

REGULATIONS

Made Under

LAND SURVEYORS ACT 2010

(Act No. ___ of 2010)

IN THE EXERCISE OF THE POWERS CONFERRED UPON ME BY SECTION 42 OF THE LAND SURVEYORS ACT 2010, I MAKE THE FOLLOWING REGULATIONS –

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PART I
PRELIMINARY

Citation. 1. These regulations may be cited as the Land Surveying Regulations
2010.

Interpretation. 2. In these regulations –
 “content” in relation to land shown on a survey plan, includes
 permanent structures, features, cemeteries and graves,
 utility poles and other fixtures.

PART II
NATIONAL CONTROL SYSTEM

Basis of national control system. 3. (1) The national control survey system is based on the International Spheroid 1924, and the datum is the Provisional South American Datum (PSAD) 1956.

(2) Elevation shall be based on Georgetown Datum or Chart Datum, except where the Commissioner otherwise directs.

Calculation of co-ordinates. 4. Co-ordinates shall be calculated by reference to the grid on the Universal Transverse Mercator (UTM) projection (Zones 20 or 21).

Co-ordinates by
GPS techniques.

5. When paals are co-ordinated by means of GPS techniques, sufficient GPS vectors shall be measured to determine the local relationship between the GPS reference datum and the national control survey reference datum by connection to at least three suitably positioned stations fixed on the national control system, unless this relationship has been previously accurately determined.

PART III

GENERAL REQUIREMENTS

Use of existing
information.

6. When a survey is part of an original title deed the survey must be tied to the original corner of the survey referred to in the title.

Minimum
requirements for
determining the
position of a
point.

7. The minimum requirements for the determination of the position of a point are, when the position of the point –

- (a) is fixed by traversing between two known points, observations shall be taken at both known points, unless the orientation is otherwise adequately checked;
- (b) is determined by intersection or trilateration, the angle at the vertex of any triangle used in such determination shall not be less than 30 degrees nor greater than 150 degrees;
- (c) is determined by a single triangle only, observations shall be made at all three points;

- (d) is determined by GPS, at least two known points or two independent vectors shall be used; and
- (e) is determined by photogrammetric methods, it shall –
 - (i) fall wholly within the perimeter of the ground control points; and
 - (ii) be positively identified on the photographs.

Reserves along navigable rivers and creeks.

8. (1) There shall be a reserve, twenty metres or sixty-six feet wide, across the façade of every parcel of land bounded by a river or navigable creek landward from the top edge of the river or navigable creek, for the provision of a right of way and the conservation of the natural vegetation.

(2) The owners of any land bounded by a river or navigable creek shall enjoy riparian rights, notwithstanding that, by reason of the provisions of subsection (1), the façade of that land is not contiguous with the bank of that river or navigable creek.

Road reserves.

Cap. 51:01
Cap. 62:03

9. (1) Where no provision has been made under the Roads Act or the Public Lands (Private Roads) Act, concerning the width for the road reserve, a width of ten metres on either side of the centre line of the general alignment of the road shall be reserved as the right of way.

(2) All encroachments on road reserves shall be shown on survey

plans.

Survey of natural boundaries.

10. (1) When boundaries follow natural features such as creeks they shall be surveyed so that the straight line joining adjacent survey points shall not be displaced from the natural boundary by more than 3 millimetres (one tenth of an inch) on the scale adopted for the plan.

(2) Natural boundaries may be plotted from suitable aerial photographs or topographic maps in which case this shall be stated on the plan and the method shall be described in the report.

PART IV

ACCURACY OF SURVEYS

Classification of surveys.

11. (1) The accuracy with which surveys shall be carried out shall be determined on the principle that surveys in areas of high land value should be more accurate than surveys in areas of lower land value.

First Schedule

(2) For the purposes of this Part, surveys shall be classified as shown in the First Schedule.

Perimeter misclosure.

12. (1) The accuracy of a survey shall be tested by traverse perimeter misclosure or by comparison with coordinated control points at the

beginning and end of a traverse.

- (2) In the case of a traverse, the misclosure shall not exceed –
- (a) for a survey in Class A, 1:10,000;
 - (b) for a survey in Class B, 1:5,000; and
 - (c) for a survey in Class C, 1:1,000.

Measurements
from paals in
urban areas.

13. When the position of a paal in an urban area is checked by the measurement of distances from adjacent paals, the difference between a single measured distance and the adopted final distance shall not exceed 0.05 metres.

PART V

SURVEY RECORDS

Scope of survey
records.

