

CHAPTER 390

LAND SURVEY

An Ordinance to consolidate and amend the Law relating to Land Survey and Licensing of Land Surveyors to amend the Penal Code, and for matters incidental thereto and connected therewith.

Ord. 1957  
No. 32

[.....]

PART I  
PRELIMINARY

1. This Ordinance may be cited as the Land Survey Ordinance, and shall come into operation on such date as the Governor may by notice in the *Gazette* appoint. Short title and commencement
  
2. In this Ordinance unless the context otherwise requires - Interpretation
  - "Board" means the Board of Control of Licensed Surveyors established under the provisions of section 19;
  
  - "boundary beacon" means any survey mark affixed, erected or placed for the purpose of denoting the boundaries of a land;
  
  - "cadastral survey" means any survey the purpose of which is obtain information for recording the position of the boundaries of lands in separate ownership or intended to be the subject of any disposition or partition, or re-establishing such boundaries on the ground or setting out new boundaries on the ground;
  
  - "Chief Surveyor" means the Chief Surveyor of the Department of Lands and Surveys;
  
  - "Director" means the Director of Lands and Surveys;
  - "general cadastral Surveys" means a cadastral survey made under the provisions of section 7;
  
  - "Government surveyor" means an officer of the Department of Lands and Surveys or of the Directorate of Overseas (Geodetic and Topographic) Surveys, authorised by the director to execute surveys under this Ordinance;

"land surveyor" means includes both a Government survey and a licensed surveyor;

"licensed surveyor" means a surveyor licensed or deemed to have been licensed under the provisions of this Ordinance;

"license" means a license issued or deemed to have been issued under the provisions of this Ordinance;

"Minister" means the Minister for Lands and Natural Resources;

"owner" includes every lessee, sub-lessee, holder of a right of occupancy and license of land and any successor in title thereof;

"prescribed" means prescribed by regulation made under provisions of this Ordinance;

"survey" means a cadastral, topographical or triangulation survey of land;

"survey mark" means any trigonometrical station, bench mark, boundary beacon, peg, picket, mark or pole, whether above or below the surface of the ground, which is fixed, placed or set up by, or under the direction of, a land surveyor for the purpose of any survey;

"surveyed land" means land the boundaries of which have been surveyed by a land surveyor;

"topographical survey" means a survey the purpose of which is to obtain information for recording the position of the physical features and the configuration of the ground;

"triangulation survey" means a survey the purpose of which is to obtain information for recording the position and height of any survey mark placed for the purpose of any other survey;

"unlicensed assistant" means any person not being a land surveyor who is employed in assisting a land surveyor in the survey of land.

3. Any power conferred or duty imposed upon the Director by this Ordinance or any regulation made thereunder may, notwithstanding anything contained in any Ordinance, be exercised or performed by any officer of the Department of Lands and Surveys authorised in that behalf by the Director in writing under his hand. Director may delegate powers

PART II  
SURVEYS OF LAND

4. — (1) No person other than a land surveyor shall -
- (a) survey any land for the purpose of preparing an approved plan within the meaning of the Land Registration Ordinance or any Ordinance amending or replacing the same; Prohibition of certain surveys by persons other than land surveyors  
Cap. 334
  - (b) survey any land within an area to which this paragraph applies, for the purpose of preparing a plan to identify the land referred to or to be referred to in any document compulsorily registrable under the provisions of the Registration of Documents Ordinance or any Ordinance amending or replacing the same; Cap. 117
  - (c) replace or cause to be replaced any missing or displaced boundary beacon or move, destroy or place, or cause to be moved, destroyed or placed, any boundary beacon purporting to denote the boundaries of surveyed land, or make any survey for the purpose of placing any boundary beacon purporting to denote the boundaries of surveyed land;
  - (d) hold himself out to the public in any manner whatsoever as a land surveyor:
- Provided that any person carrying out a trial survey under the provisions of paragraph (ii) of the provision to section 22 shall, for the purposes of paragraphs (a), (b) and (c) of this subsection, be deemed to be a land surveyor.
- (2) The Director may, by notice in the *Gazette*, apply the provisions of paragraph (b) of subsection (1) of this section to any area of the Territory described in such notice, with effect from such date, being a date at least two months after the date of publication of such notice, as shall be specified in such notice.
  - (3) Any person who contravenes any provision of this section shall be guilty of an offence against this Ordinance and shall be liable on conviction to a fine not exceeding one hundred and eighty thousands shillings or to imprisonment for a term not six months or to both such fine and imprisonment. Act No. 18 of 1997

5. Every survey by a land surveyor shall be carried out in accordance with any regulations for the time being in force made under this Ordinance: Surveys to be carried out in accordance with regulations

Provided that the Director may, notwithstanding any such regulations, specify the methods to be adopted with regard to any particular survey.

6. — (1) Before any aerial photographs for the purposes of any survey of land in the Territory are taken, the person responsible for the making of such survey shall, at least one month before such aerial photography is carried out, or within such lesser period as the Director may allow, notify the Director in writing of his intention to cause such photographs to be taken. Aerial photography

- (2) Any person who fails to comply with the provisions of subsection (1) of this section shall be guilty of an offence and shall be liable on conviction to a fine not exceeding three and sixty thousand shillings or to imprisonment for a term not exceeding twelve months or to both such fine and imprisonment. Act No. 18 of 1997

7. — (1) Where the Director considers it to be in the public interest he may, by notice in the *Gazette*, direct that a general cadastral survey be made of such area or areas as shall be specified in such notice. General cadastral survey

- (2) Every owner of land within any such area shall, upon reasonable notice given by or on behalf of the Director, to the best of his knowledge and belief show, or cause to be shown by some other person to the best of that person's knowledge and belief, the boundaries of such land to any land surveyor authorised to make a cadastral survey of such land, and any owner who refuses after reasonable notice so to do shall be guilty of an offence against this Ordinance and shall on conviction be liable to a fine not exceeding sixty thousand shillings or to imprisonment for a term not exceeding two months or to both such fine and imprisonment. Act No. 18 of 1997

- (3) No town plan proposed in respect of any area covered by a survey plan duly approved by the Director, shall implemented unless the Commissioner for Lands has certified that any titles, subsisting over the existing survey plan are null and void. Proof of expired titles outstanding on the survey plan shall include a certificate of entry on the land register. Act No. 18 of 1997
8. The Director, or any land surveyor or any person authorised by the Director either generally or specially, may enter from time to time upon any land with such unlicensed assistants as may be necessary, for the purpose of - Power of land surveyors to enter land
- (a) making any survey;
  - (b) affixing or setting up thereon or therein any survey mark;
  - (c) inspecting any survey or survey mark;
  - (d) doing anything necessary for carrying out any of the aforesaid purposes
- Provided that --
- (i) before so entering upon any land the Director or any land surveyor or person authorised as aforesaid shall, wherever practicable, give reasonable notice to the owner or occupier of the land of his intention to enter thereon;
  - (ii) nothing herein contained shall exempt the Director or land surveyor or person authorised as aforesaid from liability for any damage caused in the exercise of any power conferred by this section.
9. Any person who willfully obstructs or hinders the Director or any land surveyor or any assistant of the Director such land surveyor or any person authorised by the Director in the exercise of his powers under this Ordinance shall be guilty of an offence against this Ordinance and upon conviction shall be liable to a fine not exceeding seven hundred and twenty thousand shillings or to imprisonment for a term not exceeding two years or to both such fine and imprisonment. Act No. 18 of 1997
10. (1) Where any land is surveyed under the provisions section 7, no charges shall be payable by the owner thereof in respect of such survey. Fees for survey

(2) Where any land is surveyed by a Government surveyor at the request of the owner there shall be payable by such owner such charges as may be prescribed.

(3) Any person seeking the exemption from the payment of fees for services rendered by the Director, shall submit an application to the Minister responsible for Land Surveys who shall forward such application with his appropriate comments to the Minister for Finance. The Minister for Finance shall make his decision and shall communicate his decision by order published in *the Official Gazette*. Act No. 18 of 1997

### PART III SURVEY MARKS

11. — (1) Any person who willfully and without lawful excuse (the burden of proof whereof shall be on him) removes, destroys or displaces or causes to be removed, destroyed or displaced, or alters the position of, or defaces, mutilates, obliterates or breaks or causes to be defaced, mutilated, obliterated or broken any survey mark, shall be guilty of an offence against this Ordinance, and shall be liable on conviction to a fine not exceeding seven hundred and twenty thousand shillings or to imprisonment for a period not exceeding two years or to both such fine and imprisonment and may further be ordered by the court to pay the cost of replacing the survey mark and any survey necessary to such replacement. Interference with survey marks Act No. 18 of 1997

(2) Nothing in this section contained shall be construed as exempting any person from being charged or punished under the Penal Code or any other Ordinance in respect of any such act or omission as is described in this section. Cap. 16

12. (1) No person shall do any work likely to cause damage to a trigonometrical station or fundamental benchmark so close to any trigonometrical station or fundamental benchmark as to endanger the same. Prohibition of certain work near trigonometrical stations or benchmarks

(2) Any person who contravenes the provisions of this section shall be guilty of an offence against this Ordinance and shall be liable on conviction to a fine of exceeding seven hundred and twenty thousands shillings or to imprisonment for a term not exceeding two years or to both such fine and imprisonment.

