

BELIZE

LAND SURVEYORS ACT CHAPTER 187

REVISED EDITION 2003SHOWING THE SUBSIDIARY LAWS AS AT 31ST OCTOBER, 2003

This is a revised edition of the Subsidiary Laws, prepared by the Law Revision Commissioner under the authority of the Law Revision Act, Chapter 3 of the Substantive Laws of Belize, Revised Edition 2000.

ARRANGEMENT OF SUBSIDIARY LAWS



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CHAPTER 187

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CHAPTER 187

10 of 1978. 27 of 1995. Act 10 of 1990. Ch. 152.

LAND SURVEY REGULATIONS

(Section 24)

[16th December, 1977.]

<u>PART I</u> <u>PRELIMINARY</u>

Short title. 1. These Regulations may be cited as the

LAND SURVEY REGULATIONS.

Interpretation. 2. In these Regulations, unless the context otherwise requires-

CAP. 187. "the Act" means the Land Surveyors Act;

"approximate" in relation to any boundary has the meaning ascribed to it in section 20 of the Registered Land Act;

"Board" has the meaning ascribed to it in the Act;

"Commissioner of Lands and Surveys" means the Commissioner of Lands and Surveys appointed under section 3 of the Act;

"fixed" in relation to any boundary has the meaning ascribed to it in section 21 of the Registered Land Act;

"licensed surveyor" has the same meaning ascribed to it in the Act;

"plan" has the same meaning ascribed to it in the Act;

"public survey" has the same meaning ascribed to it in the Act;

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CAP. 194.

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"Registered Land Act" means the Registered Land Act;

CAP. 194.

"Registrar" has the same meaning ascribed to it in the Act;

"registration section" has the same meaning ascribed to it in the Registered Land Act;

CAP. 194.

"Registry Map" has the same meaning ascribed to it in the Registered Land Act;

CAP. 194.

"survey" has the same meaning ascribed to it in the Act;

"surveyor" has the same meaning ascribed to it in the Act.

PART II REGULATIONS AFFECTING ALL SURVEYS

3. If a dispute arises between a licensed surveyor and the Commissioner of Lands and Surveys, over the application of the regulations, either party may refer the matter to the Board. The Board shall hear and determine such dispute, and its decision shall be final.

Disputes.

4. (1) All distances shown on plans shall be in International Metres and decimals thereof or in English Feet and decimals thereof.

The relationship to be used shall be one International Metre = 3.28084558 English Feet.

Units of measurement.

- (2) All angular measurements shall be in degrees, minutes and seconds of arc.
- 5. (1) The figure of the earth and the projection to be used in the computation of co-ordinates of any survey shall be the Universal Traverse Mercator Projection Zone 16 using the Clark 1866 figure having elements semi-major axis 6378206.4 International Metres, eccentricity squared

Systems of Coordinates and Projections.

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0.006768658.

(2) Azimuths derived from the co-ordinates of existing control points shall always be used if possible. Astronomical azimuths of an appropriate accuracy and corrected for convergence are acceptable otherwise.

Maintenance of instruments.

- 6. (1) Every licensed surveyor shall maintain his theodolite, measuring bands and other equipment in good order and the Commissioner of Lands and Surveys may refuse to authenticate any survey made with defective equipment.
- (2) Every measuring band or tape shall be standarised before use and thereafter not less than once in every twelve months. A certificate with details of standardisation shall be submitted to the Commissioner of Lands and Surveys.
- (3) The Commissioner of Lands and Surveys may at any time require any licensed surveyor to submit any measuring equipment for inspection.

Presentation of surveys.

- 7. (1) Every licensed surveyor shall be personally responsible for the accuracy, fidelity, and completeness of every survey presented by him for the approval of the Commissioner of Lands and Surveys.
- (2) It shall be the duty of every surveyor making any survey under the Act to record all the relevant information that may aid in securing the accuracy and completeness of every such survey.
- (3) Every surveyor shall perform sufficient work to enable him to apply a thorough check to every part of his survey.
- (4) Every surveyor shall present his plan, computations and connected documents of every survey in such a manner as the Commissioner of Lands and Surveys may require, and if any surveyor forwards to the Commissioner of Lands and Surveys any plan, computation or connected

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documents which does not conform substantially with the appropriate requirements, the Commissioner of Lands and Surveys may, at his discretion, return the plan, computation and connected documents to the surveyor and may refuse to authenticate such plan, computation or connected documents until it has been made to conform with the appropriate requirements.