14. The survey records referred to in the Act shall comprise –

- (a) copies of –
 - (i) instructions to survey;
 - (ii) any statutory approval which is required for the subdivision of land; and
 - (iii) each notice served relating to the survey, if applicable;
- (b) a comprehensive report on the survey and on matters

- incidental thereto;
- (c) an abstract of field and office records from which positions of paals were established, including survey calculations and co-ordinates;
 - (d) a sketch or diagram (not necessarily to scale) illustrating the survey station occupied, and lines and angles and any other measurements made to paals and other points during the course of the survey.
 - (e) data comparison, which shall include –
 - (i) data derived from the survey observations;
 - (ii) data obtained or deduced from surveys of the original and adjoining properties; and
 - (iii) data finally adopted for the survey;
 - (f) calculations to demonstrate that the numerical data recorded on the survey plan is numerically consistent within the limits specified in regulation 22(3);
 - (g) a signed and dated certificate listing the submitted records, and confirming that these records comprise the records of a survey completed in accordance with the provisions of the Land Surveyors Act 2010.

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Information
recorded on
plan.

15. A land surveyor may exclude from the survey record any information which appears on the survey plan lodged with the Commission

in accordance with the Act.

PART VI

BOUNDARY MARKS

Specification
for paals.

16. (1) Except as provided in sub-regulation (2), boundary marks or paals shall be established as follows –

- (a) in every survey at least one paal placed at a corner point shall consist of an iron paal, iron rod or pipe of at least eighteen millimetres (three quarter inch) in diameter and at least one metre (three and a quarter feet) in length, sunk at least zero decimal six of a metre (two feet) into the ground, and set in at least a three hundred millimetre (one foot) concrete cube; where prefabricated iron or concrete paals of similar dimension are used, these shall also be set in three hundred millimetre concrete cubes.
- (b) all the main paals placed at the corners of a block in a subdivision survey shall also be constructed in accordance with the specification set out in paragraph (a);
- (c) other paals may comprise greenheart wood posts of not less than one metre (three and one quarter feet) in

length and not less than fifty millimetres (two inches) by seventy-five millimetres (three inches) in width, sunk at least zero decimal six of a metre (two feet) into the ground and well rammed; and

- (d) all paals shall be marked with the initials of the land surveyor executing the survey, in the manner recorded when the land surveyor was registered under the Land Surveyors (Profession) Act 2010.

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(2) Exceptions to the requirement of subregulation (1) are as follows –

- (a) when it is not possible to plant a paal into the ground, the corner point shall be defined by a hole of sufficient depth drilled or bored into the obstructing rock, pavement or structure;
- (b) when a corner point of land being surveyed is occupied by a post which forms part of a properly erected fence that fence post may be adopted as a paal;
- (c) when a corner point coincides with the corner of a permanent building, such corner shall be adopted as a paal; and
- (d) when the corner point coincides with the position of a large tree, the tree may be marked with an iron bolt or similar device and blazed.

(3) A trigonometrical station shall not be used as a corner or boundary paal.

(4) A land surveyor shall report any departure from the prescribed types of paal to the Commission.

Position of
paals.

17. (1) On straight boundary lines, direction paals shall be placed no more than two hundred metres (six hundred and sixty feet) from corner points, in such a way that there is a clear line of sight back to the corner point, and additional paals shall be placed on the boundary lines so that the paals shall be not more than three hundred metres (one thousand feet) apart.

(2) Where a straight boundary line intersects another boundary line, a paal shall be placed at the point of intersection, except that, if the other boundary line is the bank or centre of a creek, the paal shall be placed on the straight boundary line at a convenient distance from where it intersects the creek bank in such a manner that the straight boundary line is well defined.

Reference to
identifiable
physical
features.

18. (1) A land surveyor shall record on the plan –

- (a) the measurements to nearby and easily identifiable physical features that will assist in the subsequent location of a paal;

- (b) the survey ties made to existing surveys listing the plan number and date, the name of the land surveyor and the type of survey marks found.

(2) The land surveyor shall make ties to any existing coordinate system identifying the marks found.

Clearance of boundary lines.

19. Boundary lines shall also be marked by a clearing, parallel to and on either side of the boundary line, of a width to be determined by the owner or occupier of the land.

PART VII

SURVEY PLANS

Format of plans.

