

<b>Title</b>	<b>Produce survey data for a cadastral dataset</b>		
<b>Level</b>	<b>6</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	<p>This unit standard is for people who are working in the surveying profession as a survey technician.</p> <p>People credited with this unit standard are able to: prepare for cadastral surveys; survey a site for cadastral surveying; process field observations from the cadastral survey; and develop information for a cadastral dataset.</p>
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<b>Classification</b>	Surveying > Survey Practice
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<b>Available grade</b>	Achieved
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### Guidance Information

- The following legislation and documentation must be complied with:  
Cadastral Survey Act 2002;  
Rules for Cadastral Survey 2010;  
Price, W.F., and Uren, J. (2010). *Surveying for Engineers*. 5<sup>th</sup> ed. (UK: Palgrave Macmillan), available at <http://www.fishpond.co.nz>;  
job specifications.
- This unit standard does not qualify people to certify cadastral data. Candidates must work under the direction of a licensed cadastral surveyor as required by the Cadastral Survey Act 2002 and the Rules for Cadastral Survey 2010.
- Definition  
*Workplace procedures* refer to documented procedures specific to an enterprise which set out the quality management requirements for the business practice and activities of that enterprise.

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### Outcomes and performance criteria

#### Outcome 1

Prepare for cadastral surveys.

Range a redefinition survey, a ten lot urban subdivision, a three lot rural subdivision.

**Performance criteria**

- 1.1 Survey requirements are determined in accordance with the Rules for Cadastral Survey 2010.  
Range origin, boundaries, witness marks, class of survey.
- 1.2 Survey methods and equipment are selected and prepared in accordance with the survey requirements.  
Range equipment may include but is not limited to – total station, data logging;  
evidence is required of two methods.
- 1.3 The details to be measured and recorded are identified in accordance with the survey requirements.  
Range details may include but are not limited to – appellations, road names, legalities, areas, schedules.
- 1.4 The physical occupation features to be recorded are identified in accordance with the Rules for Cadastral Survey 2010.
- 1.5 An analysis of existing survey data identifies origin and relevant witness marks in accordance with workplace procedures.

**Outcome 2**

Survey a site for cadastral surveying.

**Performance criteria**

- 2.1 Surveying equipment is calibrated in accordance with the Rules for Cadastral Survey 2010.
- 2.2 Cadastral data is surveyed in accordance with the survey requirements.  
Range data – origin, coordinates, traverses;  
natural boundary, primary parcel, new parcel, easement, area of flat, cross-lease, or unit;  
may include but is not limited to – surveying for a disturbed or replaced mark.
- 2.3 Origin of bearings is verified in accordance with the Rules for Cadastral Survey 2010.
- 2.4 New survey marks are placed in accordance with the survey requirements and the Rules for Cadastral Survey 2010.
- 2.5 The new survey control is observed, measured, and recorded in accordance with workplace procedures.

- 2.6 Relevant old survey marks are located, fixed, or included into the new survey control in accordance with workplace procedures.
- 2.7 The new survey control geometry is closed in accordance with the Rules for Cadastral Survey 2010.
- Range connections between – geodetic control, closed loop.
- 2.8 Physical occupation is fixed and recorded in accordance with the Rules for Cadastral Survey 2010.
- 2.9 Boundary positions are pegged or marked in accordance with the Rules for Cadastral Survey 2010.
- 2.10 Independent checks are applied to all hanging lines in accordance with workplace procedures.

### Outcome 3

Process field observations from the cadastral survey.

Range the cadastral survey in outcome 2.

#### Performance criteria

- 3.1 Field observations are reduced and verified in accordance with the Rules for Cadastral Survey 2010.
- 3.2 Analysis of the data eliminates errors and omissions to specified tolerances for the class of survey in accordance with the Rules for Cadastral Survey 2010.
- Range projections, bearings.
- 3.3 Traverses are closed and adjusted in terms of the origin of the survey in accordance with the Rules for Cadastral Survey 2010.
- 3.4 Witness marks and existing boundaries are confirmed by adoptions from existing survey data under the direction of a Licensed Cadastral Surveyor.
- 3.5 Boundaries of the site are defined in accordance with the Rules for Cadastral Survey 2010.
- 3.6 Area calculations are verified to meet tolerances required by the parcel size in accordance with the Rules for Cadastral Survey 2010.

### Outcome 4

Develop information for a cadastral dataset.

#### Performance criteria

- 4.1 A draft dataset is developed in accordance with workplace procedures.

4.2 The reliability of the draft dataset is confirmed by a documented field audit that achieves the class of survey in accordance with job specifications.

4.3 Traverse sheets are completed in accordance with the Rules for Cadastral Survey 2010.

Range coordinates are tabulated; the method of adjustment is shown.

4.4 The dataset is presented to a licensed cadastral surveyor for verification in accordance with workplace procedures.

Range presentation includes but is not limited to – bearing, distance, boundary dimension, traverse dimension, pegging ties, natural boundary fix, linking to existing data, numbering of marks, applying one value to multiple observations, error check.

<b>Replacement information</b>	This unit standard replaced unit standard 8765.
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<b>Planned review date</b>	31 December 2024
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#### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 February 2008	31 December 2021
Review	2	28 November 2019	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	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 at [qualifications@connexis.org.nz](mailto:qualifications@connexis.org.nz) if you wish to suggest changes to the content of this unit standard.