and Communications Technology Companion Volume Implementation Guide or the relevant regulator for details of licensing, legislative or certification requirements.

Unit Sector

Telecommunications – Telecommunications Network Engineering

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare to install underground infrastructure	1.1 Access, read, interpret and confirm work plans/specifications 1.2 Identify and confirm as required, relevant legislation, regulations, industry standards and enterprise requirements 1.3 Verify scope of work can be carried out without damaging any existing infrastructure such as underground services 1.4 Set-up worksite to ensure public and worker safety according to enterprise requirements 1.5 Select equipment/tools for work activities and ensure their

ELEMENT	PERFORMANCE CRITERIA
	operational status 1.6 Identify, confirm and apply enterprise environmental protection requirements 1.7 Select and wear correct personal protective equipment (PPE) appropriate for work activities 1.8 Identify potential hazards, assess risks, implement risk control measures 1.9 Obtain and follow emergency procedures
2. Set out and excavate	2.1 Prepare work area and materials 2.2 Determine and apply dewatering requirements 2.3 Determine location, alignment direction, level and grade of incoming infrastructure 2.4 Set out works according to specifications 2.5 Advise plant operator of excavation requirements and monitor levels 2.5 Install trench support or batters as required 2.6 Install bedding for underground structures
3. Install underground infrastructure	3.1 Lower materials and place in position 3.2 Join conduits, manhole and ducts 3.3 Continually check alignment level and grade 3.4 Position side support and/or overlay beside pipes 3.5 Check pipeline system support structure 3.6 Monitor backfill procedure and ensure work is completed according to enterprise requirements 3.7 Construct underground infrastructure and follow test procedures to establish functionality and serviceability
4. Clean up	4.1 Clear work area and dispose of or recycle materials according to enterprise requirements 4.2 Clean, check, maintain and store plant, tools and equipment 4.3 Record and report test results on plans as-built 4.4 Update Dial Before You Dig database as required

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance, but not explicit in the performance criteria.

Skill	Description
Reading	Interprets textual information from plans, specifications, standards and regulations to identify relevant and key information
Writing	- Documents outcomes and changes to plans using industry relevant terminology and recognised plan symbols - Prepares documentation and correspondence using clear language and correct spelling and terminology
Oral Communication	- Uses collaborative and inclusive techniques, including active listening and questioning, to convey and clarify information and to confirm understanding - Clearly explains detailed information using language, tone and pace appropriate to the audience
Numeracy	Makes calculations appropriate for measuring site for excavation
Navigate the world of work	- Accepts responsibility and ownership for the task, and makes decisions on completion parameters and the need for coordination with others - Identifies and acts on issues that contravene relevant policies, procedures and legal requirements
Interact with others	Uses a range of strategies and reads verbal and non-verbal signals, establishes a sense of connection and builds rapport with customers and co-workers
Get the work done	- Takes responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes - Accepts responsibility for addressing less predictable problems and initiates procedures in response, applying problem solving processes in determining a solution

Unit Mapping Information

No equivalent unit. New unit.

Links

Companion Volume Implementation Guides are available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>

Assessment Requirements for ICTTEN210 Install underground telecommunications infrastructure

Modification History

Release	Comments
Release 1	This version released with ICT Information and Communications Technology Training Package Version 5.0.

Performance Evidence

The candidate must demonstrate the ability to perform the tasks outlined in the elements, performance criteria, and foundation skills, and to:

- apply techniques for the safe, effective and efficient installation of underground telecommunications infrastructure including:
 - problem-solving and troubleshooting techniques
 - diagnostic techniques
- complete an underground telecommunications infrastructure that meets all of the required outcomes.

Note: Evidence must be provided at least once when a specific volume or frequency is not stated.

Knowledge Evidence

The candidate must demonstrate the knowledge required to perform the tasks outlined in the elements, performance criteria, and foundation skills, which includes knowledge about:

- legislative, enterprise and site requirements and procedures for:
 - hazard identification, risk assessment and response
 - job safety analysis (JSA)/ job safety and environment analysis (JSEA)/safe work method statements
 - project quality measures
 - excavation/trench safety
 - confined space entry
 - site dewatering
- safety data sheets and material handling methods
- civil construction terminology
- underground telecommunications infrastructure systems and installation procedures for:
 - manholes, large pits, conduits, ducts
 - inspection covers and minor structures

- pipe joins
- concrete fabrication
- sedimentation and erosion controls
- worksite engineering drawings
- types, characteristics, technical capabilities and limitations of equipment related to work activity
- site isolation and traffic control responsibilities and authorities
- relevant enterprise policies and procedures.
-

Assessment Conditions

Skills must be assessed in a workplace or simulated environment where conditions are typical of those in a telecommunications work environment or workplace.

Access is required to:

- site/s where underground telecommunications infrastructure can be installed
- tools, equipment and personal protective equipment currently used in industry
- relevant legislation, work instructions and equipment documentation that impacts on work activity.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guides are available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>