



Rules for Cadastral Survey (Canterbury Earthquake) 2010

LINZS65001

23 December 2010

The Rules for Cadastral Survey (Canterbury Earthquake) 2010 are made under clause 5 of the Canterbury Earthquake (Cadastral Survey Act) Order 2010, and the Cadastral Survey Act 2002 applies to them as if they had been made under s 49 of that Act.

The Rules are made on 23 December 2010 and are effective from 31 January 2011.

The Rules have the status of regulations for the purpose of the Regulations (Disallowance) Act 1989.

Don Grant
Surveyor-General

Land Information New Zealand
www.linz.govt.nz

Table of contents

Foreword	4
Introduction	4
Purpose of the Rules	4
Scope	4
Intended use of the Rules	4
1 Title and commencement.....	5
2 Terms and definitions	5
3 Rules for Cadastral Survey 2010 apply	6
4 Orientation	6
5 Re-establishing boundaries affected by deep-seated movement	6
6 Re-establishing boundaries affected by shallow surface movement	7
7 Acceptance of boundaries.....	7
8 Rules to expire	7

Foreword

Introduction

The Rules for Cadastral Survey (Canterbury Earthquake) 2010 (Rules) are issued by the Surveyor-General under clause 5 of the Canterbury Earthquake (Cadastral Survey Act) Order 2010, and the Cadastral Survey Act 2002 applies to them as if they had been made under s 49 of that Act.

Purpose of the Rules

The Rules are to apply to surveys for the re-establishment of boundary points and boundaries which have been affected by movement due to the Canterbury earthquake.

Scope

The Rules set out the Surveyor-General's requirements for the conduct of cadastral surveying when re-establishing boundaries affected by movement due to the Canterbury earthquake.

Intended use of the Rules

- (a) Cadastral surveyors must comply with both the Rules and the Rules for Cadastral Survey 2010 (RCS2010), when re-establishing boundary points and boundaries which have been affected by movement due to the Canterbury earthquake.
- (b) The Chief Executive has a function to determine whether cadastral survey datasets and cadastral surveys comply with the Rules, and the RCS2010.

1 Title and commencement

- (a) The Rules may be cited as the Rules for Cadastral Survey (Canterbury Earthquake) 2010.
- (b) The Rules come into effect on 31 January 2011.

2 Terms and definitions

For the purposes of the Rules, the following terms and definitions apply. All other terms/abbreviations are as defined in the RCS2010 and Cadastral Survey Act 2002.

Term/abbreviation	Definition
block shift	consistent translation and rotation in a manner that maintains shape but not position or orientation
Canterbury earthquake	also known as the Darfield earthquake, 4 September 2010. This includes the related series of aftershocks.
deep-seated movement	movement caused by tectonic deformation of the earth's crust including earthquake faulting and widespread block shift
disturbed	as defined by RCS2010, but does not include change of position due to deep-seated movement
RCS2010	Rules for Cadastral Survey 2010
re-established	boundary points and boundaries re-surveyed to take into account movement due to the Canterbury earthquake
Rules	Rules for Cadastral Survey (Canterbury Earthquake) 2010
shallow surface movement	movement that is shallow and limited to surface layers, such as that caused by liquefaction of soils or landslip

3 Rules for Cadastral Survey 2010 apply

- (a) The Rules apply in conjunction with the RCS2010.
- (b) Certification of a CSD under rule 13 of the RCS2010 is deemed to include certification of correctness under the Rules where boundaries have been affected by movement due to the Canterbury earthquake.

4 Orientation

- (a) For the purpose of rule 4.1 of the RCS2010, where:
 - (i) there are insufficient cadastral survey network marks with post-earthquake coordinates available from Land Information New Zealand, and
 - (ii) it is not practical to determine an orientation in terms of an official geodetic projection that is independent of marks affected by movement due to the earthquake,

an orientation may be based on survey marks that retain the same horizontal relationship to each other as they held before 4 September 2010.

- (b) Orientation determined under (a) in terms of pre-earthquake survey data is deemed to be in terms of the applicable official geodetic projection for the purpose of rule 4.1 of the RCS2010.
- (c) Where orientation is determined under (a), the CSD plan must be annotated as follows:

'Orientation is in terms of pre-Canterbury earthquake 2010 data and may not be accurate relative to the official geodetic projection'.

5 Re-establishing boundaries affected by deep-seated movement

- (a) Where there has been deep-seated movement due to the earthquake, parcel boundaries and boundary points will be deemed to have moved accordingly.
- (b) Re-established boundary points and related boundaries must hold the same relationship to physical evidence, including survey marks and boundary occupation, as they did prior to the earthquake.
- (c) Where the deep-seated movement is a relatively uniform block shift of a complete parcel, then the relative positions of the parcel's boundaries to survey marks will remain the same as before the earthquake.
- (d) Where a parcel boundary has been displaced or distorted by deep-seated movement, such as a fault rupture, that exceeds the applicable accuracy tolerances of rule 3.3.1 of the RCS2010, the re-established boundary must reflect that displacement or distortion which may require the creation of new boundary angle points.

- (e) Where new boundary angles have been created under (d), the Diagram of Survey and Diagram of Parcels must prominently depict the following annotation clearly related to the relevant parcels:

'Re-established boundaries include new angles as a result of the Canterbury earthquake 2010'.

6 Re-establishing boundaries affected by shallow surface movement

Boundary points and related boundaries affected by shallow surface movement must be reinstated in their original positions relative to survey marks that retain the same horizontal relationship to each other as they held before the Canterbury earthquake, in accordance with accepted survey and legal precedents.

7 Acceptance of boundaries

- (a) For boundaries of parcels that meet the criteria for class C under rule 3.2.3 of the RCS2010, and where the existing boundaries may be affected by distortion due to the earthquake by a movement greater than the accuracy tolerance specified in rule 3.3.1(a)(vi) of the RCS2010, those boundaries must be either:

- (i) accepted and become class D in terms of the RCS2010, or
- (ii) defined by survey in terms of the RCS2010.

- (b) Where the boundary is accepted under (a)(i) above, the Diagram of Survey and Diagram of Parcels must prominently depict the following annotation clearly related to the relevant parcels:

'Class D boundaries accepted from pre-Canterbury earthquake 2010 cadastral survey data may no longer be accurate'.

8 Rules to expire

The Rules expire on 16 December 2011 in accordance with the Order in Council under the Canterbury Earthquake and Recovery Act 2010 unless superseded by new rules before then.