- (5) All surveys returned to a surveyor shall be resubmitted to the Commissioner of Lands and Surveys without undue delay.
- 8. All measurements must be made in accordance with these Regulations and the Commissioner of Lands and Surveys may refuse to authenicate any survey which contains errors in excess of those that can be expected from measurements properly carried out in the manner specified.

Permissible errors of measurement.

9. The Commissioner of Lands and Surveys may at any time depute any surveyor to check in the field any survey made under the Act by any other surveyor, and such check may include the verification of any information recorded in connection with such survey mark established under the Act or any regulations made thereunder.

Checking of surveys.

10. (1) Before carrying out any survey, every licensed surveyor shall be provided, or shall provide himself with all available information in respect of any previous survey of the parcel of land to be surveyed and of any adjoining parcel.

Information prior to survey.

- (2) Application to the Commissioner of Lands and Surveys for this information shall be in writing and shall, whenever applicable, make reference to the approval for sub-division, or other transaction.
- (3) The Commissioner of Lands and Surveys shall make available to any licensed surveyor all technical information in his possession. Where the licensed surveyor extracts the information himself by personal search no fee shall be payable, but where the information is extracted on his behalf by the Commissioner of Lands and Surveys the fee prescribed in the Third Schedule

Third Schedule.

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to these Regulations shall be paid.

Prior approval of statutory authorities.

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11. Before submitting any survey to the Commissioner of Lands and Surveys, a licensed surveyor shall ensure that approval has been obtained for a subdivision or other transaction of any parcel of land in any case where such approval is required by any law and that the survey submitted conforms with such approval.

Authority for entry upon land. First Schedule.

- 12. (1) In pursuance of sections 14, 15 and 20 of the Act the Commissioner of Lands and Surveys shall furnish to every surveyor an official letter of authority in Form A set out in the First Schedule to these Regulations.
- (2) Every surveyor shall present his letter of authority to any owner or occupier of land who demands proof that such surveyor is duly authorised to enter upon his lands.

Employment of unqualified assistant.

13. (1) No licensed surveyor shall employ an unqualified assistant without the written approval of the Board:

Provided that the Commissioner of Lands and Surveys may give provisional approval pending decision by the Board.

- (2) When such approval is given it shall be for a period of not more than two years in the first instance and may thereafter be renewed for further periods at the discretion of the Board.
- (3) The work done by any such assistant shall be under the direct personal control of the licensed surveyor, who shall himself carry out a sufficient check to ensure that the work done by such assistant is correct. The licensed surveyor shall accept full personal responsibility for all work performed by his unqualified assistant.
- (4) The licensed surveyor shall where he employs any assistant, First Schedule. supply a certificate in Form B set out in the First Schedule to these Regulations.

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- (5) If the Commissioner of Lands and Surveys finds that an unqualified assistant has performed any work which has not been supervised and checked by the licensed surveyor he may suspend approval for the employment of the unqualified assistant, and the case shall be referred to the Board whose decision on the matter shall be final.
- 14. (1) The Commissioner of Lands and Surveys shall charge fees for all surveys carried out by the Lands and Surveys Department in accordance with the charges prescribed from time to time by the Minister.

Fees chargeable by Commissioner of Lands and Surveys.

- (2) The Commissioner of Lands and Surveys shall charge fees in accordance with the charges prescribed in the Second Schedule to these Regulations for the authentication under section 18 of the Act of a plan submitted by a licensed surveyor.
- (3) The Commissioner of Lands and Surveys shall charge fees in respect of all documents issued or services rendered by the Lands and Surveys Department in accordance with the charges prescribed in the Third Schedule to these Regulations.

Third Schedule.

PART III SURVEY MARKS, BOUNDARY BEACONS AND BOUNDARIES

15. (1) The design of survey marks shall be as specified by the Commissioner of Lands and Surveys, except in special circumstances which must be set out in the report on the survey.

Design and specification of survey marks.

- (2) Every new triangulation or trilateration station other than a purely auxiliary station shall be permanently marked.
- (3) In third order traverse as defined in Regulation 34 all traverse stations shall whenever possible be permanent points.

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Placement of survey marks. CAP. 194.