Act No 18 of 1997

#### PART IV SURVEY PLANS AND RECORDS

13. -- (1) Every land surveyor who makes a cadastral survey shall as soon as is practicable send to the Director all original plans, original field notes and original computations and all such documents shall be deposited in the Survey Division of the Department of Lands and Surveys and shall become the property of the Government.
- Original cadastral plans and records to be deposited with the Director and become the property of Government
- (2) Any person shall, on payment of the prescribed fee, have access to such documents at all reasonable times.
- (3) Any person shall be entitled on payment of the prescribed fee to a copy of such documents certified by the Chief Surveyor to be a true copy thereof.
14. Every land surveyor shall, when required by the Director, as soon as practicable -
- Duty of a surveyor to make corrections and adjustments
- (a) correct any inaccuracy or error in any document required to be deposited under the provisions of subsection (1) of section 13 where such error or inaccuracy exceeds the limit of error prescribed under the provisions of this Ordinance to be allowed in the execution of surveys and the preparation of plans, survey data and other records;
- (b) adjust the position of any survey mark which has been fixed, placed or set up in accordance with any incorrect cadastral survey.

15. – (1) At the conclusion of any aerial photography undertaken in connection with a survey of any land in the Territory the person responsible for the making of such survey shall - Diagrams and prints of aerial photographs
- (a) as soon as practicable, supply the Director with diagram showing the numbers and positions of the aerial photographs on a map previously approved by the Director; and
- (b) on demand by the Director and on payment by him of the cost of printing, supply the Director with prints of such aerial photographs as the Director may specify.
- (2) Any person who fails to comply with the provisions of subsection (1) of this section shall be guilty of an offence and shall be liable on conviction to a fine not exceeding three hundred and sixty thousands shillings or twelve months imprisonment or to both such fine and imprisonment. Act No. 18 of 1997
16. – (1) No document deposited in accordance with the provisions of section 13 and no copy of such document shall be altered or amended in any way without the permission of the Chief Surveyor. No plan to be amended without the Chief Surveyor's permission
- (2) Any person who contravenes the provisions of the preceding subsection shall be guilty of an offence and shall be liable on conviction to a fine not exceeding three hundred and sixty thousands shillings or to imprisonment for a term not exceeding twelve months. Act No. 18 of 1997
17. – (1) No plan made as the result of any survey to which paragraphs (a) or (b) of subsection (1) of section 4 applies shall be admissible in evidence unless such plan has been approved by the Chief Surveyor. Approval of plans
- (2) Where in this or any other Ordinance it is provided that any plan shall be approved by the Chief Surveyor, the approval of the Chief Surveyor shall be in writing and shall be duly signed by the Chief Surveyor and such signature shall be evidence of such approval.
- (3) No such plan shall be approved by the Chief Surveyor-



(a) until such plan has been compared with the field notes and computations deposited with the field notes and computations deposited with the Director by the land surveyor making such plan, and found to be free from error; and

(b) unless the survey has been conducted in such manner as may have been specified under the proviso to section 5 or in accordance with any regulations made under this Ordinance.

(4) Any person is aggrieved on account of a survey plan which has been approved by the Director, may file a complaint in the High Court at the Registry having jurisdiction over the area to which that plan relates.

Act No. 18 of 1997

18. Without prejudice to the provisions of the law relating to evidence, a plan based on a general cadastral survey and approved as such by the Chief Surveyor shall be *prima facie* of the correctness of the position of the boundaries shown thereon.

Plan based on general cadastral survey

#### PART V

#### BOARD OF CONTROL AND LICENSING OF SURVEYORS

19. — (1) There shall be established a Board to be known as the Board of Control of Licensed Surveyors which shall consist of —

Establishment of Board

(a) the Director, who shall be Chairman of the Board; and

(b) the Chief Surveyor, who shall be Deputy Chairman of the Board; and

(c) not less than two licensed surveyors appointed from time to time in writing by the Minister for such period as he may direct.

- (2) The Minister may, in his discretion, revoke the appointment of any person appointed by him to be member of the Board.
  - (3) The Minister may appoint a land surveyor temporarily to fill the place of any member of the Board who may, for any reason, be unable to attend any meeting of the Board.
  - (4) Notice of appointment and of revocation of an appointment of a member of the Board (excepting a temporary appointment made under the provisions of subsection (3) of this section) shall be published in the *Gazette*.
  - (5) The Board shall regulate its meetings and shall conduct its business in such manner as may be prescribed.
  - (6) The quorum at any meeting of the Board shall be three members of whom the Chairman or Deputy Chairman shall be one.
20. The Board shall point a person to be the Secretary and Registrar and may, from time to time, appoint such examiners and other officers as may be necessary of carrying out the duties of the Board and all such persons shall hold office during the pleasure of the Board. Appointment of Secretary and other officers
21. The duties of the Board shall be- Duties of the Board
- (a) to conduct the examination of candidates for admission as licensed surveyors in accordance with the provisions of this Ordinance;
  - (b) to keep a register of all licensed surveyors (hereinafter referred to as the register) in the prescribed manner, to publish in the *Gazette* in the month of January in each year a list of the names, addresses and qualifications of all persons so registered, and to publish similarly any additions to or alternations in the register;
  - (c) to issue, suspend or cancel a license in accordance with the provisions of this Ordinance;

- (d) to take such disciplinary action as may be necessary against licensed surveyors in accordance with the provisions of this Ordinance; and
- (e) to make recommendations to the Minister for the making of regulations under the provisions of section 31

22. No person shall receive a license unless he shall have attained the age of twenty-one years and unless either- Conditions for the issue of licenses

- (a) he shall have passed to the satisfaction of the Board an examination conducted by the Board in such subjects and in such manner and subject to such conditions as may be prescribed; or
- (b) he is the holder of a license or equivalent authority to practise as a licensed surveyor in such country or territory as the Minister may by notice in the *Gazette* approve; or
- (c) he is the holder of the qualification of Fellow or Professional Associate of the Royal Institution of Chartered Surveyors in Land Surveying; or
- (d) he has served as a surveyor on the permanent establishment of Her Majesty's Overseas Civil Service for a period of not less than ten years:

Provided that any such person may also be required -

- (i) to satisfy the Board that he has field experience of such types of survey as may be prescribed;
- (ii) to carry out a trial survey to the satisfaction of the Board and
- (iii) to satisfy the Board that he is otherwise capable of conducting land surveys in accordance with the provisions of this Ordinance and of any regulations made thereunder

23. No person shall be entitled to be examined for a license to practise as a land surveyor unless -
- Conditions admission examination for to
- (a) he has satisfactorily served for such period as the Board may require either in the Survey Division of the Department of Lands and Surveys, or with a licensed surveyor in Tanganyika or in such other country or territory as the Minister may, by notice in the *Gazette*, approve; or
  - (b) he has graduated from a University recognised by Board and obtained a degree in any subject approved by the Board; or
  - (c) he has passed the Intermediate Examination of the Royal Institution of Chartered Surveyors in Land Surveying; or
  - (d) he holds a diploma or distinction which the Board recognises as the equivalent of a degree specified in paragraph (b) of this section.
24. Any person who has pursued recognised courses of study in land surveying or any kindred technical subject may be granted exemption from examination in any subject, at the discretion of the Board. Exemptions
25. Every candidate for examination under paragraph (a) of section 22 shall be required to pay such fee as may be prescribed. Examination fee
26. The Board may require the attendance of any person who has applied for a license and may examine or question such person upon oath, affirmation or otherwise, as to his actual practice in the field and other matters relevant thereto, and for such purpose any member of the Board may administer an oath or affirmation. Examining candidate on oath
27. Every license shall be in the prescribed form or to the like effect, and shall be issued on payment of such fee as may be prescribed. Form of license and fees

28. — (1) Where a licensed surveyor has not, during a continuous period of five years or more, made a survey within the Territory which has been approved in accordance with the provisions of this Ordinance or any regulations made thereunder, the Board may in its discretion require him to carry out a trial survey within such period as the Board shall specify and if he fails within such specified period or any further period allowed by the Board to carry out such trial survey to the satisfaction of the Board, the Board may cancel his license.

