

CADASTRAL SURVEYORS
LICENSING BOARD OF NEW
ZEALAND

STANDARDS REVIEW WEBINAR

March 2021

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WHO ARE WE?



WHAT'S THE BOARDS ROLE?

- Empowered by the Cadastral Survey Act 2002
- Functions and Duties (s11) include
 - 11(1)(d) to *issue and update standards* that persons applying for licences, or the renewal of licences, must meet
 - 11(3)(a) the *standards must relate to the competencies required by cadastral surveyors to meet the standards set by the Surveyor-General*
 - 11(3)(b) the *standards must also relate to the legislative requirements for the subdivision of land to the extent that they are relevant to cadastral surveying*

WHY REVIEW THE STANDARDS?

- Originally drafted in 2002 with the introduction of the Act and modified through to the **current 2013 Standards**.
- Board recognised that the **Standards did not always meet the outcomes required for assessing the competency of Licensed Cadastral Surveyors (LCS's)** by virtue of its experience over the years.
- Government requires that the Standards be presented in **secondary legislation format**.
- **Business practice and technology has changed** considerably and while the basic competencies do not alter, the Board considered the **Standards needed to be updated**.

NEW STANDARDS *What's changed?*

SUMMARY

- **Format completely different** – now Secondary Legislation.
- **Categories of licence applications** together with the **requirements** thereof have been **clarified** and made **more succinct**.
- **Expanded to cover deficiencies** that have been highlighted by the Boards experience dealing with both the **examination process** and **complaints of professional misconduct**.
- **Competencies updated** including two new categories, **Professional Conduct** and **Communication Skills**.

NEW STANDARDS *Four Sections*

1. CONTENTS - includes title, commencement, purpose and interpretation.
2. PART 1 - Introduction, describes the Standards and sets out what is required to be demonstrated to be a LCS.
3. PART 2 – Standards for Licensing, sets out the requirements and processes which the Board applies when considering applications for an **initial** licence, **renewal** of a licence or **reapplication** for a licence.
4. SCHEDULE 1 – Competencies, defines eight areas of competence that form the basis for the Standards for the licensing of cadastral surveyors.

NEW STANDARDS *Interpretation*

- 4(2) A new term being “**Assessment panel or panel**” has been introduced, whose function is to assess the competency of graduate surveyor applicants primarily.
- Currently fulfilled by S+SNZ
- The Board has set up a **committee**, made up of two Board members, **to liaise directly with the Assessment panel on a regular basis** to provide guidance and input to ensure that the assessment process performed by the panel meets the Standards for licensing set by the Board.

Questions



NEW STANDARDS *Part 1 - Introduction*

- This describes the Standards and sets out what a person is required to demonstrate to be a LCS.
- This information was contained in the previous standards, but not as succinctly.
- No real changes

NEW STANDARDS *Part 2 - Licensing*

- Part 2 sets out the requirements and processes which the Board applies when considering applications.
- It includes a section on the application process, and then details the various classes of applications for a licence, namely,
 - Subpart 1- Initial Applications for a Licence
 - Subpart 2- Renewal of a Licence
 - Subpart 3- Applications by Previously Licensed Surveyors
- The requirements for each class are then clearly and succinctly described.

NEW STANDARDS *Initial Applications*

- 3 Classes of applicant, namely,
 - Graduate cadastral surveyor,
 - Australian licensed or registered cadastral surveyor,
 - Overseas qualified cadastral surveyor.
- Graduates
 - 10(1), 4 year tertiary education qualification – degree or equivalent assessed by BAOQ.
 - 10(3), 2 years post grad training under LCS incl. 1 year practical land subdivision and boundary definition.
 - 10(3), certificate of competency less than 2 years old.
 - 10(4), certificate of competency within 3 years of passing Laws and Regs examination.
 - 10(4), projects and oral examination/ interview.

NEW STANDARDS *Initial Applications*

- Australian Qualified

- 11(1), **reciprocal agreement** between Boards (2 way).
- 11(2), letter of **accreditation** and **no disciplinary action** for professional misconduct – existing or under inv.

