

# **Operations**



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Surveyors Board of Queensland

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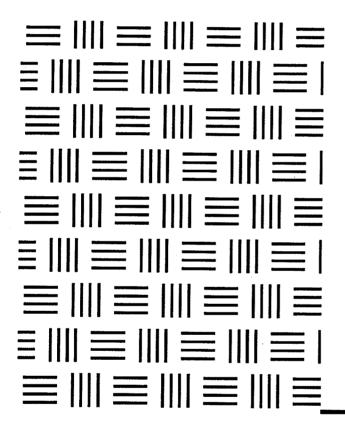
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Part

A

# Index and Introduction





Forewords by the President of the Surveyors Board and the Director-General of the Department of Lands

Index of contents of the Manual and updating instructions

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Forward by the President of the Surveyors board

Foreword by the Director General, Department of Lands

Contents of the Manual

### Introduction

The Surveyors Board of Queenstand has, over the latter half of 1992, reviewed the various individual publications it has issued as part of its functions under the Surveyors Act 1977.

The publications include the following:

- (a) Directions and Recommended Practices to Surveyors
- (b) Survey Plan Guidelines
- (c) Manual of Requirements for Registration and Licensing
- (d) Policy Statements to Registered Persons
- (e) Memoranda to Registered Persons

All of these "stand alone" documents have now been combined into the one publication, the Board Operations Manual.

The Manual will be kept under on-going review. You can assist in this by providing you ideas to the Board, in writing, on changes amendments and additions. Please provide reasons and an alternate option, for the suggestions you wish to raise.

It s expected that the Manual will be updated twice a year, through the issue of additional and/or replacement pages. This updating process will be a service provided to those who hold a registered copy of the Manual.

It is strongly recommended that all Registered Persons obtain a personal copy of the Manual for their professional library.

November 1992

### To:

### **Users Of The Operations Manual**

The Surveyors Board of Queensland has reviewed all of its stand alone publications over the past six months. It has incorporated all these documents into one publication, to be known as the <u>BOARD OPERATIONS MANUAL</u>.

The Board is in the process of developing notes on the manner in which Disciplinary Matters are dealt with. This section of the Manual should be distributed in March, 1993.

The Manual will be kept under review, and will have additions and deletions made to it twice a year. These will be automatically mailed to Manual holders.

Should you consider the Manual requires review in a particular area, the Board would be pleased to consider your <u>written</u> submission on any item including the alternatives proposed by you.

I commend the Operations Manual to you. Use it as part of your daily operation and have it available to you in your professional library.

N G DIVETT

President Surveyors Board of Queensland and Surveyor General

November, 1992



17 November 1992

### DEPARTMENT OF LANDS

Office:
Director-General
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Cnr Main & Vulture Sts
WOOLLOONGABBA

Postal: Locked Bag 40 COORPAROO DELIVERY CENTRE Q 4151 The President Surveyors Board of Queensland PO Box 477 WOOLLOONGABBA QLD 4102

Dear Sir

The Department of Lands endorses the initiative of the Surveyors Board of Queensland on the publication of a Board Operations Manual.

The Department has been pleased to assist with the production of certain sections of the Manual. I also applaud the support from the profession and the Department of Resource Industries in the development of the Manual.

I am certain that the Operations Manual will be a valuable reference for all surveyors, and it has my personal support.

Yours faithfully

Contact: Mr BG Wilson Director-General

Phone: (07) 896 3366

Fax: (07) 896 3697

BG Wilson

Director-General



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### Part B

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Use this Part to file your updated cpy of the Surveyors  $\operatorname{Act}$  obtained from the Government Printer - GOPRINT

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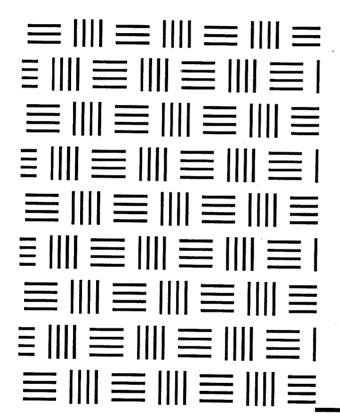
### **Surveyors Regulation**

Use this Part to file your copy of the Surveyors Regulation obtained from the Government Printer - GOPRINT

Part

B

# Policy Statements and Notices





Statements of Policy adopted by the Surveyors Board of Queensland from time to time

and

Notices to Registered Persons

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The Board at this point, November 1992, is in the process of reviewing the Policy Statements and Memorandum, which it has issued to Registered Persons since 1981.

The statements and memos contained in this section will continue to apply until such time as the review process is finalised (early 1993) and the advice is withdrawn or re-issued.

November, 1992

### **Policies**

### Policy No. 1

### December 1991

### **Decisions Of A Surveyors Disciplinary Committee**

The Board resolved 13/12/91 that decisions of a Surveyors Disciplinary Committee be published in the Government Gazette. This only applies to amendments to the registration of the Registered Person.

December, 1991

### 23 November 1991

### **Body Corporate Names**

Section 40 of the Surveyors Act 1977 provides for the Registration of a Body Corporate as a Surveyor and Regulation 17(2) and 17(5) prescribe the requirements for this registration.

Regulation 17(2)(aa) prescribes the requirements for a company name as follows:-

"Regulation 17(2)

The Board may permit a Body Corporate to be Registered as a Surveyor if:

- (aa) the name of the company or, where the company intends to carry on business under a business name registered under the Business Name Act 1962, the business name:-
- (i) includes the name of a natural person who is a Registered Surveyor or words descriptive of the practice of surveying; and
- (ii) is not a name that is, in the opinion of the Board, undesirable with respect to the practice of surveying."

The Board has resolved that when the name of persons are to be used in a company name, only the names of registered surveyors or licensed surveyors where applicable are to be used. The name of an unregistered surveyor is not acceptable.

This policy shall refer only to new applications.

### P.R. Turner

Administration Officer and Secretary

### **Regulation 12 Projects**

### 1. Out Of Date Projects

It has come to the attention of this Board that there are a large number of Regulation 12 projects credited to graduates that are out of date.

Regulation 12(4) of the Surveyors Regulations states that -

"Each project shall be undertaken within a period of two years preceding an application to be examined in that project. Credits for projects passed may lapse after three years but the Board at its discretion may grant an extension of time."

The Board is of the view that having large numbers of out of date projects is undesirable and has resolved to take the following action:

- (i) identify all graduates (since about 1972) and determine the status of projects;
- (ii) establish a date (30th June, 1989) at which credit for all projects over three years old will automatically lapse unless a specific extension of time has been applied for and granted. Such an extension may be granted if the applicant submits a program for completion of projects satisfactory to the Board;
- (iii) the Education Committee is to continue its program of interviewing graduates experiencing problems in this area;
- (iv) the Board is to sponsor a one day seminar at QIT covering options for registration and licensing.

#### 2. Policy On The Resubmission Of Projects

The Board is concerned that in some instances projects are being resubmitted a number of times by candidates until they eventually meet an acceptable standard. This is tantamount to the Examiners conducting a correspondence course.

The aim of the projects is for the candidates to demonstrate an acceptable level of competence rather than an absolute level of expertise. Examiners appointed by the Board are aware of this requirement and assess projects accordingly.

The following policy has been adopted in relation to the resubmission of projects:

Projects submitted for appraisal and found to be deficient in minor areas may be resubmitted once by the candidate on the recommendation of the Examiner. A resubmitted project which still does not meet its required standard is deemed a failure and a new project will have to be undertaken.

The rationale for this policy is if the candidate cannot display an acceptable level of competence after two attempts then additional training is required.

### 3. Revised Marking System - Engineering Survey & Design Project Regulation $12(5\ (b)(i)$

The marking system for the Engineering Survey and Design Project has been reassessed to place more emphasis on the surveying and data collection aspects and less on the engineering design.

The revised marking system for all Regulation 12(5)(b)(i) projects submitted for assessment from 1st November, 1988, is as follows:

	Maximum Score
Field Survey and Records	40
Design	25
Plans	20
Report	15

This statement should not be construed to imply that 50% is a pass.

### P.R. Turner

Secretary

### Policy On The Resubmission Of Regulation 12 Projects

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The rationale for this policy is if the candidate cannot display an acceptable level of competence after two attempts then additional training is required.

### 10 January 1990

### Policy Statement on Group Title Plans of Subdivision

The Board is concerned that some Surveyors are not adhering to provisions of the Surveyors Act, when carrying out Group Title Subdivisions.

This relates particularly to marking of Subdivisions on which are constructed, attached or detached buildings of a commercial or residential nature.

The following statements are made in order to clarify Surveyors responsibilities under the Surveyors Act:

- (1) There is no difference between a Surveyor's responsibility for the performance of a Group Title Subdivision and the performance of any other cadastral survey.
- (2) It is acknowledged that the marking of some Lot corners on Group Title Subdivisions is not always feasible. However, it is important that sufficient recovery marks are placed in order to facilitate later reinstatement.
- (3) These may include surveyed connections to improvements situated on the land, at the time of survey.
- (4) Connections to Recovery Marks should be recorded in an appropriate manner.
- (5) The reinstatement of the external boundaries of the parcel must be recorded. (eg; by Identification Survey or Resurvey).

K.J. Davies President

### 14th February 1989

### Board Policy On The Staking Of Original Boundaries To Identify Parcels Of Land

The Board wishes to restate its policy as included in previously issued statements of 4th January 1983 and 29th September 1983 as follows:

"Staking" or marking the approximate location of the position of the boundary or corner of a parcel of land is not permissable unless it is part of the process in carrying out the subdivision of new parcels of land. If it is to be used it must be as an integral part of the procedure required during subdivision.

"Staking" to indicate <u>proposed</u> boundaries in a <u>new</u> subdivision prior to final marking is acceptable, as an aid to construction or other works involved in the new subdivision but not otherwise.

For the purposes of this memorandum "a total new subdivisional process" is considered by the Board to terminate with the registration of the plan.

For all existing and actual boundaries, as opposed to proposed boundaries in a <u>new</u> subdivision, after a plan of survey has been registered, the Board wishes to reaffirm the opinion expressed in the final paragraph of its previous memorandum - viz:

"Surveys which include the placement of survey marks or other marks which purport to delineate a boundary or part thereof, and which are not effected in accordance with the requirements of the Act and Regulations are considered by the Board to be unprofessional"

K.J. Davies President

29th September, 1983.

### **Board Policy On Imprecise Surveys**

Previous Memorandum To All Surveyors Of 4th January, 1983, Refers

It has been brought to the attention of the Board that its previous memorandum has-been misinterpreted, particularly in respect of the phrase "part of a total new subdivisional process".

The Board has further considered the matter and this memorandum is issued with a view to clarifying the meaning of this phrase.

"Staking" to indicate proposed boundaries in a <u>new</u> subdivision prior to final marking is acceptable, as an aid to construction or other works involved in the new subdivision but not otherwise.

For the purposes of this memorandum "a total new subdivisional process" is considered by the Board to terminate with the registration of the survey plan.

For all existing and actual boundaries, as opposed to proposed boundaries in a new subdivision, after a plan of survey has been registered, the Board wishes to reaffirm the opinion expressed in the final paragraph of its previous memorandum - viz:

"Surveys which include the placement of survey marks or other marks which purport to delineate a boundary or part thereof, and which are not effected in accordance with the requirements of the Act and Regulations are considered by the Board to be unprofessional".

K.J. Davies
Presi Dent

### 4th January, 1983.

### **Board Policy On Types Of Surveys**

Members of the profession are reminded that the Board has been reviewing for some time the question of "identification surveys", "location certificates" and imprecise surveys.

Proposed amendments to the Surveyors Act 1977-80 include a definition of "identification survey", which is described as a cadastral survey, and as such must conform to the accuracy and other requirements of the Surveyors Act and Regulations. An "imprecise identification" survey is unacceptable. As a cadastral survey it must meet specified requirements, otherwise it is seen as being affected incompetently or in an unprofessional manner.

The Board however recognises the need for services to be available to the Public which do not require precise reinstatement and measurement of boundaries. In the Board's view ,it is reasonable that these services should be provided by surveyors, who have both the training and expertise, without incurring the expense of an "identification survey".

This less precise service could be provided by a surveyor in the form of a "Location Certificate"

Location Certificates are designed to ensure:-

- (i) Land described in any transfer or other legal document actually describes the parcel which a purchaser wishes to buy;
- (ii) Improvements being transferred or dealt with are within the boundaries so described; and
- (iii) There are no unregistered encumbrances such as encroachments or easements affecting the land.

The Board is aware of a statement prepared by the Association of Consulting Surveyors on "Location Certificates" and of proposals by that Association to have printed standard Location Certificate forms.

The Board has received a copy of the Statement for its comment and has no objection to its contents, nor to the proposed printed Certificates.

In the Board's view imprecise stakings are not permissable unless they refer only to a part of a total new subdivisional survey process and are not to be presented as a complete service in themselves. Field investigations associated with location certificates do not include the placement of survey marks.

Surveys which include the placement of survey marks or other marks which purport to delineate a boundary or part thereof, and which are not effected in accordance with the requirements of the Act and Regulations are considered by the Board to be unprofessional.

K. J. Davies President

#### 23 October 1992

### Policy On Charge Of Section 41 (3) Fee and Restoration Fee

1. The Section 41(3) fee (double fee) is to be charged for renewal of registration in cases where renewal has not been applied and paid for by the last day of November in each year as required by Section 41(2) and application for renewal is made within the 12 month period following the lapse of registration.

Except in cases where prior advice has been provided to the Board and the reasons submitted are acceptable to the Board, or where exceptional circumstances prevailed the Board may use its discretion. In these cases the Restoration Fee and normal Registration fee are charged.

2. The Restoration fee is to be charged in such instances where registration has been cancelled by the Board and application is being made to be restored to the register.

This fee is also to be charged in such instances where registration has been allowed to lapse for more than 12 months and application for restoration is made within a period of not less than 12 months nor greater than 2 years after the lapse of registration.

The restoration fee is charged in addition to the prescribed registration fee.

3. New Application If registration has been allowed to lapse and more than 2 years pass before restoration is again sought new applications for registration must be submitted and these will be assessed by the Education Committee.

If in these cases the application is successful the original registration number will be continued.

### **Letterheads And Stationery**

This policy statement shouldbe read inconjunction with the Boards memorandums dated 14 February 1989 and 18 September 1989.

The Board has resolved that only the names of registered persons should appear on a letterhead or stationery. The appropriate category of registration and qualification is to be shown against each name.

However, the name. of a person who is the holder of another professional qualification may be shown on a letterhead provided that his qualification and designation within the practice is shown.

### P. R. TURNER

Administration Officer and Secretary

### Memoranda

### **Memorandum No 1**

### 23 December 1981

### Memorandum To: All Registered Surveyors Subject: Recommended Practices for Survey Records (Reg 37)

Paragraph 11 of the Directions to Surveyors and Recommended Practices sets out recommended practices for survey records (Regulation 37). The purpose of this memorandum is to clarify the intent of Paragraph 11, particularly with respect to field notes and sketches.

It is in the best interests of Surveyors that <u>all</u> observations and relevant descriptive data are recorded in field notes or sketches at the time of survey.

Observations include horizontal angles or bearings, slope angles and distances, meterological measurements, offsets, radiations and so forth.

The need to record check measurements on all "open" or "hanging" connections is stressed. Surveyors are referred to the article by P.C. Miller entitled "Checks on Survey Measurements" which was published in the Queensland Surveyors Bulletin No. 7, 1980.

When field notes and/or sketches are submitted to a registering authority they should be enclosed (folded if necessary) in a standard field book cover. A report on a survey should be submitted where appropriate together with the plans and/or survey records.

Paragraph 11(1)(b) of the Recommended Practices for Survey Records states "Field notes should be so clearly made as to enable a draftsman to draw a true plan of the survey" In view of this obvious requirement and the possibility, in the event of litigation, of a Court demand for the submission of field survey records, each Surveyor is requested to ensure that these are adequate in all respects and that they are retained permanently in his office.

J M Serisier President

### **24 February 1988**

Memorandum To: All Licensed Surveyors Subject : Identification Surveys

The Surveyors Board has noted an increase in reports that plans of surveys effected under the Surveyors Regulations are not being deposited in accordance with the requirements of Regulation 31.

- 31. Identification Surveys. Where a survey, other than a survey to which Regulation 30 applies, is required to identify or remark boundaries -
- (a) the survey shall be performed by a Licensed Surveyor or, subject to Regulation 18(1), by a person authorised by a Licensed Surveyor;
- (b) where differences are found concerning dimensions of the land or adjoining land, or of buildings, fences, walls or other permanent improvements, or where additional reference marks are placed, the boundaries of the land shall be marked. as prescribed by these Regulations, a plan shall be prepared, and a copy of the plan shall be deposited in the office of the registering authority within sixty days after the completion of the survey.

The Board has resolved to investigate these reports and to pursue <u>disciplinary</u> action against any Surveyor who has not complied

Commencing from the Ist May, inspections will be made in those areas of the State where it is believed surveys have been effected under Regulation 31, and where plans required under that Regulation have not been lodged.

K. J. Davies
President

### 14th February 1989

### Memorandum To: All Registered Persons Subject: Sections 47 and 47A of the Surveyors Act

The Board wishes to bring to the notice of all registered persons the provisions of Section 47 and 47A of the Surveyors Act. For the purpose of the Surveyors Act the word "person" as used in Section 47 and 47A of the Act.

- (i) refers not only to a single person but a number of "persons"; and
- (ii) includes bodies corporate.

Matters of particular concern with relation to the above Sections are as follows:

1. Any entity being an unregistered person (including body corporate) which advertises or promotes itself to the public indicating that it is a Licensed Surveyor or Consulting Surveyor if in fact that entity is not registered.

This is of particular concern in advertising under "Surveyors Land" in the Telecom Yellow Pages and includes firms and partnerships which are using business names but are not registered or licensed under those business names.

The Board therefore considers that any entity which is not registered but which advertises in the Telecom Yellow Pages is contravening Section 47 of the Act and is therefore liable to prosecution.

2. Any entity or business name which has not complied with the requirements of the new Section 47A if a business or trading name was commenced after December 1987.

Prior to December 1987, the use of business names did not require prior approval from the Board. Since the amendment to the Act, however, it is now an offence to practise under a business name that is or should be registered under the Business Names Act 1962-1979, if that business name has not been approved by the Board.

3. Letterheads and Stationery - Omission of Information.

The Board also requires all registered persons (including bodies corporate) being Licensed surveyors and/or Consulting Surveyors to use letterheads or stationery such that the name and qualifications of the registered person are clearly shown and that in a firm being a limited liability company, partnership, or a group of registered persons in practice by association, the qualifications and designations of all such persons shall also be clearly shown.

The Board is particularly concerned about stationery which lists the names of persons who may be branch office managers or directors or partners who are not registered, with the names of the principals or those persons who are registered, without clearly defining the difference.

The Board is currently considering further policy for future advice to members on the overall question of registration and holding out.

K. J. Davies
President

### 18 September 1989

Memorandum to : All Registered Persons
Subject : Sections 47 and 47A of Surveyors Act

I refer to my previous memorandum of 14th February 1989, concerning the provisions of Section 47 and 47A of the Surveyors Act as well as the requirements for Letterheads and Stationery.

All registered persons particularly those in private practice are now advised that the Board, when considering applications for renewal of registration for 1990 will require that the provisions of Sections 47 and 47A of the Surveyors Act are complied with in accordance with its previously stated policy.

This policy is designed to ensure that the business entity which presents itself to the public is one and the same as the entity which is registered and or licensed. In particular I refer to the following:

- 1. Any registered person being an individual, may practise under his or her own name with suitable designation eg, Licensed Surveyor or Consulting Surveyor etc.
- 2. Any registered person being a body corporate may practise under the name of that body corporate, or under another name in a manner approved by the Board. This applies to:
- (i) a sole practitioner who, for business reasons, is the employee of his own private trading company which company has been registered with the Board; and
- (ii) a company which wishes to use a business name of which it is the beneficial owner. It is a requirement that the name of the beneficial owner of any business name must be shown on all relevant stationery together with the names, qualifications and designations of the principals and/or directors of that entity which is the beneficial owner; save that it is not necessary when there are only two directors, one of whom is the spouse of the registered persons (sole practitioner), for any name other than that of the registered person to be shown.
- 3. A group of registered persons trading as a firm, or a registered person with bona fide associates, would be advised to ensure that the business entity, ie, the identity itself is registered under the Act and that its method of presenting itself to the public complies with Board policy, ie, all principals and/or directors must be shown together with their qualifications on letterheads and stationery-
- 4. Partnerships between registered and unregistered persons or licensed and unlicensed persons may only practise in compliance with the requirements for registration of bodies corporate, ie, in compliance with Regulation 17. Licensed Surveyors who, in the past, have formed partnerships with unlicensed surveyors and jointly present that partnership to the public as, for example, "consulting land and engineering surveyors" are advised that this structure is not acceptable to the Board in terms of Section 47 of the Act.

The unregistered or unlicensed person in this partnership is considered to be contravening Section 47 of the Act and is therefore liable to prosecution as is the licensed person who is considered to be acting unprofessionally.

To prevent any unnecessary delay or possible hardship which may be caused upon application for renewal of registration and/or licensing, all persons intending to renew their registration are advised to make sure that the entity wishing to renew its registration complies with the Board's requirements.

 $\frac{\text{K. J. Davies}}{\text{President}}$ 

### 10 January 1990

Memorandum to: All Registered Persons
Subject: Complaint by Surveyors Against Fellow Surveyors

From time to time the Board receives complaints from Surveyors against other Surveyors. While the nature of the complaints vary, a considerable number relate to the accuracy of measurements and/or method of reinstatement of cadastral boundaries. The Board is bound to investigate all complaints received. This involves the commitment of considerable funds and resources.

In matters involving a difference between two Surveyors, the Board believes that where possible every effort should be made to resolve the matter, between the parties concerned. This also relates to disputes involving Registering Authorities.

If a satisfactory resolution cannot be reached then a complaint to the Board is appropriate. A complainant, when lodging a complaint to the Board, should ensure it is accompanied by a thorough report including plans, sketches and photographs detailing the facts.

While it is not intended to deter Surveyors from lodging complaints, the alternatives outlined above should be first considered.

K. J. Davies
President

### 10 January 1990

## Memorandum To: All Registered Persons Subject: Standard Of Professionalism As Exhibited By The Surveying Profession In Queensland

The Parliament recently enacted amendments to the Surveyors Act 1977-1987. This now provides a mechanism for handling disciplinary matters considered not of a nature to warrant a full disciplinary Committee hearing. The effect of this is to give the Board provision to proceed against those Surveyors who are failing to maintain the high standards expected of all professional Surveyors in this state.

Following a review of complaints lodged with the Board over the last two years the Board is concerned with a demonstrated lack of professionalism by a minority of practising surveyors, unfortunately some with long standing experience. While these Surveyors represent only a very small part of the profession, their performance is reflecting poorly on the profession as a whole.

The Board has resolved that it will move with firmness and determination in all cases of undesirable or unprofessional conduct brought to its attention. As a result the number of investigations has increased significantly over recent months. Matters of particular concern include:

- (i) standard of survey work carried out in the field and the supervision thereof
- (ii) staffing and conduct of branch offices (often managed by unqualified personnel)
- (iii) non compliance with the provisions of the Surveyors Act and Regulations with particular reference to the lodgement of plans for registration without the survey having been completed
- (iv) the apparent widespread practice of not lodging copies of IdentificationSurveys (vide Surveyor-General's memo to all Surveyors of 1988)
- (v) the number of graduates submitting PAPs for approval when it is clear that they have insufficient knowledge of their responsibilities in areas of professional and ethical behaviour. This reflects poorly on the supervising Surveyor.
- (vi) an apparent lack of professional responsibility demonstrated by some surveyors appointed as examiners and assistant examiners for professional Assessment Projects.

The Board wishes to remind Surveyors that the continuation of the registration system depends largely on its being able to continually demonstrate that a high level of professionalism exists amongst registered persons. The continued support of all Surveyors is necessary to identify and address examples of unprofessional behaviour.

#### K. J. Davies, President

### 21 June 1991

Memorandum to: All Registered Persons Subject: Identification Surveys

Under the present Surveyors Regulations a Licensed Surveyor, when carrying out a survey for the purpose of identifying or remarking boundaries of land, is required to prepare a "plan" and forward a copy of such plan to the Registering Authority within sixty days after the completion of the survey. (Regulation 31).

In order to comply with Regulation 38, Identification Survey plans must be endorsed with the standard Form 13 Certificate and signed by the Licensed Surveyor.

Despite amendments made to the Survey Plan Guidelines last year to reflect this, the Board is finding increasing evidence that the Form 13 Certificate is not being used for Identification Surveys in many instances.

Notwithstanding proposed amendments to the Surveyors Regulations, Surveyors should ensure that <u>all</u> Identification Survey Plans are endorsed with the correct certificate.

N. G. Divett President

### 9 September 1991

Memorandum to: All Registered Persons

Subject: Policy On Supervision

An increasing number of complaints against Surveyors received by the Surveyors Board can be traced to a lack of adequate supervision by the Registered Person responsible when the survey is performed by other technical staff. The Board, when carrying out its investigations, has discovered a wide range of interpretations by surveyors as to what is required by Part III, Clause 18(1) of the Regulations and what is expected by the public of a Surveyor in fulfilling his professional responsibilities when supervising others.

Clause 18(1) deals with the duties and responsibilities of Surveyors and states that a Surveyor, in respect of a survey on which he is engaged shall:

- "(a) ensure that the survey is performed in accordance with these regulations and to the standard of accuracy prescribed;
- (b) ensure that any part of a survey that is not performed by the Surveyor personally is performed by persons for whose work the Surveyor accepts responsibility;
- (c) ensure that the survey is carried out under the immediate personal supervision of a Surveyor who shall attend in the field to the extent necessary to give effective supervision to the carrying out of the survey in accordance with these Regulations and any relevant Directions to Surveyors issued by the Board: Provided however that in cases where the Surveyor who is engaged forms the opinion that in all the circumstances effective supervision in the field can be carried out wholly or in part by a particular Surveying Graduate, Surveying Associate or surveying technician, he may delegate such supervision to such person. Where personal supervision in the field has been delegated wholly or in part to a person other than a Surveyor, the Surveyor who completes the certificate of accuracy in respect of the plan of the survey shall state therein that the survey has been so supervised and the qualifications of the person supervising-"

In considering an appropriate definition for nature and extent of supervision, the Board was mindful of two recent findings. The first emerged out of a recent disciplinary hearing in Queensland presided over by Judge Morley.

In considering the nature of professional services offered to the public, Judge Morley commented that skills and professional services offered by surveyors are <u>personal</u> and that "the surveyor's vocation is a profession. The Surveyor's professional services are not business or trade services which are able to be performed by representatives, agents or employees."

The second relevant case involved the character and extent of supervision by a Surveyor, brought into question during an appeal hearing in the District Court of NSW against a decision by the Surveyors Board.

The appellant submitted that in relying upon the considered knowledge and experience of a person who was not a registered surveyor he was taking reasonable precautions to verify the accuracy of a survey. He further submitted that he (the appellant) did not need to attend upon the land and did not need to give personal supervision to the field work. It was submitted that he was entitled to rely upon unsupervised field work in drawing the plan and certifying as to the accuracy of the survey.

These submissions were rejected by the presiding judge.

As a part of the judgement it was stated that "...where a survey is not made by the surveyor himself or herself, but is made under the supervision of a surveyor, Regulation 7 (of the NSW Act) fairly and squarely imposes upon the surveyor a requirement to personally attend on the land ("the ground") to be surveyed and to personally supervise ("exercise...immediate oversight and personal direction") the survey of that land. I cannot see how a surveyor could meet the requirements of Regulation 7 without attending on the land and supervising the survey of that land. I cannot see how a surveyor, if he or she did not make the survey himself or herself, could certify as to the accuracy of the survey without attending on the land and supervising the survey of that land".

Neild J.R. went on to say that he was satisfied that the appellant (a) failed to attend on the land; (b) failed to supervise the field work and that these departures plus other constituted misconduct in a professional respect.

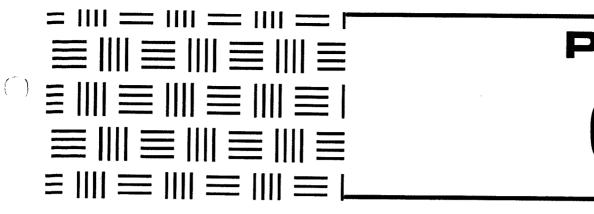
Based on these recent findings, the Surveyors Board has prepared a definition on Supervision which it intends to incorporate in future amendments to the regulations. In the meantime, the Board has adopted the definition as a policy with respect to the nature and extent of supervision to be exercised by a Registered person under the Act. A copy of the policy is set out below:

#### **SUPERVISION**

"Supervision means the immediate personal oversight by the responsible surveyor of the planning and execution of all surveys, including the method of measurement and placement of survey marks, the preparation of the plan of survey and, in the case of a cadastral survey, the examination of evidence of the limits of ownership relied on in the fixation of existing boundaries."

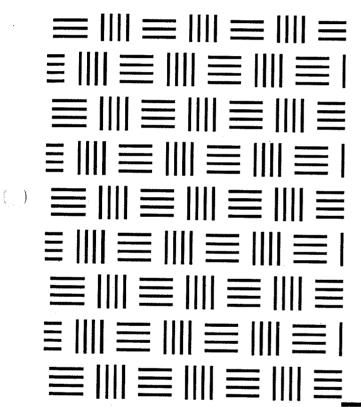
The Board looks forward to the support and co-operation of the profession in implementing this policy.

N.G. Divett President



## Part

# Registration Requirements





C1 Registration of Individuals

> C2 Registration of Body Corporates

Published by:

Surveyors Board of Queensland

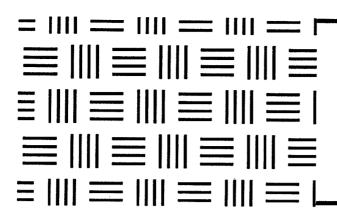
**Land Centre** 

Cnr Main and Vulture Streets Woolloongabba Qld 4102

P.O. Box 3211

South Brisbane Qld 4102

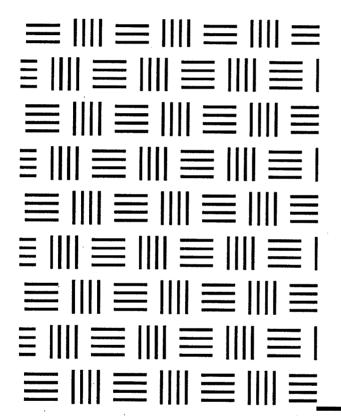
Phone: 896 3032



Part

G1

# Registration of Individuals





Requirements, Directions and Guidelines for Registration of Surveying Associates, Surveying Graduates and Surveyors and the Endorsement of Licensed and Consulting Surveyors.

Reciprocity

Published by:

Surveyors Board of Queensland

Land Centre Cnr Main and Vulture Streets Woolloongabba Qld 4102

P.O. Box 3211 South Brisbane Qld 4102

Phone: 896 3032

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### **Appendices**

Sample Letter of Accreditation Statutory Declaration Main Legislation affecting Surveyors

## Requirements

Sections 1.0 to 5.0 should be read in conjunction with the relevant Sections of the Act and Regulation.

## 1.0 Associate — Section 38A — Section 6 (Regulation)

- 1.1 Associate Diploma in Surveying or equivalent.
- 1.1.1 QIT, OR
- 1.1.2 USQ (DDIAE) 2 years full time, 4 years external, OR
- 1.1.3 Completed a course of study acceptable to the Board and is the holder of a diploma, certificate or other qualification conferred after due examination by a prescribed educational institution.
  - plus 4 years approved practical experience in any of the following areas, cadastral, engineering, topographic, or hydrographic surveying or some other type of surveying which in the opinion of the Board is appropriate for persons seeking registration.
  - 1.2 A person is otherwise qualified if he has gained over a period of seven years practical experience as a party leader or in a position of higher responsibility in cadastral, engineering, topographic or hydrographic surveying, or in some other type of surveying which in the opinion of the Board is appropriate for persons seeking registration.
  - **1.3** Further, the applicant must satisfy the Board as to his capacity to maintain a high level of performance in the technical aspects of the practice of surveying.
  - **1.4** An applicant shall complete Form 1 and such application shall be accompanied by the prescribed fee.

# 2.0 Graduate — Section 38 — Section 7 (Regulation)

- 2.1 Degree in Surveying or equivalent.
- 2.1.1 U of Q Bachelor of Surveying, 3 years full-time, OR
- **2.1.2** QUT (QIT) Bachelor of Applied Science (Surveying), 3 years full-time or part-time equivalent, OR
- **2.1.3** Appropriate qualifications from a tertiary education institution recognised under the reciprocating Boards arrangements within Australia and New Zealand.
  - **2.2** An applicant shall complete Form 2 and such application shall be accompanied by the prescribed fee.

# 3.0 Surveyor — Section 37 — Section 8 (Regulation)

#### 3.1 Academic Qualifications

- 3.1.1 Holds a degree in Surveying as set out in 2(i), and
- 3.1.2 Shall have gained practical experience in surveying and satisfactorily completed projects, sufficient to satisfy the Board of his/her capacity to maintain a high level of performance in all respects (ethical, administrative & technical) of the practice of surveying, OR
- 3.1.3 Shall have gained the Graduate Diploma in Surveying Practice from QUT. OR
  - 3.2 Equal or Higher Qualifications
- 3.2.1 Shall satisfy the Board that he/she possesses academic qualifications that the Board considers to be equal to or higher than the academic qualifications referred to in Direction 3(i)(a); and
- 3.2.2 Shall satisfy the Board that he/she has gained practical experience and satisfactorily completed projects in surveying that the Board considers to be equal to or greater than the requirements referred to in Direction 3(i)(b) or (c); OR
  - 3.3 Absence of Formal Qualifications
- 3.3.1 Shall satisfy the Board that over a period of three years experience in the practice of surveying he/she has demonstrated a high level of competence and professionalism; and
- 3.3.2 Shall, if required by the Board, pass such examinations (whether written or oral or both), and gain such additional practical experience and do such additional projects, as the Board considers to be sufficient for the purpose of qualifying him/her to be registered under the Act: OR
  - 3.4 Reciprocity
- 3.4.1 Shall satisfy the Board that he/she is registered as a Surveyor with the Surveyors Board or other competent authority of a State or Territory of the Commonwealth, or of New Zealand, or that he/she is entitled to be so registered; and
- 3.4.2 Shall, if required by the Board, pass such examinations (whether written or oral or both), and gain such practical experience or additional practical experience and do such additional projects, as the Board considers to be sufficient for the purpose of qualifying him/her to be registered under the Act.

#### 3.5 Application

An applicant shall complete Form 3 and such application shall be accompanied by the prescribed fee.

# 4.0 Licensed Surveyor — Section 42 — Section 9 (Regulation)

- **4.1** A person registered as a Surveyor or an applicant for registration as a Surveyor who seeks to have his/her registration in the Register of Surveyors endorsed to the effect that he/she may perform cadastral surveys:-
- **4.1.1** shall satisfy the Board that he/she has completed a period of twelve months practical experience in cadastral surveying as set out hereunder.

The practical experience:-

- (i) shall be performed under the supervision of a licensed surveyor; and
- (ii) shall relate to cadastral surveying in both urban and rural areas; and
- (iii) shall include a professional assessment project in cadastral surveying; and
- (iv) may include, wholly or in part, cadastral surveying performed for the purposes of Directions A Practical Experience, B Projects and C PAP.

OR

**4.2** shall have gained the Graduate Diploma in Surveying Practice from QUT.

OR

- 4.3 shall satisfy the Board that he/she is licensed or otherwise authorised by the Surveyors Board or other competent authority of a State or Territory of the Commonwealth, or of New Zealand, to perform cadastral surveys; and
- 4.3.1 shall, if required by the Board, pass such examinations (whether written or oral or both), and gain such practical experience or additional practical experience and do such additional projects, as the Board considers to be sufficient for the purpose of qualifying him/her to be licensed under the Act.
- **4.3.2** An applicant shall complete Form 4 and such application shall be accompanied by the prescribed fee.

# 5.0 Consulting Surveyor — Section 42A — Section 10 (Regulation)

- A person registered as a Surveyor or an applicant for registration as a Surveyor who seeks to have his/her registration in the Register of Surveyors endorsed to the effect that he/she is a Consulting Surveyor shall satisfy the Board that he/she intends to provide survey services to the public for a fee.
- 5.2 A person who has completed the Graduate Diploma in Surveying Practice shall obtain 12 months appropriate experience after graduation before an application for endorsement as a consulting surveyor will be considered.

In circumstances where extensive practical experience of an appropriate nature is demonstrated, the Board may waive this requirement.

5.3 A person who has completed the Board's practical experience requirements, as set out in 3(i)(b), shall obtain 12 months appropriate experience after completion of the PAP, before an application for endorsement as a consulting surveyor will be considered.

In circumstances where extensive practical experience of an appropriate nature is demonstrated, the Board may waive this requirement.

- **5.4** An applicant shall take out and maintain professional indemnity insurance and public liability insurance policies to the value of :—
  - (i) professional indemnity insurance \$100,000; and
  - (ii) public liability insurance \$500,000.
- 5.5 An applicant shall complete Form 5 and such application shall be accompanied by the prescribed fee.

### **Directions**

#### A. Practical Experience

- **A.1.0** Before making application to the Board for registration as a Surveyor, every Surveying Graduate shall have gained under the supervision of a Surveyor all the practical experience on which he/she relies for the purposes of registration.
- **A.2.0** Such practical experience shall be gained over a period of two years unless the Board in a particular case in the exercise of its discretion under Section 37 of this Act increases or reduces that period.
- **A.3.0** All graduates and students should ensure that practical experience is gained under the supervision of a registered surveyor or in the case of cadastral surveying a licensed surveyor.
- **A.4.0** The Surveyor supervising the practical experience being undertaken by a Surveying Graduate or student shall report thereon to the Board in Form 6. At the end of each period of experience or at the end of each six months, whichever is the lesser period.
- A.5.0 The Board may accept the practical experience gained by a Surveying Graduate or student or it may refuse to accept the whole or any part of the experience if the Board is of the opinion that such experience is in any respect unsatisfactory.
- **A.6.0** The Board may grant credit in respect of the practical experience required as follows:
  - (a) Up to 18 months to an applicant holding the degree of Bachelor of Applied Science (Surveying) from the Queensland Institute of Technology or its equivalent if the course was done in the sandwich mode;
  - (b) Up to six months to an applicant holding the degree of Bachelor of Surveying from the University of Queensland or its equivalent;
  - (c) Up to two years in particular cases where the Board is satisfied the applicant has obtained the appropriate experience.
- A.7.0 The minimum requirements for practical experience shall be a period of at least six months in urban and six months in rural cadastral surveying and at least six months in engineering and six months in another discipline of surveying.

#### **B.** Projects

- **B.1.0** Before making application to the Board for registration as a Surveyor, every Surveying Graduate shall have substantially completed, to the Board's satisfaction, the projects set out in this Direction, prior to commencing the professional assessment project (PAP).
- **B.2.0** A Surveying Graduate may apply to the Board for acceptance of all or any of the projects completed by him/her as a student in lieu of all or any of the projects referred to in paragraph five.
- **B.3.0** A completed project shall not be submitted to the Board for approval until after registration as a Surveying Graduate. In special circumstances the Board shall decide whether a project may be submitted prior to such registration.
- **B.4.0** Each project shall be undertaken within a period of two years preceding an application to be examined in that project. Credits for projects passed will lapse after three years but the Board at its discretion may grant an extension of time.
- **B.5.0** Subject to paragraph (6), the projects shall comprise:

#### **B.5.1** Boundary survey

(a survey to reinstate the boundaries of a parcel of land which constitutes a moderate reinstatement challenge).

- B.5.1.1 a boundary survey of a country area of not less than 15 hectares, two boundaries of which shall coincide with and be reinstated from previous surveys, and one boundary of which shall be a water course or other natural feature, or an irregular road, and shall include a sun observation for meridian; OR
- **B.5.1.2** a boundary survey of an urban area, suitable for lodgement with the appropriate authority, with occupation on or near the boundaries in such positions that at least one boundary must be determined by indirect methods, and shall include a sun observation for meridian; AND

#### **B.5.2** Engineering or Hydrographic

- **B.5.2.1** the survey and design for a proposed road or railway not less than 500 metres in length, with the requisite digital terrain model, and calculations for earthworks and provision of drainage as required; or
- **B.5.2.2** a working chart of a hydrographic survey of about 2 square kilometres, including reduction of soundings and plotting of sounding locations; and

#### **B.5.3** Topographic

**B.5.3.1** a topographical survey of hilly country embracing an area of not less than 10 hectares, showing contours at height intervals appropriate to the scale and purpose of the survey; or

**B.5.3.2** a map of a densely settled area of about 1,500 hectares or of a sparsely settled area of about 10,000 hectares, drawn to a suitable scale and plotted from a single photogrammetric model, with contours and heights appropriate to the scale of the map and the purpose of the survey; and

#### **B.5.4** Geodetic and Astronomy

- **B.5.2.1** a survey for the establishment of geodetic control points of at least third order precision, requiring the establishment of at least four new points if the exercise involves a traverse, or at least two new points if the exercise involves a network, based on at least two existing points, and including planning, ground marking, field observations, computations and adjustments; and
- **B.5.2.2** An exercise to determine the AMG bearing of a line between two stations in the geodetic project above, using stellar observations to an accuracy of +/- 5 seconds.

#### B.5.5 Design

**B.5.5.1** A design of moderate complexity of an urban residential area covering about 16 hectares.

A significant part of the project is to be located in terrain where slopes are in excess of fifteen percent. The design with relevant topographic information is to be shown on a plan at an appropriate scale.

The plan is to be supported by a report which develops a rationale for the establishment of the development and presents discussions on environmental, engineering, economic and land use factors; OR

- B.5.5.2 A design for a farming development to accommodate approximately 20 family units within an area ranging from about 200 hectares to 1,000 hectares. The proposal is to be expressed on plans which include relevant topographical information and details of vegetation and soil types, and illustrate the regional context of the proposed development, the existing and proposed roads and farm boundaries, water supply facilities and community amenities. The plan are to be supported by a report, which develops a rationale for the proposed development and presents a discussion on environmental, engineering, economic and land use factors.
  - **B.6.0** As an alternative to the projects referred to in paragraph (5), the Board may in respect of any Surveying Graduate approve a proposed list of projects and determine the requirements for such projects, in any case where the Board is satisfied that the completion of such proposed projects will enable the Surveying Graduate to achieve a level of performance acceptable to the Board.

Prior approval must be obtained by the Graduate from the Board.

**B.7.0** An application in respect of the acceptance of the projects shall be made to the Board in Form 7. Such application shall be accompanied by the prescribed fee.

## C. Professional Assessment Project

- **C.1.0** Before making application to the Board for registration as a Surveyor, a Surveying Graduate shall complete, to the Board's satisfaction, a professional assessment project (PAP).
- **C.2.0** The professional assessment project shall not be commenced until the Surveying Graduate has substantially completed to the Board's satisfaction:-
  - (a) the projects prescribed by Direction B. Projects; and
  - (b) twelve months of the practical experience prescribed by Direction A. Practical Experience:

Provided that in special circumstances the Board may accept in lieu of the PAP, a project undertaken by an honours or post-graduate student during the course of his/her higher studies.

- **C.3.0** The Board shall initiate a discussion with the graduate prior to commencing the PAP or as soon thereafter as possible.
- **C.4.0** The professional assessment project shall be of moderate complexity, and sufficiently broad for the Surveying Graduate or student to adequately demonstrate his/her competence and professionalism in surveying.
- **C.5.0** The Surveying Graduate shall, prior to commencing work thereon, apply to the Board in Form 8 for approval of the proposed project. Such application shall be accompanied by the prescribed fee.
- **C.6.0** The Board shall appoint an examiner who, where necessary, shall be assisted by an assistant examiner and, if the project is one in the category of cadastral surveying, both examiner and assistant examiner shall be Licensed Surveyors.
- **C.7.0** Both examiner and assistant examiner shall assess the competence of the Surveying Graduate by observing his/her performance of the project, and shall conduct such oral or practical examinations as they deem necessary.
- **C.8.0** The Board may conduct such further oral or practical examination as recommended by the examiner or as it sees fit, either in the category of surveying chosen or in other categories of surveying.

#### D. Board Instructions

- **D.1.0** The Board may from time to time issue instructions in relation to the projects set out in Directions B and C.
- **D.2.0** Such instructions shall be binding on all persons to whom they are issued unless in any case the Board upon application made to it has approved a departure from or variation of any such instruction.

## Reciprocity

# 7.0 Reciprocal Registration – Section 37(b) - Section 8(3)(c) (Regulation)

For registration in Queensland as a Surveyor, of a person currently registered in another State or Territory or New Zealand, the applicant has to submit the following:

#### 7.1 Letter of Accreditation

A Letter of Accreditation, in the form attached hereto, from the Surveyors Board with whom they are currently registered, and

#### 7.2 Applications and Fees

Written application on the prescribed forms:

➤ Form 3 - Application for Registration as a Surveyor plus the prescribed fee, and

if the applicant seeks endorsement to perform cadastral surveys:

➤ Form 4 - Application for Endorsement to Perform Cadastral Surveys plus the prescribed fee, provide suitable evidence of cadastral surveying practical experience to support the application, and

if the applicant intends to provide survey services to the public for a fee:

➤ Form 5 - Application for Endorsement as a Consulting Surveyor plus the prescribed fee, evidence of practical experience considered suitable by the Board, and

#### 7.3 Supporting Documentation

The following documentation is required to accompany the applications:

- ➤ two (2) recent (within the last year) references to the applicants good fame and character,
- ➤ a completed Statutory Declaration in the form attached hereto, and
- ➤ a certified statement that the applicant has studied:
  - the Surveyors Act 1977;
  - the Surveyors Regulation 1992;
  - the Survey Co-ordination Act 1952;
  - "Law Related to Land Boundaries and Surveying" by A G Brown, and
  - the legislation contained in the attached list.

#### 7.4 Consulting Endorsement

If the applicant is seeking endorsement as a Consulting Surveyor they are required to hold:

- ➤ current Professional Indemnity Insurance to a minimum cover of \$100,000 and provide verification thereof, and
- ➤ current Public Liability Insurance to a minimum cover of \$500,000 and provide verification thereof.

#### 7.4.1 Letterheads

The applicant is further required to submit to the Board a copy of their letterhead, or proposed letterhead and invoices for the Board's approval.

#### LETTER OF ACCREDITATION

TO THE SURVEYORS BOARD OF

I certify that

NAME OF SURVEYOR (Registered No.

is a Surveyor in the State of Queensland, registered and licensed under the provisions of the Surveyors Act 1977. This letter is issued in accordance with Section 44(2) of the Surveyors Act 1977.

The following details are supplied:

Date of Original Registration

13 February 1987

Date of Endorsement to Perform

Cadastral Surveys

13 February 1987

Date of Expiry of Current Registration and License

31 December 1992

Dated this day 30 September 1992.

N.G. DIVETT PRESIDENT

H W VAN DER HEIDE SECRETARY

### SURVEYORS ACT, 1977 STATUTORY DECLARATION

1,	.do here	by sol	lemnly	and
sincerely declare that I will, t	o the best	of my	ability	and
without partiality, favour or af				
delineate the boundaries of any				
survey, in strict compliance wi				
1992 and Directions in force for				
constituted by the Surveyors Act		•		
•		•		
		(Signed	l <b>)</b>	
Declared the	day	of		
19 before me.				
	• • • • • • • • • •			
	;	(Signed)		
	Justice	of the	Peace	

## Legislation

#### **Main Legislation Affecting Surveyors**

Legislation	Source
The Surveyors Act 1977	LANDS
The Surveyors Regulation 1992	LANDS
The Survey Co-ordination Act 1952-1981	LANDS
Digest of Land Laws	LANDS
Water Resources Act 1989	QWRC
Extract from the Irrigation Act 1922-1983 & Regs	QWRC
Irrigation Areas (Land Settlement) Act 1962-1972	QWRC
The Acquisition of Land Act 1967-1988	GOPRINT
The Beach Protection Act 1968-1989	GOPRINT
The Building Units and Group Titles Act 1965-1990 & Re	gsGOPRINT
The Canals Act 1958-1987	GOPRINT
Dividing Fences Act 1953-1985	GOPRINT
Property Law Act 1974-1990	GOPRINT
The Harbours Act 1955-1989	GOPRINT
The Local Government Act 1936-1991	
Real Property Act 1861-1990	GOPRINT
The River Improvement Trust Acts 1940-1991 & Regs	GOPRINT
The Coal Mining Act 1925-1990	MINERALS
The Miner's Homestead Leases Acts 1913-1990	MINERALS
Mineral Resources Act 1989	MINERALS
The Petroleum Act 1923-1991	MINERALS
Land Acquisition Act 1989	A G P S

LANDS =

Dept of Lands Landcentre, Cnr Main & Vulture Streets, Woolloongabba Q 4102

QWRC =

Dept of Primary Industries, Water Resources Commission Mineral House, George Street, Brisbane Q 4000

GOPRINT =

Government Printer 371 Vulture Street, Woolloongabba Q 4102

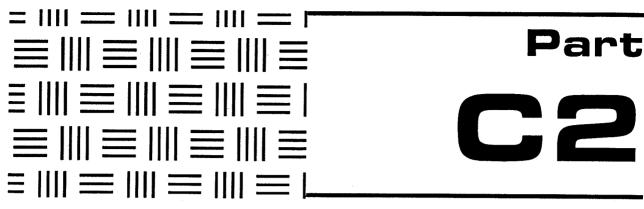
MINERALS =

Dept of Minerals and Energy Mineral House, George Street, Brisbane Q 4000

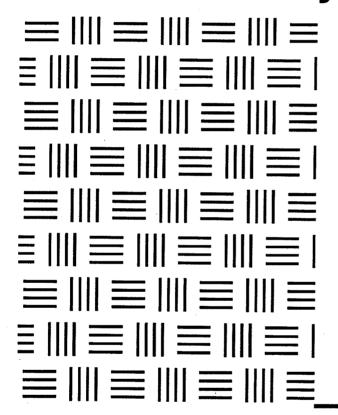
AGPS =

Aust. Govt Publishing Service 294 Adelaide St, Brisbane Q 4000

In addition to the above, there are number of practices which are in existence in Queensland which may not be contained in the above. The onus is on all applicants to familiarise themselves with these practices, possibly by working with an experienced surveyor in the Queensland environment.



# Registration of Body Corporates



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Requirements, Directions and Guidelines for Registration of body corporates as Surveyors and

the Endorsement of registered body corporates as Licensed and Consulting Surveyors.

Published by:

Surveyors Board of Queensland

Land Centre Cnr Main and Vulture Streets Woolloongabba Qld 4102

P.O. Box 3211 South Brisbane Qld 4102

Phone: 896 3032

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## Requirements

# 1.0 Body Corporate – Section 40 - Section 11 (Regulation)

#### 1.1 Business Entity providing Survey Services

A business entity which presents itself to the public as being a surveyor or in the business of providing survey services is required to be registered with the Board. The Board considers that the business entity which presents itself to the public is one and the same as the entity which is registered and/or licensed.

- 1.1.1 Any registered person being an individual, may practise under his or her own name with suitable designation eg, Licensed Surveyor or Consulting Surveyor.
- 1.1.2 Any registered person being a body corporate may practise under the name of that body corporate, or under another name in a manner approved by the Board. This applies to:
  - ➤ a sole practitioner who, for business reasons, is the employee of his own private trading company which company has been registered with the Board; and
  - ➤ a company which wishes to use a business name of which it is the beneficial owner. It is a requirement that the name of the beneficial owner of any business name must be shown on all relevant stationery together with the names, qualifications and designations of the principals and/or directors of that entity which is the beneficial owner; save that it is not necessary when there are only two directors, one of whom is the spouse of the registered person (sole practitioner), for any name other than that of the registered person to be shown.
- 1.1.3 A group of registered persons trading as a body corporate, or a registered person with bona fide associates, would be advised to ensure that the business entity, ie, the identity itself is registered under the Act and that its method of presenting itself to the public complies with Board policy, ie, all principals and/or directors must be shown together with their qualifications on letterheads and stationery.

#### 1.1.4 In Summary

- ➤ The name of the entity must truly reflect the composition of that entity.
- ➤ The name of the beneficial owner of the business name, if one is used, must be shown on all stationery.
- ➤ The name and qualifications of the registered person(s), Principals and Directors of the Body Corporate must be shown on all stationery.

#### 1.2 Business Names

It is widely believed that once a business or company name is registered, that name is afforded some form of legal protection. This is not the case. Such registrations are not designed to give any such rights. They are an obligation of doing business and their intention is to protect consumers, not the registrant.

The Business Names Act 1962 defines "Business" as including a trade and profession and "Business name" means a name, style, title or designation under which a business is carried on.

The Business Names Act 1962 provides for, amongst other matters, the registration and renewal of registration of business names.

The Corporations Law provides a similar mechanism, enabling company names to be registered.

A proposed name for a survey company, shall not include the words 'registered surveyor', 'consulting surveyor', 'surveyor' and/or 'surveyors'.

#### 1.3 Registration of Other Structures

1.3.1 The present legislation does not allow the Board to register partnerships, Public companies limited by shares and Government organisations offering surveying services.