Power to require licensed surveyor to undergo survey trial after period of absence from practice

(2) For the avoidance of doubt it is hereby expressly declared that nothing in this section shall prejudice right of any licensed surveyor whose license has been cancelled under the provisions of this section to apply again for the issue of a license, in which case the preceding provisions of this Part shall apply as if he were applying for a license for the first time.

#### PART VI DISCIPLINARY

29.— (1) Every complaint against a licensed surveyor shall be submitted in writing to the Board and shall be signed by the person making the complaint and if it appears to the Board that such complaint justifies an inquiry, the Board shall fix a time and place for the purpose of bearing and determine the complaint.

Complaint against licensed surveyor and how dealt with

(2) At least thirty days prior to the date fixed for such inquiry, notice in writing shall be sent by the Secretary by registered post to the last known address of the licensed surveyor against whom the complaint is made, informing him of the time and place fixed for the inquiry and supplying him with a copy of the complaint.

- (3) At such inquiry the licensed surveyor against whom the complaint is made shall be entitled to be heard in his defence either personally or by an advocate.
  - (4) The Board shall have full power to summon witnesses and to examine them upon oath or affirmation and to carry out any investigation concerning the complaint and may hold the inquiry whether or not such licensed surveyor appears before it or is represented by an advocate or has filed any reply to the notice prescribed in subsection (2) of this section.
  - (5) For the purposes of the last foregoing subsection member of the Board may administer an oath or affirmation.
  - (6) The findings and decision of the Board on such inquiry shall be made in writing and shall be signed by the Chairman.
30. — (1) If in any inquiry under section 29 it is shown that any licensed surveyor - Power of Board to deal with offences
- (a) has signed any plan, survey data or other record any survey relating to any land in respect of which he has not carried out or personally supervised the whole of such survey and examined and satisfied himself of the correctness of the entries in any field book, and of the calculations, working plans and other records in connection therewith which may have been made by any other person; provided that a surveyor shall not be required to carry out or personally to supervise the taking or processing of any aerial photograph; or
  - (b) has signed a plan which he knows or ought, by the exercise of reasonable care, to have known, is incorrect; or
  - (c) has performed through negligence or incompetence an incorrect survey; or
  - (d) has made any entry in a field book or other document which purports to have been made as a result of actual observation or measurement in the field when it was not so made; or

- (e) has supplied erroneous information to the Director in connection with any survey mark or boundary which he knows, or ought, by the exercise of reasonable care, to have known, was erroneous; or
  - (f) has failed to comply with the requirements of subsection (1) of section 13, or section 14; or
  - (g) has been convicted of any criminal offence and such criminal offence is, in the opinion of the Board, such as to render him unfit to practise as a licensed surveyor; or
  - (h) has been guilty of infamous conduct in any professional respect; or
  - (i) has obtained his license by misrepresentation, or that his license or equivalent authority to practise has been suspended or cancelled in any country or territory for such conduct as would, had it occurred in the Territory have, in the opinion of the Board, rendered him unfit to practise as a licensed surveyor the Board may -
    - (i) admonish such licensed surveyor; or
    - (ii) suspend his license for a period not exceeding three years, in which case the Registrar shall enter the reason for and the period of such suspension in the register; or
    - (iii) cancel his license, in which case the Registrar shall remove his name from the register; and
    - (iv) in addition to admonishment or suspension or cancellation of his license, order such licensed surveyor to pay the cost of any correction to any plan which his conduct may necessitate.
- (2) Any person whose license has been cancelled or suspended under the provisions of this section shall be entitled to appeal to the High Court whose decision shall be final.
- (3) (a) In any appeal made thereto under the provisions of this section, the High Court may make any such order as could have been made by the Board and may confirm, cancel or vary any order appealed against and may make such order with regard to costs as it may consider fit.

(b) The Chief Justice may make rules of court providing for the manner in which appeals to the High Court under this section shall be made, and the procedure which shall be followed on the hearing of such appeals.

(4) Notice of any intention to appeal under the provisions of this section shall be given in writing to the Registrar within thirty days of any decision which it is intended to appeal against, and unless such notice is received within such period the Registrar shall cause to be published in the next issue of the *Gazette* a notification of the removal of the name of the licensed surveyor from the register or of his suspension from practice as the case may be and the reasons therefor:

Provided that where such notice of intention to appeal an aforesaid has been received no such notification shall be made in the *Gazette* until such time as an order of the court confirming such removal or suspension has been made.

(5) The Board may in its discretion and subject to such conditions as it may deem fit -

(a) reinstate any licensed surveyor whose name has been removed from the register; or

(b) cancel the suspension of a licensed surveyor whose license has been suspended under the provisions of this section.

(6) The reinstatement of any licensed surveyor whose name has been removed from the register or the cancellation of any suspension of a licensed surveyor from practice shall be published in the *Gazette*.

#### PART VII REGULATIONS

31. — (1) The Governor in Council may make regulations for giving better effect to the purposes and provisions of this Ordinance, and without prejudice to the generality of the foregoing, may make regulations with regard to the following matters:- Regulations



- (a) the methods and instruments to be employed by land surveyors in executing surveys and matters incidental thereto;
- (b) the number and method of supervision of unlicensed assistants who may be employed by a licensed surveyor, the work which such unlicensed assistants may undertake, and any matter incidental thereto;
- (c) the charges to be levied for any survey undertaken by the Director or a Government surveyor;
- (d) the charges to be paid to Government for checking and examining any survey undertaken by a licensed surveyor;
- (e) the fees to be paid for any plan or document;
- (f) the fees upon payment of which persons may have access to any plans or documents in the possession of the survey Division of the Department of Lands and Surveys;
- (g) the fees to be paid for admission to any examination for a license;
- (h) the fees to be paid for the issue of a license;
- (i) determining the evidence to be produced and the conditions to be fulfilled by any person applying for registration as a licensed surveyor under this Ordinance;
- (j) the degree of accuracy to be attained and the limit of error to be allowed in the execution of surveys and the preparation of plans, survey data and other records;
- (k) the method of correcting any inaccuracy or error in any plan, survey data or any record of any survey;
- (l) the form and dimensions of survey marks, the manner of marking survey marks for identification and the manner of their construction, erection, replacement, protection, inspection, maintenance and repair;
- (m) the siting of survey marks, the material from which survey marks are to be constructed and the method of fixing, placing and setting up of survey marks;
- (n) the units of measure to be used;

- (o) regulating the manner of keeping the register and prescribing the particulars which shall be recorded therein;
  - (p) prescribing anything which this Ordinance require or enables to be prescribed.
- (2) Regulations made under the provisions of subsection (1) of this section may require acts or things to be performed or done to the satisfaction of a prescribed person and may empower a prescribed person to issue orders to any other person requiring acts things to be performed or done, imposing conditions and prescribing periods and dates upon, within or before which, such acts or things shall be performed or done or such conditions shall be fulfilled.
- (3) Regulations made under the provisions of this section may provide as a penalty for any breach of or failure to comply with the provisions of any regulation a fine not exceeding three hundred and sixty thousand shillings or imprisonment for a period not exceeding one year or both such fine and imprisonment.

Act No. 18 of 1997

PART VIII  
REPEAL

32. The Land Survey Ordinance and the Land Surveyors Ordinance are hereby repealed:  
Provided that-
- a) any license to practice as a land surveyor issued under the provisions of the Land Surveyors Ordinance shall, be valid at the commencement of this Ordinance, be deemed to have been issued under this Ordinance;

Repeal of Caps. 121 and 122

Cap.122

(b) the Registrar shall as soon as practicable after the commencement of this Ordinance transfer to the register the names then appearing in the register kept under the provisions of the Land Surveyors Ordinance; and

(b) the provisions of the Land Surveyors Ordinance and any regulations made thereunder relating to the conduct of surveys shall continue to apply to any survey commenced and not completed before the coming into force of this Ordinance until the survey is completed as if that Ordinance and those regulations had not been repealed.

(c)

33. Section 330 of the Penal Code is hereby repealed.

Repeal of section  
330 of Cap. 16

*Land Survey (General) Regulations, 1959*

GOVERNMENT NOTICE NO.173 published on 5/6/59.  
LM.4/21/03

THE LAND SURVEY ORDINANCE, 1957

(No. 32 OF 1957)

---

REGULATIONS

---

*Made by the Governor in Council under section 31 of the  
Land Survey Ordinance, 1957*

---

THE LAND SURVEY (GENERAL) REGULATIONS, 1959

PART I – PRELIMINARY

1. (1) These Regulations may be cited as the Land Title and  
Survey(General) Regulations, 1959. interpretation
- (2) In these Regulations “the Ordinance” means the Land  
Survey Ordinance, 1957.

