

CAYMAN ISLANDS

THE LAND SURVEYORS LAW
(No. 22 of 1971)

In exercise of the powers vested in the Governor by section 28 of the Land Surveyors Law, 1971 the following Regulations are hereby made :-

THE LAND SURVEY REGULATIONS, 1972

Part 1 - Preliminary

1. These Regulations may be cited as the Land Survey Regulations, 1972.
2. In these Regulations, except where the context otherwise requires -

"approximate" in relation to any boundary has the meaning ascribed to it in section 17 of the Registered Land Law;	Interpre- tation. Law 21 of 1971.
"fixed" in relation to any boundary has the meaning ascribed to it in section 18 of the Registered Land Law;	Law 21 of 1971.
"principal law" means the Land Surveyors Law, 1971;	Law 22 of 1971.
"registration section" has the meaning ascribed to it in the Registered Land Law;	Law 21 of 1971.
"Registry Map" has the meaning ascribed to it in the Registered Land Law; and	Law 21 of 1971.
"Board", "Chief Surveyor", "Licensed Surveyor", "Plan", "public survey", "Registered Land Law", "Registrar", "survey", and "surveyor" have the meaning ascribed to them in the principal law.	Law 22 of 1971.

PART 11

Regulations affecting all surveys
made under section 14 of the
principal law

The Land Survey Regulations 1972.

Disputes.

3. If a dispute arises between a licensed surveyor and the Chief Surveyor 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.

Units of Measurements.

4. (1) All distances shown on plans shall be in feet and decimals of a foot.

(2) All angular measurements shall be in degrees, minutes and seconds of arc.

(3) For purpose of conversion from international metres to feet, the relationship to be used shall be one international metre = 3.280840 feet, or one foot = 0.3048 international metres.

Systems of co-ordinates and Projections.

5. (1) The figure of the earth and the projection to be used in the computation of the co-ordinates of any survey shall be the Universal Transverse Mercator Projection zone 17 using the Clarke 1866 figure having elements; semi-major axis 6378206 international metres flattening 1/295.0.

(2) Where Universal Transverse Mercator co-ordinates are given in metres they shall be converted to feet using the relationship in regulation 4(3).

Maintenance of measuring instruments.

6. (1) Every licensed surveyor shall maintain his theodolite, measuring bands and all other equipment in good order, and the Chief Surveyor may refuse to authenticate any survey which has been made with defective equipment.

(2) Every measuring band, tape, thermometer and spring balance shall be submitted to the Chief Surveyor before use and thereafter not less than once in every twelve months for comparison with the official standard in the custody of the Chief Surveyor.

(3) The Chief Surveyor may at any time require any licensed surveyor to submit any measuring equipment for his inspection.

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 Chief Surveyor.

Presentation
of Surveys.

(2) It shall be the duty of every surveyor making any survey under these Regulations 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 Chief Surveyor may require, and if any surveyor forwards to the Chief Surveyor any plan, computation or connected document which does not conform substantially with the appropriate requirements, the Chief Surveyor may, at his discretion, return the plan, computation and connected documents to the surveyor and may refuse to authenticate such plan, computation or connected document until it has been made to conform with the appropriate requirements.

(5) All surveys returned to a surveyor shall be re-submitted to the Chief Surveyor without undue delay.

8. All measurements must be made in accordance with regulations 33, 34 and 37 and the Chief Surveyor may refuse to authenticate 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 Chief Surveyor may at any time depute any surveyor to check in the field any survey made under the Law by any other surveyor, and such check may include the verification of any information recorded in connection with such survey mark established under the Law 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

Information
prior to
survey.

The Land Survey Regulations 1972.

of the parcel of land to be surveyed and of any adjoining parcel.

(2) Applications to the Chief Surveyor for this information shall be in writing and shall, whenever applicable, make reference to the approval for sub-division, or other transaction.

(3) The Chief Surveyor 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 will be payable, but where the information is extracted on his behalf by the Chief Surveyor, the fee prescribed in the Fourth Schedule shall be paid.

4th
Schedule.

Prior
approval
of statutory
authorities.

11. Before submitting any survey to the Chief Surveyor, 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 16 and 18 of the principal law the Chief Surveyor shall furnish to every surveyor an official letter of authority in Form A in the First Schedule.