- 16. (1) Where the boundaries of a parcel are required to be fixed in accordance with section 21 of the Registered Land Act any beacons required to be placed to define accurately the boundaries of the parcel shall be of such type as the Commissioner of Lands and Surveys may require.
- (2) Where a boundary is inadequately defined and it is necessary to place a beacon to define the approximate position of the boundary such beacons shall conform to the requirements of paragraph (1) of this regulation.
- (3) With a view to facilitating the location of isolated boundary beacons, such beacons shall be referenced to any nearby telephone pole, suitable tree or other prominent physical feature.

Line beacons and river beacons.

17. (1)

- (a) Where a rectilinear boundary intersects a curvilinear boundary and a beacon, required by Regulation 16 cannot be placed at the interesection, a beacon shall be placed on the rectilinear boundary as near as possible to the intersection. Such beacon shall be known as a line beacon;
- (b) where the rectilinear boundary continues on both sides of the curvilinear boundary, line beacons shall be placed on both sections of the rectilinear boundary;
- (c) where the curvilinear boundary falls within a river or swamp the line beacon shall be placed above flood level and shall be known as a river beacon.
- (2) When a line or river beacon has been placed in accordance with Regulation 16 (1) the distance from the line or river beacon to the actual boundary shall be measured to the precision required by Regulation 61 (2).

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- (3) All sub-divisions of a parcel, the boundaries of which have been fixed, which is situated across a road reserve shall be fully beaconed as self-contained units.
- (4) Where a curvilinear feature is adopted as a sub-divisional boundary of a parcel, the boundaries of which have been fixed, the several sub-divisions and any remainder shall be fully beaconed as self-contained units.
- 18. Where a beacon is placed on a boundary line that has been fixed, it shall be proved to be on line by establishing either directly or indirectly its relationship with the terminal beacons of the line.

Placing beacon on boundary line.

19. Where a beacon is placed from computed data, its position shall be proved by an independent field check and calculation.

Beacon placed from computed data.

20. When the corner of a parcel, the boundaries of which are required to be fixed, fall within inaccessible ground where a beacon cannot be placed, the position of such corner shall be permanently referenced by at least one indicatory beacon placed on a boundary line as near as possible to the corner. The details of the situation shall be indicated on the plan.

When beacons cannot be placed.

21. Where an old beacon of the parcel under survey is found to be damaged, the surveyor shall repair or renew the beacon and shall make a record of the repairs in his field notes.

Damaged beacons to be repaired.

22. (1) Every surveyor engaged on a public survey who discovers any trigonometrical or traverse station to be damaged and in need of repair shall carry out such repair as may be necessary.

Trigonometrical stations to be repaired.

(2) A licensed surveyor not engaged on a public survey is not required to repair any damaged trigonometrical or traverse station, but he shall report in writing to the Commissioner of Lands and Surveys the name, number and position of any such station and the nature of the damage he has observed.

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Missing beacons.

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23. Missing beacons shall be noted in the surveyor's report and in order to demonstrate that he has searched in the right place the surveyor shall furnish such measurement and observations as may be necessary.

Re-establishment of missing beacons.

24. If a surveyor is required to re-establish a missing beacon, he shall submit his field notes, computations and report to the Commissioner of Lands and Surveys.

Redundant beacons.

25. Where the existence of a visible redundant beacon is likely to lead to confusion, it shall be removed and replaced by an underground witness mark.

Surveys and reestablishment of boundaries.

- 26. (1) In every survey of land where the position of a feature or beacon defining the boundary of a parcel is found to differ materially from that indicated by the relevant previous survey, the surveyor shall exercise the greatest care-
 - (a) in establishing that the discrepancy actually does exist;
 - (b) in collecting all evidence which may have a bearing on the eventual action to be taken.
- (2) A careful search shall be made in the position indicated by the previous survey to ascertain whether or not any evidence of the old boundary feature or beacon still exists and the position of any building or other development in the immediate vicinity of the boundary shall be recorded.
- (3) The surveyor, before taking further action shall provide the Commissioner of Lands and Surveys with a full report and shall request instructions.

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PART IV

SURVEYS PERFORMED BY TRIANGULATION, TRILATERATION, TRAVERSE AND AIR SURVEYS

27. All geodetic and secondary control surveys shall be carried out under the direction of the Commissioner of Lands and Surveys.

Geodetic and secondary control surveys.

28. (1) All new triangulation, trilateration and traverse required to provide general control for cadastral surveys shall be brought into harmony with existing control by methods conforming with current survey practice.

Triangulation trilateration and traverse.