PART II – BOARD OF CONTROL OF LAND SURVEYORS

2. (1) At every meeting of the Board, each member shall have Meetings of the  
the right one vote on any matter under discussion: Board  
Provided that in the event of an equality of votes the  
Chairman or, if he is absent, the Deputy Chairman shall  
have, in addition, a Casting vote.
- (2) Subject to the foregoing provisions of this regulation, the  
decision of the majority of the members present and  
voting at a meeting of the Board shall be deemed to be a  
decision of the Board.
- (3) Every meeting of the Board shall be convened by the  
Chairman and not less than seven days’ notice of the time  
and place of every meeting shall be sent to every member  
by the Secretary.

- (4) The Secretary shall keep minutes of every meeting of the Board in a Minute Book kept for that purpose.
3. (1) The register of surveyors required to be kept under paragraph (b) of section 21 of the ordinance shall be kept by the Secretary. Surveyors' register
- (2) The register shall contain the following information in relation to each licensed surveyor:-
- (a) his name and permanent address;
  - (b) a short statement of all professional examinations passed, together with relevant numbers of certificates of examinations, diplomas, degrees, licences or titles;
  - (c) the date of passing or of exemption from the examinations of the Board;
  - (d) a record of any offence against the Ordinance committed by the surveyor or of any conduct by a surveyor leading to the exercise by the Board of any of its powers under paragraphs (i) to (iv) of subsection (1) of section 30 of the Ordinance, of any action taken by the Board thereon under section 30 of the Ordinance, and of the date of any relevant notification in the *Gazette*.
- 4.-(1) Every person applying for the issue of a license under paragraph (b), (c) or (d) of section 22 of the Ordinance shall make written application to the Secretary of the Board and shall forward therewith – Registration
- (a) the original or certified copies of:-
- (i) his license or equivalent authority to practise in any other country approved by the Minister under paragraph (b) of section 22 of the Ordinance; or
  - (ii) his diploma of the Royal Institution of Chartered Surveyors; or
- (b) evidence that he has the requisite length of service in Her Majesty's Overseas Civil Service.
- Whichever shall be appropriate.

- (2) Written evidence shall also be produced giving as full information as is practicable regarding the applicant's career as a land surveyor and the types of work he has undertaken, together with dates and any other information which may be relevant.
- (3) The types of survey prescribed for the purposes of paragraph (i) of the proviso to section 22 of the Ordinance shall be those prescribed for part II of the examination by regulation 13.
- (4) Every application for the issue of a license shall be accompanied by tender of the prescribed fee, which shall be refunded if the application is disallowed.
- (5) Every person who has passed or been exempted from both Parts I and II of the examination prescribed under Part III of these Regulations shall, on payment of the prescribed license fee, be entitled to a license:

Provided that no such person shall be entitled to a license if he has been guilty of any conduct which would, had he been a licensed surveyor, have rendered him liable to admonishment or justified the Board's suspending or cancelling his license under the provisions of section 30 of the Ordinance.

### PART III – EXAMINATIONS

- 5.-(1) Every application for admission to examination under section 23 of the Ordinance shall be made in writing to the Secretary and shall be accompanied by documentary proof that the candidate is eligible under the Ordinance for admission to examination. Applications for admission to examination and exemption
- (2) Every application for exemption from examination in any subject under section 24 of the Ordinance shall be made in writing to the Secretary and shall state the grounds upon which the application is made.
- (3) Every application for admission to Part I of the examination shall be accompanied by tender of the prescribed fee.

- 6.-(1) Examinations for licences shall be held at such places and on such dates as shall be notified by the Secretary in the *Gazette*. Examination place and date
- (2) Every examination shall be in two parts and shall be in the English language.
- 7.-(1) The Board shall appoint not less than two examiners to conduct each part of the examination on behalf of the Board. Appointment of examiners
- (2) The examiners shall report in writing to the Board, giving full particulars of the marks given by them to each candidate in each subject and such report shall be signed by every examiner.
8. The following subjects shall form Part I of the examination:- Part I of the examination
- (a) Survey instruments, including the principles of construction, adjustment and use of the following instruments, namely, theodolite, tachometer, plane table, sextant, level, compass, clinometer, barometer, thermometer, steel band, pantograph, planimeter, abney level and simple air survey instruments;
- (b) Principles and practice of surveying, including-
- (i) triangulation, including quadrilateral, polygonal and raytrace computations, the graphical determination of points, interpolation, reduction of eccentric observations and corrections for displaced signals;
- (ii) traverse surveys including the reduction of measured lines for sag, temperature, slope and mean sea level;
- (iii) topographical and tacheometrical surveys;
- (iv) determination of heights, including use of altimeter;
- (v) setting out of roads and curves;
- (vi) computations of areas including such as have irregular and curvilinear boundaries;

- (vii) adjustment of discrepancies in surveys;
- (viii) re-determination of boundaries from old plans and documents;
- (ix) cutting off given areas;
- (c) methods of field practice as prescribed in the Land Survey and Surveyors regulations, 1959, including the keeping of field notes and the cross-referencing of records and computations; G. N. 1959 No.174
- (d) drawing, including general plan drawing, compilation of plans, drawing of sections and contours, map projections;
- (e) engineering surveys, including levelling, grading, and measurement of earth works;
- (f) astronomy and geodesy, including the determination of latitude, longitude, azimuth and time, spherical excess, convergence of meridians and transformation of co-ordinates;
- (g) knowledge of the following enactments in so far as they relate to the survey and demarcation of land for purposes of making title thereto:-
  - the Land Ordinance; Cap.113
  - the Land Registration Ordinance; Cap.334
  - the Land registration Rules; R.L.Cap334, p.42
  - the Highways Ordinance;
  - the Town and Country Planning Ordinance; Cap.378
  - and any Ordinance or rules replacing any of the foregoing; Ord.1957 No.32
  - knowledge of the Land Survey Ordinance, 1957 and of the Land Survey and Surveyors Regulations, 1959. G.N.1959 No.174

9. Marks in Part I of the examination shall be allotted as follows:-

Allotment of marks



|  | <i>Marks</i> |
|--|--------------|
| (a) Survey instruments .. .. .           | 50           |
| (b) Principles and practice of surveying | 150          |
| (c) Field practice .. .. .               | 50           |
| (d) Drawing .. .. .                      | 50           |
| (e) Engineering survey .. .. .           | 50           |
| (f) Astronomy and geodesy .. .. .        | 150          |
| (g) Land ordinances and regulations ..   | 50           |
| (h) Survey Ordinance and regulations     | <u>50</u>    |
| Total Marks: .. ..                       | <u>600</u>   |

10.-(1) A candidate shall not be deemed to have passed part I of the examination unless he has obtained fifty per cent or more of the possible marks in each of the following subjects, namely, principles and practice of surveying, field practice, and astronomy and geodesy. Percentage of marks for a pass in part I

(2) A candidate shall also be required to obtain six per cent or more of the total marks possible.

11. A candidate who fails to obtain the requisite number of marks in any one only of the three subjects referred to in paragraph (1) of regulation 10 may be allowed, at the discretion of the Board and upon payment of the prescribed fee, to be re-examined in such subject only, provided he has obtained sixty per cent of the total marks possible for the whole examination. In such circumstances, the candidate will be required to obtain not less than sixty per cent in the subject in which he is re-examined. Re-examination

- |   |   |
|---|---|
| 12. Only candidates who have passed part I of the examination or who have been exempted by the Board from so passing, shall be admitted to part II of the examination.  | Candidates eligible for Part II           |
| 13. (1) Part II of the examination shall consist of the following trial surveys:-<br><br>(a) survey of a farm property which may involve the use of either traverse methods or triangulation, observations for azimuth and latitude, survey of an irregular boundary or the re-establishment of missing beacons;<br><br>(b) survey of a township area containing buildings<br><br>(2) The original field notes, computations and plans of such surveys shall be submitted to the examiners. | Part II of the examination                |
| 14. A candidate shall not be deemed to have passed part II of the examination unless he has obtained sixty per cent or more of the total marks obtainable in each of the two tests set out in sub-paragraphs (a) and (b) of paragraph (1) of regulation 13.   | Percentage of marks for a pass in part II |
| 15. (1) The Board shall appoint one or more invigilators to be in attendance during part I of the examination.<br><br>(2) Logarithmic tables, computing machines and other mathematical aids may be taken into the examination, but text books will not be permitted.<br><br>(3) The examiners in part II of the examination shall, before the examination, submit for the approval of the Board, particulars of all proposed trial surveys.  | Conduct of examinations                   |

#### PART IV – MISCELLANEOUS

- |   |                 |
|---|-----------------|
| 16. A license under the Ordinance shall be in the form set out in the First Schedule hereto.  | Form of license |
| 17. The fees set out in the third column of the Second Schedule hereto shall be charged for the several matters set out opposite thereto in the second column thereof.  | Fees            |
| 18. The charges to be paid for surveys undertaken by the Director or a Government Surveyor, or for other services carried out by the Director or the department of Lands and Surveys specified in the Third Schedule hereto shall be in | Charges         |

accordance with the charges set out in that Schedule.