(2) Every surveyor shall present his letter of authority to any owner or occupier of land who demands proof that such surveyor is duly authorized to enter upon his land.

Employment
of survey
technician.

13. (1) No licensed surveyor shall employ a survey technician without the written approval of the Board:

Provided that the Chief Surveyor 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 survey technician shall be under the direction and personal control of the licensed surveyor, who shall himself carry out a sufficient check to ensure that the work done by such survey technician is correct. The licensed surveyor shall accept full personal responsibility for all work performed by his survey technician.

(4) The licensed surveyor shall supply a certificate which shall be drawn up in Form B in the First Schedule.

First
Schedule.

(5) If the Chief Surveyor finds that a survey technician has performed any work which has not been supervised and checked by the licensed surveyor he may suspend approval for the employment of the survey technician, and the case shall be referred to the Board whose decision on the matter shall be final.

14. (1) The Chief Surveyor shall charge fees for all surveys carried out by the Survey Department in accordance with the charges prescribed in the Second Schedule.

Fees
chargeable
by Chief
Surveyor.
Second
Schedule.

(2) The Chief Surveyor shall charge fees in accordance with the charges prescribed in the Third Schedule to these Regulations for the authentication under section 25 of the principal law of a plan submitted by a licensed surveyor.

Third
Schedule.
Law 22 of 1971

(3) The Chief Surveyor shall charge fees in respect of all documents issued or services rendered by the Survey Department in accordance with the charges prescribed in the Fourth Schedule.

Fourth
Schedule.

15. (1) The fees prescribed in the Fifth Schedule shall be charged by a licensed surveyor in respect of work done by him.

Fees
chargeable
by licensed
surveyors.
Fifth
Schedule.

PART 111 - Survey Marks, Boundary Beacons and Boundaries.

16. (1) The design of survey marks shall be as specified by the Chief Surveyor, 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

The Land Survey Regulations 1972.

other than a purely auxiliary station shall be permanently marked.

(3) In third order traverses as defined in regulation 37 all traverse stations shall whenever possible be permanent points.

Placement
of survey
marks.
Law 21 of
1971.

17. (1) Where the boundaries of a parcel are required to be fixed in accordance with section 18 of the Registered Land Law No. 21 of 1971, any beacons required to be placed to define accurately the boundaries of the parcel shall be of such type as the Chief Surveyor may require and shall normally be surmounted by a cairn of stones or a mound of earth.

(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.

18. (1) (a) Where a rectilinear boundary intersects a curvilinear boundary and a beacon, required by regulation 17 cannot be placed at the intersection, 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 17 (1) the distance from the line or river beacon to the actual boundary shall be measured to the precision required by regulation 66 (2).

The Land Survey Regulations 1972.

7

(3) All subdivisions of a parcel, the boundaries of which have been fixed, which is situated across a road reserve shall be fully beacons as self contained units.

(4) Where a curvilinear feature is adopted as a subdivisional boundary of a parcel, the boundaries of which have been fixed, the several subdivisions and any remainder shall be fully beacons as self contained units.

19. 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.

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

Beacons
placed
from
computed
data.

21. When the corner of a parcel, the boundaries of which are required to be fixed, falls 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.

22. 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.

23. (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.

Trigonomet-
rical 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 Chief Surveyor the name, number and position of any such station and the nature of the damage he has observed.

24. Missing beacons shall be noted in the surveyor's report (regulation 63 refers) and in order to demonstrate that he

Missing
beacons.

The Land Survey Regulations 1972.

has searched in the right place the surveyor shall furnish such measurements and observations as may be necessary.

Re-establishment of missing beacons.

25. If a surveyor is required to re-establish a missing beacon, he shall submit his field notes, computations and report to the Chief Surveyor.

Redundant beacons.

26. 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 re-establishment of boundaries.

27. (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 Chief Surveyor with a full report and shall request instructions.

PART IV - Surveys performed by Triangulation, Trilateration, Traverse and Air Surveys.

Guiding principle.

28. All licensed surveyors shall assist, as far as is consonant with efficient and economical survey, in the establishment and increase of permanent control marks of all types throughout the Islands.

The Land Survey Regulations 1972.