- Overseas Qualified

- 12(2), **4 year tertiary education qualification** – degree or equivalent assessed by BAOQ.
- 12(3), **if not, additional studies**, professional qualification details, no disciplinary action for professional misconduct, either existing or under investigation, full CV and additional information.
- 12(4), possible practical **experience under LCS**, **tertiary education** course, **Laws and Regs**, **cadastral project** and **oral examinations**, all to Boards satisfaction.

NEW STANDARDS *Licence Renewals*

- Applies to the renewal of **existing/ current (not expired) licence.**
- 13(2), provide evidence that **skills in cadastral surveying have been maintained** as required by the competencies. (refer 14 - Evidential Requirements)
- The Board recognises that some surveyors specialise in different aspects of cadastral surveying. Despite that, the Board requires all **LCS's to maintain their knowledge, understanding, and abilities to meet all the competencies.**
- 13(4), application may in **exceptional circumstances** be considered up to **3 months** after expiry of licence.

NEW STANDARDS *Licence Renewals*

- Evidential Requirements - *if lodging datasets*
- 14(1), completed a minimum of **three** approved cadastral survey datasets in the preceding **2 year period** is considered, unless the Board decides otherwise, to have the required level of competence for the renewal of a licence.
- 14(2), all the datasets must have involved **boundary definition**, and at least one must have involved the **subdivision** of land. **No survey only datasets.**

NEW STANDARDS *Licence Renewals*

- Evidential Requirements - *if not lodging datasets*
- 14(3)(a), certify that in the preceding **2 year** period **practised cadastral surveying in New Zealand (NZ)** or in another jurisdiction in which similar competencies in cadastral surveying are required, **or**
- 14(3)(b), **maintained knowledge, understanding and ability** by means of private study, attendance at seminars, workshops, or other means in relation to the competencies **and provide evidence thereof.**
- 14(5), **not practised in New Zealand** while holding an existing licence must provide a **description of the means** by which knowledge and understanding of cadastral surveying in NZ has been maintained.

NEW STANDARDS

Licence Renewals

- Evidential Requirements - continued
- 14(7), the Board may conduct an **oral examination**, in the form of an **interview**, if it considers it necessary or desirable to do so.
- Where the Board has in the **3 years** preceding the application **received and sought comment on** a notice from the Surveyor-General under **section 7(1)(d)** of the Act of a significant failure by the applicant to comply with the Surveyor-General's Rules, the Board **may consider the application in greater detail** and may require the applicant to provide **further evidence** to support the application.

NEW STANDARDS *Previously Licensed*

- Do not hold a current licence and outside 3 month exemption under exceptional circumstances – 13(4).
- 15(2), to support an application, the applicant must be able to demonstrate that they have maintained or re-established their knowledge, understanding and ability to undertake cadastral surveys in New Zealand to the required level of competence for the issue of a licence.
- 15(3), to meet the required level of competence, the applicant must provide a comprehensive summary of their cadastral surveying experience, details of any ongoing education or training in the competencies during the last 3 years and ...

NEW STANDARDS *Previously Licensed*

- ...the names of **two current LCS's** as referees familiar with the applicant's cadastral surveying experience, at least **one** of whom can attest to the applicant's most **recent cadastral surveying competence** and at least **one** of whom is **not a current employer or work colleague** (no conflict of interest), and, any **other evidence** of the applicant's current or most recent **cadastral surveying experience and competence** the Board may require.
- 15(4/5), the Board may also require the applicant to undertake a **period of cadastral surveying work** under the supervision of an **LCS**, pass any written or oral **examination** in any aspect of cadastral surveying or satisfactorily complete an **interview**.

Questions



NEW STANDARDS

Competencies

SUMMARY

- The **introduction in Schedule 1** clearly breaks down the competencies into **three sections** that form the basis of the Standards.
- While the **first two sections were included in the previous Standards**, the proposed new standards **clarify** and in some cases **expand** those competencies where there needs to be “an **understanding** of” of various **concepts** and an “an **ability** to” perform certain **tasks**.
- The **third section is new** and has been added to include “**professional conduct**” and “**communication skills**”, both of which are considered deficiencies in the previous Standards.