- (2) When issuing survey data for such work to a licensed surveyor, the Commissioner of Lands and Surveys may recommend either a particular sequence in the computation of new work or any special computations which the circumstances may require, and it shall be the duty of a licensed surveyor so informed not to depart from the Commissioner of Lands and Surveys' recommendation without reasonable cause.
- 29. In areas where no control exists a licensed surveyor shall request instructions from the Commissioner of Lands and Surveys as to the datum and method of survey to be used.

Isolated surveys.

30. For the purposes of regulations 31 and 32 tertiary triangulation or trilateration means triangulation or trilateration established to an accurary which makes it suitable for use as a basis of further triangulation or trilateration; minor triangulation or trilateration means triangulation or trilateration established to a lower accuracy and suitable only as a basis for fixing local traverses and beacons.

Tertiary and minor triangulation.

31. (1) A micrometer theodolite of an approved pattern reading directly to one second of arc, or better, shall be used for tertiary triangulation.

Instruments used for triangulation and trilateration.

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- 18
- (2) A micrometer theodolite of an approved pattern reading directly to twenty seconds of arc, or better, shall be used for minor triangulation.
- (3) Electronic distance measuring equipment of an approved pattern shall be used for trilateration distance measurement.

Method of taking triangulation observations.

32. (1) The minimum requirement for tertiary and minor triangulation shall be two arcs observed on different zeros:

Provided that two swings observed on different faces and different zeros may be sufficient for observations to points situated less than 2,000 metres distance.

- (2) An arc of angular observations for triangulation shall consist of two swings observed in opposite directions on the same zero, one swing being on face left and the other on face right.
- (3) For each arc a suitable reference station shall be selected and both swings of the arc shall be closed on to it, and the misclosure of each swing shall be appropriate to the class of theodolite used.
- (4) The difference between measurements of any angle on different arcs shall be appropriate to the class of theodolite used.
- (5) Where electronic distance measuring equipment is used sufficient observations shall be taken to eliminate any ambiguities and achieve the accuracy required by Regulation 8.

Fixing of beacons.

- 33. (1) Triangulation, trilateration, or a combination of these techniques for determining the position of beacons shall be carried out in accordance with the procedure laid down in Regulations 28 to 32 and the method of computation shall conform with current survey practice.
 - (2) Beacons may also be fixed by-

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- (a) intersection, provided at least three suitable rays are observed on to the point to the fixed;
- (b) resection, provided at least four points in favourable positions for such fixing are observed;
- (c) any other method which is capable of fixing a point with no less accuracy than that of the methods of intersection and resection:

Provided that no point fixed by any of the methods specified in subparagraphs (a), (b) and (c) of this paragraph shall be used to form the basis of further triangulation or trilateration.

34. (1)

Lower Order Traverses.

- (a) All main control traverses shall be observed to third order standard.
- (b) Where such lines are measured by means of electronic distance measuring equipment sufficient observations shall be taken to eliminate any ambiguities.
- (c) All such field operations shall be appropriate to a standard of accuracy of not less than 1:10,000.

(2)

- (a) All other control traverses for the survey of rectilinear boundaries shall be observed to fourth order standard.
- (b) Field operations for such surveys shall be

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appropriate to a standard of accuracy of 1:5,000 but computational misclosures shall be allowed to the same degree of accuracy as the datum supplied by the Commissioner of Lands and Surveys.

- (c) A surveyor shall not use a loop traverse closing on his starting point if it is practicable to traverse between two previously fixed stations.
- (d) When a surveyor is unable to close his work within the limits prescribed by the Commissioner of Lands and Surveys, the Commissioner may at his discretion authorise or instruct the surveyor, to accept a lower order of misclosure, otherwise the surveyor shall close his new work by a loop traverse, orientation being confirmed in a satisfactory manner.

(3)

(a) The survey of curvilinear boundaries such as roads, rivers, high water marks, etc., shall be made by subsidiary traverse or by air-survey methods:

Provided that this regulation shall not preclude any more accurate method.

- (b) Surveys of curvilinear boundaries shall be carried out to a standard of accuracy appropriate to the plotting scale of the plan of the survey.
- (4) Where traverses are very short, a reasonable misclosure shall be allowed irrespective of the minimum requirements, under these Regulations.

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35. (1) A theodolite permitted by Regulation 31 (1) shall be used for EDM traverses with legs exceeding 2000 metres.

Angular measurement of traverses.

