



Australian Government

ICTTEN428 Prepare design drawings and specification for telecommunications installations

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 2.0.

Application

This unit describes the performance outcomes, skills and knowledge required to prepare design drawings and specification for a telecommunications installation.

It applies to technical staff who are responsible for communicating installation requirements for installations, for access, building and core network installations within the Carrier Network for either carrier, commercial or industrial installations.

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

Unit Sector

Telecommunications – Telecommunications Networks 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. Gather information on existing and proposed installation	1.1 Confirm equipment installation requirements from the design brief and client 1.2 Inspect site to confirm plans where possible 1.3 Review existing plans, drawings and databases against the design brief
2. Determine installation options	2.1 Assess available installation options against client requirements and relevant legislation, codes, regulations and standards 2.2 Establish and assess cost of options against client's budget

ELEMENT	PERFORMANCE CRITERIA
	2.3 Select most suitable option based on function, cost, standards and client deployment rules
3. Prepare suitable drawings	3.1 Prepare clear and accurate installation drawings indicating proposed facilities and services 3.2 Provide drawings to relevant parties and file copies for later reference according to company policies
4. Prepare project specifications	4.1 Prepare detailed design drawings for network installation 4.2 Prepare drawings to include scheduled and non-scheduled codes to facilitate costing
5. Verify specifications with client	5.1 Verify prepared documentation with client 5.2 Obtain authorisation and approval from client to proceed according to company policy 5.3 Issue design to the field with authority to construct

Foundation Skills

Skill	Performance Criteria	Description
Reading	1.1-1.3, 2.1-2.3	Reads and interprets plans, specifications, and other documentation from a variety of sources and consolidates information to determine requirements
Writing	4.1, 4.2, 5.1-5.3	- Prepares, edits and proofreads plans and documents to ensure clarity of meaning, and accuracy and consistency of information - Documents outcomes and changes to plans using industry-relevant terminology and recognised plan symbols - Develops procedural material for a specific audience using clear and detailed language to convey explicit information, requirements and recommendations
Oral Communication	1.1, 5.1	Presents complex information in formal situations using clear and convincing language, tone and pace appropriate for audience and purpose
Numeracy	2.2, 2.3, 4.2	Applies financial modelling skills to identify, analyse and evaluate budgetary information, time durations and human resource allocations and costs

Navigate the world of work	2.1, 5.2	Takes personal responsibility for following explicit and implicit policies, procedures and legislative requirements
Interact with others	5.2, 5.3	- Selects and uses appropriate conventions and protocols when communicating with clients and co-workers in a range of work contexts - Uses a range of strategies to establish a sense of connection and build rapport with clients and co-workers
Get the work done	1.2, 1.3, 2.1-2.3, 4.1, 5.3	- Takes responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes - Makes routine decisions and implements standard procedures for routine tasks, using formal decision-making processes for more complex and non-routine situations - Addresses less predictable problems and initiates standard procedures in response, applying problem-solving processes in determining a solution - Uses familiar digital technologies and systems to access information, search and enter data, present information and communicate with others, cognisant of data security and safety

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalenc e status
ICTTEN428 Prepare design drawings and specification for telecommunications installations	ICTTEN4243A Prepare design drawings and specification for telecommunications installations	Updated to meet Standards for Training Packages.	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for ICTTEN428 Prepare design drawings and specification for telecommunications installations

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Performance Evidence

Evidence of ability to:

- determine installation options
- produce schematics and plan drawings
- access and interpret database and knowledge systems for network information
- produce design drawings and specifications
- verify specifications with client.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- summarise carrier network practices, procedures and systems, including databases and deployment rules relating to telecommunications designs
- identify and apply legislation, codes of practice and other formal agreements (including schedule of rates and contract requirements) that impact work activity
- describe manufacturer's requirements for safe operation of equipment
- identify and document specific work health and safety (WHS) requirements relating to the activity and site conditions
- describe typical issues and challenges that occur on site
- establish and describe the various components of telecommunications plans, drawings and specifications.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances should be typical of those experienced in the telecommunications networks engineering field of work and include access to:

- special purpose tools, equipment and materials
- sites where network installation may be conducted
- equipment currently used in industry
- relevant regulations and company policies
- cabling specifications that impact network installation activities.

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

Links

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