

**TRAINING REQUIREMENTS FOR
GRADUATE SURVEYORS
UNDER NORTHERN TERRITORY
LICENSED SURVEYORS ACT**

**ADOPTED BY
N.T. SURVEYORS BOARD**

August 2017

TRAINING REQUIREMENTS FOR GRADUATE SURVEYORS UNDER N.T. LICENSED SURVEYORS ACT

1 Training Requirements

- 1.1 A graduate surveyor is required to complete two (2) years satisfactory practical training with a licensed surveyor, who shall themselves have been registered for a minimum of two (2) years, undertake suitable practical projects and pass the professional assessment test before becoming eligible for registration as a licensed surveyor.

2 Qualifications

- 2.1 A graduate surveyor is required to have the educational qualifications acceptable to the Reciprocating Surveyors Boards of Australia or New Zealand before he or she can enter into a Training Agreement with a licensed surveyor.

3 Practical Training

- 3.1 The period of training shall include at least twelve (12) months (240 working days) on cadastral surveys. The cadastral surveys should include a sufficient amount of rural and urban work in the Northern Territory. Arranging the variety of work is the responsibility of the supervising surveyor and the trainee. It is expected that the trainee will undertake at least five surveys in each arena.
- 3.2 An exemption of up to twelve (12) months out of the twenty four (24) months required may be granted for training gained under the supervision of a licensed surveyor outside the Territory, provided the graduate surveyor lodges with the Board a report as per form 3 and the experience is obtained in Australia/New Zealand within the last 2-3 years.
- 3.3 The Board may accept training and experience gained during vacation periods by a student undertaking a course of study in surveying leading to him or her obtaining the approved qualifications of a graduate surveyor, without requiring him or her to enter into a Training Agreement, provided that the total period of such training and experience acceptable shall-
- 3.3.1 not exceed six (6) months
 - 3.3.2 have been gained under a licensed surveyor engaged in land boundary definition during that period and
 - 3.3.3 be covered by a certificate from the surveyor satisfactory to the Board.
 - 3.3.4 be obtained in Australia/New Zealand within the last 2-3 years.
- 3.4 A Professional Training Agreement must be provided by the graduate surveyor and lodged with the Board within two (2) months of the commencement of the Agreement, unless otherwise determined by the Board.
- 3.5 A report signed by a licensed surveyor detailing the experience gained by the graduate surveyor as per Form 3 shall be lodged with the Board at intervals of not more than six (6) months. Failure to do so may result in the Board not accepting part or all of the experience claimed in the late

report.

- 3.6 Upon completion of the period of practical training, the licensed surveyor shall provide the Board with a statement that, in his or her opinion, the graduate surveyor is capable of undertaking land boundary surveys unsupervised.
- 3.7 A licensed surveyor shall not enter into Training Agreements with more than two (2) graduate surveyors at any one time.
- 3.8 Where the Board is of the opinion that the experience gained or instruction given is not adequate, a further period of training will be required.
- 3.9 Graduate surveyors who have been notified by the Board that a sufficient period of practical training has been completed shall commence the Professional Assessment Examination within two (2) years of notification. The Board may require additional evidence of recent experience if there is a delay of more than two (2) years.

4 Practical Projects

- 4.1 During his or her practical training, the graduate surveyor is required to carry out the projects listed at 4.2.1, 4.2.2, 4.2.3, 4.2.4 and 4.2.5, and lodge the plans, field notes (where necessary) and reports with the Board for its approval. The plans, field notes, calculations and reports shall all be certified by the graduate surveyor as being his or her own work.

- 4.1.1 Prior to commencing a project a proposal is to be submitted to the Board for approval to ensure the project has significant complexity to comply with the guidelines.

- 4.1.2 The graduate surveyor is required to have completed at least six (6) months practical training in cadastral surveying in the Northern Territory, as notified in accordance with section 3.5, before lodging the results of projects 4.2.1, 4.2.2 and 4.2.4.

- 4.1.3 Once the project proposal has been approved the results of projects 4.2.3 and 4.2.5 may be submitted to the Board for assessment at any time following registration of a training agreement. When submitting a project via email each file size is to be no greater than 9 megabytes in size.

- 4.1.4 Exemption may be granted from project 4.2.5 (geodetic survey) on the basis of an equivalent project completed under other educational or training programs, including undergraduate studies, providing that an application to the Board for exemption is made within three (3) years of completion of the project or if in excess of three (3) years, as approved by the Board.

- 4.2 The practical projects shall be -

- 4.2.1 Urban Cadastral Survey

A survey of an urban allotment of reasonable complexity, carried out by the trainee in the role of Party Leader, with at least one (1) obstructed boundary; or a similar survey that is approved by the Board.