- (2) A theodolite permitted by Regulation 31 (2) shall be used for all other third and fourth order traverses.
- (3) At every traverse station of third order traverse, not less than four arcs shall be observed, each arc being on a different zero and consisting of two swings in opposite directions one swing being on face left and the other on face right:

Provided that for a theodolite permitted by Regulation 31 (1) two arcs shall suffice.

(4) At every traverse station of fourth order traverses not less than two arcs shall be observed:

Provided that for a theodolite permitted by Regulation 31 (1) one arc shall suffice if the zero be changed between swings.

- (5) Angular measurements for subsidiary traverses may be made either with a theodolite or a compass of approved pattern subject to the necessity to achieve a standard of accuracy appropriate to the plotting scale of the plan of the survey. If a compass is used both forward and back observations must be made at each station.
- (6) It is not necessary to close rods of traverse observations on to reference station.
- 36. Surveys for title purposes in declared registration area, as defined under the Registered Land Act, may be carried out by using compass bearings and a tape, or such other methods which should enable the Commissioner of Lands and Surveys to order an amendment to the registry Index Map to be made by showing all new boundaries in relation to existing boundaries to within plottable

Surveys of graphic accuracy. CAP. 194.

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accuracy (e.g. two to three feet at 1:2,500 scale).

Linear

37. (1)

measurements of traverses.

- (a) All linear measurements of third and fourth order traverses shall be measured using equipment and methods appropriate to the standards of accuracy specified in Regulations 34 (1) and (2).
- *(b)* Slopes shall be determined by a theodolite, with a degree of precision appropriate to the standards specified in Regulation 34 (1) and (2), and the theodolite shall be read on both faces.
- (c) All measurements shall be reduced to the horizontal at mean sea level. In addition measurements made with a measuring band shall be corrected for temperature, standardisation and, where appropriate, sag.

(2)

- (a) All linear measurements of subsidiary traverses shall be measured using equipment and methods appropriate to the standards of accuracy specified in Regulation 34 (3);
- *(b)* Slopes shall be determined by a theodolite or Abney level with a degree of precision appropriate to the standards specified in Regulation 34 (3);
- (c)All measurements shall be reduced to the horizontal.

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38. (1) In a survey of curvilinear boundaries by the tacheometric method, distances determined by staff readings shall not normally exceed 150 metres and all three stadia readings on the staff shall be read.

Surveys of curvilinear boundaries.

- (2) Offsets to curvilinear boundaries from a traverse line which substantially exceed fifty metres shall be set out instrumentally or geometrically and the method shall be recorded in the field notes.
- 39. Swinging or hanging traverses unsupported by independent checks shall not be used.

Swinging or hanging traverses.

40. Where the means exist, every point of departure of a new traverse and every terminating point shall be verified by observations or measurements or both, which shall be recorded in the field notes.

Verification of terminals of traverse.

41. Where a previously co-ordinated traverse station is converted for use as a boundary beacon or where such traverse station is used to place or fix a boundary beacon the surveyor shall verify the station by observation or measurements or both, which shall be recorded in the field notes.

Verification of datum.

42. Air survey methods may be employed in special cases with prior written approval of the Commissioner of Lands and Surveys.

Air survey.

PART V FIELD NOTES

43. (1) Field notes shall be made on such forms or books as the Commissioner of Lands and Surveys may require.

Field notes to be on special forms.

(2) Licensed surveyors shall pay to the Commissioner of Lands and Surveys the cost price of any blank forms or books supplied to them by the Commissioner of Lands and Surveys.

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Recording of traverse observation.

44. All traverse observations and measurements shall be recorded in the field notes in the sequence in which they are observed or measured and shall include the date.

Description of beacons.

45. A full description of the nature of every beacon and other mark used in the course of the survey, whether placed, found and used, or adopted shall be recorded in the field notes.

Methods of entering field notes.

- 46. (1) All observations and measurements shall be recorded clearly and legibly in permanent blue or black ink or in hard pencil, and shall be in such manner as the Commissioner of Lands and Surveys may require.
- (2) All entries in field notes shall be so indexed and referenced that any competent person may be able to prepare a true plan therefrom and the entries shall be in such form that they have only one reasonable and correct interpretation.

Erasures and corrections.

- 47. (1) In no circumstances shall any erasure be made in the field notes.
- (2) Corrections shall be made by drawing a thin line through the erroneous entry so as to have the original entry legible; the correct entry shall be written outside the erroneous entry and not across it.
- (3) Corrections to field notes shall be made in the field and shall be a true record of actual measurements or reobservation and shall be initialled by the surveyor.