FIRST SCHEDULE

REGULATION 16

LAND SURVEYOR'S LICENCE

*Section 27 of Land Survey Ordinance, 1957*

No.....

TANGANYIKA

*Board of Control of Licensed Surveyors*

*Constituted under the Land Survey Ordinance, 1957*

This is to certify that .....of.....is licensed as a Land Surveyor under the provisions of the Land Survey Ordinance, 1957.

Dated this .....day of.....19.....

Chairman of the Board.....

.Secretary.....

SECOND SCHEDULE

REGULATION 17

PRESCRIBED FEES

| <i>Item</i> | <i>Matter</i>   | <i>Charge</i> |                             |
|-------------|---|---------------|-----------------------------|
| 1.          | Application for license (reg.4 (1) and (5)  | Shs. 500/=    | G. N. No.<br>261 of<br>1993 |
| 2.          | Application for admission to Part I of the examination.....   | Shs. 1000/=   |                             |
| 3.          | Application for re-examination under the provisions of Regulation 11 .. .. .  | Shs. 300/=    |                             |
| 4.          | Access to plans and records in the possession of the Survey Division of the Lands and Surveys department: For each occasion | Shs. 500/=    | G. N. No.<br>42 of 1998     |

THIRD SCHEDULE

1. BASIC CHARGE TO BE LEVIED FOR FARM SURVEYS

Scale of charges for surveys undertaken by Government Surveyors:-

|       |    |       |   |
|-------|----|-------|---|
| up    | to | 1 Ha  | 80,000/-  |
| 1 Ha. | to | 10 Ha | 80,000/- plus 1/- per square metre of land in excess of 1 Ha. |

|               |    |          |  |                         |
|---------------|----|----------|--|-------------------------|
| 10 Ha.        | to | 20 Ha.   | 170,000 plus -/90 per square metre of land in excess of 10 Ha.                               | G. N. No. 42<br>of 1998 |
| 20 Ha.        | to | 50 Ha.   | 260,000/- plus -/70 per square metre of land in square metre of land in excess of 20 Ha.     |                         |
| 50 Ha.        | to | 100 Ha.  | 470,000/- plus -/50 per square metre of land in square metre of land in excess of 50 Ha.     |                         |
| 100 Ha.       | to | 500 Ha.  | 720,000/- plus -/20 per square metre of land in square metre of land in excess of 100 Ha.    |                         |
| 500 Ha.       | to | 1000 Ha. | 1,520,000/- plus -/10 per square metre of land in square metre of land in excess of 500 Ha.  |                         |
| 1000 Ha.      | to | 5000 Ha. | 1,981,000/- plus -/05 per square metre of land in square metre of land in excess of 1000 Ha. |                         |
| Over 5000 Ha. |    |          | Fees shall be assessed by the Director of Surveys and Mapping Division on request.           |                         |

| TABLE OF INCREASES      |                          |  |                         |                          |
|-------------------------|--------------------------|--|-------------------------|--------------------------|
| <i>No of boundaries</i> | <i>Increase Per cent</i> |  | <i>No of boundaries</i> | <i>Increase Per cent</i> |
| 1-4                     | Nil                      |  | 17                      | 38                       |
| 5                       | 5                        |  | 18                      | 39                       |
| 6                       | 10                       |  | 19                      | 40                       |
| 7                       | 15                       |  | 20                      | 41                       |
| 8                       | 20                       |  | 21                      | 42                       |
| 9                       | 22½                      |  | 22                      | 43                       |
| 10                      | 25                       |  | 23                      | 44                       |
| 11                      | 27½                      |  | 24                      | 45                       |
| 12                      | 30                       |  | 25                      | 46                       |
| 13                      | 32½                      |  | 26                      | 47                       |
| 14                      | 35                       |  | 27                      | 48                       |
| 15                      | 36                       |  | 28                      | 49                       |
| 16                      | 37                       |  | 29                      | 50                       |

(b) Five per cent of the basic charge additional to the increase charged under sections 2 (a) will be charged for every boundary which is curvilinear provided that the total increase shall not exceed 50 per cent of the basic charge.

4. Extensions.

The charge for surveying an extension to a surveyed piece of land shall be the charge for that area less 10 per cent for each original boundary line forming part of the extensions up to a minimum deduction of 50 per cent.

5. The charges under sections 1-4 include the cost of field work and computations.

| 6. SCALE OF CHARGES FOR PLOT SURVEYS UNDERTAKEN BY GOVERNMENT SURVEYORS (CHARGE IS PER SQUARE METRE OF LAND) |                  |                      |                           | G. N. No. 42 of 1998 |
|--|------------------|----------------------|---------------------------|----------------------|
| LOCALITY   | RESIDENTIAL PLOT |                      | INDUSTRIAL AND COMMERCIAL | SOCIAL SERVICES      |
|  | UP TO 400 SQ.M.  | MORE THAN 400 SQ. M. |                           |                      |
| CITY AND MUNICIPALITIES  | 30/-             | 35/-                 | 50/-                      | 15/-                 |
| TOWNSHIPS AND DISTRICT HEADQUARTERS  | 20/-             | 25/-                 | 40/-                      | 10/-                 |
| TRADING CENTRES AND OTHERS   | 10/-             | 15/-                 | 25/-                      | 5/-                  |

7. As prescribed under Section 6

G. N. No. 261 of 1993

8. Other Field Work.

The charge for survey such as detail survey re-establishment of boundary beacons etc; shall be Sh.2,000/- per hour or Sh.12,000/- per day.

G. N. No. 261 of 1993

9. OFFICE WORK

Scale of charges for checking and examining of surveys. The charge for examining a survey of 10 plots or less shall be Sh.5,000/= for the first plot and Sh.500/=for each plot above one

The charge examining a survey of between 10 – 50 plots shall be Sh.9,500/= for the first 10 plots and T.Sh.300/= for each plot above 10

G. N. No. 261 of 1993

The charge for examining a survey of 50 plots and above shall be 21,500/= for the first 50 plots and 100/= for each plot above 50

There shall be a charge 2,000/= every time a survey is resubmitted after extra field work

10. Boundary Data.

An additional charge may be made for office work involved in searching into records for information necessary to determine the boundaries and correctness of data.

G. N. No. 261 of 1993

The charge shall be shs.500/- per hour with a maximum of Shs.3000/- per day.

11. Office Work.

The charge for office work not specified in sections 9 and 10 (for example compilations, miscellaneous computations, etc.), shall be Shs.500/- per hour or Shs.3000/- per day.

G. N. No. 261 of 1993

12. SCALE OF CHARGES FOR THE CHECKING AND EXAMINING OF SURVEYS SUBMITTED TO THE DEPARTMENT OF LANDS AND SURVEYS BY LICENSED SURVEYORS

G. N. No. 261 of 1993

The charge for examining a survey shall be as per section 9 subject to plots being surveyed simultaneously on one survey plan.

13. SCALE OF CHARGES FOR SURVEY PLANS, ETC. DEED PLANS

G. N. No.42 of 1998

The charge for Deed Plans shall be Shs.6,000/= per set of six.

15. If plans of a survey are required on drawing paper or tracing cloth, the actual cost of preparation will be charged.

16. If copies of original plans, original field notes or original computation or photographic prints are required, the actual cost of preparation will be charged.

PRICES FOR MAPS AND PUBLICATIONS

| A. | MAPS                      | PRICE (TAS) |
|----|---------------------------|-------------|
|    | Map Series Y 742.....     | 4,000/-     |
|    | Map Series Y 503 .....    | 3,000/-     |
|    | Map Series IMW 1301 ..... | 3,500/-     |
|    | District Maps.....        | 3,000/-     |
|    | Regional Maps .....       | 3,000/-     |
|    | Tanzania 1/2,000,000..... | 4,000/-     |
|    | Township Maps .....       | 3,000/-     |
|    | Atlas Pages .....         | 3,000/-     |
|    | Road Map.....             | 4,000/-     |

G. N. No.42 of 1998

B AIR PHOTOGRAPHIC SERVICES: (COST ON REQUEST)

Aerial film processing:

Photo prints:-

(a) Where film is available..... 4,000/-

(b) Where film is not available

1<sup>st</sup> print..... 12,500/-

Extra prints..... 4,000/-

Film Diapositive..... 15,000/-

G. N. No.42 of  
1998

Mosaics and Print Laydowns:-

Size 18" x 18"..... 8,000/-

Size 24" x 24"..... 12,000/-

Size 30" x 40"..... 15,000/-

C DIAZO PRINTS AND MISCELLANEOUS

Dyeline Machine plots 30" x 40" max..... 4,000/-

G. N. No.42 of  
1998

Dyeline Prints of all maps..... 4,000/-

Enlargements, Reductions..... Cost on request

D. OTHER PUBLICATIONS

G. N. No.42 of  
1998

Prices shall be displayed at the shop.