20. A plan lodged with the Commission for recording shall be prepared in accordance with the following requirements –

- (a) the plan shall be prepared in black ink of indelible quality on one or more sheets of durable transparent material with the following dimensions –

- (i) a minimum size of two hundred and seventy-five millimetres by four hundred and twenty-five millimetres (eleven inches by seventeen inches);
and

- (ii) a maximum size of eight hundred and eleven millimetres by eleven hundred millimetres (thirty-one inches by forty-three inches);
- (b) if the layout of the pieces of land is depicted on more than one sheet –
 - (i) each sheet shall contain a key plan indicating the adjacent sheet number;
 - (ii) each sheet shall be numbered and all the sheets of a survey shall be simultaneously submitted;
- (c) the requirements of paragraphs (a) and (b) may be relaxed with the prior written approval of the Commissioner;
- (d) a plan shall have margins, which shall be left free of any written drawing of a width of fifty millimetres (two inches) along the binding margin and thirty millimetres (one and one-quarter inches) along the other sides;
- (e) every parcel of land shown on a plan shall be represented by a figure plotted to a standard scale, save and except where the longer boundaries are parallel and exceed four thousand feet, two scales may be applied;
- (f) when paals are in such close proximity to each other that their relative positions cannot be clearly shown, they shall be represented on an insert.

Matters to be shown on plans.

21. (1) A plan shall contain, using such symbols and legend as are necessary, a clear and concise description of each paal, and of each survey control point appearing on the plan.

(2) The content of the parcel of land shall be shown on a survey plan.

(3) All servitudes, right-of-ways and easements, and the courses of utility lines shall be shown clearly on survey plans.

(4) The positions and legal descriptions of contiguous properties shall be indicated on a plan.

(5) Features such as buildings, rivers, channels and roads shall be represented on plans, annotated with names and direction information.

(6) The direction of the meridian or true north as well as that of magnetic north shall be indicated on each plan.

(7) The scale of the plan will be indicated by a representative fraction, and by a scale bar annotated in both metres and feet, and by words giving the distance in metres and feet represented respectively by one centimetre and in brackets by one inch.

(8) A plan may contain a location sketch, which need not be drawn to scale.

(9) The designation of the figure, including reference to the county, peoples co-operative unit, location, plantation, portion and lot, where applicable shall be recorded on a plan.

(10) The name of the party at whose instance the survey was made shall be recorded on a plan.

Numerical data
to be recorded on
plans.

22. (1) The following numerical data shall be recorded on a plan –

(a) co-ordinates, as may be specified by the Commissioner, of every permanent mark used in the survey as indicated in the survey calculations submitted with the survey records, which shall be shown in a table drawn on the plan showing the number or name and the Eastings and Northings UTM co-ordinate, zone 20 or 21, values of each point, expressed in metres to two decimal places;

(b) horizontal lengths of the sides of rectilinear figure, which when shown in –

(i) metres shall be expressed to two decimal places;

and

(ii) feet shall be expressed to one decimal place;

- (c) bearings or angles of direction from UTM grid north of all sides, expressed to the nearest second, except that –
- (i) the direction of all lines less than one thousand metres in length shall be expressed to the nearest ten seconds;
 - (ii) the value of the direction of a line shall be recorded within the figure so as to represent the sequential direction of such side; and
 - (iii) when the sides of two or more adjoining lots in a block are parallel, it shall only be necessary to record the directions of the first and last of such parallel sides;
- (d) areas of parcels that are the subject of the survey, which shall be expressed in square metres to the nearest square metre when the area is less than one hectare, or in hectares to four decimal places if the area is equal to or greater than one hectare, and, where acreage is given in parenthesis, parcels areas shall be expressed in acres to three decimal places, except that, with the prior approval of the Commissioner in writing, the area of large parcels may be expressed to fewer decimal places or, where the area exceeds one thousand hectares, in square kilometres (with square miles in parenthesis);

- (e) widths of roads and drainage and irrigation channels, when uniform, which shall be recorded within the figure representing the road or channel;
- (f) any data as may be necessary to define the limits of a figure representing an easement or servitude;
- (g) any connecting data as may be necessary to ensure that the figure represented on the plan can be uniquely identified in relation to surrounding properties and physical features and to demonstrate that correct alignment of paals has been established.

(2) The Commissioner may in exceptional circumstances and subject to such conditions as he may deem necessary, relax any of the requirements of sub-regulation (1).

(3) The numerical data recorded on a plan shall be numerically consistent within the following limits –

- (a) the closure of a data traverse computed round a rectilinear figure shall not exceed –

$$\frac{0.02 + P\sqrt{n} \text{ metres}}{500,000}$$

- (b) the inconsistency in the area of a rectilinear figure as computed from its sides and angles, or directions,

shall not exceed –

$$\frac{0.04 + P^2\sqrt{n} \text{ square metres}}{500,000}$$

Where “P” represents the perimeter in meters and “n” represents the number of sides of a rectilinear figure.

