

Title	Undertake survey measurement tasks and checks		
Level	4	Credits	30

Purpose	People credited with this unit standard are able to undertake survey measurement tasks and checks.
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Classification	Surveying > Survey Practice
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Available grade	Achieved
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Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with relevant legislative and industry requirements.
- 2 Legislation and documentation relevant to this unit standard includes:
Cadastral Survey Act 2002;
Health and Safety at Work Act 2015;
Surveyor-General's Rules published by Land Information New Zealand at <http://www.linz.govt.nz>;
Surveyor-General's Ruling 2004/1 (for geodetic datum);
Surveyor-General's Ruling 2005/3 (for height datum);
Price, WF, and Uren, J, *Surveying for Engineers* 5th ed. (UK: Red Globe Press, 2010), available at <http://www.fishpond.co.nz>.
- 2 Definitions
Industry requirements may refer to but are not limited to relevant company policies, processes, methodologies, industry codes of practice, standard operating procedures, site safety plans, quality plans, work plans, job instructions, and manufacturer's requirements.
Workplace procedures refer to the company processes, standard operating procedures and site safety plan specific to the workplace.

Outcomes and performance criteria

Outcome 1

Undertake survey measurement tasks and checks.

Performance criteria

- 1.1 Optical level and staff are used, and readings taken to deduce and confirm the reduced level in terms of a known or assumed datum.
- Range two benchmarks at least 500m apart with two intermediate benchmarks measured between them.
- 1.2 Total station is used for survey measurement.
- Range establish survey origin, undertake basic traverse and/or prove position by resection, set out surveys – at least three marks, topographical measurement (minimum 100 shots), and as built measurement (minimum five features).
- 1.3 Global Navigation Satellite System (GNSS) is used for survey measurement.
- Range set up GNSS and check position and level against a minimum of two marks, establish control points, set out surveys – at least three marks, topographical measurement (minimum 100 shots), as built measurement (minimum five features).
- 1.4 Tape measures (5m and 30m steel and nylon tapes) are used to measure height and horizontal distance.
- Range known length, instrument height, exterior and interior of a structure.
- 1.5 Correct scale and projection parameters for the job are applied.
- 1.6 Task-specific tolerances and errors are assessed.
- Range three of: turbine installation, hold-down bolts, urban cadastral, rural road, stockpile, one other.
- 1.7 Field measurements are cross referenced with at least one independent means of verification.
- 1.8 Field data is recorded, verified and processed according to workplace procedures and job requirements.

Planned review date	31 December 2025
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	21 April 2016	31 December 2022
Review	2	25 February 2021	N/A

Consent and Moderation Requirements (CMR) reference	0101
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Connexis - Infrastructure Industry Training Organisation qualifications@infrastructureito.org.nz if you wish to suggest changes to the content of this unit standard.