E SPECIAL MAPS

S1..... 3,000/-

S2..... 2,500/-

S3, S4..... 2,000/-

S5..... 2,000/-

S6 – S12..... 3,000/-

S10 – S12..... 1,500/-

S13..... 2,500/-

S14 – S15..... 2,000/-

G. N. No. 261 of  
1993

*General:*

17. Applicants for surveys may be required to deposit in advance the estimated cost of such surveys.

Made by the Governor in Council at Dar es Salaam this twenty-first day of May, 1959.

BY HIS EXCELLENCY'S COMMAND

R. H. R.

CLIFFORD,

*Clerk of the Council.*

GOVERNMENT NOTICE NO.174 published on 5/6/59 LM.4/21/03  
THE LAND SURVEY ORDINANCE, 1957  
(No. 32 OF 1957)

REGULATIONS

*Made by the Governor in Council under section 31 of the  
Land Survey ordinance, 1957*

THE LAND SURVEY AND SURVEYORS REGULATIONS, 1959

1. –(1) These regulations may be cited as the Land Survey and Surveyors Regulations, 1959, and shall apply to all surveys carried out by licensed surveyors, other than a survey of which the Director specifies a method of survey under the proviso to section 5 of the Land Survey Ordinance, 1957. Title, application and interpretation
- (2) In these Regulations the expression “the Standard Forms” means the schedules of Standard Forms dated the 21<sup>st</sup> day of May, 1959, and deposited with the Chief Surveyor.
- (3) A copy of the Standard Forms shall be issued by the Chief Surveyor free of charge to every licensed surveyor upon these Regulations coming into operation or upon his receiving a license, as the case may be.

PART I – GENERAL TECHNICAL INSTRUCTIONS

2. All linear measurements shall be in English feet and decimals of a foot; angular measurements shall be in degrees, minute and seconds of arc. Where it is necessary to convert for any purpose from English feet to international metres, the following Units of measurement



relationships shall be used:-

1 International metre = 3.2808 4558 English feet.  
1 English foot = 0.3047 9947 metres.

3. – (1) The figure of the earth to be used is the Clark (1880) figure having the following elements:-  
Ellipticity = 1/293.465. Systems of co-ordinates and projections

(2) Rectangular co-ordinates used for ruling triangulation and for all surveys connected thereto shall be derived from 5° belts of the Transverse Mercator Projection having as central meridians, the meridians 32½° E. and 37½° E. with a false origin at a point 10,000,000 feet south of the Equator on the central meridians, and a scale correction of 0.05 per cent applied to the Y Co-ordinates (eastings). In the absence of suitable control points with rectangular co-ordinates on this projection, rectangular co-ordinates shall be derived from 6° belts of the Universal Transverse Mercator Projection having as central meridians, the meridians 33° E. and 39° E. with a false origin at a point 10,000,000 metres south of the Equator on the central meridians and 500,000 metres west of it, and a scale correction of 0.04 per cent applied to the Y co-ordinates (eastings).  
Farm and estate surveys shall, wherever possible, be connected to the territorial system of triangulation.

(3) Standard traverses in townships and local systems of rectangular co-ordinates generally shall be computed on the plane and free from spheroidal complications.

(4) Wherever possible the datum for every survey shall be the territorial triangulation, but in districts to which the triangulation has not been extended the datum shall be derived from astronomical observations which will be used to determine longitude, latitude and azimuth; in special cases, a magnetic bearing may be adopted. No isolated survey shall be carried out without the Director's written approval, and such approval shall also be obtained before a magnetic bearing is adopted.

4. – (1) Every licensed surveyor shall be responsible for maintaining his theodolite, measuring bands, and all other measuring equipment in good order and the Director may refuse to approve any survey which has been made with defective equipment. Measuring instruments

(2) Every measuring band, tape, thermometer, and spring

balance shall be submitted to a suitably equipped Government Survey Office before use and thereafter not less than once every year for verification.

(3) The Director shall assign a unique number to every measuring band submitted to him for verification and shall keep a record of all particulars of every measuring band so submitted.

(4) When any measuring band is broken the breakage shall be recorded in the field notes.

(5) The Director may require any licensed surveyor to submit any measuring instrument for his inspection or for verification, and may refuse to approve any survey which has been made with a measuring instrument which is thereby proved to be defective.

5. – (1) Every licensed surveyor shall present his plan, computations, and connected documents for each survey in accordance with the specimens shown in the appropriate schedules of the Standard Forms. If any licensed surveyor shall forward to the Director any plan, computation, or connected document which does not conform substantially with the appropriate specimen in the said schedules, the Director may, at his discretion, return the plan, computation or connected document until it has been made to conform to the appropriate specimen. Presentation of surveys
- (2) Every licensed surveyor shall be personally responsible for the accuracy, fidelity, and completeness of every survey presented by him for the approval of the Director and it shall be the duty of every licensed surveyor making any survey under these Regulations, to record all relevant information that may aid in securing the accuracy and completeness of every such survey.
6. Permissible errors of measurement for every class of work shall be those prescribed in Part III of these Regulations, and the director may refuse to approve any survey which contains errors in excess of those prescribed. Permissible errors of measurement.
7. Before carrying out any survey, every licensed surveyor shall provide himself with all available information in respect of any previous survey of the property or of adjoining property. Written applications to the Director for information and data shall state whether the land is freehold or leasehold and shall, wherever applicable, make reference to the approval for sub-division. The Director shall furnish all technical information and data in his possession. No charge will be made for data but the Director may charge for every print made by him in this connection, in accordance with the scale of charges specified in the third Schedule to the Land Survey (General) Regulations, 1959. Information previous to survey

8. It shall be the duty of every licensed surveyor to whom the Director has given an official letter of authority evincing his owner or occupier of land who demands proof that such surveyor is duly authorized to enter upon such land. Right of entry upon land
9. -(1) No unlicensed assistant shall make any measurements in connection with any survey unless authorized by the Director in that behalf. Employment of unqualified assistants
- (2) Such authorization shall be given for a period of two years only in the first instance, but may thereafter be renewed for further periods at the discretion of the Director.
- (3) Notwithstanding any such authorization, every licensed surveyor shall for the purposes of these Regulations be fully responsible for all work performed by his unlicensed assistant.
- (4) Every unlicensed assistant shall clearly indicate which field notes and computations have been made by him and these field notes and computations shall be signed by him and countersigned by the licensed surveyor by whom he is employed.
- (5) All work performed by an unlicensed assistant shall be carried out under the personal direction of a licensed surveyor.
- (6) If the Director discovers that an unlicensed assistant has performed any work which has not been supervised and checked by a licensed surveyor, any written authorization relating to the unlicensed surveyor, any written authorization relating to the unlicensed assistant may be revoked.

#### PART II – SURVEY MARKS AND BOUNDARY BEACONS

- 10.-(1) Every trigonometrical station, fundamental benchmark and boundary point shall be beaconed with a permanent mark constructed and erected to the designs specified for each type of station illustrated in the First Schedule of the Standard Forms. Design and specification of survey marks
- (2) At least two boundary points of an estate survey shall be double beacons. These two boundary points should be intervisible if possible.
- 11.-(1) In all surveys, excepting township surveys and surveys of smallholdings of less than twenty acres, a trench six feet in length Direction trenches

and one foot in both width and depth shall be dug at each beacon in the true direction of each boundary.

(2) On stony ground, a wall of stone of the same dimensions as such a trench shall be built instead of a trench.

12. Boundary lines running to an irregular feature such as a river or swamp or to a lake or seashore shall be beacons at a suitable point above flood level or high water mark. No property shall share a water beacon with any property on the opposite site of a river, but shall be independently beacons on its own bank. Water beacons

13.-(1) Pointer beacons shall be placed at all estate corners on lines where the adjoining beacon is too far away to be seen where intervisibility is obstructed by an obstacle. Pointer beacons

(2) Such beacons shall be made of a concrete block in the design shown for a Township Line Beacon in the First Schedule of the Standard Forms and shall be placed at a distance of not less than 300 feet from the corner beacon (if the terrain permits) and accurately in line with the adjoining beacon.