The supporting documentation needs to be equivalent to the documents required for lodgement (PDF Image of the Survey, ACS file, Quality Control documents, a Survey report and any other required documents).

The report should contain discussion around the following topics

- Cadastral surveys in a Coordinated Survey Area
- The impacts of GNSS on urban cadastral survey
- The use of original vs measured dimensions and survey tolerance
- The difference between quality control checking and examination
- The practical use of 3D data in cadastral surveys
- Other capture techniques that maybe suitable for cadastral surveys

4.2.2 Rural Cadastral Survey

A survey of a rural allotment of at least forty (40) hectares, carried out by the trainee in the role of Party Leader, where at least two (2) boundaries are re-instatements from previous surveys and at least one (1) other boundary is a natural feature such as a water course or a non-straight road; or a similar survey which is approved by the Board.

The supporting documentation needs to be equivalent to the documents required for lodgement (PDF Image of the Survey, ACS file, Quality Control documents, a Survey report and any other required documents).

The report should include discussion around the following topics:

- Minimal marking requirements and Surveyor- General dispensation
- Tidal boundaries and a process for defining them
- The use of GNSS on rural cadastral surveys
- Native title implications of surveys in the NT

4.2.3 Subdivision Development

The preparation of an application for development consent under the Northern Territory Planning Act to subdivide a parcel of land into not less than ten (10) lots. At least one (1) new access road is to be incorporated into the subdivision. The site may be either urban or rural but should be taken from within a locality that is subject to a control plan under the Planning Act. All forms, plans and documents required to accompany the application are to be lodged digitally.

The project is to include a report outlining the development approval process that applies to the granting of a Development Permit to subdivide land under the Planning Act. Project not limited to the following:

- The difference between zones, permitted use and prohibited use.
- Describe the Part V process.
- What are minimum lot sizes and why are they created? How does this impact your project?
- If an environmental impact statement is required what are the main issues that need to be addressed and why?

4.2.4 Units Development

In report form, detail the processes in a units development from the proposal and approval stages through to the registration of unit titles. The report is to include

completed application forms and a Unit Titles Survey Plan and Survey Report as required under the Unit Title Schemes Act which may be based upon an actual or hypothetical development. Project not limited to the following:

- Relevant Acts and Regulations
- Development Application
- Addressing
- Scheme Statements
- Disclosure Statements
- Unit By-Laws
- Exclusive Use By-Laws
- Data Allocation
- Survey
- UTS Plan & Report
- Plan Lodgement requirement
- LTO requirements
- Compliance with the Provisional Geodetic Guidelines located at: <https://surveyorsboard.nt.gov.au/information>

4.2.5 Geodetic Survey

A geodetic survey for the determination of GDA-94 spheroidal coordinates and MGA-94 rectangular coordinates of at least four (4) points containing an area in excess of 20 hectares to an accuracy as specified in the Standards and Practices for Control Surveys issued by the Intergovernment Committee for Surveying and Mapping (ICSM Publication SP1 version 2.1) or as per the old standard accuracy, (Class B, 2nd order). For this project the candidate is required to submit the following information so as to demonstrate competency in this discipline –

- A diagram / sketch of the survey control network
- All field notes and / or observations
- All relevant reductions and calculations.
- A report that details the project and discusses –
 - The geodetic survey techniques used, processing and the results.
 - Any issues encountered during the survey and how they were resolved.
 - The adjustment process and propagation of uncertainty and how the specific accuracy was achieved.
 - The minimisation of field / observational errors.
 - The connection or transformation to the geodetic datum.
 - The derivation of ground distances / true mid bearings between survey control (or CRMs) as per the Survey Practice Directions.
 - Spheroidal height determination of survey control from the use of AusGeoid (and /or GNSS heighting), and comparison with AHD values
 - Alternative positioning techniques or service used (such as AusPos) instead of a local ties to existing GDA co-ordinated geodetic marks
 - Calibration of instruments used
 - Compliance with clause 38 of Survey Practice Directions 2014 or with clause 27 of Survey Practice Directions 2003 within coordinated survey areas.

4.3 If the Board is not satisfied with any of the projects submitted, then it may return the project to the graduate surveyor for additional field work, plans or report.

5 Professional Assessment

- 5.1 Final assessment shall not commence until all projects are satisfactorily completed and the requirements for practical training are satisfied.
- 5.2 The assessment is an oral examination before the Board (or nominated member) on law relating to survey, survey practice generally and the practical projects submitted.
- 5.3 Professional assessments will be held twice yearly as required.