9

Triangulation and Trilateration

29. All geodetic and secondary triangulation and trilateration shall be carried out under the control of the Chief Surveyor, and shall normally be performed by Government Surveyors.

Geodetic and secondary triangulation.

30. (1) All new triangulation, trilateration and traverses made under regulation 37 which are of a lower general order than geodetic or secondary required to provide general control for cadastral surveys shall be brought into harmony with existing control by methods conforming with current survey practice.

Lower order triangulation.

(2) When issuing survey data for such work to a licensed surveyor, the Chief Surveyor may recommend either a particular sequence in the layout or 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 Chief Surveyor's recommendation without reasonable cause.

31. For the purpose of regulations 32 and 33, tertiary triangulation or trilateration means triangulation or trilateration established to an accuracy 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.

32. (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.

(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.

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

Method of taking triangulation observations.

Provided that two rounds observed on different

The Land Survey Regulations 1972.

faces and different zeros may be sufficient for observations to points situated less than 6,000 feet distant.

(2) An arc of angular observations for triangulation shall consist of two rounds observed in opposite directions on the same zero, one round being on face left and the other on face right.

(3) For each arc a suitable reference station shall be selected and both rounds of the arc shall be closed on to it, and the misclosure of each round 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.

34. (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 30 to 33 and the method of computation shall conform with current survey practice.

(2) Beacons may also be fixed by -

- (a) intersection, provided at least three suitable rays are observed on to the point to be 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 para-

graph shall be
tion or trilate

35. In arc
surveyor shall
as to the data

36. All ge
carried out un
shall normally

37. (1) (a)

(b)

(c)

(d)

(2) (a)

(b)

(c)

(d)

The Land Survey Regulations 1972.

graph shall be used to form the basis of further triangulation or trilateration.

35. In areas where no triangulation exists a licensed surveyor shall request instructions from the Chief Surveyor as to the datum and method of survey to be used.

Isolated
surveys.

Traverse Surveys

36. All geodetic and secondary traverses shall be carried out under the control of the Chief Surveyor and shall normally be performed by Government Surveyors.

Geodetic and
secondary
traverses.

37. (1) (a) All main control traverses shall be observed to third order standard.

Lower order
traverses.

(b) Where such lines are measured by means of a measuring band all such lines shall be double-chained.

(c) Where such lines are measured by means of electronic distance measuring equipment sufficient observations shall be taken to eliminate any ambiguities.

(d) All such field operations shall be appropriate to a standard of accuracy of not less than 1:20,000.

(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 appropriate to a standard of accuracy of 1:10,000, but computational misclosures shall be allowed to the same degree of accuracy as the datum supplied by the Chief Surveyor.

(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 Chief Surveyor, the Chief Surveyor may at his discretion authorise or instruct the

The Land Survey Regulations 1972.

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) Such 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.

Angular
Measurement
traverses.

38 (1) A theodolite permitted by regulation 32 (1) shall be used for all third order traverses where the distances are measured with electronic distance measuring equipment, or double-chained.

(2) A theodolite permitted by regulation 32 (2) shall be used for fourth order traverses.

(3) At every traverse station of third and fourth order traverses, not less than two rounds of angular measurements on different faces and different zeros shall be observed.

(4)(a) Angular measurements for subsidiary traverses, may be made either with a theodolite or a compass of approved pattern, subject to the necessity to achieve the standard of accuracy required by regulation 37.

(b) If a compass is used, both forward and back observations must be observed at each station.

(5) For all angular measurements the first round at each station shall be set, when possible, to the general orientation which is to be used throughout the survey.

(6) It is not necessary to close rounds of traverse

The Land Survey Regulations 1972.

13

observations on to a reference station.

39. (1) (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 regulation 37 (1) and (2).
- (b) Slopes shall be determined by a theodolite, with a degree of precision appropriate to the standards specified in regulation 37 (1) and (2), and where the slope is in excess of 10° 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 and, where appropriate, sag.

Linear measurement of traverses.

- (2) (c) All linear measurements of subsidiary traverses shall be measured using equipment and methods appropriate to the standards of accuracy specified in regulation 37 (3).

- (b) Slopes shall be determined by a theodolite or abney level with a degree of precision appropriate to the standards specified in regulation 37 (3).

- (c) All measurements shall be reduced to the horizontal.