Memorandum on plans.

23. (1) A plan shall include a signed memorandum containing the following particulars –

- (a) the date of commencement and completion of survey;
- (b) a statement indicating the legal ownership of the land being surveyed;
- (c) the names of the parties, if any, interested in the survey who were served with notices of intended survey;
- (d) the names of those persons or their representatives or others who attended the survey;
- (e) the grounds of objection, if any, to the survey;
- (f) the grounds of the land surveyor’s decision;
- (g) reference to other survey plans used during the course of the survey, which shall include the plan number, date of plan, land surveyor’s name and use made of the plan;
- (h) references to research conducted by the land surveyor,

including relevant names, locations and conclusions;

- (i) where applicable, the reason why the land surveyor's previous plan is being superseded;
- (j) a report of any significant variation in distances and bearings from the plan on which title is based.
- (k) a statement indicating the purpose of the survey.

(2) Where the plan is accompanied by an affidavit sworn by the land surveyor, in which the land surveyor deposes to the matters set out in sub-regulation (1), the Commissioner may waive the requirements of that sub-regulation.

Signing and
sealing of plans
by land
surveyor.

24. (1) A land surveyor shall sign and date his plan and, where the plan is shown on more than one sheet, he shall sign and date each sheet.

(2) The land surveyor shall also record his name in script together with his registration number on the plan.

(3) A land surveyor shall not seal a plan until it has been recorded by the Commission and certified accordingly.

PART VIII
CHECKS

Check of
equipment.

25. The Commissioner may at any time require any land surveyor to submit any measuring equipment for inspection, and may refuse to approve any survey which has been made with defective equipment.

Check of
surveys.

26. When checking a plan in accordance with the requirements of the Act, the Commissioner may –

- (a) request any land surveyor to amend or correct any mistake or omission on the plan or survey records;
- (b) invite the land surveyor to comment or explain on any apparent discrepancy or ambiguity on the plan or survey records.
- (c) following the comments or explanations, request the land surveyor to make additional survey observations or submit additional information, and the land surveyor shall comply with all requests within thirty days, unless otherwise agreed by the Commissioner.

PART IX

ACCESS TO INFORMATION

Inspection of plans and survey records.

27. (1) A land surveyor who wishes to ascertain whether a plan of any area or parcel of land has been recorded by the Commission under section 5 of the Act may consult the card index to the Commission's survey records free of charge.

(2) A land surveyor who desires to inspect any plan among the survey records of the Commission shall be permitted to do so and take any notes and make any sketch or tracing of the whole or any part of the plan, in the prescribed area of the head office of the Commission.

(3) When inspecting or tracing a plan, a land surveyor shall use the greatest care that no damage is caused to the plan and shall not, under any pretext whatever, make any additions, alterations or erasures on the plan.

Obtaining copies of plans and survey records.

28. (1) A land surveyor who wishes to obtain a photocopy of a plan of any area or parcel of land shall, on payment of the prescribed fee, apply to an authorised officer of the Commission for a photocopy of the plan.

(2) Where it is necessary for a plan to be taken off the premises of the Commission for the purpose of photocopying, this shall be done by an

authorised officer of the Commission and a land surveyor shall not be allowed to take a plan out of the offices of the Commission.

PART X

ADMINISTRATIVE FEES & CHARGES

Fees and charges
payable to
Commission

Second
Schedule

29. (1) The fees and other sums chargeable by the Commission under the Act and these regulations in respect of the matters set out in the Second Schedule shall be payable in the amounts specified in that Schedule.

(2) Where the Commissioner sees fit, payment of a part or the whole of any fee may be waived by the Commission.

(3) A person shall not pay any fee or other sum to any officer or employee of the Commission without receiving proof of payment in the form of an official receipt from the Commission.

CLASSIFICATION OF SURVEYS

{PRIVATE} CLASS SURVEY	TYPE OF AREA
Class A	Municipalities and other urbanised areas
Class B	Villages Agricultural land in the Coastlands or land for mining
Class C	Forestry Concessions Grazing land leases

ADMINISTRATIVE FEES & CHARGES

Fees for checking, recording and certification of plans.