(3) The actual bearing of such beacons shall be observed by theodolite observations taken after the pointer beacons has been placed in position. Such observations shall consist of two face rights and two face lefts on different zeros.

14. When rigorous traverses are run in an area where boundary marks are not required, at least twenty-five per centum of all traverse stations shall be permanently marked in groups of three at suitable intervals along the traverse. Permanent traverse marks

15.-(1) Witness marks shall be placed at all primary and secondary trigonometrical stations. Witness marks shall consist of four iron pins in concrete, two of which shall be surface marks and two underground marks, and shall be in the form illustrated in the First Schedule of the Standard Forms. Witness marks

(2) Two rounds of vertical and horizontal angles, one face left and one face right, shall be observed at each trigonometrical station and measurements taken to each witness mark from the trigonometrical station.

16. Corner beacons placed on a boundary between a property and a railway reserve shall be referenced by measurement of bearing and distance to the nearest telegraph pole or kilometre stone. Referencing of boundary beacons

17. Where any corner point in a property boundary coincides with a permanent and easily recognizable feature, such as the corner of a building or a concrete fence post, or is so close to it that a When a beacons is not required

boundary beacons cannot be placed, such corner point need no be beacons; it must however be co-ordinated and in the latter case referenced to the permanent feature.

- |   |                                     |
|---|-------------------------------------|
| 18. Whenever a beacon is to be placed on line between any two beacons, proof shall be provided that such beacon has been correctly placed on line.  | Beacons placed on line              |
| 19. Where a beacon is placed from computed data, its position shall be proved by an independent field check and computation.  | Placing a beacon from computed data |
| 20. Whenever the survey of a property is undertaken and an old beacon which is a boundary point of that property is found to be damaged or missing, the surveyor shall take such action as is necessary to re-establish the beacon in its original position and shall make a record of the re-establishment in the field notes.   | Repairs to damaged beacons          |
| 21. If a surveyor is required to re-establish a missing survey mark, he shall after re-establishing the same submit fully detailed field notes and computations relating thereto, accompanied by a written report to the Director.  | Missing survey marks                |
| 22.-(1) Where a road or railway passed through property, the centre line of the reserve shall be surveyed and the reserve, plotted at the correct width, shall be shown on the plan.  | Rail and road reserve beacons       |
| (2) Where a road or railway forms the boundary of property and the reserve contains a permanently formed road or permanent railway, the common boundary shall not be beacons save at its inter-section with the adjacent boundaries of the property but the centre line of the reserve shall be surveyed and the reserve, plotted at the correct width, shall be shown on the plan. |                                     |
| (3) Where a road or railway forms the boundary of property and the reserve does not contain a permanently formed road or permanent railway, the common boundary shall be beacons so that all existing road works are contained in appropriate positions within the reserve, temporary diversions being ignored.   |                                     |
| (4) In townships, a railway reserve shall be beacons in such a manner that the distance of any point on a straight line joining two adjacent beacons from the centre line of the track shall not differ from half the specified width of the reserve by more than one foot.   |                                     |

PART III – EXECUTION OF CADASTRAL SURVEYS

*Cadastral Surveys by Triangulation Methods*

23. When the position of a point is fixed by triangulation, the difference between the observed and calculated value of any of the directions used in fixing the point shall not exceed –  $100,000/(s + 1,000)$  Seconds of arc, s being the distance in feet. Permissible angular misclosure
24. All triangulation for cadastral surveys shall wherever practicable be connected with existing triangulation. Adjustment of cadastral triangulation
25. Beacons shall be fixed-
- (a) by fully observed and well conditioned triangles, in which case computations will conform with the computations in the Second Schedule of the Standard Forms; or
  - (b) by intersection, provided that at least three suitable rays are observed on to the points to be fixed; or
  - (c) by resection, provided that at least four points in favourable positions for fixing are observed; or
  - (d) by any other method which is capable of fixing a point with no less accuracy than that of the methods (b) and (c) above.
26. Base lines for estates surveys which are executed by triangulation shall conform to the following requirements:- Measurement of a base in isolated surveys
- (a) the length of the base line shall generally be not less than one-fourth of the greatest distance across the area to be surveyed but need never exceed 5,000 feet;
  - (b) such base line shall be measured at least once in each direction using a different set of bays, in each measurement;
  - (c) the difference between any two reduced measurements of the base must not exceed one part in fifteen thousand.

*Cadastral Surveys by Traverse Methods*

- 27.-(1) The standard of accuracy of traverses shall be as follows:- Permissible linear misclosures
- rigorous traverses in townships and areas of dense development ... ..1/6000
  - rigorous traverses for estates and other properties in

rural areas ... .. 1/5000  
 detail traverses... .. 1/1000

(2) The Director may, at his discretion, allow a relaxation of the above standards of accuracy in special cases.

- |   |   |
|---|---|
| 28. When the traverse method is employed for cadastral survey, boundary beacons shall be fixed by rigorous traverses. Detail traverses may be used for the purpose of surveying irregular boundaries or natural features.   | Classification of traverses               |
| 29. A surveyor shall, wherever possible, connect his traverses to previously fixed points in such a way as to ensure an even distribution of error. Looped traverses with a single point of contact and traverses on a short base shall be avoided.   | Looped traverses to be avoided            |
| 30. Where a steel band is used for linear measurements of rigorous traverses the correct tension shall be applied, and the band temperature recorded for each measurement. Slopes up to shall be read on both faces of the theodolite. All measurements of length shall be recorded to the second decimal place of a foot.                  | Linear measurements of rigorous traverses |
| 31. In rigorous traverses at least one round of observations shall be used on each face.  | Angular measurement of traverses          |
| 32. –(1) A detail traverse shall be closed between rigorously fixed points not more than 10,000 feet apart.   | Detail traverses                          |
| (2) When tacheometric methods are employed, no distance determined by staff readings shall exceed 600 feet in length.   |   |
| (3) When offsets in excess of 100 feet are used, right angles must be set off with either a theodolite or an optical square.  |   |
| (4) The detail traverse of an irregular boundary made in the course of an original survey shall be adopted for a sub-division survey save where the Director decides that the frequency and disposition of the offsets taken in the original detail traverse are insufficient to define the irregular boundary for the sub-division survey. |   |
| 33. In surveys of sub-divisions, any traverse made shall include at least three suitable boundary beacons of the property which is being sub-divided.   | Traverse connections in sub-divisions     |
| 34. In surveys of sub-divisions when beacons are placed on line between two existing beacons, each segment of the line shall be   | Lining-in methods                         |

measured and the total verified against the original length.

35. The employment of what are technically known as "winging traverses" and "single bearing and distance fixations" unsupported by independent checks is prohibited. Swinging traverses.
- 36.-(1) Where the means exist, all existing beacons used in a new survey shall be identified by measurements taken on the ground and these measurements shall be recorded in the field notes. Identification of beacons
- (2) Traverse stations replaced by, or used to establish a boundary beacon shall be similarly identified and measurements recorded in the field notes
37. Air survey methods may be employed in special cases with the written approval of the Director. Air survey methods
- 38.-(1) In high density residential areas, numbered concrete beacons shall be placed at all block corners and turning points and shall be accurately co-ordinated; intermediate beacons shall be iron pins in concrete. High density residential areas
- (2) All plot sides should be measured unless the line is obstructed, and the measurements recorded in the field notes.

#### PART IV – FIELD NOTES

39. Field notes shall be kept on loose leaves and shall conform as nearly as possible to the form set out in the Third Schedule of the Standard Forms. Use of prescribed forms
- 40.-(1) All observations and measurements made in the field shall be recorded clearly and legibly in hard pencil in accordance with the Standard Forms. Method of recording field notes
- (2) Original notes made in the field at the time of observation shall be submitted to the Director as part of the basic record of the survey.
- (3) All entries in field notes which are not made in the field shall be written in blue or blue-black ink.
- (4) All entries in field notes shall be clearly indexed and cross-referenced to the computations.
- 41.-(1) The surveyor shall enter in the field notes at each station, the date, time, weather conditions, degree of visibility any other factor affecting the reliability of the observations. Triangulation observations



(2) Wherever it is necessary for a surveyor to divide his observations into sets, and set after the first shall incorporate at least two stations which have been observed in the preceding set.