40. (1) In a survey of curvilinear boundaries by tacheometric method, distances determined by staff readings shall not normally exceed 500 feet 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 150 feet shall be set out instrumentally or geometrically and the method shall be recorded in the field notes.

41. Swinging or hanging traverses unsupported by

Swinging or hanging traverses.

The Land Survey Regulations 1972.

independent checks shall not be used.

Verification
of terminals
of traverse.

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

Verification
of datum.

43. 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 observations and measurements which shall be recorded in the field notes.

AIR SURVEY.

Air
Survey.

44. Air survey methods may be employed in special cases with prior written approval of the Chief Surveyor.

PART V - Field Notes

Field Notes
to be on
special forms.

45. (1) Field notes shall be made on such forms or books as the Chief Surveyor may require.

(2) Licensed surveyors shall pay to the Chief Surveyor the cost price of any blank forms or books supplied to them by the Chief Surveyor.

Recording
of triangulation
observations.

46. (1) At each triangulation and trilateration station every surveyor shall, when taking observations, record in his field notes the date, the time, the weather conditions and degree of visibility.

(2) When it is necessary, for any reason, for a surveyor to divide his observations at any station into two sets, the second set shall incorporate at least two stations which have been observed in the first set.

Recording of
traverse
observations.

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

Description
of beacons.

48. A full description 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.

The Land Survey Regulations 1972.

15

Method of
entering
field notes.

49. (1) All observations and measurements made in the field shall be recorded clearly and legibly in hard pencil, and shall be in such manner as the Chief Surveyor may require.

(2) All entries in field notes, which are not made in the field shall be written in blue or black ink.

(3) All entries in field notes shall be indexed and referenced in such a way 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.

50. (1) In no circumstances shall any erasure be made in field notes.

Erasures and
corrections.

(2) Corrections shall be made by drawing a thin line through the erroneous entry so as to leave 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.

51. (1) The letters names or numerals, by which any beacon or survey mark is described in field notes shall be written in roman script.

Nomenclature.

(2) In choosing suitable descriptions, surveyors shall take care to avoid nomenclature which is likely to lead to confusion and the letters I, O, S, and Z shall not be used except in pronounceable words.

52. (1) The cover page of field notes forms or the cover of field notes books shall contain such information as the Chief Surveyor may require.

Cover page
and index.

(2) This information shall include the standard temperature and tension for the measuring band used in the survey and where measurements have been made in catenary the weight per 100 ft. 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 page.

Unorthodox
methods.

53. 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.

Topographical
features.

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

(2) All developments on any plot such as buildings, wells, boreholes shall be surveyed. Any other development such as pipelines, which in the surveyor's opinion may involve a question of easement, right of way or any prescriptive rights shall also be surveyed.

PART VI - Computations.

Computations
to be on
special
forms.

55. (1) Computations shall be made on such forms as the Chief Surveyor may require.

(2) Licensed surveyors shall pay to the Chief Surveyor the cost price of any blank forms supplied to them by the Chief Surveyor.

Method of
entering
computations.

56. 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:

Provided that red ink shall be reserved for the use of the Chief Surveyor.

Triangulation
and
trilateration.

57. Surveys carried out by triangulation or trilateration shall normally be set out and computed by the Direction Method, or in conformity with any other current standard survey method.

Traverses.

58. (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 bearings, the bearing misclosure and the consequent adjustment of bearings.

The Land Survey Regulations, 1972

27

(2) The positional misclosure, its distribution through the traverse, and finally adjusted values of all traverse points shall be demonstrated in conformity with current standard survey practice.

59. Before any surveyor forwards any computations to the Chief Surveyor 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.

Independent checks to be made.

60. (1) The rectilinear areas of parcels, the boundaries of which have been fixed, shall be computed mathematically.

Method of computing areas.

(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. 65.

(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.

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

Method of measuring areas.

62. Areas shall normally be calculated to the degree of accuracy specified in the following table -

Degree of accuracy of calculating areas.

Decimal places of an Acre		
	Fixed boundaries	Approximate boundaries.
Parcels not more than 1 acre	4	2
Over 1 acre and not more than 5	3	2
Over 5 acres and not more than 25	2	1

The Land Survey Regulations 1972.

Over 25 acres and not more than 100	1	Nearest acre
Over 100 acres	Nearest acre	Nearest acre.

