

## **COSCPO05 SQA Unit Code H90J 04**

### **Contribute to the surveying of sites in engineering surveying operations**



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#### **Overview**

This unit is about contributing to the surveying of sites in engineering surveying operations. It is about preparing a site for survey and assisting with linear and levelling surveys. You will need to check quality of your work and confirm results with your supervisor.

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#### Performance criteria

*You must be able to:*

- P1 obtain **survey documents** required for survey work
- P2 interpret **survey documents** to identify the survey location
- P3 prepare site for **survey** by clearing the line of sight where possible by removing obstacles using appropriate **resources**
- P4 assist with the **survey** of a site to required accuracy using appropriate **techniques** and **resources**
- P5 assist with the compilation of **survey data**
- P6 check quality of your work and confirm results with your supervisor

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#### Knowledge and understanding

*You need to know and understand:*

- K1 how to obtain **survey documents** required for survey work (application)
- K2 how and why to interpret **survey documents** to identify the survey location (analysis)
- K3 how to prepare site for **survey** by clearing the line of sight where possible by removing obstacles using appropriate **resources** (application)
- K4 how to assist with the **survey** of a site to required accuracy using appropriate **techniques** and **resources** (application)
- K5 how to assist with the compilation of **survey data** (application)
- K6 how to check quality of your work and confirm results with your supervisor (application)

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### Scope/range

- 1 Survey documents
  - 1.1 diagrams
  - 1.2 drawings
  - 1.3 maps
  - 1.4 graphical information
- 2 Surveys
  - 2.1 linear
  - 2.2 levelling
- 3 Techniques
  - 3.1 transferring levels
  - 3.2 measuring up and down from known levels
  - 3.3 finding the slope
  - 3.4 finding mid point
  - 3.5 ranging
- 4 Resources
  - 4.1 instruments (e.g. theodolite, total station, levels, moisture meters, lasers, Global Navigation Satellite Systems (GNSS))
  - 4.2 tools (e.g. cable avoidance tools, hand tools, mechanical tools, electronic tools, staff, prism, tape measure, set square, optical square, spirit level)
  - 4.3 equipment (e.g. profile boards/batter boards, traveller, stakes, pegs, steel pins, nails, line levels, string, batteries, personal protective equipment, vehicles, compass, ranging rods, survey arrows)
  - 4.4 site data and information
- 5 Survey data:
  - 5.1 distance
  - 5.2 angles
  - 5.3 areas
  - 5.4 volumes
  - 5.5 dimensions
  - 5.6 levels

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5.7 topography

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**Original URN** COSCPO05

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**Relevant occupations** Building and civil engineering technicians

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**Suite** Engineering Surveying Operations

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