#### 1.3.2 Trusts

The Board has determined that for the public interest to be upheld, a prospective client should be able to readily ascertain the entity or individual with whom he is dealing in relation to surveys.

The manner in which trusts can be set up, does not provide this "open" view of the entity. To this end, the Board currently does not register entities set up as Trusts and does not propose to register these structures in the future.

#### 1.4 Body Corporate to be Registered

A body corporate is to be registered as a surveyor if:

- 1.4.1 (a) the name of a registered surveyor, or
  - (b) words descriptive of the practice of surveying, or
  - (c) is a name which the Board considers desirable in relation to the practice of surveying, and/or
- **1.4.2** the body corporate intends to carry on:
  - (a) the business of the practice of surveying, or
  - (b) a business approved by the Board in connection with surveying.

#### 1.5 Prior Approval of Name

The body corporate must apply to the Board for approval of the name and proposed letterhead before making application for registration.

#### 1.6 Directors to be Registered Surveyors

A majority of the Directors of the body corporate must be registered surveyors or where there is only two Directors at least one must be a registered surveyor and be the principal beneficiary with a minimum of 51% shareholding.

- 1.6.1 Where the body corporate intends to engage in cadastral surveys the registration is to be endorsed to that effect and the majority of Directors must be licensed surveyors or where there is only two Directors the principal beneficiary must be a licensed surveyor.
- 1.6.2 A body corporate shall not practice or hold itself out as a consulting surveyor unless each of its Directors who is a registered surveyor is endorsed to the effect that he/she is a consulting surveyor.

#### 1.7 Insurance

The body corporate must hold current insurance for:

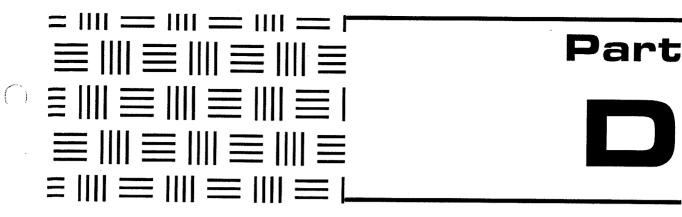
- ➤ Professional Indemnity Insurance cover to a minimum of \$100,000, and
- ➤ Public Liability Insurance cover to a minimum of \$500,000.

#### 1.8 Application for Registration

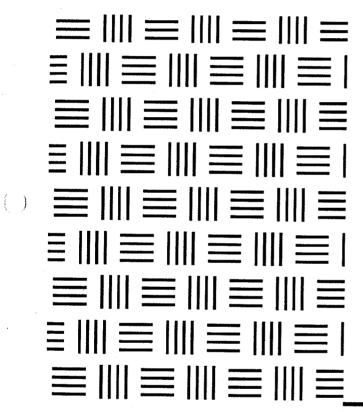
Application for registration of the body corporate is to include:

- ➤ Form 3 Application for Registration as a Surveyor plus the prescribed fee:
- ➤ Form 4 Application for Endorsement to Perform Cadastral Surveys plus the prescribed fee;
- ➤ Form 10 Application for Registration as a Surveyor by a Body Corporate Solicitors Certificate;
- ➤ A list of current Directors and their qualifications;
- ➤ Evidence of the Professional Indemnity Insurance and the Public Liability Insurance and to the currency thereof;
- ➤ A copy of the certificate of registration of the company, or business name.

Form 4 and the associated fee is not required if the body corporate will not be engaged in and does not intend to engage in cadastral surveys.



# Education and Practical Experience





D1 Experience Alternatives for Registration

D2
Project Specifications

D3 Professional Assessment Project

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Surveyors Board of Queensland

Land Centre

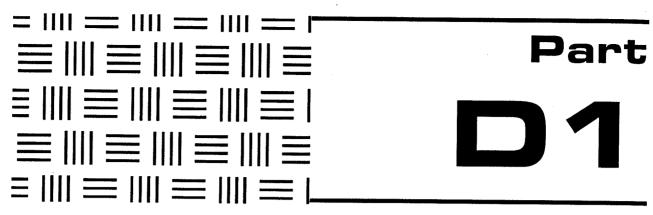
**Cnr Main and Vulture Streets** 

Woolloongabba Qld 4102

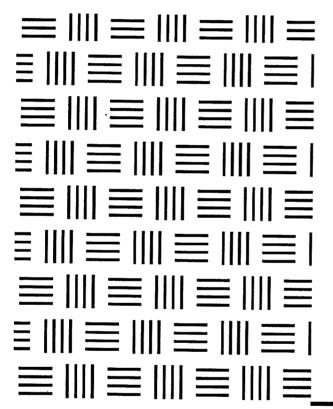
P.O. Box 3211

South Brisbane Qld 4102

Phone: 896 3032



# Experience Alternatives for Registration



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Alternatives for obtaining the required practical experience for Registration

including

Project Options, Survey Practice Course, and registration without formal qualifications

#### Published by:

Surveyors Board of Queensland

Land Centre Cnr Main and Vulture Streets Woolloongabba Qld 4102

P.O. Box 3211 South Brisbane Qld 4102

Phone: 896 3032

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#### 1.0 Introduction

One of the responsibilities of the Surveyors Board is to assess the competence and suitability of candidates for registration and licensing.

As part of this process, candidates are required to satisfactorily undertake the Graduate Diploma in Surveying Practice set out at item 2.0 or to complete the projects as set out in this section.

Graduates are strongly advised to give serious consideration to undertaking the Survey Practice Course. It was set up by the Board and the profession as a means of strengthening the education and training of surveyors. Graduates should seek further information from the Course Administrator. Many surveying organisations are now providing scholarships to assist graduates in doing the course, so this should be discussed with your employer.

In the case of the Professional Assessment Project, it is essential that the candidate establishes appropriate contact with the examiner from the onset of any project and ensures ongoing communication with the examiner. This manual sets out criteria for presentation, report writing and drafting requirements for all projects.

#### 2.0 Project Option

#### 2.1 Examples of Completed Projects

The Board holds a number of sample project submissions, covering the key project topics and the PAP. These samples are available for perusal, at the Board's office during normal business hours.

Candidates who are in doubt about aspects of registration and licensing, after reading this Manual, should contact either the Board's Office or the Convenor of the Education Committee. On aspects specific to the Board projects, the candidate should address the enquiry to the Board's Chief Examiner.

#### 2.2 Workshop on Registration

Every year the Board sponsors a seminar on its requirements for Registration/Licensing. Students and Graduates should be aware of this seminar and attend at least one. The seminar is usually held in September.

#### 2.3 Strategies for Completion of Projects

Students should plan well ahead so that they achieve registration/licensing with the Board with maximum efficiency in minimum time, yet meeting the Board's detailed requirements and demonstrating a high level of competence and professionalism.

#### 2.3.1 Experience

The experience component of the Board's requirements is two-years, however, the Board has the power (Sec 36) to increase or reduce such period as it thinks fit.

Normally the Board would require that experience to be under a registered/licensed surveyor and at a high level (post graduate). However, the Board will accept experience at an undergraduate level depending on the circumstances, e.g. external students, particularly Bridging Course and sandwich students.

Therefore students should plan to get as much experience as possible and have it certified and accepted prior to completing studies. Experience reports should be submitted to the Board at six monthly intervals.

#### 2.3.2 Projects

Similarly the projects may be attempted prior to completion of study is provided the work is done after the satisfactory completion of the subject(s) covering that topic.

#### 2.3.3 The PAP

The Professional Assessment Project ideally should be done last, i.e. after the completion of experience and technical projects. However, the Board takes into account the length of time needed for the completion of a PAP and the difficulty some graduates may have in finding a suitable project.

So the Board will accept a PAP proposal at any time after graduation, provided the graduate has made substantial progress towards registration. The Board considers each case on its merits when appraising the PAP application.

#### 2.4 Example Strategies

## 2.4.1 By studying full-time (directly from Grade 12) via B.App.Sc.(Surv) at QUT

- ➤ 18 week practical experience to be gained during the course (would likely be discounted to 9 by the Board depending on the level)
- ➤ complete the Geodetic/Astro in year 2/semester 2
- ➤ complete the Topography/Mapping in year 3/semester 1
- ➤ complete the Urban Design in year 3/semester 2
- ➤ after graduation seek 95 weeks of broad experience. After one year complete the Cadastral and Engineering and by the end of the period have completed the PAP.

## 2.4.2 By studying the B.App.Sc.(Surv) at QUT with prior experience or by taking a sandwich option:

- ➤ practical experience would be discounted by about 1½ to 1 depending on level
- ➤ in Land Surveying 3 complete a practical which meets the Board's specifications for the Cadastral Project
- ➤ complete Geodetic/Astro in year 2/semester 2
- ➤ complete topography/Mapping in year 3/semester 1
- ➤ complete Urban Design in year 3/semester 2
- ➤ depending on prior experience and competence, Engineering may be done during the sandwich period
- ➤ after graduation complete practical experience (suggest minimum of 6 months cadastral) and complete PAP

#### 2.4.3 By the Bridging Course and final year at QUT:

- > practical experience would be discounted depending on level
- ➤ complete the Engineering, Topography, Geodetic/Astro after the Associate Diploma (provide practical experience is sufficient) whilst studying the Bridging Course
- > complete the Urban Design in the final year at QUT
- ➤ complete the cadastral and PAP as soon as possible after concluding the degree.

#### 2.5 Suggested Programme

The table on the following page illustrates a suggested programme for completing the Board Pojects required for registration through the Projects Option.

Project		QUT Degree		USQ
Urban Cadastral (can be done in L.S.3)	After	Land Surveying 3 (incl. Astro)	After	r 77410 – Trig & Astro
OR	and	Land Administration 3	and	70408 – L.I.S. I
Rural Cadastral	After	Land Surveying 3 (incl. Astro)	After	77410 - Trig & Astro
	and	Land Administrtion 3	and	70408 – L.I.S. I
Engineering	After	Land Surveying 2	After	The state of the s
OR	and	Engineering Science 2		77401 – Survey Comps I 77413 – Surveying III 77416 – Auto Surv System
Hydrographic	After	Land Surveying 5		
Topographic (can be done in LS. 5)	After	Land Surveying 5	After	77401 – Survey Comps 77413 – Surveying III 77416 – Auto Surv System
Mapping can be done in Photo 2)	After	Photogrammetry 2	After	Photogrammetry 2
Geodetic/Astro can be done in L.S. 4)	After and	Land Surveying 4 Land Surveying 4 (incl Astro)	After	77404 - Precise Survey Equipment & Methods 77408 - Survey comps II 77410 - Trig & Astro
Jrban Design included in L.D.P. 2)	After	Land Development Prac 2	After	Land Development Prac 2
Rural Design	After	Land Development Prac 2	After	Land Development Prac 2
Alternative Projects				·
Inderground Mine	After	Land Surveying 6	After	77415 - Mine Survey
pen Cut Mine	After	Land Surveying 4	After	77415 - Mine Survey
Petail Survey	After	Land Surveying 2	After	77415 – Mine Survey
ther Alternatives	After tl	ne theoretical subject matte		

#### 2.6 Project Timetables

Completion of a degree in surveying, and thus being able to proceed to registration as a Surveying Graduate, is only the first step in moving toward registration as a Surveyor.

The surveying graduate on completion of his degree, is in a position similar to other professionals such as accountants and lawyers, in that the profession has established requirements for professionalism and competence. In order to achieve these requirements, a number of projects must be completed at a satisfactory level and within a reasonable time frame.

The Board considers that the projects, including the professional assessment project, should be capable of being completed in a two year period.

Candidates need to plan the finalisation of their projects, in line with their work commitments and a dedication and purpose to finalising their professional status. The Board recognises work pressures and the like, however, it considers that the two year period is adequate provided a realistic commitment is made by the candidate. The candidate is required to lodge his timetable for completion of projects and the PAP at the time he seeks registration as a surveying graduate.

Where a candidate becomes aware that the timetable set cannot be adhered to, due to extenuating circumstances, this should be set out in writing to the Board, together with the reasons. An amendment timetable should also be lodged for Board consideration.

Candidates should note that the Board will review project credits on an annual basis. Where a candidate is not meeting project submission in line with the timetable and within the 2 year time frame, consideration will be given to the withdrawal of credits for projects.

#### 2.7 Discussion with Candidates Approaching Registration

It is the policy of the Board to request candidates, who are approaching registration, to meet with the Education Committee. It is the intention to have a discussion with all candidates who have substantially completed their technical projects, but preferably before they commence their Professional Assessment Project (PAP).

The purpose of the discussion is to open lines of communication between the Board and the candidate. In the majority of cases the candidates only communication with the Board would have been with the Secretary and possibly with some of the examiners of the technical projects.

These discussions are not formal interviews or oral examinations. They are also not linked to the interview process that is part of the PAP. A discussion would usually not exceed thirty minutes.

The graduate has spent at least three years in a tertiary institution, exposed to the theoretical and practical aspects of the practice of surveying (ethical, administrative and technical). Further, the

graduate has gained practical experience under the supervision of a registered/licensed surveyor for at least two years or an equivalent period. During this period, or where credit has been given for practical projects associated with Surveying courses, the graduate has completed the required technical projects.

The Graduate is at the stage where he/she has satisfied the education and training requirements of the Board and this discussion should now determine the individuals attitude, administrative capacity and ethical outlook to the profession of surveying.

As it is not practical to have country based candidates come to Brisbane for these discussions, the Board has directed that where appropriate, a discussion be held with the candidate in a country centre by:

- (a) two Board members, or
- (b) one Board member and a respected local surveyor, or
- (c) two respected local surveyors.

These discussions are arranged through the Board's secretary.

# 3.0 Graduate Diploma in Surveying Practice

#### 3.1 Introduction

The Graduate Diploma in Surveying Practice, referred to as the Survey Practice Course, is a joint venture of the Surveyors Board of Queensland, the Association of Consulting Surveyors and the Queensland University of Technology.

#### 3.2 Entry Requirements

#### 3.2.1 Normal Entry

To be eligible to enrol in the course leading to the Graduate Diploma in Surveying Practice, an applicant shall;

(a) hold from the Queensland University of Technology the degree of Bachelor of Applied Science (Surveying);

OR

(b) hold from the University of Queensland the degree of Bachelor of Surveying;

OR

(c) hold from another tertiary institution a degree acceptable to the Surveyors Board of Queensland and considered by the Head of School of Surveying to be at least equivalent to the degree of Bachelor of Applied Science (Surveying) of this University.

#### 3.2.2 Qualifying entry

Applicants who do not meet the requirements for normal entry but who hold a tertiary qualification in a technological field or other equivalent qualification may be required to complete such pre-requisite surveying and other subjects as may be determined by the Head of School of Surveying prior to enrolment in the course.

#### 3.2.3 Prior Practical Experience

At least one year field experience following graduation in the practice of Surveying is desirable prior to entry into the Survey Practice Course.

#### 3.3 Course Objectives

- ➤ To provide surveying graduates with a period of intensive education and training so that they will reach the standard of competence required for licensing by the Surveyors Board of Queensland;
- ➤ To impart practical skills in surveying procedures and develop the ability to apply them without difficulty;
- ➤ To assist students to recognise their own limitations and make use of other professions when appropriate;
- ➤ To enhance the ability to communicate effectively

#### 3.4 Course Structure

The course was prepared in conjunction with industry and is designed to replace, in part, a system in which surveying graduates receive their training from practising surveyors. Over a period of two years the training is tested by the Surveyors Board of Queensland on the basis of projects submitted for assessment. On satisfactory completion of all the required projects the Board will grant a licence to practice when it is satisfied that the applicant is competent.

The Survey Practice Course replaces this arrangement with systematic training and education by the most able practitioners available. On graduation, students are licensed by the Board and, following a year as an employed surveyor, are eligible to practice on their own account, subject to the Board's requirements for consultancy.

The program extends over two semesters of 18 weeks duration including a mid-semester break of one week in each period. There is also a two week break between semesters. Total contact time amount is 1292 hours which is allocated between field and office time including lectures, workshops, discussions and project work.

Approximately nine weeks of the course is devoted to actual field survey work, some of which is in a camp environment. This enables the students to gain confidence in accepting responsibility for logistic and personnel matters as well as communication and management skills.

The times allocated to each subject are shown in Table 1. It should be noted that there is some educationally desirable overlap between several of the subjects. For example, the techniques learned in subjects such as Survey Computing, Office Operations, Engineering Surveying and Detail Surveys can be applied in several of the other subjects.

Survey Practice Course — Hours in each subject by type of activity					
	Lect.	Field	Office	Total	
Semester 1					
Cadastral Surveying	27	138	191	356	
Survey Project Management	24	-	76	100	
Office Operations	45	-	45	90	
Survey Computing	8	-	39	47	
Practice Law	17	-	13	30	
Professional Practice	4	-	4	8	
Semester 2		I			
Cadastral Surveying	6	87	154	247	
Engineering Surveying	32	95	83	210	
Mapping	30	•	46	76	
Building Control Surveys	14	12	12	38	
Surveys for Government	19	-	19	38	
Detail Surveying	3	14	13	30	
Innovations & Systems Develop.	12	<b>-</b> ,	10	22	
Total Hours	241	346	705	1292	

# 3.5 Text and Reference Books

Lecture Notes and Practice Papers, which have been prepared specifically for the course by the profession, are made available to the students at cost price.

Students are required to purchase copies of certain statutes and texts that will be the basis of their professional library. These are recommended by the practising surveyors, who include reference texts in lecture notes where applicable.

# 3.6 Teaching Methods and Assessment

Instruction is offered by professional practitioners, from both the public and private sectors, chosen from amongst the most competent and experienced in each subject area. Considerable emphasis is placed upon application of theory and the problems experienced in practice.

In general, students receive a short period of instruction in each subject followed by experience on real surveys under the direction and guidance of these practitioners. Emphasis is given to the planning, managing and costing of each task.

As the course is project orientated students complete tasks, under practice conditions, that are comparable to those performed in practice, thereby making the course relevant to current surveying practice and maintaining a high professional standard. Files on each job are opened and maintained by individual students throughout the duration of the course.

In this way they develop systematic methods of dealing with each job and of carrying it through to completion. Such records are expected to help students when they apply for positions after graduation.

Students are provided with practice notes and specimen files in respect of each topic that is discussed. Subsequently, exercises are followed by further discussion and assessment. Discussions and exercises are conducted and overseen by practising surveyors. These surveyors provide case studies and prepare practice papers as part of their appointments.

Assessment is continuous and is partly by the practising surveyors and partly by the full-time staff of QUT. Both written work and field performance is assessed.

#### 3.7 Dress

Students are required to be attired in a professional manner. The Course Administrator specifies dress requirements for both office and field work.

#### 3.8 Further information

Further information can be obtained from:

The Course Administrator, Survey Practice Course School of Surveying QUT - Gardens Point Campus GPO Box 2434 (2 George Street) BRISBANE 4001

Telephone: (07) 864 2804/3 Fax No: (07) 864 1809

# 4.0 Registration — Absence of Formal Qualifications

# 4.1 Introduction

Applications for registration under Regulation 8(3)(b) are referred to the Board's Education Committee for a recommendation.

The Board has approved the approach taken by the Committee as set out below.

# 4.2 Assessment

In assessing the eligibility of candidates who apply under 8(3)(b) the Education Committee deals with each application on its merits rather than following precedents, for each case is different.

Matters considered include the following but are not limited to them:

Whether the knowledge of the candidate is similar to that expected of a Surveying Graduate.

Whether the candidate has kept up to date. The nature of the candidates work; for example; has he occupied positions and undertaken the duties and responsibilities normally accorded a qualified professional; has he undertaken work across the range of activities expected of a graduate; and other like matters. The Committee endeavours to assess whether the knowledge and experience of the candidate makes him comparable to a formally qualified applicant.

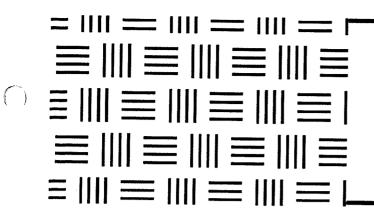
The candidate is required to submit a submission and provide appropriate documentation, including a curriculum vitae and copies of relevant projects in which the candidate has been involved.

The committee normally seeks evidence of the types of work undertaken by the applicant and references as to the candidate's capacity, ability and suitability for registration as a professional.

The committee endeavours to assess whether the applicant would be a fit and proper person to be registered as a surveyor.

# 4.3 Recommendation

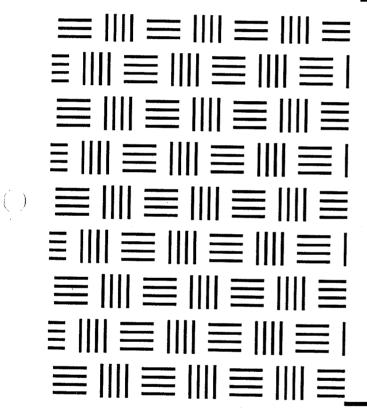
The Board expects a rigorous investigation to be made of each case and only people of exceptional ability to be recommended for registration.



Part

02

# Project Specifications





Specifications for the various types of Technical Projects which Candidates for registration can submit to the Surveyors Board as evidence of Technical Competence in the appropriate fields of surveying

Published by:

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# 1.0 Rural Cadastral Survey - Project 5(a)(i)

#### 1.1 General

This practical exercise is designed to satisfy the requirements of a boundary survey:-

"a boundary survey of a country area of not less than 15 hectares, two boundaries of which shall coincide with and be reinstated from previous surveys, and one boundary of which shall be a water course or other natural feature, or an irregular road, and shall include a sun observation for meridian."

The above statement is interpreted to mean that the candidate must actually survey the surround of the country area of not less than 15 hectares.

It includes the planning, field observations, computations and plan drafting necessary for the lodgement of a cadastral survey with the appropriate registering authority.

A candidate must apply to the Chief Examiner for a variation in this interpretation if exceptional circumstances appear to warrant such action.

All phases of the project are to be performed personally by the candidate, with any necessary assistance for field work.

The drafting work should comply with the requirements of the Survey Plan Guidelines, as set out under Section F-2 of the Board's Operations Manual. It should be drawn by a computer driven plotter using a recognised software package and is to be in ink and is to be on the appropriate plan form.

It may be done manually and in that case a fine point writing pen is acceptable with the quality of the penmanship not being a consideration when testing the project, however, the work must be neat and legible. The candidate may elect to have the work done by a draft-sperson but if so should prepare a complete brief to the draftsperson and submit this brief to the Examiner as part of the project.

The entire exercise must be carried out in a professional manner, especially with respect to observation, documentation and computation. Reference should be made to the authorities quoted at the end of this specification.

Candidates should note that although a plan may be registered by the registering authority, it does not mean that it would be awarded a pass for the Boards purpose of assessing an applicant.

# 1.2 Selection Of A Project

It is important to give considerable thought to the selection of a project so that it adequately reflects the ability and skill of the applicant.

Suggested criteria should be:

- ➤ meets the stated specification above;
- ➤ the survey should represent a moderate re-instatement challenge; and
- ➤ there should be alternative solutions to the positioning of the boundaries so that the project represents a reasonable re-instatement challenge.

# 1.3 Planning

In general candidates may perform the survey in any area that conforms with the requirements of the Board. The candidate shall determine the objectives of the survey and shall carry out the necessary search.

It is a good idea to document a survey history of the area as detailed by the succession of plans in the search. Title details should also be documented. This should be done prior to field work.

# 1.4 Field Work

Field work is to be carried out personally by the candidate in accordance with generally accepted practices. All work should comply with the Surveyors Act 1977 and Surveyors Regulation 1992.

All equipment should be calibrated.

#### 1.5 Documentation

Field records shall be submitted for this project, and shall be in such a form that a plan can be drawn from them without the need for further information.

# 1.6 Computations

All appropriate computations shall be carried out and submitted. If a computer program is used for any computation, full details of the hardware and software utilised should be given.

Results of all computations shall be submitted as part of the field records.

# 1.7 Report

The survey shall be accompanied by a comprehensive report. The report should outline the intention of the survey and give a detailed account of the reinstatement and any other relevant matters.

# 1.8 References

- ➤ The Surveyors Act 1977.
- ➤ Surveyors Regulation 1992.
- ➤ Survey Co-ordination Act 1952.
- ➤ Surveyors Board of Queensland Operations Manual

Section E-1 - Directions and Recommended Practices for Surveys 1992.

Section E-2 - Survey Plan Guidelines 1992.

# 2.0 Urban Cadastral Survey - Projects 5(a)(ii)

#### 2.1 General

This practical exercise is designed to satisfy the requirements of a boundary survey:

"a boundary survey of an urban area, suitable for lodgement with the appropriate authority, with occupation on or near the boundaries in such positions that at least one boundary must be determined by indirect methods, and shall include a sun observation for meridian."

It includes the planning, field observations, computations and plan drafting necessary for the lodgement of a cadastral survey with the appropriate registering authority. Identification surveys are acceptable, provided they meet the requirements of being a reasonable reinstatement challenge.

All phases of the project are to be performed personally by the candidate, with any necessary assistance for field work.

The drafting work should comply with the requirements of the Survey Plan Guidelines, as set out under Section F-2 of the Board's Operations Manual. It should be drawn by a computer driven plotter using a recognised software package and is to be in ink and is to be on the appropriate plan form. It may be done manually and in that case a fine point writing pen is acceptable with the quality of the penmanship not being a consideration when testing the project, however, the work must be neat and legible. The candidate may elect to have the work done by a draftsperson but if so should prepare a complete brief to the draftsperson and submit this brief to the Examiner as part of the project.

The entire exercise must be carried out in a professional manner, especially with respect to observation, documentation and computation. Reference should be made to the authorities quoted at the end of this specification.

Candidates should note that although a plan may be registered by the registering authority, it does not mean that it would be awarded a pass for the Board's purposes of assessing an applicant.

# 2.2 Selection Of A Project

It is important to give considerable thought to the selection of a project so that it adequately reflects the ability and skill of the applicant.

Suggested criteria should be:

- right meets the stated specification above:
- ➤ the survey should represent a moderate re-instatement challenge; and

➤ there should be alternative solutions to the positioning of the boundaries so that the project represents a reasonable re-instatement challenge.

# 2.3 Planning

In general, candidates may perform the survey in any area that conforms with the requirements of the Board. The candidate shall determine the objectives of the survey and shall carry out the necessary search.

It is a good idea to document a survey history of the area as detailed by the succession of plans in the search. Title details should also be documented. This should be done prior to field work.

#### 2.4 Field Work

Field work is to be carried out personally by the candidate in accordance with generally accepted practices. All work should comply with the Surveyors Act 1977 and Surveyors Regulation 1992.

All equipment should be calibrated.

Where radiations are used the filed records should show clearly the checks that are made to verify such measurements.

#### 2.5 Documentation

Field records shall be submitted for this project, and shall be in such a form that a plan can be drawn from them without the need for further information.

# 2.6 Computations

All appropriate computations shall be carried out and submitted. If a computer program is used for any computations, full details of the hardware and software utilised should be given.

Results of all computations shall be submitted as part of the field records.

#### 2.7 Report

The survey shall be accompanied by a comprehensive report. The report should outline the intention of the survey and give a detailed account of the reinstatement and any other relevant matters.

# 2.8 References

- ➤ The Surveyors Act 1977.
- ➤ Surveyors Regulation 1992.
- ➤ Survey Co-ordination Act 1952.
- ➤ Surveyors Board of Queensland Operations Manual

Section E-1 - Directions and Recommended Practices for Surveys 1992.

Section E-2 - Survey Plan Guidelines 1992.

# 3.0 Engineering Survey And Design - Projects 5(b)(i)

#### 3.1 General

The submitted project should demonstrate the candidate's understanding of surveying and of engineering design principles and their application in a specific set of circumstances in order to satisfy the requirements of an engineering survey and design:

"the survey and design for a proposed road or railway not less than 500 metres in length, with the requisite digital terrain model, and calculations for earthworks and provision of drainage as required."

#### 3.2 Field Information

Field information necessary to complete the design is to be presented in accordance with the standards of a relevant Constructing Authority (to be nominated). References to several such Authorities are included at Item 7.0.

# 3.3 Design

As a guide to candidates the following factors are typical of those to be considered:

#### 3.3.1 Road

traffic volumes; design speed and pavement width in relation to function; curve widening, superelevation and sight distance in relation to design speed; limiting grades; a reasonable balance of earthworks (or an alternative earthwork arrangement); pipe or culvert size in relation to catchment area, rainfall and runoff.

#### 3.3.2 Railway

ruling grade and minimum curvature of the line; grade compensation on curves; minimum interference to other services; flood levels where applicable; drainage; minimum resumption requirements; local traffic requirements; a reasonable balance of earthworks (or an alternative earthwork arrangement).

# 3.4 Presentation

Irrespective of the contents of the accompanying report, all information necessary for the construction of the scheme is to be presented on the plans which are used as working documents by construction personnel.

The drafting work should comply with the requirements of the main supervising authority. It should be drawn by a computer driven plotter using a recognised software package and is to be in ink and is to be on the appropriate plan form. It may be done manually and in that case a fine point writing pen is acceptable with the quality of the penmanship not being a consideration when testing the project, however, the work must be neat and legible.

The candidate may elect to have the work done by a draftsperson but if so should prepare a complete brief to the draftsperson and submit this brief to the Examiner as part of the project.

#### 3.5 Plans

Plans should show the following information as appropriate:

- ➤ scheme location; typical cross-section with dimensions and pavement details; tabulated curve widening and superelevation details; (in the case of railways) connections to the existing line and centre-line distance equalities; services crossing and closely paralleling the proposed centre-line and proposed modifications to these services;
- ➤ design details including horizontal and vertical alignment; drainage details; watershed areas; earthwork quantities; proposed property resumption boundaries;
- ➤ digital terrain model;
- ➤ description of bench marks and datums; references to field books and other plans.

# 3.6 Report

The report should cover the candidate's assumptions and reasons for the adoption or rejection of certain design principles (for example, the requirements of a Constructing Authority) for a particular set of circumstances, the method of applying those principles and any conclusions drawn.

The report is to include all calculations including those for earthworks, pavement volumes, drainage work and grading.

#### 3.7 References

- ➤ Queensland Department of Transport Engineering Survey Manual
- ➤ National Association of Australian State Road Authorities Policy for Geometric Design of Rural Roads, 1976
- ➤ Queensland Department of Transport

Railway Survey Design and Drafting Manual: Chief Engineers Publication No. 5

Railway Engineering Survey Manual: Chief Engineers Publication No. 3

Surveys for Electrification of Brisbane Suburban Railway Network

Survey Design Manual: Electrification, Brisbane Suburban System: Chief Engineers Publication No.8

Turnouts and Crossings: Setting Out Manual, Chief Engineers Publication No. 15

- ➤ Local Government By-Laws and Regulations
- ➤ Other Equivalent Publications

# 4.0 Hydrographic Survey - Projects 5(b)(ii)

## 4.1 General

The submitted project should demonstrate the candidate's understanding, knowledge and awareness of all aspects of preparation, execution and reporting of a Hydrographic Survey in a marine environment to satisfy the criteria:

"To produce a working chart of a Hydrographic Survey of about two (2) square kilometres, including the reduction of soundings and plotting of sounding locations".

# 4.2 Field Information

Field information is to be collated under three main headings:

- ➤ Establishment of Vertical Datum
- ➤ Establishment of horizontal Control
- ➤ Offshore Operations
  - (i) Basic Seamanship
  - (ii) Instrumentation
  - (iii) Calibration
  - (iv) Data Acquisition

#### 4.2.1 Vertical Datum

The establishment of Vertical Datum should contain a degree of understanding of tidal planes and datums. The adoption of an existing tide board or automatic tide recording gauge is not sufficient.

An example of minimum understanding of tidal planes and tidal datums could be a short technical discussion or a tidal datum transfer by mathematical or graphical means over a minimum three day recording period.

Tide boards and recorders established during the course of the survey should have their zero's connected by levelling at Fourth Order Standard to at least one bench mark with values established for Chart Datum (CD) Lowest Astronomical Tide (LAT) and Australian Height Datum (AHD).

# 4.2.2 Horizontal Control

Horizontal Control should be established to achieve a Class C standard as per the IGSM Standards and Specifications for Control Surveys, July 1990.

Methods used for the establishment of Horizontal Control may be:

- ➤ Closed and adjusted traverse from existing co-ordinated AMG Control Stations.
- ➤ Braced quadrilateral be triangulation or Trilateration (or both) from existing co-ordinated AMG Control Stations.
- ➤ Static Differential GPS measurements on new stations with observed baselines.

Computation and adjustment sheets are to be presented in the report but not necessarily show hand worked solutions.

# 4.2.3 Offshore Operations

# 4.2.3.1 Basic Seamanship

This will entail a demonstrated awareness of the basic concepts of the regulations for operating vessels for commercial activities (including hydrographic surveying) and the selection of a suitable vessel for the particular survey task.

A demonstrated awareness of mechanical and safety precautions to be taken prior to embarking upon the survey project should also be shown.

#### 4.3.3.2 Instrumentation

The offshore operation should be controlled using electronic position fixing methods. Optical methods of position fixing are not acceptable unless it can be demonstrated that such method is the most suitable for the particular task.

Position fixing will therefore most likely be carried out by one of the following methods:

- ➤ Bearing/Range
- ➤ Range/Range
- ➤ Real time Differential GPS

Other methods may be acceptable but should first be verified with the examiner.

#### 4.2.3.3 Calibration

Calibration procedures should be documented and executed. Certified records of calibrations should include:

- ➤ Pre Survey calibration of position fixing system and daily stability checks.
- ➤ Daily calibrations of echo sounder by standard methods.
- ➤ Daily checks on automatic tide recorder.

- ➤ Calibration of EDM or instrumentation used for Horizontal Control.
- ➤ Determination of squat of survey vessel.
- ➤ Determination of transducer and antenna offsets.

# 4.2.3.4 Data Acquisition

Data acquisition may be accomplished by fully automated, semi automated or manual methods.

If fully or semi automated methods are used, adequate description of the processes, acquisition rates and data logged must be provided.

Diagrams of operational computer screens, selectable menues and printouts of raw and processed data should be provided.

Description and samples of initial data input for survey area, line format and navigation control should also be provided. Annotated analogue records from echo sounders, tide gauges and other sensors should be provided to support logged digital data.

Pre plotted deck sheets and field annotations on all records should be provided and include positions of fixed objects, shorelines, navigation marks and obstacles, weather and sea conditions.

If manual methods are used, field plotting and navigation should be shown on the deck sheets and adequate field books or recording sheets kept of positioning data.

It should be noted that scale selection should provide for maximum line separation of 1 cm as a general rule. Position fixes should be at no greater distance than 4 cm apart and cross check lines spaced no more than 7.5 cm apart at plan scale.

#### 4.3 Presentation

The final plan should indicate soundings at less than line interval except in the case of a regular bottom where spacing can be increased. The plan may be contoured. All relevant data should be shown, e.g. navigation aids, wharves, piles, leads, beacons, buoys, designed channel widths, approaches, berths. Description of bench marks, datums, grid system, north point, legend, references to field books and other plans should also be shown.

Drafting should comply with recognised standards i.e. either Admiralty or Department of Transport, Division of Marine and Ports. Figure style, decimal point and sign convention should be nominated and noted in the Title Block. Automated or hand drafted plans are acceptable. The plan should be drafted in ink on stable film.

The quality of penmanship is not a consideration when testing the project, however, the work must be neat and legible. The candidate may elect to have the plan drafted by a draftsperson but if so, should prepare a complete brief to the draftsperson and submit this brief to the Examiner as part of the project.

# 4.4 Report

The report should indicate the overall briefing for the project, the client's particular requirement, the planning, deployment of personnel and their responsibilities, execution, safety precautions, time costs and any additional explanations that would indicate to the Examiner the Candidates competence.

The Report should also contain technical descriptions and data as specified in Sections 2 and 3 above and should clearly show the application of tide reductions and other calibrations.

The Report should also include diagrams, Station Summary sketches and photographs where applicable.

The Report should accompany the fair drawn plan/chart and covering letter.

#### 4.5 References

- ➤ Admiralty Manual Hydrographic Surveys Volume I and Volume II
- ➤ Admiralty Tidal Handbook Datums for Hydrographic Surveys (and other related subjects)
- ➤ Standard Reference Charts Chart 5011, Chart D6067 (Published by Hydrographic Department, Taunton, U.K.)
- ➤ IGSM, Standards & Specifications for Control Surveys, July, 1990.

# 5.0 Topographic Survey - Project 5(c)(i)

# 5.1 General

This project is designed satisfy the requirements on:

"a topographical survey of hilly country embracing an area of not less than 10 hectares, showing contours at height intervals appropriate to the scale and purpose of the survey."

While this leaves the candidate some choice in the matter, it is likely that such a survey would be performed for the planning of a facility such as a school or an industrial complex and that a scale of 1:500 with 1 metre contours would be appropriate.

# 5.2 Planning

The candidate may perform the survey in any area but should bear in mind the constraints of ease of access to the land and equipment and convenience of supervision. The purpose of the survey suggests open country on the outskirts of urban development, and the term "hilly" in an area of 10 ha, implies that significant parts of the area will be at a grade of 1 in 10 or more.

#### 5.3 Control

The survey is to be controlled by marks co-ordinated on the A.M.G. and heights on A.H.D. The accuracy and distribution of control should be appropriate to the purpose of the survey and only one mark need be of a semi-permanent nature (See Geodetic and Astronomy Project) and referenced and recorded accordingly. This mark should have sufficient observations recorded to ensure re-orientation of the survey.

# **5.4** The Topographical Survey

Field records should be properly kept and will form part of the project report. The presentation of the survey should be in graphic form and the appropriate parts of the specifications mentioned below will apply. The accuracy requirements of the graphical presentation (which will be those in the specification applicable to orthophotos i.e. Part D, Para. 2.2) will be the governing parameter for the whole of the survey.

#### 5.5 Presentation

The drafting work should comply with the requirements of the principal Government agency. It should be drawn by a computer driven plotter using a recognised software package and is to be in ink and is to be on the appropriate plan form.

It may be done manually and in that case a fine point writing pen is acceptable with the quality of the penmanship not being a consideration when testing the project, however, the work must be neat and legible.

The candidate may elect to have the work done by a draftsperson but if so should prepare a complete brief to the draftsperson and submit this brief to the Examiner as part of the project.

# 5.6 Report

The survey should be accompanied by a comprehensive report on the above aspects of the survey.

# 5.7 References

- ➤ Department of Administrative Services, Australian Survey Office. Specifications for Photogrammetric Consultant Services Part B excluding paras. 2.3 and 2.4.
- ➤ Administrative Services (Q-build) Department, Standard Specifications, B8 Contour & Detail Survey.

# 6.0 Mapping Project - Projects 5(c)(ii)

# 6.1 General

This project is designed to satisfy the requirements on:

"a map of a densely settled area of about 1500 hectares or of a sparsely settled area of about 10,000 hectares, drawn to a suitable scale and plotted from a single photogrammetric model, with contours and heights appropriate to the scale of the map and the purpose of the survey."

The project involves the photogrammetric plotting of a single model that will test the photogrammetric knowledge and skill of the applicant. Machine plots with enhancements at a reasonable cartographic standard will satisfy the Board. The provision of control in the field and field completion, are not included in the specification. The candidate may obtain control data from appropriate sources.

The project should be performed in accordance with the "Photogrammetric Specifications" issued by the Department of Lands. Academic or other staff involvement in the project will be limited to the provision of advice and supervision.

# 6.2 Planning

Candidates should select an appropriate area for the survey and search at the Department of Lands or other organisation for suitable photography, following which prints, diapositives and control data will then have to be obtained. The following scales and contour intervals are suggested as appropriate:

# 6.2.1 Closely Settled Areas:

Mapping at 1:10,000 with 5 metre contours. This may be performed on an appropriate stereo plotter from photography at an appropriate scale.

# 6.2.2 Sparsely Settled Areas:

Mapping at 1:50,000 with 10m - or 20m contours - depending on the terrain and using suitable photography. This can be performed on an appropriate plotting machine.

Since the Board intends that a single model be plotted, it should be ensured that the area of overlap is sufficient to fulfil the requirements of the Project.

# 6.3 Plotting

Photogrammetric plotting is to be done on stable transparent drawing material in ink or pencil. The sheet dimensions and preparation, plotting, and completion should be in accordance with the reference specification except that colours, as deleted from that specification, should be used. Where original plotting is in monochrome pencil,

coloured inks or pencil should be used for completion, and the accuracy checks specified shall apply after this completion.

# 6.4 Presentation

The drafting work should comply with the requirements of the Survey Plan Guidelines, it should be done in ink (fine point writing pen is acceptable) and is to be on the appropriate plan form. The quality of the penmanship is not a consideration when testing the project, however, the work must be neat and legible.

The candidate may elect to have the work done by a draftsman but if so he should prepare a complete brief to the draftsman and submit this brief to the Examiner as part of the project. The plan may alternatively be drawn by a computer driven plotter using a recognised software package.

# 6.5 Report

A comprehensive report shall accompany the mapping project.

#### 6.6 References

# ➤ Department of Lands

Photogrammetric Specifications

Instructions for Photogrammetric Mapping at 1:25,000

# 7.0 Geodetic Control And Astronomy - Project 5(d)

#### 7.1 General

This practical exercise is designed to satisfy the requirements on:

"a survey for the establishment of geodetic control points of at least Class C standard, requiring the establishment of at least four new points if the exercise involves a traverse; or at least two new points if the exercise involves a network based on at least two existing points, and including planning, ground marking, field observations, computations and adjustments";

and

"an exercise to determine the AMG bearing of a line between two stations in the geodetic project above, using stellar observations to an accuracy of +/-5 seconds."

The exercise can be considered as minor control and includes planning, ground marking, field observations and computations associated with fixing:

➤ 4 (four) new control stations if the exercise is a traverse

OR

➤ 2 (two) new control stations if the exercise is a geometric network;

AND

➤ a stellar observation between any 2 (two) new control stations.

Consideration should be given to using daylight stars.

At least two stations from the Queensland or Australian Geodetic Surveys must be adopted. These stations will have known A.M.G. and A.H.D. values and are to be considered error-free. In the case of traverses azimuth checks on control are required at each end.

Approximate A.H.D. heights are to be obtained for the new stations by an appropriate method.

All phases of the project are to be performed personally by each candidate. Logistical support for field work may be utilised.

The entire exercise must be carried out in a professional manner, especially with respect to observation, documentation and computation.

# 7.2 Planning

In general, candidates may select any area in which to work, although if work is to be effected on private property, owners must be informed and permission obtained. Special permission is required if

clearing is necessary. Candidates may be directed to a particular area.

In choosing an area and the measurement techniques to be adopted, regard must be had for the limitations imposed by available equipment, particularly if the work is effected by E.D.M.E.

Planning will also include consideration of network or traverse geometry.

# 7.3 Ground Marking

Under no circumstances are marks to conform to Department of Lands specifications for marking, unless the exercise is being effected under instruction by Department of Lands or a Registered Surveyor.

Marking must be of sufficient durability to ensure that selected stations remain recoverable for a period of at least 6 months unless instructed otherwise by Department of Lands.

Sufficient reference marks should be connected to enable the station position to be relocated. Recovery marks should not be placed.

# 7.4 Field Observations

Field observations are to be carried out in accordance with standard practices for geodetic control surveys.

Equipment used for the exercise must be capable of achieving Class C standard.

All equipment is to be calibrated.

# 7.5 Computations

Any computing facilities may be used for computation of the exercise subject to the limitations described:

# 7.5.1 Reduction of Observations

All angular and linear measurements are to be reduced by applying appropriate corrections and reduced to the main station if eccentric stations are used.

All slope distances are to be reduced to the spheroid using appropriate formulae.

If reductions are performed on programmable calculators or computers, then one such reduction should be performed manually (non-programmable calculator) in a manner which illustrates the method of use and application of the reduction formulae.

The computations are to be carried out clearly and concisely. Any suitably recognised method of adjustment of the observations may be applied, provided that the residuals resulting from the adjustment method can be examined and assessed.

Where standard error ellipses are calculated within a computer program, the major axes of such ellipses must lie within a circle having a radius equal to (20.D)mm where D is the distance in km of the station to the nearest fixed point.

# 7.6 Report

The report of the exercise must include full documentation, including plans and diagrams for all stations occupied and observed.

All original field notes or booking forms, together with calculations relating to obtaining the final co-ordinates and azimuth are to be included in the report.

The report must include reasons for the use of the particular instruments and observation techniques applied. Details and records of calibrations of equipment are to be provided - particularly in respect of E.D.M.E.

Where computer programs are used, an explanation of the computations performed by the program are to be included in the report.

The adjustment technique adopted is to be explained and arguments advanced in support of the adopted method.

# 7.7 References

- ➤ Robbins, A.R. (1976) Field and Geodetic Astronomy, Ministry of Defence, U.K.
- ➤ Mackie, J.B. Astronomy for Surveyors, 7th Ed., Blackie, London.
- ➤ Department of Lands, "Recommended Procedures for Minor Control."

# 8.0 Urban Design Survey - Projects 5(e)(i)

#### 8.1 General

The purpose of this project is to enable candidates to apply sound engineering and design principles to varying terrain when confronted with man-made constraints and legal requirements in urban land development so as to satisfy the requirements on:

"(i)A design of moderate complexity of an urban residential area covering about 16 hectares.

A significant part of the project is to be located in terrain where slopes are in excess of fifteen percent. The design with relevant topographic information is to be shown on a plan at an appropriate scale.

The plan is to be supported by a report which develops a rationale for the establishment of the development and presents discussions on environmental, engineering, economic and land use factors".

In accordance with the aims of the Department of Housing and Local Government the project should also demonstrate the candidate's familiarity with the Australian Model Code for Residential Development (AMCORD) Edition # 2.

# 8.2 Design

#### 8.2.1 Site Selection

The site selected should have a variable topography with at least twenty percent of the area having slopes in excess of fifteen percent.

# 8.2.2 Road System

The road system shall conform to a nominated standard for geometric road design.

# 8.2.3 Allotment Design

Allotment design should demonstrate a flexible approach to creating environmentally acceptable living areas and conform to a nominated Local Authority's Subdivisional By-laws.

#### 8.2.4 Drainage And Sewerage Pattern

The drainage and sewerage pattern should be shown on the plan, but may take the form of overlays if desired.

## 8.2.5 Application Of Amcord

At least 2.0 hectares of the site shall be designed in accordance with AMCORD Edition # 2, incorporating some terrain having slopes in excess of fifteen percent.

# 8.2.6 Presentation

The design plan shall be drawn at a scale of 1:1,000 with one metre contours and be to a standard suitable for presentation to the nominated Local Authority

OR

the candidate may elect to produce a comprehensive drawing showing all the required detail which together with a minimum brief could be suitably enhanced by a draftsman to fulfil the nominated Local Authority's specifications. This drawing should be of such a standard that there will be no confusion as to the intent of the design and so enable the Board readily to assess its merit.

# 8.3 Report

The text of the report shall include:

- ➤ the rationale for the establishment of the development
- ➤ discussion of the physical and social environment, engineering and economic considerations and the provisions of services for the development
- ➤ discussion of any legal requirements and constraints that affect the development
- ➤ discussion on the particular application of AMCORD Edition # 2, eg. distribution of allotment sizes, variation in road alignment, etc.

The report is to be presented on A4 paper, preferably typed in double spacing, and should include all documentary evidence needed to verify the standards adopted in the design.

# 9.0 Rural Design Survey - Project 5(e)(ii)

# 9.1 General

The purpose of this specification is to enable candidates to satisfy the requirements on:

"A design for a farming development to accommodate approximately 20 family units within an area ranging from about 200 hectares to 1,000 hectares. The proposal is to be expressed on plans which include relevant topographical information and details of vegetation and soil types and illustrate the regional context of the proposed development, the existing and proposed roads and farm boundaries, water supply facilities and community amenities. The plans are to be supported by a report, which develops a rationale for the proposed development and present a discussion on environmental, engineering, economic and land use factors."

#### 9.2 Data Collection

All the data necessary for the completion of a satisfactory design is to be collected and presented in map form (preferably a base map with overlays at the same scale). All of this data should be available from published material (including aerial photography) and the need for field inspection should be minimal. The data collected should include:

- ➤ A location map showing communications, services and regional content.
- ➤ A base map showing topography by contours.
- ➤ Overlay to base map scale showing the remaining five physical land parameters using standard classification systems, viz. Geology, Soils, Geomorphological process, Vegetation and Climate.
- ➤ An overlay showing tenures, the present cadastral configuration and improvements.

#### 9.3 Data Manipulation

A series of criteria are to be developed which when applied to the basic data above highlight areas of constraint and opportunities for the proposed farming activity.

Using the above criteria sieve maps can then be drawn. (Standard systems may be used if considered appropriate i.e. The Land Capability System).

#### 9.4 Design Criteria

Criteria are to be established for:

➤ The efficient functioning of the development as a whole, e.g. roads, communications, services, etc.; and

The satisfactory management of each individual farm, i.e. area requirements for various land types, optimum paddock sizes on each land type, soil and water conservation considerations, access, building sites, yards, etc.

# 9.5 Design

A map is to be drawn showing the proposed cadastral boundaries.

Other information may be added to this map as considered relevant or to highlight some feature of the design.

A plan, at an appropriate scale, is to be drawn showing the layout of a typical farm unit.

#### 9.6 Presentation

The work is to be presented for assessment as a written proposal supplemented by maps and supported by an approximate estimate of engineering costs and potential farm incomes. It is to be of a professional standard and at a stage ready for printing and cartographic enhancement.

The quality of the penmanship is not a consideration when testing the project, however, the work must be neat and legible. The candidate may elect to have the work done by a draftsman but if so he should prepare a complete brief to the draftsman and submit this brief to the Examiner as part of the project. The plan may alternatively be drawn by a computer driven plotter using a recognised software package.

# 9.7 Report

The report should include a discussion of the main features of the design and an assessment of the degree to which design criteria have been satisfied.

# 10.0 Alternative Projects

#### 10.1 Introduction

Direction 6.0 provides that:

"As an alternative to the projects referred to in paragraph (5), the Board may in respect of any surveying graduate approve a proposed list of projects and determine the requirements for such projects, in any case where the Board is satisfied that the completion of such proposed projects will enable the surveying graduate to achieve a level of performance acceptable to the Board."

# 10.2 Underground Mine Survey - Project 5(f)

#### 10.2.1 General

This project involves a survey of a small mine or part of a larger mine and should comprise a surface survey, the transfer of meridian and height through at least one vertical or near vertical opening and an underground survey.

The candidate should assume that future development will be carried out based on the result of the azimuth transference. He should then traverse another shaft and close his survey. If an incline to the surface is used for closure then the co-ordinate on the surface should be treated as the single plumb wire. The traverse should then be adjusted by the first try, then after suitable corrections have been made by the second try, showing the full calculations involved.

#### 10.2.2 Planning

The candidate may perform the exercise in any mine to which he has access and with whose regulations he is familiar.

Equipment used on the project should be suitably calibrated.

#### 10.2.3 Field Work

The project should involve:

- ➤ A surface traverse connecting with all mine openings used and the co-ordinate network.
- ➤ Transfer of meridian and position between levels or from surface to any level with suitable verification by traverse to another shaft and closing on a single wire or known position.
- ➤ Transfer of Reduced Levels between mine levels closing levels on known point.
- ➤ Typical pick up of plan, cross-sections detail and profile of a 30m section of tunnel.
- ➤ Correlation of the survey into AMG and/or the mine co-ordinate system.

# 10.2.4 Report

The report should include:

- ➤ A plot of underground detail showing walls, timbers, supports etc. at a scale of 1:500.
- ➤ A plot of all traverse information at a scale of 1:1000.
- ➤ A plot of the field work in plan and cross-sections at five metres intervals and a profile a scale of 1:250.
- ➤ Field notes and calculation of all traverses, closes, Weiss quadrilaterals etc.
- ➤ A report on all aspects of the project including the closure errors aimed for and achieved. (1 in 5000 in plan and +/- 20mm in any level loop should be the minimum sought).

The drafting work should comply with the requirements of the Survey Plan Guidelines, as set out under Section E-2 of the Board's Operations Manual or those set by the principal registering body.

It should be drawn by a computer driven plotter using a recognised software package and is to be in ink and is to be on the appropriate plan form. It may be done manually and in that case a fine point writing pen is acceptable with the quality of the penmanship not being a consideration when testing the project, however, the work must be neat and legible.

The candidate may elect to have the work done by a draftsman but if so should prepare a complete brief to the draftsperson and submit this brief to the Examiner as part of the project.

#### 10.2.5 Notes

# **Horizontal Control**

In actual practice after the azimuth transfer, development would commence on survey peg lines. This survey is called the working survey and is carried out using sag and convergence corrections only.

As the survey progresses and development continues, a second survey called a "check survey" is carried out. This survey commences at the base established by the azimuth transfer and uses all necessary corrections and procedures to ensure that any error is kept to a minimum. It is this survey that is finally connected to another known point and then adjusted.

#### Level Control

Level traverses follow the development in the same manner as the horizontal control above. Similarly check level traverses are carried out to lessen the chance of accumulating errors that may occur when only very short sections are levelled. It is not unusual for ten more of these short level traverses to be used to effect breakthrough.