Presentation
of
computation.

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

- (a) a report; and
- (b) a general index to the computations; and
- (c) a complete list of final co-ordinates 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.

64. (1) All plans shall be drawn in waterproof inks on such plan forms as the Chief Surveyor may require.

(2) Licensed surveyors shall pay to the Chief Surveyor the cost price of any plan forms supplied to them by the Chief Surveyor.

Scales to
be used.

65. 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 Chief Surveyor may require.

Plotting of
curvilinear
boundaries.

66. (1) Where the consent of the Chief Surveyor has been obtained for the adoption of an existing survey of a curvilinear boundary, the surveyor shall -

- (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 18 (1) is applicable, the distance from each line or river beacon to the intersection shall be shown to the nearest foot, but the distances between successive beacons along the rectilinear boundary shall be shown to the degree of precision required by regulation 70 (3)

(3) Where a curvilinear boundary of a parcel has been fixed, such curvilinear boundary shall be distinctively described.

67. (1) All plans shall be plotted by rectangular co-ordinates.

Plotting by
co-ordinates.

(2) A plotting grid of squares covering the surveyed area shall be drawn in blue such that grid line values shall be at intervals of 500 feet or even multiples of 500 feet.

(3) Every plan shall contain at least one complete grid square and no square shall have sides exceeding 8 inches in length.

68. (1) All detail shown on the plan shall be distinct and the cramping of figures shall be avoided.

General
rules.

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

69. (1) All boundaries abutting on any parcel which has been surveyed shall be shown on the plan.

Abutting
boundaries.

(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.

70. (1) In every survey the co-ordinates of permanent control stations shall be tabulated on the plan.

Co-ordinates
and
numerical
data.

(2) Where boundaries of parcels have been fixed, the following additional information shall be given on the plan -

- (a) the co-ordinates of block corners of regular shaped figures and of all beacons of irregular shaped parcels shall be tabulated;
- (b) the length and bearing of every boundary shall, when possible, be inscribed along the line to which they refer and such lengths and bearings shall be deduced 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 one decimal place of a foot.

(4) (a) The area of every parcel shall be inscribed where possible within the figure to which it refers to the degree of accuracy prescribed by regulation 62 of these Regulations.

(b) Sufficient space shall be left for the parcel number to be inserted by the Chief Surveyor.

(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.

Tringulation
charts.

71. When surveys have been made by triangulation or trilateration or a 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;

Provided that it shall not be necessary to draw a separate plan where the control points have been surveyed by methods permitted in regulation 34 (2).

Colours and
style of
printing.

72. Every survey plan shall be drawn in accordance with the requirements of the Chief Surveyor, in respect of colours style of printing and other details.

Topographical
features.

73. (1) All topographical features that have been accurately fixed by survey, or have been sketched with reasonable precision, in accordance with regulation 54 (1), shall be shown in their correct plotted positions on the plan.

(2) When form lines added nothing of significant

value to the plan, they shall not be shown.

(3) Topographical information may be taken from any official map published by the Chief Surveyor or any authority approved by the Chief Surveyor with due caution in regard to the limitations enjoined by the scale of the map.

(4) Where topographical information is taken from aerial photographs, the source shall be shown on the plan.

74. (1) No erasures shall be made after a plan has been drawn in ink.

Erasures or
corrections.

(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.

75. Every plan shall have on it a certificate in such form as the Chief Surveyor may require and the certificate shall be signed and dated by the surveyor who made the survey.

Certificate.

76. The Chief Surveyor may refuse to authenticate any plan submitted by a licensed surveyor which, in his opinion, has been drawn carelessly and untidily, or is received by him in a dilapidated or damaged condition.

Authentication
by Chief
Surveyor.

PART VIII - Miscellaneous

77. (1) Any person shall have access, free of charge, to every published map and plan in the possession of the Chief Surveyor:

Public
access to
maps and
plans.

Provided that the Chief Surveyor or his representative may refuse access as he may deem necessary in the public interest.

(2) A search fee of one dollar 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.

The Land Survey Regulations 1972.

LAND SURVEY REGULATIONS, 1972.

FIRST SCHEDULE

(Regulations 12 & 13)

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, 1972 the Chief Surveyor hereby authorises

.....
(name and designation of person authorised) to enter upon any land to perform any duty which he is required to perform under the Land Surveyors Law, 1971.