Cover page and index.

- 48. (1) The cover page of field notes forms or the cover of field Cover page note books shall contain such information as the Commissioner of Lands and Surveys may require.
- (2) This information shall include the standardisation data for the measuring band used in the survey and where measurements have been made

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in catenary, the weight per unit length of the measuring band.

- (3) The pages of field notes shall be numbered and an index in alphabetical and numerical order of all observations and measurements in the field notes shall be given on the reverse of the cover or cover page.
- 49. When any surveyor is compelled to use unorthodox methods of survey owing to obstructions or difficulties in the field, he shall give explanatory notes and, where necessary, diagrams in the field notes to explain clearly the method he has used and recorded.

Unorthodox methods.

50. (1) Sketched topographical features in the vicinity of a beacon shall be recorded, where possible, to facilitate its location.

Topographical features.

(2) Any development on any parcel which in the surveyor's opinion may involve a question of easement, right of way or any prescription rights shall also be surveyed.

PART VI COMPUTATIONS

51. (1) Computations shall be made on such forms as the Commissioner of Lands and Surveys may require.

Computation to be on special forms.

- (2) Licensed surveyors shall pay to the Commissioner of Lands and Surveys the cost of any blank forms supplied to them by the Commissioner of Lands and Surveys.
- 52. Computations shall be clearly and legibly set out in ink, and the entry of numbers or words to indicate checks on the computations shall be made in pencil or a different coloured ink:

Method of entering computations.

Provided that red ink shall be reserved for the use of the Commissioner of Lands and Surveys.

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Computation and adjustment of traverses.

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- 53. (1) In surveys carried out by traverse methods, each separate traverse shall normally be set out in suitable form so as to demonstrate the initial datum bearing or bearing, the bearing misclosure and the consequent adjustment of bearings.
- (2) The positional misclosure, its distribution through the traverse, and the finally adjusted values of all traverse points shall be demonstrated in conformity with current survey practice.

Independent checks to be made.

54. Before any surveyor forwards any computation to the Commissioner of Lands and Surveys for authentication he shall make an independent and complete check of all his calculations, and such checks shall accompany the computations and be clearly demonstrated.

Method of computing areas.

- 55. (1) The rectilinear areas of parcels, the boundaries of which have been fixed, shall be computed mathematically.
- (2) When a portion of the boundary of a parcel, the boundaries of which have been fixed, is a curvilinear boundary, the area of the parcel shall be determined partly by computing from co-ordinates and partly by planimeter determination from a drawing of the curvilinear boundary which has been drawn in conformity with Regulation 60.
- (3) If necessary, the co-ordinates of accurately scaled points on the drawing of the curvilinear boundary shall be used in the computation, in order to reduce to a minimum the area to be determined by the planimeter.

Method of measuring areas.

56. The areas of parcels, the boundaries of which are approximate only, shall be determined by planimeter measurement.

Degree of accuracy of calculating areas.

- 57. Areas shall normally be calculated in hectares or acres to the degree of accuracy specified in the following tables:
 - (a) Decimal Places of an Hectare

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		Fixed Boundaries	Approximate Boundaries	
	Parcels not more than			
	0. 5 hectare	5	2	
	Over 0. 5 hectare and			
	not more than 1	4	2	
	Over 1 hectare and not			
	more than 5	3	1	
	Over 5 hectares and			
	not more than 25	2	1	
	Over 25 hectares and			
	not more than 100	1	Nearest hectare	
	Over 100 hectares	Nearest hectare	Nearest hectare	
<i>(b)</i>	Decimal Places of an Acre			
		Fixed	Approximate	
		Boundaries	Boundaries	
	Parcels not more than			
	1 acre	4	2	
	Over 1 acre and not			
	more than 5 acres	3	2	
	Over 5 acres and not			
	more than 25 acres	2	1	
	Over 25 acres and not			
	more than 100 acres	1	Nearest acre	
	Over 100 acres Nearest ac	cre	Nearest acre	

58. The computations of every survey submitted for authentication shall be preceded by-

Presentation of computation.

(a) a report in such form as the Commissioner of Lands and Surveys may require;

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- (b) a general index to the computations; and
- (c) a complete list of final co-ordinates in metres of every point adopted or calculated in the survey; this list shall be arranged in groups comprising datum points, new triangulation, trilateration, and traverse stations, old or re-established boundary beacons and new boundary beacons arranged in alphabetical and numerical order; and on this co-ordinate list a description of every point shall be given, and reference shall be made to the source of co-ordinates including datum plans or pages of computations.