# 10.2.6 References

- ➤ Mineral Resources Act 1989
- ➤ Mines Regulation Act 1964
- ➤ Survey Co-ordination Act 1952
- ➤ Usually each mine has its own requirements except those specified in 10.2.5

# 10.3 Open Cut Strip Mining - Project 5(g)

#### 10.3.1 General

This project involves a complete survey of a small open cut mine or part of a larger open cut mine operation and should comprise the following:

- 10.3.1.1 A complete plan control survey involving either a traverse with at least two cross connections, or a hybrid triangulation/trilateration engineering control survey.
- 10.3.1.2 A level network height survey of the major height control stations surrounding the open cut mining operation to third order levelling accuracy specifications.
- 10.3.1.3 Both plan and height surveys are to be adjusted by an appropriate method applicable to the accuracy of the survey under consideration. For a traverse the order of accuracy of all loops should be at least 1:20,000. All level loops must close to third order specifications. Least squares techniques can be used to adjust both plan (Variation of Co-ordinates) and height (Level network adjustment) control traverses.
- 10.3.1.4 A complete topographic survey of at least three open cut bench platforms within the bounds of the control survey area. An alternative in drag line operations would be a complete topographic survey associated with the actual drag line see 3.3 below.
- 10.3.1.5 The appropriate volumes surveys associated with the extraction of mineral ore from these three bench platforms or drag line.
- 10.3.1.6 The location of mineral extraction equipment and structures pertinent to the mining operation, e.g. Drag lines, Crushers, Storage bins etc. and the reasons for such locations.
- 10.3.1.7 Candidates attempting this subject should be aware of the Board of Examiners Mines Regulations regarding qualified persons working on a mine site.

# 10.3.2 Planning

The candidate may perform the exercise in any mine to which the candidate has access and with whose regulations the candidate is familiar. All equipment used on the project must be suitably calibrated.

# 10.3.3 Field Work

The project should involve:

- 10.3.3.1 A plan control survey connecting into either the mining cadastral lease boundaries or the normal cadastral system in at least two locations.
- 10.3.3.2 A level network survey of the surround of the open cut mining operation, involving level control being established on each respective bench in at least two locations. This includes the floor of the open cut operation. If the height differences are considerable accurate trigonometrical heighting techniques may be used.
- 10.3.3.3 A cross section detail survey of at least three benches over a distance of 50 metres. Appropriate volumes surveys after mining and extraction are required. With drag lines involving only one bench the distance of topographic detail should be approximately 150 metres.
- 10.3.3.4 Correlation of the survey into AMG and/or the mine survey co-ordinate system. With the height survey correlation into either AHD and/or the mine datum survey system.
  - 10.3.4 Computations, Computers And Programmable Calculators

If a computer or programmable calculator is used to reduce or adjust any observed survey information; the candidate must demonstrate a knowledge of the internal operations of the formulae involved. Showing typical worked examples applicable to the actual project undertaken.

#### 10.3.5 Report

The submission should include:-

10.3.5.1 A plot of the open cut mining operation showing all control and topographic detail including contours at an appropriate contour interval applicable to the project.

The suggested scale is 1:500; however, if this scale is found unsuitable for relevant practical reasons stated by the candidate the scale may be varied.

- 10.3.5.2 An overlay control plot at the same scale.
- 10.3.5.3 All original field notes and initial control information.
- 10.3.5.4 All calculations associated with the project. If computer programs are used or programmable hand calculators are used, clear concise example calculations applicable to the candidates survey must be submitted.
- 10.3.5.5 A report on all aspects of the project including the initial accuracies to be achieved in plan and height (1:20,000 in plan and third order levelling in height) and the actual results obtained. Key information in the form of tables and diagrams (results, typical examples etc.)

should be cited in the main area of the report, while bulk computations, field notes etc. should be placed in the appendices.

10.2.5.6 The drafting work should comply with the requirements of the Survey Plan Guidelines, as set out under Section E-2 of the Board's Operations Manual or those set by the principal registering body. It should be drawn by a computer driven plotter using a recognised software package and is to be in ink and is to be on the appropriate plan form.

It may be done manually and in that case a fine point writing pen is acceptable with the quality of the penmanship not being a consideration when testing the project, however, the work must be neat and legible. The candidate may elect to have the work done by a draftsman but if so should prepare a complete brief to the draftsperson and submit this brief to the Examiner as part of the project.

#### 10.3.6 References

- ➤ Mines Act and Regulations.
- ➤ Survey Co-Ordination Act and Regulation.
- ➤ Usually each mine has its own requirements except those specified in 10.2.5.1 and 10.2.5.2.

# **10.4** Topographic Survey - Project 5(h)

#### 10.4.1 General

This project is designed as an alternative to that specified under projects 5(c)(i).

"a detail and level survey of part of a redevelopment site of moderate complexity in a built-up environment and upon which a significant development is planned."

The survey is to be of an area intended for redevelopment of not less than 1000 sq.m showing contours or reduced levels at intervals appropriate to the scale and all detail suitable for purpose of the survey.

While this leaves the graduate extreme latitude of choice in the matter it would appear that such a survey would most likely be performed for the planning of a new development such as a multistorey building or an industrial facility or commercial complex and that a scale of 1:200 with 0.5m contours or spot heights would be appropriate. Surrounding detail external of the site boundaries would be essential.

#### 10.4.2 Planning

The candidate must select an area which is sufficiently difficult to demonstrate the ability to produce sufficient information to allow a new development to be designed with confidence i.e. in the knowledge that significant redesign should not be necessary due to insufficient information being supplied. It is assumed that the location and description of underground services will form a significant part of this survey. Candidates will therefore need to consult the following authorities:

Local Council Engineering Section, Gas Company, Telecom, SEQEB, etc.

and to research and consult the relevant industrial safety requirements particularly in relation to investigating sewers and stormwater drains. Also the Departments of Transport has specific safety requirements in relation to surveys involving facilities under their control.

#### 10.4.3 Control

It is assumed that the survey will be connected to boundaries and that levels will be on AHD. For the purposes of this project there is no requirement to carry out a full cadastral reinstatement.

#### 10.4.4 The Detail Survey

The survey may be performed in any efficient and economical manner. Field records should be properly kept in accordance with good survey practice, and will form part of the project report. If the data recorded is in a computer form the graduate should be required to demonstrate an understanding of the process.

The presentation of the survey should be in graphic form and the appropriate parts of the specification below will apply. The accuracy requirements of the graphical presentation will reflect the amount and significance of the information to be shown.

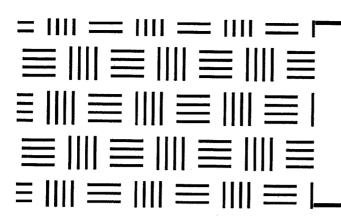
The drafting work should comply with the requirements of the Survey Plan Guidelines, as set out under Section E-2 of the Board's Operations Manual. It should be drawn by a computer driven plotter using a recognised software package and is to be in ink and is to be on the appropriate plan form.

It may be done manually and in that case a fine point writing pen is acceptable with the quality of the penmanship not being a consideration when testing the project, however, the work must be neat and legible.

The candidate may elect to have the work done by a draftsman but if so should prepare a complete brief to the draftsperson and submit this brief to the Examiner as part of the project.

#### 10.4.5 Report

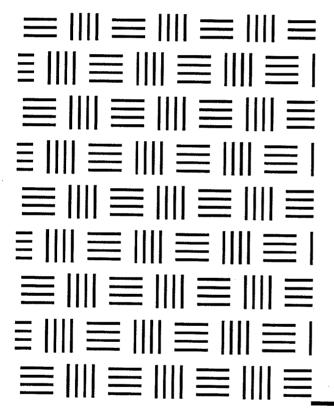
The survey should be accompanied by a comprehensive report on the above aspects of the survey. This report should cover the purpose of the proposed development, difficulties encountered in the survey, and details of the information available on underground services etc. The standard of information supplied by the relevant authorities and their record keeping and retrieval process should also be noted.



Part

03

# Professional Assessment Project





Specifications for the Professional Assessment Project (PAP) which Candidates for Registration submit to the Board as evidence of Professionalism

and

**Guidelines for Examiners** 

#### Published by:

Surveyors Board of Queensland

**Land Centre** 

Cnr Main and Vulture Streets Woolloongabba Qld 4102

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# **Specifications**

#### 1.0 General

A professional assessment project may be undertaken in any category of surveying. A person seeking to become a licensed surveyor is required by the Surveyors Regulation Section 9 to undertake the project in cadastral surveying. The project should ordinarily embrace work undertaken in the normal course of business of the firm or authority in which the applicant is employed.

#### 2.0 Examiners

- 2.1 The Board shall appoint an Examiner who, where necessary, shall be assisted by an Assistant Examiner and, if the project is one in the category of cadastral surveying, both Examiner and Assistant Examiner shall be Licensed Surveyor. The Assistant Examiner shall, whenever possible, be the surveyor who supervises the applicant in his normal place of work.
- 2.2 The Examiner, Assistant Examiner and applicant shall consult together to plan the project. The Assistant Examiner shall observe the performance of the applicant, each day if possible. The Examiner shall consult with the Assistant Examiner and observe the performance of the applicant, each week if possible.

### 3.0 Application to Proceed

- 3.1 Before submitting his application for approval of a proposed professional assessment project (Form 8), the applicant shall, in consultation with the Examiner, make all arrangements necessary for the performance of the project.
- 3.2 The applicant shall describe on Form 8 the nature of the project proposed and by giving a brief description of the category of surveying to be undertaken, the objectives of the project and the methods to be adopted to achieve the objectives, the locality of the survey, and shall nominate the Assistant Examiner.
- 3.3 The Assistant Examiner proposed by the applicant shall support the application with a statement of his intention to perform the necessary supervision of the project.

### 4.0 Report Content

The candidate in the performance of the project, should consider the ethical, administrative and technical aspects and report on the following:

- ➤ the discussions which determine the objectives of the project,
- ➤ in planning of the work,

- ➤ obtain all consents necessary.
- make a full search of relevant existing data,
- representations personally perform the surveys and calculations,
- > supervise the drawing of plans or maps,
- > prepare a costing statement,
- range lodgement of the results of the project,
- ➤ and submit a report to the Examiner on each of the actions above

### 5.0 Examiners Reports

- 5.1 The Assistant Examiner shall report to the Examiner on the performance of the applicant throughout the project and on the candidate's ethical, administrative and technical performance aspects as these pertain to the project.
- 5.2 On completion of the project, the Examiner shall report on the performance of the applicant and recommend whether the Board should accept the project.

## **Guidelines for Examination**

#### 6.0 Assessment

- 6.1 The Examiner's attention is drawn to the following directions and in particular to the provisions for the conduct of an oral or practical examination.
- 6.1.1 Both Examiner and Assistant Examiner shall assess the competence of the surveying graduate by observing the candidate's performance on the project and shall conduct such oral or practical examinations as they deem necessary.
- 6.1.2 The Board may conduct such further oral or practical examination as recommended by the Examiner or as it sees fit, either in the category of surveying chosen or in other categories of surveying.
- 6.2 The Examiner and Assistant Examiner shall take into consideration the check list set out hereunder.

The check list refers specifically to a cadastral project; a number of its headings will apply equally to a project in some other branch of surveying, others will not. The Examiner of the latter type project will need to take this into account. The Examiner may see fit to introduce alternative components to meet particular requirements.

The check list is to be regarded as a guide and should not be converted into a quantitative marking scheme by the allocation of marks to the components or sub-components.

#### 7.0 Checklist

#### 7.1 Objectives

Discussion with client; identification of purpose of the survey. Completion date to meet clients needs.

#### 7.2 Planning

Instruments and other equipment; personnel; travelling and accommodation; notice of entry; time schedule; cost estimate; ascertain the relevant land tenure, encumbrances, reservations, etc.; administrative process adopted.

#### 7.3 Approvals

Correspondence and discussion with client and planning authority and/or the Department of Lands on consent matters such as zoning. The assessment of conditions of approval and their relevance.

#### 7.4 Search

Location map; search of Department of Lands and Department of Minerals and Energy documentation (plans, field notes, PSM sketches, proclaimed survey area data, etc.)

#### 7.5 Field Work and Calculations

Datum; reinstatement; field procedures; meridian; marking; survey records; calculations; report on field survey.

#### 7.6 Plan

Supervision of draftsman; compliance with Survey Plan Guidelines; suitability for proposed action.

#### 7.7 Costing Statement

Charge out rates in accordance with contractual arrangements, explanation of unforeseen costs.

#### 7.8 Lodgement of Results

Endorsement of plan by surveyor, registered proprietor, Local Authority, Surveyor-General (if required), lodgement of plan and any other supporting documents with the registering authority.

# 8.0 Professional Aspects

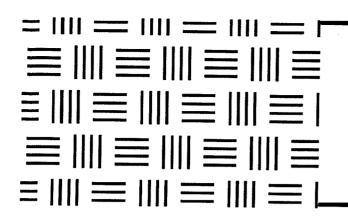
The candidate's professional approach to the project in terms of compliance with the code of ethics and relationships with the client, statutory bodies and other professionals.

### 9.0 Report Of The Examiner

As the Board's eyes and ears, the Examiner and the Assistant Examiner offer judgements and opinions on the candidate's performance. This is so that (in the words of Section 37 of the Act) the candidate can "Satisfy the Board of his capacity to maintain a high level of performance in all aspects (ethical, administrative and technical) of the practice of surveying."

In order to be "satisfied" the Board seeks from Examiners a full report which, as well as commenting on the points listed, discloses all doubts or deficiencies about the candidate's performance and offers opinions on any matter connected with the project or resulting from discussions with the candidate.

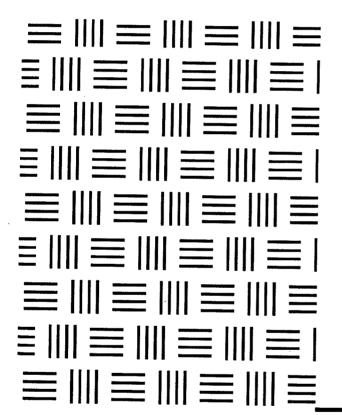
So as not to disadvantage candidates and to allow the Board sufficient time to digest their reports properly, Examiners are requested to submit their reports on the project at least ten (10) days before a Board meeting.



# Part



# Standards for Surveys





E1
Directions and Recommended
Practices for Surveyors

E2 Survey Plan Guidelines

Published by:

Surveyors Board of Queensland

**Land Centre** 

Cnr Main and Vulture Streets

Woolloongabba Qld 4102

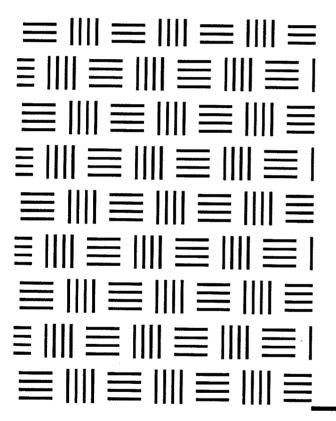
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Part

# Directions and Recommended Practices





Directions and Recommended Practices

to assist surveyors in the performance of their work

#### Published by:

Surveyors Board of Queensland

**Land Centre** 

 ${\bf Cnr\ Main\ and\ Vulture\ Streets}$ 

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### Introduction

### 1.0 Legislation

The Surveyors Act 1977 as amended provides for:

- ➤ the constitution of the Surveyors Board of Queensland.
- ➤ the qualifications of persons for registration as surveyors, surveying graduates and surveying associates.
- ➤ the constitution of a Surveyors Disciplinary Committee.
- ➤ the regulation of the practice of surveying.

### 2.0 Authority For Directions

- 2.1 Section 77(1)(fa) of the Surveyors Act 1977 states that the Governorin-Council may make regulations not inconsistent with the Act
  providing, with respect to the powers of the Board relating to securing compliance with the regulations, the issue by the Board of
  directions to surveyors in relation to the performance of
  surveys and the achievement of the prescribed standards of
  accuracy;
- **2.2** Section 5 of the Surveyors Regulation 1992 provides for the issue of those directions.

#### "Board's directions

- **5.(1)** The Board may issue directions to surveyors in relation to the performance of surveys and the achievement of the standards of accuracy specified in this regulation.
- (2) Without limiting subsection (1), directions may be given in relation to the storage, transfer and use of electronic survey data.
- (3)A surveyor must comply with the directions of the Board".

#### 3.0 Review

These Directions will be under constant review and the Board would appreciate constructive comment in writing to ensure that the purpose of the Directions is at all times legitimate.

The Board will be constantly reviewing all survey legislation to ensure that professional integrity is promoted. The Board is ever conscious of the need to prevent the introduction of restrictive clauses that inhibit professional practice.

### 4.0 Departure From Directions

A surveyor may use any method and/or equipment in performing a survey where he can demonstrate that such method and/or equipment is capable of achieving the purpose of the survey.

Where a surveyor uses methods and/or equipment which involve a significant departure from any Direction, the surveyor shall submit with the survey records sufficient information to identify the methods and/or equipment used.

#### 5.0 Definitions

Relevant definitions have been sourced from appropriate publications.

"AMG" means the Australian Map Grid specified in the Australian Geodetic Datum Technical Manual of the Australian Survey and Land Information Group; (Surveyors Regulation 1992).

"bed and banks" with reference to a watercourse or lake means land over which the water of that watercourse or lake normally flows or that is normally covered by that water whether permanently or intermittently: The term does not include land abutting or adjacent to the bed or banks that is from time to time covered by flood water: For the purposes of this definition "bed" means the relatively flat and "banks" the relatively steep portions of the first mentioned land; (Water Resources Act 1989).

"cadastral survey" means any process of determining, mapping or planning the boundaries of a piece of land or waters required or authorised -

(a)under any Act dealing with the alienation, leasing, and occupation of Crown lands or with mining, or affecting titles to land; or

(b)by the proprietor, lessee or mortgagee under any Act affecting titles to land; or

(c)by the owner, proprietor, lessee, mortgagee or occupier of, or any person holding a registered interest in, any land for the re-establishment of, or identification of, or adjustment of any boundary of such land; or

(d)under any Act to be made or certified by a licensed surveyor; (Surveyors Act 1977).

"encroachment" means encroachment by a building, including encroachment by overhang of any part as well as encroachment by intrusion of any part in or upon the soil; (Property Law Act 1974).

"high water mark" means the ordinary high water mark at spring tides (*Harbours Act 1955*).

"identification survey" means a cadastral survey carried out for the purpose of identification, re-establishment, marking or remarking of existing boundaries of a piece of land or waters; (Surveyors Act 1977). "natural feature" means a topographical feature suitable for use as a boundary in a cadastral survey, and includes -

- (a) a mountain range; and
- (b) a cliff; and
- (c) a river; and
- (d) a watercourse; and
- (e) a seashore; (Surveyors Regulation 1992).

"occupation" means a permanent improvement situated on or near the boundary of land, and includes -

- (a) a building; and
- (b) a fence; and
- (c) a wall; (Surveyors Regulation 1992).

"plan" includes any survey plan, sketch for identification survey, map, aerial photograph or description made or obtained as part of any survey or surveys; (Surveyors Act 1977).

"State Control Survey" - A survey of high precision being carried out at the direction of the Surveyor-General for the purpose of establishing permanent marks to enable surveys throughout the State to be co-ordinated. (Survey Co-ordination Act 1952).

"supervision", in relation to a survey, means the immediate personal oversight of the planning and execution of the survey, including:

- (a) the method of measurements; and
- (b) the placement of survey marks; and
- (c) the preparation of the plan of survey; and
- (d) in the case of a cadastral survey, the examination of evidence of ownership relied on when fixing an existing boundary; (Surveyors Regulation 1992).

"survey" means the act or process of determining the form, contour, position, area, height, depth or any other similar particulars of the earth's surface, whether on land or water, or of any natural or artificial features on, below or above any part of that surface or planning the position or the length and direction of the bounding lines of any part of that surface, or of any such natural or artificial features thereof and includes the making or obtaining of a plan or plans thereof; (Surveyors Act 1977).

"survey mark" means a mark of the prescribed form used for the purposes of a survey; (Queensland Surveyors Act 1977).

"survey records" means the documents necessary to adequately record every aspect of the survey. (Queensland Surveyors Regulation, 1992).

# **Directions**

# 6.0 Accuracy (Board Forms 12 & 13)

Part of the certification used in Forms 12 & 13 "that the plan is accurate" implies a declaration that the plan is correct in every detail, is in accordance with the standards of accuracy specified in the Surveyors Regulation 1992 and is suitable for the intended action.

### 7.0 Survey Records

(Section 33 Surveyors Regulation 1992)

The Survey records include field notes, field sketches, calculations, astronomical observations, field reports, signed statements from owners concerning encroachment and significant change in ambulatory boundaries, electronic data and any other documents relevant to the survey.

Sufficient Survey records shall be lodged with the plan to ensure that a complete record of the survey is available to the Registering Authority.

# 8.0 Easement Surveys (Section 24 Surveyors Regulation 1992)

#### 8.1 General

- **8.1.1** Easement surveys are cadastral surveys and shall be carried out in accordance with the Surveyors Regulation 1992.
- 8.1.2 Where a Constructing Authority is resuming or negotiating easement requirements, the surveyor shall consult with that Authority before preparing the necessary plans of the lots affected by the easement. The surveyor shall consult with the Constructing Authority to ensure that appropriate and timely plans are preapred.

Since the time taken to negotiate compensation details with different owner can vary significantly, it is important that consideration be given to the number of plans to be prepared so that individual easement registrations can proceed without delay.

- **8.1.3** An acceptable severance closure between the easement and lot boundaries is required to meet the accuracy provisions of Section 31 of the Surveyors Regulation 1992.
- 8.1.4 Connections shall be made to structures within the easement and the descriptions and identification numbers of the structures should be recorded. Where a definite point on a structure is available or can be placed on a structure as a survey reference mark, a reference connection shall be made and recorded.

In the case of transmission lines, a connection shall be made to steel towers and to wooden poles.

A well defined mark on the steel tower, such as the head of a bolt or a drill hole or screw placed midway between a tower leg and the edge of the concrete surrounding that leg is ideal.

It is to be noted that electricity authorities advise that inserting nails or spikes into power poles is a dangerous practice.

- 8.1.5 Survey marks placed to define an easement boundary shall be branded with an "E" as identification.
- 8.1.6 Where the easement survey is carried out before clearing of the easement or construction of easement structures, reference marks shall be sited so as to be safe from clearing or construction activities. If reference trees are taken they shall be outside of the strip to be cleared in the easement.
- 8.1.7 New easements are required to be intersected and marked on existing lot boundaries.

#### 8.2 Deemed Tramway Easements

These easements are created in law and are defined by Section 41 - "Sugar Experiment Stations Act and Another Act Amendment Act of 1948" To this end, they are different from other easements.

The standard of survey and marking to be adopted should provide for:

- **8.2.1** Accurate positioning of the centreline relative to property boundaries. (There is no requirement to mark the limits of the easement on the ground).
- **8.2.2** Placement of recovery marks at the intersection of centrelines with property boundaries.
- **8.2.3** Placement of recovery marks at tangent points and centreline traverse points on curves.
- 8.2.4 Preparation of a suitable plan recording the bearings and distances for straights and chords, the radii of curves, areas and recoveries placed. (Refer Survey Plan Guidelines for sample plan.)

# 9.0 Unmarked Corners And Boundaries (Section 27 Surveyors Regulation 1992)

- **9.1** Where a surveyor is satisfied that a corner or boundary under survey should not be or cannot be marked, the following procedures shall apply:
- 9.1.1 Sufficient control shall be established as would permit any unmarked corner or boundary to be readily marked or reinstated at a future date from that control;
- 9.1.2 The accuracy of the unmarked boundary as calculated through the control is shown to be of the same accuracy as is required of the whole survey or a higher accuracy;

- 9.1.3 Corners and boundaries left unmarked are clearly shown as such in survey records and on the plan.
- **9.2** Where a surveyor is required to mark any previously unmarked corner or boundary, Section 26 shall apply.

# 10.0 Designed Boundaries Of Crown Land (Section 24 & 27 Surveyors Regulation 1992)

- 10.1 For the survey of other than freehold land, where a design of the proposed boundaries is provided, it is the responsibility of the surveyor to maintain the intention of the design as evidenced by occupation (buildings, fences, etc.), topography, natural features, dimensions, etc.
- 10.2 Where any major divergence from the design is necessary or where there are incompatible design specifications, approval of the relevant authority shall be obtained.
- 10.3 Where an existing fence is to be adopted as a new boundary, fence posts at the angles shall be adopted as corners or bends where possible and the straight line between these fence posts surveyed as the boundary. The practice of establishing corners by placing pegs adjacent to fence posts shall be avoided.

# 11.0 Accretion And Erosion (Section 26 Surveyors Regulation 1992)

Additional land shall not be included in a parcel on resurvey unless there is evidence of slow and imperceptible accretion by natural means.

Where accreted land is claimed, an application, accompanied by a plan of resurvey and supporting evidence, shall be made to the Lands Department for correction of title under Section 9(2) of the Land Act.

As a result of common law principles, land that forms by gradual and imperceptive degrees, accretes to the adjoining land.

Similarly, land that erodes by gradual and imperceptible degrees (erosion) is lost to the adjoining land.

# 12.0 Unsurveyed Railway Boundaries (Section 26 Surveyors Regulation 1992)

- 12.1 Prior to 1914, surveys of railway land were not normally carried out unless the land was being resumed from a surveyed portion held under leasehold or freehold tenure.
- 12.2 Section 92(1)(3) of the Railway Act 1914 vested in the Commissioner of Railways, all Crown Land within railway fences. It is generally accepted that this applied only to land fenced in prior to 1914.

12.3 As there is usually no conclusive evidence as to the age of the fences it is normally sufficient, where vacant crown land or roads abut railway land, to adopt the fences as the boundary of the railway land.

# 13.0 Resumption Boundaries (Section 24 Surveyors Regulation 1992)

- Where a survey is required of land to be resumed, the plan(s) shall show the boundaries of the land to be resumed and the balance of the lots affected by the resumption.
- 13.2 Resumption lines shall be marked where they intersect the common boundaries of parcels held under one ownership with separate titles or under consolidated titles.
- 13.3 Where permanent fencing has been erected along a resumption boundary prior to the survey, the surveyor, unless otherwise advised, must consult with the resuming authority to confirm that the fence should be adopted as the resumption boundary.
- 13.4 Where a resumption plan indicates that an area of road is available for closure, sufficient survey shall be carried out to enable the road to be closed if required or to remain open if application for closure is not forthcoming.
- 13.5 Where land is being taken by resumption, boundaries shall be cleared and marked except where unnecessary damage to cultivation or the environment would result, in which case concurrence of the Constructing Authority should be obtained.

#### 14.0 Roads

#### 14.1 Opening and Closure

- 14.1.1 Roads in freehold land are normally dedicated by the registered proprietor. However, land can also be resumed by a Constructing Authority for road purposes and subsequently dedicated for road by that authority.
- 14.1.2 Where road closure is required in conjunction with the opening of a new road, application should be made to the Department of Lands and the plan drawn to enable a new deed of grant or lease to be issued.
- 14.1.3 It is not essential that the intersection of a new road and road to be closed be surveyed, provided that the surveyed status of the amended road system and any affected land is maintained.

#### 14.2 Reservations

Crown reservations in a Deed of Grant or a Certificate of Title may be defined in a particular location on the face of the original plan of survey or be undefined in respect of location.

#### 14.2.1 Defined Reservations

Not all areas reserved for road in a defined location are deemed to be road.

The surveyor, on behalf of his client, should contact the regional office of the Department of Lands to determine the status of the reserved road.

#### 14.2.2 Deemed to be Road

If the area is deemed to be road and is required as road, the area can be surveyed in its defined location and dedicated as road on that plan.

There will be instances where the reserved road appears to be already surveyed. When in doubt contact the regional office of the Department of Lands for confirmation.

Since the area is already deemed to be road, the area does not have to be purchased from the Crown.

If the area is deemed to be road and is not required as road, e.g. it does not conform to the proposal for land subdivision, an application can be made to the Department of Lands for closure of the area deemed to be road.

The applicant will be required to pay the Crown the market value for the area of road being closed.

#### 14.2.3 Reservation in Title

If the area is deemed to be a reservation in title, it may be dealt with under the provisions of Sections 358 or 359 of the Land Act, which means that

(a) The Crown can resume possession of the area specified in the reservation, for road purposes. The only compensation the Crown is required to pay to the owner of the land is for improvements or developmental works effected on the area specified.

(b)If the area specified in the reservation is no longer required for road purposes, the Crown can sell the area to the owner of the land. Alternatively where the Crown considers it desirable, the owner, in lieu of purchasing the area can surrender to the Crown other freehold land which is equal in value to the purchasing price of the area specified in the reservation.

Where the area is deemed to be a reservation in title, the owner does not have freehold title to that area but does have occupation rights.

If the specified area is required to be dedicated as road as part of a private land subdivision, the area must be purchased from the Crown.

#### 14.2.4 Undefined Reservations

#### Required For Future Use

When the reservation is required for future use by the Crown, the Department of Lands will provide the applicant with a letter authorising the allocation of the reservation to a lot or lots on the new plan of survey.

Prior to lodgement of the plan for registration, the appropriate allocation notation should be added to the plan.

The allocation notation should then be endorsed by the nominated officer of the Department of Lands regional office.

A copy of the letter of authority must accompany the endorsed plan when it is lodged for registration.

#### **Purchase**

If the reservation is no longer required, the owner may purchase the reservation from the Crown.

There is an urgent purchase option available to ensure minimal delay in subsequent land dealings.

Early application for purchase should be made to the regional office of the Department of Lands, because purchase involves Section 9 surrender of the existing title to the land and subsequent issue of a Deed of Grant for the land to include the reservation area.

Where the reservation is the only area exclusion from the existing title, a compiled plan for issue of the new Deed of Grant is not required.

#### Non Purchase

If the reservation is no longer required and the owner does not apply for purchase of the reservation, the Crown will consider involving Section 360 of the Land Act which allows the Crown to acquire the reservation area in any part of the lot and deal with it under the Land Act.

This action could cause significant delays to registration of the new plan and may even necessitate drawing a further plan.

#### 14.2.5 Advice to Client

In every case, the surveyor should give his client timely notice that a reservation exists, so that land transactions are not unduly delayed.

The surveyor should also advise his client of the several options that may exist to deal with the reservation.

# 15.0 Survey Plans (Section 30 Surveyors Regulation 1992)

- 15.1 Lodgement of plans shall conform to the requirements of the Registering Authorities.
- 15.2 Sample plans for a variety of land actions are contained in the Survey Plan Guidelines.

#### 16.0 Confused Boundaries

Where a surveyor identifies a survey problem that is of such a nature that a client should not be expected to rectify the problem, a confused boundary area may exist.

During the course of a survey, where early indications suggest that significant problems exist, the surveyor must decide whether or not in the circumstances the client should be expected to pay for the resolution of the problem.

If the surveyor believes a confused boundary area exists, he should refer the matter to the Regional Director of the Department of Lands for investigation and advise his client accordingly.

# 17.0 High Water Mark (HWM) (Section 24 Surveyors Regulation 1992)

#### 17.1 HWM

Unless otherwise specified, High Water Mark as defined in the Harbours Act 1955, is intended to apply to tidal boundaries fixed after the introduction of the Surveyors Regulation 1992 on 10 April 1992.

HWM (Surveyors Regulation 1992) is the position reached on land by the mean of spring tides recorded over a long period of time.

The mean is understood to be the long term average of the heights of two successive high waters during those periods of 24 hours (approximately once a fortnight) when the range of tide is greatest, at full and new moon, ie Mean High Water Spring Tide (MHWS).

#### 17.2 Common Law HWM

Unless otherwise specified, Common Law HWM applies to tidal boundaries fixed prior to the introduction of the Surveyors Regulation 1992 on 10 April, 1992. Plans, showing new boundaries, registered after this date are required to conform with the new HWM definition.

HWM (Common Law) is the position reached on the land by the mean of all high tides, including spring and neap tides, recorded over a long period of time.

## **Recommended Practices**

#### 101.0 Introduction

#### 101.1 Guidelines

The Board considers that in the interest of the surveying profession, it should publish a set of Recommended Practices that may assist surveyors in the performance of their work.

In this respect, the Recommended Practices can be considered as guidelines for performance for all persons practising within the profession.

The Surveyors Regulation 1992 provides the basis on which professional practice and associated responsibility focuses in order to obtain the necessary quality results and outcomes.

A historical section has been included at the end of the recommended practices as both a guide and reference.

#### 101.2 Review

These Recommended Practices will be under on-going review and the Board would appreciate constructive comment in writing to ensure that the Recommended Practices are of assistance to practising professionals.

#### 101.3 Departure From Recommended Practices

Recommended Practices are guidelines only and should not be construed as restricting a surveyor's performance or practice.

# 102.0 Supervision (Section 18 Surveyors Regulation 1992)

A Registered and Licensed Surveyor's professional responsibility includes judgemental factors and the ability to interpret the appropriate level of supervision that is required for each cadastral survey. This includes supervision of both employees and registered persons who are contracted to carry out work.

The extent of supervision will depend on the complexity of the work being performed and the qualifications, experience and competency of the person performing the task.

Appropriate levels of supervision shall be carried out by a Registered or Licensed Surveyor when accepting responsibility for the work of a Registered Person.

This supervision shall be fully documented as part of the quality control procedures and shall form part of the survey records.

# 103.0 Disagreements Between Surveyors (Section 23 Surveyors Regulation 1992)

If two or more surveyors, or a surveyor and the registering authority, are unable to agree that a survey has been performed in accordance with this regulation or the Board's directions, a person who is independent of the disagreement and acceptable to all parties could be asked to mediate/arbitrate a solution so as to avoid the disagreement being referred to the Board as a complaint for investigation.

# 104.0 Connection Of Surveys (Section 21 Surveyors Regulation 1992)

Where surveys, such as telecommunication sites, are effected in isolated areas and the cost of connecting those surveys by traditional means to existing surveys is prohibitive, the position of those surveys can be determined by using GPS equipment.

# 105.0 Encroachment (Section 26 Surveyors Regulation 1992)

The following definitions are from S183, Property Law Act 1974.

"building" means a substantial building of a permanent character: the term includes a wall;

"encroaching owner" means the owner of land contiguous to the boundary beyond which an encroachment extends;

"adjacent owner" means the owner of land over which an encroachment extends;

"boundary" means the boundary line between contiguous parcels of land;

"owner" means any person entitled to an estate of freehold in possession:

- (a) whether in fee simple or for life or otherwise;
- (b) whether at law or in equity:
- (c) whether absolutely or by way of mortgage, and includes a mortgagee under a registered mortgage of a freehold estate in possession in land under the Real Property Acts;

"subject land" means that part of the land over which an encroachment extends;

Either an adjacent owner or an encroaching owner may apply to the Court for relief under the Property Law Act in respect of any encroachment.

Note: A "weldmesh" fence set in concrete foundations was held to be a "substantial building of a permanent character" pursuant to Section 183 of the Property Law Act 1974. See Ex parte Van Achterberg, 1984 1 Qd.R.160.

# 106.0 Easement Surveys - (Section 24 Surveyors Regulation 1992)

#### 106.1 General

- 106.1.1 It is recommended that the intersection of existing easement and new lot boundaries be marked. Land owners have a right to know where the boundaries of easements are positioned.
- 106.1.2 Where an easement boundary is positioned close to a surveyed boundary or corner, a connection should be made to that surveyed boundary or corner.
- 106.1.3 Where appropriate and particularly in large rural holdings, connections should be taken to substantial fencing, significant structures or improvements, unusual topographic features or vegetation and adequate descriptions of the improvements or features recorded.
- 106.1.4 Where an engineering survey has been carried out along the easement, connections should be made to marks placed on that survey sufficient to relate the two surveys to each other.
- 106.1.5 Where surveys of extensive easements are required, such as major powerline easements, the surveyor should be conscious of the opportunity to co-ordinate all existing surveys intersected by the easement by establishing accurate control over new easement boundaries and existing lot boundaries.

#### 106.2 Visible evidence

- 106.2.1 Where there is clear evidence of the purpose of the easement, such as power poles or towers, electricity transmission lines, water trunk mains, the easement may be surveyed by traversing the line of structures or line of engineering centre line pegs and marking the secants at each bend.
- 106.2.2 Where there is intermittent evidence of underground easement structures, such as manholes and valves, connections should be taken and appropriate descriptions recorded.

# 107.0 Traverses (Section 24 Surveyors Regulation 1992)

- 107.1 Traverse stations should be marked and referenced in such a way that they can be readily reinstated in the future.
- 107.2 Where it is considered appropriate, traverse station pegs or alternate marks should be driven flush with the ground or pavement surface.
- 107.3 On traverses of natural features such as watercourses, the tree nearest to each unreferenced traverse station should be blazed with three horseshoe marks with the centre mark facing the station, except where difficulties may be experienced with vegetation protection orders.

#### 108.0 Meridian Determination

#### 108.1 Australian Map Grid - AMG

#### 108.1.1 Surveys on AMG

The meridian of each survey should be established on AMG by reference to:

- (a) Co-ordinated permanent marks
- (b) Solar or stellar observations or
- (c) previous or adjoining surveys

The practice of describing the meridian of a survey in terms of the meridian of a previous or adjoining survey which has not been referred to either true meridian, AMG or CAM, should be discouraged.

#### 108.2 Integration of Surveys

The Board fully supports the principles of co-ordination of surveying activities, and to facilitate the integration of survey data, it is recommended that where the meridian can not be accurately related to AMG, then a local meridian between permanent survey marks be adopted.

The local meridian may be referenced in accordance with Regulation 32.(1). The use of permanent survey marks, in preference to less substantial reference marks, will allow the meridian to be maintained over a longer period. All types of surveys should be related to such local datums.

It is intended that pockets of "integrated surveys" will develop, and future correlation to the Australian Map Grid, could be achieved by determining the co-ordinates of these permanent marks, possibly by GPS.

Hence, it is recommended that such permanent marks be selected, and/or placed, giving due regard to their role in the integration of survey data.

#### 108.3 Large Projects

Many sizeable projects such as major water storage facilities and resumptions, residential staged development, etc are currently established on the AMG co-ordinate system. This form of co-ordination will be facilitated if the geodetic densification of Queensland concentrates initially on the 'needs' areas of the State.

#### 108.4 Professional Responsibility

Based on the premises and assumptions already made, AMG co-ordination will allow surveyors to operate with more accuracy, efficiency and confidence, with a perceived saving to the community that pays for work to be done. It is essential therefore that all surveyors actively participate in the ongoing discussion.

If the geodetic densification is to proceed, the survey profession should ensure that the geodetic control is established on a 'needs' basis.

When such control is readily available, the cost to the small consumer can be justified.

#### 108.5 Extensive Surveys

In extensive surveys, unless GPS equipment or sufficient co-ordinated marks are available, observations should be taken as necessary to confirm meridian stability.

#### 108.6 Future Reinstatement of Meridian

Opportunities should be taken to read accurate bearings from stations on the survey to beacons on control survey marks and to precisely identifiable parts of buildings or other structures to assist future reinstatement of meridian.

#### 108.7 Survey in Separate Parts

Where a survey consists of separate parts, the same meridian should be used for the parts. The common meridian can be obtained by observation or by connection.

# 109.0 Non Tidal Boundaries

(Section 24 Surveyors Regulation 1992)

The survey of a non-tidal boundary determines the location of a natural feature at a particular point in time. If that survey creates a title, then the dimensions to the watercourse and the area on that title, are those determined at that point in time. At all times it is the natural feature - the non-tidal boundary, that is the boundary. Non-tidal (and tidal) boundaries are ambulatory boundaries subject to the principles of erosion and accretion.

Subsequent measurements to the non-tidal watercourse may differ from original measurements because:-

- (a) surveyors may measure to a different location on the feature; or
- (b) the feature may have changed since the previous measurement.

Measurements should be taken normal to the feature at representative points which will adequately define the feature. The accuracy of the measurements should be appropriate to the physical shape of the feature at that location. (Well defined features are able to be measured with greater accuracy than less well defined features).

When the feature changes by means other than 'slow and imperceptible' (ie. as a result of a flood or by human intervention) then any subsequent determination of the boundary has to consider all the relevant facts, including previously surveyed measurements.

The Surveyors Regulation 1992 requires that the landward edge of a non-tidal watercourse be adopted as the boundary. In general this landward edge can only be located after the extent of Crown ownership of a watercourse is determined. This is effected by applying the 'bed and banks' definition (Water Resources Act 1989) to the particular facts in each case.

The facts that are relevant to a particular section of a watercourse include:-

- (a) its actual physical shape; and
- (b) the characteristics of the water that flows in it from time to time.

Should the location of a watercourse boundary be in dispute then, as a last resort, it will be determined in a court of law, based on the facts presented.

In 1989 a Supreme Court decision in the 'Kedron Brook case' (Randal and Reinicke v. the Brisbane City Council and the Commissioner of Water Resources), found that the 'bed and banks' vested in the Commissioner extended to a feature marking the normal flow in Kedron Brook at that location. (Note - the Water Resources Act 1989 now vests the ownership of the 'bed and banks' in the Crown.)

This decision is a judicial finding, based upon the application of the 'bed and banks' definition to the facts presented for a particular area. (The facts presented included a detailed survey plan and cross sections, historical stream flow records and statements by Halsbury re the 'normal state' of a river.)

Surveyors should note that this is recent Case Law and that caution should be exercised before moving away from established practices of determining watercourse boundaries. The following is an extract from the 1978 Directions to Surveyors.

"The flow in most watercourses has three distinct patterns:

- (i) The low or dry weather flow which is confined to a relatively small channel. The flow may cease entirely in very dry times. This is the condition of the watercourse most of the time.
- (ii) Freshes occurring several times per year (in higher rainfall areas less frequently in drier regions) following seasonal heavy rain. The flow may extend from bank to bank.

Conditions (i) and (ii) constitute the normal flow in the watercourse.

(iii) Infrequent very high flows following extended periods of very heavy rain in which the watercourse overflows its bank and spreads over the adjacent countryside. The term 'flood waters' used in the definition of the 'bed and banks' in the Water Resources Act refers to those waters overtopping the banks in (iii) and spreading out.

The 'bed and banks' of the watercourse (in law) extend between the tops of the banks which confine the flow in (ii) and which are overtopped by the infrequent flood waters in (iii)."

### 110.0 High Water Mark

#### 110.1 Diurnal Tides

The definition of spring tide cannot be applied to tides which are diurnal in their form (ie 1 tide per day) such as in the Gulf of Carpentaria. This diurnal tide case is too difficult to incorporate in general rules and in any event has little practical significance. (The USA authorities undertook a project to resolve a similar difficulty. At present no information is in hand on the success of this project). At the worst case it would fall to practical people to set a "reasonable" equivalent boundary line at the time of survey.

#### 110.2 Mean High Water Spring Tide (MHWS)

There appears to be no technical definition of the term Ordinary High Water at Spring Tides available. In the calculation of the height of High Water Ordinary Spring Tides, Spillsbury explains that in the UK (where these terms originate) tides which are considered to be very different from the norm are omitted from the calculation. By analogy it is expected that the similar term "Ordinary high tides at Spring Tides" would be treated in the same manner. Accordingly, calculation of "Ordinary High Tides at Spring Tides" is subject to the personal bias of the person computing the height when selecting those tides to exclude.

Recognising this obstacle, the Departmental (Transport) practice has been to accept the height of Mean High Water Spring Tide (MHWS) as substitute for the "Ordinary High Tides at Spring Tides". MHWS is easily calculated by rule and includes all spring tides in the calculation. Statistically in the long term, the values of Ordinary High Water at Spring Tides and MHWS will be the same.

The Harbours Act 1955-1989 reinforces this Departmental practice. The recent amendment to Section 8 includes a definition of "Coast" which specifically refers to MHWS.

"Coast" - All land, including the bed and banks of any river, stream, watercourse, lake or other body of water -

- (a) that is situated above mean high water mark at spring tides of any tidal water and within 400 metres, measured by the shortest distance, of that mark;
- (b) that is situated below mean high water at spring tides of any tidal water;

The term applies with respect to every island forming part of the State.

#### 110.3 Mean Conditions

Attention is drawn to the fact that all the tidal levels refer to "mean" conditions. Accordingly there will be times when the tides flow onto the landward side of any HWM boundary.

#### 110.4 Tidal Database

The Department of Transport has at its disposal the Queensland Tidal Database which contains tidal levels for a large number of coastal places. This information could be made available to surveyors, at the appropriate commercial rate, if required.

### 110.5 Methods for determining position of a tidal boundary

Article 22 of the Manual of the New South Wales Integrated Survey Grid, published by the Department of Lands NSW, provides some details of tidal boundaries. The article also includes a number of methods of determining the position of a tidal boundary. The methods are listed below:

#### 110.5.1 Levelling from a bench mark

### 110.5.2 Levelling from a local tide gauge

#### 110.5.3 The range ratio method

As these methods are suitable for the determination of both MHW and MHWS, the manual should be adopted.

Additionally the following procedure could be included as a fourth method.

### 110.5.4 Height Transfer at High Tide.

It is required to locate the HWM - Ordinary High Water at Spring Tide. In accordance with paragraph 32.2, Mean High Water Spring Tide is an appropriate measure of the height of Ordinary High Water at Spring Tide.

By reference to the nearest Standard Port listed in the Qld Tide Tables, select a tide which is predicted to rise to approximately the height of MHWS (within a few centimetres).

Observe the height of that high tide at the survey site and at the Standard Port.

Prior arrangements should be made with the authority controlling the standard port tidal station to obtain the required tidal heights from that station. It may take several weeks before the standard port tidal heights can be made available.

Confirm the height determination by observing the high tides 25 hours before and after the selected tide.

Because the selected tide may not rise to exactly the predicted height, it is advisable to correlate the observed tides at both places. Use the

height of the Mean High Water Spring Tide (MHWS) at the Standard Port to estimate the equivalent height (MHWS) at the survey site. An example calculation is included below.

Locate the intersection of the Mean High Water Spring Tide plane on the ground. That line is the best estimate of the line of Ordinary High Water at Spring Tide.

This procedure should not be used during times of abnormal weather or flooding. Subject to this proviso and in cases where the position of the line is not critical, tidal predications may be used in lieu of the observations at the standard port.

Survey Site: Standard Port: Column 1		Some Place Brisbane Bar		
		Brisbane Bar		Brisbane Bar
Predicted		Observed	Observed	
High Tides only		High Tides	High Tides	
	Time	Height	Height	Height
		m Port	m Port	m AHD
		Datum	Datum	(D)
25 hours	1023	2.04	2.14	1.27
before	2230	1.40		N/A
Selected	11.4	2.14	2.28	1.41
date	2255	1.63		N/A
25 hours	1215	2.30	2.39	1.52

Note: in this example, the observed tides are approximately 0.10m higher than they were predicted to be.

To obtain an Interpolated Height at the survey site:

(i) subtract Col 2 from Col 1 and add to Col 3, to correct the observed value in Col 3 to the predicted value in Col 1;

e.g for row 1— 
$$2.04 - 2.14 = -0.10 + 1.27 = 1.17$$

(ii) subtract Col 1 from MHWS at Standard Port and add to corrected value in Col 3, to correct predicted value to MHWS.

e.g for row 1— 
$$2.16 - 2.04 = 0.12 + 1.17 = 1.29$$

Similarly the values in rows 3 and 5 may be correlated to MHWS to give an Interpolated Height at the survey site of 1.29m.

# 111.0 Permanent Marks (Section 29 Surveyors Regulation 1992)

- 111.1 It is preferable to place new permanent marks in close proximity to the survey rather than to make lengthy connections to existing marks.
- 111.2 Where local conditions preclude the placement of permanent marks, an explanatory report should be included in the survey records.
- 111.3 Every opportunity should be taken to make connections to existing permanent marks in close proximity to the survey, particularly those not previously connected to cadastral surveys. Details of permanent marks that have been previously connected to cadastral surveys are shown on survey plans. Sketches of permanent marks are available from the Department of Lands Regional Offices.
- A search should be made for permanent marks installed during the construction of roads, railways, etc. Some of these may be indicated by a finder post while others may be found in concrete structures associated with the project.
- 111.5 All Form 6 and updates on the information shown thereon, should be lodged with Regional Offices.

# 112.0 Marking Boundaries (Section 27 Surveyors Regulation 1992)

- 112.1 Pegs should be used to mark corners and boundaries of land.
- 112.2 Lot numbers should be marked on corner pegs.
- 112.3 For rural surveys, where a fence post is used as a corner it should be branded with a broad arrow and the lot number except where a reference tree is taken.
- 112.4 For rural surveys, alternate marks such as a survey post, a galvanised iron pipe or star picket may be placed at corners where circumstances so dictate, provided such marks are identifiable as survey marks.
- 112.5 New boundaries should be cleared and marked sufficiently to enable the boundary to be readily and unambiguously discernible on the ground at the completion of survey.
- Where clearing is required, scrub, undergrowth and small trees should be removed without unnecessarily disturbing or destroying native flora and fauna.
- 112.7 Unless fencing is to proceed immediately, trees standing nearest to the line should be blazed with a horseshoe shaped mark cut into the heart-wood on opposite sides of the tree in such positions that the marks face along the survey line.

- 112.8 Trees through which the boundary line passes should be double blazed on opposite sides so that the marks face along the boundary line.
- 112.9 Where corner pegs are not intervisible, line pegs should be placed.

# 113.0 Reference Marking (Section 28 Surveyors Regulation 1992)

#### **113.1** Iron Pin

The positions and depths at which pins are placed should be decided by the surveyor so as to minimise the chance of disturbance from any cause and the depth at which the pin is placed should be recorded if the depth is excessive.

Where original iron pins are found, the depth of the pin, should be recorded, where the depth is excessive.

#### 113.2 Rural Areas

In rural areas, reference marks include reference trees (where there is little likelihood of the tree being destroyed in the foreseeable future), buried iron pins, and other appropriate marks.

#### 113.3 Urban Areas

In urban areas, reference marks include iron pins, screws/nails in kerbing or manhole surrounds, star bars, corners of shop or buildings and street signposts.

#### 113.4 Estate Development

In residential estate development, it is essential that an adequate number of reference marks are deployed to allow reinstatement of lot boundaries at reasonable cost.

A variety of surface and sub-surface marks (mark in kerb, pin, etc) should be placed to minimise the destruction of reference marks by machinery and earthworks and maximise future reinstatement.

Permanent marks should be placed to facilitate future co-ordination and reinstatement.

# 114.0 Photogrammetric Surveys

The Registering Authorities are able to accept the use of photogrammetry for some types of cadastral survey. Features of a photogrammetric survey are:

➤ the survey is over sufficiently large distances to enable computed bearings and distances to meet accuracy standards (Section 31), and

- ➤ boundaries are clearly identifiable on the ground, eliminating the need for marking (Section 27a), and
- ➤ the photogrammetric survey connects to and supports field survey (Section 21).

Photogrammetric surveys are appropriate where the boundary can be readily identified on the ground and on the aerial photograph. This implies that the boundary will follow an existing structure (eg fence) or a prominent natural feature such as a ridge or water course.

The accuracy required will determine the minimum scale of photography to be used. In many cases suitable photography may already be available from the Department of Lands or private operators.

Clearly identifiable points on the photographs are measured in the field and connected to the local cadastral survey datum, generally through the AMG co-ordinate system to provide control for the photogrammetry.

Photogrammetric measurement and computation must be undertaken by a suitably qualified person.

# 115.0 Historical Marking (Section 26 Surveyors Regulation 1992)

During survey, consideration shall be given to historical marking.

Survey legislation prior to 1977 provided for the following types of marking:

## 115.1 Pointer Pegs

Adjacent to portion and road corners in country lands, split hardwood pegs, free of sap wood, twelve inches (300mm) long and one and a half inches (40mm) square, were driven level with the surface of the ground. These pegs were aligned with the theodolite in the direction of the boundaries, and driven at exact distance of twenty links (4.023m) from corner posts.

Pointer pegs first appeared in the Queensland General Directions of 1878. They continued in use up till the 1950's (not placed by all surveyor's) and did not appear in the 1964 Rules and Directions for the guidance of Surveyors.

#### 115.2 Reference Tree

Reference trees were used for the early surveys in Queensland from 1839 onwards but it was not until 1898 that surveyors were required to cut a bench mark at the base of the tree for a traverse connection to a property corner. Prior to 1898, surveyors took connections to the shield on the tree.

Reference trees are still considered to be excellent reference marks, particularly in rural areas without extensive closer settlement. Surveyors should be aware of Vegetation Protection Orders, environ-

ment considerations and in particular the ecology balance for mudflats, mangroves and the like.

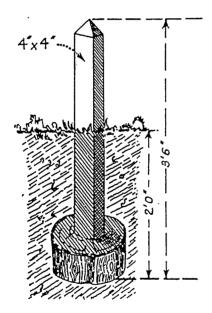


When reinstating corners, if the reference tree appears to have been destroyed, decayed or burnt, a diligent search must be made for the butt of the tree or remains of the tree.

When a tree is used as a reference mark, the bark should be removed in the form of a shield about 1.5 metres from the ground and exactly facing the corner. On this barked space a broad arrow and the lot number are cut into the heart-wood. The bearing and distance should be observed from the corner to a chisel cut in the centre of a bench mark cut well into the heart-wood at the base of the tree and exactly facing the corner.

As of 1975, surveyors reverted to references from corners to trees and not from trees to corners.