Date 19
(Chief Surveyor)

Note the relevant sections 16, 18 and 20 of the Land Surveyors Law, 1971 are printed, for general information, on the back of this Letter of Authority.

FORM B (Regulation 13)

Certificate for Survey Technicians

I certify that all the work performed in the field and in the office by my survey technician Mr.
..... has been carried out under my personal direction, and I take full responsibility for all work so performed.

Dated 19
(Licensed Surveyor)

F
m

LAND SURVEY REGULATIONS, 1972

SECOND SCHEDULE

(Regulation 14)

ees payable for Surveys Executed by the Survey Department

1. For surveys for alienation and first registration of any Crown land, fees shall be assessed in accordance with the following formula -

For each parcel of land \$100 A
(where "A" is the square root of the area in acres of the parcel) together with any expenses incurred. Provided that the fees shall be computed to the nearest \$10 and the minimum fee shall be \$100.

2. For surveys for the fixing of boundaries under section 18 of the Registered Land Law, 1971 fees shall be assessed in accordance with the Fifth Schedule to these Regulations.
3. For mutation surveys, fees shall be assessed in accordance with the following provisions -

- (a) Where the registered owner of a parcel, the boundaries of which have not been fixed, has demarcated the mutation on the ground -

(For each parcel of land to be transferred
..... \$25 A)

(Where "A" is the square root of the area in acres of the parcel) together with any expenses incurred. Provided that the fees shall be computed to the nearest \$5 and the minimum fee shall be \$25.

- (b) Where the registered owner of a parcel, the boundaries of which have not been fixed, requires a specific area to be surveyed for transfer and in all cases where the boundaries of the parcel have been fixed, fees shall be

The Land Survey Regulations 1972.

assessed in accordance with the Fifth Schedule to those Regulations.

4. In any other case survey fees shall be assessed by the Chief Surveyor.
5. The Chief Surveyor may, at his discretion, remit part or all of any fee.

THE LAND SURVEY REGULATIONS, 1972.

THIRD SCHEDULE

(Regulation 14)

Fees payable for the authentication of plans submitted to the Chief Surveyor for approval.

The following fees will be charged for the authentication of every plan submitted to the Chief Surveyor for approval -

For each parcel shown on the plan
\$1 A (where "A" is the square root of the area, in acres, of the parcel)
Provided that -

- (i) fees shall be calculated to the nearest \$1 with a minimum of \$5 and a maximum of \$100;
- (ii) the fee for each easement shall be \$5;
- (iii) one-half the above fees shall be charged for authenticating compiled plans;
- (iv) the Chief Surveyor may, at his discretion remit part or all of any fee;
- (v) no fee shall be charged for authenticating of any triangulation chart, traverse chart, or any survey made for re-establishment of beacons.

THE LAND SURVEY REGULATIONS, 1972

FOURTH SCHEDULE

(Regulation 14)

Fees chargeable for documents issued and other services

rendered by the Survey Department

The following fees shall be charged -

1. Prints of survey plans on dyeline paper - \$1 each
Provided that licensed surveyors may be granted a discount of 40%.
2. Photo copying computation, field notes etc.
per foolscap sheet - 75 cts. each
3. Provision of survey data per approved scheme:
- \$10

Provided that prints of plans up to a maximum of three per scheme shall be included in the fee. Any additional prints in excess of this number shall be charged as in para 1 above.

4. For amendments made to the registry map.
(For each parcel) - \$2
5. Fees for preparation of special plans, maps or issue of any special documents not listed in this Schedule shall be assessed by the Chief Surveyor.

THE LAND SURVEY REGULATIONS, 1972.

FIFTH SCHEDULE

(Regulation 15)

SCALE OF FEES CHARGEABLE BY LICENSED LAND SURVEYORS

In this Schedule, except where the context otherwise requires -

Interpretation.

"basic charge" means a charge designed to cover the cost of investigation of survey records, the collection of survey data, and the clarification of the position in regard to the title and survey;

"hilly", in relation to land means that the average slope exceeds 5 degrees;

"topographical charge" means a charge designed to cover additional cost of surveys carried out in inaccessible areas;

The Land Survey Regulations 1972.