1. Fees payable for the checking, recording and certification of plans lodged with the Commission for the time being are –

(a) For an ordinary plan: \$4,000

(b) For a complex plan: \$7,000 – \$25,000

Cost depends on the number of lots

(at the discretion of the Commissioner)

Copies of plans and documents.

2. Fees payable for the inspection and certification of plans and other documents and other services rendered by the Lands and Surveys Commission for the time being are –

(a) inspecting and searching records for the Commission \$500

(b) photocopies of plans \$1500 – \$8000

Plus actual costs of making copies commercially

(where applicable)

Cost depends on size of plan

- (c) photocopies of reports, field notes, calculations
(per 8½ x 11 inch or “Letter” size sheet) \$300
- (d) to certify a copy of a plan or survey record
by affixation of Commissioner’s seal and signature \$1000
- (e) to provide a certified copy of a lease
(without a diagram) \$4,000
- (f) to provide a certified copy of a lease
(including a diagram depicting the parcel) \$6,000

Other matters. 3. In any other case, the fee assessed by the Commissioner.

Made this _____ day of _____, 2010

Commissioner of Lands and Surveys

EXPLANATORY MEMORANDUM

Part I (Preliminary) This part provides the citation and interpretation provisions.

Part II (National Control System) Regulation 3 provides the basis of the national control system. The national control system is based on the International Spheroid 1924, and the datum is the Provisional South American Datum (PSAD) 1956. Regulation 4 provides for calculation of coordinates to be done by reference to the grid on the Universal Transverse Mercator projection (Zone 20 or 21). Regulation 5 sets out how the co-ordinates using GPS techniques are to be done.

Part III (General Requirements) Regulation 6 provides that when a survey is part of an original title deed the survey must be tied to the original corner of the survey referred to in the title. Regulation 7 sets out the minimum requirements for determining the position of a point. Regulation 8 provides that there shall be a reserve across the façade of every parcel of land bounded by a river or navigable creek for the provision of a right of way and the conservation of the natural vegetation. The owners of any land bounded by a river or navigable creek shall enjoy riparian rights. Under regulation 9 the width of road reserves as right of way is provided for. Regulation 10 sets out the method by which boundaries that follow natural features shall be surveyed. Where natural boundaries are plotted from aerial photographs this shall be stated on the plan and the method shall be described in the report.

Part IV (Accuracy of Surveys) Regulation 11 provides the principle for ensuring the accuracy of surveys and the classification of surveys. According to regulation 12 the accuracy of a survey shall be tested by traverse perimeter misclosure or by comparison with coordinated control points at the beginning and end of a traverse.

Part V (Survey Records) Regulation 14 sets out what survey records shall comprise, among which shall be, copies of survey instructions and a comprehensive report on the survey, an abstract of field and office records from which positions of paals were established. Under regulation 15 a land surveyor may exclude from the survey record any information which appears on the survey plan lodged with the Commission.

Part VI (Boundary Marks) Regulation 16 provides for the required specifications of paals and the various ways in which boundary marks or paals shall be established. A trigonometrical station shall not be used as a corner or boundary paal. Regulation 17 sets out the required position of paals. Regulation 18 provides for the features a land surveyor should record on a plan, such features include the measurements to nearby and easily identifiable physical features that will assist in the subsequent location of a paal.

Part VII (Survey Plans) Regulation 20 sets out the format required for plans. The plan shall be prepared in black ink of indelible quality on one or more sheets of durable transparent material with the specified dimensions. Regulation 21 provides for the matters to be shown on a plan. A plan shall contain, using such symbols and legend as are necessary, a clear and concise description of each paal, and of each survey control point

appearing on the plan. The content of the parcel of land shall be shown on a survey plan. Regulation 22 provides for the numerical data that shall be recorded on a plan. A plan shall include a signed memorandum containing particulars including the date of commencement and completion of survey, a statement indicating the legal ownership of the land being surveyed and the names of the parties, if any, interested in the survey who were served with notices of intended survey. Regulation 24 provides that a land surveyor shall sign and date his plan. A land surveyor shall not seal a plan until it has been recorded by the Commission and certified accordingly.

Part VIII (Checks) This part provides for the Commissioner to inspect any measuring equipment used or plan or survey record done by a land surveyor.

Part IX (Access to Information) Regulation 27 provides for the inspection of plans and survey records by a land surveyor. A land surveyor may take notes, sketches or copies of any plan.

Part X (Administrative Fees and Charges) The fees and other sums chargeable by the Commission under the Act and these regulations in respect of the matters set out in the Second Schedule shall be payable in the amounts specified in that Schedule.

Commissioner Lands and Surveys