- |  |                                      |
|--|--------------------------------------|
| 42. Explanatory notes and computations shall be made in the field notes when unorthodox methods of survey are used. Diagrams to illustrate and amplify the notes shall be made where necessary.  | Unorthodox methods                   |
| 43.-(1) Erasures shall not be made in field notes. Corrections shall be made by drawing a thin line through the erroneous entry so as to leave the original entry still legible; a corrected entry shall be written adjacent to the erroneous one which it replaced and not across it, and shall be initialed. | Corrections and erasures             |
| (2) Corrections to field notes may only be made in the field and must be a true record of actual re-measurement or re-observation.   |                                      |
| 44. Beacons and boundary marks shall be distinguished by a system of lettering and numbering as authorized from time to time by the Director.  | Beacon nomenclature                  |
| 45. Sketches showing measurements from permanent details to permanent traverse and trigonometrical control points shall be made in the field notes. A description card for each control point shall be prepared from the field notes and submitted with the survey.  | Description cards for control points |

#### PART V – COMPUTATIONS

- |   |                            |
|---|----------------------------|
| 46. All computations shall be clearly and legibly written on one side of the paper and shall conform as closely as possible to the examples illustrated in the Second and Fourth Schedules of the Standard Forms. | Computation forms          |
| 47. All preliminary and rough computations made during the work and used in connection with the preparation of any plan shall be forwarded to the Director together with the final computations of the survey.    | Preliminary computations   |
| 48. When a survey is based on the territorial triangulation the computations shall be made on the Transverse Mercator projection used in Tanganyika.  | Triangulation computations |
| 49. Before forwarding any survey to the Director for approval, the surveyor shall himself make an independent and complete check of all his calculations and such records of checks shall                         | Independent checks.        |

accompany the computations and be clearly demonstrated.

50.-(1) Rectilinear areas shall be computed by self-checking methods. Computation of areas

(2) When any boundary is a curvilinear feature such as a river bank, the total area shall be divided by suitably chosen traverse lines into rectilinear segments; the areas of rectilinear segments shall be computed as in paragraph (1) above, while the curvilinear segments (which shall not exceed 10 per cent of the total area shall be computed from the plan by planimeter or any other standard method such as Simpson's rule.

(3) Areas to be derived from surveys made in accordance with regulations 23 to 38 shall be computed and rounded off to the following degrees of accuracy:-

| <i>Township Plots</i> | <i>Degree of Accuracy</i>       |
|-----------------------|---------------------------------|
| 2 acres and under.    | Nearest ten square feet.        |
| Over 2 acres.         | As for estates and other areas. |

*Estates and Other Areas*

5 acres and under. Rectilinear to three places of decimals of an acre.

Curvilinear to two places of decimals of an acre.

Over 5 acres and under 20 acres. Rectilinear to two places of decimals of an acre.

Curvilinear to one decimal of an acre.

Over 20 acres and under 100 acres. Rectilinear to one place of decimals of an acre.

Curvilinear to nearest acre.

Over 100 acres and under 1,000 acres To nearest 1 acres.

51. The records of every survey submitted shall comprise the following:- Presentation of computations

(a) The field notes and computations;

- (b) A report on the survey containing the matters, and in the form, set out in the Fifth Schedule of the Standard Forms;
- (c) A complete index to the computations in the form set out in the Sixth Schedule of the Standard Forms;
- (d) A complete co-ordinate list, cross-referenced to the computation, of all points used in the survey in the form set out in the Seventh Schedule of the Standard Forms;
- (e) For estate surveys, a data sheet showing bearings and distances along boundaries, and co-ordinates of boundary beacons, in the form set out in the Eighth Schedule of the Standard Forms, co-ordinates being shown to one place of decimals and the bearings (to the nearest 10 seconds) and distances (to one place of decimals) deduced from these co-ordinates;
- (f) For township surveys, a data sheet showing co-ordinates of boundary beacons to two places of decimals;
- (g) A beacon certificate, if obtained;
- (h) Description cards prepared in the course of the survey;
- (i) Surveyor's plan.

52. All plans shall be drawn in waterproof ink on holland-backed paper of not less than foolscap size. General

53. The following natural scales shall be used for the plotting of plans:- Scales to be used

(a) Township and suburban plots –  
 1/500; 1/1,000; 1/2,500; and 1/5,000.

(b) Estates-

|                             |        |           |
|-----------------------------|--------|-----------|
| 30 acres to 100 acres       | ... .. | 1/5,000   |
| 100 acres to 1,000 acres    | ... .. | 1/10,000  |
| 1,000 acres to 5,000 acres  | ... .. | 1/25,000  |
| 5,000 acres to 10,000 acres | ... .. | 1/50,000  |
| Over 10,000 acres           | ... .. | 1/100,000 |

Insets to larger scale shall be used to clarify any detail which cannot be satisfactorily plotted.

54. All plans shall be plotted by rectangular co-ordinates. Grid intersections shall be drawn in blue ink and set out at intervals not exceeding six inches and shall be in even hundreds or Method of plotting

thousands of feet. The grid shall be constructed so as to be parallel to the sides of the drawing paper and shall be oriented so that grid north is in the direction of the top of the sheet.

- 55.-(1) The conventional signs set out in the Ninth Schedule Standard Forms shall be adhered to. Conventional signs
- (2) Every survey plan shall be drawn and certified in the same manner as the specimens set out in the Tenth Schedule the Standard Forms.
56. All public roads and such natural features as have been accurately fixed by survey or have been sketched with reasonable precision shall be shown on plans. All improvements on any plot such as buildings, wells, boreholes, shall be surveyed and plotted on the plan, including pipelines or other improvements which may involve easements or rights of way. Information to be shown on plans
57. Any boundary abutting on the boundaries of the property under survey shall be shown on the plan. Where the plot or plots adjoin a surveyed road, rail or other reserve and when the scale of plotting permits, the boundaries abutting on to the opposite side of the reserve shall be shown. Adjoining boundaries
58. Where surveys have been made either partly or wholly by triangulation methods, a chart shall be made, if practicable, on the survey plan showing all rays observed from each station. Triangulation charts
59. When a boundary beacon is not placed at the junction of a straight line boundary and a curvilinear boundary, but on the straight line boundary, the distance from the beacon to the curvilinear boundary shall be given to the nearest foot. Curvilinear and irregular boundaries
- 60.-(1) (a) In estate surveys the length and bearing of every boundary shall be inscribed when possible along the line to which they refer, and such lengths and bearings shall be deduced from the final co-ordinates. Lengths shall be shown to one decimal place and bearings to the nearest ten seconds. Numerical data to be shown on plans.
- (b) In township surveys, reduced measured lengths only shall be shown to two places of decimals. Where no measurement of the boundary has been made, the computed length shall be shown and attention drawn to the fact that it is computed.
- (2) The area of each plot shall be inscribed within the figure to which it refers to the degree of accuracy prescribed in regulation 50. Plot numbers will be allocated by the Director and sufficient space shall be allowed for this information to be

added. Any provisional numbers inserted for descriptive purposes shall be in pencil only.

(3) All data for connections and any other data which serves to clarify or complete any survey plan shall be shown on the plan.

- |  |   |
|--|---|
| 61. All traverse connections shall be shown on the surveyor's plan in red ink.   | Traverse connections to be shown on plans |
| 62. No erasures shall be made after a plan has been drawn up in ink. Corrections shall be made by scoring through the incorrect which shall be initialed by the surveyor.  | Corrections and erasures                  |
| 63. The Chief Surveyor may refuse to accept any plan which, in his opinion, has been carelessly or untidily drawn or is received by him in a dilapidated or damaged condition.   | Rejection of unsatisfactory plans         |
| 64. The names of the administrative province and district shall be shown on the surveyor's plans. A locality sketch showing nearby townships, villages, railway stations or prominent topographical features shall be drawn. This sketch shall be an inset in the survey plan. | Locality                                  |
| 65. Where a property consists of more than one parcel of land, the area of each parcel shall be shown separately, together with the total area; the areas of any reserves shall also be shown and deducted from the total area.  | Areas to be shown on plans                |

#### PART VII – MISCELLANEOUS

- |  |  |
|--|--|
| 66.-(1) All correspondence of an official nature shall be written on one side only of sheets of paper of a size convenient for filing. A margin of at least one inch shall be left on the left-hand side of the paper. Each letter shall refer to one subject only and reference to previous correspondence on the same subject should always be made. | Correspondence and the submission of plans, maps and documents |
| (2) All maps and plans and connected documents which are forwarded to the Director for approval shall be accompanied by a letter in which such documents are listed in full.   |  |
| (3) Plans shall be rolled round a stick, cardboard tube or other suitable device to avoid damage in the post.  |  |

Made by the Governor in Council at Dar Es Salaam this twenty-first day of May, 1959

BY HIS EXCELLENCY'S COMMAND

R. H. R. CLIFFORD,  
*Clerk of the*

*Council*