#### 115.3 Survey Post



A survey post was cut from hardwood, three feet six inches (1.05m) long and dressed to no less than four inches (100mm) square, with a butt six inches (150mm) long and the full round size of the timber left on the bottom of the posts and the top pointed as indicated in the diagram.

Survey posts are still acceptable for marking corners, particularly in rural areas where there is no immediate likelihood of the fencing of boundaries proceeding.

When reinstating a corner where a survey post had originally been placed but now appears to be gone, a diligent search must be made for the butt or remains of the survey post below ground level.

<u>Corner Post. Country Portion</u> <u>showing</u> butt. Survey posts came into general use on country portion surveys by 1870. before this "large stakes" were in use.

### 115.4 Lockspits

The word 'lockspit' derives from the ancient terms for whole ('lock') and turf ('spit').

The principal corners of the portions were marked by corner posts. Outside a fifteen inch (375mm) radius from the posts, lockspits three

feet (900mm) long and six inches (150mm) deep were dug in the direction of boundary lines.

On very stony lands, rows of stones placed in the direction of the surveyed line were substituted for dug-out lockspits. In dense scrubs, or where soils were of such a nature that lockspits quickly filled up and consequently were useless as permanent indicators of direction of survey lines, they were omitted.

Lock spits first appeared in the New South Wales Instructions for Marking Crown Land by Government Surveyors in 1853 but have been used long before this in New South Wales and overseas as marking for boundaries. The first appearance of them is in the 1878 Queensland General Directions and they were used up until the 1950's but were not included in the 1964 Rules and Directions (They were rarely used in the 1940's and 1950's).

#### 115.5 Line Pegs

At distances not exceeding ten chain (201.168m) apart, and always so situated as to be visible one from the other, split hardwood pegs one foot six inches (450mm) long and two inches (50mm) square, clear of sap wood, were aligned with the theodolite and driven fourteen inches (350mm) into the ground.

Line Pegs first appeared in the 1878 General Directions of Queensland and their use continues right up to present time.

### 115.6 Fence Traverses - Grazing Farms

The survey legislation of 1964 (Rules and Directions) detailed the method of traversing and marking fences that were used as the boundaries of Grazing Farms.

In the survey of Grazing Farms, fences were traversed only and suitable fence posts (preferably strainer posts), adopted as corners or corner pegs or posts placed near or under the fence. The straight lines between corners were computed and adopted as boundaries, care being taken that the distance of the fence from the computed boundary nowhere exceeded about 20 links (4m) and that the corners were not more than 80 chains (1600m) apart.

The fence posts so adopted were marked with a broad-arrow, and, if no tree was available, marked with the portion number also; iron pins were placed in accordance with Clause 58 of the Rules and Directions.

As it was desired to preserve traverse lines along fences forming portion or road boundaries in grazing area, such traverses were marked by placing a hardwood peg two inches (50mm) square and eighteen inches (450mm) long under or beside the fence opposite each picket, the chainage and offset in each case being recorded in the field notes and the nearest convenient tree blazed on three sides.

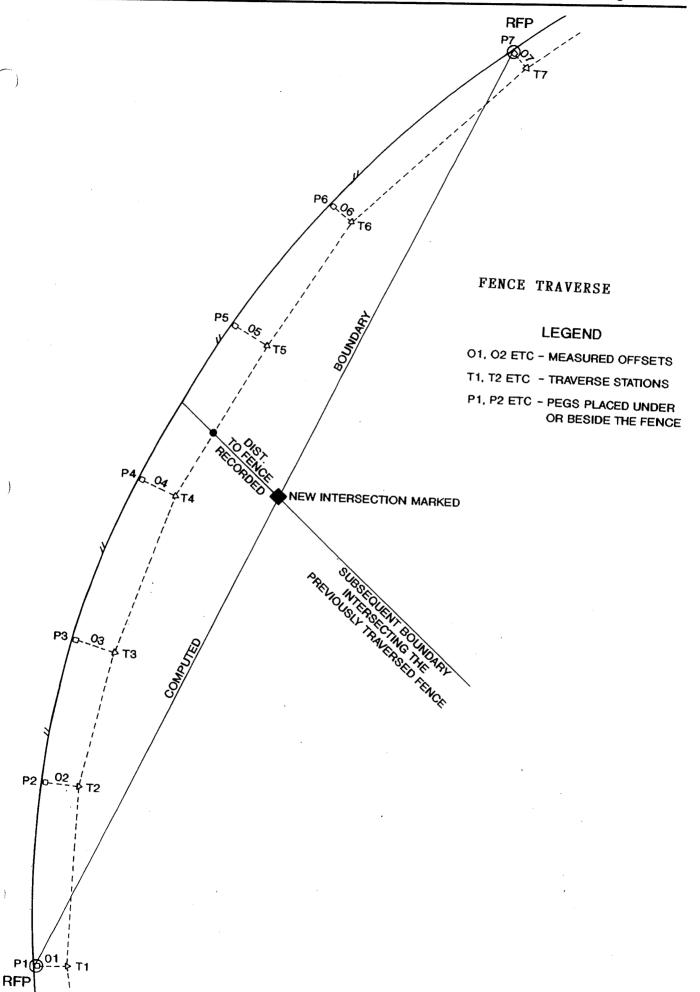
As some uncertainty seemed to exist among surveyors as to the method of traversing and pegging fences to be adopted as boundaries of Grazing Farms, the following rules were to apply:

- 115.6.1 As the fence is the actual boundary, the computed lines between corners were to be kept as close to the fence as possible so that areas were not greatly affected;
- 115.6.2 The traverse lines were to be kept reasonably close to the fence to facilitate the placing of pegs under (or beside) the fence;
- 115.6.3 Pegs two inches (50mm) by two inches (50mm) by eighteen inches (450mm) were to be placed under the fence square off pickets not more than 20 chains (400m) apart;
- 115.6.4 A corner peg 3 inches (75mm) by 3 inches (75mm) by 18 inches (450mm) was to be placed under the fence where there was a definite bend, or, the strainer post adopted, but otherwise corners were to be established not more than about 80 chains (1600m) apart;
- 115.6.5 In order that the traverse lines could be easily re-established, a careful offset was to be taken from the traverse line to each peg and recorded in the field notes. (No attempt was to be made to place intermediate pegs on the computed through line);
- 115.6.6 The computed line, fence and pegs were shown in the centre column of the field book the traverse lines on the relative side;
- 115.6.7 When intersecting of commencing on a previously traversed fence, the traverse line was to be established and the corner placed on the original computed line;
- 115.6.8 When fence traverses and intersections as above were required by instructions of even date the post or peg was to be placed under the fence and used as a corner when computing the boundaries along the fence line.

It is important for surveyors to realise that pegs found under or beside such fences were not necessarily on the boundary which is the straight line computed between the adopted corners.

The relationship between the pegs found and the computed boundary can be calculated from the information supplied by the surveyor in his field book.

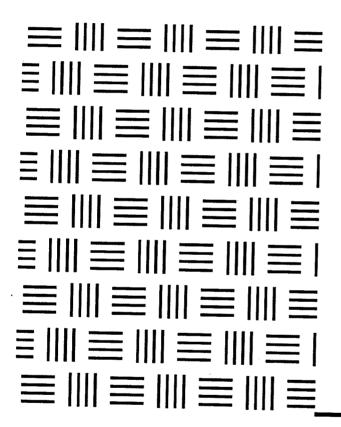
See Diagram at right



Part

**E2** 

# Survey Plan Guidelines





Outlining the recommended drafting practices which the Surveyors Board believe will satisfy the requirements of the Registering Authorities

Covers both
Department of Lands and
Department of Minerals &
Energy survey plans

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PROVISIONAL EDITION 1978
FIRST EDITION 1983
AMENDMENTS ISSUED 1984
SECOND EDITION 1988
AMENDMENTS ISSUED MAY 1989
AMENDMENTS ISSUED AUGUST 1989
THIRD EDITION 1992

# **PREFACE**

These Guidelines outline the recommended drafting practices which the Surveyors Board of Queensland believe will satisfy the requirements of the Registering Authorities.

The Guidelines indicate drafting procedures that will ensure:

- > plans submitted are suitable for the purpose of the survey
- ➤ the property is accurately and unambiguously described so that tenure documents based on the plan will be correct
- ➤ the survey data can be incorporated into archives as a resource for future surveys
- > survey marks placed by the survey are accurately recorded
- ➤ the plans can be reproduced on a reduced scale without loss of clarity and quality.

These procedures support Section 30 of the Surveyors Regulation 1992 and are directed towards achieving consistency in the recording of Surveys and Survey Data.

President, Surveyors Board Of Queensland

# **GENERAL**

The amendments to these Guidelines are made by replacement of the applicable page(s). Each amendment page when issued is identified by a revision number and an updated copy of the Revision Log Page will indicate all the amendments.

These Guidelines cancel and replace the previous 1988 Survey Plan Guidelines and the Amendments issued 1989.



President, Surveyors Board of Queensland

Date

Refer to the Revision and update instructions in the Introduction section of this Manual

# General Requirements

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## 1.1 Abbreviations - General

For use where space prevents use of full word.

A limit of three consecutive letters is preferred eg. Cen.face S.F.P. or C. face S.F.P. (Not C.F.S.F.P.)

The full stops denoting an abbreviation may be omitted.

43	41.
About	
Addition	
Alignment Spike	•
Alluvial Mining Claim	
Application Post	
Approximately	Approx.
ARCADE	
Australian Geodetic Datum	A.G.D.
Australian Height Datum	A.H.D.
Australian Map Grid	A.M.G.
<del>-</del>	
Balance	Bal.
Bank	Bk
Bitumen	Bit.
Block	
BOULEVARD	
Brick	
BROADWAY	
Brook	
Building	
Building Unit Plan	
Business Area	
Dusiness Area	D.A.
	<b>~</b> 1
Calculated	
Centre	` '
CHANNEL	
CHASE	
CIRCLE	
CIRCUIT	
CLOSE	
Coal Mining Lease	C.M.L.
Concrete	
Connection	
Construction	Constn
Continued	
Corner	
County	
COURT	
Creek	
CRESCENT	
CROWN PLAN	
CINOWIN FLAIN	U.P.

Datum Post	D.Post
Dead	Dd
Deep Driven Mark	D.D.M.
Department of Lands	D.O.L.
Department of Minerals & Ene	ergyD.M.E.
D.M.E. Plan	
Departmental	Deptl
Developmental	
Diagram	Dev.
Distance	D1ag.
Disturbed	Dist.
Dog Spiles	Distd
Duadaina Auss	D. Spk.
Dreuging Area	D.A.
Dredging Claim	D.C.
Dredging Lease	D.L.
Drill Hole (& Wing)	
DRIVE	DR.
Easement	Emt
East	E.
Electric Light Pole	ELP
ESPLANADE	ESP.
Exploration Permit	E.P.
Coal	E.P.C.
Minerals	E.P.M.
Petroleum	E.F.M.
EXPRESSWAY	EXPWY
Extended	EXPW 1
	EXTO
Fence Posts:	
	R.F.P.
Square Fence Post	
Square Congrete Force Post	
equare Concrete Pence Post	
Round Steel Fence Post	`
	)either
Round Galv.Iron Fence Post	) Steel F.P.
Steel Fence Post	) or
Tubular Steel Fence Post	)
Corner Square Fence Post	Cor S.F.P.
Centre Round Fence Post	Cen R F P
Centre Face Square Fence Post.	Cen.Face S.F.P. (C.Face S.F.P.)
	(
Fences: eg. 2 Barbed Wire, 1 Plai	in Wire2B.1P
FREEWAY	FWY
Foot	Ft
Found	Ft
	**************************************
Galvanised	
Galvanised	
Galvanised Iron	
Gold Field Homestead	
Galvanised IronGold Field HomesteadGold Mining Lease	

Group Title Plan	G. <b>T.</b> P.
GROVE	GR.
Gully Trap	G/T
Headwall	Hdwll
Hectares	ha.
HIGHWAY	HWY
High Water Mark	H.W.M.
Holding	
Identification	Ident.
Identification Survey	I.S.
Instruction	Inst.
Intersection	Intsn
Iron Pin	I.Pin
(I.P.	never used)
ISLAND	IS.
Kerb	Kb
Kilometre (s)	Km
LANE	LA.
Leaning	Leang
Left Bank	L.Bk
Licensed Gem Claim	L.G.C.
Line Peg	L.P.
Local Government	Local Govt
Low Water Mark	L.W.M.
Manhole	M/H
Market Garden Area	M.G.A.
Mark	Mk
Measurement	Mmt
Metre (s)	m.
Mineral Claim	M.C.
Mineral Development License	M.D.L.
Miners Homestead	M.H.
Miners Homestead Lease	M.H.L.
Miners Homestead Perpetual Lease	M.H.P.L.
Mining Lease	M.L.
Mining Title Freehold Lease	
Mount	
1410/4116	
Mountain	Mtn
	Mtn
	Mtn
Mountain	
Mountain	G.I.Nail
Mountain Nails:	G.I.Nail L.H.Nail
Mountain  Nails: Galv. Iron Nail  Lead Head Nail  Ramset Nail	G.I.Nail L.H.Nail Ram.Nail
Mountain  Nails: Galv. Iron Nail Lead Head Nail Ramset Nail Round Head Nail	G.I.Nail L.H.Nail Ram.Nail R.H.Nail
Mountain  Nails: Galv. Iron Nail Lead Head Nail Ramset Nail Round Head Nail Spring Head Nail	G.I.Nail L.H.Nail Ram.Nail R.H.Nail S.H.Nail
Mountain  Nails: Galv. Iron Nail Lead Head Nail Ramset Nail Round Head Nail	G.I.Nail L.H.Nail Ram.Nail R.H.Nail S.H.Nail S.O.Mk.

0114 4 1
ObliteratedObltd
OccupationOccupn
OldOld
OriginalOrig. (O.)
Original Iron PinO.I.P.
Original Line PegO.L.P.
Original PegO.P.
Original Permanent MarkO.P.M.
Original Pointer PegO.Ptr.
Original Reference TreeO.R.T.
Original Survey Post
OverheadO/H
PARADEPAR.
PARKWAYPKWY
PATHWAYPI'HWY
PegPeg(P)
Permanent Perm.
Permanent MarkPerm Mk (P.M.)
Petroleum Lease
Petroleum Well Location
Pipeline license
PLACEPL.
PlacedPld
PLZ.
PlinthPlth
Pointer Ptr
PortionPor.
Power PoleP.P.
PROMENADEPROM.
QUAYQY
<b>4.</b>
RAILWAYRLY
Ranged Only Rgd Only
Reads Rds
Recreation Rec.
Redundant Catalogue Plan
Registered Plan
ReinstatedReinstd
Remains
RemainsRmnsRemarkedRemkdRemovedRemvdRenewedRenwdResetResetReserveRes
RemainsRmnsRemarkedRemkdRemovedRemvdRenewedRenwdResetResetReserveResReservedResd
RemainsRmnsRemarkedRemkdRemovedRemvdRenewedRenwdResetResetReserveResReservedResdResidence AreaR.A.
Remains         Rmns           Remarked         Remkd           Removed         Remvd           Renewed         Renwd           Reset         Reset           Reserve         Res           Reserved         Resd           Residence Area         R.A.           Restricted Mining Claim         R.M.C.
Remains         Rmns           Remarked         Remkd           Removed         Remvd           Renewed         Renwd           Reset         Reset           Reserve         Res           Reserved         Resd           Residence Area         R.A.           Restricted Mining Claim         R.M.C.           Restricted Mining Purposes Claim         R.M.P.C.
Remains         Rmns           Remarked         Remkd           Removed         Remvd           Renewed         Renwd           Reset         Reset           Reserve         Res           Reserved         Resd           Residence Area         R.A.           Restricted Mining Claim         R.M.C.

Right of Way
RIVERRIV.(R.)
ROADRD
SectionSec.
SheetSh.
South
Special Bauxite Mining LeaseS.B.M.L.
Special Coal Mining LeaseS.C.M.L.
Special Gem Claim
Special Mining Lease
Special Perpetual Mining Purposes Lease
SpikeSpk.
Split
StandardStand
Star Picket
Station Stn
StraightenedStrghd
Strainer Stnr
STREETST
StumpStp
SuburbanSubn
SurfaceSurf.
Surface AreaSurf. Area (S.A.)
SurveyedSurvd
Tailings AreaT.A.
Telegraph PoleT.P.
TERRACE TER
Traverse
UndergroundU/G
,
Vacant Crown LandV.C.L.(Vac.)
Very OldV.Old
Water HoleW.H.
Water RightW.R.
Watershed
WestW.

If Upper and Lower case is used for a word to be abbreviated, then use Upper and Lower case for abbreviation eg:–
RAILWAY – RLY; Railway Fence – Rly fence;
CHANNEL – CHNL; Kerb and Channel – Kerb & Chnl

# 1.2 Abbreviations - Common Trees

Bauhinia	Bauh.	Mahogany	Mahog.
Beefwood	Beefwd	Mangrove	Mgrove
Blackbutt	Bkbutt	Messmate	Mmate
Blackwood	Blackwd	Milkwood	Milkwd
Blodwood	Bldwd	Moreton Bay Ash	M.B. Ash
Bollywood	Bollywd	Nutwood	Nutwd
Bonewood	Bonewd		
Bottle Brush	Bot. Brush	Peppermint	Pmint
Bottle Tree	Bot. Tree	Pepperwood	Pepperwd
Boxwood	Boxwd	Poplar Gum	Pop. Gum
Brigalow	Brig.		-
		Quandong	Qdong
Cabbage Gum	Cab. Gum		-
Camphorwood	Camphwd	Rosewood	Rosewd
Candlenut	Candnt		
Cheesewood	Cheesewd	Saffron Heart	Saf. Heart
Coachwood	Coachwd	Sandalbox	Sandbox
Coolibah	Coolbh	Sandalwood	Sandwd
Corkwood	Corkwd	Sassafras	Sasfras
Cottonwood	${\bf Cottonwd}$	Satinwood	Satinwd
Cypress Pine	Cy. Pine	Scrubtree	Scrub
		Scrubwood	Scrub
Dead Finish	Dd Fin.	Silkwood	Silkwd
		Spotted Gum	Sp. Gum
Fibrewood	Fibrewd	Stringybark	Stybk
Gum Topped Box	G.T. Box	Tallowwood	Tallowd
		Tuulipwood	Tulipwd
Ironbark	Ironbk	Turpentine	Turp.
Ironwood	Ironwd		z mp.
		Whitewood	Whitewd
Johnson River Hardwood	J.R. Hardwd		
		Yellowjacket	Y Jacket
Kurrajong	Kjong	Yellowwood	Yellowd
Lancewood	Lancewd		

(Other tree names are generally shown in full)

# 1.3 Accuracy

1.3.1 Under the Surveyors Regulation 1992 "the word "accuracy" has the commonly understood meaning - precise, exact, correct in accordance with a standard - and so has a wider meaning than that frequently used by surveyors when referring to accuracy of measurement."

Certification of the words used in Form 13 of the Surveyors Regulation 1992 (Section 25 and 30) - "that the plan is accurate" implies a declaration that the plan is correct in every detail and is in accordance with the standards of accuracy specified in the Surveyors Regulation 1992 and is suitable for the intended action.

Vide Direction 6 of the Directions to Surveyors 1992.

See also "PLOTTING" 1.5 and "SCALE OF PLANS" 1.5

# 1.4 Adjoining Description

**1.4.1** All adjoining information will be shown in sloping hairline.

See also "STYLES" 1.62.3

**1.4.2** For all Registering Authorities the latest adjoining <u>registered</u> descriptions and relevant catalogue numbers are to be shown as follows:-

#### Sample

21 42 ML4 16 SL10432 CP808793 MP34567 RP123456

#### NOTE:

- ➤ P12345 is never shown show RP123456 regardless of status for plans of Freehold lands.
- ➤ County Prefixes, eg. SL, WD etc., no longer form part of the Catalogue Number for new plans of Crown Tenure. These have been replaced by a generic C.P. (Crown Plan) which will form part of the Catalogue Number and shall be shown as such for adjoining descriptions. (See above example.)

Ongoing surveys involving several plans should show the most recent adjoining descriptions pertinent to that survey (i.e. show the new description created on the survey as adjoining information).

See also "PLAN FORMS" 1.49

### 1.4.3 Adjoining Easements

#### Sample

A G SL 20657 RP213175

➤ Show existing Easements and Registered Plan numbers that abut the subject boundary.

See also "EXISTING REGISTERED EASEMENTS" 1.29.3

#### 1.4.4 Adjoining Railways

- ➤ Show Railway Name in all cases
- ➤ For Land held by the Commissioner of Railways in a Certificate of Title, the full RP. Description must also be shown.

Vide Direction 12 of the Directions to Surveyors 1992.

## 1.4.5 Adjoining Building Units Or Group Title Plans

➤ In addition to adjoining Lot on Plan descriptions the adjoining registered Building Units Plan Number or adjoining registered Group Title Plan Number must also be shown.

Sample

This information is obtainable from the reverse side of the plan form and/or a search of the D.O.L. Computer Inventory of Survey Plans (CISP) and DOL Office Working Maps.

# 1.4.6 Adjoining Dept. Of Resource Industries Descriptions (For D.M.E. Plans Only)

- ➤ All existing and underlying Tenures are to be shown.
- ➤ Provided the Mining Tenure can be described by reference to a "Lot on Plan", then the "Lot on Plan" description only will suffice.

See also "D.M.E. SPECIMEN PLANS 1 & 2"

# 1.5 Alignment Offsets

Offset lines should be avoided if possible.

Offset marks should be referenced as a direct connection from corners.

See also "CORNER REFERENCES" 1.21,6

#### 1.6 Alterations/Additions/Amendments

- 1.6.1 For Plans "deposited" In D.O.L. Regional/District Offices and "lodged" In The Department Of Minerals & Energy
  - ➤ Before a plan is "REGISTERED" any alterations will be effected by erasure and corrections and additions shown in black. In most cases this will entail the return of the plan to the Surveyor.
  - ➤ Once the plan is "REGISTERED" any alterations or additions will be effected by "crossing out" and amending in red. In these cases the plan will be suitably endorsed with a qualifying statement signed by the designated Officer.

See D.O.L. Work Instruction SUR/999/044.

- 1.6.2 For Plans Which Have Been "lodged" For Registration In The D.O.L. (i.e. entered in the Unregistered Dealings System URDS).
- 1.6.2.1 Before a plan is registered any amendments will either entail return of the plan to the Lodger for amendment by the Surveyor, or amendment of the plan by the Surveyor in the Department of Lands.

If after requisition, the context or intent of a plan is altered significantly, a fresh dated signature of the Registered Proprietor and a fresh Local Authority consent are required and the plan should be withdrawn and re-entered.

Eg. — alteration to the number of lots, alteration to the intent of road dedication, radical change to shapes or areas of lots or new roads.

A certificate of amendment will be endorsed on the plan by the Licensed Surveyor in black.

#### Sample

Amendments by me on (Date)
----------------------------

Licensed Surveyor

1.6.2.2 Amendments to the Surveyor's Certificate are covered by the amendment certificate on the face of the plan.

No part of an incorrect Surveyor's Certificate should be deleted. If necessary, a new correct Surveyor's Certificate should be endorsed on the back of the plan, or face of the plan above the present Certificate if space permits.

1.6.2.3 In the case of an amendment being made by a Body Corporate registered as a Surveyor, the amending certificate must be signed by the Surveyor who must specify that the person is a "Licensed Surveyor and Director".

1.6.2.4 Where a company has signed a plan, the amendments to the front of a plan should be signed by a Licensed Surveyor-Director with the following certificate:-

### Sample

Amendments by .. (Company Name) .. on .....

Licensed Surveyor, Director.

No seal is required.

1.6.2.5 Where a company has changed its name after signing a plan, the certificate for amendment should be as follows:

#### Sample

Amendments by .. (Company Name) .. on ...... formerly ... (Former Company Name) ...

Licensed Surveyor, Director

1.6.2.6 No corrections or amendments are to be made to any plan, by any Surveyor other than the Surveyor who signed the plan (or another Licensed Surveyor so authorised in writing).

Subject to Section 76(a) of the Surveyors Act 1977.

1.6.2.7 Amendments of a minor nature may be made by the plan examiner under the patent error provisions, or by way of entry in the Surveyors Book.

# 1.7 A.M.G. Connections

Whenever any survey has been connected to a co-ordinated point on the Australian Map Grid (AMG), the co-ordinates may be tabulated.

AMG co-ordinates are to be computed in accordance with The Australian Geodetic Datum Technical Manual - Special Publication Number 10.

See also - "CO-ORDINATES" 1.2

See Also - "CORNER INFORMATION DIAGRAMS A & B"

## 1.8 Areas

A calculated area is preferred. In the case of Balance lots, a balance area may be acceptable if that lot does not close within the prescribed limits, or where otherwise appropriate.

Eg. — A remaining lot bounded by a watercourse which has not been re-traversed during the course of survey.

See D.O.L. Work Instruction SUR/999/044

#### 1.8.1 Calculated

Parcels of land which are to exhibit a calculated area will be deduced by closure and adjustment (preferably Bowditch) and shown -

- 1.8.1.1 In square metres to the nearest square metre where the parcel is less than one hectare. This includes Access Restriction Strips.
- **1.8.1.2** In hectares to four significant figures.
- 1.8.1.3 Where land is of very small extent (less than one square metre) and of high value (inner city area), the area may be shown to not more than one decimal point.

See also "METRIC DOCUMENTATION" 1.43

#### 1.8.2 Example Involving Multiple Line Areas:

1.8.2.1 By computation and adjustment, information from the computer is:

gross area	184.4746378 ha
and road area	20.5822597 ha
by subtraction the nett area is	163.8923781 ha

Plan presentation will be

184.48 ha

20.58 ha Rd

163.9 ha

NOTE: The "Gross" is an addition of the "Nett" and Road, rounded as above.

#### 1.8.2.2 If the road was existing and

- in imperial units, say 50ac 3r 17p
- calculate gross area as in 1.8.2.1
- conversion of imperial road area

(vide 1.19 - Page 28) gives

20.5808 ha

-- calculation provides a 'nett' area of 163.8938378 ha

Plan presentation will be

184.4808 ha

20.5808 ha Rd

163.9 ha

NOTE: The "Gross" is an addition of the "Nett" and Road.

#### 1.8.3 Balance

Where a balance area may be adopted, the new nett area is determined by SUBTRACTING the surveyed area (rounded as prescribed) FROM THE EXISTING NETT AREA of the parcel.

NOTE: There is no rounding of this resulting area.

## **Examples Involving Multiple Line Areas**

1.8.3.1	existing plan shows	85.1.17 4.3.11 80.2.6		Rd
	by survey lot 4 is created:	4.19	ha	
	convert existing imperial areas to metric (vide $1.19$ )	34.5425 1.9501 32.5924	ha ha ha	Rd
	by subtraction the new nett deduces	28.4024	ha	
	plan presentation will be	30.3525 1.9501 28.4024	ha ha ha	Rd Bal
	Note: The "Gross" is an addition of the "Balance" and Road.			
1.8.3.2	existing plan shows	158.534 2.134 156.4	ha ha ha	Rd
	by survey lot 4 is created: by subtraction the new nett deduces	1234 156.2766	m <sup>2</sup> ha	

Note: The "Gross" is an addition of the "Balance" and Road.

#### 1.8.4 Imperial Exclusions

Where the area of original exclusions (surveyed roads, reserved roads or road reservations etc.) are imperial, these are converted to the nearest square metre.

#### $Crown\,Resumptions\,(\,Main\,Road,Railway,Channel\,etc)$ 1.8.5

Prepare the plan as a normal plan of subdivision, describing the resumed area as a lot and showing the area of the remaining lot as a "Balance" area.

See also DOL Example Plan 4

Plan presentation will be

See also "CONVERSIONS" 1.19

See also "VINCULUM" 1.68.4

158.4106 ha 2.134

156.2766 ha

ha

Rd

Bal

#### 1.8.6 "About" Areas

Show to 3 significant figures

See also "DOL EXAMPLE PLAN" No. 7

## 1.9 Bearings

- 1.9.1 Bearings are shown upright on face of plan, sloping in all tabulations & in a clockwise direction for completed blocks.
- **1.9.2** Bearings to be shown in degrees, minutes & seconds, rounded off as appropriate & reduced to the meridian of the survey.
- **1.9.3** It is preferable that the following use of '0' be adopted.

eg. 270°0', 270°03', 270°00'30"

Note that 270°00'00" is to be avoided.

See also "DIMENSIONS" 1.27

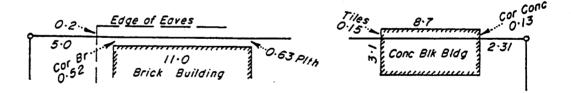
See also "RANGED ONLY & READS BEARINGS" 1.52

See also "ORIGINAL DIMENSIONS" 1.47

## 1.10 Buildings

1.10.1 Encroachment must be clearly illustrated and may be shown as follows:-

#### Sample



See also Section 26.2 of the Surveyors Regulation 1992.

- 1.10.2 When classified as a reference mark (immovable object), connections thereto may be shown "on face" or tabulated in required manner.
- 1.10.3 Other improvements such as bridges, dams, mine shafts, etc., may be shown if connected to in the course of survey.

See also "BUILDING UNITS & GROUP TITLES PLANS" 2.1

See also "CORNER REFERENCES" 1.21.6

## 1.11 Calculated Lines

- 1.11.1 Calculated lines are those lines derived by computation from survey information. A calculated line is generally between surveyed corners on a "Deposited"/"Lodged" plan.
- 1.11.2 Show as broken lines (abt 12mm long) with computed bearings and distances, and the word "Calc". Show "Calc Orig" on successive plans.
- 1.11.3 If appropriate to tabulate, show 'Calc' outside column.

See also "EASEMENTS" 1.2

See also "LINEWORK" 1.38.9

## 1.12 Cancelled Boundaries

- 1.12.1 These are boundaries rendered redundant by the new survey and are shown by broken lines of about 6mm lengths.
- 1.12.2 Once cancelled they are no longer shown on future plans.

D.M.E. — Shown with all dimensions on face or tabulated in "TRAVERSES ETC" column – original indicated.

See also "LAPSED BOUNDARIES" 3.11 See also "LINEWORK" 1.38.8 See also "TRAVERSES" 1.67

# 1.13 Centre Lines

### 1.13.1 Road Centre Lines

When shown indicate as follows:-

#### Sample

## 1.13.2 Railway Centre Lines

Connections to 'Rly & ' are to be shown either on face or by tabulation in the "TRAVERSES ETC" column.

# 1.14 Certificates

The Surveyor's CERTIFICATE is to be in accordance with Form 13 under either Section 25 or 30 of the Surveyors Regulation 1992 and is valid for twelve months from the date of signature.

Vide Section 76(a) of the Surveyors Act, 1977.

Sample Certificate — Licensed Surveyor				
1.14.1	I/the Company have surveyed the land comprised in this plan either personally or by			
	Date			
_	Licensed Surveyor Supervising Licensed Surveyor    John William Brown   hereby certify that I/the Company have surveyed the land comprised in this plan-either personally or by Robert Ellis Junion, Licensed Surv. for whose work I/the Company accept responsibility, and that the plan is accurate, that the said survey was performed in accordance with the Surveyors Act 1977 and the Surveyors Regulation 1992 and that the said survey was completed on			
	- <del>Director</del>			
	Date 30/6/92			
:				

# Sample Cer

Sample Certificate	<ul> <li>Licensed Surveyor supervising Registered Person</li> </ul>				
1.14.3					
	(*) Substitute Surveying Graduate or Surveying Associate where applicable.				
Sample Certificate — Company as Licensed Surveyor supervising Licensed Surveyor					
COMMON	Brian Lloyd Gardiner  Director  Date 30/6/92				
Sample Certificate -	- Company as Licensed Surveyor delegating				
	supervision to Licensed Surveyor who supervises another Registered Person				
1.14.5 COMMON	JW BROWN SURVEYS PTY LTD hereby certify that I/the Company has surveyed the land comprised in this plan either personally or by under supervision of Robert Ellis Smith Licuscod surveyor and by Revi Mark Smith Registered Surv. *for whose work I/the Company accepts responsibility, and that the plan is accurate, that the said survey was performed in accordance with the Surveyors Act 1977 and the Surveyors Regulation 1992 and that the said survey was completed on 2016.192  Dionie Director & Licensed Surveyor				
SEAL	Brian Lloyd Gardiner				
	Date 50   6   9 2.				

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#### Sample Certificate — Licensed Surveyor

1.14.6 1, John William Brown hereby certify that I/the Company have made this plan pursuant to Section 25 of the Surveyors Regulation 1992, and that the plan is accurate and compiled from

> MP 2026/ in the \*Department of Minerals & Energy, Brisbane.

(\*) Substitute or add "Department of Lands" where applicable.

Licensed Surveyor

Date 30/6/92

### Sample Certificate — Company As Licensed Surveyor

1.14.7 JW BROWN SURVEYS PTY LTD hereby certify that I/the Company has made this plan pursuant to Section 25 of the Surveyors Regulation 1992, and that the plan is accurate and compiled from

> CP842126 and RP181275 in the Department of Lands.\* (\*Substitute or add "Department of Minerals & Energy, Brisbane" where applicable).



- 1.14.8 Surveyors name must be shown in full. The Surveyor should be registered at time of survey and signing of the plan.
- 1.14.9 If the Surveyor signs his responsibility for another person, the qualifications of that person must be shown eg. Registered Surveyor, Surveying Graduate or Surveying Associate.

See Section 30 (2) of the Surveyors Regulation 1992.

If responsibility for survey is accepted by a company, the plan must 1.14.10 be signed under the Company Seal by two directors, one of whom must be a Licensed Surveyor. The designation of the signatories should be shown and their names printed below the signature.

See Section 14(2)(b) of the Surveyors Regulation 1992.

- 1.14.11 The date of signature must not precede the survey completion date.

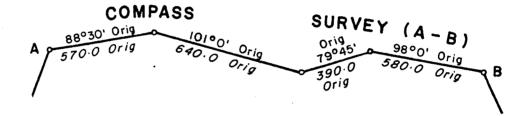
  The plan must be signed and dated prior to lodgement for sealing with the Local Authority.
- 1.14.12 All Notations Including The Amendment Certificate Etc And Signatures Must Be In Black Ink.

See also "INK" 1.35 See also "D.M.E. REQUIREMENTS" 3.3

## 1.15 Compass Survey

When parts of the boundary of a block have been previously surveyed by compass, these boundary lines should be noted by the term "COMPASS SURVEY" on face.

#### Sample



See also "WATERSHEDS" 1.70

# 1.16 Computer Assisted Drafting

- **1.16.1** This method of plan preparation must follow the same guidelines as set out in this manual.
- 1.16.2 The presentation of lettering styles may vary to those recommended in 1.62 to accommodate the commercial C.A.D. packages available.
- **1.16.3** The size and boldness of the text however must comply with the objective for clarity of information when the plan is reproduced at a reduced scale.

See also "SCALE OF PLANS" 1.58 See also "STYLES" 1.62

# 1.17 Connections To Distant Points

"Reads" Bearings to Lighthouses, Beacons, T.V. Towers etc. can be shown on face or entered in the "TRAVERSES ETC." column if the plan is crowded.

See also "RANGED ONLY & READS BEARINGS" 1.52

#### 1.18 Consolidated Title

#### **Definition:**

A Consolidated Title contains a number of individual parcels of land for which separate Titles can issue upon request.

See also "D.O.L. EXAMPLE PLAN No 3" See also "D.M.E. REQUIREMENTS" 3.6

#### 1.19 Conversions

Conversion factors to be adopted are as follows:-

Links to Metres:

LKS x 0.201168

Distances to be converted to 3 decimal places

Perches to Square Metres:

Per. x 25.29285264

Acres to Hectares:

Acre x 0.404 685 64

Acres to be converted to the nearest square metre

(40 perches = 1 rood; 4 roods = 1 acre)

See also "AREAS" 1.8

See also "METRIC DOCUMENTATION" 1.43.7 See also "ORIGINAL DIMENSIONS" 1.47

## 1.20 Co-ordinates

AMG co-ordinates are to be computed in accordance with The Australian Geodetic Datum Technical Manual - Special Publication Number 10.

#### **1.20.1** Co-ordinated Corners

Co-ordinates for corners of the subject lot may be shown on a plan provided that the origin of those co-ordinates (ie. Permanent Mark shown on DOL Form 6 or Control Station Summary) together with a connection to that Permanent Mark are shown. Plans showing co-ordinates for lot corners must provide a statement of heights used to determine the co-ordinates.

#### 1.20.2 Co-ordinates - Permanent Marks

All co-ordinates (except those scaled) shown on the face of Survey Plans must clearly identify the origin station/s.

**1.20.2.1** A.M.G. Co-ordinates result from a Geodetic Adjustment of Australia - AGD 84 - PRIMARY.

Supplementary Section from: Surveying and Land Information Group (eg ZZQLD001) and Department of Lands (eg BRISCON)

- 1.20.2.2 Provisional A.M.G. Co-ordinates result from a suitable adjustment technique applied to a local control system, the position and orientation of which has been established by connections to control stations with A.M.G. co-ordinates.
- 1.20.2.3 Derived A.M.G. Co-ordinates result from simple un-adjusted connections, traverses, radiations etc. from existing control stations with A.M.G. or Provisional A.M.G. co-ordinates.
- 1.20.2.4 Approximate A.M.G. Co-ordinates are co-ordinates that have not been obtained by computational methods but by careful scaling from a Pubished Map, or from a point position determined by satellite observation.

### 1.20.3 Presentation Of Co-ordinates

Co-ordinates may be presented in a panel on the face of the plan as illustrated hereunder.

The accuracy should be tabulated for AMG co-ordinates shown on the face of plans. This should be shown as Class or Order as defined in the Inter-Government Advisory Committee on Surveying and Mapping Standards and Specifications for Control Surveys, July 1990, IGACSM Publication No. 1.

## 1.20.3.1 A.M.G. Co-ordinates

# Sample:

A.M.G. CO-ORDINATES - A.M.G. - 84

STATION	EAST	NORTH	ZONE	ORDER
GRAVATT SM 40337	455 031 . 799	7 019 023 527	56	,

### 1.20.3.2 Provisional A.M.G. Co-ordinates

#### Sample:

PROVISIONAL A.M.G. CO-ORDINATES - A.M.G.-84
CAIRNS - CORMORANT PASS REEF MAPPING

STATION	EAST	NORTH	ZONE	ORDER	CLASS
PM 46307	439 572 - 255	7 256 243 661	56		С

#### 1.20.3.3 Derived A.M.G. Co-ordinates

#### Sample:

DERIVED A.M.G. CO-ORDINATES - A.M.G. - 84

	• • • • • • • • • • • • • • • • • • • •			
STATION	EAST	NORTH	ZONE	CLASS
PM 21899	500 301 · 361	6 974 239 - 173	56	D

#### 1.20.3.4 Approximate A.M.G. Co-ordinates

#### Sample:

#### APPROXIMATE A.M.G. CO-ORDINATES

STATION	EAST	NORTH	ZONE
PM 20657	457 200	7 624 520	56

1.20.4 For provisional and derived A.M.G. co-ordinates the descriptions and values of the points from which these co-ordinates were generated, together with the associated computations (including height determinations) should form part of the survey record.

See also "A.M.G. CONNECTIONS" 1.7 See Also "CORNER INFORMATION" 1.21 – DIAGRAMS A & B

## 1.21 Corner Information

1.21.1 Corner information deals with the method of presentation on the face of the plans for:-

#### ➤ Corner Marks

i.e. ORIGINAL Corner Marks and NEW Corner Marks

#### ➤ Corner References

i.e. ORIGINAL Reference Marks (& Occupation) and NEW Reference Marks (& Occupation)

#### ➤ Notations

Vide Section 17 of Recommended Practices for Surveyors and Direction 9 of Directions to Surveyors 1992.

#### 1.21.2 General Guidelines

1.21.2.1 Information marking the corner (ie Monument at the corner) should be written first, and information referring to Reference Marks and/or Occupation should be written in order of proximity after the corner mark.

See Diagrams "A" and "B" following

- 1.21.2.2 It is preferred that Occupation references are determined "square" from the principal lines run (eg. Stn 3 Diagrams "A" & "B"); except where a bearing and distance is required to avoid ambiguity. (eg. Stn 23 Diags. "A" & "B")
- 1.21.2.3 Corner information should generally be shown as in Diagram "A" (ie "on face") provided the plan can be reproduced at a reduced scale without loss of clarity, otherwise the Tabulated method as in Diagram "B" should be used. A mixture of "on face" and Tabulated presentation is to be AVOIDED.
- 1.21.2.4 The word "found" (fd) written after a mark eg. *Peg fd, Pin fd* etc. denotes a mark at a surveyed position with no origin or cadastral connection shown on a Registered Plan, Identification Survey, Re-

dundant Catalogue Plan, sketch in a Registered Document, or Alignment Marking Files lodged in a Registering Authority.

1.21.2.5 The methods of presentation are influenced by the priority to ensure clarity of information is maintained upon reduction and reproduction of the plan.

#### 1.21.3 Corner Marks

1.21.3.1 Refers to Survey marks and/or Branded Occupation recovered, placed or adopted at the corner eg. Pegs, Pins, Survey Posts, Star Pickets or Survey Marks recovered or placed in occupation at the corner to represent the corner.

## Sample

Nail in Cen RFP; Ramset in Br Wall; Screw in Conc.

(The type of nail can be shown if indicated in the survey records eg. Clout, Ramset, Spring Head etc).

# 1.21.4 Original Corner Marks

1.21.4.1 When the origin of the mark recovered at the corner is known (ie recorded on a previously registered survey or a lodged Identification Survey or lodged Redundant Catalogue Plan), the mark is classified as "original" and shown by the abbreviation "O".

## Sample

OP; OSP; O Nail in Cen RFP; OP(1.5.2345)
O Ramset in Br Wall; O Screw in Conc;
O Nail in Conc (R.C.800361)

etc.

**NOTE:** The decision to utilise corner marks shown on Identification Survey and Redundant Catalogue plans for reinstatement purposes rests with the Surveyor.

**1.21.4.2** When the origin of the mark recovered at the corner is known, the mark may be identified by the addition of the catalogue number of the plan of origin.

See also Diagrams "A" and "B" following

1.21.4.3 When the **origin** of the mark recovered at the corner is **unknown** (ie no previous cadastral connection on a registered plan, Identification Survey or Redundant Catalogue Plan) the mark should be classified as being "found".

#### Sample

Peg fd ; Screw in Conc fd

1.21.4.4 When there is no original survey mark or evidence of any type remaining at the position of the previously surveyed corner, the term "No O Mk" is used.

#### See also "NEW CORNER MARKS" 1.21.5

The term "No Mk" is never shown on a plan.

1.21.4.5 When the original corner mark has become inaccessible since the original survey and hence is not able to be connected to, then the term "not fd", suitably qualified is used.

# Sample

```
OP not fd , OD/H not fd (in deep fill) ' (under conc)
```

etc.

1.21.4.6 When remains of a survey mark or evidence of a survey mark position is found at the corner, the following terms may be used where applicable.

## Sample

etc.

#### See also "NEW CORNER MARKS" 1.21.5

1.21.4.7 When an existing survey mark is found disturbed and that same mark is reset in the original corner position, the following terms may be used where applicable.

## Sample

The term "replaced" should NOT be used.

1.21.4.8 When an existing survey mark or remains thereof is removed at time of survey, and is replaced by a new mark of the same type, the Term "renewed" is used.

## Sample

etc.

The term "replaced" should NOT be used.

1.21.4.9 When an existing survey mark or remains thereof is removed at time of survey, and is replaced by a new mark of a different type, the term "removed" is used and the new mark quoted.

#### Sample

1.21.4.10

When an existing survey mark or remains thereof has been disturbed at the time of construction works (fencing, retaining wall) and the occupation is adopted at the corner, indicate as follows:

Sample

G.I. Nail in RFP OP at ft 0.25 W

etc.

#### 1.21.5 New Corner Marks

1.21.5.1 When there is no survey mark or the existing survey mark is removed, and a new mark placed at the **original** corner, the new mark is quoted and the term "placed" is used.

Sample

OSP hole S Pkt pld

etc.

Note: "Peg pld" and "Survey Post pld" etc are only shown on face of plan when placed at an **original** corner. These pegs are included in the listing of "New Pegs" shown in the statement on face of plan even though they are placed at an original corner.

Sample

<u>Peg\_placed at all new and original corners</u> <u>unless otherwise stated</u>

etc.

Eg.For extensive estate development where a significant number of original corners are reinstated.

See also "NOTATIONS" 1.21.9

1.21.5.2 When the survey establishes new corners, the survey marks placed at these corners are shown by statement on face.

(vide Section 19 (1) & (2) of the Surveying Regulation 1992)

Sample

etc.

If new survey marks placed are **branded**, this information must also be quoted in statement on face.

Sample

Survey Post branded (A 3) placed at Stns 1-4,5,9 and 13

1.21.5.3 Variations such as "Peg pld in cairn of stones, Peg driven flush, Plastic or Concrete Peg placed, Star Picket pld" etc must be indicated either "on face" or by statement.

The term "No Mark pld" suitably qualified may be used if appropriate.

# Sample

etc.

1.21.5.4 Occupation adopted as new corner.
(When impracticable to place a Peg or Post)

If a new corner is established at which occupation exists, eg. Fence Post, Walls, Buildings, Poles, Man Holes or any such immovable object, the position of the occupation is referenced from the corner.

# Sample

etc.

1.21.5.5 When Nails, Screws etc are placed as a new survey mark in occupation to establish the corner, the occupation is referenced.

# Sample

Nail In RFP Ramset in Cor Br Cen 
$$0.015$$
 ? Cor Br  $0.12$  W Stns  $1,4,6-9$  (shown at corner on face)

etc.

**1.21.5.6** If occupation is adopted as the new corner and is branded, this must also be quoted.

# Sample

(shown at corner on face)

(statement on face)

# 1.21.6 Corner References (Reference Marks)

- 1.21.6.1 Refers to Reference Marks (eg. Iron Pins, Permanent Survey Marks, Spikes, Nails, Screws, Star Pickets, Broad Arrows, Drill Holes, Pointer Pegs, Marks on Poles, Branded Trees, MR/Bench Marks etc) or Occupation (eg. Fence Posts, Walls, Buildings, Poles, Man Holes, Gully Traps or any such immovable objects) which are placed or connected to in the course of the survey.
- 1.21.6.2 These marks are in addition to the monument denoting the corner. all connections will be from the corner to the reference mark or occupation.

1.21.6.3 Reference Marks may be shown on the face of the plan. Where space does not permit, references may be shown by diagram or in the "REFERENCE MARKS" Column.

## **Exception:**

Permanent Marks: Show in separate column headed "PERMA-NENT MARKS".

See also Diagrams "A" & "B" following

#### 1.21.7 Original Reference Marks & Occupation

1.21.7.1 When the origin of the Reference Marks recovered at the corner is known (ie recorded on a previously registered survey or a lodged Identification Survey or lodged Redundant Catalogue Plan, enabling the true position of the existing corner to be re-established) the mark is classified as "Original" and shown as such by the abbreviation "O". Occupation as evidence of ownership should be recorded.

See Section 26(1)(a) and 26(1)(f) of Surveyors Regulation 1992.

## Sample

OIP; ORT; ONail in Cen RFP; OScrew in Conc; OIP(LS.1568)

etc.

NOTE: The decision to utilise Reference Marks shown on Identification Surveys and Redundant Catalogue Plans for reinstatement purposes rests with the surveyor.

1.27.7.2 When the origin of the mark recovered away from the corner is unknown, the mark should be described by "found".

# Sample

Nail in Bit fd Pin fd

etc.

1.21.7.3 When it is evident the original reference mark is missing or destroyed, the following terms are used.

#### Sample

ORT gone OIP gone

(burnt out)

etc.

Connections are shown on the plan if recorded in the field records.

1.21.7.4 When the original reference mark has become inaccessible since the original survey, and hence is not able to be found, the term "not fd" suitably qualified is used.

#### Sample

OIP not fd O Nail in Cen RFP not fd (in Dam) (under conc)

1.21.7.5 When the remains of an original reference mark or evidence thereof is found, the following terms are used.

# Sample

ORT hole Remns OIP (burnt out) ; (rusted out)

etc.

1.21.7.6 When the existing reference mark is found disturbed or out of position, and that same mark is reset in the original position, the following terms are used.

# Sample

OIP distd OSPkt lying out reset reset

etc.

1.21.7.7 When an original reference mark is removed at the time of survey, and is replaced by a new mark of the same type, the term "renewed" is used.

# Sample

OIP distd OPM damaged renwd renwd

etc.

The term "replaced" should NOT be used.

1.21.7.8 When an existing reference mark is found disturbed or out of position and the same mark is re-referenced, the following terms are used.

# Sample

OIP distd OIP distd (New Ref) ; 180°0' 1:008 (New Ref)

etc.

1.21.7.9 When the origin of a Reference Mark is known, the mark may be identified by the addition of the catalogue number of the plan of origin - either on the face of the plan or in the Reference Marks column.

See also Diagrams "A" and "B" following

1.21.7.10 When an original reference mark is removed at the time of survey and replaced by a new mark of a different type, the term "removed" is used and the new mark quoted.

Sample

OIP remvd . O Ptr remvd PM pld Pin pld

etc.

# 1.21.8 New Reference Marks & Occupation

1.21.8.1 When new Reference Marks are placed or established during the course of the survey, the new Reference Marks are shown either on face or tabulated in the "REFERENCE MARKS" Column.

### **Exception:**

New Permanent Marks: Show in separate column headed "PERMANENT MARKS".

The new references to Occupation are shown on face unless a survey mark has been placed in or on the Occupation.

# Sample

In these cases the survey mark (ie. Screw, Nail) takes priority over the occupation and is thus treated as a Reference Mark.

1.21.8.2 When showing New Reference Marks by the method of tabulation, no reference to mark is shown on face.

#### 1.21.9 Notations

1.21.9.1. Notations on face of plan are used in situations where

➤ A Survey establishes new corners.

### See also "NEW CORNER MARKS" 1.21.5

- ➤ Space for clear presentation of information "on face" is limited.
- ➤ When the marking of a number of corners have been treated in the same manner.

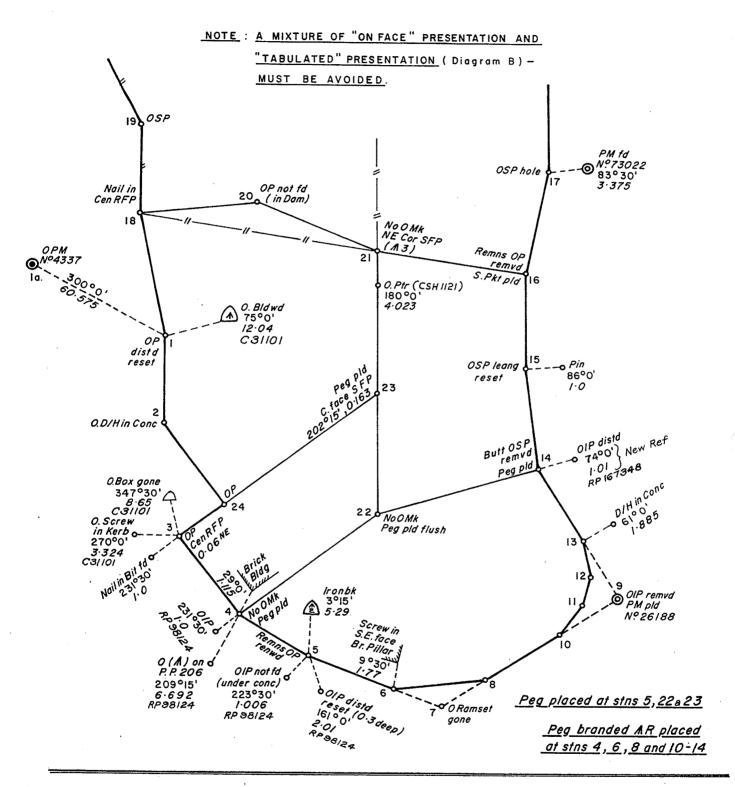
#### 1.21.9.2

# Samples

Peg_placed_at Stns 3-9, [1-15	Survey Post branded (AR) placed at all new corners.
V	Cen RFP (A R) at
Peg_branded (A 4 ) placed at all new corners	Stns 2,3,5-9 & 12
Nail in Conc placed at	Iron Pin placed at
Sins 1,4,6,9-12	<u>Stns 1-7,9-12</u>

# Diagram A

(On face presentation)



<u>PERMANENT MARKS</u>: When co-ordinates have been established, these may be treated as follows for 'On face' presentation:

Example.....