NEW STANDARDS

Competencies

- In order to be able to **apply the Surveyor-General's Rules for Cadastral Survey** a LCS must have a sound understanding of surveying in NZ. This entails being **competent in—**
 - (a) **survey measurement; and**
 - (b) **land tenure systems; and**
 - (c) **boundary definition; and**
 - (d) **land information systems.**
- To be able to **implement the legislative requirements for the subdivision of land** to the extent they are relevant to cadastral surveying, a LCS must have **knowledge of and abilities in—**
 - (a) **the resource management planning process; and**
 - (b) **land development engineering principles.**

NEW STANDARDS

Competencies

- To act in a **professional manner**, a LCS must have and be able to demonstrate **high standards** of—
 - (a) **professional conduct**; and
 - (b) **communication skills**.
- So, lets look at the competencies in a little more detail...

2. Survey Measurement

- The foundation is a sound **knowledge** of, and the **ability** to apply, all the **principles of surveying** appropriate to cadastral surveying.
- This requires an **understanding** of the principles of **cadastral, geodetic**, and **topographical** surveying and various **abilities** including the **addition of the following...**

NEW STANDARDS

Competencies

- **Expanded abilities** to include
 - interpret **historical survey data**
 - present **spatial data correctly and unambiguously**
 - apply analysis and adjustments to **horizontal and vertical survey measurements**, and **vertical datums**
 - record and document **measurements** and other survey **observations accurately and unambiguously**
 - apply appropriate **quality assurance processes** in relation to survey measurements
- **Excluded specific methodologies** such as GNSS, photogrammetry etc. for **future proofing** reasons.
- **Retained**, use and calibrate **survey equipment** correctly

NEW STANDARDS

Competencies

3. Land Tenure Systems

- Land tenure describes the **rights or title** by which land is held. Land tenure systems provide for the **creation or transfer of interests** in land.
- This requires understanding the **law and administrative systems relating to land** held under New Zealand legislation and the related record systems, and the **survey and tenure information** that is processed in those systems.
- **Updated understandings** to include
 - **land tenure** and the **operation** of the different land tenure systems
 - **implications of legislation** to land use, subdivision and cadastral surveying...

NEW STANDARDS

Competencies

- historical and current processes for the **disposition of land from the Crown**
- the **Registrar-General of Land's role and responsibilities** so far as they interact with cadastral surveying
- the **role of the Maori Land Court** in the administration of Maori land
- **Expanded abilities** to include
 - apply the **different types of surveys** and their **purposes** in relation to **land tenure** and the **subdivision of land**
 - apply the **concepts of indefeasibility of title, real property rights, and legislation** affecting interests and rights in land
 - understand the **status of land** and associated **interests and rights**

NEW STANDARDS

Competencies

4. Boundary Definition

- **Accurate boundary** location and **correct definition** in all **three dimensions** is fundamental to cadastral surveying. This requires a sound knowledge of, and ability to apply correctly, the **hierarchy of evidence** applicable to the definition of cadastral boundaries and the ability to **resolve discrepancies and gaps** in that evidence.
- Knowledge of **topographic, marine and hydrographic surveying** is required to relate water, marine and other natural features to boundaries and interests in land.
- **Revised understandings** including
 - the **Crown's responsibility** to provide a reliable and accurate cadastre...

NEW STANDARDS

Competencies

- the information required, and the processes involved, in **claiming rights to land**
- engineering and building design and construction as far as they relate to the definition of cadastral boundaries and **rights associated with buildings, services and structures.**
- **Expanded and updated abilities** to include
 - **apply** the principles of boundary definition
 - **interpret and apply Maori Land Court orders**
 - **comply** with the Surveyor-General's Rules
 - determine the position of new boundaries, including natural (**water or irregular**) and **permanent structure boundaries**, with respect to existing boundaries, **lines of occupation**, interests and property rights...

NEW STANDARDS

Competencies

- describe and determine boundaries of interests and property rights within the **marine and coastal area**
- balance the interests of current, future and **neighbouring** affected parties in relation to boundary definition when defining and describing interests in land
- interpret cadastral survey datasets, **field notes**, reports and **other supporting documentation** from the cadastral record

5. Land Information Systems

- Competency in land information systems requires understanding the application of **land and spatial information technology** to cadastral surveying and the subdivision of land. It also requires the ability to **use relevant information** and to **enhance information systems** with new and accurate datasets.
- **Revised understandings** including
 - the basic principles of **spatial information systems** management and operations, their development process, and the **application of cadastral information to these systems**.