PART VII PLANS

Plans to be drawn on special forms.

- 59. (1) All plans shall be drawn in waterproof ink on opaque dimensionally stable drawing paper or in appropriate ink on plastic film. Dimensions and layout shall be as the Commissioner of Lands and Surveys may require.
- (2) Licensed surveyors shall pay to the Commissioner of Lands and Surveys the cost of any plan forms supplied to them by the Commissioner of Lands and Surveys.

Scales to be used.

60. Plans shall be plotted at the same scale as the Registry Map of the registration section in which the parcel is situated:

Provided that in special circumstances plans shall be plotted at such scale as the Commissioner of Lands and Surveys may require.

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61. (1) Where the consent of the Commissioner of Lands and Surveys has been obtained for the adoption of an existing survey of a curvilinear boundary, the surveyor shall-

Plotting of curvilinear boundaries.

- (a) make an accurate reduction of the larger scale plan for use at a smaller scale; or
- (b) make an accurate transfer for use at the same scale; or
- (c) replot from the original field notes and computations for use at a larger scale.
- (2) Where a rectilinear boundary intersects a curvilinear boundary and the provision of Regulation 17 (1) is applicable, the distance from each line or river beacon to the intersection shall be shown to the nearest quarter metre, but the distance between successive beacons along the rectilinear boundary shall be shown to the degree of precision required by Regulation 65 (3).
- (3) Where a curvilinear boundary of a parcel has been fixed, such curvilinear boundary shall be distinctively described.
- 62. (1) All plans shall be plotted by rectangular grid co-ordinates in metres.

Plotting of coordinates.

- (2) A plotting grid of squares covering the surveyed areas shall be drawn in blue such that grid line values shall be at intervals of one hundred metres or even multiples of one hundred metres.
- (3) Every plan shall contain at least one complete grid square and no square shall have sides exceeding 0.2 metres in length.
- 63. (1) All detail shown on the plan shall be distinct and the cramping General rules. of figures shall be avoided.

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(2) The north point on every plan shall be upwards and parallel to the sides of the plan form.

Abutting boundaries.

- 64. (1) All boundaries abutting on any parcel which has been surveyed shall be shown on the plan.
- (2) Where the parcel or parcels adjoin a surveyed road, and where the scale of plotting permits, the boundaries abutting on the other side of the road shall be shown.

Coordinate and numerical data.

- 65. (1) In every survey the co-ordinates of permanent control stations shall be tabulated on the plan.
- (2) Where boundaries of parcels have been fixed, the following additional information shall be given on the plan-
 - (a) the co-ordinates in metres of block corners of regular shaped figures and of all beacons of irregular shaped parcels shall be tabulated;
 - (b) the grid length and whole circle grid bearing of every boundary shall, when possible, be inscribed along the line to which they refer and such lengths and bearings shall be deducted from the final co-ordinates tabulated on the plan.
- (3) Co-ordinates, and lengths when required by paragraph (2) of this Regulation, shall be shown to two decimal places of a metre.

(4)

(a) The area of every parcel shall be inscribed where possible within the figures to which it refers to the degree of accuracy prescribed by Regulation 57

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of these Regulations.

- (b) Sufficient space shall be left for the parcel number to be inserted by the Commissioner of Lands and Surveys.
- (c) No parcel number shall be inserted by any surveyor.
- (5) All other data which may serve to clarify or complete any survey plan, shall be shown on the plan.
- 66. When surveys have been made by triangulation or trilateration or combination of these techniques, a chart drawn on a separate plan form shall be made showing all rays observed or measured or both. Such charts shall show a tabulated list of final co-ordinates of all permanent control points:

Triangulation charts.

Provided that it shall not be necessary to draw a separate plan where the control points have been surveyed by methods permitted in Regulation 33 (2).

67. Every survey plan shall be drawn in accordance with the requirements of the Commissioner of Lands and Surveys.

Colours and style of printing.

68. (1) Topographical features fixed by survey shall be plotted from the measurements.

Topographical features.

- (2) Topographical information may be taken from any official map published by the Commissioner of Lands and Surveys or any authority approved by the Commissioner of Lands and Surveys with due caution in regard to the limitations enjoined by the scale of the map.
- (3) Where topographical information is taken from aerial photographs, the source shall be shown on the plan.