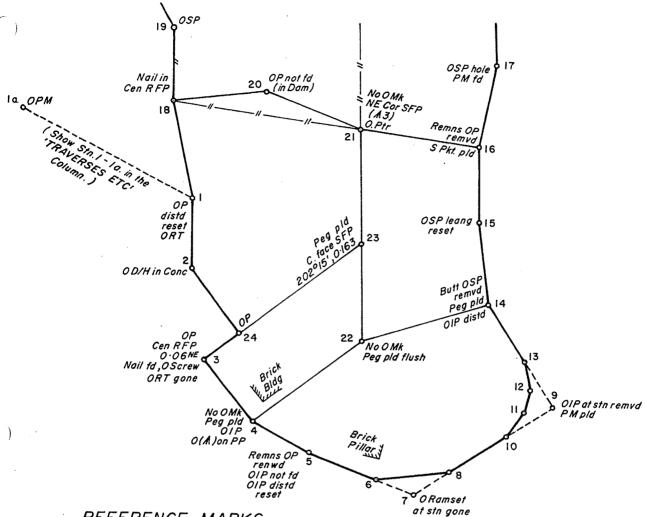
A.M.G.CO-ORDINATES (A.M.G.84)

STN	EAST	NORTH	ZONE	ORDER
0РМ4337	723 659.96	7 657 837.81	57	2

(Enter in 'A.M.G. CONNECTIONS' tabulations.)

# Diagram B

## (Tabulated presentation)



# REFERENCE MARKS

STN	ТО	ORIGIN	BEARING	DIST
1	O.Bldwd (A)	C31101	75°0′	12.04
3	Nail fd in Bit		231°30′	1.0
	O Screw in Kerb	C31101	270°0′	3.324
	O Box Gone	C31101	347° 30′	8 · 65
4	OIP	RP98124	231°30′	1.0
	Cor Br Bldg		29° 0′	1-115
	0 A on P.P.206	RP98124	209°15′	6.692
5	OIP not fd under conc	RP98124	223°30′	1.006
	OIP reset 0.3 deep	RP98124	161°0′	2.01
	Ironbk A2		3°15′	5 · 29
6	Screw in SE face BR Pillar		9°30′	1.77
13	D/H in Conc		61°0′	1.885
14	OIP distd (New Ref)	RP 167348	74° 0′	1.01
15	Pin		86° 0′	1.0
21	O Pir	CSHII2I	i80° 0′	4.023

Peg branded AR placed at stns 4 , 6 , 8 and 10 - 14

#### Peg placed at stns 5, 22 & 23.

	PERI	WANEN	/ MARKS		
PM	BEA	ARING	DIST	Nº	
10-0	PM at	stati	on on	4337	7
9 - P	M at	stati	on	26/88	I
17 - P	M 83	<sup>2</sup> 30'	3.375	73022	

( NOTE: For Tabulations - listings are consecutive, showing all marks referenced from the station. All reference marks for a station MUST BE KEPT TOGETHER and shown listed at their progressive distances from the station.)

#### PERMANENT MARKS:

When co-ordinates have been established, these may be treated as follows for 'Tabulated' presentation :

PERMANENT	MARKS	AM.G.CO-ORDINATES   AM.G.84

PM	BEARING	DIST	STN	EAST	NORTH	ZONE	ORDER
la - OPM	at sto	l Ition	ОРМ4337	723 659.96	7 657 837.81	57	2

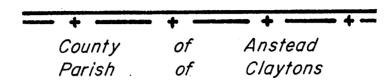
( Add to existing 'PERM. MARK' tabulation in a suitable format. )

# 1.22 County Boundary

**1.22.1** County boundaries are shown outside and as close as possible to the subject block and are never broken for dimensions.

# Sample

4



- 1.22.2 County boundaries are not to be shown in the middle of the roadway if both sides of the road are shown.
- **1.22.3** If the opposite side of the road is not shown, the County boundary may be shown in the road, as close as possible to the subject block, but not within the subject block.
- 1.22.4 Show County boundary in middle of Creek or River if space permits. Show County boundary on opposite side of Creek or River to the subject block if space is limited.

See also "LINEWORK" 1.38.11

See also "STYLES" 1.62.0 & Example Plans.

# 1.23 Curved Boundaries

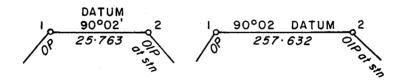
Curved Boundaries are NOT accepted by DOL for new boundaries.

For DME show measurements for ARC and RADIUS.

# **1.24 Datum**

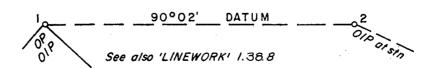
Show thus

# Sample



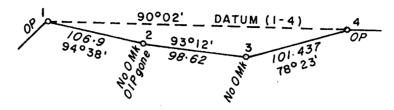
**1.24.1** For cancelled boundary or traverse.

## Sample



1.24.2 Where there are insufficient marks for a datum on one line, the following may be adopted.

# Sample



- 1.24.3 When datum is an offset line, show "DATUM" on boundary if offset line can be omitted.
- **1.24.4** When datum is obtained by observation for meridian, show "DATUM BY OBS" on appropriate line.
- 1.24.5 When more than one plan is drafted from the one set of survey records (eg new estates) and the DATUM line is located on one plan only, the following note should be shown on all plans.

# Sample

This is one of ...... plans (.... Catalogue N.s....) from the one survey. For DATUM see plan.....

See also "PLAN FORMS" 1.49

# 1.25 Description Of Country

For DOL:

Description of country should be shown for surveys in rural areas.

For DME:

Not required except for natural features

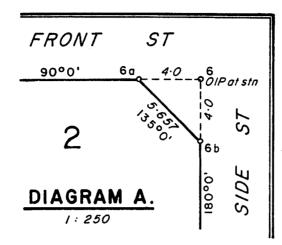
See also "FEATURES" 1.31 See also "SPECIMEN PLAN" See also "SYMBOLS" 1.6

# 1.26 Diagrams

- ➤ On face of plan show eg. SEE DIAGRAM A
- ➤ Lot number repeat on diagram.
- ➤ Roads and Streets, if subject on plan, are shown hairline on diagram.
- ➤ Enclose all diagrams in a border to separate from rest of plan (straight lines preferred).
- ➤ Diagrams should be drawn to scale if possible.

➤ Where more than one diagram is shown on the one plan they should be labelled consecutively A, B, C etc.

# Sample



Note: 6-6a and 6-6b will be tabulated as required.

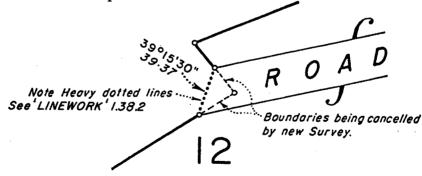
# 1.27 Dimensions

- 1.27.1 Complete dimensions must be shown on the face of plan, preferably in a clockwise direction, for each parcel for which a title can issue from the subject plan.
- **1.27.2** "Through" distances shall be shown on the plan as necessary in order to "dimension" boundaries of land parcels, or groups of land parcels, over which tenure is to issue.

"Through" distances (shown in brackets) can be totals of survey values from the new survey, or a combination of new and original survey information.

1.27.3 Dimensions, across roads, which will form boundaries of subject parcels shall be direct connections, and where applicable, exclude as much internal road as practical so that the dimensions of the parcel are in the simplest form.

# Sample



See also "BEARINGS" 1.9

See also "CONVERSIONS" 1.19

See also "DISTANCES" 1.28

See also "METRIC DOCUMENTATION" 1.43

See also "ORIGINAL DIMENSIONS" 1.47

See also "ROADS" 1.57

See also "VINCULUM" 1.68

# 1.28 Distances

Distances are shown as per survey records.

- 1.28.1 Distances are shown sloping on face of plan and in all tabulations.
- 1.28.2 Always shown inside block.
- **1.28.3** The balance distance shall be deduced from the plan from which the title or deed was issued.

Where the dimensions of the balance are found to be imperfect, or a calculated area is to be adopted, the Licensed Surveyor can then derive data from any registered survey in order to determine the boundaries of the block.

**1.28.4** Each severance within the subject land should be fully dimensioned if surveyed.

See also "ROADS" 1.57

#### 1.28.5 Brackets

When intermediate distances are shown, the "through" distance is to be shown with brackets.

Station numbers should be used for clarity.

See also "DIMENSIONS" 1.27 See also "METRIC DOCUMENTATION" 1.43 See also "ORIGINAL DIMENSIONS" 1.47

# 1.29 Easements

## 1.29.1 Plan Of Easement Only

Boundaries are broken

## Sample

See 'LINEWORK' 1.38.6

1.29.1.1 Dimensions of the complete surround of Easement are required in a clockwise direction.

The dimensions of the block of which the subject Easement is within, need not be completed. However a bearing and distance to at least one corner of the subject block **must** be shown.

- 1.29.1.2 The Easement must be shown to scale on the plan form. In addition, a diagram being not to scale may be utilised if required.
- **1.29.1.3** Where Easement boundaries are Calculated, they must be shown as "Calc" on plan.

See also "CALCULATED LINES" 1.11.3

- 1.29.1.4 Where more than one Easement is created in the one tenure, each shall be named with a different letter.
- 1.29.1.5 Where more than one Easement is created on the one plan, they should be named consecutively i.e. "C", "D", "E" etc.
- **1.29.1.6** The use of letters "I", "O" & "Q" should **never** be used when describing Easements.

#### See also DOL EXAMPLE PLAN No.11

Vide Section 8 of the Recommended Practices for Surveyors and Direction 8 of the Directions to Surveyors 1992

# 1.29.2 Plan Of Easement With Subject Block

- 1.29.2.1 Easement Diagram (usually "Not to Scale") to be utilised. This is to 'divorce' the easement information from that of the subject block.
- 1.29.2.2 Where an Easement envelopes an entire parcel/Tenement, an Easement plan is not necessary. The block is encumbered by tenure document only. However, if the Easement is restricted in height or depth (ie. in Strata), then a plan of the Easement is required.

#### See also DOL SPECIMEN PLAN No.2

# 1.29.3 Existing Registered Easements

1.29.3.1 Existing Easements, together with their descriptors and plan number (or dealing number with easments shown on sketch only), shall be accurately plotted on the Subject Lot.

#### **Exceptions:**

- 1.29.3.2 Easements within parcel being resumed by the Crown.
  (Existing Easements or part thereof are automatically extinguished in the Crown Resumption Process.)
- 1.29.3.3 Plans of parcels over which it is intended to issue new Deeds of Grant. In these cases the following statement shall be shown on the face of the plan:

#### Sample

"For Survey of Lot A (Proposed Easement) in Lot 6 see plan CP12345".

# 1.29.4 For Department of Minerals & Energy

No provision exists to register an Easement over a Mining Lease under the Mineral Resources Act.

See also "ADJOINING EASEMENTS" 1.4.3 See also "DOL REQUIREMENTS" Example Plans 11, 12, 13

# 1.30 Electronic Lodgement Of Plans

- **1.30.1** By prior arrangement with D.O.L. plans may be lodged in the form of a drawing file or files on a floppy disk for the purposes of pre-examination only.
- 1.30.2 Currently, the only drawing files that can be accepted are those which interface with Autocad Version 10. The presentation of data contained in the drawing file must be to the same standard as any plan in accordance with these guidelines and must be capable of plotting at the scale of the final plan.
- 1.30.3 The information contained on the back of the plan form can be lodged either as a separate drawing file, to the same standard as above, or as a hard copy of the back of the plan.
- 1.30.4 D.O.L. examination staff should be consulted to determine the appropriate media for transmitting the data as the available hardware may vary on a regional basis.

# 1.31 Features

Both DME and DOL plans require natural features such as gullies, mountain ranges, etc. to be shown if located in the course of survey.

See also "DESCRIPTION OF COUNTRY" 1.25 See also "SYMBOLS" 1.65

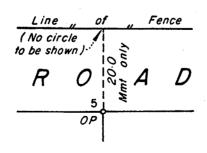
# 1.32 Fences

- 1.32.1 Type of fence to be shown if possible eg. 2PIB, Netting etc
- **1.32.2** "Read" bearings may be shown on fences that are existing on previous boundary lines.

If useful, "Read" bearings may be shown on internal fences.

**1.32.3** Connections across roads to fence lines to be treated as follows.

## Sample



TRAVERSES ETC

LINE BEARING DIST

5-Fence Mmt only 20.0

(No Tabulation)

(With Tabulation)

See also "RANGED ONLY AND READS BEARINGS" 1.52

# 1.33 High Water Mark

The term H.W.M. is to be avoided if possible. Vide Section 12 of Recommended Practices for Surveyors and Direction 17 of the Directions to Surveyors 1992 and other relevant Statutory Definitions.

For D.O.L. and D.M.E. Section 25 compiled plans, distances may be shown to Sea, Ocean, Bay etc., in lieu of the term H.W.M.

# 1.34 Identification Surveys

For D.M.E. Requirements see 3.10

For D.O.L.

When an Identification Survey is carried out, a copy of the plan or survey records shall be deposited in the office of the Registering Authority witin 60 days of completion of the survey.

#### (Section 30 of the Surveyors Regulation 1992)

A copy of the plan shall be certified by the Licensed Surveyor in accordance with Form 13 of the Surveyors Regulation 1992 (Section 30).

#### See also "CERTIFICATES" 1.14

The profession has become aware of the need to use disclaimers that are not an abrogation of professional responsibility but rather a notification of the restricted use of the information. The Surveyors Board has accepted a common format for Identification Surveys and plans are to be legible and conform with A3 or A4 size.

#### For plans in this format see EXAMPLE PLAN No 17

The full description is shown on the subject lot and in the title of the plan. Departmental Map references should also be shown.

Identification surveys will not be registered nor examined at the time of lodgement. However, if a surveyor requires an identification survey to be examined, on payment of the examination fee the survey shall be examined and if suitable, endorsed by the DOL.

Identification surveys shall be catalogued under the I.S.....numbering system, noted on the Departmental administrative working map and recorded in the Computer Inventory of Survey Plans (CISP). On surveyors own sketches, provision should be allowed for the Identification number and map reference to be shown on the plan.

See also EXAMPLE PLANs Nos 16, 17

# 1.35 lnk

The ink used for drafting, signing (black ink only), amending and noting plans shall be of a permanent and water-proof variety.

Biros and felt pens etc. will not be considered acceptable.

## 1.36 Insets

This method of plan presentation is to be avoided.

See also "NOT TO SCALE" 1.45 See also "SCALE OF PLANS" 1.58

# 1.37 Line Pegs

## **1.37.1** New Line Pegs:

When survey records not lodged, new Line Pegs shall be shown on the plan.

Placement of line pegs will be indicated by one of the following methods.

1.37.1.1 Statement eg.

Line Peg placed at intervals of 200.0 from Stns 1,3,6,12 & 15

1.37.1.2 Tabulation eg.

	LINE PEGS	
STN	BEARING	DIST.
2	180°42' 180°42' 180°42'	203·53 406·22 600·3
5	272°33' 272°33'	201·42 400·63

1.37.1.3 On face of plan eg.

### 1.37.2 Original Line Pegs

Show .... "OLP" on face

Measured distances shown in survey records which serve to fix position of OLP, are to be shown on face of plan.

Approximate distances are not shown.

Note: If intermediate pegs are not shown on the plan, survey records showing the position of these pegs must be lodged.

Kilometre Pegs are treated in the same manner as Line Pegs. If branded, indicate "on face" or tabulate.

1.38	Linework							
1.38.1	Boundaries of Subject Land	Boundaries of Subject Land						
1.38.2	Boundaries of Subject Land across roads · · · · · · · · · · · · · · · · · · ·							
	See also "DIMENSIONS" 1	.27.3						
1.38.3	D.M.E. Surface Areas, Right or Right of Way	of Access ———						
1.38.4	Adjoining Background Tenures (D.M.E.	) ———						
1.38.5	Lapsed Boundaries (D.M.E.) Original Portion Boundaries	(D.O.L) ······						
1.38.6	Easements and Leases:							
	Subject Adjoining		) 12 mm					
1.38.7	Traverse, Secants etc.		<u>*3mm</u>					
1.38.8	Cancelled Boundaries		<u> </u>					
1.38.9	Unsurveyed Line, or Calculated Line		<u>اس 12 mm</u>					
1.38.10	Parish Boundary	• • • • • • • • • • • • • • • • • • • •						
1.38.11	County Boundary	+	- ++					
1.38.12	State Boundary	x	x —— x ——					

The above is a recommended format for line thickness.

Line thickness may be varied if clarity of plan will benefit.

# 1.39 Locality

For D.O.L. plan forms, the "TOWN/LOCALITY" segment in the Title Block should state the name of the City, Town, Suburb or District or describe the location of the survey in relation to a permanent feature on a published map. However, if where the original description referred to a gazetted city/town eg. Allotments of Section of Town, then that city/town MUST be shown.

For D.M.E. provision exists for the office insertion of the latitude and longitude of the centre of the plan form by scaling if necessary when more accurate information is not available. The stated co-ordinates are strictly for location purposes.

## 1.40 Lots

- 1.40.1 Lot numbers are generally shown on Street frontages for urban lands and approximately 1/3 from the top boundary of the Lot for rural lands.
- **1.40.2** The lot number for the Balance of a block or for an amended block should retain the original numerical identifier.
- **1.40.3** The numbering of **newly created lots** can be at the discretion of the Licensed Surveyor provided the numbering is:
  - ➤ Unique on a plan
  - ➤ Avoids repetitive use of numbers 1 and 2
  - ➤ Not similar to numbers of adjoining lots
  - ➤ Limited to a number of three digits

# 1.41 Measurement Only

Show as required on face of plan or tabulated in the "TRAVERSES ETC" column.

# 1.42 Meridian

It is preferable that all surveys be related to AMG.

Vide Section 10 of the Recommended Practices for Surveyors.

**1.42.1** The meridian of every survey should be indicated as follows.

#### Sample

#### Vide Plan WD4829

#### Vide Plan RP801576

Detail is generally shown in the Meridian Box however where space is limited the Meridian information should be shown directly above the Title Block.

#### Sample

## MERIDIAN: Add 6 11' for AMG Vide Plan W31639

1.42.2 If observations are taken, details should be tabulated on face of plan.

## Sample

_			MER	IDIAI	<u>v</u>	
	LINE	P	LAN BE	ARIN	'G	A.M.G. BEARING
	4-3		15°38	'50"		21° 26' 50"
	,	400	5°48'	for	A.	N.G ZONE 55
						C.A.M. BEARING
	4-3		15°38	'50"		/6°35'50"
		AÒD	0°57	for	C.	А.М.

**1.42.3** It would be advantageous for continuous surveys to be on the one meridian.

# 1.43 Metric Documentation

1.43.1 The symbol "m" will NOT be shown following a length

Eg. 20·115 not 20·115 m

- **1.43.2** The decimal point is to be **prominently** placed at the mid height of the figures.
- 1.43.3 Numbers should be grouped in threes right or left from the decimal point, and a space should be used instead of a comma.

Eg. 65 093.762 13 not 65,093.76213

However, except in tabular work (eg. co-ordinates), the space may be omitted in groups of only four figures.

Eg. 4076·3012

**1.43.4** A space should be left between the numeral and the unit or unit symbol.

Eg. 2076 m <u>not</u> 2076m Eg. 5.273 ha <u>not</u> 5.273ha

- 1.43.5 No full stops will follow symbols.
- **1.43.6** Use of "zeros."
- 1.43.6.1 Where the figure is less than one, use a zero before the decimal point.

Eg. 0.745 not .745

1.43.6.2 For whole numbers, a zero will be shown as the last character of length to the right of the decimal point.

Eg. 4·0, 51·0, 200·0 not 4·00 or 501·20 or 67·530

However, when showing (1) Road widths or (2) Areas, the above procedure is NOT to be adopted

Eg. ROAD 60 WIDE not ROAD 60.0 WIDE Eg. 12 ha not 12:0 ha

#### 1.43.7 Rounding

When rounding the fewer digits than the total number available, the following procedure is adopted.

1.43.7.1 Where the digit immediately following the last digit to be retained is less than 5, that digit should be left as is.

Eg.  $7.624\ 25$  to four digits = 7.624

1.43.7.2 When the digit immediately following the last digit to be retained is 5 or greater, that digit should be increased by one.

Eg. 4.62451 to four digits = 4.625

1.43.7.3 If the digit to be discarded is exactly 5 and there is no indication of what the following digits might be, the last digit retained should be rounded to the nearest even digit.

Eg. 5:4665 rounded to 3 decimals becomes 5:466 5:4655 rounded to 3 decimals becomes 5:466

#### NOTE:

It is essential that the decimal point be shown as clearly and prominently as possible.

See also "AREAS" 1.8 See also "DIMENSIONS" 1.27 See also "DISTANCES" 1.28 See also "ORIGINAL DIMENSIONS" 1.47

# 1.44 North Point And Data Orientation

North Point is not shown unless a plan is turned. When it is necessary that a plan be rotated through 90°0′ then 270°0′ becomes 0°0′.

When a plan is turned, all information is shown orientated accordingly ie. to the North Point. (this includes tabulations and statements). There should be no circumstances where a plan needs to be turned upside down to read any data.

# 1.45 Not To Scale

Use with discretion. Break line for each block affected. Advantageous to plot this work to 'some scale' for sake of proportional representation. The wording "Not to Scale" is to be shown on appropriate line or lines.

See also "INSETS" 1.36 See also "SCALE OF PLANS" 1.58

#### NOTE:

New surveyed lines of subject blocks are drawn in an uninterrupted manner to the scale as shown in the title.

# 1.46 Offsets

Not shown on plan in normal circumstances.

If sufficient connections to the boundary line have been made, all information is to be related to the boundary line.

If there are insufficient connections, offset will be shown.

# 1.47 Original Dimensions

**1.47.1** Shown with "Orig" written in conjunction with each bearing and distance. "Bal" to be used for subtraction. "By Addn" can be used for additions.

# Sample

NOTE: The term "Bal Orig", "Bal by Addn" are not used.

**1.47.2** Original distances to be converted to metric are to be shown to three decimal places.

See also "CONVERSIONS" 1.19 See also "METRIC DOCUMENTATION" 1.43.7

**1.47.3** When utilising original information, an endorsement is required stating the source of this information.

# Sample

 $\frac{Original\ information\ compiled\ from\ plan\ SL1234\ in\ the\ Department}{of\ Lands}$ 

OR

from MP10537 in the Department of Minerals & Energy, Brisbane.

When a number of plan sources are used for original information, the statement is as follows:

# Sample

Original information compiled from plans RP213546 and CP808763 in the Department of Lands and from MP10537 in the Department of Minerals & Energy, Brisbane.

1.47.4 The word "Original" is not shown on Section 25 compiled plans.

See also "DIMENSIONS" 1.27

See also "DISTANCES" 1.28

See also "METRIC DOCUMENTATION" 1.43

See also "WATERCOURSES" 1.69

# 1.48 Parish Boundary

# Sample

Show outside subject block and as close to line as possible. Parish boundary is never broken by dimensions.

Subject to same conditions as "COUNTY BOUNDARY" 1.22

See also "LINEWORK" 1.38.10

# 1.49 Plan Forms

**1.49.1** For surveys to be lodged in the Department of Minerals & Energy the official D.M.E. plan form shall be used.

See also "PLAN FORMS" 3.15

**1.49.2** For cadastral surveys lodged in the Department of Lands the common prenumbered plan form shall be used.

With the exception of the "ENDORSED" box all other information at the bottom of the plan form together with the relevant Certificates, particulars of previous Title/Portion Allocations etc. on the reverse side of the plan form shall be completed prior to lodgement of the plan. (Surveyors reference may be shown in the File Reference box together with any Departmental file reference.)

Vide Direction 15 of the Directions to Surveyors 1992.

# 1.49.3 Availability

Plan forms can be purchased from the following locations:

Secretary, Association of Consulting Surveyors 1st Floor, Silverton Place 101 Wickham Tce BRISBANE QLD 4000 Phone: (07) 831 6668 Fax: (07) 832 6398

#### For DOL:

Department of Lands Regional and District Offices throughout the State. See DOL Requirements for Locations, Addresses etc.

#### For DME:

Department of Minerals & Energy GPO Box 194 BRISBANE QLD 4001

# 1.49.4 Surveys Involving Several Plan Forms

# 1.49.4.1 A Survey Through A Number Of Land Parcels

When a number of plans are drawn for a continuing survey of a Road, Railway, Easement etc. through a number of land parcels, each plan shall be autonomous.

Each plan shall depict the survey in a particular land parcel or parcels in an unbroken manner and be complete with its Tabulations, Diagrams, Statements etc. (ie. treat as individual surveys.)

See also "ADJOINING DESCRIPTION" 1.4. See also "DATUM" 1.24.

#### 1.49.4.2 A Survey Of Large Lot Or One With Intricate Detail

When a number of plan forms are required to show details of a very large lot or a lot with intricate detail, the following shall be adopted:

➤ The subject lot shall be plotted to scale on one plan form showing information as scale will permit, but shall include the Lot number, area, adjoining property descriptions, action statements and metes and bounds. In cases of extreme density, metes and bounds may be tabulated or shown via diagrams on supplementary plan forms. Sufficient station numbers shall be shown to enable identification of detail on accompanying plan forms, as well as notations on the relevant parts of the first plan referring to the appropriate supplementary plans.

Eg. See Plan RP830156 Sh 1

#### NOTE:

Prior approval is to be obtained from the local DOL Operations Manager Titling & Land Information for preparation of DOL survey plans in this format.

(See "DOL Requirements" for locations, addresses, etc)

➤ Each plan form shall show the same title

Eg. Lot 6 cancelling Lot 6 on CP804167 (For DOL)
Eg. ML1234 (For DME)

➤ Each plan form will have the same Catalogue Number

Eg. RP830156 Sheet 1, RP830156 Sheet 2 etc

with the main or first plan being catalogued as Sheet 1.

## 1.49.4.2 A Survey Of Large Lot Or One With Intricate Detail

➤ All plan forms of the survey shall be noted with the following statement

Eg. SHEET 1 OF 5 SHEETS, SHEET 2 OF 5 SHEETS etc

#### 1.49.4.3 A Survey Involving A Large Number Of New Lots

When a number of plan forms are required to show a survey containing a large number of new lots (eg new estates), these plans shall be autonomous.

The plans are to be presented similar to any other individual survey on a single plan form, except for the following variations.

Eg.A survey involving 4 plans of subdivision cancelling a lot/s in total.

➤ A statement to be shown on each plan :

"This is one of four plans from the one survey RP800100 to RP800103" For DATUM see RP800100

- ➤ The cancelling clause on three of the above plans will cancel "part of Lot\_\_\_ on RP\_\_\_\_" and the 4th plan will cancel the "Balance of Lot\_\_\_ on RP\_\_\_\_".
- ➤ Being an ongoing survey involving several plans, new descriptions created by the survey are shown appropriately as adjoining descriptions on the accompanying plans.

See also "ADJOINING DESCRIPTION" 1.4.2 See also "DATUM" 1.24.5 - Page 41

# 1.50 Plotting

Plots shall be accurately drawn to scale to within a minimum of 1 part in 150.

The co-ordinate system of accuracy control should be used where necessary to achieve the required standard.

See also "SCALE OF PLANS" 1.58

# 1.51 Proclaimed Survey Areas

Proclaimed Survey Areas are established under Section 12(2)(b) and 12(3) of the Survey Co-ordination Act 1952-89 and Section 29(1) of the Surveyors Regulation 1992.

Surveys within or adjoining a Proclaimed Survey Area should connect to two established Permanent Survey Marks.

PSA's should be identified by statement on the face of the plan directly above the Title Block.

# 1.52 Ranged Only And Reads Bearings

Show as follows:

Sample

See also "CONNECTIONS TO DISTANT POINTS" 1.17 See also "FENCES" 1.32

# 1.53 Reserved Esplanade

- 1.53.1 The landward boundary of the esplanade is fixed at the time of survey for a Deed of Grant to issue.
- **1.53.2** The seaward boundary is subject to accretion and erosion.

See also "ROADS" 1.57

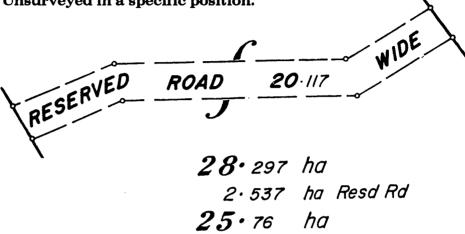
#### 1.54 **Reserved Roads**

#### NOTE:

Reserved Roads and Esplanades may not always be dedicated to public use or provide access. If in doubt refer to local DOL Operations Manager Titling and Land Information for advices. (See "DOL Requirements" for locations, addresses, etc)

Unsurveyed in a specific position.

# Sample



Note method of showing area.

See also "ROADS" 1.57

#### 1.55 Resurvey

When a resurvey is carried out with a view to correction of or issue of title or instrument of lease, the normal plan requirements shall apply.

The title of the plan shall be:

Eg. Lot 15, being Resurvey of Lot 15 on RP135694 Cancelling Lot 15 on RP135694.

See also "DOL REQUIREMENTS" EXAMPLE PLAN No 25 See also "DME REQUIREMENTS" 3.10

# 1.56 Road Reservation

Area reserved for road purposes in no specific location.

1.56.1 Area shown eg.

# Sample

1.56.2 When subdivision occurs involving a block containing a road reservation, an application for purchase or allocation of the reservation should be lodged with the DOL Regional Director. When advised by

the Department of Lands that the sale or allocation has been approved, then the required statements should be drafted on plan to allow Endorsement by the Minister for Land Management or his Delegate.

#### For Allocation

## Sample

The area ...... ha reserved for road purposes in Lot .... on plan ...... may be allocated to Lot .... as shown hereon.

Date .....

Delegate, Minister for Land Management

#### NOTE:

The wording of this statement will be supplied by the Department of Lands for each Action.

#### For Sale

When an offer to purchase a Road Reservation is accepted a Section 25 compiled plan is prepared.

A statement shall be shown on the face of the plan as follows

# Sample

Lot 5 includes the area of former Road Reservation in Lot 5 on  $\overline{RP}$  230646.

# 1.57 Roads

- 1.57.1 The present name of Roads, Streets and Esplanades shall be shown and be in accordance with the relevant Local Authority nomenclature.
- **1.57.2** Refer to Department of Transport Main Roads Gazette for correct HIGHWAY and MAIN ROAD name.
- **1.57.3** Where only one side of road has been surveyed, calculated distances on unsurveyed side are not normally shown.
- **1.57.4** Esplanades are shown and treated in the same manner on plans as for roads.

#### See also "RESERVED ESPLANADE" 1.53

- **1.57.5** Dimensions and widths for internal roads are shown for complete blocks. Use "Orig" where applicable.
- **1.57.6** For roads forming boundaries of subject blocks, the width, when opposite side is shown must be indicated and plotted to scale

Eg. ROAD 60.35 WIDE

**1.57.7** For classification of road based on width eg PATHWAY, LANE etc. See Section 35 of the Local Government Act 1990

1.57.8 For roads in an unsurveyed state see EXAMPLE PLAN No 6.

See also "DIMENSIONS" 1.27.3 See also "DOL EXAMPLE PLANS Nos 26 — 32" See also "DME REQUIREMENTS" 3.17

# 1.58 Scale Of Plans

- 1.58.1 Plans shall be drawn accurately to a scale that will allow all details and annotations being clearly shown on an A4 second generation copy of the original. This requirement should assist in determining the selection of the appropriate plan scale.
- **1.58.2** A complete plot of the subject block or blocks is drawn on the plan in an uninterrupted manner to the scale as shown in the Title.
- 1.58.3 Diagrams drawn either
  - ➤ to another suitable scale; and/or
  - ➤ 'Not to scale' may be used for clarification.
- 1.58.4 It is suggested that plans and diagrams be drawn to one of the following scales, or multiples to the power of 10 thereof:

Suggested Plan Scales						
1:1	1:2	1:4	1:7.5			
1:1.25	1:2.5	1:5	1:8			
1:1.5	1:3	1:6				

See also "NOT TO SCALE" 1.45 See also "PLOTTING" 1.50

## 1.59 Secants

Dimensions of secants are shown "on face" or tabulated in the "TRAVERSES ETC" column.

See also "DIMENSIONS" 1.27 See also "LINEWORK" 1.38.7 See also "TABULATIONS" 1.66 See also "TRAVERSES" 1.67

# 1.60 State Boundary

Sample

31

NEW SOUTH WALES

See State Boundary Agreement Act. 1983.

Subject to same conditions as "COUNTY BOUNDARY" 1.22

See also "LINEWORK" 1.38.12

# 1.61 Station Numbers

Station numbers are to be shown upright in as simple a format as possible. ie. 1,2,3, with 1a, 1b etc. for secants and close proximity work only.

Adequate station numbers should be shown on the plan to describe survey lines, qualify action statements and other "on face" statements.

See also SPECIMEN PLANS Nos 1 and 2

# 1.62 Styles

- 1.62.1 The use of mechanical guides and computerised drafting equipment will produce styles that may vary from those shown in this segment. The use of this equipment to produce plans is acceptable provided -
  - ➤ That the end result displays the information in a clear and concise manner.
  - ➤ That variable pen sizes, lettering heights, etc. are used to indicate the information in an unambiguous manner, attempting to demonstrate the guidelines contained within the pages of this manual.
  - ➤ That the plan can be reproduced at a reduced scale to enable microfilming to take place.
- 1.62.2 Subject Lot, Mining Tenure (where used as legal property descriptions), Easement, Island and Diagram

Sample

ABCDEFGHIJKLMNOPQRSTUVWXYZ 1234567890

1.62.3 Adjoining Style of 1.62.2 above and their catalogue numbers. Adjacent (non-adjoining) Road, Street, Railway, Channel & Drainage Area. All distances and all column headings and entries. Statements & Endorsements. Corner Information, Plan Title (where applicable), Features (Gully, Bldg, 2B 1P fence etc.), Read and Ranged Only Bearing, Area (right of decimal).

# Sample

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 1234567890

**1.62.4** Subject Road, Street, Lane, Pathway, Drain and Channel Area, Railway, Highway, Expressway, Freeway and Plan Title (where applicable).

# Sample

ABCDEFGHIJKLMNOPQRSTUVWXYZ 1234567890

**1.62.5** Subject Bay, Sea, Ocean, River, Creek. Area (left of decimal), Plan Title (where applicable), Adjoining State eg. N.S.W

# Sample ABCDEFGHIJKLMNOPQRSTUVWXY 1234567890 abcdefghijklmnopqrstuvwxy

**1.62.6** Adjacent (non-adjoining) River, Parish Name (Upper and Lower Case), Bay, Ocean, Sea

# Sample

ABCDEFGHIJKI.MNOPORSTUVWXYZ

**1.62.7** Adjoining County Name, Adjoining or Internal Creek NOTE: For Capitals use style 1.62.6

# Sample

abcdefghijklmnopqrstuvwxyz

**1.62.8** Subject Holding, Parish Name on face (when applicable).

# Sample

ABCDEFGHIJKLMNOPQRSTUVWXYZ 1234567890 abcdefghijklmnopqrsluv

1.62.9 All bearings (except Column entries and Reads), Station Numbers

# Sample

1234567890 abcdefghijklmnopgrstuvwxyz

1.62.10 ➤ Lapsed Lease description for D.M.E. PLANS ONLY

➤ Previous property descriptions on face when entire parcels have disappeared as a result of Crown Resumptions for new Road, Rly etc for D.O.L. plans only.

# Sample

ABCDEFGHIJKLMNOPQRSTUVWXYZ

# 1.63 Survey Records

When additional data is lodged in support of the survey eg. creek traverse offsets, this information shall be indicated in the appropriate box on the face of the plan.

## ie. YES/NO SURVEY RECORDS DEPOSITED

If survey records for a number of plans are in the one book, one plan number should be chosen to be shown on the front of the Field Book and on the front of each plan in the Survey Records Box.

Where the reinstatement of a survey is complex or there are significant differences from either original or other surveys, a report in a Field Book cover should be lodged with the plan.

Where the present definition of High Water Mark (HWM) differs significantly from original HWM, a report in a Field Book cover should be lodged with the plan.

See also DME "FIELD NOTES" 3.8

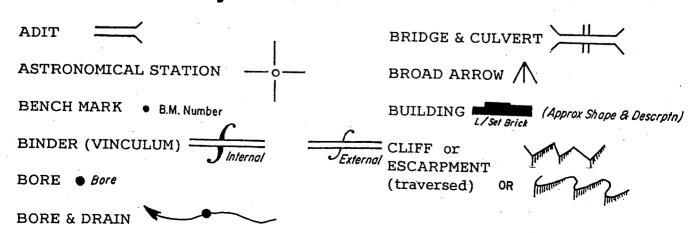
# 1.64 Surveys In Strata

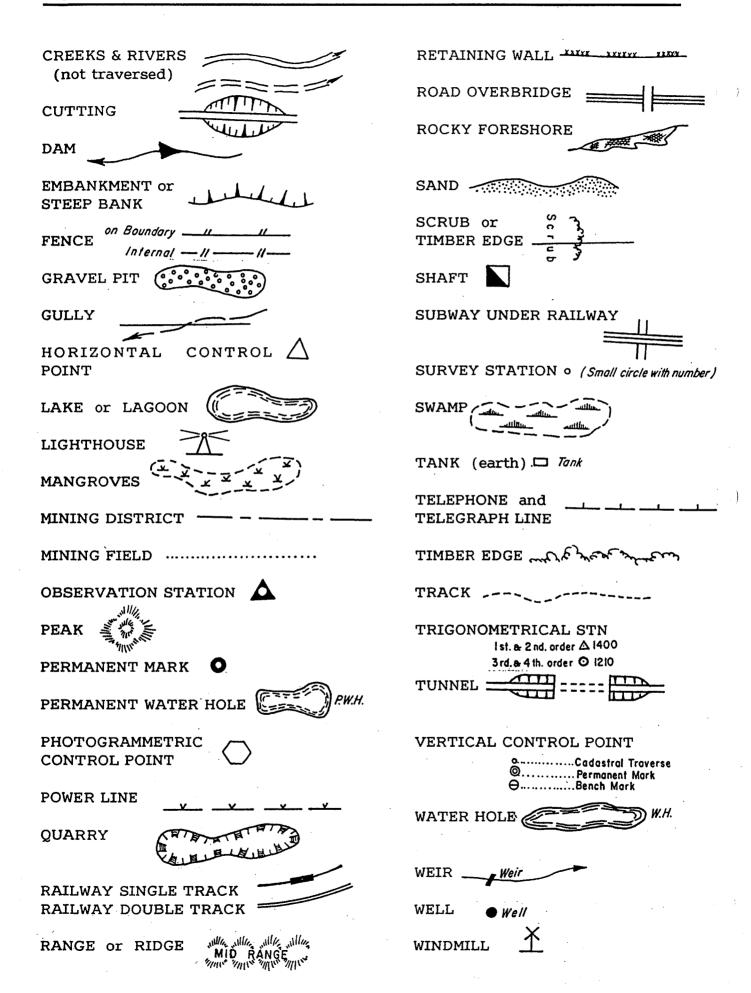
- 1.64.1 Parcels of land with height or depth restrictions shall be fully defined on the face of the plan and shall be described as Lot...... or Easement........... (In Strata) in the Title Block.
- 1.64.2 If a Lot or Easement being created or cancelled has a depth or height restriction, that Lot or Easement shall be described as "In Strata" ie Lot 6 (In Strata), Lot A (Proposed Easement In Strata) in the Title Block. The full depth or height restriction information shall be shown on the face of the plan.

Heights shall be in terms of the Australian Height Datum and be referred to a Permanent Survey Mark of known Reduced Level which is stated on the face of the plan and connected if applicable.

See also DOL EXAMPLE PLANS Nos 12, 13, 37, 38 See also DME "DEPTH RESTRICTIONS" 3.12.5

# 1.65 Symbols





# 1.66 Tabulations

When a plan has been 'turned', tabulations are to be treated likewise so as to facilitate easy reading of plan.

See also "CORNER INFORMATION" Diag. B See also "NORTH POINT & DATA ORIENTATION" 1.44 See also "TRAVERSES" 1.67

# 1.67 Traverses

- 1.67.1 Extraneous field traverse information is generally not shown.
- 1.67.2 When traverse lines are shown, dimensions are shown on face or tabulated in the "TRAVERSES ETC" column.

When tabulation is adopted, numerical order is preferred.

# Sample

TRAVERSES ETC						
LINE	BEARING	DIST				
1-2	180°07'	/3 · /3				
3-4	236° 43'30"	105-26				
5 - 5a	355°32'40"	20 · 117				

1.67.3 Where a traverse has been run to establish a new boundary along an inaccessible tract (cliff, etc.) the traverse is shown in the normal manner and the boundary shown calculated.

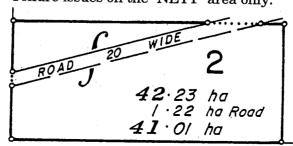
Vide Section 24 of the Surveyors Regulation 1992 and Section 9 of the Recommended Practices for Surveyors.

See also "DATUM" 1.24.1 See also "LINEWORK" 1.38.7 See also "OFFSETS" 1.46 See also "WATERCOURSES" 1.69.2

# 1.68 Vinculum

- 1.68.1 Vincula 'bind' two or more land segments, separated by road, railway etc, to form a single tenement which is usually designated by one property description.
- 1.68.2 When in a surveyed state, an area for the exclusion from the tenement (Road etc) is to be shown on the plan. This results in a "3 (or more) line area" depending on the number of exclusions.
- 1.68.3 Tenure issues on the "NETT" area only.

# Sample



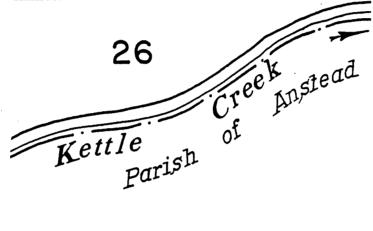
1.68.4 Vincula can be carried forward on alienated land though cannot be created except for resumptions by constructing authorities eg Department of Transport.

See also "AREAS" 1.8.2 & 3 See also "DME REQUIREMENTS" 3.22

# 1.69 Watercourses

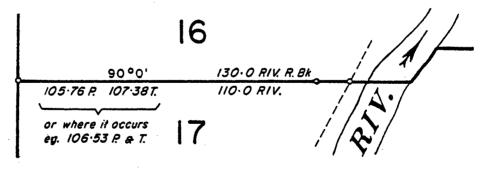
1.69.1 Show opposite bank of watercourse if practicable. It is not always necessary, however, to show information on the otherside of watercourse forming boundaries except for adjoining Parish and County names.

# Sample



- **1.69.2** Distances on the boundary terminating at a watercourse are to include distance to:
  - ➤ Post or Peg.
  - ➤ Traverse.
  - ➤ Bank or Watercourse Boundary (Ck, Riv, etc).

# Sample



- **1.69.3** Survey records must be lodged showing the watercourse traverse, measurements to the bank and area calculations.
- 1.69.4 An arrow indicating "downstream" ONLY must always be shown.
- 1.69.5 While traverses of watercourses are to be indicated on plan when run, there is no necessity to show when original. The original catalogue number shown along the watercourse will suffice.

1.69.6 Where traverse of watercourses are used to obtain a new area of a lot, it is required that the original traverse dimensions be shown on the plan.

A statement indicating origin or original offsets is also to be shown.

For cases involving vast original traverse data, the original plan number shown along the watercourse boundary will suffice, provided survey records are lodged.

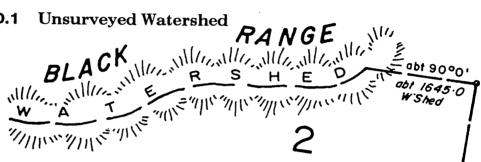
Vide Section 11 of the Recommended Practices for Surveyors.

#### 1.70 Watersheds

When "WATERSHED" is the boundary, the following guidelines should apply:

1.70.1

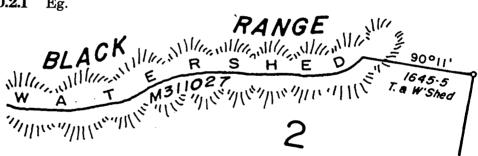
Sample



1.70.2 Surveyed Watershed

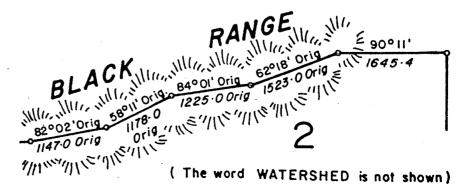
1.70.2.1 Eg.

Sample



1.70.2.2 If traverse lines have been adopted as the boundary and corners have been marked, then right lines are shown.

Sample



- **1.70.3** If in doubt as to which of the above methods is to be used, a search of the original tenure document should be made.
- 1.70.4 Relevant boundaries are labelled "COMPASS SURVEY" as required.

See also "COMPASS SURVEY" 1.14

# Requirements of the Department of Lands

## **Department of Lands**

Cnr Main & Vulture Streets PO Box 40 WOOLLOONGABBA Q 4102

### Regional And District Offices

Brisbane	South Voast
G.P.O. Box 1401	P.O. Box 6061, M.C.
BRISBANE Q 4001	BEENLEIGH Q 4810
Phone: (07) 227 8225	Phone: (07) 826 0030
Fax: (07) 227 6790	Fax: (07)826 0079
P.O. Box 864	P.O. Box 5096
IPSWICH Q 4305	BUNDALL Q 4217
Phone: (07)810 0034	Phone: (075) 885 124
Fax: (07)810 0068	Fax: (075) 885 133
Central	Sunshine Coast
P.O. Box 1762	P.O. Box 1080
ROCKHAMPTON Q 4700	CABOOLTURE Q 4510
Phone: (079) 319 995	Phone: (074) 900 015
Fax: (079) 223 673	Fax: (074) 957758
Darling Downs	
P.O. Box 962	P.O. Box 573
TOOWOOMBA Q 4350	NAMBOUR Q 4560
Phone: (076) 319 153	Phone: (074) 414 677
Fax: (076) 326 627	Fax: (074) 417 473
Far North	West
P.O. Box 120	P.O. Box 350
CAIRNS Q 4102	ROMA Q 4455
Phone: (070) 523 226	Phone: (076) 201 027
Fax: (070) 510 851	Fax: (076) 224 516
Mackay	Wide Bay
P.O. Box 63	P.O. Box 212
MACKAY Q 4740	MARYBOROUGH Q 4650
Phone: (079) 518 763	Phone: (071) 237 747
Fax: (079) 573 747	Fax: (071) 224 007
Northern	
P.O. Box 5318	P.O. Box 1167
TOWNSVILLE Q 4810	BUNDABERG Q 4670
Phone: (077) 221 436	Phone: (071) 538 103
Fax: (077) 714779	Fax: (071) 531 307

### 2.0 Requirements Of The Department Of Lands

This document has been implemented in the Quality Assurance program of the Department of Lands.

#### General:

The copies of plans on pages 85 to 131 are examples of the actions necessitating lodgement of cadastral plans in the Department of Lands.

The majority of the examples are copies of original plans held in the DOL which have been suitably adapted to represent specific actions. As such, these examples may not necessarily conform in every respect to all guidelines stated in this manual. For DOL Specimen Plans, see pages 82 to 84.

The Department of Lands Regional Senior Surveyor should be contacted for enquiries concerning surveys that may not be included in the following examples. See Page 67 for Regional Office listings.

### Mining Residential Tenures (MHL, MHPL etc)

Conversion to Freehold Tenure of these leases is presently being implemented. The majority of actions affecting these Tenures have therefore been omitted from this edition.

### **Integration Of Departments**

Integration of the former Department of Lands, Geographic Information and Freehold Land Titles into the new Department of Lands has enabled a certain uniformity of standards and requirements to be achieved.

The majority of surveys are performed for the following reasons:

- ➤ Subdivision of existing tenure
- ➤ Addition to existing tenure
- ➤ Excision from existing tenure
- ➤ Creation of new tenure

Examples in this segment are representative of the above integrated processes.

As new DOL Legislation evolves, further standardisation and simplification of Departmental requirements will be implemented in this section of the Guidelines.

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### 2.1 Building Units & Group Title Plans

#### 2.1.1 General

See Building Units and Group Titles Act and Regs 1980.

See also Department of Lands publication entitled "Manual of Registration Requirements" - 2nd Edition.

If part of the common property of a GTP or BUP is to be dedicated as New Road, a survey plan of resubdivision should be lodged over the original parcel. The original description shown on the GTP or BUP is then cancelled by this plan.

Where Common Property in a Building Unit Plan or a Group Title Plan is subdivided, the Title on the plan should read:

Eg. Lots 1 and 2 Cancelling Lot 1 on RP123456.

Easements in Common Property are to be shown as:

Eg. Lot A (Proposed Easement) in Common Property on BUP (or GTP) No.1234

#### See also EXAMPLE PLAN No 13

In acquisition of additional Common Property the cancelling clause should refer to the original description of the parcel prior to the registration of the Building Unit Plan or Group Title Plan and the description of the area to be added.

A re-survey should be lodged prior to the BUP or GTP if the dimensions of the subject land do not agree within limits of accuracy.

### 2.1.2 Building Units Plans

Adjoining information on a Plan referring to a registered Building Units Plan should also show the Lot description of the parcel on which the Building Units Plan is registered.

### 2.1.3 Group Title Plans

The requirements for the contents of sheet 2 are set out in Section 9(2)(a); (b); (c); (d); (e) and Regulation 8 (1); (c); (e) and (g) of the Building Units and Group Titles Act and Regulations 1980.

Where a Lot consists of separate parts, each part should show the Lot number underlined with the word "(part)" and the area of each part. The total area should be shown on the prime part underlined with the word "(total)".

### Sample

The corners of each Lot where a peg has not been placed should be numbered and marks placed should be shown in table form. If there is sufficient space the marks may be shown on the face of the plan. Any buildings, walls or occupation at or near the Lot corners should be referenced.

Internal recovery marks may be shown on Sheet 2, preferably in table form.

Where Lots are surrounded entirely by Common Property, connections to two original corners which have been reinstated from previous surveys should be shown.

Where Sheet 2 consists of more than one sheet at least two connections should be shown between the Lots on each Sheet.

Amendments to survey content may be shown on the plan before or after the plan is lodged. All amendments to the plan are in black ink and require certification by a Licensed Surveyor in the usual manner.

Group Title Plans are subject to consent by the Beach Protection Authority if in a Coastal Management Area.

They are subject to consent by the (Water Resources Commissioner) if in a Catchment, Irrigation or Channel Area.

### 2.2 Canals

Canals are given Lot numbers and the word "CANAL" should be shown in the Lot on the face of the plan and not in the description.

### 2.3 Cancelling Clause

It is **imperative** that the "CANCELLING CLAUSE" together with the "ORIGINAL PORTION/SECTION/M.H.L./M.H.P.L." number be correctly completed in the appropriate box in the Title Block.

This will enable plans to be entered (and cross referenced) in the D.O.L. Computerised Plan Registry System (CISP) and to facilitate the update of the Digital Cadastre Data Base.

For plans of Freehold Tenure, the new plan to be lodged shall cancel the whole or the part of the Lot on the Registered plan upon which the present Title was issued. (The original Portion/Lot description shall be that description upon which the original alienation was based).

**Original** 

For plans of Crown Tenure, the new plan to be lodged shall cancel the latest examined plan of land even though Tenure may not have issued from that plan. (ie. the new plan will cancel the latest plan of that lot recorded in CISP).

### Samples:

	Por/Sec/MHL/MHPL
Lot 4: Lot 4 on RP188633	Por 59
Lot 35: Lot 35 on plan FL4023	Por 35v
Lot 905: Lot 905 on plan D2707	Allot 5 of Sec 9
Lot 266: Lot 266 on plan D35245	R.41
Lot 170: Lot 4871 on plan PH2249	RUN4871
Lot 296: Lot 1 on MP22850	Sec 1
Lot 347: Lot 347 on MP34956	MHL335
Lot 351: MHL5601 on MP10162	MHL5601
Lot 62: Vacant Crown Land.	

### 2.4 Compiled Plans (Plans without Field Survey)

### **2.4.1** (Section 25 of Surveyors Regulation 1992)

**Previous Description** 

Where appropriate, use may be made of the Section 25 compiled plan for the balance/s of affected land parcel/s resulting from your survey action. This procedure will:

- > simplify drafting procedures
- ➤ unclutter plans and enhance reproduction and archiving capabilities
- ➤ commit the survey plan as a permanent record of the survey action only.

# 2.4.2 Compilations Involving Surveyed Parcels Of Freehold Land

- **2.4.2.1** As a guide, plans for Amalgamations will be requisitioned if there are buildings encroaching, if the boundary dimensions are conflicting, or misclosures are evident.
- **2.4.2.2** It does not appear to be good practice to utilize a compiled plan and then carry out an Identification Survey for any following action be it a Building Unit Plan or Group Title Plan.
- **2.4.2.3** Compiled surveys are subject to the following:
  - ➤ All corners have been previously marked.
  - ➤ All bearings, distances and areas should be compiled from the original plans only for the Lots being cancelled.

- ➤ If the original areas are imperial they should be added then converted to the nearest square metre.
- ➤ Closes within allowable limits can be obtained.

# 2.4.3 Compilations Involving Leasehold Land (Surveyed and Unsurveyed)

### 2.4.3.1 See Example Plans Nos 5 to 8

See also "CERTIFICATES" 1.14.4

### 2.5 Definitions

### 2.5.1 Deposited Plan

A plan or copy of the plan deposited with the DOL for the purpose of endorsement as being correct in respect of survey content. (Includes plans lodged for pre-examination, endorsement, and Crown plans which are deposited for passing and recording for use in future dealings).

### 2.5.2 Endorsed Plan

A plan which has passed survey examination and has been officially endorsed by the DOL.

### 2.5.3 Lodged Plan

A plan which has been lodged with the DOL for the purpose of registration as an instrument to give effect to a dealing(s) and recorded in the Unregistered Dealings System (URDS).