"value" means the value of the land to determine the basic charge in paragraph 7. It shall be an estimate of the unimproved value resulting from the survey;

"urban survey" means a survey of any land into plots for residential, commercial or industrial purposes;

"rural survey" means a survey of land not included in the definition of an urban survey.

Method of
Payment.

2. (1) (a) The charges prescribed in this Schedule shall be payable as to 75 per cent of the cost on completion of the survey and the plan being deposited with the Chief Surveyor, and the remaining 25 per cent shall be payable when the survey has been approved of by the Chief Surveyor;

Provided that when accepting a survey commission a surveyor may require the payment of a deposit against the eventual charges to be raised in connexion with the survey.

- (b) In cases where no plan is necessary the full charge shall be payable on completion of the field survey.

(2) In large surveys, the surveyor shall be entitled to progress payment at monthly intervals throughout the period of the survey, and such payment shall be at the rate of 75 per cent of the value of the work done, and shall be computed in accordance with the appropriate scale prescribed in this Schedule.

(2) When a surveyor is unable, owing to his client's instructions, to complete either the survey or the plan, he shall be entitled to payment of the full value of the work completed.

Inclusive
charges.

3. Except where otherwise stated, the charges prescribed in the Schedule include charges for :

a
a
e
n

c
c
q
n

P
n
i
h

ti
f

s
a

w
h
s

- (a) The plan of the survey, together with the field notes, computations and other information required by these Regulations, but do not include any triangulation and for trilateration charges referred to in paragraph 6 of this Schedule; and
- (b) the cost of all labour and materials, but do not include the cost of boundary marks and survey marks which shall be charged for as prescribed in paragraph 8 (6) of the Schedule.

4. (1) A charge of \$20.00 shall be made for drafting a scheme plan required for approval under the Development and Planning Law 1971, increased by \$1.00 for each lot or easement shown thereon. Each 500 feet or part thereof of new road within a scheme plan shall be deemed a lot.

Charges for
supplement-
ary plans
and copies
of plans.

Law 28 of
1971.

(2) Photostat copies, or transparencies or prints of tracings from plans prepared for statutory requirements or regulation or Court requirements or order, or at the request of the client, shall be charged at cost of labour and materials plus 100%.

5. (1) The surveyor shall be entitled to recover transport and travelling charges at the rate of 20¢ per mile for necessary journeys incurred in the survey when travelling in his own transport, plus a time rate of 10¢ per mile travelled to cover the professional time of the Surveyor.

Travelling
and sub-
sistence
allowances.

(2) When a journey is made by other means, the transport and travelling charge shall be the cost of the fares, plus a time rate of 10¢ per mile travelled.

(3) The surveyor shall be entitled to reasonable subsistence allowance and hotel, camp, or other accommodation expenses.

6. (1) Charges on time basis shall only be made when the conditions are such that the other rates set out herein are inapplicable: Provided, however, that charges shall be on a time basis in the following instances:-

Charges on
a time
basis.

- (a) the preparation of plans from existing records where no field mark is required.

The Land Survey Regulations 1972.

- (b) Interviews with officials of Government Departments.
- (c) Work involved when the client changes his scheme or layout after the survey has commenced.
- (d) The location and verification of control points and beacons and surveys to re-establish beacons, such surveys not amounting to complete resurvey.
- (e) Work required and not otherwise covered in the scale.

(2) Where fees are on a time basis the arrangement should be confirmed between the surveyor and the client.

(3) On a time basis the rate for a licensed Surveyor should be in the range of \$8.00 - \$14.00 per hour dependent on the skill and experience of the Surveyor. The hourly rate may be increased where the Surveyor is required to advise on matters of exceptional importance, or where the work calls for a special degree of skill or responsibility, or where the surveyor employs special equipment.

(4) On a time basis the rate for a survey technician shall be an hourly rate equalling twice his annual salary based on working year of 1540 hours. The rate may be increased for work calling for a special degree of skill or responsibility, but shall not exceed the minimum rate in the sub-paragraph (3) of this paragraph.

(5) The cost of labour, materials, and travelling charges, and subsistence and accommodation allowances, shall be added to the fee prescribed in sub-paragraphs (3) and (4) of this paragraph.

Basic
charge.