NEW STANDARDS

Competencies

- **Amended abilities** to include
 - determine the inherent **limitations of different sources of data** and interpret them correctly.

6. The Planning Process

- Competency in the planning process as a LCS requires an ability to **understand subdivision consents and their implementation**.
- **Revised understandings** including
 - the **parts of the Resource Management Act** and associated legislation relevant to the subdivision of land...

NEW STANDARDS

Competencies

- the relevant **national standards**, **district and regional plans and other statutory and regulatory documents** that affect the subdivision of land
- the influence of **other legal interests** in land that may affect the completion of the subdivision process and the issue of records of title.
- **Expanded abilities** to include
 - interpret all types of **resource consents** and define the **spatial rights** to give effect to them
 - interpret the **conditions of a subdivision consent** and understand the processes required to satisfy them.

NEW STANDARDS

Competencies

7. Engineering Principles

- Competency in engineering principles requires an **ability to understand the subdivision engineering principles and requirements** necessary to comply with regulatory consents for safe, stable and sustainable subdivision and avoid inappropriate development because of natural hazards, as required by **section 106 of the Resource Management Act 1991**. This includes an appreciation of the necessary measures to **mitigate** potential land instability, flooding, and other **detrimental effects** of earthworks and land development.
- Competency in engineering principles also requires understanding of all aspects of **access, roading, wastewater and stormwater, water reticulation, and other services** as they relate to land subdivision.

NEW STANDARDS

Competencies

- **Amended and expanded understandings** to include
 - the basic principles of **soil properties, land stability, inundation and other natural hazards**, as they relate to the subdivision of land; and
 - the basic principles of **earthworks, access, roads, wastewater and stormwater drainage, water supply systems, and the provision of utility services** as they relate to the subdivision of land; and
 - the types of **regulatory documents** that control the provision of **access and services** to a subdivision, such as **national standards, district and regional plans, local authority codes of practice**, and other relevant legislation.

NEW STANDARDS

Competencies

- **Amended abilities** to include
 - interpret an engineering design and constructed works to the extent necessary to identify where a design or constructed work may be incompatible with the topography, subdivision consent, existing rights and interests, or existing cadastral boundaries
 - correctly define the boundaries of all titles, easements and other rights or restrictions to ensure the proper extent of ownership and protection of rights associated with the constructed works.

8. Professional Conduct – *new competency*

- (1) Public confidence in the cadastral survey and land tenure systems requires LCS's to maintain and act in accordance with high standards of professionalism within their area of expertise or specialisation.

- (2) Accordingly, the competencies required in professional conduct are the ability to—
 - (a) act professionally and honestly at all times to maintain public confidence in the cadastral survey and land tenure systems; and...

NEW STANDARDS

Competencies

- (2) (b) develop, maintain, and apply systems of professional practice management and effective quality assurance to all aspects of a cadastral survey to ensure compliance with the Surveyor-General's Rules; and
- (c) actively supervise, and be responsible for, work undertaken on a cadastral survey by any other person; and
- (d) participate in ongoing professional education and development in relation to cadastral surveying.

NEW STANDARDS

Competencies

9. Communication Skills – *new competency*

- (1) LCS's should have **good communication skills**, both oral and written, so that they can **clearly describe cadastral and any other interests in land**, and where necessary, **describe complex technical concepts to non-technical people**, in a professional manner.

- (2) Accordingly, the **competencies required in communication skills are the ability to—**
 - (a) **communicate clearly and concisely in English**, the minimum being the equivalent standard for University entry in New Zealand; and
 - (b) **write logical and unambiguous documents and reports to a professional standard.**

Questions



SUBMISSIONS - *Have your say!*

- The Board encourages you to make a submission on the proposed new Standards - your comments are invaluable and will ensure that the new Standards are robust and comprehensive. To assist you, a PDF copy of this PowerPoint presentation will be available on the CSLB website @ cslb.org.nz
- If you are a LCS, the preferred method of making a submission is through the CSLB website. Sign in, go to the members area and upload your pre-prepared submission.
- Alternatively, or, if you are not an LCS, email your submission to secretary@cslb.org.nz
- *Submissions close on Monday 29 March 2021*