### 2.5.4 Registered Plan

A lodged plan which has proceeded to registration with or without accompanying documentation and is now contained within the Land Titles Register of the DOL.

### 2.5.5 Redundant Catalogue (R.C. Plan)

Is that catalogue of plan copies (other than Identification Survey plans) which are submitted to the Registering Authority under Section 30 (1) of the Surveyors Regulation 1992. These copies are held as a record of survey data only and as the original survey plans are lodged the copies are removed from the file and destroyed. Plans currently in this file are known as "Red Cats" and their status shown in the relevant databases by the prefix "RC".

### 2.6 Easements - Proposed

- 2.6.1 Generally easement plans do not require Local Authority consent. Exceptions are plans of easements in Mining Residential Tenure (MHL, MHPL etc.). However Local Authority approval is required for an Easement Document which is for access for vehicles to a Road.
- 2.6.2 Separate Easements are required for each segment of land.
- **2.6.3** The word "Proposed" shall appear in the plan title and not on the face of the plan.
- 2.6.4 Electricity Authority Easements, which are permitted to be shown by sketch in the Easement Document, need not have the word "Proposed" inserted as they are already established Easements.
- **2.6.5** Proposed Easements which are not implemented by documentation are automatically cancelled by a subsequent Plan of Subdivision.
- **2.6.6** Overlapping Easements are allowable. The second Easement plan should show the first Easement plotted in adjoining style.
- 2.6.7 In intersecting Easements, the intersections do not need to be located and marked. Marking would be required if the intersection is coincident with the corner of the easements involved.
- **2.6.8** An Easement can only by extinguished by "Surrender", "Merger" or "Resumption" or "Absorbed" by the dedication of New Road over the Easement.
- **2.6.9** Sketch plans in the Easement Document are allowed only for transmission lines. They are to be shown on subsequent subdivisions of the land with Easement letter and dealing number.
- **2.6.10** Subdivisions with New Easements in the new Lots should be described individually.

#### Sample

Lots 14 to 18 and Lot A (Proposed Easement) in Lot 14, Lot B (Proposed Easement) in Lot 15, Lot C (Proposed Easement) in Lot 16 and Lot D (Proposed Easement) in Lot 17. Cancelling Lot 191 on RP123456.

#### See also EXAMPLE PLAN No 11

2.6.11 The Proposed Easement should be described separately in the case of subdivision creating New Lots and at the same time creating a NEW Proposed Easement over an adjoining Lot.

#### Sample

Lot 1 and 2 Cancelling Lot 14 on RP123456 and Lot A (Proposed Easement) in Lot 15 on RP123456.

**2.6.12** Resurveys with an Easement in the same parcel should also be described separately.

### Sample

Lot 24 being Resurvey of Lot 24 on RP123456 and Lot A (Proposed Easement) in Lot 24

**2.6.13** The Proposed Easement should be described separately in the case of a Resurvey of a Lot and at the same time, a Resurvey of an Easement in an adjoining Lot.

### Sample

Lot 217 being a Resurvey of Lot 217 on RP123456, Cancelling Lot 217 on RP123456 and Lot A (Proposed Easement) in Lot 218 on RP123456.

- **2.6.14** A plan of any Proposed Easement that contains height restrictions should:-
  - > show the height restrictions on the face of the plan
  - ➤ be on AHD Datum
  - ➤ show the PM to which they are related and its reduced level on AHD.

### Samples

Lot A is limited to that part of the land which lies between  $\overline{RL}$  29.2 AHD and RL 33.6 AHD and is related to PSM 12345  $\overline{RL}$  95.641 AHD.

Lot A is limited to that part of the land which lies above RL 22.3 AHD and is related to PSM 12345 RL 12.631 AHD.

Lot A is limited to that part of the land which lies below RL 37.2 AHD and is related to PSM 12345 RL 24.685 AHD.

Lot B is limited to that part of the land which lies above the plane(s) of varying heights as shown in Diagram(s) A & B.

**2.6.15** See Example Plan No 12 for treatment of surveys affecting existing easements.

See also EXAMPLE PLAN No 13

### 2.7 Erosion (Correction of Title)

When a plan is lodged for correction of title, the plan should show a lot for the subject land and a lot for the area eroded. The eroded lot may surrendered to the Crown.

### 2.8 Estates

### 2.8.1 For Freehold Land

See Specimen Plan No.2

#### 2.8.2 For Crown Land

Treat as for a plan of subdivision.

➤ Indicate by action statement for any areas of New Road.

Eg. Road to be Opened (2-4-7-8).......651m

➤ For Industrial Estates the name is to be shown boldly just above the Title Block.

### Eg. STANTHORPE INDUSTRIAL ESTATE

### 2.9 Leases

#### 2.9.1 Leases In Freehold Land

**2.9.1.1** If leases are shown on a Registered Plan, then the plan should comply with all the requirements of a normal plan of subdivision.

See also EXAMPLE PLAN No 20

- 2.9.1.2 Leases of land being part of a Certificate of Title should have therein a sketch properly drawn to scale, showing the scale thereon and the direction of the North Point, with bearings and distances and where necessary connection to the title boundary.
- 2.9.1.3 Leases of part or parts of a building should have therein a sketch properly drawn to scale, showing the scale thereon and the direction of the north point. The parcel of land on which the building stands should be plotted in full and should show the position of the building in relation to the boundaries of the land and the layout of the part or parts of the floor/s to be leased by showing all the internal dividing walls particularly with reference to the external walls. No measurements are required and the area should be shown in square metres.

The area to be leased should be hatchured.

Part of a building could be leased by excluding parts thereon so long as the exclusion is part of the Operative and clearly indicated by a sketch.

See also EXAMPLE PLAN No 20

#### 2.9.2 Plans Of Leases

Crown Land—See Example Plan No 21

Vested Areas (eg Harbour Boards) — See Example Plan No 22

### 2.10 Local Authority Consent

Local Authority Consent is required for all subdivisions and amalgamation plans of freehold land whether by Compilation or Survey except –

- ➤ Resumptions
- ➤ Actions under Section 5.3 (12) of the Local Government (Planning and Environment) Act 1990.
- ➤ Subdivisions under the Property Law Act Part XI Section 185(1)(b). Order of Supreme Court for relief in respect of encroachment.
- ➤ Easement Plans (Local Authority consent is required for some access Easements, however the Consent is endorsed on the Document and not on the plan).

Plans are to be lodged with the Department of Lands within 6 months of Local Authority Consent, except G.T.P.'s and B.U.P.'s for which there is no time limit.

### 2.11 Memoranda To Surveyors

Surveyors may appeal against any Memoranda to the Regional Senior Surveyor.

A Licensed Surveyor may authorise another Licensed Surveyor to attend to his Memoranda with the provision that he is interstate or overseas, provided the DOL receives a prior letter from the Surveyor with the name of the other Licensed Surveyor and the period of that authority. This removes the anomaly between an individual Surveyor and a Company which is licensed as a Surveyor.

### 2.12 New Road

Any Freehold subdivisional plan must contain at least one (1) new Lot as a plan cannot contain New Road only.

A plan containing New Road only with an Undescribed Balance will not be accepted.

The Total Area of New Road should include any classified road ie. Pathway, Lane etc. See Section 35.4 of the Local Government Act for road classification and width.

#### See also SPECIMEN PLAN No 2

The dedication of New Road takes place when the plan is registered.

Vide Section 5.3 (11) of the Local Government (Planning and Environment) Act 1990.

### 2.13 Undescribed Balances

A plan of a Lot fully covering an Undescribed Balance eg. as a result of stage development, may be compiled provided no other plans have shown differences in the dimensions of the Balance.

A compilation of a previously Undescribed Balance Area under Section 25 of the Surveyors Regulation 1992 shall be compiled from the plan or plans from which the Title was issued, and plan of excision only.

Information from adjoining plans is not allowable.

Any plan of the Undescribed Balance requires Local Authority's Consent whether the plan is compiled or surveyed.

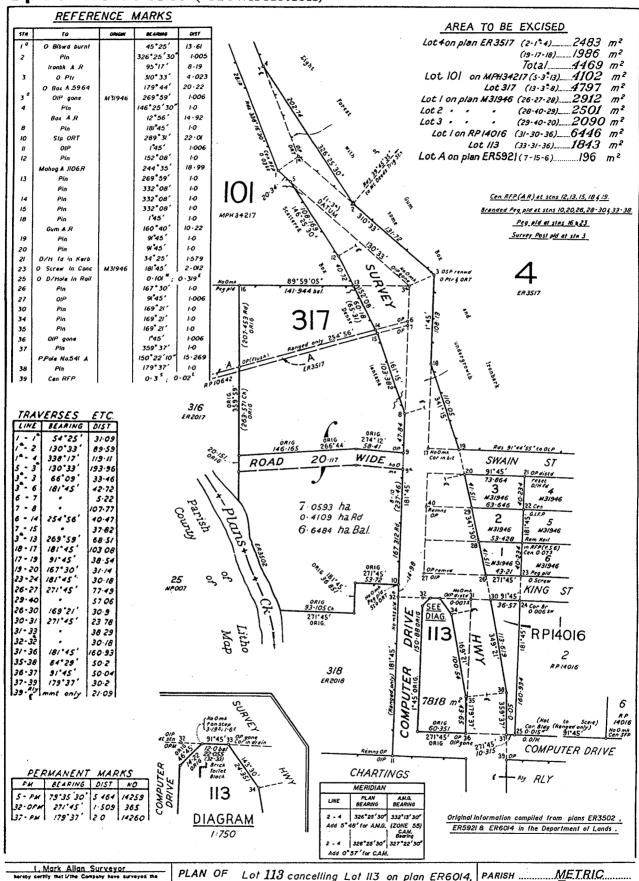
The description should include the word "Balance".

Sample

Lot 123 Cancelling Balance of Lot 123 on RP123456.

See also EXAMPLE PLAN No 9

### Specimen Plan (Crown Action)



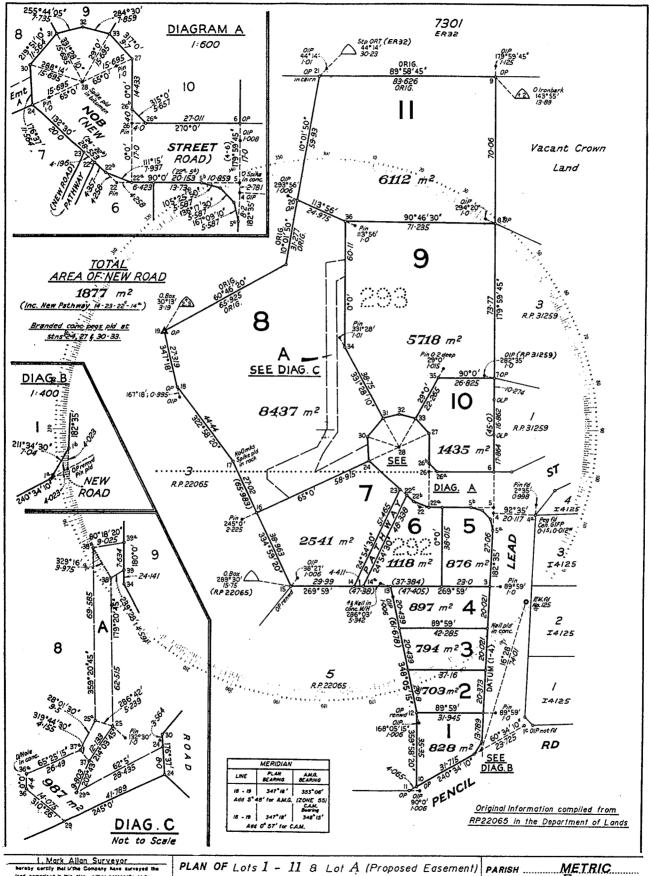
courate , that the said survey was now with the Surveyors Act 1977 guilations 1992 and that the said
guistions 1992 and that the said
on 6/2/92
Cicenaed Surveyor/
Director
Director 9. 7. 0

PLAN O	F Lot	l13 canc	elling Lo	ot 113 or	n plan t	ER6014
	Lot 31	7 cancel	ling Lot	317 on	plan E	R3502
and Ro	ad in Lo	ts 1 - 3	on plan	M31946	Oria	
Lot I on	RPI401	6 (Orig	Sec 51,L	of 101 o.	n plan	
WPH342.	17(Orig N	AHLIO[7]	and in	Lot 4 c	n plan	ER351
	50071					

ORIGINAL	PORTIC	-	~ =		RECORDS DEPOSITED
MERIDIAN As Shown	MAP REF 9541-21134	SCALE 1: 000	FILE REF RC35III SL29654	ENDORSED	REGISTERING DIS

COUNTY Eraser TOWN ACCOUNTY STAPLE SC.	LAND AGENTS/MINIT	
	LOCAL AUTHORITY	STAPLE S.C.
PARISH METRIC	COUNTY	Eraser

### Specimen Plan (Subdivision Action)

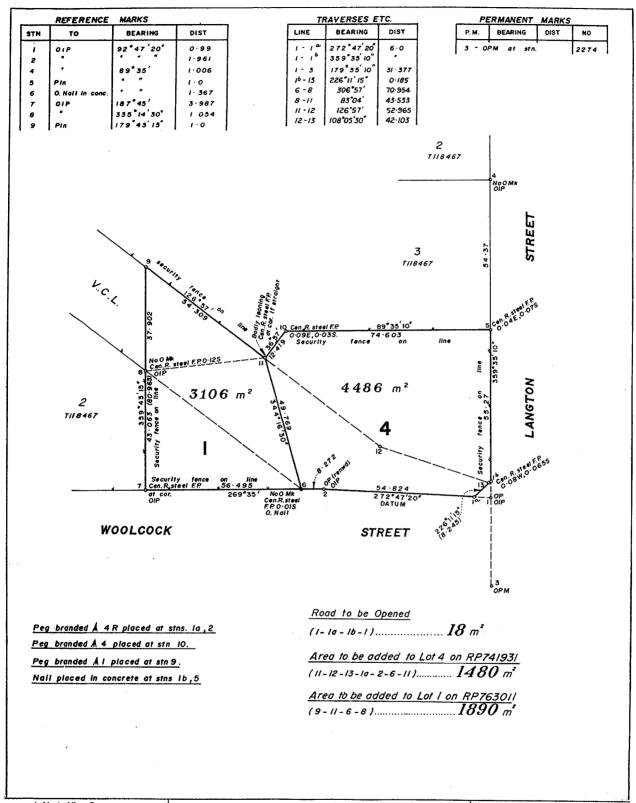


hereby certify that if the Company have surveyed the	PLAN	OF Lots 1	- <i>11 a</i>	Lot A (F	Proposed	Easement)	PARISH	METRI	<b>2</b>
land comprised in this plan either personally emby-		in Lot &	3 cancellir	ng Lots I	8 2 on	RP22065.	COUNTY	Erase	r
for whose work i/the Gempeny ecosys responsibility , and that the plan is accurate , that the said survey was				-			FOUNT/LOCALITY	MAP STAPLE	S.C.
performes in accordance with the Surveyors Act 1977 and the Surveyors Regulations 1992 and that the said							LAND AGENTS/MINING DISTRICT		
Machine Surveyor/	ORIGINAL	PORTIC	DN 292 8	293	YES SURVEY	RECORDS DEPOSITED	MIRANG FIELD		
Director	MERIDIAN	MAP REF	SCALE	FILE REF	ENDORSED	REGISTERING DIST	ODEOU	# F" \ 1	_
Director 9.7.92	As Shown	9541-21134	1: 000			BRISBANE	SPECIA	1EN	2

Council of the of certifies that all the requirements of this Council, the Local Government Acts and all By-Laws have been complied with and approves this Plan of Subdivision  Dated this day of 19  Mayor or	Previous Title  CT 8740 - 213
Chairman Town or Shire Clerk	8740-214 5-11 EMT A NEW ROAD
(Names in full)  • as Proprietor/s of this land.  • as Lessee/s of Miner's Homestead agree to this plan and dedicate the new road as shown hereon to public use.  Signature of • Proprietor/s • Lessee/s  • Rule out which is inapplicable.	PORTION ALLOCATIONS  LOTS PORTION  1-6 292  7 § 8 292 § 293  9,10 § 11 293
	This survey has been examined and may be used for land dealings.  Surveyor General Date
	Lot Vol. Fol. Lot Vol. Fol. Lot Vol. Fol.
	Lodged by Received Registrar of Titles
	Fees Payable  Postal fee and postage  Logt. Exam. & Ass.  New Title  Entd. on Deeds
File Ref.  Deposited / / Vol. Folio  Audited / / Passed / / Survey Records: File/Field Notes Charted / / Original Grant at	Photo Fee Total Short Fees Paid
REGISTRAR OF TITLES	

### **Addition of Crown Land**

### (Including Road Closure)



. hereby	certify	that I/the	Company an (elther	heve	surveyed	
			ompony as			

the Surveyors Regulations and that the said survey was completed on 6/2/92	
Masuracia Licensed Surveyor/	
Director /6/2/	92

PLA	N	OF
-----	---	----

Lots 1 and 4

Cancelling Lot I on RP3245I and Lot 4 on RP4276I.

ORIGINAL	SECTION	S 135 8	266
MERIDIAN	MAP REF	SCALE	FILE REF
CAM Vide	City of , Townsville Sh4	1: 000	SL.43617

# ENDORSED REGISTERING DIST BRISBANE

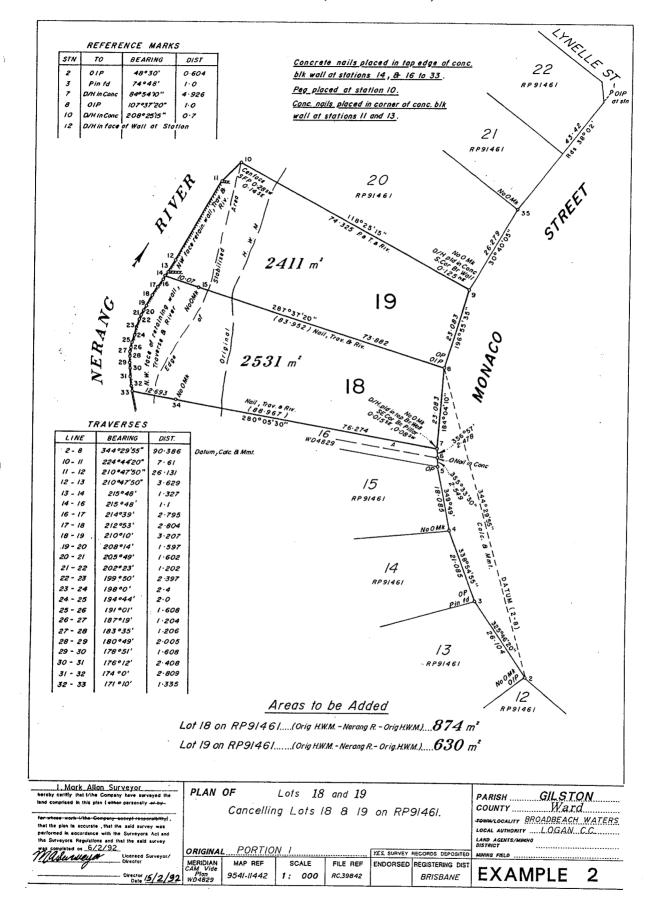
# PARISH COONAMBELAH COUNTY Elphinstone FORWAGGALIFIC CITY OF TOWNSVILLE

FONDAL DOLLER CITY OF TOWNSYILLE.
LOCAL AUTHORITY TOWNSYILLE C.C...
LAND AGENTS/MINNO
DISTRICT
MEMORY FELD

**EXAMPLE 1** 

- 1. Action stgatements on face of plan indicating purpose of survey and full description of land involved
- 2. Parcels retain their previous numerical identifier as the new description for the amended lots

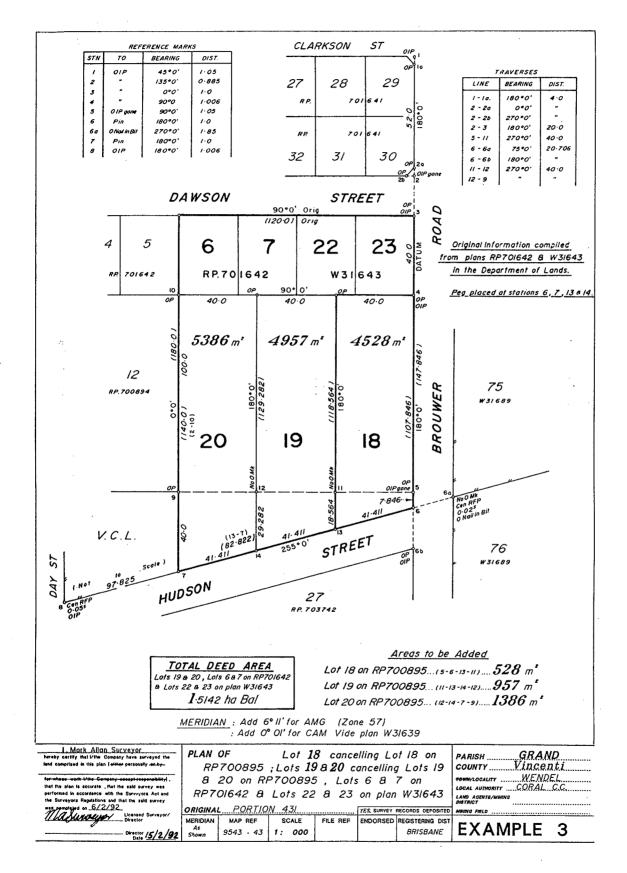
### Addition of Crown Land (Reclamation)



- 1. Description of areas being added in Action statement and full description of land involved
- 2. Description of new and original ambulatory boundaries on the plan
- 3. In this particular instance, the Retaining Wall, River and Traverse are co-incident
- 4. Parcels retain their previous numerical identifier as the new description for the amended lots

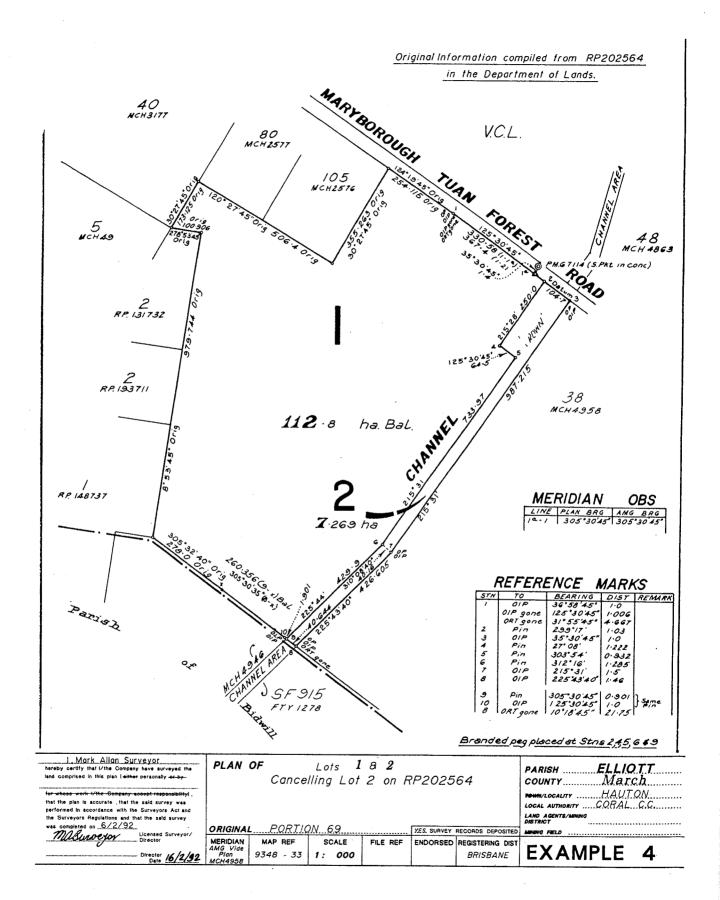
### **Addition**

### (Crown Land to Freehold Consolidated Title)



- 1. Bordered statement for indicating "TOTAL DEED AREA" of new Consolidated Title. (NB. Lot 18 is not part of this Title).
- 2. Method of presenting description of land parcels particularly those unaffected by this Action (Lots 6, 7, 22 & 23)
- 3. Action statements and full description of land involved.
- 4. Metes and bounds shown for total surround of Deed Area and individual Lots affected (Lots 18-20)
- 5. Parcels retain their previous numerical identifier as the new description for the amended Lots.

### Channel/Drain



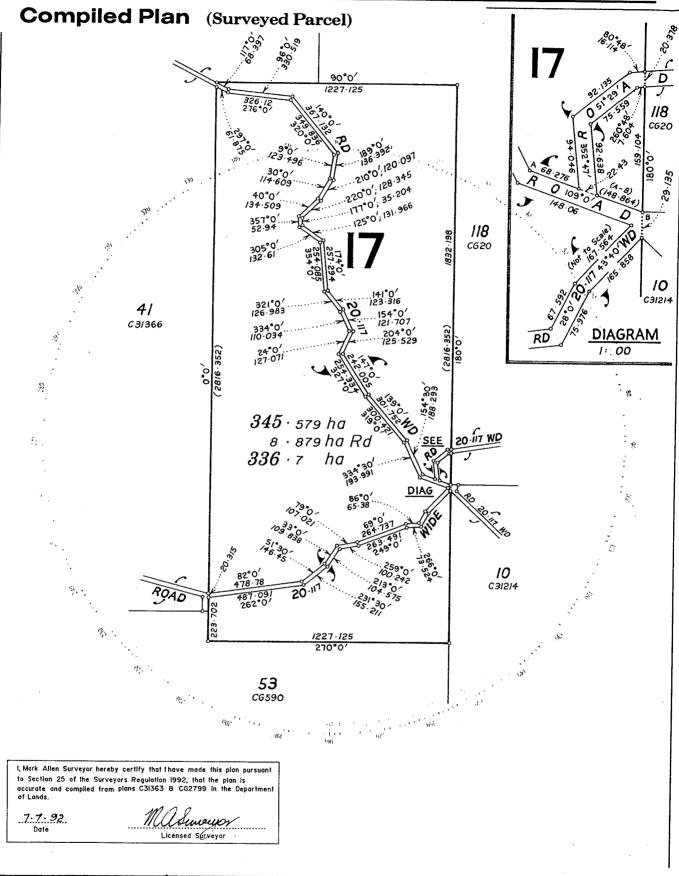
- 1. Channels/Drains are required by the Queensland Water Resources Commission.
- 2. Channels/Drains are described as such on the face of the plan (Do not designate as Area or Reserve).
- 3. The parcel retains its previous numerical identifier.

Council of the that all the requirements of this Cou Laws have been complied with and			t	us Title 5009 - 8050	105 Resu	L mptic	ot 2 On Lot	2 R	P 201	2564 the Cro	PWA	
Dated this	day of	19 Mayor or Chairman Town or Shire Clerk								·	`	
I/We												
as Proprietor/s of this land.     as Lessee/s of Miner's Homestead agree to this plan and dedicate the		iblic use.										
Signature of • Proprietor/s • Le • Rule out which is inapplicable.	ssee/s											
AS CONSTRUCTING AUTHORITY THE COMMISSIONER OF WATER RESOURCES APPROVES THIS PLAN OF SUBDIVISION				vey has bee	n exami	ned and	may be used	for land	l dealings	i.		
DATED AT BRISBANE THIS WORLY TO ALL DAY OF JUNE 1992									D-1-	Surveyor (	General	
7-1	•		Lot	Vol.	Fol.	Lot	Vol.	Fol.	Date Lot	Vol.	Fol.	
and the second												
SECRETARY TO THE COMMISSI	ONER OF WATER RESOURCES.											
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			Lodge	u by				R		eived r of Titles		
•												
			Fees Payable  Postal fee and postage									
			Logt. Exam. & Ass.									
			New Title									
				Entd. on Deeds								
File Ref.	Particulars entered in Reg	ister Book	1	F	Photo Fee		.					
Deposited / /	Vol. Folio				Total							
Audited / / Passed / /				Shor	t Fees F	Paid					-	
Survey Records: File/Field Notes												
Charted / / Original Grant	at at											
						<b>C</b> \	 1k# A <b>\</b>	) E	А			
	REGISTRAR OF TIT	LES	EXAMPLE						4			

### Compiled Plan (Surveyed Parcel)

#### Notes

- 1. Metes and bounds shall be shown for internal roads, railways etc.
- 2. For heavily congested plans, metes and bounds need not be shown for internal roads, railways etc. provided all plan catalogue numbers from which this data can be obtained are shown in lieu thereof.
- 3. Plan catalogue number for Creek Traverse to be shown.
- 4. Parcel retains its previous numerical identifier as the new description for the amended Lot.



hereby certify that I/the Company have surveyed me	PLAN	OF	Lot	17			PARISH MONSILE	ALE	
land comprised in this plan (either personally by		Cance	elling Lot	17 on pla	an C3/36	53	соинту Саппі		
for whose work I/the Company account responsibility),				TOWN/LOCALITY SWANSON					
that the plan is accurate, that to said survey was performed in accordance with the Surveyors Act and							LOCAL AUTHORITY MORETON S.C.		
the Surveyors Regulations and that the said survey							LAND AGENTS/MINING DISTRICT		
was completed o	ORIGINA	L PORTION	1.7		.NO SURVEY	RECORDS DEPOSITED	MINING FIELD		
Diractor .	MERIDIAN	MAP REF	SCALE	FILE REF	ENDORSED	REGISTERING DIST			
Director Date	of Plan C3/363	9344 - 14	1: 000	RC354I2		BRISBANE	<b>EXAMPLE</b>	5	

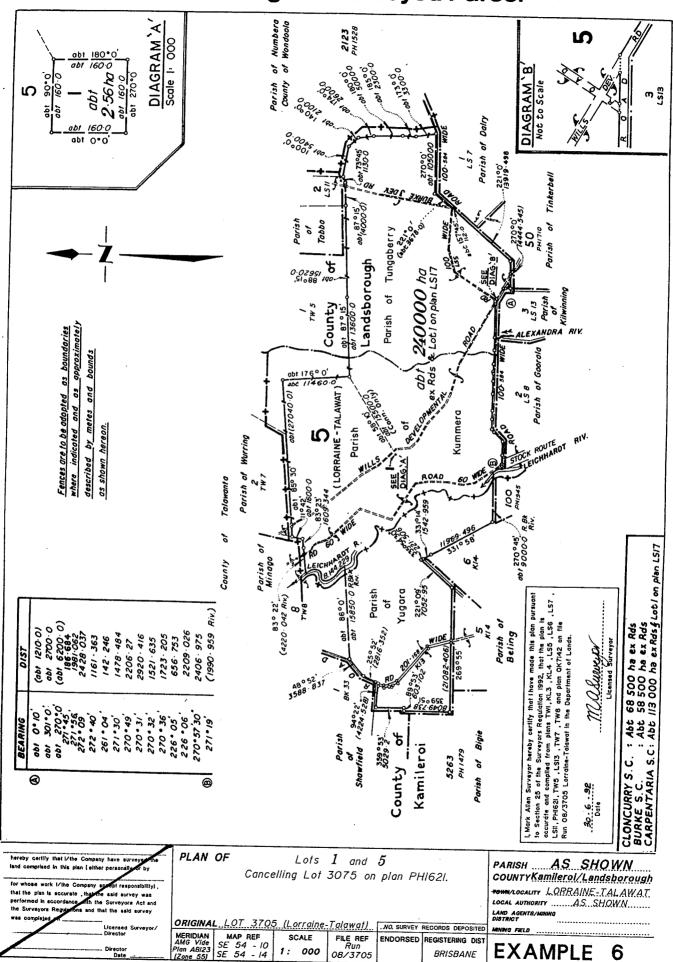
### **Compiled Plan Of Large Unsurveyed Parcel**

### Pastoral Holding/Grazing Farms

#### Notes

- 1. The name of the Station/Holding to be shown under the Subject Lot Number on the face of the plan and in the Title Block as a "LOCALITY".
- 2. Areas appropriated to relevant Local Authorities to be shown on face.
- 3. Roads within the Lot, shown as dotted lines on Departmental working maps are by legislation 60 metres wide unless otherwise specified.
- 4. Roads surveyed or unsurveyed are to be shown as a series of double straight lines.
- 5. Statement concerning "Fences to be adopted as boundaries" etc is to be shown if applicable.
- 6. Plan is compiled by collating the latest available data surrounding the Lot. This may vary from surveyed information to "scaling" and approximating information from published maps, sketches on Lands Department Files etc. The plan is NOT drafted purely by tracing or digitising from a published map.
- 7. Additional information eg. maps, aerial photography, sketches, reports etc. that is used in the compilation process is to be incorporated into the Form 13B certificate for cadastral plans.
- 8. This type of plan may be the basis for "upgrading" the accuracy of existing mapping.
- 9. See notes with Example Plan No 8 for accuracies of Metes and Bounds & Areas.
- 10. For further information refer to D.O.L. Procedures No. DYQ/000/802.

## **Compiled Plan of Large Unsurveyed Parcel**



### Compiled Plan Unsurveyed Parcel (Located)

#### NOTES:

- 1. There are no strict guidelines for the accuracy of the Metes and Bounds or Areas for unsurveyed Section 25 compiled plans.
- 2. Bearings, Distances and Areas should be shown to an accuracy which would reasonably reflect the "Control" from which this data is approximated.
- 3. The following scale of accuracies may be utilised as a guideline when approximating metes and bounds:

#### **BEARINGS**

: Nearest 0° 15'

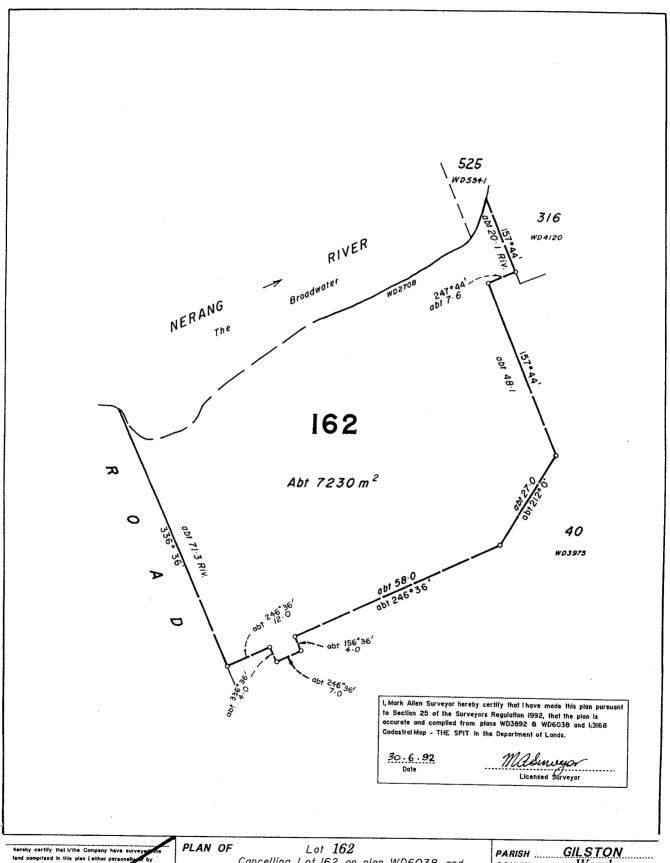
DISTANCES	(According to Scale of Plan)
UP to 1:1250	Nearest 0.5 metres
1:1500 to 1:2500	Nearest 1.0 metres
1:3000 to 1:8000	Nearest 2.0 metres
1:10000 to 1:25000	Nearest 10.0 metres
1:30000 to 1:80000	Nearest 20.0 metres
1:100000 to above	Nearest 50.0 metres

#### CLOSE RATIO:

It is desireable that a close ratio of **not less than 1:2000** be achieved when compiling plans of Lots with unsurveyed boundaries.

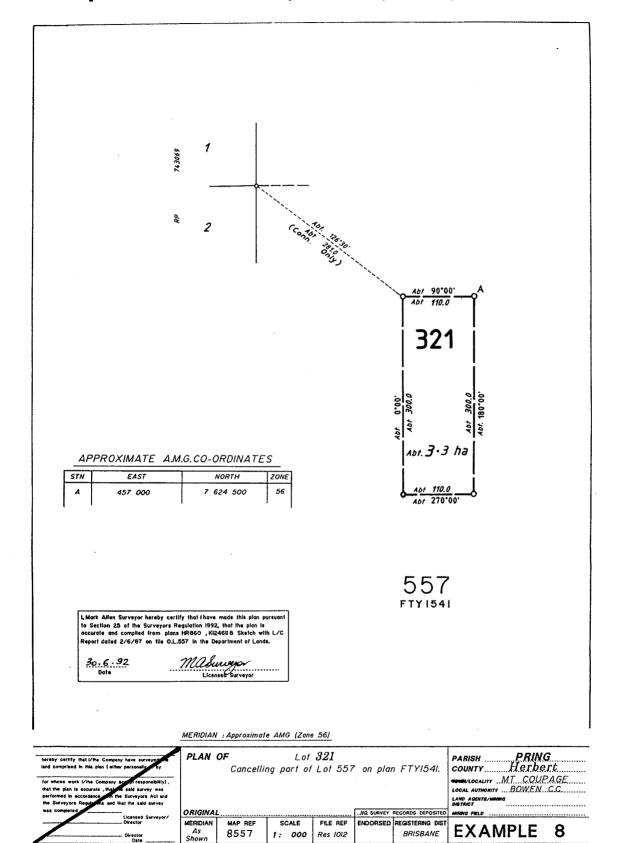
- 4. Generally "Abt" areas are to be shown to no greater accuracy than three significant figures.
- 5. Parcel retains the most recent numerical identifier as the new description for the amended Lot.
- 6. Additional information eg. maps, aerial photography, sketches, reports etc. that is used in the compilation process is to be incorporated into the Form 13B certificate for cadastral plans.
- 7. For further information on D.O.L. plans refer to D.O.L. Document No. DYQ/802/000.

# Compiled Plan Unsurveyed Parcel (Located)



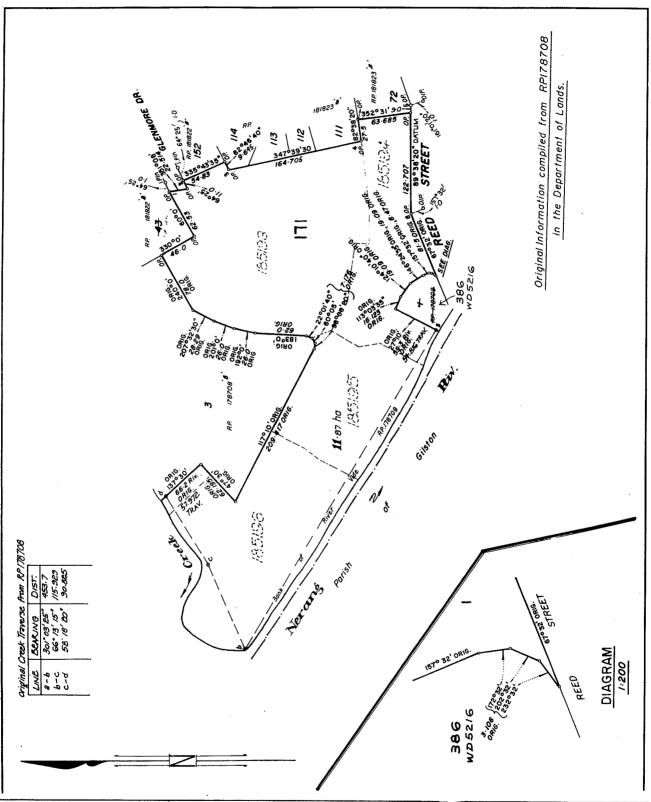
hereby certify that I/the Company have surveyed the tand comprised in this plan ( either personality or by	Cancelling Lat 162 on alon WOCOZO						PARISH GILSTON
for whose work I/the Company acropt responsibility), that the plan is accurate, that the said survey was performed in accordance with the Surveyors Act and the Surveyors Registribus and that the said survey		Lot 310	on plan	TOWN/LOCALITY MAIN BEACH LOCAL AUTHORITY GOLD COAST C.C., LAND AGENTS/MUNING			
was completed inticensed Surveyor/	ORIGINAL.	PORTION	<u>\$ 162 8</u>	310	.NQ SURVEY	RECORDS DEPOSITED	DISTRICT MINING FIELD
Director Date	MERIDIAN CAM Vide Plan 7 WD6038	MAP REF THE SPIT	SCALE 1: 000	FILE REF SL.40126	ENDORSED	REGISTERING DIST BRISBANE	

### Compiled Plan Unsurveyed Parcel (Isolated)



- 1. Connection required to a Cadastral point for "location" of Lot 321 for mapping purposes.
- 2. Approximate A.M.G. co-ordinates may be used to "locate" the land parcels.
- 3. Information given in the Surveyor's Certificate is to include all relevant compilation material used eg. Sketch with Report, Approval, Offer etc. (show date also) and DOL File Reference etc.
- 4. See notes with Example Plan No 7 for accuracies of Metes and Bounds and Areas.

## Creek Traverse (Details from Previous Lot used for New Lot)

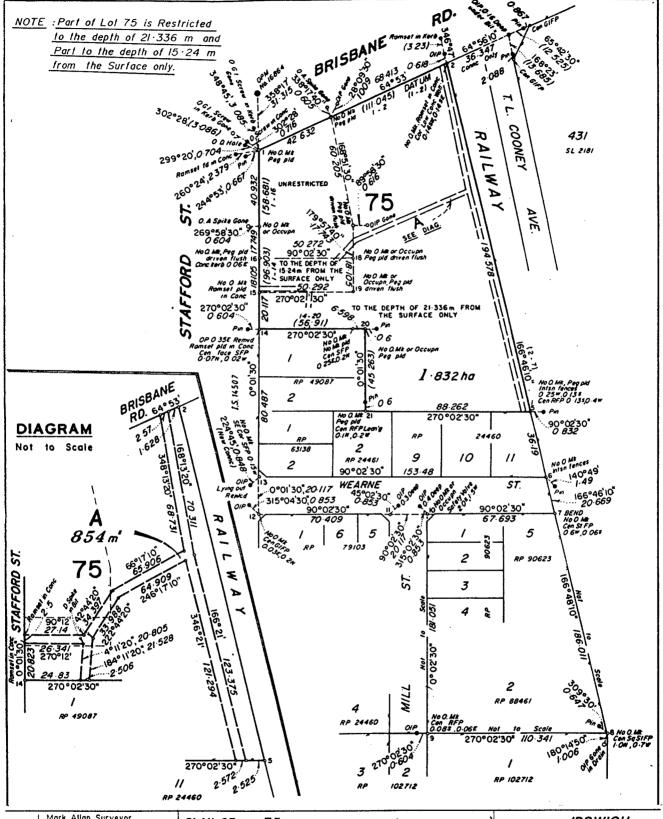


I. Mark Allan Surveyor hereby certify that ithe Company have surveyed the tand comprised in this plan   other personally or by-	PLAN	<b>OF</b> Cancelling	Lot g balance		? on RP	178708	PARISH	NERA Wai	
for whose work if the Company accept responsibility! that the plan is accurate, that the said survey was performed in accordance with the Surveyors Act and the Surveyors Requisitions and that the said survey							TOWN/LOGALITY LOCAL AUTHORITY LAND AGENTS/MINE		
was completed on 6/2/92  Licensed Surveyor/		L PORTION	32	<del></del>	YES. SURVEY	RECORDS DEPOSITED	DISTRICT MINING FIELD		
Director Director 15/2/92	MERIDIAN of RP178708	MAP REF Town Map Southport Sh 4	SCALE 1: 000	FILE REF	ENDORSED	BRISBANE	EXAN	<b>IPLE</b>	9

### NOTE:

1. Area calculated using creek traverse information from previous plan

### **Depth Restrictions** (Title to Varying Depths)



Mark Allan Surveyor

by certify that I/the Company have sur

that the plan is accurate, that the said survey has performed in accordance with the Surveyors Act and the Surveyors Regulations and that the said survey was completed on 6/2/92 Masureyo/

**PLAN OF** Lot 75 in Strata and Lot A (Proposed Emt)

in Strata in Lot 75 cancelling Lot 2 on RP24456 (To the Depth of 15.24m from the surface only), Lots 18 2 on RP52307 (To the Depth of 21.336m from the surface only), Lot 2 on RP24457, Lot 2 on RP24458 (To the Depth of 21.336m from the surface only), Lot 2 on RP24459 (To the Depth of 21.336m from the surface only), Lot 10 a 375 on RP44829 (To the Depth of 21.336m from the surface only) and Lot 2 on RP44829.

ORIGINAL PORS 374,375,376 8 382 YES SURVEY RECORDS DEPOSITED ENDORSED REGISTERING DIST MERIDIAN MAP REF SCALE FEF REF BRISBANE 9543 - 43

IPSWICH PARISH Stanley COUNTY ..... PLOCALITY BLACKSTONE

**EXAMPLE 10** 

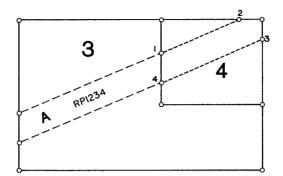
#### Note:

1. Demarcation of change in depth restriction to be marked on the surface

	of cert ouncil, the Local Government Acts and all d approves this Plan of Subdivision day of		A	us Title	Fo/Io	Lots	77	the def	m Lot	s Allot	٠ -
Dated this	May Chair	or or rman vn or									
I/We											
as Proprietor/s of this land.     as Lessee/s of Miner's Homester	Names in full) ad e new road as shown hereon to public use	<b>.</b> .									
Signature of • Proprietor/s • L • Rule out which is inapplicable.	essee/s										
			This su	vey has bee	en exami	ned and	may be use	d for land	d dealings	;.	,
									Date	Surveyor	General
			Lot	Vol.	Fol.	Lot	Vol.	Fol.	Lot	Vol.	Fol.
			,								
			Lodge	i by				F		eived of Titles	•
				Fee	s Payal	ole					
					ee and po						
					lew Title d. on Dee	ds					
File Ref.	Particulars entered in Register Bo	ook		P	hoto Fee						
Deposited / /	Vol. Folio				Total						
Audited / / Passed / / Survey Records: File/Field Notes				Short	t Fees F	aid					
Charted / / Original Grant	. at										
	DECISTRAD OF TITLES										

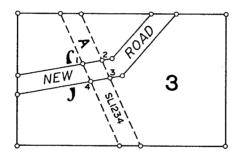
### **Plan Requirements For Actions Affecting Easements**

Area Resumed by The Crown (lot 4) in Freehold or Crown Land (including Main Road Resumptions)



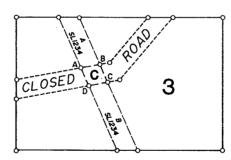
 $\frac{Area to be Excised from}{Lot A on Plan RP808576}$  $\frac{(1-2-3-4).....0000 m}{}$ 

Road To Be Opened (including area to be excised) at the Instance of Local Authority in F'hold & Crown Land



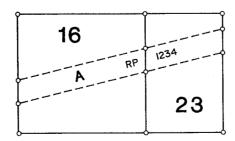
Area of Lot A on plan SL1234 affected (1-2-3-4)......000m

Road To Be Closed (including Area To Be Added)



Plan required of Lot C (Proposed Easement) (A-B-C-D) to reinstate easement right over the old road.

Subdivision (Freehold And Leasehold Land)

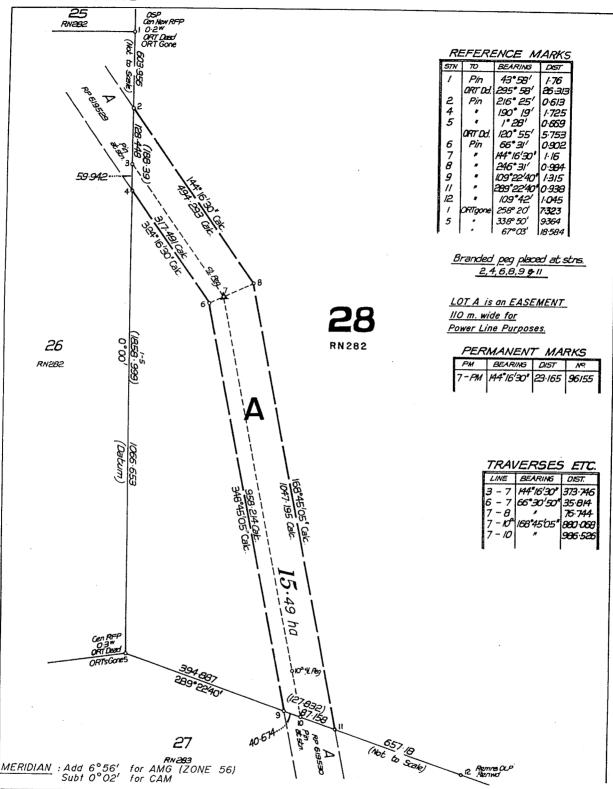


#### NOTES:

1.If the same type of Tenure is to issue over the Lot being sold (Lot 23) no new Easement or Easement action is required.

2.If an absolute surrender of Lot 23 to the Crown has taken place and a new lease of a different type is to issue thereover, then a new plan of easement is required in both Lots 16 and 23.

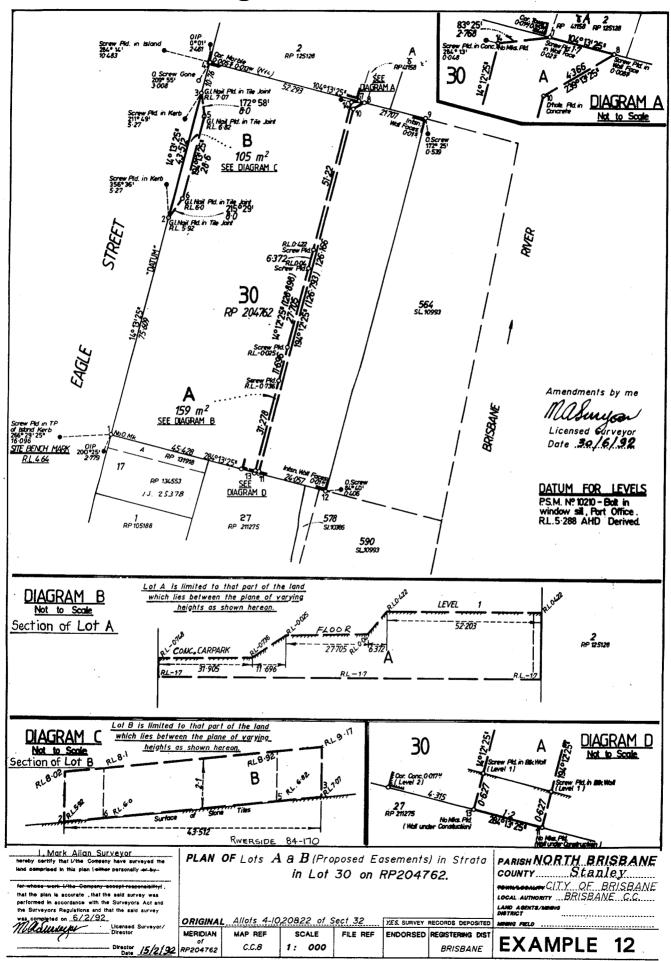
## **Easements**



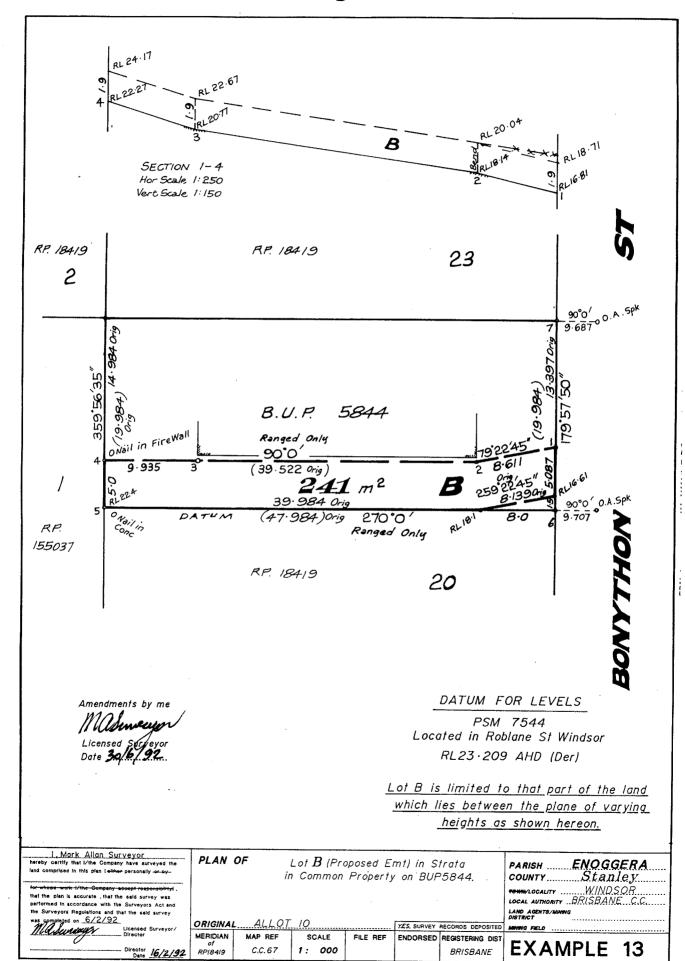
L. Mark Allan Surveyor hereby certify that Lithe Company have surveyed the land comprised in this plan (wither personally or by-	PLAN		ot A (Pro			PARISH GELOBERA COUNTY Ragian
for whose work ir/the Company scoopt responsibility! , that the plan is accurate , that the said survey was performed in accordance with the Surveyors Act and the Surveyors Regulations' and that the said survey		•		 		TOWN/LOCALITY MT MORGAN LOCAL AUTHORITY MT. MORGAN S.C. LAND AGENTS/MUNING
Way considered on 6/2/92  Mil Juny Ucensed Surveyor/ Director  Director 1-1/9/9	ORIGINAL MERIDIAN As Shown	MAP REF 8950 - 2	SCALE	 	REGISTERING DIST	

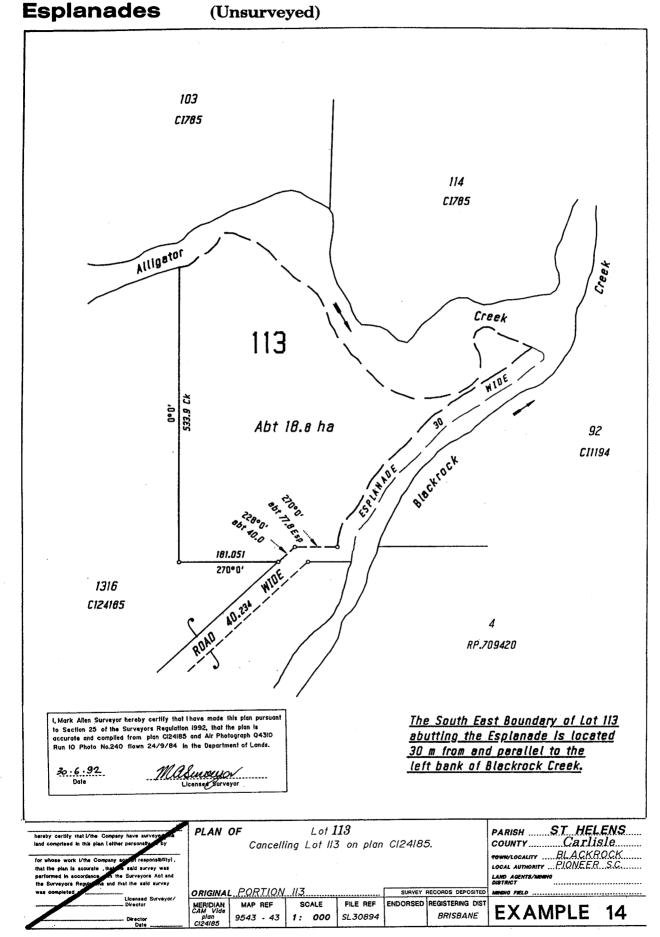
- 1. Width & Purpose of Easement may be shown on face of plan.
- 2. The wording in the Title Block and full description are shown on the face of the plan.
- 3. Surveyed or deduced distances must be shown to a cadastral corner when the Easement crosses a subject boundary.
- 4. Alpha descriptors should not be repeated in any one parcel.