7. The basic charge for the appropriate type of survey shall be assessed on the value of the land in the case of urban surveys and on the area of land in the case of rural surveys and shall be as follows -

- (1) Urban Surveys -
On land value up to \$5,000: \$60

The Land Survey Regulations 1972.

29

Add \$10 for each \$500 in excess
of \$5,000 up to an including
\$10,000 - making \$10,000 \$160
Add \$5 for each \$500 in excess
of \$10,000 up to a maximum
charge of \$300

- (2) Rural Surveys -
For the first 50 acres minimum
charge: \$100
For the next 50 acres or part
thereof: \$40
For the next 100 acres or
part thereof: \$40
For each additional 100 acres
or part thereof: \$30
Maximum charge: \$300"

8. To the appropriate charge as determined under
paragraph 7 shall be added the following charges as
appropriate.

Traversing
charges.

- (1) For all traverse lines required in terms of
the appropriate regulations, including
necessary connections to control, and other
survey marks, including such traverses as are
required to establish new internal boundaries,
shall be charged at the following rates:

- (a) Third order traverse, for
every 100 ft. surveyed \$2.50
(b) fourth order traverse
for every 100 ft. surveyed \$2.00
(c) compass traverse, for every
100 ft. surveyed \$1.50
(d) where tachymetric connections
or offsets to a curvilinear boundary
are required the charge shall be
\$2.00 for every 100 ft. and shall
be added to the traversing charge.

- (2) The lot charges for the survey of each lot

Lot charges.

The Land Survey Regulations 1972.
shall be as follows:-

(a) not exceeding $\frac{1}{4}$ acre and up to 10 lots	\$15.00
over 10 lots	\$12.00
(b) exceeding $\frac{1}{4}$ acre and up to 1 acre	\$20.00
up to 10 lots	\$16.00
over 10 lots	
(c) exceeding 1 acre and up to 5 acres	\$25.00
up to 10 lots	\$20.00
over 10 lots	
(d) exceeding 5 acres and up to 20 acres	\$30.00
up to 10 lots	\$24.00
over 10 lots	\$35.00
(e) exceeding 20 acres	
(f) for new roads within the survey each 500 ft. or part thereof shall be deemed to be a lot, as in (b) above.	

Topographical charge.

(3) Where a topographical charge is payable, the traversing and lot charge shall be increased by the following percentages.

(a) where the area is predominantly of swamp, cliff rock or is hilly 10 per cent

(b) where the area is inaccessible 25 per cent

Cutting and clearing charge.

(4) The cost of cutting and clearing shall be based on the time basis charges in paragraph 6., provided that where extra labour is employed for the work the charge shall be cost plus 50%.

Beacon placing/fixing charge.

(5) For each old beacon fixed on the survey and new beacons placed in predetermined positions the charge shall be \$3.00

Beaconing charge.

(6) The beaconing charge shall be in addition to the fees set out hereintofore in this paragraph payable at the following rates:

The Land Survey Regulations 1972.

31

- | | |
|---|--------|
| (a) every iron pin set in
concrete underground | \$3.00 |
| (b) every iron pin set in
concrete | \$2.00 |

Provided that where excavation of coral or other rock is made for the proper erection of any survey beacon an addition charge of \$2.00 per beacon may be made.

(7) (a) There shall be a charge of \$2.50 for each boundary line used in the mathematical computation of the area of each lot, the area of which is to be shown on the plan. In the case of abutting lots the common boundary shall be charged only once.

Area Charge.

(b) In the case of figures of uniform width bounded by parallel sides the charge shall be \$1.00 or for each continuous length of 200 ft. or part thereof.

(c) For the determination of any area by planimeter or for each any area to be added to a mathematically computed area an addition of \$5.00 shall be charged.

Special
charges.

9. Notwithstanding any provision to the contrary in this Schedule, a licensed surveyor may, with the prior written agreement and approval of the Chief Surveyor, depart from the prescribed charges in cases where peculiar or special circumstances appear to warrant such a departure.

10. Any charges levied by Government under Schedule 3, shall be added to the total of other charges.

Charges to
Government.

Made in Council this 5th day of September, 1972.

JANICE E. WATLER.

Clerk of the Executive Council.

Government Notice 187 of 1972.
Date of Operation 16th October, 1972.