

NSW Registered Land Surveyors – Engineering Design

Since at least 1936 registered land surveyors have been examined for competency and endorsed by the NSW Government (through BOSSI and its predecessors) to undertake engineering design work.

In addition to completing an approved 4 year degree (which has considerable overlap with a civil engineering degree, and contains subjects on engineering design such as soil and water mechanics, road and drainage design), and 2 years practical experience, in order to earn their certificate of competency, registered land surveyors are required to complete an engineering design assessment through a project-based examination interview.

The full requirements for the assessment are outlined in *BOSSI Determination – Board Examinations* which is published on the BOSSI website. The project allows the candidate to demonstrate competence in engineering design, storm water drainage design, tender preparation and construction management.

There are a number of different types of projects that can be submitted for examination with the minimum requirements outlined in the Determination. The minimum project requirements for a residential subdivision are 20 lots and 250 m of road incorporating the design of:

- two roads incorporating six vertical curves
- connection to an existing road
- any battle axe driveways that are part of the project
- one intersection
- three kerb returns

Candidates must demonstrate competency in the following topics amongst other things:

- legislative and consent authority requirements
- principles of road/rail/other structure design together with storm water drainage design
- safe and practical design
- appreciation of site features, opportunities and constraints
- design and document preparation
- construction certificates and compliance certificates
- cost considerations in design
- construction methods
- erosion and sediment control
- geotechnical considerations
- *Work Health and Safety Act 2011*
- communication with stakeholders and authorities
- project management, contracts, tenders and supervision
- ethics and professional conduct
- spatial information competencies related to engineering design

A minimum of 2 examiners assess each candidate in a 1.5-hour face to face examination interview where the candidate must demonstrate competency in all areas as outlined above.

Engineering design is only 1 component of the land surveyor registration process – in order to gain their certificate of competency and registration they are also required to pass competency exams in

- town planning
- strata and community title
- urban surveying
- rural surveying

It is a condition of registration that registered surveyors maintain competency through annual Continuing Professional Development (CPD) and under the BOSSI Ethics and Code of Professional Conduct are required to only practice within their areas of expertise and competence.



Narelle Underwood

Surveyor-General of NSW

President – Board of Surveying & Spatial Information

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