# **Easement with Height Restrictions**



# **Easement in BUP with Height Restriction**





- 1. Statement on face of plan for location of Esplanade boundary.
- 2. Refer to Surveyors Regulations and Recommended Practices for Survey Procedures.
- 3. See also notes with Example Plan No 7

#### **Excision** (From Crown Tenure added to Crown Tenure) AREA TO BE EXCISED FROM LOT 2 on plan C25516 and REFERENCE MARK ADDED TO LOT 3 on plan C25519 STN BEARING DIST (7-3-4-6).... 1400m² 141 01 4 109 0.87 154015 1.0 RP 614659 PM BEARING DIST 70385 I-OPM 334° 15' 3-056 No O Mk Cen GIFP (1:04\*\*\*,0:715\*\*) TRAVERSES SLIDER LINE BEARING 154° 15' 244° 15 30·17. 40·0 2 1.39 ha 3 3680 m² Branded Peg placed at stations 3,6 and 7. C25519 MALVERN OP OIP Cen GIFP 10-22450-3544 Original Information compiled from plans C25516 and C25519 in the Department of Lands . I. Mark Alian Surveyor. by certily that I/the Company have surveyed the comprised in this plan (either personally or by... PLAN OF Lots 2 & 3 PARISH KHOSH BULDUK Cancelling Lot 2 on plan C25516 and COUNTY Talbot Lot 3 on plan C25519 . CAPELLA WLOCALITY . LOCAL AUTHORITY PEAK DOWNS S.C. magulations and the was completed on 6/2/92 Masurespy PORTION ORIGINAL YES SURVEY RECORDS DEPOSITED

- 1. Wording of Action Statement and full description of land involved.
- 2. Parcels retain their previous numerical identifier as the new description for the amended Lots.

MAP REF

8551 - 44342

15

**EXAMPLE** 

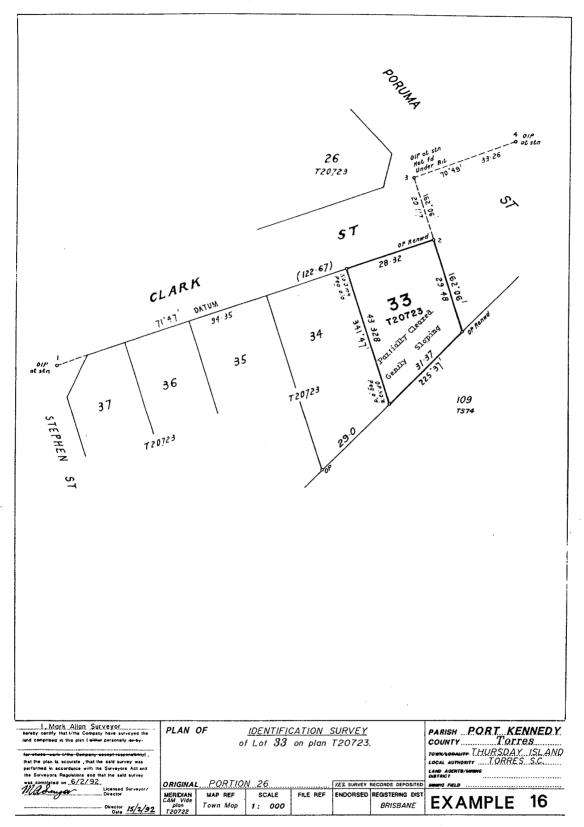
ENDORSED REGISTERING DIST

BRISBANE

Res 1900 - 66

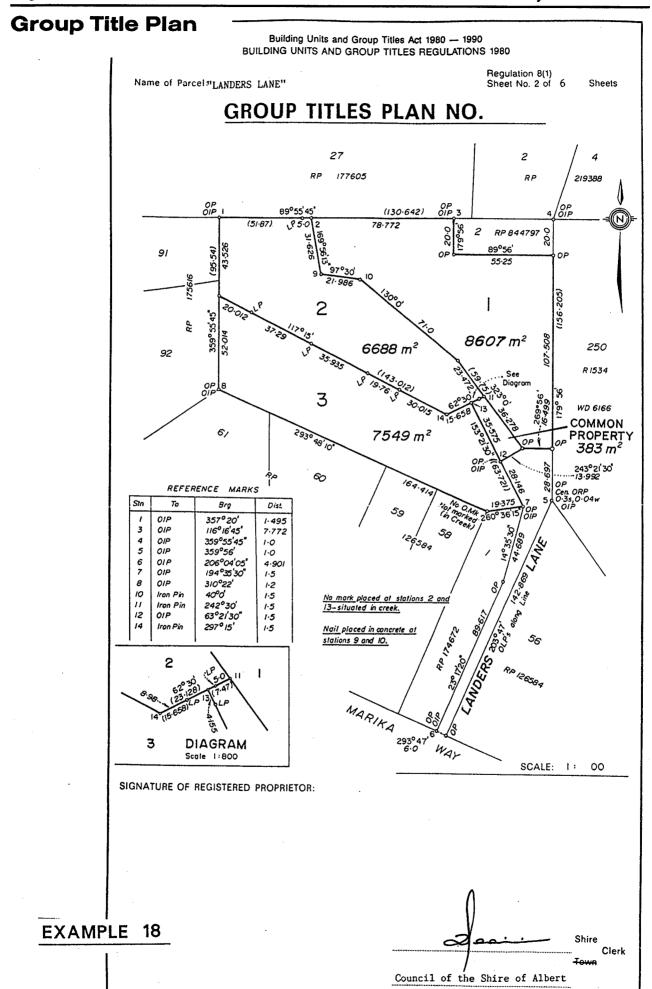
1: 000

# **Identification Survey**



- 1. Full description is shown on the subject Lot and in the Title of the plan in subject style (i.e. Lot on plan description).
- 2. The Department encourages the use of D.O.L. plan forms for these surveys, however Identification Surveys lodged as sketch plans and survey records will be accepted. Plans are to be legible and conform with A2, A3 or A4 size.
- 3. Identification Surveys will not be registered, nor examined at the time of lodgement. However, an option to examine the plan will be reserved by the Surveyor-General.
- 4. Identification Surveys will be catalogued eg. IS489072, charted on the Departmental working map, noted on the Computerised Inventory of Survey Plans (CISP) and microfilmed.
- 5. Map Reference should be shown on Identification Surveys lodged as a sketch plan.

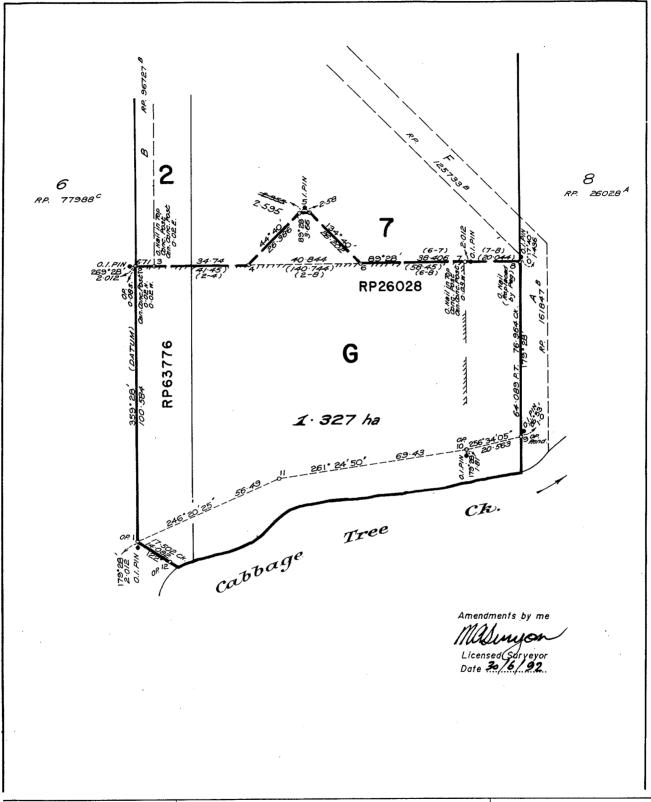
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	4 Pin		247'36' 1.69
	ta Pin		262.30, 5.63
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ofference in coundary definition, which may result from 247 HARLEY ST CAIRNS rezurveys of adicining isnos or subsequent registration		DRAWN 01P 24/9/5	2 F.EK JOB No
Phone (070) 5:6000 Fax (070)516001		CHECKED PEG 25/9/	
Mork Ailon Surveyor hereby certify that I/the Company have surveyed the land comprised in this plan i either bestoneity experi-		PARISH	
Lot 105 on RP715692		COUNTY	Nares SITY OF CAIRNS
that the plan is accurate, that the said survey was performed in accordance with the Surveyors Act and the Surveyors Equipment and action and the Surveyors Equipment and actions.		LOCAL AUTHORITY	CAJRNS.C.C.
the Surveyors Regulations and that the said survey was gompressed on 6.27.92  ORIGINAL PORTION 291  NO. SUF.	VEY RECORDS DEPOS	LAND AGENTS/MININ DISTRICT	
29/10/92 MERIDIAN MAP REF SCALE FILE REF ENDORS	SED REGISTERING	DIST	ADIE 17
Date RP7:5692 8064-32//3 1: 000	5 O L	EVAIA	1PLE 17



# **Group Title Plan**

Building Units and Group Titles Act 1980 — 1990 BUILDING UNITS AND GROUP TITLES REGULATIONS 1980 Regulation 8(1) Sheet No. 2 of "IRON RANGE" Name of Parcel: Sheets GROUP TITLES PLAN NO. VINE COURT 311 RP 842291 909 RP 842291 302 RP 842290 ์ 318 m² 300 RP 842291 293 RP 835738 . 433 m² 295 RP 835738 296 RP 835739 SCALE: 1: 00 SIGNATURE OF REGISTERED PROPRIETOR: COMMON SEAL EXAMPLE 19 Clerk Council of the Shire of Albert

# Lease on Registered Plan Form (In Freehold Land)



I. Mark Allan Surveyor
hereby certify that lythe Company have surveyed the
land comprised in this plan (either personally)
for whose work 1/the Company accept responsibility.
It that the plan is accurate, that the said survey was
performed in accordance with the Surveyors Act and
the Surveyors Regulations and that the said survey
was completed on .5/2/92

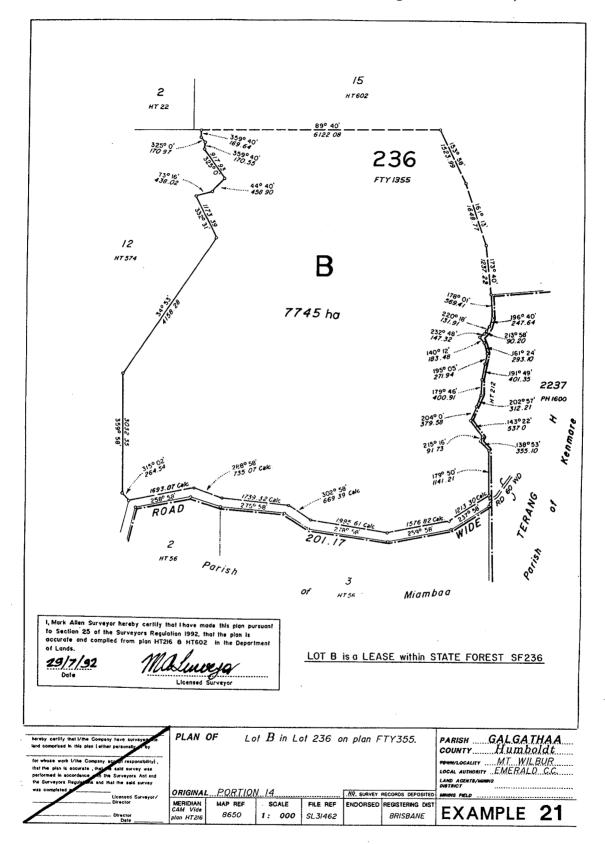
ORIGINAL PORTION 22

WES. SURVEY RECORDS DEPOSITED
MARKEDIAN MAP REF
SCALE
FILE REF
ENDORSED REGISTERING DIST
BRISBANE

EXAMPLE 20

#### Leases

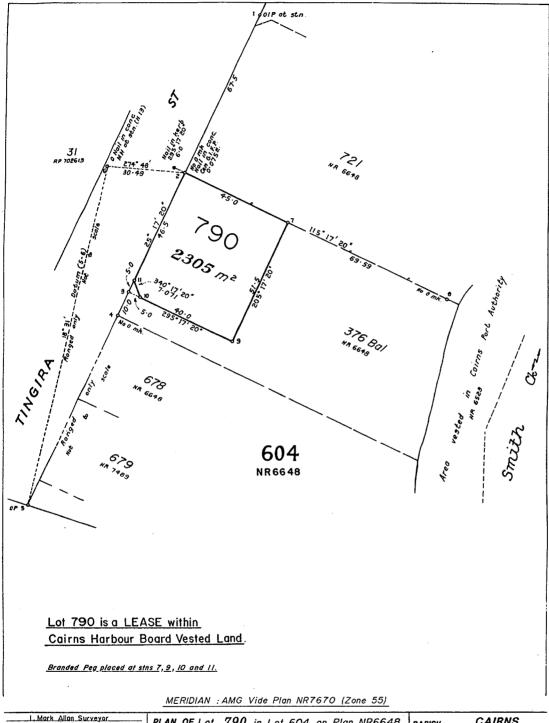
#### (In Crown Reserves e.g. State Forest)



- 1. Lot B is a Special Lease within a State Forest described as Lot 236 on plan FTY1355, issued under Section 203(B) of the Land Act and Section 35(2) of the Forestry Act.
- 2. The wording in the Title Block and the full description shown on the face of the plan in subject style.
- 3. Boundaries are shown broken in subject style (similar to Easements) except where they are co-incident with surveyed Cadastral boundaries.
- 4. Alpha descriptions should not be repeated in any one parcel.

#### Leases

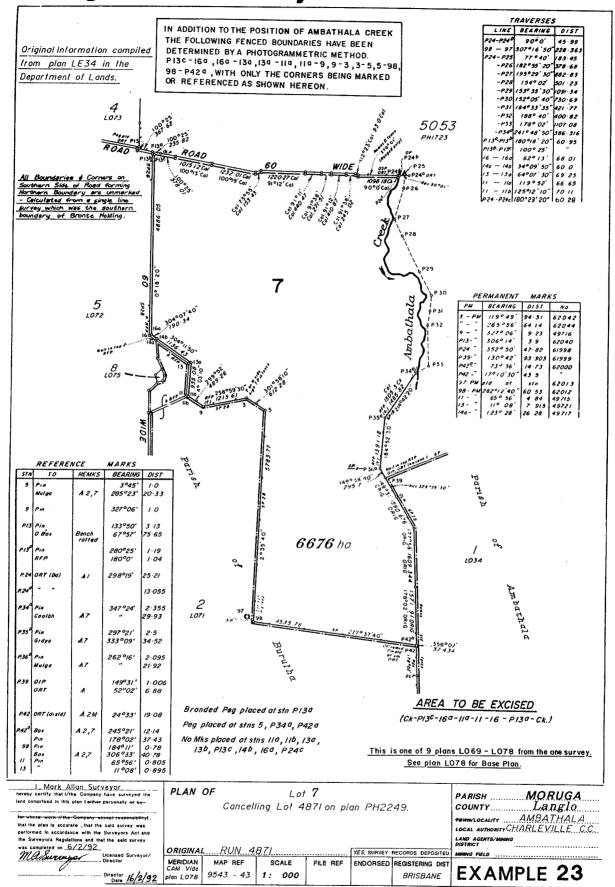
#### (In vested areas e.g. Harbour Boards)



# I MORK Allon Surveyor Deretally certify that this Company here surveyed the conditions and that the said survey was performed in Societies, that the said survey was performed in Societies, that the said survey was performed in Societies, that the said survey was the surveyer's Regulations and that the said survey was professed on 6.72/92. ORIGINAL PORTION 604 MAP REF SCALE MAP REF SCALE MAP REF SCALE Description on 5.72/92. Description on 5.72/92. Description on 5.72/92. Description on 5.72/92. Description of Societies Surveyor's Description on Societies Surveyor's Regulations and that the said surveyor's Regulations and the said surveyor's

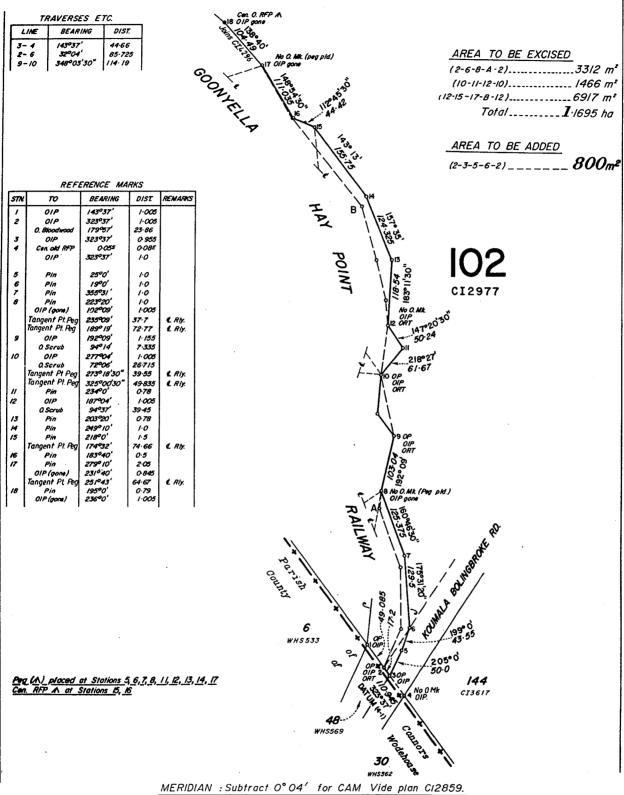
- 1. Plans for Leases in Harbours Corporation are to be submitted to the Department of Transport for approval prior to lodgement in the DOL.
- 2. The statement describing Lot 790 that is shown on the face of the plan.
- 3. Description of Vested Area (Lot 604 on plan NR6648) within which the Lease is located, is also shown in subject style.
- 4. Any additional requirements should be obtained from the relevant Harbour Board/Port Authority concerned.

# **Photogrammetric Survey**



- 1. For advice on this method of survey contact the Regional Senior Surveyor.
- 2. Features (Fences, Creeks etc.) identificable on photography are adopted as boundaries.
- 3. Boundaries determined by a photogrammetric method must be stated and identified on face.
- 4. Statements on face of plan.
- 5. Vide Section 16 of the Recommended Practices for Surveyors.

# Railway in Crown Land



1. Mark Allan Surveyor bereby certify that if the Company have surveyed the land comprised in this plan (either personally or by-	PLAN	117-11	LWAY IN n plan Cl2		2	- 1	PARISH KELVIN COUNTY Carlisle
for whose work i/the Gompany socopt responsibility) . that the plan is accurate , that the said survey was							TOWN/LOCALITY HAY POINT LOCAL AUTHORITY SARINA S.C.
performed in accordance with the Surveyors Act and the Surveyors Regulations and that the said survey			•				LAND AGENTS/MINING DISTRICT
was completed on 6/2/92.  NO 1. Licensed Surveyor/	ORIGINAL	L PORTION	1_102		YES SURVEY RECORD	S DEPOSITED	MINING FIELD
Masuryor Licensed Surveyor/	MERIDIAN As	MAP REF	SCALE	FILE REF	ENDORSED REGIST	TERING DIST	EVANDLE OA
NOTES Director 16/2/92	Shown	8754 - 42	1: 000	SL30793	BR	ISBANE	EXAMPLE 24

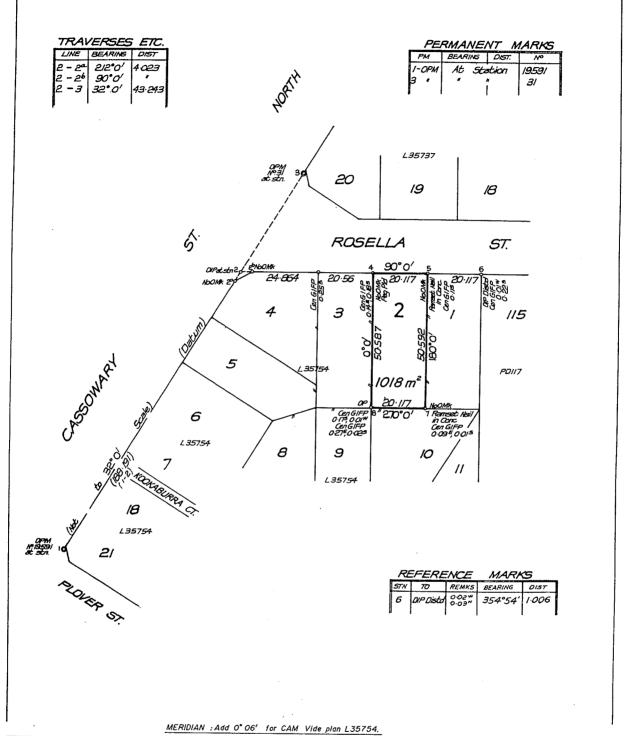
1. Wording of Action Statements.

2. In this particular case, a Section 25 Compiled Plan is required for the balance of Lot 102.

3. If Railway area is already resumed prior to survey, Action Statement will be titled "AREA EXCISED".

4. For Railway in Freehold Tenure, a D.O.L. subdivisional survey plan is prepared.

# Resurvey

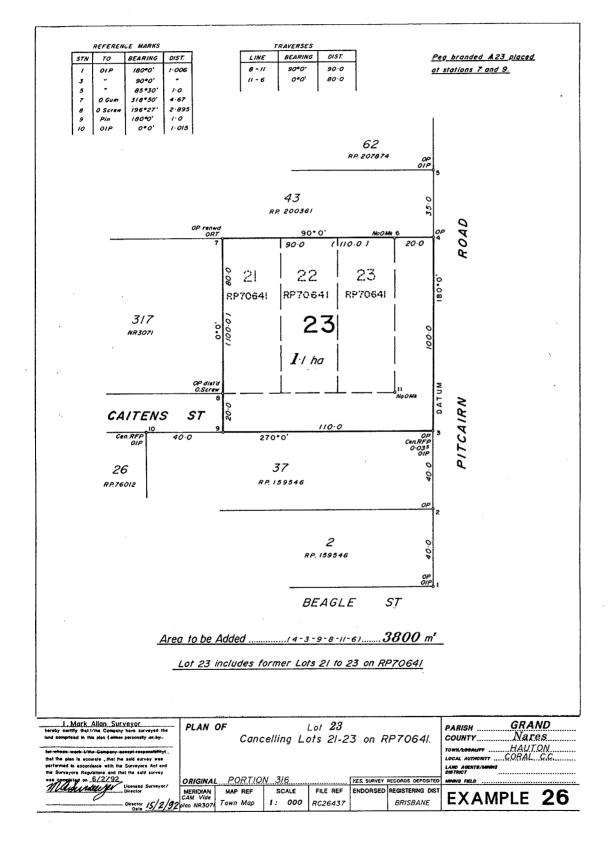


I. Mark Allan Surveyor hereby certify that I/the Company have surveyed the land comprised in this plan I either personally or by-	PLAN O		ot <b>2</b> being 54 cancet		nt 2 an L35754.	PARISH LONGREACH
for whose work I/the Company except responsibility), that the plan is accurate, that the said survey was performed in accordance with the Surveyors Act and the Surveyors Regulations and that the said survey was completed on 6.7.2/92.						TOWN/NOOALTY LONGREACH S.C. LAND AGENTS/MORING DISTRICT
Masury Ucensed Surveyor/ Director Director 16/2/92 Date	MERIDIAN As	MAP REF 9543 - 43	SCALE 1: 000	 	REGISTERING DIST BRISBANE	MINING FIELD

- 1. Prepare and lodge plan as a normal survey.
- 2. Show Area on subject Lot.
- 3. Wording of Plan Title.
- 4. This plan can be used for future land transactions.
- 5. Parcel retains its previous numerical identifier as the new description for the amended Lot.

#### **Road Closure**

# (Addition to and Amalgamation of Freehold Tenure) (Vide Sec. 9 and 365A of Land Act)



- 1. Lots 21,22 and 23 on RP70641 are individual parcels held as a Consolidated Title to which it is proposed to add an area of 'ROAD TO BE CLOSED" (4-3-9-8-11-6). DOL approvals have stipulated amalgamation into one Lot due to removal of access. The Land Act (Sec. 9 and 365A) permits these Actions to be affected on the one plan.
- 2. The Actions statements on the face of the plan required for this Action.
- 3. The description of the new Title will adopt one of the previous numerical identifiers.
- 4. The description of the lapsed parcels may be shown in dotted style where space permits.

### **Road Closure**

# (Addition to undescribed Railway)

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		4					aced at				<u>2                                    </u>		

that the plan is accurate, that the said arrivey was performed in accordance with the Surveyors Act and the Surveyors Regulations and that the said survey was completed on 5/2/92

| Licensed Surveyor, Director

RAILWAY PURPOSES FROM ROAD ADJACENT TO LOT 8 on plan CL40329.

ORIGINAL PORTION 8 YES. SURVEY RECORDS DEPOSITED MERIDIAN MAP REF CAM Vide plan 9149 - 44 CTNI043 9150 - 33 FILE REF ENDORSED REGISTERING DIST 1: 000 RCI3I39 BRISBANE

# COUNTY Gladstone ENARABY LOCAL AUTHORITY GLADSTONE C.C.

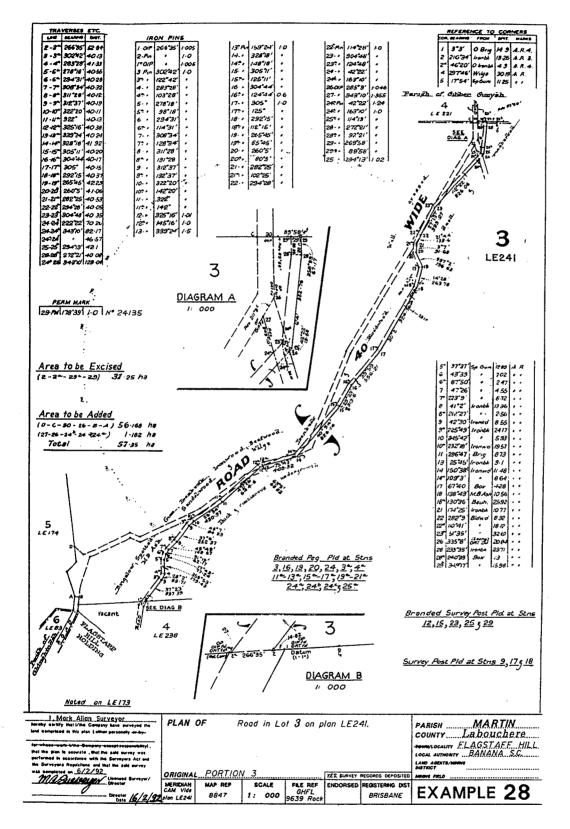
**EXAMPLE 27** 

2. A plan of the amended Railway Area is not required for this type of case.

<sup>1.</sup> As Railway has no Property Description, an adjoining "Lot on Plan" description must appear on the plan and in the Title block in subject style to aid location and enable survey to be recorded in the DOL Computerised Inventory of Survey Plans (CISP).

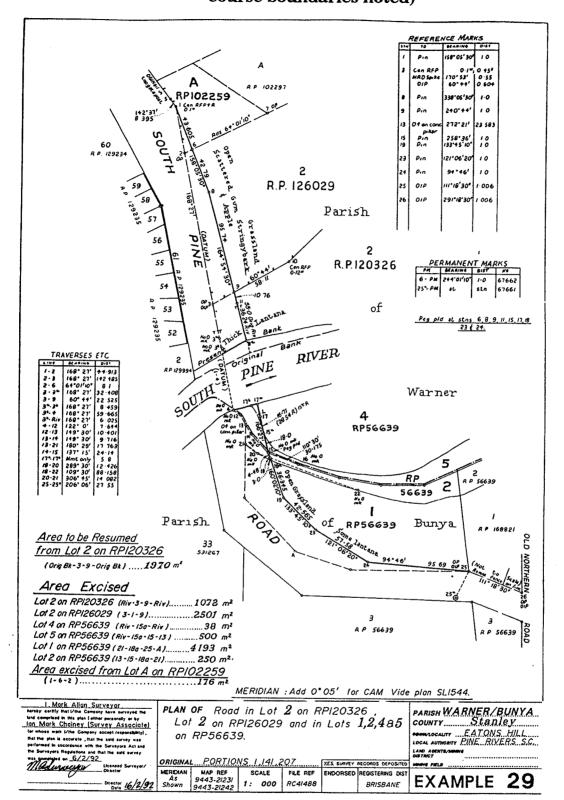
#### **Road Closure**

# (For complicated cases) Involving criss-crossing of old and new roads



- 1. New and Old Road to be included in the Action Statements on face of plan.
- 2. Survey and calculations of internal road intersections and severence areas are not necessary unless stipulated in the D.O.L. advices.
- 3. In Crown Lands the Lessee is required to "Surrender" lands from his/her Lease to enable road actions to proceed, these lands will need to be identified on the face of the plan. Action Statements ie. "Area to be Surrendered" with qualifying station numbers will need to be shown. Areas should be calculated.
- 4. Section 25 compiled plan to be drafted as necessary for the amended Lot. (Amended Lot can be completed on plan of survey if scale permits).

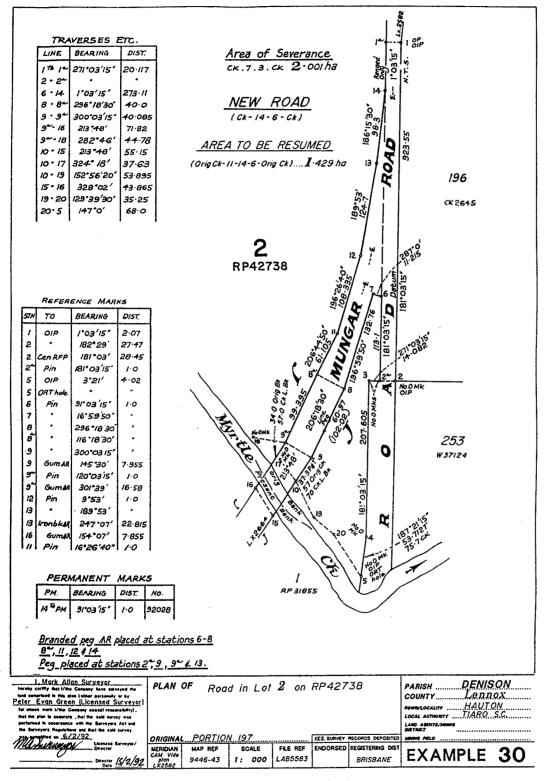
# Road Opening (MRD Resumption where noticeable erosion in water-course boundaries noted)



- 1. The special Action Statement necessary for this case.
- 2. The method depicting data on face of plan for location of "present" and "original" river banks.
- 3. An area for the New Road in the affected parcel (Lot 2 on RP120326) need not be shown.
- 4. Cases for accretion are treated in a similar manner. See Example Plan Page 120.
- 5. In addition to the local street and road names, the declared Main Road Name should be shown eg. BRUCE HIGHWAY, TEWANTIN NOOSA ROAD, etc.
- 6. Plans of the balances of the affected Lots can be prepared provided prior knowledge is available from Main Roads as to whether Section 25 compiled plans are required.
- 7. Resumption in Freehold land treat as normal plan of subdivision.

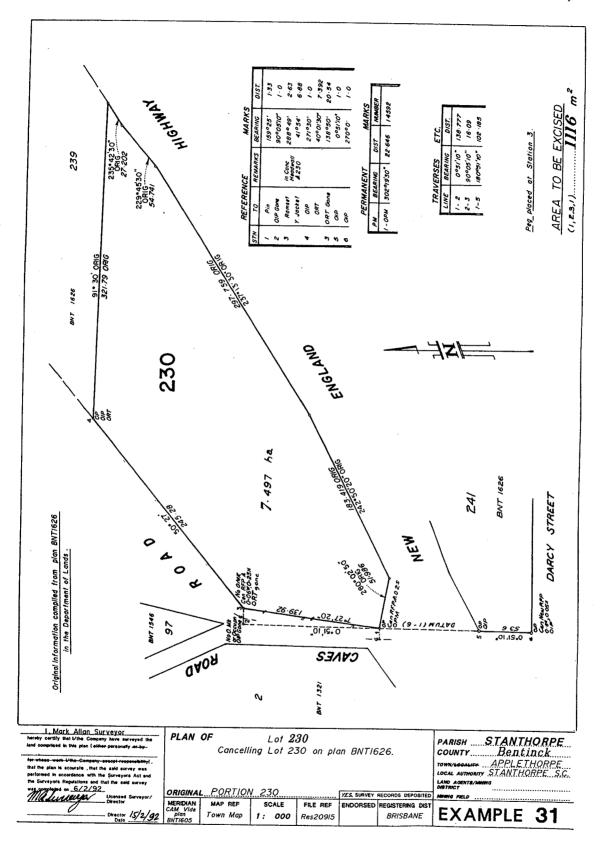
# **Road Opening**

#### (MRD Resumption where noticeable accretion in watercourse boundaries is noted)



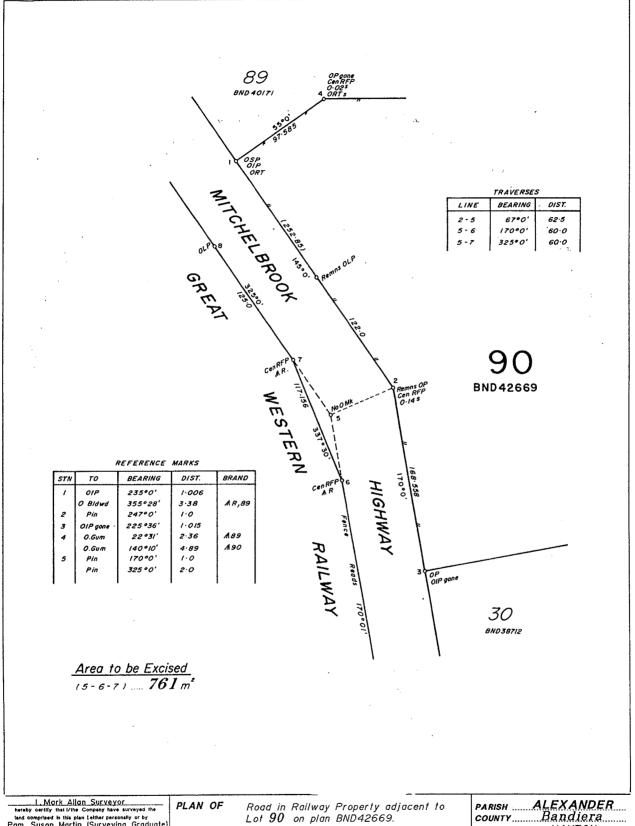
- 1. The special Action Statements necessary for this case.
- 2. The method of depicting data on face for location of "present" and "original" Creek banks.
- 3. Cases for Erosion are treated in a similar manner. See 2.7 Page 78 and Example Plan Page 119.
- 4. Plans of the balances of the affected Lots can be prepared, provided prior knowledge from Main Roads is available as to whether Section 25 compiled plans are required.
- 5. In addition to local Street and Road names, the declared Main Roads name should also be shown eg. BRUCE HIGHWAY, TEWANTIN NOOSA ROAD etc.
- 6. An area need not be shown in the "New Road" Statement.
- 7. Resumption in F/hold land treat as a normal plan of subdivision.

# Road Opening (Main Roads Resumption in Crown Tenure)



- 1. Where scale of plan will accomodate both the Survey Action and the Balance of the Leasehold Land, it is advantageous to combine both Actions on the one plan provided clarity of the plan can be retained upon reproduction at a reduced scale.
- 2. However, to combine both Actions, the metes and bounds of the balance Lot must be in a surveyed state. If this is not the case, a separate Section 25 compiled plan must be drawn for the balance Lot.
- 3. Parcel retains its previous numerical identifier as the new description for the amended Lot.

# Road Opening (Main Roads requirements in Undescribed Railway)



I. Mork Allon. Surveyor.
hereby certify that I/the Company have surveyed the
land comprised in this plan I either personally or by
Pam Suson Mortin (Surveying Graduate)
for whose work I/the Company accept responsibility),
that the plan is accurate, that the said survey was
performed in accordance with the Surveyors Act and
the Surveyers Rendallons and that the aid survey

the Surveyors Regulations and that the said survey
was completed on 6/2/92

| Consed Surveyor/
| Director 15/4/42

ORIGINAL PORTION 90 YES SURVEY RECORDS DEPOSITED

MERIDIAN CAM Vide plon 6/43-3 1: 000 LAB63/48 BRISBANE

# PARISH ALEXANDER COUNTY BANDIER POWALOCALITY HAUTON LOCAL AUTHORITY CLAYTONS S.C. LAND AGENTS/MINING DUSTRICT

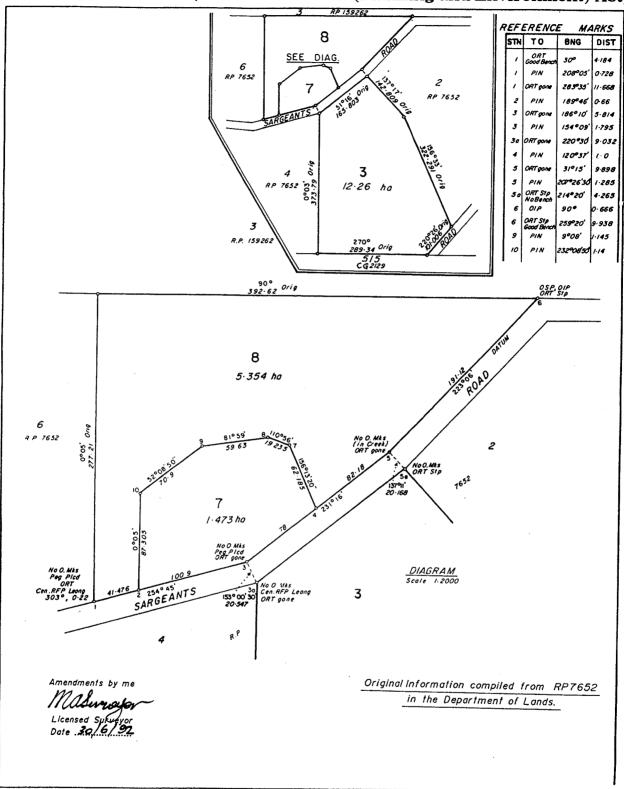
WHENG FRELD

EXAMPLE 32

- 1. Title of plan includes reference to an adjoining "Lot on Plan" to help locate the survey, and facilitate the enrolment of the survey in the DOL Computerised Inventory of Survey Plans (CISP).
- 2. A plan of the amended Railway area is not required in this instance.

# Section 5.8.3 Agreements

(Local Government (Planning and Environment) Act)



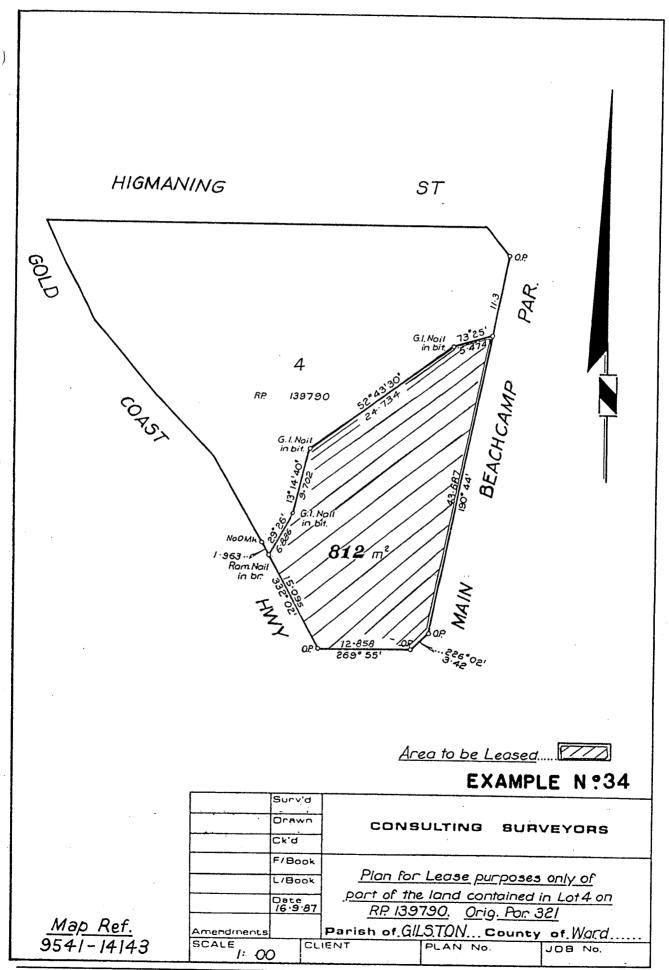
I, Mark Allan Surveyor hereby certify that I/the Company have surveyed the land comprised in this plan (==hee personally on-by-	PLAN OF Lots 3, 7 8 8  Cancelling Lots 3, 7 8 8 on RP7652.	PARISH BEERWAH COUNTY CANNING
for whose work 1/the Company assess responsibility; that the plan is accurate, that the said survey was performed in accordance with the Surveyors Act and the Surveyors Regulations and that the said survey		LOCAL AUTHORITY CALQUIDEA C.C.
was completed on 6/2/92 Licensed Surveyor/	ORIGINAL PORTION 17V	
NOTES: Director 15/2/92	MERIDIAN MAP REF SCALE FILE REF ENDORSED REGISTERING DIST of RP7652 9543 - 43 1: 000 BRISBANE	EXAMPLE 33

1. Plan fulfills requirements of Section 5.8.3 of Local Government (Planning & Environment) Act 1990. (Lots 3 & 7 are linked)

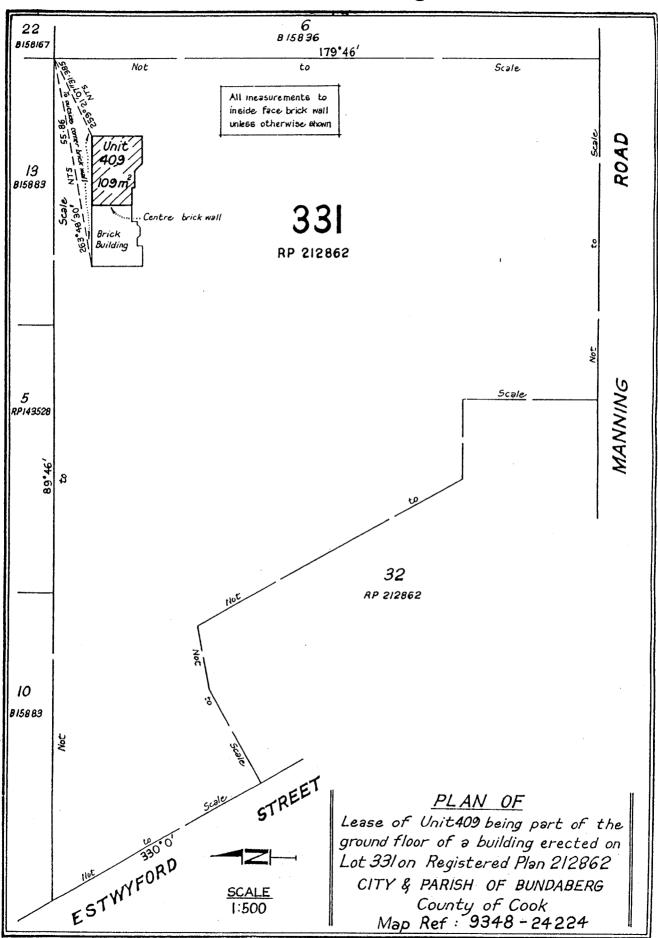
2. Both (or all) Lots which are the subject of the proposed agreement are to be shown on the one plan form on a common meridian and with connections (surveyed or original) between the Lots.

		Lodged by					R		eived r of Titles	
		Lot	Vol.	Fof.	Lot	Vol.	for land	Date Lot	Surveyor C	General Fol.
Signature of • Proprietor/s • L • Rule out which is inapplicable.	essee/s									
<ul><li> as Proprietor/s of this land.</li><li> as Lessee/s of Miner's Homeste.</li></ul>	(Names in full) ad a new road as shown hereon to public use.									
Dated this	day of 19 Mayor or Chairman Town or Shire Clerk	L 66/3: Under held in Volume 1592 1592	/T ALL 5 Fol.	OCAT		to re 66 Aci	egiste t) Lo	er an ts 3	Agreen & 7 to	nent be
-	ouncil, the Local Government Acts and all By- d approves this Plan of Subdivision	C/T 15	'itle 192 - 192 - 2	19 20		Lot	7	RP RP	7652 7652	

# Sketch of Lease of Part of a Lot



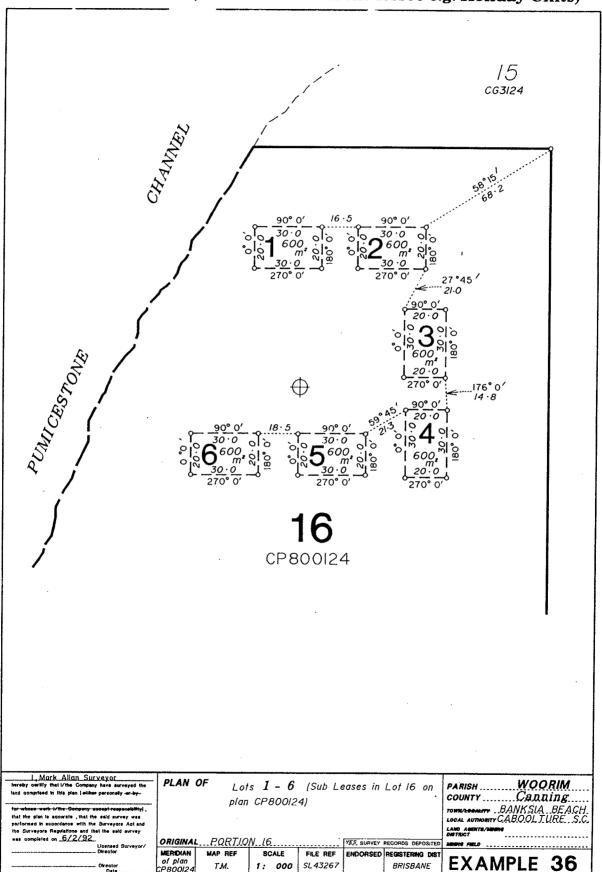
# Sketch of Lease of Part of a Building



**EXAMPLE Nº35** 

### **Sub-Lease in Crown Tenure**

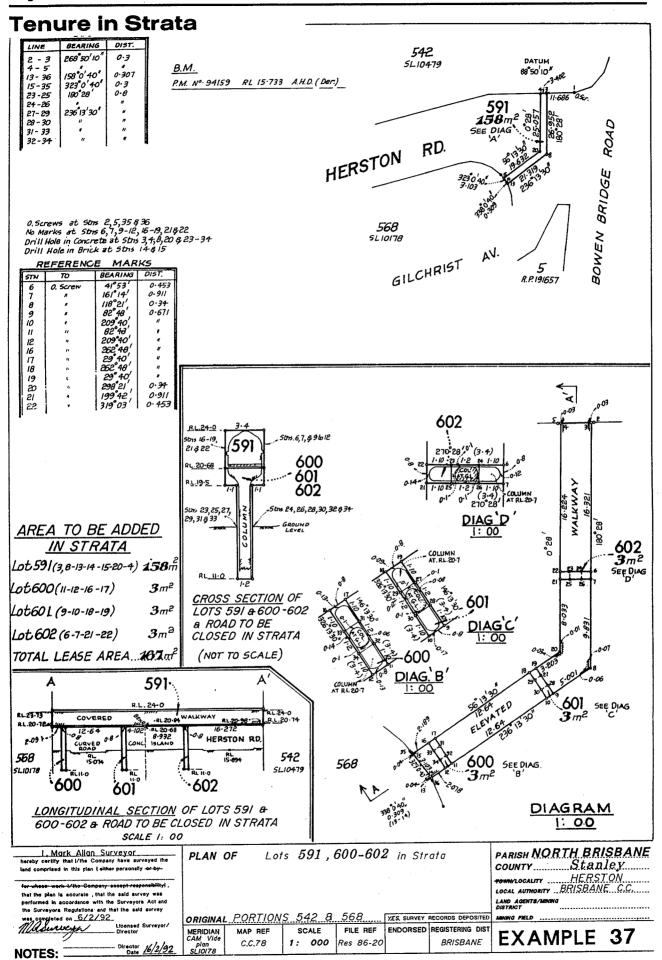
(At the instance of the lessee e.g. Holiday Units)



#### **NOTES:**

2. The original parent description must be shown on all succeeding plans ie. Lot 16 on plan CP800124

<sup>1.</sup> A further breakdown of the Sub Lease need only refer back one generation eg. a subdivision of Lot 2 above — New plan title would read Lots 3 & 4 (Sub Leases In Lot 2 on plan EP800000) and not Lots 3 & 4 (Sub Leases in Lot 2 on plan EP800000 in Lot 16 on plan CP800124)

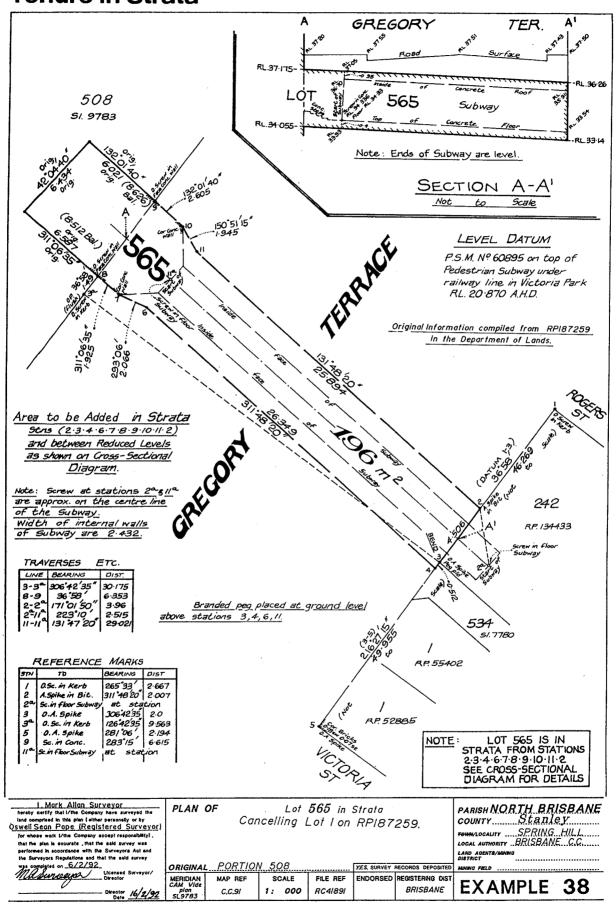


1. Special Statement on face to indicate Level Datum - referenced to A.H.D.

2. Wording of Action Statement for Road to be Closed.

3. Subterrainian boundaries shown by broken lines (similar to Easements).

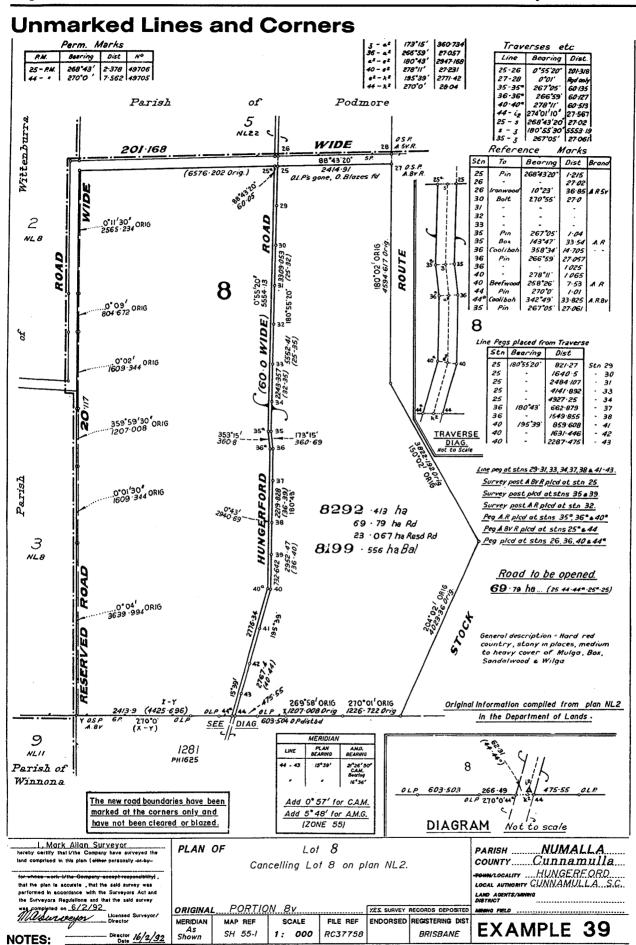
### **Tenure in Strata**



#### NOTES:

The method of representing Cross Sectional diagrams, etc

- 2. Road Closure in Strata is limited by RLs based on registered Bench Mark referenced to AHD
- 3. For additional information refer to D.O.L. Document No. DYQ/810/000
- 4. For Restricted Titles (Subdivisions in Strata), enquiries should be made with the DOL Regional Senior Surveyor



- 1. Refer to Direction 9 of the Directions to Surveyors 1992.
- 2. In this Example, Road boundaries are projected lines derived from a surveyed traverse.
- 3. Lines have not been cleared or blazed, however corners have been marked.
- 4. The bordered statement prominently shown indicating the status of the new survey work.

