



Australian Government

CPPSSI5050 Produce survey drawings

Release: 1

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Modification History

Release 1 This version first released with CPP Property Services Training Package Release 12.0.

This unit supersedes and is equivalent to CPPSIS5050A Create engineering drawings.

Application

This unit specifies the skills and knowledge required to use surveying software to create and output survey drawings using suitable software. It requires application of technical functions and theoretical concepts to a range of surveying data specifications.

This unit is suitable for skilled surveying technicians who use a broad range of cognitive, technical and communication skills to select and apply methods and technologies to analyse information and provide solutions to sometimes complex surveying/spatial information problems.

Surveying and spatial information skills are applied in a range of industry contexts, including town planning, civil construction, mining, engineering, health, agriculture and defence.

All work must be carried out to comply with workplace procedures, in accordance with relevant state/territory regulations that govern surveying work, as well as work health and safety (WHS) legislation and regulations that apply to the workplace.

Cadastral surveying must be undertaken under the supervision of a registered surveyor. Users must check with the relevant regulatory state/territory authority before delivery.

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

Pre-requisite Unit

Nil.

Unit Sector

Surveying and Spatial Information Services

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe what needs to be done to demonstrate achievement of the element.

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|---|---|-----|---|
| 1 | • Prepare computer-aided design (CAD) environment. | 1.1 | Determine survey plan type and deliverables according to the project specifications and legislative requirements. |
| | | 1.2 | Customise system variables, menus and drawing defaults to suit the drafting requirements. |
| | | 1.3 | Obtain drafting and digital file format requirements and standards from government and non-government land registration offices, as required. |
| | | 1.4 | Undertake independent plan checking including closes and areas. |
| 2 | Create two-dimensional (2-D) survey drawings or three-dimensional (3-D) models. | 2.1 | Link drawing entities to database attributes to suit job requirements. |
| | | 2.2 | Create detailed views using various scales to meet job requirements. |
| | | 2.3 | Produce plots at required scales to meet job requirements. |
| | | 2.4 | Determine products and create entities in 3-D space to meet job requirements. |
| 3 | Produce output. | 3.1 | Produce entities from the drawing files or database and list in required format to meet job requirements. |
| | | 3.2 | Extract supplementary data from engineering drawing to meet job requirements. |
| | | 3.3 | Apply government or non-government land registration office drafting requirements and title blocks. |
| | | 3.4 | Save files in appropriate formats according to standard operating procedures. |
| 4 | Finalise drawing production. | 4.1 | Complete required documentation accurately and according to organisational guidelines. |
| | | 4.2 | Present survey drawings to relevant personnel. |
| | | 4.3 | Store spatial data according to project specifications. |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is equivalent to CPPSIS5050A Create engineering drawings.

Links

Companion volumes to this training package are available at the VETNet website -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>

Assessment Requirements for CPPSSI5050 Produce survey drawings

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Performance Evidence

To demonstrate competency a candidate must meet the elements and performance criteria of this unit by using supplied site data and technical standards for drafting and land XML file creation to produce two different survey drawings.

Each survey plan must:

- meet technical specifications
- be presented in both hard copy and land XML formats
- include a land XML file of the completed survey plan.

Knowledge Evidence

To be competent in this unit a candidate must demonstrate knowledge of:

- survey plan types, purposes and applications:
 - land subdivision
 - strata
 - community title
 - easement
 - stratum
 - mining
 - redefinition
 - identification
- engineering survey drawings
- relevant government and non-government technical standards requirements for preparing survey plans and drawings
- types of computer-aided design (CAD) software used in surveying
- software functions of importing and exporting digital site data in CSV and DXF formats
- mathematical concepts in surveying methods relating to distance and angles
- data formats and data management techniques

- spatial reference systems
- standard plan design and presentation conventions.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting where these skills and knowledge would be performed.

Candidates must have access to:

- computer and appropriate CAD software
- relevant operating manuals and manufacturer specifications.

Links

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