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Erasures or correction.

- 69. (1) No erasures shall be made after a plan has been drawn in ink.
- (2) Necessary corrections shall be made by scoring through the incorrect word, letter, or numeral in ink and writing the correct word, letter or numeral outside the incorrect word, letter or numeral. Every such correction shall be initialled by the surveyor.

Certificate.

70. Every plan shall have on it a certificate in such form as the Commissioner of Lands and Surveys may require and the certificate shall be signed and dated by the surveyor who made the survey.

Authentication by Commissioner of Lands and Surveys. 71. The Commissioner of Lands and Surveys may refuse to authenticate any plan submitted by a licensed survey which, in his opinion has been drawn carelessly and untidily or is received by him in a dilapidated or damaged condition.

<u>PART VIII</u> <u>MISCELLANEOUS</u>

Public access to maps and plans.

72. (1) Any person shall have access, free of charge, to every published map and plan in the possession of the Commissioner of Lands and Surveys:

Provided that the Commissioner of Lands and Surveys or his representative may refuse access as he may deem necessary in the public interest.

27of 1995.

(2) A search fee of ten dollars per plan shall be paid in advance by any person who is not a licensed surveyor or not on Government duty, for access to any unpublished plan. The search fee may be credited against the price of any print of the plan purchased at the time of the search.

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FIRST SCHEDULE

Prescribed Forms

FORM A [Regulation 12]

Letter of Authority

In exercise of the powers conferred upon him by Regulation 12 of the Land Survey Regulations, the Commissioner of Lands and Surveys hereby authorises
Date, 2
FORM B [Regulation 13]
Certificate for Unqualified Assistants
I certify that all the work performed in the field and in the office by my assistant, Mr
Date, 2
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SECOND SCHEDULE [Regulation 14]

Fees Payable for the Authenticiation of Plans Submitted to the Commissioner of Lands and Surveys for Approval

The following fees shall be charged for the authentication of every plan submitted to the Commissioner of Lands and Surveys for approval.

For each parcel shown on the plan\$3.00 x H

(Where "H" is the square root of the area, in hectares, of the parcel):

Provided that-

27 of 1995.

- (i) fees shall be calculated to the nearest dollar with a minimum of \$20 and a maximum of \$200;
- (ii) the fee for each easement shall be \$5;
- (iii) one-half the above fees shall be charged for authenticating compiled plans;
- (iv) the Commissioner of Lands and Surveys may, at his discretion remit part or all of any fee;
- (v) no fee shall be charged for authenticating any triangulation chart, traverse chart, or any survey made for re-establishment of beacons.

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THIRD SCHEDULE [Regulations 10(3) and 14(3)]

27 of 1995.

(Rules 10 (3) and 14 (3)) Fees Chargeable for Documents Issued and Other Services Rendered by the Lands and Surveys Department.

The following fees shall be charged:

1.	<i>(i)</i>	prints of complilation plans on dyeline paper	
	(ii)	prints of large plans (30" x 30" and over) on dyeline paper \$15.00	
	(iii)	prints of smaller plans than those referred to in (ii)\$10.00	
		Provided that licensed surveyors may be granted a discount of 50% .	
2.	Photo copying computations, field notes, etc., per foolscap sheet\$10.00.		
	Provide	ed that licensed surveyors may be granted a discount of 50%.	
3.	Provisi	Provision of survey data per approved scheme\$30.0	
shall be included in the fee. Any		ed that prints of plans up to a maximum of three per scheme e included in the fee. Any additional prints in excess of this r shall be charged as in paragraph 1 above.	
4. Preparation of special plans, maps or issue of any special documents not listed in this Schedule shall be assessed by the Commissioner of Lands and Surveys.			

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CHAPTER 187

LAND SURVEYORS (LICENCE FEES) REGULATIONS

ARRANGEMENT OF REGULATIONS

- 1. Short title.
- 2. Licence fees.

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CHAPTER 187

LAND SURVEYORS (LICENCE FEES) REGULATIONS

72 of 1987. Ch. 152.

(Section 24)

[10th October, 1987.]

1. These Regulations may be cited as the

Short title.

LAND SURVEYORS (LICENCE FEES) REGULATIONS.

2. A fee of two hundred and fifty dollars shall be charged for the grant of Licence fees. a licence to practise as a land surveyor in Belize.

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