# Requirements of the Department of Minerals & Energy

# **Department of Minerals & Energy**

G.P.O. Box 194 BRISBANE Q 4001

Ph: (07) 237 1601 Fax: (07) 237 1634

Att: Chief Surveyor

A plan of survey of a Mining Lease may be lodged subject to the Surveyor complying with the Mineral Resources Act 1989 - 1990 and the Mineral Resources Regulations 1990.

Specimen Plans indicate as far as possible most requirements of the Department. However specific actions would be detailed by the Chief Surveyor in the survey instructions.

If doubt exists, the Chief Surveyor Department of Minerals & Energy should be contacted.

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	¥ '/'/

### **GENERAL NOTE**

Type and Line Styles should be standardised appropriate for industry standard electronic (computer) production of plans.

#### 3.1 Areas

Areas are computed in accordance with General Requirements 1.8

Should a "three line" area be involved, the exclusion may be shown by statement and providing all bearings and dimensions are shown—or may be inferred by a reference to a previous plan, the Nett area only is shown on the plan.

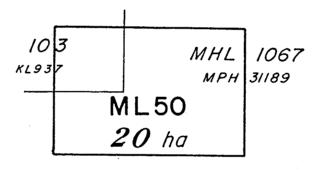
#### See also "ROADS IN MINING LEASES" 3.17

Where more than one previous plan in involved, to avoid ambiguity in Datum and dimensional differences, the subject plan should be fully dimensioned.

# 3.2 Background Tenures

3.2.1 Where a Mining Tenement covers lands held under other tenures, all boundaries and descriptions of those lands are to be shown on the plan. The boundaries of the subject block are to be distinguished by heavier lines. Show underlying descriptions in light block as follows:-

#### Sample



3.2.2 When surface rights exist severances and connections are required.

# 3.3 Certificates

# 3.3.1 Certificate Required For Mineral Resources Plan

I/the Company have surveyed the land shown in this plan (either personally or by
was completed on

Approved Surveyor

Date

#### 3.3.2 Certificate Required For Petroleum Well Location Plan

(*) hereby certify that
I/the Company have surveyed the location of the petroleum well as
shown in this plan, that the plan is accurate, that the survey was
performed in accordance with the Petroleum Act 1923-1988 and the
Petroleum Regulations (Land) 1966 and that the survey was com-
pleted on

Signature of Approved Person

Date

(\*) Insert full name of Approved Person

### 3.4 Claims And Areas

Claims and Areas as defined by the Mineral Resources Act are registered by the Mining Registrar and generally are not surveyed subject to Section 11.21 of the Mineral Resources Act. Where surveyed, show as for Mining Lease requirements.

# 3.5 Compiled Plans (Plans Without Field Survey)

- **3.5.1** Prior approval of the Chief Surveyor must be obtained for all compiled plans.
- 3.5.2 Information may be compiled from examined DEPARTMENT OF MINERALS & ENERGY, and DEPARTMENT OF LANDS plans only. Dimensions are not qualified by the word "Orig." Station Nos. or letters are shown only when required to describe specific actions (ie. Additions etc.)
- **3.5.3** If a compiled surround closes within the allowable limits of error, a calculated area should be used. If not, a compiled area is to be used and labelled where applicable "Bal".

#### 3.5.4 Compiled Plans Involving Existing ML's

Compiled plans involving actions on existing ML's must bear the following statement:

#### Sample

\*Department of Minerals & Energy, Brisbane.

(\*) Substitute or add "Department of Lands" where applicable.

#### 3.5.5 Compiled Plans Involving Unsurveyed ML's

3.5.5.1 Compiled plans involving new ML's must bear a Section 25 certificate to which should be added:

#### Sample

and that the Datum Post was found by inspection to agree with the Lease Application as shown hereon.

Licensed Surveyor

\*

3.5.5.2 Compiled plans of ML's must show "Datum Post" on the face of the plan, with a connection from the appropriate lease corner tabulated as per the reference shown on the application.

An accurately measured connection is not required.

- **3.5.6** Where the compilation of plans cannot meet the requirements of 3.5.2 directions from the Chief Surveyor should be sought.
- **3.5.7** For private compiled plans the "DRAWN" box should be amended to "COMPILED BY".
- **3.5.8** Plans compiled by the Department of Minerals & Energy should be labelled "OFFICE COMPILATION" in the "DRAWN" BOX.
- **3.5.9** The title of the plan is the same as if it were a survey.

#### 3.6 Consolidated Leases

Two or more contiguous leases may be cancelled, amalgamated into one lease over which a new lease and number shall be issued. A survey is required.

### 3.7 Exploration Permit

**3.7.1** On plans showing a point, line or area of an EP, the sub-block corners of which are described by geographic co-ordinates, the datum of the co-ordinates should be stated on the face of the plan as follows:

#### Sample

Geographic Co-ordinates on Australian Geodetic Datum eg. AGD 84

- 3.7.2 All bearings should be referred to the True Meridian.
- **3.7.3** When bearings are given, both forward and reverse azimuths must be shown where applicable.

- 3.7.4 If geodetic points are not available in the district at the time of survey, and an EP corner is determined by astronomical observations, a certificate signed by the holder and all adjoining EP holders, agreeing to accept the boundaries as located, must appear on the plan.
- 3.7.5 Plans of EP surveys should show connections to cadastral boundaries and comparison of meridians where practicable. Where observations are taken, a meridian table should be shown, vide "MERIDIAN" 1.42
- **3.7.6** In the Title Block a full Tenure description is applicable.
  - ➤ Exploration Permit Mineral No 123 (On face "EPM" may be used)
  - ➤ Exploration Permit Coal No 123 (On face "EPC" may be used)
  - ➤ Authority to Prospect Petroleum No 12 (On face "APP" may be used)

#### 3.8 Field Notes

Complete statement on plan form as follows:

- eg. (a) NO FIELD NOTES LODGED
- eg. (b) FIELD NOTES LODGED 26.1.88

#### NOTE:

The Mineral Resources Act requires that Field Notes be lodged for all plans.

# 3.9 Handbook For Resource Industries Surveys

A guide to survey requirements for actions effected under the Acts administered by the Department of Minerals & Energy is available from the Chief Surveyor.

### 3.10 Identification Survey

3.10.1 Plan requirements for boundary identification survey of all or part of any existing mining tenement are the same as the plan requirements for a survey of that tenement: except that the plan title should be headed:

#### Sample

### IDENTIFICATION SURVEY OF

**3.10.2** Identification Surveys to be drawn on Department of Minerals & Energy plan forms.

### 3.11 Lapsed Boundaries

3.11.1 Lapsed boundaries are previously cancelled boundaries or boundaries of dead leases.

They are generally only shown when used for survey reinstatement. Measured bearings and distances are shown on face of plan. Former description of the expired lease when required is shown in dotted hairline.

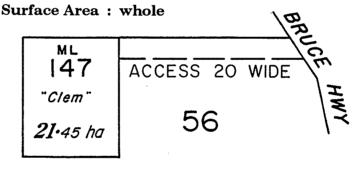
See also "LINEWORK" 1.38.5

### 3.12 Mining Lease

#### 3.12.1 New Mining Lease

- 3.12.1.1 A plan of a new Mining Lease must show the external boundaries of the Lease, the area held under Surface Rights, any background tenures, and the Access to the Lease when applicable.
- 3.12.1.2 When Surface Rights exist, severance and connections to the background tenures are required.

#### Sample



Title: ML 147 AND ACCESS

3.12.1.3 For details regarding Surface Area see 3.12.2.

See also "BACKGROUND TENURES" 3.2

- 3.12.1.4 For details regarding Access see "RIGHT OF WAY / ACCESS" 3.16
- 3.12.2 Surface Areas
- 3.12.2.1 The Surface Area (whether whole, part, or nil) is shown on the plan by statement, but must accord with the application description.

#### Samples

eg.

SURFACE AREA - WHOLE

or

SURFACE AREA - 25.75 ha (Stn N.ºs to be used)

or

SURFACE AREA - NIL

•

( )

#### 3.12.4 Datum Post

All plans of Mining Leases, surveyed or compiled, may describe the position of the applicant's Datum Post and the marking thereon either on the face of the plan or tabulate.

Application Posts should be included in the same tabulation.

See also "COMPILED PLANS" 3.5.5.2

#### 3.12.5 Depth Restrictions

On plans of Mining Leases which are restricted in depth, the plan should be endorsed with a suitable statement.

#### Sample

M.L. 697 exists only below the depth of 15.24 m beneath the surface except for Lot 83 where it exists on and beneath the surface.

#### 3.12.6 Name Of Lease

The name of the Mining Lease is shown within the subject block as illustrated by diagrams in 3.12.1.2 and 3.12.2.3 above.

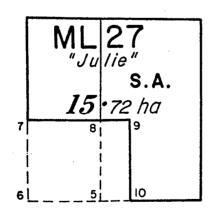
#### 3.12.7 Surrender From Mining Lease

The plan is drawn as if the action were completed (original dimensions and cancelled boundaries if required).

Each Severance Area being surrendered from the Lease and Surface Area, as well as the Total Area surrendered are to be shown on the plan.

For Balance Areas see "UNDESCRIBED BALANCE" 3.21

#### Sample



AREA TO BE SURRENDERED FROM
SURFACE AREA OF ML 27

(5-8-9-10) ...... **I**.674 ha

<u>AREA TO BE SURRENDERED FROM ML27</u> (6-7-9-10) ...... **5** · O23 ha

Title: *ML* 27

SURFACE AREA : 10 .72 ha

#### 3.12.8 Resumption From Surface Area Of Mining Lease

Treat in a similar manner to Surrenders - stating purpose.

#### Sample

On face eg.

AREA TO BE RESUMED FROM ML 50...(Stn Nºs).. 2.745 ha

Title eg.

ML 50

The statement must clearly show whether the resumption is from the Lease (Surface and Underground) or from the Surface Area Only.

#### 3.12.9 Mining Lease Encroaching On Mining Homesteads

The severance areas of any prior MHPL (and MHL) covered by the ML are to be stated on the plan, and shown as follows:-

#### Sample

Area of ML in MHPL .... (Stn Nºs)..... 2.345 ha

#### 3.12.10 Mining Lease Location Surveys

Specifications for plans of Datum Post Location Surveys are available from the Chief Surveyor on request.

3.12.11 Any Mine workings, structures or improvements on or adjacent to boundaries must be noted in the field book and shown on the plan. Care should also be taken to comply with further Department of Minerals & Energy Instructions.

See also "ROADS IN MINING LEASES" 3.17

#### 3.12.12 Mineral Development Licence

Mineral Development Licences as defined by the Mineral Resources Act may be lodged at the office of the Director General, Brisbane. When surveyed, generally shown as for Mining Lease requirements.

### 3.13 Petroleum Permits, Leases & Licenses

Whether for the purposes of the Petroleum Act 1923 - 1988, or the Petroleum (Submerged Lands) Act 1967 - 1982, it is necessary to determine the position on the surface of the earth of a point, line or area. Such a position shall be determined by reference to the Australian Geodetic Datum, and any plan depicting such position should be endorsed:

#### Eg. Australian Geodetic Datum 1984

Where bearings are given, both forward and reverse azimuths must be shown where applicable.

## 3.14 Petroleum Well Location Surveys

Plan requirements for Well Location Surveys as required under Regulation 117 of the Petroleum Regulations (Land) 1966 will be made available upon request, from the Chief Surveyor.

#### 3.15 Plan Forms

- **3.15.1** Except under special circumstances approved by the Chief Surveyor, surveys of all Mining Tenements are to be drawn on Department of Minerals & Energy plan forms.
- 3.15.2 New surveys of two or more tenements may not be drawn on the plan form unless each parcel is physically connected to the other by survey.
- **3.15.3** Plan forms are available in two (2) sizes and are obtainable from the Chief Surveyor.
- **3.15.4** A number of sheets may be lodged for the one survey.

# 3.16 Right Of Way (Petroleum Act) Access (Mineral Resources Act)

- 3.16.1 "Access" is defined as access to any Mining Tenement.
- **3.16.2** Normally not surveyed (only when instructed by the Warden or Director-General).
- 3.16.3 Treat generally as for an Easement Survey.

Show width of Access and secants.

Generally no area is required.

- **3.16.4** If only one side is run show the surveyed boundary by a full line and the opposite side in a broken line.
- **3.16.5** Shown on plan as follows:

#### Sample

On Face

eg. ACCESS 20 WIDE

Title (as the case dictates).

 $_{
m eg.}$  ML 53 and ACCESS

or ML's 52,53 and ACCESS (ML53)

or ACCESS (ML 53)

3.16.6 A "Right of Way" showed access to a mining tenement on private land and after 1st August 1982, also to a mining tenement on Crown Land.

> Prior to 1st August 1982, access to a mining tenement on Crown Land was described as "Right of Access".

#### 3.17 Roads In Mining Leases

- 3.17.1 There are four methods of showing areas of Dedicated Roads and/or other exclusions or reservations through ML's on a plan, depending upon the form of the ML Application.
- 3.17.1.1 The road may be included in the ML if an application to disturb the road surface is approved by the Governor in Council (the most common case).

#### Sample

120.5 ha

The road boundaries are shown in light lines.

3.17.1.2 The road may be excluded from the ML in the terms of the lease.

#### Sample

120 · 5 ha

2 · 746 ha Rd (Show by statement with Stn N?s)

117 .8 ha (Only Area shown on face of plan)

The road boundaries are shown in heavy lines.

Join the severances with a vinculum. See 3.22.1

3.17.1.3 The road may be excluded only from the surface area of the ML in the terms of the lease.

#### Sample

Within Lease On Face

by Statement

120.5 ha SURFACE AREA : 70.5 ha

2 · 746 ha Rd

67 · 954 ha

The road boundaries are shown in medium lines.

The surface area is shown by statement.

3.17.1.4 Where no surface area is required for the ML, the area of the road is not shown, only the area of the ML.

#### Sample

120.5 ha

The road boundaries are shown in light lines.

See also "AREAS" 3.1

**3.17.2** In all cases the surveyed road boundaries should be plotted on the plan.

Full dimensions of the road are required in cases 3.17.1.2 and 3.17.1.3 above.

#### 3.18 Status Of Tenure Table

Plans drawn for the purpose of a grant must show a tenure table. To avoid confusion over the status of a grant, the description of a plan must not be qualified by the term "A" or "Application". The tenure table will be completed by the Department at date of grant.

#### Sample

#### STATUS OF TENURE

TENURE No.	DATE OF GRANT					
ML 4059						
	<u>†</u>					

### 3.19 Statutory Mine Working Plans

- **3.19.1** Drawing requirements for Statutory Mine Working Plans will be made available from the Chief Surveyor on request.
- 3.19.2 Plans must be drawn on official Department of Minerals & Energy Statutory Mine Working Plan sheets, obtainable from the Chief Surveyor.

#### **3.20 Title**

3.20.1 Should be shown on plan as follows:

(a) PLAN OF	ML	127	5
For further details refer to res		tenure.	

(b) PARISH ..... GYMPIE

(c) COUNTY ...... March

(d) MINING DISTRICT ...... Mareeba

See also "STYLES" 1.62 See also "SPECIMEN MINING RESOURCES PLAN" No 1

#### 3.21 Undescribed Balance

In the case of an excision from a Surface Area or Mining Lease the Balance must be shown on the plan where possible. The Balance may be left as an Undescribed Balance and omitted from the plan only with the prior approval of the Chief Surveyor.

### 3.22 Vinculum

A Vinculum symbol binding Severances of tenements across intervening boundaries, or over other lands, are to be shown on face of plan thus:

#### 3.22.1 For Subject Land

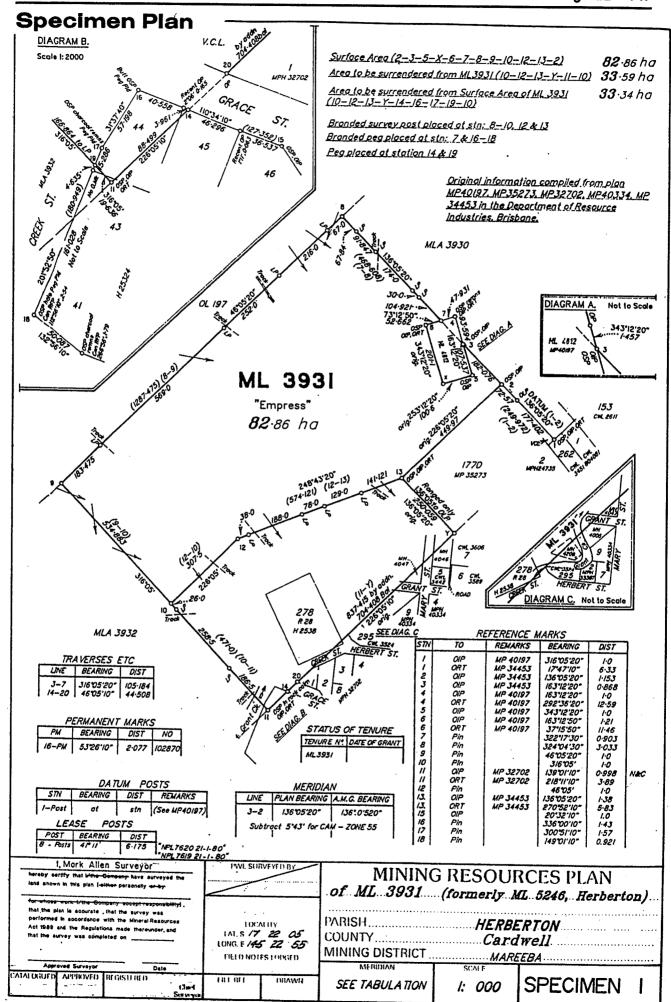


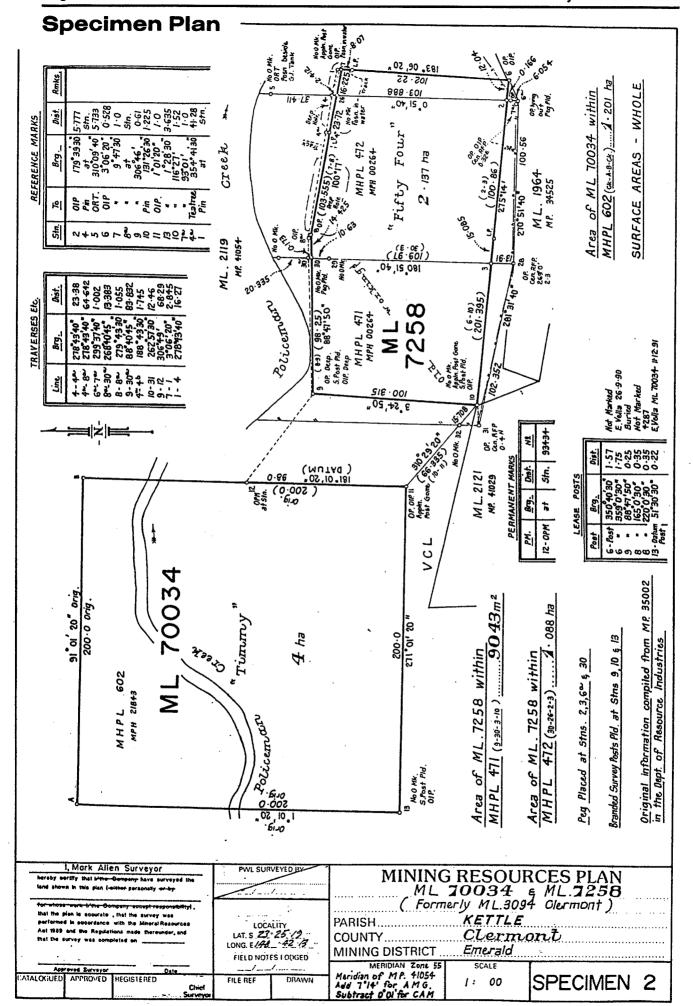
3.22.2 For Surface Areas, Sub Lease Etc. Over The Subject Land.

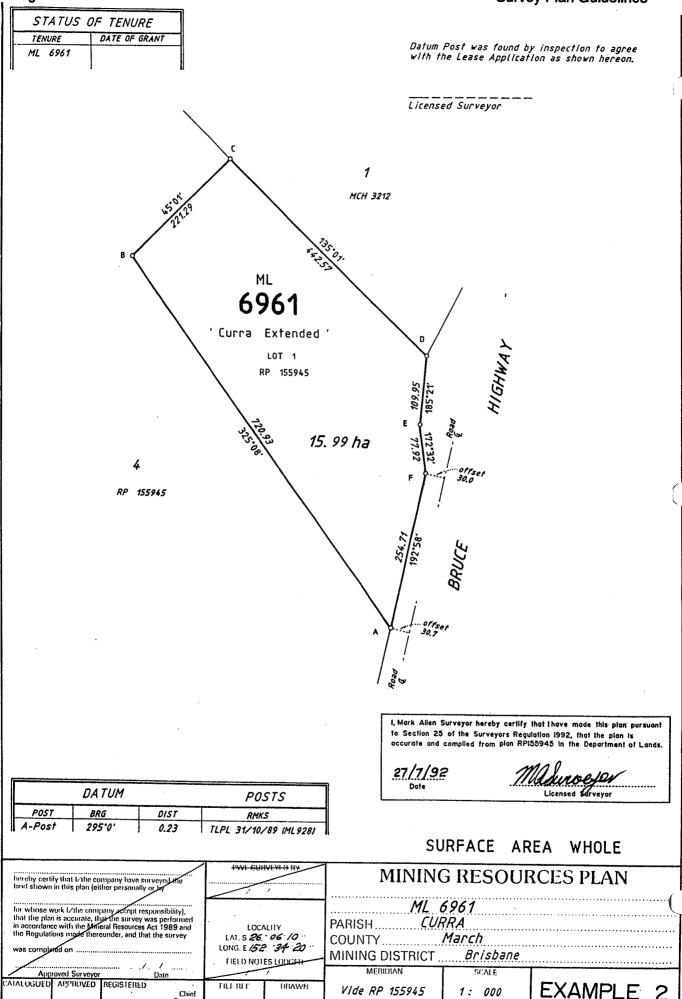


**3.22.3** For Background Descriptions Underlying The Subject Lease And For Adjoining Descriptions.



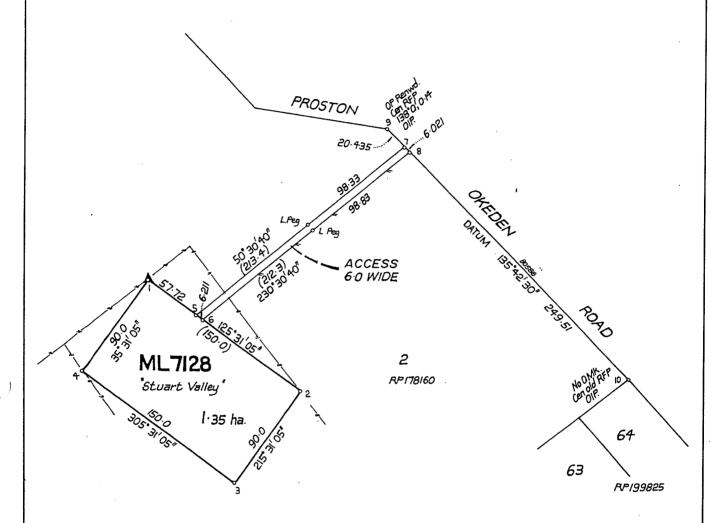






LEASE POSTS

	Post	Bearing	Dist	1
ì	3 - Post	164°57′ 136°17′ 130°05′	1.16	V. Knopke 11.6.1990" V. Knopke 11.6.1990" V. Knopke 11.6.1990"



#### PERMANENT MARKS

PM.	Bearing	Dist	Number
	205° 16'	<i>l-522</i>	79822
	230° 52'	<i>l-39</i> 7	79823

SURFACE AREA - WHOLE

REFERENCE	MARKS
-----------	-------

	Stri	To	Remark	Bearing	Dist.
	1	Pin		305 31 05	
	2	Pin Pin		305° 31' 05° 305° 31' 05°	0.95 0.95
	3 4 5	Pin Pin		305"31,05"	
ı	7	Pin		125° 31′ 05° 163° 25′ 45°	3·106 3·256
	9	OIP OIP		315 42 30"	1.0
ı	10	1 011 1	Į.	135°42′30″	1.0

#### DATUM POST

Post	Bearing	Dist			
2-Post	219*49'	0.23	*V Knonke	1161	'

STATUS OF TENURE

Tenure Nº	Date of Grant	
ML 7128	12/12/91	

Peg placed at stations 5-9 Survey Posts placed at stations 1-4

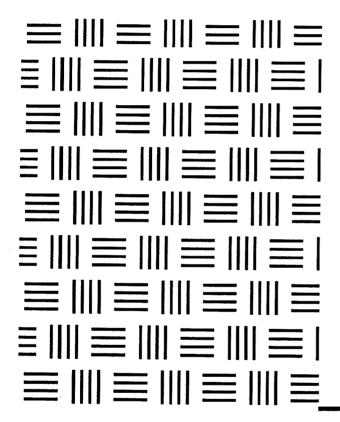
M	ERIDIAN	
Line	Plan Brg.	AMG Brg.
1-2	125°31'05	125°31'05"
1	AMG	
Subtre	act 7°23′0 ZONE 56	5' for CAM

I, Mark Allen Surveyor  hereby certify that bittle Company have surveyed the land shown in this plan (-either personally -e-by-	PWL SUF	EVEYEO BY	MINING RESOURCES PLAN  ML 7/128 and ACCESS				
for whose work fifth Company accept responsibility! that the pion is accurate, that the survey was performed in accordance with the Mineral Resources. Act 1989 and the Regulations made theraunder, and that the survey was completed on	LAT. S AG.	ALITY • <u>08</u> · <u>60</u> ·· • <u>35</u> · <u>00</u> ··	1	Boondooma			
Approved Surveyor Date	FIELD NOT	ES LODGED	MERIDIAN	SCALE			
ATALOGUED APPROVED REGISTERED Chief	FILE REF	DRAWN	AMG	1: 000	EXAMPLE 3		

M.L. LOT Sublease Date of Commencement	Tenure No		[ <del></del>	REFERENC		
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		45	8	Pin 261 . 38		•••••
			1 12	OIP 160°00'	1 1	
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MERIDIAN LINE PLAN BEARING A.M.G. BEARING		`\	•	Ç/ •		
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SUB 0° 00' 18" FOR A.M.G.				<b>x</b>		
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C.A.M. BEARING						
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for whose wark tritle Company societ responsibility!			*******	ots 2 and 3 on M		
that the plan is scourcie , that the survey was			PARISH FIFE			
performed in socordance with the Mineral Resources Act 1989 and the Regulations made thereunder, and	LOCAL LAT. S. 1.2		COUNTY Weipa			
that the survey was completed on	LONG. E   4					
· ·						
<u> </u>	LIETD NOTE	STORGED	MINING DISTRICT			
Approved Surveyor Data	/	,	WERRING DISTRICT	SCALE	T	
Approved Surveyor Date  CATALOGUED APPROVED REGISTERED  Chief		STORGED 7 DRAWN			EXAM	PLE 4

Part

# Disciplinary Procedures





#### Published by:

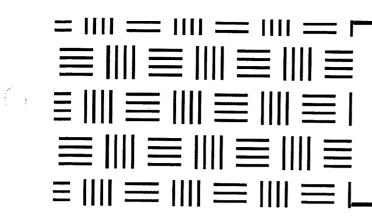
Surveyors Board of Queensland

Land Centre Cnr Main and Vulture Streets Woolloongabba Qld 4102

P.O. Box 3211 South Brisbane Qld 4102

Phone: 896 3032

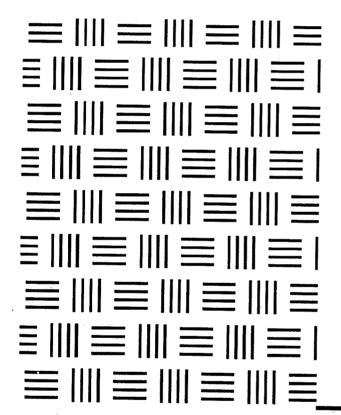
This Part is being prepared and will be released to all holders of the Manual in March 1993



# Part

G

# Surveyors Board Forms





Specimen copies of all forms used by the Surveyors Board and approved by the Board under the Surveyors Regulation 1992

Persons requiring forms should contact the Board's office for originals

Published by:

Surveyors Board of Queensland

Land Centre

Cnr Main and Vulture Streets Woolloongabba Qld 4102

P.O. Box 3211

South Brisbane Qld 4102

Phone: 896 3032

#### **Forms**

The Forms set out in this Part, being Nos 1 to 16, shall be used for the purposes for which they are respectively applicable.

A Form as approved by the board shall be completed in full or as so stated on the Form.

The board, under the Surveyors Regulations 1992, Section 4, has duly considered the format of the attached Forms Nos 1 to 16 and adopts the use of such forms, at its meeting of 1 May 1992.

N G Divett President

1 May 1992

#### Note:

The Board Forms included in this Manual are Specimen Copies Only. Persons requiring forms should contact the Board's office.

## Index

#### Form 1

Application for Registration as a Surveying Associate

#### Form 2

Application for Registration as a Surveying Graduate

#### Form 3

Application for Registration as a Surveyor

#### Form 4

Application for Endorsement to Perform Cadastral Surveys

#### Form 5

Application for Endorsement as a Consulting Surveyor

#### Form 6

Report of Practical Experience

#### Form 7

Application for Acceptance of Projects

#### Form 8

Application for Approval of a Proposed Professional Assessment Project

#### Form 9A

Application for Renewal of Registration

#### Form 9B

Application for Renewal of Registration as a Consulting Surveyor

#### Form 10

Application for Registration as a Surveyor by a Body Corporate

#### Form 11

Application for Renewal of Registration as a Surveyor by a Body Corporate

#### Form 12

Certificate for Survey Records

Form 13

Certificate for Cadastral Plans

Form 14

Certificate of Registration as a Surveying Associate

Form 15

Certificate of Registration as a Surveying Graduate

Form 16

Certificate of Registration as a Licensed Surveyor or Surveyor

# Form 1 QUEENSLAND

Surveyors Act 1977 (Ss. 38A and 39) Surveyors Regulation 1992 (Section 6)

APPLICATION FOR REGISTRATION AS A SURVEYING ASSOCIATE
To: The Secretary,
Surveyors Board of Queensland.
I,(Full Name)
* Residential Address:
Postal Address:
Telephone No. (Business) Fax No.
hereby apply for registration under this Act as a Surveying Associate. In support of my application, I enclose the following documentary evidence:-+
Date:
* Insert residential and postal address, and telephone and facsimile numbers.
+ Copies of diplomas and other relevant certificates, copies of references as to good fame and character, and copies of documents showing particulars of the practical experience relied on by the applicant for the purposes of registration.
FEE:
DATE:
REC NO:
-May, 1992

# Form 2 QUEENSLAND

Surveyors Act 1977 (Ss. 38 and 39) Surveyors Regulation 1992 (Section 7)

APPLICATION FOR REGISTRATION A	AS A SURVEYING GRADUATE
To: The Secretary, Surveyors Board of Queensland.	
I,(Full Name)	, of
(Full Name)	
* Residential Address:	
Postal Address:	
Telephone No. (Business)	Fax No.
hereby apply for registration under this Act as application, I enclose the following documentary	a Surveying Graduate. In support of my ry evidence:- +
Date:	Signature of Applicant
* Insert residential and postal address, an	nd telephone and facsimile numbers.
+ Copies of degrees, diplomas and other references as to good fame and character.	relevant cetificates, and copies of
	FEE:
	DATE:
	REC NO:
May, 1992	

## Form 3 QUEENSLAND

Surveyors Act 1977 (Ss. 37, 39 and 40) Surveyors Regulation 1992 (Section 8 and 11)

APPLICATION FOR REGISTRATION AS	A SURVEYOR
To: The Secretary, Surveyors Board of Queensland.	
I,(Full Name)	
	,,,,,
* Residential Address:	
Postal Address:	
Telephone No. (Business) F	ax No.
hereby apply for registration under this Act as a application, I enclose the following documentary evide:	Surveyor. In support of my
Date:	# Signature of Applicant
* Insert residential and postal address or, in the address of its registered office and postal addre numbers.	e case of a body corporate, the ess, and telephone and facsimile
+ Copies of degrees, diplomas and other relevant references as to good fame and character in the case case of a body corporate, copies of the documents with Section 11 of the Surveyors Regulation 1992.	se of a natural person or, in the
To be signed by the applicant in the case of an body corporate, by a director who is a Registered	individual on in the area of
	FEE:
	DATE:
May 1992	REC NO:

Surveyors Board of Queensland

Revision 0 — Nov. 1992

# Form 4 QUEENSLAND

Surveyors Act 1977 (Ss. 40 and 42) Surveyors Regulation 1992 (Section 9 and 14)

# APPLICATION FOR ENDORSEMENT TO PERFORM CADASTRAL SURVEYS

To:	The Secretary, Surveyors Board of Queensland.				
т	• .			$\wedge \wedge \wedge \wedge \wedge$	, of
Ι, _	(Full Name)			11/11	\
* Re:	sidential Address:			$\langle \rangle \rangle$	)
	stal Address:		$\mathcal{A}($		
	lephone No. (Business)	<del>/</del> /	ax No.	$\rightarrow$	
that	by apply to have my registration in t I may perform cadastral surveys. owing documentary evidence:- +	he Register of In support of	Surveyors my applic	endorsed to the cation , I end	ne effect lose the
<del></del>					
****					
		<u> </u>			
		$\rightarrow$			
			# Sig	gnature of App	licant
Date	:				
			<u> </u>		
*	Insert residential and postal add address of its registered office a numbers.	ress or, in thand postal addr	e case of ess, and t	a body corpor	cate, the facsimile
+	Copies of degrees, diplomas and natural person or, in the case o evidence required to comply with S	f a body corpo	rate, cop	ies of the do	cumentary
	To be signed by the applicant in body corporate, by a director who	the case of an is a Licensed	individua Surveyor.	l or, in the	case of a
			F	EE:	1
			D	ATE:	
•			R	EC NO:	
May,	1992		يبكا		

#### Form 5 QUEENSLAND

#### Surveyors Act 1977 (S. 42A) Surveyors Regulation 1992 (Section 10)

## APPLICATION FOR ENDORSEMENT AS A CONSULTING SURVEYOR

To:	The Secretary, Surveyors Board of Queensland.
I,	
	(Full Name)
* }	Residential Address:
	Postal Address:
	Telephone No. (Business) Fax No.
tha ser	eby apply to have my registration in the Register of Surveyors endorsed to the effect t I am a Consulting Surveyor. I certify that I provide or intend to provide survey vices to the public for a fee. In support of my application, I provide the following ormation:-
1.	Under what name or as a part of what entity do you intend to practise?
2.	Are you at present rendering survey services to the public for a fee?
3.	Do you have an office out of which you presently consult to the public?
4.	If the answer to (3) is yes, what is the address?
5.	If the answer to (3) is no, do you intend to establish an office and if so at what
	address?
6.	Section 10(2) of the Surveyors Regulation 1992 requires that applicants take out and
	maintain Professional Indemnity Insurance. Please advise the following details:-
	(a) The name of the Insurance Company
	(b) Your policy number
	(c) The amount insured (min \$100,000)
	A copy of the insurance certificate is to be provided.

- 2 -

7.	Section 10(2) of the Surveyors Regulation 1992 requires that applicants take out and			
	maintain Public Liability Insurance. Please advise the following details:-			
	(a) The name of the Insurance Company			
	(b) Your policy number			
	(c) The amount insured (min \$500,000)			
	A copy of the insurance certificate is to be provided.			
8.	Do you have or are you in the process of implementing a Quality Assurance program?			
9.	Do you take part in Continuing Professional Development (CPD) programs and if so to what extent?			
10.	Please provide the Board with the following information by attaching same to this			
	application form -			
	(a) a copy of the letterhead under which you practise;			
	(b) a copy of the form of invoice on which you bill clients.			
	Signature of Applicant			
Date				
*	Insert residential and postal address, and telephone and facsimile numbers.			
	FEE:			
//	DATE:			
(	REC NO:			
May,	1992			

#### Form 6 QUEENSLAND

Surveyors Act 1977 (S. 37)

#### REPORT OF PRACTICAL EXPERIENCE

To: The Secretary, Surveyors Board of Queensland.			
I,(Full Name)		, of	
Postal Address:			
a Licensed Surveyor/Surveyor	registered under this Act, c	ertify that	
M		a Surveying Graduate/student,	
has gained practical experie	nce in surveys under my direc	tion and supervision	
for a period of	weeks.		
He/she has performed the fol	lowing work as specified:-		
REPORTING PERIOD:	TO:		
+ TYPE OF SURVEY	DESCRIPTION OF WORK	NO OF WEEKS	
		<u> </u>	
1			
His/Her performance was as	offlows: - *		
Date:			
Date.	Signature o	of Licensed Surveyor/Surveyor	
report should state clearly the level of performance achieved by the Surveying graduate/student in all aspects (ethical, administrative and technical) of the practice of surveying.			
Type of Survey shall be urban cadastral, rural cadastral, engineering and other. The minimum periods to fulfill the Board's requirements for registration and licensing for each type of survey shall be rural cadastral (6 months), urban cadastral (6 months), engineering (6 months) other (6 months).			
May, 1992			

Surveyors Board of Queensland

The Secretary,

Revision 0 — Nov. 1992

To:

Surveyors Board of Queensland

#### Form / QUEENSLAND

Surveyors Act 1977 (S. 37)

#### APPLICATION FOR ACCEPTANCE OF PROJECTS

Surveyors Board of Queensland.	
PART A	
I hereby certify that +	,
the Surveyors Board of Queensland, and	er, which are equivalent to those prescribed by that the projects have been performed at ar ecommend that such projects be accepted by the
* List of projects:-	
Date:	
	Signature of Head of Surveying School,
PART B	(Name of Education Institution)
I +	, of
	12 Mame)
Residential Address:	
Postal Address:	>
Telephone No. (Business)	Fax No.
reports in relation to the projects listed	oservations and notes, computations, plans and hereunder were made by me personally with such tion and that the projects were not copied.
* List of projects:-	
Date:	
	Signature of Surveying Graduate/student
* Describe each project and state its If the space is insufficient, attacl	date of commencement and date of completion.
+ Insert full name of surveying gradua	ate/student.
	FEE:
	DATE:
	REC NO:
May, 1992	

**Surveyors Board of Queensland** 

Revision 0 — Nov. 1992

# Form 8 QUEENSLAND

Surveyors Act 1977 (S. 37)

# APPLICATION FOR APPROVAL OF A PROPOSED PROFESSIONAL ASSESSMENT PROJECT

To:	The Secretary, Surveyors Board of	•		
I,	(Fi	ull Name)		of
	stal Address:			
	_	s)		
	reprode No. (Bubines)			
a Sur Proje	rveying Graduate her ect.	reby apply for approval	of a proposed Pro	ofessional Assessment
Natur	re of project propos	ed:-		
		(	7	
			$(\mathcal{O})$	
Deta	ils of the project a	re attached		
De cu.	its of the project a	re accapica.		
			Sig	nature of Applicant
Date				
*	Ireart racidantia	and postal address and	tolophone and fac	simile numbers
••	Misery residencial	and postar address and	terephone and rac	Simile numbers.
		·	FEE	•
			TAD	E:
Ma	1992		REC	NO:
ттау,	1 / 7 4			

#### Form 9A QUEENSLAND

Surveyors Act 1977 (Ss. 40, 41 and 42)

#### APPLICATION FOR RENEWAL OF REGISTRATION

To:	The Secretary Surveyors Board of Queensland.	
I,	·	, of
, <u> </u>	(Full Name)	, 01
* Resi	dential Address:	
Post	tal Address:	
Tele	ephone No: (Business)	Fax No:
hereby	y apply for renewal of my registrat	ion under this Act as a
	Surveying Associate	
	Surveying Graduate	
	Surveyor	
	AND	
	for <u>endorsement</u> to the effect th	nat I may perform cadastral surveys for the year
	ending on 31 December, 19	
Date:_		# Signature of Surveyor, Licensed Surveyor, Surveying Graduate, Surveying Associate
*	Insert residential and postal addre of its registered office and postal	ess or in the case of a body corporate, the address address, and telephone and facsimile numbers.
#	To be signed by the applicant in the corporate, by a director who is a l	ne case of an individual or, in the case of a body Registered Surveyor.
+	Indicate (/) category of registrat	ion for which renewal is sought.
		FEE: DATE:
May, 1	1992	REC NO:

The Secretary

To:

Form 9B QUEENSLAND

Surveyors Act 1977 (Ss. 40, 41 and 42)

#### APPLICATION FOR RENEWAL OF REGISTRATION AS A CONSULTING SURVEYOR

	Surveyors Board of Queensland.
I,	(Full Name)
* Resi	^ ^ ' \ \
	idential Address:tal Address:
	ephone No: (Business)Fax No:
hereb	y apply for renewal of my registration as a surveyor under this Act and for the wing endorsements:- +
	1. to the effect that I may perform cadastral surveys
	2. to the effect that I am a consulting surveyor
The f	ollowing information is provided in support of my application:
1.	Under what name or as a part of what entity do you intend to practise?
( <u>.</u> )	Are you at present rendering survey services to the public for a fee?
3.	Do you have an office out of which you presently consult to the public?
4.	If the answer to (3) is yes, what is the address?
5.	If the answer to (3) is no, do you intend to establish an office and if so at what address?
5.	Section 10(2) of the Surveyors Regulation 1992 requires that applicants take out and
	maintain Professional indemnity Insurance. Please advise the following details:-
	(a) The name of the Insurance Company
	(b) Your policy number
* -	(c) The amount insured (min \$100,000)
	A copy of the annual renewal certificate showing the amount insured is to be lodged
	with this application.

	<u>- / </u>
7.	Section 10(2) of the Surveyors Regulation 1992 requires that applicants take out and
	maintain Public Liability Insurance. Please advise the following details:-
	(a) The name of the Insurance Company
	(b) Your policy number
	(c) The amount insured (min \$500,000)
	A copy of the annual renewal certificate showing the amount insured is to be lodged
	with this application.
8.	Do you have or are you in the process of implementing a Quality Assurance program?
9.	Do you take part in Continuing Professional Development (CPD) programs and if so to
	what extent?
10.	Please provide the Board with the following information by attaching same to this
	application form -
	(a) a copy of the letterhead under which you practise;
	(b) a copy of the form of invoice on which you bill clients.
	# Signature of Applicant
Date:	
*	Insert residential and postal address or in the case of a body corporate, the address of its registered office and postal address, and telephone and facsimile numbers.
#	To be signed by the applicant in the case of an individual or, in the case of a body corporate, by a director who is a Registered Surveyor.
+	Indicate (7) category(s) of endorsement for which renewal is sought.
	FEE:
	DATE:
.,	REC NO:
May,	1992 <sup>-</sup>

#### Form 10 QUEENSLAND

Surveyors Act 1977 (Section 40) Surveyors Regulation 1992 (Section 12)

APPLICATION FOR REGISTRATION AS A SURVEYOR BY A BODY CORPORATE SOLICITORS CERTIFICATE The Secretary, To: Surveyors Board of Queensland. Solicitor, \_\_\_\_\_, hereby certify that the Memorandum and Articles of Association of the Body Corporate Pty Ltd incorporated in the State of Queensland on complies with the following sections of Surveyors Regulation 1992. Surveyors Regulation 1992 Section 11(c)(i)11(c)(ii) 11(c)(iii) 11 11(c)(iv) \*\* 11(c)(v)\*\* 11(c)(vi) 14(2)(5) Signature

Section 14(2)(b) should be deleted if not applicable.

May, 1992

Date:

### Form 11 QUEENSLAND

Surveyors Act 1977 (Section 40) Surveyors Regulation 1992 (Section 13)

## APPLICATION FOR RENEWAL OF REGISTRATION AS A SURVEYOR BY A BODY CORPORATE

To:	DIRECTORS' CERTIFICATE  Secretary, Surveyors Board of Queensland.
We,	, the Directors,
hereby	certify that the Memorandum and Articles of Association of the
Body C	orporatePty Ltd
Survey	with the following sections of Surveyors Regulation 1992.
Section "" "" "" "" ""	n 11(c)(i) 11(c)(ii) 11(c)(iv) 11(c)(v) 11(c)(vi) 14(2)(b)
	(All the Directors to sign)
Date:_	

\* Section 14(2)(b) should be deleted if not applicable.

May, 1992

#### Form 12 QUEENSLAND

Surveyors Act 1977 Surveyors Regulation 1992 (S 33)

#### CERTIFICATE FOR SURVEY RECORDS

I * _		hereby cert	ify that	the survey records
+		are accurate records	of the	survey performed by
myse1	f personally/the company or by	#	for whos	se work I/the company
accep	t responsibility.			
			$\rightarrow$	
		Signa	ture of	Licensed Surveyor
Date:				
*	Insert full name of Licensed company.	Surveyor or, as the o	case may	be, the name of the
+	Insert sufficient particular certified.	s to properly identif	y the su	rveys records being
#	Insert full name of the person	on and his qualificat	ions.	
\$	Or, in the case of a company referred to in Section 11 of	, execution under the	e Common tion 1993	Seal in the manner 2.
May,	1992			

#### QUEENSLAND

#### Surveyors Act 1977 Surveyors Regulation 1992 (Section 25 and 30)

#### CERTIFICATE FOR CADASTRAL PLANS

PART A	
1 hereby certify that 2	surveyed the land
comprised in this plan 3	for whose work *
4and that the plan is acc	curate, that the said survey
was performed in accordance with the Surveyors Act 1977 and	the Surveyors Regulation
1992, and that the said survey was completed on 5	
PART B	$\langle \cdot \rangle$
1hereby certify that I/the company have	Thas made this plan pursuant
to Section 25 of the Surveyors Regulation 1992 and that the	plan is accurate, and
compiled from	in the Department of
6	
	Director & Licensed (Sign) Surveyor
7	Director (Sign)
Date:	
1 I, (full name of Licensed Surveyor or - (Name of Company endorsed as Licensed Surveyor)	
2 I have, or - the Company has  3 personally (leave 4 blank), or	
<ul> <li>- personally (leave 4 blank), or</li> <li>- by (full name and qualification of licensed surveyo and if applicable</li> <li>- and by (full name and qualification of registered p</li> </ul>	
4. Laccept responsibility, or the Company accepts responsibility  5 Date	
6. Department of Lands and/or Resource Industries or o	ther source.
7 Signature	
8 Company must execute under Common Seal, see Regulat 11(c)(vi)	ion
* Delete if applicable.	
July, 1992	

#### Form 14 QUEENSLAND

#### Surveyors Act 1977

#### SURVEYORS BOARD OF QUEENSLAND

#### CERTIFICATE OF REGISTRATION AS A SURVEYING ASSOCIATE

THIS IS TO CERTIFY THAT	was registered under this
Act as a Surveying Associate on the	day of
, 19	
Registration under this Act remains in force subject	to renewal from year to year
and otherwise subject to the provisions of this Act.	
Sealed with the Common Seal of the Board this	day of
, 19	
	v
	President
	Tiestdent
	Secretary
May, 1992	Secretary

#### Form 15 QUEENSLAND

#### Surveyors Act 1977

#### SURVEYORS BOARD OF QUEENSLAND

CERTIFICATE OF REGISTRATION	ON AS A SURVEYING GRADUATE \ \
THIS IS TO CERTIFY THAT	was registered under
this Act as a Surveying Graduate on the _	day of
Registration under this Act remains in force	ce subject to renewal from year to year and
otherwise subject to the provisions of the	is Act.
Sealed with the Common Seal of the	Board this day of
, 19	
	<i>→</i>
	President
	Secretary
May, 1992	

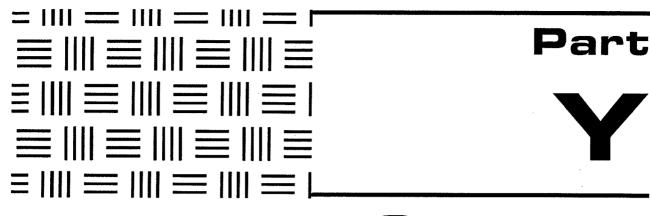
#### Form 16 QUEENSLAND

#### Surveyors Act 1977

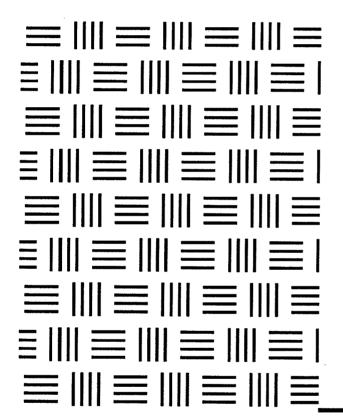
#### SURVEYORS BOARD OF QUEENSLAND

## CERTIFICATE OF REGISTRATION AS A \*LICENSED SURVEYOR/\*SURVEYOR

THIS IS TO CERTIFY THAT +	_ was registered under this Act as
a Surveyor on the day of	, 19 , *AND that this
registration was endorsed on the day of	of, to the
effect that he/she/it may perform cadastral surveys.	
Registration under this Act remains in force subject to	renewal from year
to year and otherwise subject to this Act.	
Sealed with the Common Seal of the Board thi	s day of
	President
	Secretary
* Delete if inapplicable.	
+ Insert full name in the case of an individual or, the name of the company.	in the case of a body corporate,
May, 1992	



## Surveyors Act





Published by:

Surveyors Board of Queensland

**Land Centre** 

Cnr Main and Vulture Streets Woolloongabba Qld 4102

P.O. Box 3211

South Brisbane Qld 4102

Phone: 896 3032

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Part

Z

# Surveyors Regulation



Published by:

Surveyors Board of Queensland

Land Centre Cnr Main and Vulture Streets Woolloongabba Qld 4102

P.O. Box 3211 South Brisbane Qld 4102

Phone: 896 3032

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